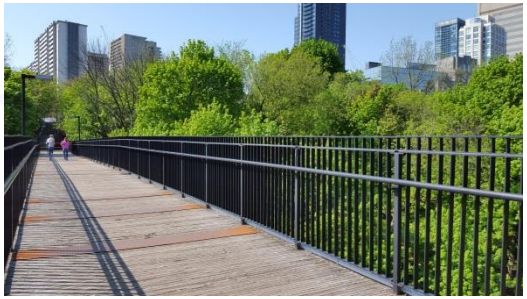


GLEN ROAD PEDESTRIAN BRIDGE ENVIRONMENTAL ASSESSMENT STUDY

PUBLIC INFORMATION CENTRE #1

SEPTEMBER 28, 2016

WELCOME!

Welcome to the first Public Information Centre for the Glen Road Pedestrian Bridge Class Environmental Assessment

The information displayed today is available online at:

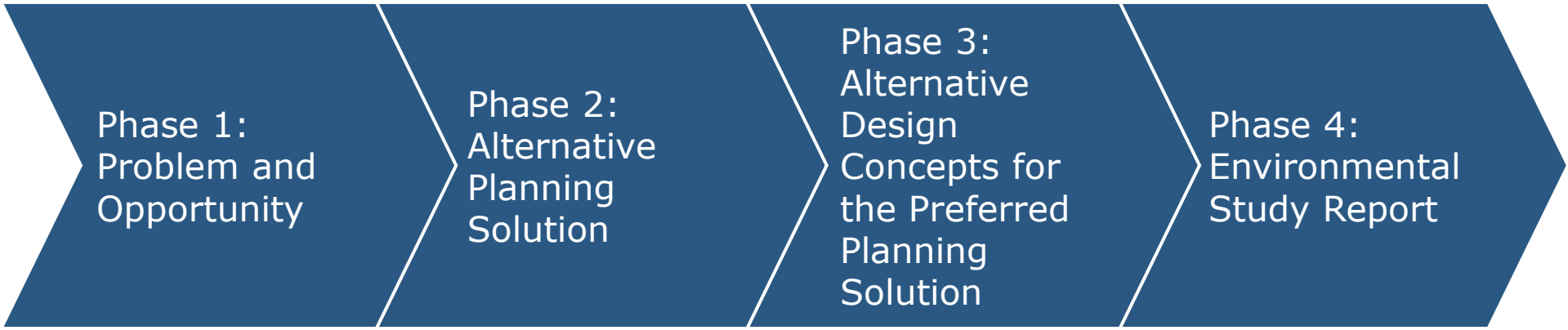
toronto.ca/glen-rd-ped-bridge

PURPOSE & STUDY AREA

The purpose of this study is to address the deteriorated condition of the Glen Road Pedestrian Bridge.

EA STUDY PROCESS AND SCHEDULE

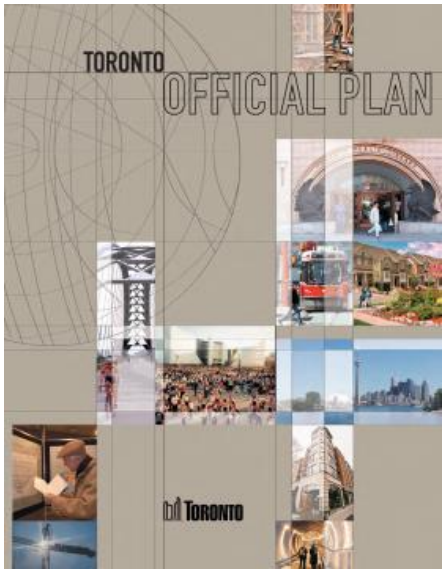
This study is being conducted in accordance with the Ontario Environmental Assessment Act through the application of the ***Municipal Class Environmental Assessment Process***.



PLANNING AND POLICY CONTEXT

Official Plan (June 2015)

A long-term plan with a vision to create vibrant neighbourhoods, conserve heritage resources, encourage walking and cycling for local trips, and create strong pedestrian and cycling linkages to transit stations.

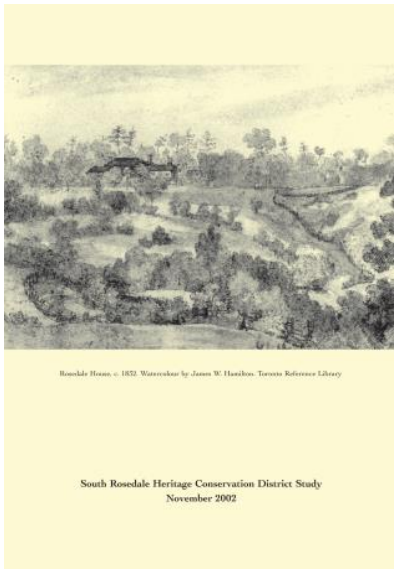


Ten Year Cycling Network Plan (2016)

Toronto City Council approved the Cycling Plan to connect, grow and renew infrastructure for Toronto's cycling routes over the next ten years.

South Rosedale Heritage Conservation District (2003)

South Rosedale is a clearly defined area in the City with significant heritage resources, in its buildings, landscapes, boulevards, and open spaces. South Rosedale was designated as a heritage conservation district under Part V of the Ontario Heritage Act to conserve and reinforce the neighbourhood's unique character.



Other area policies (e.g. Streetscaping Program, Trail Network, Walking Strategy, Toronto Ravine Strategy and Ravine By-law (Ch. 658), Accessibility for Ontarians with Disabilities Act)

PLANNING AND POLICY CONTEXT

Adjacent Development Application Sites and Projects

See City website for related information

EXISTING CONDITIONS - BRIDGE

View looking east from Rosedale Valley Drive

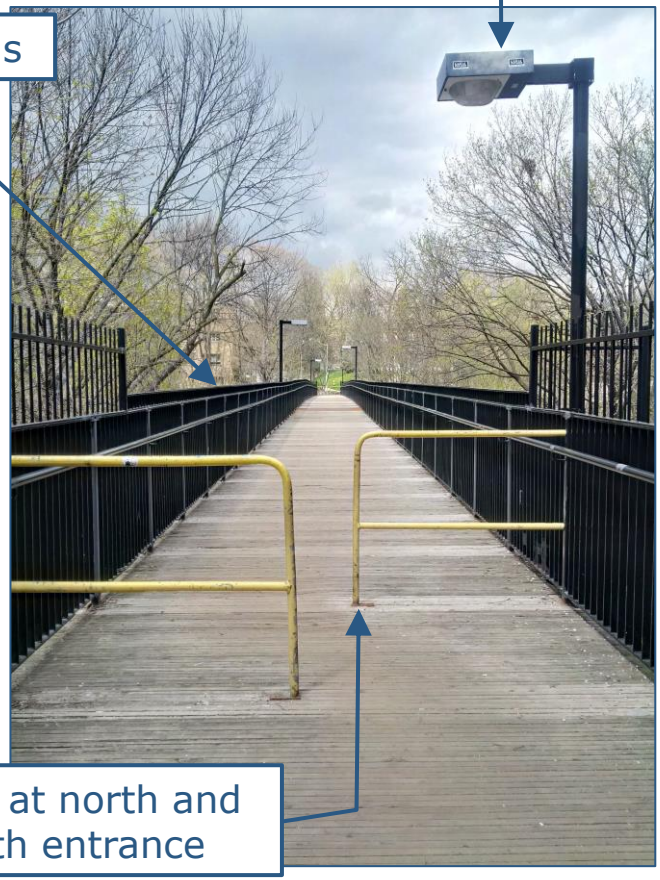
- Existing structure was built in 1973; steel inclined leg rigid frame bridge with a timber deck
- Three (3) spans structure; totaling 107 m
- Deck width ~ 3.7 m; Height ~ 20 m
- The 2014 routine inspection revealed substantial deterioration at a greater rate than expected
- Emergency repairs in 2015 were not intended to be a long term solution, as corrosion will continue

View looking south

EXISTING CONDITIONS – BRIDGE INFRASTRCUTURE

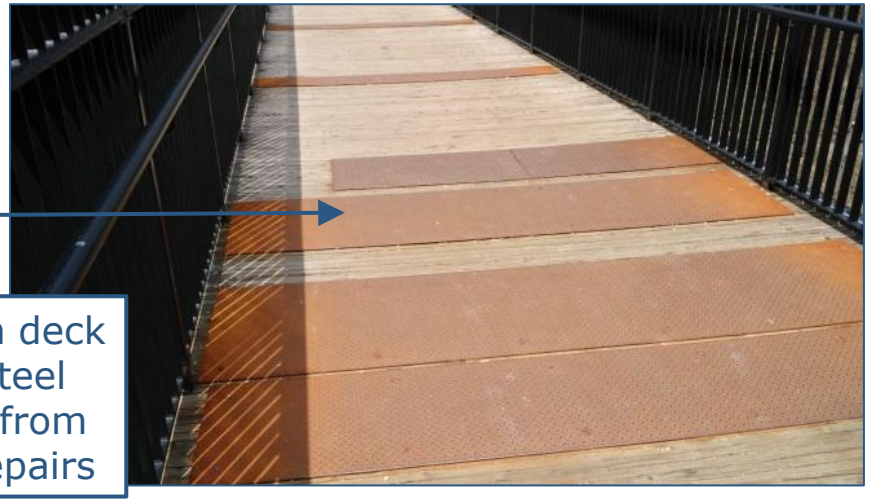
Illumination poles across length of bridge

Railings



Gates at north and south entrance

Steel erosion on inclined leg



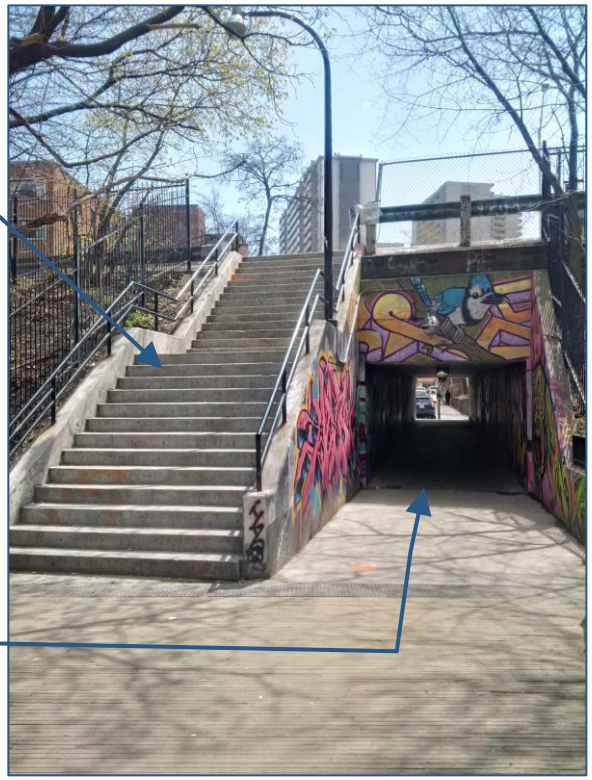
Wooden deck and steel plates from deck repairs

EXISTING CONDITIONS – RELATED INFRASTRCUTURE

Staircase connection from Bloor Street to south access

Tunnel underneath Bloor Street connecting to TTC Sherbourne Station

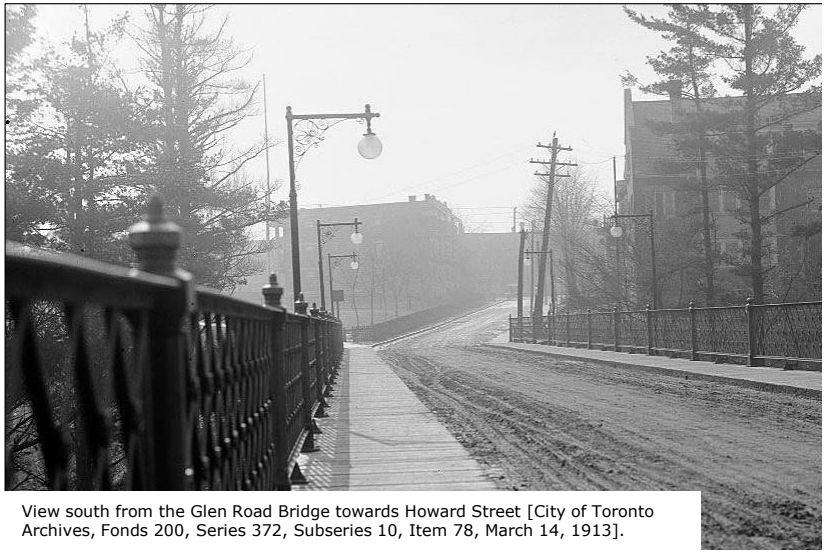
South approach



North approach

Memorial plaque for Morley Callaghan, an acclaimed novelist, short story writer, playwright, TV and radio personality, who often visited the bridge.

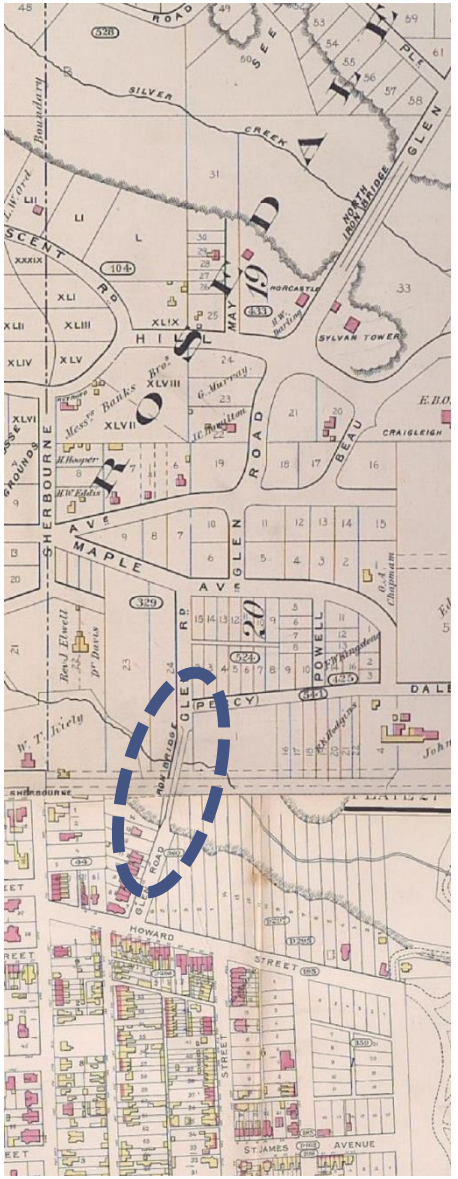
EXISTING CONDITIONS – CULTURAL HERITAGE



View south from the Glen Road Bridge towards Howard Street [City of Toronto Archives, Fonds 200, Series 372, Subseries 10, Item 78, March 14, 1913].

Glen Road Bridge between Howard Street and Dale Avenue, looking south from Dale Avenue [Toronto Reference Library, Baldwin S 1-901A, J.V. Salmon, 1951].

- 1884 – First record of bridge over Rosedale Valley
- 1951 – Bridge closed to vehicular traffic; however maintained for pedestrian use
- 1973 – Construction of the current pedestrian bridge
- 1992 – Officially renamed as the Morley Callaghan Footbridge
- 2001 – Rehabilitation
- 2003 – Glen Road Footbridge designated under Part V of the Ontario Heritage Act within the South Rosedale Heritage Conservation District and added to the City's heritage register



EXISTING CONDITIONS – CULTURAL HERITAGE

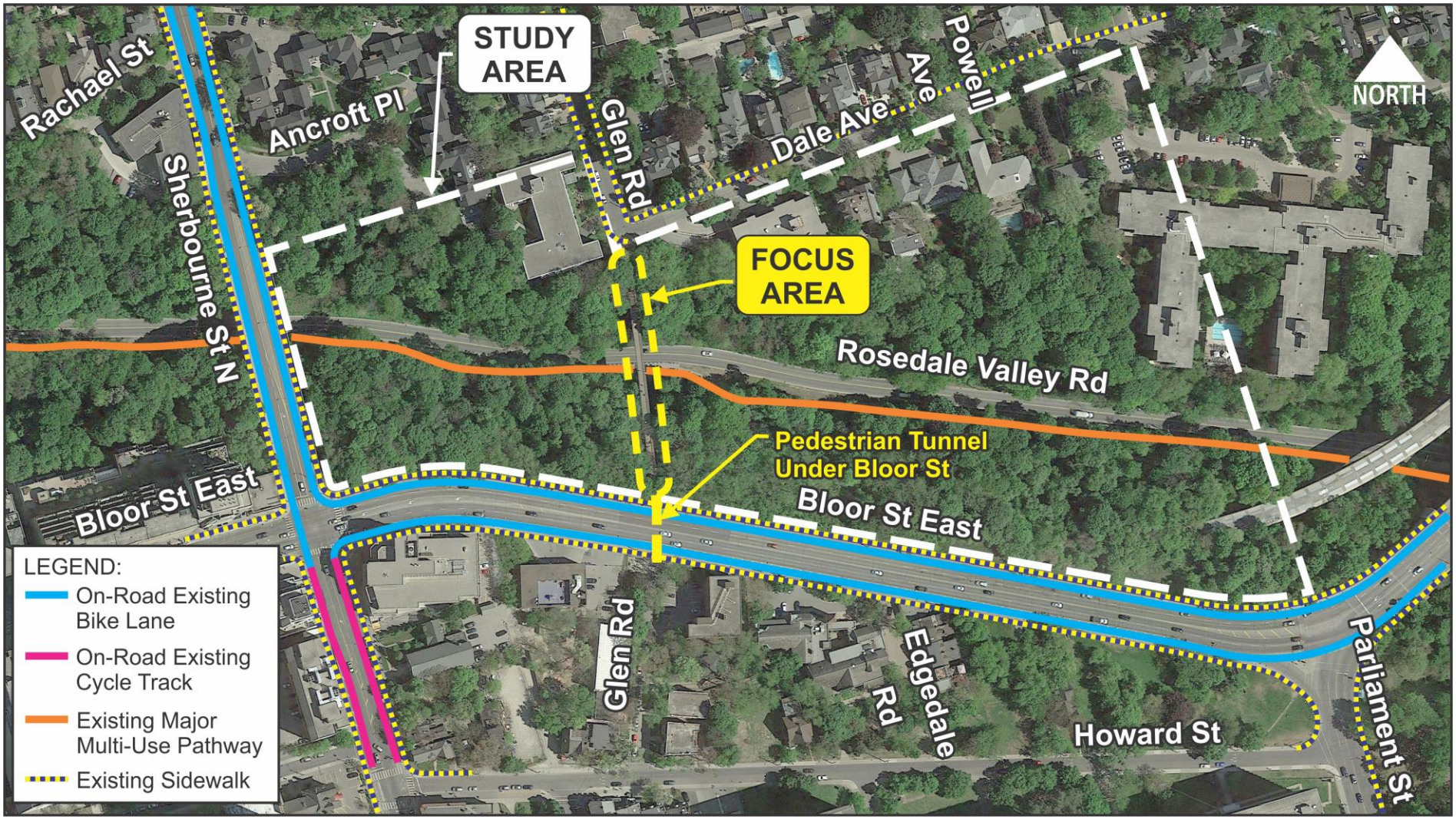
Cultural Heritage Evaluation Report:

- Glen Road Pedestrian Bridge is of cultural heritage value for design/physical, historical/associative and contextual reasons.
- Continued use of the bridge crossing attests to the importance of the connection across the Rosedale Ravine at Glen Road.
- Rare example of a steel rigid frame bridge with inclined legs within the City of Toronto.
- Physical and symbolic landmark within the community and acts a gateway to the historic Rosedale community.
- Principal heritage philosophy for the protection of cultural heritage resources is retention in situ.

Recommendation:

Should rehabilitation not be feasible, any new structure should explore design options that retain the design attributes of the existing bridge, at the same location.

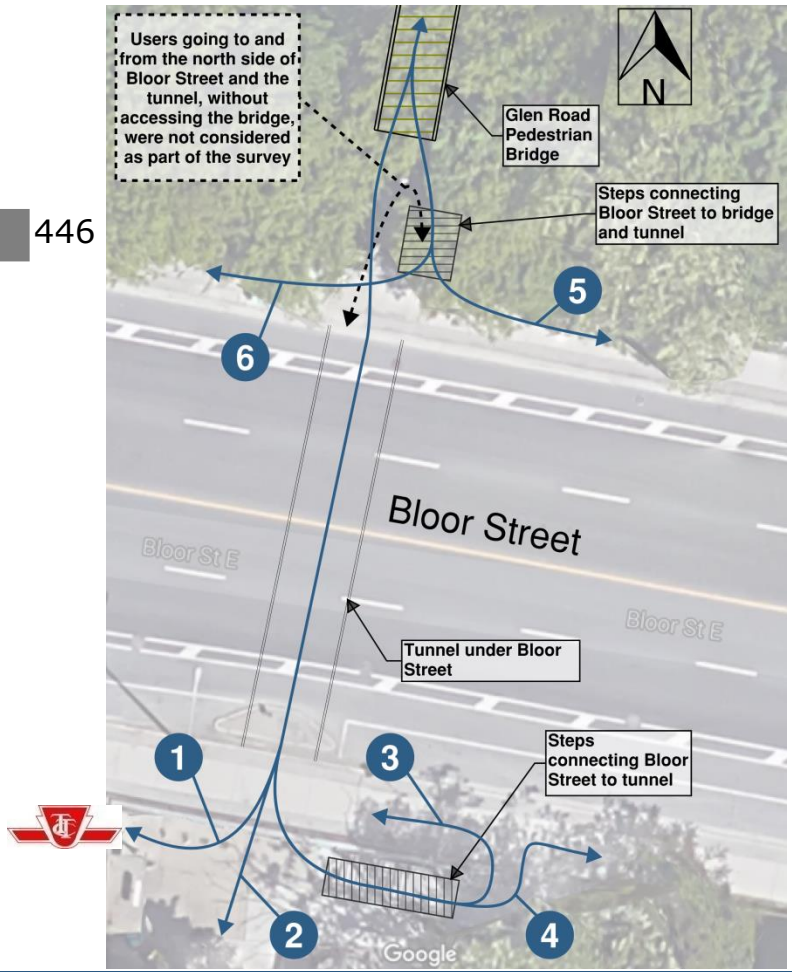
EXISTING CONDITIONS – ACTIVE TRANSPORTATION NETWORK

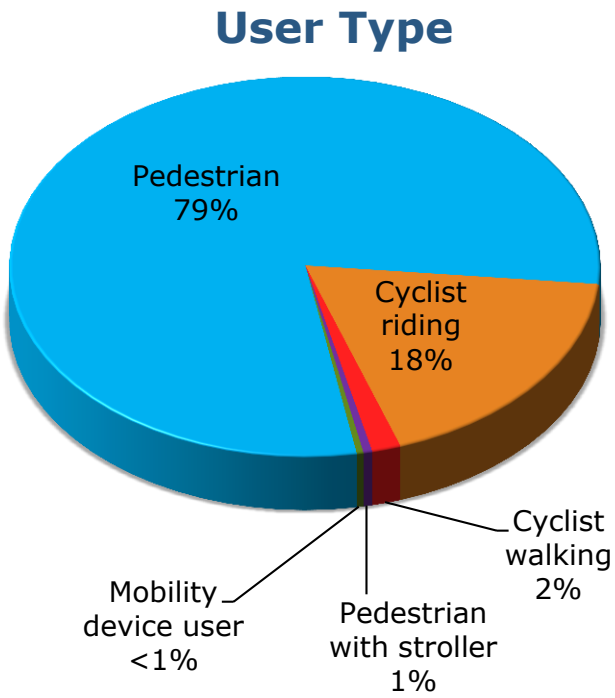


EXISTING CONDITIONS – ACTIVE TRANSPORTATION

- Existing pedestrian and cyclist counts - June 22 and 25
- 823 trips were observed on the bridge over 11 hrs (75 users per hour)

User Movement	Persons Counted
2	446
6	187
1	125
3	24
4	21
5	20





EXISTING CONDITIONS – NATURAL

Natural Heritage Policy

- Rosedale Valley Extension Environmentally Significant Area (ESA) 62A
- City of Toronto Natural Heritage System (Official Plan 2015)
- Toronto Region Conservation Authority Regulation 166/06 Lands
- TRCA Terrestrial Natural Heritage System (Terrestrial Natural Heritage System Strategy [TNHSS])

Wildlife

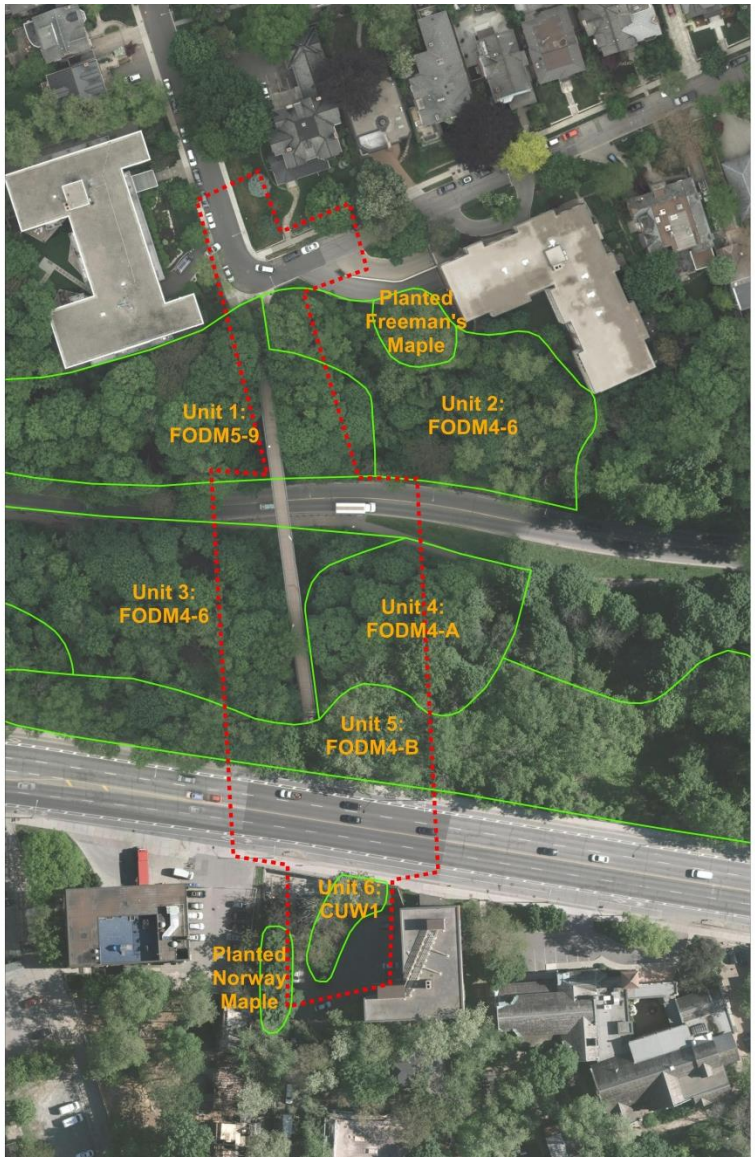
- 21 bird and 2 mammal species recorded in the valley
- 1 Species at Risk (SAR) in the vicinity (Chimney Swift, provincially Threatened bird)
- Cavity trees occur within the valley adjacent to the bridge which may provide potential maternity roosting habitat for bats
- No bird nests were observed on the bridge structure

Vegetation

- 52 plant species recorded in the study area, of which 65% are native
- No SAR or Species of Conservation Concern present
- Rosedale Valley within the study area is comprised of 4 forest community types
- Numerous canopy ash trees are dead or in poor condition (likely due to Emerald Ash Borer); has recently caused shift in vegetation community types
- Several aggressive invasive species are prevalent (Norway Maple, Garlic Mustard, Japanese Knotweed)
- Two locally rare species are present in the valley (Northern Red Oak is naturally occurring on the south valley slope and young White Spruce are planted at the top of the north valley slope).

Legend
Survey Location
Vegetation Community

Unit 1: FODM5-9, Dry-Fresh Sugar Maple – Hardwood Deciduous Forest Type
Unit 2: FODM4-6, Dry-Fresh Norway Maple Deciduous Forest Type
Unit 3:FODM4-6, Dry-Fresh Norway Maple Deciduous Forest Type
Unit 4: FODM4-A, Dry-Fresh Norway Maple – Red Oak Deciduous Forest Type
Unit 5: FODM4-B, Dry-Fresh Black Walnut – Maple Forest Type
Unit 6: CUW1, Mineral Cultural Woodland Type



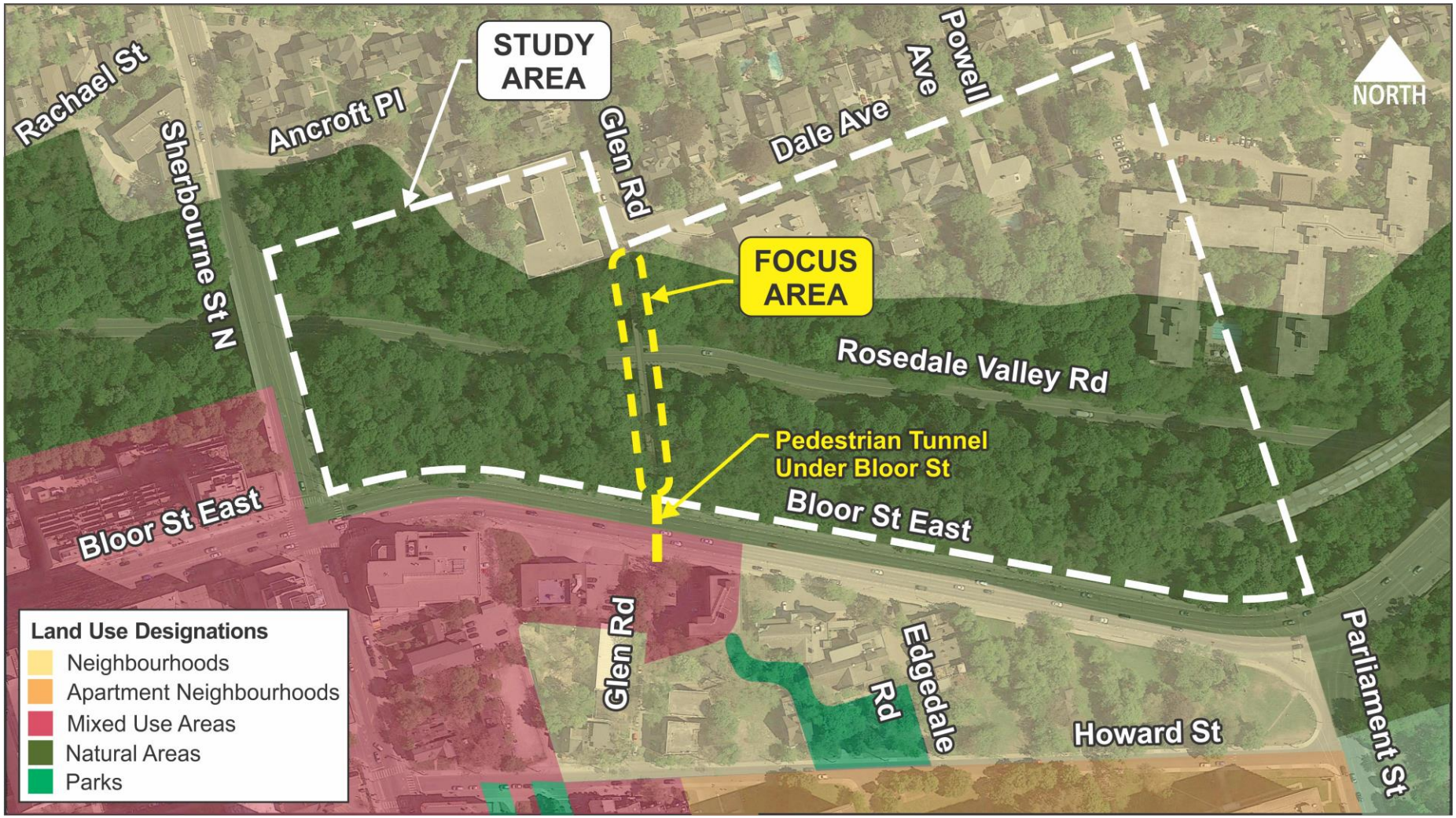

Valley slope with bare soil and patchy ground cover susceptible to erosion.


Vegetation around south end of existing bridge (near Bloor Street East)


Deciduous woodland habitat on steep valley slopes


Glen Road Community Wildflower Garden south of Bloor St. hosts several native flora including three locally rare plants (Snowberry, Woodland Sunflower and Wild Crane's-bill)

EXISTING CONDITIONS – LAND USE



PROBLEM AND OPPORTUNITY STATEMENT

The Glen Road Pedestrian Bridge is a heritage structure, extending from Bloor Street East in the south to Glen Road in the north, passing over the Rosedale Valley. At the south end of the bridge, under Bloor Street East, is a pedestrian tunnel which provides a connection to Glen Road in the south and the TTC's Sherbourne Station.

The bridge is identified as needing major improvements. Emergency repairs were completed in 2015, extending the timeframe to undertake this environmental assessment study, which will determine the future of the bridge. Ongoing concerns about personal safety in the pedestrian tunnel have been identified.

Alternatives will be developed and evaluated, considering all active transportation users. Opportunities to improve safety in the tunnel area will also be considered.

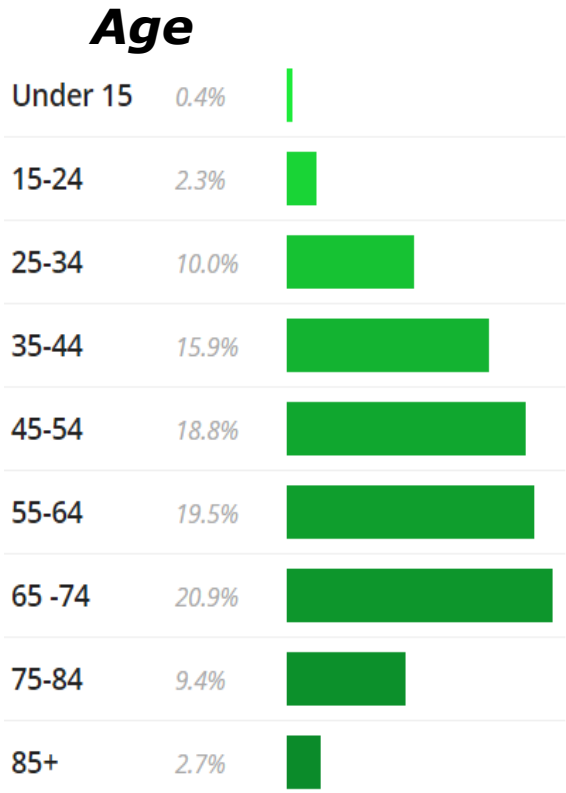
WHAT WE HAVE HEARD SO FAR

Stakeholder Walk-Shop (June 27, 2016)

- City hosted walking-workshop with 18 representatives of local resident associations, active transportation groups, and the community.
- Goal: To discuss the heritage value of the bridge, its role in the local community, and its active uses.

Bridge User Online Survey (full report online) (June 22 – August 20, 2016)

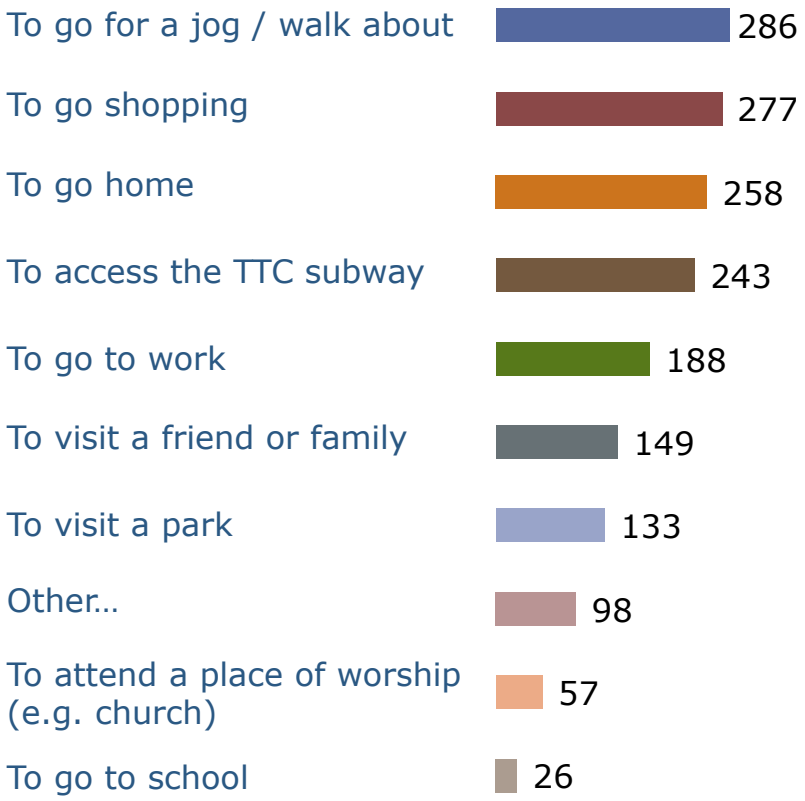
- Topic: "Why do you cross the Glen Road Pedestrian Bridge?"
- Over 540 responses
- 74% of respondents live in Rosedale (M4W)
- 51% use bridge 4-7 times a week
- 23% use bridge 1-3 times a week
- 1/3 cross with bike (usually / sometimes)



WHAT WE HAVE HEARD SO FAR

Bridge User Online Survey Results

For what purposes do you most commonly cross the Glen Rd. Bridge?



What do you like most about the Bridge?

- "A beautiful view in all seasons!"
- "Very direct and convenient…"
- "A space in the trees, that is cooler…"
- "Peaceful and quiet… with no traffic"
- "A nice area to walk with my dogs."
- "…like a walk in a park"
- "Well-maintained in the winter."
- "Safer route for cycling"

Sample of other comments

- "South side is scary (at night)… hidden"
- "Graffiti on the walls"
- "Tunnel smells & needs better lighting"
- "Please retain …unique city feature!"
- "An important connection…"
- "Historically significant"
- "Connects different communities"

ALTERNATIVE SOLUTIONS

Alternative	Description
Do Nothing	Allow bridge to deteriorate until such a time that the conditions require closure and removal
Rehabilitate the existing bridge	Patch-up deteriorating sections of the existing bridge to achieve a safe structure
Replace bridge in same location	Replace existing bridge and maintain crossing with new bridge in same location
Replace bridge in new location	Replace existing bridge and maintain crossing with new bridge in different location

HOW ARE ALTERNATIVES EVALUATED?

Evaluation Criteria	Bridge Engineering	Cultural Heritage	Transportation Planning	Natural Environment
				
Description	– Addresses existing and future structural needs – Ability to address public safety needs for all users – Minimizes construction constraints and complexity	– Effects on: ▪ Cultural heritage resources ▪ Cultural heritage landscapes ▪ Cultural heritage buildings	– Addresses existing and future pedestrian and cycling needs – Consistent with policy and planning – Maintains/improves network connectivity – Ability to address accessibility requirements for all users	Potential impacts to existing natural environmental features including: ▪ Vegetation ▪ Wildlife

HOW ARE ALTERNATIVES EVALUATED?

Evaluation Criteria	Socio-Economic	Cost	Urban Design
			
Description	– Amount and type of property required – Supports existing and future community planning – Potential impact to adjacent residences and business (disruption and nuisance) – Ability to enhance streetscape	– Comparative costs including: ▪ capital construction, ▪ operation/ ▪ maintenance, ▪ property, ▪ utility relocation, etc.	– Potential to provide improved: ▪ lighting, ▪ materials, ▪ safety (Crime Prevention through Environmental Design, CPTED)

ALTERNATIVE SOLUTIONS ASSESSMENT

Criteria	Do Nothing	Rehabilitate the Existing Bridge	Replace Bridge in Same Location	Replace Bridge in New Location
Bridge Engineering 	✗ Requires annual inspections to determine bridge condition and safety ✓ Does not address continued corrosion of structural members, inevitably leading to a bridge closure	✗ Only addresses existing deteriorating conditions ✗ Will require extensive rehabilitation work at progressively shorter intervals until such a point that repairs to severely deteriorated primary members are no longer feasible ✗ Frequent of ongoing maintenance ✗ Requires annual inspections to determine bridge condition and safety ✗ Only considered a short-term solution	✓ Addresses deteriorating conditions of existing bridge ✓ Addresses long term public safety needs for all users ✗ Additional complexity in removing existing bridge and constructing new bridge in same location	✓ Addresses deteriorating conditions of existing bridge ✓ Addresses long term public safety needs for all users ✗ Complexity in determining new/better location for bridge crossing ✗ Complexity in designing bridge at new location
Cultural Heritage 	✗ Maintains the heritage value of bridge and crossing at the present, but eventually leads to the bridge being closed and removed ✓ No archaeological impacts	✗ Short term maintenance of heritage value of the existing bridge ✗ Majority of the bridge would effectively be new material, limiting the heritage value of the bridge ✓ Maintains crossing in current location ✓ No archaeological impacts	✓ Removes existing heritage value of bridge, for replacement of new bridge, but maintains location of existing crossing ✗ Potential impact to undisturbed lands in surrounding bridge, in Rosedale Valley, during construction	✗ Removes existing heritage bridge and crossing, and replaces in new location ✗ Potential to impact lands with archaeological potential in Rosedale Valley, especially with bridge at new location
Transportation Planning 	✗ Eventual removal of the bridge would be inconsistent with City planning policies to encourage walking and cycling, and linkages to transit stations. ✗ Does not maintain connection to active transportation network on Bloor Street and Sherbourne Street ✗ Does not maintain connection to the TTC Sherbourne Station ✗ Does not address accessibility needs ✓ Does not preclude future connection to Rosedale Valley from Bloor Street	✗ Does not address user's safety concerns to separate pedestrian and cyclist traffic ✗ Short term solution not consistent with City planning policies to encourage walking and cycling, and linkages to transit stations ✗ Does not address accessibility needs on existing bridge including access from Bloor Street ✓ Maintains connection to active transportation network in the short term ✓ Maintains connection to Sherbourne Station ✓ Does not preclude connection to Rosedale Valley from Bloor Street	✓ Opportunity to address user's safety concerns to separate pedestrian and cyclist traffic ✓ Consistent with City planning policies to encourage walking and cycling, and linkages to transit stations ✓ Maintains connection to active transportation network ✓ Maintains connection to Sherbourne Station ✓ Does not preclude connection to Rosedale Valley ✓ Potential to address accessibility needs for all users in new bridge design	✓ Potential to address user's safety concerns to separate pedestrian and cyclist traffic ✓ Consistent with City planning policies to encourage walking and cycling, and linkages to transit stations ✗ Changes existing connections to active transportation network ✗ Does not maintain direct connection to Sherborne Station ✗ Does not preclude connection to Rosedale Valley ✓ Could address pedestrian/cycling needs with new bridge design ✓ Potential to address accessibility needs for all users in new bridge design
Natural Environment 	✓ No impacts ✓ Potential benefits for new vegetation growth when bridge is removed	✓ No impacts ✓ Maintains existing conditions , until additional work is required or eventual removal of the bridge	✗ Minimize impacts to natural environment by constructing in same location; however some impacts anticipated due to new foundations, and potentially wider bridge	✗ Impacts to natural environment due to construction at new bridge location
Socio-Economic Environment 	✗ Removes direct connection from Rosedale to Bloor Street, and amenities in the area (i.e., shopping) ✗ Removes direct access to subway network at Sherbourne Station ✗ Removes attractiveness of existing crossing (view of Rosedale Valley) and neighbourhood ✓ No property impacts	✓ Maintains connections from Rosedale to Bloor Street and amenities in the area (i.e., shopping) ✓ Maintains direct access to subway network at Sherbourne Station ✓ Maintains appeal of existing bridge and neighbourhood ✓ No property impacts	✓ Maintains connections from Rosedale to Bloor Street and amenities in the area (i.e., shopping) ✓ Maintains direct access to subway network at Sherbourne Station ✓ Potential to enhance appeal of neighbourhood with new structural design ✓ Potential for enhanced streetscape design ✓ No property impacts ✓ Disruption for users during bridge replacement	✗ Maintains connections from Rosedale to Bloor Street and amenities in the area (i.e., shopping) ✗ Does not maintain direct access to subway network at Sherbourne Station ✓ Potential to enhance appeal of neighbourhood with new structural design ✓ Potential for enhanced streetscape design ✓ No disruption to users during bridge replacement (maintain existing bridge while building at new location) ✗ Potential property impacts
Cost 	✓ $ ✓ Cost for more frequent bridge inspections and eventual removal	✓ $$ ✗ Extensive rehabilitation work required at progressively shorter intervals until no longer feasible	✗ $$$$ ✗ Cost to remove existing bridge ✗ Cost of new bridge	✗ $$$$ ✗ Cost to maintain existing bridge during building of new one ✗ Cost to remove existing bridge ✗ Cost for completely new bridge
Urban Design 	✗ No design improvements	✗ Limited opportunity for design improvements to existing bridge	✓ Potential for design improvements with new bridge	✓ Potential for design improvements with new bridge
Evaluation Summary	**Not Recommended**	**Not Recommended**	**Recommended**	**Not Recommended**

ALTERNATIVE SOLUTIONS EVALUATION

Criteria	Do Nothing	Rehabilitate the Existing Bridge	Replace Bridge in Same Location	Replace Bridge in New Location
Bridge Engineering 	Does not address structural needs 	Does not address long term structural needs 	Addresses long term structural needs 	Addresses long term structural needs, but need to determine new bridge location 
Cultural Heritage 	Once bridge is removed, does not maintain heritage value of bridge or crossing 	Does not maintain heritage value of bridge crossing in long term 	Maintains heritage value of bridge crossing 	Removes heritage value of current crossing 
Transportation Planning 	Once bridge is removed, does not maintain connection to transit station or active transportation network 	Does not maintain connection to transit station or active transportation network in long term 	Maintains connection to transit station and active transportation network in long term 	Removes direct connection to transit station, but maintains connection to active transportation network 
Natural Environment 	Potential improvements to environment under the bridge once it is removed 	Potential improvements to environment under the bridge once it is removed 	Some potential impacts with new foundation and potentially wider structure 	Most impact to build bridge in new location 
Socio-Economic Environment 	Once bridge is removed, no connection from Rosedale to Bloor Street and transit facilities 	Removes connection from Rosedale to Bloor Street and transit facilities 	Maintains connections from Rosedale to Bloor Street and transit facilities 	Maintains connection from Rosedale to Bloor Street, but no direct connection to transit 
Cost 	Minimum cost to remove bridge once deemed unsafe 	Cost for rehabilitation with increasing frequency and cost to remove bridge once deemed unsafe 	Cost to replace structure 	Most expensive to build bridge in new location 
Urban Design 	No opportunity for design improvements 	No opportunity for design improvements 	Opportunity for design improvements 	Opportunity for design improvements 

Most preferred/
Least impacts    Least preferred/
Most impacts

ALTERNATIVE SOLUTIONS EVALUATION SUMMARY

Do Nothing	Rehabilitate the Existing Bridge	Replace Bridge in Same Location	Replace Bridge in New Location
Not Recommended	**Not Recommended**	**Recommended**	**Not Recommended**
• Bridge will eventually be removed due to deteriorating conditions. • Does not address the long term requirements of the bridge, or the cultural heritage value of the crossing. • Removes direct links to other active transportation and transit services. • Cost for more frequent bridge inspections.	• Bridge will eventually be removed due to deteriorating conditions. • Does not address the long term requirements of the bridge, or the cultural heritage value of the crossing. • Eventual removal of direct links to other active transportation and transit facilities. • Requires extensive costs for short term benefits.	• Addresses long term needs of the bridge, maintains heritage crossing, and maintains connections to active transportation and transit facilities. • Provides opportunity for design improvements. • Requires capital costs for long term benefits.	• Addresses long term needs of the bridge but diminishes the cultural heritage crossing. • Results in most environmental impacts. • Maintains link to active transportation facilities, but removes direct link to transit services. • Provides opportunity for design improvements. • Requires capital costs for long term benefits.

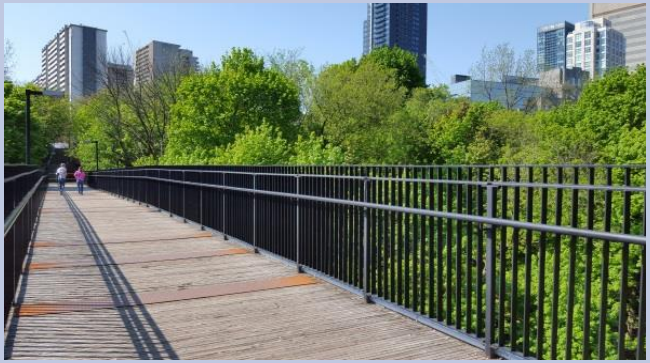
RECOMMENDED SOLUTION

The Project Team's recommended solution, based on the technical analysis completed to date is to **replace the bridge in the same location**.

Replacing the bridge in the same location has the greatest potential to address the goals included in the Problem and Opportunity Statement.

It provides opportunities to:

- Address the structural requirements for the long-term
- Maintains the cultural heritage value of the crossing
- Maintains active transportation connections to existing network
- Enhance facilities on bridge for users
- Minimize natural impacts
- Enhance streetscape



NEXT STEPS - CONSIDERATIONS FOR BRIDGE TYPE CONCEPTS

Arched

This study is an opportunity to contemplate the new structural type of the Glen Road Pedestrian Bridge.

Inclined Leg

Box Truss

Concrete Steel Truss

Segmental

NEXT STEPS - CONSIDERATIONS FOR BRIDGE DESIGN CONCEPTS

Illumination

This study is an opportunity to contemplate both the function and the character of the Glen Road Pedestrian Bridge.

Separate cycling and pedestrian facilities

Unobtrusive design

Mixed use

Clear view of surrounding sightlines

CONSIDERATIONS FOR TUNNEL IMPROVEMENTS

Tile Flooring Mosaic and Glass Walls

This study is an opportunity to enhance the safety and appeal of the tunnel

Lighting and Design Combination

Lighting Sculptures

Continuous Lighting in Tunnel

Artistic Entranceway

CONSIDERATIONS FOR TUNNEL IMPROVEMENTS

What we have heard so far from the public

- "Improve safety of tunnel"
- "South side is scary (at night)… hidden"
- "Graffiti on the walls"
- "Tunnel smells & needs better lighting"

What we are going to do to better understand the issues

- Undertake a Risk Security Assessment
- Consult with the City Corporate Security Staff
- Consult with Toronto Police Services
- Consult with Toronto Transit Commission
- Conduct technical evaluation of alternatives for tunnel improvements

Results of the assessment will be used to inform the development of potential solutions for the pedestrian tunnel, which may include:

- Aesthetic modifications
- Minor structural modifications
- Major structural modifications
- Remove and rebuild

NEXT STEPS

Following this PIC the Project Team will:

- Undertake public consultation on bridge type and design elements
- Review all public and agency comments
- Develop and evaluate design concepts
- Identify a preliminary preferred design
- Present to the Design Review Panel
- Conduct PIC 2 (Winter 2017)
- Present to the Toronto Preservation Board
- Confirm preferred design & tunnel improvements
- Prepare the Environmental Study Report
- Make Recommendation to City Council
- Make available for a 30-day public review

toronto.ca/glen-rd-ped-bridge

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Your comments are welcome at any time throughout the project. However, we ask that you **provide your feedback with respect to the PIC 1 materials by October 14, 2016**.

Thank you!

Your involvement is essential to the success of this study.

Provide your feedback now, using our online form!
(click here)