Appendix B

Agency Consultation

Schedule ‘C’ Class Environmental Assessment for Ninth Line from Eglinton Avenue West to Derry Road West

Key agency/stakeholder representatives are summarized below.

Organization	Name	Position
Region of Peel	Sally Rook	Manager, Infrastructure Programming and Studies
Region of Peel	Asha Saddi	Technical Analyst
Region of Peel	Hashim Hamdani	Supervisor, Traffic Development and Permits
Region of Peel	Jeanne Thomsen	Program Manager
Region of Peel	Wali Memon	Manager
Region of Peel	Steve Mathew	Technical Analyst
Region of Peel	Tamara Alexander	Construction Technician
Region of Peel	Sabbir Saiyed	Manager
Region of Peel	Mike Faye	Project Manager
Region of Peel	Roger Silva	Technical Analyst
Region of Peel	Kas Marwan	Project Manager
Region of Peel	Darrin Dodds	Manager, Capital Works
Region of Peel	Owen Chinnery	Capital Acquisition
Region of Peel	Syeda Banuri	Project Manager
Region of Peel	Manvir Tatla	Project Manager, Sustainable Transportation
City of Mississauga	Lin Rogers	Manager, Transportation Infrastructure Management
City of Mississauga	Norbert Orzel	Transportation Modelling Specialist
City of Mississauga	Tyler Xuereb	Transportation Planning Analyst
City of Mississauga	Muneef Ahmad	Manager-Stormwater Projects & Approvals, Environmental Services Section
City of Mississauga	Fred Sandoval	Active Transportation Coordinator
City of Mississauga	Scott Perry	Manager, Stormwater Assets & Programming
City of Mississauga	Dagmar Breuer	Capital Project Manager
City of Mississauga	Max Gill	Supervisor, Traffic Operations
City of Mississauga	Colin Patterson	Supervisor, Road Safety

City of Mississauga	Alice Ho	Supervisor, Transit Infrastructure Management, MiWay
City of Mississauga	Ashley Visneski	Landscape Architect, Parks Planning, Park Planning
City of Mississauga	Dave Craig	Landscape Architect, Development and Design
City of Mississauga	Ashley Rivet	Planner, Planning, Development South
City of Mississauga	Cameron Maybee	Landscape Architect, Development Design
City of Mississauga	Jacqueline Elias	EIT, MiWay
City of Mississauga	Darek Pest	Technologist, Road Safety
City of Mississauga	Zain Zia	Storm Drainage Coordinator
City of Mississauga	Sangita Manandhar	Team Leader, Park Planning
City of Mississauga	Matthew Sweet	Manager, Active Transportation
City of Mississauga	Scott MacLeod	City of Mississauga (Forestry)
City of Mississauga	Wayne Holder	City of Mississauga (Forestry)
City of Mississauga	Ryan Cormier	City of Mississauga (Forestry)
City of Mississauga	Sarah Piett	City of Mississauga (Forestry)
City of Mississauga	Nancy Macdonald Duncan	Acting Fire Chief
407ETR	Jeff Booker	Manager
407ETR	Othmane Benjrad	EIT, Highway Engineering
Conservation Halton	Emma DeFields	Environmental Planner
Conservation Halton	Yelena Koshenkov	Water Resources Engineer
Credit Valley Conservation	Jakub Kilis	Manager, Infrastructure and Regulations
Credit Valley Conservation	George Golding	Plan Review Engineer
Dufferin-Peel Catholic District School Board	Bruce Campbell	General Manager Communications and Community Relations
Dufferin-Peel Catholic District School Board	Joanne Rogers	Senior Planner

Dufferin-Peel Catholic District School Board and Peel District School Board	Darcy Forde	Transportation Safety Officer
Environment and Climate Change Canada	Nardia Ali	Manager, Environmental Protection Operations Division - Ontario Region
Fisheries and Oceans Canada	Chantal Larochelle	District Manager
Halton Region	Ann Larkin	Supervisor Transportation Planning
Halton Region	Alicia Jakaitis	Project Manager
Halton Region	Karyn Poad	Senior Project Manager
Halton Region	Adam Gilmore	Transportation Planning Coordinator
Infrastructure Ontario	Jordan Erasmus	Planner
MECP	Trevor Bell	Environmental Resource Planner and EA Coordinator
MNRF	Steven Strong	Senior District Planner
MHSTCI	Dan Minkin	Heritage Planner - Culture Services Unit
MHSTCI	Rosi Zirger	Heritage Planner - Culture Services Unit
MHSTCI	Joseph Harvey	Heritage Planner - Culture Services Unit
MTO	Corey Caple	Corridor Management Officer
MTO	Wan Chi Ma	Project Engineer, Planning & Design, Highway Engineering
MTO	Moin Khan	Area Manager, Highway Engineering - Peel & Halton Section
MTO	Frank Martin	Head, Highway Concessions Section
MTO	Graham DeRose	Project Manager, Route Planning and Transit Initiatives
MTO	Graham Routledge	Senior Project Manager
MTO	Larry Sarris	Environmental Planner, Environmental Section

Ontario Provincial Police	Jennifer Davey	Facilities Admin
Peel District School Board	Suzanne Blakeman	Manager of Planning and Accommodation Support Services
Peel EMS	Peter Dundas	Chief and Director Paramedic Services Fernforest Administration & Reporting Station

The following summarizes meetings with individual agencies, stakeholders, and other interested parties throughout the duration of the Ninth Line Environmental Assessment Study. Key correspondence and meeting minutes are included in this appendix. Records of all correspondence and meetings are documented in the City's project file.

City of Mississauga Stakeholders Meetings:

- Alternative Design Stakeholder Workshop: August 27, 2020

Technical Advisory Committee Meetings:

- TAC Meeting #1: June 4, 2020
- TAC Meeting #2: December 7, 2020

Conservation Halton Meetings:

- Stormwater Management Analysis Methodology Meeting: February 24, 2021
- Stormwater Management Analysis Findings: April 22, 2021

Region of Peel Meetings:

- Future Improvements at Britannia Road and Derry Road Intersection Meeting #1: February 25, 2021
- Future Improvements at Britannia Road and Derry Road Intersection Meeting #2: March 19, 2021
- Future Improvements at Britannia Road and Derry Road Intersection Meeting #3: April 8, 2021

Stakeholder Workshop #1 Summary

Project: Ninth Line Environmental Assessment Study (Eglinton Avenue West to Derry Road West)

Subject: Alternative Designs Stakeholder Workshop #1

Date: Thursday, August 27, 2020

Location: Teleconference Call (Webex)

Attendees:
Gino Dela Cruz – City of Mississauga (City PM)
Lin Rogers – City of Mississauga
Ashley Visneski – City of Mississauga
Cameron Maybee – City of Mississauga
Dagmar Breuer – City of Mississauga
Fred Sandoval – City of Mississauga
Jacqueline Elias – City of Mississauga (MiWay)
Ashlee Rivet – City of Mississauga
Max Gill – City of Mississauga
Norbert Orzel – City of Mississauga
Tyler Xuereb – City of Mississauga
Zain Zia – City of Mississauga
Brent Raymond – DTAH
Sonali Praharaj – DTAH
Tara Erwin – HDR (Consultant PM)
Veronica Restrepo – HDR
Patrick Yip – HDR

Regrets:
Scott Perry – City of Mississauga
Colin Patterson – City of Mississauga
Alice Ho – City of Mississauga
Dave Craig – City of Mississauga

Summary by: Patrick Yip – HDR

	Item	Action
1.	**Introductions**	

	• Gino Dela Cruz (City of Mississauga) briefly outlined the workshop's goals and objectives, which include:
	  ○ Obtaining input from various City representatives on design and cross-section elements
	  ○ Obtaining input in the development of a design criteria
	  ○ Establishing cross-section priorities and elements
	• Tara Erwin (HDR) summarized the existing study corridor conditions and the problems and opportunities, which were previously presented during TAC Meeting #1
		Information only

2.	**Complete Streets Approach for Ninth Line, Design Framework and Decision Making, and Cross-Section Elements**	
	• Brent Raymond (DTAH) presented the various policies and projects that the City of Mississauga is undertaking related to Complete Streets. • Brent emphasized that the primary focus of Complete Streets is safety, with a focus on designing to ensure the safety of vulnerable users such as pedestrians and cyclists. Key to improving safety is addressing the role that speed plays in the safety of streets. • Current City of Mississauga engineering standards are mostly based on the outdated TAC 1999 geometric design guidelines. The latest TAC 2017 geometric design guidelines now incorporate complete street design principles. The broader Changing Lanes effort will include a review and update of the City of Mississauga design standards. • The presentation included an overview of a typical Complete Streets design framework and decision-making process. Cross-section elements were reviewed with an understanding of current policy requirements such as AODA, MTO Book 18, TAC 2017 and best practices. • The cross-sections presented to the public during PIC #1 were reviewed. The project team noted the public feedback identified a preference for a cross section that	Information only

Stakeholder Workshop #1 Summary

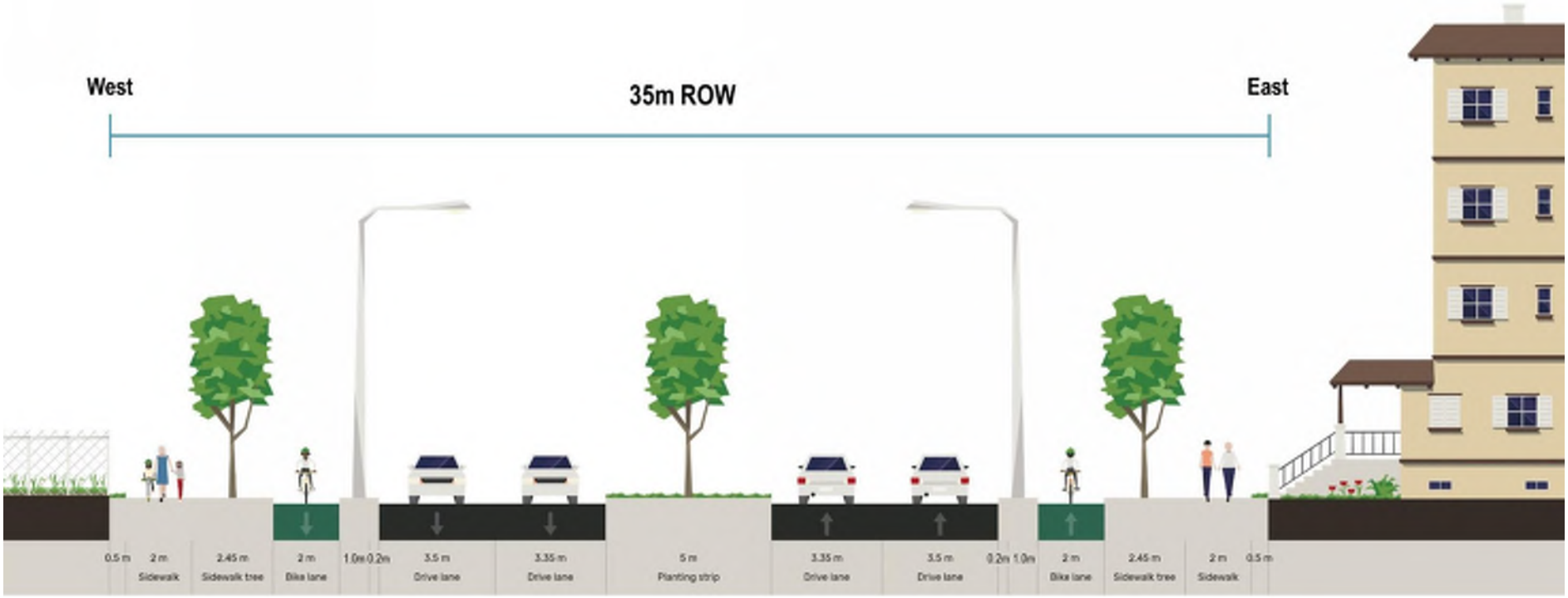
	included physically separated, off-road active transportation facilities (cycle track and sidewalk). • It was noted that the existing ROW along Ninth Line varies greatly.	
3.0	**Cross-Section Exercise**	
	• An interactive cross-section development exercise was carried out using Streetmix to construct an ideal roadway cross-section for the corridor based on input from the various City representatives (refer to graphic at the end of this document). • Specific comments, questions and suggestions related to the materials presented were noted for consideration. A summary is provided below. **Property Acquisition** • Lin Rogers (City of Mississauga) stated that the Ninth Line preferred alternative design should start with a proposed 35m ROW as identified in the City of Mississauga Official Plan. There are ongoing discussions between City staff and the developers on the west side of Ninth Line regarding property dedication through the development applications. Property acquisition (if required) would be resolved during detailed design. It was suggested that the easterly ROW limits should generally be held in place. **Design Speed** • Fred Sandoval (City of Mississauga – Active Transportation) is very supportive of Vision Zero principles and hopes that the discussion in this workshop is translated into the overall preferred alternative design. Fred prefers the design speed to be 50km/h, or maximum 60 km/h (if required). • However, to facilitate efficient movements of all users, it was suggested by other participants that a design speed of 60 km/h should be considered. Since Ninth Line is a linear corridor, speeding would be anticipated with a lower posted speed. • For 60 km/h posted speed, a 70 km/h design speed was suggested. **Lane Widths** • Jacqueline Elias (City of Mississauga – MiWay) stated that the ideal minimum is 3.50m curb lanes and 3.35m thru lanes to accommodate transit vehicles. • Turning lanes should be 3.35 as an absolute minimum to accommodate for transit vehicles turning at intersections, however, if transit vehicles are not required to turn at a specific intersection, then a minimum 3.0m turn lane is sufficient. • Based on the collective feedback from the group, Brent Raymond (DTAH) recommended a 3.35m thru lane and a 3.50m curb lane (which is inclusive of the gutter dimension of 0.3m from a 0.5m curb and gutter). • Dedicated right-turn lanes are starting to become unfavourable, with the City actively revisiting locations where they can remove them. This is an element to discuss further during intersection design. **Median** • Fred Sandoval (City of Mississauga – Active Transportation) stated that the pedestrian refuge (if any) should be a minimum 2.0m to accommodate for the length of a single bicycle. • It was noted that the minimum width of the centre median to provide target soil volumes and protect from roadside salt spray for canopy trees is 5.0m. The full 5.0m at mid-blocks can be used for tree plantings which at intersections can become a 3.0m turn lane and a 2.0m refuge at intersections. Where there are transit vehicles that require turns at intersections, the adjacent lanes can be slightly reduced to accommodate to meet the minimum 3.35m turning lane.	

Stakeholder Workshop #1 Summary

	Clearance from Property Line • The proposed property line clearance from sidewalk should be 0.5m. **Tree Corridor** • An attendee mentioned that a minimum tree corridor in the boulevard is 2.50m, however, Brent Raymond (DTAH) recommends an absolute minimum of 2.45m to accommodate for other elements in the cross-section. • Fred Sandoval (City of Mississauga – Active Transportation) prefers the location of tree corridor be between the cycle track and sidewalk to provide shading to AT facility users. Other attendees agreed with this location. • An attendee mentioned that having double rows of trees, one row within the public ROW, and one row within private property on the west side of Ninth Line, would be ideal. This is a challenge as there are some developments with underground structures that are against the ROW which makes planting difficult. The City is currently requesting a 4.50m setback from ROW to proposed building and 3.0m setback from ROW to underground structures in the development applications. **Active Transportation (AT) Facilities** • Based on the consultation feedback from PIC #1, most of the public prefers a separated cycle track and sidewalk on Ninth Line which the City is strongly supportive of. • Fred Sandoval (City of Mississauga – Active Transportation) stated that the minimum width for a sidewalk is 2.0m. • 2.0m sidewalk and 2.0m cycle track were recommended in the ideal cross-section. **Low Impact Development (LID) Features** • An attendee suggested to consider median LID features to make use of available space, which has been implemented along other City streets. • The City is not supportive of permeable surfaces for AT facilities because of unfavourable surface texture, and since they are difficult and costly to maintain. Instead, the City is supportive of having bio-retention elements. **Underground Utilities** • Compatibility of the alternative design cross-section with existing utilities to be reviewed, including obtaining feedback from Region of Peel. **Transit – Bus pads/shelters** • It was stated that the cycle track facility should be placed behind the transit bus pads/shelters and adjacent to the sidewalk at intersections to reduce conflicts and minimize property requirements. **Intersections** • Roundabouts and other intersection considerations can be part of future discussions • Lin Rogers (City of Mississauga) suggests to use smaller turning radii at intersections to reduce pedestrian crossing distance.	HDR/City
4.	**Next Steps & Action Items**	
	• HDR to develop and confirm design criteria for Ninth Line, and circulate to the City for sign-off before proceeding with the design development • HDR to document the evaluation of alternative design concepts • City of Mississauga to sign-off on design criteria and preferred alternative design • HDR and DTAH to develop preliminary design of Ninth Line • HDR and City of Mississauga to present recommended design to stakeholders and the public	HDR HDR City HDR/DTAH HDR/City

If there are any errors or omissions to these minutes, please contact Tara Erwin or Veronica Restrepo within ten (10) business days.

Stakeholder Workshop #1 Summary

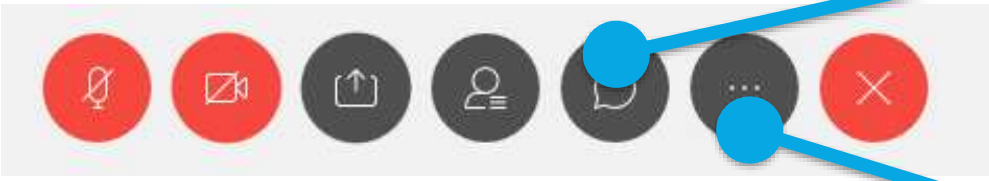


Ninth Line Alternative Design Section
(Looking North)

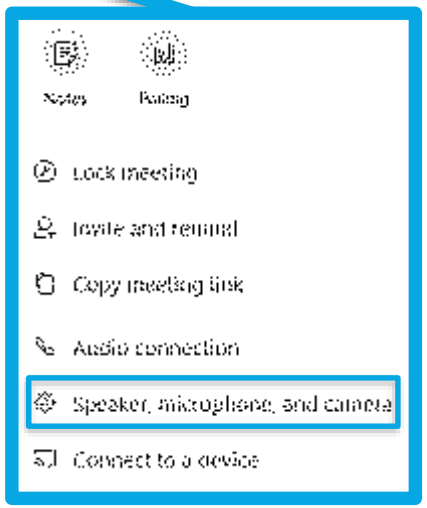
WebEx Online Meeting

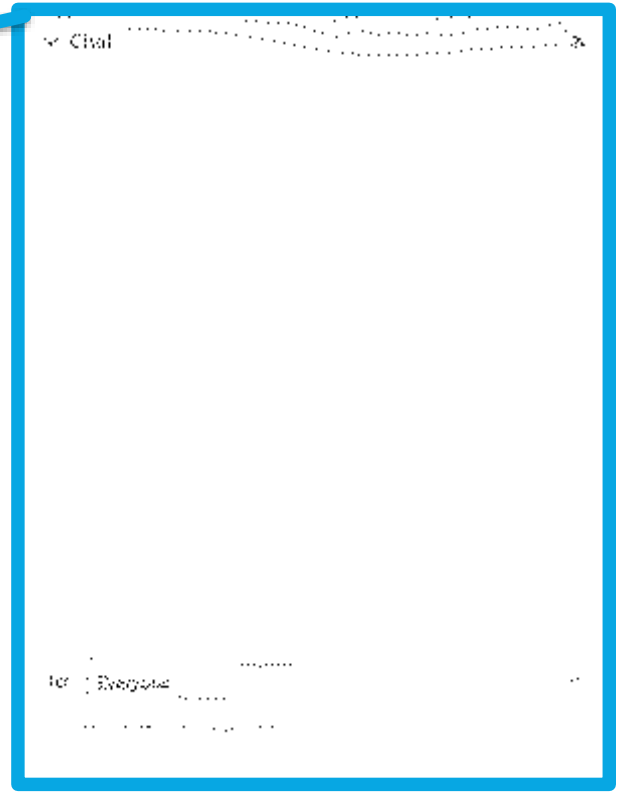
Please make sure your:

- Microphone is set to mute
- Camera is turned off for better video quality
- Speaker volumes are turned up



If you wish to adjust the settings, click on the icon with 3 dots as shown above. Then click on “speaker, microphone, and camera” to select your settings.





For project-related questions, please type your question OR your name in the WebEx chat window and we will call out your name for your question throughout the meeting.

Ninth Line EA Alternative Designs Workshop

HDR + DTAH

August 27, 2020

Workshop Agenda

2:00 PM	Introductions
2:05 PM	Presentation and Discussion
3:50 PM	Next Steps
4:00 PM	Thank You and Adjourn

Purpose of Today's Workshop

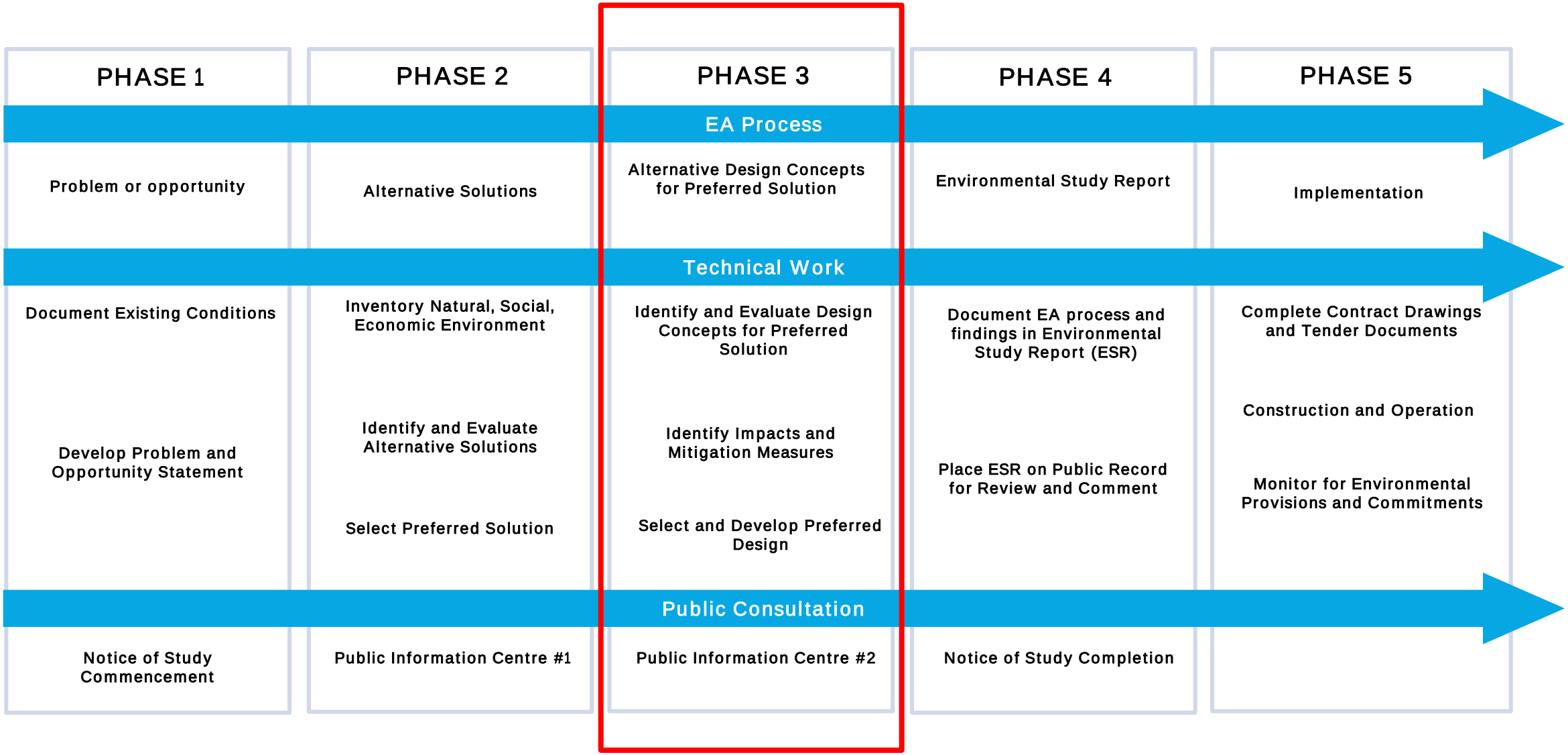
To discuss alternative design concepts for Ninth Line and gather input from various City representatives.

To obtain buy-in and establish a design criteria for the Ninth Line corridor, including:

- Design Speed and Posted Speed
- Lane Widths: Thru, Curb, Turning
- Pedestrian Clearways
- Active Transportation (AT) Facilities Types and Connections
- Furnishing/Planting Zones
- Clear Zones/Lateral Offsets
- Locations of Utility Poles
- Types and locations of transit stops
- Interactions between AT facilities and Transit infrastructures

Introduction:
Study Purpose, Vision and Objectives

Class Environmental Assessment Process



Existing Corridor Conditions

Study Area Characteristics

6.2 km long north-south arterial roadway

70 km / hr posted speed

2 travel lanes (one per direction) with a centre left turn lane

Semi-rural cross-section (some gravel shoulders and ditches)

20 - 60 m Existing Roadway (Right-of-Way) Width
35 m Official Plan Right-of-Way Width Designation

Hydro poles / corridor (east side)

Street lighting (west side)

No dedicated cycling facilities

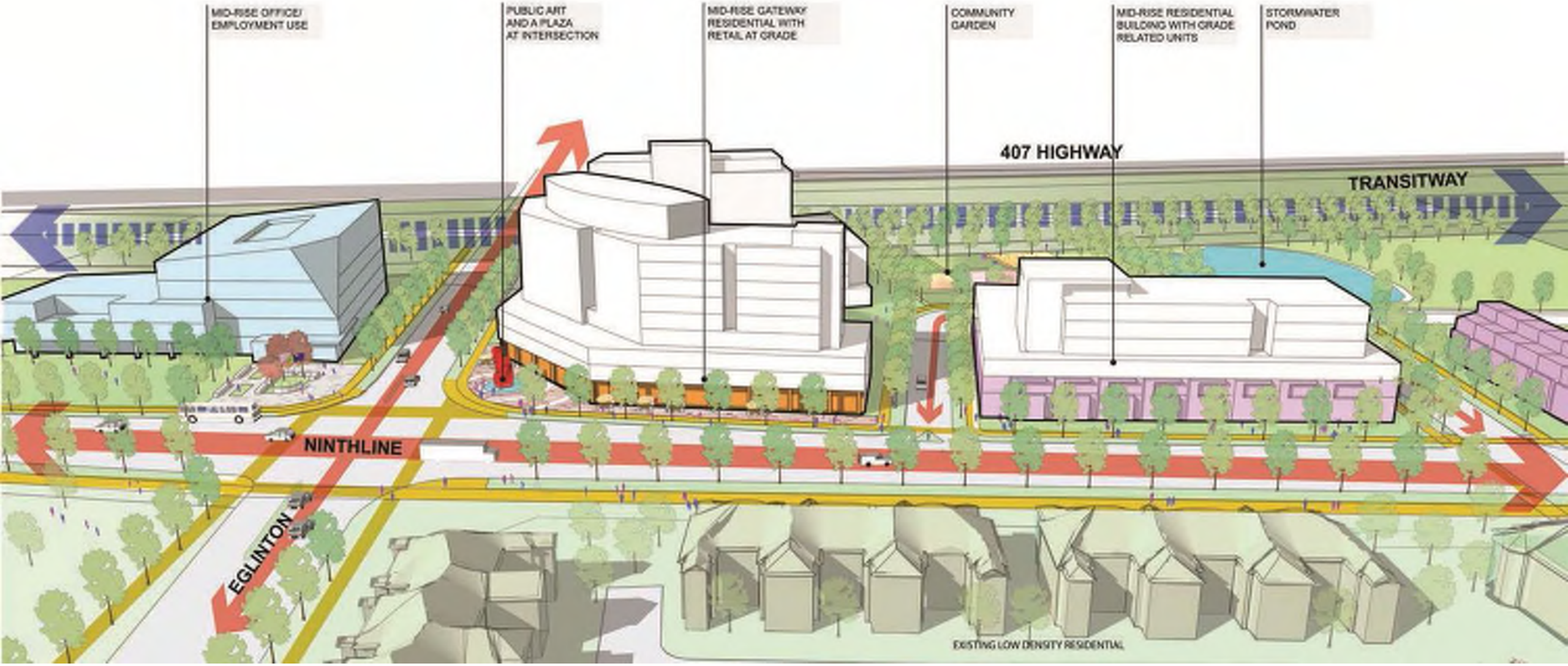
No sidewalks for most of the study area

Ninth Line Today

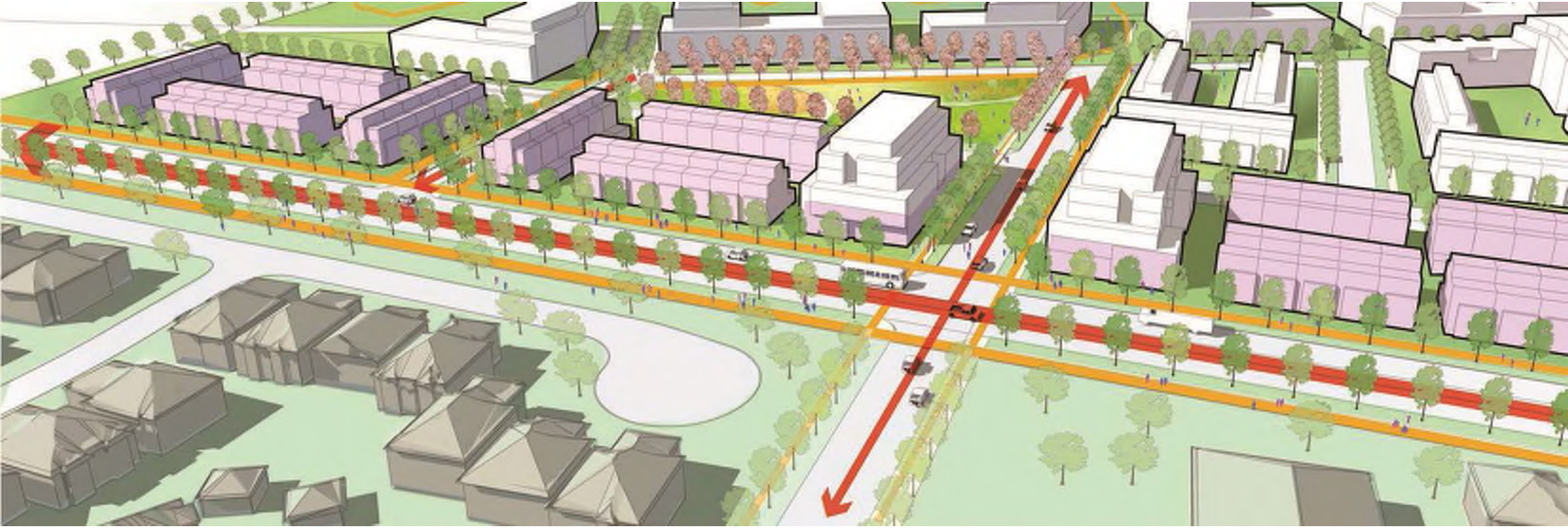
Ninth Line Today

Shaping Ninth Line

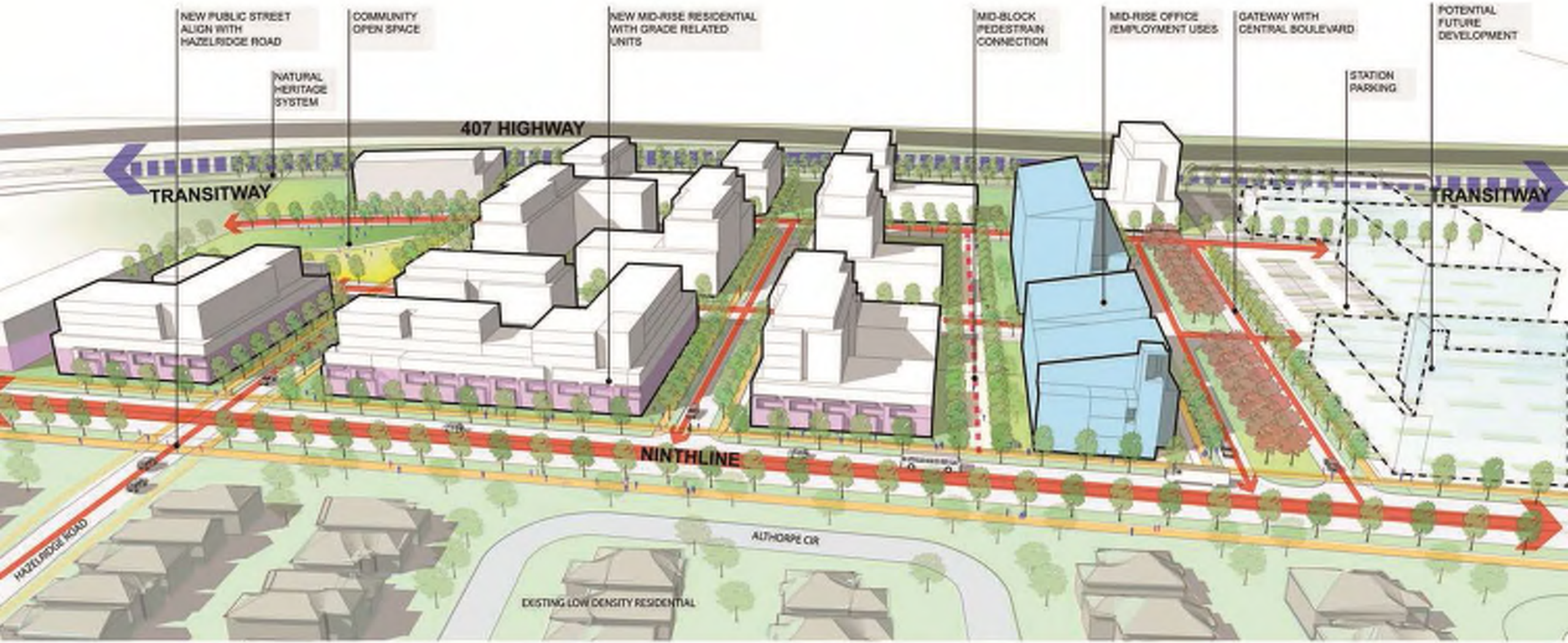
Shaping Ninth Line: South



Shaping Ninth Line: Centre



Shaping Ninth Line: North



New Destinations: Churchill Meadows Community Centre

Problem and Opportunity Statement

Problem		Opportunity	
	Existing road and intersections cannot accommodate future traffic volumes		Improve Ninth Line's capacity to accommodate projected traffic demand and maximize person carrying capacity
	Lack of continuous pedestrian and cycling facilities creates unfavourable conditions for non-drivers.		Providing enhanced active transportation infrastructure to improve pedestrian and cycling conditions and encourage travel choices that can reduce driving
	Transit service is impacted by congestion resulting in delays, especially during peak periods		Improve the efficiency and reliability of transit through increased roadway capacity and intersection improvements
	Inconsistent roadway typology and transitions from urban to rural cross-section		Consider a continuous urban roadway to create a corridor with consistent drainage infrastructure
	Under existing conditions, Ninth Line is unable to service future growth, does not recognize its role as a gateway to the City and is not consistent with the future vision for the area and adjacent developments		Design Ninth Line as a complete street to serve study area residents and visitors alike, people of all ages and abilities and commuting and recreational users. Acknowledging Ninth Line's role as a gateway to the City of Mississauga

What We've Heard So Far

Top Concerns

Congestion and Queuing
Increased road capacity and reduced travel times are seen as being important.

Streetscaping & Landscaping
Public realm enhancements should be considered as part of transportation improvements such as preserving trees and planting new greenery.

Natural Heritage
Preservation of the natural environment and wildlife is important. Mitigation measures are especially important

Active Transportation
Separated cycling lanes (off-road) and walkways are important to connect to other existing active transportation facilities.

Intersections Operations
Improve efficiency and safety at intersections. Dedicated turning lanes, roundabouts/traffic circles should be considered.

Noise & Disruption
Concerns were raised due to future growth and associated construction. Sound barriers along Ninth Line should be considered from anticipated increase in noise from vehicular traffic.

Timing of Improvements
Concerns that infrastructure is not keeping up with growth and should be completed before development occurs.

Engagement Strategies

Direct Mail Notices

Project Website
(mississauga.ca/ninth-line-class-ea-study)

Technical Stakeholder Group Meetings

Newspaper Notices

City of Mississauga Social Media Channels

One-on-One Meetings with Stakeholders

Public Information Centres

Questions for Clarification

Changing Lanes + Complete Streets: A New Approach for Ninth Line*

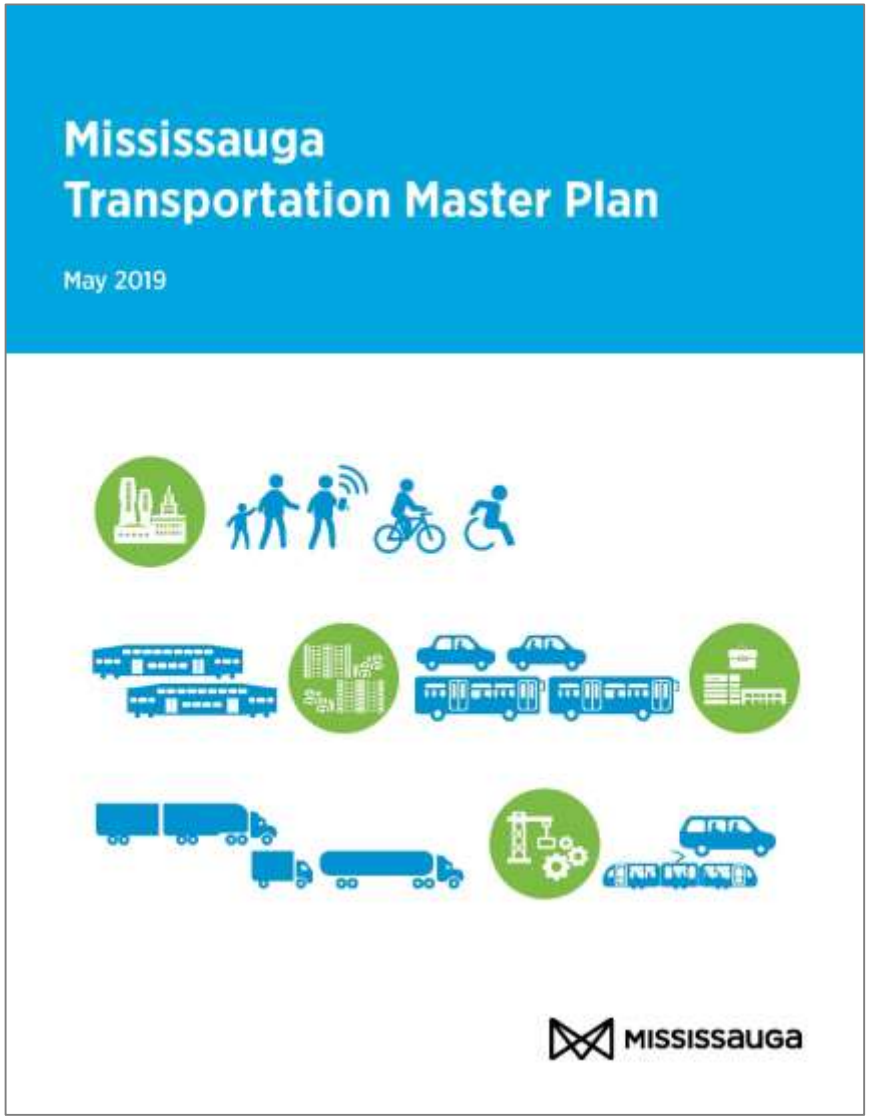
*and All Streets in Mississauga

Mississauga Transportation Master Plan: 2019

Goals and Actions to 2041

Safety: Freedom from Harm
Inclusion: Freedom from Barriers
Integration: Freedom of Choice
Connectivity: Freedom of Access
Health: Freedom to Flourish
Resilience: Freedom to Evolve

Some of the TMP actions have informed the Changing Lanes project



Changing Lanes: Study Objectives

City of Mississauga
Changing Lanes Project

Update, develop and implement new tools for staff, developers, and other street providers to ensure our streets are safe and more convenient for all users.

Engineering Design Standards Update will take place following the first part of the overall project.

Benefits Of Complete Streets

- Improved safety
- Stronger place making
- Social benefits
- Environmental benefits
- Expanded mobility options
- Reduced infrastructure costs
- A more attractive and livable public realm

It’s Not a Secret: Complete Street Policies in Canada

Guidelines, Transportation Master Plans, Official Plans

Ontario

Brampton
Bruce County
Cambridge
Grey County
Guelph
Hamilton
Kingston
Kitchener
London
Mississauga (TMP)
Niagara Region
Oakville
Ottawa
Peel Region
St. Thomas
Toronto
Vaughan
Waterloo Region
York Region

Rest Of Canada

Calgary, AB
Edmonton, AB
St. Albert, AB
British Columbia, BC
Oak Bay, BC
Prince Rupert, BC
Vancouver, BC
Fredericton, NB
Montreal, QC
Quebec City, QC
Saskatoon, SK

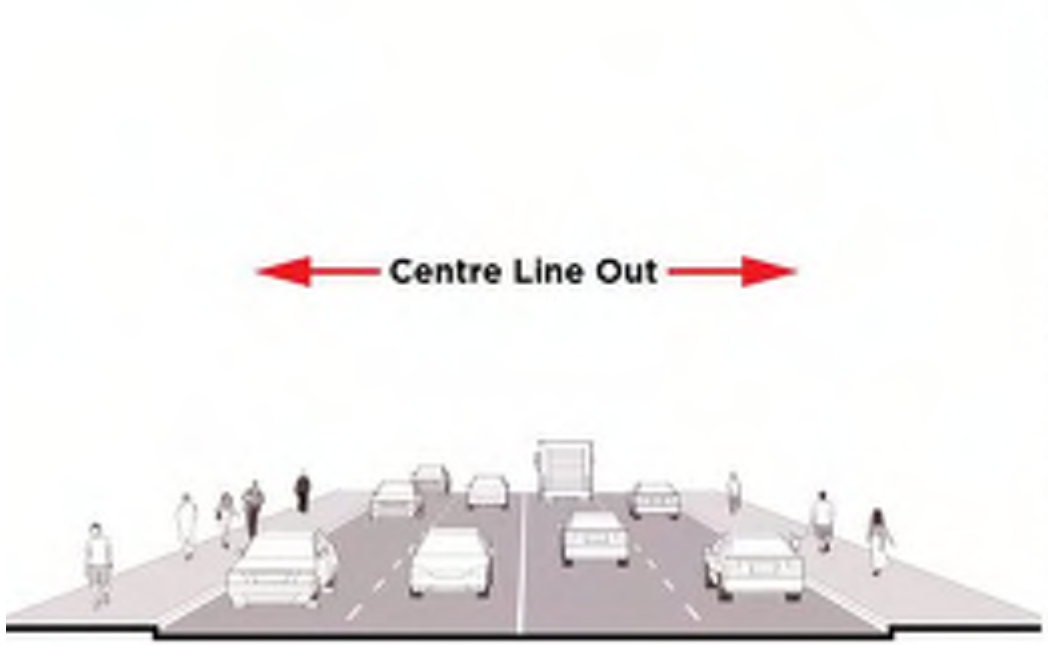
It’s Not a Secret: TAC 2017 Design Guide Embraces Complete Streets

Integrates contemporary Complete Streets thinking into design standards for:

- Street Context
- Target Speed
- Lane Widths
- Clear Zones
- Design vs Control Vehicle
- Intersection Design

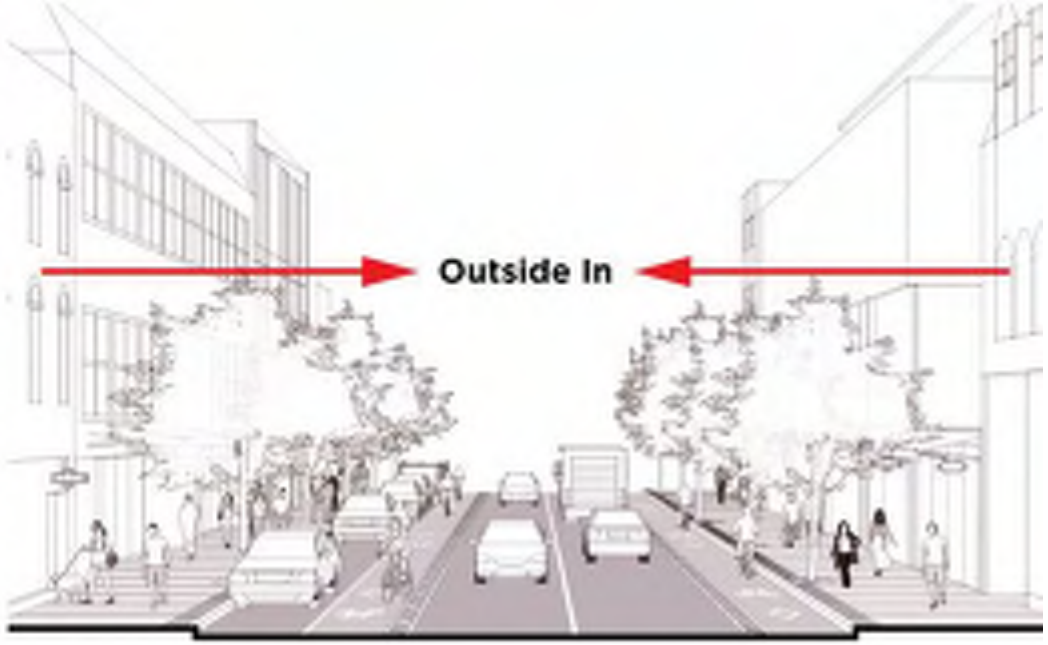
Transportation Association of Canada

Inside Out Vs Outside In



FOCUS OF TRADITIONAL APPROACH

Auto-Mobility
Automobile Safety



COMPLETE STREETS APPROACH

Multi-modal Mobility + Access
Public Health/Safety
Economic Development
Environmental Quality
Livability/Quality of Life
Equity

Street Demands And Issues

Collisions Resulting in Injuries or Fatalities: 2014-2018

13%

of all collisions in Mississauga from 2014 to 2018 resulted in someone losing their life or being injured while using streets in the City.

24,485 collisions total

- 3,167 injuries
- 41 fatalities

Collisions Resulting in Injuries or Fatalities: 2014-2018

78%

of pedestrian and cyclist collisions with vehicles resulting in injuries or fatalities.

Robert Bragg, 55
Hurontario and Dundas, Hit July 07, 2020

TO place

Port Credit

THROUGH place

Eglinton Avenue

Streets Can Change: Hurontario at Dundas, 1953

Streets Can Change: Hurontario at Dundas, 2019

Image Credit: Spacing Toronto

Complete Streets Mississauga: Hurontario LRT

Complete Streets Mississauga: Dundas Connects

Complete Streets Mississauga: Lakeview Village

Complete Streets Mississauga: Tactical Urbanism 2019

Questions for Clarification

Design Framework + Decision Making

Real Vision Zero: 5Es ≠ VZ

5Es: Mitigate Risk Proactively

Shared Responsibility

- Engineering
- Education
- Enforcement
- Evaluation
- Empathy

VISIONZERO Peel

Vision Zero: A Culture Shift

Safe Systems

- Ethical Obligation
- Responsibility
- Philosophy of Safety
- Mechanisms for Change

Be Proactive Not Reactive

"Vision Zero is failing [in North America]...to have a meaningful impact because it targets the wrong goal.

The logical flaw here...is quite basic: it is a policy that requires injured and dead cyclists *(and pedestrians)* as a prerequisite to making safety improvements..." [emphasis mine]

Aaron Gordon, Jalopnik

Manage Speed, Other Opportunities Arise

Safety Directives

1. Reduce Vehicle Speed
2. Minimize Exposure Risk
3. Predictability/Self-Regulating Design

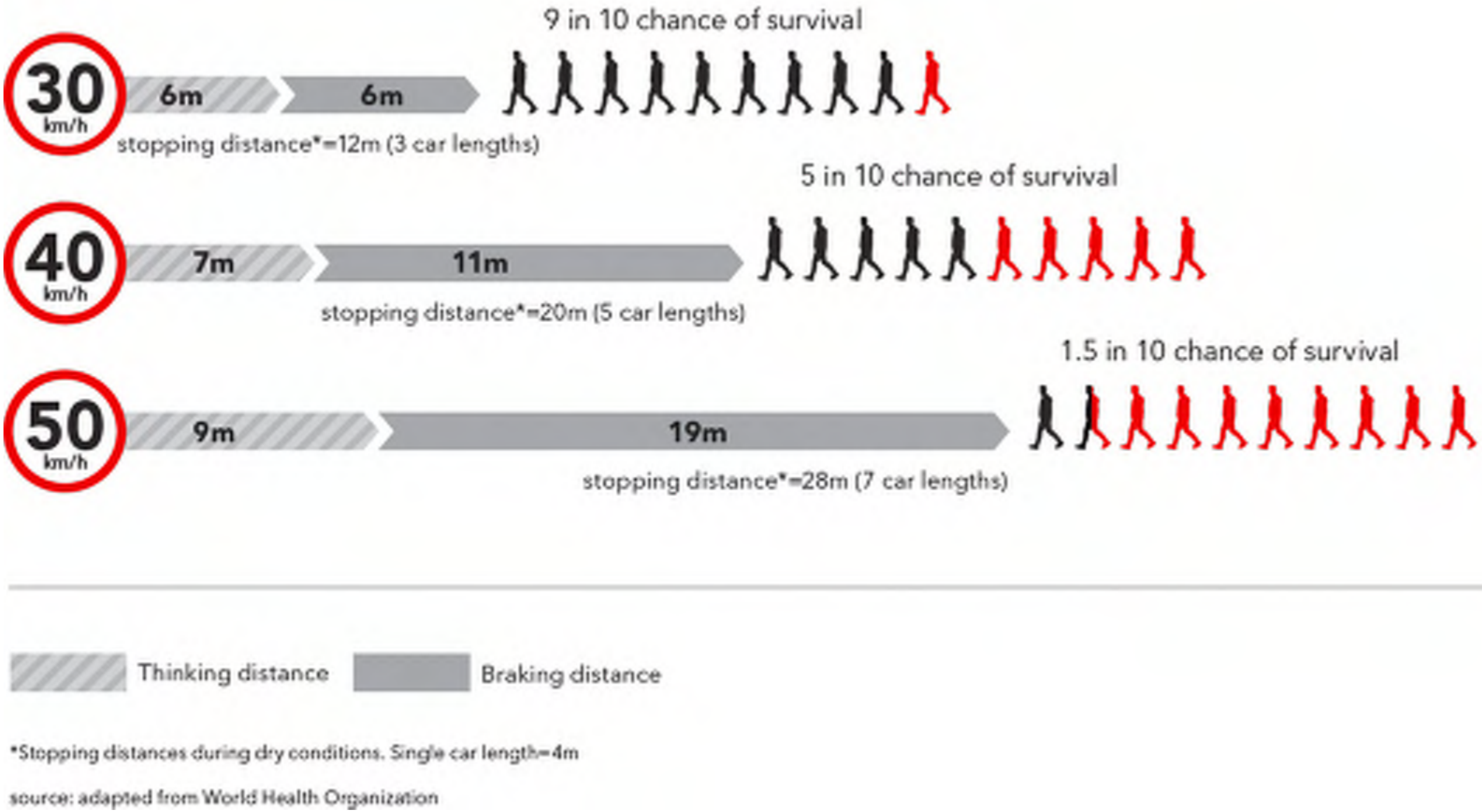
Prioritize Vulnerable User

Safety is the paramount objective of complete streets.

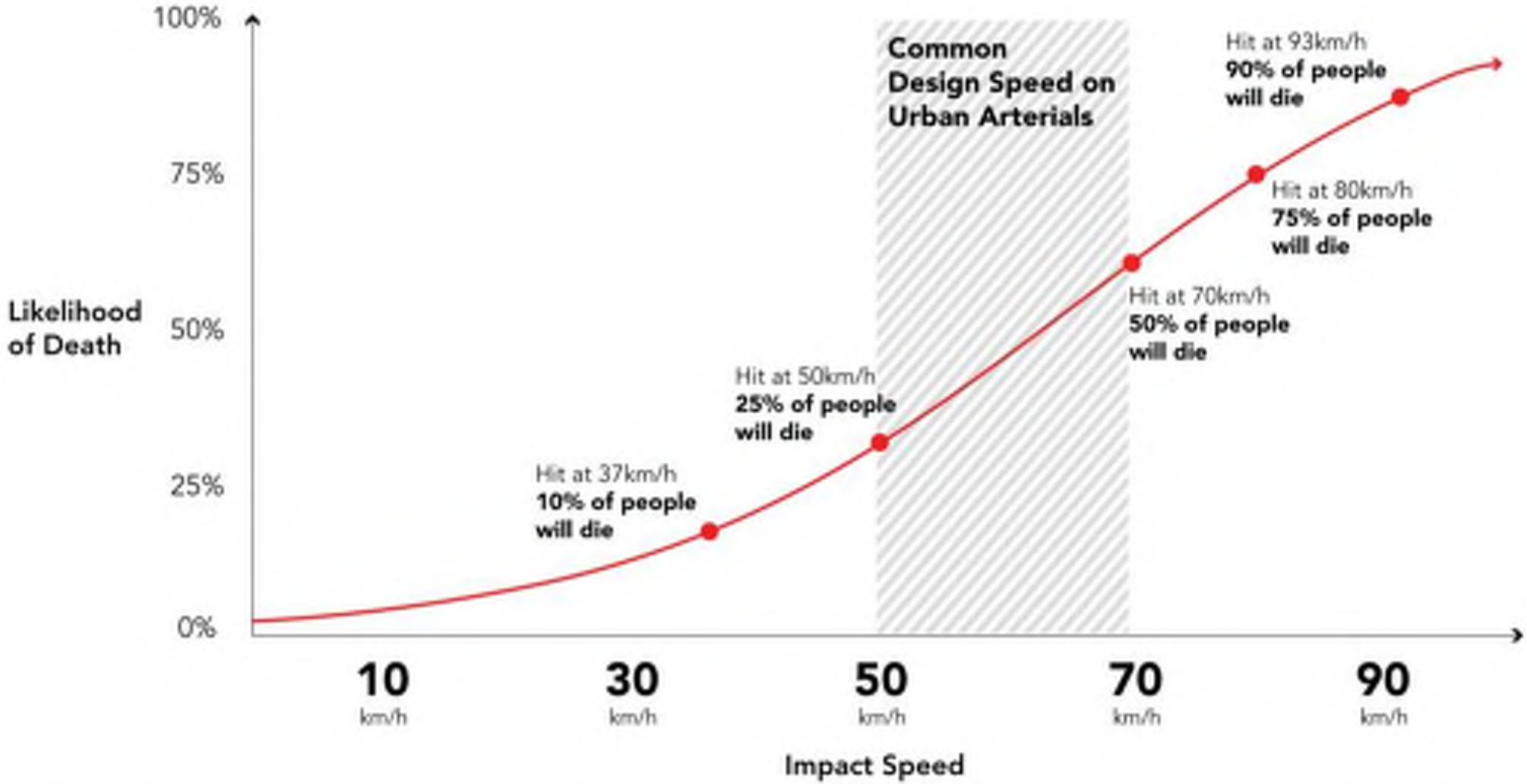
Vulnerable users such as pedestrians and cyclists, especially children, the elderly and people with disabilities, are at greater risk of injury and mortality during a collision than vehicle occupants.

source: Adapted from *World Health Organization, TrafficLogix; DTAH

Vehicle Speed, Stopping Distance, And Chance of Survival

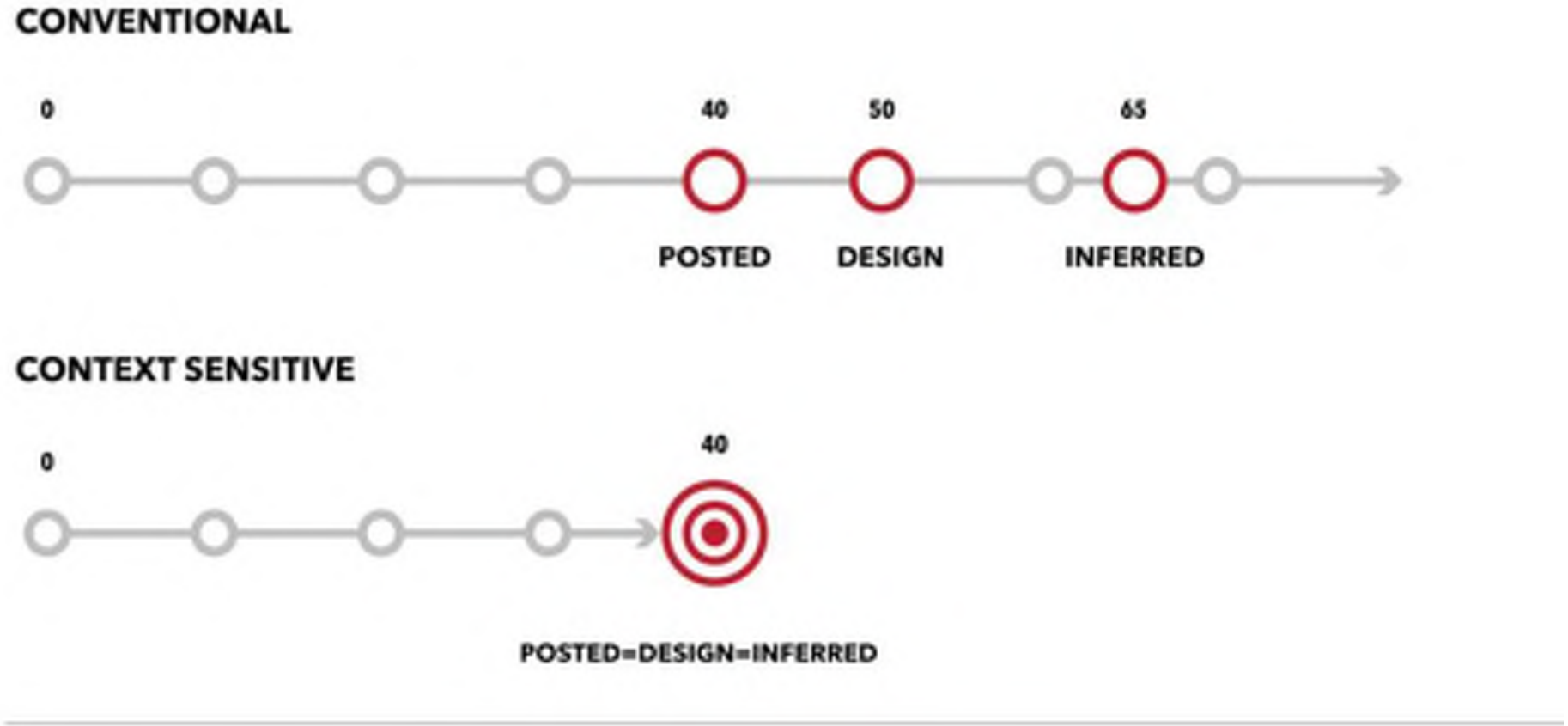


“Speed Kills”



source: Tefft, B.C. (2011). Impact Speed and a Pedestrian's Risk of Severe Injury or Death. AAA Foundation for Traffic Safety. adapted from NACTO. DTAH

Target Speed: Conventional to Context Sensitive



source: NACTO ; ITE; FHWA; DTAH

Desire Lines

August 30th, 2019

- Celeste Jones, 36
- Struck and killed by hit-and-run while on way to work
- 1 out of 140 pedestrians who lost their life crossing mid-block in Toronto between 2007-2019

Desire Lines

Sheppard Avenue East b/w Pharmacy Road and Warden Avenue

- 36m ROW
- 4 thru lanes
- Centre turn lane
- Posted 60km/h
- Operating speed?

Desire Lines

Post-war street network built on concession roads, like Mississauga.

830m between intersections.

Choice of routes:

- 550m with existing crosswalks
- 30m across 5 vehicle lanes to transit stop

Safety: Directives and Guidance

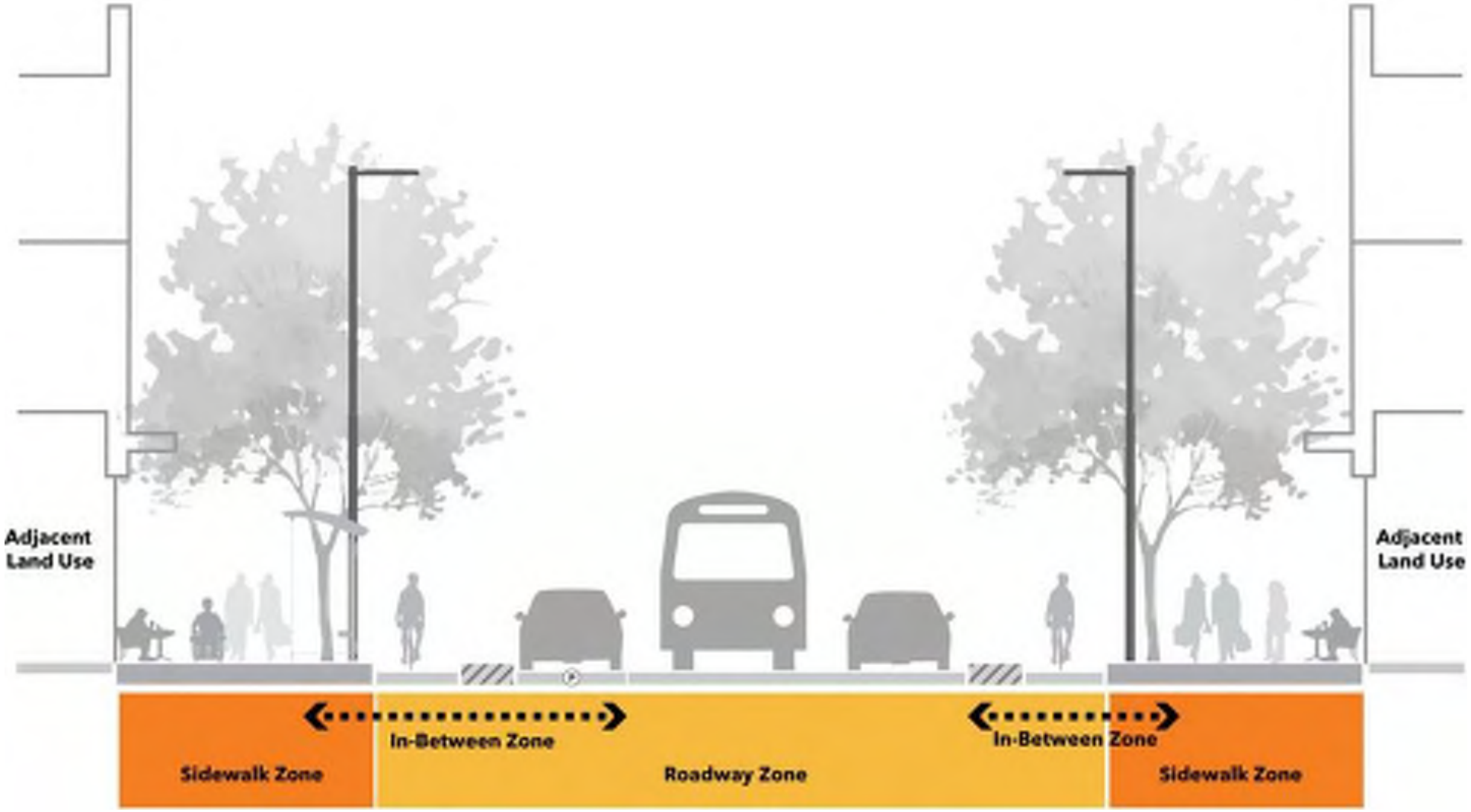
- Lower speeds to reduce severe injuries and deaths
- A target speed informed by the street context
- Fewer and narrower travel lanes to slow speeds and shorten crossing distances and exposure
- Curb extensions and tighter corners to slow turning speeds
- Protected bicycle facilities, especially in intersections to make cyclists more visible to turning vehicles
- Fewer and narrower driveways with proper ramps to privilege people on sidewalks
- Proactive infrastructure to ensure safe walking and cycling

COVID Considerations

Questions for Clarification

Elements + Assembly:
The Cross Section

Assemblage: Boulevard and Roadway Zones



Cross Section: Components

Sidewalk Zone

- Edge
- Furnishing and Planting
- Clearway
- Frontage

Roadway Zone

- Vehicle Travel Lanes
- Medians
- Transit Lanes
- Cycling Infrastructure

In-Between Zone

- Planting and Furnishing
- Curbs and catch basins
- Cycling infrastructure
- Transit lanes and stops
- Parking lanes
- Right-turn or transit queue jump lanes

Start with Sidewalks

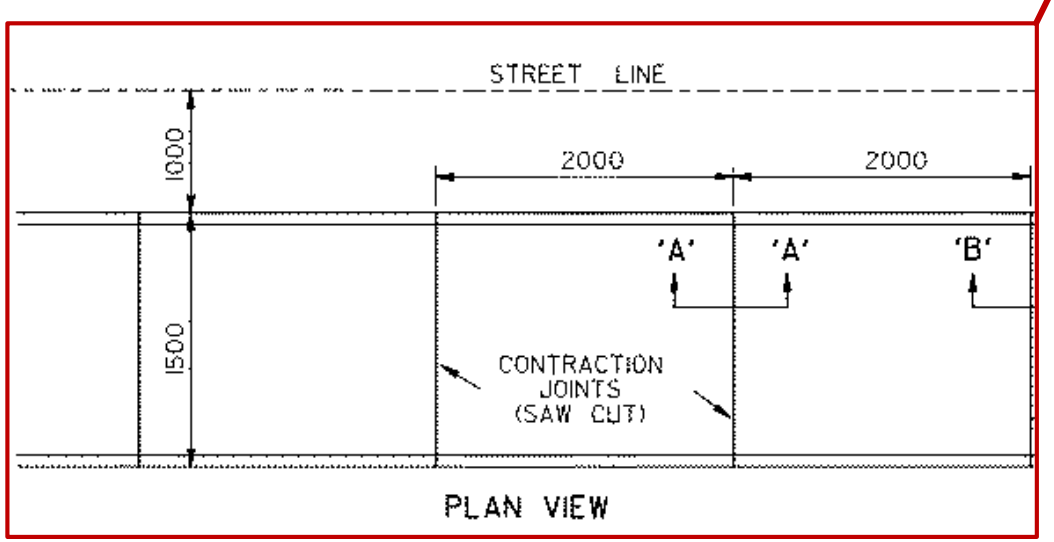
Different Uses and Users / Different Requirements

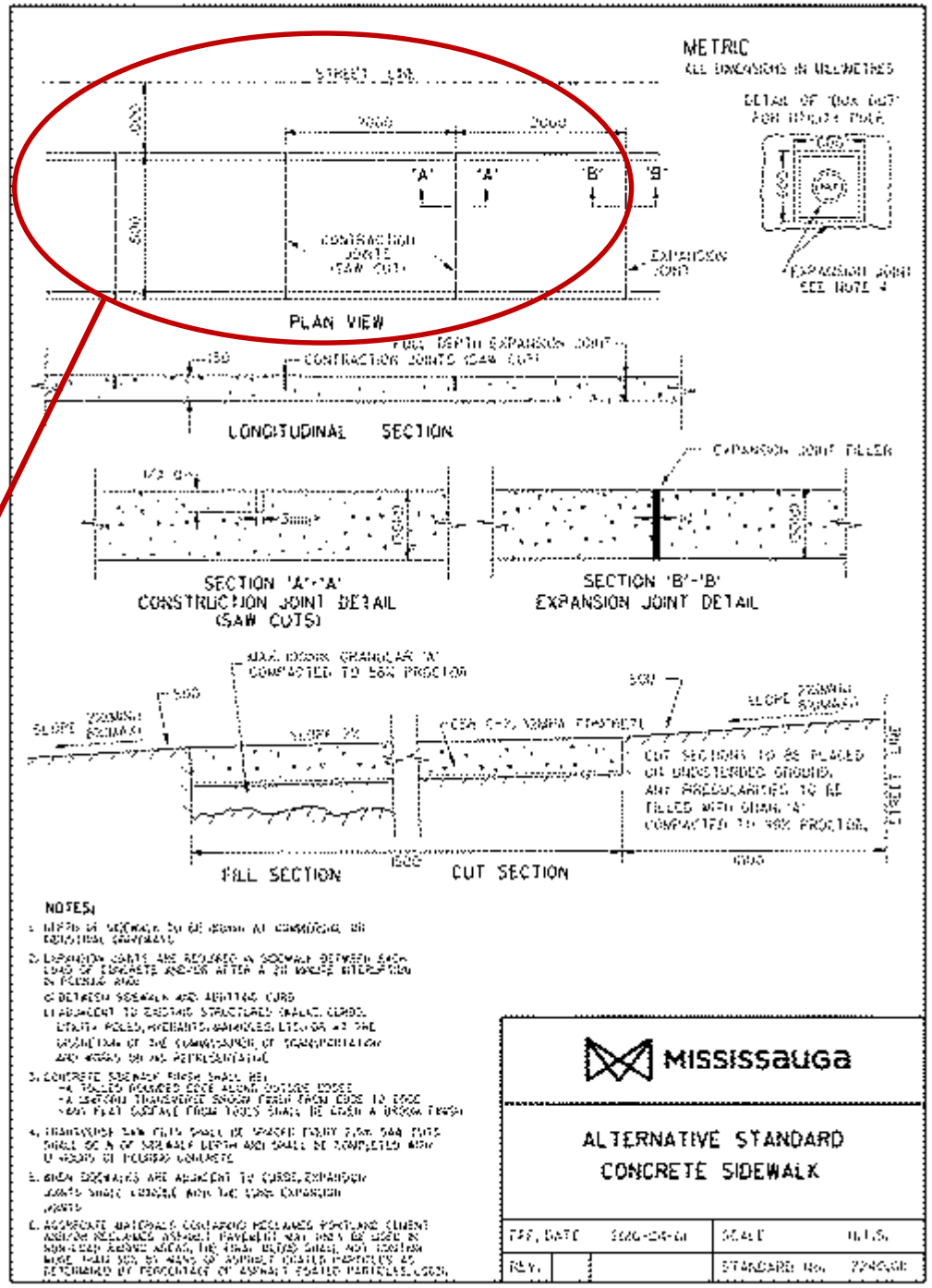
Mississauga Today

City of Mississauga
AODA Standard

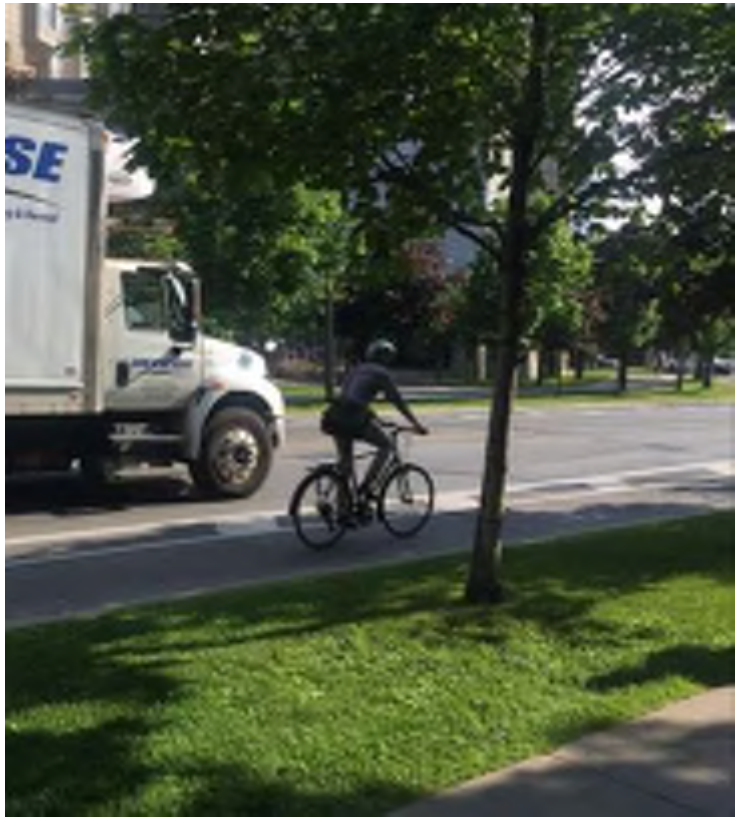
Sidewalk Width for
Non-Primary Routes = 1.5 m (min)

Sidewalk Width for
Primary Routes = 2.1 m (min)

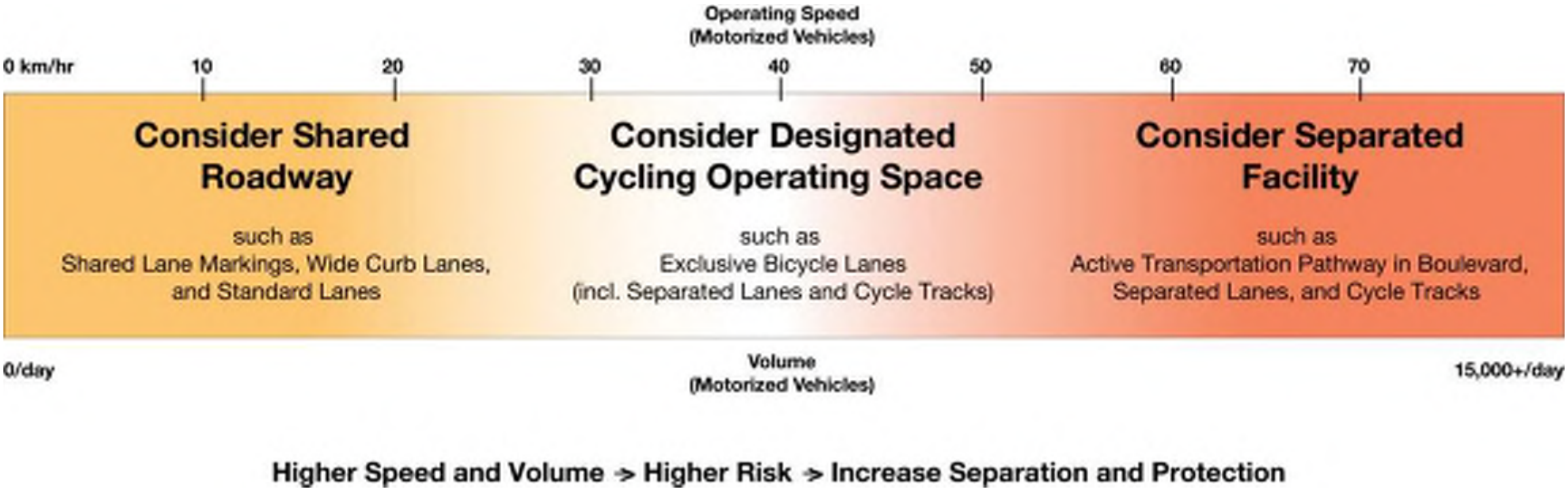




Bike Facilities: Informed by Context



Bike Facilities: Informed by Vehicle Speed and Volume (OTM Book 18: 2013)



Source: OTM Book 18. December 2013.

Furnishing and Planting Zone

Roadway

Lane Width: TAC 2017 Urban Roadway Through Lanes

	Design Domain			
		Recommended Range		
Design Speed (km/h)	Practical Lower Limit	Recommended Lower Limit	Recommended Upper Limit	Practical Upper Limit
60 and less	2.7m	3.0m	3.7m	4.0m
70 to 100	3.0m	3.3m	3.7m	4.0m
110 and higher	3.5m	3.5m	3.7m	4.0m

Source: TAC 2017. Geometric Design Guidelines, Table 4.2.3

Mississauga Default Speed Limit: 50km/h

Posted Speed: Maximum 50 km/h

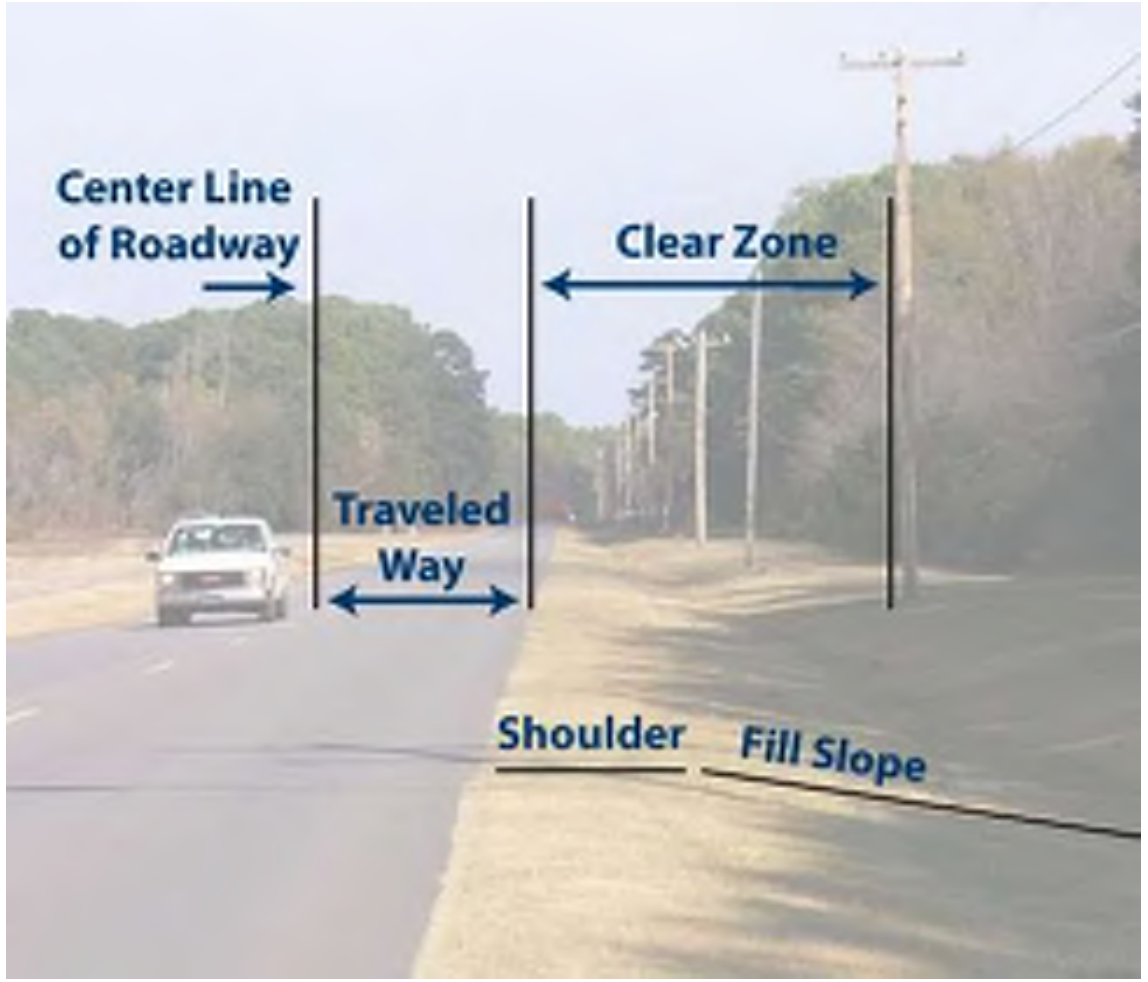
Exceptions

- Unless otherwise posted
- Collectors: 70km/h
- Arterials: 90 km/h
- Residential Road Safety Roll Out (40 km/h)

TAC 1999 is basis of current City Geometric Design Standards.

Clear Zones

- Traditionally a highway safety concept
- Allows for cars that go off road to regain control
- Minimize collision of vehicles with fixed objects
- Can encourage higher operating speeds and as a potential result the number of crashes and decrease safety
- Focus is safety of driver not vulnerable users



https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/BMTE/calcRoadside/roadsideSafetyTutorials/Pages/clearZone.aspx

Clear Zones: TAC 2017

The use of a Clear Zone is not applicable, practical, or desirable for urban arterial, collector, and local streets.

This is due to the typical conditions along urban streets:

- lower target operating speeds
- denser development
- limited right-of-way
- closely spaced intersections
- multimodal street users

https://www.roadandtrack.com/car-culture/a4916/features-web-originals-anatomy-of-a-high-speed-car-crash/

Clear Zone vs. Lateral Offset

NO

BETTER

Utility Clearances

Utility	Horizontal Clearance	Vertical Clearance
Gas	• 381 min to Hydro conduits	• 965 min from surface to bottom of gas conduit • 305 min to Hydro conduits
Watermain	• 400 – 600 clearance between hydrants and cables • 300 clearance between watermain and utility pole	• 1700 min cover from surface
Hydro	• 400 – 600 clearance between hydrants and cables	• 1270 min cover from surface
Utility Poles	• TBD	• N/A

Aspiration/Inspiration

Collaborative Decision Making

1. Develop Ideal Cross Section/ Prepare Alternative Designs
2. Establish Trade-Off Methodology
3. Refine Cross Section
4. Finalize and Document Decision

Design Priorities and Trade-Offs

Safety

- Prioritize most vulnerable user
- Speed, exposure risk, predictability
- Self-regulating design

Networks

- Multi-modal networks – providing choice
- Prioritization of modes

Placemaking

- Using a "building-in" approach

Sustainability

- Street trees
- Stormwater management

Lifecycle Considerations

- Maintenance and seasonality

Design Priorities and Trade-Offs
Examples for Too Little Right-of-Way

- Reduce median widths
- Reduce edge zone
- Reduce furnishing zone at taxi lay-bys and transit stops
- Reduce frontage zone, except at outdoor seating
- Reduce furnishing zone via tree grates and relocating or eliminating street furniture
- Reduce on-street parking
- Replace protected with shared bike lanes
- Reduce transit stop width
- Eliminate a travel lane

Design Priorities and Trade-Offs
Examples for Too Much Right-of-Way

- Add on-street parking
- Widen furnishing zone and add streetscaping
- Widen walkway
- Widen edge zone
- Widen frontage zone
- Upgrade transit stops
- Upgrade bike lanes
- Increase median widths
- Add more on-street parking

Design Priorities and Trade-Offs
Trade Offs - Examples

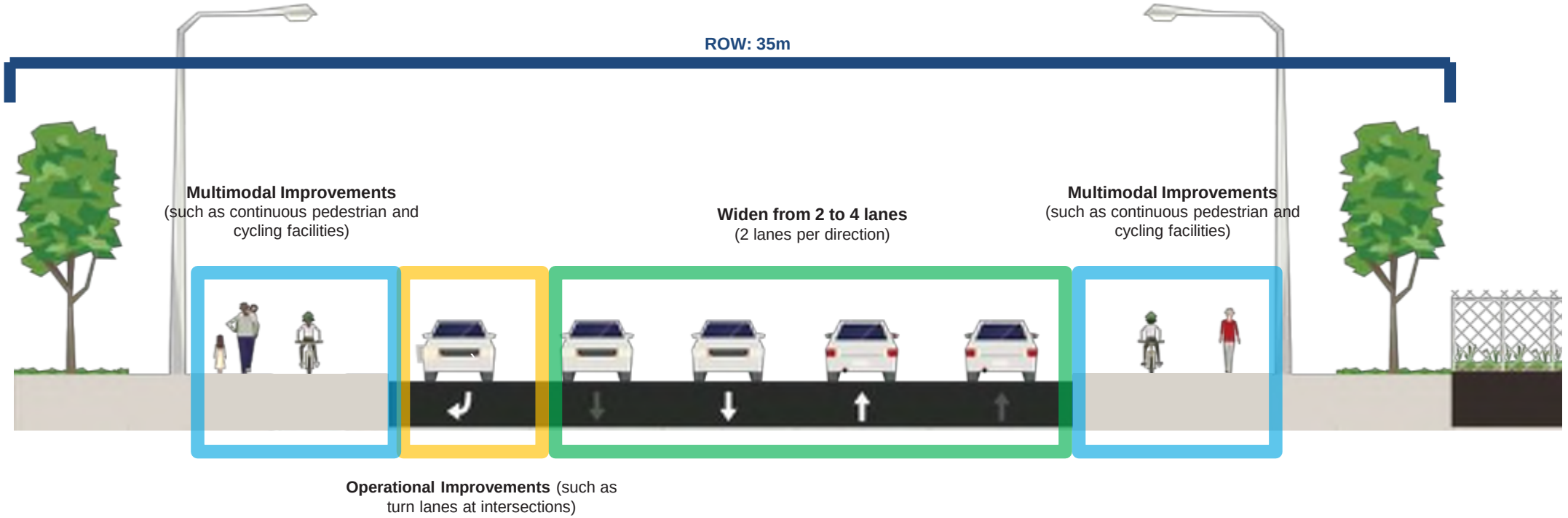
- Faster transit vs. more stops
- Street trees vs. sidewalk cafes
- Vehicle delay vs. longer crossing time
- Bicycle lanes vs. wider sidewalks
- Median vs. driveway access
- Near-side vs. far-side bus/streetcar stop and attendant bike facilities
- Curb extension vs. median
- Lead vs. lag turns, and impacts on ped/bike movements
- Right turn on red and impacts on bike queues
- Curb-side bus queue jump lane vs. landscaped boulevard
- Left-turn lane vs. bike lane through intersection
- Mid-block bus bays vs. bus stopping in curb lane, and the bus operations implications
- All-purpose motor vehicle capacity vs. bus lanes or diamond lanes
- Parking on both sides of the road vs. parking on one side and bike lanes in each direction

Questions for Clarification

Cross Section Options: Preliminary EA Evaluation

EA: Preliminary Preferred Solution

The preliminary preferred solution is to widen Ninth Line from 2 to 4 lanes while improving pedestrian and cycling facilities and implementing operational improvements at intersections. This solution is consistent with the City of Mississauga Transportation Master Plan and the Shaping Ninth Line Study and will help manage growth and ensure the transportation system fulfills its essential role in city-building.



Alternative pedestrian and cycling facility options are presented in the next slide.

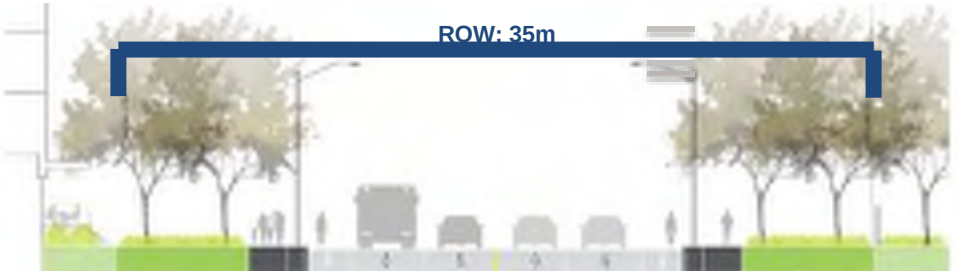
EA: Potential Cross-Sections for 35m (midblock)

Do Nothing

- **No changes** to the existing cross-section
- **Maintain existing** traffic lanes and whatever pedestrian / cycling facilities, and landscaping exist

Alternative 1

- **Widen** from 2 to 4 lanes
- On-street **bike lanes**
- **Sidewalks** on both sides
- Opportunities for l**andscaping** and amenities in the boulevards

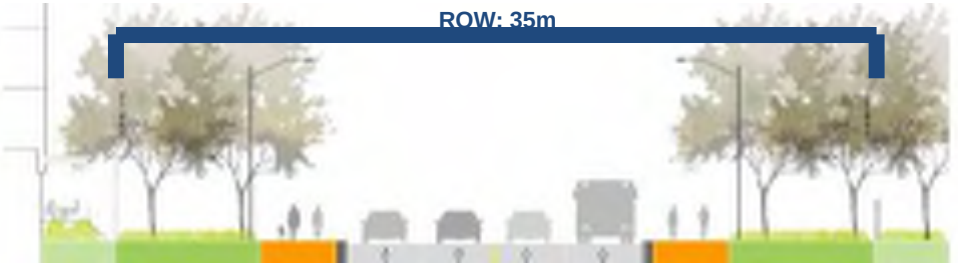


Alternative 2

- **Widen** from 2 to 4 lanes
- Boulevard **cycle tracks** (separated from vehicular lanes)
- **Sidewalks** on both sides
- Opportunities for **landscaping** and amenities in the boulevards

Alternative 3

- **Widen** from 2 to 4 lanes
- **Multi-use path** on both sides (no additional bike lanes/cycle tracks or sidewalks)
- Opportunities for **landscaping** and amenities in the boulevards



Notes:

- All alternative cross-sections shown here are looking north on Ninth Line
- Intersection improvements are unique to each location and will be confirmed in the next phase of the study, as part of the design development.
- Raised medians, where appropriate and where space permits, will also be considered during the next phase of the study as part of the design development.

Existing Right-of-Way Map for Ninth Line

Questions for Clarification

Cross Section Workshop Exercise

Design Objectives: Summary of Key Inputs

Shaping Ninth Line

Create a Complete Community with Mixed Use Redevelopment

TMP + Changing Lanes: Themes

Complete Networks

Neighbourhoods and Transit Together

Streets are Places

Freedom to Flourish: "15 Minute City"

Real Vision Zero: Proactive Design

Function

Prioritize Vulnerable Users

Safe and Efficient Movement

Attractive Public Realm

Well appointed to support pedestrian activity

Build the Urban Forest

Exercise: Develop the Ideal Section for Ninth Line

1. Start with Preferred EA Solution
2. Identify User Profile and Project Objectives
3. Establish Design Criteria
4. Develop Initial Section
5. Discuss Trade-offs
6. Refine Section
7. Report Back

Questions + Inputs

1. Define the Future Context: What Type of Street is Ninth Line?
2. Establish a Context Sensitive Design Speed
3. Define Roadway Elements and Dimensions
4. Define Boulevard Elements and Dimensions
5. Establish Context Sensitive Cycling Infrastructure
6. Consider Impact on Utilities Below Grade
7. Consider Interaction between AT Facilities and Transit Facilities

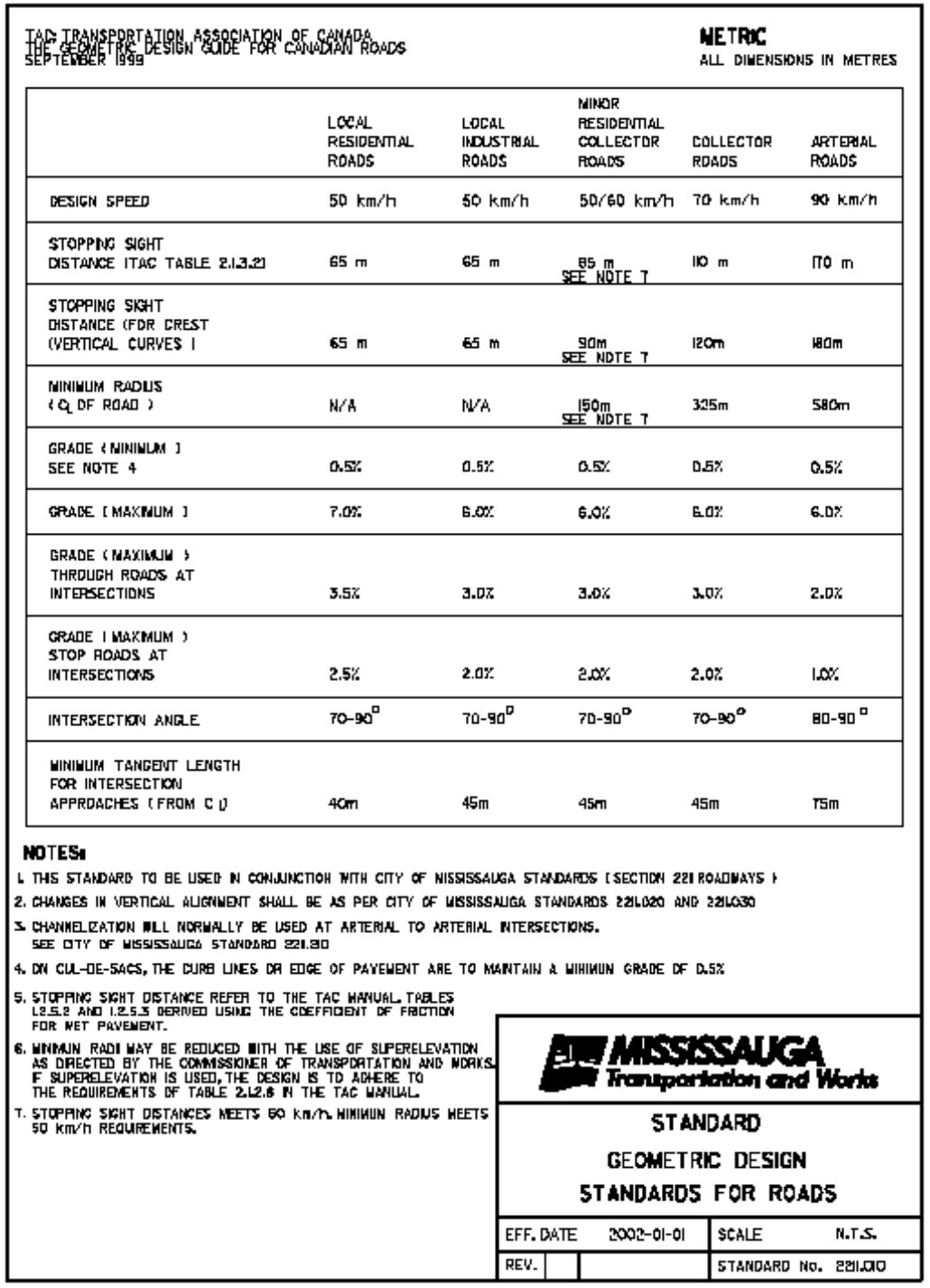
Mississauga Today: Geometric Design Standards

Based on TAC 1999

- Roads as Highways
- "Roads" vs "Streets"
- Vehicle throughput focused
- Not informed by Street Context
- No stated requirements for cycling, pedestrian, urban forest, etc.

Current Standard: Design Speed for a Mississauga Arterial Road:

90km/h



TAC TRANSPORTATION ASSOCIATION OF CANADA
THE GEOMETRIC DESIGN GUIDE FOR CANADIAN ROADS
SEPTEMBER 1999

METRIC
ALL DIMENSIONS IN METRES

	LOCAL RESIDENTIAL ROADS	LOCAL INDUSTRIAL ROADS	MINOR RESIDENTIAL COLLECTOR ROADS	COLLECTOR ROADS	ARTERIAL ROADS
DESIGN SPEED	50 km/h	50 km/h	50/60 km/h	70 km/h	90 km/h
STOPPING SIGHT DISTANCE (TAC TABLE 2.1.3.2)	65 m	65 m	85 m SEE NOTE 7	110 m	170 m
STOPPING SIGHT DISTANCE (FOR CREST (VERTICAL CURVES)	65 m	65 m	90m SEE NOTE 7	120m	180m
MINIMUM RADIUS (℄ OF ROAD)	N/A	N/A	150m SEE NOTE 7	325m	580m
GRADE (MINIMUM) SEE NOTE 4	0.5%	0.5%	0.5%	0.5%	0.5%
GRADE (MAXIMUM)	7.0%	6.0%	6.0%	6.0%	6.0%
GRADE (MAXIMUM) THROUGH ROADS AT INTERSECTIONS	3.5%	3.0%	3.0%	3.0%	2.0%
GRADE (MAXIMUM) STOP ROADS AT INTERSECTIONS	2.5%	2.0%	2.0%	2.0%	1.0%
INTERSECTION ANGLE	70-90°	70-90°	70-90°	70-90°	80-90°
MINIMUM TANGENT LENGTH FOR INTERSECTION APPROACHES (FROM ℄)	40m	45m	45m	45m	75m

NOTES:

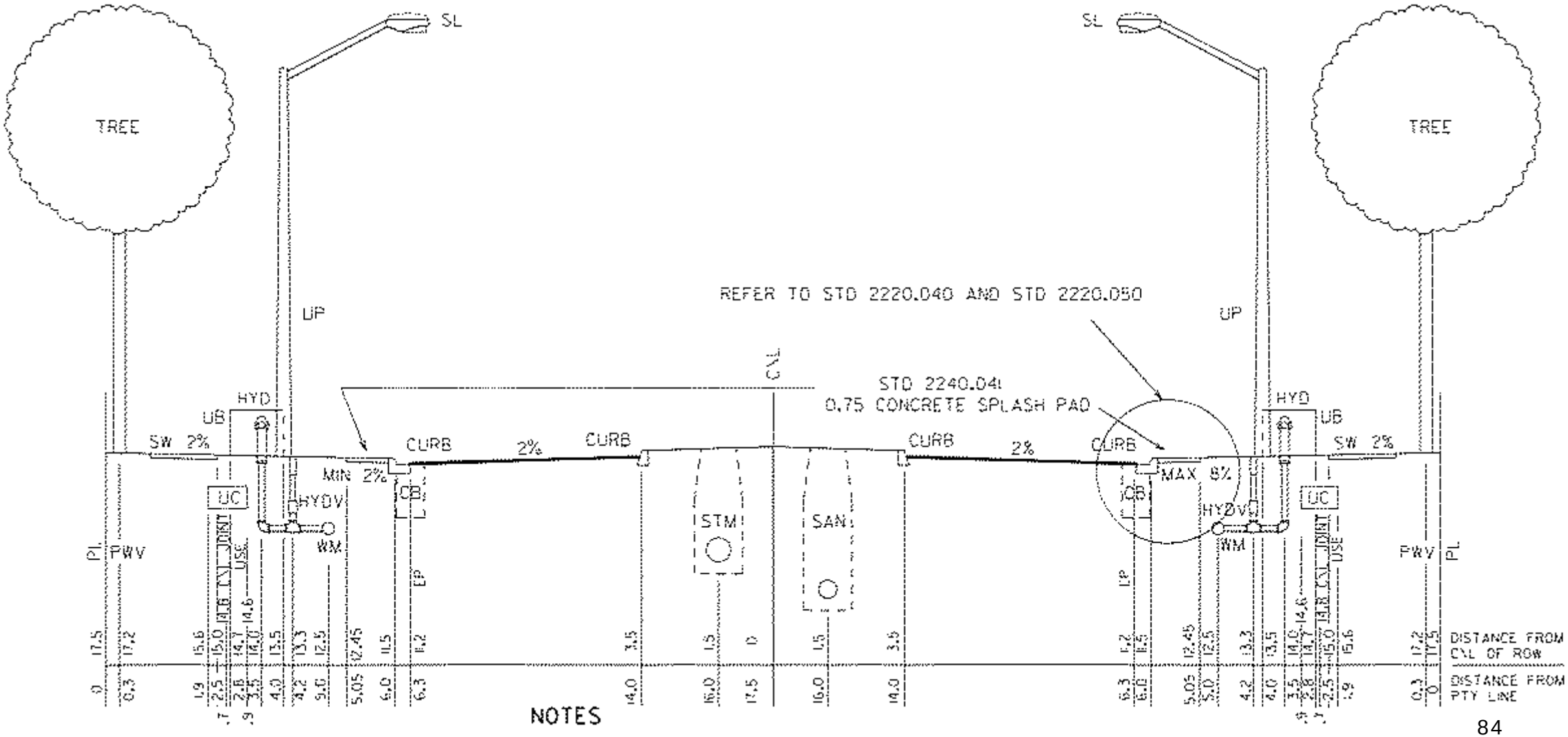
1. THIS STANDARD TO BE USED IN CONJUNCTION WITH CITY OF MISSISSAUGA STANDARDS (SECTION 221 ROADWAYS)
2. CHANGES IN VERTICAL ALIGNMENT SHALL BE AS PER CITY OF MISSISSAUGA STANDARDS 221.020 AND 221.030
3. CHANNELIZATION WILL NORMALLY BE USED AT ARTERIAL TO ARTERIAL INTERSECTIONS. SEE CITY OF MISSISSAUGA STANDARD 221.30
4. ON CUL-DE-SACS, THE CURB LINES OR EDGE OF PAVEMENT ARE TO MAINTAIN A MINIMUM GRADE OF 0.5%
5. STOPPING SIGHT DISTANCE REFER TO THE TAC MANUAL. TABLES 1.2.5.2 AND 1.2.5.3 DERIVED USING THE COEFFICIENT OF FRICTION FOR WET PAVEMENT.
6. MINIMUM RADII MAY BE REDUCED WITH THE USE OF SUPERELEVATION AS DIRECTED BY THE COMMISSIONER OF TRANSPORTATION AND WORKS. IF SUPERELEVATION IS USED, THE DESIGN IS TO ADHERE TO THE REQUIREMENTS OF TABLE 2.1.2.6 IN THE TAC MANUAL.
7. STOPPING SIGHT DISTANCES MEETS 60 km/h. MINIMUM RADIUS MEETS 50 km/h REQUIREMENTS.

MISSISSAUGA Transportation and Works

STANDARD
GEOMETRIC DESIGN
STANDARD FOR ROADS

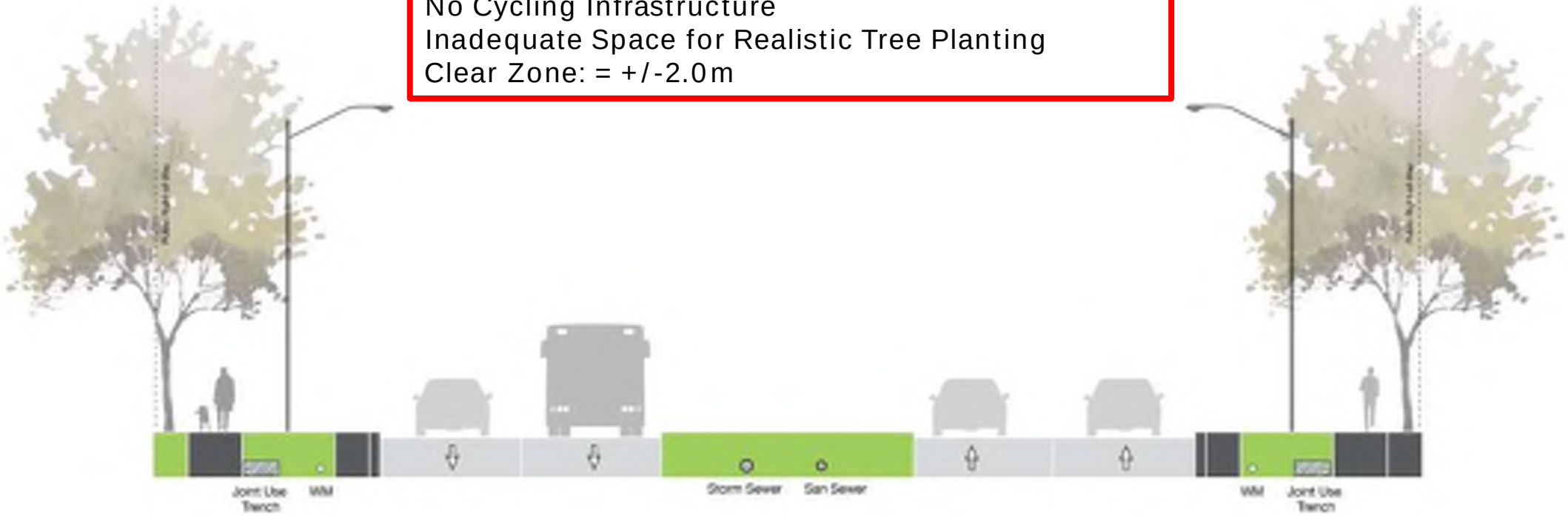
EFF. DATE	2002-01-01	SCALE	N.T.S.
REV.		STANDARD No.	221.010

Mississauga Today: 4 Lane Divided Arterial 35 m ROW (2211.120)



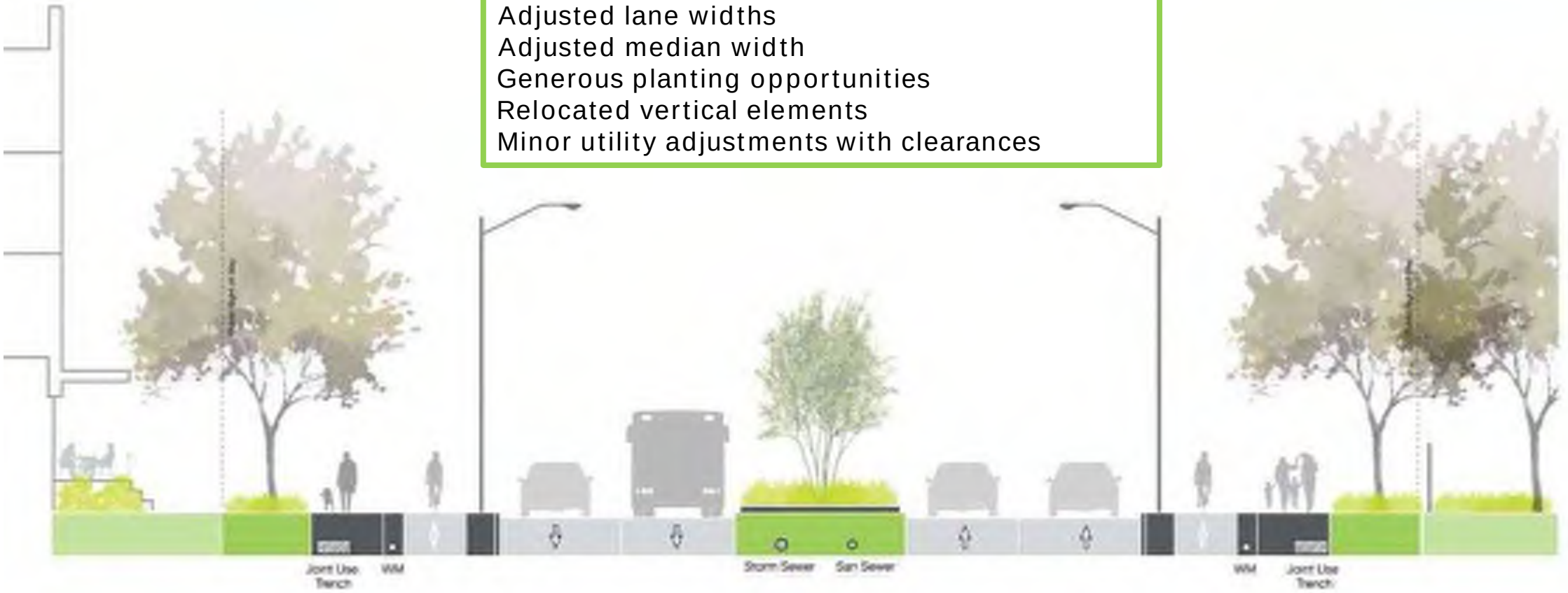
Mississauga Today: 4 Lane Divided Arterial 35 m ROW (2211.120)

6m Boulevards
8m Roadways either side of 7m Median
No Relationship to Context
Pedestrian Clearways Too Narrow
No Cycling Infrastructure
Inadequate Space for Realistic Tree Planting
Clear Zone: = +/-2.0m



Mississauga Potential: 4 Lane Divided Arterial 35m ROW (2211.120)

Context sensitive pedestrian + cycling facilities
Adjusted lane widths
Adjusted median width
Generous planting opportunities
Relocated vertical elements
Minor utility adjustments with clearances

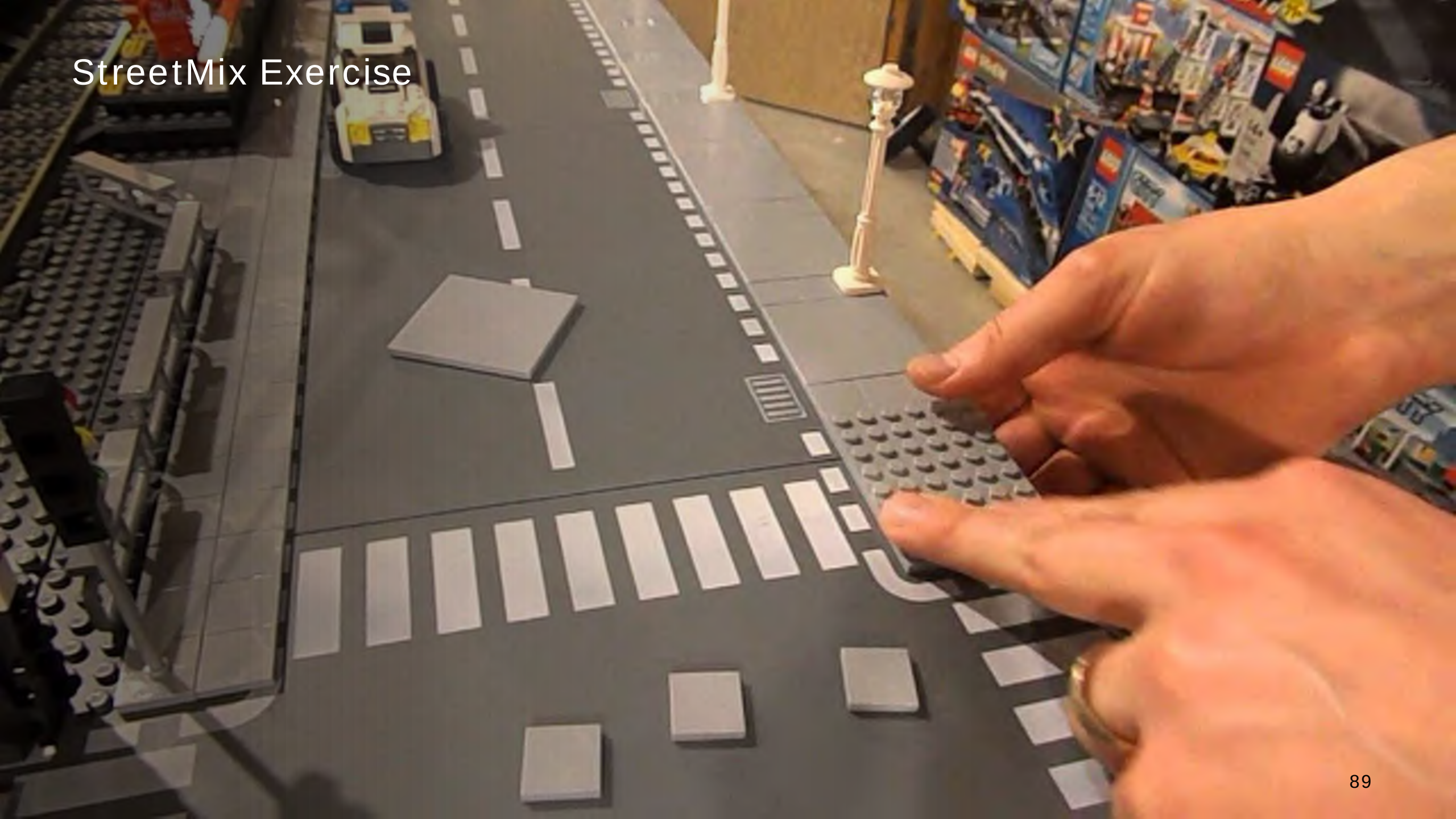


Ninth Line Design Criteria Table

Element	Current Detail	Proposed Min.
Target Speed (Design/Posted)	90 km/h, 70km/h	
Pedestrian Clearway	1.5m	
On-Street Bike Lane	--	
Cycling Tracks	--	
Multi-Use Path	--	
Buffer between Peds and Bikes	--	
Planting/Furnishing Zone	N/A	
Edge Zone	2.0m	
Thru Lanes	4.0m	
Curb Lanes	4.0m	
Centre Median	7.0m	

Questions for Clarification

StreetMix Exercise



Discussion

Work to Follow: Intersections

Intersections: Elements to Consider

- Pedestrian and Cycling Crossings
- Dedicated Turning Lanes
- Transit Infrastructure
- Roundabouts
- AT transitions/connections

Workshop Input Will Help Us To…

- Confirm Design Criteria
- Evaluate alternative design concepts
- Develop preliminary design of Ninth Line
- Present the recommended design to stakeholders and the public

TAC Meeting #1 Summary

Project: Ninth Line Environmental Assessment Study (Eglinton Avenue West to Derry Road West)

Subject: Technical Advisory Committee (TAC) Meeting #1

Date: Thursday, June 04, 2020

Location: Teleconference Call (Webex)

Attendees:

Gino DelaCruz – City of Mississauga (City PM)
Lin Rogers – City of Mississauga
Ashley Visneski – City of Mississauga
Cameron Maybee – City of Mississauga
Dagmar Breuer – City of Mississauga
Darek Pest – City of Mississauga
Fred Sandoval – City of Mississauga
Jacqueline Elias – City of Mississauga (MiWay)
Max Gill – City of Mississauga
Norbert Orzel – City of Mississauga
Tyler Xuereb – City of Mississauga
Zain Zia – City of Mississauga
Alicia Jakaitis – Halton Region
Darrin Dodds – Region of Peel
Hashim Hamdani – Region of Peel
Jeanne Thomsen – Region of Peel
Marwan Kas – Region of Peel
Mike Faye – Region of Peel
Owen Chinnery – Region of Peel
Sabbir Saiyed – Region of Peel
Steve Mathew – Region of Peel
Syeda Banuri – Region of Peel
Tamara Alexander – Region of Peel
Manvir Tatla– Region of Peel
Roger Silva – Region of Peel
Wali Memon – Region of Peel
Jakub Kilis – CVC
George Golding – CVC
Emma DeFields – Conservation Halton
Frank Martins – MTO
Othmane Benjrad – 407 ETR
Branko Vidovic – Peel District School Board
Joanne Rogers – Dufferin-Peel Catholic District School Board
Tara Erwin – HDR (Consultant PM)
Veronica Restrepo – HDR
Karim Nahed – HDR

Summary by: Karim Nahed, HDR

	Item	Action
1.	**Introductions**	
	• Gino DelaCruz (City of Mississauga) briefly introduced the Ninth Line EA project and outlined the study's goal and objectives. • Tara Erwin (HDR) explained features of the online meeting platform (Webex) including how to submit questions or ask for a turn to speak, and outlined the meeting agenda. • The attendees took turns introducing themselves, noting their roles and agencies represented. • The project team elaborated that this meeting is being held in advance of the online Public Information Centre (PIC) scheduled for Thursday June 25, 2020. • Attendees were encouraged to submit their questions and comments to the project team within the next two weeks to allow time for material revisions prior to the PIC.	Information only
2.	**Study Background, Alternative Solutions and Potential Cross-Section Options**	
	• Veronica Restrepo (HDR) presented the study background and provided a summary of the Needs Assessment. Topics touched upon included: ◦ The EA process ◦ Top Concerns heard during the Introductory Open House (February 2020) and Engagement Strategies ◦ Existing Corridor Conditions ◦ Planning and Policy Context ◦ Ninth Line Today ◦ Ninth Line Tomorrow ◦ Existing Walking, Cycling and Driving Conditions ◦ Transit Conditions (Existing and Planned) ◦ Problem and Opportunity Statement	Information only

TAC Meeting #1 Summary

	◦ Key Technical Studies being undertaken as part of this EA study ◦ Natural and Cultural Heritage Features and Resources ◦ Contamination Overview • Tara Erwin (HDR) then described the alternative solutions considered, preliminary evaluation criteria and the evaluation process as well as the preferred solution, which consists of a combination of widening from two to four lanes (two lanes in each direction), multimodal improvements to accommodate cyclists, pedestrians and transit users, and localized improvements such as intersection operations improvements. Potential cross-sections were then presented for the preferred alternative solution, and these identified a variety of options for the active transportation component, including bike lanes, cycle tracks, sidewalks and multi-use paths. The cross-section options will be refined and confirmed during the next phase of the study. The study's next steps were also shared with the attendees to identify future engagement opportunities.	
3.0	**Discussion**	
	Specific comments, questions and suggestions related to the materials presented were noted for consideration. A summary is provided below. **Truck Restrictions** • A question was raised regarding heavy vehicle use (truck travel) along Ninth Line. ◦ At present, there are no truck restrictions in the study area. Ninth Line is an important north-south road connector and is being envisioned as multi-modal corridor to serve all transportation needs. ◦ It was noted that the impact of truck traffic on Ninth Line users will be considered as the study progresses. **Cross-Section Element considerations** • It was requested that the future of Ninth Line place an emphasis on Vision Zero objectives. • One attendee inquired regarding the possibility of maintaining only two lanes of travel (one in each direction); however, this would not accommodate future travel volumes along Ninth Line with an acceptable level of service especially with the added demand that is anticipated once the Ninth Line Lands (west side of Ninth Line) develop as planned. • Active transportation facilities that allow separation between the modes of travel (such as separate cycle tracks and sidewalks) as opposed to combined facilities like multi-use paths were noted to be preferred by some attendees. Several attendees shared their preference for having sidewalks on the west side as well as raised cycle tracks along Ninth Line. • Questions were raised regarding the lane widths shown in the preliminary preferred solution and cross-section options. It was mentioned by some attendees that narrower lane widths were preferred while acknowledging that design considerations need to balance the roadway's operational needs and meet minimum design standards as well. ◦ The study team noted that cross-section element widths are still preliminary in nature and that the design criteria will be refined through ongoing discussions with the City of Mississauga as part of the design development in the next phase of the study. As such, lane widths still need to be confirmed. • There was a request for the provision of wider sidewalks in consideration of not only mobility, but also public health given the current situation. Wider sidewalks would better enable social distancing and mitigate COVID-19 transmission. ◦ The study team shared their commitment to reviewing and providing enhanced sidewalks where possible, noting that one of the goals of the study is to provide a balanced cross-section that accommodates all travel modes. ◦ It was noted that City of Mississauga current design standards are for 2.0m wide sidewalks.	HDR HDR / City of Mississauga HDR / City of Mississauga

TAC Meeting #1 Summary

Midblock Crossings • A request was made for the consideration of additional midblock crossings along the Ninth Line corridor. ○ The project team confirmed that potential new midblock crossings will be reviewed in the next phase of the Ninth Line EA study. This will consider locations where new transit stops are proposed as well as trip generators on both sides of Ninth Line.	HDR

Posted Speed Limit
• An attendee noted their preference for the reduction of the 70 km/hr existing speed limit to 60km/hr. Another attendee seconded concerns regarding high vehicle speeds, especially near existing / future school zones.
• Speed limit reductions would enable crossing guards to be placed, which will allow for students to walk/bike to existing or future schools in the vicinity of Ninth Line.
  ○ The study team acknowledged the importance of improvements in east-west connectivity and safety for vulnerable users, including those who walk/bike to school.
  ○ The study team will review potential speed limit reductions along Ninth Line.
	HDR / City of Mississauga

Development Coordination • Concerns were raised regarding the potential impact of the adjacent development (and associated infrastructure) on the available right-of-way. ○ The City of Mississauga noted that it is working with developers on the west side of the study area and there are opportunities for further coordination between the development application reviews and the EA study moving forward.	City of Mississauga

Stormwater Management
• An attendee pointed out that the cross sections presented did not show any potential stormwater management features, such as low-impact development (LID).
  ○ The study team noted that it is still very early in the study and the cross-section options presented at this time are preliminary, conceptual illustrations to obtain feedback on potential cross-section element options as early as possible. A drainage and stormwater management assessment is being undertaken as part of the EA study and will establish recommendations to help manage stormwater runoff, including potential LID recommendations. Information from the conservation authorities is required in order to complete this assessment.
• A Peel Region attendee posed a question regarding potential impacts to regional roads and intersections' drainage and stormwater management, and whether the findings of the stormwater management assessment can be shared.
  ○ The stormwater management report is still under development. The report and its findings will be shared with the appropriate stakeholders upon its completion. At that stage, any changes that may impact the Region will be made known.
	HDR
	Conservation Authorities
	HDR

Vision for Ninth Line • An attendee asked for more information regarding the City of Mississauga's vision for the immediate area and the surrounding planned land uses. ○ Consistent with the Shaping Ninth Line study and the City's Official Plan, the City of Mississauga envisions this area as a medium-density mixed-use neighbourhood with varying residential building typologies (townhouses, apartments, etc.). Employment uses were identified closer to Eglinton Avenue and north of Derry Road.	
Miscellaneous Requests • Some attendees requested copies of the presentation.	

TAC Meeting #1 Summary

	○ A copy of the presentation was emailed to all those on the meeting invitation list prior to the meeting. Attendees are encouraged to reach out to Veronica Restrepo by email to notify her if they have not received the materials presented. ○ The study team can also provide the presentation to attendees along with the meeting summary in the days following the TAC meeting. • There was a request for future meetings between the study team and MiWay to further discuss existing and future bus stop locations and coordination with active transportation facilities and potential midblock crossings.	All attendees HDR HDR / City of Mississauga
4.	**Next Steps & Action Items**	
	• HDR to update the PIC display boards to address any comments from TAC attendees. • HDR to develop the design criteria through discussions with the City of Mississauga. • HDR to review opportunities for enhanced sidewalks where possible along Ninth Line. • HDR to review potential new midblock crossings along Ninth Line. • HDR to engage the City of Mississauga in discussions regarding potential speed limit reductions along Ninth Line. • City of Mississauga to share with the study team any updates on development applications adjacent to Ninth Line. • Upon its completion, HDR to share the stormwater management report with Peel Region and other appropriate stakeholders. • Study team to schedule future meetings related to the coordination of active transportation, potential midblock crossings, and transit stops.	HDR HDR HDR HDR HDR City of Mississauga HDR HDR / City of Mississauga

If there are any errors or omissions to these minutes, please contact Veronica Restrepo within ten (10) business days.

Technical Advisory Committee (TAC) Meeting #1

Ninth Line Improvements

Eglinton Ave W to Derry Rd W

June 4, 2020

Source: Urban Toronto “Mississauga: Ninth Line Lands redevelopment”

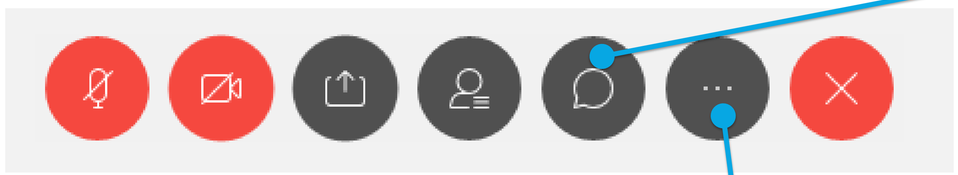
WebEx Online Meeting

Please make sure your:

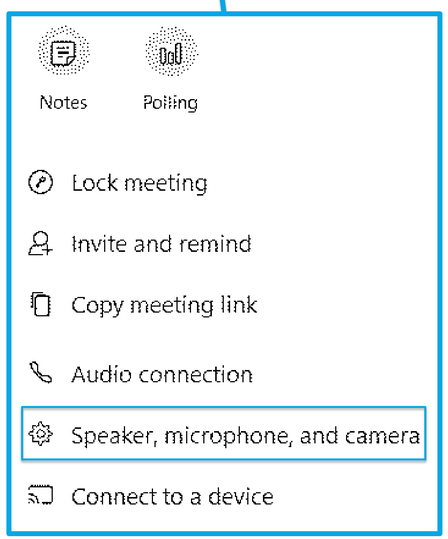
Microphone is set to mute

Camera is turned off for better video quality

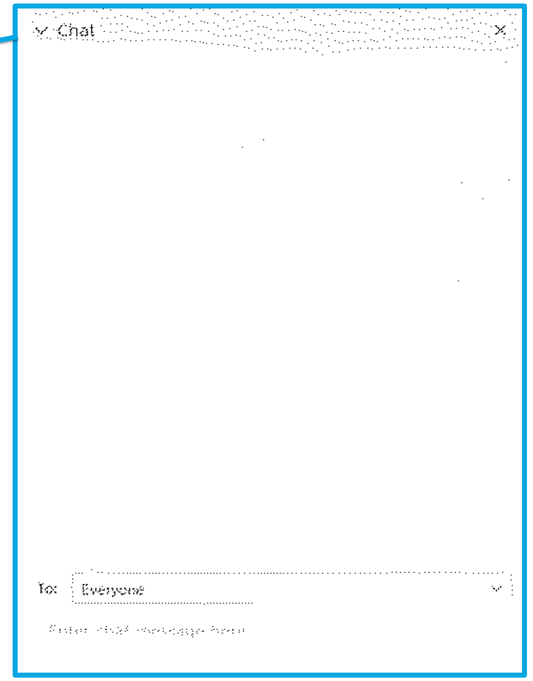
Speaker volumes are turned up



If you wish to adjust the settings, click on the icon with 3 dots as shown above. Then click on “speaker, microphone, and camera” to select your settings.



For project-related questions, please type your question OR your name in the WebEx chat window and we will call out your name for your question at the end of the meeting.



Agenda

1. Welcome / Introductions
2. Study Background
3. Summary of Needs Assessment
4. Alternative Solutions
5. Potential Cross-Section Options
6. Next Steps
7. Questions and Discussion

Study Background

Study Background

The City has started an Environmental Assessment (EA) study to investigate improvements along Ninth Line from Eglinton Avenue W to Derry Road W.

The study will review possible improvements to accommodate the current and future transportation needs of pedestrians, cyclists, transit users and motorists along this corridor.

We Want Your Feedback

We believe early and on-going involvement of regulatory authorities, agencies, and key stakeholders is a mutually valuable approach to ensure that the Project Team is aware of and understands technical issues that may potentially affect the successful outcome of the Project.

What is an Environmental Assessment?

An **Environmental Assessment (EA)** is a planning and approval process for municipal infrastructure projects, following Ontario's Environmental Assessment Act. The EA process is a phased planning approach that includes 5 main study phases and public consultation.

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
EA Process				
Problem or opportunity	Alternative Solutions	Alternative Design Concepts for Preferred Solution	Environmental Study Report	Implementation
Technical Work				
Document Existing Conditions Develop Problem and Opportunity Statement	Inventory Natural, Social, Economic Environment Identify and Evaluate Alternative Solutions Select Preferred Solution	Identify and Evaluate Design Concepts for Preferred Solution Identify Impacts and Mitigation Measures Select and Develop Preferred Design	Document EA process and findings in Environmental Study Report (ESR) Place ESR on Public Record for Review and Comment	Complete Contract Drawings and Tender Documents Construction and Operation Monitor for Environmental Provisions and Commitments
Public Consultation				
Notice of Study Commencement	Public Information Centre #1	Public Information Centre #2	Notice of Study Completion	

WE ARE HERE

What we've heard so far

Top Concerns

Congestion and Queuing
Increased road capacity and reduced travel times are seen as being important

Streetscaping & Landscaping
Public realm enhancements should be considered as part of transportation improvements

Natural Heritage
Preservation of the natural environment and wildlife is important

Active Transportation
Improvements are needed to address walking and cycling

Intersections Operations
Improve efficiency and safety at intersections

Noise & Disruption
Concerns were raised due to future growth and associated construction

Flooding Potential
Concerns regarding additional pavement were noted

Timing of Improvements
Concerns that infrastructure is not keeping up with growth and should be completed before development occurs.

Engagement Strategies

Direct Mail Notices

Newspaper Notices

Public Information Centres

Project Website
(mississauga.ca/ninth-line-class-ea-study)

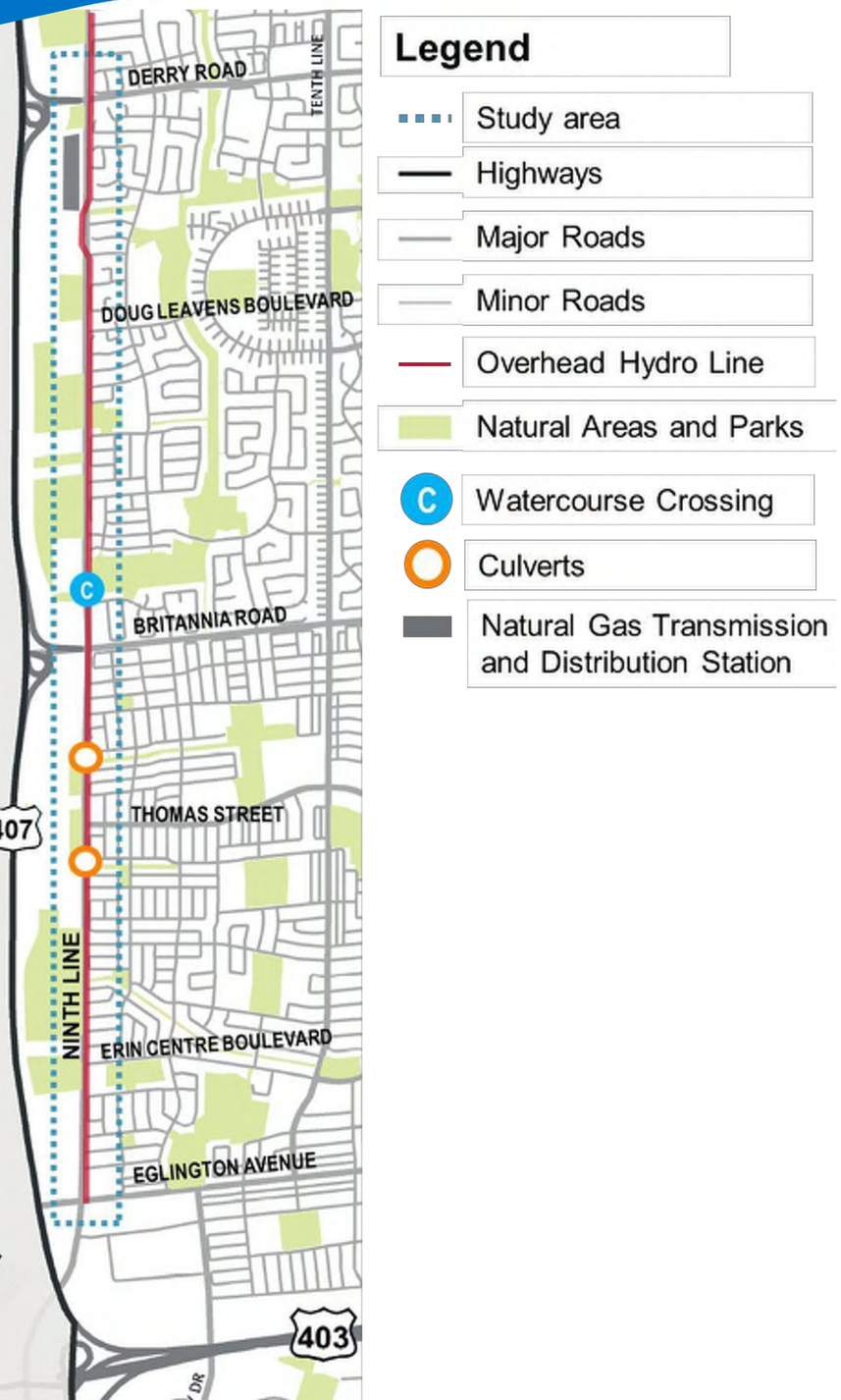
City of Mississauga Social Media Channels

Technical Stakeholder Group Meetings

One-on-One Meetings with Stakeholders

MISSISSAUGA

Existing Corridor Conditions



Study Area Characteristics

6.2 km long north-south arterial roadway

70 km / hr posted speed

2 travel lanes (one per direction) with a centre left turn lane

Semi-rural cross-section (some gravel shoulders and ditches)

20 - 60 m Existing Roadway (Right-of-Way) Width

35 m Official Plan Right-of-Way Width Designation

Hydro poles / corridor (east side)

Street lighting (west side)

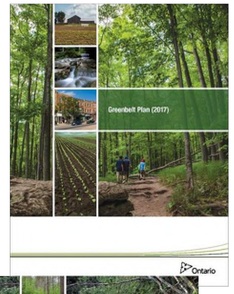
No dedicated cycling facilities

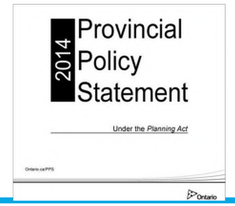
No sidewalks for the majority of the study area

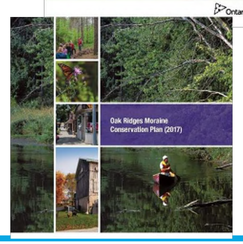
Planning and Policy Context

We have reviewed planning and policy documents from different municipal bodies and agencies to inform this study

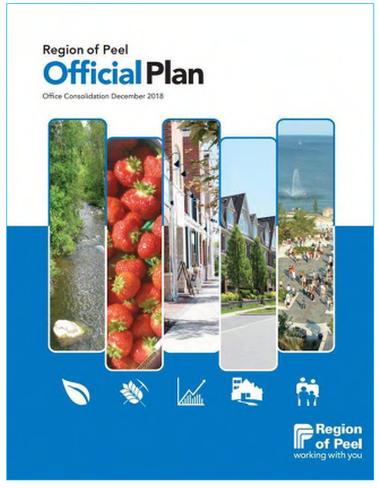
Provincial Plans

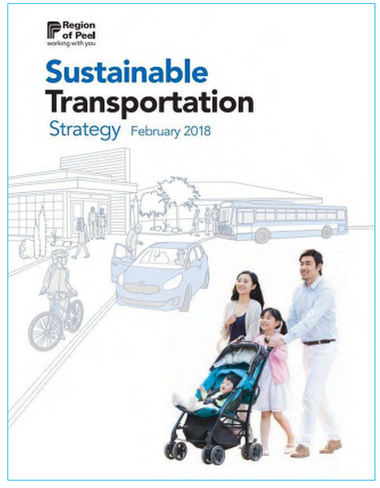




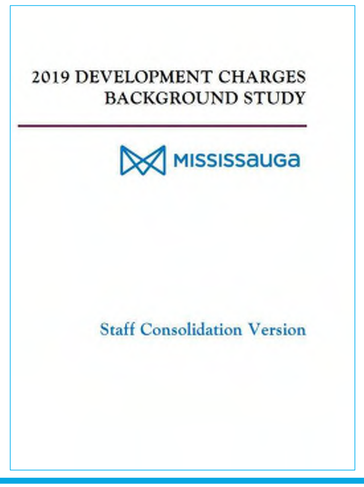


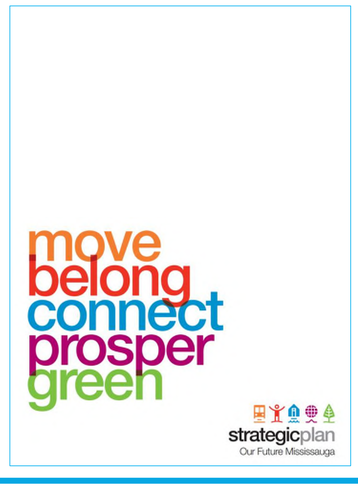
Regional Plans

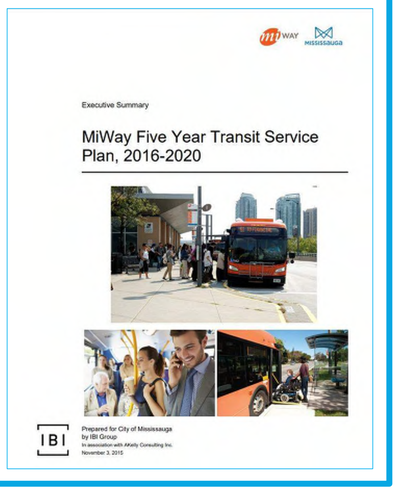




Municipal Plans





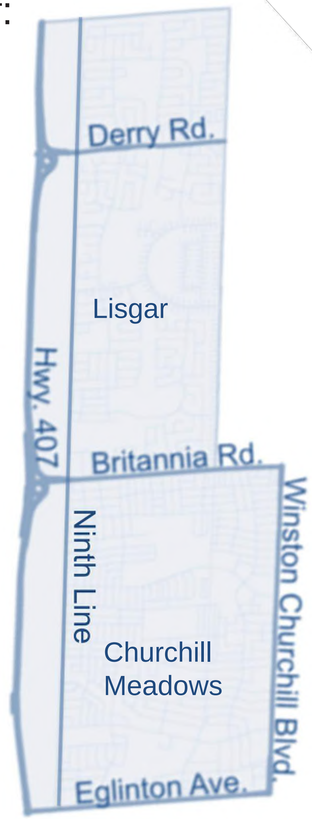


Ninth Line Today

Land Use and Population

The current land use along the study area consists of:

- Open Space / “Green System”
- Low-density residential areas such as Lisgar and Churchill-Meadows neighbourhoods
- Undeveloped / greenfield lands such as the Ninth-Line Lands, located west of Ninth Line



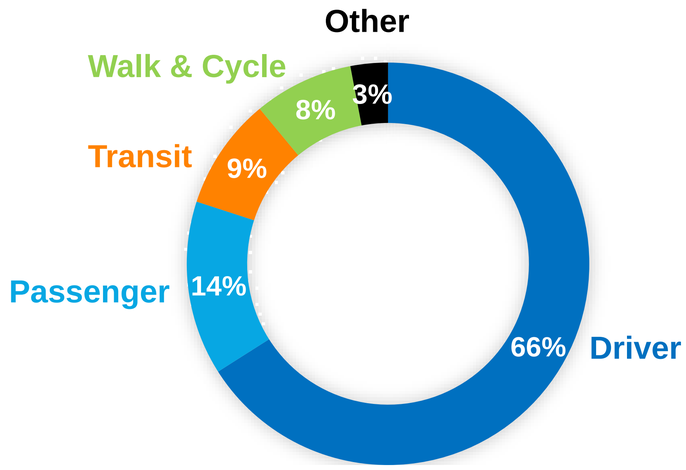
73,000 residents
live in the broader area in different housing types

House	Townhouse	Apartment
80%	**16%**	**4%**

Travel Patterns

144,600 trips are made daily in the broader area

80% of trips are made by car



30% of trips are made between 6 and 9 A.M

2.8 km is the average trip length for car passengers. There is the opportunity to shift some of these shorter trips from driving to active transportation such as walking or cycling.

Source: TTS 2016

Ninth Line Tomorrow

Planned Growth

Growth in the study area is concentrated in the Ninth Line Lands, west of Ninth Line.

These lands will be transformed into a sustainable, connected and mixed-use district that will become a true gateway to the City. Included is the addition of:

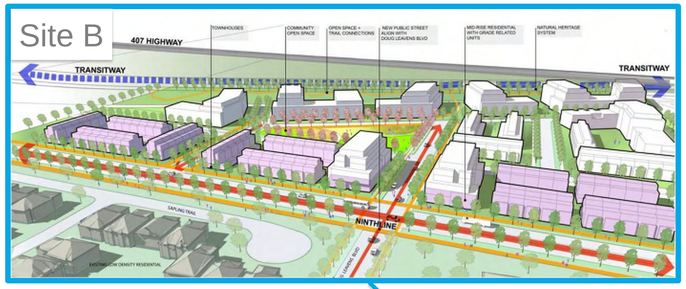
- + 510 jobs
- + 58 hectares of trails & natural areas
- + 8,500 people
- + 28 hectares of park space
- higher order transit (407 transitway)

Key Relevant / Adjacent Projects

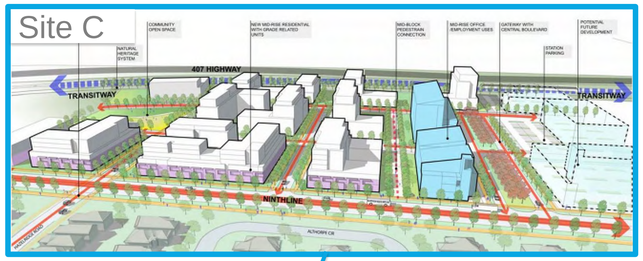
- 407 Transitway Transit Project Assessment Process (TPAP) (on-going)
- Ninth Line Corridor Studies
  - *Highway 407 to 10 Side Road (2016)*
  - *Dundas Street to 407 ETR (on-going)*
- Ninth Line Lands Subwatershed Study (on-going)

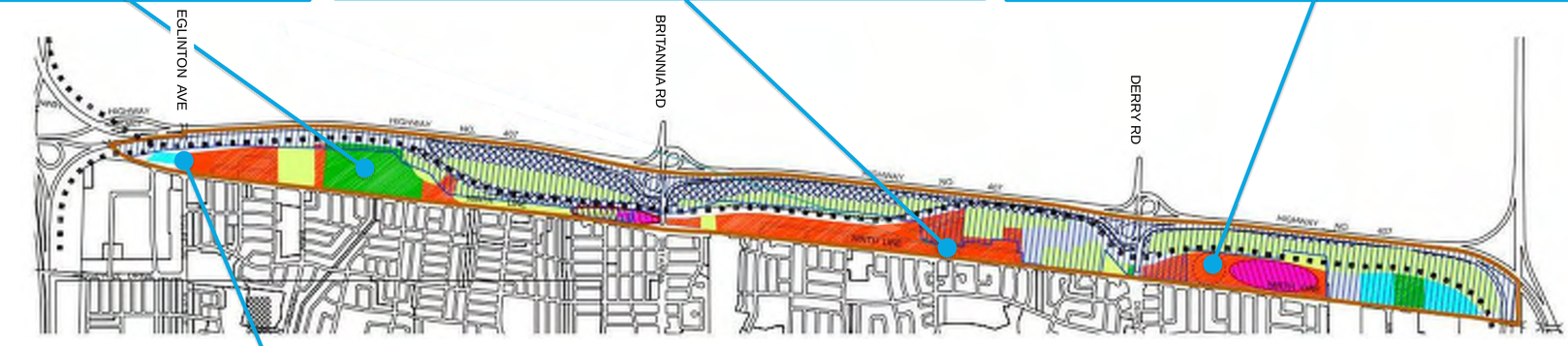
Future Churchill-Meadows Community Centre

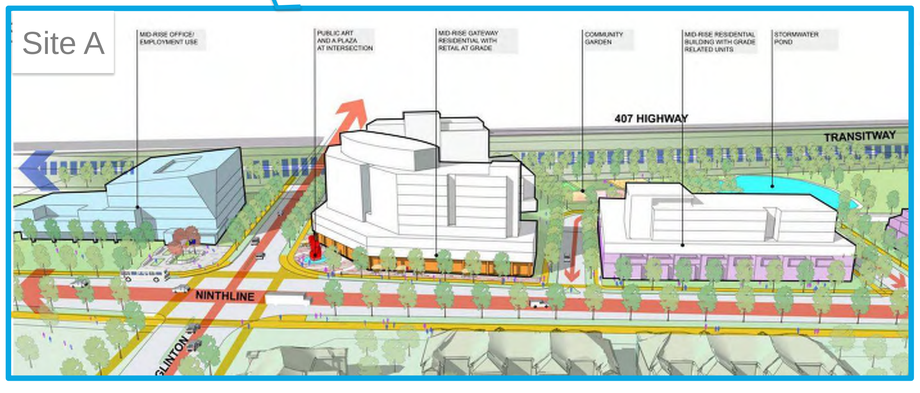
Ninth Line at Doug Leavens Boulevard



Ninth Line north of Derry Road

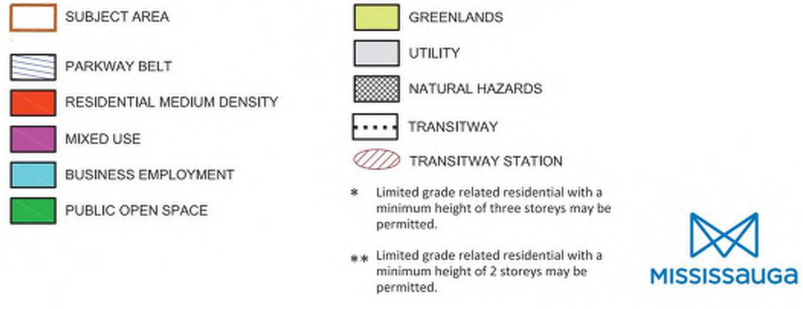






Ninth Line at Eglinton Avenue

Shaping Ninth Line Proposed Land Use Concept



Source: Shaping Ninth Line (2018)

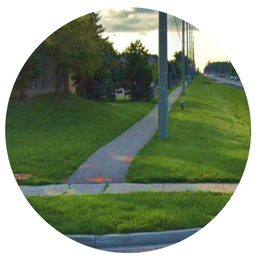
Summary of Needs Assessment

Existing Walking Conditions

Ninth Line within the study limits generally does not accommodate pedestrians adequately

There are no sidewalks on the west side of Ninth Line nor on the majority of the east side

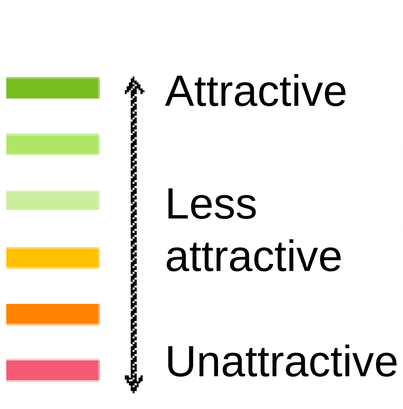
There are no concrete curbs at intersections and crosswalk markings are often missing

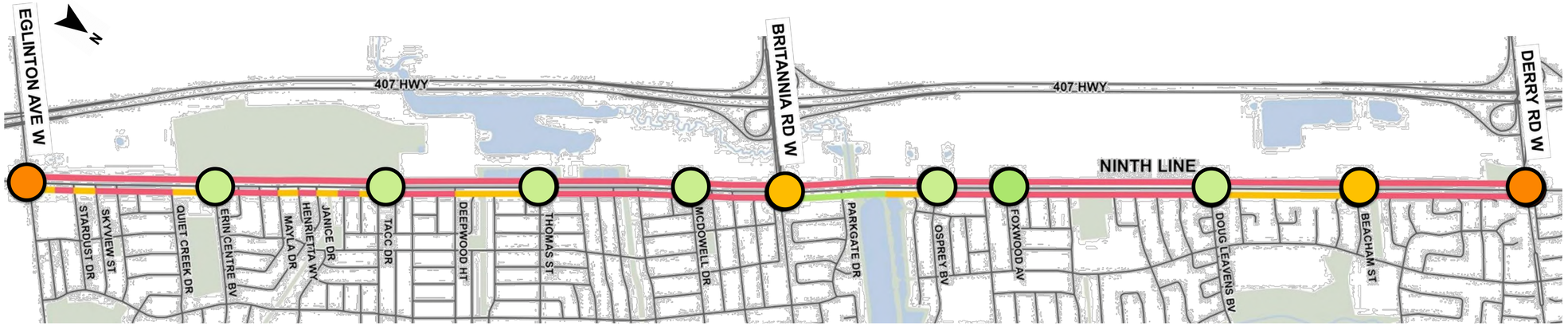


Where available, sidewalks are at most 1.5 meters wide, short and discontinuous

Existing multi-use paths are limited to short segments

The existing quality of the pedestrian environment has potential for improvement:





Existing Cycling Conditions

Ninth Line within the study limits generally does not accommodate cyclists adequately

Ninth Line is a signed bike route, meaning cyclists must share the road with vehicles or ride along the road shoulders

North of Britannia Road, a paved multi-use path is located on the east side and connects the Lisgar Meadow Brook Trail

There are no dedicated cycling facilities on the west side of Ninth Line nor on the majority of the east side

Existing multi-use paths are limited to short, connecting segments

The existing quality of the cycling environment has potential for improvement:

Attractive

Less attractive

Unattractive

Existing Driving Conditions

Traffic Volumes

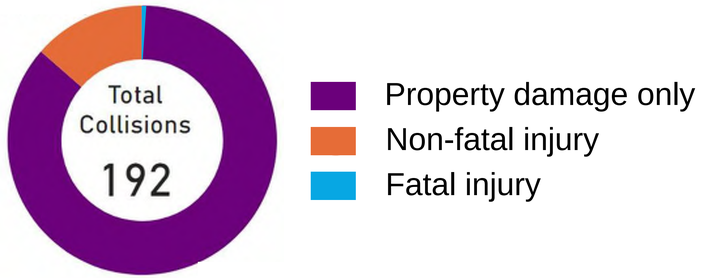
There is significant vehicular congestion in the southern part of the study area, particularly between Britannia Road W and Eglinton Ave W.

Congestion is worse in the southbound direction in the morning and in the northbound direction in the afternoon

Intersections are operating near capacity at Derry Road, Britannia Road and Eglinton Avenue. Queues here also exceed available storage.

Traffic congestion is expected to continue to increase in the future unless something is done

Collision Analysis (2014 – 2020)



One fatal collision was recorded over the 7-year time period, on a Friday in October 2015.

78% of all reported collisions occurred at intersections

The top three collision-prone intersections in the study area are:

1. **Ninth Line & Britannia Road** (41 collisions)
2. **Ninth Line & Derry Road** (36 collisions)
3. **Ninth Line & Eglinton Ave W** (22 collisions)

The most common impact type was rear-end collisions (49%)

Existing Afternoon Peak Period Driving Conditions:

Transit Conditions

Existing Transit Service

Lisgar GO Station north of the study area provides commuter rail service between Milton GO and Union Station in Toronto

MiWay currently only services small segments of Ninth Line through the following bus routes:

39 Britannia

9 Rathburn–Thomas

35 Eglinton–Ninth Line

49 McDowell

Boarding and alighting were observed to be highest at Skyview Street, just north of Eglinton Avenue.

Source: MiWay (2020)

Future Transit Plans

The completion of the Churchill Meadows Community Centre will cause changes to MiWay bus routes starting in October 2020.

Route modifications will increase service along Ninth Line and will impact:

39 Britannia

9 Rathburn–Thomas

35 Eglinton–Ninth Line

49 McDowell

50 Lisgar–Churchill Meadows

New bus stops are planned at several locations southbound along the west side of Ninth Line to help serve the evolving neighbourhood

Source: MiWay (2020)

Problem and Opportunity Statement

Problem	Opportunity
Existing road and intersections cannot accommodate future traffic volumes	Improve Ninth Line's capacity to accommodate projected traffic demand and maximize person carrying capacity
Lack of continuous pedestrian and cycling facilities creates unfavourable conditions for non-drivers.	Providing enhanced AT infrastructure to improve pedestrian and cycling conditions and encourage travel choices that can reduce driving
Transit service is impacted by congestion resulting in delays, especially during peak periods	Improve the efficiency and reliability of transit through increased roadway capacity and intersection improvements
Inconsistent roadway typology and transitions from urban to rural cross-section	Consider a continuous urban roadway to create a corridor with consistent drainage infrastructure
Under existing conditions, Ninth Line is unable to service future growth, does not recognize its role as a gateway to the City and is not consistent with the future vision for the area and adjacent developments	Design Ninth Line as a complete street to serve study area residents and visitors alike, people of all ages and abilities and commuting and recreational users. Acknowledging Ninth Line's role as a gateway to the City of Mississauga

Key Technical Studies

The following technical studies are being undertaken to inform the evaluation of alternatives and provide input into identification of impacts and mitigation measures:

- Transportation Assessment
- Natural Heritage Assessment
- Tree Inventory
- Drainage and Stormwater Management Assessment
- Archaeological Assessment
- Built Heritage/Cultural Heritage Resource Assessment
- Geotechnical and Pavement Investigation
- Structural Assessment
- Phase 1 Environmental Site Assessment
- Noise and Vibration Assessment
- Air Quality Assessment
- Socio-Economic Assessment

Natural Environment

Various natural features and ecological functions were identified within the Ninth Line Lands that have direct bearing on the Ninth Line EA.

Measures will be taken to avoid or mitigate impact to these natural features. They will be outlined in the next phase of the study.

- Permanent Watercourse
- Watercourse Crossing
- Significant Woodland
- City of Mississauga Significant Wetland
- Eastern Wood-Pewee/Wood Thrush SWH and Candidate Bat Maternity Colonies SWH
- Wetland
- Ecological Linkage
- Ecological Land Classification (ELC)

Federally and Provincially Significant Species Known identified in the study area and vicinity include:

Birds
Barn Swallow
Bobolink
Chimney Swift
Common Nighthawk
Eastern Wood-Pewee
Peregrine Falcon
Read-headed Woodpecker
Wood Thrush

Reptiles / Amphibians
Blanding's Turtle
Eastern Ribbonsnake
Jefferson Salamander
Northern Map Turtle
Snapping Turtle
Western Chorus Frog

Mammals
Small-footed, northern, little brown and tri-colored bats

Insects
Monarch Butterfly

Natural features and habitats were generally located west of Ninth Line and include:

Terrestrial Habitat
(CUM1) Mineral Cultural Meadow Ecosite
(CUM1-1) Dry-Moist Old Field Meadow Type
(CUT) Cultural Thicket
(CUP 1) Deciduous Plantations
(CUP 3-9) Norway Spruce Coniferous Plantations
(CUW 1) Mineral Cultural Woodland Ecosite

Old Growth Forest
(FOD5) Dry-Fresh Sugar Maple Deciduous Forest Ecosite
(FOD6-4) Fresh-Moist Sugar Maple-White Elm Deciduous Forest Type
(FOD7-2) Fresh-Moist Green Ash-Hardwood Lowland Deciduous Forest Type
(FOD7-3) Fresh-Moist Willow Lowland Deciduous Forest Type
(H1-H6) Hedgerow

Aquatic Habitat
(MAM2) Gra m inoid Minera l Mea dow Ma rsh Ecosite
(MAM2-2) Reed-ca na ry Grass Graminoid Mineral Meadow Marsh Type
(MAS2-1) Cattail Mineral Shallow Marsh Type
(OAGM1) Annual Row Crops
(OAO) Open Aquatic
(SW D2-2) Green Ash Mineral Deciduous Swamp Type
(SW T) Thicket Swamp

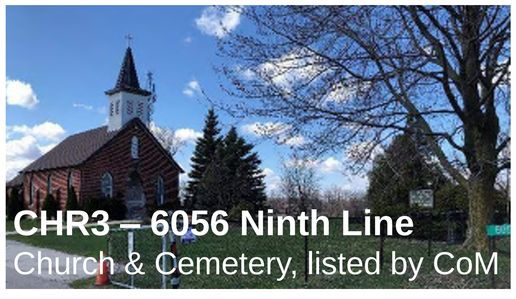
Cultural Heritage

A total of five cultural heritage resources (CHR) were identified within and/or adjacent to the study area.

Four cultural heritage resources are listed in the Heritage Register for Mississauga and one is designated under Part IV of the Ontario Heritage Act.

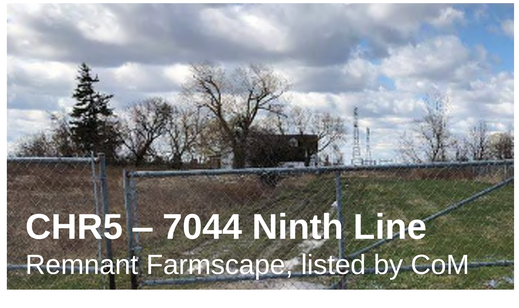
CHR1 – 5104 Ninth Line
Farmscape, listed by CoM

CHR2 – 5768 Ninth Line
Farmscape, listed by CoM



CHR3 – 6056 Ninth Line
Church & Cemetery, listed by CoM

CHR4 – 6671 Ninth Line
Residence, designated under Part IV of the OHA



CHR5 – 7044 Ninth Line
Remnant Farmscape, listed by CoM

Contamination Overview

Ten Areas of Potential Environmental Concern (APECs) were identified within and/or adjacent to the study area.

Potentially contaminating activity was generally related to sites with a history of dry-cleaning services, pesticide use, gasoline use, waste generation, manufacturing or natural gas compression operation.

3955 Erin Centre Blvd
Operation of Dry-Cleaning Equipment

3965 Thomas St
Gasoline and Associated Products Storage in Fixed Tanks

5644 Ninth Line
Gasoline and Associated Products Storage in Fixed Tanks

6000 Ninth Line
Pesticides, Processing and Bulk Storage

6302 Ninth Line
Pesticides, Manufacturing, Processing and Bulk Storage

6543 Ninth Line
Gasoline Storage in Fixed Tanks (private)

6626 Ninth Line
Natural Gas Compressor Station

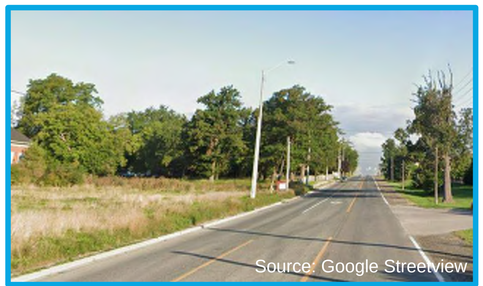
6970-6980 Lisgar Dr
Gasoline and Associated Products, Operation of Dry Cleaning Equipment

APEC10

Entire Site
Activities Associated with the Use of Roadways, potential presence of fill materials, vehicle fluid releases and de-icing salt application

Alternative Solutions

Alternative Solutions Considered



Alternative 1

Do Nothing

Maintain existing conditions
Ninth Line remains unchanged

Alternative 2

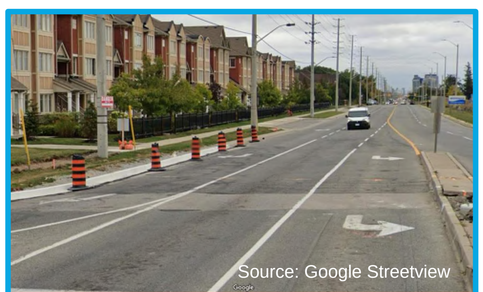
Limit Development

Will limit growth and transportation demand in the study area
Ninth Line remains unchanged

Alternative 3

Improve Other Roads

Improve roads outside of the study area
Ninth Line remains unchanged



Alternative 4

Operational Improvements

Localized improvements only, for example at intersections
No road widening

Alternative 5

Multimodal Improvements

Implement improvements for transit, cyclists, and pedestrians only
No road widening

Alternative 6

Widen from 2 to 4 lanes

Widen Ninth Line from 2 to 4 lanes
No cycling or pedestrian improvements

Preliminary Evaluation Criteria

The following criteria were developed with stakeholder and agency feedback. This will be used to evaluate the impacts and benefits of each developed alternative.

Transportation

- Addresses Congestion and Improves Corridor Capacity and Vehicular Level of Service to Accommodate Future Travel Demand
- Accommodates All Road Users, Including Pedestrians, Cyclists and Transit Users
- Enhanced Road Safety and Comfort for All Road Users
- Accommodates Commercial Goods Movement
- Improved Access to / from Ninth Line
- Addresses Problem / Opportunity Statement
- Improves Network Connectivity
- Improves Emergency Response Time

Cultural Heritage

- Minimizes Impacts to Archaeological
- Minimizes Impacts to Cultural Heritage Resources

Natural Heritage

- Minimizes Impacts to and Enhances Environmentally Sensitive Areas
- Minimizes Impacts to Wildlife, Vegetation, Aquatic Species and Habitat, and Species at Risk
- Provides Drainage and Stormwater Management Improvements and Mitigates Erosion
- Minimize Effects on Climate Change

Engineering, Construction Complexity and Implementation

- Minimizes Utility Relocation
- Addresses Drainage or Contamination Concerns
- Minimizes Construction Complexity, Including Staging and Traffic Disruption During Construction
- Optimizes Capital Costs
- Optimizes Operation/Maintenance Costs
- Minimizes Property Acquisition Costs

Socio-Economic

- Improves Attractiveness/Aesthetics
- Minimizes Business Impacts and Enhances Business and Place-Making Opportunities
- Minimizes Property Acquisition
- Minimizes Noise and Vibration Impacts
- Improves Air Quality
- Provides or Improves Streetscape Amenities and Urban Design Elements

City Building

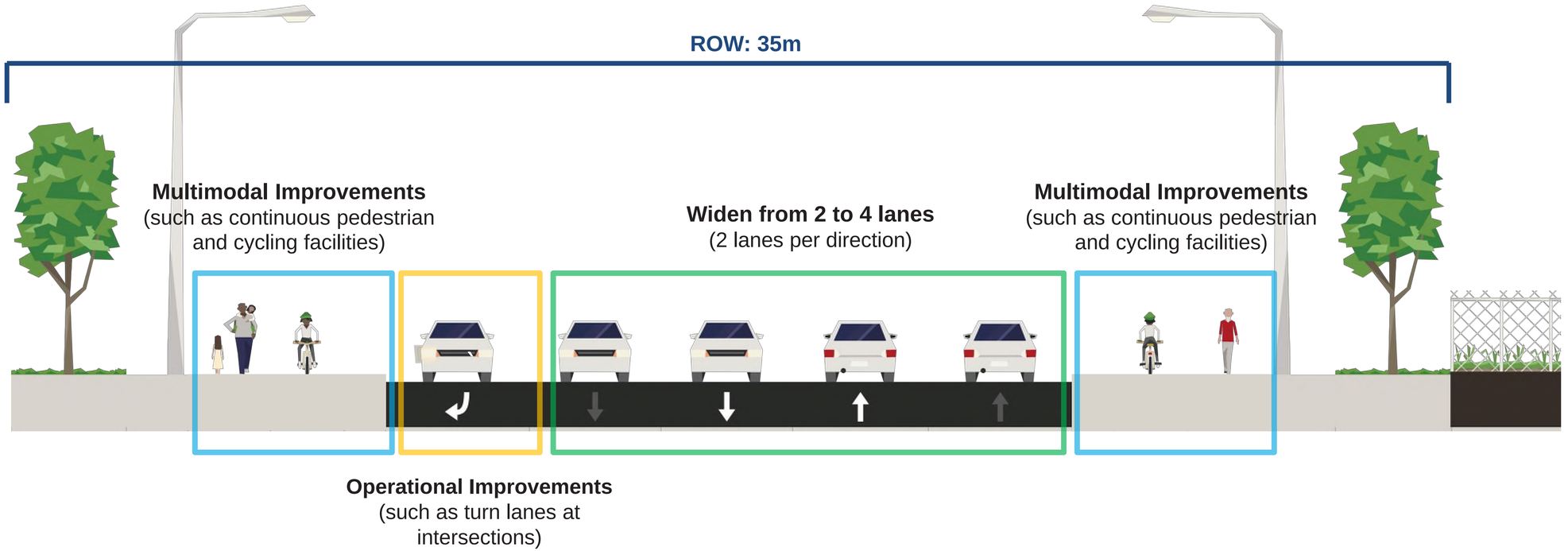
- Consistency With The City's Strategic Priorities Pursuant to the City's Strategic Plan "Our Future Mississauga", Official Plan Policy Objectives, the Cycling Master Plan, Shaping Ninth Line, and Other Relevant Planning Documents
- Accommodates Existing and Planned Development

Summary of Alternative Solutions Considered

	Alternative 1 Do Nothing	Alternative 2 Limit Development	Alternative 3 Improve other Roads	Alternative 4 Operational Improvements	Alternative 5 Multimodal Improvements	Alternative 6 Widen from 2 to 4 lanes
Transportation and Transit, Accessibility	Not Preferred	Not Preferred	Not Preferred	Less Preferred	Preferred	Preferred
City Building	Not Preferred	Not Preferred	Not Preferred	Less Preferred	Preferred	Preferred
Natural Heritage	Less Preferred	Less Preferred	Not Preferred	Less Preferred	Preferred	Less Preferred
Socio-Economic Environment	Not Preferred	Not Preferred	Not Preferred	Less Preferred	Preferred	Less Preferred
Cultural Heritage	Preferred	Preferred	Less Preferred	Less Preferred	Not Preferred	Not Preferred
Engineering Considerations, Construction Complexity, and Implementation	Preferred	Preferred	Less Preferred	Less Preferred	Preferred	Less Preferred
				Recommended in Combination		
Overall Evaluation	Not Recommended	Not Recommended	Not Recommended	Recommended in combination with Alt. 5 and 6 to supplement other improvement	Recommended in combination with Alt. 4 and 6	Recommended in combination with Alt. 4 and 5

Preliminary Preferred Solution

The preliminary preferred solution is to widen Ninth Line (from 2 to 4 lanes) while improving pedestrian and cycling facilities and implementing operational improvements at intersections. This solution is consistent with the City of Mississauga Transportation Master Plan and the Shaping Ninth Line Study and will help manage growth and ensure the transportation system fulfills its essential role in city-building.



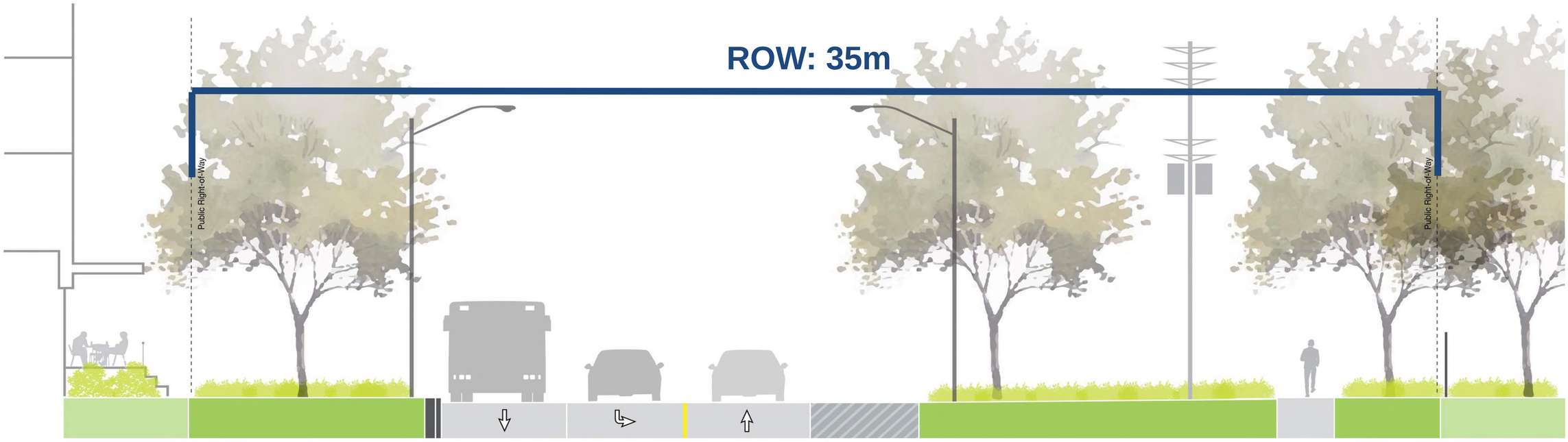
Alternative active transportation solutions are presented in the following slides.

Potential Cross-Section Options

Potential Cross-Sections for 35m (midblock)

Do Nothing

- **No changes** to the existing cross-section
- **Maintain existing** traffic lanes and whatever pedestrian / cycling facilities, and landscaping exist

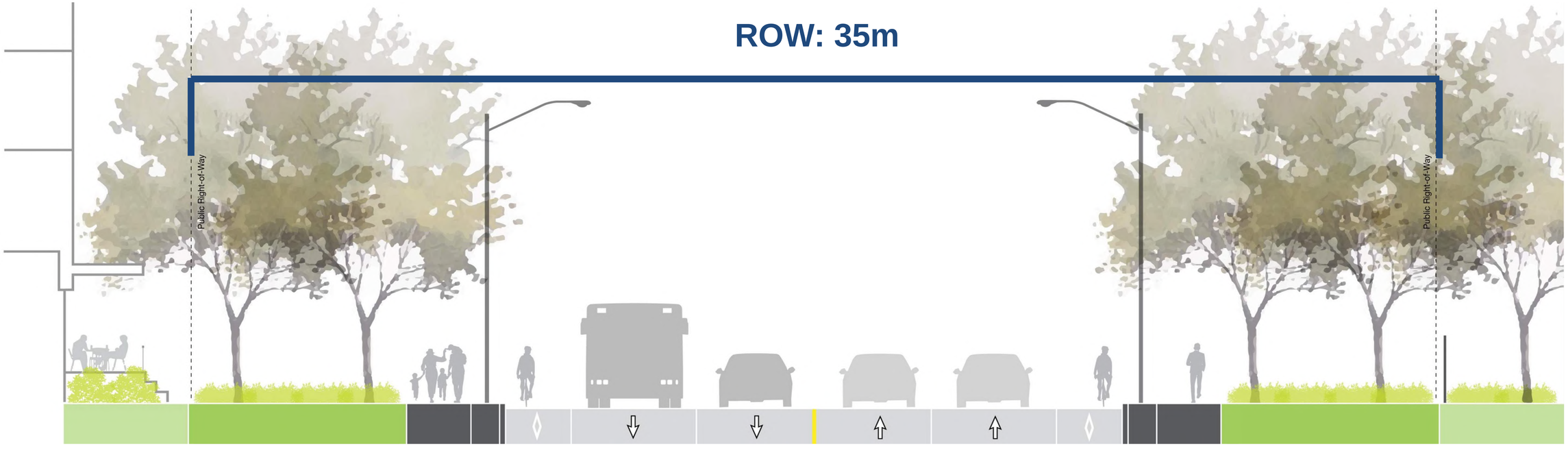


Note: Intersection improvements are unique to each location and will be confirmed in the next phase, as part of the design development

Potential Cross-Sections for 35m (midblock)

Alternative 1

- **Widen** from 2 to 4 lanes
- On-street **bike lanes**
- **Sidewalks** on both sides
- Opportunities for **landscaping** and amenities in the boulevards

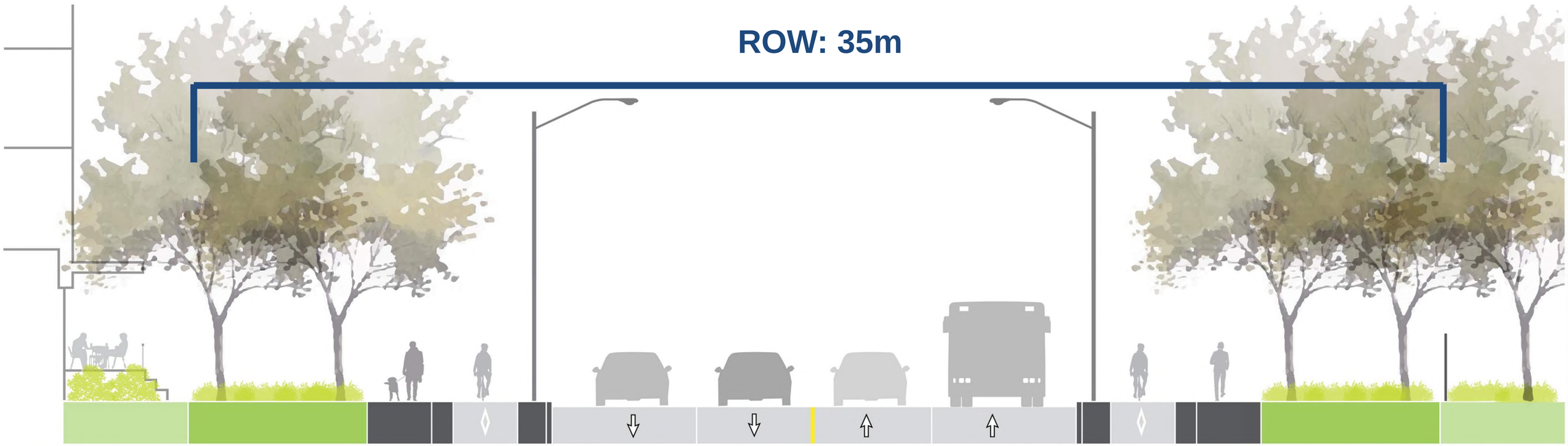


Note: Intersection improvements are unique to each location and will be confirmed in the next phase, as part of the design development

Potential Cross-Sections for 35m (midblock)

Alternative 2

- **Widen** from 2 to 4 lanes
- Boulevard **cycle tracks** (vertically separated from vehicular lanes)
- **Sidewalks** on both sides
- Opportunities for **landscaping** and amenities in the boulevards

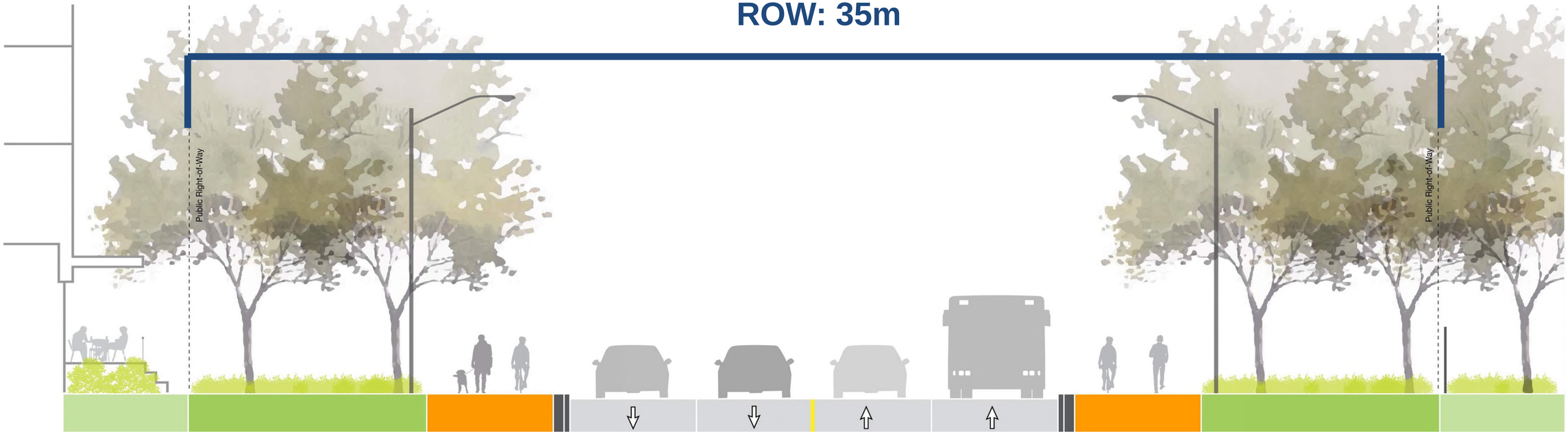


Note: Intersection improvements are unique to each location and will be confirmed in the next phase, as part of the design development

Potential Cross-Sections for 35m (midblock)

Alternative 3

- **Widen** from 2 to 4 lanes
- **Multi-use path** on both sides (no additional bike lanes/cycle tracks or sidewalks)
- Opportunities for **landscaping** and amenities in the boulevards



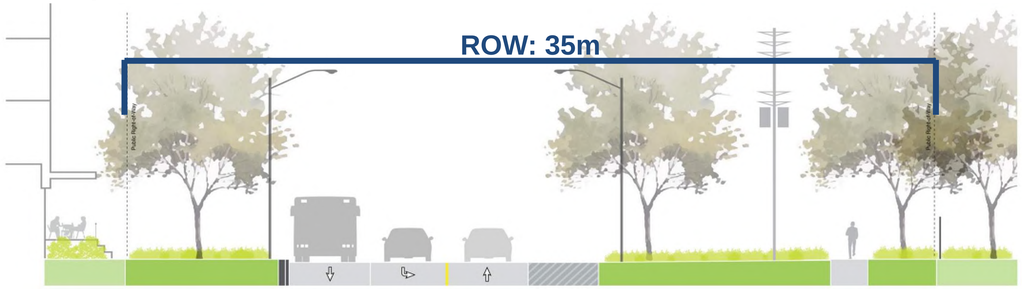
Note: Intersection improvements are unique to each location and will be confirmed in the next phase, as part of the design development

Potential Cross-Sections for 35m (midblock) – Summary

Please let us know your thoughts on possible alternative cross-sections

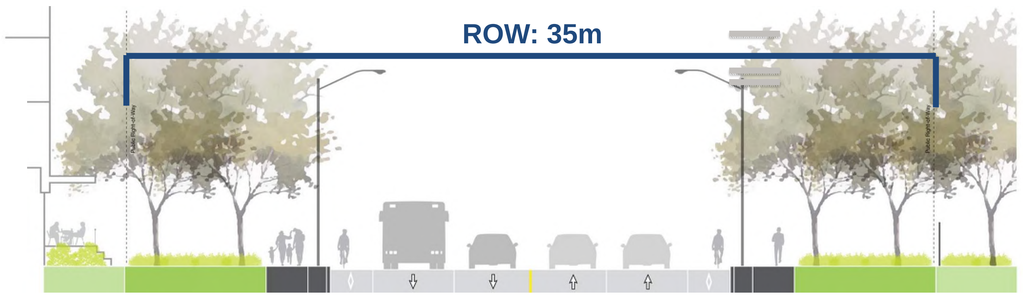
Do Nothing

- **No changes** to the existing cross-section
- **Maintain existing** traffic lanes and whatever pedestrian / cycling facilities, and landscaping exist



Alternative 1

- **Widen** from 2 to 4 lanes
- On-street **bike lanes**
- **Sidewalks** on both sides
- Opportunities for **landscaping** and amenities in the boulevards



Alternative 2

- **Widen** from 2 to 4 lanes
- Boulevard **cycle tracks** (vertically separated from vehicular lanes)
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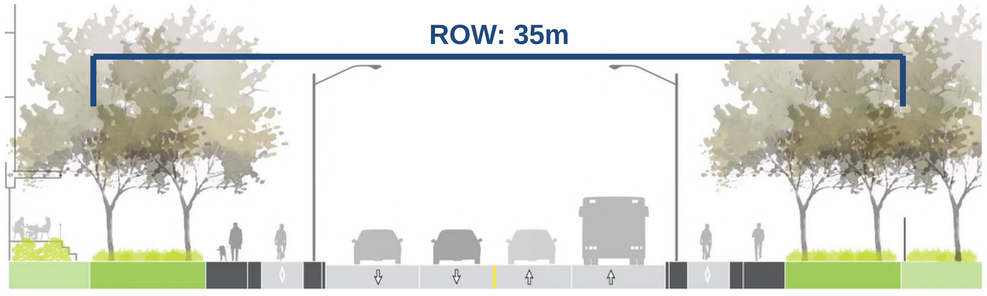
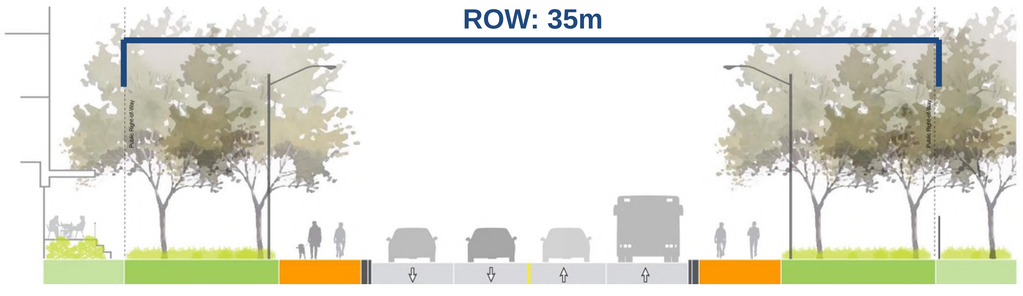
- Opportunities for **landscaping** and amenities in the boulevards



Alternative 3

- **Widen** from 2 to 4 lanes
- **Multi-use path** on both sides (no additional bike lanes/cycle tracks or sidewalks)
- Opportunities for **landscaping** and amenities in the boulevards



Note: Intersection improvements are unique to each location and will be confirmed in the next phase, as part of the design development

Next Steps

Project Timeline and Next Steps

Introductory Open House – February 2020

Public Information Centre #1 – June 2020

Public Information Centre #2 – Fall 2020

Staff Report to Council – Winter 2021

File Environmental Study Report – Winter 2021

Anticipated Construction Start – 2023

WE ARE HERE

Next Steps

- **Review feedback from the public**
- **Refine and Evaluate Alternative Design Concepts**
- **Select and Develop Preferred Design**
- **Present the Preferred Design at Public Information Centre #2 (Fall 2020)**

Thank You for Participating in the TAC Meeting

Your input is very valuable to us!

Please provide any comments to the project team by **Thursday, June 18, 2020** in order for them to be incorporated into the PIC material.

Check our study website for project updates: **www.mississauga.ca/portal/residents/ninth-line-class-ea-study**

Any project related questions or comments can be directed to:

Gino Dela Cruz, P.Eng.
Transportation Project Engineer

City of Mississauga Transportation & Works Department
201 City Centre Drive, Mississauga

Gino.DelaCruz@mississauga.ca

905-615-3200 Ext 8769

Questions and Discussion

TAC Meeting #2 Summary

Project: Ninth Line Environmental Assessment Study
(Eglinton Avenue West to Derry Road West)

Subject: Technical Agency Committee (TAC) Meeting #2

Date: Monday, December 07, 2020

Location: Teleconference Call (Webex)

Attendees:

Jeffrey Reid – City of Mississauga (City PM)
Lin Rogers – City of Mississauga
Ashley Visneski – City of Mississauga
Cameron Maybee – City of Mississauga
Dagmar Breuer – City of Mississauga
Darek Pest – City of Mississauga
Fred Sandoval – City of Mississauga
Jacqueline Elias – City of Mississauga
Tyler Xuereb – City of Mississauga
Zain Zia – City of Mississauga
Sarah Piett – City of Mississauga
Scott MacLeod – City of Mississauga
Ashlee Rivet – City of Mississauga
Brent Reid – City of Mississauga
Alex Liya – City of Mississauga
Jim Greenfield – City of Mississauga
Robert Mamone – City of Mississauga
Jakub Kilis – CVC
George Golding – CVC
Emma DeFields – Conservation Halton
Yelena Koshenkov – Conservation Halton
Alex Bleicher – Peel District School Board
Phillip Sousa – Peel District School Board
Sabbir Saiyed – Region of Peel
Anna Lee – Region of Peel
Christina Marzo – Region of Peel
Neal Smith – Region of Peel
Steve Mathew – Region of Peel
Tamara Alexander – Region of Peel
Roger Silva – Region of Peel
Wali Memon – Region of Peel
Rosalie Shan – Region of Peel
Kiran Ghai – Region of Peel
Gail Anderson – Region of Peel
Steven Kovach – Region of Peel
Yves Scholten – Conservation Halton
Patrick Monaghan –Halton Region
Graham Routledge – MTO
Othmane Benjrad – 407 ETR
Joanne Rogers – Dufferin-Peel Catholic District School Board
Tara Erwin – HDR (Consultant PM)
Michelle Mascarenhas – HDR
Patrick Yip – HDR

Summary by: Patrick Yip, HDR

	Item	Action
1.	**Introductions**	

	• Jeff Reid (City of Mississauga) introduced the Ninth Line EA project and the Project Team
	• The purpose of Technical Agency Committee (TAC) Meeting #2 was to present the Preliminary Preferred Design Concept for Ninth Line and the work completed since TAC Meeting #1 (June 2020). The Project Team presented:
	  ○ Study Background
	  ○ Preferred Solution of Improvements
	  ○ Alternative Design Concepts (Road Widening and Active Transportation)
	  ○ Intersection Considerations and Design Criteria
	  ○ Preliminary Preferred Design Concept/Roll Plan
	  ○ Next Steps
	• The TAC meeting provides an opportunity for interested agencies to solicit feedback on the project progress.
	• Using a presentation (attached), the City/HDR provided an overview of the items above.
	• Attendees were encouraged to submit their questions and comments to the project team by Friday December 18, 2020 to allow time for revisions prior to the PIC.	

TAC Meeting #2 Summary

2.	**Study Background**	
	• The City is undertaking a Schedule "C" Municipal Class Environmental Assessment (MCEA) Study to investigate improvements to Ninth Line between Eglinton Avenue West to Derry Road West • Existing corridor conditions were presented. Refer to Slide 6. • Within the EA Process, the Project Team has completed Phase 1 (Problem/Opportunity) and Phase 2 (Alternative Solutions). We are in Phase 3 (Alternative Design Concepts) of the study to present the alternatives that were considered and recommendations. All project information will be documented in the Environmental Study Report (ESR) and will be placed on the public record for a minimum 30-day review period. The ESR and Notice of Study Completion is anticipated to be filed in Spring 2021. • The Project Team has heard several comments related to congestion/queuing, lack of continuous active transportation facilities, noise concerns, as well as opportunities for streetscaping/landscaping. Refer to Slide 8. • The Ninth Line preferred solution includes widening from 2 to 4 lanes (green zone), improving pedestrian/cycling facilities on both sides of the road (blue zone), as well as operational improvements at intersections (yellow zone). Refer to Slide 9.	
3.	**Alternative Design Concepts and Draft Preliminary Design Roll Plan**	

	Evaluation Criteria (Slide 11)
	• The Project Team presented the evaluation criteria that was used to evaluate the alternative design concepts. It was also noted that the evaluation criteria is the same criteria used to evaluate the alternative solution to arrive at the preferred alternative solution. The main criteria include:
	  ○ Transportation;
	  ○ Natural Heritage;
	  ○ Socio-Economic;
	  ○ Cultural Heritage;
	  ○ City Building; and
	  ○ Engineering, Construction Complexity, and Implementation.
	
	Key Technical Studies (Slide 12)
	• Key technical studies were presented to inform the evaluation of alternatives and provide input into the identification of impacts and mitigation measures.
	
	Alternative Design Concepts for Road Widening (Slide 13)
	• The alternative design concepts for road widening were presented (Slide 13). The alternatives include:
	  ○ Alternative 1 – Widening to the west while holding the east property line
	  ○ Alternative 2 – Widening about the existing centreline
	  ○ Alternative 3 – Widening to the east while holding the west property line
	
	Evaluation of Design Concepts for Road Widening
	• A preliminary evaluation was completed for the three road widening alternatives based on the evaluation criteria of transportation, natural heritage, socio-economic, cultural heritage, city building, and engineering, construction complexity, and implementation. Overall, Alternative 1, widening to the west is preferred, as:
	  ○ It minimizes property impacts to the existing residential homes on the east side
	  ○ It can accommodate property impacts to the west side of Ninth Line through the development application process
	
	Alternative Design Concepts for Active Transportation (Slide 15)
	• The alternative design concepts for active transportation facilities were presented. The alternatives include:
	  ○ Alternative 1 – One-street bike lanes with buffers and sidewalks on both sides	

TAC Meeting #2 Summary

	○ Alternative 2 – Separated boulevard cycle tracks (one-way) and sidewalks on both sides ○ Alternative 3 – Multi-use Paths (MUP) on both sides **Evaluation of Design Concepts for Active Transportation** • A preliminary evaluation was completed for the three road widening alternatives based on the evaluation criteria of transportation, natural heritage, socio-economic, cultural heritage, city building, and engineering, construction complexity, and implementation. Overall, Alternative 2, separated boulevard cycle tracks (one-way) and sidewalks on both sides is preferred, as: ○ It provides the greatest separation amongst all users and conflicts between pedestrians and cyclists are reduced ○ It has the potential to reduce impacts by reducing landscaping zones where there are limited opportunities to acquire additional property ○ Cycle tracks are provided in one direction on both sides that reduce conflict points between vehicles and cyclists because motorists are more visually aware of one-directional cyclists at driveways and intersections. ○ It provides continuous and separated facilities throughout the corridor ○ It provides landscaping opportunities between cycle tracks and sidewalks **Watercourse Crossings and Structural Culverts (Slides 17-20)** • The Project Team highlighted that there are four (4) watercourse crossings with structural culverts within the study area. The Osprey Marsh Crossing (335m north of Britannia Road West) is a regulated feature. It is in general good condition with minor rehabilitation work required. Its' structural modification/replacement and hydraulic assessment will be confirmed in coordination with Conservation Halton (CH). The three (3) remaining watercourse crossings are unregulated features and their structural culverts are in general good conditions with minor or no rehabilitation work required. These three structural culverts' modification/replacement and hydraulic assessment will be confirmed in coordination with CH. • Although these four (4) watercourse crossings are within Conservation of Halton jurisdiction, Credit Valley Conservation (CVC) authority will also be consulted as part of the SWM analysis phase of the project as the southern portion of the study corridor is within CVC jurisdiction. **Intersection Considerations (Slides 22 to 24)** • The Project Team presented the existing signalized intersections and the proposed signalized intersections (based on signal warrants) along Ninth line. The proposed signalized intersections include Tacc Drive, McDowell Drive and Beacham Street. • Roundabout considerations and assessments were also presented. The Project Team identified that roundabouts are not recommended for the following reasons: ○ Large physical footprint of roundabouts impacting existing properties; ○ Requiring at least 2-lanes within the roundabout; ○ The proximity to nearest intersections (signalized and unsignalized); and ○ The potential queue spill-backs from the 407 ramps west of Britannia Road and Derry Road. **Preliminary Preferred Design Concept (Slide 26)** • The Project Team presented key design parameters used in developing the preliminary preferred design concept. The Project Team also presented the preferred design concept roll plan and highlighted the following: ○ The Ninth Line EA Study will connect to Halton Region's completed EA, just north of Highway 407. The **Project Team will update** the presented preliminary preferred design from south of Eglinton Avenue to Highway 407 to ensure Ninth Line is a continuous 4-lane facility in the future	Project Team

TAC Meeting #2 Summary

	◦ All existing full-movement accesses along Ninth Line will be maintained. Proposed access modifications as part of future development will be reviewed and addressed through the development review process. ◦ Impacts to existing woodlands on the west side to be minimized and confirmed during Detailed Design in consultation with Forestry staff ◦ Proposed boulevard tree locations and spacing are conceptual and will be confirmed during detailed design ◦ Crossrides are proposed at all intersections (signalized and unsignalized) ◦ More recently the intersections of Burdette Terrace and Henrietta Way were signalized as part of the Chruchill Meadows Community Centre & Park development. The **Project Team has updated** the preliminary preferred design to reflect this at virtual PIC #2 ◦ To mitigate property (grading) impacts adjacent to St. Peter's Catholic Cemetery, the preferred preliminary design is proposing to combine the active transportation facilities into a shared 3.0m MUP ◦ In general there will be approximately a 5.0m to 6.0m property requirement from select properties on the west side, with majority to be obtained through the development review process. ◦ A 5m centre raised median is proposed at various locations throughout the study area and can potentially incorporate landscaping (flowers, shrubs, and/or grasses). To be confirmed during Detailed Design in consultation with the City's Parks & Forestry staff.	Project Team
3.	**Discussion**	
	Specific comments, questions and suggestions related to the materials presented were noted for consideration. A summary is provided below. **Future Posted Speed** • Peel District School Board inquired about the future posted speed. ◦ The existing posted speed is 70 km/h and will be lower to a posted speed of 60 km/h (with a design speed of 70 km/h) **Stormwater Management** • Peel Region inquired if the Region of Peel's stormwater infrastructure will be used within the study area and requested the Drainage and Stormwater Management (SWM) Report be shared with the Region through Asha Saddi (Region of Peel) ◦ **The Project Team will prepare** the draft SWM report and share in the next phase of the study through Asha Saddi	Project Team
4.	**Next Steps & Action Items**	
	• **Project Team to circulate** the presentation material, draft preliminary preferred design roll plan to all TAC participants for review and comment • **TAC participants to provide** comments by December 18th, 2020 • PIC #2 will be held virtually, commencing on January 13th, 2021 and will be posted for a three (3) week period on the City's project website, to February 3rd, 2021 Online (www.Mississauga.ca/NinthLineEA)	Project Team TAC Participants

If there are any errors or omissions to these minutes, please contact Patrick Yip (Patrick.Yip@hdrinc.com) within ten (10) business days.

MISSISSAUGA

Technical Agency Committee (TAC) Meeting #2

Ninth Line Improvements

Eglinton Avenue West to Derry Road West

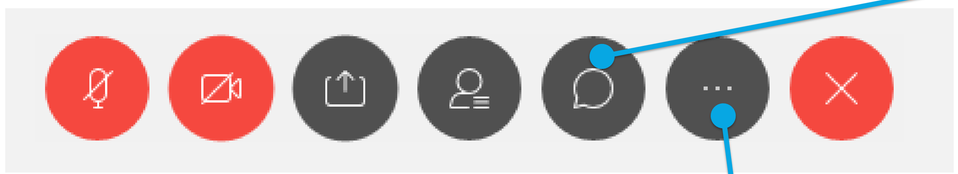
December 7, 2020

Source: Urban Toronto “Mississauga: Ninth Line Lands redevelopment”

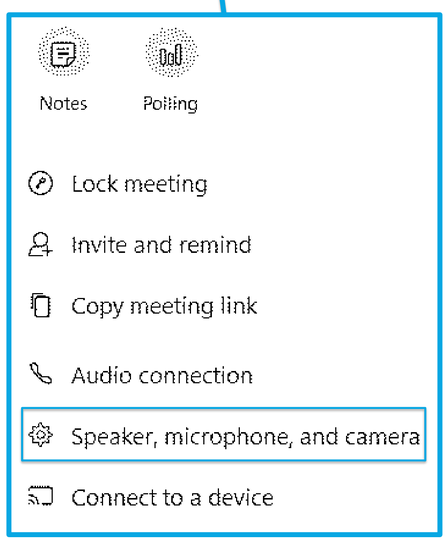
WebEx Online Meeting

Please make sure your:

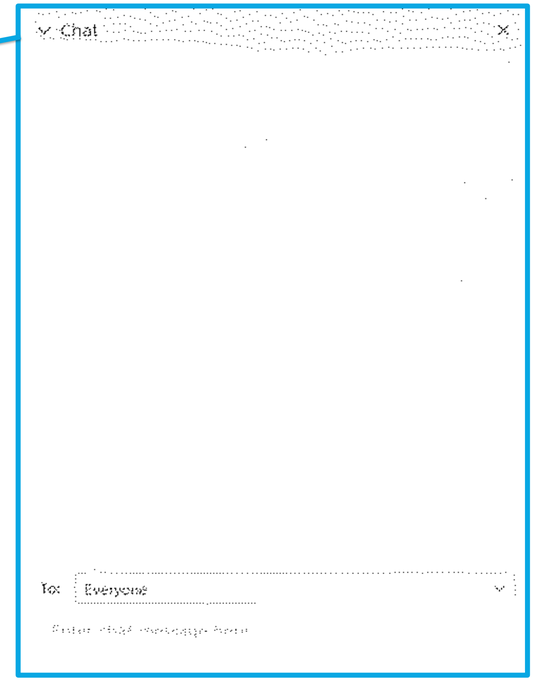
- Microphone is set to mute
- Camera is turned off for better video quality
- Speaker volumes are turned up



If you wish to adjust the settings, click on the icon with 3 dots as shown above. Then click on “speaker, microphone, and camera” to select your settings.



For project-related questions, please type your question OR your name in the WebEx chat window and we will call out your name for your question at the end of the meeting.



Agenda

1. Welcome / Introductions
2. Study Background
3. Preferred Solution
4. Alternative Design Concepts
5. Intersection Considerations
6. Draft Preliminary Preferred Design
7. Questions and Discussion
8. Next Steps

Study Background

Study Background

The City is undertaking a **Schedule "C" Municipal Class Environmental Assessment (MCEA) Study** to investigate improvements along Ninth Line from Eglinton Avenue West to Derry Road West.

The study will review possible improvements to accommodate the current and future transportation needs of:

- Pedestrians;
- Cyclists;
- Transit Users and;
- Motorists.

We Want Your Feedback

We believe on-going involvement of regulatory authorities, agencies, and key stakeholders is a mutually valuable approach to ensure that the Project Team is aware of and understands technical issues that may potentially affect the successful outcome of the Project.

Legend

- Study area
- Highways
- Major Roads
- Minor Roads
- Overhead Hydro Line
- Natural Areas and Parks
- Watercourse Crossing
- Culverts
- Natural Gas Transmission and Distribution Station

Existing Corridor Conditions

Study Area Characteristics

6.2 km long north-south arterial roadway

70 km / hr posted speed

2 travel lanes (one per direction) with a centre left turn lane

Semi-rural cross-section (some gravel shoulders and ditches)

20 - 60 m Existing Roadway (Right-of-Way) Width

35 m Official Plan Right-of-Way Width Designation

Hydro poles / corridor (east side)

Street lighting (west side)

No dedicated cycling facilities

No sidewalks for the majority of the study area

EA Process and Key Consultation Milestones

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Phase 1 Problem/Opportunity	Phase 2 Alternative Solutions	Phase 3 Alternative Design Concepts	Phase 4 Environmental Study Report (ESR)
Notice of Commencement February 2020	**TAC Meeting #1** June 2020	**TAC Meeting #2** December 2020	
Introductory Open House February 2020	**PIC #1** June 2020	**PIC #2** January 2021	
		Meeting with Affected Property Owners Q1 2021	

What we've heard so far

Top Concerns

Congestion and Queuing
Increased road capacity and reduced travel times are seen as being important

Active Transportation
Improvements are needed to address walking and cycling (separated and off-road)

Flooding Potential
Concerns regarding additional pavement were noted

Streetscaping & Landscaping
Public realm enhancements should be considered as part of transportation improvements

Intersections Operations
Improve efficiency and safety at intersections

Natural Heritage
Preservation of the natural environment and wildlife is important

Noise & Disruption
Concerns were raised due to future growth and associated construction

Timing of Improvements
Concerns that infrastructure is not keeping up with growth and should be completed before development occurs.

Engagement Strategies

Direct Mail Notices

Newspaper Notices

Virtual Public Information Centres

Project Website
(mississauga.ca/ninth-line-class-ea-study)

City of Mississauga Social Media Channels

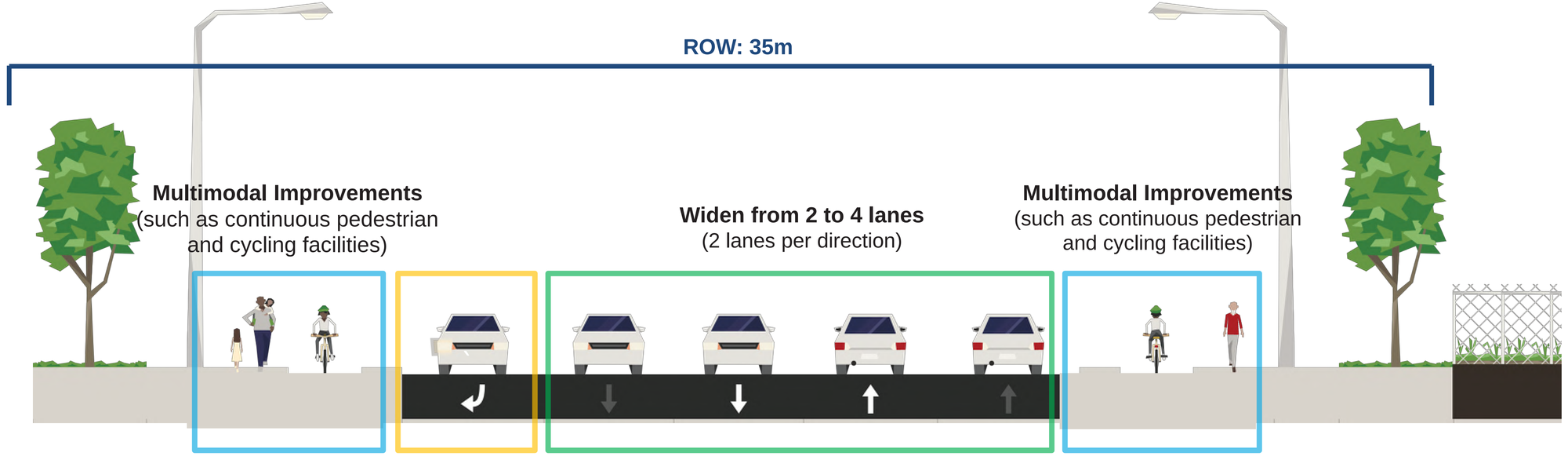
Technical Agency Group Meetings

One-on-One Meetings with Stakeholders

Ninth Line Preferred Solution

Includes:

- Widening Ninth Line from 2 to 4 lanes
- Improving pedestrian and cycling facilities
- Operational improvements at intersections
- Consistent with Mississauga's Transportation Master Plan and Shaping Ninth Line Study



Note: Some adjustments to the road cross-section may be made as part of future detailed design in order to reduce localized impacts, where feasible.

Alternative Design Concepts

Preliminary Evaluation Criteria

The following criteria were used to evaluate the impacts and benefits of each developed alternative design concept.

Transportation

- Addresses Congestion and Improves Corridor Capacity and Vehicular Level of Service to Accommodate Future Travel Demand
- Accommodates All Road Users, Including Pedestrians, Cyclists and Transit Users
- Enhanced Road Safety and Comfort for All Road Users
- Accommodates Commercial Goods Movement
- Improved Access to / from Ninth Line
- Addresses Problem / Opportunity Statement
- Improves Network Connectivity
- Improves Emergency Response Time

Cultural Heritage

- Minimizes Impacts to Archaeological Features
- Minimizes Impacts to Cultural Heritage Resources

Natural Heritage

- Minimizes Impacts to and Enhances Environmentally Sensitive Areas
- Minimizes Impacts to Wildlife, Vegetation, Aquatic Species and Habitat, and Species at Risk
- Provides Drainage and Stormwater Management Improvements and Mitigates Erosion
- Minimizes Effects on Climate Change

Engineering, Construction Complexity and Implementation

- Minimizes Utility Relocation
- Addresses Drainage or Contamination Concerns
- Minimizes Construction Complexity, Including Staging and Traffic Disruption During Construction
- Optimizes Capital Costs
- Optimizes Operation/Maintenance Costs
- Minimizes Property Acquisition Costs

Socio-Economic

- Improves Attractiveness/Aesthetics
- Minimizes Business Impacts and Enhances Business and Place-Making Opportunities
- Minimizes Property Acquisition
- Minimizes Noise and Vibration Impacts
- Improves Air Quality
- Provides or Improves Streetscape Amenities and Urban Design Elements

City Building

- Consistency With The City's Strategic Priorities Pursuant to the City's Strategic Plan "Our Future Mississauga", Official Plan Policy Objectives, the Cycling Master Plan, Shaping Ninth Line, and Other Relevant Planning Documents
- Accommodates Existing and Planned Development

Key Technical Studies

The following technical studies are being undertaken to inform the evaluation of alternatives and provide input into identification of impacts and mitigation measures:

- Transportation Assessment
- Natural Heritage Assessment
- Tree Inventory
- Drainage and Stormwater Management Assessment
- Archaeological Assessment
- Built Heritage/Cultural Heritage Resource Assessment
- Geotechnical and Pavement Investigation
- Structural Assessment
- Phase 1 Environmental Site Assessment
- Noise and Vibration Assessment
- Air Quality Assessment
- Socio-Economic Assessment

Alternative Design Concepts – Road Widening

The following illustrates the alternative design concepts for roadway widening on Ninth Line from Eglinton Avenue West to Derry Road West

Alternative 1 – Widen to West

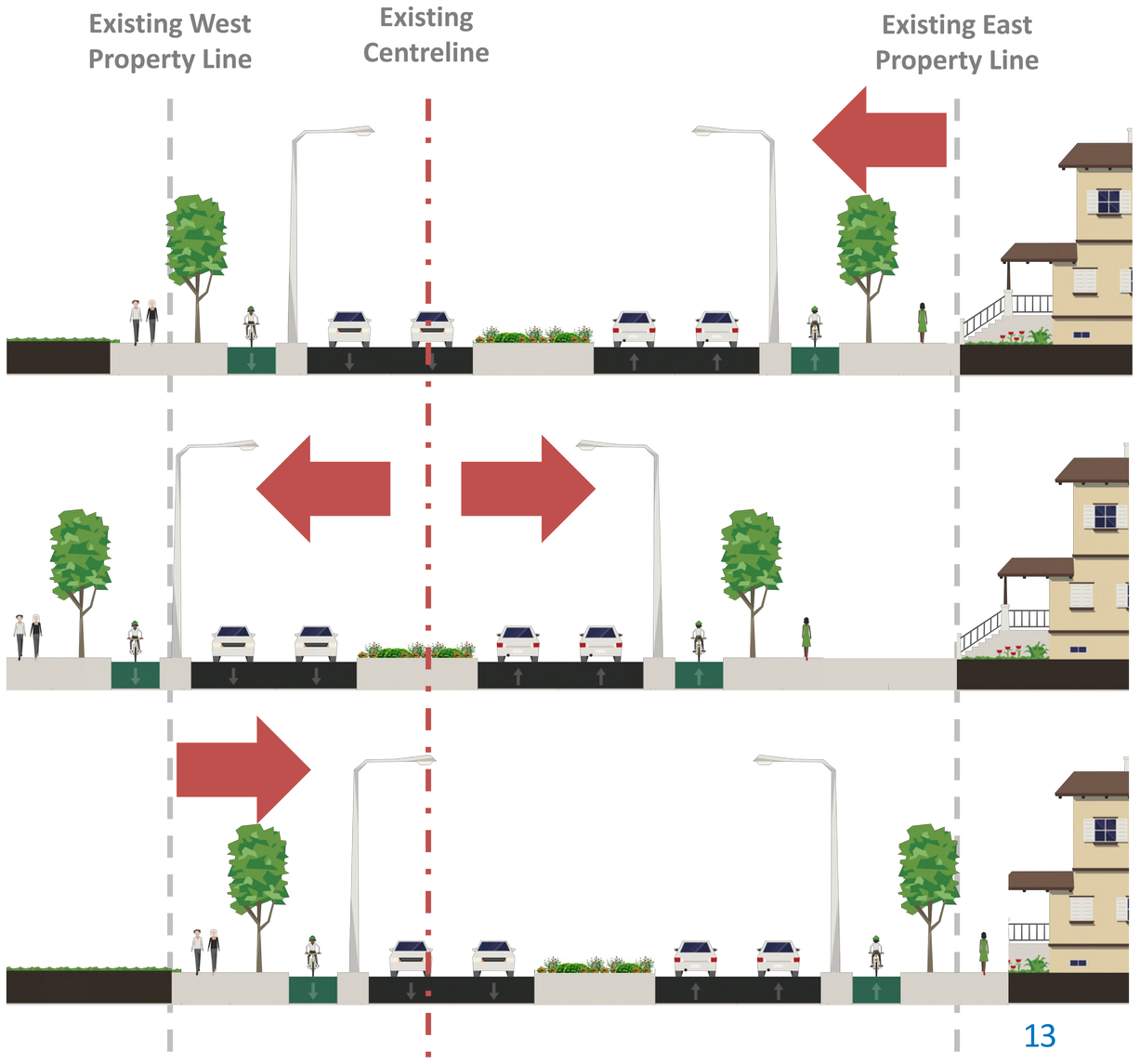
- **Widen from two (2) to four (4) lanes** from the existing east property line so associated impacts occur on the west side

Alternative 2 – Widen about the Centreline

- **Widen from two (2) to four (4) lanes** from the existing centreline

Alternative 3 – Widen to East

- **Widen from two (2) to four (4) lanes** from the existing west property line so associated impacts occur on the east side



Evaluation of Design Concepts – Road Widening

	Alternative 1 Widen to West	Alternative 2 Widen about the Centreline	Alternative 3 Widen to East
Transportation and Transit, Accessibility	Preferred	Preferred	Preferred
City Building	Preferred	Less Preferred	Not Preferred
Natural Heritage	Less Preferred	Less Preferred	Preferred
Socio-Economic Environment	Preferred	Less Preferred	Not Preferred
Cultural Heritage	Less Preferred	Not Preferred	Preferred
Engineering Considerations, Construction Complexity, and Implementation	Less Preferred	Preferred	Not Preferred
Overall Evaluation	Recommended		

Alternative 1 - Widen to West is preferred:

- It minimizes impacts to existing properties on the east side
- Planned developments on the west can accommodate property impacts through development applications

Alternative Design Concepts – Active Transportation

The following illustrates the alternative design concepts for Active Transportation (AT) facilities on Ninth Line from Eglinton Avenue West to Derry Road West

Alternative 1

- **On-Street Bike Lanes with buffer** on both sides; one direction travel in same direction as vehicle traffic
- **Sidewalk** on both sides
- Opportunities for **landscaping** in the boulevard

Alternative 2

- **Separated Boulevard Cycle Tracks** on both sides; one direction travel in same direction as vehicle traffic
- **Sidewalk** on both sides
- Opportunities for **landscaping** in the boulevard

Alternative 3

- **Multi-use Paths (MUP)** on both sides
- Opportunities for **landscaping** in the boulevard

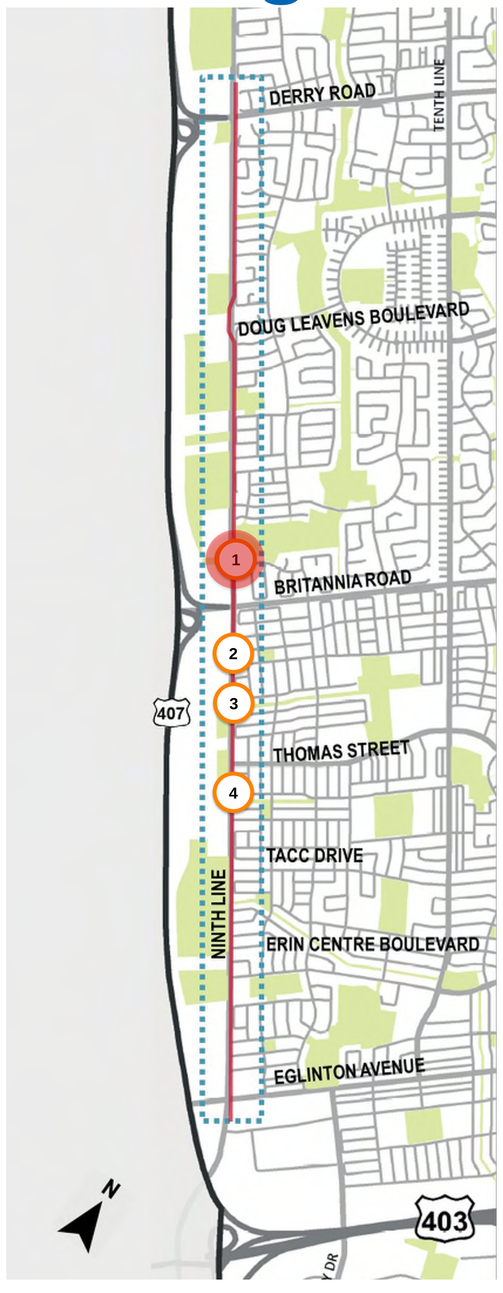
Evaluation of Design Concepts – Active Transportation

	Alternative 1 On-Street Bike Lanes and Sidewalks	Alternative 2 Boulevard Cycle Tracks and Sidewalks	Alternative 3 Multi-use Paths
Transportation and Transit, Accessibility	Not Preferred	Preferred	Not Preferred
City Building	Preferred	Preferred	Preferred
Natural Heritage	Preferred	Preferred	Preferred
Socio-Economic Environment	Less Preferred	Less Preferred	Preferred
Cultural Heritage	Preferred	Preferred	Preferred
Engineering Considerations, Construction Complexity, and Implementation	Less Preferred	Less Preferred	Preferred
Overall Evaluation		Recommended	

Alternative 2 - Boulevard Cycle Tracks and Sidewalks are preferred because:

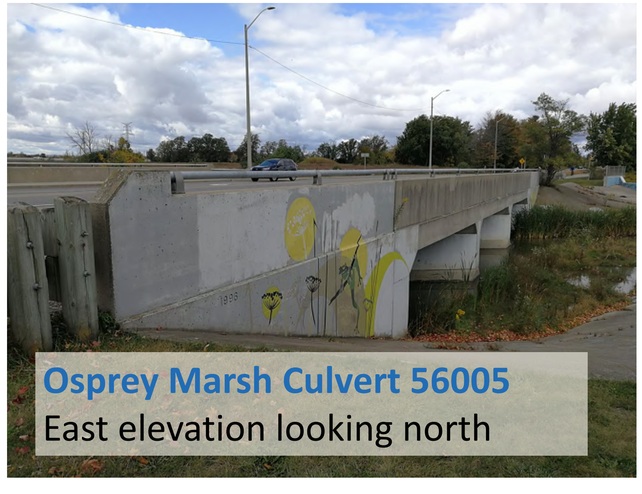
- Separates pedestrians from cyclists within the boulevard to minimize conflicts
- Cycle tracks are provided in one direction on both sides and are separated from vehicles/trucks
- Provides continuous and separated facilities throughout the corridor
- Provides landscaping opportunities between cycle tracks and sidewalks

Crossings – Four (4) Structural Culverts



1. Osprey Marsh Crossing - Culvert 56005 (335 m north of Britannia Road West)

- Within **Conservation Halton (CH)** regulation limits
  - Regulated Feature (Watercourse)
- Triple-Cell Structural Box Culvert (1996)
  - Length: 27.26m with overall span length 23.20m; each box is 8.44m W x 2.40m H
- Generally in good condition with minor rehab. work identified
- Hydraulic assessment to confirm requirements
- Culvert extension on both sides required to accommodate road widening
  - Existing structure type can be extended
- Ecological Linkage – Accommodates small to medium sized wildlife.



Osprey Marsh Culvert 56005
East elevation looking north

Crossings – Four (4) Structural Culverts

2. Culvert 57003 (630 m south of Britannia Road West)

- Within **Conservation Halton (CH)** jurisdiction
  - Drainage Feature
- Dual-Cell Structural Box Culvert (1998)
  - Length: 45.00m; each box is 2.40m W x 1.80m H
- Generally in good condition with no rehab. work identified
- No extension/modification required on either side to accommodate road widening

Culvert 57003
East elevation looking northwest

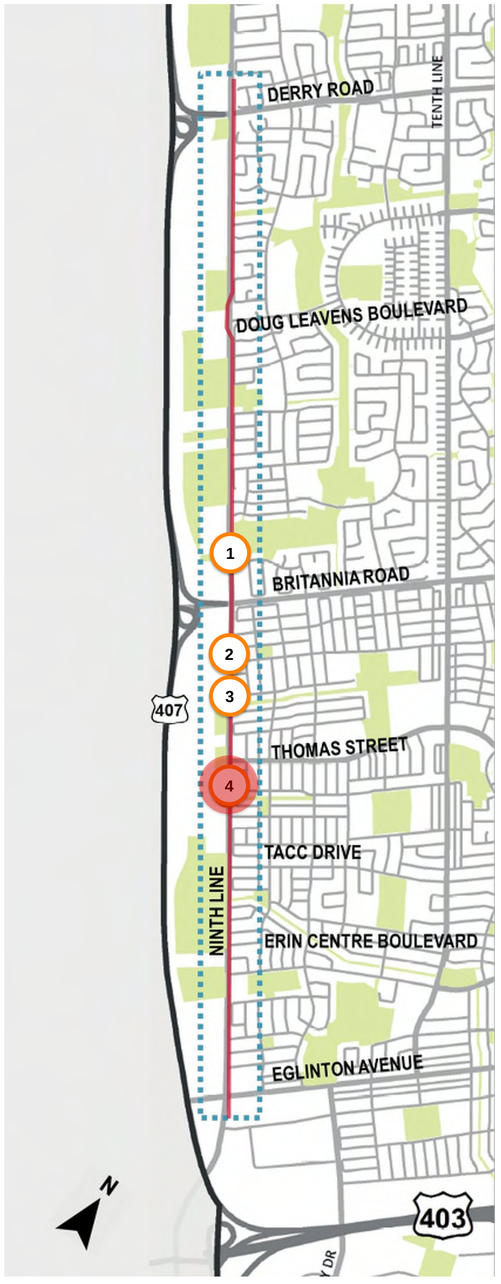
Crossings – Four (4) Structural Culverts

3. Culvert 57004 (1.23 km south of Britannia Road West)

- Within **Conservation Halton (CH)** jurisdiction
  - Drainage Feature
- Dual-Cell Structural Box Culvert (1998)
  - Length: 45.00m; each box is 2.40m W x 1.80m H
- Generally in good condition with no rehab. work identified
- Potential for headwall and wing wall on west side to accommodate the road widening. No extension/modification required on the east side

Culvert 57004
East elevation looking southwest

Crossings – Four (4) Structural Culverts



4. Culvert 57005 (south of Thomas Street)

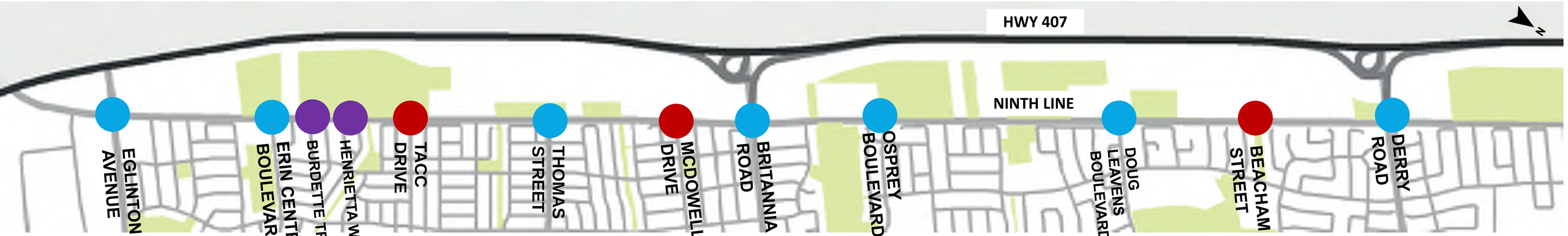
- Within **Conservation Halton (CH)** jurisdiction
  - Drainage Feature
- Single-Cell Structural Box Culvert (1998)
  - Length: 18.60m; each box is 2.45m W x 1.45m H
- Generally in good condition with no rehab. work identified
- Culvert extension on west side only to accommodate the road widening. No extension/modification required on the east side

Culvert 57005
West elevation looking southeast

Natural Heritage Features

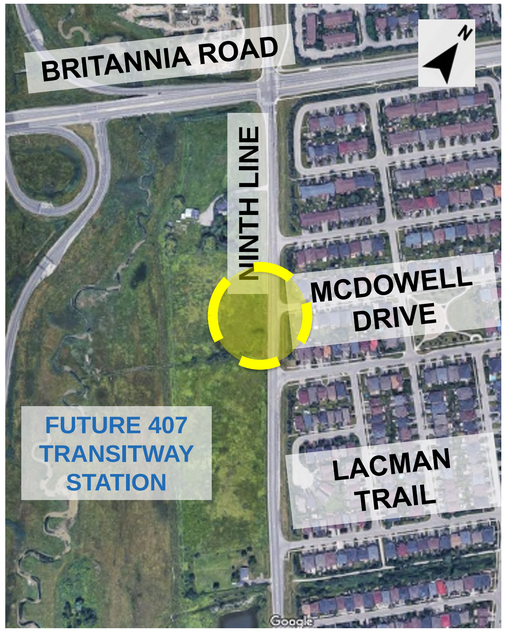
Intersection Considerations

Below is a map presenting the locations of existing and proposed signalized intersections along Ninth Line.



Tacc Drive

McDowell Drive



Beacham Street

LEGEND

- Existing Signalized Intersection
- Proposed Signalized Intersection (Signal Warrants)
- Proposed Signalized Intersection (Churchill Meadows Community Centre and Park)

Intersection Considerations – Roundabout Screening

What are Roundabouts?

- Circular Intersection Control
- Drivers travel around a centre island
- No traffic signals

Why consider Roundabouts?

Several safety benefits:

- Manage speeding
- Elimination of “Beating the Light”
- One-way travel and reduction of angle collision

Roundabout Screening Analysis - Key Criteria Considered Include:

Physical Footprint of the Roundabout	Multi-lane roundabouts require between 50 to 91m inscribed circle diameter based on a design vehicle of WB-20
Number of Lanes within the Roundabout	Not recommended for intersections with more than 2 lanes per direction, which creates longer crossing distances for pedestrians and cyclists
Proximity to nearest intersection (signalized and unsignalized)	Queuing can adversely affect roundabout operations, not recommended if the nearest intersection/access is less than 300m away

Recommendation for Signalized Intersections (except for Regional Roads - Britannia Road and Derry Road)

Due to the closely spaced intersections (signalized and unsignalized) along Ninth Line, the requirement of at least two (2) lanes within the roundabout based on future AADT volumes (>30,000), and the large physical footprint of the roundabout, roundabouts have not been carried forward as a treatment for intersection improvements.

Peel Region's Roundabout Assessment for Regional Roads

Based on the Peel Region's Regional Road roundabout assessment conducted for Britannia Road and Derry Road, both intersections will require a **three (3) lane roundabout** to accommodate for future traffic volumes.

Recommendation for Regional Road Intersections

Both **Britannia Road** and **Derry Road** is not recommended to be considered for roundabout control for the follow reasons:

Physical Footprint of the Roundabout → Requires a three (3) lane roundabout that's ranges from 67 – 91m

Future Traffic Queue Spill Backs and Proximity to MTO/407 Lands → 95th queue spill back from the Hwy 407 signalized off-ramps onto the potential roundabouts

Unfamiliarity with Large Roundabouts → Larger roundabouts may be more challenging for pedestrians with vision impairment or mobility challenges and create discomfort for cyclists.

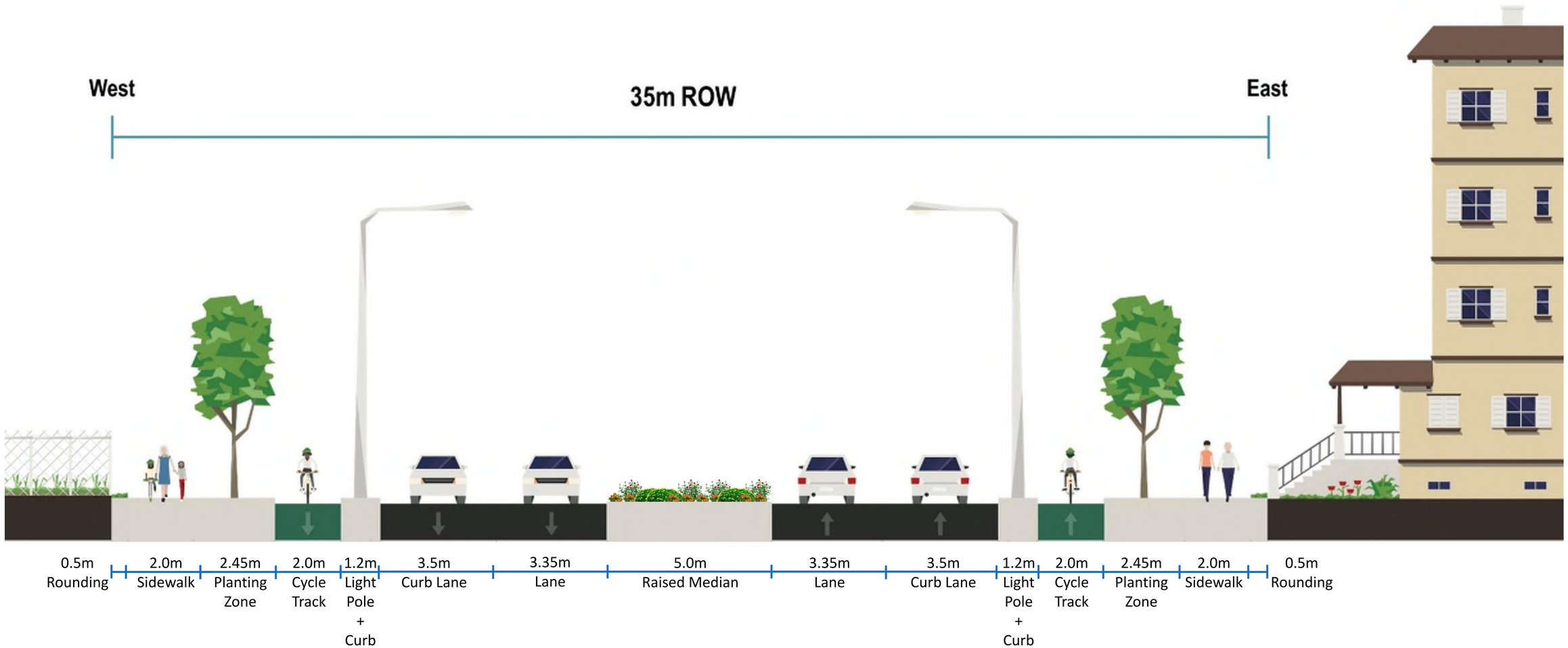
Environment for Pedestrians and Cyclists → Larger roundabouts create longer crossing distances and are more complex to negotiate for both pedestrians and cyclists

Key Design Parameters

Design Element	Existing Condition	Design Standard	Source
Design Classification	2-Lane Arterial	**4-Lane Arterial** (Divided)	• City OP (2010) • Schedule 5 - Long Term Road Network
R.O.W. Width	(varies) 20 – 60 m	**35 m**	• City OP (2010) Schedule 8 - Designated ROW Widths • Alternative Design Stakeholder Workshop #1
Lane Width	(varies) 7.0 – 14.5 m	Thru-lane = 3.35 m Curb lane = 3.50m (includes 0.30m gutter) Right/Left turn lane = 3.35 m	• Alternative Design Stakeholder Workshop #1
Median Width	NA	Mid-block = 5.0 m Intersection (with left-turn lane) = 1.65 m	• Alternative Design Stakeholder Workshop #1
Design Speed	N/A	**Workshop** 70 km/h	• Alternative Design Stakeholder Workshop #1
Posted Speed	70 km/h	**Workshop** 60 km/h	• Alternative Design Stakeholder Workshop #1
Sidewalk	1.5 m	2.0 m	• Alternative Design Stakeholder Workshop #1
Cycling Facility Type And Width	N/A	**One-Way In-Boulevard Bicycle Facilities** 2.0 m	• OTM Book 18 (Table 4.7) • Alternative Design Stakeholder Workshop #1

Preliminary Preferred Design Concept

A summary of the preferred design concept typical section is illustrated below:



Draft Preliminary Design Roll Plan

Questions and Discussion

Next Steps

TAC members to provide comments by **December 18th, 2020**

- Incorporation of Agency feedback to refine the Preferred Design

PIC #2 to be hosted virtually on **January 13th, 2021**

- Incorporation of Public, Agency and Stakeholder Feedback to confirm the Preferred Design

Project Timeline and Next Steps

Introductory Open House – February 2020

Public Information Centre #1 – June 2020

Public Information Centre #2 – January 2021

Staff Report to Council – Winter 2021

File Environmental Study Report – Spring 2021

WE ARE HERE

Next Steps

- **Review feedback from the public**
- **Refine Preferred Design Concept**
- **Document Study Findings**
- **File Environmental Study Report**

Thank You for Participating in the TAC Meeting

Your input is very valuable to us!

Please provide any comments to the project team by **Friday, December 18, 2020** in order for them to be incorporated into the PIC material.

Check our study website for project updates: **www.mississauga.ca/portal/residents/ninth-line-class-ea-study**

Any project related questions or comments can be directed to:

Jeffrey Reid, LET, C.E.T.
Transportation Project Engineer

City of Mississauga Transportation & Works Department
201 City Centre Drive, Mississauga

Jeffrey.Reid@mississauga.ca

905-615-3200 Ext 8527

Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Téléc. : 416 314-8452

Ontario

April 30, 2020

Gino Dela Cruz, P.Eng.
Project Engineer
Transportation and Works Department
City of Mississauga
gino.delacruz@mississauga.ca
BY EMAIL ONLY

Re: **Ninth Line Improvements from Eglinton Avenue West to Derry Road West**
City of Mississauga
Schedule C Municipal Class Environmental Assessment
Notice of Study Commencement

Dear Mr. Dela Cruz,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the City of Mississauga has indicated that the study is following the approved environmental planning process for a Schedule C project under the Municipal Engineers Association's Municipal Class Environmental Assessment (Class EA).

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please identify the areas of interest which are applicable to the project and ensure they are addressed. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule.

Considering that this project is a Schedule C Municipal Class EA for an approximately 6 km stretch of roadway that is close sensitive receptors, an Air Quality Impact Assessment (AQIA) may be required as part of the decision-making process for the preferred alternative to address all potential air quality impacts to sensitive receptors. The AQIA should include at a minimum the predicted traffic flows and the current and future emissions estimates, as well as any required mitigation measures. General guidance regarding the scope of AQIA requirements for Schedule C road improvement Municipal Class EA is attached to this letter for your reference. I highly recommend contacting the MECP Central Region Technical Support Section if you are unsure whether this project requires a full AQIA or to seek clarification on requirements.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project**, the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown`s preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

- Mississaugas of the Credit First Nation;
- Six Nations of the Grand River;
- Haudenosaunee Confederacy Chiefs Council; and
- Huron-Wendat Nation, if there are potential archeological impacts

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process".

Additional information related to Ontario's *Environmental Assessment Act* is available online at: www.ontario.ca/environmentalassessments

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information.

The proponent must contact the Director of Environmental Assessment and Permissions Branch under any of the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to the proponent by the communities;
- The proponent has reason to believe that the proposed project may adversely affect an Aboriginal or treaty right;
- Consultation has reached an impasse; or
- A Part II Order request or elevation request is expected

The Director of the Environmental Assessment and Permissions Branch can be notified either by email with the subject line "Potential Duty to Consult" to enviropermissions@ontario.ca or by mail or fax at the address provided below:

Email:	enviropermissions@ontario.ca Subject: Potential Duty to Consult
Fax:	416-314-8452
Address:	Environmental Assessment and Permissions Branch 135 St. Clair Avenue West, 1st Floor Toronto, ON, M4V 1P5

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role the proponent will be asked to play in them.

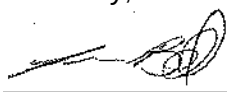
A Part II Order Request Form must be used to request a Part II Order. The Part II Order Request Form is available online on the Forms Repository website (http://www.forms.ssb.gov.on.ca) by searching

"Part II Order" or "012-2206E" (the form ID number). Please include reference to this in the Notice of Completion for this project.

A draft copy of the ESR should be sent to me prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments. Please also forward the Notice of Completion and final ESR to me when completed.

Should you or your project team members have any questions regarding the material above, please contact me at trevor.bell@ontario.ca.

Sincerely,



Trevor Bell
Regional Environmental Assessment Coordinator

cc: Tina Dufresne, Manager, Halton Peel District Office, MECP
Kristina Rudzki, Supervisor, Project Review Unit, MECP
Veronica Restrepo, Project Manager, HDR

Attachments: Areas of Interest
Air Quality Impact Assessment Guidance for Schedule C Municipal Road Class EAs
A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities

AREAS OF INTEREST

It is suggested that you check off each applicable area after you have considered / addressed it.

☐ Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

☐ Planning and Policy

- Ontario has released "A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)" which replaces the "Growth Plan for the Greater Golden Horseshoe (2017)". More information, including the Plan, is found here: https://www.placestogrow.ca.

- Parts of the study area may be subject to the A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019), Oak Ridges Moraine Conservation Plan (2017), Niagara Escarpment Plan (2017), Greenbelt Plan (2017) or Lake Simcoe Protection Plan (2014). Applicable policies should be referenced in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.

- The Provincial Policy Statement (2020) contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

☐ Source Water Protection (all projects)

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the

Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**

- The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.

- If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.

- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.

- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: http://www.applications.ene.gov.on.ca/swp/en/index.php.The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. The contact for this project is Jennifer Stephens at (416) 661-6600 ext 5568 or jstephens@trca.on.ca. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

Climate Change

Ontario is leading the fight against climate change through the Climate Change Action Plan. Recently released, the plan lays out the specific actions Ontario will take in the next five years to meet its 2020 greenhouse gas reduction targets and establishes the framework necessary to meet its long-term

targets. As a commitment of the action plan, **the province has now finalized a guide, "Considering Climate Change in the Environmental Assessment Process" (Guide).**

The Guide is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. **Proponents should review this Guide in detail.**

- The MECP expects proponents to:

  1. Take into account during the assessment of alternative solutions and alternative designs, the following:
     a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
     b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
  2. Include a discrete section in the report detailing how climate change was considered in the EA.

  How climate change is considered can be qualitative or quantitative in nature, and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "Community Emissions Reduction Planning: A Guide for Municipalities" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

Air Quality, Dust and Noise

- If there are sensitive receptors in the surrounding area of this project, an air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**

- **If a full Air Quality Impact Assessment is not required for the project, the report should still contain:**

  - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
  - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
  - A discussion of local air quality impacts that could arise from this project during both construction and operation; and

- A discussion of potential mitigation measures.

- As a common practice, “air quality” should be used an evaluation criterion for all road projects.

- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.

- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities*. report prepared for Environment Canada. March 2005.

- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.

- All natural heritage features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:

  - Areas of Natural and Scientific Interest (ANSIs)
  - Rare Species of flora or fauna
  - Watercourses
  - Wetlands
  - Woodlots

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.

- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry’s Stormwater Management Planning and Design Manual (2003) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:

  - Strategies to address potential water quantity and erosion impacts related to stormwater

draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
    - Watershed information, drainage conditions, and other relevant background information
    - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
    - Information on maintenance and monitoring commitments.

- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.

- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.

- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.

- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.

- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information.

Contaminated Soils

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with

Part XV.1 of the Environmental Protection Act (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites.

- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.

- The report should identify any underground transmission lines in the study area. The owners should be consulted to avoid impacts to this infrastructure, including potential spills.

Excess Materials Management

- Activities involving the management of excess soil should be completed in accordance with the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).

- All waste generated during construction must be disposed of in accordance with ministry requirements

Servicing and Facilities

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with the Environmental Approvals Access and Service Integration Branch (EAASIB) to determine whether a new or amended ECA will be required for any proposed infrastructure.

- We recommend referring to the ministry's environmental land use planning guides to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Mitigation and Monitoring

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.

- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.

- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the SR that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.

Class EA Process

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.

- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. The Master Plan should clearly indicate the selected approach for conducting the plan, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the *Environmental Assessment Act*, although the plan itself would not be.

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment. The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.

- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, and approvals under the *Impact Assessment Act*, 2019.

- Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy. We encourage you to review all the available guides and to reference any relevant information in the report.

AIR QUALITY IMPACT ASSESSMENT GUIDANCE FOR SCHEDULE C MUNICIPAL ROAD CLASS EAs

1. Study Area

The scope of the Air Quality Impact Assessment (AQIA) should be determined by the proponent and clearly outlined in the AQIA document based on the number and nature of scenarios/alternatives being considered, for example, the routes under consideration.

The focus should be on defining the "worst case scenario", whether it is the length of roadway with the highest traffic volumes near sensitive receptors or sections of roadways with on and off ramps and overpasses. The result should be a defined study area.

2. List of Parameters

The list of parameters should focus mainly on the key pollutants released from mobile sources such as, but not limited to, the following:

- CO
- NO_x (with a focus on NO and NO_2)
- TSP
- PM_{10}
- $PM_{2.5}$
- Selected VOCs (benzene, 1-3 Butadiene, formaldehyde, acetaldehyde and acrolein)
- Benzo(a)pyrene – as a surrogate for PAHs

All averaging periods for which there is a corresponding standard or guideline should be assessed.

3. Background Data

Background data representative of the study area is generally summarized for the most recent 5 years from the nearest or most representative MECP AQHI and/or NAPS stations. The 90^{th} percentile should be used when assessing combined air quality concentrations for comparison against applicable standards and guidelines.

4. Emission Estimates

Emission estimates are based on current and proposed future traffic counts where MOVES is used to generate emission factors.

5. Traffic Data

Traffic data including fleet distribution and characteristics, road type, traffic signals, idling conditions, or roundabouts/stop signs may be considered or incorporated into the assessment.

6. Dispersion Modelling and Meteorological Data

Dispersion modelling, typically using CAL3QHCR or AERMOD, is conducted to determine maximum pollutant concentrations resulting from implementation of the project and the resulting air quality impacts at the most impacted sensitive receptors for the different scenarios. At a minimum, two modelling scenarios are to be conducted to determine the incremental difference between the current conditions (base case) and future scenario. The timing of the future scenario should be defined and take into consideration projected population growth and traffic/emissions

impacts.

According to the Ministry of Transportations' *Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects (June 2012)*, "…local air quality impacts are assumed to be limited to a distance of approximately 500 m from the transportation facility, in each direction." Therefore, the Cartesian grid system used to easily model concentrations at each receptor typically has a grid limit of approximately 500 m from the edge of the subject road.

The five most recent years of meteorological data should be used for dispersion modelling. However, under certain conditions, one year of continuous data may be sufficient. Surface data can be obtained from facilities such as Pearson International Airport, Toronto Island, Buttonville or site-specific and upper air data obtained from Buffalo, New York.

All supporting documentation and assumptions that are inputted into the models should be summarized as appendices. A sample of the electronic dispersion model input and output files must be submitted for the ministry's review.

7. Sensitive Receptors

All key and potentially sensitive receptors located in the surrounding area must be identified and included in the model. Sensitive receptors include but are not limited to residences, schools, health care facilities and daycare centers. Future sensitive receptors should also be included in the assessment.

8. Combined Effects

In order to assess the combined effects at nearby sensitive receptors, the AQIA should sum the maximum modelled concentrations with the 90th percentile background concentrations for comparison against applicable standards and guidelines.

If exceedances or non-conformances are predicted, a discussion of possible mitigation measures should be included.

9. Applicable Guidelines

Applicable standards and guidelines may include:

- MECP Ambient Air Quality Criteria (AAQCs)
- Canadian Ambient Air Quality Standards (CAAQs)

10. Results

The predicted results obtained from the dispersion modelling exercise are to be presented in detail in the AQIA and summarized in the ESR. This should include an analysis and discussion of the results and potential air quality impacts of the project.

Results for each contaminant should be discussed separately and should depict predicted maximum concentrations at the most impacted sensitive receptor(s), the overall maximum predicted concentrations and the combined concentrations, for each averaging period assessed. It may also be relevant to discuss receptor specific results.

11. Climate Change and Regional Impacts

The AQIA should consider climate change and regional air quality impacts when assessing the project's potential impacts and possible mitigation measures. This may include comparing impacts from the proposed undertaking with the provincial greenhouse gas totals reported by Environment Canada.

12. Summary and Mitigation Measures

The AQIA and ESR should summarize the key conclusions of the study based on the results as provided. In addition, general mitigation measures should be discussed, including those mitigation measures that will be implemented during construction to minimize off-site impacts.

For example, best management practices should be applied to mitigate any air quality impacts caused by construction dust. Please note that the ministry recommends that non-chloride dust suppressants be applied.

For a comprehensive list of fugitive dust prevention and control measures, please refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities*. Report prepared for Environment Canada. March 2005.

13. Cumulative Impacts

The ministry is currently preparing draft guidance documents to address cumulative effects in EAs. In the interim, please use the following federal EA resources as references for addressing cumulative effects:

- Cumulative Effects Assessment Practitioners' Guide
- Reference Guide: Addressing Cumulative Environmental Effects

14. Further Guidance

For further guidance, including additional references and information such as prediction of emissions from re-entrained road dust and silt loading factors, please refer to the Ministry of Transportations' *Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects (June, 2012) or any subsequent version.*

Definitions

The following definitions are specific to this document and may not apply in other contexts:

Aboriginal communities – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

Consultation – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

Crown – the Ontario Crown, acting through a particular ministry or ministries.

Procedural aspects of consultation – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

Proponent – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

I. Purpose

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

II. Why is it Necessary to Consult with Aboriginal Communities?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

III. The Crown's Role and Responsibilities in the Delegated Consultation Process

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

IV. The Proponent's Role and Responsibilities in the Delegated Consultation Process

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

a) What might a proponent be required to do in carrying out the procedural aspects of consultation?

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

b) What documentation and reporting does the Crown need from the proponent?

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;

- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

V. What are the Roles and Responsibilities of Aboriginal Communities' in the Consultation Process?

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigates any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

VI. What if More Than One Provincial Crown Ministry is Involved in Approving a Proponent's Project?

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

Ministry of Heritage, Sport, Tourism, and Culture Industries

Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Tel: 416.314.7147

Ministère des Industries du Patrimoine, du Sport, du Tourisme et de la Culture

Direction des programmes et des services
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Ontario

February 20, 2020 EMAIL ONLY

Gino Dela Cruz
City of Mississauga
201 City Centre Drive
Mississauga, ON
gino.delacruz@mississauga.ca

MHSTCI File	**:**	**0012043**
Proponent	**:**	**City of Mississauga**
Subject	**:**	**Notice of Commencement – Municipal Class EA**
Project	**:**	**Ninth Line**
Location	**:**	**Mississauga – Ninth Line, between Eglinton Ave W and Derry Rd W**

Dear Gino Dela Cruz:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) with the Notice of Commencement for the above-referenced project. MHSTCI's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources. The recommendations below are for a Schedule C Municipal Class EA project, as described in the notice of study commencement.

Project Summary
The City of Mississauga has initiated a Schedule C Municipal Class Environmental Assessment (EA) study to assess potential transportation improvements to Ninth Line between Eglinton Ave W and Derry Rd W.

Identifying Cultural Heritage Resources
While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

Archaeological Resources
This EA project may impact archaeological resources and should be screened using the MHSTCI *Criteria for Evaluating Archaeological Potential* to determine if an archaeological assessment is needed. MHSTCI archaeological sites data are available at *archaeology@ontario.ca*. If the EA project area exhibits archaeological potential, then an archaeological assessment (AA) should be undertaken by an archaeologist licenced under the *OHA*, who is responsible for submitting the report directly to MHSTCI for review.

Built Heritage and Cultural Heritage Landscapes
The MHSTCI *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* should be completed to help determine whether this EA project may impact cultural heritage resources.

If potential or known heritage resources exist, MHSTCI recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's *Info Sheet #5: Heritage Impact Assessments and Conservation Plans* outlines the scope of HIAs. Please send the HIA to for review and make it available to local organizations or individuals who have expressed interest in review.

Environmental Assessment Reporting
All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MHSTCI whether any technical cultural heritage studies will be completed for this EA project, and provide them to MHSTCI before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MHSTCI on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, do not hesitate to contact me.

Sincerely,

Joseph Harvey
On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

Copied to: Veronica Restrepo, Project Manager, HDR

Conservation Halton

Planning & Watershed Management
905.336.1158 | Fax: 905.336.6684
2596 Britannia Road West
Burlington, Ontario L7P 0G3
conservationhalton.ca

July 2, 2020

Gino Dela Cruz
Transportation Project Engineer
City of Mississauga
201 City Centre Drive
Mississauga, ON

BY EMAIL ONLY (Gino.DelaCruz@mississauga.ca)

Dear Mr. Dela Cruz:

Re: Ninth Line Schedule C Municipal Class Environmental Assessment (Eglinton Ave W to Derry Rd W)
Notice of Study Commencement
City of Mississauga
CH File: MPR 767

Conservation Halton (CH) staff has reviewed the Notice of Commencement (NOC) received for the above-noted Environmental Assessment (EA) project. Staff has prepared the attached *'Environmental Assessment Checklist'*, which identifies potential environmental issues which should be considered during this Class EA.

Overview and General Comments

The City of Mississauga has initiated this Schedule C Class EA to assess potential transportation improvements to Ninth Line between Eglinton Avenue W and Derry Road W. The study will review possible improvements to accommodate the current and future transportation needs of pedestrians, cyclists, transit users and motorists along this corridor.

The attached checklist identifies a list of issues and criteria that CH staff foresees as being important to evaluate during the study. Additional requirements may become evident as the study progresses. These comments are preliminary and CH staff will provide more comments once additional information about the study is made available.

Recommendation

CH requests to participate in the Technical Advisory Committee (TAC) meetings; however, additional meetings with CH may be required to ensure CH issues have been addressed as the study progresses. An EA Review Fee in accordance with CH's current fee schedule will apply to support our review. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

Emma DeFields, MCIP RPP
Environmental Planner
905.336.1158 ext. 2335
edefields@hrca.on.ca

CC: Tara Erwin, HDR Corporation, tara.erwin@hdrinc.com
Veronica Restrepo, HDR Corporation, veronica.restrepo@hdrinc.com

Encl: Environmental Assessment Checklist

Complete Application Checklist – Environmental Assessment

ENVIRONMENTAL ASSESSMENT

The following list identifies the areas of interest or concern that Conservation Halton may have with the subject Environmental Assessment (EA). The level of detail recommended will be dependent on the proposed works as well as the natural hazards, natural heritage system, and environmental conditions in the study area. The proponent should contact Conservation Halton staff early in the EA process to discuss the level of study that is suggested and to establish Terms of Reference for specific studies where appropriate.

All technical assessments should be completed by a qualified professional and the input of the various experts should be carefully coordinated to ensure consistency throughout the Environmental Study Report.

PROJECT TITLE: Ninth Line EA (Eglington to Derry)	DATE: July 2, 2020
LOCATION: Ninth Line - Eglington to Derry	FILE: MPR 767
TIMING WINDOW RESTRICTION:	

	Applicable
General Submission Requirements	
Ontario Regulation 162/06	
The study area contains tributaries of Sixteen Mile Creek and Wetlands. Conservation Halton regulates the watercourses and associated flooding and erosion hazards along with 15 m allowances from the hazards. *Ontario Regulation 162/06* requires that a Permit be obtained from Conservation Halton prior to development, interference with wetlands or alterations to shorelines and watercourses. *Ontario Regulation 162/06* and Conservation Halton's Board-approved *Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy (hereafter referred to as Conservation Halton's Policies and Guidelines)* are available at www.conservationhalton.ca. Provide sufficient information to allow Conservation Halton staff to determine whether a Permit could be issued at detailed design in the ESR.	☒
The study area contains a wetland that is less than 2 ha in size. As per *Ontario Regulation 162/06*, Conservation Halton regulates 120 metres from the limit of a provincially significant wetland (PSW) or wetland great or equal to 2 ha in size and 30 metres from the limit of a wetland less than 2 ha in size. Obtain permission from Conservation Halton prior to development within the regulated area.	☒
Identify areas where Permits pursuant to *Ontario Regulation 162/06* will be required and include such Permits as future commitments in the environmental study report (ESR). Some details related to future Permits may not be deferred to detailed design. Review the requirements of Policy 3.51 (Public Infrastructure – Utilities, Trails and Transportation) of *Conservation Halton's Policies and Guidelines*.	☒
Survey drainage features watercourses, ditchlines, culverts, valley slopes, and all other relevant topographical features.	☒
Plot all areas regulated by Conservation Halton on drawings. The Approximate Regulation Limit (ARL) mapping is available online (https://conservationhalton.ca/planning-permits); however, more specific delineation of regulated features and hazards is required for the EA. Please contact Conservation Halton staff for discussion on requirements to delineate the regulated areas.	☒

A Data Request Form is required for all digital information requests. The form and additional information on data holdings can be found at Conservation Halton's website at the following link http://www.conservationhalton.ca/planning-permits in the "Mapping and Data" section. ☒ Flood Plain Modelling available ☐ Flood Plain Modelling not available Due to ongoing floodplain modeling in the subject area, please consult with Conservation Halton EA review staff prior to undertaking modeling.	☒
Ensure that 'potential impacts to and risks from natural hazards' *(flooding, erosion, and unstable bedrock/soils)* is one of the evaluation criteria. The proposed alternative must have no negative impacts on natural hazards and must not increase risk to life and property from natural hazards in order for Conservation Halton to issue a future approval under *Ontario Regulation 162/06*. Opportunities to improve any deficiencies with respect to flooding and erosion should also be investigated.	☒
Identify and assess through hydrologic and hydraulic analysis all potential flood plain impacts with consideration of maintaining flood storage, no increased flood levels on adjacent or downstream properties, no increased on-site flood risks, and appropriate flow velocities under the full range of storm conditions.	☒
To support intensification of land use, Conservation Halton endeavours to have all public roadways flood free under Regional Storm conditions. At a minimum, safe access and egress for both pedestrians and vehicles as defined in the *MNRF's Technical Guide on River and Stream Systems: Erosion Hazard Limit (2002)* (*hereafter referred to as MNRF's Technical Guide*) should be provided, resulting in a maximum flood depth of 0.3 m, a maximum flood velocity of 1.7 m/s and a maximum depth-velocity product of 0.4 m^2/s. *MNRF's Technical Guide* may not provide sufficient accessibility for emergency vehicles due to the operational practices of each Emergency Response Organization. If a roadway is considered by the Province or local municipality to be an Emergency Route then there should be no overtopping of the road with flood waters.	☒
Consider *MTO's 2008 Highway Drainage Design Standards* and/or the local municipal engineering standards for flooding along/over roads. This document is available through the MTO Online Library Catalogue at http://www.library.mto.gov.on.ca.	☒
Identify and assess through a fluvial geomorphological assessment all potential erosion hazard impacts associated with a watercourse's migration, downcutting and meander belt. *MNRF's Technical Guide* should be followed. http://www.renaud.ca/public/Environmental-Regulations/MNR%20Technical%20Guide%20Flooding%20Hazard%20Limit.pdf	☒
Provide a fluvial geomorphological assessment to verify that the preferred alternative design has adequately allowed for natural channel functions and sediment transport, as well as minimizes the risk to infrastructure.	☒
Ensure habitat connectivity and wildlife movement are incorporated into the planning design and construction practices of all works, where natural connections exist. The design practices should maintain, and where possible improve or restore, key ecological linkages.	☒
Contact staff to confirm if a site visit to stake the Physical Top of Bank and/or Wetland is required. An OLS must also be present during this site visit.	☒
Identify and assess all potential erosion hazard impacts associated with valley slopes through a geotechnical assessment. *MNRF's Technical Guide* should be followed.	☐
Identify any potential areas of unstable bedrock, karst or unstable soils within the study area. If these areas are found, the appropriate geotechnical analysis, karst assessment, hydrogeological evaluation or other	☐

study necessary to assess the impacts from and on these natural hazards by each alternative should be undertaken.	
A hydrologic evaluation may be required to determine if there is an impact to the hydrological functions of the wetlands as a result of the proposed works and to evaluate the various alternatives. Please consult with Conservation Halton staff as the study progresses to determine if this is a requirement.	☒
A geotechnical and coastal engineering report is required to identify soil properties to determine the long term stable slope allowance associated with the Lake Ontario shoreline.	☐
A topographic survey is required to identify the lands impacted by the flooding hazard associated with the watercourses.	☒
Use trenchless technologies for crossings of all wetlands and permanent flowing watercourses, wherever possible.	☐
	Applicable
Natural Heritage	
When undertaking any fieldwork and/or when making recommendations related to natural heritage and/or natural hazards, refer to the *Ministry of Natural Resources and Forestry (MNRF): Natural Heritage Reference Manual for Natural Heritage Policies, 2nd Edition, 2010; Significant Wildlife Habitat Technical Guideline, 2002;* and, *MNRF's Technical Guide. Natural Hazards Technical Guide and Understanding Natural Hazards* http://www.renaud.ca/public/Environmental-Regulations/MNR%20Technical%20Guide%20Flooding%20Hazard%20Limit.pdf	☒
The study area may contain or pass between natural features. As per policy 3.51 and 4.6.8 of *Conservation Halton's Policies and Guidelines* and policy 2.1.2 of the *Provincial Policy Statement, 2014 (hereafter referred to as PPS, 2020)*, the diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and groundwater features. The use of ecopassages or other measures to facilitate wildlife movement should be evaluated.	☒
The study area contains *a (provincially / locally significant)* wetland. As per policy 4.6.1 of *Conservation Halton's Board Policies and Guidelines* and Policy 2.1.4 of the *PPS, 2020,* development and site alteration shall not be permitted in significant wetlands or significant coastal wetlands.	☐
The study area may contain the habitat of Endangered or Threatened species. As per Policy 2.1.7 of the *PPS, 2020,* development and site alteration shall not be permitted in habitat of Endangered/Threatened Species. The provincial *Endangered Species Act and/or federal Species at Risk Act* may also apply. Please contact MNRF *Aurora District at* esa.aurora@ontario.ca and *Guelph District at* esa.guelph@ontario.ca for further information on Endangered Species Act requirements.	☐
The study area contains an area of natural and scientific interest (ANSI). As per policy 4.6.7 of *Conservation Halton's Policies and Guidelines* and policy 2.1.5 (e) of the *PPS, 2020,* development and site alteration shall not be permitted in significant areas of natural and scientific interest (ANSI) unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Contact MNRF for further information.	☐

The study area may contain significant wildlife habitat. As per Policy 2.1.5 (d) of the *PPS, 2020*, development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Refer to the MNRF's *Significant Wildlife Habitat Technical Guidelines, 2002* http://www.ontario.ca/document/guide-significant-wildlife-habitat.	☒
The study area contains a significant valleyland of the (..... Creek). As per policy 3.1 and 3.2 (a) of *Conservation Halton's Policies and Guidelines* and policy 2.1.5 (c) of the *PPS, 2020*, development and site alteration shall not be permitted in significant valleylands unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.	☐
The study area contains significant woodlands. As per policy 4.6.4 of *Conservation Halton's Policies and Guidelines* and policy 2.1.5 (b) of the *PPS, 2020*, development and site alteration shall not be permitted in significant woodlands unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Contact the Region of Peel for further information on significant woodlands.	☒
Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in Policies 2.1.3 and 2.1.5 of the *PPS, 2020*, unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions. Please note that the *MNRF's Natural Heritage Reference Manual for Natural Heritage Policies*, Second Edition (2010) http://docs.files.ontario.ca/documents/3270/natural-heritage-reference-manual-for-natural.pdf considers adjacent lands to be within 120 metres.	☒
The study area contains the Environmental Significant Areas (ESA). The Environmental Study Report must address impacts to the ESA. Please contact the *(Region of Halton / City of Hamilton / County of Wellington / City of Mississauga)* for further information on the ESA.	☐
Use Ecological Land Classification to map natural and semi-natural features to vegetation type and identify protection/mitigation measures. ELC data sheets are required with the ESR submission (please include digital species spreadsheets).	☒
Refer to Conservation Halton's *Guidelines for Ecological Studies* for information on general study requirements and appropriate timing and protocols for surveys. These guidelines can be found at www.conservationhalton.ca. Also, refer to *Conservation Halton's Policies and Guidelines, Section 5.10 – Environmental Impact Assessments (EIA)/Environmental Impact Studies (EIS).*	☒
Conservation Halton's Landscaping and Tree Preservation Guidelines should be consulted at detailed design. These guidelines can be found at http://www.conservationhalton.ca/policies-and-guidelines. Also, refer to *Conservation Halton's Policies and Guidelines, Section 5.11 - Tree Preservation Plans and 512 - Revegetation/Rehabilitation/Landscape Plans.*	☒
	Applicable
Fish Habitat	
Include a detailed description and habitat map of in-stream and bank habitat features including bankfull width, pools, riffles, undercut banks, eroding banks, root wads and large woody debris, thalweg/low flow location, backwater areas, substrate type, etc. as per *MTO Protocol: Environmental Guide for Fish and Fish Habitat, 2009*. Include photo documentation of the study area with a key map indicating photo locations.	☒

Provide thermal regime information for the watercourse based on the characterization from the SWS.	☒
The study area may contain fish habitat. As per policy 4.6.3 of *Conservation Halton's Policies and Guidelines* and Policy 2.1.6 of the *PPS, 2020*, development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.	☒
As per policy 3.6.1 of *Conservation Halton's Policies and Guidelines*, a fisheries setback of 15 metres from the bankfull channel width for warmwater watercourse should be applied.	☒
The *Fisheries Act* requires that projects avoid causing serious harm to fish unless authorized by the Minister of Fisheries and Oceans Canada. Work conducted in or near water bodies that support fish that are part of or that support a commercial, recreational or Aboriginal fishery require compliance with the *Fisheries Act* to ensure no serious harm to fish. Refer to the DFO's website for additional information (http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html) or call 1-855-852-8320 or email fisheriesprotection@dfo-mpo.gc.ca.	☐
	Applicable
Groundwater	
A hydrogeological study in support of an Environment Assessment must establish that the proposed activities will not cause unacceptable groundwater quantity and/or quality impacts which may affect the natural environment, and if impacts are expected, they can be mitigated in a sustainable way. Please refer to the following document *'Requirements for Completion of Hydrogeological Studies to Facilitate Conservation Halton's Reviews' that can be obtained from Conservation Halton's* website www.conservationhalton.ca.To scope a study to a specific proposal contact Conservation Halton's hydrogeologist.	☐
As per policy 4.6.9 of *Conservation Halton's Policies and Guidelines*, please ensure that all proposed works should consider Policies 2.2.1 and 2.2.2 of the *PPS, 2014,* regarding water.	☐
	Applicable
Stormwater Management/Drainage	
Demonstrate quality/quantity/erosion controls within the Stormwater Management section of the Environmental Study Report. Also examine the potential to combine SWM with adjacent development. The use of low impact development and at source controls should be explored as part of the stormwater management strategy for the proposal. Ensure mitigation of thermal impacts and at minimum 80% TSS removal will be required; note that additional requirements may apply based on the recommendations in the Subwatershed Study and the sensitivity of the receiving water body.	☒
As per Ninth Line Lands Scoped Subwatershed Study, all or a portion of Ninth Line may ultimately be accommodated within SWM facilities located to the west of Ninth Line. For those portions of the roadway that will not be accommodated within the neighbouring SWM facilities or under interim conditions before the facilities are built, The quality requirements are 80% TSS removal, using a treatment train approach. The quantity requirements are post to pre-development control for the full range of storm events. The erosion control requirements are detention of the 4 hour 25 mm rainfall for 48 hours or to the maximum extent possible.	☒

The runoff volume reduction requirements are retention of the first 5 mm of runoff. Investigate opportunities to use Low Impact Development (LID) Best Management Practices (BMPs).	
Identify existing vs. proposed drainage areas and maintain existing drainage divides. Proposed diversions must be clearly identified and the potential impacts fully assessed as part of the project's evaluation.	☒
	Applicable
Other Requirements	
Recommendations and requirements from the following Subwatershed study should be followed: • Ninth Line LandsScoped Subwatershed Study	☒
Conservation Halton owns land within the study area. Identify any potential impacts to Conservation Halton land (direct – adjacent to, and indirect – road closures, detours etc.). Questions regarding Conservation Halton landholdings should be directed to Conservation Halton's Manager, Risk & Land Holdings Services directly at *(905) 336 1154 ext. 2256).*	☐
If infrastructure is proposed within existing easements/r-o-w or if there are additional property requirements, assess the impacts of utility relocation (i.e., telephone poles, union gas, etc.) on natural heritage features, natural hazard areas and fish habitat. This should not be left to detailed design as the relocation can have a significant impact on natural heritage features.	☒
Conservation Halton does not screen on behalf of MNRF for *Lakes and Rivers Improvement Act* implications. Contact the MNRF to determine if this Act applies to the proposed works.	☐
The Province and Crown Corporations do not require permits from Conservation Halton under *Ontario Regulation 162/06*. Efforts to comply with the requirements of *Ontario Regulation 162/06* and address areas of provincial interest are appreciated.	☐
A review timeline of 4-6 weeks to be incorporated into the project schedule. Staff also request 3 hard copies of the ESR for review.	☒
Provide a figure with proposed works and/or alternatives overlaid on an airphoto.	☒
Other: EA should be closely coordinated with the Comprehensive Environmental Impact and Integration Study on the adjacent lands.	☒

Prepared by: Emma DeFields	Signature: 
Date: ___July 2, 2020_____	

June 7, 2021

Patrick Yip, Transportation Engineer
HDR Inc.
100 York Bouldevard, Suite 300
Richmond Hill, ON L4B 1J8

Conservation Halton
Planning & Watershed Management
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Burlington, Ontario L7P 0G3
conservationhalton.ca

BY EMAIL ONLY (Patrick.Yip@hdrinc.com)

Dear Patrick Yip:

Re: Ninth Line Municipal Class EA – Eglinton Ave. W to Derry Rd. W - Draft ESR
City of Mississauga
CH File: MPR 767

Conservation Halton (CH) staff has reviewed the *Draft Environmental Study Report Schedule 'C' Class Environmental Assessment for Ninth Line from Eglinton Avenue West to Derry Road West*, prepared by HDR, dated and received April 30, 2021 along with the associated appendices, modelling and response matrix to CH's Environmental Assessment (EA) checklist. Staff understands the Notice of Study Completion is expected for June/July 2021.

CH previously provided a checklist outlining important EA deliverables, and also provided input in response to material presented at the Technical Advisory Committee (TAC) Meetings (emails from E. DeFields July 2, 2020 and January 29, 2021). Staff most recently met with the Study Team on February 24, 2021 and April 22, 2021 to discuss stormwater management (SWM) methodology and preliminary findings.

Key Comments

A. The study area contains tributaries of the East Lisgar Branch of Sixteen Mile Creek and the flooding and erosion hazards associated with those watercourses, including floodplain spill. CH regulates a distance of 15 metres from the limit of the floodplain and erosion hazards, and also regulates areas of spill. Therefore, the report text and figures should be updated to indicate the locations where floodplain spills over Ninth Line. Development within the regulated area (e.g. culvert modifications, road grading, etc.) will require CH Permits.

B. The ESR should include a commitment for detailed design to explore opportunities to improve conditions with respect to flooding and erosion (i.e., eliminate or reduce floodplain and spill hazards on adjacent lands; create flood free roadways or at a minimum reduce road overtopping during the Regional Storm; etc.).

C. For CH to issue Permits under Ontario Regulation 162/06, it must be demonstrated that proposed works will have no negative impacts on natural hazards; will not increase risk to life and property from natural hazards; and will not increase regulated areas on adjacent lands. In this regard:

   i. The preliminary hydraulic analysis provided through the EA showed negligible increases (e.g. 0.01m) in flood levels as a result of the proposed work. As staff understands this assessment may rely on grading outside of the City's Right-of-Way (ROW), please confirm that permission has been obtained from applicable landowners for this work to occur. Otherwise, the EA must demonstrate that necessary grading can occur within the City-owned ROW and that it will not negatively impact or increase flooding hazards. This must be finalized through the EA (before detailed design).

   ii. The preliminary design for the NLT-1 crossing updates indicates an increase of 0.02m in Regional storm water surface elevation immediately upstream of the crossing under proposed conditions. This increase is above typical modelling error and indicates potential impacts to flooding hazards on adjacent and/or upstream properties, which cannot be supported by CH. At detailed design, additional analysis (including HEC-RAS modelling) will be necessary to confirm the ultimate design will have no negative impacts and will not increase hazard risks or limits. The ESR should commit that the City will make all necessary design modifications, including culvert upsizing, to address any flooding concerns that arise at the detailed design stage, to the satisfaction of CH.

iii. For the NLT-1 crossing, the ESR should include a commitment to explore all options to eliminate impacts to the flooding hazard upstream as well as eliminate or reduce the spill hazard over Ninth Line, subject to verification of no negative impacts or increased hazard risks at detailed design.

D. The line labeled as "CH Regulation Limits" on the Roll Plan and all Figures should be updated to state: "Preliminary Floodplain Limit as per Draft Ninth Line Lands Scoped Subwatershed Study". Staff recommends that a note be included to clarify that the existing and proposed floodplain limits are the same.

E. CH regulates a distance of 120 metres from the limit of provincially significant wetlands and wetlands greater than 2 hectares in size, and a distance of 30 metres from all other wetlands. At detailed design, all mapped and unmapped wetlands must be staked by CH and a restoration plan must be developed for any impacted areas. At this EA stage, conceptual areas for restoration (as compensation for impacted wetlands or other natural features) must be identified.

Summary

CH appreciates the opportunity to review this draft ESR and staff would be happy to discuss comments in greater detail with the Study Team. If possible, we would appreciate receiving a response matrix and track changes version of the documentation alongside the final ESR to address the above Key Comments and Detailed Comments within Appendix A.

Should the Study Team have any questions or wish to discuss comments, please contact the undersigned.

Sincerely,

Emma DeFields, MCIP RPP
Environmental Planner
905.336.1158 ext. 2335
edefields@hrca.on.ca

Encl. 1: Appendix A – Detailed Comments

CC: Jeffrey Reid, City of Mississauga, jeffrey.reid@mississauga.ca (By Email)
Michelle Mascarenhas, HDR Inc., michelle.mascarenhas@hdrinc.com (By Email)

Appendix A: Detailed Comments

The following detailed comments should be addressed through a response matrix and forthcoming final Environmental Assessment (EA) material. General comments are provided first and are followed by report and section-specific comments.

#	Topic/Section, Page #	CH Comments
		General Comments
1.	CH Regulated Area	The Environmental Study Report (ESR) should be updated to speak to Conservation Authority Policy Context, and should include the following information regarding Conservation Halton (CH): CH regulates all watercourses, valleylands, wetlands, Lake Ontario and Hamilton Harbour shoreline and hazardous lands, as well as lands adjacent to these features. The study area contains tributaries of the East Lisgar Branch of Sixteen Mile Creek and the flooding and erosion hazards associated with those watercourses. The area also contains wetlands of various sizes. CH regulates a distance of 15 metres from the greater of the limit of the flooding or erosion hazards; 120 metres from the limit of wetlands that are greater than 2 hectares in size or that are Provincial Significant; and 30 metres from all other wetlands. Permission is required from CH prior to undertaking any development within CH's regulated area and works must meet CH's *Policies and Guidelines for the Administration of Ontario Regulation 162/06* (https://conservationhalton.ca/policies-and-guidelines). In addition to the above, there are several areas along Ninth Line in which flood plain spills occur, where flood waters may leave the flood plain of a watercourse and "spill" into surrounding lands, rejoining the watercourse at a distance downstream or moving into another watershed. In the past, it was not possible to map and thus regulate spills because available technology could not accurately determine where the water would flow and at what speed and depth. With new tools and technologies, spill areas can be more accurately defined. Therefore, CH's policies were updated in April 2020 with an interim policy acknowledging that spills are subject to *Ontario Regulation 162/06* and advising that permission is required for development in these areas. The interim policy states the following: *Development and redevelopment in spill areas will be considered on a case-by-case basis. Permission may only be granted where the site is subject to low risk and, where appropriate, mitigation measures can be implemented to reduce potential impacts to the satisfaction of Conservation Halton (e.g., flood proofing).* This policy applies until such time that new provincial regulations or direction on spills is issued, or new CH spill policies are approved by the CH Board of Directors, after consultation with municipalities and the public.

2.	Flood Hazard – unmapped spill areas	The report text should be updated to indicate regulated spill hazard at several locations where the floodplain spills over Ninth Line. The ESR figures should identify spill hazard areas by including arrows indicating spill direction and labelling as 'spill'.
3.	CH Policy Document Update	CH's Policy document went through a housekeeping amendment on November 26, 2020. Although the general content has not changed, the Policy numbers have been modified. Please update document text as necessary to reference applicable CH Policy (e.g., CH's Public Infrastructure Policy is now Policy 2.48 rather than 3.51 as noted in Section 3.3 of the Natural Environment Assessment).
4.	CH Permits	As noted in the Future Commitments, CH Permits are required for all development (structures, fill, grading, feature/hazard alteration, etc.) within the area regulated pursuant to Ontario Regulation 162/06. Staff advises that at a minimum, this includes: • Crossing C-3, associated with watercourse NLT-1 (Osprey Marsh) and any associated watercourse realignment. • Grading associated with road widening, including culverts associated with headwater drainage features that are within the regulated floodplain or allowances. Note that more than one CH permit will likely be needed. Private landowners will need to apply for and obtain CH permits for any of the road development (including grading) on their lands as CH permits must be issued to the applicable landowners. Please clarify if all works will be completed within City-owned property.
5.	Flood hazard - floodplain	For CH to issue a permit under Ontario Regulation 162/06, detailed design must demonstrate that proposed works will have no negative impacts on natural hazards and will not increase risk to life and property from natural hazards. The works also must not increase regulated areas on adjacent lands. Preliminary design for NLT-1 crossing updates indicates an increase of 0.02m in Regional storm water surface elevation immediately upstream of the crossing under proposed conditions. This increase is above typical modelling error and indicates potential impacts to the floodplain hazard on adjacent and/or upstream properties, which cannot be supported by CH. However, based on the alternative scenarios presented in Table 10-7, there appears to be an option (i.e., Option 3B) that will eliminate impacts to floodplain hazard upstream as well as eliminate or reduce spill hazard over Ninth Line, subject to verification at detail design. A commitment to implement the option that has no negative impacts and will not increase hazard risks or limits should be included in the ESR. The ESR and supporting documentation (e.g., Appendices J and N) should make it clear that the final option will be confirmed at detailed design once additional supporting modelling and analysis is complete.
6.	Flood Free Access	CH endeavors to have all public roadways flood free under Regional Storm conditions. At a minimum, safe access and egress should be provided for both pedestrians and vehicles as defined in the MNRF's Technical Guide on River and Stream Systems: Erosion Hazard Limit (2002), resulting in a maximum flood depth of 0.3 m, a maximum flood velocity of 1.7 m/s and a maximum depth-velocity product of 0.4 m2/s. MNRF's Technical Guide may not provide sufficient accessibility for emergency vehicles due to the operational

		practices of each Emergency Response Organization. If a roadway is considered by the Province or local municipality to be an Emergency Route, then there should be no overtopping of the road with flood waters. Furthermore, as per Policy 3.1.2 of the Provincial Policy Statement (2020), development and site alteration shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard. This should be considered as it relates to future development and proposed roads along Ninth Line. Based on the above, future commitments for detailed design should include an objective to explore opportunities to eliminate or reduce the flood hazards (including spill), to the extent possible, thereby reducing or eliminating risk to life and property from natural hazards. It should also include an objective to create a flood free roadway or at a minimum reduce road overtopping during the Regional Storm.
7.	CH Regulation Limits	The preliminary hydraulic analysis showed negligible increases (e.g. 0.01m) in flood levels as the result of the proposed work. Staff understands this assessment may rely on grading outside of the City's ROW. For example, the proposed scenario includes modification to existing ground surface as far west from the future center line as 39m (XS 221). Therefore, please confirm that permission has been obtained from applicable landowners for this work to occur. Otherwise, the EA must demonstrate that necessary grading can occur within the City-owned ROW and that it will not negatively impact or increase floodplain hazards. This must be finalized through the EA (before detailed design).
<u>Report/Section-Specific Comments</u>		
Environmental Study Report		
8.	Sec. 3.3 Municipal Planning Context, p. 17	The Ninth Line Lands Scoped Subwatershed Study (SWS; 2017) should be referenced as Draft as it is not yet finalized.
9.	Sec. 6.10 Source Water Protection, p.60	It is CH staff's understanding that there is no significant groundwater recharge area located close to Eglinton Avenue. CH defers to CVC to confirm and provide any relevant comments in this regard.
10.	Sec. 6.5.1.3 Wetlands, p. 48	As part of mitigation, the EA must identify conceptual areas for potential restoration or creation of wetland habitat to replicate any areas of existing wetland features expected to be impacted or removed. In areas of impact to the wetland and/or buffer, mitigation should include (but is not limited to) restoration, an invasive species management plan and an edge management plan.
11.	Sec. 6.5.1.3 Wetlands, p. 48	In addition to the locally-significant wetland identified in the ESR, wetlands were identified in the Ninth Line SWS and appear to be located within the ROW. Specifically, wetlands 18, 22, 29C and 29G. These wetlands must be considered as part of the impact assessment and when developing mitigation measures. Revise the ESR to discuss these features and provide conceptual compensation plan for these features.

12.	Sec. 6.5.2.7 Ecological Linkages, p.51 & 10.1.10.1 Osprey Marsh Culvert Structure Widening, p. 113	Staff recommends that guideline measures from the CH Quick Guide to Road Ecology be incorporated, including (but not limited to) establishing appropriate openness ratio (OR) and dry banks. This is available here: https://conservationhalton.ca/policies-and-guidelines.
13.	Sec. 10.1.12.4 Hydraulic Assessment of Proposed Transverse Crossing and Table 10-7: Hydraulic Analysis Results for Alternative Scenarios at C-3 Crossing (NLT-1)	Please update report text to indicate spill hazard at locations where floodplain spills over Ninth Line and to note that at detail design, one objective of the NLT-1 crossing analysis should be to eliminate or reduce the spill hazard.
14.	Sec. 11.1 Table 11-1: Anticipated Impacts and Proposed Mitigation Measures, pp. 126-136	Please incorporate the following revisions: 12. Vegetation and Vegetation Communities (p. 131) - • a. Include Edge Management Plan as part of mitigation concept in areas within the CH regulated area, adjacent to natural features/communities, to mitigate noted anticipated impacts. • c. Include all wetland units which may be impacted, with no minimum size, together with appropriate mitigation measures. • g. & h. Staff recommends that a planted strip of native vegetation (including trees, shrubs, groundcover) be included along road ROW adjacent to natural areas/features in order to mitigate noted indirect impacts. • iv. Demonstration of restoration/compensation area is required since removal of wetland area without compensation is not supported. • viii. In areas within CH's regulatory limit, removed trees should be replaced at 3:1 ratio or greater. Replanting areas should be identified conceptually at this stage. 13. Fisheries and Aquatic Habitat (p. 132) – • c. Watercourse realignments must incorporate Natural Channel Design principles following fluvial geomorphology recommendations. 14. Wildlife and Wildlife Habitat (p. 133) – • v. Demonstrate that parameters such as (but not limited to) Openness Ratio (OR) of culvert are suitable for passage of appropriate wildlife up to medium mammals, as per recommendations of the CH Quick Guide to Road Ecology (available on website).

15.	Sec. 11.1 Table 11-1: Anticipated Impacts and Proposed Mitigation Measures, pp. 126-136; and Sec. 6.5.1.2 Significant Woodlands, p.48	Section 6.5.1.2 Significant Woodlands as well as Table 11-1, items 12) Vegetation and Vegetation Communities ii) and viii); and 14) Wildlife and Wildlife Habitat d) and ix) should be updated as follows: Staff recommends extending the proposed mitigation beyond minimizing impacts by including an edge management plan, an invasive species plan and the replacement of woodland and/or buffer impacted or removed. Provide mapping of areas where restoration/replanting can occur (at least conceptually). In the event adequate replanting/restoration areas are unavailable, alternative locations/solutions should be recommended.
16.	Sec. 12.2 Commitments of Future Work, 4f), p. 139	Include consideration of the Ontario Fish and Wildlife Conservation Act, 1997, in determination of timing window requirements.
17.	Sec. 12.2 Commitments of Future Work, 4l), p. 140	Note that all mapped or unmapped wetlands must be staked by CH and delineated on a survey signed and stamped by an Ontario Land Surveyor obtained by the City. Include wetlands 18, 22 and 29, as per notes for section 6.5.1.3., plus any others as required.
18.	Sec. 12.2 Commitments of Future Work, 4, pp. 139-140	Include a commitment that a water balance assessment will be provided as necessary to demonstrate that wetland hydrological function (including hydroperiod) will not be impacted.
19.	Sec. 12.2 Commitments of Future Work, 4, pp. 139-140	As per Section 6.5.1.3, include a commitment that appropriate mitigation measures (i.e., edge management plans, invasive species plan, etc.) will be implemented based on future impact assessments completed at detailed design.
20.	Sec. 12.2 Commitments of Future Work, 5a), p. 140	Staff previously raised concerns that the Hy-8 analysis used for the EA may not capture all potential impacts of the proposed widening on flood elevations, increasing the uncertainty on whether CH staff will be able to issue a permit for the works in the future. In light of other potential changes to the Ninth Line corridor, it was agreed that the City would defer a more robust analysis to the detailed design stage. Staff appreciates the commitments outlined in 5a) and asks that the following details be added to those commitments as per prior correspondence with the Study Team: • Indicate that an updated SWM and Drainage Report will be prepared to reflect updated information available at the time of detailed design including existing conditions, final design, and updated modelling information. • Indicate that the updated SWM and Drainage assessment will be prepared using the HEC-RAS model to demonstrate adequate conveyance capacity and no negative flooding impacts. • Commit that the City will make all necessary design modifications, including culvert upsizing, to address any flooding concerns that arise at the detailed design stage, to the satisfaction of CH.
21.	Sec. 12.2 Commitments of Future Work, 5f), p. 141	The following commitments should be noted as it relates to potential watercourse alteration:

		• Any proposed watercourse alteration works are to be designed in consultation with CH, as a CH Permit will be required. • Any watercourse alteration shall be designed such that it will not negatively impact or increase hazards, including no increases on adjacent properties. • It is recommended that the watercourse, hazards and regulatory allowances be placed into public ownership in association with any alterations. • Depending on future works, a fluvial geomorphological assessment based on MNRF's Technical Guide may be required to support realignment associated with the proposed culvert works for tributary NLT-1.
22.	Sec. 12.2 Commitments of Future Work, 5h), p. 141	It is CH's understanding that as part of hydraulic modelling in support of proposed works at the NLT-1 crossing, updates to floodplain mapping shall be completed. For areas where spills remain throughout the study area (e.g., NLT-1 and sections of Ninth Line further south), spill hazard shall be mapped. The commitment to update CH mapping should be updated to include both floodplain and spill hazards. Please be advised that a more accurate hazard mapping of existing conditions may be available for this area at detailed design based on ongoing works by others.
23.	Sec. 12.2 Commitments of Future Work, 5	Add text to reflect the commitment to investigate stormwater management approach outlined in Sec. 10.1.12.6 as it relates to unitary storage and discharge criteria to mitigate flood impacts.
24.	Sec. 12.2 Commitments of Future Work, 5, p. 140	Add text to reflect commitment to investigate supplemental BMP measures outlined in Sec. 4.4.4 of Appendix J (Drainage and Stormwater Management Report) as it relates to treatment train approach.
25.	Sec. 12.2 Commitments of Future Work, 5, p. 140	The draft Ninth Line Scoped SWS model was used for the purpose of confirming no floodplain impacts as a result of the proposed Ninth Line EA works. Add a commitment that at detailed design, the applicable model to use at that time (e.g., approved SWS model or other modelling available from work by others) will be confirmed with CH.
26.	Sec. 12.2 Commitments of Future Work, 13, b), p. 143	Item b) should clarify that the well survey will be completed as per Peel Region guidelines to protect private water supplies in terms of water quality and quantity.
27.	Sec. 12.2 Commitments of Future Work, 13, b), p. 143	The Hydrogeological Investigation outlined in item a) should be expanded to include more details on the monitoring component (quality and quantity in baseline, during and post construction) and must include assessment of the proposed project on changes to groundwater flow patterns, groundwater and surface water interactions and natural features; and, if needed, propose adequate mitigation measures.
Appendix M – Preliminary Design Roll Plan		
28.	Preliminary Design Roll Plan	Spill hazard areas should be identified on this plan by including arrows indicating spill direction and labelling as 'spill'. Sections of the ESR and Appendix J (Drainage and Stormwater Management Report) should be updated to list a design objective to raise Ninth Line at spill locations so that spill areas are eliminated or minimized to the extent possible. (Reference Sections 12.2 of the ESR).

Hydraulic Model		
29.	Proposed Grading	As per comment #7, if permission has not been obtained from adjacent landowners for grading on their lands, please update proposed grading and modelling to demonstrate that all works (including grading) can occur within the City-owned ROW and that the works will not negatively impact or increase flooding hazards.

Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

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Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

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June 2, 2021

Patrick Yip, P.Eng.
HDR Inc.
patrick.yip@hdrinc.com
BY EMAIL ONLY

Re: **Ninth Line Improvements from Eglinton Avenue West to Derry Road West**
City of Mississauga
Schedule C Municipal Class Environmental Assessment
Draft Environmental Study Report

Dear Mr. Yip,

The Ministry of the Environment, Conservation and Parks (MECP) has reviewed the draft Environmental Study Report (report) prepared by HDR Inc., dated April 30, 2021 for the Schedule C Municipal Class Environmental Assessment (Class EA) for the widening of Ninth Line between Derry Road and Eglinton Avenue in the City of Mississauga. We understand that the preferred alternative is a combination of Alternative 4 – Operational Improvements (including localized intersections), Alternative 5 – Multimodal Improvements (including improved streetscaping), and Alternative 6 – Widen from 2 Lanes to 4 Lanes, and that the preferred design concept includes separated bike lanes, sidewalks on both sides of the road, and widening of the road to the west.

The following comments regarding Surface Water are offered for your consideration:

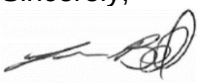
1. Additional work may be required at the detailed design stage or under separate studies (i.e. Ninth Line Lands development and/or Transitway study) before the statements in the report concerning the water balance can be verified. An Environmental Compliance Approval under the OWRA is required for new/updates to municipal stormwater management works.

2. The pavement area analysis notes enhanced level water quality, water balance, and erosion control treatment will be provided for a 7.19 ha increase in pavement area across the Ninth Line corridor. However, water quality impacts beyond Total Suspended Solids have not been thoroughly discussed. Opportunities to implement supplemental Best Management Practice measures should be considered during the detailed design stage to enhance overall water quality objectives. A review of the current practice on road salt management and an evaluation of the potential impacts on surface water from the increased salt load of the pre-development versus post-development roadway salt impacts should be included.

    - Water temperature impacts are briefly considered as infiltration trenches are noted to reduce impacts (section 4.4.4 Supplemental BMP Measures). However, there is also opportunity to further consider these impacts at the detailed design stage.

Thank you for the opportunity to review the report. Please feel free to contact me directly at (437) 770-3731 or trevor.bell@ontario.ca with any questions you may have.

Sincerely,



Trevor Bell
Regional EA Coordinator
Project Review Unit

Cc: Katy Potter, Supervisor, Project Review Unit, MECP
Loralyn Wild, Manager (A), Halton-Peel District Office, MECP
Jeffrey Reid, Project Manager, City of Mississauga

No.	Topic/Section, Page #	CH Comment	Project Team Response	Action
General Comments				
1	CH Regulated Area	The Environmental Study Report (ESR) should be updated to speak to Conservation Authority Policy Context, and should include the following information regarding Conservation Halton (CH): CH regulates all watercourses, valleylands, wetlands, Lake Ontario and Hamilton Harbour shoreline and hazardous lands, as well as lands adjacent to these features. The study area contains tributaries of the East Lisgar Branch of Sixteen Mile Creek and the flooding and erosion hazards associated with those watercourses. The area also contains wetlands of various sizes. CH regulates a distance of 15 metres from the greater of the limit of the flooding or erosion hazards; 120 metres from the limit of wetlands that are greater than 2 hectares in size or that are Provincial Significant; and 30 metres from all other wetlands. Permission is required from CH prior to undertaking any development within CH's regulated area and works must meet CH's *Policies and Guidelines for the Administration of Ontario Regulation 162/06* (https://conservationhalton.ca/policies-and-guidelines). In addition to the above, there are several areas along Ninth Line in which flood plain spills occur, where flood waters may leave the flood plain of a watercourse and "spill" into surrounding lands, rejoining the watercourse at a distance downstream or moving into another watershed. In the past, it was not possible to map and thus regulate spills because available technology could not accurately determine where the water would flow and at what speed and depth. With new tools and technologies, spill areas can be more accurately defined. Therefore, CH's policies were updated in April 2020 with an interim policy acknowledging that spills are subject to *Ontario Regulation 162/06* and advising that permission is required for development in these areas. The interim policy states the following: *Development and redevelopment in spill areas will be considered on a case-by-case basis. Permission may only be granted where the site is subject to low risk and, where appropriate, mitigation measures can be implemented to reduce potential impacts to the satisfaction of Conservation Halton (e.g., flood proofing).* This policy applies until such time that new provincial regulations or direction on spills is issued, or new CH spill policies are approved by the CH Board of Directors, after consultation with municipalities and the public.	Comment noted, text to be included in ESR Section 6.5 Natural Environment.	Update ESR Section 6.5 Natural Environment
2	Flood Hazard – unmapped spill areas	The report text should be updated to indicate regulated spill hazard at several locations where the floodplain spills over Ninth Line. The ESR figures should identify spill hazard areas by including arrows indicating spill direction and labelling as 'spill'.	The Drainage and Stormwater Management report text will be updated to identify existing locations where the Regional floodplain spills over Ninth Line. A spill direction arrow and callout will be provided for locations where the floodplain spill is beyond the Ninth Line Subwatershed Study (AFW, 2015) Regional floodplain model extent (ie. north of Britannia Road, Lacman Trail, south of Lacman Trail, North of Deepwood Heights).	Update ESR Section 6.7 Stormwater, Drainage and Hydrology, SWM report and Drainage Plans.

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3	CH Policy Document Update	CH's Policy document went through a housekeeping amendment on November 26, 2020. Although the general content has not changed, the Policy numbers have been modified. Please update document text as necessary to reference applicable CH Policy (e.g., CH's Public Infrastructure Policy is now Policy 2.48 rather than 3.51 as noted in Section 3.3 of the Natural Environment Assessment).	Policy numbers updated based on CH's amendment on November 26, 2020 in the Natural Heritage Report	Update ESR and Natural Heritage Report to reflect amended policy numbers
4	CH Permits	As noted in the Future Commitments, CH Permits are required for all development (structures, fill, grading, feature/hazard alteration, etc.) within the area regulated pursuant to Ontario Regulation 162/06. Staff advises that at a minimum, this includes: • Crossing C-3, associated with watercourse NLT-1 (Osprey Marsh) and any associated watercourse realignment. • Grading associated with road widening, including culverts associated with headwater drainage features that are within the regulated floodplain or allowances. Note that more than one CH permit will likely be needed. Private landowners will need to apply for and obtain CH permits for any of the road development (including grading) on their lands as CH permits must be issued to the applicable landowners. Please clarify if all works will be completed within City-owned property.	Most works are proposed within the existing City-owned Right-of-Way (ROW). For any works beyond the existing road right-of-way, additional property is proposed to be acquired by the City, in Detailed Design in advance of construction. A summary table of property acquisition requirements is in section 10.1.9 of the ESR and identified on the preliminary design plates as permanent property takings and permanent / temporary grading easements. During Detailed Design property requirements will be finalized. The City's intent is to grade within the City-ROW. The City also has agreements/tools such as PTE agreements that can facilitate minor grading works if required.	N/A
5	Flood hazard - floodplain	For CH to issue a permit under Ontario Regulation 162/06, detailed design must demonstrate that proposed works will have no negative impacts on natural hazards and will not increase risk to life and property from natural hazards. The works also must not increase regulated areas on adjacent lands. Preliminary design for NLT-1 crossing updates indicates an increase of 0.02m in Regional storm water surface elevation immediately upstream of the crossing under proposed conditions. This increase is above typical modelling error and indicates potential impacts to the floodplain hazard on adjacent and/or upstream properties, which cannot be supported by CH. However, based on the alternative scenarios presented in Table 10-7, there appears to be an option (i.e., Option 3B) that will eliminate impacts to floodplain hazard upstream as well as eliminate or reduce spill hazard over Ninth Line, subject to verification at detail design. A commitment to implement the option that has no negative impacts and will not increase hazard risks or limits should be included in the ESR. The ESR and supporting documentation (e.g., Appendices J and N) should make it clear that the final option will be confirmed at detailed design once additional supporting modelling and analysis is complete.	Revise ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management bullet 5.a) • During Detailed Design conduct a detailed hydraulic analysis to assess the impact along the upstream reach at Crossing C-3 (*NLT-1)*. Review the opportunity to raise the road profile at this crossing to minimize / eliminate overtopping. Recommend option that has no negative impacts and will not increase hazard risks or limits. Update ESR Section 10.1.12 Drainage / Stormwater Management and Appendices J (Drainage and Stormwater Management Report) and N (Structural Design Memo) to clarify that the final option will be confirmed at detailed design once additional supporting modelling and analysis is completed. It should be noted that there may be project specific considerations in regards to addressing spill conditions, particularly in the area north of Britannia Road.	Update Future Commitments heading 5 – Drainage and SWM bullet 5.a. Update ESR Section 10.1.12 Drainage / Stormwater Management, and Appendices J: Drainage and Stormwater Management Report and Appendix N Structural Design Memo
6	Flood Free Access	CH endeavors to have all public roadways flood free under Regional Storm conditions. At a minimum, safe access and egress should be provided for both pedestrians and vehicles as defined in the MNRF's Technical Guide on River and Stream Systems: Erosion Hazard Limit (2002), resulting in a maximum flood depth of 0.3 m, a maximum flood velocity of 1.7 m/s and a maximum depth-velocity product of 0.4 m2/s. MNRF's Technical Guide may	Note that the MNRF's Technical Guide specifies a maximum flood depth of 0.8 m, and the preliminary hydraulic analyses conducted as part of this EA study indicates a maximum overtopping of 0.68 m under existing conditions and 0.64 m under proposed conditions, which are both below the maximum flood depth and also indicates that the proposed design does not negatively impact the existing conditions. The velocity and	Add to Future Commitments heading 5 – Drainage and SWM

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		not provide sufficient accessibility for emergency vehicles due to the operational practices of each Emergency Response Organization. If a roadway is considered by the Province or local municipality to be an Emergency Route, then there should be no overtopping of the road with flood waters. Furthermore, as per Policy 3.1.2 of the Provincial Policy Statement (2020), development and site alteration shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard. This should be considered as it relates to future development and proposed roads along Ninth Line. Based on the above, future commitments for detailed design should include an objective to explore opportunities to eliminate or reduce the flood hazards (including spill), to the extent possible, thereby reducing or eliminating risk to life and property from natural hazards. It should also include an objective to create a flood free roadway or at a minimum reduce road overtopping during the Regional Storm.	depth-velocity product criteria will be evaluated during detailed design when additional floodplain modelling information is available. Update ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management to include: • During Detailed Design explore opportunities to eliminate or reduce the flood hazards (including spill), to the greatest extent possible. • During Detailed Design review opportunities to create a flood free roadway or at a minimum reduce road overtopping during the Regional Storm.	
7	CH Regulation Limits	The preliminary hydraulic analysis showed negligible increases (e.g. 0.01m) in flood levels as the result of the proposed work. Staff understands this assessment may rely on grading outside of the City's ROW. For example, the proposed scenario includes modification to existing ground surface as far west from the future center line as 39m (XS 221). Therefore, please confirm that permission has been obtained from applicable landowners for this work to occur. Otherwise, the EA must demonstrate that necessary grading can occur within the City-owned ROW and that it will not negatively impact or increase floodplain hazards. This must be finalized through the EA (before detailed design).	The cross-sections of the existing HEC-RAS model (AFW, 2015) were generated at a lower level of detail compared to the Ninth Line topographic survey within the right-of-way conducted for this study. Accordingly, the tie-in points of the proposed surface to the existing surface in the HEC-RAS model may show slight deviation from the grading extent shown in the ESR roll plan, such as the case for XS 221. For any works beyond the existing road right-of-way, additional property is proposed to be acquired by the City, during Detailed Design and in advance of construction. A summary table of property acquisition requirements is in section 10.1.9 of the ESR and identified on the preliminary design plates as permanent property takings and permanent / temporary grading easements. In locations of future development permanent grading impacts and associated land requirements may be reduced if the planned site is re-graded to meet the elevation of the proposed road right-of-way. During Detailed Design property requirements will be finalized. The City's intent is to grade within the City right-of-way. The City also has agreements and tools in place, such as PTE agreements, to facilitate minor grading works if required.	N/A
Environmental Study Report Comments				
8	Sec. 3.3 Municipal Planning Context, p. 17	The Ninth Line Lands Scoped Subwatershed Study (SWS; 2017) should be referenced as Draft as it is not yet finalized	Comment noted. To be updated in ESR	Update ESR
9	Sec. 6.10 Source Water Protection, p.60	It is CH staff's understanding that there is no significant groundwater recharge area located close to Eglinton Avenue. CH defers to CVC to confirm and provide any relevant comments in this regard.	Comment noted. CVC has not commented on this in their draft ESR review.	N/A

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10	Sec. 6.5.1.3 Wetlands, p. 48	As part of mitigation, the EA must identify conceptual areas for potential restoration or creation of wetland habitat to replicate any areas of existing wetland features expected to be impacted or removed. In areas of impact to the wetland and/or buffer, mitigation should include (but is not limited to) restoration, an invasive species management plan and an edge management plan.	Impacts from the road improvements to the wetlands are identified to be minor, and compensation to address applicable project-specific impacts will be determined in Detailed Design. Depending on the construction timing wetland compensation areas may be incorporated within City owned lands and / or within the Ninth Line Lands NHS as the Ninth Line Lands NHS are planned to increase the ecological quality and functionality of wetlands. Specific and suitable locations will be determined in consultation with City staff and CH • ESR Section 11, Table 11 1: Anticipated Impacts and Proposed Mitigation Measures, Row 12 – Vegetation and Vegetation Communities, bullet iv) has been updated. • ESR Section 12 - Commitments for Future Work , under heading 4 – Natural Heritage bullet G is updated to reference invasive species management plan and edge management plan.	Update ESR Table 11 1: Anticipated Impacts and Proposed Mitigation Measures, Row 12 bullet iv; Future Commitments heading 4- Natural Heritage, bullet H; and Natural Heritage Report
11	Sec. 6.5.1.3 Wetlands, p. 48	In addition to the locally-significant wetland identified in the ESR, wetlands were identified in the Ninth Line SWS and appear to be located within the ROW. Specifically, wetlands 18, 22, 29C and 29G. These wetlands must be considered as part of the impact assessment and when developing mitigation measures. Revise the ESR to discuss these features and provide conceptual compensation plan for these features.	These SWS-mapped wetlands were identified and mapped in the EA Natural Environment Assessment and correspond to the following Ecological Land Classification system wetland communities as mapped on the NEA Map 3 set: • Wetland 18: Cattail Mineral Shallow Marsh (MAS2-1) – Map 3I • Wetland 10: Graminoid Mineral Meadow Marsh (MAM2) – Map 3M • Wetland 22: Graminoid Mineral Meadow Marsh (MAM2) – Map 3H • Wetland 29C: Reed Canary Grass Mineral Meadow Marsh/Cattail Mineral Shallow Marsh Complex (MAM2-2/MAS2-1) – Map 3G • Wetland 29G: Reed Canary Grass Mineral Meadow Marsh/Cattail Mineral Shallow Marsh Complex (MAM2-2/MAS2-1) – Map 3E The ESR will be updated to clarify that minor encroachment into SWS wetland #18 and #10 are also anticipated as showing on NEA Map As shown on the NEA Map 3 set, the limits of Wetlands #22, 29C and 29G are located outside of the planned construction limits and will not be directly impacted.	Update ESR to discuss Wetland Impacts under Table 11 1: Anticipated Impacts and Proposed Mitigation Measures, Row 12
12	Sec. 6.5.2.7 Ecological Linkages, p.51 & 10.1.10.1 Osprey Marsh Culvert Structure Widening, p. 113	Staff recommends that guideline measures from the CH Quick Guide to Road Ecology be incorporated, including (but not limited to) establishing appropriate openness ratio (OR) and dry banks. This is available here: https://conservationhalton.ca/policies-and-guidelines.	Dry bench is proposed in the Osprey Marsh Culvert as shown in the General Arrangement drawing included in the structural memo to facilitate wildlife passage within the existing structure. Each cell of the existing structure's opening at NLT-1 accommodates wildlife passage of medium-sized mammals (OR = 0.38, exceeding the minimum value of 0.1; width and height = 7.0m x 2.4m, exceeding minimum values of 1m for each) and is maintained with the proposed improvements. Reference to these guidelines has been added to the ESR.	Update ESR Section 6.5.2, and Section 10.1.10 and Natural Environment Assessment Report to Discuss Established Openness Ratio
13	Sec. 10.1.12.4 Hydraulic Assessment of Proposed Transverse	Please update report text to indicate spill hazard at locations where floodplain spills over Ninth Line and to note that at detail design, one objective of the NLT-1 crossing analysis should be to eliminate or reduce the spill hazard.	See response to Comment #2.	Update Drainage and Stormwater Management report and Drainage Plans.

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	Crossing and Table 10-7: Hydraulic Analysis Results for Alternative Scenarios at C-3 Crossing (NLT-1)			
14	Sec. 11.1 Table 11-1: Anticipated Impacts and Proposed Mitigation Measures, pp. 126-136	Please incorporate the following revisions: 12. Vegetation and Vegetation Communities (p. 131) - • Include Edge Management Plan as part of mitigation concept in areas within the CH regulated area, adjacent to natural features/communities, to mitigate noted anticipated impacts. • c. Include all wetland units which may be impacted, with no minimum size, together with appropriate mitigation measures. • g. & h. Staff recommends that a planted strip of native vegetation (including trees, shrubs, groundcover) be included along road ROW adjacent to natural areas/features in order to mitigate noted indirect impacts. • iv. Demonstration of restoration/compensation area is required since removal of wetland area without compensation is not supported. • viii. In areas within CH's regulatory limit, removed trees should be replaced at 3:1 ratio or greater. Replanting areas should be identified conceptually at this stage. 13. Fisheries and Aquatic Habitat (p. 132) – • c. Watercourse realignments must incorporate Natural Channel Design principles following fluvial geomorphology recommendations. 14. Wildlife and Wildlife Habitat (p. 133) – • v. Demonstrate that parameters such as (but not limited to) Openness Ratio (OR) of culvert are suitable for passage of appropriate wildlife up to medium mammals, as per recommendations of the CH Quick Guide to Road Ecology (available on website).	12. Vegetation and Vegetation Communities • An Edge Management Plan will be prepared for any woodland or wetland features that require encroachment to accommodate road construction works. The ESR and NEA have been updated to include this measure. • No additional wetland units, beyond the feature described in the NEA/ESR, will be directly impacted through road infrastructure encroachment. • As noted under heading 14(ix) and further discussed in NEA Section 9.0, restoration of the disturbed natural feature edges will be undertaken through establishment of native woody and herbaceous vegetation species that are appropriate to the site conditions and reflective of the adjacent vegetation communities compositions. This will be detailed in a future Restoration Planting Plan/Landscape Plan. This is also noted in ESR Section 12.2 4) g) (Future Work Commitments). • See response to Comment #10. • CH's requirement for a minimum 3:1 tree removal compensation ratio within its regulatory limit has been incorporated into the ESR and NEA. Tree compensation requirements will be confirmed during the Detailed Design stage and will also be considered against City tree compensation requirements. The greater of the CH and City tree compensation number requirements will be implemented. Tree compensation plantings will be established within the Ninth Line ROW where shown in the Preliminary Design, including as part of natural feature edge management and restoration. These will be detailed in a future Restoration Planting Plan/Landscape Plan. The need for any additional compensation planting area will be determined during the Detailed Design stage. The need for any additional tree compensation areas will be accommodated within City-owned lands. 13. Fisheries and Aquatic Habitat • Natural Channel Design principles will be incorporated into detailed restoration design of the NLT-1 watercourse within the ROW. Note that no realignment of the watercourse within the ROW is proposed as part of this assignment. 14. Wildlife and Wildlife Habitat • See response to Comment #12.	Update ESR and Natural Environment Assessment Report under Table 11 1: Anticipated Impacts and Proposed Mitigation Measures, Rows 12 to 14 and Future Commitments
15	Sec. 11.1 Table 11-1: Anticipated Impacts and Proposed Mitigation	Section 6.5.1.2 Significant Woodlands as well as Table 11-1, items 12) Vegetation and Vegetation Communities ii) and viii); and 14) Wildlife and Wildlife Habitat d) and ix) should be updated as follows: Staff recommends extending the proposed mitigation beyond minimizing impacts by including an edge management plan, an invasive species plan and the replacement of woodland and/or buffer impacted or removed. Provide	The ESR has been revised to include implementation of an Edge Management Plan and Invasive Species Management Plan along with the Restoration Planting Plan/Landscape Plan for restoration of natural feature edges. Significant Woodland encroachment impacts may be reduced through completion of the Detailed Design. Total woodland compensation requirements should therefore be	Update Future Commitments heading 4- Natural Heritage

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	Measures, pp. 126-136; and Sec. 6.5.1.2 Significant Woodlands, p.48	mapping of areas where restoration/replanting can occur (at least conceptually). In the event adequate replanting/restoration areas are unavailable, alternative locations/solutions should be recommended.	confirmed during the Detailed Design stage. In addition to woodland edge restoration plantings, invasive species management and edge management, additional woodland compensation requirements will be accommodated on City-owned lands. Specific and suitable locations will be determined in consultation with City staff.	
16	Sec. 12.2 Commitments of Future Work, 4f), p. 139	Include consideration of the Ontario Fish and Wildlife Conservation Act, 1997, in determination of timing window requirements.	All recommended timing windows are consistent with standard natural environment mitigation practices and legislative or policy requirements.	N/A
17	Sec. 12.2 Commitments of Future Work, 4l), p. 140	Note that all mapped or unmapped wetlands must be staked by CH and delineated on a survey signed and stamped by an Ontario Land Surveyor obtained by the City. Include wetlands 18, 22 and 29, as per notes for section 6.5.1.3., plus any others as required.	Detailed wetland boundaries will be delineated according to the Ontario Wetland Evaluation System, confirmed and staked with CH during the Detailed Design stage. The confirmed boundaries will be surveyed by an OLS for inclusion on maps and plans. Boundary surveys will be completed for wetlands within or immediately adjacent to the existing or proposed ROW, subject to site access.	Update Future Commitments heading 4 – Natural Heritage
18	Sec. 12.2 Commitments of Future Work, 4, pp. 139-140	Include a commitment that a water balance assessment will be provided as necessary to demonstrate that wetland hydrological function (including hydroperiod) will not be impacted.	Update ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management to include: • During Detailed Design, provide a water balance assessment as necessary to demonstrate that wetland hydrological function (including hydroperiod) will not be impacted.	Updated Future Commitments heading 5 – Drainage and SWM
19	Sec. 12.2 Commitments of Future Work, 4, pp. 139-140	As per Section 6.5.1.3, include a commitment that appropriate mitigation measures (i.e., edge management plans, invasive species plan, etc.) will be implemented based on future impact assessments completed at detailed design.	ESR Section 12 - Commitments for Future Work , under heading 4 – Natural Heritage bullet g is updated to reference invasive species management plan and edge management plan	Update Future Commitments heading 4- Natural Heritage bullet g
20	Sec. 12.2 Commitments of Future Work, 5a), p. 140	Staff previously raised concerns that the Hy-8 analysis used for the EA may not capture all potential impacts of the proposed widening on flood elevations, increasing the uncertainty on whether CH staff will be able to issue a permit for the works in the future. In light of other potential changes to the Ninth Line corridor, it was agreed that the City would defer a more robust analysis to the detailed design stage. Staff appreciates the commitments outlined in 5a) and asks that the following details be added to those commitments as per prior correspondence with the Study Team: • Indicate that an updated SWM and Drainage Report will be prepared to reflect updated information available at the time of detailed design including existing conditions, final design, and updated modelling information. • Indicate that the updated SWM and Drainage assessment will be prepared using the HEC-RAS model to demonstrate adequate conveyance capacity and no negative flooding impacts. • Commit that the City will make all necessary design modifications, including culvert upsizing, to address any flooding concerns that arise at the detailed design stage, to the satisfaction of CH.	Update ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management to include: • During Detailed Design, an updated SWM and Drainage Report will be prepared to reflect updated information available at the time of detailed design including existing conditions, final design, and updated modelling information • During Detailed Design, an updated SWM and Drainage assessment will be prepared using the HEC-RAS model to demonstrate adequate conveyance capacity and no negative flooding impacts • During Detailed Design, the City will make design modifications, including culvert upsizing (if required), to address any flooding concerns that arise at the detailed design stage, to the satisfaction of CH	Update Future Commitments heading 5 – Drainage and SWM

No.	Topic/Section, Page #	CH Comment	Project Team Response	Action
21	Sec. 12.2 Commitments of Future Work, 5f), p. 141	The following commitments should be noted as it relates to potential watercourse alteration: • Any proposed watercourse alteration works are to be designed in consultation with CH, as a CH Permit will be required. • Any watercourse alteration shall be designed such that it will not negatively impact or increase hazards, including no increases on adjacent properties. • It is recommended that the watercourse, hazards and regulatory allowances be placed into public ownership in association with any alterations. • Depending on future works, a fluvial geomorphological assessment based on MNRF's Technical Guide may be required to support realignment associated with the proposed culvert works for tributary NLT-1.	Comment noted. To be expanded under ESR Section 12 - Commitments for Future Work However it is clarified that the proposed works are not anticipated to require re-alignment of NLT-1.	Update Future Commitments heading 5 – Drainage and SWM
22	Sec. 12.2 Commitments of Future Work, 5h), p. 141	It is CH's understanding that as part of hydraulic modelling in support of proposed works at the NLT-1 crossing, updates to floodplain mapping shall be completed. For areas where spills remain throughout the study area (e.g., NLT-1 and sections of Ninth Line further south), spill hazard shall be mapped. The commitment to update CH mapping should be updated to include both floodplain and spill hazards. Please be advised that a more accurate hazard mapping of existing conditions may be available for this area at detailed design based on ongoing works by others.	Drainage and Stormwater Management report text will be updated to identify existing locations where the Regional floodplain spills over Ninth Line. The following bullet to be added to ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management: • During Detailed Design, update CH mapping of the floodplain and spill hazards within the study area using the latest available hazard mapping of existing conditions.	Update Drainage and Stormwater Management report and Future Commitments heading 5 – Drainage and SWM
23	Sec. 12.2 Commitments of Future Work, 5	Add text to reflect the commitment to investigate stormwater management approach outlined in Sec. 10.1.12.6 as it relates to unitary storage and discharge criteria to mitigate flood impacts.	Drainage and Stormwater Management report text will be updated to include future commitment to investigate SWM approach as it relates to unitary storage and discharge criteria to mitigate flood impacts. The following bullet to be added to ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management • During Detailed Design investigate the stormwater management approach as it relates to unitary storage and discharge criteria to mitigate flood impacts	Update Drainage and Stormwater Management report and Future Commitments heading 5 – Drainage and SWM
24	Sec. 12.2 Commitments of Future Work, 5, p. 140	Add text to reflect commitment to investigate supplemental BMP measures outlined in Sec. 4.4.4 of Appendix J (Drainage and Stormwater Management Report) as it relates to treatment train approach.	The following bullet to be added to ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management • During Detailed Design investigate supplemental Best Management Practice Measures to inform the treatment train approach as outlined in Drainage and Stormwater Management Report (as per Appendix J)	Update Future Commitments heading 5 – Drainage and SWM
25	Sec. 12.2 Commitments of Future Work, 5, p. 140	The draft Ninth Line Scoped SWS model was used for the purpose of confirming no floodplain impacts as a result of the proposed Ninth Line EA works. Add a commitment that at detailed design, the applicable model to use at that time (e.g., approved SWS model or other modelling available from work by others) will be confirmed with CH.	The following bullet to be added to ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management • During Detailed Design conduct detailed analysis using an applicable model confirmed with CH (for example, approved SWS model or other available modelling from work by others), to identify that no impacts to the floodplain will result from the proposed works on Ninth Line.	Update Future Commitments heading 5 – Drainage and SWM

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26	Sec. 12.2 Commitments of Future Work, 13, b), p. 143	Item b) should clarify that the well survey will be completed as per Peel Region guidelines to protect private water supplies in terms of water quality and quantity.	Revise bullet 13.b from ESR Section 12 - Commitments for Future Work under heading 13 – Hydrogeological Investigations to: • During Detailed Design, conduct well survey to confirm/identify any active wells prior to construction and if potential impacts to active wells will be required from potential dewatering / construction spills. **The well survey will be completed as per Peel Region guidelines to protect private water supplies in terms of water quality and quantity**	Update Future Commitments heading 13 – Hydrogeological Investigations, bullet 13.b
27	Sec. 12.2 Commitments of Future Work, 13, b), p. 143	The Hydrogeological Investigation outlined in item a) should be expanded to include more details on the monitoring component (quality and quantity in baseline, during and post construction) and must include assessment of the proposed project on changes to groundwater flow patterns, groundwater and surface water interactions and natural features; and, if needed, propose adequate mitigation measures.	Revise bullet 13.a from ESR Section 12 - Commitments for Future Work under heading 13 – Hydrogeological Investigations to: • During Detailed Design undertake a Hydrogeological Investigation to assess the proposed project on changes to groundwater flow patterns, groundwater and surface water interactions and natural features. The investigation will identify construction dewatering and long-term dewatering estimate calculations, groundwater settlement impacts, and permitting requirements. Monitoring requirements to address quality and quantity in baseline, during and post construction will be identified and if needed, mitigation measures will be proposed.	Update Future Commitments heading 13 – Hydrogeological Investigations, bullet 13.a
Preliminary Design Roll Plan				
28	Preliminary Design Roll Plan	Spill hazard areas should be identified on this plan by including arrows indicating spill direction and labelling as ‘spill’. Sections of the ESR and Appendix J (Drainage and Stormwater Management Report) should be updated to list a design objective to raise Ninth Line at spill locations so that spill areas are eliminated or minimized to the extent possible. (Reference Sections 12.2 of the ESR).	See Response to Comment #2. Update ESR Section 12 - Commitments for Future Work under heading 5 – Drainage and Stormwater Management to include: • During Detailed Design explore opportunities to eliminate or reduce the flood hazards (including spill), to the greatest extent possible. • During Detailed Design review opportunities to create a flood free roadway or at a minimum reduce road overtopping during the Regional Storm.	Update Future Commitments heading 5 – Drainage and SWM, Preliminary Design Plans, and Drainage and Stormwater Management report.
29	Proposed Grading	As per comment #7, if permission has not been obtained from adjacent landowners for grading on their lands, please update proposed grading and modelling to demonstrate that all works (including grading) can occur within the City-owned ROW and that the works will not negatively impact or increase flooding hazards.	For any works beyond the existing road right-of-way, additional property is proposed to be acquired by the City in Detailed Design in advance of construction. A summary table of property acquisition requirements is in section 10.1.9 of the ESR and identified on the preliminary design plates as permanent property takings and permanent / temporary grading easements. In locations of future development permanent grading impacts and associated land requirements may be reduced if the planned site is re-graded to meet the elevation of the proposed road right-of-way. During Detailed Design property requirements will be finalized. The City’s intent is to grade within the City-ROW. The City also has agreements/tools such as PTE agreements that can facilitate minor grading works if required.	N/A
30	Key Comment (D)	The line labeled as “CH Regulation Limits” on the Roll Plan and all Figures should be updated to state: “Preliminary Floodplain Limit as per Draft Ninth Line Lands Scoped Subwatershed Study”. Staff recommends that a note be	Note to be reflected in roll plan and figures	Update Preliminary Design Plans

No.	Topic/Section, Page #	CH Comment	Project Team Response	Action
		included to clarify that the existing and proposed floodplain limits are the same.		

No.	MECP Comment	Project Team Response	Action
1	Additional work may be required at the detailed design stage or under separate studies (i.e. Ninth Line Lands development and/or Transitway study) before the statements in the report concerning the water balance can be verified. An Environmental Compliance Approval under the OWRA is required for new/updates to municipal stormwater management works.	Comment noted, the statements in the report concerning the water balance and coordination with adjacent developments/studies will be updated during detailed design. An Environmental Compliance Approval will be completed during detailed design for new/updates to municipal stormwater management works.	N/A
2	The pavement area analysis notes enhanced level water quality, water balance, and erosion control treatment will be provided for a 7.19 ha increase in pavement area across the Ninth Line corridor. However, water quality impacts beyond Total Suspended Solids have not been thoroughly discussed. Opportunities to implement supplemental Best Management Practice measures should be considered during the detailed design stage to enhance overall water quality objectives. A review of the current practice on road salt management and an evaluation of the potential impacts on surface water from the increased salt load of the pre-development versus post-development roadway salt impacts should be included. • Water temperature impacts are briefly considered as infiltration trenches are noted to reduce impacts (section 4.4.4 Supplemental BMP Measures). However, there is also opportunity to further consider these impacts at the detailed design stage.	Two additional future commitments will be added to the ESR report and Stormwater Management Report: 1. During detailed design, a review of the current practice on road salt management and an evaluation of the potential impacts on surface water from the increase salt load of the pre-development versus post-development roadway salt impacts will be included. 2. During detailed design, supplemental Best Management Practice measures to mitigate water temperature impacts are also to be considered.	Update Future Commitments heading 5 – Drainage and SWM Update Drainage and Stormwater Management Report

Yip, Patrick

From: Kilis, Jakub <Jakub.Kilis@cvc.ca>
Sent: Tuesday, June 15, 2021 11:24 AM
To: Yip, Patrick
Cc: Jeffrey Reid; Mascarenhas, Michelle; Cava, Samantha; Golding, George
Subject: RE: [External] RE: CVC Comments - Ninth Line EA (Draft ESR) - CVC File No. EA 20/002

Hi Patrick,

Thanks for your response and detailed comment. We have not further questions or comments at this time.

Jakub

From: Yip, Patrick <Patrick.Yip@hdrinc.com>
Sent: Tuesday, June 15, 2021 10:48 AM
To: Kilis, Jakub <Jakub.Kilis@cvc.ca>
Cc: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; Mascarenhas, Michelle <Michelle.Mascarenhas@hdrinc.com>; Cava, Samantha <samantha.cava@cvc.ca>; Golding, George <George.Golding@cvc.ca>
Subject: [External] RE: CVC Comments - Ninth Line EA (Draft ESR) - CVC File No. EA 20/002

Hi Jakub,

Thank you for providing CVC's comments and for your team's participation in the draft ESR review.

Please see below for our responses to CVC's comments in red.

If you have any questions and/or concerns, please feel free to reach out.

Thanks,
Patrick

Patrick Yip, P.Eng
D 289.695.4759

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From: Kilis, Jakub <Jakub.Kilis@cvc.ca>
Sent: Wednesday, May 26, 2021 3:02 PM
To: Yip, Patrick <Patrick.Yip@hdrinc.com>
Cc: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; Mascarenhas, Michelle <Michelle.Mascarenhas@hdrinc.com>; Cava,

Samantha <samantha.cava@cvc.ca>; Golding, George <George.Golding@cvc.ca>
Subject: CVC Comments - Ninth Line EA (Draft ESR) - CVC File No. EA 20/002

Hi Patrick,

CVC staff has had a chance to review the Draft ESR and offer the following comment and recommendations for your consideration.

Engineering

1. Our previous engineering comments have been satisfactorily addressed at the EA stage with appropriate commitments for detailed design. Comment Noted.

Ecology

Based on this review, the following comments should be addressed in the next submission:

2. Please re-evaluate the opportunity to reduce the median width from 5m. Any reduction of the median in conjunction with the reduction of the utility/planting zone and the recommended merging of the sidewalk and walking track will help to reduce the grading impacts on the adjacent woodlot. Although a 0.45m reduction is appreciated, it is not expected to significantly reduce the number of trees to be removed. The reduction in centre median cannot be accommodated due to the southbound dedicated left-turn lane at Erin Centre Boulevard. However, opportunities to refine the design to minimize impacts to this woodlot area to be reviewed during Detailed Design, in consultation with CVC.

According to the latest submission, the following commitments (as outlined in the ESR) should be addressed submitted/addressed at the Detailed Design phase:

3. Detailed delineation and agency confirmation of wetland boundaries within or adjacent to the ROW and boundary surveying. It appears that the current proposed grading limit may be within 30m of the wetland – ie within CVC's Regulated Area. This needs to be confirmed at the start of the detailed design process and may need to include confirmation of the level impact to the SWD3 wetland feature adjacent to the ROW within the FOD6-5 woodland and provide appropriate mitigation efforts to minimize potential impacts. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.l.
4. Review opportunities to reduce the design footprint and minimize impacts to natural features (i.e. FOD6-5). This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.a.
5. Confirm specific timing windows to comply with the requirements of the Migratory Birds Convention Act (MBCA) and to avoid injury / mortality to bats. It is recommended that disturbance, clearing or disruption of vegetation where birds may be nesting should be completed outside the window of April 1 to October 31 to avoid the breeding bird season for the majority of the bird species protected under the Act. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.f.
6. Develop Landscaping Planting Plan / Restoration Planting Plan, Erosion and Sediment Control Plan, and Environmental Inspection and Monitoring Plan; please consult with CVC's Plant Selection Guidelines and CVC's Offsetting Guidelines. Guidelines are now included and referenced in the main body of the ESR under Section 12.2 Bullet 4.g.
7. Develop construction and post-construction monitoring plans as required in consultation with the City departments, Conservation Halton, and CVC and apply applicable components of the Ninth Line Monitoring Plan (Wood 2020, NRSI 2020) where appropriate. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.h.
8. Develop habitat and vegetation restoration monitoring, which should be coordinated with monitoring identified for the Ninth Line Lands and reviewed in consultation with agencies. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.j.

9. Prepare Salt Management Plan to mitigate road salt impact to aquatic features where applicable. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.k.
10. Detailed delineation and agency confirmation of Significant Woodland. Georeference and confirm regionally significant vegetation mitigation and removals within the ROW. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.i.
11. Completion of supplementary tree inventory work to fully inform tree removal and protection requirements associated with the proposed widened ROW and associated grading requirements. Based on the this, updates and confirmation of tree compensation requirements and incorporation into strategies for streetscaping design, or toward off-site habitat creation and enhancement initiatives (e.g., the Ninth Line Lands NHS). This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.j.
12. Review opportunities to retain Potential Bat Habitat Tree A and Tree D. Consult with MECP regarding potential bat habitat impacts as required (note Tree A is in CVC's regulated area). This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.o.
13. Review opportunities for installation of permanent fence (wildlife exclusion fencing) along east boundary of the FOD6-5 woodland. Please consult with CVC's Fish and Wildlife Crossing Guidelines. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.m.
14. Determine permit requirements (submit Information Gathering Form) under the Ontario Endangered Species Act, 2007 in consultation with MNRF/MECP. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.r.
15. Identification of additional LID measures for runoff quantity and quality control, water balance and erosion control, to supplement currently recommended measures where suitable to the study area conditions and ROW design. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 5.i.
16. Identification of woodland edge management techniques as part of restoration planning, including incorporation of an Invasive Species Management Plan tailored to the existing conditions and restoration requirements. This commitment is documented in the main body of the ESR under Section 12.2 Bullet 4.g.

Please let me know if you have any questions,
Jakub

Jakub Kilis, RPP
Senior Manager, Infrastructure and Regulations | Credit Valley Conservation
905-670-1615 ext 287 | C: 647-212-6554 | 1-800-668-5557
jakub.kilis@cvc.ca | cvc.ca

Yip, Patrick

From: Yip, Patrick
Sent: Wednesday, June 2, 2021 10:41 AM
To: Saddi, Asha
Cc: Jeffrey Reid; Mascarenhas, Michelle
Subject: RE: Ninth Line Improvements EA - Draft ESR

Hi Asha,

Thank you for forwarding these comments and for your team's participation in the draft ESR review.

Please see below for our responses, in red, to your team's comments.

If you have any questions and/or concerns, please feel free to reach out.

Thanks,
Patrick

Patrick Yip, P.Eng
D 289.695.4759

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From: Saddi, Asha <asha.saddi@peelregion.ca>
Sent: Thursday, May 27, 2021 1:07 PM
To: Yip, Patrick <Patrick.Yip@hdrinc.com>
Cc: Racioppo, Monika <monika.racioppo@peelregion.ca>; Mathew, Steve <steve.mathew@peelregion.ca>; Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; Mascarenhas, Michelle <Michelle.Mascarenhas@hdrinc.com>
Subject: FW: Ninth Line Improvements EA - Draft ESR

Hi Patrick,
Thank you for the opportunity to review the draft ESR. The following comments are from our Water/Wastewater and Traffic Operations teams:

Water/Wastewater – Monika Racioppo

1. We would like to know as soon as we can when the planned 2023 constructions will begin so we can plan some rehab projects. The Ninth Line improvements are currently scheduled to commence in 2023, recognizing that timing is subject to annual Council review and prioritization. The actual year of construction is confirmed and finalized the year before. The detailed design process will confirm the timing of improvements and whether Ninth Line will be tendered as one project or be staged.

2. Concerns about the lands to the west. Ninth Line was going to service the houses that front the street because they have narrow lanes. Our Capital group has provided comments that all servicing should be internal. Comment noted. Development/redevelopment of lands on the west side of Ninth Line will be determined through the development application process, in coordination with both the Region and City.

3. We want to ensure that anything buried is considered Comment noted. Final utility placement and relocation will be confirmed in Detailed Design.

4. CPP, LID and high chloride content are not considered a good mix so we need to ensure that stays away from Regional assets. Comment noted.

Traffic Operations – Steve Mathew
In speaking with our different Traffic groups and Capital group, we are okay with the City proposed intersection improvements on Derry at Ninth Line and Britannia Road and Ninth Line. We have no further comments on the draft ESR. Comment noted.

If you have any questions on any of the above comments please let me know.

I will be in touch again if I receive comments from other teams.

Regards,

Asha Saddi, BA(Hons), PMP
Technical Analyst, Infrastructure Programming & Studies
Transportation Division
Public Works, Region of Peel
Asha.Saddi@peelregion.ca

From: Yip, Patrick <Patrick.Yip@hdrinc.com>
Sent: April 30, 2021 12:26 PM
To: Saddi, Asha <asha.saddi@peelregion.ca>
Cc: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; Mascarenhas, Michelle <Michelle.Mascarenhas@hdrinc.com>
Subject: Ninth Line Improvements EA - Draft ESR

Hello Asha,

We are moving towards filing the Ninth Line Improvements, from Eglinton Avenue West to Derry Road West, Environmental Study Report (ESR). We would like to provide you with an opportunity to review the draft ESR and the associated appendices at this time.

Due to the file size, we are sharing the files via OneDrive – you can access them from the following download link. Please let us know if you have any issues accessing any of these documents. Please circulate to your internal agency representatives for review as required.

Please provide comments **no later than May 28th, 2021** so we can address them prior to filing the ESR. If you are unable to provide comments by this date please inform the project team in advance.

The Project Team is available and will accept any comments in advance of **May 28th, 2021**, and can arrange a meeting to discuss (if required).

If you have any questions and/or concerns, please do not hesitate to reach to myself or City's Project Manager, Jeffrey Reid (cc'd).

Thanks,
Patrick

Patrick Yip, P.Eng
Transportation Engineer

HDR
100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8
D 289.695.4759
patrick.yip@hdrinc.com

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Yip, Patrick

From: Rojas, Gustavo (MTO) <Gustavo.Rojas@ontario.ca>
Sent: Tuesday, June 1, 2021 10:41 AM
To: Yip, Patrick
Cc: Jeffrey Reid; Mascarenhas, Michelle; Wiesek, Marek (MTO); Martins, Frank (MTO)
Subject: RE: Ninth Line Improvements EA - Draft ESR

Hi Patrick,

Apologies for the late response…. The Highway Concessions Section at MTO has no comments at this time. I trust that 407ETR and MTO's Highway Corridor Management Section (MTO's one window approach for any improvement / development applications adjacent to provincial highways) will be engaged in future detail design projects or developments proposed in the area.

Thanks,

Gustavo

Gustavo Rojas, P.Eng.
Engineering Team Lead
Highway Concessions Section
Ministry of Transportation
159 Sir William Hearst Ave., 7th Floor, Toronto, ON M3M 0B7
☏ 416-786-9541 | ✉ Gustavo.Rojas@ontario.ca

From: Yip, Patrick <Patrick.Yip@hdrinc.com>
Sent: May-31-21 4:31 PM
To: Martins, Frank (MTO) <Frank.Martins@ontario.ca>
Cc: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; Mascarenhas, Michelle <Michelle.Mascarenhas@hdrinc.com>
Subject: RE: Ninth Line Improvements EA - Draft ESR

Hi Frank,

Following up on my email below, we had requested comments on the **Ninth Line Draft ESR** by **May 28th, 2021**. We have not received any comments from your agency at this time.

Please kindly confirm if you agency **will not** be providing comments.

Thanks,
Patrick

Patrick Yip, P.Eng
D 289.695.4759

hdrinc.com/follow-us

From: Yip, Patrick
Sent: Friday, April 30, 2021 12:26 PM
To: Frank.Martins@ontario.ca
Cc: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; Mascarenhas, Michelle <Michelle.Mascarenhas@hdrinc.com>
Subject: Ninth Line Improvements EA - Draft ESR

Hello Frank,

We are moving towards filing the Ninth Line Improvements, from Eglinton Avenue West to Derry Road West, Environmental Study Report (ESR). We would like to provide you with an opportunity to review the draft ESR and the associated appendices at this time.

Due to the file size, we are sharing the files via OneDrive – you can access them from the following download link. Please let us know if you have any issues accessing any of these documents. Please circulate to your internal agency representatives for review as required.

Please provide comments **no later than May 28th, 2021** so we can address them prior to filing the ESR. If you are unable to provide comments by this date please inform the project team in advance.

The Project Team is available and will accept any comments in advance of **May 28th, 2021**, and can arrange a meeting to discuss (if required).

If you have any questions and/or concerns, please do not hesitate to reach to myself or City's Project Manager, Jeffrey Reid (cc'd).

Thanks,
Patrick

Patrick Yip, P.Eng
Transportation Engineer

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Yip, Patrick

From: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>
Sent: Wednesday, May 26, 2021 11:17 AM
To: Larkin, Ann; Yip, Patrick
Cc: Mascarenhas, Michelle
Subject: RE: Ninth Line Improvements EA - Draft ESR

Hi Ann,

Thank-you for providing Halton Region's comments. Below are our responses (in red).

General

- Please advise when the City currently anticipates to implement the improvements outlined in the draft ESR. Please note that coordination with Halton Region will be required during detailed design and construction. We look forward to future consultation with the City. The Project Team anticipates filing the Notice of Study Completion in late June/early July 2021. The project will then go to detailed design in 2022. Construction funds are currently identified from 2023 to 2026. Detailed design will confirm when construction will commence and whether Ninth Line will be one tender or staged.

Section 10.1.3.1. Halton Region Ninth Line Improvements (Dundas Street to 407 Express Toll Route)

- We note that the proposed design for the City's Ninth Line MCEA ties into the design for the Region's approved Ninth Line MCEA. This includes the continuation of the 4.0 m multi-use trail on the west side to the intersection of Eglington Avenue West and Ninth Line. Correct, the City of Mississauga will continue the 4.0m multi-use trail (west side) up to the Ninth Line & Eglinton Avenue West intersection.
- Please note there is an error in the hyperlink to the Region's Ninth Line MCEA typical cross-section. Noted. The hyperlink error will be fixed in the Final ESR.

Appendix M – Preliminary Design Roll Plan

- We note that It appears that that the City of Mississauga preliminary design for Ninth Line ties into the Region's design for Ninth Line as per the Region's approved MCEA – please confirm. Correct. The City of Mississauga's Ninth Line preliminary design ties into Halton Region's preliminary design for Ninth Line.

We would like to thank Halton Region for your input throughout the Ninth Line MCEA Study.

Please let me know if you have any further questions or concerns.

Thanks,
Jeff

MISSISSAUGA

Jeffrey Reid, LET, C.E.T.
Transportation Project Engineer
T 905-615-3200 ext. 8527
jeffrey.reid@mississauga.ca

City of Mississauga | Transportation & Works Department

201 City Centre Drive, Suite 800 | Mississauga ON | L5B 2T4

From: Larkin, Ann <Ann.Larkin@halton.ca>
Sent: Monday, May 24, 2021 9:04 AM
To: 'Patrick.Yip@hdrinc.com' <Patrick.Yip@hdrinc.com>
Cc: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; 'Mascarenhas, Michelle' <Michelle.Mascarenhas@hdrinc.com>
Subject: RE: Ninth Line Improvements EA - Draft ESR

Good morning,

Thank you for the opportunity to review the City's Ninth Line Improvements ESR. We have the following comments:

General

- Please advise when the City currently anticipates to implement the improvements outlined in the draft ESR. Please note that coordination with Halton Region will be required during detailed design and construction. We look forward to future consultation with the City.

Section 10.1.3.1. Halton Region Ninth Line Improvements (Dundas Street to 407 Express Toll Route)

- We note that the proposed design for the City's Ninth Line MCEA ties into the design for the Region's approved Ninth Line MCEA. This includes the continuation of the 4.0 m multi-use trail on the west side to the intersection of Eglington Avenue West and Ninth Line.
- Please note there is an error in the hyperlink to the Region's Ninth Line MCEA typical cross-section

Appendix M – Preliminary Design Roll Plan

- We note that It appears that that the City of Mississauga preliminary design for Ninth Line ties into the Region's design for Ninth Line as per the Region's approved MCEA – please confirm.

Thanks,

A

Ann Larkin, P.Eng.
Supervisor, Transportation Planning
Infrastructure Planning & Policy
Public Works
Halton Region
905-825-6000, ext. 7601 | 1-866-442-5866

From: Yip, Patrick [mailto:Patrick.Yip@hdrinc.com]
Sent: Friday, April 30, 2021 12:26 PM
To: Larkin, Ann <Ann.Larkin@halton.ca>
Cc: Jeffrey Reid <Jeffrey.Reid@mississauga.ca>; Mascarenhas, Michelle <Michelle.Mascarenhas@hdrinc.com>
Subject: Ninth Line Improvements EA - Draft ESR

Hello Ann,

We are moving towards filing the Ninth Line Improvements, from Eglinton Avenue West to Derry Road West, Environmental Study Report (ESR). We would like to provide you with an opportunity to review the draft ESR and the associated appendices at this time.

Due to the file size, we are sharing the files via OneDrive – you can access them from the following download link. Please let us know if you have any issues accessing any of these documents. Please circulate to your internal agency representatives for review as required.

Please provide comments **no later than May 28th, 2021** so we can address them prior to filing the ESR. If you are unable to provide comments by this date please inform the project team in advance.

The Project Team is available and will accept any comments in advance of **May 28th, 2021**, and can arrange a meeting to discuss (if required).

If you have any questions and/or concerns, please do not hesitate to reach to myself or City's Project Manager, Jeffrey Reid (cc'd).

Thanks,
Patrick

Patrick Yip, P.Eng
Transportation Engineer

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