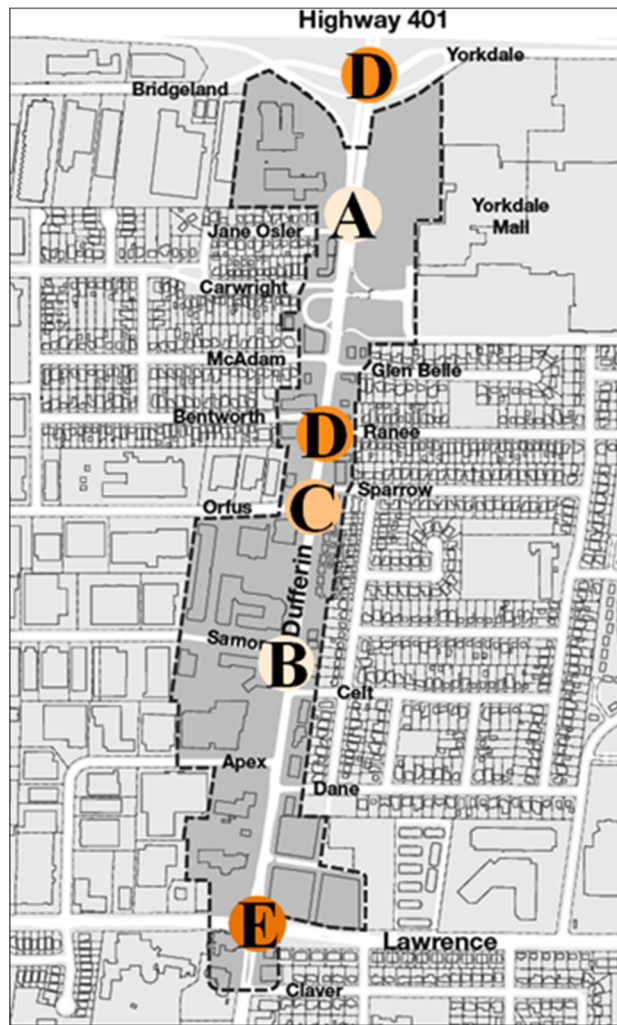


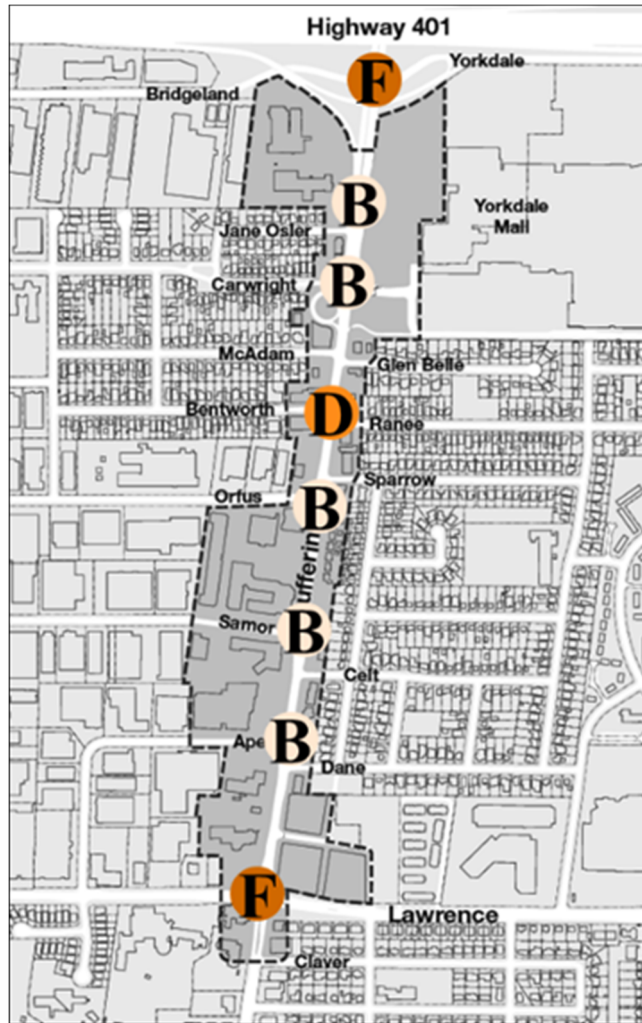
- (A) > 10 seconds
- (B) > 10 to 20 seconds
- (C) > 20 to 35 seconds
- (D) > 35 to 55 seconds
- (E) > 55 to 80 seconds
- (F) > 80 seconds

Figure 34: AM peak hour intersection modelled level of service, existing conditions



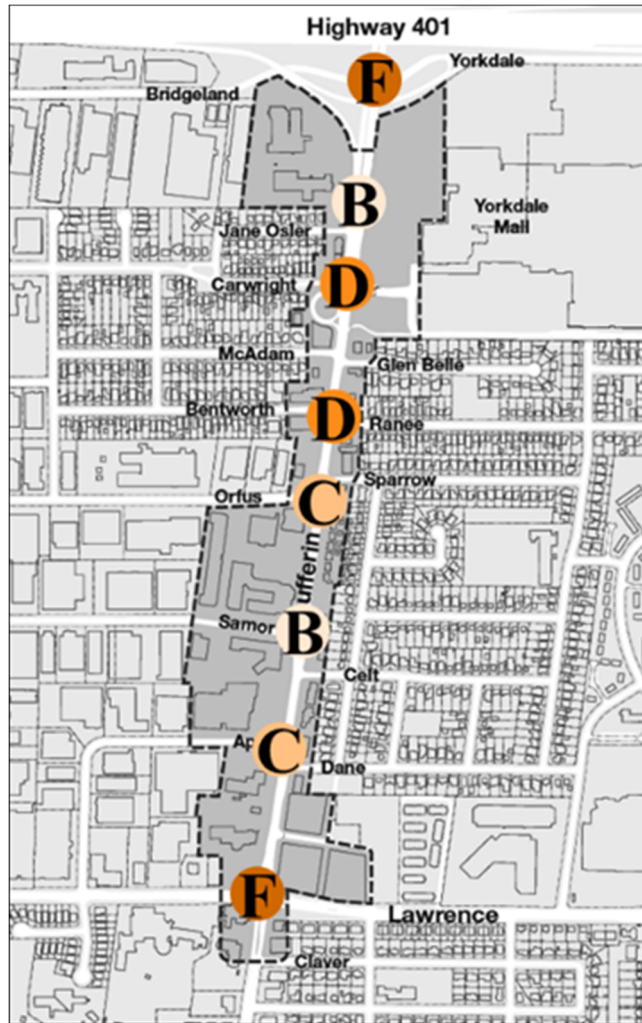
- (A) > 10 seconds
- (B) > 10 to 20 seconds
- (C) > 20 to 35 seconds
- (D) > 35 to 55 seconds
- (E) > 55 to 80 seconds
- (F) > 80 seconds

Figure 35: PM peak hour intersection modelled level of service, existing conditions



- (A) > 10 seconds
- (B) > 10 to 20 seconds
- (C) > 20 to 35 seconds
- (D) > 35 to 55 seconds
- (E) > 55 to 80 seconds
- (F) > 80 seconds

Figure 36: AM peak hour modelled intersection level of service, future conditions



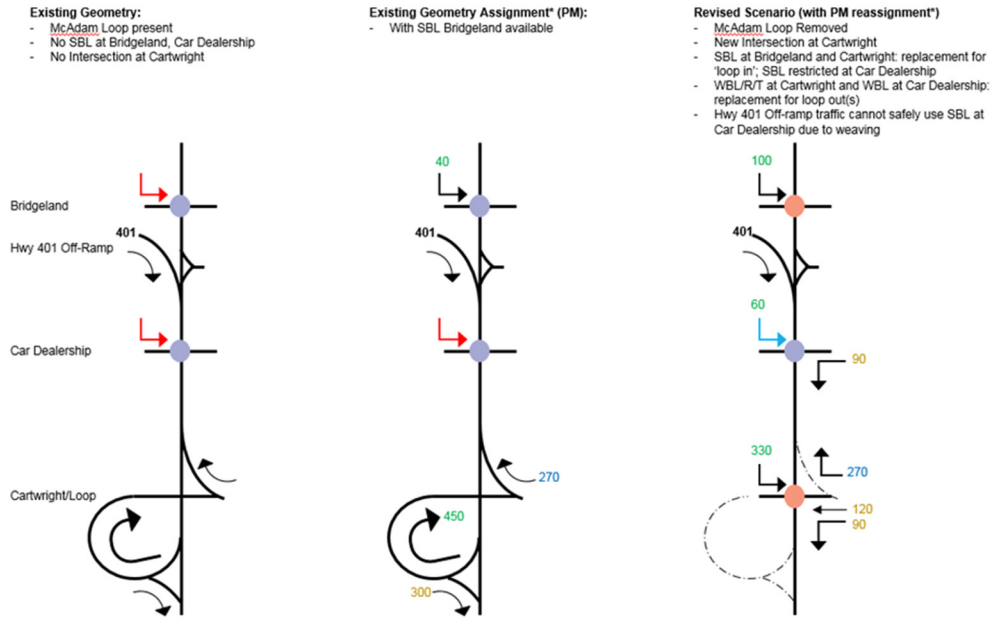
- (A) > 10 seconds
- (B) > 10 to 20 seconds
- (C) > 20 to 35 seconds
- (D) > 35 to 55 seconds
- (E) > 55 to 80 seconds
- (F) > 80 seconds

Figure 37: PM peak hour intersection modelled level of service, future conditions

This Synchro modelling of Solution C assumes the inclusion of the following mitigation measures to the road network:

- Coordination and optimization of signal timings at intersections on Dufferin Street, designed for the future approach traffic volumes. Two types of signal timings have been adopted:
 - A longer cycle length of 144 seconds at the gateway intersections of Dufferin Street at Lawrence Avenue West and at Bridgeland Avenue to help the efficient movement of large approach vehicular volumes; and
 - A shorter cycle length of 90 seconds on all the intermediate intersections in between the gateway intersections to ensure frequent opportunities for pedestrians to cross.
- A new southbound left turn from Dufferin Street to Yorkdale Road at Bridgeland Avenue to provide a new option for accessing Yorkdale Shopping Centre from the north. This assumes that the MTO reconfigures this intersection as planned.
- A new southbound left turn from Dufferin Street into Yorkdale Shopping Centre. This would be a full move intersection at Dufferin Street and the Honda dealership and would add a new pedestrian crossing across Dufferin Street.
- A southbound bus lane between Bridgeland and Cartwright Avenue to improve the flow of buses through the busy northern section of the study area.
- Adjusted turn movements per lane as necessary to improve intersection operations.

Additionally a new intersection at Dufferin Street and Cartwright Avenue to replace the McAdam Loop for access to Yorkdale Shopping Centre was also modelled as a variation of Solution C. Replacement access has been modelled assuming equal distribution of trips from the McAdam Loop to three new southbound left turns at Yorkdale Road, at the Honda dealership, and at Cartwright Avenue (as shown in Figure 38). Egress assumes an equal distribution of trips through the latter two intersections. This scenario includes the reconfiguration of the eastbound off ramp moving south on Dufferin Street to avoid vehicle weaving coming off the highway.



Potential Mitigation

- Redistribution of trips may happen to Hwy 401 off-ramp bridge to Yorkdale Road (for trips previously using McAdam Loop)
- Highway 401 off-ramp reconfiguration to allow better access to Yorkdale Mall
- Protected/Permissive SBL at Car Dealership

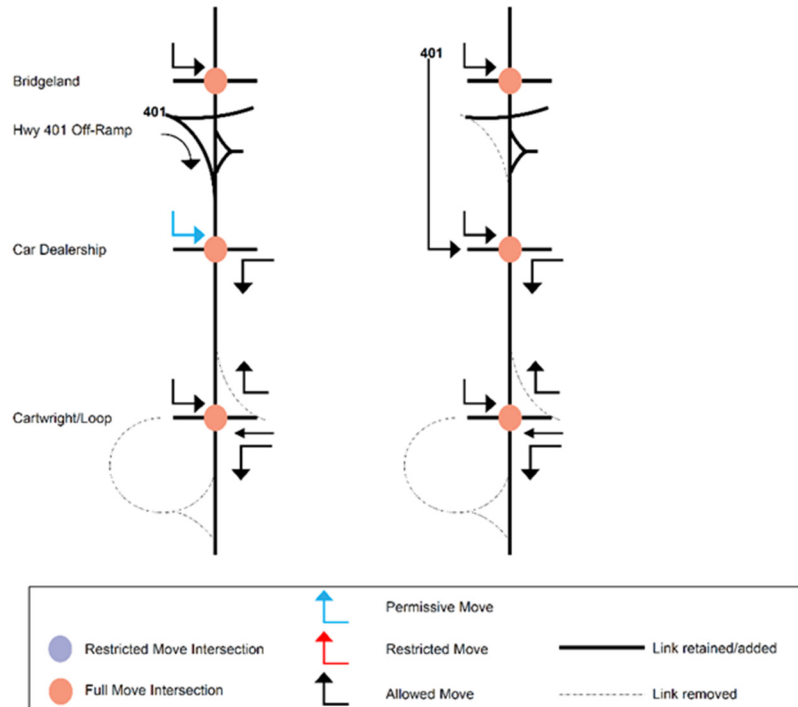


Figure 38: Reassignment of PM trips with removal of McAdam Loop plus mitigation measures

Overall, the modelling showed:

- The two gateway intersections will continue to operate with delays for turning movements, but signal coordination would improve future operation.
- Vehicular operations along the length of Dufferin Street between these two gateway intersections perform with no significant change over existing conditions.

9.7 Preferred transportation solution

The preferred transportation solution is based on Solution C, the best performing transportation planning solution tested.

However, Solution C was refined with the following components:

- Removing the McAdam Loop to Yorkdale Shopping Centre and replace it with an at-grade signalized intersection (item from the “Additional” solution).
- A planted median on Dufferin Street with turn lanes at signalized intersections.

The repurposing of the northbound curb lane to a transit/HOV only lane, from the Yorkdale Shopping Centre out ramp to Yorkdale Road should be revisited as part of the future monitoring of corridor operations.

10 Recommended policy directions

In this section, strategies are presented for the City to implement the recommended transportation solutions. Actions include but are not limited to:

- Amendments needed to update the City of Toronto Official Plan (e.g. land use plans, maps, or schedules);
- Changes to the City's existing implementation mechanisms including zoning by-laws and requirements for site plan applications.

Infrastructure recommendations with the potential to affect the Environment Assessment process are identified in Section 11 where they are allocated an EA Schedule.

10.1 Street network

New roadway connections help provide new routing options for people to navigate through the study area. Smaller blocks within larger development blocks promote active transportation trips and provide a finer grid for connectivity, and helps develop a secondary street system to complement Dufferin Street.

The following policy directions would set the foundation for achieving the street network objectives noted above:

- The City to prepare site specific policies which set out requirements through the plan of subdivision, rezoning and site plan approval process for larger sites to design and implement the new public streets as shown in Figure 21.
- The City to designate, in Schedule 2 of the Official Plan, new streets with right-of-way width greater than 20m.
- The City should ensure flexibility in the implementation of the public street network as indicated in Table 17.
- The City will prioritize the needs of sustainable modes of transportation for all existing and new streets and achieve a balanced approach for on-street parking, as well as built form that complements adjacent uses.
- The City should work with TTC, GO Transit, MTO, Yorkdale Shopping Centre, and other stakeholders to incorporate a wayfinding strategy for all transportation modes within the area.

Table 17: Proposed new primary street segments

Location ID (see Figure 39)	Location Flexibility (see Figure 39)	Street Name	Proposed Classification	Basic Right-of-Way (m)	Length (m) (inside study area)
1	Fixed	New north-south and new east-west streets (Holiday Inn site)	Local Commercial	23	413
	Flexible	New semicircular street and east-west street (Holiday Inn site)	Local Residential	20	341
14, 14a	Flexible	New north-south street and three east-west streets (inside Yorkdale Shopping Centre)	Local Commercial	23	655
	Fixed	Yorkdale Road (south of Yorkdale Shopping Centre)	Collector	23	120
6, 7	Flexible	New north-south street (between Orfus Road and Apex Road parallel to Dufferin Street) plus two east-west connectors to Dufferin Street	Local Residential	20	610
8	Fixed	New north-south street (between Apex Road and Lawrence Avenue West parallel to Dufferin Street) plus an east-west connector to Dufferin Street	Local Residential	20	365

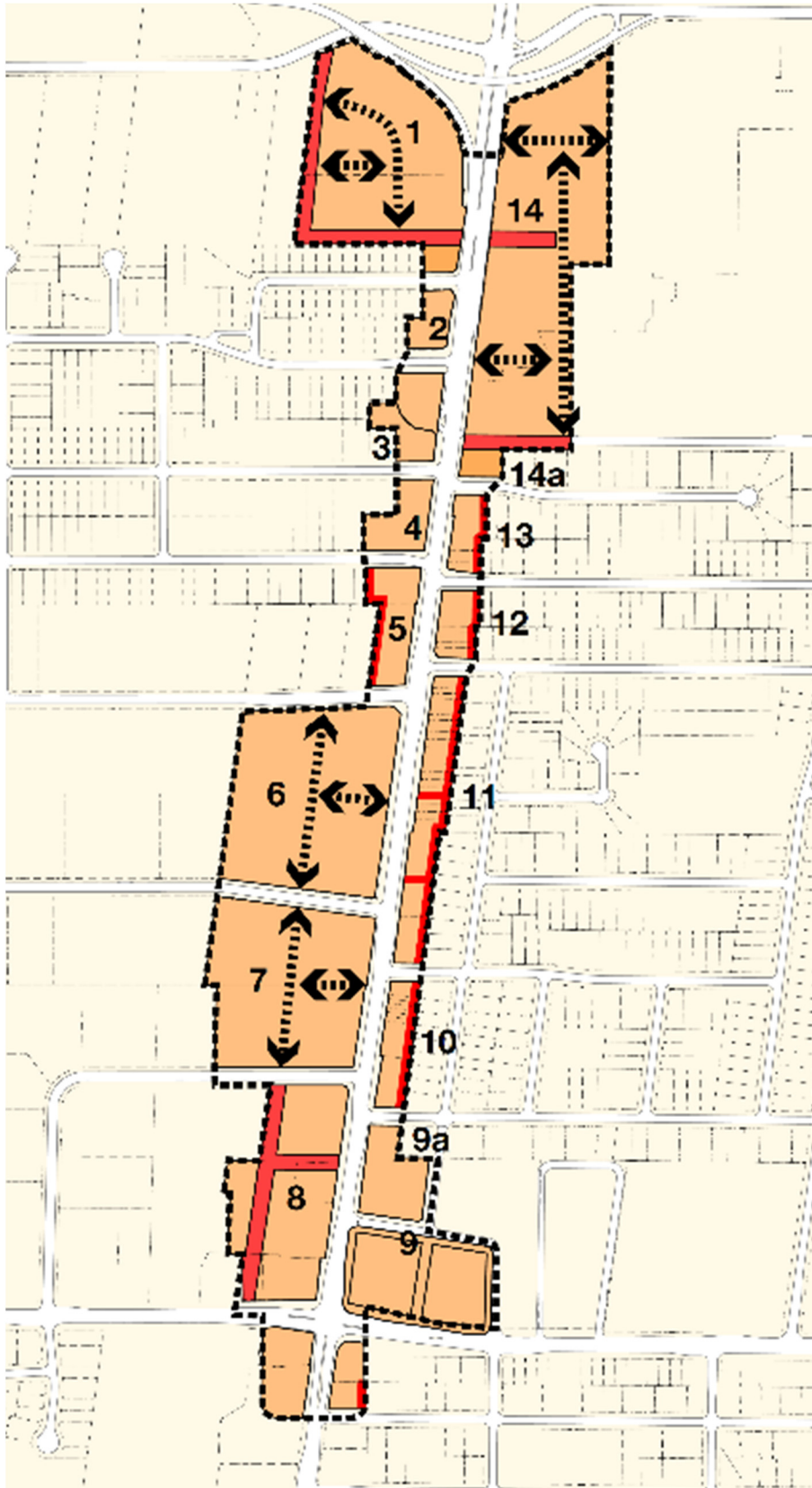


Figure 39: Streets and blocks (repeat of Figure 20)

The Transportation Master Plan (TMP) identifies several additional feasibility studies and/or environmental assessments beyond the study area boundary (see Figure 40 for details, and include:

- The City to investigate further details of the public street network beyond the study area boundary;
- The City to work with MTO to establish a future ramp configuration, including a Highway 401 eastbound off-ramp that connects directly to Bridgeland Avenue;
- The City will work with MTO to implement improved pedestrian and cycling facilities using MTO's Integration of Cyclists and Pedestrians at Interchanges Guidelines;
- The City to work with the owner of Yorkdale Shopping Centre to initiate a detailed master plan of their lands to assess how growth might affect the recommended street network and future access to Dufferin Street, Yorkdale Road, Allen Road, and Highway 401 for all modes.

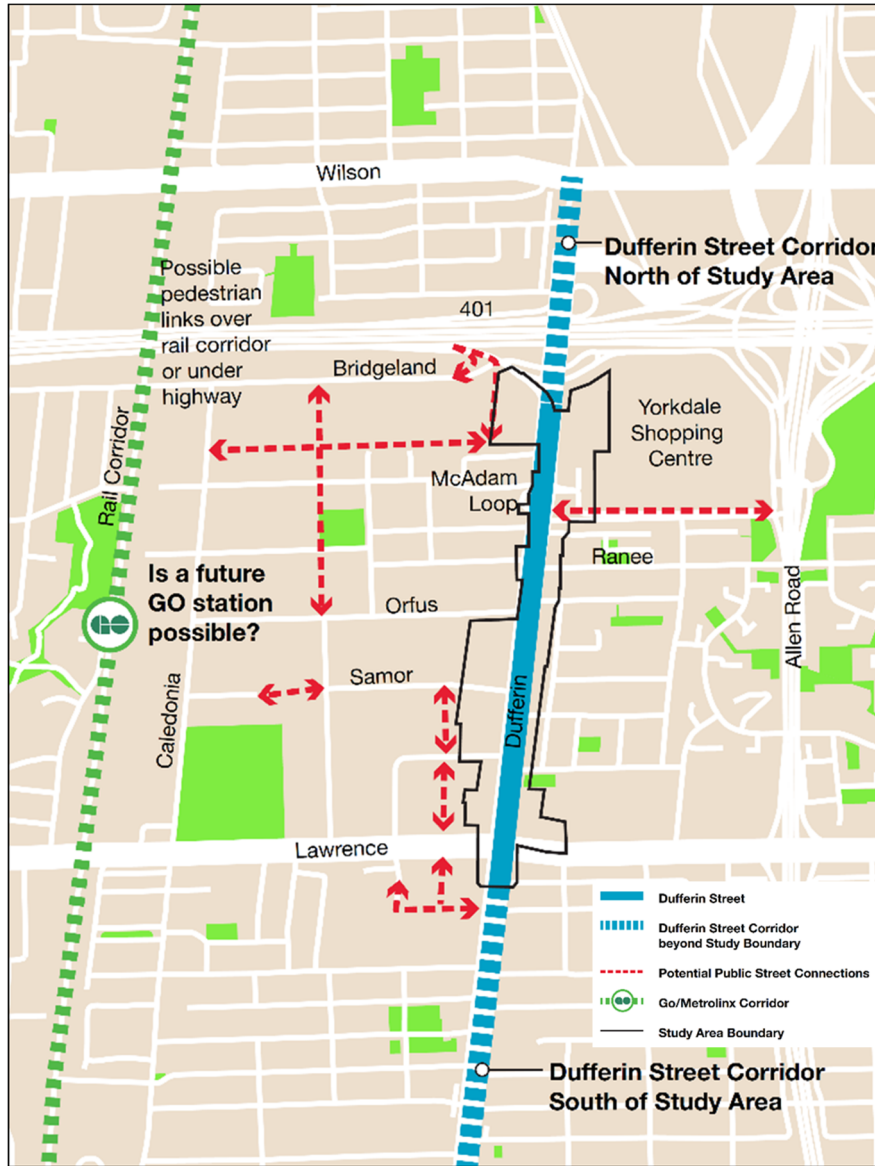


Figure 40: Potential expansion of the street network beyond the study boundary

10.2 Vehicular operations

New developments should rely on available capacity from transit, walking and cycling. Nevertheless, sufficient vehicular capacity will need to be provided to support existing and new development. The following recommendations should be incorporated into the City's policy framework for the study area:

- The City should co-ordinate the installation of new signals for all modes of transportation as development proceeds, with costs to be recovered through area-specific development policies. The proposed new locations are shown in Figure 17.
- To facilitate mobility balance, the City should consolidate turn lanes only at signalized intersections.
- City's Transportation Service Staff should include signal timing coordination and optimization as part of the workplan for short term improvements
- The City should seek to secure capital funding from major stakeholders to initiate the necessary environmental assessment study to facilitate the removal of the McAdam Loop and the construction of an at grade signalized intersection.

10.3 Transit

The transit solutions look at ways to improve existing service and facilitate better connections to available transit capacity and service. The recommended transit plan is highlighted in Figure 23 and would be supported by the proposed improvements to the pedestrian and cycling network. The following policy directions would implement the transit solutions:

- The City should work with developers to secure improvements as part of the development approval process to implement transit supportive infrastructure, such as:
 - Providing direct pedestrian access to transit stops and the subway stations;
 - Integrating transit shelters and waiting areas with proposed development where feasible;
 - Incorporating canopies or other weather protection into the design of buildings where feasible and aligning buildings to provide direct access to municipal sidewalks and transit stops;
 - Incorporating transit supportive infrastructure to improve the user experience along the Dufferin Street, such as pavement markings at key stops, seating, and security features,
 - Completing and improving sidewalk and public realm connections to subway and major transit facilities.
- The City should work with the TTC and Metrolinx to consider the following:
 - Express bus service on Dufferin Street;

- Repurpose the existing curb lane to a HOV/bus lane southbound between Bridgeland Avenue and Cartwright Avenue;
- Conduct a comprehensive corridor transit study from Wilson Avenue to Exhibition Place to fully understand the transit opportunities and constraints on Dufferin Street;
- Conduct the necessary studies to consider the addition of a GO Station on the existing Barrie GO Line between the proposed Eglinton and Downsview Stations.

10.4 Walking

Pedestrian circulation is vital to the vibrancy of Dufferin Street. The following policy directions would comprehensively support the Avenue Study and form the backbone of the transportation plan:

- The City should work with developers to secure improvements as part of the development approval process to enhance the streetscape, including a streetscaped median, along Dufferin Street and connecting streets. This could be done through:
 - The formation of a business improvement area and the implementation of levies to pay for enhanced streetscaping;
 - The collection of funds for enhanced streetscaping in exchange for increased height and density, as permitted under Section 37 of the Planning Act;
 - Agreements with developers to provide funding for enhanced streetscaping as part of a committee of adjustment decision made under Section 45(9) of the Planning Act.
- The City should initiate feasibility studies to examine new pedestrian and cycling connections crossing the railway tracks and Highway 401 to facilitate movement to local destinations like Yorkdale Shopping Centre, the subway stations, and Downsview Park, while helping to foster an overall culture of daily walking and cycling.

10.5 Cycling

A residential-focused, mixed-use solution brings local opportunities to encourage cycling, and new infrastructure promotes cycling as a viable travel option, especially for short distance trips. The following policy directions provide a framework for implementation:

- The City should secure the proposed bicycle network by amending the City's Bicycle Plan
- The City should work with developers to secure improvements and properties to implement dedicated cycling infrastructure along Dufferin Street.

- The City should secure capital funding to implement connections to the existing bicycle and trail network in and around the study area.

10.6 Parking

Parking for both vehicles and bikes, is vital to the economic vibrancy of the area. The following policy directions would facilitate parking supply in the study area.

- The City should work with the Toronto Parking Authority and developers to provide rear lot or below grade public parking;
- The City should consider changing parking restrictions to permit on-street parking for vehicles on all existing and new local streets.
- Developers, landowners, and local businesses to provide share locations for priority parking for car share and electric vehicle charging stations as per Toronto Green Standard;
- The City should ensure that gateway locations and bicycle priority areas (e.g. close to transit stations) should include secure and featured bicycle storage facilities, designed to allow for future expansion.

10.7 Transportation demand management (TDM)

TDM reduces auto use and encourages alternative modes to better balance mobility. Most of the measures are often low cost, require minimal approvals, and can be implemented in the short term or as development commences.

The City of Toronto Official Plan embraces a range of TDM measures and the following policies for Dufferin Street would assist in implementing TDM:

- Transportation studies, including Traffic Impact Study, should include a comprehensive TDM Plan for each proposed development which contains more than 3,000 square metres of office/retail use or more than 100 residential units;
- TDM Plan should look at the follow strategies:
 - Soft and hard infrastructure to encourage walking, cycling and transit use;
 - Car and bike share program opportunities;
 - Priority parking for ride sharers;
 - Opportunities to introduce parking control; and/or
 - Employee programs (e.g. flexible/staggered working hours, telecommuting, carpool programs, priority parking for car pool vehicles, smart parking management, transit incentives, ride matching, or technological improvements).

11 Implementation

This section provides proposed strategies with regard to the next steps for the EA process monitoring and implementation.

11.1 Class EA Schedule

With reference to Section 1.3.2, Table 18 outlines the EA requirements associated with the proposed changes to the transportation network identified in Section 10 of this Transportation Master Plan (TMP).

Table 18: Municipal Class Environmental Assessment Schedule for preferred transportation solutions

Description of Project		Estimated Cost (see Table 19)	EA Schedule
Dufferin Street Major Roads EA *To address items 1 to 6 below			C
1	New streets as large blocks are developed and a finer grain network is created (refer to Figure 39 and Table 17) - Local commercial (1,068 m) - Local residential (1,316 m)	\$3,551,100 \$3,500,560	A
2	New signalized intersection at Dufferin Street and Apex Road	\$300,000	A
3	Reconfigure Dufferin Street/Honda car dealership entrance to make it a full move intersection	\$500,000	A
4	Introduction of a median with centre turn lane at signalized intersections on Dufferin Street (approx. 1km)	Upwards of \$300,000	A
5	Implement bi-directional cycle lanes on Dufferin Street, including localized widening (approx. 1km)	Upwards of \$200,000	B
6	Removal of McAdam Loop to Yorkdale Shopping Centre and replace with at grade signalized intersection and connecting collector street to Allen Road/Highway 401	Upwards of \$1,000,000	C
Other EA Requirements			
7	MTO and the City to investigate the feasibility of reconfiguring the Highway 401 interchange at Dufferin Street and creating a potential off ramp access to Bridgeland Avenue.	To be decided as part of the EA process	MTO Class EA for Provincial Highway Facilities
8	GO Transit / Metrolinx to investigate the feasibility of providing an additional GO Transit station in the study area, and if warranted, meet any EA requirements that may be triggered.	To be decided as part of the EA process	Metrolinx Transit Class EA and TPAP

Table 19: Estimated unit costs for components of preferred transportation solutions

Project Type	Unit	Estimated Unit Cost	Notes
Collector new street 23m ROW, 2 lane, urban cross section	m	\$4,000	Excludes underground services and storm sewer
Local commercial new street 20m ROW, 2 lane, urban cross section	m	\$3,325	Excludes underground services and storm sewer
Local new street 18.5m ROW, 2 lane, urban cross section	m	\$2,660	Excludes underground services and storm sewer
A median with centre turn lane at signalized intersections	km	\$300,000	Estimate. Excludes localized widening
Uni directional cycle lanes on Dufferin Street	km	\$100,000	Estimate. Excludes localized widening. NB uni vs bi-directional
Addition of signals to existing intersection	-	\$300,000	-
Reconfiguration of intersection and addition of signals	-	\$500,000	-

It is understood that EA requirements may change from time to time and that a further review of requirements must be completed before additional studies are undertaken.

The schedules are explained below:

- Schedule A: projects are limited in scale, have minimal adverse environmental effects, and include a number of municipal maintenance and operational activities. These projects are pre-approved and may proceed to implementation without following the full Class EA planning process.
- Schedule A+: Schedule A+ was introduced as part of the 2007 amendments. Schedule A+ projects are pre-approved; however, the public is to be advised prior to project implementation.
- Schedule B: projects have the potential for some adverse environmental effects. The municipality is required to undertake a screening process involving mandatory contact with directly affected public and relevant review agencies to ensure that they are aware of the project and that their concerns are addressed. If there are no outstanding concerns, then the municipality may proceed to implementation.
- Schedule C: projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the Class EA document (Phases 1 to 4). Schedule C projects require that an Environmental Study Report (ESR) be prepared and submitted for review by the public and review agencies. If there are no outstanding concerns, then the municipality may proceed to implementation.

11.2 Monitoring plan

The Dufferin Street Avenue Study provides a solid planning framework to manage growth along the corridor. As land use patterns and travel behaviour continue to change in the City and surrounding regions, the TMP must respond by adjusting its policy direction and other conditions as identified.

The City should adapt the transportation strategies and solutions as outlined in this report; but the TMP should be monitored on an annual basis, taking into consideration the following:

- Changes to travel behaviour from the completion of the Toronto-York Spadina Subway Extension and Eglinton Crosstown transit project;
- Provincial investment to transportation infrastructure, especially to Highway 401 and the GO Transit system; and
- The influence to the transportation network from the continued implementation of the Lawrence-Allen Secondary Plan.

The planned monitoring program for the City should include, but is not limited to, the following items:

- Annual assessment of the traffic demand forecasting to monitor change and the achievement of the predicted non-auto mode share target;
- Conduct regular employee and residential surveys of the study area as part of the recommended TDM measures;
- Monitor the performance of local transit service based on ridership increases and vehicle operational factors, such as speed and delays; and
- Develop key indicator to monitor the growth of the walking and cycling strategies such as length of cycling lanes and new sidewalk completed, the number of trees planted or percentage of facilities with bicycle storage.

Any TMP updates triggered by the monitoring plan should occur with significant developments and feature formal public consultation to solicit input from the communities in the study area.

Appendix A

Auto, Transit, Pedestrian and Bike Maps

Appendix B

Travel Demand Maps

Appendix C

Details of the Transportation Analysis

Appendix D

Signalized Intersection Capacity Analysis (Synchro)

Appendix E

Consultation Reports