Public Information Centre (PIC)



Bayview Drive & Big Bay Point Road Transportation Improvements

Schedule 'C' Class EA – Phases 3 & 4 March 2, 2016





Welcome

This Public Information Centre will:

- Detail the study area, study purpose & objective
- Review the preferred design solution as presented in the City of Barrie Multi-Modal Active Transportation Master Plan
- Present the design alternative concepts of the preferred design solution & identify potential environmental impacts
- Seek input & comments for consideration in the selection of the final preferred design solution
- Provide opportunities for the public to ask questions

Public & Stakeholders are requested to:

- Sign-in
- Review the presentation material
- Ask questions of the City and/or Consultant
- Submit a comment sheet &
 indicate whether or not you want
 to be kept informed of the
 process



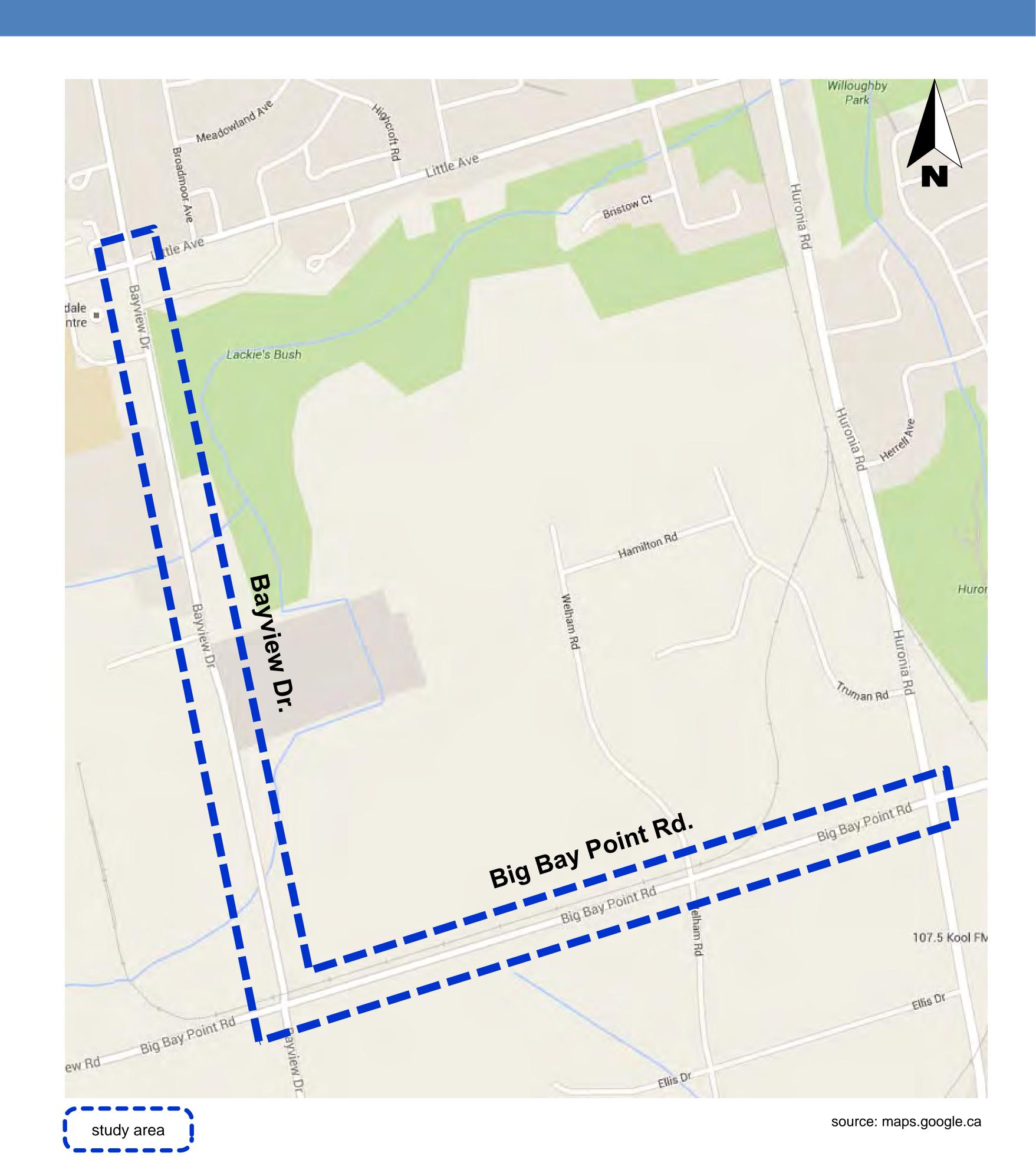
Study Area

Bayview Drive

- Little Avenue to Big Bay Point Road
- 1.4 km

Big Bay Point Road

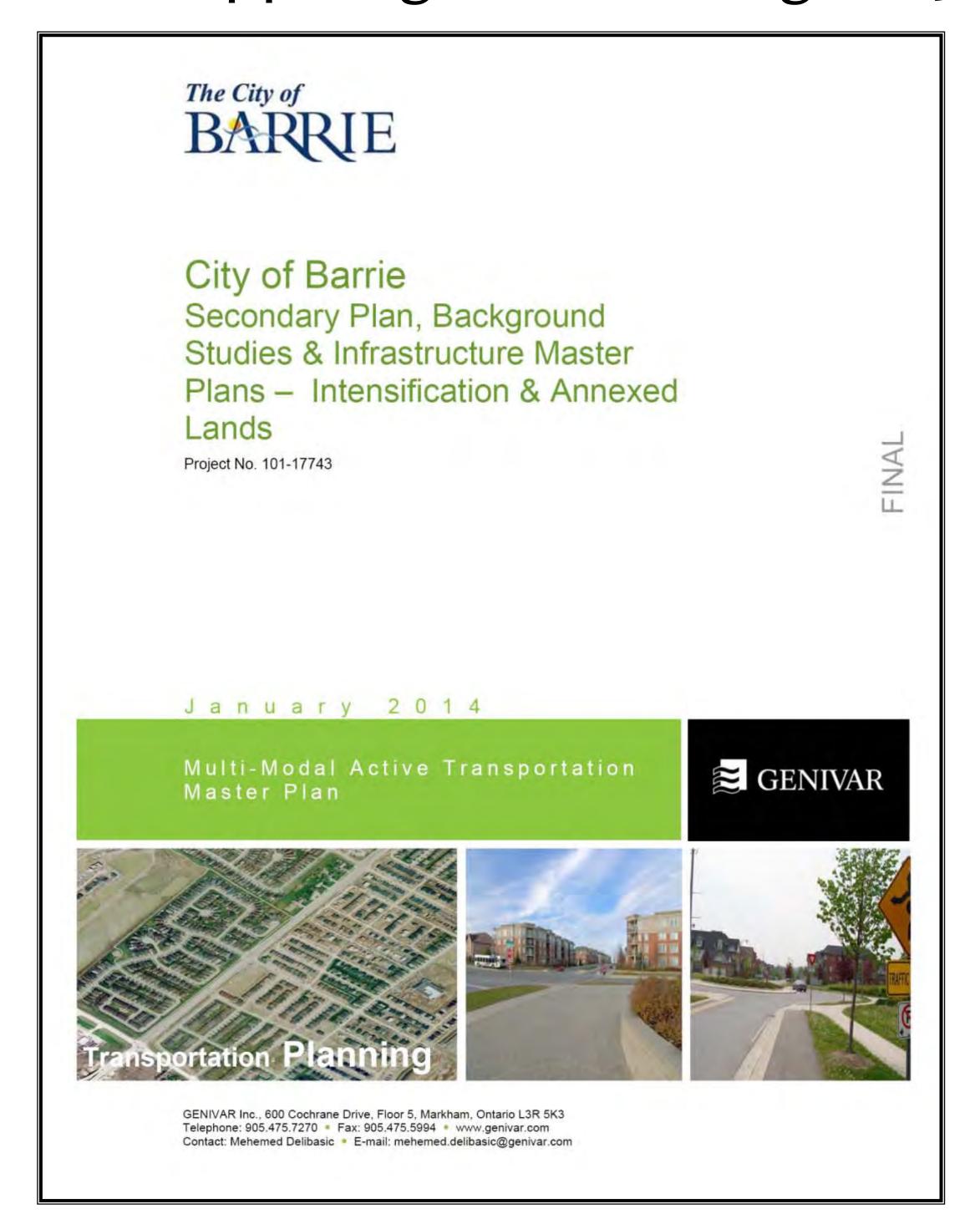
- Bayview Drive to Huronia Road
- 1.3 km



Study Background

The City of Barrie Multi-Modal Active Transportation Master Plan (MMATMP)

 City-wide study to identify transportation needs to support growth through 2031



MMATMP Opportunity Statement

- The City of Barrie needs a transportation system that will accommodate growth to 2031 and beyond. An opportunity exists to plan a transportation system which:
 - is safe, efficient and accessible with choices in mobility
 - fosters the use & development of a sustainable transportation network
 - provides a public transit system that can offer a real alternative to private automobile use
 - provides a network of on-road & off-road pedestrian and cycling facilities that allow the use of active transportation modes as an alternative to the automobile

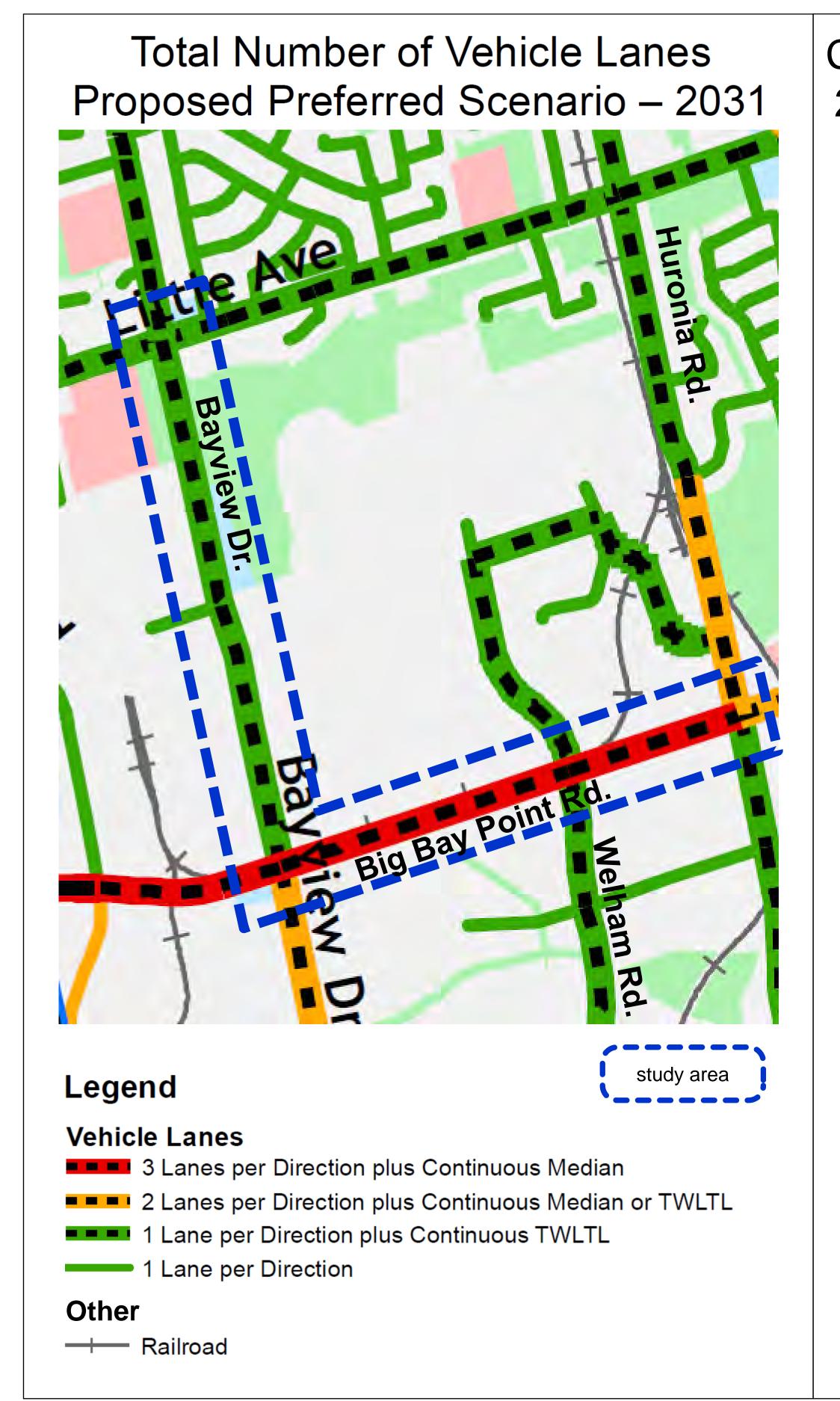
The MMATMP road network recommendations:

Bayview Drive

- 3-lane profile
- 1 lane per direction
 w/two-way left turn lane
- Beyond 2031 5-lane
 profile may be required
 (2 lanes per direction w/
 two-way left turn lane)

Big Bay Point Road

- 7-lane profile
- 3 lanes per direction w/left turn lanes & raised median
- Beyond 2031 no additional capacity required



Corridors Potentially Exceeding Capacity in 2051 (based on Preferred Scenario - 2031 study area Legend Corridors Potentially Exceeding Capacity by 2051 One Additional Lane per Direction May Be Required (Some Require Additional ROW) No Additional ROW Suggested Beyond 2031

MMATMP – Active Transportation

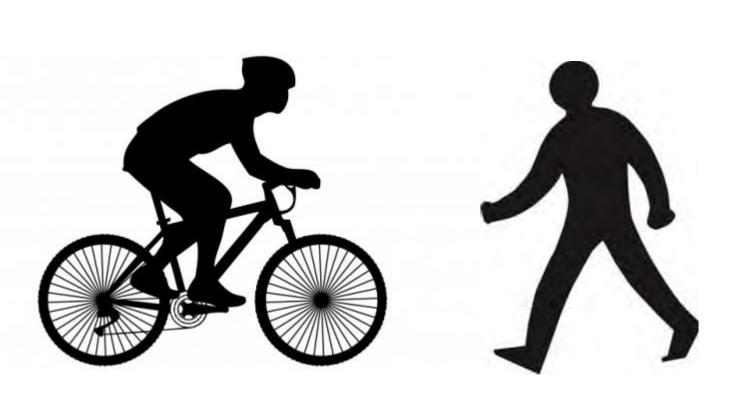
The MMATMP active transportation recommendations:

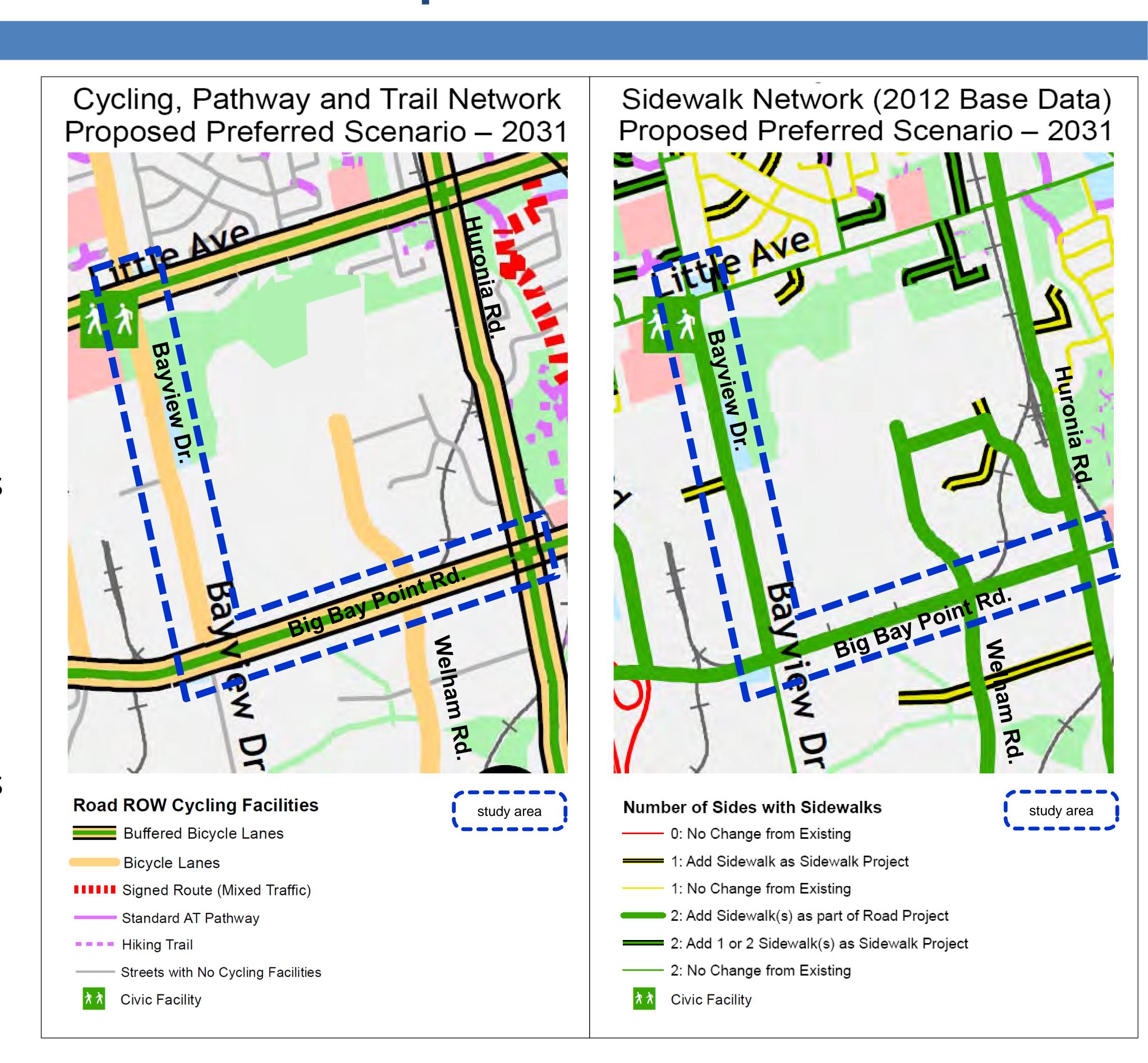
Bayview Drive

- Implementation of regular bicycle lanes
- Implementation of sidewalks on both sides of street

Big Bay Point Road

- Implementation of buffered bicycle lanes
- Implementation of sidewalks on both sides of street





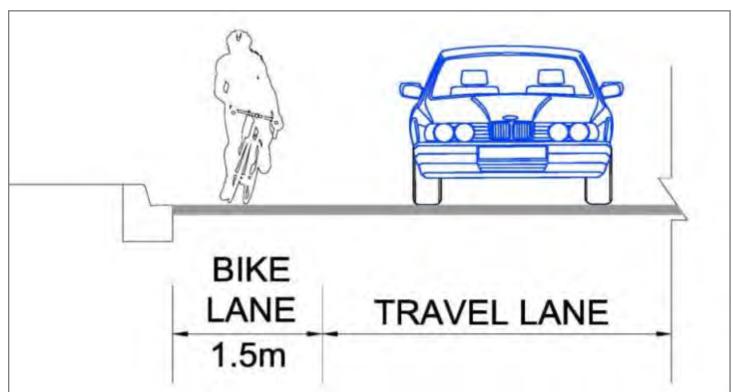
Future Highway 400 Overpass

- Preferred Highway 400Overpass:
 - 5-Lane crossing over existing
 Highway 400
 - Crossing will be designed to be compatible with a potential future 7-lane interchange and a widened Highway 400
 - Buffered bicycle lanes
 - Sidewalks on both sides of road/overpass
 - Railway spur crossing Big Bay
 Point Road will be removed
 - Land to be protected for potential future interchange



Active Transportation – Bicycle Lanes

Regular Bicycle Lanes







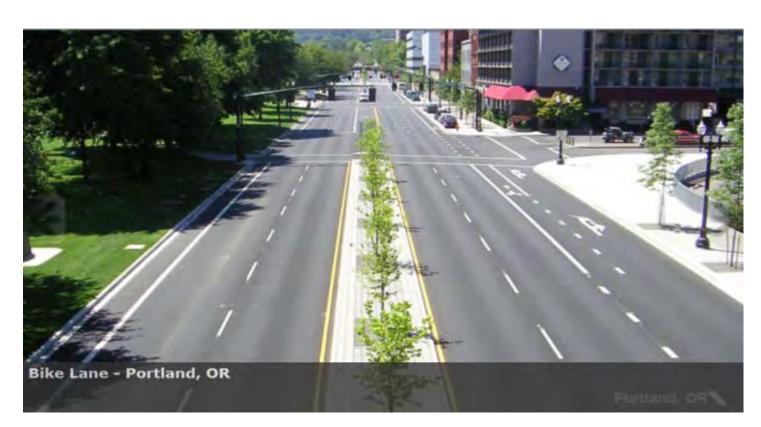
Source: National Association of City Transportation Officials





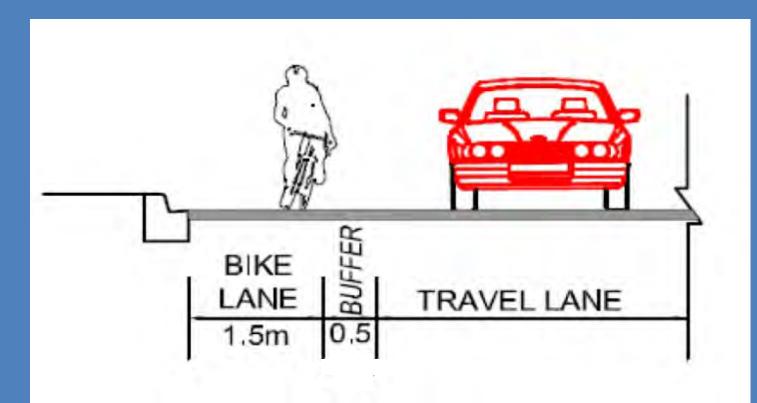




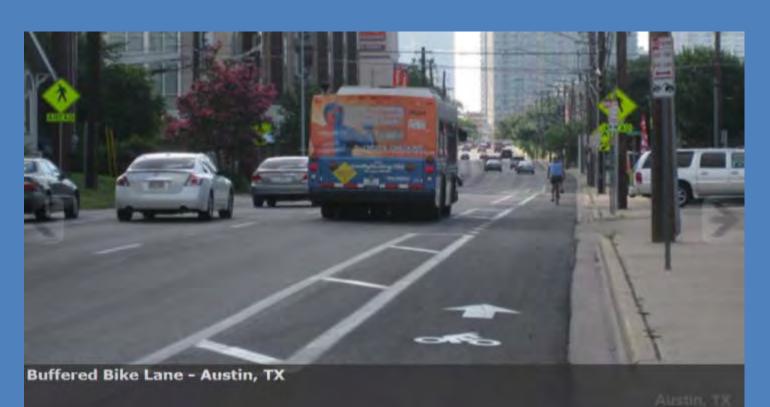




Buffered Bicycle Lanes



Source: Multi-Modal Active Transportation Master Plan









Source: National Association of City Transportation Officials







Study Objectives

The **OBJECTIVES** of the study are:

- To complete the EA process initiated through the Multi-Modal Active Transportation Master Plan
- To improve the traffic operations and road conditions along Bayview Drive (Little Ave. Big Bay Point Rd.) and Big Bay Point Road (Bayview Dr. to Huronia Rd.) to accommodate future growth through 2031
- To consider additional infrastructure improvements (i.e. new watermain, stormwater management upgrades, etc.) in parallel with the proposed transportation works

Big Bay Point Road



Study Purpose

The PURPOSE of the study is to:

- Develop alternative design concepts for the preferred solution identified in the Multi-Modal Active Transportation Master Plan
- Identify the location, extent & sensitivity of affected environments
- Assess the design alternatives given the potential environmental impacts
- Seek public input & comment
- Identify a preferred design solution
- Establish measures to mitigate adverse impacts as required
- Satisfy the requirements of the Class EA process

Bayview Drive



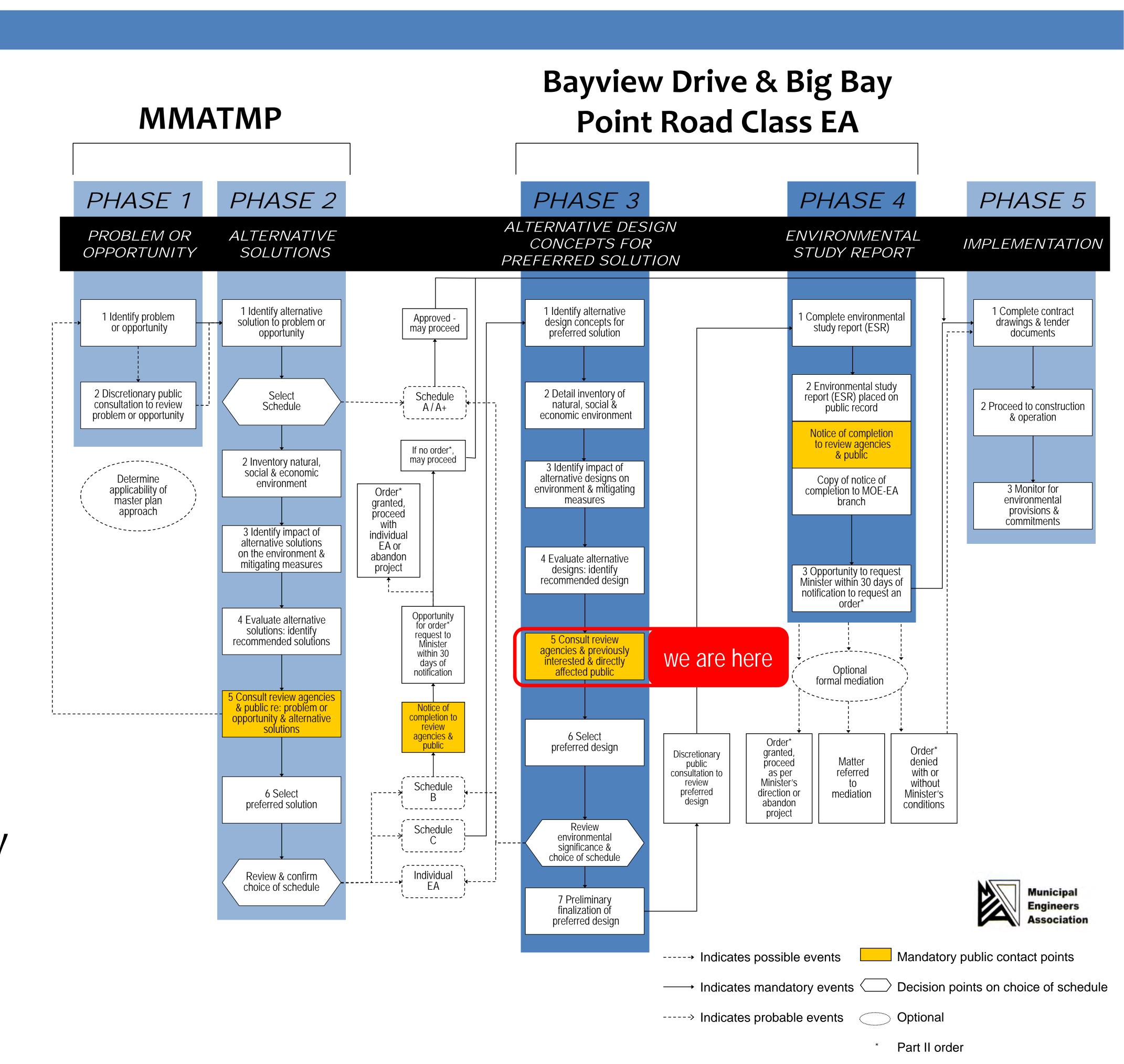
Study Process

Multi-Modal Active Transportation Plan

fulfilled Phases 1 & 2 of
 Class EA process

Bayview Dr. & Big Bay Point Rd. Class EA

- addresses Phases 3 & 4
- provides opportunity for public input:
 - PIC (today)
 - 30-day review of final report & findings
- Following completion of Phases 3 & 4, the City may proceed to Phase 5 (subject to available budget)



Bayview Drive



Looking south from Little Avenue



Looking north from Innisdale (north access)



Looking south from Innisdale (north access)



Looking north of Innisdale (south access)



Looking south from Innisdale (south access)



Looking north from Mollard Court



Looking south from Mollard Court



Looking north from The Source (south access)



Looking south towards Big Bay Point Road



Looking north from Big Bay Point Road

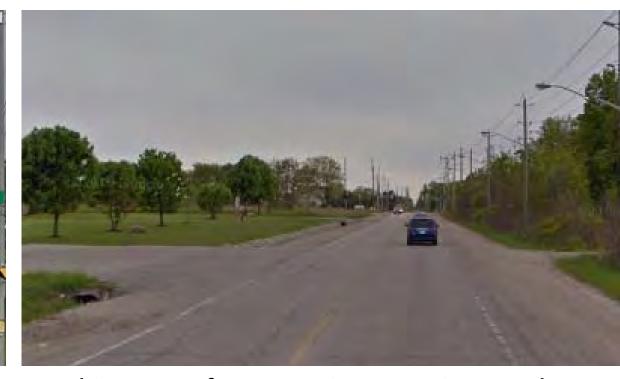
Big Bay Point Road



Looking west from Bayview Drive



Looking east from Bayview Drive



Looking west from 131 Big Bay Point Road



Looking east from 131 Big Bay Point Road



Looking west from Welham Road



Looking east from Welham Road



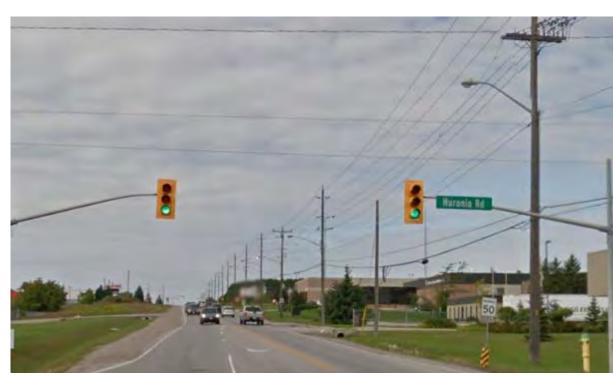
Looking west from 120 Big Bay Point Road



Looking east from 120 Big Bay Point Road



Looking east towards Huronia Road



Looking west from Huronia Road

Barrie Collingwood Railway (BCRY)

- The BCRY is a short-line rail operation providing limited freight service to customers in the City of Barrie and Town of Innisfil
- The railway has a 15.0m right-ofway that abuts Big Bay Point Road to the north, with a spur that runs parallel to the road through the study area
- The spur crosses Bayview Drive and Welham Road, immediately north of Big Bay Point Road
- Currently no rail activity along the spur
- Grade crossing warning systems may be required should rail activity be re-introduced



Bayview Drive Crossing







Welham Road Crossing







Design Alternatives - Bayview Drive

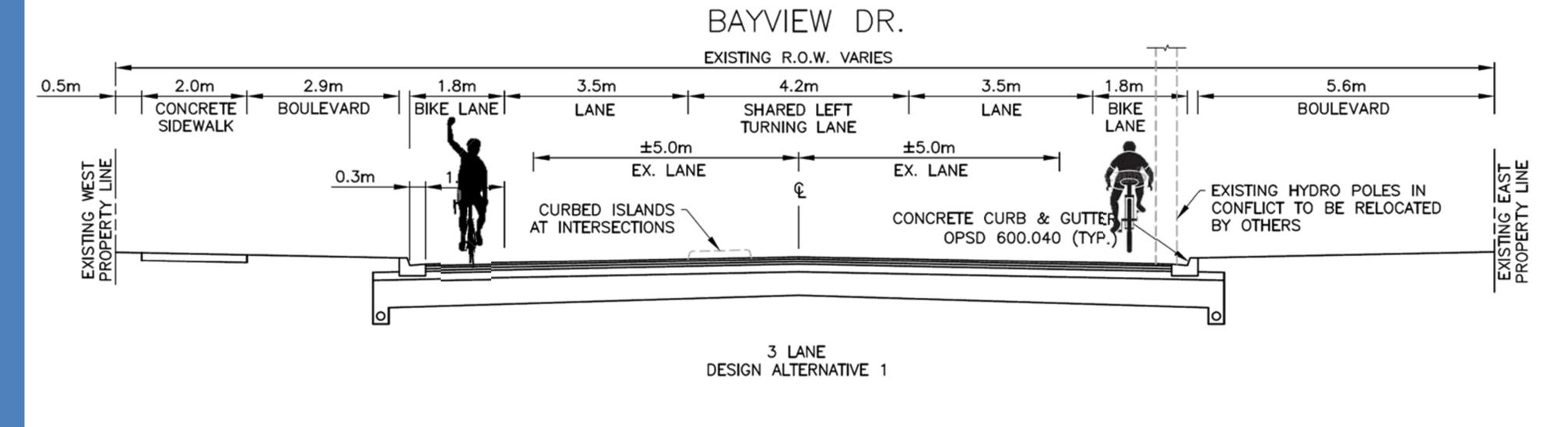
Design Alternative 1:

- 3-lane cross-section
- fits within existing ROW
- 3.5 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.8 m bicycle lanes (includes 0.3m gutter)
- 2.9 m to 5.6 m boulevards
- 2.0 m sidewalk on west side of the road only
- maintain existing centreline

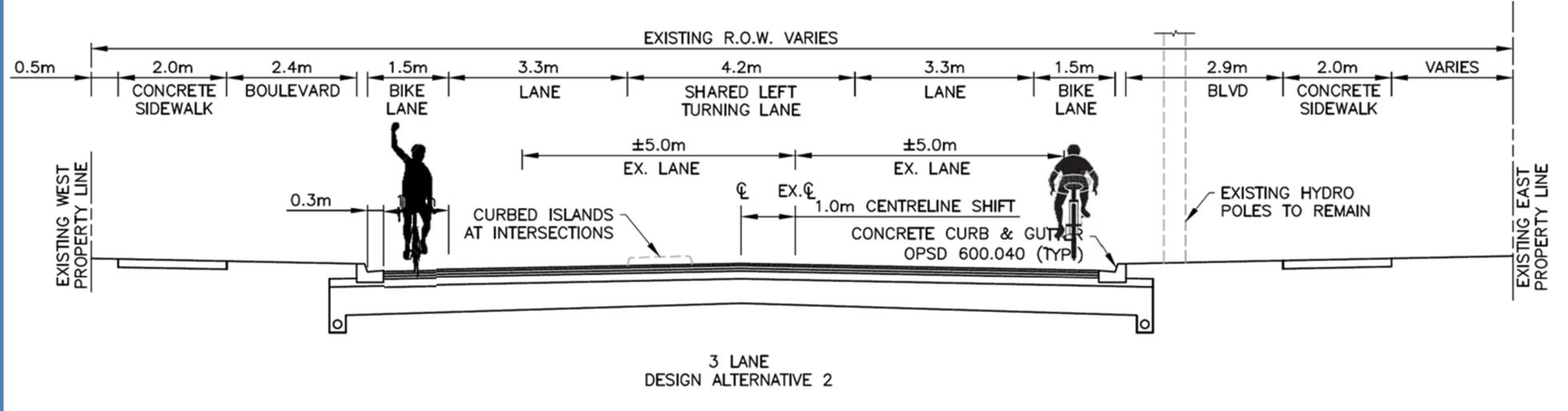
Design Alternative 2:

- 3-lane cross-section
- fits within existing ROW
- 3.3 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.5 m bicycle lanes (includes 0.3m gutter)
- 2.4 m to 5.9 m boulevards
- 2.0 m sidewalk on both sides of the road
- centreline shift of 1.0 m to the west

Design Alternative 1: 3-Lane Cross-Section (looking north)



Design Alternative 2: Reduced 3-Lane Cross-Section (looking north)

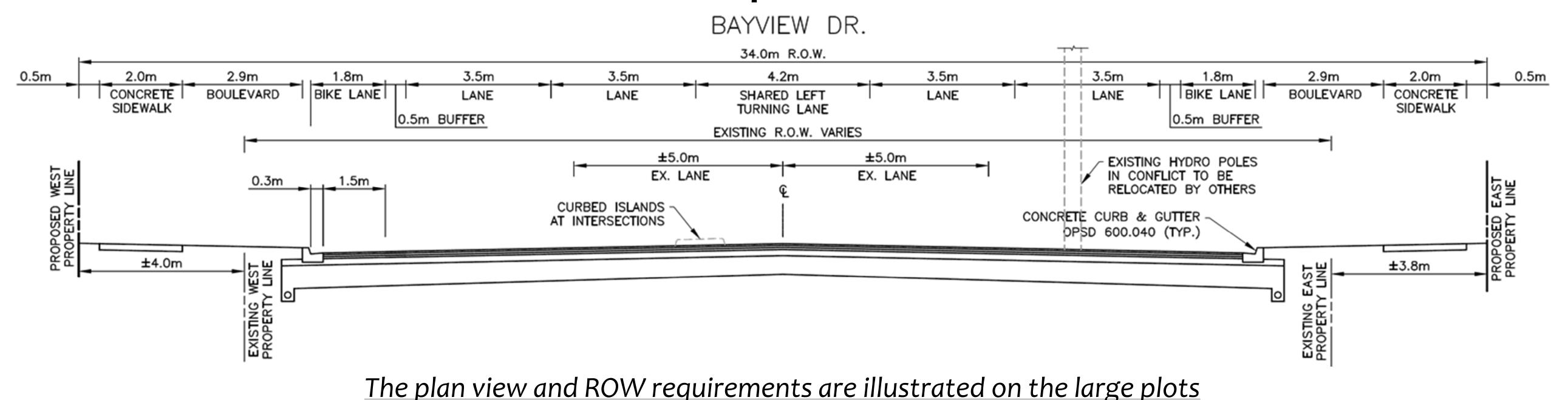


The plan view and ROW requirements for each alternative are illustrated on the large plots

Future Design Concept - Bayview Drive

- MMATMP identified Bayview Drive as potentially requiring additional capacity beyond
 2031
- Future Design Concept was developed to illustrate potential future impacts
- Not evaluated as part of this EA
- 5-Lane Future Design Concept considers:
 - 34.0 m right-of-way
 - 3.5 m vehicular lanes (two per direction)
 - 4.2 m two-way left turn lane
 - 1.8 m bicycle lanes (includes 0.3m gutter)
 - 0.5 m bicycle lane buffers
 - 2.0 m sidewalks on both sides of the road
 - 2.9 m boulevards

Future Concept Cross-Section



Design Alternatives – Big Bay Point Road

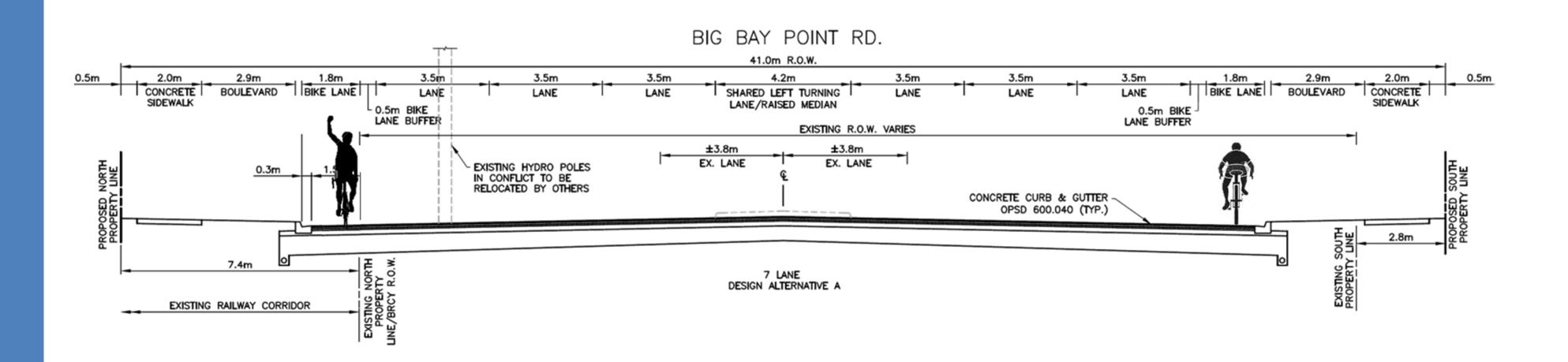
Design Alternative A:

- 7-lane cross-section (41.0 m ROW)
- 3.5 m vehicular lanes
- 4.2 m raised median/left turn lane
- 1.8 m bicycle lanes (includes 0.3m gutter)
- 0.5 m bicycle lane buffers
- 2.9 m boulevards
- 2.0 m sidewalk on both sides
- maintain existing centreline
- assumes removal of railway corridor

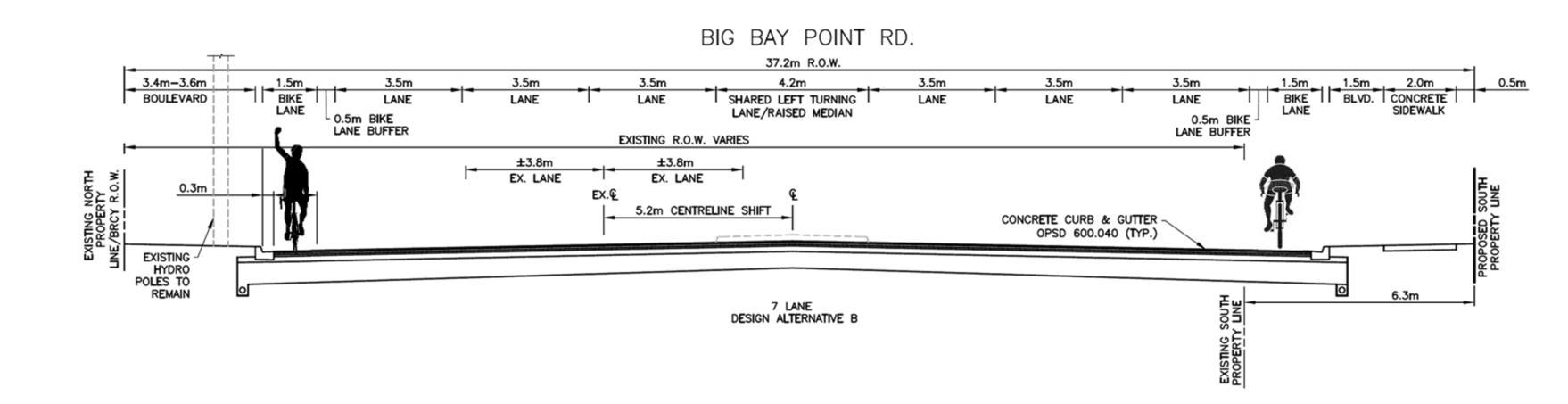
Design Alternative B:

- reduced 7-lane cross-section(37.2 m ROW)
- 3.5 m vehicular lanes
- 4.2 m raised median/left turn lane
- 1.5 m bicycle lanes (includes 0.3m gutter)
- 0.5 m bicycle lane buffers
- reduced boulevard widths
- 2.0 m sidewalk on south side only
- centreline shift of 5.2 m to the south
- assumes railway corridor will remain

Design Alternative A: 7-Lane Cross-Section (looking east)



Design Alternative B: Reduced 7-Lane Cross-Section (looking east)



The plan view and ROW requirements for each alternative are illustrated on the large plots

Design Alternatives – Big Bay Point Road

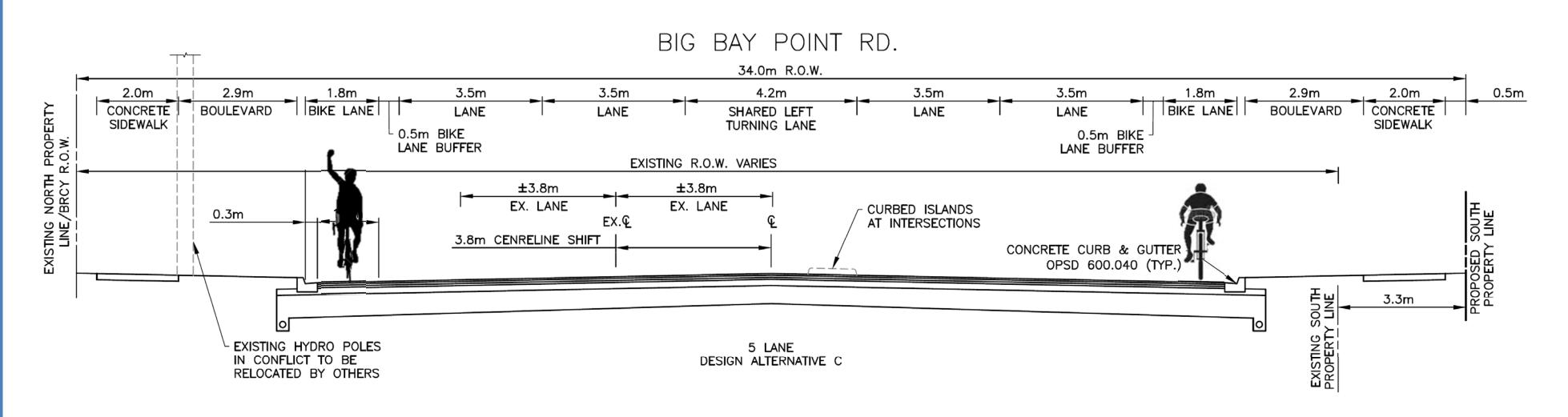
Design Alternative C:

- 5-lane cross-section (34.0 m ROW)
- 3.5 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.8 m bicycle lanes (includes 0.3m gutter)
- 0.5 m bicycle lane buffers
- 2.9 m boulevards
- 2.0 m sidewalk on both sides
- centreline shift of 3.8m to the south
- assumes railway corridor will remain

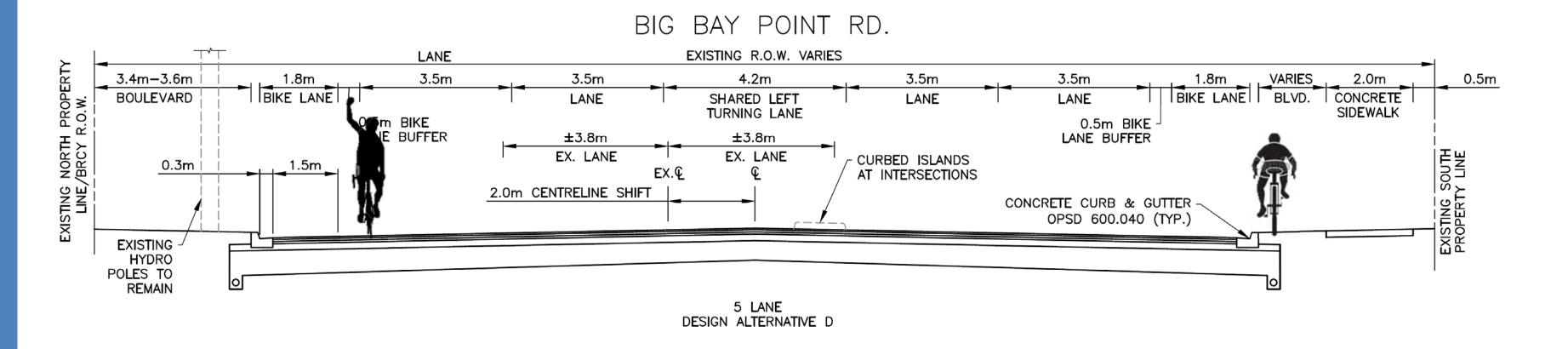
Design Alternative D:

- reduced 5-lane cross-section
- fits within existing ROW
- 3.5 m vehicular lanes
- 4.2 m two-way left turn lane
- 1.8 m bicycle lanes (includes 0.3m gutter)
- 0.5 m bicycle lane buffers
- reduced boulevard widths
- 2.0 m sidewalk on south side only
- centreline shift of 2.0 m to the south
- assumes railway corridor will remain

Design Alternative C: 5-Lane Cross-Section (looking east)



Design Alternative D: Reduced 5-Lane Cross-Section (looking east)



The plan view and ROW requirements for each alternative are illustrated on the large plots

Design Alternative Comparison

	Number of Lanes	Thru Lane Width (metres)	Median/ TWLTL Width (metres)	Boulevard Width (metres)	Bicycle Lane Width ⁽¹⁾ (metres)	Sidewalk Width ⁽²⁾ (metres)	Pavement Width ⁽³⁾ (metres)	ROW Width ⁽⁴⁾ (metres)	Centreline Shift (metres)	Median/ TWLTL ⁽⁵⁾	BCRY Spur
Bayview Drive (Little Avenue to Big Bay Point Road)											
Alternative 1	3	3.5	4.2	2.9 - 5.6	1.8	2.0 - 2.5 ⁽⁶⁾ (west side only)	14.8	±26.1 - 26.3	n/a	TWLTL	n/a
Alternative 2	3	3.3	4.2	2.4 - 2.9	1.5	2.0 - 2.5 ⁽⁶⁾	13.8	±26.1 - 26.3	1.0 (to the west)	TWLTL	n/a
Future Concept	5	3.5	4.2	2.9	2.3 (1.8 + 0.5 buffer)	2.0 - 2.5 ⁽⁶⁾	22.8	34.0	n/a	TWLTL	n/a
				Big Bay Poin	t Road (Bayview D	rive to Huronia Roa	ad)				
Alternative A	7	3.5	4.2	2.9	2.3 (1.8 + 0.5 buffer)	2.0	29.8	41.0	n/a	Raised ⁽⁷⁾	Remove
Alternative B	7	3.5	4.2	1.5 - 3.6	2.0 (1.5 + 0.5 buffer)	2.0 (south side only)	29.2	37.2	5.2 (to the south)	Raised ⁽⁷⁾	Remain
Alternative C	5	3.5	4.2	2.9	2.3 (1.8 + 0.5 buffer)	2.0 - 2.5 ⁽⁶⁾	22.8	34.0 - 35.8	3.8 (to the south)	TWLTL	Remain
Alternative D	5	3.5	4.2	1.5 - 3.6	2.3 (1.8 + 0.5 buffer)	2.0 - 2.5 ⁽⁶⁾ (south side only)	22.8	±30.8 - 35.8	2.0 (to the south)	TWLTL	Remain

Note (1): Bicycle Lane Width includes 0.3m gutter

Note (2): Sidewalks on both sides of the road unless otherwise noted

Note (3): Pavement width measured from curb face to curb face

Note (4): Does not include additional ROW width required at some intersections

Note (5): Raised concrete median or Two-Way Left Turn Lane (TWLTL)

Note (6): Wider curb face sidewalk to be implemented as deemed appropriate (particularly at intersections)

Note (7): Exlcusive left turn lanes will be provided at main intersections and some driveways

Natural Environment

Key Features

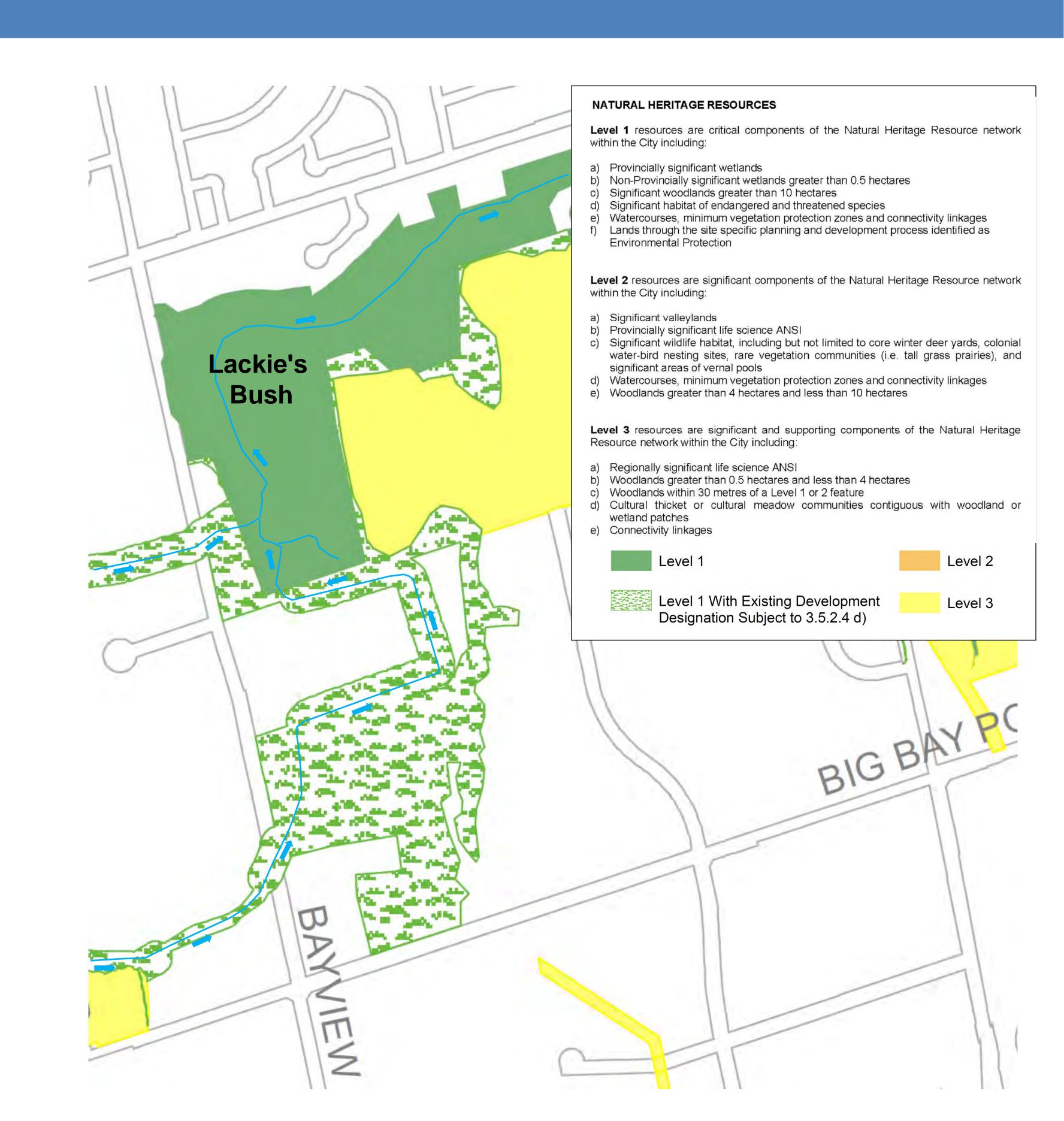
- Lackie's Bush
- Whiskey Creek water crossings

Potential Impacts

- culvert extensions may impact fish habitat
- minor loss of wildlife habitat
- disruption to bat maternity roosting habitat

Mitigation

 with implementation of recommended mitigation measures during detail design and construction phases, no significant environmental impacts to the terrestrial and aquatic natural features and functions within the study area are expected



Evaluation - Bayview Drive

Eva	luation Criteria	How Criteria is Being Assessed	Alternative 1: 3-Lane Cross-Section		Design Alternative 2: Reduced 3-Lane Cross-Section
	Traffic Operations	Impact to intersection operations & road capacity (based on results of Traffic Operations Assessment)	Improved lane capacity and access to adjacent properties due to implementation of continuous TWLTL	•	Improved access to adjacent properties due to implementation of continuous TWLTL Reduced lane widths slightly reduces potential capacity
	Cycling Operations	Impact to cycling facilities along study corridor	Provides cycling facilities designed to desired standards as per MMATMP recommendations	•	Provides cycling facilities designed to minimum standards (narrow lanes)
	Transit Operations	Impact to transit service	Transit infrastructure to remain as currently exists; left turn traffic no longer impacts buses		Transit infrastructure to remain as currently exists; left turn traffic no longer impacts buses
+	Pedestrian Operations	Impact to pedestrian facilities along study corridor	Wider & continuous sidewalk to be provided on west side of road.		Wider & continuous sidewalk to be provided on both sides of road
Physical Environmen	Municipal Services (Water, Stormwater & Sanitary systems)	Upgrades	New watermain to be included with proposed works – same for all alternatives Upgrades to existing storm water management system included with proposed works. No significant difference between alternatives Opportunity to upgrade existing sanitary – same for all alternatives		New watermain to be included with proposed works – same for all alternatives Upgrades to existing storm water management system included with proposed works. No significant difference between alternatives Opportunity to upgrade existing sanitary – same for all alternatives
_	Utilities	Impact to utilities (i.e. relocation)	Full relocation of utilities required.		Relocation of underground utilities required. Limited relocation of overhead utilities to accommodate intersection improvements
	Driveway Grades	Impact to driveway grades as a result of required road widening	Slight to moderate impact to driveways serving properties abutting Bayview Drive to the west		Moderate impact to driveways serving properties abutting Bayview Drive to east and west
	Driveway Operations	Impact to driveway operations	No significant difference between alternatives		No significant difference between alternatives
	Railway Corridor	Impact to BCRY corridor/crossings	No significant difference between alternatives		No significant difference between alternatives
	Property/ Development Impacts	Impacts to property based on widening of road platform and/or ROW	Least impact to adjacent properties (811 m ²)		Greatest impact to adjacent properties (849 m ²) Additional property impacts at signalized intersections to accommodate sidewalks on both sides of road
vironment	Aesthetics	Visual impacts	Greatest opportunity to enhance aesthetics due to desired boulevard width		Limited opportunity to enhance aesthetics due to reduced boulevard width
Social En	ININISA IMNACIS	Impacts to residents/businesses during construction phase. Future impacts to residents/businesses (as per <i>Noise Assessment</i>)	No significant difference between alternatives		No significant difference between alternatives
	Construction Impacts	Impacts to adjacent properties through construction phase	No significant difference between alternatives		No significant difference between alternatives

Note: 5-Lane Future Design Concept has not been evaluated as part of this EA

	Negative	e Impact			Positive Impact					
Greatest			Least	Neutral Impact	Least			Greatest		

Evaluation - Bayview Drive

Ev	aluation Criteria	How Criteria is Being Assessed	Alternative 1: 3-Lane Cross-Section	Design Alternative 2: Reduced 3-Lane Cross-Section			
	'	Impact to fish habitat, if applicable, and other aquatic features within the study area	Culvert extensions will cause minor alteration to fish habitats or aquatic features – same for all alternatives All other impacts to fisheries are fully mitigable		Culvert extensions will cause minor alteration to fish habitats or aquatic features – same for all alternatives All other impacts to fisheries are fully mitigable		
ment	Wildlife/ Terrestrial Impacts	Impact to wildlife species within study area	Minimal impacts to wildlife – same for all alternatives		Minimal impacts to wildlife – same for all alternatives		
ıral Environı	Species at Risk	Impact on SAR's and endangered species	No species at risk within study corridor. No negative impacts – same for all alternatives		No species at risk within study corridor. No negative impacts – same for all alternatives		
Natu	Vegetation Impacts	Impact to vegetation communities on adjacent properties (i.e. trees, shrubs, plants, etc.)	No federal or provincially rare species or vegetation communities were identified within the development footprint. No negative impacts – same for all alternatives		No federal or provincially rare species or vegetation communities were identified within the development footprint. No negative impacts – same for all alternatives		
	Land use	Impact of proposed works on surrounding land use (i.e. are improvements consistent with surrounding land-uses)	Improvements consistent with existing land use. No negative impacts – same for all alternatives		Improvements consistent with existing land use. No negative impacts – same for all alternatives		
Cultural Heritage		Impacts to the cultural and heritage features as per the results of the Stage 1 Archaeological Assessment completed for the study corridor	Limited areas identified as retaining archaeological potential – Stage II assessment required. Impacts to the cultural and heritage environment are similar for all design alternatives		Limited areas identified as retaining archaeological potential – Stage II assessment required. Impacts to the cultural and heritage environment are similar for all design alternatives		
nent	Construction Costs	Costs to construct individual alternatives	Similar cost to construct \$2,700/m x 1,400m = \$3,785,000 Includes cost to construct sidewalk - \$141,000 (sidewalk on west side only)		Similar cost to construct \$2,710/m x 1,400m = \$3,800,000 Includes cost to construct sidewalk - \$282,000 (sidewalk on both sides)		
nic Environr	Maintenance Costs	Future maintenance requirements	No significant difference between alternatives	1 / 1	Slightly reduced lane widths but additional sidewalk No significant difference between alternatives		
Econom	Land Acquisition Costs	Total land acquisition costs	Least land acquisition costs: \$184,700 $648m^2 \times $215/m^2 = $139,000$ (Industrial land) $151m^2 \times $270/m^2 = $41,000$ (Residential land) $12m^2 \times $375/m^2 = $4,700$ (Commercial land)		Greatest land acquisition costs: \$190,700 718m ² x \$215/m ² = \$154,000 (Industrial land) 118m ² x \$270/m ² = \$32,000 (Residential land) 12m ² x \$375/m ² = \$4,700 (Commercial land)		

Note: 5-Lane Future Design Concept has not been evaluated as part of this EA

	Negative	e Impact			Positive Impact					
Greatest			Least	Neutral Impact	Least			Greatest		

Evaluation - Big Bay Point Road

E۱	aluation Criteria	How Criteria is Being Assessed	Alternative A: 7-Lane Cross-Section	Design Alternative B: Reduced 7-Lane Cross-Section	Design Alternative C: 5-Lane Cross-Section	Design Alternative D: Reduced 5-Lane Cross-Section
	Traffic Operations	Impact to intersection operations & road capacity (based on results of Traffic Operations Assessment)	7-lanes provide ample capacity. Will accommodate traffic demands beyond 2031. Satisfies <i>MMATMP</i> recommendation	7-lanes provide ample capacity. Will accommodate traffic demands beyond 2031. Satisfies <i>MMATMP</i> recommendation	5-lanes provide adequate capacity. Will accommodate traffic demands to 2031 as per Traffic Operations Assessment	5-lanes provide adequate capacity. Will accommodate traffic demands to 2031 as per Traffic Operations Assessment
	Cycling Operations	Impact to cycling facilities along study corridor	Provides cycling facilities designed to desired standards as per <i>MMATMP</i> recommendations	Provides cycling facilities designed to minimum standards (narrow lanes)	Provides cycling facilities designed to desired standards as per <i>MMATMP</i> recommendations	Provides cycling facilities designed to desired standards as per <i>MMATMP</i> recommendations
	Transit Operations	Impact to transit service	Transit infrastructure to remain as currently exists; 7-lane profile mitigates delays by providing 2 additional lanes per direction for vehicles to navigate around stopped buses.	Transit infrastructure to remain as currently exists; 7-lane profile mitigates delays by providing 2 additional lanes per direction for vehicles to navigate around stopped buses.	Transit infrastructure to remain as currently exists; 5-lane profile mitigates delays by providing 1 additional lane per direction for vehicles to navigate around stopped buses.	Transit infrastructure to remain as currently exists; 5-lane profile mitigates delays by providing 1 additional lane per direction for vehicles to navigate around stopped buses.
	Pedestrian Operations	Impact to pedestrian facilities along study corridor	Continuous sidewalk to be provided on both sides of the road as per <i>MMATMP</i>	Continuous sidewalk to be provided on south side only	Continuous sidewalk to be provided on both sides of the road as per <i>MMATMP</i>	Continuous sidewalk to be provided on south side only
vironment	Stormwater Management System	Extent of SWM upgrades	Greatest SWM requirements	Second greatest SWM requirements (reduced bike lane widths and sidewalk on one side of road)	Second least SWM requirements	Least SWM requirements (sidewalk on one side of road only slightly reduces requirements)
Physical Env	Municipal Services (Water & Sanitary systems)	Upgrades	Watermain replacement as needed; to be included with proposed works – same for all alternatives Opportunity to upgrade existing sanitary – same for all alternatives	Watermain replacement as needed; to be included with proposed works – same for all alternatives Opportunity to upgrade existing sanitary – same for all alternatives	Watermain replacement as needed; to be included with proposed works – same for all alternatives Opportunity to upgrade existing sanitary – same for all alternatives	Watermain replacement as needed; to be included with proposed works – same for all alternatives Opportunity to upgrade existing sanitary – same for all alternatives
	Utilities	Impact to utilities (i.e. relocation)	Full relocation of utilities required	Relocation of underground utilities required. Limited relocation of overhead utilities/support poles.	Full relocation of utilities required	Relocation of underground utilities required. Limited relocation of overhead utilities/support poles.
	Driveway Grades	Impact to driveway grades as a result of required road widening	Greatest impact to adjacent driveways	Second greatest impact to adjacent driveways	Second least impact to adjacent driveways	Least impact to adjacent driveways
	Driveway Operations	Impact to driveway operations	Raised median restricts turning movements at most driveways	Raised median restricts turning movements at most driveways	Continuous TWLTL improves operations at adjacent driveways	Continuous TWLTL improves operations at adjacent driveways
	Railway Corridor	Impact to BCRY corridor	Requires complete removal of BCRY corridor	No impact to BCRY corridor	No impact to BCRY corridor	No impact to BCRY corridor

	Negative	Impact			Positive Impact					
Greatest			Least	Neutral Impact	Least			Greatest		

Evaluation - Big Bay Point Road

				Alternative A:		Design Alternative B:		Design Alternative C:	Design Alternative D:
Ev	aluation Criteria	How Criteria is Being Assessed		7-Lane Cross-Section		Reduced 7-Lane Cross-Section		5-Lane Cross-Section	Reduced 5-Lane Cross-Section
1	Property/ Development Impacts	Impacts to property based on widening of road platform and/or ROW Does not include railway corridor requirements (City owned)		Second greatest impact to adjacent properties (5192 m ²)		Greatest impact to adjacent properties (6,162 m ²)		Second least impact to adjacent properties (3,694 m ²)	Least impact to adjacent properties (284 m²)
nvironmen	Aesthetics	Visual impacts		Optimal opportunity to enhance aesthetics due to maximum boulevard width		Limited opportunity to enhance aesthetics due to reduced boulevard width		Optimal opportunity to enhance aesthetics due to maximum boulevard width	Limited opportunity to enhance aesthetics due to reduced boulevard width
Social E	Noise Impacts	Impacts to residents during construction phase. Future impacts to residents (as per <i>Noise Assessment</i>)		No significant difference between alternatives		No significant difference between alternatives		No significant difference between alternatives	No significant difference between alternatives
	Construction Impacts	Impacts to adjacent properties through construction phase		No significant difference between alternatives		No significant difference between alternatives		No significant difference between alternatives	No significant difference between alternatives
	Impacts	Impact to fish habitat, if applicable, and other aquatic features within the study area		No impacts to fish habitats or aquatic features		No impacts to fish habitats or aquatic features		No impacts to fish habitats or aquatic features	No impacts to fish habitats or aquatic features
nent		Impact to wildlife species within study area		No impacts to wildlife		No impacts to wildlife		No impacts to wildlife	No impacts to wildlife
Environn	Species at Risk	Impact on SAR's and endangered species		No species at risk within study corridor. No negative impacts		No species at risk within study corridor. No negative impacts		No species at risk within study corridor. No negative impacts	No species at risk within study corridor. No negative impacts
Natural	Vegetation Impacts	Impact to vegetation communities on adjacent properties (i.e. trees, shrubs, plants, etc.)		No federal or provincially rare species or vegetation communities were identified within the development footprint		No federal or provincially rare species or vegetation communities were identified within the development footprint		No federal or provincially rare species or vegetation communities were identified within the development footprint	No federal or provincially rare species or vegetation communities were identified within the development footprint
	Land use	Impact of proposed works on surrounding land use (i.e. are improvements consistent with surrounding land-uses)		Improvements consistent with existing land use. No negative impacts.		Improvements consistent with existing land use. No negative impacts.		Improvements consistent with existing land use. No negative impacts.	Improvements consistent with existing land use. No negative impacts.
Cultural Heritage	Archaeological & Heritage Impacts	Impacts to the cultural and heritage features as per the results of the Stage 1 Archaeological Assessment completed for the study corridor		Limited areas identified as retaining archaeological potential – Stage II assessment required. Second least impact to areas identifies as retaining archaeological potential		Limited areas identified as retaining archaeological potential – Stage II assessment required. Greatest impact to areas identified as retaining archaeological potential		Limited areas identified as retaining archaeological potential – Stage II assessment required. Second greatest impact to areas identified as retaining archaeological potential	Limited areas identified as retaining archaeological potential – Stage II assessment required. Least impact to areas identified as retaining archaeological potential
ironment	Construction Costs	Costs to construct individual alternatives		Greatest cost to construct. \$4,156/m x 1,240m = \$5,155,000 Includes cost to construct sidewalk - \$248,000 (sidewalk both sides)		Second greatest cost to construct. \$3,974/m x1,240m = \$4,928,000 Includes cost to construct sidewalk - \$124,000 (sidewalk on south side only)		Least cost to construct – similar to Alternative D \$3,515/m x 1,240m = \$4,359,000 Includes cost to construct sidewalk - \$248,000 (sidewalk on both sides)	Least cost to construct – similar to Alternative C. \$3,467/m x 1,240m = \$4,301,431 Includes cost to construct sidewalk - \$124,000 (sidewalk on south side only)
omic Env	Maintenance Costs	Future maintenance requirements		Greatest cost to maintain		Second greatest cost to maintain		Second least cost to maintain	Least cost to maintain
Econd	Land Acquisition Costs	Total land acquisition costs (Does not include City owned railway corridor requirements)		Second greatest land acquisition costs 5,192m ² x \$215/m ² = \$1,116,000 (Industrial land)		Greatest land acquisition costs 6,162m ² x \$215/m ² = \$1,325,000 (Industrial land)		Second least land acquisition costs 3,694m ² x \$215/m ² = \$792,000 (Industrial land)	Least land acquisition costs 284m² x \$215/m² = \$61,000 (Industrial land)
	Negative Impact Greatest Negative Impact Least Neutral Impact Least Least Neutral Impact Least								

Least

Greatest

Least

Greatest

Next Steps to Complete the Study

To COMPLETE the study, the team will:

- Review & address public, agency & stakeholder comments
- Identify a preferred design solution considering the initial assessment & any comments received (the preferred design solution may be a combination of the design alternatives proposed)
- Prepare a final Class EA report for City Council review & endorsement
- Place the final Class EA report on Public Record for 30-day review period (Notice of Study Completion to be posted)
- Proceed to design & implementation

Important

 If concerns are raised which cannot be resolved in discussions with the City through the public consultation process, the Ministry of the Environment & Climate Change (MOECC) may be requested (subsequent to the filing of the Notice of Completion) to make an order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses individual environmental assessments

Your Input is Important to Us

BEFORE you leave:

Have all your questions been answered?

Have you signed the project registry to be informed?

Have you completed a comment sheet?

Do you wish to stay informed? Please indicate so on the project sign-in sheet and/or check the appropriate box on your comment sheet.

Who to **CONTACT** for further information:

Lloyd Spooner, C.E.T.
Senior Water Technologist
City of Barrie
70 Collier Street, Box 400
Barrie, ON L4M 4T5



Public Comments

- Comments regarding this project are being collected to assist the project team in meeting the Class EA requirements.
- Comments will be maintained for reference during the study and, with the exception of personal information, may be used in the Class EA report which will become public information.

Access to Information

- The City continues to enhance accessibility that is inclusive of all ages & abilities.
- Please let us know if you have any special needs.