

Welcome



Cawthra Road Improvements Queen Elizabeth Way (QEW) to Eastgate Parkway Environmental Assessment (EA)



Public Information Centre (PIC)
November 27, 2019

Please sign in...

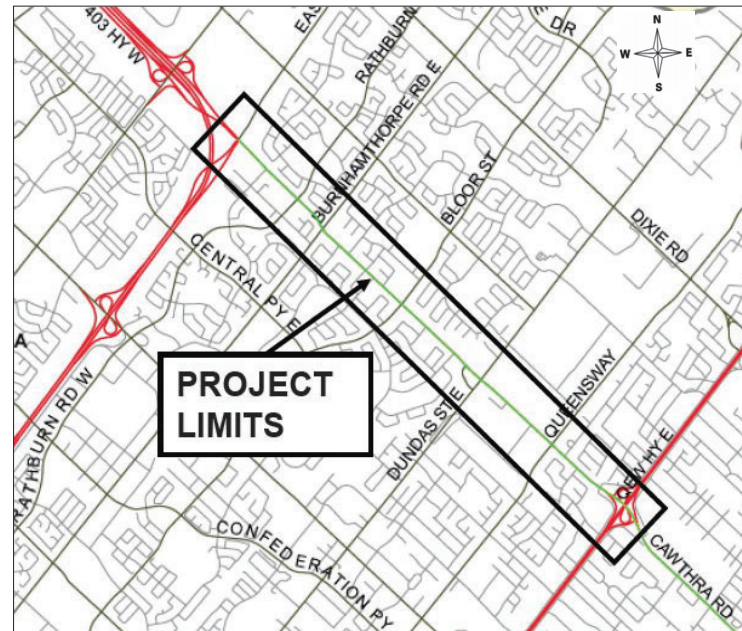
Study Area



Cawthra Road from QEW to Eastgate Parkway, Mississauga (approximately 5.1km)

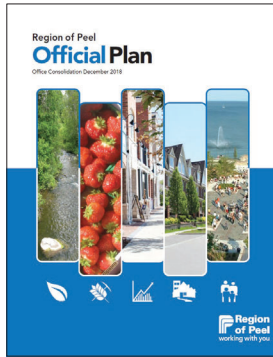


- North-South Minor Regional Road 17
- 4 travel lanes (2 in each direction), plus additional southbound lane from The Queensway to QEW
- 50 km/h posted speed limit
- Goods movement corridor with trucks restricted from 7PM to 7AM
- Grade separated at Canadian Pacific (CP) Rail and Dundas Street crossings with retaining walls
- Interchanges with QEW and Highway 403 under Provincial jurisdiction



- Adjacent residential land use with exception of employment between The Queensway and Dundas Street
- Sidewalks on both sides from QEW to Burnhamthorpe Road
- Multi-use Trail on west side from Burnhamthorpe Road to Eastgate Parkway
- Partial municipal transit route
- Water and wastewater infrastructure
- Hydro, gas, cable, and phone utilities

Why Improve Cawthra Road?



(1) Meet goals and objectives for multi-modal transportation design

Region of Peel Long Range Transportation Plan Update (2019)

- 50% sustainable transportation mode share by 2041 (walk, cycle, transit, carpool)
- Subject to widening from 4 to 6 lanes from QEW to The Queensway

(2) Maximize use and capacity of road right-of-way

Region of Peel Road Characterization Study (2013)

- Industrial Connector from QEW to Dundas Street
- Suburban Connector from Dundas Street to Eastgate Parkway

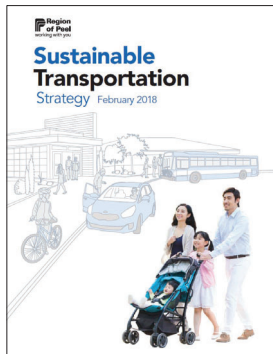
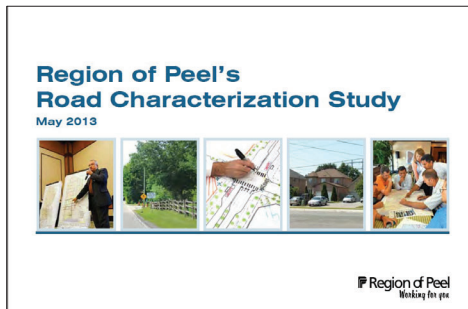
Peel Goods Movement Strategic Plan (2017-2021)

- Primary Truck Route south of Dundas Street
- Connector Truck Route north of Dundas Street

Region of Peel Sustainable Transportation Strategy (2018)

- Part of Regional pedestrian and cyclist network
- Active transportation improvements to the corridor

**50%
sustainable
transportation
mode share
by 2041**



(3) Improve operations and safety within road corridor for all users

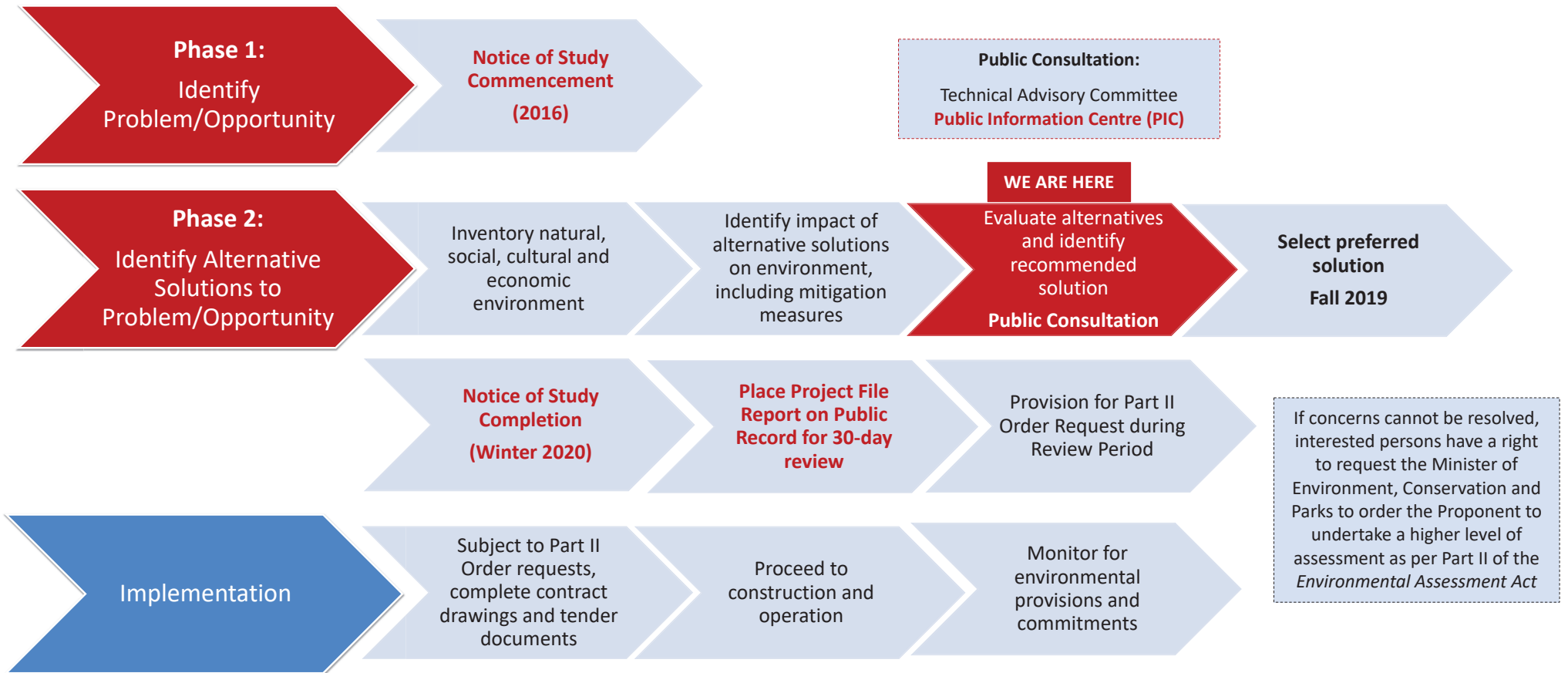
Region of Peel Cawthra Road Pre-EA Feasibility Study (2015)

- Shift road alignment to the east adjacent to Mount Peace Cemetery
- Maintain 4 lanes with centre turn-lane in sections and intersection improvements
- Add on-road bicycle and/or boulevard multi-use facilities

EA Process



This Study follows **Phases 1 and 2** of the **Municipal Class Environmental Assessment for Schedule B projects**



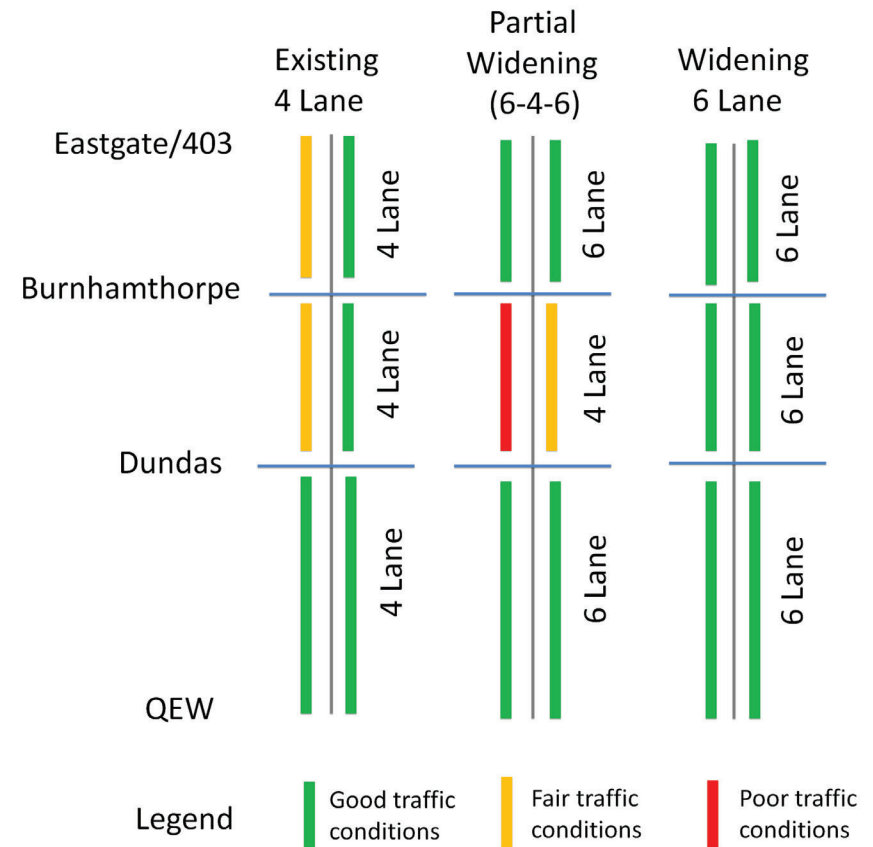
(Municipal Engineers Association, last amended in 2015)

Traffic Conditions



- Traffic volumes are expected to increase to 2031.
- The current 4 lanes will approach capacity; however operational and safety benefits can be realized through local intersection improvements.
- Partial widening to 6 lanes will increase demands and worsen operations within the central section.
- Widening to 6 lanes throughout will improve traffic operations, however is not feasible within central section due to property constraints.

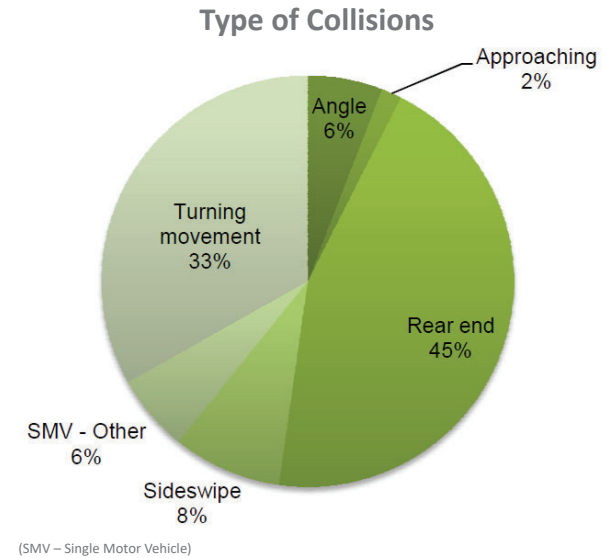
2031 Traffic Conditions



Future Traffic Conditions at Intersections

By 2031, up to 7 of the 13 signalized intersections within the corridor will experience poor traffic conditions:

- Eastgate Parkway (AM and PM peak),
- Rathburn Road (PM peak),
- Burnhamthorpe Road (AM and PM peak),
- Bloor Street (AM and PM peak),
- The Queensway (PM peak),
- North Service Road (PM peak), and
- South Service Road (AM peak).



Traffic Safety Considerations

- Excessive speeding (i.e. 20 km/h above the posted speed limit).
- Majority of collisions are rear-end and turning movement type, with the highest number at Eastgate Parkway, Burnhamthorpe Road, Bloor Street, and The Queensway, which could benefit from intersection improvements such as adding dual left and right turn lanes.
- Midblock collisions remain relatively low with the exception of immediately south of Burnhamthorpe Road and north of The Queensway.

Problem and Opportunity

Problems

- No cycling facilities other than the multi-use trail between Burnhamthorpe Road and Eastgate Parkway.
- Traffic congestion at major intersections.
- Excessive speeding along the corridor.
- Frequency of collisions associated with left turning conflicts at major intersections and commercial entrances.

Opportunities

- Provide additional separation from motor vehicle traffic thus increasing comfort of cyclists riding in heavy traffic.
- Improve traffic operations and safety at pedestrian crossings.
- Narrow lane widths to reduce speeds.
- Provide fully protected left turn phasing to address safety concerns, or consider left turn restrictions.

Alternative Solutions



1

Do nothing

No improvements to Cawthra Road

2

Widen road for additional traffic volume

Widen road from 4 to 6 lanes for additional through traffic to accommodate growth

3

Improve corridor operations & safety

Design corridor to all modes of transportation, including walking, cycling, taking transit, carpooling and driving; and narrow lane widths to reduce speeding

4

Improve intersection operations & safety

- Remove or replace channelized islands with smart channels or traditional right-turn lanes (see examples)
- Add dual left turns and exclusive right-turn lanes
- Adjust and re-evaluate turning lane storage
- Provide fully protected signal phasing
- Improve pavement markings and signage

Examples
(Alternative 4):



Channelized Island



Right-Turn Lane

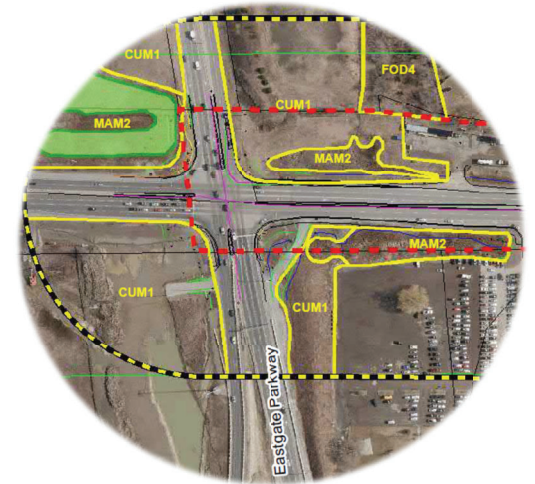


Smart Channel

Phase 2: Alternative Solutions

Natural Heritage Resources

- Field investigations were conducted in Fall of 2018 and Spring/Summer 2019, including breeding bird and amphibian surveys (failed to detect calling anurans).
- No aquatic features (e.g. watercourses) having potential fish habitat.
- Areas of significance include:
 - Cultural meadow and Common Reed dominated marshes, immediately south of Eastgate Parkway; and
 - Cawthra Woods immediately south of the study area is a regional Area of Natural and Scientific Interest (ANSI) and Provincially Significant Wetland (PSW). Wetlands used by Jefferson Salamander (Endangered Species).
- No impacts are anticipated to Cawthra Woods or PSW.
- No negative impacts to the ecological form and function of marsh lands are anticipated.



Existing Cultural Meadows / Marshes



Tree Inventory and Protection Plan

- Tree inventory and health assessment was completed in October 2018; including all trees 10 cm diameter at breast height (DBH) or greater within the existing right-of-way.
- 330 trees were assessed.
- 31 tree species identified, Norway Maple was the most abundant.
- Identified 106 trees within 10m of limit of disturbance, of which 58 expected to require removal. Of the 58 trees to be removed, 14 are on the west side of Cawthra Road and 44 are on the east side.
- In keeping with Mississauga Tree Protection By-law, a minimum of 60 replacement trees are to be provided. Replacement trees are to be same species except for non-native trees.



Existing Boulevard Trees





Archaeological Assessment

- Stage 1 Archaeological Assessment undertaken in Fall 2018.
- Corridor retains no or low archaeological potential due to previous extensive disturbance, with the exception of the strip of land immediately north of the Dixie Union Cemetery.
- Although not anticipated at this time, should underground works encroach within 10 metres of the Dixie Union Cemetery, a Stage 3 investigation will be required.

Cultural Heritage Assessment

Four (4) properties within the study area are recognized as cultural heritage resources on the City of Mississauga Heritage Register:

- Dixie Presbyterian Church
- St. Mary's Ukrainian Catholic Church
- Dixie Union Cemetery and Chapel
- Mount Pleasant Cemetery

Two additional municipally designated properties, adjacent to the study corridor include: Cawthra Estate and Cherry Hill.

None of the above properties will be directly impacted by the proposed improvements.

One residential property at 3317 Cawthra Road is expected to be directly impacted and is identified to have some heritage value or interest, however it is not recognized as heritage property by the City.

Designated Land Use



**City of Mississauga
Official Plan (2018)**

**Region of Peel
Official Plan (2018)**



LAND USE DESIGNATIONS

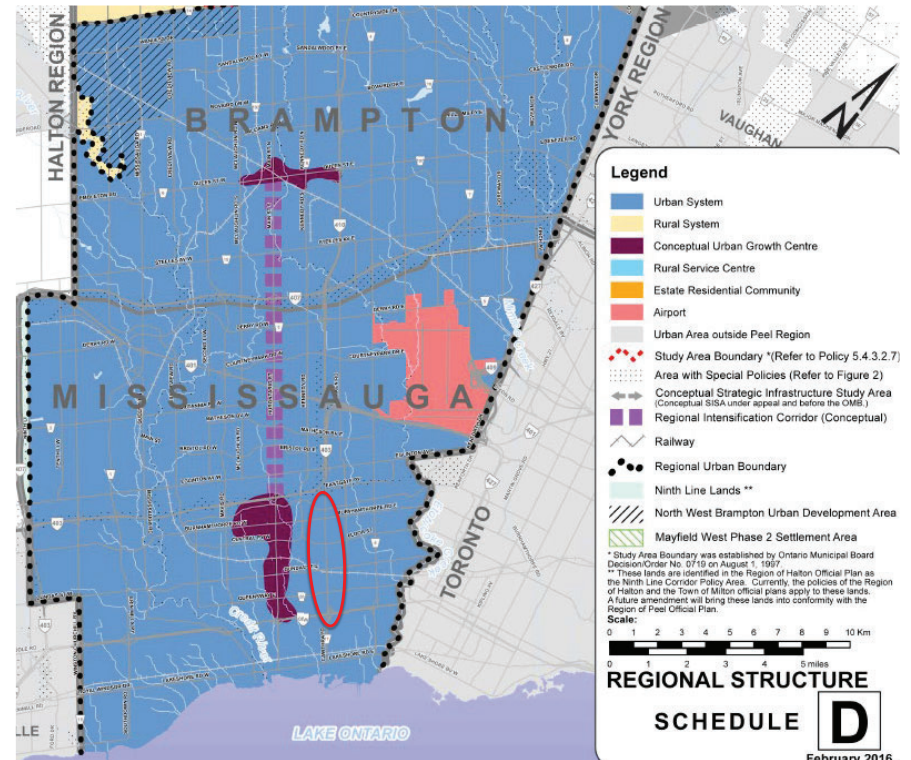
- | | |
|----------------------------|-----------------------|
| Residential Low Density I | Airport |
| Residential Low Density II | Institutional |
| Residential Medium Density | Public Open Space |
| Residential High Density | Private Open Space |
| Mixed Use | Greenlands |
| Convenience Commercial | Parkway Belt West |
| Motor Vehicle Commercial | Utility |
| Office | Special Waterfront |
| Business Employment | Partial Approval Area |
| Industrial | |

BASE MAP INFORMATION

- | | |
|---|------------------------------|
| Heritage Conservation District | Civic Centre (City Hall) |
| 1996 NEP/2000 NEF Composite Noise Contours | City Centre/Transit Terminal |
| LBPIA Operating Area Boundary See Aircraft Noise Policies | GO Rail Transit Station |
| Area Exempt from LBPIA Operating Area | Public School |
| Natural Hazards | Catholic School |
| | Hospital |
| | Community Facilities |

City Structure

- | | |
|----------------|----------------------|
| Downtown | Corporate Centre |
| Major Node | Employment Area |
| Community Node | Special Purpose Area |
| Neighbourhood | |



Legend

- Urban System
- Rural System
- Conceptual Urban Growth Centre
- Rural Service Centre
- Estate Residential Community
- Airport
- Urban Area outside Peel Region
- Study Area Boundary *(Refer to Policy 5.4.3.2.7)
- Area with Special Policies *(Refer to Figure 2)
- Conceptual Strategic Infrastructure Study Area *(Conceptual SISA under appeal and before the OMB.)
- Regional Intensification Corridor *(Conceptual)
- Railway
- Regional Urban Boundary
- Ninth Line Lands **
- North West Brampton Urban Development Area
- Mayfield West Phase 2 Settlement Area

* Study Area Boundary was established by Ontario Municipal Board Decision Order No. 0719 on August 1, 1997.
** These lands are identified in the Region of Halton Official Plan as the Ninth Line Corridor Policy Area. Currently, the policies of the Region of Halton and the Town of Milton Official plans apply to these lands. A future amendment will bring these lands into conformity with the Region of Peel Official Plan.

Scale:
0 1 2 3 4 5 6 7 8 9 10 Km
0 1 2 3 4 5 miles

**REGIONAL STRUCTURE
SCHEDULE D**

February 2016

Inventory of existing noise walls and fences:

- Approximately 820 m of private noise walls;
- Approximately 1,840 m of Regional noise walls;
- Approximately 160 m of privacy fences (not considered to effectively reduce noise)



Existing Noise Walls

Noise Mitigation Requirements

Based on the Region of Peel Noise Attenuation Policy W30-04 and noise analysis completed as part of this study, it is recommended that noise walls be provided at the limits of the Cawthra Road right-of-way for those residential properties backing onto Cawthra Road within the study area (location to be verified as part of detail design).

Soil and Pavement Condition



Contamination Site Screening

- Contamination Overview Study (COS) completed along the corridor identified 20 potential contaminating activities (PCAs) associated with adjacent commercial and industrial operations within the study area.
- Environmental Site Assessments including soil and ground water investigations are to be undertaken during detailed design, where required to investigate the potential impacts caused by surrounding land uses identified as high risk.



Pavement Condition

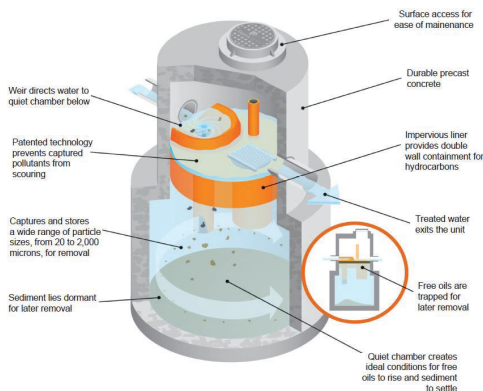
- Generally the existing pavement is in good condition, however shows some signs of deterioration (i.e. spalling and cracking).
- From QEW to north of Dundas Street, remove and repave existing asphalt.
- North of Dundas Street, replace full depth asphalt (to be confirmed during detailed design).

Existing Conditions

- Existing drainage infrastructure consists of roadside curbs, stormwater drains and sewers, with limited ditching present at the north end of the project.
- No watercourse crossings exist within the study area.
- All outlets within the study area discharge into existing municipal storm sewers which convey runoff westerly, ultimately discharging into Cooksville Creek.
- Several sections of the existing storm sewer are deficient in capacity and require replacement and upsizing, in addition to sections requiring replacement due to structural deficiencies (identified through a Closed Circuit Television (CCTV) inspection).

Proposed Conditions

- Existing drainage patterns will be maintained.
- Water quantity control will be implemented (i.e. low impact development techniques such as permeable paving on walkways and cycle tracks, and/or infiltration chambers).
- Water quality treatment will be provided using Oil/Grit Separator (OGS) units, underground infiltration chambers, and existing roadside ditches.
- Existing storm sewers that are in poor condition will be replaced.



Oil/Grit Separator (OGS)

Evaluation Criteria



Criteria	Indicator
Transportation	<p>Ability to address problem and opportunity</p> <p>Consistent with municipal planning policies and plans (Peel and Mississauga Official Plans, Long Range Transportation Plans (LRTPs), and Active Transportation Plans)</p>
Natural Environment	<p>Potential impact on natural heritage features</p> <p>Potential opportunity to adapt to or mitigate effects of climate change (Reduce Greenhouse Gas (GHG) emissions, Incorporate Low Impact Development (LID) in stormwater management)</p>
Social Environment	<p>Compatible with existing and planned future land uses, including property impact</p> <p>Promotes healthy, age-friendly and accessible environments</p> <p>Potential noise impacts</p>
Cultural Environment	<p>Potential impact on built heritage and cultural heritage landscapes</p> <p>Potential impact on archaeological resources</p>
Economic Environment	<p>Consistent with Region of Peel Goods Movement Strategic Network</p> <p>Supports economic sustainability, including access to businesses</p> <p>Anticipated cost within financing capacity of the Region of Peel</p>
Engineering Environment	<p>Potential impact on drainage and stormwater management</p> <p>Potential impact on soils and pavement structure</p> <p>Potential impact on utilities and municipal water/wastewater infrastructure</p>

Assessment of Alternative Solutions



Environmental Criteria / Indicator	(1) Do Nothing	(2) Widen road for additional lanes	(3) Improve corridor operations & safety	(4) Improve intersection operations & safety
Transportation				
Ability to address problem and opportunity	- Does not address problem and opportunity	+ Does address problem and opportunity in combination with other alternatives, however introduces constraints on the ability to accommodate active transportation facilities	+ Does address problem and opportunity in combination with other alternatives	+ Does address problem and opportunity in combination with other alternatives
Consistent with municipal planning policies and plans	- No action to meet goals and objectives of municipal planning policies and plans	+ Partially consistent with Regional LRTP Update (2019) which shows widening to 6 lanes between QEW and The Queensway by 2041	+ Consistent in combination with other alternatives	+ Consistent in combination with other alternatives
Engineering				
Potential impact on drainage and stormwater management	+ No impact	- Greatest impact of alternatives (relative to Do Nothing) due to introduction of largest impervious area	- Moderate impact in comparison to widening alternative (relative to Do Nothing) due to reduction of impervious area	- Moderate impact in comparison to widening alternative (relative to Do Nothing) due to reduction of impervious area
Potential impact on soils and pavement structure	+ No impact	- Greatest impact of alternatives (relative to Do Nothing) due to largest area of land required and potential for encroaching into areas of potential environmental concern	- Moderate impact in comparison to widening alternative (relative to Do Nothing) due to less land required and potential for encroaching into areas of potential environmental concern	- Moderate impact in comparison to widening alternative (relative to Do Nothing) due to less land required and potential for encroaching into areas of potential environmental concern
Potential impact on utilities and municipal water/wastewater infrastructure	+ No impact	- Greatest potential for displacement/relocation of utilities and municipal infrastructure of alternatives (relative to Do Nothing)	- Moderate potential for displacement/relocation of utilities and municipal infrastructure of widening alternative (relative to Do Nothing)	- Moderate potential for displacement/relocation of utilities and municipal infrastructure of widening alternative (relative to Do Nothing)

Assessment of Alternative Solutions

Environmental Criteria / Indicator	(1) Do Nothing	(2) Widen road for additional lanes	(3) Improve corridor operations & safety	(4) Improve intersection operations & safety
Natural				
Potential impact on natural heritage features	+ No impact	– Greatest encroachment potential of alternatives (relative to Do Nothing) with impact throughout entire corridor	– Moderate encroachment potential in comparison to widening alternative (relative to Do Nothing) with impact throughout entire corridor	+ Least encroachment potential of alternatives (relative to Do Nothing) as impact is limited to intersections
Potential opportunity to adapt to or mitigate effects of climate change	– No action to address effects of climate change	+ Opportunity for LID – Increased GHG emissions from increased traffic	+ Opportunity for LID throughout corridor + Opportunity to ultimately reduce GHG emissions with a shift from single-occupancy vehicles to sustainable modes of travel	+ Opportunity for LID at intersections
Cultural				
Potential impact on built heritage and cultural heritage landscapes	+ No impact	– Greatest impact of alternatives (relative to Do Nothing) due to area of land required	– Moderate impact in comparison to widening alternative (relative to Do Nothing) due to land required to accommodate active transportation and/or transition to pedestrian/cyclist crossings at intersections	– Moderate impact in comparison to widening alternative (relative to Do Nothing) due to potential land required to accommodate additional turn lanes and/or to improve pedestrian/cyclist movements – 1 property affected at Bloor Street to accommodate northbound right turn lane was identified in Cultural Heritage Assessment to have potential heritage value
Potential impact on archaeological resources	+ No impact	– Greatest impact of alternatives (relative to Do Nothing) due to area of land required – Requires additional archaeological assessments to determine extent of impacts and mitigation for areas outside the right-of-way	+ No significant impact in comparison to widening alternative (relative to Do Nothing) due to less area of land required – Stage 3 archaeological assessment will be undertaken during detailed design to confirm mitigation if underground work extends within 10 m of the Dixie Cemetery	+ No significant impact in comparison to widening alternative (relative to Do Nothing) due to less area of land required

Assessment of Alternative Solutions



Environmental Criteria / Indicator	(1) Do Nothing	(2) Widen road for additional lanes	(3) Improve corridor operations & safety	(4) Improve intersection operations & safety
Social				
Compatible with existing and planned future land uses, including property impact	+ No impact to land uses and property	- Greatest potential for property requirements of alternatives (relative to Do Nothing) due to widening throughout corridor	- Moderate potential for property requirements of alternatives (relative to Do Nothing), to accommodate active transportation throughout corridor and/or transition to pedestrian/cyclist crossings at intersections - 1 property affected south of The Queensway due to driveway grading	- Moderate potential for property requirements of alternatives (relative to Do Nothing), to accommodate additional turn lanes and/or improve pedestrian/cyclist movements at intersections - 2 properties affected at Bloor Street to accommodate northbound right turn lane
Promotes healthy, age-friendly and accessible environments	- No opportunity to address effects on public health	+ Supports active transportation - Wider road crossings for users with limited mobility - Proximity of pedestrians/cyclists to traffic emissions - Increased air emissions due to increased traffic	+ Supports active transportation infrastructure - Proximity of pedestrians/cyclists to traffic emissions	+ Supports improvements for the safety of pedestrians/cyclists crossing at intersections
Potential noise impacts	+ No impact	- Greatest impact of alternatives (relative to Do Nothing) due to increased traffic closer to sensitive land uses	+ Negligible noise impact (relative to Do Nothing)	+ Negligible noise impact (relative to Do Nothing)

Assessment of Alternative Solutions



Environmental Criteria / Indicator	(1) Do Nothing	(2) Widen road for additional lanes	(3) Improve corridor operations & safety	(4) Improve intersection operations & safety
Economic				
Consistent with Region of Peel Goods Movement Strategic Network	+ No impact	+ Maintains truck restriction from 7PM to 7AM	+ Maintains truck restriction from 7PM to 7AM	+ Maintains truck restriction from 7PM to 7AM + Ability for trucks to turn will be maintained
Supports economic sustainability, including access to businesses	+ No impact	+ Increased traffic exposed to business area	+ Provides enhanced accessibility for variety of sustainable transportation users which could provide more exposure for businesses	- Access to 2 commercial properties restricted to right-in and right-out
Anticipated cost within financing capacity of the Region of Peel	+ No construction cost	- Greatest cost of alternatives (relative to Do Nothing) due to greatest extent of new infrastructure to construct and maintain, including costs associated with complexity, utility relocation and property impact	- Moderate cost in comparison to widening alternative (relative to Do Nothing) due to less extent of new infrastructure to construct and maintain	- Moderate cost in comparison to widening alternative (relative to Do Nothing) due to less extent of new infrastructure to construct and maintain

Summary of Evaluation

Environmental Criteria / Indicator	(1) Do Nothing	(2) Widen road for additional lanes	(3) Improve corridor operations & safety	(4) Improve intersection operations & safety
Summary	- Does not address problem and opportunity	- Not expected to provide significant benefit	+ Carried forward	+ Carried forward
Recommendation	Alternative 1 and 2 are not preferred		Combination of Alternative 3 and 4 is preferred	

Phase 2: Alternative Solutions

Preliminary Preferred Solution

Reconstruct roadway to:

- Maintain 4 lanes (5 lanes south of The Queensway)
- Provide centre-turn lane or median
- Provide cycle tracks or raised bike lanes
- Support provisions for transit (bus) services

Improve operations and safety at intersections by:

- Removing or replacing channelized islands with smart channels or traditional right-turn lanes
- Installing cross-rides
- Adding dual left turns and exclusive right-turn lanes
- Extending or eliminating turning lane storage
- Providing fully protected signal phasing
- Improving pavement markings and signage

Smart Channels

- Improves visibility of oncoming vehicles and pedestrians for drivers turning right.



Channelized Island



Smart Island

(Drivers do not have to turn their head as much to the left as they would at a traditional channel).

- Encourages vehicles to slow down at the channel since the vehicle would have to make a sharper turn.

Cross-Rides

- At traditional cross-walks, cyclists dismount and cross the intersection by walking their bike.
- A cross-ride allows cyclists to ride their bike within the crossing without dismounting.
- A separate cross-ride provides separate space for cyclists and pedestrians.

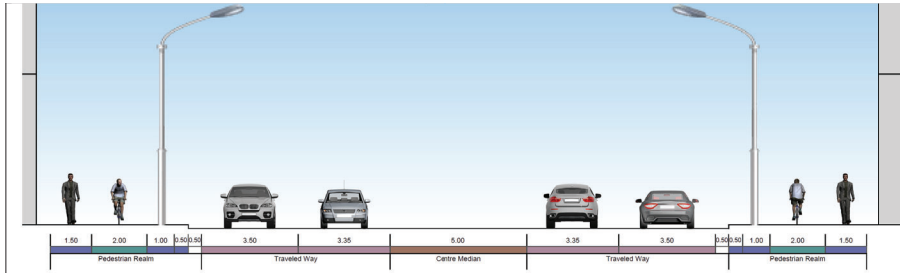


Phase 2: Alternative Solutions

Typical Cross-Sections



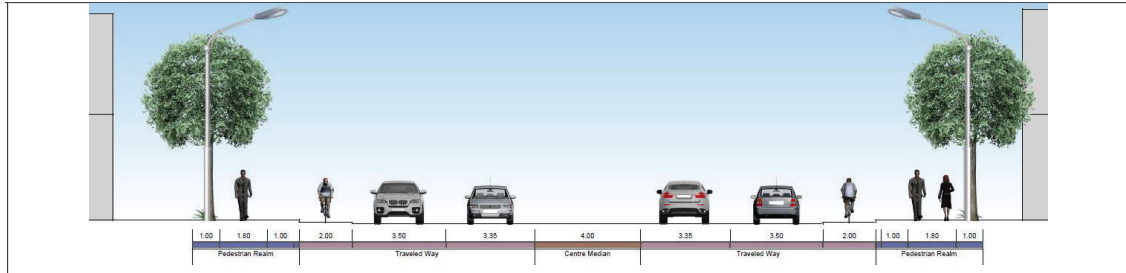
Reconstruct to accommodate cycle tracks in non-constrained areas



Set back significantly from the roadway

- Requires more boulevard width than raised bike lanes
- + Improves comfort for cyclists
- Frequent driveway entrances may cause bumpy cycling experience

Reconstruct to accommodate raised bike lanes in constrained areas



Adjacent to vehicular lanes and vertically separated from motor vehicle traffic

- Not as much horizontal and vertical separation compared to cycle tracks
- May not be comfortable along roadways with speeds greater than 50 km/hr
- + Drivers exiting or entering the driveway have better visibility of cyclists

- Cost prohibitive to widen QEW bridge structure between South Service Road and North Service Road
- + Multi-use trail was recently constructed on the west side from Burnhamthorpe Road to Eastgate Parkway

Most Preferred



Preferred where Cycle Tracks are not feasible



Preliminary Preferred Design Plan



**See Preliminary Preferred Design Plan
for location of proposed improvements**

Next Steps



- Please fill out a comment sheet and mail, email or fax your comments to the contact shown by **December 13, 2019**
- Following this PIC, the project team will:
 - Review public comments
 - Confirm a preferred solution and design
 - Prepare project file report for 30-day public review (Winter 2020)

Thank you