

# **Torbram Road Improvements From Queen Street East to Bovaird Drive**

**Municipal Class EA Study**

**Public Information Centre No. 1  
November 16 2017  
6:30 pm – 8:30 pm**

**Please sign in so we can keep you updated on this study**

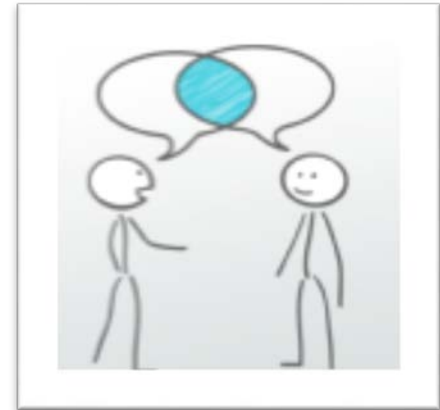


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# Purpose of the Public Information Centre (PIC)

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- Introduce the study and provide an opportunity for the public to review and comment.
- Obtain public input on the:
  - Study planning process being undertaken
  - Study Problem and Opportunity Statement
  - Local issues & constraints affecting the project
  - Alternative & recommended solutions

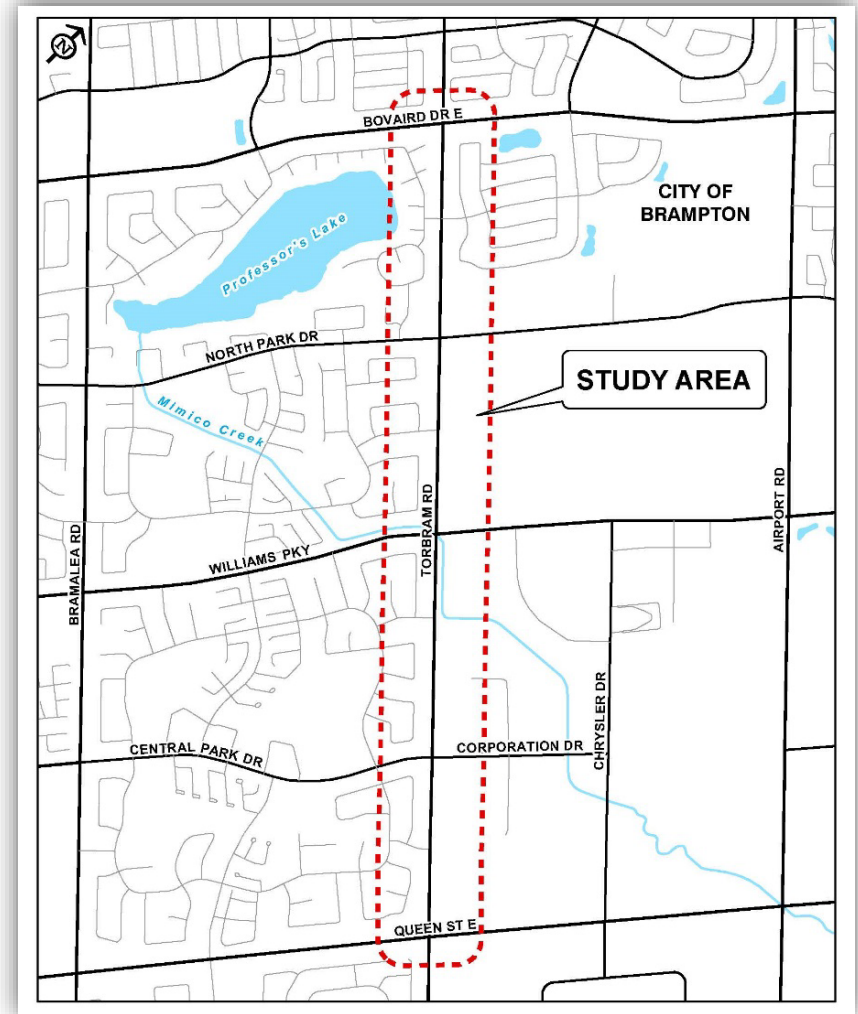


Please submit a comment sheet following your review of the display materials and feel free to speak with staff regarding any questions you may have.



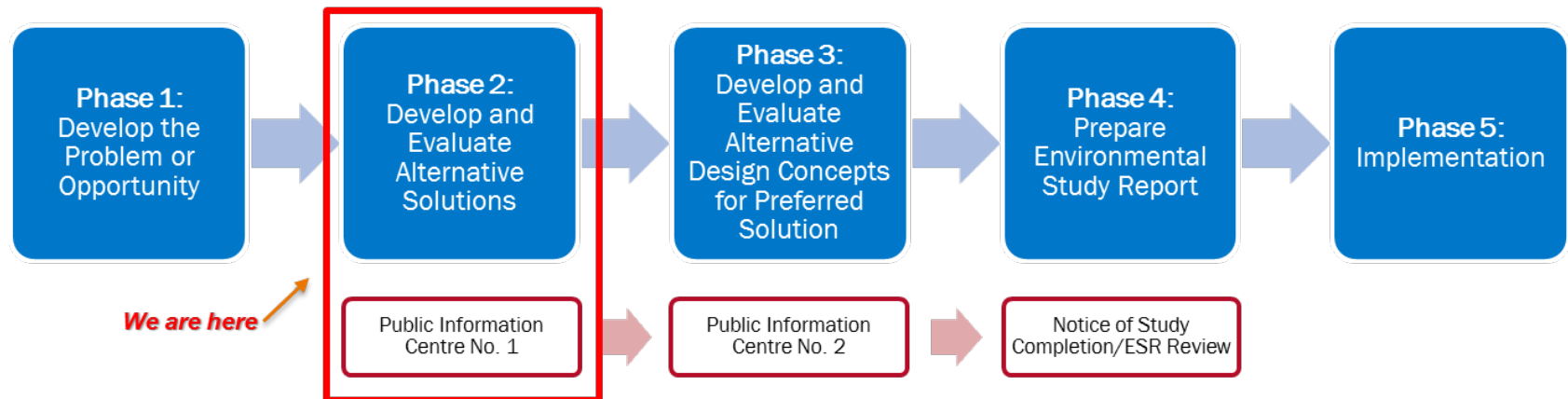
# Study Area

- Four-lane **north-south** minor arterial road:
  - Urban cross section
  - 60 km/h speed limit
  - Ultimate 36 metre right-of-way
- Roadway **drainage via curb and gutter** and storm sewers with **minor ditching** along the west boulevard.
- One major watercourse crossing (**Mimico Creek**) under the intersection of Torbram Road and Williams Parkway.
- **Built up urban area**, with predominantly residential to the west and industrial, commercial and institutional uses to the east.
- Existing and proposed **pedestrian paths** at Bovaird, Blue Diamond, North Park, Williams Parkway, Central Park and Queen Street.



# Schedule 'C' Municipal Class EA

- The Study is being completed in accordance with the **Municipal Class Environmental Assessment**
- **Formal planning process** undertaken prior to **road, water and wastewater** construction projects
- Ensures **all reasonable alternatives** Including **Do Nothing** are considered and that a preferred alternative would have minimal impact on the **natural, social and economic environment**
- Input from the **public, stakeholders and technical agencies** is **essential**



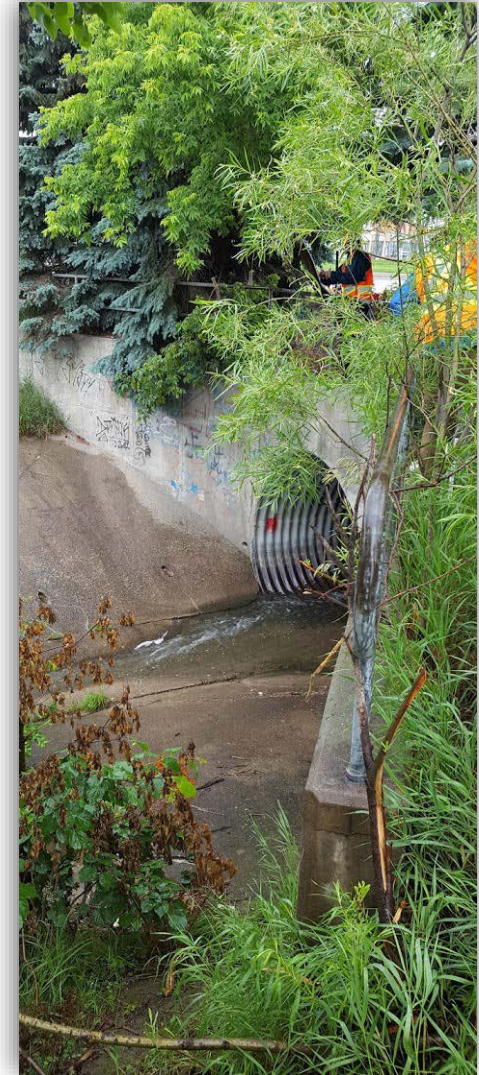
# Transportation Environment

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- Torbram Road is a four-lane, 60 km/h, **north-south minor arterial road** under the jurisdiction of the City of Brampton.
- **7 signalized** and **2 unsignalized** intersections
- Pedestrians accommodated via **sidewalks on both sides**
- Provides access to **major east-west corridors** (Steeles Avenue, Queen Street, Bovaird Drive)
- City of Brampton's 2015 Transportation Master Plan (TMP) identifies:
  - Torbram Road to be widened six lanes by 2021
  - Corridor identified as a future "In Right-of-Way" Cycling Trail
- Intersection improvements identified in previous studies at:
  - Queen Street East
  - Williams Parkway
  - Bovaird Drive East
- Torbram Road is a Brampton Transit "**support corridor**" to the major east-west ZUM routes.

# Roadway Drainage & Stormwater Management

- **Stormwater runoff** from Torbram Road flows from **north to south** and is conveyed by **catchbasins** that empty into the **storm sewer system**.
- The storm sewer system has **three outlets** within the study limits, which discharge to **Mimico Creek**.
- **The Mimico Creek Culvert**
  - Corrugated steel pipe arch located at the Torbram Road / Williams Parkway intersection
  - Appears to be in poor structural condition and undersized based on previous studies
  - Recommended to be replaced by 2 culverts as part of the William Parkway EA
- No current **storm water quality** and/or **quantity controls** in place (to be developed in consultation with TRCA and MNR)



# Natural Environment

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- One major watercourse, **Mimico Creek**, crosses the study corridor under the Williams Parkway and Torbram Road intersection.
  - **Minimal buffer** between the Creek and ROW limit along east side
  - Any disturbance to the concrete channel along west side would require it to be reconstructed to a more **naturalized state**.
- No records of any **Species at Risk** within the study area.
- Approximately **1,300 existing trees** along the corridor. A **tree inventory and preservation plan** will be undertaken as part of the study.
- Natural **heritage features** will be assessed further in Phase 3 to **minimize impacts** and develop appropriate **mitigation measures**.



# Archaeology & Cultural Heritage

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- Only a small portion of the Torbram Road study area retains archaeological potential.
- The **Harrison United Cemetery** (historical cemetery) and **Har Tikvah Synagogue** (designated heritage structure) should be avoided, if possible.
- Additional **Stage 2 and 3 investigations** are required on cemetery lands not previously assessed to confirm the presence of archaeological resources.
- A **Heritage Impact Assessment** may be required for the Synagogue and Cemetery due to the close proximity of the existing ROW

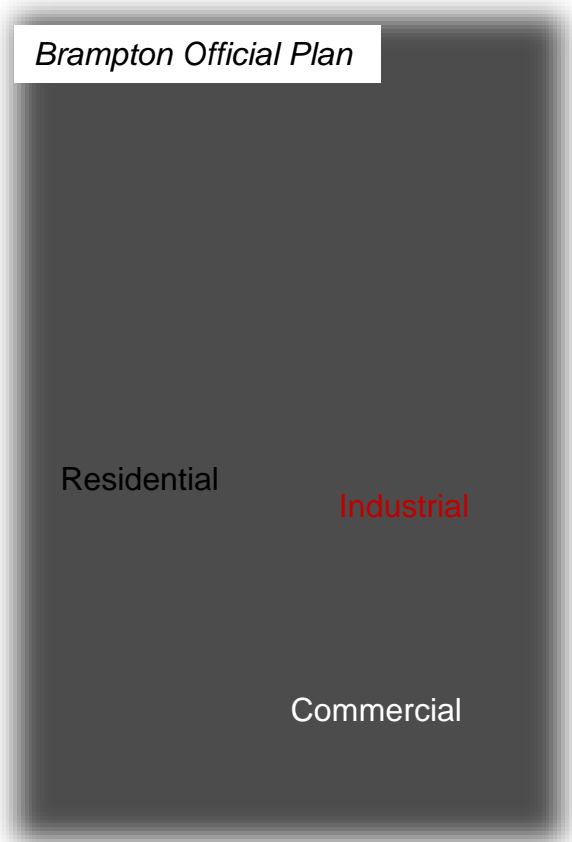




# Socio-Economic Environment

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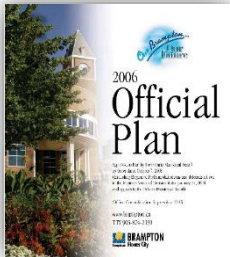
- Urban area composed of primarily **residential communities** to the west and a mix of **employment, institutional, and commercial land uses** to the east.
- Many rear frontage lots have **gates that provide access** to Torbram Road.
- **Bramalea North Industrial area** and the **Lester B. Pearson International Airport (LBPIA) Operating Area** located to the east of the study area.
- Significant **student pedestrian traffic** from schools near Corporation Drive/Central Park Drive.
- A **noise assessment** will be undertaken to determine traffic noise impacts and appropriate mitigation measures.



# Planning and Policy Context

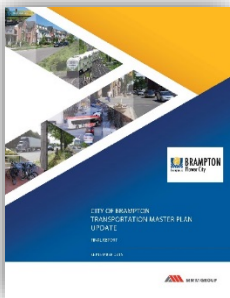
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A number of policies and programs in the below planning documents have helped guide this EA and determine the need and justification for this study.



## City of Brampton Official Plan

- Provides overall framework that guides growth and development in the City
- New infrastructure needs to be provided that recognizes the capacity needs of planned growth



## Transportation Master Plan (TMP)

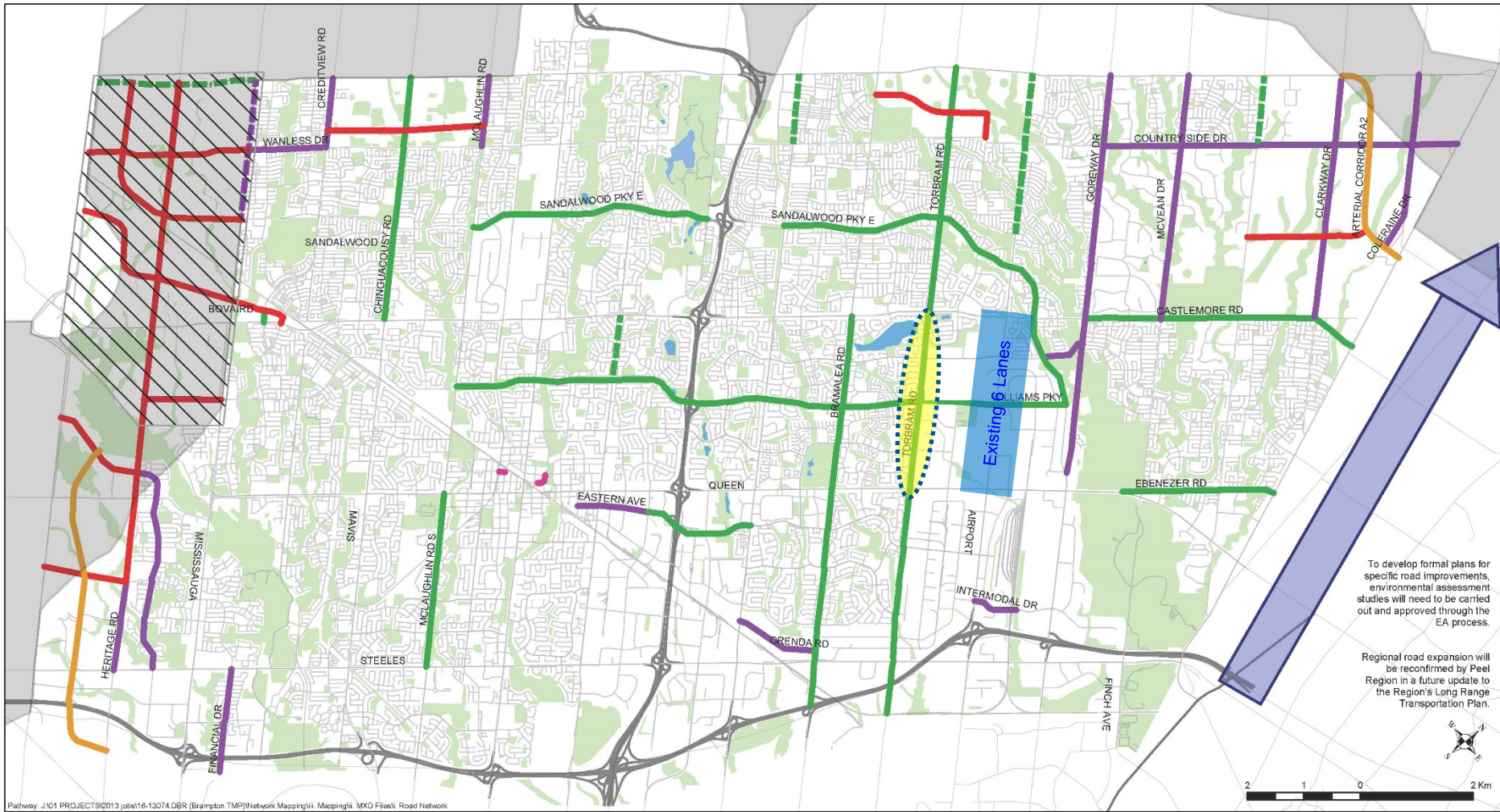
- City undertook an update study in 2015 for their 2009 Transportation and Transit Master Plan
- Identified the need for widening of Torbram Road from a four-lane cross section to a six-lane cross section



## Active Transportation Master Plan (ATMP – under development)

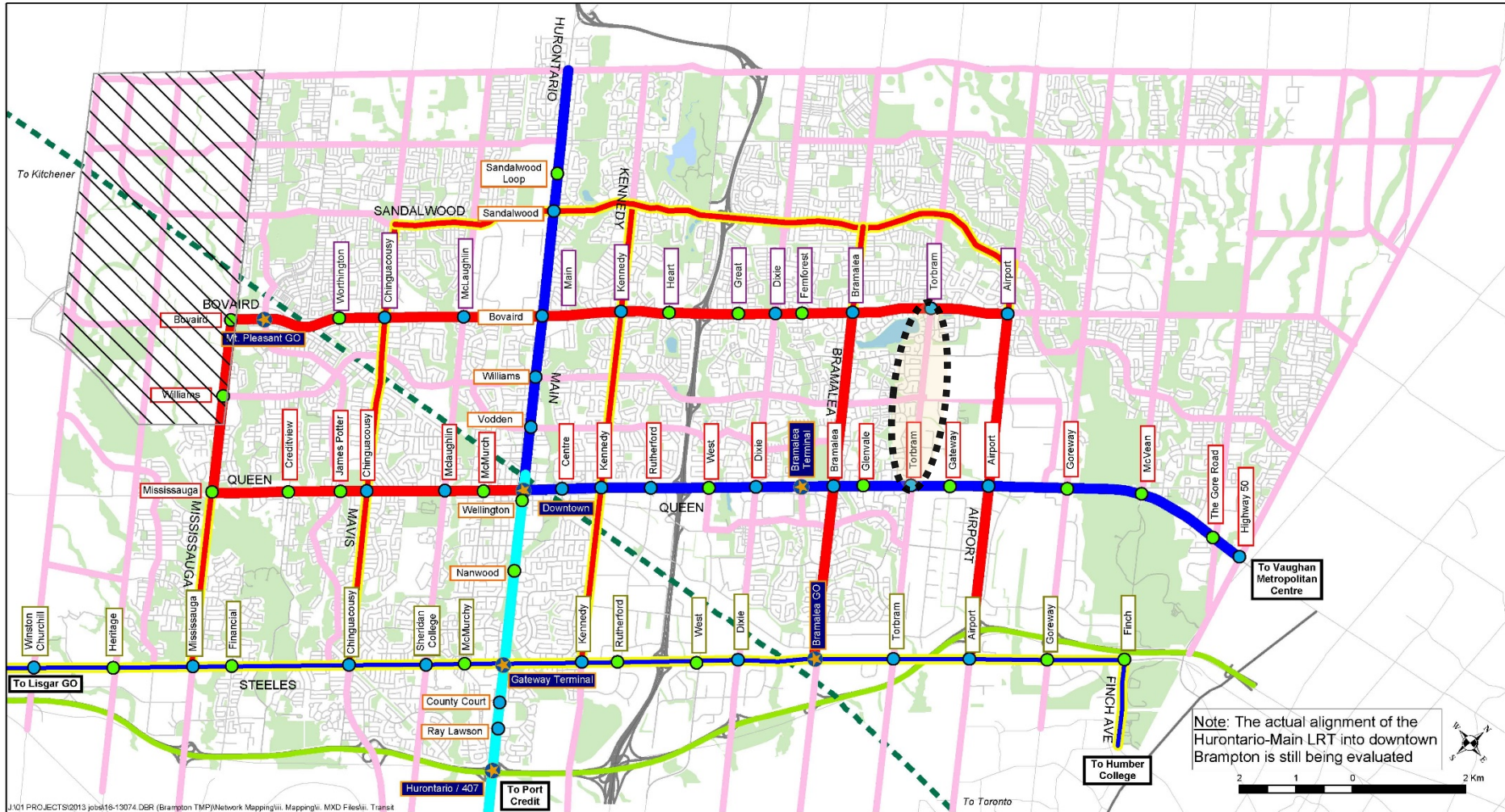
- ATMP defines an implementation strategy for a connected cycling and pedestrian network
- Class EA will consider a range of active transportation facilities

# Road Network Needs to 2041 (City TMP)



 	<b>Legend</b>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: purple; border: 1px solid black; margin-right: 5px;"></span> City Road Expanded to Four Lanes</li> <li><span style="display: inline-block; width: 15px; height: 15px; border-bottom: 2px dashed purple; border: 1px solid black; margin-right: 5px;"></span> City Road Expanded to Four Lanes</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: green; border: 1px solid black; margin-right: 5px;"></span> City Road Expanded to Six Lanes</li> <li><span style="display: inline-block; width: 15px; height: 15px; border-bottom: 2px dashed green; border: 1px solid black; margin-right: 5px;"></span> Regional Road Expanded to Six Lanes</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: magenta; border: 1px solid black; margin-right: 5px;"></span> City Road Extension by Two Lanes</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 1px solid black; margin-right: 5px;"></span> New Road Construction Six Lanes</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: red; border: 1px solid black; margin-right: 5px;"></span> New Road Construction Four Lanes</li> <li><span style="display: inline-block; width: 15px; height: 15px; border-bottom: 2px dashed grey; border: 1px solid black; margin-right: 5px;"></span> Provincial Highway</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: lightgrey; border: 1px solid black; margin-right: 5px;"></span> GTA West Corridor Study Area</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: lightblue; border: 1px solid black; margin-right: 5px;"></span> Highway 427 and Extension</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px dashed black; margin-right: 5px;"></span> Conceptual Road Network for use in the Development Charges Background Study</li> </ul>	<p><b>Figure 21</b>  <b>Recommended</b>  <b>City Road Network</b>  <b>Needs to 2041</b>  <b>11</b></p>
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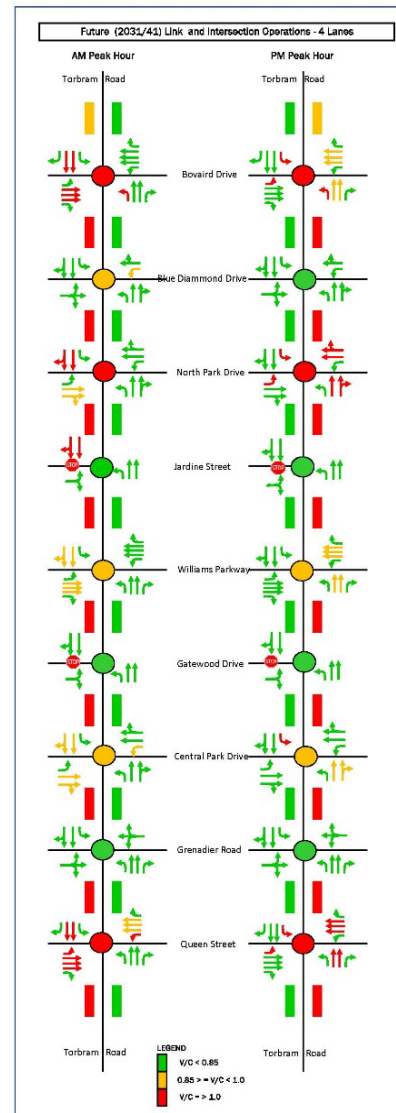
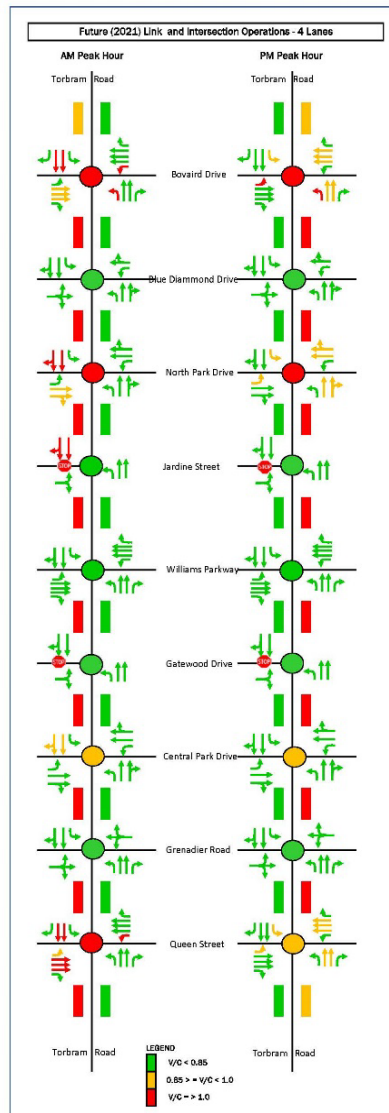
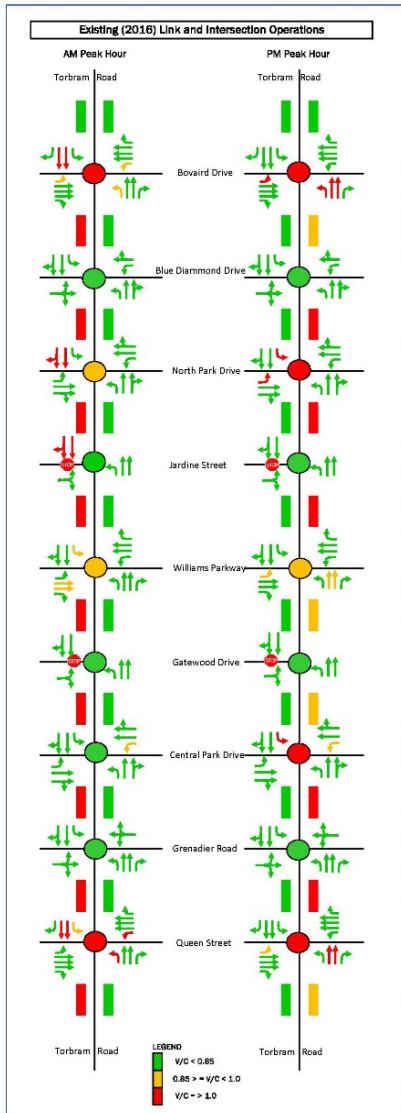
# Recommended Rapid Transit to 2041 (City TMP)



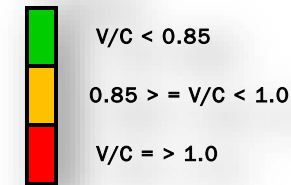
U:\01 PROJECTS\2013 jobs\16-13074 DGR (Brampton TMP)\Network Mapping\vi. Mapping\vi. MXD Files\li. Transit

**Figure 25**  
**Recommended Rapid Transit Implementation by 2041**

# Existing (2016) & Future (2021 & 2031/41) Traffic Conditions ~ 4 Lanes



## LEGEND



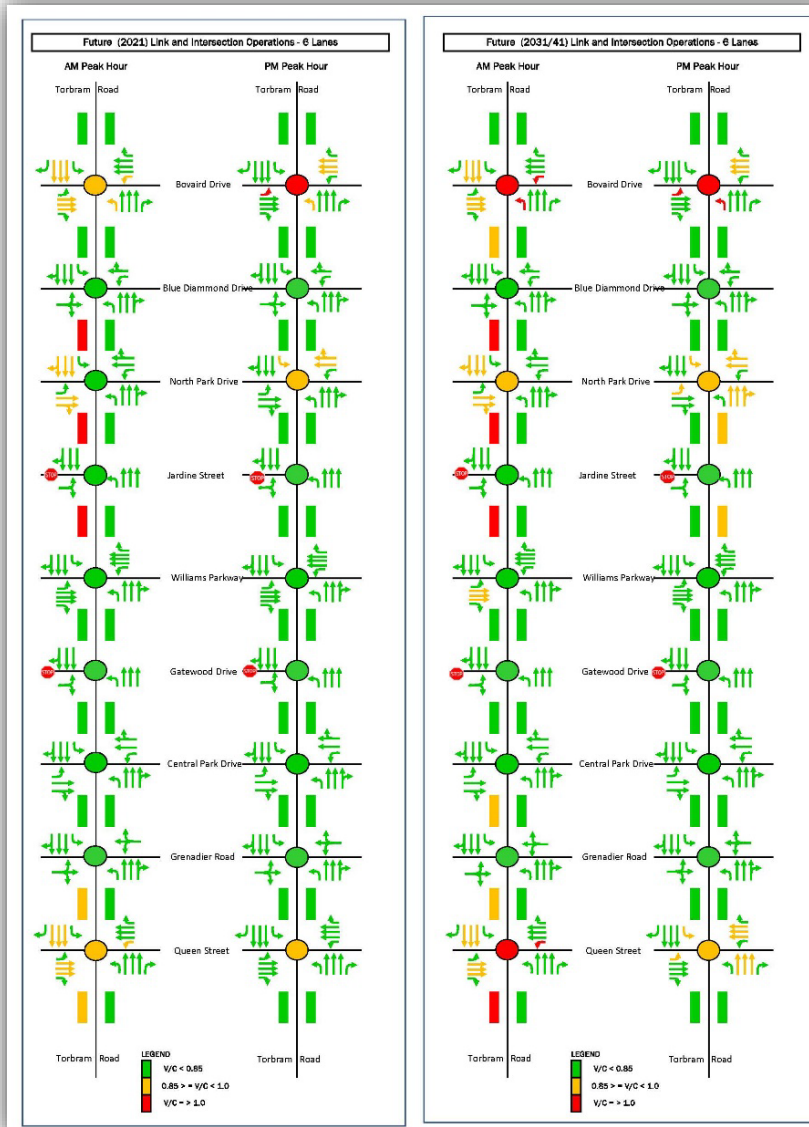
## Link Sections

- NB in AM Peak Hour and SB in PM Peak hour are operating at **over-capacity** conditions

## Intersections

- Majority of major signalized intersections are operating at **approaching capacity** or **over-capacity** conditions
- NB and SB through movements are operating at **approaching capacity** or **over-capacity** conditions

# Future (2021 & 2031/2041) Traffic Conditions ~ 6 Lanes



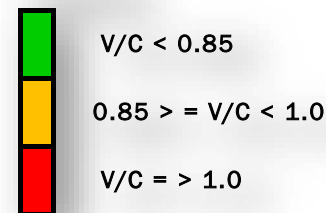
## Link Sections

- Majority of Link Sections Operate below Capacity Conditions

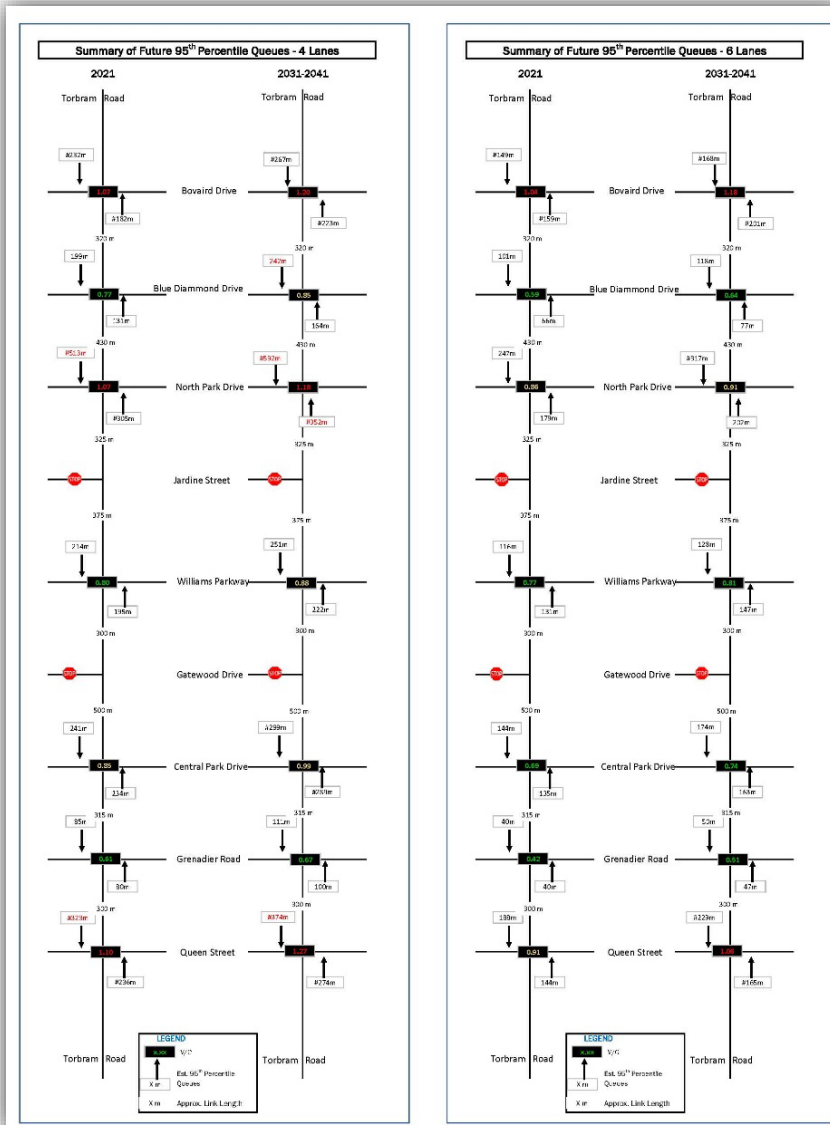
## Intersections

- Majority of Signalized Intersections Operate below Capacity Conditions
- Dual NB and SB Left Turn Lanes are not required at Williams Pkwy Intersection
- Exclusive NB Right Turn Lanes are not required at Williams Pkwy and Grenadier Rd Intersections

## LEGEND



# Future (2021 & 2031/41) Traffic Conditions ~ Queue Lengths



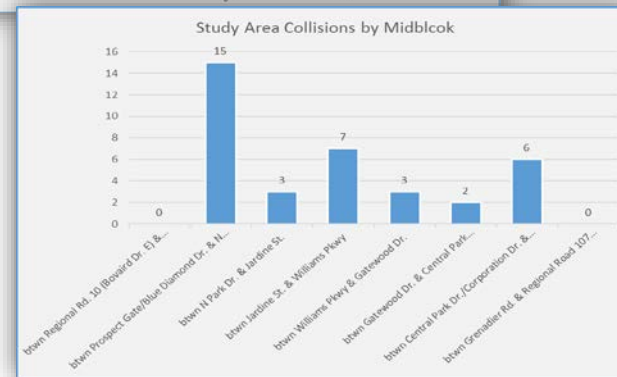
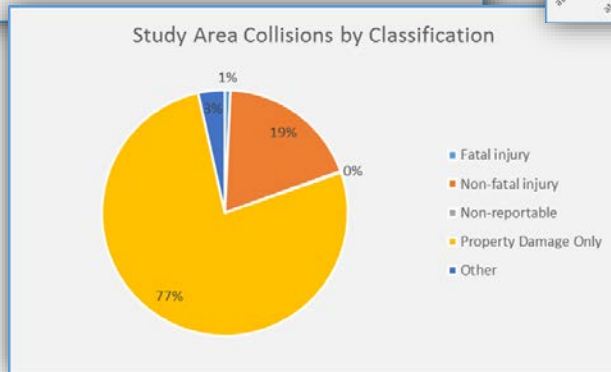
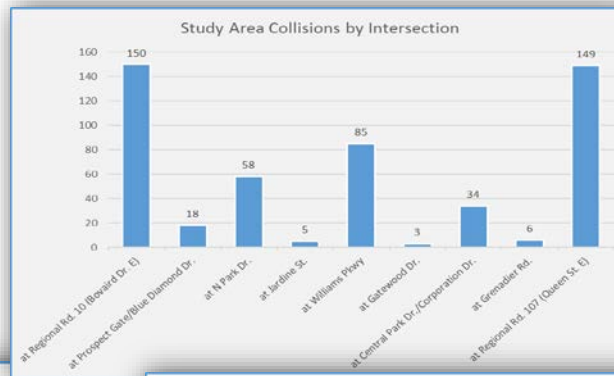
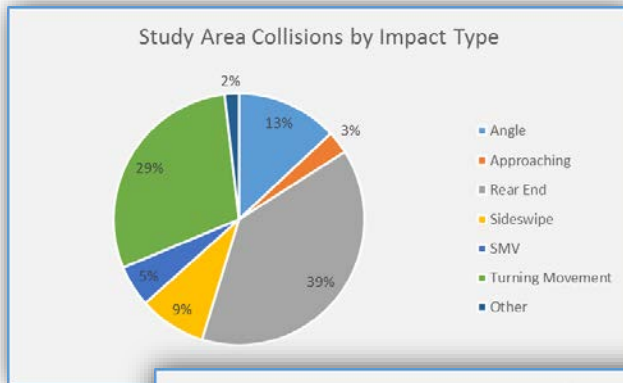
## Torbram Road - 4 Lanes

- Estimated queues are longer than link lengths at some sections in SB direction
- Majority of intersections are operating with no reserve capacity

## Torbram Road - 6 Lanes

- Estimated queue lengths are within link lengths
- Majority of intersections are operating with reserve capacity

# Collision Summary (2012–2016)



- A total of **544 collisions** (508 intersection and 36 midblock) over a **5-year historical period** (2012 to 2016)
  - Intersections of Torbram Road with **Bovard Drive and Queen Street** experienced a significant number of collisions
  - The midblock section of Torbram Road between **Prospect Gate and North Park Drive** contained the highest number of collisions
- **39%** were **rear end collisions**
- **29%** were **turning movement collisions**
- **77%** of collisions resulted in property damage only
- Four **Fatal Injury Collisions** occurred within the study area



# Study Problem/Opportunity Statement

Torbram Road requires additional north-south traffic capacity to address existing and future traffic operational deficiencies.

- Based on the recommendations of the City of Brampton's Transportation Master Plan
- Confirmed through a corridor traffic analysis completed as part of the study

In addressing the traffic requirements, this study provides an opportunity to:

- Identify improvements to active transportation facilities;
- Incorporate transit initiatives; and,
- Accommodate roadway drainage and stormwater management needs.



Identify Active Transportation Improvements



Incorporate Transit Initiatives



Roadway Drainage and Stormwater Needs

# Why Limit Traffic Congestion?

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- Increased **travel time** and **delays**
- **Impeded access** to adjacent neighbourhoods
- Longer **response time** for emergency vehicles
- Higher **rate of accidents** due to driver frustration
- **Economic costs** for businesses
  - Loss of productivity
  - Inability to access local business and resources
- Increased **carbon dioxide (CO<sub>2</sub>) emissions** and **noise pollution** from idling cars
- Increased **fuel consumption**.



# Alternative Solutions



The following alternative solutions were developed to address the issues identified for the **Torbram Road Corridor**.

**1 Do Nothing**  
The existing transportation system is not changed (this alternative will form a baseline for comparison of alternative solutions)

**2 Incorporate Travel Demand Management Measures**  
Incorporate TDM measures such as carpooling, ridesharing, flexible work scheduling, etc.

**3 Localized Intersection and Operational Modifications**  
Improve traffic operations through localized intersection and operational modifications only (e.g. traffic signal timing improvements, adding through and turn lanes, etc.)

**4 Improve Accommodations for Other Modes of Travel along the Corridor**  
Accommodate other modes of travel through walking, cycling, and transit improvements

**5 Undertake Improvements to Other Adjacent (Parallel) Corridors**  
Undertake capacity improvements to other corridors (e.g. Airport Road, Bramalea Road) parallel to Torbram Road.

**6 Limit Area Development**  
Restrict development of surrounding lands now and in the future

**7 Widen Torbram Road by Adding Traffic Lanes**  
Increase capacity along Torbram Road through additional lanes

# Evaluation Criteria



*To evaluate the alternative solutions, a number of criteria were used (that represent the broad definition of the environment as described in the Environmental Assessment Act)*

Transportation & Technical	Cultural Environment	Natural Environment	Socio-Economic Environment	Costs
<ul style="list-style-type: none"> <li>• Planning Policies and Objectives</li> <li>• Safety</li> <li>• Traffic Operations / Performance</li> <li>• Active Transportation</li> <li>• Transit</li> <li>• Drainage and Stormwater</li> </ul>	<ul style="list-style-type: none"> <li>• Archaeological Resources</li> <li>• Built Heritage/ Cultural Landscape</li> <li>• Aboriginal / First Nations Communities</li> </ul>	<ul style="list-style-type: none"> <li>• Terrestrial Wildlife and Habitat</li> <li>• Aquatic Wildlife and Habitat</li> <li>• Ground/Surface Water Quality and Supply</li> </ul>	<ul style="list-style-type: none"> <li>• Construction Impacts</li> <li>• Compatibility with adjacent land use</li> <li>• Property Impacts</li> <li>• Noise and air quality</li> </ul>	<ul style="list-style-type: none"> <li>• Capital (Construction)</li> <li>• Operation and Maintenance</li> <li>• Property Cost</li> <li>• Utility Relocation Costs</li> </ul>

The alternative solutions were evaluated by determining each alternative's impacts to these criteria.

Alternative Solution	Summary of “Pros”	Summary of “Cons”	Recommendation
1. Do Nothing	<ul style="list-style-type: none"> <li>✓ No impacts to the cultural and natural environments and property along Torbram Road</li> <li>✓ No capital costs</li> </ul>	<ul style="list-style-type: none"> <li>✗ Does not accommodate projected traffic demand</li> <li>✗ Does not support transit and active transportation</li> <li>✗ Does not support key planning initiatives (i.e. TMP)</li> <li>✗ Significant negative impacts from noise and air quality over time</li> </ul>	<p><b>Do not carry forward.</b></p> <p>This alternative does not adequately address the problem statement.</p>
2. Incorporate TDM Measures	<ul style="list-style-type: none"> <li>✓ Supports planning initiatives</li> <li>✓ Low to no capital costs</li> <li>✓ No direct impacts to cultural and natural environments or property</li> </ul>	<ul style="list-style-type: none"> <li>✗ TDM usually initiated at development stage</li> <li>✗ Projected traffic demand not adequately addressed</li> <li>✗ Transit and active transportation requirements only partially addressed</li> <li>✗ Negative impacts from noise and air quality over time</li> </ul>	<p><b>Carry forward in conjunction with other Alternatives.</b></p> <p>This alternative only partially addresses the problem statement and should be considered with other alternatives.</p>
3. Localized Intersection and Operational Improvements	<ul style="list-style-type: none"> <li>✓ Reduces potential for impacts to the cultural and natural environments and adjacent property</li> <li>✓ Supports planning initiatives</li> </ul>	<ul style="list-style-type: none"> <li>✗ Projected traffic demand not adequately addressed</li> <li>✗ Transit and active transportation requirements along corridor not addressed</li> <li>✗ Will help offset some impacts to noise and air quality, but will worsen over time</li> <li>✗ Moderate to significant capital costs depending on the measures implemented</li> </ul>	<p><b>Carry forward in conjunction with other Alternatives.</b></p> <p>This alternative only partially addresses the problem statement and should be combined with other alternatives.</p>
4. Accommodations for Other Modes of Travel	<ul style="list-style-type: none"> <li>✓ Supports transit and active transportation</li> <li>✓ Reduces potential for impacts to the cultural and natural environments and adjacent property</li> <li>✓ Supports planning initiatives</li> <li>✓ Low to moderate capital and maintenance costs depending on the measures implemented</li> </ul>	<ul style="list-style-type: none"> <li>✗ Projected traffic demand not adequately addressed</li> <li>✗ Will help offset some impacts from noise and air quality, but will worsen over time</li> <li>✗ Moderate capital costs depending on the measures implemented</li> </ul>	<p><b>Carry forward in conjunction with other Alternatives.</b></p> <p>This alternative only partially addresses the problem statement and should be combined with other alternatives.</p>
5. Improvements to Adjacent (Parallel) Corridors	<ul style="list-style-type: none"> <li>✓ No impacts to the cultural and natural environments and property along Torbram Road</li> <li>✓ No capital costs</li> </ul>	<ul style="list-style-type: none"> <li>✗ Projected traffic demand not adequately addressed. Capacity improvements already planned for Airport Road and Bramalea Road</li> <li>✗ Does not support transit and active transportation on Torbram Road</li> <li>✗ Significant negative impacts from noise and air quality over time on Torbram Road</li> <li>✗ Does not support key planning initiatives (i.e. TMP)</li> </ul>	<p><b>Do not carry forward.</b></p> <p>This alternative does not adequately address the problem statement and is being carried out via other local initiatives.</p>
6. Limit Area Development	<ul style="list-style-type: none"> <li>✓ No impacts to the cultural and natural environments and property along Torbram Road</li> <li>✓ No capital costs</li> </ul>	<ul style="list-style-type: none"> <li>✗ No significant potential for new development in vicinity of the study area</li> <li>✗ Projected traffic demand not addressed.</li> <li>✗ Does not support transit and active transportation</li> <li>✗ Does not support planning initiatives (i.e. TMP)</li> <li>✗ Significant negative impacts from noise and air quality over time</li> </ul>	<p><b>Do not carry forward.</b></p> <p>This alternative does not adequately address the problem statement.</p>
7. Widen Corridor by Adding Traffic Lanes	<ul style="list-style-type: none"> <li>✓ Accommodates projected traffic demand</li> <li>✓ Supports transit requirements</li> <li>✓ Supports local planning initiatives</li> <li>✓ Reduces noise and air quality impacts from traffic congestion</li> </ul>	<ul style="list-style-type: none"> <li>✗ High potential for impacts to the cultural and natural environments and adjacent property</li> <li>✗ Temporary disruption due to construction</li> <li>✗ Significant capital and maintenance costs</li> </ul>	<p><b>Carry forward in conjunction with other Alternatives .</b></p> <p>This alternative only partially addresses the problem statement and should be combined with other alternatives.</p>

The preferred solution to be carried forward for the Torbram Road corridor is a combination of **Alternatives 2, 3, 4 and 7.**

# Preferred Solution

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Based on the evaluation of the alternative solutions, the *preliminary preferred solution for Torbram Road* in the study area is a combination of:

2

## Incorporate Travel Demand Management Measures

Incorporate TDM measures such as carpooling, ridesharing, flexible work scheduling, etc. to reduce traffic overall and specifically during peak hours

3

## Localized Intersection and Operational Modifications

Improve traffic operations through localized intersection and operational modifications only (e.g. traffic signal timing improvements, adding through and turn lanes, etc.)

4

## Improve Accommodations for Other Modes of Travel along the Corridor

Accommodate other modes of travel through walking, cycling, and transit improvements, which may also reduce the number of trips made by car

7

## Widen Torbram Road by Adding Traffic Lanes

Increase traffic capacity along Torbram Road through additional travel lanes

Following confirmation of the preferred solution, the project team will develop “alternative design concepts” to implement the preferred solution. These will be similarly evaluated and presented to the public and technical agencies for comment.

# Next Steps

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- Confirm **Recommended Solution**
- EA Phase 3 ~ **Design Concepts for the Preferred Solution**
- Hold 2<sup>nd</sup> TAC and SAG Meetings
- **Public Information Centre No. 2** (Tentatively Spring 2018)
- Confirm **Recommended Design** for Torbram Road
- Submit **Environmental Study Report** for 30 Day public review
- Proceed to **Detailed Design and Construction**

# Thank You for Attending!

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- Please provide your comments on the study by completing a comment sheet and depositing it in the provided comment dropbox. Alternatively, please email, mail or fax your comments by **December 6, 2017** to the one of the contacts below.
- For further information on the study, please contact:

**Ghaz Mohammad, P.Eng., PMP**  
Project Engineer, Capital Works  
City of Brampton  
8850 McLaughlin Road, Unit 2  
Brampton, ON L6Y 5T1  
P: 905-874-2500  
E: [ghazanfar.mohammad@brampton.ca](mailto:ghazanfar.mohammad@brampton.ca)

**John McGill, P.Eng., PTOE**  
Consultant Project Manager  
Parsons Inc.  
4342 Queen Street, Suite 407  
Niagara Falls, ON L2E 7J7  
P: 905-356-7003 ext. 6411  
E: [john.mcgill@parsons.com](mailto:john.mcgill@parsons.com)