

City of Mississauga

Clarkson Road and Lakeshore Road Intersection Municipal Class Environmental Assessment Study

Executive Summary

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Executive Summary

The City of Mississauga has undertaken a review of the intersections of Clarkson Road North and Clarkson Road South, with Lakeshore Road West, to address operational and safety concerns. A Schedule 'B' Municipal Class Environmental Assessment (EA) Study has been completed to identify the key issues and evaluate how the existing conditions may be improved. The EA identified these improvements through a comprehensive planning and design process that focused on all elements of the transportation infrastructure, including but not limited to; traffic operations and traffic safety, streetscaping, active transportation facilities (both cyclists and pedestrians), transit operations, and commercial road accesses.

This study follows the Municipal Engineers Association (MEA) Municipal Class Environmental Assessment process for a Schedule B project (October 2000, as amended in 2007, 2011 and 2015).

Study Area

The study area is focused on the intersections of Clarkson Road South and Lakeshore Road West, and Clarkson Road North and Lakeshore Road West, in the City of Mississauga and the Village of Clarkson. The study area limits include:

- Clarkson Road North, from Lakeshore Road West to Fellen Place
- Clarkson Road South, from Lakeshore Road West to south of Pattison Crescent
- Lakeshore Road West, from approximately 60 m west of Clarkson Road South to approximately 110 m east of Clarkson Road North.

Study Planning Context

Provincial and municipal planning and policy context has been considered in assessing the existing infrastructure needs of the study area. The provincial and municipal policy framework guides infrastructure, land use planning, and strategic investment decisions to support City growth and transportation objectives.

The identification of study area problems and opportunities and the assessment of the study's need and justification were carried out with due consideration of the planning framework to ensure that the final recommendations are consistent with the policies and objectives of the various levels of government.

The related planning and policy context considered includes: A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020), the Provincial Policy Statement (2020), the City of Mississauga Official Plan (2021), the Lakeshore Connecting Communities

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

Transportation Master Plan (TMP, 2019) and the Lakeshore Road West Complete Streets Study, which is ongoing at this time of reporting.

Problems and Opportunities

The intersections of Lakeshore Road West and Clarkson Road North / Clarkson Road South are offset by approximately 75 m, resulting in two closely-spaced, signalized intersections. Concerns relating to congestion and safety have been raised by the public regarding the operations of the two intersections, and the interspersed commercial driveways in their vicinity.

In addition to other background technical assessments completed for this study, a traffic safety performance review identified several existing issues at the intersections including, obstacles aligned with cross-walks and visibility of secondary traffic signals etc. The Traffic Analysis completed by the study did not identify any significant existing operational issues at the intersections, as the signal phasing and operations are currently optimized, and the existing operational performance is considered acceptable. However, congestion will be experienced in the future horizon years assessed by the study (2031 and 2041), and this includes the queuing of the eastbound left-turn movements on Lakeshore Road West (between the Clarkson Road intersections) spilling back into the through lanes and blocking through-movements.

There is an opportunity to review the Lakeshore Road West and Clarkson Road North / Clarkson Road South intersections and identify improvements that will accommodate future traffic needs of the intersections while also improving the safety, and mobility for all road users at the intersections.

Description of the Existing Environment

Transportation

Clarkson Road North and South are two-lane, local roads with posted speed of 40 km/h. Lakeshore Road West is a five-lane (four lanes and a two-way left-turn lane), east-west arterial road with a posted speed of 40 km/h. Per the Official Plan, the Long-Term Road Network (Schedule 5) identifies that Clarkson Road North as a Major Collector road.

Cultural Heritage

A total of seven cultural heritage resources were identified within and/or adjacent to the study area. Five cultural heritage resources are listed on the Heritage Register for Mississauga (2020), one of these resources is additionally included on the Ontario Heritage Trust's Places of Worship Inventory, and two properties were identified during the field review. The resource listed on the Ontario Heritage Trust's Places of Worship

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

Inventory is in the southeast quadrant of the Clarkson Road South intersection and is a former Methodist church that was reconverted for commercial use (currently a Benjamin Moore paint shop).

Archaeology

The Stage 1 Archaeology Assessment was completed and determined that no previously registered archaeological sites are located within one kilometer of the Study Area. Most of the study is disturbed and the parts of the study area that exhibit archaeological potential are located just north of Turtle Creek, and west of Clarkson Road South.

Natural Environment

Turtle Creek, located north of Lakeshore Road West, is a natural corridor which meets the criteria of a significant woodland and valleyland. The study area presents suitable habitat for species-at-risk (SAR) however no SAR were identified during the site visit. A tree inventory was completed within the study area, and catalogued approximately 100 trees; nine trees within the vicinity of the intersections.

Socio-Economic Environment

The intersections are located within the urban mixed-use area in the City of Mississauga. Land use in the surrounding area is a mixture of Low Density Residential and Mixed Use (Commercial / Residential). In the immediate vicinity of the intersections are several businesses including banks, restaurants and a gas station.

Noise and Air Quality

A Noise Assessment has been conducted within the study area. Clarkson Road has private homes along both sides of the street, on the north and south links, which are considered as Noise Sensitive Areas (NSAs). Most of the first-row buildings on Lakeshore Road West are commercial in nature and thus are considered non-sensitive. As this project focuses on localized improvements (i.e., no capacity expansion or similar), the project is expected to cause no change in future operational sound levels which are anticipated to be within the provincial and city guidelines criteria and therefore noise mitigation is not required. Noise will be generated during construction and the project will be subject to City Noise By-Law No. 360-79.

An Air Quality Impact Assessment was conducted within the study area. As with the Noise Assessment, the residences along Clarkson Road North and South were considered sensitive receptors. Commercial and industrial buildings are considered non-sensitive. Localized improvements at the Clarkson Road intersections are not

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

expected to have significant impacts on nearby sensitive receptors. Although the assessment identified exceedances of thresholds for some contaminants, these are primarily due to background pollution within the study area. Therefore, no mitigation measures are identified required as part of these improvements.

Phase One Environmental Site Assessment (ESA)

Potential Contaminating Activity (PCA) was identified at four sites within the study area. This includes 1730 Lakeshore Road West and 1765 Lakeshore Road West that are located in the vicinity of the intersections and the proposed improvements. A subsurface investigation (i.e. Phase Two ESA) involving sampling and analysis of soil and groundwater within the limits of the proposed construction works would be required to confirm the potential for contamination from the identified PCAs and the management of materials generated during construction.

Alternative Solutions

Four improvement approaches were considered to help develop the potential alternative solutions for the intersections, and these were presented at the first virtual Public Information Centre (PIC). The four approaches included realigning Clarkson Road North, reconfiguring the intersections into a roundabout, installing a raised centre median between the two intersections, and prohibiting left-turn movements at the intersections. The use of a roundabout was subsequently screened out as it was not geometrically or operationally feasible.

By incorporating elements of the remaining improvement approaches, a range of alternative solutions were developed to address the existing operational and safety issues at the Lakeshore Road West and Clarkson Road North/South intersections. The four alternative solutions were presented at the virtual Public Information Centre (PIC) #2, and included:

- Do Nothing
- Solution 1 – Realign Clarkson Road North
- Solution 2 – Centre Median and Widen Lakeshore Road West
- Solution 3 – Centre Median and Eastbound Left-Turn via a “Laneway”.

The alternative solutions and their evaluation were presented at the PIC #2 and Solution 2 was identified as the preliminary preferred solution.

Refinement to the Preferred Solution

Following PIC #2, the preferred solution was further refined through the below rationale:

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

- Solution 2 is desirable compared to the other solutions; however, it only mitigates and does not solve the fundamental issue of the close intersection spacing.
- Solution 1 solves the fundamental issue; however, its significant cost and impacts to existing businesses is a critical disadvantage.
- Public feedback at PIC #2 highlighted the desire for a community design, with a focus on all modes of transportation and an emphasis on the future vision for Clarkson Village.

Following PIC #2, the evaluation was revisited with new perspectives on the socio-economic and cultural heritage factor areas. With the updated evaluation, both Solution 1 and Solution 2 were identified as preferred.

Therefore, the City of Mississauga sees an opportunity to fulfill the short/medium term operational and safety needs while still planning for a longer-term vision of the community, by recommending the two solutions as 'interim preferred' (Solution 2) and 'preferred' (Solution 1) improvements.

Consultation

An extensive stakeholder consultation and engagement program was undertaken to assist the planning and decision-making process. Throughout the study, the public, internal City staff, external agencies and organizations, and Indigenous Communities were engaged to provide input. Key milestones of the consultation program included:

- Notice of Study Commencement and Introductory PIC was published in the local newspaper on November 19, 2020, and mailed to area property owners, agencies, and other stakeholders.
- Virtual Public Information Centre #1 (online project portal) held from December 3rd to December 31st, 2020.
- Virtual Public Information Centre #2 (online project portal) held from November 10th to December 10th, 2021. PIC #2 included a live meeting held November 24, 2021.
- Virtual Public Information Centre #3 (virtual presentation and live meeting) held April 27th, 2021.
- Presentations and meetings with regional, municipal and public authorities, including: City staff, Region of Peel staff and members of the Peel District School Board.
- Meetings with Credit Valley Conservations (CVC) and impacted property owners; and

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

- Mississaugas of the Credit First Nation review of Stage 1 Archaeological Assessment.

A dedicated website was established through the City of Mississauga at the beginning of the project (Mississauga.ca/lakeshore-clarkson). Study notices and Public Information Centre materials (e.g., Notices, display material, Q&As) were made available on the website as the study progressed.

Written comment responses were received during the various commenting periods following each PIC, and feedback was facilitated at each PIC using either the website PIC portal, surveys and live question-and-answer meetings held at PIC #2 and PIC #3. The table below provides a summary of the key issues that were raised and the Project Team's response to these issues.

Common Comments	Project Team Response
Questions of the purpose behind the study, as the intersections seem to operate fine right now.	The initial driver behind the study were resident concerns of operations and pedestrian safety. A Traffic Safety Review identified several deficiencies at the existing intersections, notably with the pedestrian facilities. Traffic Analysis conducted identified that, while the intersections currently operate at an acceptable level, they will be subject to significant congestion in the future.
Concern that Lakeshore Road West was being widened to six lanes / the improvements will increase traffic and speeds.	This study is focusing on intersection improvements and no capacity improvements (i.e., additional lanes) are being considered.
Solution 2 (Side-by-Side Left Turn lanes with Centre Median) appears to prioritize vehicular traffic and is not a long-term solution.	Solution 2 will enable the intersections to operate efficiently into the future and to the project horizon. Improvements to pedestrian facilities (sidewalk, crosswalk, etc.) and a new cycle track are also included in the improvements on Lakeshore Road West.
Understanding that Solution 1 (Realign Clarkson Road North) is desirable from a design and transportation perspective, however	While the high cost and impact means that the timing Solution 1 is dependant on future redevelopment / available funding, the City is able to commit to a future vision for the

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

Common Comments	Project Team Response
doubt that City could enact upon it due to its high cost and impact.	Clarkson community and its transportation network by identifying Solution 1 as the long-term Preferred Solution in this EA Study.

Table E-1 Summary of Public Common Comments

Recommended Plan

As above, Solution 2 was identified as the interim preferred (short- / medium-term) and Solution 1 as the preferred solution (long-term). The study therefore proposes an overall Recommended Plan for the intersections, which will be implemented on a phased basis.

Interim Preferred Solution

An overview of the interim preferred solution is illustrated in **Exhibit E-1**. The improvements include:

- A slight increase in the overall pavement width on Lakeshore Road West to accommodate 'side-by-side' left-turn lanes in between the Clarkson Road intersections.
- Consolidation and modifications to driveways/accesses on Lakeshore Road West, to improve access management and reduce the number of conflict points with active transportation users.
- New cycle tracks in the boulevard along Lakeshore Road West and through the intersections. These improvements will tie into cycle track facilities being planned as part of the ongoing Lakeshore Road West Complete Streets Study.
- Relocation of the eastbound bus stop and shelter, from the southeast quadrant of Clarkson Road North to the southwest quadrant, and a new westbound bus stop and shelter (currently only a bus stop).
- Improvements to intersection geometry and pedestrian facilities, including improved cross-walk alignments and new signals which will include accessible pedestrian signals.
- Provision of a raised centre median, to provide access management and mitigate congestion issues by physically prohibiting crossing movements from driveways.
- The improvements will require some property from the frontage of the Gas Station property, located north of Lakeshore Road West and in between the Clarkson Road intersections.

Preferred Solution

An overview of the preferred solution is illustrated in **Exhibit E-2**. Key elements of the improvements include:

- A realignment of Clarkson Road North, from its culvert on Turtle Creek to intersect at the Clarkson Road South intersection. The result is a single four-legged intersection rather than the two existing three-legged intersections on Lakeshore Road West.
- Due to the significant cost and property impacts, the solution currently does not have an anticipated construction timeframe and will be dependant on future redevelopment and/or available funding.
- As the timeframe for the preferred solution is unknown, it is recommended further supporting technical assessments be completed in the future and closer to the time of implementation. These include Geotechnical Investigations, Stormwater Management and Drainage, Noise and Air Quality Impact Assessments, Environmental Site Assessments and Natural Environment Impact Assessment.
- The realignment of Clarkson Road North affords the opportunity to reconfigure the Lakeshore Road West cross-section, as the 'side-by-side' left-turn lanes (of Solution 2) will not be required. The realignment is contingent on future redevelopment plans, and this redevelopment can also open the opportunity to widen the Lakeshore Right-of-Way (ROW) to better match that desired by the City's Official Plan.
- Solution 1 would require the acquisition of the three commercial properties in the northwest quadrant of the Clarkson Road North intersection. As such, the accesses / commercial driveways along Lakeshore Road West in the study area would be subject to significant changes, and improved access management can be implemented with these changes.
- With the realignment, the east- and westbound bus stops and shelters are anticipated to be relocated to the Clarkson Road South intersection. Final locations and designs will be confirmed in the Detailed Design phase.

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

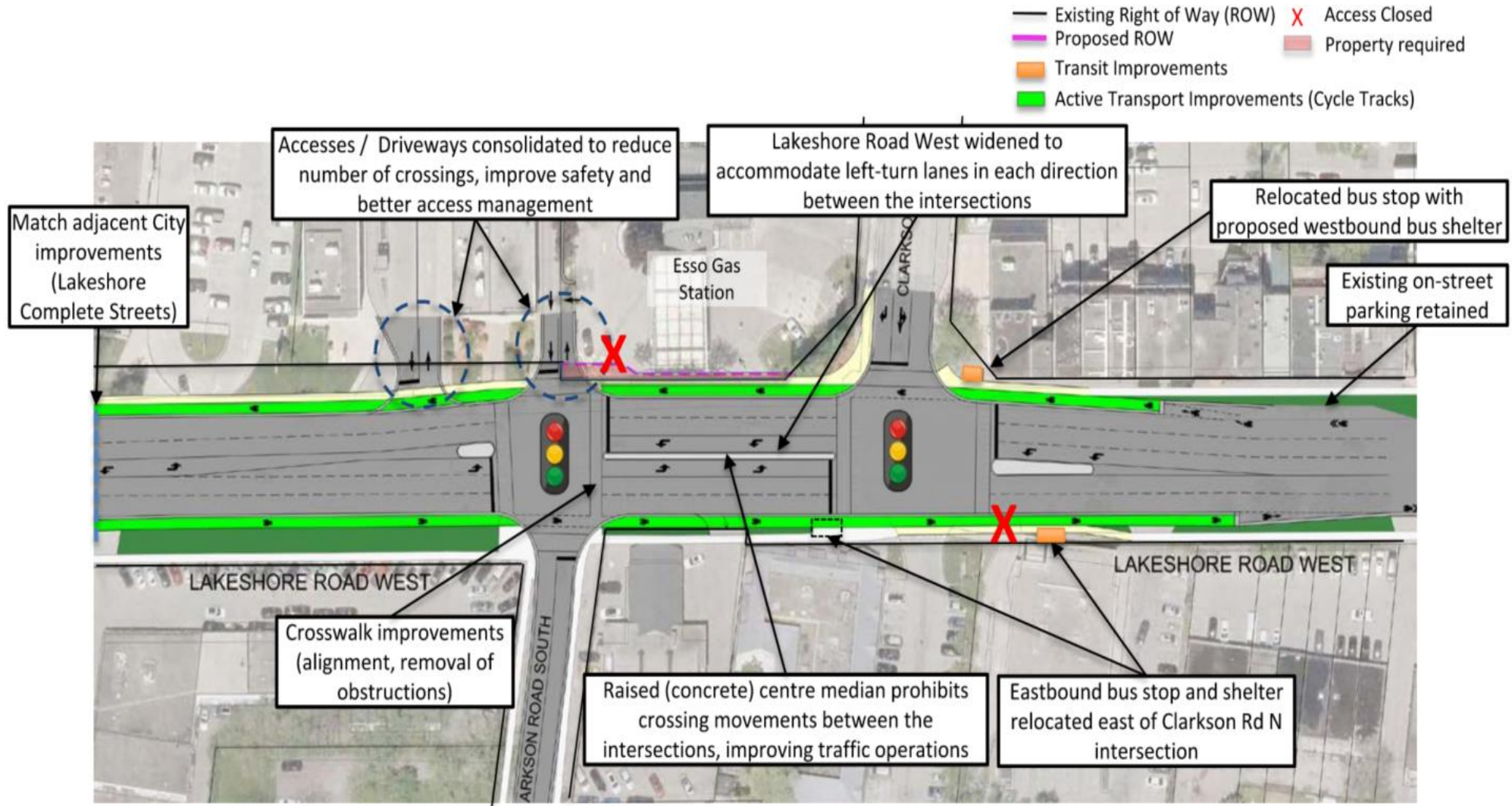


Exhibit E-1: Interim Preferred Solution

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

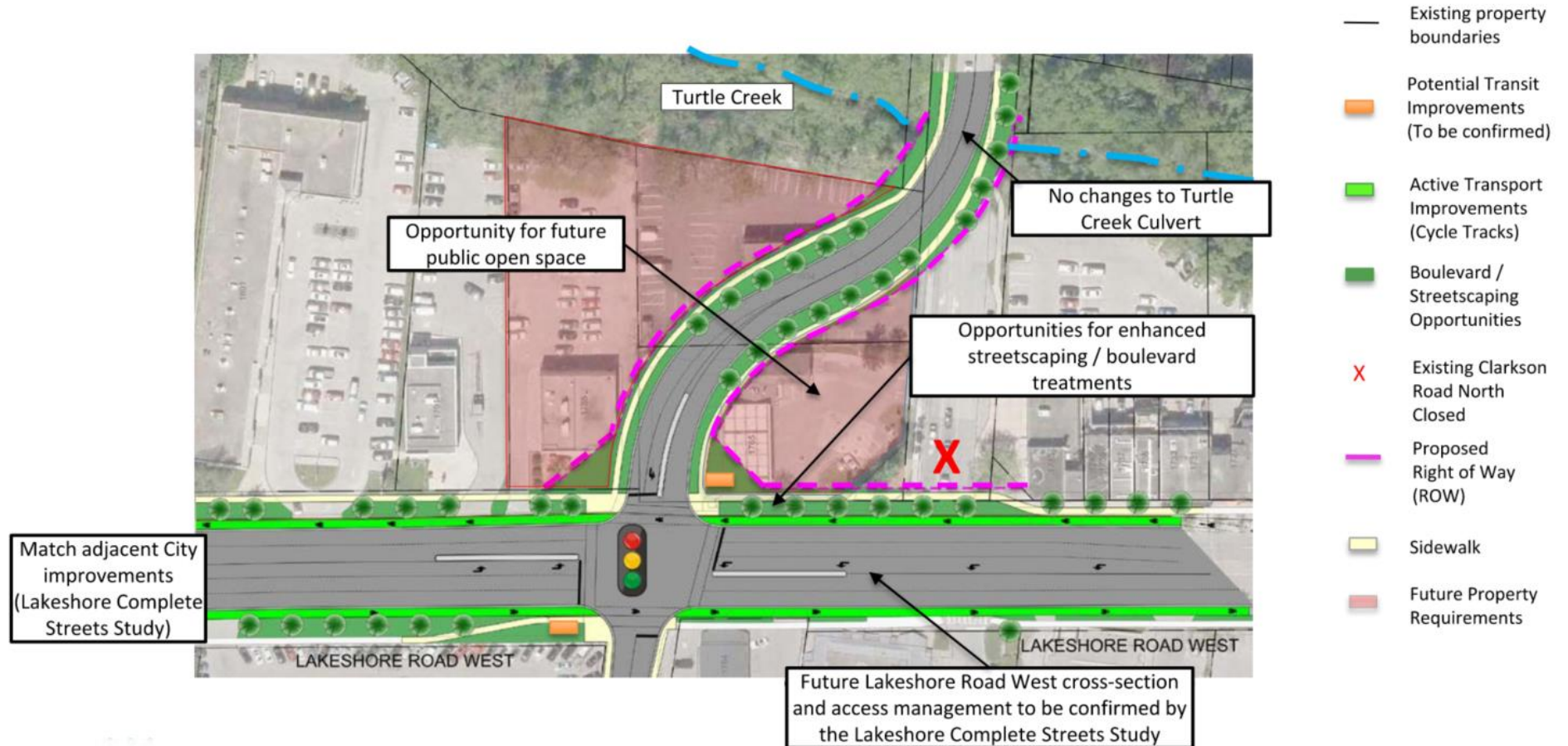


Exhibit E-2: Preferred Solution

Preliminary Cost Estimate

Preliminary cost estimates have identified construction costs at approximately **\$0.5M** for the Interim Preferred Solution (Solution 2) and approximately **\$1.1M** for the Preferred Solution (Solution 1). Note that cost estimates do not include property costs, as they would be confirmed as part of the Detailed Design phase, in consultation with Realty staff.

Environmental Impacts and Mitigations

Anticipated impacts to the natural, socio-economic, and cultural environments, together with proposed mitigation measures, were identified to address the implementation of the Interim Preferred Solution and Preferred Solution. Anticipated impacts and proposed mitigation are provided for the following factors:

- Land Use and Socio-Economic Impacts
- Archaeology and Cultural Heritage
- Noise
- Property Requirements
- Climate Change
- Air Quality
- Streetscaping / Urban Design
- Utilities
- Construction
- Vegetation and Vegetation Communities
- Fisheries and Aquatic Habitat
- Wildlife and Wildlife Habitat
- Groundwater
- Surface Water
- Soil Removal and Contaminants

Commitments to Future Work

This Project File Report identifies specific items to be reviewed and confirmed during the Detailed Design phases for both the Interim Preferred Solution and Preferred Solution. Some of these commitments will address specific concerns raised by property

City of Mississauga
Clarkson Road and Lakeshore Road Intersections Municipal Class EA
Executive Summary

owners and review agencies during the EA process. Items to be addressed during Detailed Design phase, include but are not limited to, resolution of outstanding concerns and any permits and approvals.

Timing of Improvements

The City intends to phase the improvements by implementing the interim preferred solution in the short to medium term and the preferred solution in the longer term.

The City will look to leverage coordination opportunities with other infrastructure renewal requirements such as road resurfacing along Lakeshore Road West to implement the interim preferred solution as part of a future Integrated Road Project. The final construction timing of the Integrated Road Project will be confirmed through detail design and will be subject to annual Council review and prioritization.

The City does not currently have an estimate timing year for the preferred solution. The implementation of the preferred solution will be subject to opportunities created through the redevelopment of the area and funding considerations.