

IMPLEMENTATION & NEXT STEPS

Scarborough Centre on the Move Transportation Master Plan 163

10 Implementation & Next Steps

The infrastructure improvements recommended as part of the Scarborough Centre on the Move Transportation Master Plan should be implemented in a logical way that minimizes its overall disruption to the surrounding communities and everyday users. Individual projects are intended to occur concurrently with adjacent development or as identified by ongoing traffic monitoring. This chapter outlines project priorities, timing, and funding sources for each project, with the aim of effectively coordinating funds with other agencies and ongoing projects. To monitor the effectiveness of the Plan's implementation, a monitoring program is also described in this chapter.

10.1 Project Prioritization

10.1.1 Mechanisms/Processes

The Municipal Class Environmental Assessment (MCEA) Process is a planning and design tool used to assess the possible effects of an infrastructure project on the surrounding environment. Within this process, projects are defined by schedules, each with an increasing level of environmental impact. The schedules are outlined below.

- Schedule A includes projects with limited or minimal impact, are pre-approved, and do not require completion of all five phases of the EA Planning Process.
- Schedule A+ projects are similar to those identified for Schedule A, as they have typically been approved by a municipal council through annual budgets or specific mandates, but require the public to be informed prior to implementation.
- Schedule B projects have the potential for adverse environmental impacts and therefore require the proponent to undertake a screening process involving public and stakeholder consultation to address concerns of affected parties.
- Schedule C includes projects that have potentially significant environmental impacts. Proponents must undertake the full planning and design process specified in the MCEA Planning and Design document. An Environmental Study Report (ESR) must be completed and submitted for review by the public and review agencies for approval before proceeding to implementation.

There are five phases in the EA process:

- Phase 1: Identify the problem or opportunity
- Phase 2: Identify alternative solutions
- Phase 3: Examine alternative design concepts for the preferred solution
- Phase 4: Prepare an ESR

Schedule A and A+ projects require the completion on Phase 1 only, Schedule B projects require Phases 1-2 to be completed, and Schedule C projects require Phases 1-5 to be completed. The TMP process will satisfy Phases 1 and 2 of the EA process for the projects identified in the Recommended Transportation Network.

10.1.2 Project Phasing

To achieve the long-term 2041 vision for Scarborough Centre, it is important to consider which projects are of highest priority and how they can be realistically implemented through the mechanisms and processes that are in place. Four implementation phases emerged: Quick Wins, Short-Term Projects, Medium-Term Projects, and Long-Term Projects.

Quick win projects have been identified as projects that can be achieved without the completion of an Environmental Assessment (EA) or substantial stakeholder engagement. Interim projects have also been identified within this phase that will test the public response and feasibility of a permanent project in a subsequent phase. Short-Term projects are projects that are of the greatest priority and/or require coordination with the SSE, with funding to be secured between 2018 and 2028. Medium-Term projects will secure funding between 2028 and 2038. Long-Term projects, which are to be realized beyond 2038, aim to achieve the Scarborough Centre on the Move Transportation Master Plan long-term vision. SCTMP project phasing is shown in Table 10.1.

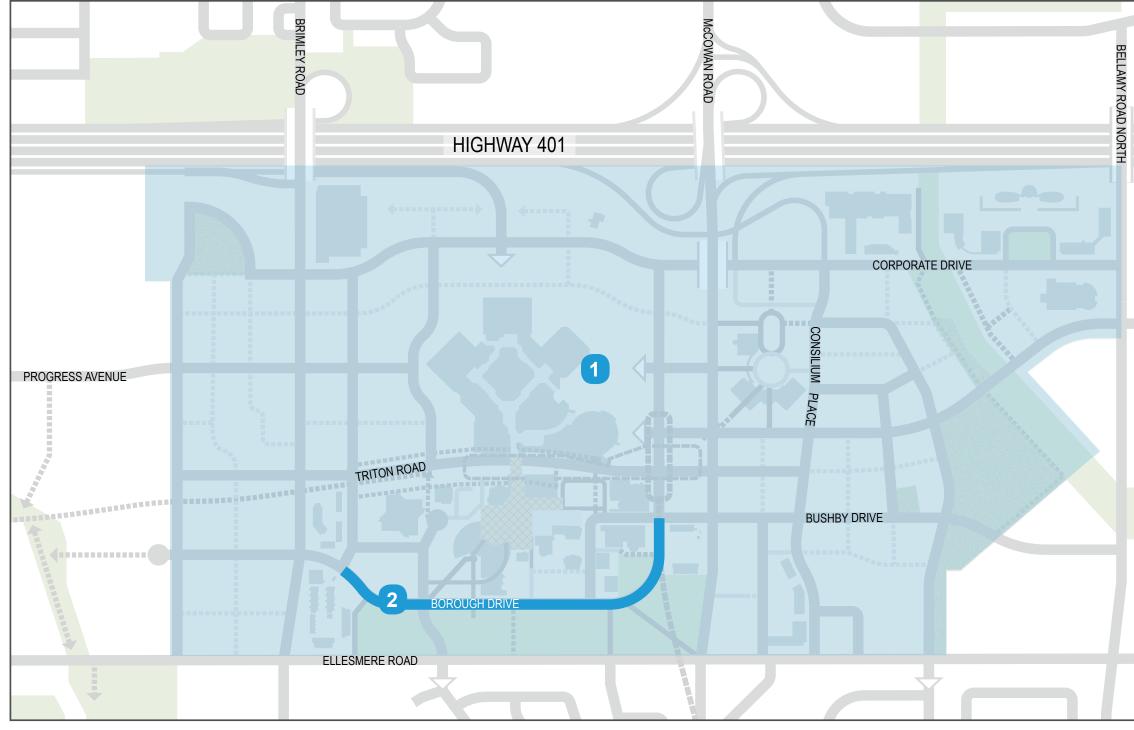
Table 10.1: SCTMP Project Phasing

Phase	Timing	Projects	
Quick Win	0-2 years	1. Area-Wide Policy Update	
		2. Interim Project: Borough Drive Land Reduction	
Short-Term	0-10 years	3. Finer Local Streets and Connections	
		4. Progress Avenue and McCowan Road Intersection Normalization	
		5. Progress Avenue and Corporate Drive Reconfiguration	
	6 6 7 8 8 8 8	6. Elimination of Bushby Drive to McCowan Road Ramp	
	6 6 7 8 8 8 8 8	7. Borough Drive Land Reduction	
	6 6 6 6 6 6	8. Borough Approach East and West Reconfiguration/Consolidation	
		9. Durham-Scarborough Bus Rapid Transit (BRT)	
Medium-Term	10-20 years	10. Brimley Road and Highway 401 Interchange Reconfiguration	
		11. Rapid Transit Infrastructure/Corridor Repurposing	
	6 6 7 8 8 8 8	12. Satellite Bike Share Expansion	
	8 8 9 8 8 8 8	13. Cycling Network	
	9 9 9 9 9 9 9	14. Bushby Drive Extension to Bellamy Road	
Long-Term	20+ years	15. McCowan Rapid Transit	
	* * * *	16. Bellamy Road Extension to Milner Avenue	

The next section provides project fact sheets for each of the four implementation phases. Key information, such as project rationale, feasibility, impacts, planning-level costs and next steps, are outlined for all 16 proposed projects.

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10.2 Quick Win Projects



0 25 50 100 150 m

Legend



Area-Wide Policy Updates



Interim Project: Borough Drive Lane Reduction



Recommendations

- Update policies to reflect planned changes/principles from the Scarborough Centre on the Move Transportation Master Plan
- Utilize Complete Streets Guidelines and approach when upgrading streets with active transportation and public realm amenities as maintenance and reconstruction occurs
- Re-name streets to facilitate wayfinding

Project Limits

Scarborough Centre Secondary Plan Area

Proposed Capital Budget Timing 2018-2020

Environmental Assessment (EA) Status

No Environmental Assessment is required

Existing Conditions

The existing transportation network in the study area does not fulfill the policy objectives outlined in *Places to Grow, The Big Move,* the *Official Plan,* the *Scarborough Centre Secondary Plan,* and other policy and planning documents that emphasize mixed-use and transit-oriented development. The area consists of a coarse street network with large blocks, paired with an unsafe and fragmented pedestrian environment. The lack of multi-modal connections within the Centre and to/from surrounding communities discourages active modes of transportation.





Key Measures



- Provides mobility options for all users, regardless of mode, age, ability, or income
- Enhances streets for active transportation by reallocating the public right-of-way to increase space for pedestrians and cyclists
- Supports transit investment by developing a multi-modal mobility hub, increasing efficiency, and improving multimodal transfers
- Contributes to a vibrant public realm and sense of place that attracts people and jobs to the Centre

The Scarborough Centre Secondary Plan update will reflect the vision for Scarborough Centre as described in the Scarborough Centre on the Move Transportation Master Plan. It is recommended that the Scarborough Centre Secondary Plan update adopt the recommended transportation network and layers. Area-wide improvements, such as wide continuous sidewalks, public realm enhancements, and cycling facilities on new and constructed streets, will encourage the use of active and sustainable modes of transportation and begin to promote a shift away from single-occupant vehicle use in the Centre.

Feasibility

Opportunities

- City of Toronto Complete Streets Guidelines provide a framework for implementation
- Improvements to the street network can occur with new development (e.g. provision of continuous sidewalks, active transportation amenities, public realm improvements, etc.)
- Active transportation and public realm enhancements can be coordinated with street rehabilitation projects

Challenges

- Fragmented improvements with piecemeal development
- Re-name streets to facilitate wayfinding

Impacts

Natural Environment: Minimal natural heritage impacts

Built Environment: Changes within right-of-way to accommodate improvements (e.g. wider sidewalks, streetscaping) Cultural Heritage: Minimal cultural heritage impacts

Property: Potential impact to existing properties through redevelopment

Planning-Level Costs

\$1 M - \$1.5 M

Potential Funding Sources

- City
- Property Owner/in association with development

Timing



Next Steps

- Secondary Plan Update
- Detailed design of streets to be reconstructed



Applicable Streets: Brimley Road, Progress Avenue, McCowan Road, Borough Drive



Applicable Streets: Borough Drive, Borough Approach West



Applicable Streets: Corporate Drive, Town Centre Court, Omni Drive, Grangeway Avenue



Applicable Streets: Ellesmere Road

Recommendations

Conduct an interim project to determine the feasibility of a lane reduction on Borough Drive within the existing roadway

Project Limits

Borough Drive from Omni Drive to northeast intersection of Town Centre Court and Borough Drive

Proposed Capital Budget Timing

2018-2020

Environmental Assessment (EA) Status

No Environmental Assessment is required. This project is pre-approved through the Scarborough Centre on the Move Transportation Master Plan.



Existing Conditions

Borough Drive is a four-lane collector road that runs from Progress Avenue in the west to Town Centre Court in the east. The east-west segment of Borough Drive considered for this interim project has pedestrian amenities (on the north side of the street in front of Scarborough Civic Centre Library), onstreet parking, and bisects 'Hand of God' Park and Civic Green Park.

	Borough Drive
Right-of-way	27 m
No. of Traffic Lanes	4
Speed Limit	40 km/hr

Key Measures



Borough Drive, looking west to Borough Approach East



- Evaluate the impact of a lane reduction on vehicular traffic levels
- Partial implementation of City's Cycling Network Ten Year Plan
- Tests the street design on part of the street to inform further lane reduction and street reconfiguration along Borough Drive
- Enhance civic presence, place-making opportunities, and sense of place along Borough Drive
- Enhances space for active modes of transportation (i.e. walking and cycling)
- Supports an attractive public realm through focus on public landmarks, wide pedestrian walkways, and active transportation amenities

The interim project will maintain one lane of traffic per direction, and enhance pedestrian and cycling connections. The outside travel lane to the south will allow on-street parking at all times of the day. The north outside travel lane will be converted into temporary bike lanes (one lane in either direction), separated from street traffic by a painted buffer and flexi-post bollards.

	Borough Drive
Right-of-way	27 m
No. of Traffic Lanes	2
Speed Limit	40 km/hr

Feasibility

Opportunities

• Low-cost, short-term solution to improve pedestrian and cyclist experience, enhance public realm, and reduce vehicular traffic volumes and speeds

Challenges

• Bi-directional cycling lanes will require additional measures (i.e. signage, wide buffers) to ensure cyclists are appropriately separated from vehicular traffic, particularly along curves where visibility may be limited

Impacts

Natural Environment: No natural heritage impacts; improves connections to parks and open spaces Built Environment: Temporary changes to Borough Drive right-of-way

Cultural Heritage: No areas of archaeological potential identified within existing right-of-way

Property: No property impacts

Planning-Level Costs



Potential Funding Sources

City

Timing

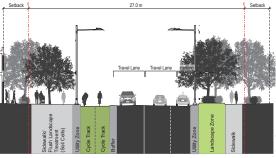


Next Steps

- Conduct feasibility study of design options
- Receive approval from Council

Related Projects

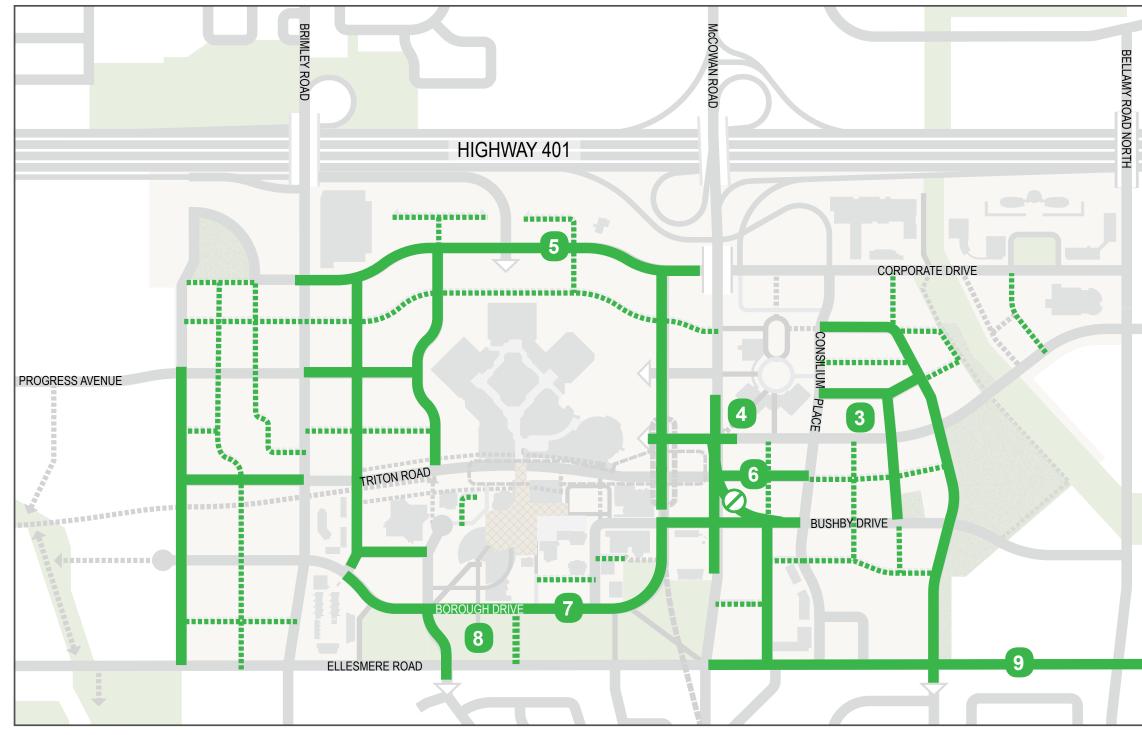




Borough Drive Conceptual Cross-Section



10.3 Short-Term Projects



0 25 50 100 150 m

	Legend
	3 Finer Local Streets and Connections
	Progress Avenue and McCowan Road Intersection Normalization
	5 Progress Avenue and Corporate Drive Reconfiguration
	6 Elimination of Bushby Drive to McCowan Road Ramp
	7 Borough Drive Lane Reduction
	Borough Approach East and West Reconfiguration/ Consolidation
	9 Durham-Scarborough BRT
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Recommendations

Develop a fine-grained grid system of local streets and connections accompanied by a mix of land uses

Project Limits

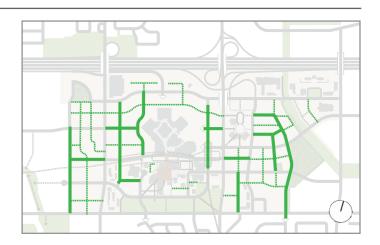
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Scarborough Centre Secondary Plan Area

Proposed Capital Budget Timing 2018-2028

Environmental Assessment (EA) Status

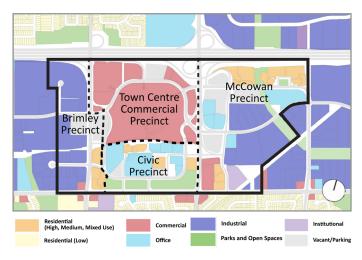
No Environmental Assessment is required



Existing Conditions

The Centre's existing transportation network consists of large development blocks that encourage automobile dependency (greater than 150 metre intersection spacing).

Land uses are largely segregated, and the large distances between uses is typically overcome using a single-occupant vehicle. Overall, separated land uses do not support walkability.

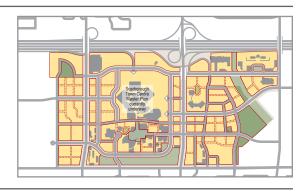


Key Measures



- Creates a walkable environment with a greater number of accessible services over a short distance
- Allows for mixed-use and high-density development that can attract residential and employment growth
- Provides greater route options for all modes of transportation
- Supports the viability of the transit network by locating a mix of uses near transit investment

The proposed block structure for Scarborough Centre recommends intersection spacing ranging from 80-120 metres, which would allow for a more human-scale block pattern. Increased connections, route options, and walkability will result from a finer grid network. This block pattern will also support the development of a mix of employment, retail, and residential uses near the future subway station, part of the Line 2 - Scarborough Subway Extension (SSE).



Feasibility

Opportunities

- Large blocks available for redevelopment
- Supports transit investment into Line 2 Scarborough Subway Extension (SSE) and other transit projects, attracting developers
- Local network can be achieved through new development approvals

Impacts

Natural Environment: New developments to assess natural environment impacts

Built Environment: Impact to existing streets and intersections to accommodate new streets and connections Cultural Heritage: May impact areas of archaeological potential

Property: Potential impact to developable area

Planning-Level Costs

Private Investment

Potential Funding Sources

City

Timing

Short Term (0 - 10 years)

Next Steps

- Conduct feasibility study of design options
- Receive approval from Council



Recommendations

Normalize Progress Avenue/McCowan Road grade separation to an at-grade intersection

Project Limits

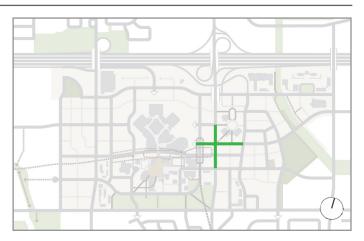
McCowan Road and Progress Avenue intersection

Proposed Capital Budget Timing

2018-2028

Environmental Assessment (EA) Status

A Schedule C EA will be required for this project. The Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process, but the completion of the remaining phases is required.



Existing Conditions

The existing Progress Avenue bridge over McCowan Road limits connectivity for all modes of transportation. The existing street infrastructure utilizes significant amounts of land in the area and limits development potential. In addition, the number of ramps and lack of crossing opportunities reduce the safety and convenience of travelling by active modes.

	McCowan Road	Progress Avenue
Right-of-way	36 m	27 m
No. of Traffic Lanes	6	4-6
Speed Limit	60 km/hr	50 km/hr



McCowan Road, looking north to Progress Avenue

Key Measures



- Provides pedestrian and cyclist crossing opportunities and improves connectivity to/from key destinations
- Supports transit investments through more convenient and safer connections to the proposed Line 2 Scarborough Subway Extension (SSE)
- Provides regular blocks promoting walkability, cycling, and development opportunities near the intersection
- Improves access to retail and commercial activity at Scarborough Town Centre shopping mall for all modes
- Simplifies the transportation network and provides connections for all modes
- Provides transfer opportunity between transit routes on McCowan Road and Progress Avenue

Ramps will be removed and the intersection of Progress Avenue and McCowan Road will be constructed into an at-grade intersection. Sidewalks will be provided on all streets and pedestrians and cyclists will have the opportunity to cross at a signalized intersection. This change will contribute to the simplified grid network planned for Scarborough Centre. Increased development potential in the adjacent blocks will also contribute to an improved public realm and will support transit investment.

	McCowan Road	Progress Avenue
Right-of-way	36 m	27-30 m
No. of Traffic Lanes	6	4-6
Speed Limit	50 km/hr	40 km/hr

Feasibility

Opportunities

- Implementation in coordination with Line 2 Scarborough Subway Extension
- Enhance public realm along McCowan Corridor
- Support development potential around future Scarborough Centre subway station and bus terminal

Challenges

- May impact areas of archaeological potential and the natural environment
- Line 2 Scarborough Subway Extension construction
- Requires capital investment

Impacts

Natural Environment: Removal of mature trees

Built Environment: Removal of Progress Avenue bridge

Cultural Heritage: May impact area of archaeological potential identified in northwest corner of McCowan Road and Progress Avenue

Property: Requires the reconfiguration of Scarborough Town Centre parking in coordination with SSE

Planning-Level Costs

\$18 M - \$27 M

Potential Funding Sources

- City
- TTC
- Property Owner/ in association with development

Timing

Short Term (0 - 10 years)

Next Steps

- Secure funding
- Further study (Schedule C Environmental Assessment)
- Detailed design
- Coordination with Line 2 SSE design and construction



Progress Avenue and Corporate Drive Reconfiguration

Project Description

Recommendation

Reconfigure Progress Avenue and the Progress Avenue/ Corporate Drive intersection

Project Limits

Intersection of Progress Avenue and Corporate Drive, and Progress Avenue between McCowan Road and Brimley Road

Proposed Capital Budget Timing

2018-2028

Environmental Assessment (EA) Status

This project may proceed as a Schedule A+ or B EA, depending on extent and timing. Should a Schedule B EA be required, the Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process.

Existing Conditions

Progress Avenue is a minor arterial road that serves as an east-west vehicular link through the Centre. However, Progress Avenue currently lacks continuous sidewalks and does not provide cycling facilities. In addition, the alignment of the Progress Avenue and Corporate Drive intersection limits visibility, and reducing the comfort for all modes.

	Corporate Drive	Progress Avenue
Right-of-way	30 m	27-30 m
No. of Traffic Lanes	4	4-6
Speed Limit	50 km/hr	50 km/hr





Key Measures



- Contributes to a simplified grid network of streets and improves connectivity for all modes
- Improves access to retail and commercial activity at Scarborough Town Centre shopping mall
- Improves comfort at the intersection of Progress Avenue and Corporate Drive
- Provides pedestrian and cyclist crossing opportunities, improving connectivity to/from key destinations
- Utilizes existing infrastructure (i.e. Corporate Drive) more efficiently

Progress Avenue and the intersection of Progress Avenue and Corporate Drive will be realigned. Pedestrian and cycling amenities will be provided on both streets, and speeds will be reduced.

	Corporate Drive	Borough Drive
		(Existing Progress Avenue)
Right-of-way	30 m	27 m
No. of Traffic Lanes	4	4
Speed Limit	40 km/hr	40 km/hr

Feasibility

Opportunities

- Located at tunnel launch site for the Line 2 Scarborough Subway Extension, making it possible to implement during the reinstatement of roadways
- Support development around Scarborough Town Centre shopping mall

Challenges

Potential natural environment and property impacts

Impacts

Natural Environment: Potential impact to private trees Built Environment: Impact to existing Progress Avenue roadway Cultural Heritage: No impact to areas of archaeological potential

Property: Potential impact on existing La-Z-Boy Furniture parking lot (east) and Scarborough Town Centre shopping mall parking lot (west)

Planning-Level Costs

\$4.5 M - \$6 M

Potential Funding Sources

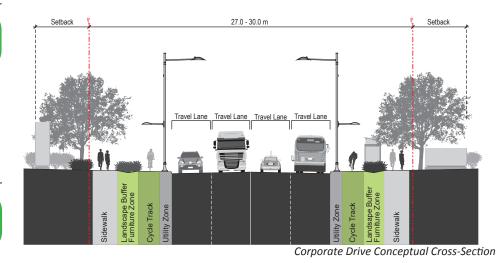
- City
- TTC
- Property Owner/in association with development

Timing

Short Term (0 - 10 years)

Next Steps

- Secure funding
- Further study (Schedule C Environmental Assessment)
- Detailed Design



Recommendation

Decommission ramp from Bushby Drive to McCowan Road

Project Limits

Bushby Drive from Grangeway Avenue to McCowan Road and ramp

Proposed Capital Budget Timing

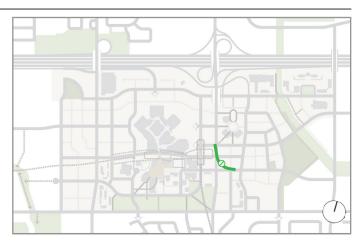
2018-2028

Environmental Assessment (EA) Status

A Schedule C EA will be required for this project. The Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process, but the completion of the remaining phases is required.

Existing Conditions

Bushby Drive is an east-west collector road that operates between Grangeway Avenue and McCowan Road. Bushby Drive becomes Town Centre Court west of McCowan Road. The channelized right turn from Bushby Drive to McCowan Road is a barrier for pedestrians and cyclists. The ramp also contributes to a network that is difficult to navigate.





Bushby Drive, looking west to McCowan Road and ramp

Key Measures



- Improves connectivity to/from key destinations for pedestrians and cyclists
- Provides regular blocks promoting walkability, cycling, and development opportunities near the intersection
- Contributes to a network that is easier to navigate
- Supports transit investments through more convenient and safer connections to the future Scarborough Centre subway station and bus terminal

The ramp from Bushby Drive to McCowan Road will be removed and the intersection of Bushby Drive and McCowan Road will operate as a full-moves intersection. This change also requires the removal of one right turning lane from Grangeway Avenue onto Bushby Drive. Bushby Drive will become a vibrant street with wide active transportation boulevards.

Feasibility

Opportunities

- Removal of rapid transit infrastructure at McCowan Station eliminates need for pedestrian bridge over Bushby Drive ramp and unlocks open space opportunities and development potential at north-east corner of Bushby Drive and McCowan Road
- Provides regular block for future development

Impacts

Natural Environment: No impact to the natural environment; improves connections to parks and open spaces Built Environment: Removal of Bushby Drive ramp and changes to Grangeway Avenue Cultural Heritage: No areas of archaeological potential identified Property: No property impacts

Planning-Level Costs

\$200 K

Potential Funding Sources

City

Next Steps

- Secure funding
- Further study (Schedule C
- Environmental Assessment)
- Detailed design

Timing

Short Term

(0 - 10 years)

Recommendations

Reduce travel lanes from four lanes to two (one lane in each direction)

Project Limits

Borough Drive from Omni Drive to the northeast intersection of Town Centre Court and Borough Drive

Proposed Capital Budget Timing

2018-2028

Environmental Assessment (EA) Status

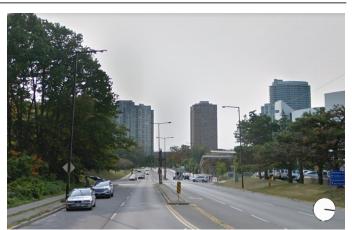
A Schedule C EA will be required for this project. The Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process, but the completion of the remaining phases is required.

Existing Conditions

Borough Drive is a four-lane collector road that runs from Progress Avenue in the west to Town Centre Court in the east. The east-west segment of Borough Drive adjacent to Scarborough Civic Centre and Library has pedestrian amenities, on-street parking, and connects to 'Hand of God' Park and Civic Green Park.

	Borough Drive
Right-of-way	27 m
No. of Traffic Lanes	4
Speed Limit	40 km/hr





Borough Drive, looking west to Borough Approach East

Key Measures



- Accommodates vehicle traffic and enhances space for other modes of travel through lane reduction
- Improves safety through separated active transportation facilities and reduced speeds
- Supports an attractive public realm through focus on public landmarks, wide pedestrian walkways, and active transportation amenities

The segment of Borough Drive from Omni Drive to the		Borough Drive
northeast intersection of Town Centre Court and Borough Drive will have one travel lane in each direction, a bi-	Right-of-way	27 m
directional cycle track, on-street parking, wide sidewalks,	No. of Traffic Lanes	2
and landscaping zones.	Speed Limit	40 km/hr

Feasibility

Opportunities

- Construction of the Line 2 Scarborough Subway Extension (SSE) will require reconstruction of Progress Avenue and establish the east portion of proposed Borough Drive
- Enhances access to parks and open space network
- Improves pedestrian and cyclist experience and safety
- Supports transit investment through connections to Line 2 SSE and bus terminal

Challenges

- Requires capital investment
- Requires coordination with other construction projects, intersections, and street reconfigurations

Impacts

Natural Environment: No natural heritage impacts; improves connections to parks and open spaces Built Environment: Temporary changes to Borough Drive right-of-way Cultural Heritage: No areas of archaeological potential identified within existing right-of-way Property: No property impacts

Planning-Level Costs

\$7 M - \$11 M

Potential Funding Sources

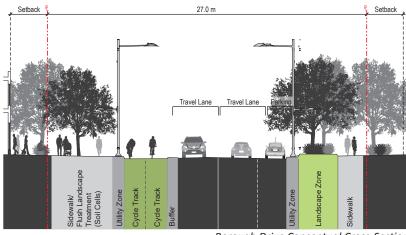
- City
- Property Owner/in association with development
- TTC

Timing

Short Term (0 - 10 years)

Next Steps

- Borough Drive interim project
- Secure funding
- Further study (Schedule C Environmental Assessment)
- Detailed design



Borough Drive Conceptual Cross-Section

Related Projects



Borough Approach East and West Reconfiguration/Consolidation

Project Description

Recommendations

- Maintain Borough Approach West for vehicular traffic and provide cycling facilities and sidewalks
- Realign Borough Approach West with Packard Boulevard and establish a full-moves signalized intersection
- Decommission Borough Approach East and establish the area as park/open space with an active connection
- Signalize intersection of Ellesmere Road and Saratoga Drive

Project Limits

Borough Approach East and West from Ellesmere Road to Borough Drive; Ellesmere Road from Packard Boulevard to Saratoga Drive

Proposed Capital Budget Timing

2018-2028

Environmental Assessment (EA) Status

This project may proceed as a Schedule A+ or B EA. Should a Schedule B EA be required, the Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process.

Existing Conditions

Borough Approach East and West are a set of parallel collector roads operating north-south between Ellesmere Road and Borough Drive. These streets are located adjacent to 'Hand of God Park' and the Civic Green Park. A signalized intersection exists at Borough Approach East and Ellesmere Road, whereas Borough Approach West and Ellesmere Road is unsignalized. Both intersections currently operate as partial moves intersections.

	Borough Approach East	Borough Approach West
Right-of-way	20 m	20 m
No. of Traffic Lanes	4	4
Speed Limit	40 km/hr	40 km/hr



Borough Approach East and West, looking north to Scarboroguh Civic Centre

Key Measures



- Provides north-south connectivity for all modes between key destinations and the surrounding communities
- Provides a separated active transportation connection and safer crossing opportunities, improving safety for pedestrians and cyclists
- Enhances the open space network by consolidating 'Hand of God Park' and the Civic Green Park

Borough Approach West will be realigned with PackardBoulevard at a full moves signalized intersection. Thisproject will also result in the decommission of BoroughApproach East and the signalization of the Saratoga Driveand Ellesmere Road intersection. These changes will resultin greater connectivity for all modes of transportation, andwill allow safer crossing opportunities.

	Borough Approach West
Right-of-way	20 m
No. of Traffic Lanes	2
Speed Limit	40 km/hr

Feasibility

Opportunities

- Enhances the adjacent park and open space network and creates an attractive public realm
- Improves existing complex intersections on Ellesmere Road
- Provides appropriately spaced north-south crossing opportunities at signalized intersections
- Provides greater connectivity for all modes

Challenges

• No significant constraints to implementation

Impacts

Natural Environment: Will impact small area of green space and mature trees, which will be compensated by park space gained through Borough Approach East decommission

Built Environment: Impact to existing Ellesmere Road, Packard Boulevard, Borough Approach East and West roadways Cultural Heritage: May impact areas of archaeological potential

Property: Potential impact to 1501 Ellesmere Road, depending on intersection alignment

Planning-Level Costs



Potential Funding Sources

City

Timing

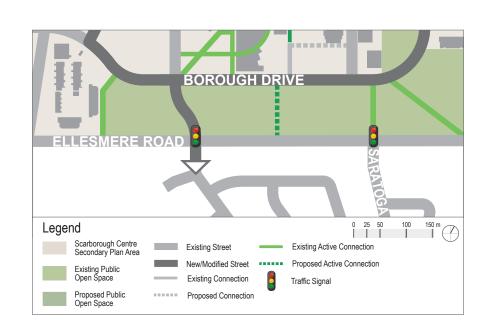
Short Term (0 - 10 years)

Next Steps

- Secure funding
- Further study (Schedule C Environmental Assessment)
- Detailed design

Related Projects





Recommendation

Widen Ellesmere Road to accommodate Durham-Scarborough Bus Rapid Transit east of McCowan Road

Project Limits

Ellesmere Road

Proposed Capital Budget Timing

2018-2028

Environmental Assessment (EA) Status

A Transit EA/TPAP will be required for this project. The Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process, but the completion of the remaining phases is required.

Existing Conditions

Ellesmere Road is a major east-west arterial road that accommodates high traffic volumes. Metrolinx, in partnership with the City, TTC, Durham Region, and Durham Region Transit, is updating the 2010 business case for the Durham-Scarborough BRT.

	Ellesmere Road	
Right-of-way	36 m	
No. of Traffic Lanes	4	
Speed Limit	60 km/hr	





Ellesmere Road, looking east from McCowan Road

Key Measures



- Provides east-west regional transit connections between Oshawa and Scarborough Centre
- Supports Regional Transportation Plan and transit investment by connecting people to the regional transit network
- Connects people to residential, institutional, and employment opportunities, supporting economic prosperity and attracting growth in the Centre

The Durham-Scarborough BRT is proposed to provide 36 kilometres of new rapid transit bus service along Highway 2 and Ellesmere Road. This transit corridor is proposed to connect Scarborough Centre to Downtown Oshawa. Ellesmere Road, east of McCowan Road, is proposed to be widened to accommodate the proposed BRT.

	Ellesmere Road	
Right-of-way	36 m	
No. of Traffic Lanes	4	
No. of Transit Lanes	2	
Speed Limit	50 km/hr	

Feasibility

Opportunities

• Durham-Scarborough BRT links Scarborough Centre to the regional transportation system

Challenges

- Coordination with other construction projects in the area and integration with proposed SSE
- Metrolinx funding to advance planning, design, and engineering work; no construction funding identified

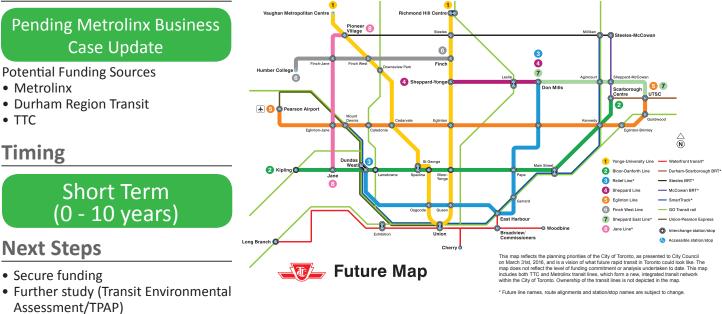
Impacts

Detailed design

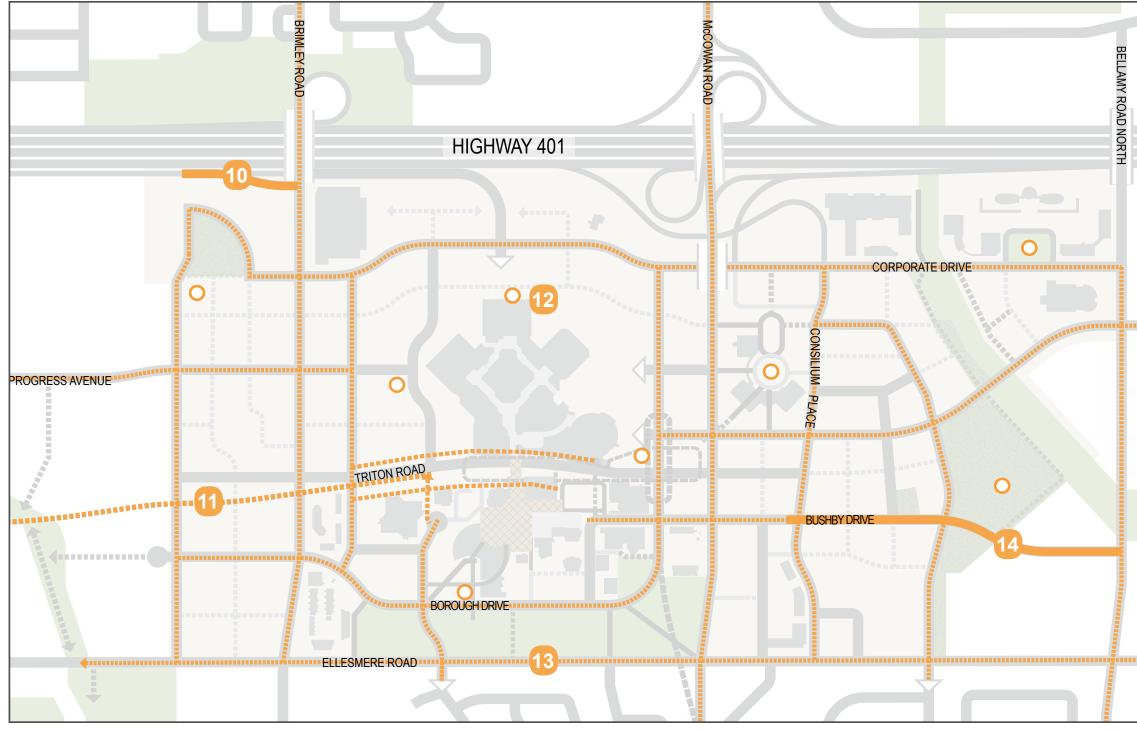
Natural Environment: Impact to existing trees located in boulevard along Ellesmere Road Built Environment: Roadway widening

Cultural Heritage: May impact areas of archaeological potential along Ellesmere Road **Property:** Minimal property impacts

Planning-Level Costs



10.4 Medium-Term Projects



0 25 50 100 150 m

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Legend Brimley Road and Highway 401 Interchange 10 Reconfiguration Rapid Transit Infrastructure/Corridor Repurposing 11 Satellite Bike Share 12 Expansion



Cycling Network



Bushby Drive Extension to Bellamy Road

Recommendation

Realign eastbound Highway 401 off-ramp at Brimley Road into a signalized T-intersection that permits northbound and southbound movements onto Brimley Road

Project Limits

Eastbound Highway 401 Exit to Brimley Road

Proposed Capital Budget Timing

2028-2038

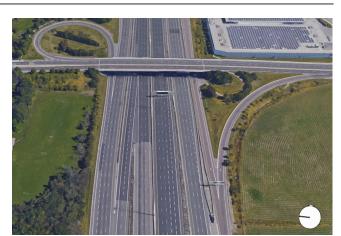
Environmental Assessment (EA) Status

A Schedule B EA was completed for this project in 2010. Implementation is pending MTO review and approval.



Highway 401 eastbound traffic exits to southbound Brimley Road. The nearest east-west crossing opportunity for pedestrians is at the signalized intersection of Progress Avenue and Brimley Road. Brimley Road lacks sidewalks on the west side north of Progress Avenue to the eastbound Highway 401 ramp.





Highway 401, looking east to Brimley Road off-ramp

Key Measures



- Improves connectivity for communities to the north from Highway 401 through additional movements
- Provides safer crossing opportunities for pedestrians and cyclists, creating a pedestrian and cyclist-friendly environment
- Simplifies the street network, making the Centre easier to navigate

The EA considered alternatives for the eastbound off-ramp and the westbound on-ramp at Brimley Road. The eastbound Highway 401 exit ramp southbound to Brimley Road will be realigned to allow both northbound and southbound movements onto Brimley Road. A signalized intersection is recommended along with sidewalks on both sides of Brimley Road to support pedestrian activity in the Centre. The recommendation for the westbound on-ramp was to do nothing.

Feasibility

Opportunities

- Allows for future public road connection between Schick Court and Brimley Road
- Meets policy objectives of Scarborough Centre Secondary Plan
- Contributes to pedestrian and cyclist-friendly network

Impacts

Natural Environment: Minimal impact to the natural environment

Built Environment: Reconfiguration of eastbound off-ramp; removal of sidewalk/pathway loop to be replaced with continuous sidewalks

Cultural Heritage: Minimal cultural heritage impacts

Property: No property impacts

Planning-Level Costs



Potential Funding Sources

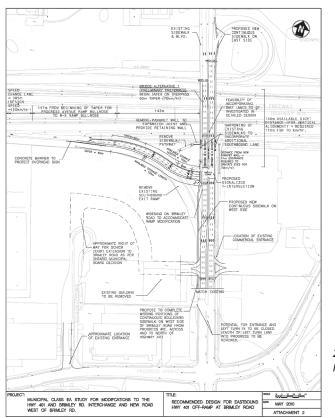
- City
- Ministry of Transportation
- (MTO)

Timing

Medium Term (10-20 years)

Next Steps

- Secure fundingFurther study (Environmental
- Assessment Modification)
- Detailed design



2010 Municipal Class EA Recommended Design

Recommendation

Repurpose rapid transit infrastructure into east-west active transportation connection

Project Limits

Existing Toronto Transit Commission (TTC) Line 3 – Scarborough (to the west of future Scarborough Centre Station)

Proposed Capital Budget Timing

2028-2038

Environmental Assessment (EA) Status

No Environmental Assessment is required. This project is pre-approved through the Scarborough Centre on the Move Transportation Master Plan.

Existing Conditions

The Centre currently lacks east-west pedestrian connections, particularly for accessing Scarborough Town Centre (STC) shopping mall. Triton Road (between Borough Drive and McCowan Road) allows buses and delivery vehicles only, making it difficult to access STC and the existing Scarborough Centre rapid transit station from land uses to the east and west.

The existing TTC Line 3 – Scarborough is currently operating over capacity; however, due to the aging infrastructure and outdated vehicles, it is not possible to replace and/or add new vehicles. The decommission of the rapid transit infrastructure will occur following completion of the Line 2 - Scarborough Subway Extension (SSE), which will replace the existing rapid transit station and bus terminal at Scarborough Centre with a subway station and new bus terminal.





Scarborough Centre, looking east along existing rapid transit tracks

Key Measures



- Improves connectivity for pedestrians accessing STC and the SSE
- Supports investment into transit by improving multi-modal transfer
- Promotes healthy and sustainable travel choices by providing the opportunity to walk or cycle to key destinations
- Enhances park and open space network by providing active connections to existing green spaces (e.g. West Highland Creek)
- Improves safety for all modes by separating pedestrians and cyclists from vehicular traffic



Repurposes the Rapid Transit infrastructure/corridor to create an attractive connection, which provides placemaking and public realm improvement opportunities. The design of this link will be determined through further study and input. Initial plan proposes the development of a large park or open space.

Feasibility

Opportunities

- SSE will attract high volumes of pedestrians and cyclists
- Decommission of rapid transit creates opportunity to repurpose old infrastructure/corridor
- Contributes to pedestrian and cyclist-friendly network
- Contributes to park and open space network

Challenges

• Coordination with construction of SSE and integration with SSE and bus terminal infrastructure

Impacts

Natural Environment: No negative impact on the natural environment; potential improvement to network of green space

Built Environment: Repurposing of rapid transit infrastructure/corridor

Cultural Heritage: No anticipated cultural heritage impacts

Property: No property impacts

Planning-Level Costs



Potential Funding Sources

City

Timing



Next Steps

- Secure funding
- Detailed design



West Toronto Railpath (Source: Friends of West Toronto Railpath)



New York City High Line (Source: NYC Parks)



New York City High Line (Source: Friends of the High Line)

Recommendation

Expand Bike Share Toronto to Scarborough Centre as a satellite location

Project Limits

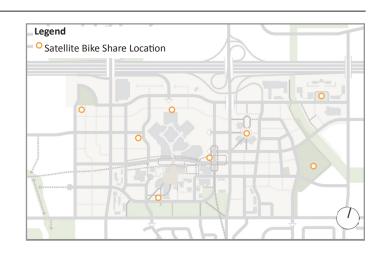
Scarborough Centre Secondary Plan Area

Proposed Capital Budget Timing

2028-2038

Environmental Assessment (EA) Status

No Environmental Assessment is required



Existing Conditions

Bike Share Toronto is a system of stations where users can pay a membership fee to borrow bikes for short trips. The existing stations are concentrated in Downtown Toronto and along major transit lines. There are currently no stations in Scarborough Centre. The program is operated by the Toronto Parking Authority and is funded by the City of Toronto, the Province of Ontario, and the Government of Canada.



Key Measures



- Expands the Centre's transportation options and provides greater mobility choices
- Enables short cycling trips for travel to and from transit, which helps solve the first-mile/last-mile problem
- Encourages and supports greater local active trips
- Provides environmental benefits by offsetting greenhouse gas emissions
- Promotes healthy lifestyles through opportunities for physical activity
- Represents a more affordable mobility option than automobiles
- Enhances park and open space network by providing active transportation amenities
- Helps connect people to and from key destinations in the Centre

Bike Share Toronto was created to provide both locals and visitors an enjoyable and cost-effective option to walking, taxis, and public transportation. This plan proposes potential locations for approximately 8 bike share stations to be considered first for implementation.

Potential Station Locations

- Scarborough Centre Scarborough Civic Centre Subway Station Library
- Consilium Place office complex
- Proposed developments at Schick Court
- park/school site
- 705 Progress Avenue Scarborough Town Centre Shopping Mall (approximately 3 stations)

Feasibility

Opportunities

- Scarborough Subway Extension, Durham-Scarborough BRT, and other transit investments complement bike share network
- Helps provide solution to first-mile/last-mile problem

Challenges

 Dependent on the implementation of cycling facilities in the Centre (i.e. bike lanes and cycle tracks will promote ridership by making cycling more attractive, comfortable and safe)

Impacts

Natural Environment: No negative impact on the natural environment; Reduction in automobile traffic and greenhouse gas emissions

Built Environment: Minimal impact to boulevards at station locations

Cultural Heritage: No anticipated cultural heritage impacts

Property: Minimal property impacts

Planning-Level Costs

\$400 K - \$1 M

- **Potential Funding Sources**
- City
- Toronto Parking Authority
- Partnership Opportunities

Timing

Medium Term (10-20 years)

Next Steps

• Further study (business case)

Related Projects





Recommendation

Develop a connected network of cycling facilities, expanding on planned facilities

Project Limits

Scarborough Centre Secondary Plan Area

Proposed Capital Budget Timing

2028-2038 (completion)

Environmental Assessment (EA) Status

Further study of cycling facilities will be conducted during Environmental Assessment studies for roadway projects in the Centre



Existing Conditions

There are currently no cycling facilities (e.g. bike lanes, cycle tracks) located in Scarborough Centre, and only limited cycling amenities (e.g. bicycle parking, storage) are available. Post and ring bicycle parking is located outside of Scarborough Civic Centre Library, Scarborough Town Centre, and McCowan Station. Bicycle lockers can also be found in Albert Campbell Square.

In addition to a lack of cycling infrastructure, the traffic volumes and existing speed limits of 60 km/h on Midland Avenue, Brimley Road, Ellesmere Road, McCowan Road, and Markham Road create an unpleasant and unsafe cycling environment environment for cyclists.

Key Measures



- Promotes a shift towards sustainable modes of transportation
- Connects people to/from key destinations and transit stations, which helps solve the first-mile/last mile problem
- Provides environmental benefits by offsetting greenhouse gas emissions
- Provides health benefits through opportunities for physical activity
- Enhances park and open space network by providing active transportation facilities

Cycling facilities (e.g. cycle tracks, multi-use paths, bike lanes) will be implemented throughout the Centre to create a connected network of active transportation infrastructure. Based on the Scarborough Centre on the Move Transportation Master Plan, the proposed cycling facility types are shown below. Further study is required for each street to evaluate the feasibility for each type of facility.

Feasibility

Opportunities

• Rapidly changing area allows for cycling facilities to be implemented during construction of new streets and developments

Challenges

• Creating culture of cycling in historically auto-oriented area

Impacts

Natural Environment: Impacts to be determined through Environmental Assessment studies

Built Environment: Reconstruction of public right-of-way to include space for cyclists

Cultural Heritage: Impacts to be determined through Environmental Assessment studies

Property: Impacts to be determined through Environmental Assessment studies

Planning-Level Costs

\$2.5 M - \$3.5 M

Potential Funding Sources

- City
- Property Owner/in association with development

Timing

Medium Term (10-20 years)

Next Steps

• Further study during Environmental Assessment of roadway projects

Related Projects



Applicable Streets: Progress Avenue, Midland Avenue, Brimley Road, McCowan Road, Bellamy Road, Bushby Drive, and Borough Drive (two-way)



Applicable Streets: Corporate Drive, Consilium Place, Grangeway Avenue, Golden Gate Court, and new 20-metre ROW local street(s)



Applicable Streets: Ellesmere Road



Recommendation

Extend Bushby Drive from Grangeway Avenue to Bellamy Road

Project Limits

Bushby Drive from Grangeway Avenue to Bellamy Road

Proposed Capital Budget Timing

2028-2038

Environmental Assessment (EA) Status

A Schedule C EA will be required for this project. The Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process, but the completion of the remaining phases is required.

Existing Conditions

Bushby Drive is an east-west collector road that operates between McCowan Road and Grangeway Avenue. Bushby Drive terminates at Grangeway Avenue, and industrial buildings dominate lands east of Grangeway Avenue.

	Bushby Drive	
Right-of-way	27-32 m	
No. of Traffic Lanes	4	
Speed Limit	50 km/hr	



Bushby Drive, looking east to Grangeway Avenue

Key Measures



- Improves connectivity to and from the Centre and provides route options for all modes
- Provides improved pedestrian and cyclist environment through cycle tracks and promenade/urban plaza
- Reduces traffic load on Progress Avenue and Ellesmere Road
- Supports transit investment through new east-west connection

Bushby Drive will be extended to Bellamy Road, and will include a promenade/urban plaza on one side of the street, and street trees. Design elements will extend the "park" experience of the 705 Progress Avenue site along the streetscape. On-street parking and speed reductions also contribute to a safer and more comfortable environment for pedestrians and cyclists.

	Bushby Drive	
Right-of-way	32 m	
No. of Traffic Lanes	4	
Speed Limit	40 km/hr	

Feasibility

Opportunities

- Schedule 2 of the Official Plan protects for a future extension of Bushby Drive to Markham Road
- A new school/park site is proposed at 705 Progress Avenue, creating a new destination for the community

Challenges

• Requires capital investment

Impacts

Natural Environment: Requires the reconfiguration of the proposed park/school site identified in the McCowan Precinct Plan; will enhance park and recreational uses of the proposed public open space at park/school site

Built Environment: Requires construction of approximately 700m of new road

Cultural Heritage: May impact areas of archaeological potential identified in unoccupied lands northeast of TTC's McCowan Yard

Property: Potential impact to approximately 5 properties, depending on alignment

Planning-Level Costs

\$9 M - \$13 M

Potential Funding Sources

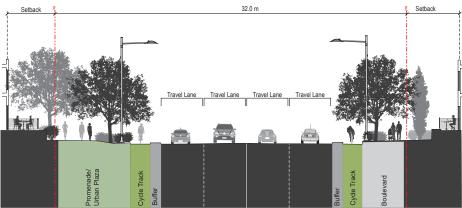
- City
- Property Owner/in association with development

Timing

Medium Term (10-20 years)

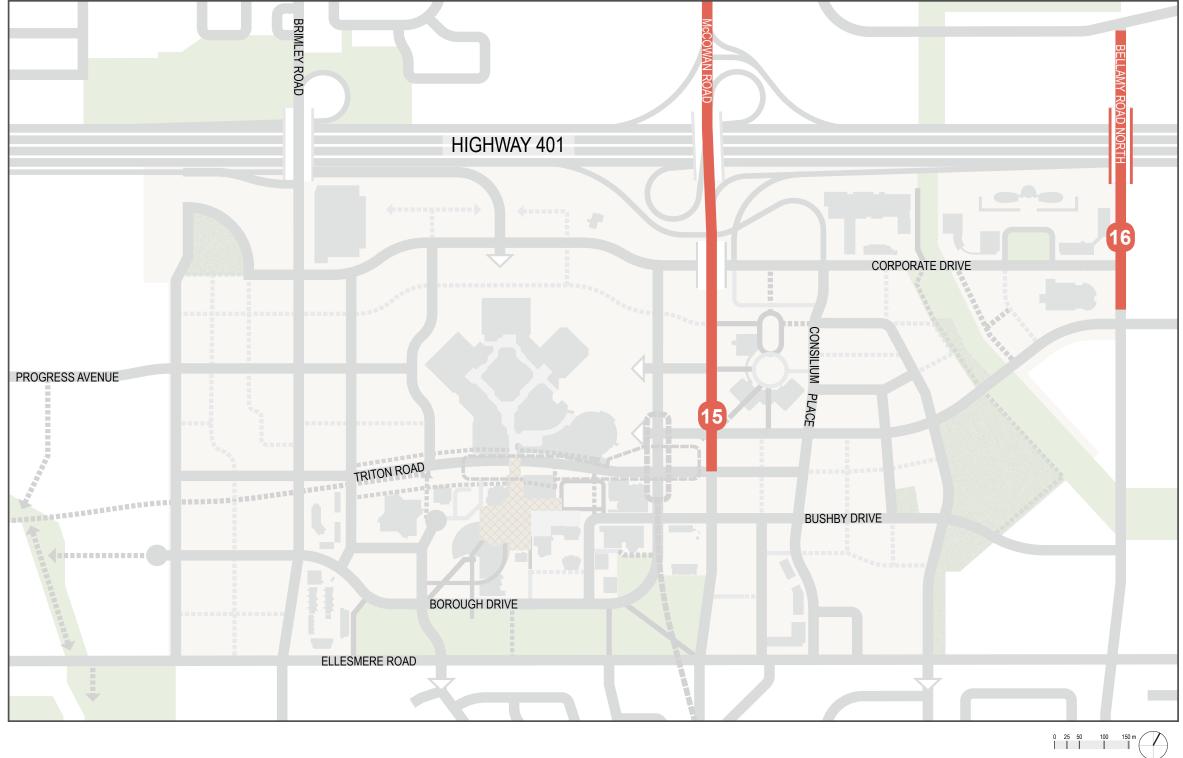
Next Steps

- Secure funding
- Further study (Schedule C Environmental Assessment)
- Detailed design



Bushby Drive Conceptual Cross-Section

10.5 Long-Term Projects



Legend



McCowan Rapid Transit



Bellamy Road Extension to Milner Avenue

Recommendation

Protect for future rapid transit along McCowan Road

Project Limits

McCowan Road

Proposed Capital Budget Timing

2038+

Environmental Assessment (EA) Status

A Transit EA will be required for this project. The Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process, but the completion of the remaining phases is required.

Existing Conditions

Within the study area, McCowan Road is a major arterial road with 6 travel lanes and a speed limit of 60 km/hr. There are 10 ramps along McCowan Road, reducing connectivity, safety, and comfort for all modes of travel. Five TTC local bus routes currently operate on McCowan Road (129, 130, 131, 169, 199), making it a corridor of frequent transit service. Major transfer intersections include McCowan Road/Triton Road and McCowan Road/Ellesmere Road.

	McCowan Road	
Right-of-way	36 m	
No. of Traffic Lanes	6	
Speed Limit	60 km/hr	





Bushby Drive, looking east to Grangeway Avenue

Key Measures



- Provides north-south transit connections to/from surrounding communities
- Supports Regional Transportation Plan (RTP) and transit investments by connecting people to the regional transit network
- Provides residents, workers, and visitors with a sustainable and affordable travel choice, encouraging a shift away from single-occupancy travel
- Connects people to residential and employment opportunities, supporting economic prosperity and attracting growth in the Centre

A long-term plan to provide rapid transit along McCowan Road is included in the Scarborough Centre on the Move Transportation Master Plan. Within Scarborough Centre, it is anticipated that this rapid transit corridor will connect to the proposed Scarborough Centre bus terminal. The project limits and type of rapid transit vehicle will be determined through future study.

	McCowan Road	
Right-of-way	36 m	
No. of Traffic Lanes	6	
Speed Limit	50 km/hr	

Feasibility

Opportunities

- Line 2 Scarborough Subway Extension, Durham-Scarborough Bus Rapid Transit (BRT) and other proposed transit projects contribute to a comprehensive regional transit system that can be further enhanced through McCowan Rapid Transit
- Scarborough Centre will be a future mobility hub with significant employment and population growth by 2041

Challenges

• Requires capital investment

Impacts

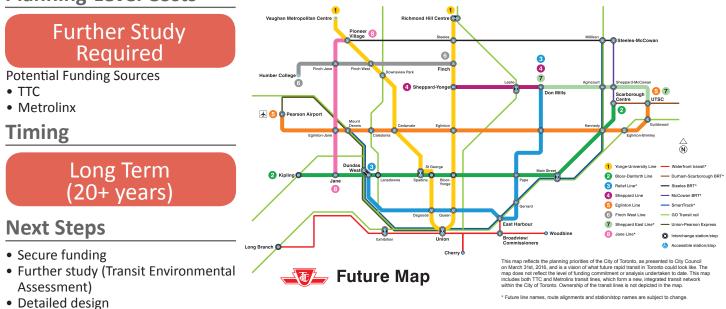
Natural Environment: Future study required to determine impacts

Built Environment: Reconfiguration of McCowan Road to accommodate rapid transit

Cultural Heritage: Future study required to determine impacts

Property: Future study required to determine impacts

Planning-Level Costs



Recommendation

Extend Bellamy Road from Corporate Drive to Milner Avenue, provide a normalized T-intersection at Corporate Drive and Bellamy Road, and provide separated pedestrian and cycling facilities on Bellamy Road.

Project Limits

Bellamy Road from Corporate Drive to Milner Avenue

Proposed Capital Budget Timing

2038+

Environmental Assessment (EA) Status

A Schedule C EA will be required for this project. The Scarborough Centre on the Move Transportation Master Plan will satisfy Phases 1 and 2 of the EA process, but the completion of the remaining phases is required.

Existing Conditions

Bellamy Road is a north-south minor arterial road that extends from Corporate Drive south to Eglinton Avenue East. This street connects communities south of Ellesmere Road to the Centre, but does not connect to communities north of Highway 401. Highway 401 currently acts as a barrier for pedestrians and cyclists who must navigate complex highway interchanges. There are also limited north-south connections across Highway 401 throughout the Centre.

	Bellamy Road	
Right-of-way	27 m	
No. of Traffic Lanes	4	
Speed Limit	60 km/hr	





Bellamy Road, looking north to Progress Avenue

Key Measures



- Provides a north-south connection over Highway 401 for all modes
- Contributes to the proposed cycling network in the Centre
- Represents an alternative for those currently using Markham Road and McCowan Road

Bellamy Road will be extended north to Milner Avenue with a bridge over Highway 401. Separated cycling facilities will be provided on Bellamy Road and Corporate Drive to improve active transportation connections in the Centre. It is expected that this extension will improve vehicular traffic conditions, as it provides an alternative for vehicles currently using McCowan Road and Markham Road.

	Bellamy Road	
Right-of-way	30 m	
No. of Traffic Lanes	4	
Speed Limit	50 km/hr	

Feasibility

Opportunities

- Connecting industrial and residential communities north of Highway 401 will improve access to the Centre, connecting more people to jobs and attracting business to the Centre
- Toyota Canada property access to be improved through normalized intersection at Bellamy Road and Corporate Drive

Challenges

Requires capital investment

Impacts

Natural Environment: Will impact trees and the natural environment north of Highway 401

Built Environment: Reconfiguration of Toyota Place/Corporate Drive/Bellamy Road intersection

Cultural Heritage: May impact areas of archaeological potential identified east of Bellamy Rd extension (existing Toyota Place) and north of Highway 401

Property: Potential property impacts on industrial lands north of Highway 401 (125 to 135 Milner Ave)

Planning-Level Costs

\$58 M - \$88 M

Potential Funding Sources

- City
- MTO

Timing

Long Term (20+ years)

Next Steps

- Secure funding
- Further study (Transit Environmental Assessment)
- Detailed design



Confederation Parkway Bridge, Mississauga

10.6 Funding Strategy

To best achieve the vision for Scarborough Centre, it is integral that implementation and funding be coordinated between the City, local and regional transit agencies, private investors, and other funding partners. This section outlines potential funding sources for each project, with the aim of effectively coordinating funds with other agencies and ongoing projects.

10.6.1 Partnerships

City Council has approved \$3.56 billion towards rapid transit in Scarborough, including the Line 2 - Scarborough Subway Extension, and decommissioning of existing rapid transit infrastructure. This provides the opportunity to partner with the TTC during construction to accomplish proposed projects. Potential projects that can be completed in coordination with the SSE work include the normalization of the McCowan Road and Progress Avenue intersection and the reconfiguration of Corporate Drive and Progress Avenue.

Smart Commute (Metrolinx) and the Toronto Parking Authority (TPA) are also important partners for implementing TDM measures and encouraging active and sustainable modes of transportation. Expanding Smart Commute Programs throughout the Centre, such as carpool matching and the Smart Commute Workplace program, will encourage a reduction in single-occupant vehicles and support the proposed transportation network and infrastructure changes. Similarly, the Toronto Parking Authority can act as a partner for increasing active transportation use as the owner of Bike Share Toronto.

In addition to agency partnerships, there is an opportunity to partner with private stakeholders to deliver the proposed network changes, namely Oxford Properties (owner of Scarborough Town Centre Shopping Mall) and Kevric Ontario Real Estate (owner of Consilium Place office complex).

10.6.2 Development Charges

The Development Charges Act, 1997, is based on the core principle that development charges are a primary tool in ensuring that "growth pays for growth." These charges are used to fund, amongst other services, transportation infrastructure needs related to growth.

This funding source would allow the City to ensure that the transportation needs related to future growth in the area are adequately funded through this mechanism.

10.6.3 Ontario and Federal Gas Tax

Ontario's Gas Tax Program and the Federal Gas Tax Fund both act as long-term and stable funding sources for municipal infrastructure projects. While the Federal Gas Tax can be used to fund a wide range of municipal projects (e.g. wastewater infrastructure, public transit, solid waste management, highways, culture, tourism, etc.), the Ontario Gas Tax applies exclusively to funding public transit projects. Ontario Gas Tax funds are distributed based on a combination of population size and ridership. Funding for Scarborough Centre on the Move Transportation Master Plan projects may be available from these sources.

Table 11.1 displays the potential funding sources for each project.

Table 11.1: Potential Funding Sources for Scarborough Centre on the Move Transportation Ma	ster Plan
Projects	

Phase	Projects	Potential Funding Sources
Quick Win	1. Area-Wide Policy Updates	City/Property Owner
(0-2 years)	2. Interim Project: Borough Drive Lane Reduction	City
Short-Term	3. Finer Local Streets and Connections	Property Owner
(0-10 years)	 Progress Avenue and McCowan Road Intersection Normalization 	City/TTC/Property Owner
	5. Progress Avenue and Corporate Drive Reconfiguration	City/TTC/Property Owner
	6. Elimination of Bushby Drive to McCowan Road Ramp	City
	7. Borough Drive Lane Reduction	City/Property Owner
	 Borough Approach East and West Reconfiguration/ Consolidation 	City
	9. Durham-Scarborough Bus Rapid Transit (BRT)	Metrolinx/TTC/DRT
Medium-Term (10-20 years)	10. Brimley Road and Highway 401 Interchange Reconfiguration	City/MTO
	11. Rapid Transit Infrastructure/Corridor Repurposing	City
	12. Satellite Bike Share Expansion	City/Toronto Parking Authority/ Partnerships
	13. Cycling Network	City/Property Owner
	14. Bushby Drive Extension to Bellamy Road	City/Property Owner
Long-Term	15. McCowan Rapid Transit	TTC/Metrolinx
(20+ years)	16. Bellamy Road Extension to Milner Avenue	City/MTO

10.7 Monitoring and Reporting

Monitoring and reporting on the effectiveness of the SCTMP is necessary to ensure that the planned initiatives are progressing well, and align with the vision for the Centre, City, and Region. Ongoing monitoring and assessment will evaluate travel behaviour and operations to help move the plan forward and adjust priorities as needed. As the transportation network and character of the area changes, and as new innovations and technologies are introduced, this plan must adapt its priorities and projects accordingly. Transportation impact studies, corridor studies, and a Transportation Monitoring Program will be used to evaluate and track changing patterns, growth, traffic conditions, and development.

10.7.1 Transportation Impact Studies

As development proceeds over time, required transportation infrastructure will be identified and implemented in a manner which is functionally integrated with the existing transportation system and coordinated with the required municipal servicing to the satisfaction of the City. One element in this process is a transportation impact study (TIS), which must be submitted with development applications, as per the City's TIS Guidelines.

The submitted transportation impact studies should:

- Identify the required transit, vehicular, pedestrian and cycling infrastructure improvements and opportunities identified by the Scarborough Centre on the Move Transportation Master Plan and other applicable City policies, guidelines and requirements
- Assess the impacts of the development on the transportation system and demonstrate that the development traffic will not significantly reduce the level of service to the public street network, accounting for the existing and planned infrastructure
- Review the proposed parking supply to ensure that it encourages the appropriate balance and encouragement of non-auto modes of transportation near the future subway station
- Evaluate the physical layout of the development site to minimize the proposed driveway curb cuts, arrange parking and loading areas at rear of buildings, and provide clear and direct pedestrian circulation routes
- Identify transportation improvements and mitigating measures to address the forecasted transportation impacts
- Propose transportation demand management measures and strategies to assist in reducing vehicular trips made to and from the study area

10.7.2 Corridor Studies

In addition to monitoring the plan through Transportation Impact Studies and the Environmental Assessment Studies, the City should conduct signal optimizations studies along key corridors. In particular, it is recommended that a corridor study that assesses both McCowan Road and Ellesmere Road be conducted to coordinate signal timings and ensure both corridors operate well given the network modifications and traffic volume changes. The addition of a bus terminal entrance and exit off McCowan Road and new signal at the intersection of McCowan Road and Progress Avenue will likely change traffic operations along this corridor, which must also be coordinated with the introduction of new signals on Ellesmere Road.

10.7.3 Transportation Monitoring Program

It is recommended that a Scarborough Centre traffic monitoring program be undertaken to monitor the transportation experience for each mode in relation to development and population levels. This monitoring program should occur at least every 5 years. Specifically, it is recommended that the monitoring program record:

- Pedestrian, cyclist, and traffic volumes on public streets within and to/from the Centre
- Travel characteristics of employees, residents, and visitors including vehicle occupancy, car ownership, modal split (commuter trips and all trip purposes), and trip distribution

- Evaluation of transit ridership in coordination with the TTC and GO/Metrolinx
- Parking availability and utilization
- Evaluation of existing, planned, and proposed developments
- Traffic infiltration into surrounding residential neighbourhoods, if needed

The findings of the transportation monitoring program should be periodically published as part of a Scarborough Centre travel bulletin. The results should also be used to help inform the review of individual development applications and establish local neighbourhood traffic management plans, as required.

