# Traditional Land Acknowledgement

### Durham Region Traditional Land Acknowledgement:

We are currently located on land which has long served as a site of meeting and exchange among the Mississaugas Peoples and is the traditional and treaty territory of the Mississaugas of Scugog Island First Nation. We honour, recognize and respect this nation and Indigenous Peoples as the traditional stewards of the lands and waters on which we meet today.

### City of Toronto Traditional Land Acknowledgement:

The City of Toronto acknowledges that we are on the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. The City also acknowledges that Toronto is covered by Treaty 13 signed with the Mississaugas of the Credit, and the Williams Treaties signed with multiple Mississaugas and Chippewa bands.











# Indigenous Relations at Metrolinx

- In 2018 Metrolinx made a commitment to building positive and meaningful relationships with Indigenous Peoples, communities and customers, in alignment with its strategic objectives
- The Indigenous Relations Office (IRO), established in 2019, has a mandate to:
  - Build and grow relationships with Indigenous Nations, organizations, businesses and customer-residents
  - Provide guidance and support for the development and implementation of organizational-wide policies, processes required for effective engagement
  - Support diversity and inclusion efforts
- In 2020, the IRO became the sole point of contact for Indigenous Nations and works with EPA to coordinate engagement and communication related to all projects
- The IRO is working to identify engagement best practices with each community within Metrolinx's operating area

### **Engagement at a Glance**

- Ensure consistent, timely and transparent communication
- Consider requests for capacity funding
- Ensure participation in Stage
  2+ archaeological fieldwork
- Ensure all archaeological assessments are sent in draft to Nations for review
- Hold regular meetings with Nations







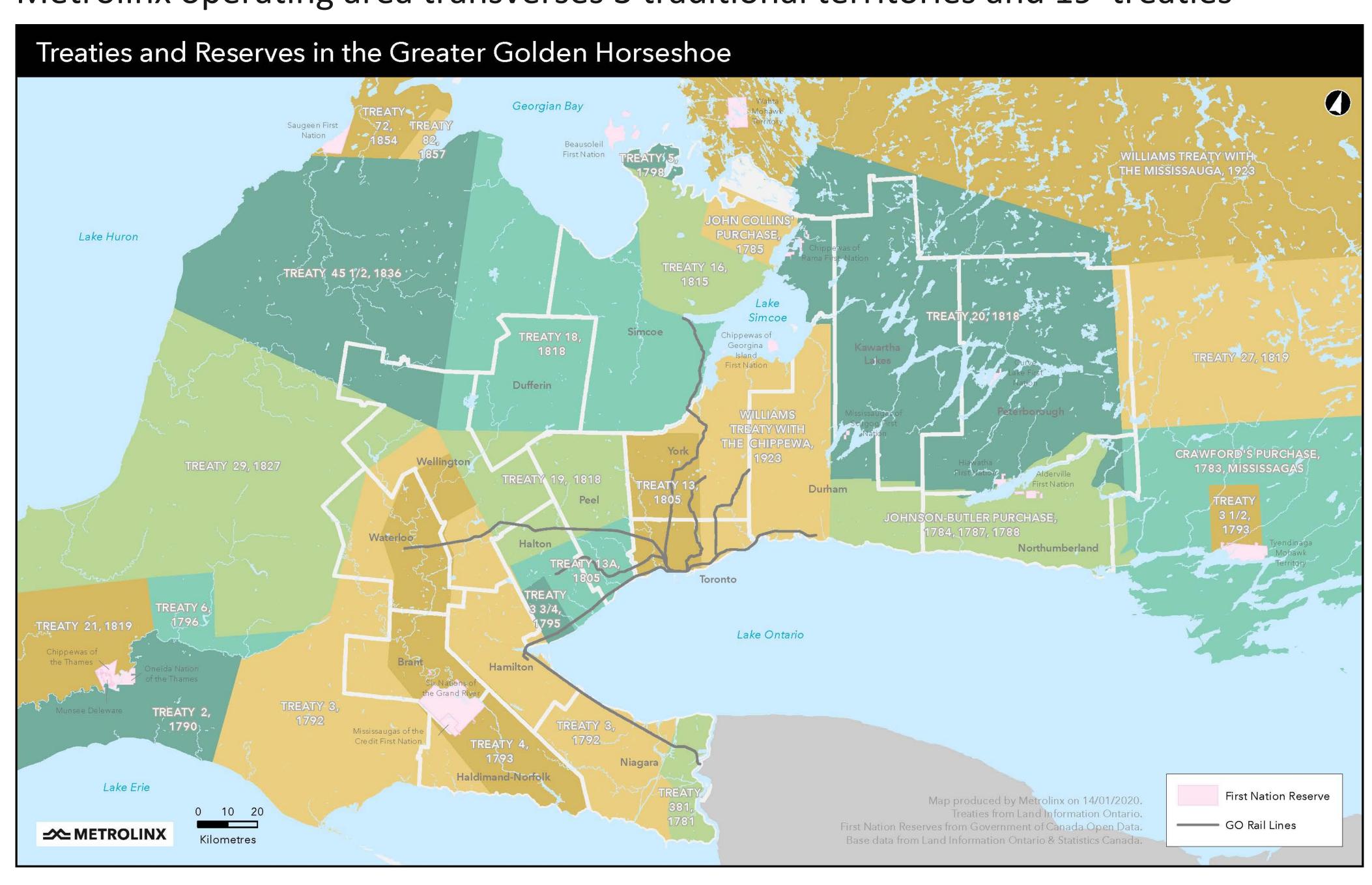






# Expanded & Evolving Landscape

Metrolinx operating area transverses 3 traditional territories and 19 treaties



#### **Did You Know?**

Metrolinx regularly engages with 13 Indigenous Nations:

- Williams Treaties First Nations
- Huron-Wendat Nation
- Mississaugas of the Credit First Nation
- Haudenosaunee Confederacy Chiefs Council
- Six Nations of the Grand River
- Kawartha Nishnawbe First Nation
- Métis Nation of Ontario















# Study Area







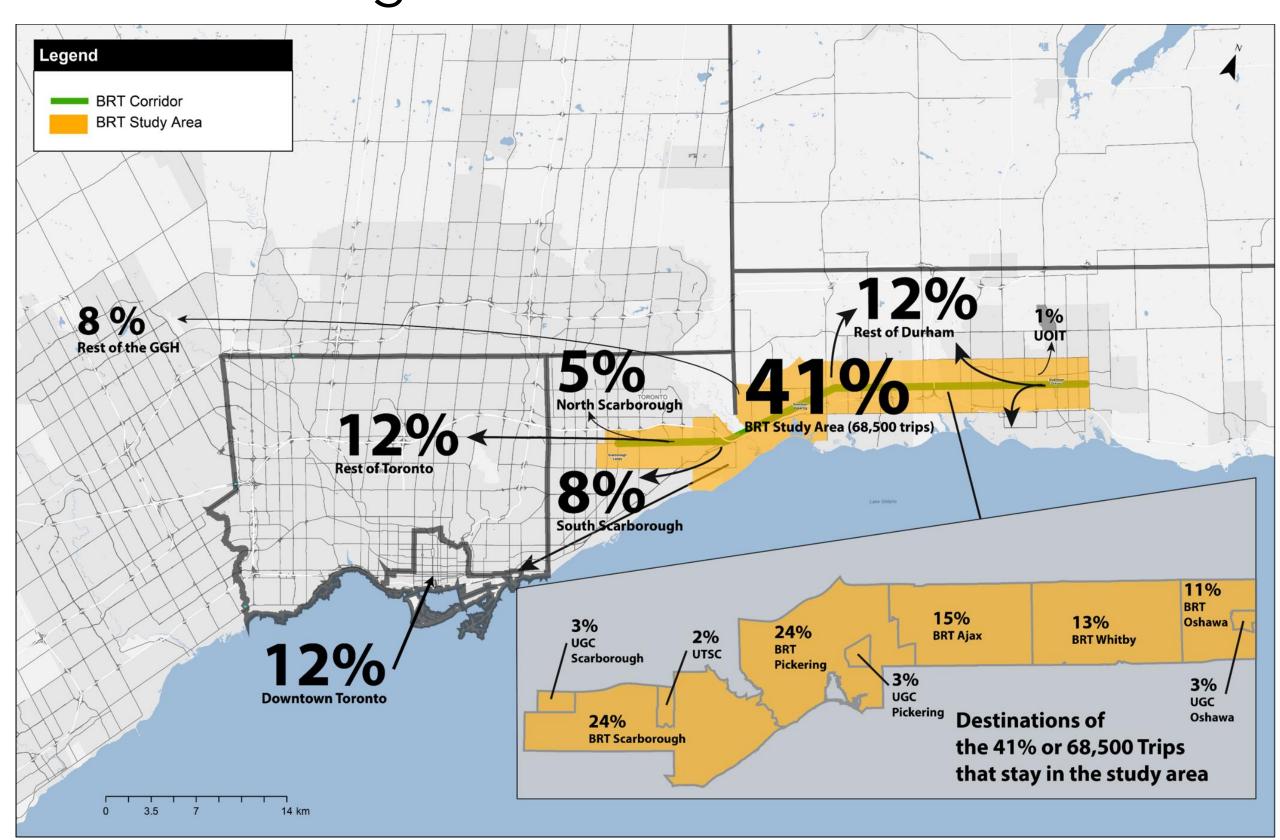






# What is Durham-Scarborough Bus Rapid Transit?

The Durham-Scarborough Bus Rapid Transit project proposes approximately 36 kilometres of dedicated transit infrastructure, connecting downtown Oshawa, Whitby, Ajax, Pickering and Scarborough. This project builds on the existing PULSE service and will provide more dedicated transit infrastructure along Highway 2 and Ellesmere Road to connect to Scarborough Centre.



Source: 2011 Transportation Tomorrow Survey, Durham-Scarborough BRT Initial Business Case 2018

### **Problem and Opportunity Statement:**

The Highway 2 Bus Rapid Transit corridor is a crucial transportation corridor connecting people through the Region of Durham and Scarborough. The corridor has varied traffic, land use conditions and constraints. With rapid growth in the past decade and an expectation for this growth to continue into the future, demand for travel along the corridor will continue to increase and a higher capacity form of transit will be needed to link communities and employment on both sides of the Toronto-Durham boundary.











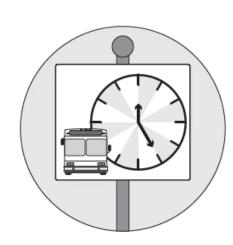




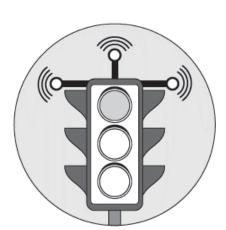
### What is BRT?



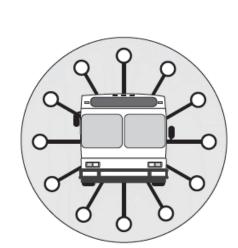
**Dedicated lanes** for buses, where feasible, resulting in shorter travel times and more reliable transit service.



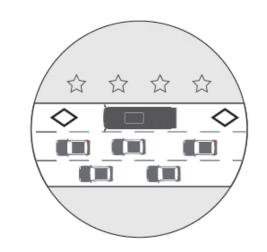
**Frequent service** with a bus every 5 minutes or less during peak hours.



**Smart signals** on Highway 2 are already installed and will adapt to support smoother traffic flow for all commuters.



**Better connections:** TTC, DRT and GO Transit routes can use the dedicated lanes and share the same stops, making it easier to travel throughout the region.



**Reliable service** with buses that are separated from general traffic in most areas.

### Benefits of DS BRT

The Initial Business Case identified the benefits below. These benefits are being refined and confirmed in the Preliminary Design Business Case.



162
Kilotonnes of CO<sup>2</sup>
Reduced



9.5
Minutes Saved
Per Rider



208
Fewer Traffic Related Injuries or Deaths



686
Millions of Dollars of Economic Benefits















**Bus Rapid Transit** 



We Are Here



2019



2021

days

35

days

#### PRE-PLANNING

- Complete Environmental Studies
- Develop Alternative Designs
- Consult with agencies, Indigenous Communities, stakeholders and the public
- Assess Impacts and Mitigation
- Develop Preliminary Engineering Design
- Complete Preliminary Design Business Case
- Draft Environmental Project Report (EPR)

#### TRANSIT PROJECT ASSESSMENT PROCESS

120 days

## Notice of Commencement

- Consult with agencies, Indigenous communities, stakeholders and the public on Draft EPR and Preliminary Engineering Design
- Document findings in Final EPR
- **Notice of Completion**

Public Review of Final EPR and opportunity for objections and comments

Minister's Review & Decision

Statement of Completion







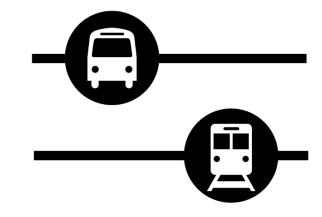




## What We Heard at Public Information Centre #2

Public Information Centre #2 was held in November 2019. Six events were held in Toronto, Pickering, Ajax, Whitby, and Oshawa. Over 110 members of the public signed in at the Public Information Centre. Members of the public were able to provide feedback by filling out a comment sheet, completing an online survey, or emailing the project team directly. Feedback showed that the public was generally supportive of the technically preferred solutions. The public identified:

#### **Opportunities to:**



Provide the highest priority for transit, and improve speed, reliability, comfort and convenience for transit passengers



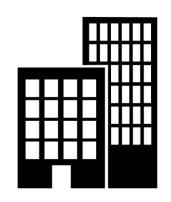
Expand the active transportation network to fill in existing gaps and improve first and last mile connections



Improve safety for all road users

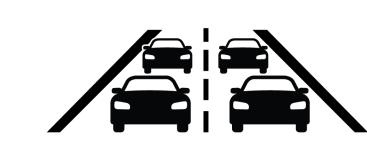


Improve the public realm along the corridor



Improve connections to existing major trip generators within Durham Region and Scarborough

#### **Concerns about:**



Access restrictions due to raised islands separating dedicated transit lanes from general traffic lanes



Potential increase in traffic congestion and traffic infiltration in surrounding neighbourhoods



Potential business impacts



Potential impacts to the historic character of Pickering Village













### What is an IBC?

An Initial Business Case (IBC) was completed for Durham-Scarborough Bus Rapid Transit in 2018.

An Initial Business Case sets out the rationale for why an investment should be implemented to solve a problem or address an opportunity. Options to address that problem or opportunity were developed and analyzed. The recommended option is the basis for further study and will be further refined in the Preliminary Design Business Case.

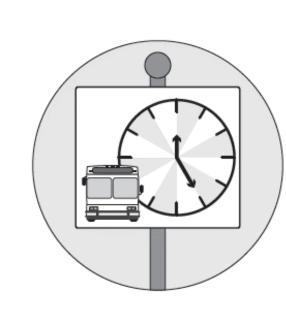
A Preliminary Design Business Case is being completed as part of this project.

## IBC Recommended Option



### **Bus routing options**

Identified Highway 2 and Ellesmere Road as the optimal transit route.



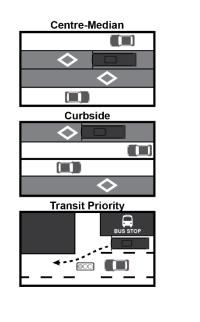
### Bus service options

Recommended buses every 5 minutes in Durham Region, and a bus every 2 minutes in Scarborough.



### Stop spacing options

Recommended an average stop spacing of 700 to 800 metres.



### Right-of-way options

Recommended a hybrid option, with a mix of centre-median lanes, curbside lanes, and transit priority measures.







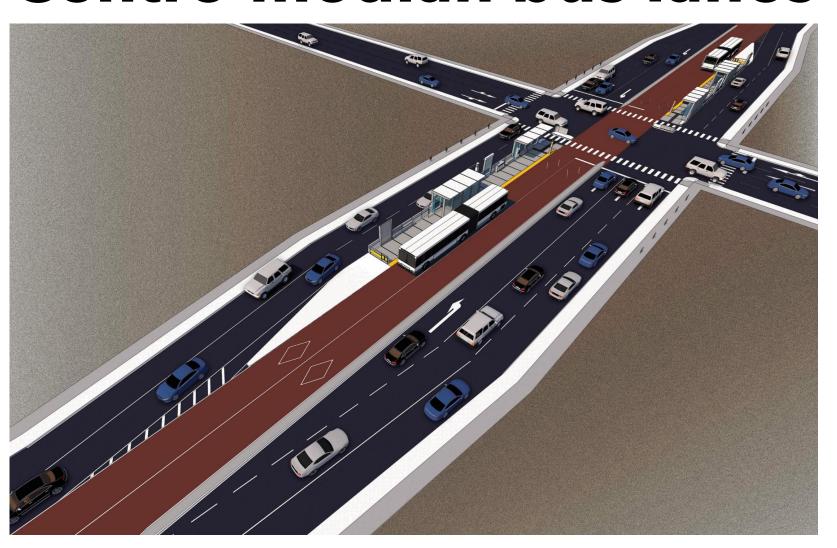






## BRT Lane Options

#### Centre-median bus lanes



- Dedicated transit lanes in the centre of the road.
- Stops in the centre of the road at signalized intersections.
   Pedestrians can access stops through a two-stage crossing.
- Centre raised island restricts left-turns into and out of unsignalized side streets and driveways.

#### Curbside bus lanes



- Dedicated transit lanes on the outside of the road.
- Stops on the side of the road at signalized intersections.

In general, dedicated transit lanes are preferred.

#### ✓ Reliable

Most consistent Rapid Transit travel time between destinations.

#### ✓ Wise Investment

Multiple service providers can use the lanes, supporting improved network integration.

#### ✓ Safe

Fewer conflict points between turning traffic and transit.

#### ✓ Walkable

More opportunities for streetscaping in between Rapid Transit stops.

### ✓ Future proof

Dedicated lanes are more flexible to future uses such as Light Rail Transit.













## **BRT Vehicles**



Vehicles are accessible with low-floor entry and visual and audio guidance.

Vehicles are high capacity carrying up to 90 people.





Vehicles run primarily in dedicated lanes and have priority through intersections to maintain service reliability.

## BRT Stops



Rendering of proposed centre median Bus Rapid Transit stop at Markham Road in Scarborough.

Bus Rapid Transit curbside stop in Brampton, Ontario.



Bus Rapid Transit curbside stop in Durham Region.













# Accessing Centre-Median Stops



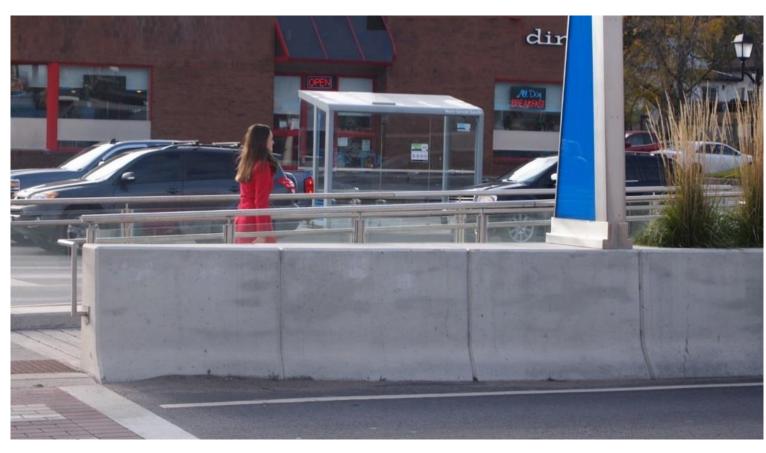
1 Jane arrives at her stop and pushes the "push to walk" button.



2 ...and waits to cross the street.



**3** When the walk sign goes on, Jane crosses one direction of traffic to get to the platform.



**4** Jane gets to the stop platform and walks toward the boarding area.



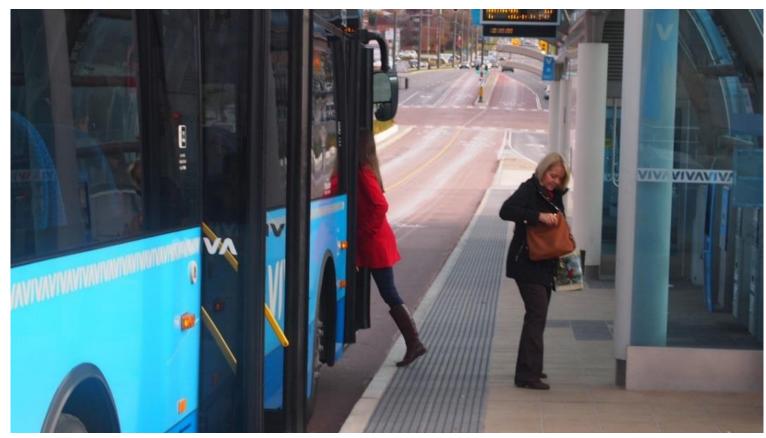
**5** She checks the bus arrival information and sees that her bus will arrive in 3 minutes.



6 Great! That's enough time for her to pay her fare using her PRESTO card before she boards the bus.



**7** Jane waits for her bus on the bench in the platform shelter.



8 Shortly after, her bus arrives, and she's on her way.













# Providing Feedback

Thank you for attending. We appreciate your feedback. Please let us know your thoughts by:

- Completing the online survey.
- Emailing your feedback to <u>dsbrt@metrolinx.com</u>.
- Mailing your feedback to the address listed below.

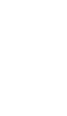
Kristin Demasi Project Manager Metrolinx 97 Front Street West Toronto, ON M5J 1E6 (416) 202-3723 David Hopper Project Manager Parsons (416) 352-8625

## Next Steps

- The project team will refine the design based on input received from technical agencies, stakeholders and members of the public from the third round of consultation.
- A Preliminary Design Business Case will be refined to reflect adjustments made to the recommended design. The Business Case will be used to clarify the scope and cost of the project, and request construction funding for the project.
- The Transit Project Assessment Process will be initiated and stakeholders will be notified through a Notice of Commencement.
- The next round of public meetings are planned for Winter 2021.

#### Stay up-to-date by:

- Signing-up for the project mailing list: dsbrt@metrolinx.com
- Visiting the project website: <u>www.metrolinxengage.com/dsbrt</u>











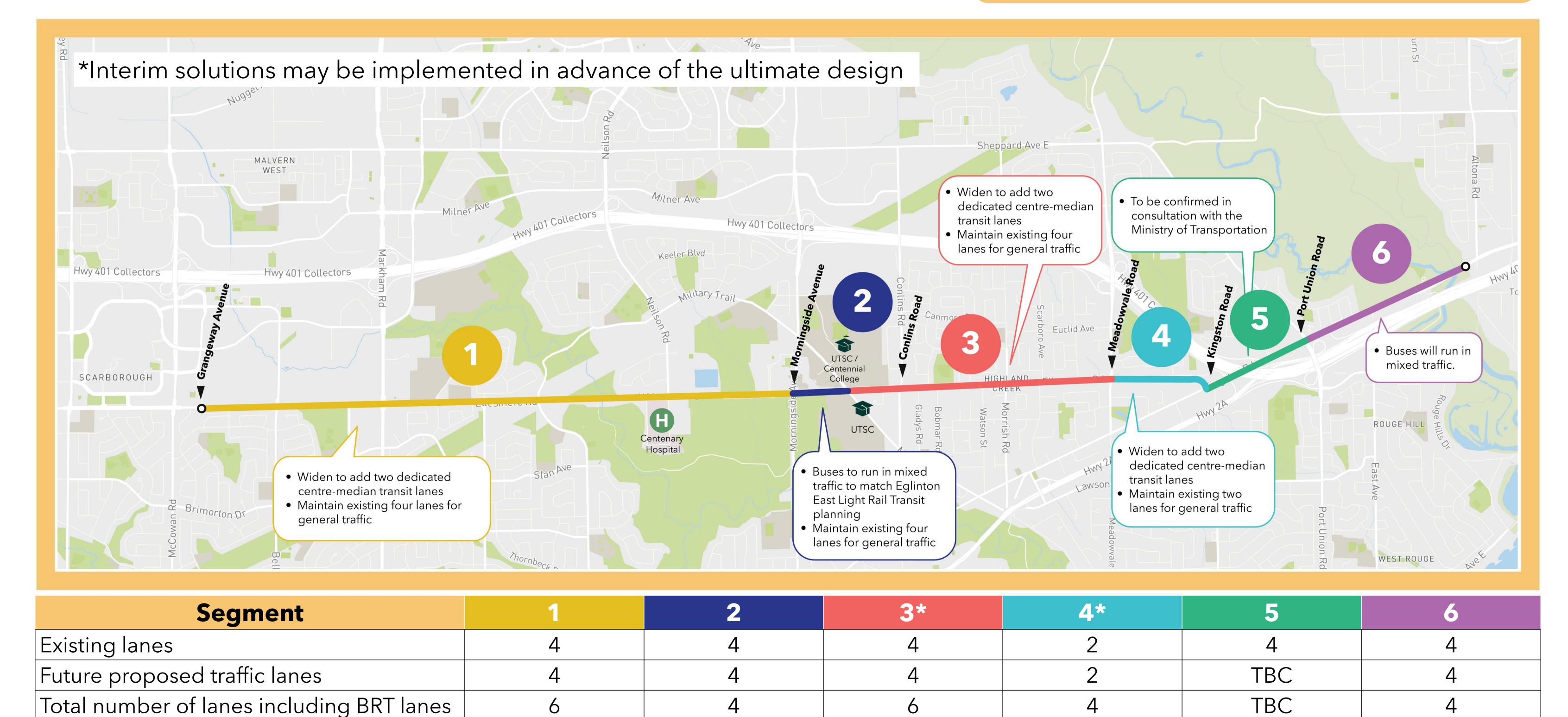




# City of Toronto



Tell us your thoughts on the design in Toronto by filling out the online <u>survey</u>.













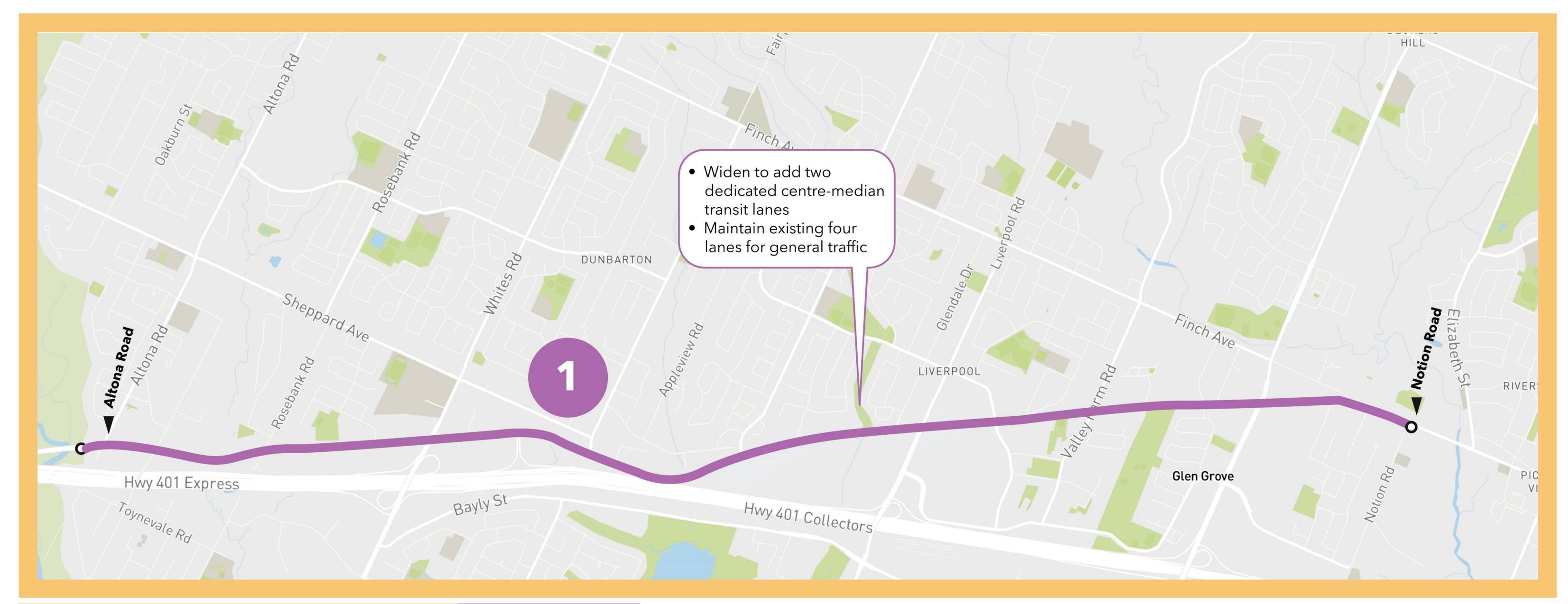




# City of Pickering



Tell us your thoughts on the design in Pickering by filling out the online <u>survey</u>.



Segment	1
Existing lanes	4
Future proposed traffic lanes	4
Total number of lanes including BRT lanes	6









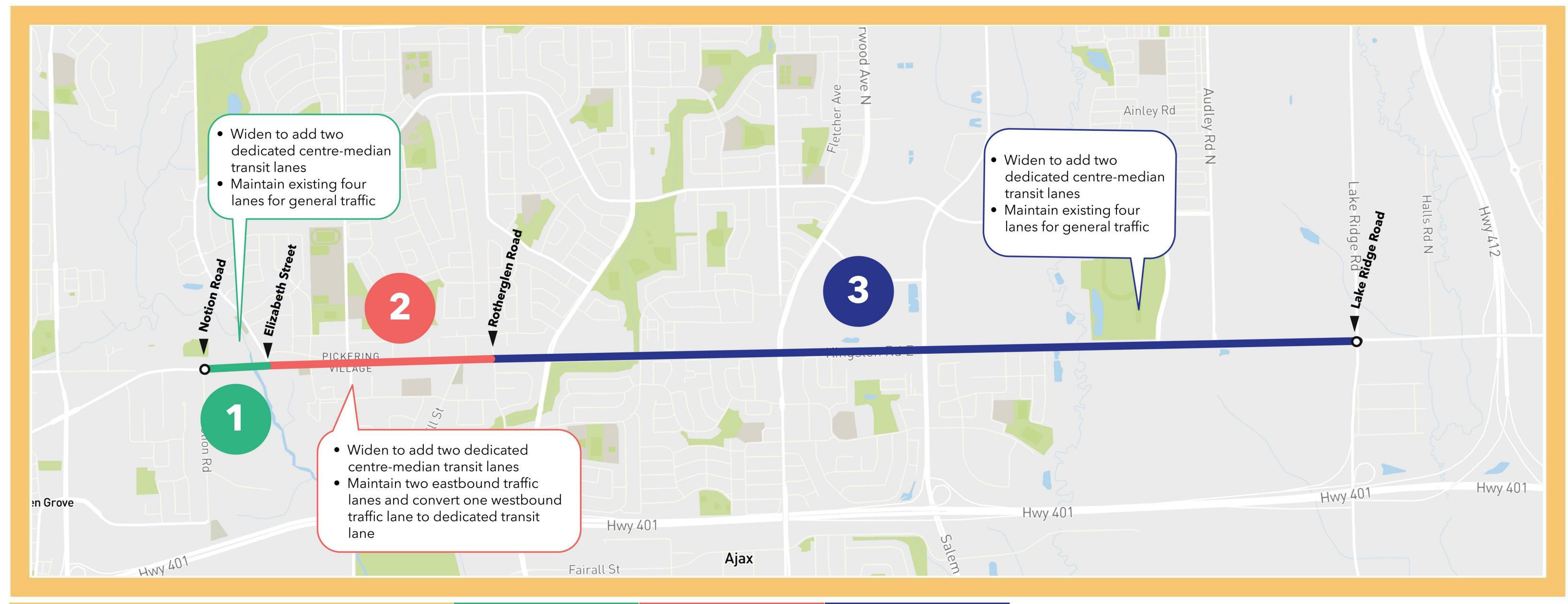




# Town of Ajax



Tell us your thoughts on the design in Ajax by filling out the online <u>survey</u>.



Segment	1	2	3
Existing lanes	4	4	4
Future proposed traffic lanes	4	3	4
Total number of lanes including BRT lanes	6	5	6









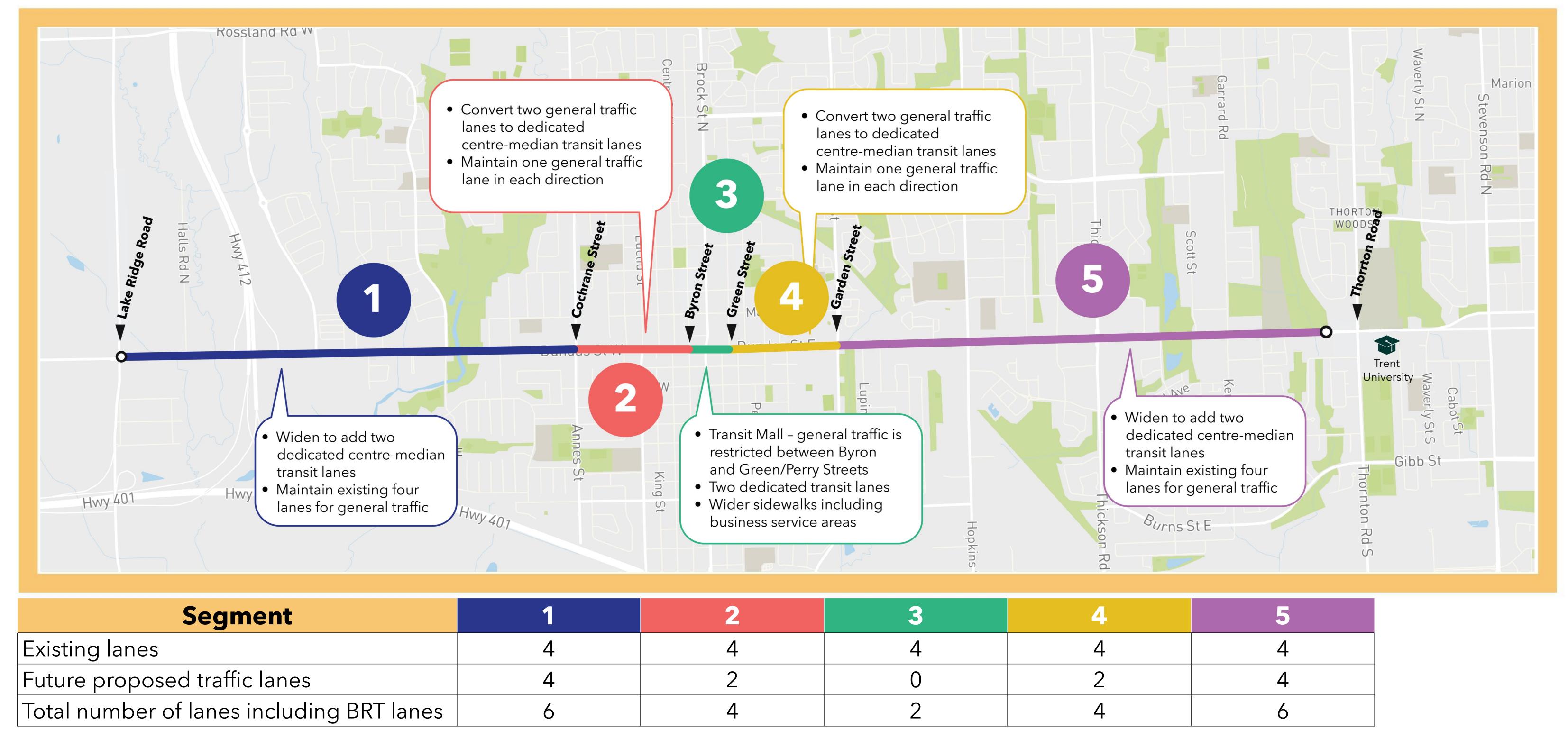




# Town of Whitby



Tell us your thoughts on the design in Whitby by filling out the online <u>survey</u>.













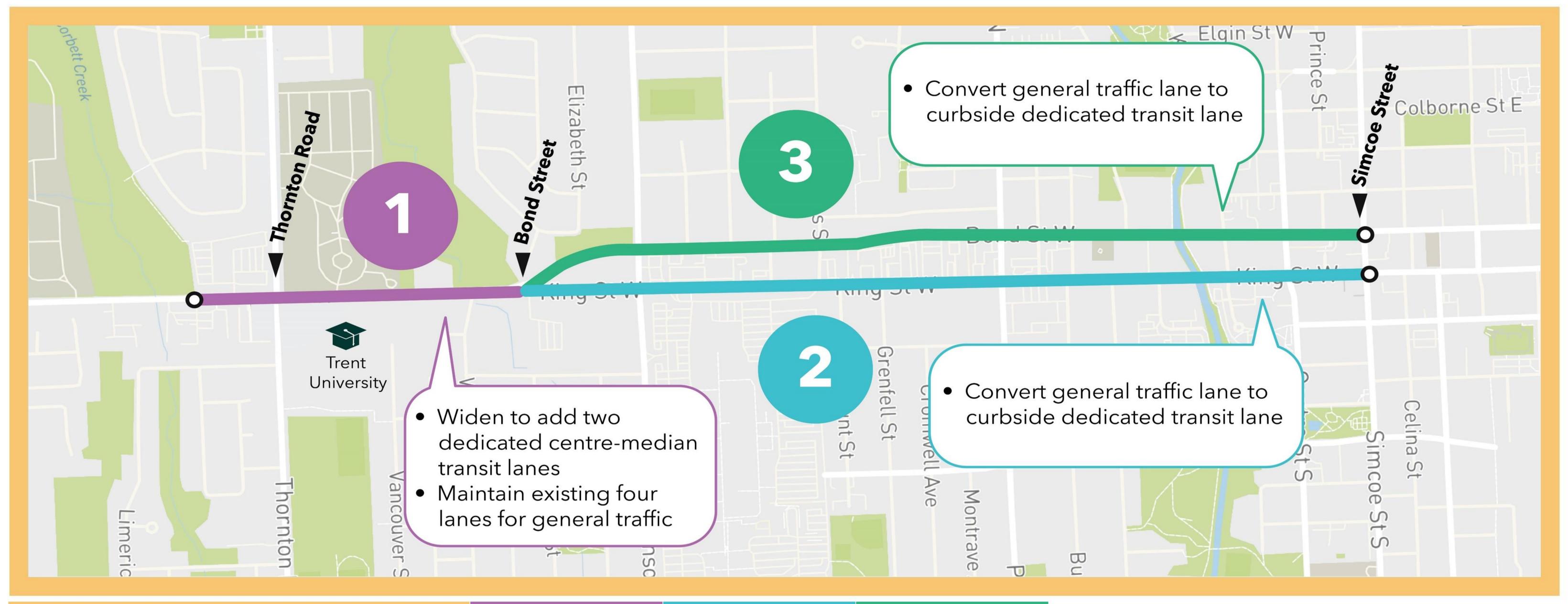


**Bus Rapid Transit** 

# City of Oshawa



Tell us your thoughts on the design in Oshawa by filling out the online <u>survey</u>.



Segment	1	2 (Eastbound)	3 (Westbound)
Existing lanes	4	4	4
Future proposed traffic lanes	4	2	2
Total number of lanes including BRT lanes	6	3	3











**Bus Rapid Transit** 

### East End of Corridor

Based on the preliminary preferred design, a new turnaround option is proposed.

Dedicated transit infrastructure would extend to Simcoe Street. East of Simcoe Street, buses would run in mixed traffic.

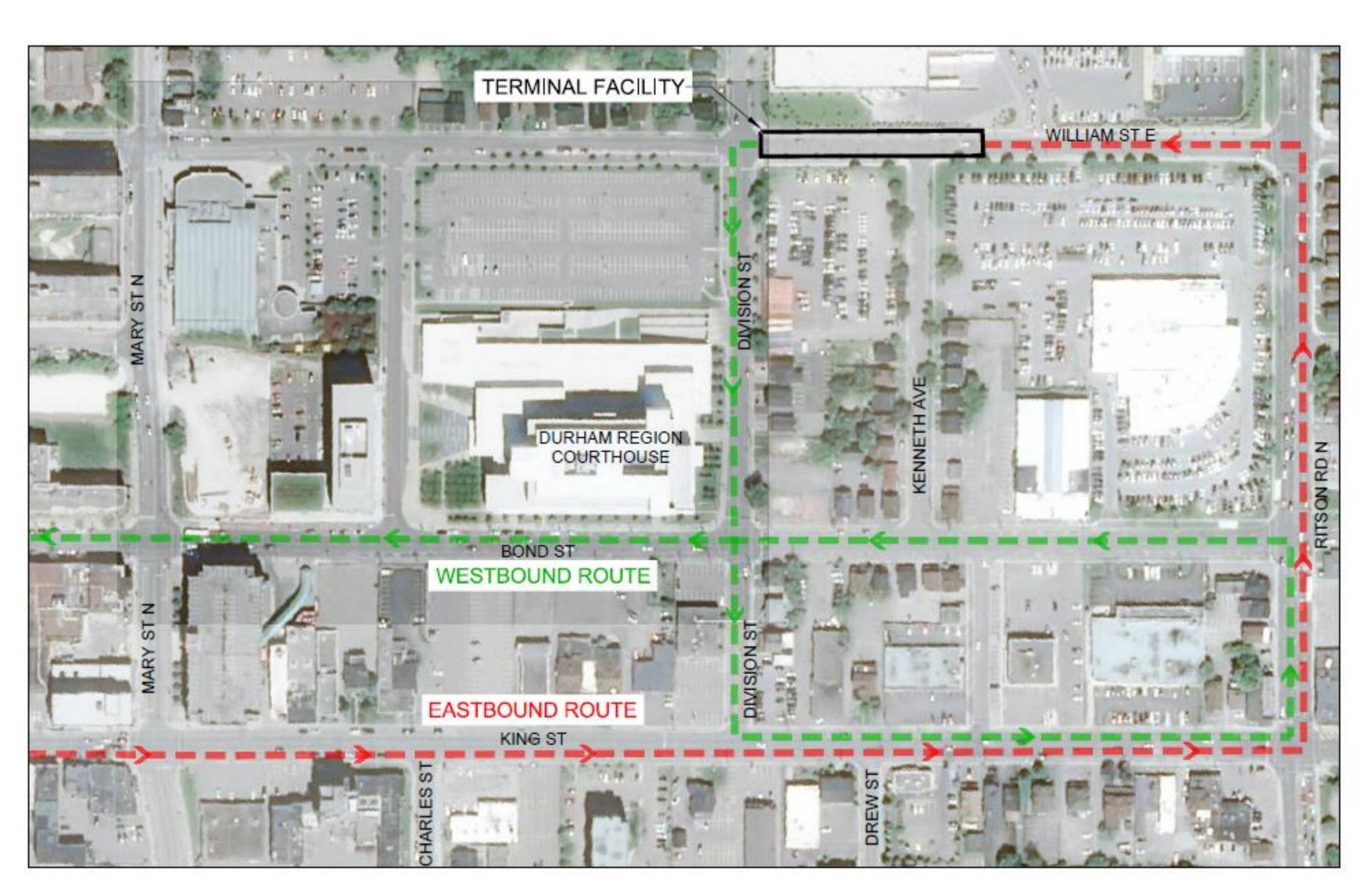
The recommended route for the Durham-Scarborough BRT service is:

#### Eastbound:

King Street »
Ritson Road »
William Street (layover location)

### Westbound:

Division Street »
King Street »
Ritson Street »
Bond Street



This turnaround option will be further considered in consultation with Durham Region Transit and the City of Oshawa.













### West End of Corridor

As part of the Scarborough Subway Extension, a new bus terminal is proposed. The terminal will accommodate GO, TTC and Durham Region Transit buses. This bus station will serve as the terminal for the Durham-Scarborough BRT service. The location and future routing of the terminal is still being determined.

The recommended route for the Durham-Scarborough BRT service is:

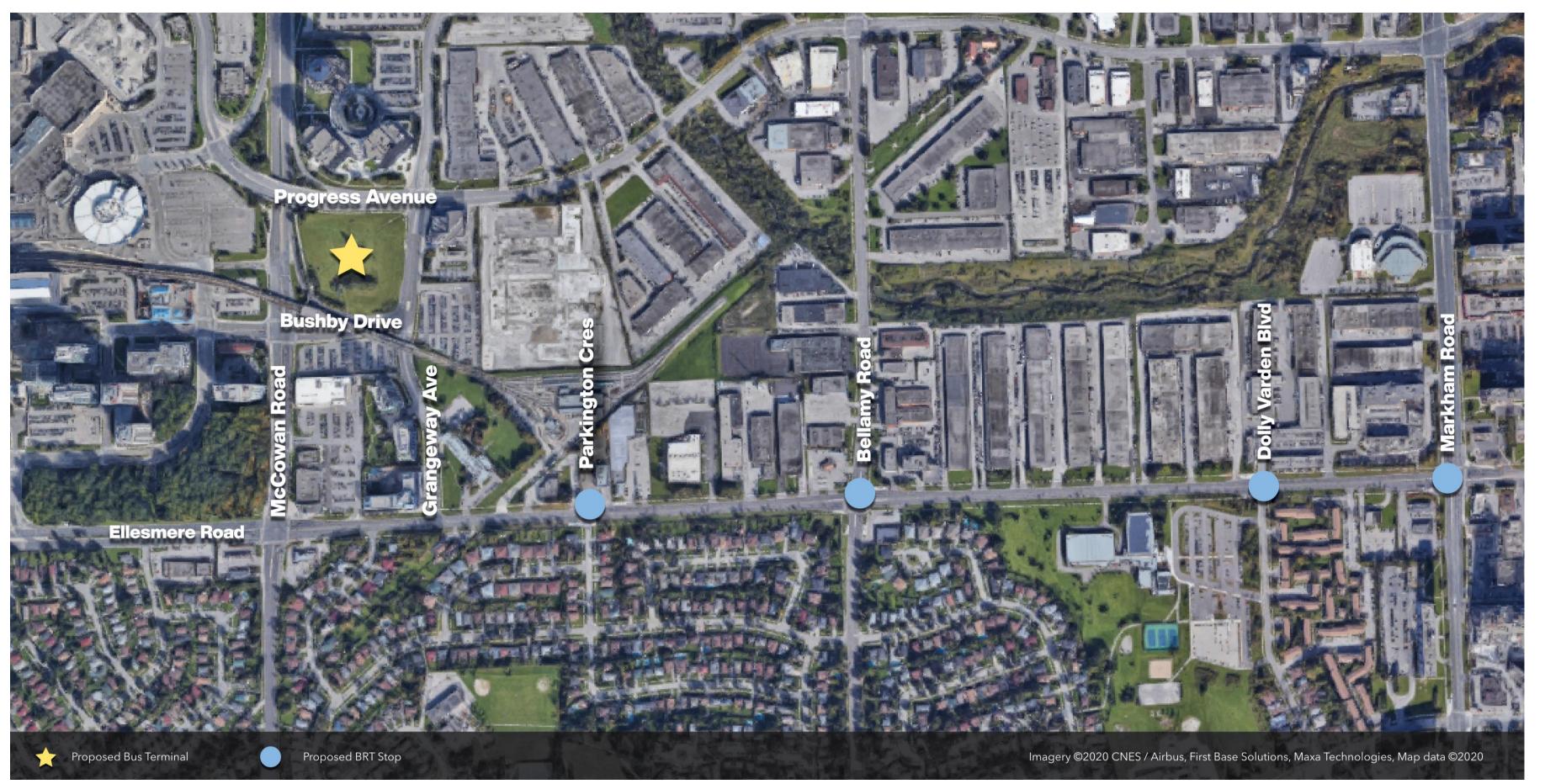
#### Westbound:

Ellesmere Road » Grangeway Avenue » TTC Bus Terminal

#### Eastbound:

TTC Bus Terminal » Grangeway Avenue » Ellesmere Road

Through public consultation, we received many suggestions to avoid routing buses through the intersection of Ellesmere Road and McCowan Road due to congestion.

















## Proposed Stop Locations

At PIC #2, 47 BRT stop locations were proposed.

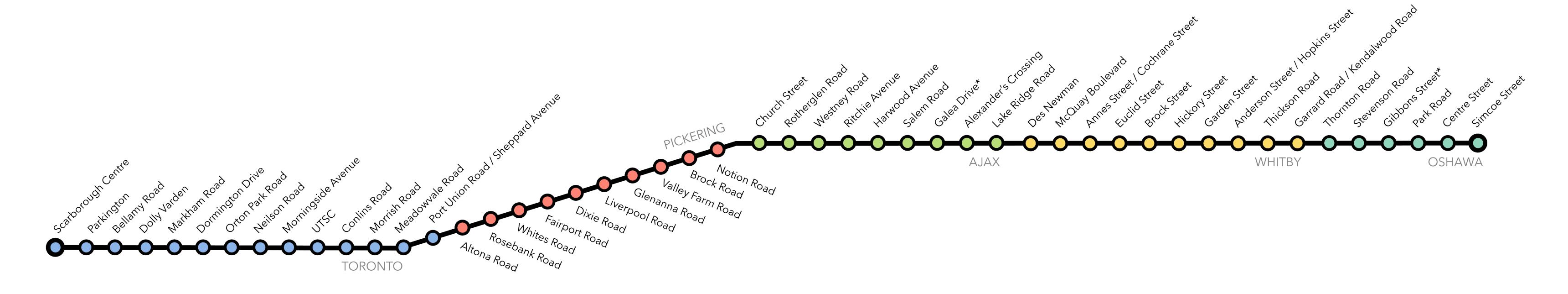
Since then we've added two more stops in Toronto: one at Parkington Crescent and one at Dolly Varden Boulevard, for a total of 49 proposed BRT stops.

We want to hear your thoughts on the 49 proposed stop locations. To provide input, visit our online interactive Bus Rapid Transit map. To access the map please visit <a href="https://www.dsbrtmap.ca">www.dsbrtmap.ca</a>.



49 stop locations are proposed

730 m average stop spacing















# BRT Stop Design

These renderings illustrate what the BRT shelters and platforms could look like. Two different concepts are proposed:

#### **Toronto:**

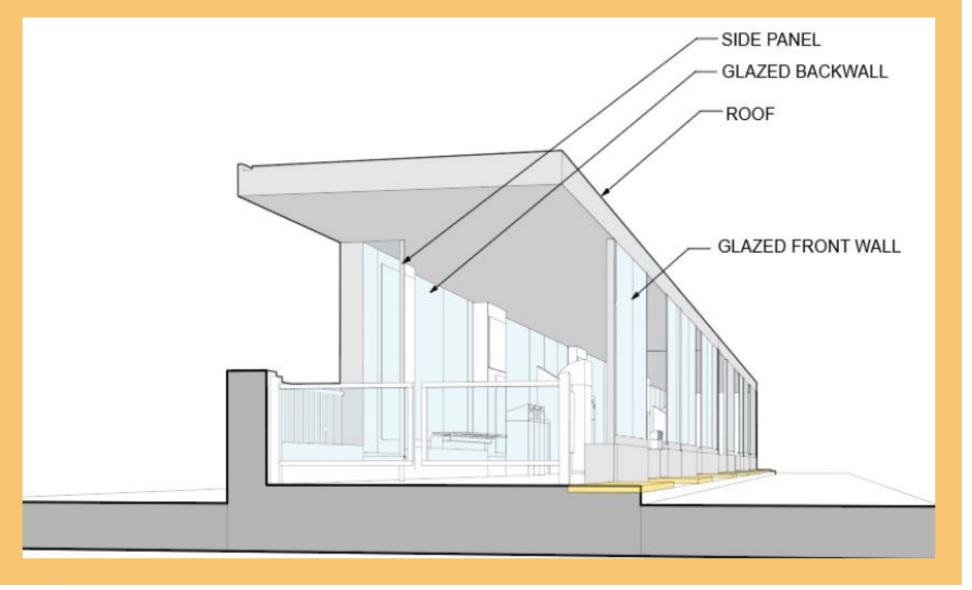
Open concept shelters, with wind screens for weather protection



### **Durham Region:**

Enclosed, passthrough shelters, with openings that align with bus doors



















# BRT Stop Design

The following elements will be consistent among all shelters along the corridor:

- Platform width (3.6 or 4.2 m, context sensitive)
- Width of sheltered area
- Access ramp and railings
- Tactile strips
- Location of stop name signage



Rendering of Markham Road stop in Toronto

Certain parts of a shelter can be customized, including:

- Materials, colours and finishes of the platform surface and/or wall panels
- Art, maps, and cultural heritage elements
- Placement and amount of benches and seating
- Number of glazed panels. For curbside platforms, some panels can be removed so the platform can be accessed at multiple locations
- Curbside platforms can be narrower or integrated with sidewalk

Level-boarding is being considered for the system.













### Environmental Studies

The Durham-Scarborough Bus Rapid Transit project is preparing for the Transit Project Assessment Process, a streamlined Environmental Assessment process under Ontario Regulation 231/08. To support the project, environmental studies are being completed to document existing conditions and assess any potential impacts from the Bus Rapid Transit project.

Field investigations were undertaken in 2019 and 2020 to collect data on existing conditions.

The studies will determine potential impacts and document mitigation measures that could be applied to reduce or eliminate potential impacts. Mitigation measures proposed will be used by the design team to review and improve the design.

These studies will form part of the Environmental Project Report, which will be posted for public review.

The following studies are being completed:

### **Natural Environment Studies**

- Natural Heritage Assessment
- Tree Inventory
- Noise and Vibration Assessment
- Air Quality Assessment
- Climate Change Assessment

#### **Social Environment Studies**

- Stage 1 Archaeological Assessment
- Cultural Heritage Resource Assessment
- Socio-economic and Land Use Study

#### **Geotechnical Studies**

Phase 1 Environmental Site Assessment

These studies will form part of the Environmental Project Report which will be posted for public review.













# Natural Heritage and Tree Inventory

Detailed field investigations were undertaken between April 2019 and June 2020 to examine natural heritage features and tree resources. The following are present within the study area:



7,926 trees consisting of 86 species



305 plant species, 57% native and 43% non-native



7 herpetofauna, 1 invertebrate, 9 mammal species and 69 bird species



17 species at risk (3 aquatic, 2 plant, and 12 wildlife): 3 were identified during field investigations: Barn Swallow, Butternut and Kentucky coffee tree



3 Provincially Significant Wetlands, 14 Environmentally Sensitive Areas, and 3 Areas of Natural and Scientific Interest



23 watercourses within 10 watersheds

Potential construction impacts include:

- Removal / disturbance of roadside trees, vegetation/vegetation communities and significant natural heritage features
- Removal / disturbance of wildlife/wildlife habitat
- Disturbance to species at risk/species at risk habitat
- Disturbance to fish/fish habitat
- Increase in erosion and sedimentation

To mitigate construction impacts, the following measures are proposed:

- Construct buffers around trees to prevent injury and minimize disturbance
- Adhere to timing restrictions for construction and inwater works
- Implement erosion and sediment control measures
- Meet requirements under the Canada Species at Risk Act and Ontario Endangered Species Act















# Cultural Heritage

Cultural heritage specialists reviewed the corridor to identify known and potential cultural heritage (CH) properties.

A total of 230 built heritage resources and cultural heritage landscapes were identified in the study area. Assessment of impacts is underway.

#### **City of Toronto**

#### 15 Total

- 2 Known CH Properties
- **1** Commemorative Feature
- 1 National Urban Park
- 11 Potential CH Properties

#### **City of Pickering**

#### 17 Total

- 1 Known CH Property
- 16 Potential CH Properties

#### **Town of Ajax**

#### **59 Total**

- **1** Heritage District
- **12** Known CH Properties
- **46** Potential CH Properties

#### **Town of Whitby**

#### **62 Total**

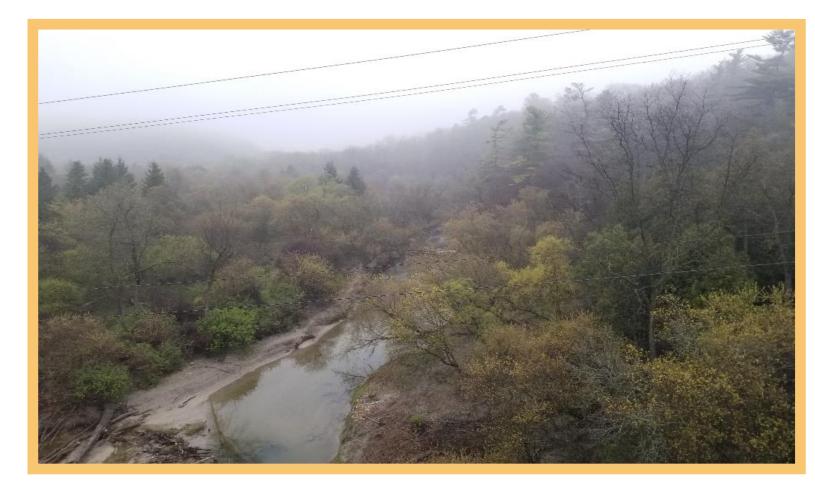
- 2 Known CH Properties
- **1** Commemorative Feature
- **59** Potential CH Properties

#### City of Oshawa

#### 77 Total

- 1 Known CH Property
- **76** Potential CH Properties

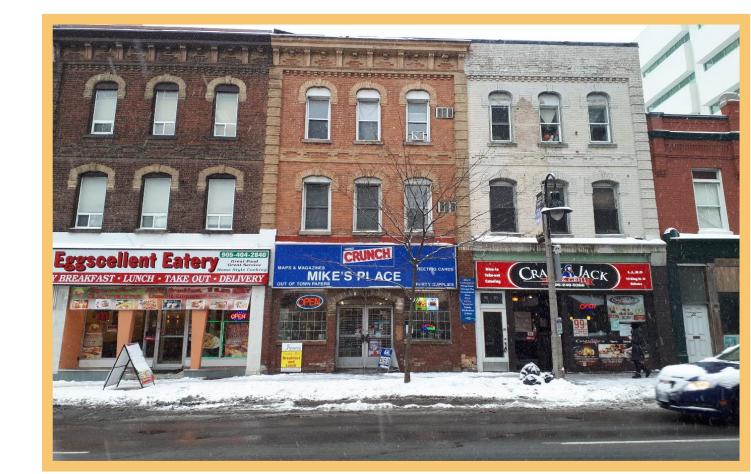
Examples of cultural heritage properties within the study area:



The Rouge National Urban Park is Canada's first national urban park.



Potential CH properties include farmscapes.



Some of Downtown Oshawa's mixed use buildings are potential built heritage resources.













# Cultural Heritage

The preliminary preferred design strives to stay within the road allowance to minimize impacts to cultural heritage resources.

In some areas, where avoidance is not possible, the design may result in direct impacts to known/potential cultural heritage resources.

Construction activities may result in indirect impacts.



This built heritage resource is a known CH property, designated under the Ontario Heritage Act.

To mitigate impacts, the following measures are proposed:

- A Cultural Heritage Evaluation Report will be completed to understand the directly impacted resource's cultural heritage value or interest.
- If the resource has cultural heritage value or interest, a Heritage Impact Assessment will be completed.
- Local Heritage Advisory Committees Ministry of Heritage, Sport, Tourism and Culture Industries will be consulted during the completion of the studies.
- Indirect impacts include temporary adverse vibration from construction activities. A condition assessment of the structures within the vibration zone of influence is recommended.







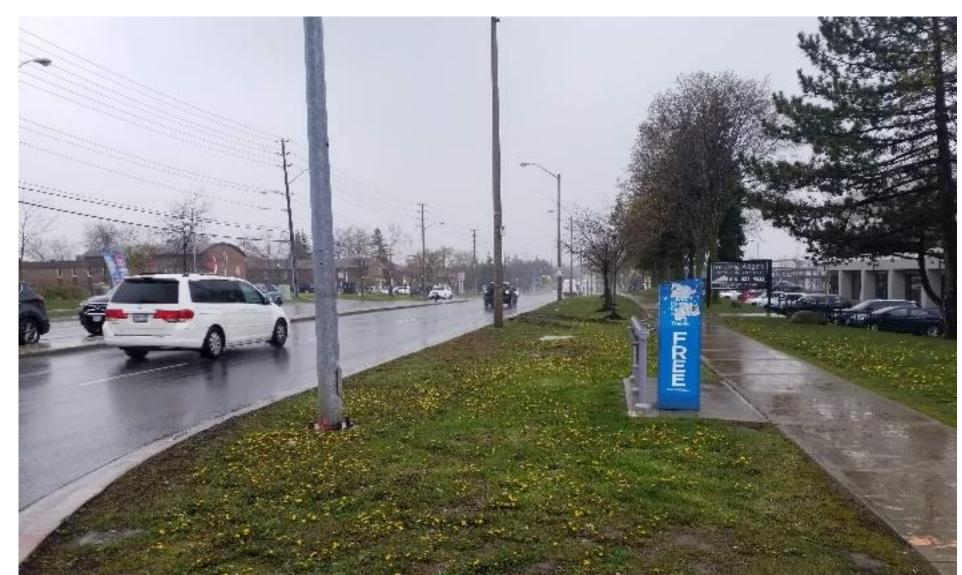






# Archaeology

Archaeologists completed a Stage 1 Archaeological Assessment to determine archaeological potential within the study area.



Ellesmere Rd and Markham Rd
This area has no

This area has no archaeological potential.



**Dundas St near Garden St** 

The area beyond the bridge footing and right-of-way requires a Stage 2 survey.

Parts of the study area have archaeological potential and will require a Stage 2 assessment prior to disturbance / construction. This excludes areas with slopes in excess of 20 degrees, low and wet conditions, and deep and extensive land disturbance.

Interested Indigenous Communities may be engaged during further assessments.

#### **Cemeteries**

**5** cemeteries were identified within the study area. **3** require a Cemetery Investigation:

- Ajax St. George's Anglican Church Cemetery
- Whitby Mount Lawn Cemetery
- Oshawa Union Cemetery

A Stage 3 Cemetery Investigation is required for lands impacted by the project within 10 m of cemetery properties to confirm the presence or absence of unmarked graves.

# Previously Registered Archaeological Sites

3 previously registered archaeological sites are located within the study area.

None of the registered archaeological sites exhibit cultural heritage value or interest or require further assessment.

If unexpected archaeological materials are encountered, all work will stop. The site will be protected until assessed by a licensed archaeologist.













# Air Quality

Data from air quality monitoring stations was examined to determine existing conditions and the location of sensitive receptors. The existing conditions review is underway.

Air emissions that will be assessed include: CO, NO<sub>2</sub>, SO<sub>2</sub>, VOCs, PM<sub>2.5</sub>, PAH, GHG

Examples of sensitive receptors include:

- Place of residence
- Child care facility
- Health care facility
- Senior citizen's residence
- Long-term care
- School

Next, modelling will be conducted to determine air quality levels at sensitive receptor locations. Both future 'with BRT' and 'without BRT' scenarios will be modelled.

Potential construction impacts include:

- Air pollution and dust from construction activities
   To mitigate construction impacts, the following
- Cover sources of dust where possible
- Apply dust suppressants

measures are proposed:

- Use low emissions equipment where possible
- Limit dust generating activities during high-wind conditions

Operational impacts and mitigation measures will be presented at Public Information Centre #4.













## Noise and Vibration

A background review has been completed. Aerial and street-level photography was examined to determine noise and vibration sensitive receptors.



About 40 potential sensitive receptors have been identified to help understand the ambient noise within the study area.

Next, modelling will be completed to analyze future conditions. Future 'with BRT' and 'without BRT' scenarios will be modelled, and noise and vibration levels will be determined for each scenario.

Based on the impacts, additional mitigation measures may be proposed.

Potential construction impacts include:

Noise and vibration from construction activities

To mitigate construction impacts, the following measures are proposed:

- Use low vibration construction equipment where possible
- Use construction equipment that is compliant with the Ministry of Environment, Conservation, and Parks' noise level specifications
- Implement restrictions on construction hours

Operational impacts and mitigation measures will be presented at Public Information Centre #4.













## Socio-Economic Conditions

An existing conditions review was completed to understand the population that exists in the study area. Census data was reviewed to determine factors such as population and business density, age structure, household income, immigration and education attainment.

The review found that there are areas with a high density of businesses along the corridor. BRT will support expected growth by connecting people and jobs along the corridor.

The North American Industry Classification System structure was used to categorize businesses into the following classifications:

- Primary
- Employment Lands
- Retail and Service
- Office
- Institutional

Some businesses classifications are more sensitive to disruptions such as construction and loss of parking than others.

Potential construction impacts include:

- Temporary disruption to accesses and parking
- Temporary disruption to curbside activities
- Temporary closure of sidewalks and cycling facilities
- Congestion related to construction activity and detours
- Visual effects from construction areas/activities
- Reduction of on-street parking

To mitigate construction impacts, the following measures are proposed:

- Develop an action plan to support businesses including signage, wayfinding and an ambassador program
- Create Emergency Response Plan
- Create Traffic Management and Control Plan
- Identify alternative parking to support businesses
- Implement Curbside Management Plan for waste removal, deliveries and pedestrian activities











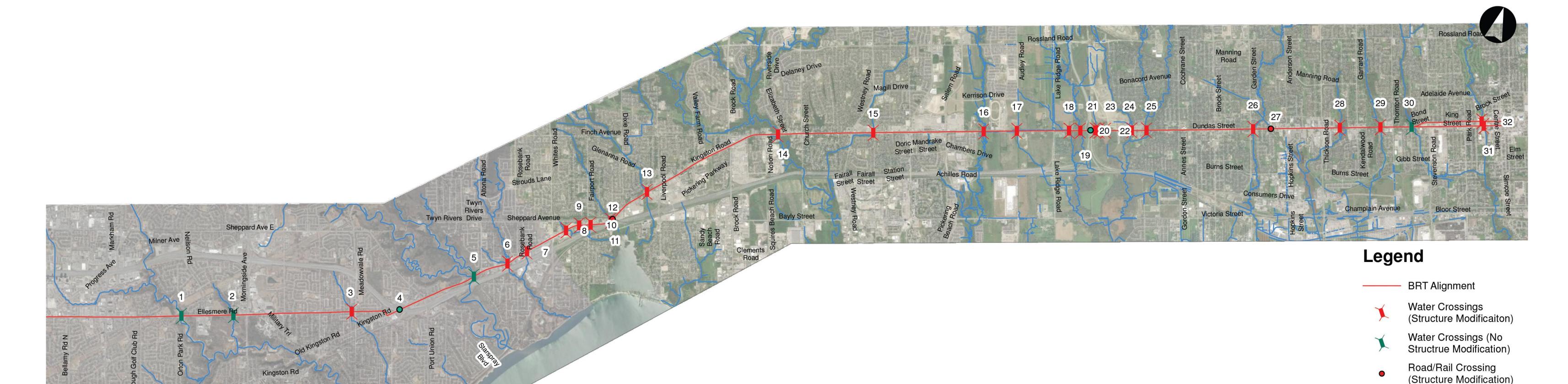


### Stormwater and Structures

Major culverts and bridges along the BRT corridor have been identified and reviewed to understand the existing hydraulic and structural conditions.

There are 32 crossings along the corridor, including: 28 watercourse or drainage ditch crossings, and 4 other crossings of railways and highways.

Modification is recommended at multiple locations. Potential modifications include replacement, rehabilitation, extension or widening to: meet current hydraulic standards, strengthen older structures, and accommodate the addition of bus lanes.





Lawrence Ave E













Road/Rail Crossings (No Structure Modification)

## Phase I ESA

The intent of the Phase I Environmental Site Assessment (ESA) is to determine if current or historical uses have impacted the soil or groundwater.

A background review was completed, including a desktop review of contaminant data and field reconnaissance.

HHH

If the findings suggest that soil and/or groundwater are impacted in areas of anticipated soil excavation and/or dewatering during construction, the Phase I ESA will recommend subsurface soil and/or groundwater sampling in those locations

## Climate Change

Durham-Scarborough BRT will encourage more sustainable transportation choices and lead to increased climate resiliency. The project will:

Encourage more sustainable modes of transportation by:

- Increasing transit ridership by providing a more reliable, convenient, and comfortable transit service
- Improving existing active transportation facilities and eliminating gaps in the network

Increase resilience by:

- Including street trees within the boulevard, where feasible
- Implementing Low Impact Development measures, where feasible
- Increasing the size and capacity of structures and culverts to accommodate greater storm events. Extreme storm events are being considered during hydraulic analysis of structures and culverts to identify characteristics of spill flow and limit of regulatory floodway.

An assessment will be completed to determine the project's impact on greenhouse gas emissions. Both existing and future scenarios will be compared to the Ontario provincial target. Impacts and mitigation measures will be presented at Public Information Centre #4.











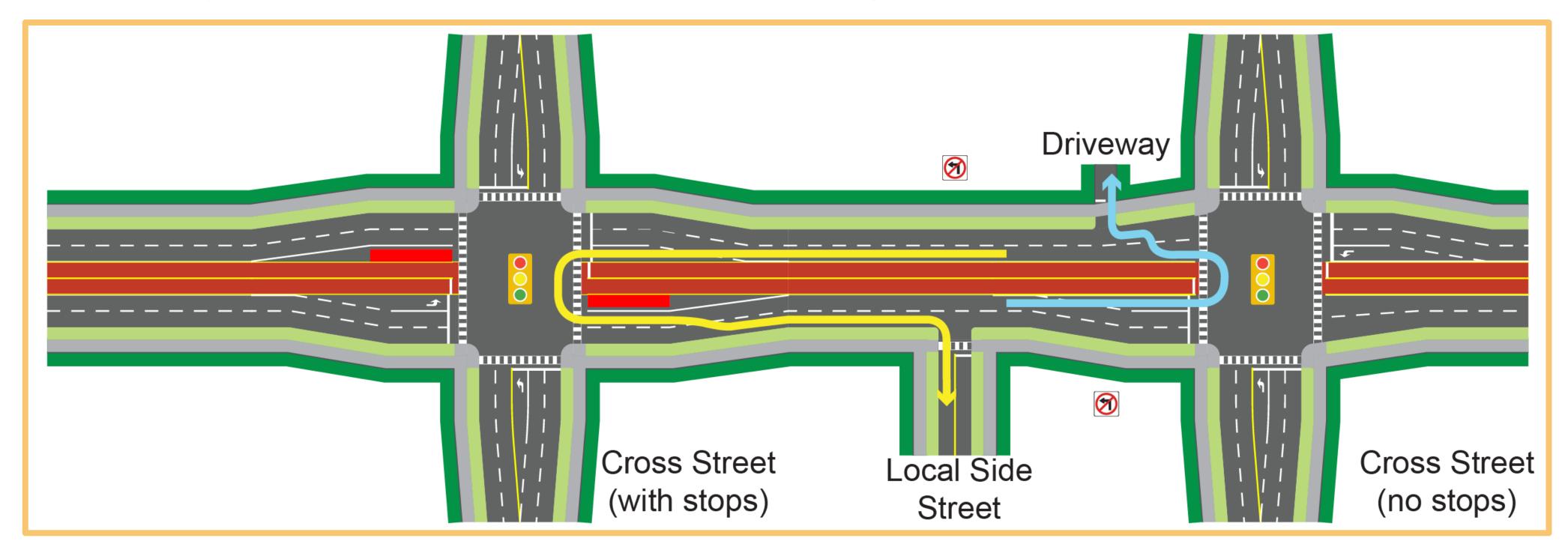


## Left-turns and U-turns

Raised islands will separate transit lanes from general traffic lanes between signalized intersections.

These islands will prevent left-turns at unsignalized intersections and driveways.

The graphic below shows how travel patterns may change.





Drivers will be able to make left-turns and u-turns during protected phases at signalized intersections. This configuration is expected to enhance safety.



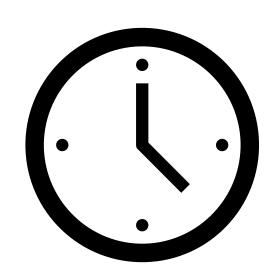






# Transit Travel Time Reliability

- Microsimulation models were developed to examine interactions between transit and general traffic.
- Focus on sections with right-of-way constraints where the existing number of lanes plus dedicated transit lanes doesn't fit.



Performance measures include traffic and transit travel times, and reliability of travel times.

- Models show that dedicated transit lanes improve transit travel times by 15 to 25%.
  - That means the total travel time between Oshawa and Scarborough Centre from 100 minutes to about 75 to 85 minutes.
  - o Time saved will be proportional for shorter trips.
- Models show that dedicated transit lanes improve transit travel time reliability by 10%.
  - o That means every transit trip would save up to an additional 10 minutes.
- More reliable transit and faster transit travel times will be key inputs to the Preliminary Design Business Case.













## Active Transportation

The Durham-Scarborough BRT project provides the opportunity to improve connectivity and expand the active transportation network.



Sample rendering of a cycle track.

New sidewalks and cycling facilities will be provided to fill in existing gaps. A combination of cycle tracks, buffered bike lanes and multi-use paths are proposed.

Bike parking will be provided near stop locations to connect cyclists to transit.

A map of the proposed cycling facilities is included on the following boards. The type of cycling facility was selected based on a review of:

- Existing cycling infrastructure
- Proposed cycling infrastructure in municipal and regional cycling plans
- Land use context
- Traffic volumes
- Posted speed limits
- Roadway characteristics

In constrained areas, alternate routes are identified north or south of the DS BRT corridor.





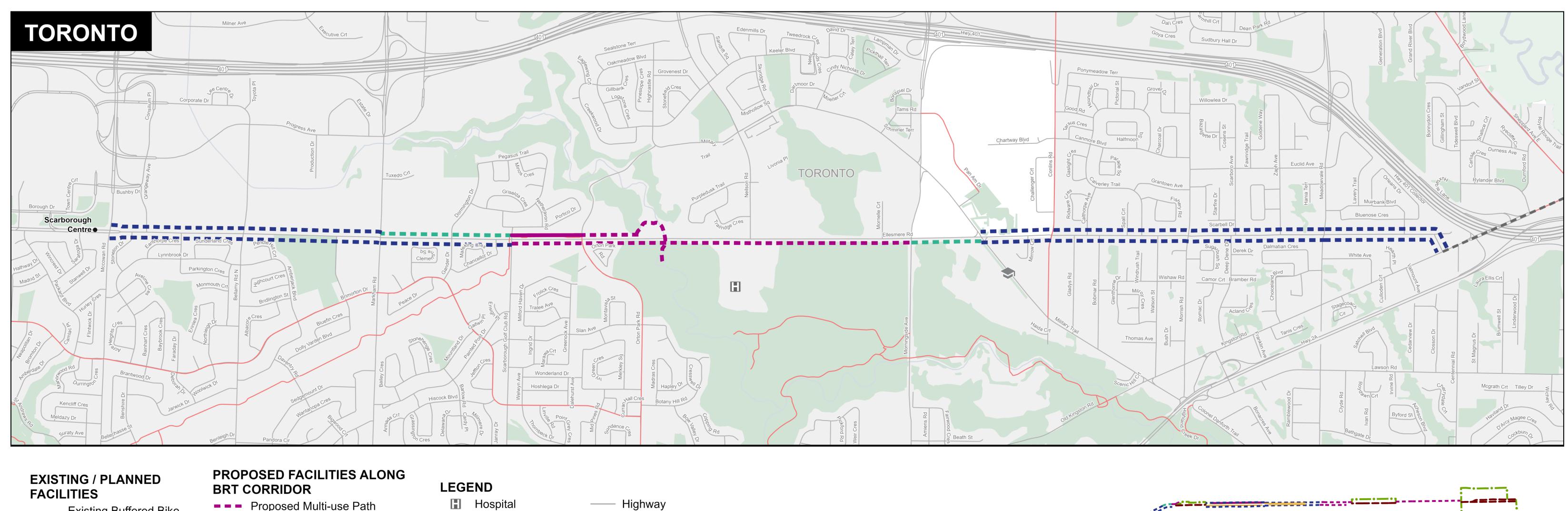












Existing Buffered Bike
Lanes or Cycle Tracks
Existing Multi-use Path
Existing Cycling Facility

Proposed Multi-use Path
Proposed Cycle Track (One-Way)
Proposed Cycle Track (Two-Way)
Alternate Route

No Cycling Facilities IdentifiedUnder Review

School Road

Urban Growth Centre Waterbody

GO Station Lower Tier Municipalities

GO Rail Greenbelt Designation

Rail Greenspace / Wooded Area

PROPOSED CYCLING
NETWORK



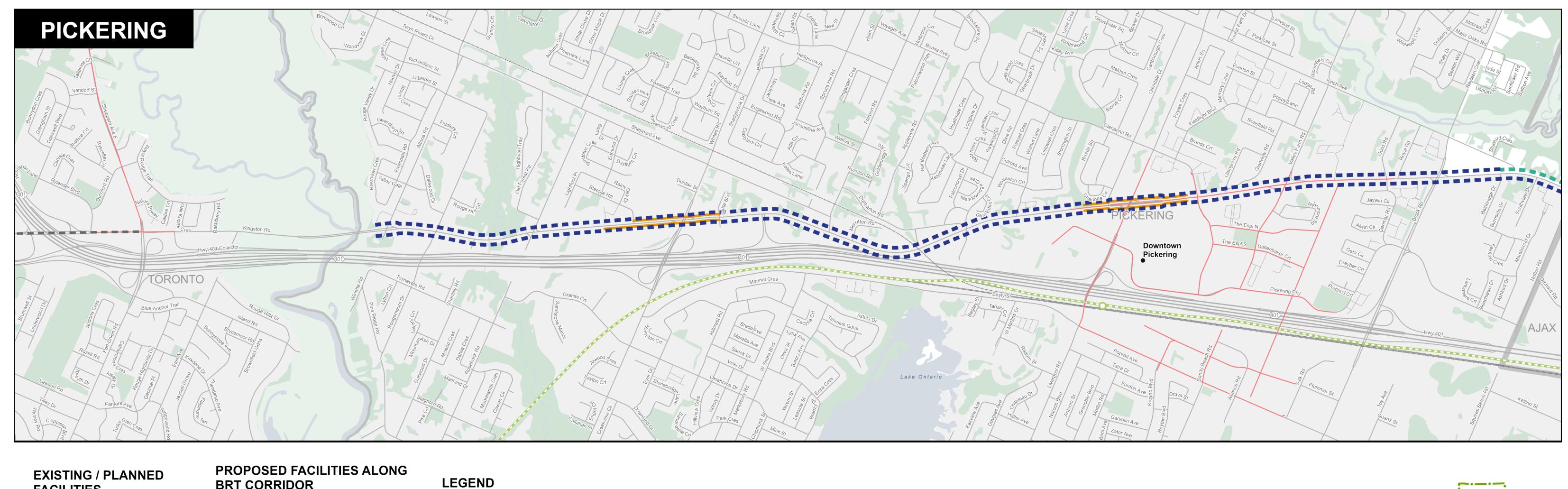












#### **EXISTING / PLANNED FACILITIES**

Existing Buffered Bike Lanes or Cycle Tracks Existing Multi-use Path **Existing Cycling Facility** 

### **BRT CORRIDOR**

Proposed Multi-use Path Proposed Cycle Track (One-Way) Proposed Cycle Track (Two-Way) **-** • **-** Alternate Route

No Cycling Facilities Identified **--** Under Review

Hospital --- Highway School Road Urban Growth Centre
 Waterbody GO Station Lower Tier Municipalities GO Rail **Greenbelt Designation** ----- Rail Greenspace / Wooded Area

PROPOSED CYCLING NETWORK 





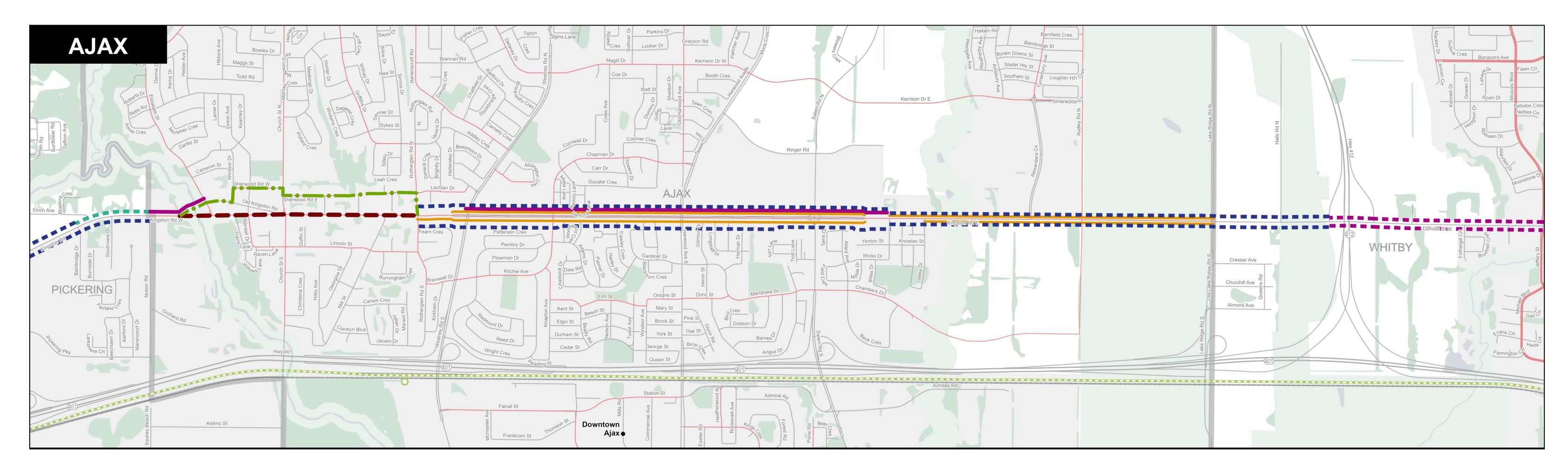












### EXISTING / PLANNED FACILITIES

Existing Buffered Bike
Lanes or Cycle Tracks
Existing Multi-use Path
Existing Cycling Facility

#### PROPOSED FACILITIES ALONG BRT CORRIDOR

Proposed Multi-use Path
Proposed Cycle Track (One-Way)
Proposed Cycle Track (Two-Way)
Alternate Route

No Cycling Facilities IdentifiedUnder Review

#### **LEGEND**

Hospital
 School
 Urban Growth Centre
 GO Station
 GO Rail
 Rail
 Highway
 Road
 Waterbody
 Lower Tier Municipalities
 Greenbelt Designation
 Greenspace / Wooded Area

PROPOSED CYCLING NETWORK

















### **EXISTING / PLANNED FACILITIES**

Existing Buffered Bike
Lanes or Cycle Tracks
Existing Multi-use Path
Existing Cycling Facility

### PROPOSED FACILITIES ALONG BRT CORRIDOR

Proposed Multi-use Path
Proposed Cycle Track (One-Way)
Proposed Cycle Track (Two-Way)
Alternate Route

No Cycling Facilities IdentifiedUnder Review

#### LEGEND

Hospital
 School
 Urban Growth Centre
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 Rail
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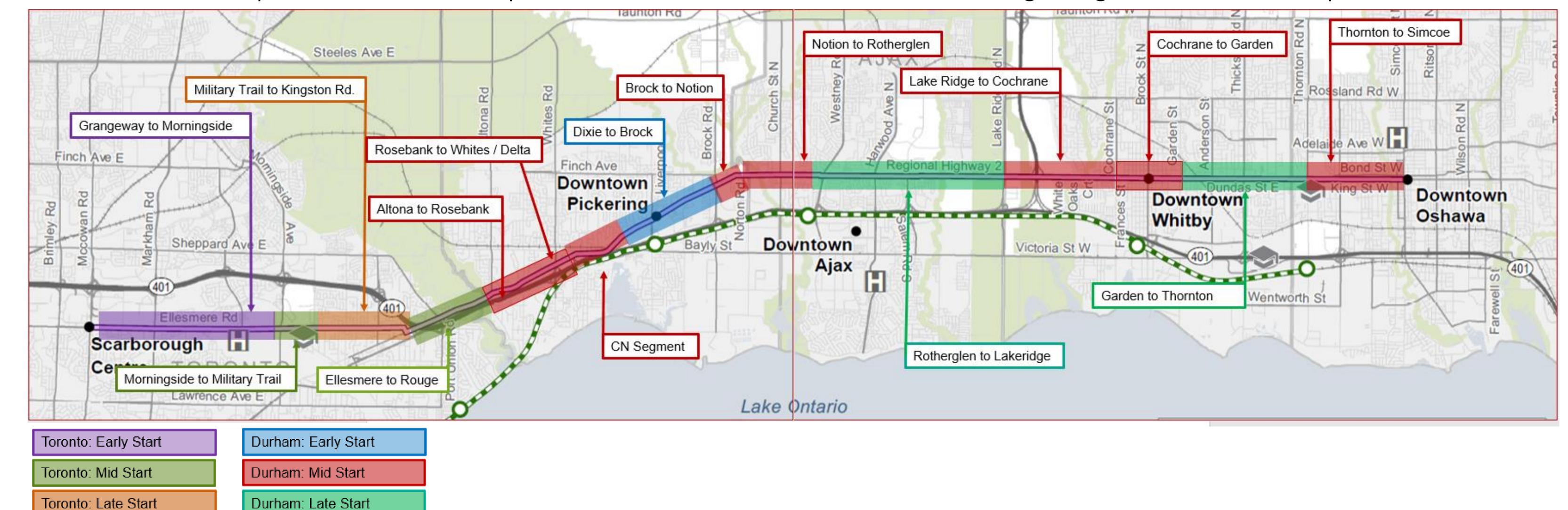






# Draft Implementation Strategy

- Subject to Federal approval of ICIP funding and TPAP approval, Durham Region plans to begin construction in specific areas in 2021/2022.
- In Toronto, construction would proceed when funding is available.
- Construction is planned to occur in phases. Quick wins and areas with existing congestion should be prioritized.

















## Construction and Deliverability





- Curbside bus lanes have already been constructed in Pickering and Ajax. Since the road has been widened to accommodate the infrastructure, construction costs and duration will be minimized in these areas.
- Construction will depend on funding, property acquisition, permits and approvals.
- After this phase, the project will advance to detail design prior to construction. Segments of the corridor in Durham Region will be constructed as part of the Investing in Canada Infrastructure Program, subject to Federal Approval.







