

Public Information Centre No. 1

Municipal Class “C” Environmental Assessment Mississauga Road From Financial Drive to Queen Street West



Thursday, February 9, 2017 – Lionhead Golf and Conference Centre

Purpose of PIC No.1

Tonight we invite you to....

- ✓ Sign-in and take a comment sheet
- ✓ Learn about the Environmental Assessment Process
- ✓ Review the work completed to date, including the:
 - Traffic study
 - Problems and opportunities
- ✓ Review and comment on the preliminary alternative solutions

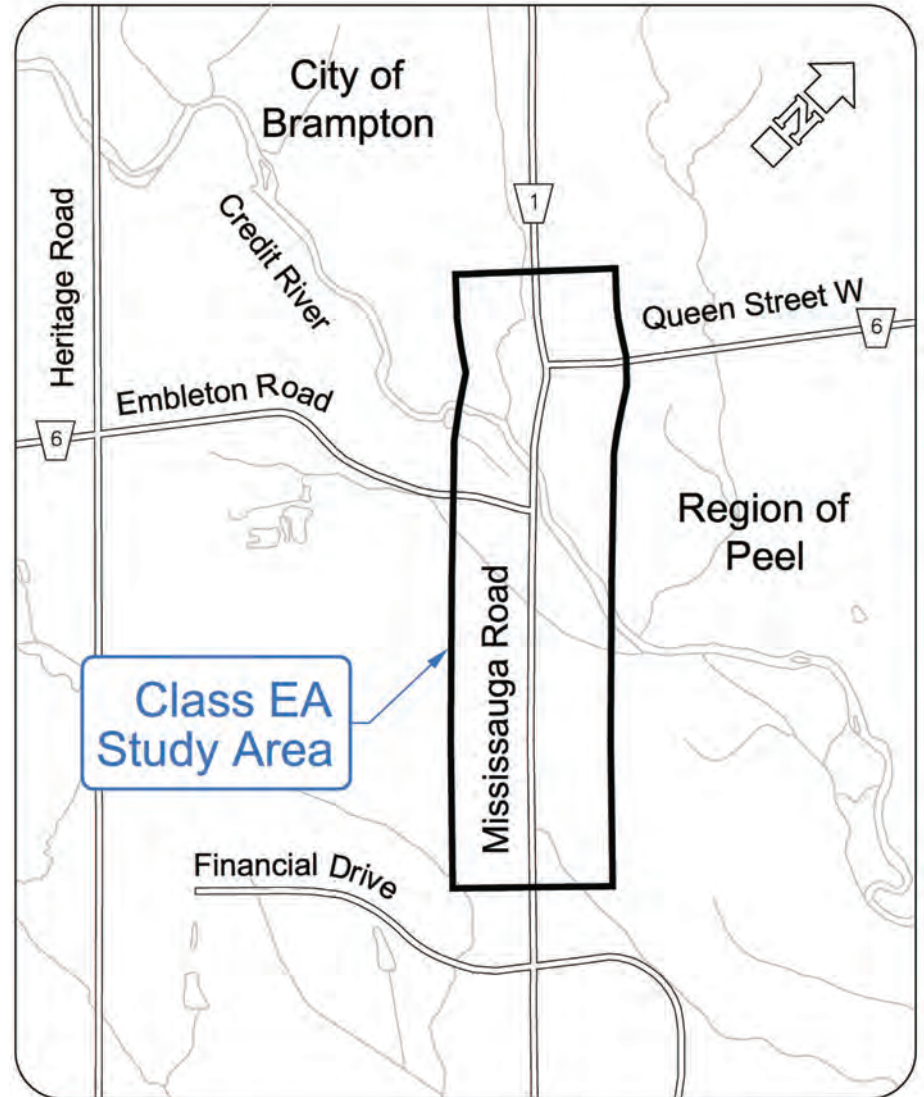
Your feedback is important and will be considered and incorporated in the preferred alternative selection process!

**Comment
Deadline is
February 24,
2017**

Study Area

Class EA Study Area

The study area is on Mississauga Road located within the City of Brampton from just north of Financial Drive to just north of Queen Street West.



Region of Peel Context

This Environmental Assessment supports the Region's 2015-2035 Strategic Plan and Term of Council Priorities.

Working with You to...

- ✓ Create a community where the built environment promotes healthy living;
- ✓ Promote mobility, walkability and various modes of transportation, and;
- ✓ Promote healthy and age-friendly built environments
 - improving active transportation facilities and connectivity through adding multi-use trails
 - improving access to transit by working with the City of Brampton to enhance existing and future services
- ✓ Improve goods movement
 - Mississauga Road is identified as a Primary Truck Route in the Region's Strategic Goods Movement Network.
- ✓ Adapt to and mitigate the effects of climate change
 - improving stormwater management through Low Impact Development strategies.
 - reducing greenhouse gas emissions by reducing delay times for vehicle idling.



See <https://peelregion.ca/strategicplan/index.htm> for more information on the Region's Strategic Plan.

Region of Peel Context

This Environmental Assessment supports the Region's 2015-2035 Strategic Plan and Term of Council Priorities.

Working with You...

- ✓ The community voice and participation is welcome
 - Your feedback is important and will be considered in the preferred alternative selection process.
 - We want to hear your questions today. Share your ideas and provide your input with us.

- ✓ Coordination and partnerships occur
 - Transportation has partnered with Public Health to develop the Environmental Assessment Health Criteria which includes the alternative impacts on active transportation, accessibility and air quality.
 - Transportation has partnered with the Credit Valley Conservation to look at improvements for stormwater management in the study area



See <https://peelregion.ca/strategicplan/index.htm> for more information on the Region's Strategic Plan.

Class Environmental Assessment Process

Phase 1

- Identify Problems and Opportunities
- Issue Notice of Study Commencement

Phase 2

- Identify and Evaluate Alternative Solutions
- Identify Preferred Solution

Phase 3

- Identify and Evaluate Alternate Design for Preferred Solution
- Complete Environmental Inventory and Impact Assessment
- Identify Preferred Design

Phase 4

- Project Documentation (Environmental Study Report)
- Issue Notice of Study Completion

Phase 5

- Phase Project Implementation (Design and Construction)

**Phase 1 and 2 completed
as part of Peel's Long
Range Transportation
Master Plan**

PIC No.1
February 9, 2017

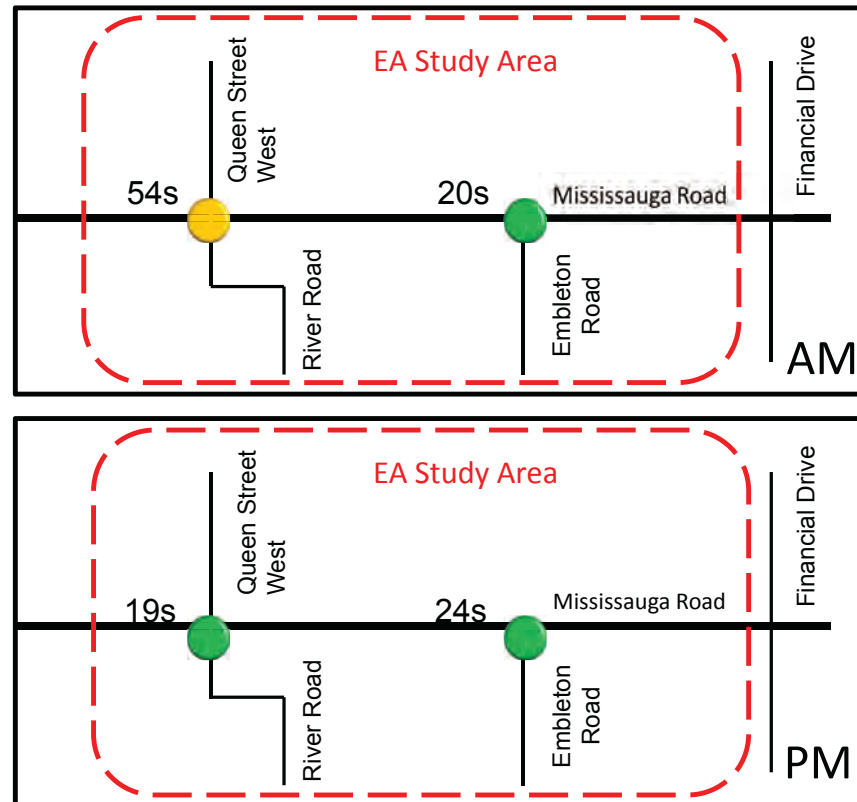
PIC No.2
Fall 2017

Existing* Traffic Conditions

- ➔ Midblock traffic volumes approach or exceed capacity at some locations
- ➔ Intersections operate well during peak hours with delays for some turning movements
- ➔ Potential safety concerns – discontinuous active transportation facilities, some pavement markings not visible under dark and wet condition, poor visibility of street name signs, gaps for unsignalized intersections



Traffic Congestion



* Based on 2015 traffic data

Legend

S

Represents the number of seconds that a driver is delayed at the signalized intersection



Represents congested conditions with slow operating speeds, high delays, and extensive queues at intersections

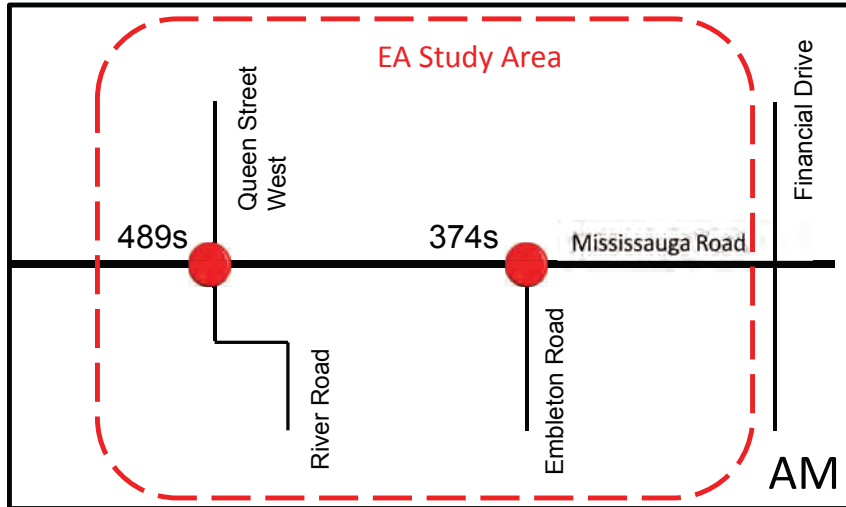


Represents moderate congestion where small increases in volume can reduce operating speeds and increase delays and queues at intersections

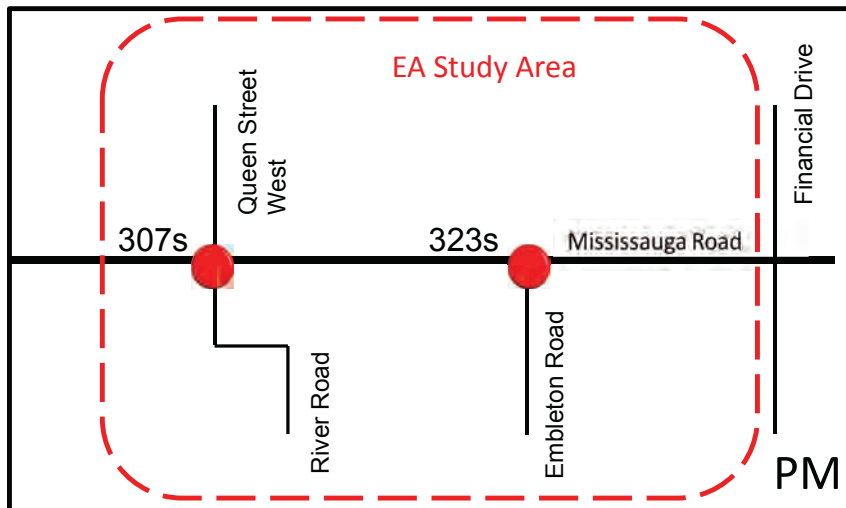
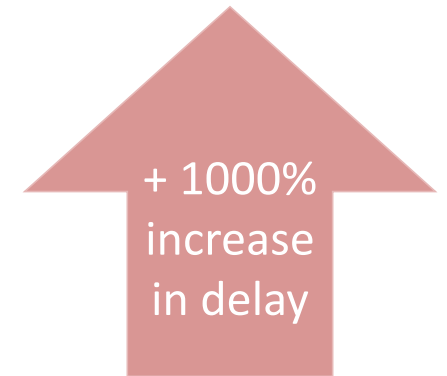


Represents stable traffic flow conditions with modest reduction in operating speeds and minimal delays at intersections

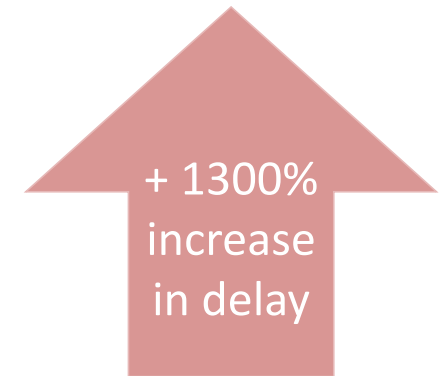
Future (2031) Conditions – No Improvements



→ Delay from Queen Street West to Financial Drive would be **over 14 minutes** in the morning peak hour.



→ Delay from Queen Street West to Financial Drive would be **over 10 minutes** in the afternoon peak hour.



Legend

S Represents the number of seconds that a driver is delayed at the signalized intersection



Represents congested conditions with slow operating speeds, high delays, and extensive queues at intersections



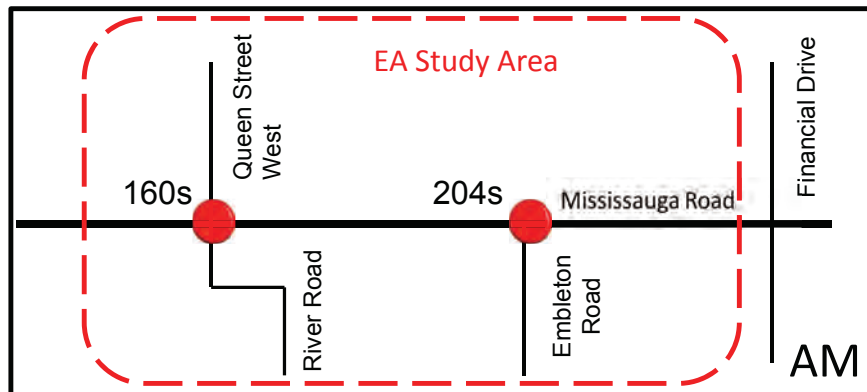
Represents moderate congestion where small increases in volume can reduce operating speeds and increase delays and queues at intersections



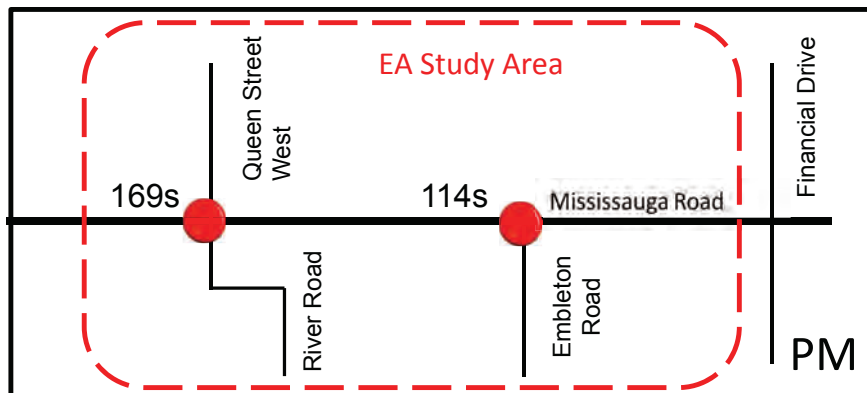
Represents stable traffic flow conditions with modest reduction in operating speeds and minimal delays at intersections

Future (2031) Conditions – With Improvements

- Findings consistent with 2012 Long Range Transportation Master Plan
- Midblock traffic volumes forecast to exceed capacity, even with six (6) lanes
- Significant reduction in driver delays at intersections with widening to 6 lanes
- Retaining four (4) lane crossing over Credit River would significantly deteriorate operations



→ With improvements delay in the **morning peak hour** would be decreased by **over 8 minutes**.



→ With improvements delay in the **afternoon peak hour** would be decreased by **over 5 minutes**.



Legend

- S** Represents the number of seconds that a driver is delayed at the signalized intersection
- Red Circle** Represents congested conditions with slow operating speeds, high delays, and extensive queues at intersections
- Yellow Circle** Represents moderate congestion where small increases in volume can reduce operating speeds and increase delays and queues at intersections
- Green Circle** Represents stable traffic flow conditions with modest reduction in operating speeds and minimal delays at intersections

Existing and Future Transit Initiatives

- Brampton Transit currently operates one bus route that extends through the study area - Route 60 Mississauga Road.



Active Transportation



- The Region of Peel Active Transportation Master Plan recommends pedestrian and cycling facilities throughout the corridor in the form of sidewalks, multi-use trails, and/or segregated bike lanes.

Promotes mobility, walkability and various modes of transportation



Environmental Inventories

The following environmental inventories are being completed for the Mississauga Road Corridor:



Natural Environment

Aquatic Environment

- Two Watercourses in the study area:
 - ➔ Credit River main branch – Cool/warmwater watercourse
 - ➔ Unnamed Intermittent Tributary – Does not provide fish habitat
- Fish Species: 62 species are reported in the Credit River watershed including:
 - ➔ American Brook Lamprey
 - ➔ American Eel
 - ➔ Atlantic Salmon
 - ➔ Salmonidae family including Rainbow Trout, Brown Trout, and Coho Salmon



Credit River Crossing



Unnamed Tributary

Review Existing Conditions drawing which highlights the natural environment constraints

Natural Environment



Natural Sciences

- Breeding Bird Study was completed:
 - ➔ 33 species were identified
 - ➔ Barn Swallow and Chimney Swift were reported
 - ➔ Nests reported under the Credit River Bridge – 11 Cliff Swallow and 1 Barn Swallow
- An Ecological Land Classification analysis was completed:
 - ➔ No Species At Risk plants were identified
- Significant Natural Areas
 - ➔ Provincially Significant Wetland identified within study area



Cliff Swallow Nests under Credit River Bridge



Barn Swallow



Cliff Swallow



Chimney Swift

Natural Environment



Natural Sciences

- Ministry of Natural Resources and Forestry (MNR) reported the following confirmed Species At Risk in the study area - 2 plant species, and 4 birds species:
 - Bitternut – endangered
 - American chestnut – endangered
 - Eastern Meadowlark – threatened
 - Bobolink – threatened
 - Chimney Swift – threatened
 - Barn Swallow – threatened
- MNR also lists an additional 3 mammal species, 2 bird species and one invertebrate could potentially occur in the study area:
 - Eastern Small-footed Myotis – threatened
 - Little Brown Myotis – endangered
 - Northern Myotis – endangered



Eastern Meadowlark



Eastern Small-footed Myotis



Little Brown Myotis

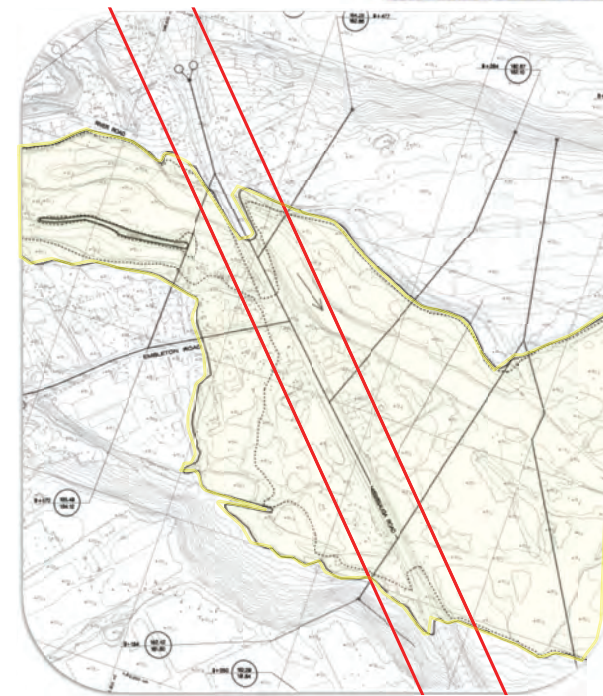
Hydrology and Hydraulics / Stormwater Management





- ➔ The Credit River meander belt (the movement of the river) width was determined to be 140m
- ➔ Mississauga Road drains to both the Credit River and Levi Creek
- ➔ Existing road storm sewer system will be utilized with upgrades as required
- ➔ Credit River bridge floods during large storm events (e.g. Regulatory Storm - Hurricane Hazel)
- ➔ The Credit Valley Conservation Authority requires the following stormwater management design criteria to be achieved:
 - ➔ Water quality treatment of road runoff; and
 - ➔ Infiltration of some road runoff to contribute to groundwater recharge



Credit River Crossing



-  Study Limits
-  Flood lines

**Credit River
Flood Limits**

Stage 1 Archaeological Assessment (AA)

A Stage 1 AA was completed for the study corridor, some locations were identified requiring a Stage 2 AA.



No potential for archaeological resources due to slope and ditch – looking north adjacent to the Lionshead Golf Course



No potential for archaeological resources due to road, paved shoulder and slope – looking north at Embelton Road



Area of archaeological potential - looking south, south of Embelton Road

Built Heritage and Cultural Landscape Assessment

The Built Heritage and Cultural Landscape Assessment determined that there were 10 built heritage properties and 1 cultural landscape along the study corridor.



Designated Built Heritage Resources
McMurchy Woolen Mill



Listed Cultural Heritage
Landscape River Road



Designated Built Heritage Resources
Huttonville United Church

Problem and Opportunity Statement – Refinement



Based on a review of existing and future conditions, as well as preliminary consultation with stakeholders, it has been determined that improvements are needed along the Mississauga Road corridor. The specific problems and opportunities to be addressed are as follows:

- existing and future traffic congestion;
- accommodation of transit;
- roadway geometrics;
- pavement condition;
- pedestrian and cyclists facilities,
- intersection operations;
- traffic, pedestrian and cyclist safety;
- drainage deficiencies and opportunities for stormwater management; and
- accommodation of future municipal services and utilities within the ultimate right-of-way.

Alternative Solutions

Seven alternative solutions were developed to address the problem statement

1. DO NOTHING

- No improvements
- Continue regular maintenance

2. IMPROVE OTHER ROADS

- Add capacity to adjacent parallel roads to accommodate traffic

3. TRANSIT INFRASTRUCTURE IMPROVEMENTS

- Improve transit infrastructure to support Brampton Bus Rapid Transit Services and address capacity requirements

4. ACTIVE TRANSPORTATION (AT) INFRASTRUCTURE IMPROVEMENTS

- Improve AT infrastructure to support Region of Peel's Active Transportation Master Plan

5. TRAVEL DEMAND MANAGEMENT

Encourage and support change in travel behaviour to reduce peak travel demand by:

- Promoting car-pooling and possible HOV
- Promoting flexible work hours, increasing active transportation trips (biking/walking)

6. WIDEN MISSISSAUGA ROAD

- Addition of through traffic lanes including intersection improvements, to increase traffic capacity of the corridor

7. COMBINATION

Combination of:

- Improve transit services
- Improve AT
- Travel Demand Management
- Widen Mississauga Road

Note: Alternatives 1 and 2 were eliminated as part of Peel's Long Range Transportation Plan Master Plan process as well as the traffic analysis completed and were subsequently not assessed.

Evaluation Criteria



Natural Environment

- Wetlands and Vegetation
- Wildlife Habitat
- Species at Risk
- Groundwater
- Fisheries and Water Quality
- Flooding, Erosion and Water Quality

Social Environment

- Land Use
- Noise
- Archaeology and Cultural Heritage Resources
- Agricultural
- Access Considerations
- Utilities
- Construction Disruptions

Health*

- Active Modes of Transportation
- Accessibility (AODA)
- Air Quality

Transportation

- Safety
- Travel Delay/ Traffic Capacity
- Transit

Cost

- Capital Cost

Technical

- Constructability
- Adherence to Applicable Design Standards

Transportation Plans and Policies

- Compatibility with Regional and City Transportation Plans and Policies

*Utilizes the Environmental Assessment Health Criteria, developed in partnership with Peel Health

Alternative Solutions Assessment

	3. TRANSIT INFRASTRUCTURE IMPROVEMENTS	4. ACTIVE TRANSPORTATION (AT) INFRASTRUCTURE IMPROVEMENTS	5. TRAVEL DEMAND MANAGEMENT	6. WIDEN MISSISSAUGA ROAD	7. COMBINATION
Natural Environment	<ul style="list-style-type: none"> Minor impacts dependent on the scope of the transit improvements implemented 	<ul style="list-style-type: none"> Minor impacts dependent on the scope of the transit AT improvements implemented 	<ul style="list-style-type: none"> No impacts 	<ul style="list-style-type: none"> Potential for minor impacts but can be mitigated with established practices and guidelines 	<ul style="list-style-type: none"> Potential for minor impacts but can be mitigated with established practices and guidelines
Social Environment	<ul style="list-style-type: none"> Potential for minor impacts dependent on the scope of the transit improvements implemented 	<ul style="list-style-type: none"> Potential for minor impacts dependent on the scope of the AT improvements implemented 	<ul style="list-style-type: none"> Limited impacts to land use and other social factors 	<ul style="list-style-type: none"> Potential for minor impacts associated with widening and property acquisition 	<ul style="list-style-type: none"> Potential for minor impacts associated with widening and property acquisition
Health	<ul style="list-style-type: none"> Minor improvements to AT infrastructure, AODA requirements, and air quality 	<ul style="list-style-type: none"> Significant opportunity to improve AT infrastructure, AODA requirements, and air quality 	<ul style="list-style-type: none"> No opportunity for improvements to AT infrastructure, AODA requirements, and air quality 	<ul style="list-style-type: none"> Opportunity to improve AT infrastructure, AODA requirements, and air quality 	<ul style="list-style-type: none"> Significant opportunity to improve AT infrastructure, AODA requirements, and air quality

Most Preferred

Neutral

Least Preferred

Alternative Solutions Assessment

	3. TRANSIT INFRASTRUCTURE IMPROVEMENTS	4. ACTIVE TRANSPORTATION (AT) INFRASTRUCTURE IMPROVEMENTS	5. TRAVEL DEMAND MANAGEMENT	6. WIDEN MISSISSAUGA ROAD	7. COMBINATION
Transportation	<ul style="list-style-type: none"> Increase in traffic congestion associated with increase in traffic volume but potential to improve transit 	<ul style="list-style-type: none"> Increase in traffic congestion associated with increase in traffic volume but not potential to improve transit 	<ul style="list-style-type: none"> Increase in traffic congestion associated with increase in traffic volume but not potential to improve transit 	<ul style="list-style-type: none"> Opportunity to improve traffic congestion, corridor capacity and transit infrastructure 	<ul style="list-style-type: none"> Significant opportunity to improve traffic congestion, corridor capacity and can greatly improve transit infrastructure
Cost	<ul style="list-style-type: none"> Moderate capital cost 	<ul style="list-style-type: none"> Moderate capital cost 	<ul style="list-style-type: none"> Minimal capital cost 	<ul style="list-style-type: none"> Higher capital cost associated with improvements 	<ul style="list-style-type: none"> Higher capital cost associated with improvements
Technical	<ul style="list-style-type: none"> Some constructability concerns and unable to upgrade corridor to new standards 	<ul style="list-style-type: none"> No constructability concerns and able to upgrade some aspects of corridor to new standards 	<ul style="list-style-type: none"> No constructability concerns and unable to upgrade corridor to new standards 	<ul style="list-style-type: none"> Many constructability concerns and able to upgrade some aspects of corridor to new standards 	<ul style="list-style-type: none"> Many constructability concerns and able to upgrade some aspects of corridor to new standards
Transportation Plans and Policies	<ul style="list-style-type: none"> Complies with some aspects of City and Region planning documents 	<ul style="list-style-type: none"> Complies with some aspects of City and Region planning documents 	<ul style="list-style-type: none"> Complies with some aspects of City and Region planning documents 	<ul style="list-style-type: none"> Complies with of City and Region planning documents 	<ul style="list-style-type: none"> Complies with of City and Region planning documents

Most Preferred



Neutral



Least Preferred

Preliminary Recommended Alternative Solution



The preliminary recommended alternative solution, developed in consultation with Agencies, is Alternative 7: A combination of alternatives 3-6, as follows:

- 3. Transit Infrastructure Improvements**
- 4. Active Transportation Improvements**
- 5. Travel Demand Management**
- 6. Widen Mississauga Road including additional through lanes and intersection improvements**

A combination of Alternative 3 - 6 will address the problem statement developed for the Mississauga Road corridor, while minimizing environmental impacts and supporting the **Region's 2015-2035 Strategic Plan and Term of Council Priorities**

The Preliminary Recommended Alternative is in support of the Region's commitment to a multi-modal approach

Constructing for Today and Planning for Tomorrow



Road Widening and Reconstruction:

- Mississauga Road: 300m north of Williams Pkwy to 330m north of Bovaird Drive
- Bovaird Drive 300m west of Mississauga Road to 530m east of Mississauga Road
- Low Impact Development system along east side of Mississauga Road Geotextile reinforced retaining wall along Huttonville Creek

Anticipated Construction Timelines:

- Start: June 2016
- Finish: Winter 2017



Next Steps

- Review and confirm preferred planning alternatives and assessment in light of comments received from the public and other stakeholders
- Complete Environmental Inventory
- Develop alternative design concepts
- Complete detailed impact analysis
- Public Information Center # 2 - to be held in Fall 2017
- Prepare and File Environmental Study Report

Please complete a comment sheet:

By Mail: **Gino Dela Cruz, P. Eng.**
Project Manager, Infrastructure
Programming & Studies
Region of Peel
10 Peel Centre Drive, Suite B, 4th Floor
Brampton, On L6T 4B9

By Phone: Tel.:905-791-7800 ext.7805
1-888-919-7800 ext. 7805

By Email: E-mail: gino.delacruz@peelregion.ca

Website : www.peelregion.ca/pw/transportation/enviro-assess/ea-mississauga-rd-2proj.htm

**Comment
Deadline is
February 24,
2017**

**Thank you
for your
participation!**

David Sinke, P. Eng.
Consultant Project Manager
Amec Foster Wheeler
3215 North Service Road
Burlington ON L7N 3G2

Tel.: 905-335-2353

E-mail: david.sinke@amecfw.com