



Appendix A.4

Public Information Centre #2



**Trafalgar Road (Regional Road 3) Corridor
Improvements (Bus Rapid Transit Corridor) –
Cornwall Road to Highway 407
Class Environmental Assessment Study**

Public Information Centre #2 - Summary Report

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Project Number:
60119993

Date:
May, 2013



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1. Introduction

Halton Region has initiated a study to consider Bus Rapid Transit (BRT) along the Trafalgar Road Corridor. The study provides a greater opportunity to develop multi-modal transportation improvements along Trafalgar Road and other transit-supportive corridors so that people living and working in Halton Region have better alternatives to automobile travel. Halton Region recognizes the importance of providing travel choices. This study also provides an opportunity to provide an enhanced corridor for pedestrians and cyclists that integrate new land uses with existing heritage and natural features. The study will follow the Transit Project Regulation (Ontario Regulation 231/08), which is an alternative Environmental Assessment (EA) process that can be used for public transit projects. The regulation outlines a "Pre-Planning" and a "Transit Project Assessment Process" (see Exhibit 1). Throughout these two phases, a proponent is required to consult with interested persons, regulatory agencies and First Nations communities on issues arising from the proposed undertaking.

Pre-Planning (Phase 1)

This part of the process initially includes pre-planning which is completed prior to triggering the formal part of the process. The pre-planning work includes a process similar to the traditional EA studies undertaken by Halton Region with full technical work, consideration of alternatives and consultation. The timeframe for this process is flexible. The study is currently in the pre-planning phase.

Transit Project Assessment Process (Phase 2)

Following resolution of issues regarding the project and input provided by regulatory agencies, this process involves a further 30 day consultation period with provincial ministries and agencies, with a focus on the impact analysis and evaluation of the recommended undertaking followed by release of the final Environmental Project Report (EPR) for public, stakeholder, First Nation community and agency review. Interested parties are given the opportunity to submit concerns to the Minister of the Environment (MOE) within those 30 days.

The Minister then has 35 days in which to review any further issues raised and responses from the Project Team. Following their review, MOE will rule on any unresolved issues and direct the Project Team to either:

- Proceed with the Undertaking
- Proceed with the Undertaking, subject to conditions; or
- Conduct additional work and resubmit the EPR to the Minister for a follow-up review

If no direction is provided from the Minister to the Project Team following the 35 day review period, the project can proceed.

It should be noted that prior to commencing the Trafalgar Road BRT Corridor Study Halton Region had initiated a Class Environmental Assessment for improvements to Trafalgar Road from Cornwall Road to Upper Middle Road (Regional Road 38). This study was being conducted in compliance with Schedule 'C' of the *Municipal Class Environmental Assessment Act* (October 2000, as amended in 2007), which is approved under the Ontario *Environmental Assessment Act*. A key component of the study is consultation with interested stakeholders (public and regulatory agencies). An earlier Public Information Centre (PIC #1) was held June 16 2010 to obtain public input on the problems being addressed, the alternatives being considered, and the preliminary factors for analyzing and evaluating the alternatives. In 2011, the Trafalgar Road Improvements Class Environmental Assessment was integrated into the Trafalgar Road BRT Corridor Study.

1.1 Purpose of Public Information Centre #2

Public Information Centres (PIC's) are an integral part of the overall consultation program for this project and are designed to involve stakeholders early and throughout the study process, to aid in identifying public concerns and to assist in the development of a preferred alternative.



The second Public Information Centre (PIC) was held on November 24, 2011 at the Halton Regional Centre – North/South Auditoriums (1151 Bronte Road, Oakville). The PIC was a joint meeting held with the Dundas Street (Regional Road 5) from Brant Street (Regional Road 18) to Trafalgar Road BRT Corridor Study. There was an open house period at 6:30 p.m. followed by the Dundas Street presentation at 7:00 pm and the Trafalgar Road presentation at 7:30 p.m.

The purpose of the second PIC was to provide an opportunity for residents, businesses, agencies and other interested individuals to review the preliminary preferred BRT alternative and receive comments. 38 people chose to sign the meeting registrar.

The purpose of this report is to provide an overview of the comments received.

2. Public and Agency Notification

One of the key objectives of the Class EA process is to provide the public, interested parties and agencies with opportunities for meaningful participation and input to the study. PIC #2 falls at the end of the Project Planning Phase. Following this PIC, the 6 month Transit Project Assessment Process will commence. A copy of the Notice of PIC #2 is provided in Appendix A.

The Notice of PIC #2 was published in two editions of the following local newspapers:

- Oakville Beaver (November 11 and 18, 2011)
- Burlington Post (November 11 and 18, 2011)
- Oakville Today (November 10 and 17, 2011)

The Region provided the Notice of PIC #2 to the following Aboriginal groups by mail on November 10, 2011:

- Alderville First Nation
- Mississaugas of the New Credit First Nation
- Six Nations of the Grand River
- Curve Lake First Nation
- Kawartha-Nishnawbe First Nation of Burleigh Falls
- The Mohawks of Akweasne First Nation
- The Mohawks of the Bay of Quinte First Nation
- Hiawatha First Nation
- Oneida Nation of the Thames
- Wahta Mohawks First Nation
- Mississaugas of Scugog Island
- Six Nations Haudenosaunee Confederacy Council
- Credit River Metis Council
- Huron-Wendat First Nation
- Metis Nation of Ontario Head Office
- Hamilton/Wentworth Metis Council
- Grand River Community Metis Council
- Credit River Metis Council

AECOM provided the Notice of PIC #2 to the following on November 10, 2011 by mail and/or email;

- Technical Agencies – Federal Agencies, Provincial Ministries, Local Municipalities, and Utilities
- Property owners within the study area



- Individuals/businesses on the public mailing list, including those who attended PIC #1 and/or provided written comments

3. Presentation Materials

The exhibits and presentation provided at PIC #2 are included in Appendix B.

4. Summary of Comments Received

PIC #2 was well attended by members of the community with specific interest in development and transportation in the Town of Oakville and/or businesses/homes in the study area. During this meeting, the public were encouraged to submit comments to the project team as valued input toward refining the Technically Preferred Alternative for Trafalgar Road Corridor Improvements.

During the Open House period, attendees reviewed the panels and asked questions and discussed their issues with Regional Staff and Consultants. Below is a summary of the topics raised by attendees:

- General support for proposed BRT
- Provision of pedestrian/cycling facilities
- Traffic noise levels
- Expected construction timing

Following the presentation, a question and answer period was held. The following is a summary of the question and answer period:

Question/Comment	Response
[Q] It will take some time before the transit routes that utilize the BRT corridor are fully developed. In the interim, can the curbside lanes be used for HOV purposes?	As part of the study, new curbside lanes will be staged and are intended for BRT services only.
[Q] We would like to have some details regarding the assumptions and modelling details of the transit ridership forecast.	The draft ridership forecast has a planning horizon of 2031 and will be available for public review. [Post meeting notes: a report was made available to the councillors]
[C] As a GO Transit commuter, it is important to recognize how to encourage commuters to get to the GO Station without driving their cars; especially new residents north of Dundas Street. Can BRT really help? The use of express bus should be considered.	No response required.
[C] I agree that a better transit system would also encourage more people to use it. In order to attract more users, the transit system will have to be extremely convenient or even better than driving. There has to be good frequency, for example, there are not enough routes that service in the evening.	No response required.
[C] The cost of transit can also be a factor. If the fee is too high compared to the free parking at the GO Station, that itself is a competition.	No response required.
[C] There has to be coordination between Metrolinx/GO Transit, even if they are in the final stage of their parking plan. Buses are often caught in gridlock at the Oakville GO Station.	No response required.



Two comment sheets were submitted following the PIC. The comments included:

- A concern/suggestion for the removal and replacement of a chain link fence along the route;
- A concern for pedestrian safety (longer crosswalk timers); and,
- A concern for potential elevated pollution, noise, and traffic in the vicinity of the Oakville GO Station.

5. Next Steps

Based on the conclusions reached through the evaluation of the BRT curb versus median alternatives and correspondence with public and agencies, the following steps will be taken:

- 30 day Comment Period to receive input from public and agencies
- Finalize alternative BRT design options for the technically preferred alternative
- Initiate the 6 month Transit Project Assessment Process
 - Present the preferred design alternative and implementation strategy at PIC #3 and consider comments
 - Prepare and complete the Environmental Project Report (EPR)
 - File the EPR for a 30 day public and agency review period
 - Receive Minister of Environment Approval and proceed to tender



Appendix A

Notice of Public Information Centre #2



The Regional Municipality of Halton www.halton.ca

NOTICE OF PUBLIC INFORMATION CENTRE #2

Bus Rapid Transit (BRT) Corridor Studies
Dundas Street (Regional Road 5) from Brant Street (Regional Road 18) to Trafalgar Road (Regional Road 3)
PR-2550A
Trafalgar Road (Regional Road 3) from Cornwall Road to 407 ETR
PR-2079A & PR-2417A

Halton Region has initiated separate Bus Rapid Transit (BRT) Studies for both the Dundas Street (Brant Street to Trafalgar Road) and Trafalgar Road (Cornwall Road to 407 ETR) Corridors for the provision of Higher Order Transit together with the City of Burlington and Town of Oakville. These studies provide an opportunity to develop multi-modal transportation improvements along Dundas Street, Trafalgar Road and other transit supportive corridors so that people living or working in Halton Region have a better alternative to automotive travel. Halton Region recognizes the importance of providing travel choices. This study also provides an opportunity to provide enhanced corridors for pedestrians and cyclists that integrate new land uses with existing heritage and natural features.

These studies will be completed in accordance with the Ministry of Environment's Transit Project Assessment Process (TPAP) – an Environmental Assessment process specifically developed for transit initiatives. Both BRT Studies build on work previously completed through the ongoing Municipal Class Environmental Assessment (EA) Studies that were previously initiated for both corridors.

The first Public Information Centre for the Dundas Street Corridor was held on June 23rd, 2011 and June 16th, 2010 for the Trafalgar Road Corridor to obtain public input on the problems being addressed, the alternatives being considered, and the preliminary factors for analyzing and evaluating the alternatives. Since then, the preferred alternatives for the Dundas Street Corridor and Trafalgar Road Corridor have been determined taking into consideration the problems being addressed and the comments received from agencies and the public. The preferred alternative for both the Dundas Street Corridor and Trafalgar Road Corridor includes staging of exclusive Curb Bus Rapid Transit facilities as well as transit priority intersection improvements along support corridors.

A second combined Public Information Centre has been arranged to provide an opportunity for residents, businesses, agencies and other interested individuals to review the preliminary preferred alternatives and receive comments. Following the Public Information Centre, the preliminary preferred alternatives will be reviewed taking into consideration the comments received.



Making Halton a better place to live, work and retire.
Gary Carr, Regional Chair



This notice first issued on November 4, 2011

The second Public Information Centre for the two studies will be a joint meeting and has been arranged for:

Date: Thursday, November 24, 2011
Time: Drop-in: 6:30p.m. – 7:00p.m.
Presentation: 7:00p.m. – 7:20p.m. (Dundas Street)
Presentation: 7:30p.m. – 7:50p.m. (Trafalgar Road)
Followed by Question & Answer Periods
Location: Halton Regional Centre - North/South Auditoriums
1151 Bronte Road, Oakville

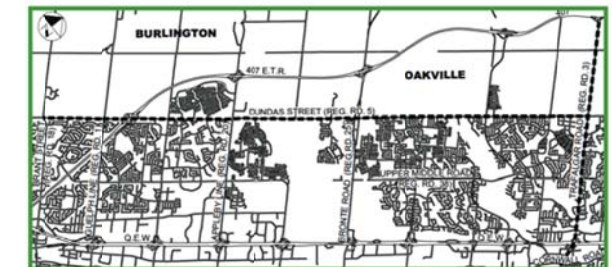
If you are unable to attend the Public Information Centre and would like to provide comments, please forward them by Friday, December 9, 2011 to any Project Team member below. For more information on either project, please visit the project websites at www.halton.ca.

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Please let us know as soon as possible if you will have an accessibility or accommodation need at a Halton Region hosted event or meeting.
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03/11/11



Appendix B

Public Information Centre Panel
Displays



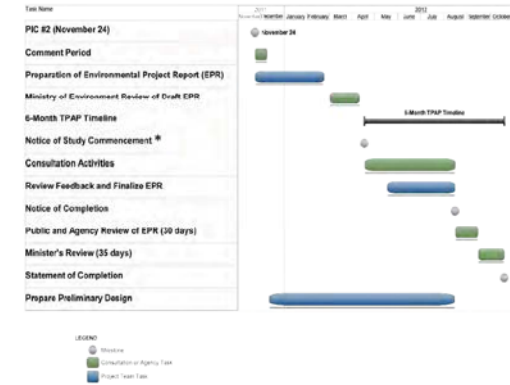
TRAFALGAR ROAD CORRIDOR STUDY



TRAFALGAR ROAD CORRIDOR STUDY



Next Steps and Schedule



*Subsequent activities will be adjusted accordingly based on the actual issue date of the Notice of Study Commencement



Transit Project Assessment Process (TPAP)

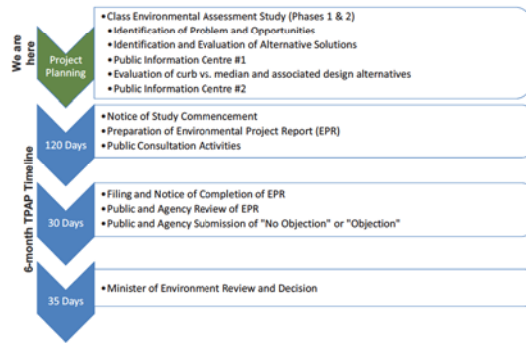
O.Reg. 231/08

Background

- The Ministry of the Environment released their *Transit Priority Statement* in 2008.
- This policy outlined the need for the new 6-month Environmental Assessment process for transit projects.
- In June 2008, the TPAP was introduced under the Ontario Environmental Assessment Act for the purpose of carrying out public transit projects within the Greater Toronto and Hamilton Area.

The TPAP is a process by which proponents are required to:

- ✓ Assess potential negative impacts of a project
- ✓ Identify measures to mitigate affects on environment (if any)
- ✓ Consult with the public



"The regulation only applies to dedicated facilities or services that are used exclusively for transit." Guide for Transit Projects, March 2009



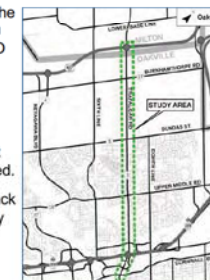
Study Purpose and History

Study Purpose

- The study within the Trafalgar Road corridor was initiated due to expected growth in traffic volumes and growing potential for collisions. The study provides an opportunity for multi-modal alternatives, including transit and active transportation (pedestrians and cyclists), in order to address needs within the corridor.

Study History

- In 2009, the study was initiated for the 8 km section of Trafalgar Road from Cornwall Road near the Oakville GO Station to Highway 407. The study area is shown on the map.
- In June of 2010, the first PIC was held. A wide range of options was presented. Public and agency input regarding those options was received.
- Based on public and agency feedback and further assessment by the study team, transit improvements were considered the best alternative solution to address the problems associated with the study area.



Trafalgar Road Study Area



TRAFALGAR ROAD CORRIDOR STUDY

PIC #1 Summary

What was presented at the first Public Information Centre for Trafalgar Road?

Problems:

- Sections of Trafalgar Road currently operate near or at capacity and demand by 2031 will exceed capacity
- One-third of intersections currently operate at or near capacity
- Congestion contributes to potential rear-end collisions

Alternative Solutions to Address the Problem:

Alternative Solutions	Potential to Address Problems & Opportunities	Recommendation
Do Nothing	Does not address needs	Carry forward for comparison only
TSM/TDM <small>Transportation Systems Management / Transit Demand Management</small>	Partially addresses needs	Part of Regional Transportation Master Plan; carry forward as part of the overall solution
Upgrade Other Roadways	Partially addresses needs	Part of Regional Transportation Master Plan; do not carry forward for this study
Widen Trafalgar Road	Greatest potential to address needs	Carry forward for further development and assessment

*6 lane and 8 lane widening alternatives were considered for the corridor
 *General purpose lanes, HOV lanes and dedicated BRT lanes were assessed to determine which alternative best addressed the problem

Preferred Options to Address the Problem:



4 General Purpose Lanes + 2 Dedicated Bus Rapid Transit Lanes

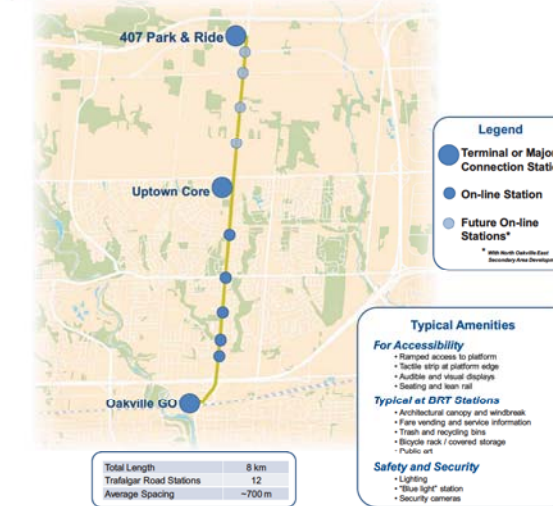
What we heard from you regarding alternative solutions...

- Address pedestrian access to and from Sheridan College
- Consider pedestrian and cycling use
- Assign transit highest priority
- Consider Bus Rapid Transit and future Light Rail Transit
- Reduce impacts to residential properties where possible



TRAFALGAR ROAD CORRIDOR STUDY

Typical Station Spacing and Amenities



TRAFALGAR ROAD CORRIDOR STUDY

Ridership and Service Plan

Ridership Forecast

- Ridership forecasts take into consideration 2031 projected person trip travel, road and rapid transit network and distribution of trips to the transit network.
- Projected peak hour transit trips along Trafalgar Road range near 550 south of Dundas Street and near 800 north of Dundas Street.



BRT Service Concept

Specific Transit Infrastructure Improvements:

- Exclusive transit lanes on Trafalgar Road from north of Leighton Avenue to the new 407ETR Park and Ride facility
 - Exclusive transit lanes from Leighton Avenue to the Oakville GO Station would be implemented at a later date in coordination with Midtown Development improvements.
- Transit Signal Priority (TSP) along the corridor and for BRT vehicles departing from the Oakville GO Station
- Terminal development at the Oakville GO Station, the Uptown Core Station, and at the new 407ETR Park and Ride facility
- On-line station development at key locations along Trafalgar Road
 - On-line stations north of Dundas Street would be brought into service in coordination with the North Oakville East Secondary Area development.
- Integration with Oakville Transit and GO services

Service Standards	Example (from other BRT Systems)
Hours of Operation	Typically a minimum of 15 hours per weekday and coordinated with other systems (e.g., GO train departure and arrival times)
Type of Vehicle	Low floor 12.5m or 18.5m articulated, depending on ridership
Service Headways	10 minute peak (minimum), 20 minute off-peak, with longer headways possible for late night service
Stop Spacing	Typically not less than 400m, with average typically near 800m



TRAFALGAR ROAD CORRIDOR STUDY

Traffic Signal Priority

- What is Traffic Signal Priority (TSP)?**
 - Use of advanced traffic signal technology to reduce travel time for transit vehicles.
 - On Trafalgar Road, TSP would provide small amounts of additional green time for transit only.
 - Other traffic flow would not be substantially impacted.

How does TSP work?

- BRT vehicle is equipped with GPS and a TSP signal controller.
- As the BRT vehicle approaches a signalized intersection, the signal controller (in micro-seconds) determines if:
 - Will BRT vehicle miss the green signal without intervention? (i.e., is TSP override even necessary?)
 - Have pedestrian and side street minimum green times been met?
 - Will extended green or early green signal benefit the BRT vehicle?
 - Is BRT vehicle behind schedule?
- If not, no signal intervention occurs.

Simplified Representation of Transit Priority at Traffic Signals



- BRT vehicle approaches intersection.
- At some point "A" upstream of the intersection, the bus is detected. Various detection methods exist.
- The onboard TSP equipment and the traffic signal controller "C" communicate to determine if signal intervention should occur.
- If an extended or early green signal should occur, controller "C" issues the command to the traffic signals.
- At point "L", just downstream of the intersection, a signal is sent to the controller that the bus has cleared the intersection. Normal signal timing is restored.

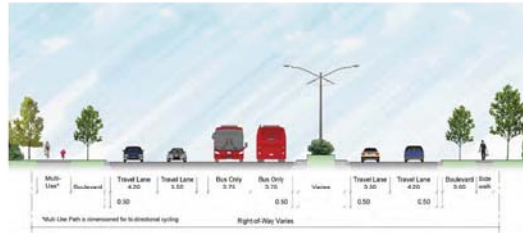


TRAFALGAR ROAD CORRIDOR STUDY

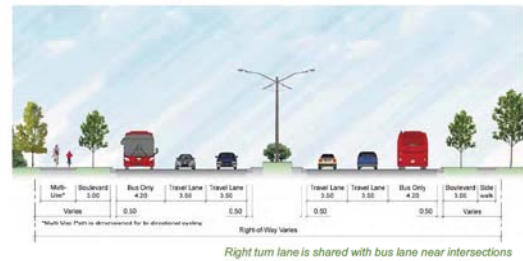
BRT Configurations Considered

BRT = Bus Rapid Transit

4 General Purpose Lanes + 2 Median BRT Lanes



4 General Purpose Lanes + 2 Curbside BRT Lanes



TRAFALGAR ROAD CORRIDOR STUDY

Curb vs. Median Evaluation

Board 2 of 2

Factor	Curb-Running BRT	Median BRT
Transportation – Cost and Staging		
Staging	Better opportunities to build ridership prior to completion of the BRT project across the entire corridor	Less opportunity to build ridership prior to completion of the system
Capital Cost	Less Costly	More Costly
Socio-Economic		
Proximity of Stations to Station-Area/Transit-Oriented Development	Greater opportunity for integration	Less opportunity to directly integrate
Support of Urban Form and Liability Community Goals	Both Alternatives would support goals	
Required Right-of-Way Acquisition	Slightly less ROW required	Slightly more ROW required
Potential Impact to Businesses	Similar impact to adjacent businesses due to change in access (right-of-way-out or required U-turns at intersections). Also similar benefits to adjacent businesses due to increase in transit and pedestrian traffic	
Streetscape Enhancement	Less opportunity for planting in the median	More opportunities for planting in the median
Cultural Environment		
Built Heritage	No impact	
Archaeological Resources	Any potential impact is expected in undisturbed areas (north of Dundas Street) only	
Natural Environment		
Vegetation, Designated Features/Areas	Very limited impact and similar for both options	
Fish and Aquatic Habitat and Wildlife	Impacts are similar for both options. Culvert extension (or replacement) requirements will consider impact to fish habitat where necessary	
Stormwater Management	Stormwater management facilities would be similar for both options	

Both options are similar with each alternative having some advantages and some disadvantages. Overall, BRT operation in a dedicated curb lane along Trafalgar Road is preferred and has been identified as the Technically Preferred Alternative.



TRAFALGAR ROAD CORRIDOR STUDY

Curb vs. Median Evaluation

Board 1 of 2

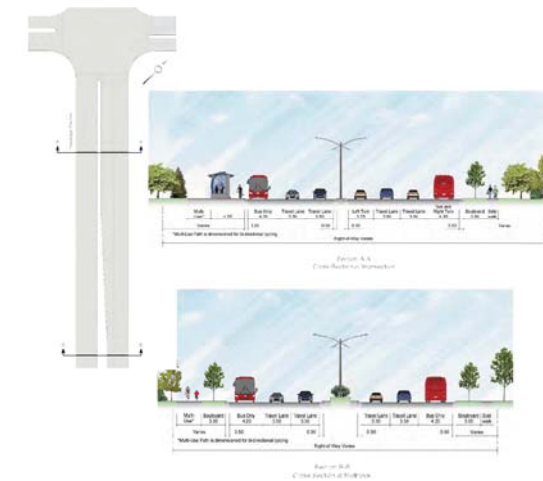
Factor	Curb-Running BRT	Median BRT
Travel Time		
Average BRT Travel Time (407 Parkside to Oakville GO)	28 minutes (including stops)	26 minutes (including stops)
Average BRT Travel Time (Uptown Core to Oakville GO)	20.5 minutes	18.5 minutes
Average Automobile Travel Time (Between 407 and Cornwell Road) projected for year 2031	34 minutes	38 minutes
Pedestrians		
Total Pedestrian Crossing Distance (Time using 1.10 m/sec pedestrian crossing speed)	27.65 m (25.1 sec)	32.85 m (>60 sec if 2 phase)
Availability of Crossing Refuge	No*	Yes
Perceived Passenger Waiting Comfort	Better	Worse
Traffic		
Impacts to Left-Turning Vehicles	Protected and Permissive Phases	Protected Phase Only
U-Turns	Required	Required
Neighbourhood Cut-Through Issues	Potential	Potential
Right of Way and Property Impacts		
Required Right-of-Way Acquisition	Less ROW required	More ROW required
Conversion of Entrances to Right-In-Right-Out	Same for both options	Same for both options
Transit Integration		
Benefits to Local Bus Routes	Both options provide similar benefit	Both options provide similar benefit
Benefits to Express Bus Routes	Potential	Potential
Ease of Transfer between Systems	Ease depends on travel direction	Must cross to median platform
Consistency with Dundas Street BRT	Consistent	Not Consistent
Other		
Roadside Safety – Proximity of Station Structure to Traffic	Station components typically outside of clear zone for 60 km/hr design speed	Barrier and/or impact attenuators typically required
Roadside Safety – Protection of Pedestrians near Stations	Riders (pedestrians) can stand away from road	All riders must cross lanes to reach platforms – riders may experience a lower level of comfort walking in the center of the roadway
Enforcement Issues (Vehicles in BRT Lanes)	Typically more difficult to enforce	Design typically is "self-enforcing"
Emergency Vehicle Benefits (Use of BRT Lanes)	Emergency vehicles can utilize lanes but may experience interference from other vehicles	Emergency vehicles can utilize lanes and would typically experience less interference
Snow Removal	Procedures will need to address clearance of dedicated lanes and potential for throwing snow into stations	Procedures will need to address clearance of dedicated lanes and potential for throwing snow into stations
Active Transportation	Both options will accommodate Active Transportation	Both options will accommodate Active Transportation
AOA Accessibility	Fully accessible including ramps, visual messaging, and audible signals**	Fully accessible including ramps, visual messaging, and audible signals**



TRAFALGAR ROAD CORRIDOR STUDY

Proposed Typical Section

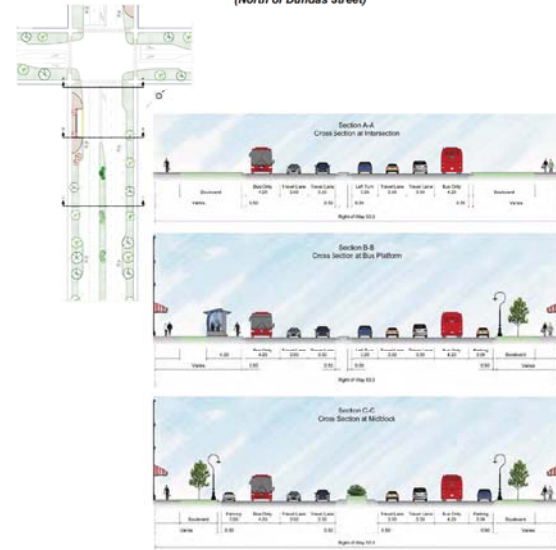
Technically Preferred Alternative
South of Oak Park Boulevard



TRAFALGAR ROAD CORRIDOR STUDY

Proposed Typical Section

Technically Preferred Alternative North Oakville East Secondary Area (North of Dundas Street)



TRAFALGAR ROAD CORRIDOR STUDY

Noise Assessment Overview

Alternatives considered:

- Roadway designs for both the curb-running BRT and median BRT were compared against the "no project" base condition with 2031 projected traffic volumes.

Noise Sensitive Areas (NSA):

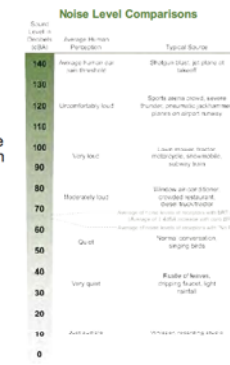
- Defined as a building that has an outdoor recreational or living area associated with a residential unit (e.g. apartment buildings, detached homes, townhouses, etc.)
- Does not include vacant residential buildings, institutional or commercial establishments

Noise receiver locations:

- 17 representative noise receiver locations (e.g. residential properties) were examined along the corridor

Noise analysis factors considered:

- Assessment of noise impacts of the predicted sound levels is outlined in the MTO/MOE Noise Protocol
- Forecasted traffic volumes, posted speed limits and percentage of commercial vehicles (e.g. trucks) under the current conditions and with proposed road improvements
- With less than 5dBA increase in noise levels, no mitigation is required. Greater than 5dBA, mitigation is required where feasible.



TRAFALGAR ROAD CORRIDOR STUDY

Intersection/Access Operations

- With curb-running BRT, signalized intersections would operate in the same manner as existing.
 - Left turns could proceed during the protected signal phase and the permissive signal phase (when safe to do so).
 - Right turns would be made from the right lane. Entry into the BRT lane is typically permitted no more than 45m from an intersection or entrance.
- At unsignalized intersections and entrances, only right-in and right-out movements would be permitted.
- To access some entrances, U-turns will be required at designated intersections from the left-turn lane.



Protected Left Turn Phase



Permissive Left Turn Phase



TRAFALGAR ROAD CORRIDOR STUDY

Noise Assessment Results

Ministry of Transportation (MTO) / Ministry of the Environment (MOE) Noise Protocol:

- The noise descriptor used in Ontario to assess noise is the equivalent sound level, L_{eq} . L_{eq} is identified as the continuous sound level which has the same energy as a time varying noise level over a specified time period.
- MOE uses the 16-hour period between 7 AM and 11 PM for the assessment of municipal roadway noise. The noise at any one instant may be higher or lower than the 16-hour average.
- MTO/MOE Noise Protocol requirement is to compare future noise levels with and without the proposed road improvement adjacent to a Noise Sensitive Area (NSA).
- For purposes of assessing noise as part of a road expansion project, a NSA is defined as a noise sensitive land use with an outdoor living area, which includes: single family houses (typically back yards), townhouses (typically back yards), multiple unit buildings such as apartments with outdoor living areas for use by all occupants, as well as hospitals and nursing homes where the outdoor living areas are for use by patients.

Change in Noise Level Above Ambient	Mitigation Effort Required
0 – 5 dBA	• None
>5 dBA	• Road improvements that increase noise levels by more than 5 dBA above the existing noise levels require mitigation where feasible

The change in noise levels between the "No Project," Median BRT and Curb BRT at each of the noise receiver locations is less than 5 dBA; therefore, noise mitigation is not required.



TRAFALGAR ROAD CORRIDOR STUDY

Impacts, Mitigation and Commitments

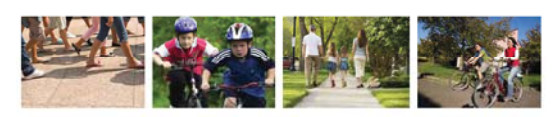
- Heritage Resources**
 - There are 8 listed heritage properties situated along the corridor, none of which are impacted by the proposed improvements.
 - No federally or provincially recognized heritage resources are located within the study area.
- Archaeological Resources**
 - The study area has a high potential for the recovery of archaeological resources.
 - Stage 2 archaeological assessment (AA) activities were recommended for portions of the study area and will be completed prior to detailed design.
 - Should archaeological resources be encountered at the time of the Stage 2 AA, additional background research and/or fieldwork shall be carried out, if required by the Ministry of Culture and Tourism.
- First Nations**
 - Low potential to impact First Nations or Métis. Consultation is ongoing.
- Air Quality**
 - The overall impacts of targeted contaminants (i.e., CO, NOx, etc.) will decrease due to commuters using the proposed BRT and reducing vehicle use on a regional level.
- Noise**
 - Noise analysis using Ministry of Environment methodology shows no noise receptors with increases in noise levels of greater than 5 dBA. No mitigation is required.
- Natural Features**
 - There are eleven aquatic features within the study area, including reaches associated with East Morrison Creek and West Morrison Creek, where culvert extensions/replacements will be necessary. In order to improve aquatic habitat, Conservation Halton has requested that culverts be replaced.
 - Riparian vegetation removal will be minimized where possible, however should areas require removal, native species will be planted in a 3:1 ratio.
 - Significant Woodland and Provincially Significant Wetland have been identified within the study area, however these will be avoided with the curb-running BRT alternative.
 - All in-water and near-water works will be completed during appropriate fisheries timing windows.
- Landscaping**
 - At the southern end of the corridor, landscaping will be deferred to improvements made under the Midtown Development study.
 - Surrounding the Uptown Core, landscaping is to be implemented under the Uptown Core project.
 - North of Dundas, landscaping will be implemented as the North Oakville East Secondary Area is developed.
- Traffic**
 - Both BRT options have similar levels of service for automobile traffic.
 - Median BRT would result in longer average travel times in the corridor during peak hours compared to the Curb BRT.
- Drainage and Stormwater Management**
 - The proposed road widening has the potential to increase the storm runoff volumes, peak flow rates and pollutant loadings to the receiving watercourses.
 - The potential stormwater quality and quantity impacts on the receiving watercourses will have to be mitigated.
 - Stormwater management measures could include stormwater management ponds for adjacent existing and planned development, vegetated swales, infiltration trenches, underground storage and oil-grit separators.

Programmed Construction Phases



Active Transportation

- All transit users are pedestrians at some point in their trip.
- Active transportation facilities can contribute toward a decrease in automobile trips.
- Studies show active transportation facilities contribute toward improved health.
- Facilities for pedestrians and cyclists will be provided along Trafalgar Road. Details will be confirmed based on coordination with the Town of Oakville and the recommendations in active transportation plans.



Please Complete a Comment Sheet

Would you like to be included on the study mailing list? Do you have any questions or comments regarding the study? Please let us know by completing a Comment Sheet. Completed sheets can either be dropped in the comment boxes or submitted by mail, fax or email to either of the following Study Team members:

<p>Mr. Nick Zervos, C.E.T. BRT Study Project Manager Halton Region 1151 Bronte Road Oakville, ON L6M 3L1 Phone: 905-825-6000 Ext. 7632 Fax: 905-847-2192 Email: nick.zervos@halton.ca</p>	<p>Mr. Thomas Williams BRT Study Project Manager AECOM Canada Ltd. 300-300 Town Centre Boulevard Markham, ON L3R 5Z6 Phone: 905-477-8400 Ext. 280 Fax: 905-477-1456 Email: tom.williams@aecom.com</p>
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Please provide all comments by December 9, 2011.

Thank You For Attending!





Trafalgar Road Corridor Study Public Information Centre #2

November 24, 2011



TRAFALGAR ROAD CORRIDOR STUDY



PIC #1 Summary

- **Problems in the corridor:**
 - Growing travel demand
 - Growing potential for congestion-related collisions
- **What we heard from you...**
 - Address pedestrian access to and from Sheridan College
 - Consider pedestrian and cycling use
 - Assign transit highest priority
 - Consider Bus Rapid Transit and future Light Rail Transit
 - Reduce impacts to residential properties where possible



TRAFALGAR ROAD CORRIDOR STUDY



Study History

- The Trafalgar Road Corridor Study was initiated in 2009.
- The study area extends from Cornwall Road on the south to Highway 407 on the north.
- The first Public Information Centre was held in June of 2010.



Trafalgar Road Study Area

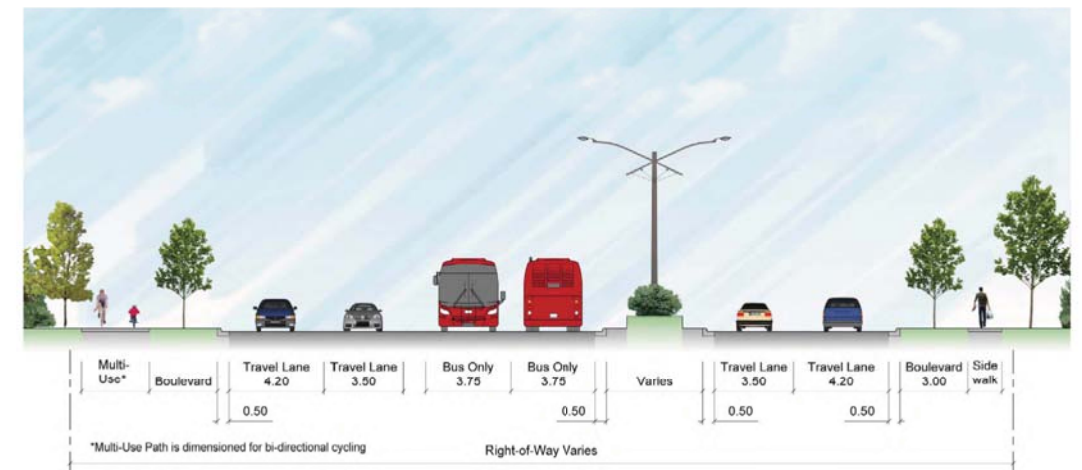


TRAFALGAR ROAD CORRIDOR STUDY



Alternatives Considered

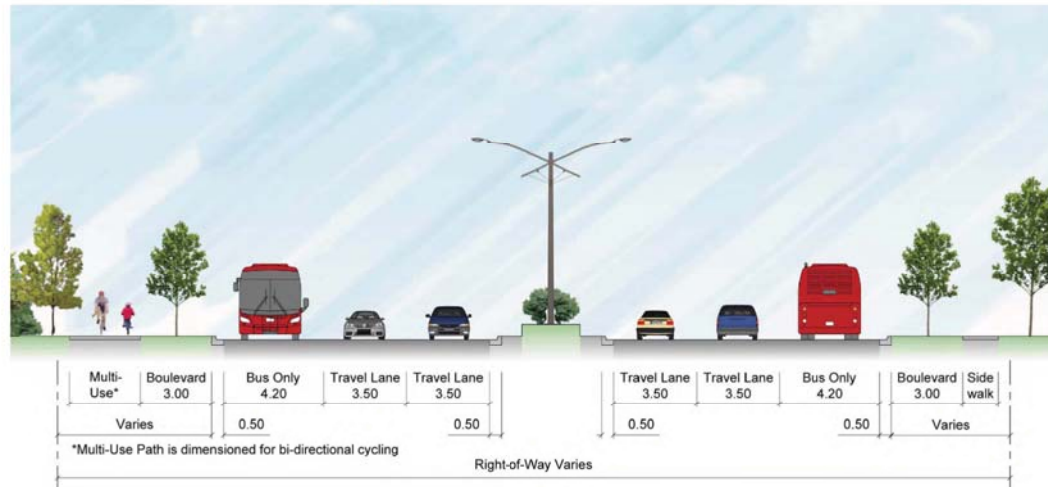
4 General Purpose Lanes + 2 Median BRT Lanes



TRAFALGAR ROAD CORRIDOR STUDY

Alternatives Considered

4 General Purpose Lanes + 2 Curbside BRT Lanes



TRAFALGAR ROAD CORRIDOR STUDY

Evaluation Summary

Criteria	Curb BRT	Median BRT
BRT Lane Enforcement		Better
Staging	Better	
Capital Cost	Slightly Better	
Socio-Economic		Similar
Cultural		Similar
Natural Environment		Similar

Both options are similar with each alternative having some advantages and some disadvantages. Overall, BRT operation in a dedicated curbside lane along Trafalgar Road is preferred and has been identified as the Technically Preferred Alternative.



TRAFALGAR ROAD CORRIDOR STUDY

Evaluation Summary

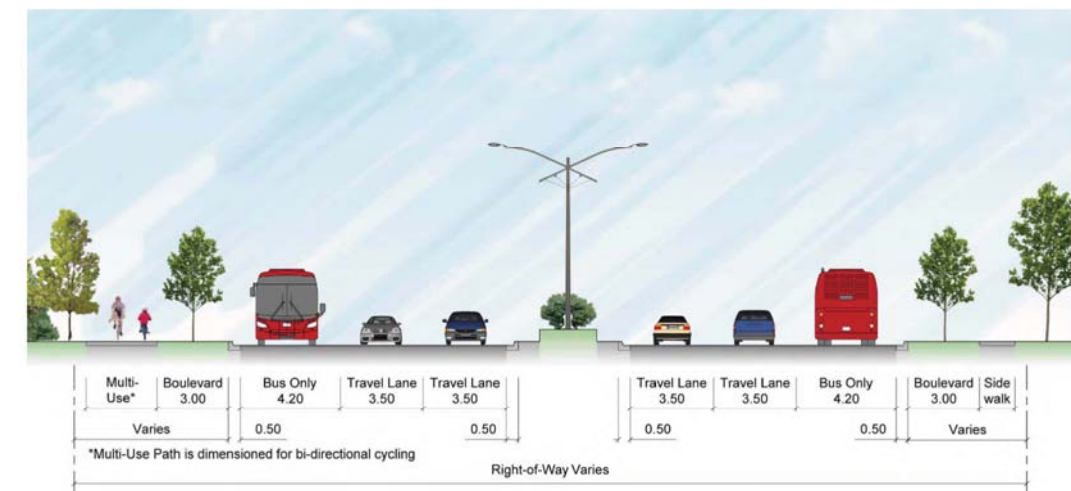
Criteria	Curb BRT	Median BRT
BRT Travel Time		Slightly Better
General Traffic	Slightly Better	
Pedestrian Crossings		Similar
Traffic Level of Service		Similar
Right of Way Needed	Slightly Better	
Transit Integration	Slightly Better	
Active Transportation	Both accommodate	
Accessibility	Both fully accessible	
Safety Assessment	Similar	



TRAFALGAR ROAD CORRIDOR STUDY

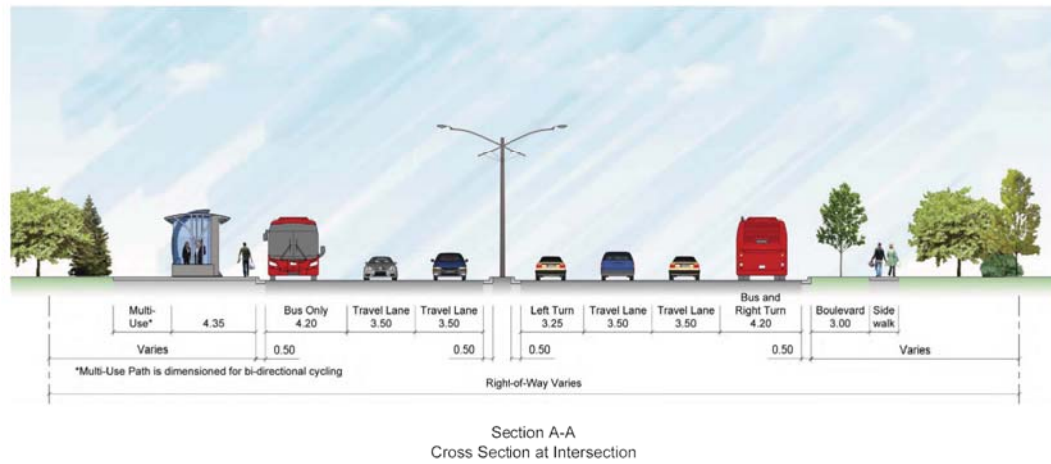
Curb BRT – Technically Preferred

Midblock



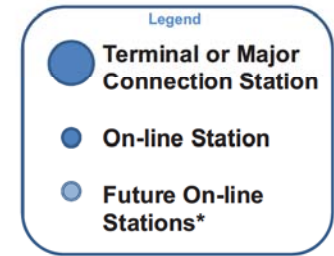
TRAFALGAR ROAD CORRIDOR STUDY

Curb BRT – Technically Preferred Intersection



TRAFALGAR ROAD CORRIDOR STUDY

Location of Stations

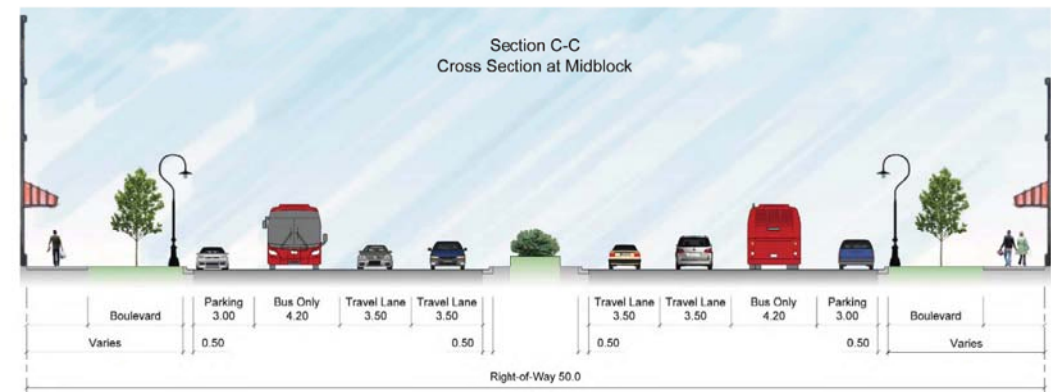


* With North Oakville East Secondary Area Development



TRAFALGAR ROAD CORRIDOR STUDY

Curb BRT – Technically Preferred North of Dundas (Midblock)



TRAFALGAR ROAD CORRIDOR STUDY

Typical Station Amenities

For Accessibility

- Ramped access to platform
- Tactile strip at platform edge
- Audible and visual displays
- Seating and lean rail

Typical at BRT Stations

- Architectural canopy and windbreak
- Fare vending and service information
- Trash and recycling bins
- Bicycle rack / covered storage
- Public art

Safety and Security

- Lighting
- "Blue light" station
- Security cameras



Brampton Züm



Viva (York Region) Quick Win



TRAFALGAR ROAD CORRIDOR STUDY

Intersection & Access

- With curb-running BRT, signalized intersections would operate in the same manner as existing.
 - Left turns could proceed during the protected signal phase and the permissive signal phase (when safe to do so).
 - Right turns would be made from the right lane. Entry into the BRT lane is typically permitted no more than 45m from an intersection or entrance.
- At unsignalized intersections and entrances, only right-in and right-out movements would be permitted.
- To access some entrances, U-turns will be required at designated intersections from the left-turn lane.



Protected Left Turn Phase



Permissive Left Turn Phase



TRAFALGAR ROAD CORRIDOR STUDY

Active Transportation

- All transit users are pedestrians at some point in their trip.
- Active transportation facilities can contribute toward a decrease in automobile trips.
- Studies show active transportation facilities contribute toward improved health.
- Facilities for pedestrians and cyclists will be provided along Trafalgar Road. Details will be confirmed based on coordination with the Town of Oakville and the recommendations in active transportation plans.



TRAFALGAR ROAD CORRIDOR STUDY

Traffic Signal Priority

- **Traffic Signal Priority (TSP):** Use of advanced traffic signal technology to reduce travel time for transit vehicles.



1. BRT vehicle approaches intersection.
2. BRT Vehicle is detected at point **A**.
3. Onboard TSP equipment communicates with controller **C** to determine if signal intervention should occur.

4. Controller **C** issues command (if any) to the traffic signals.
5. At **L**, controller is informed that the bus has cleared the intersection. Normal signal timing is restored.



TRAFALGAR ROAD CORRIDOR STUDY

Noise Assessment

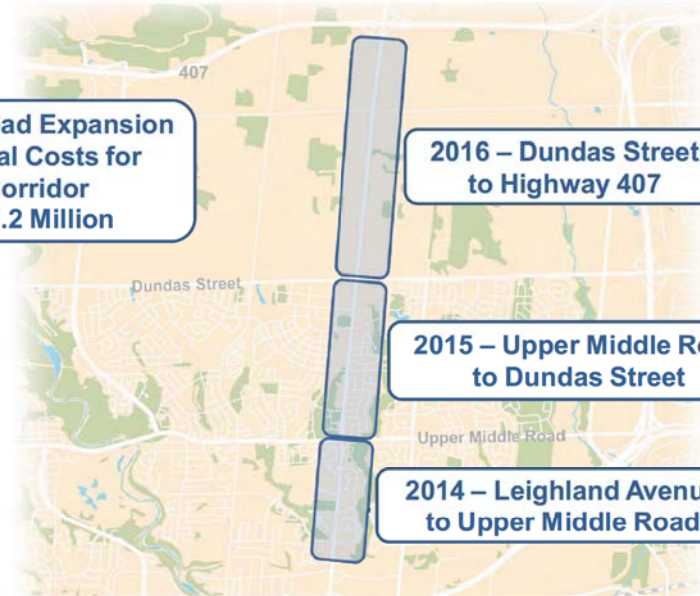
- Roadway designs for both the curb-running BRT and median BRT were compared against the “no project” base condition with 2031 projected traffic volumes.
- Per MTO/MOE Noise Protocol, added noise greater than 5 decibels must be mitigated where feasible.
- 17 representative noise receiver locations (e.g. residential properties) were examined along the corridor.
- The change in noise levels between the “No Project,” Median BRT and Curb BRT at each of the noise receiver locations is less than 5 dBA; therefore, noise mitigation is not required.



TRAFALGAR ROAD CORRIDOR STUDY

Programmed Construction Phases

Total Road Expansion
Capital Costs for
Corridor
\$57.2 Million



2016 – Dundas Street
to Highway 407

2015 – Upper Middle Road
to Dundas Street

2014 – Leighland Avenue
to Upper Middle Road



TRAFALGAR ROAD CORRIDOR STUDY

Contact Information

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BRT Study Project Manager
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1151 Bronte Road
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Phone: 905-477-8400 Ext. 280
Fax: 905-477-1456
Email: tom.williams@aecom.com

Please provide all comments by
December 9, 2011.

Thank You For Attending!



TRAFALGAR ROAD CORRIDOR STUDY

PIC #2 Comment Sheets



Trafalgar Road (Regional Road 3) Transportation Corridor Improvements
from Cornwall Road to Highway 407, Town of Oakville

RECEIVED
JAN 9 - 2012
AECOM

PUBLIC INFORMATION CENTRE # 2
November 24, 2011

RECEIVED

DEC 05 2011

HALTON REGION
PUBLIC WORKS & ENG.

PLEASE PROVIDE YOUR COMMENTS IN THE SPACE BELOW

I like the plan showing West side - extra wide 2 way cycle traffic + pedestrian walkway. This shows an easement of 2 feet from our condominium property. This will require removal of our old chain link fence - which we have tried to repair gaps at the bottom, made by students cutting through our property. The fence you remove will need a NEW replacement as I feel the old one will be too broken down.
The BRT lanes on the east edge of road, 3 lanes for normal traffic, a MEDIAN in centre, 3 lanes in opposite direction (North) and BRT lane on east edge, then 4 or normal width walkway -
The crosswalks will need longer time for pedestrians to cross too. There will be a bottleneck when BRT cross QEW, forcing them into the normal traffic lanes to keep their schedule. Cause for accidents?

Thank you for participating in today's event. Please deposit your comments in the box provided. Comments and information regarding this study are being collected to assist Halton Region and to meet the requirements of the Municipal Class Environmental Assessment (Class EA). This material will be maintained on file for use during the study and may be included in study documentation. With the exception of personal information, all comments will become part of the public record. If you are unable to respond at this time, please submit your comments by **December 9, 2011** to:

Mr. Thomas Williams,
Project Manager, Trafalgar Road Study
AECOM
300 Town Centre Boulevard, Suite 300
Markham, ON L3R 5Z6
Phone: (905) 477-8400 x280
Fax: (905) 477-1456
E-mail: tom.williams@aecom.com

Mr. Nick Zervos
Project Manager
Regional Municipality of Halton
1151 Bronte Road
Oakville, ON L6M 3L1
Phone: (905) 825-6000 Ext. 7632
Fax: (905) 825-8822
E-mail: nick.zervos@halton.ca

Name (Please Print):

Mailing Address:

Town:

E-mail Address:

Federal legislation governs the collection and use of personal information from individuals. By supplying your name, address, telephone number and/or e-mail address, YOU ARE CONSENTING TO the collection and use by AECOM of that personal information for the following purposes: recording and reporting to AECOM's client your attendance at this public meeting; attributing to you statements made by you at this meeting in any report that AECOM prepares regarding this project; contacting you to provide updates regarding the project, if requested by you; contacting you to request further comments or discussion of the project, should AECOM or the client deem this necessary or advisable. If you wish to limit the way that AECOM may use your personal information, as described above, you must advise AECOM in writing within five business days of this meeting.



AECOM
300 - 300 Town Centre Boulevard
Markham, ON, Canada L3R 5Z6
www.aecom.com

905 477 8400 tel
905 477 1456 fax

January 5, 2012

Project No: 60119993

Regarding: Trafalgar Road Public Information Centre #2

Dear |

On behalf of the Regional Municipality of Halton, I would like to thank you for providing comments regarding the proposed Trafalgar Road improvements presented on November 24, 2011.

We will certainly use your detailed observations as the preliminary design plans move toward final design and construction. Your comment on the fence will be especially pertinent since our designers would not typically know such details.

Regarding the crosswalks, we agree that the crossing times will need to be increased for the longer distance. Traffic engineers assigned to this project will be using this longer distance in computing the appropriate minimum crossing time using the Region of Halton standards.

Thank you again for your comments, and best wishes in the New Year.

Sincerely,
AECOM Canada Ltd.

//signed//

Thomas W. Williams
Project Manager, Trafalgar Road Study

cc: Nick Zervos, Project Manager, Regional Municipality of Halton
Paula Neto, Environmental Assessment Manager, AECOM



**Trafalgar Road (Regional Road 3) Transportation Corridor Improvements
From Cornwall Road to Highway 407, Town of Oakville**

**PUBLIC INFORMATION CENTRE # 2
November 24, 2011**



PLEASE PROVIDE YOUR COMMENTS IN THE SPACE BELOW

I am very concerned about the congestion of BRT buses & GO buses, plus passenger cars of GO riders all meeting at Oakville GO Station. We soon will have the ugly sight of a parking garage at Cornwall & Trafalgar and the extra traffic it will produce with more pollution, noise and congestion for the residents of nearby homes. You had you couldn't have talked to each other before all this was planned!! Please send me copies of the PIC #1 panels Study and the Trafalgar Corridor Study. Thank you.

Thank you for participating in today's event. Please deposit your comments in the box provided. Comments and information regarding this study are being collected to assist Halton Region and to meet the requirements of the Municipal Class Environmental Assessment (Class EA). This material will be maintained on file for use during the study and may be included in study documentation. With the exception of personal information, all comments will become part of the public record. If you are unable to respond at this time, please submit your comments by **December 9, 2011** to:

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E-mail: nick.zervos@halton.ca

Name (Please Print): _____

Mailing Address: _____

Town: OAK

E-mail Address: T

Federal legislation governs the collection and use of personal information from individuals. By supplying your name, address, telephone number and/or e-mail address, YOU ARE CONSENTING TO the collection and use by AECOM of that personal information for the following purposes: recording and reporting to AECOM's client your attendance at this public meeting; attributing to you statements made by you at this meeting in any report that AECOM prepares regarding this project; contacting you to provide updates regarding the project, if requested by you; contacting you to request further comments or discussion of the project, should AECOM or the client deem this necessary or advisable. If you wish to limit the way that AECOM may use your personal information, as described above, you must advise AECOM in writing within five business days of this meeting.

From: Neto, Paula
Sent: December 09, 2011 2:17 PM
To:
Cc: Zervos, Nick; Williams, Thomas W.; Addley, Diana
Subject: Trafalgar Road Environmental Assessment study
Attachments: Trafalgar PIC #1 Boards FINAL.pdf

Good morning

Thank you for your recent comments and for attending Public Information Centre (PIC) #2 held on November 24, 2011. We will certainly consider your comments, along with other comments we receive, as we move forward through the study process. All comments received as part of this study will become part of the public record for this project.

As per your request, please find a copy of the panels presented at PIC #1 attached. Please let me know if you require a hard copy of these panels and I will send them to you through the mail. In addition, please do not hesitate to contact me should you have any additional comments or questions.

Thank you and regards,
Paula

Paula Neto, MScPI, MCIP, RPP
Senior Planner, Transportation
D 905.668.4021 x2346 C 905.242.2018
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