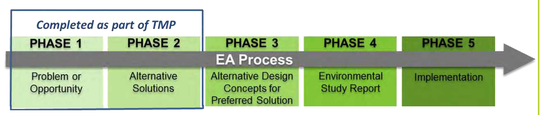
Open House #1 Framework

Station 1 - Background

Study Area and Objectives

Class Environmental Assessment Process and Planning Policy



The York Region of Tomorrow

What We've Heard So Far

Station 2 – Needs Assessment

Pedestrian Opportunities

Cyclist Opportunities

Transit Opportunities

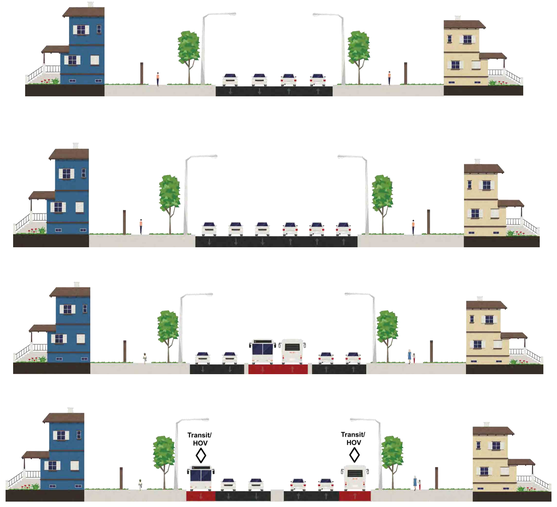
Vehicular Opportunities

Key Features

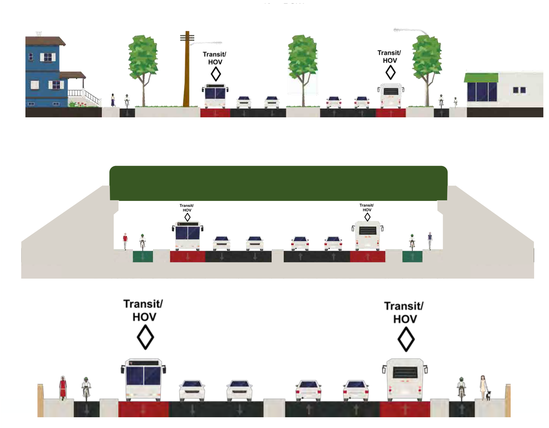
Station 3 – Alternative Solutions

Problem and Opportunity Statement

Alternative Solutions Considered



The Preferred Solution



Station 4 – Design Concepts

Design Components

Typical Sections

Roundabout Screening

Constrained Locations

Hagerman Cemeteries

Miller Avenue Extension

CN Rail Crossing

407ETR Interchange

VIVA Rapidway

Stouffville GO At-Grade Crossings

Rouge River Crossing

St. Philips and Bethesda Cemeteries

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Study Area and Study Objective

Description of Project

York Region is undertaking a transportation Environmental Assessment (EA) study for improvements to **Kennedy Road from Steeles Avenue to Major Mackenzie Drive** in the City of Markham

LEGEND

- Kennedy Road Study Corridor
- Study Area

Objectives

Accommodate current and future transportation needs for all modes

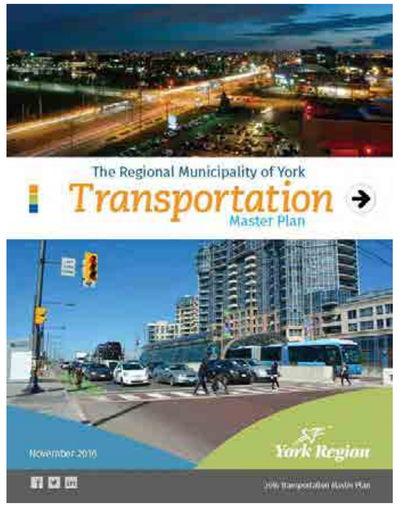
Pedestrians

Cyclists

Transit

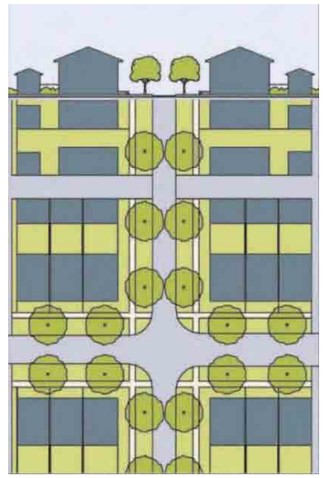
Motorists

Supplement the findings of the 2016 York Region Transportation Master Plan (YR-TMP)



- Development of a Regional Road Network that addresses future travel demand
- Identifies the need for capacity and network improvements along **Kennedy Road** to accommodate future travel demands
- Satisfies Phases 1 and 2 of the Class EA Process

Adhere to the Principles of York Region's Design Guidelines



- A context-sensitive approach that integrates planned land use and built form
- Identifies typical cross-sections for several types of Regional Roads
- Formulates a "complete streets" approach to accommodate all modes

Municipal Class EA Process and Planning Policy Context

Environmental Assessment (EA)

An EA is a planning process for municipal infrastructure, legislated by the Ontario Environmental Assessment Act.

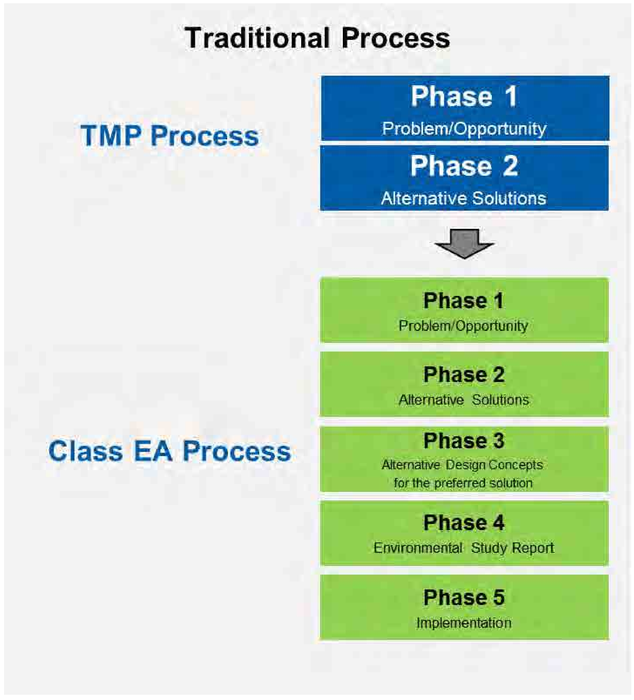
This EA is being conducted as a Schedule 'C' project under the Municipal Class EA document (October 2000, as amended in 2007, 2011, and 2015)

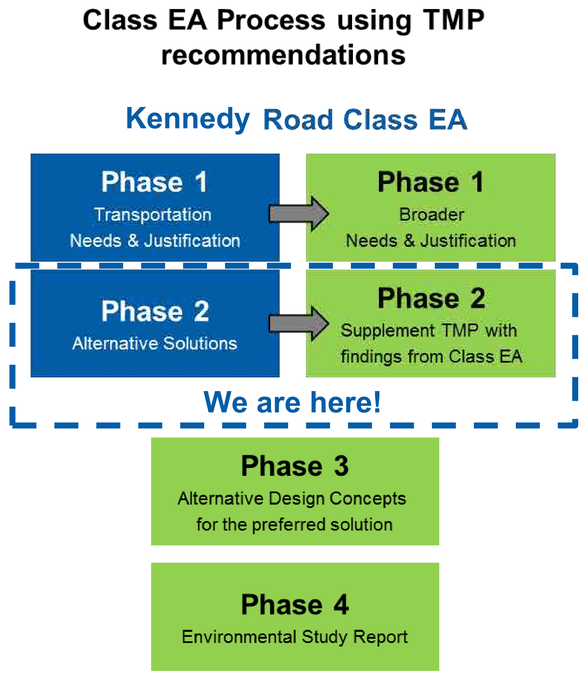
York Region's 2016 Transportation Master Plan (YR-TMP)

Established the **Problem and Opportunity Statement** along with the **Needs and Justification**

Developed and evaluated **Alternative Solutions** based on **TMP Objectives** and feedback from **Public Consultation Events (2014 – 2015)**

Selected a **Preferred Solution** for the Kennedy Road Corridor that was **endorsed and approved by Council**



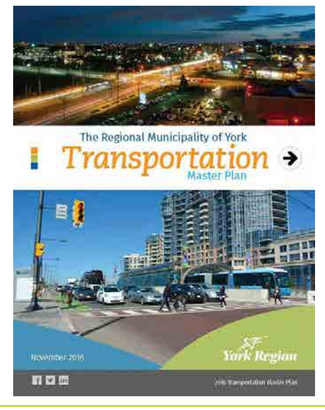


Planning Policy and Context

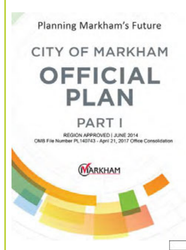
The following key planning documents set the framework for the Kennedy Road EA:

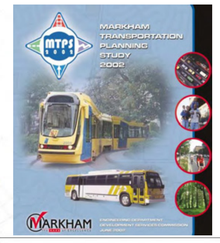
Provincial

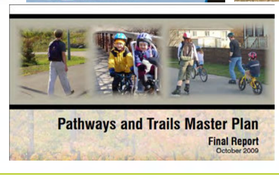
Regional



Municipal







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The York Region of Tomorrow

Planned Growth

Since 1971, York Region's population has increased nearly seven-fold. To support anticipated growth, York Region has identified the following three solutions.

50% Increase in population between 2015 and 2041

55% Increase in employment between 2015 and 2041

Development of a Road Network Fit for the Future (2041) – YR-TMP 2016 Map 8

Legend

6 Lane Networks
- Existing 6 Lane Road
- New 6 Lane Road
- Proposed 6 Lane Widening

4 Lane Networks
- Existing 4 Lane Road
- New 4 Lane Road
- Proposed 4 Lane Widening

Other Improvements
- Rapid Transit
- Rapid Transit Subject to Further Study
- New Midblock Crossing
- Proposed Grade Separation (Road Classification Study to identify grade separations on collector roads)
- Interchange Improvement
- MTO Highway Phrasing

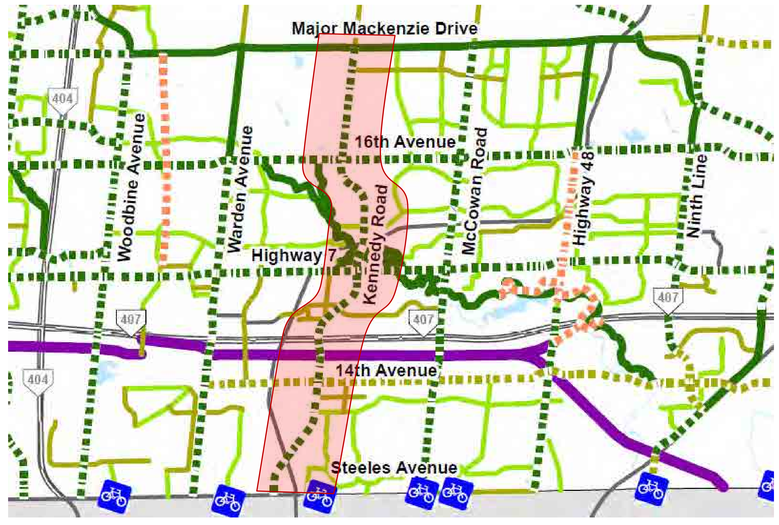
6 Lanes identified for Kennedy Road for Transit/HOV to maximize person-carrying capacity

Supporting the Frequent Transit Network (2041) – YR-TMP 2016 Map 7

Legend
- Rapid Transit Corridor
- Rapid Transit Subject to Further Study
- Frequent Transit Network
- Highway Bus Service (YRT/Viva, GO)
- Transitway
- GO Train, 15-min Two Way All Day Service
- GO Train, Rush Hour Service
- Potential Commuter Lots
- Existing Commuter Lots
- Potential GO Station
- Existing GO Station

15 Minute service between 6 AM and 10 PM during weekdays on Kennedy Road as part of the Frequent Transit Network

Growing the Cycling Network (2041) – YR-TMP 2016 Map 9



Legend

Existing Cycling Network
- Shared Facility
- Dedicated Facility
- Separated Facility

GO Rail
- Rapid Transit/GO Corridor

Proposed Cycling Facilities
- Local Cycling Route of Regional Significance
- Dedicated Facility
- Separated Facility
- Conceptual Region-Wide Trail System
- External Connection

Separated Active Transportation facilities identified for cyclists on Kennedy Road

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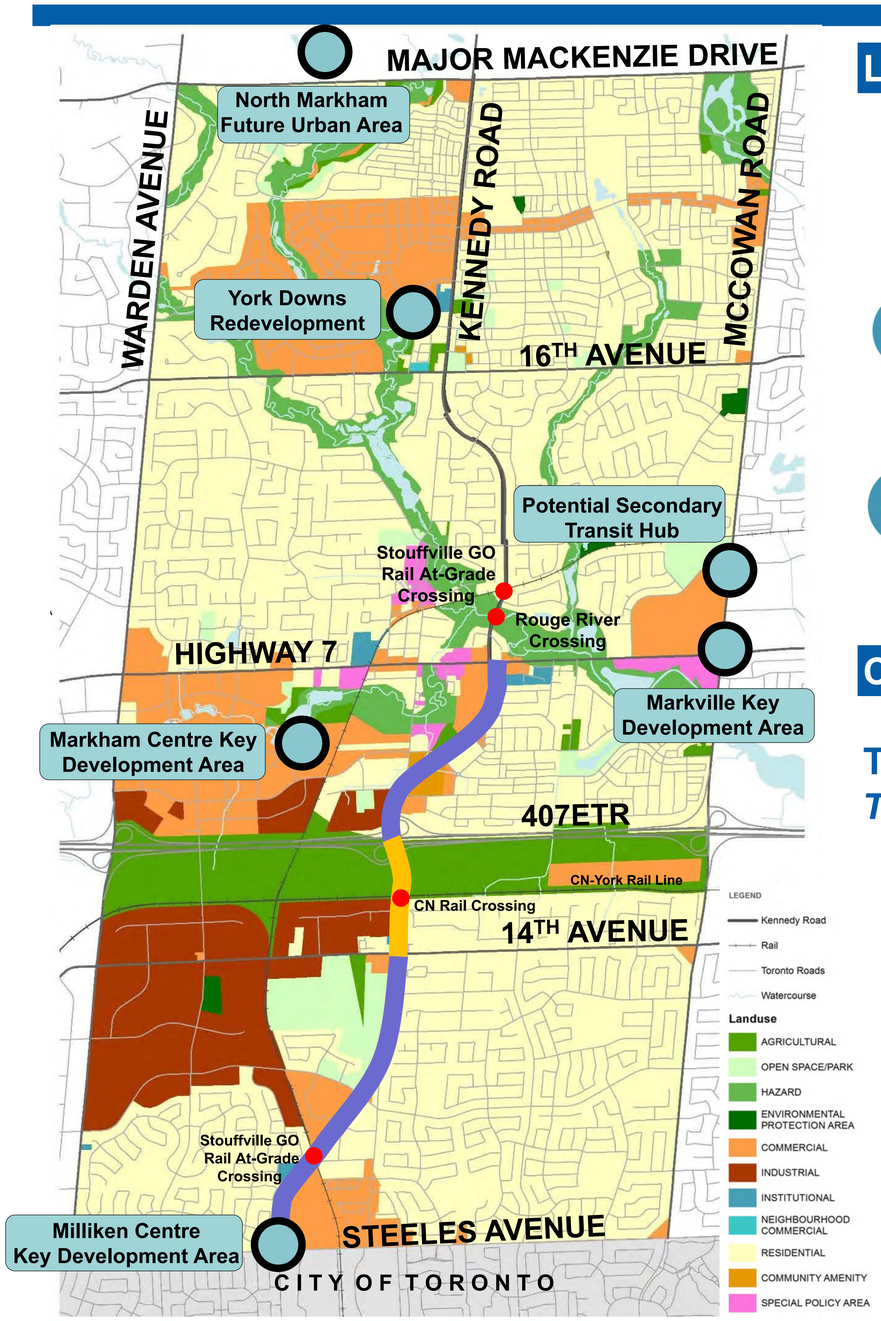
Land Use, Future Development, and Construction Phasing



Land Use

The proposed developments within the study area will substantially increase future traffic demand on Kennedy Road between Steeles Avenue and Major Mackenzie Drive.

- Land use within the study area is predominantly residential
- Hazard lands are designated as they are unsuitable for development (proximity to the Rouge River)
- Lands between the Stouffville GO Rail Crossing and Highway 7 are commercial, designated as a key development area and potential Secondary Transit Hub
- Raymerville Woodlot and Manhattan Woods are designated as Environmental Protection Areas

Construction Phasing

Timing of Improvements for Kennedy Road are documented in the *2018 10-Year Roads and Transit Capital Construction Program* and subjected to annual review

- **Phase 1: 14th Avenue to Highway 407 – Construction to commence 2023**
- **Phase 2: Steeles Avenue to 14th Avenue, and Highway 407 to Highway 7 – Construction to commence 2024**

What We've Heard So Far

Community Outreach

- Direct Mail Notices
- Newspaper Notices
- Open Houses
- Road Signs
- Technical Advisory Committee (TAC)
- Stakeholder Group (SHG)
- York Region Social Media (Facebook and Twitter)
- Project Website (www.york.ca/kennedyroad)

Stakeholders Identified

- Ratepayers Associations
- Residential Property Owners
- Commercial Property Owners
- General Public
- Toronto and Region Conservation Authority (TRCA)
- CN Rail
- Ministry of Natural Resources and Forestry
- Ministry of Transportation
- 407ETR
- City of Toronto
- City of Markham
- Metrolinx
- Community Centres
- Places of Worship
- Indigenous Communities

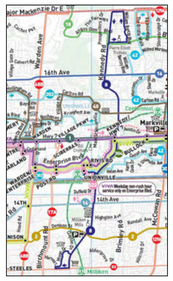
Top Concerns Regarding…

Walking

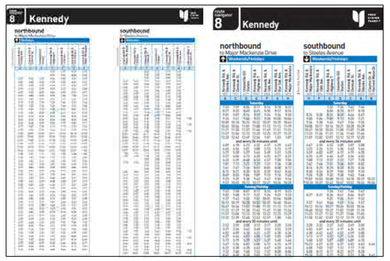
Pedestrian crossing distances

Pedestrian safety issues at the Stouffville GO Rail Crossings

Taking Transit



Frequency of service



Fares and travel times

Cycling

Consistency of cycling facilities throughout the corridor

Separation of active transportation facilities and cyclist safety

Driving

Motorist safety at Major Intersections

Peak-Hour congestion along Kennedy Road and at Rail Crossings

Kennedy Road Today

Pedestrian Level of Service / Experience

Pedestrian Experience — **LOS**

- Continuous sidewalks/Multi-Use Paths are provided on both side of the road
- Crosswalks are provided on all four legs of the intersection
- Shorter crossing at intersection
- Greater separation from high speed traffic

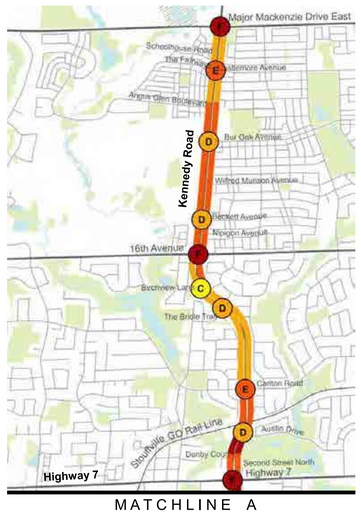
A B

- Longer crossings with more conflict points with turning vehicles
- Less separation from high speed traffic
- Narrower sidewalks

C D

- No separation from high speed traffic
- No crosswalks at intersections
- Long crossing distances without refuge

E F



C D E F **Intersection Level of Service**

- Attractive pedestrian realm
- Less attractive pedestrian realm
- Least attractive pedestrian realm

Opportunities for Active Transportation

8% Of trips along Kennedy Road are **1km** and shorter in length

73% Of trips less than **1km** in length are completed by car or passengers

There is a significant opportunity to encourage these trips to walk or cycle

Cyclist Level of Service / Experience

Cyclist Experience — **LOS**

- Continuous cycling facilities are provided on both side of the road
- Greater separation from high speed traffic
- Cyclists are accommodated at intersection

A B

- Less separation from high speed traffic
- Greater conflicts at intersections with turning vehicles

C D

- No designated cycling facility on high volume , high speed roadways
- No accommodation at intersection

E F

D E F **Intersection Level of Service**

- Viable route for most cyclists levels and abilities
- Deficiencies in facility may reduce appeal of route to majority of cyclists
- Route not attractive to most cyclists

44% Of trips along Kennedy Road are **5km** and shorter in length

86% Of trips less than **5km** in length are completed by car or passengers

There is a significant opportunity to encourage these trips to cycle

Source: Mode sharing data was obtained from 2011 Transportation Tomorrow Survey (TTS)

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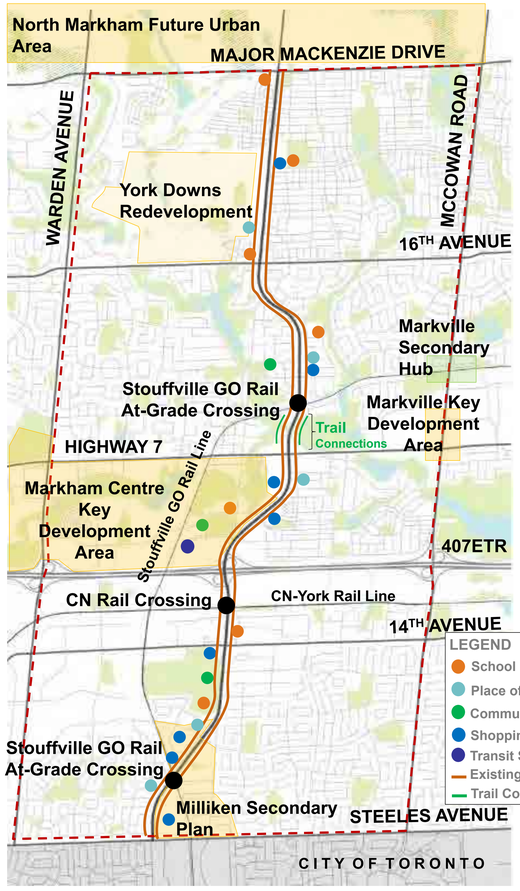
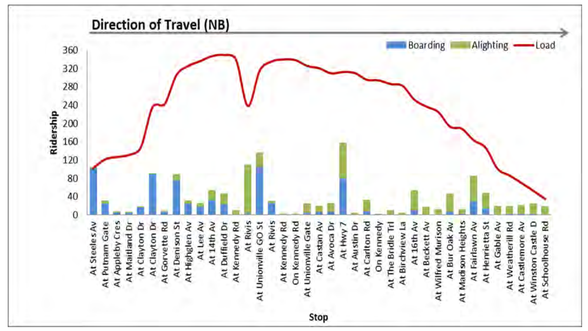
Kennedy Road Today

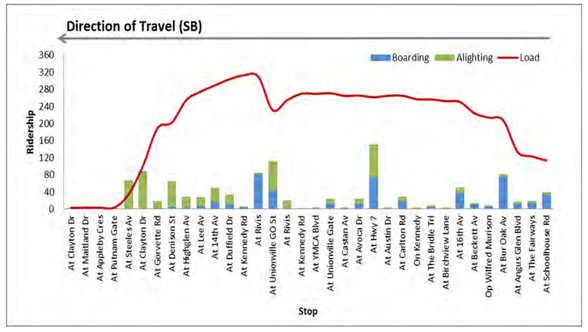
Transit Ridership Demand

Transit Generators





Northbound (NB) Total Daily Period Ridership (Route 8)



Southbound (SB) Total Daily Period Ridership (Route 8)

- Most boarding and alightings occur at major intersections
- Transfers are made between connecting bus routes

Major Transit Generators along Kennedy Road

- Pacific Mall / Market Village
- Milliken Mills High School
- Milliken Mills Community Centre
- Commercial Plazas near Kennedy Road at Highway 7
- Unionville GO Station
- Markham Centre

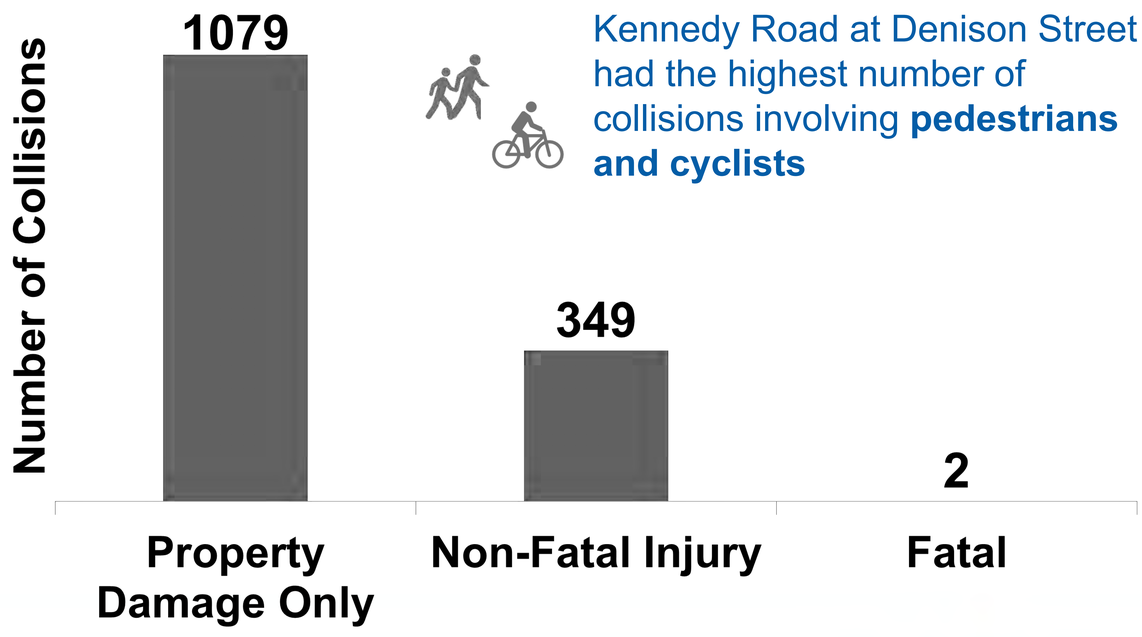
Based on existing ridership and the number of major transit generators along Kennedy Road, there is an opportunity to improve transit

Traffic Safety (2011 – 2015)

Top four collision prone intersections in the study area:

1. Kennedy Road & **Highway 7**
2. Kennedy Road & **YMCA Boulevard / Helen Avenue**
3. Kennedy Road & **Lee Avenue**
4. Kennedy Road & **407 ETR Off-ramp Terminal**

The most common impact type was **rear-end collision**



Kennedy Road at Denison Street had the highest number of collisions involving **pedestrians and cyclists**

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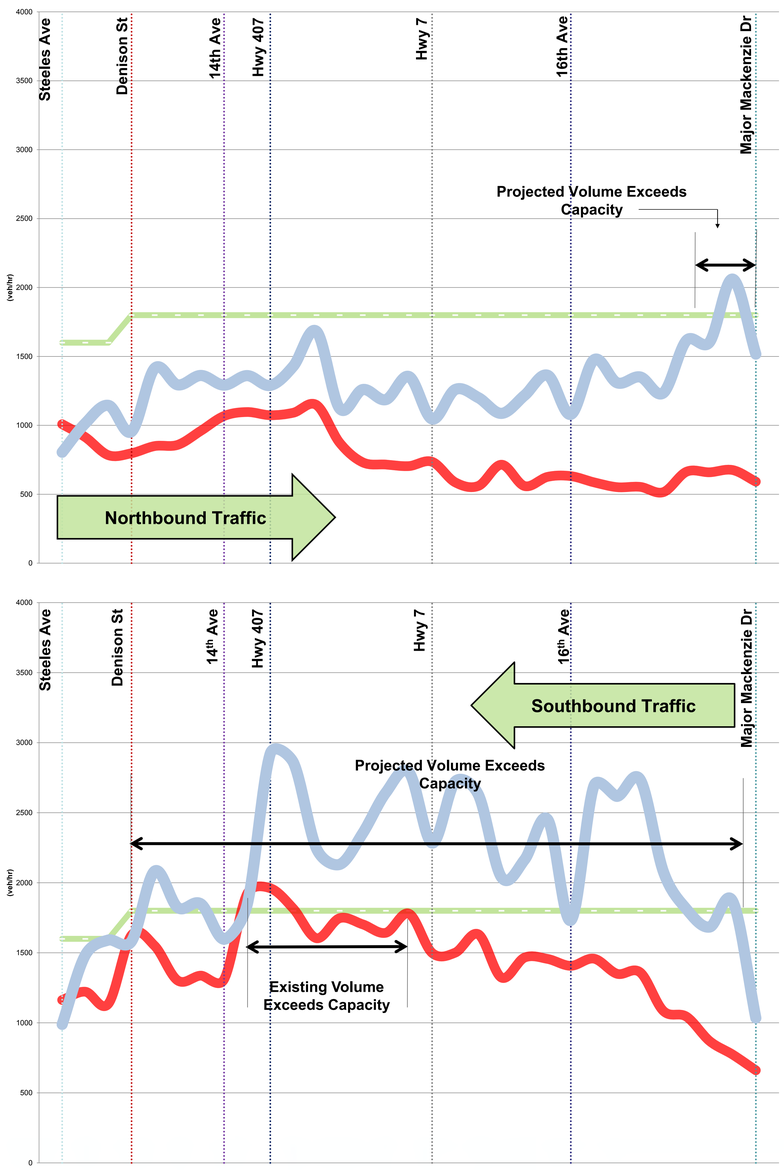
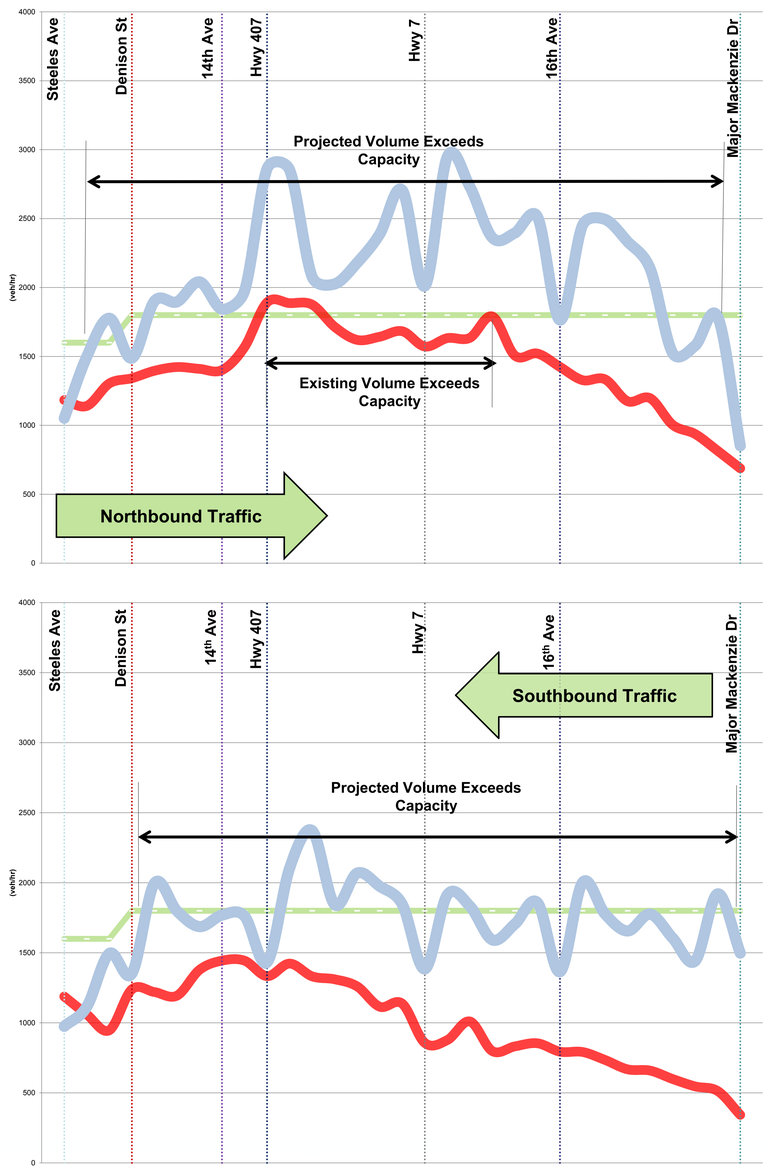
Kennedy Road –Traffic Operations

Existing and Future 2041 Traffic Volumes

AM Peak Hour Volume on Kennedy Road



PM Peak Hour Volume on Kennedy Road



Existing Traffic Volume and Capacity Issues

- Existing traffic volumes exceed capacity in the southbound direction between **north of 14th Avenue** and **south of Highway 7** in the AM Peak Hour
- Existing traffic volume exceed capacity in the northbound direction **south of 407ETR** and **north of Highway 7** in the PM Peak Hour

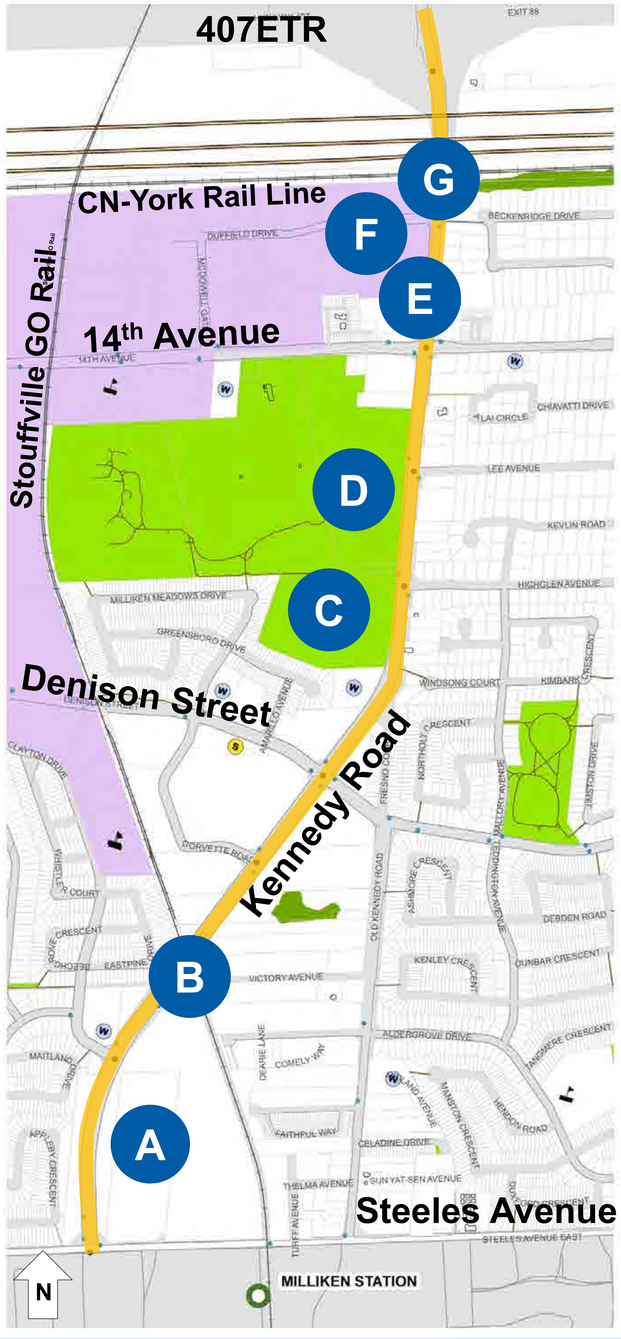
Future Traffic Volume and Capacity Issues

- Future traffic volumes exceed existing capacity in the AM Peak Hour generally:
  - Between **Denison Street** and **Major Mackenzie Drive,** in the southbound direction
- Future traffic volumes exceed existing capacity in the PM Peak Hour generally between:
  - **Steeles Avenue and Major Mackenzie Drive,** in the northbound direction
  - **Denison Street and Major Mackenzie Drive,** in the southbound direction

Legend

- Existing Capacity
- Existing Traffic Volume
- Future Traffic Volume Projection (2041)

Physical and Environmental Features to Consider
Steeles Avenue to 407ETR



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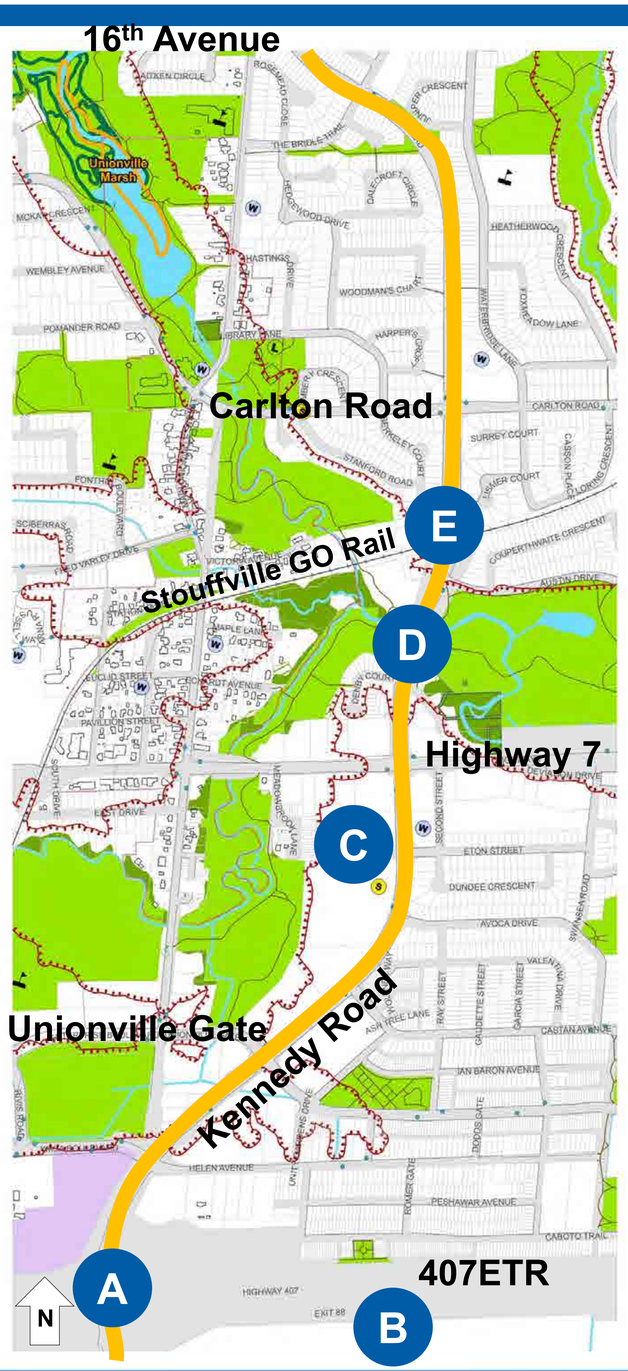
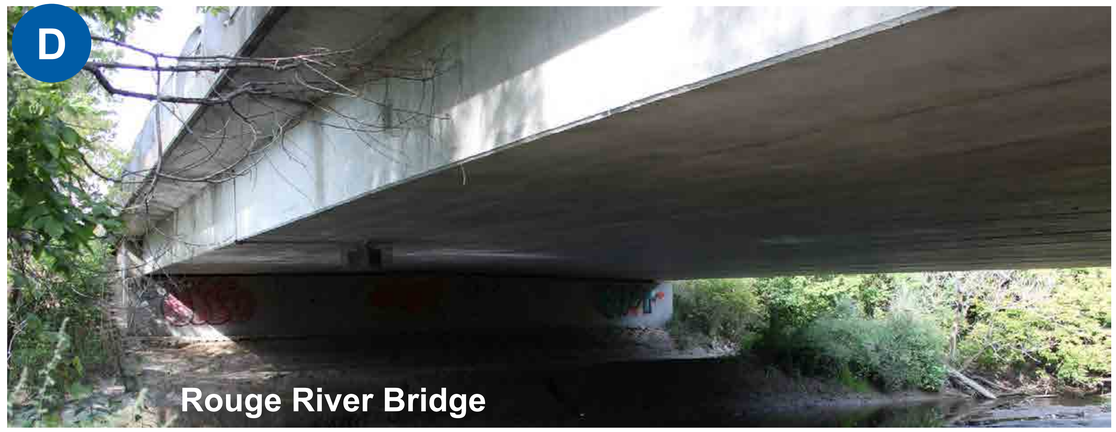
Physical and Environmental Features to Consider
Highway 407 to 16th Avenue





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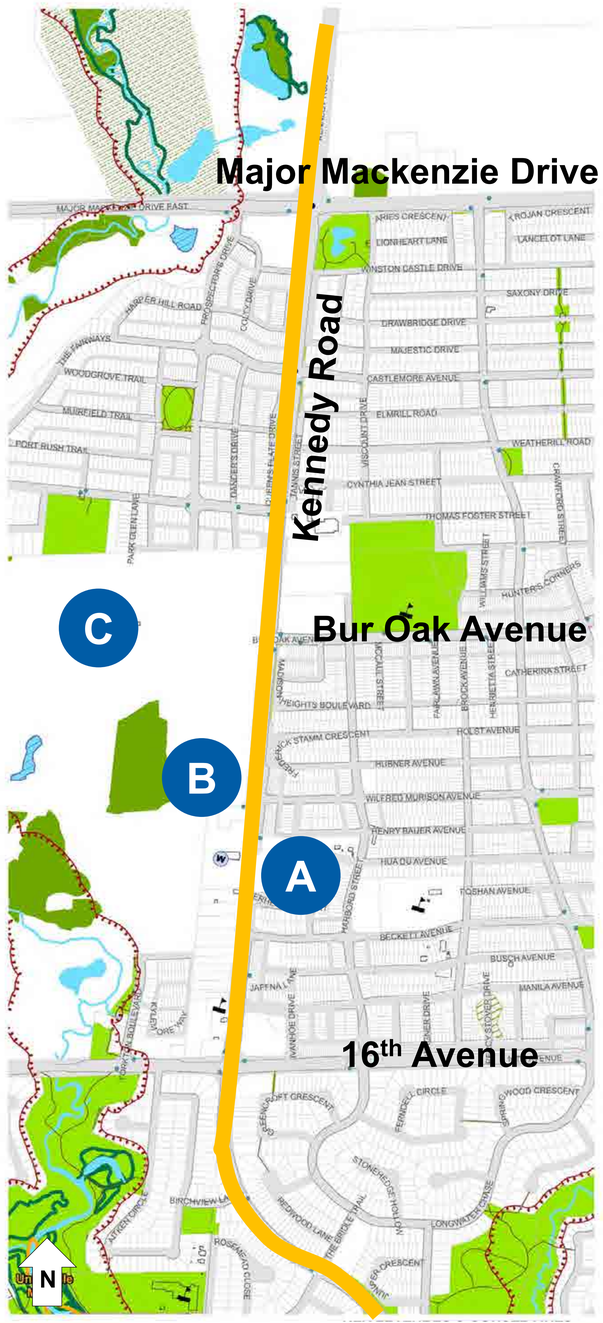
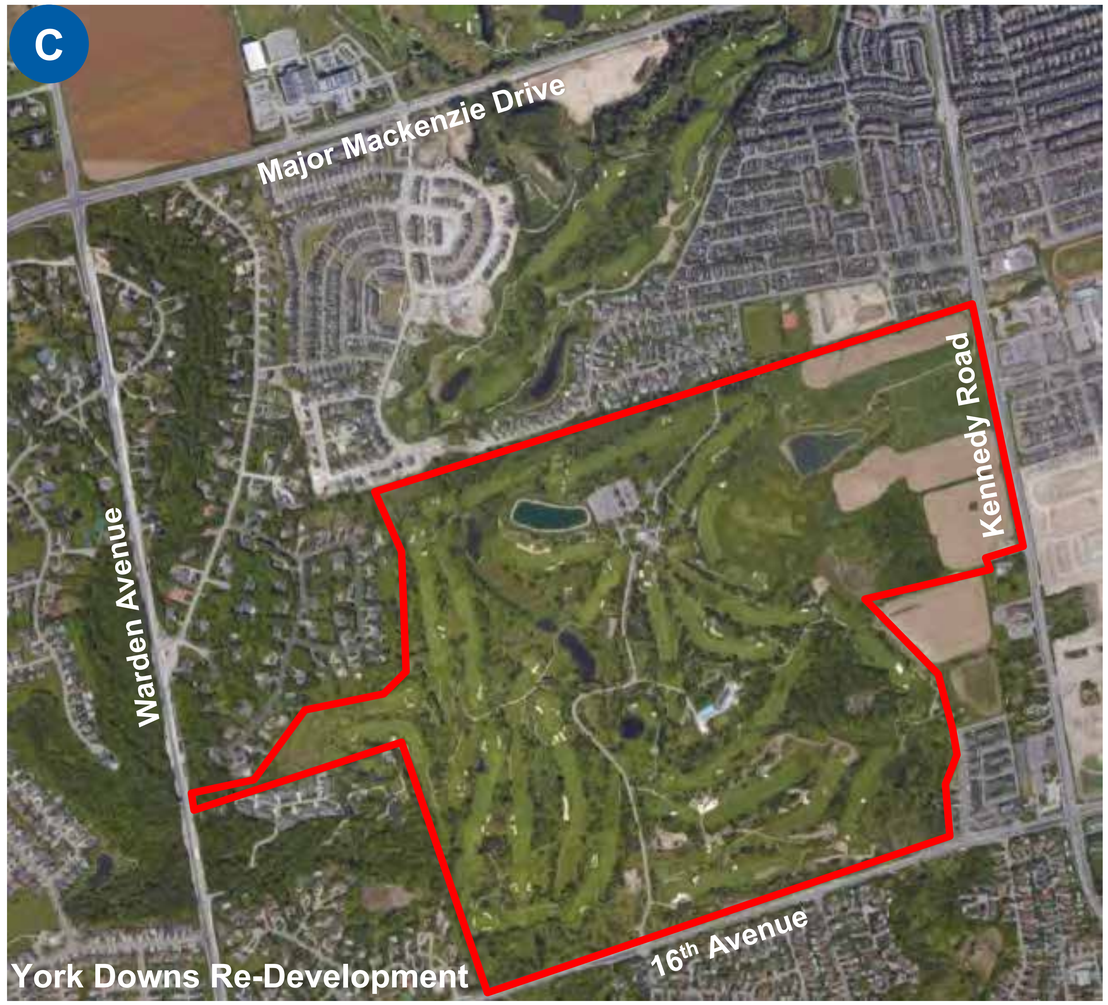
Physical and Environmental Features to Consider
16th Avenue to Major Mackenzie Drive





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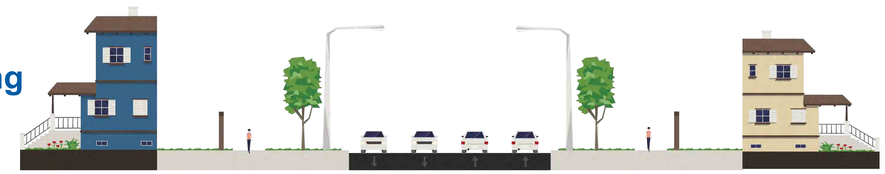
Problem and Opportunity Statement

PROBLEM	OPPORTUNITY
Existing road and intersections cannot accommodate future traffic volumes	Improve Kennedy Road capacity to accommodate projected traffic demand and maximize person-carrying capacity
Increased local road traffic due to regional roads being at capacity	Facilitate York Region's Finer Grid Network Strategy including the review of York Region's access management guidelines, and removal of turning and vehicle restrictions where appropriate
Lack of continuous pedestrian and cyclist facilities	Improve pedestrian and cycling facilities to encourage other modes of transportation to reduce congestion and single occupancy vehicle (SOV) use
Existing infrastructure does not support enhanced transit service and results in delays	Improve the efficiency and reliability of transit
Anticipated delays at the existing at-grade Stouffville GO Rail crossing(s)	Improve the Stouffville GO Rail crossing(s) and reduce delays and congestion with the associated crossing
Safety and operational concerns at various locations, include Stouffville GO Line crossings	Improve safety, performance, and operational efficiency for all modes along the study corridor

Summary of Alternative Solutions Considered

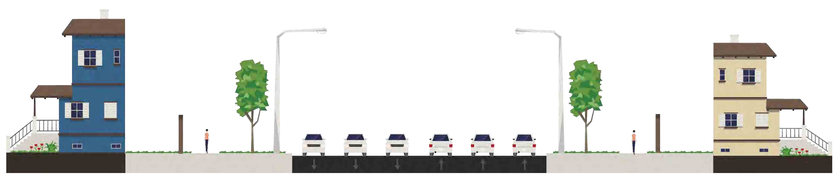
York Region's 2016 Transportation Master Plan considered the following Alternative Solutions:

1. Do Nothing



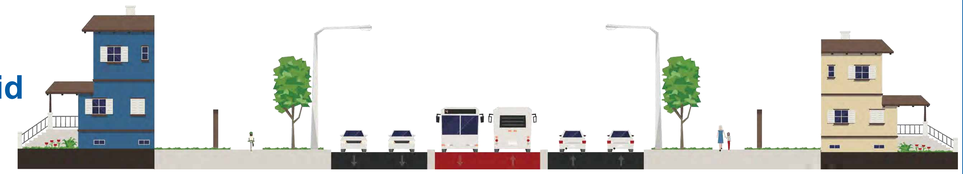
2. Optimize Existing Facility with Intersection Improvements

3. Widen to 6 Lanes for Capacity Improvements

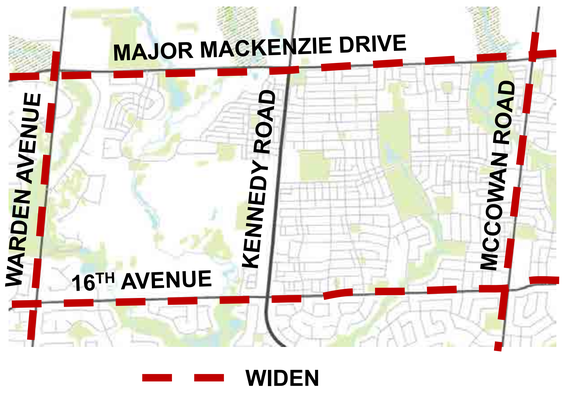


4. Widen to 6 Lanes for HOV/Transit

5. Widen to Implement Rapid Transit



6. Widen Parallel/Adjacent Corridor (i.e. Warden Avenue, Major Mackenzie Drive, 16th Avenue, McCowan Road)



Alternatives were evaluated based on their Alignment with TMP Objectives:

- Support Transit
- Support Road Network
- Support Active Transportation
- Support Goods Movement
- Support Last Mile

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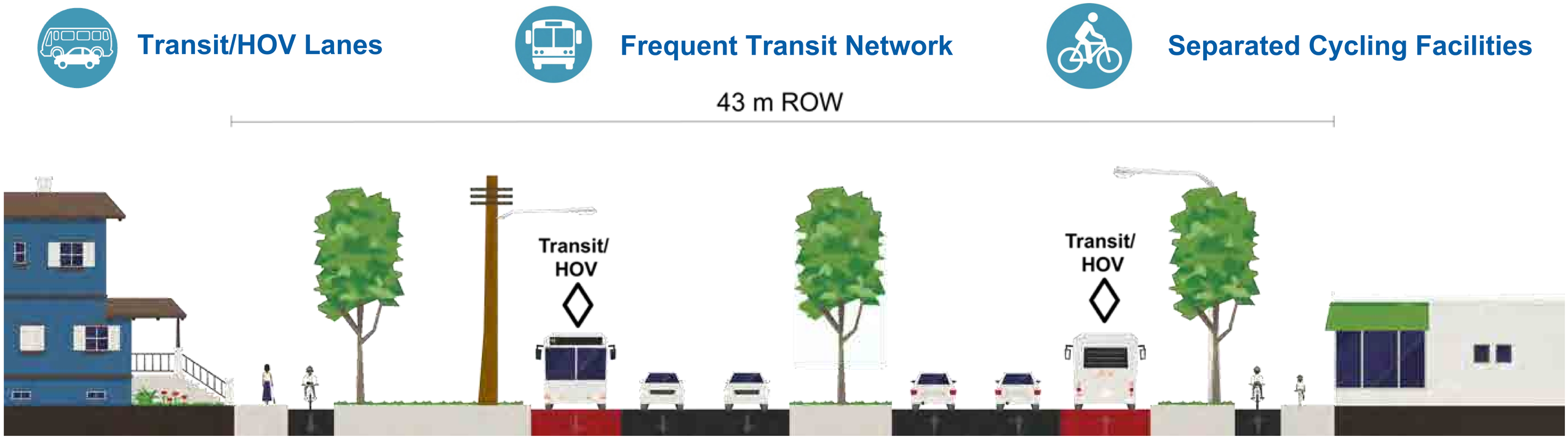
YR-TMP 2016 – Preferred Solution

Preferred Solution

Transit/HOV Lanes | **Frequent Transit Network** | **Separated Cycling Facilities**



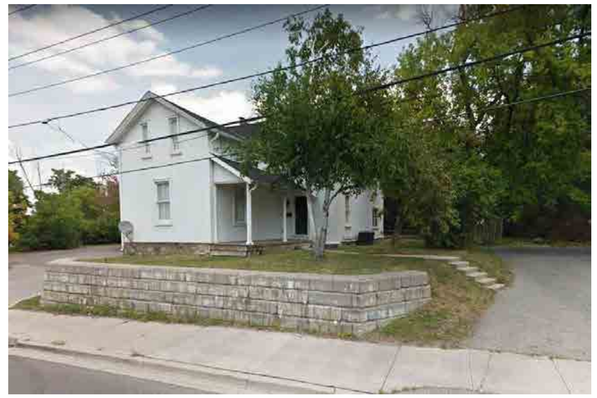
Widen to 6 Lanes for HOV/Transit was identified as the preferred alternative due to its alignment with TMP Objectives

Support Transit	Support Road Network	Support Active Transportation	Support Goods Movement	Support Last Mile
• Support for Frequent Transit Network • Provides connections to Milliken and Unionville GO Stations	• Volume-to-Capacity (V/C) Ratio improves but maximum V/C Ratio remains above 1.0	• Provision of separated cycling facilities where ones currently do not exist	• Improvement on Secondary Strategic Goods Movement Network	• New/improved cycling infrastructure and continuous pedestrian facilities adjacent to major transit stations

Preferred Solution (YR-TMP 2016)

Alignment with Study Opportunities

Opportunity	Preferred Solution's Alignment with Study Opportunities
Improve Kennedy Road capacity to accommodate projected traffic demand and maximize person-carrying capacity	Maximization of person-carrying capacity through the provision of Transit/HOV lanes
Facilitate York Region's Finer Grid Network Strategy including the review of York Region's access management guidelines, and removal of turning and vehicle restrictions where appropriate	Where possible, the facilitation of York Region's Finer Grid Network will be applied
Improve pedestrian and cycling facilities to encourage other modes of transportation to reduce congestion and single occupancy vehicle (SOV) use	Provision of separated active transportation facilities
Improve the efficiency and reliability of transit	Supports Kennedy Road as a Frequent Transit Network through the provision of Transit/HOV lanes
Improve the Stouffville GO Rail crossing(s) and reduce delays and congestion with the associated crossing	Alternative design concepts with the preferred solution will be assessed for the Stouffville GO Rail Crossing(s)
Improve safety, performance, and operational efficiency for all modes along the study corridor	The preferred solution accommodates the safety, performance and operational efficiency for all modes



Design Concepts for Consideration

York Region outlines typical Cross-Sections for Regional Streets based on road typologies

Elements of a Roadway Cross-Section

Vehicular Elements

Curb Lane

Drive Lane

Active Transportation

Multi-Use Path

Sidewalk

Cycle Track

Other Elements

Streetscaping /Boulevard

Curb and Gutter

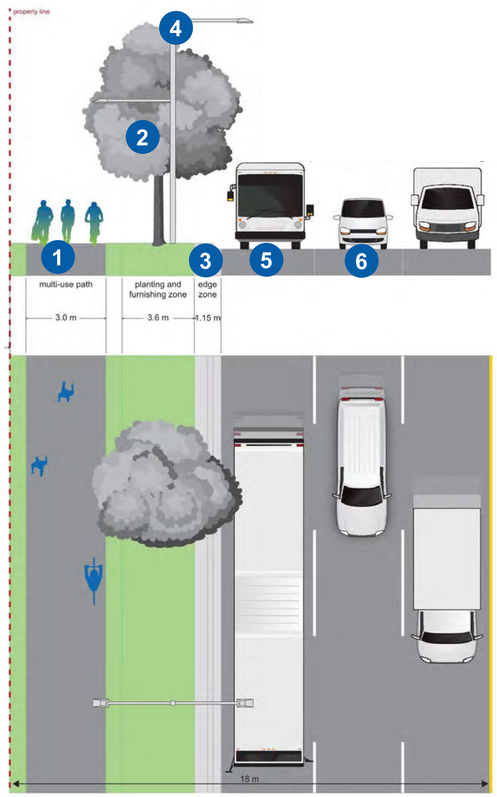
Utilities/ Streetlighting

Kennedy Road between Steeles Avenue and Major Mackenzie Drive identified as a Connector

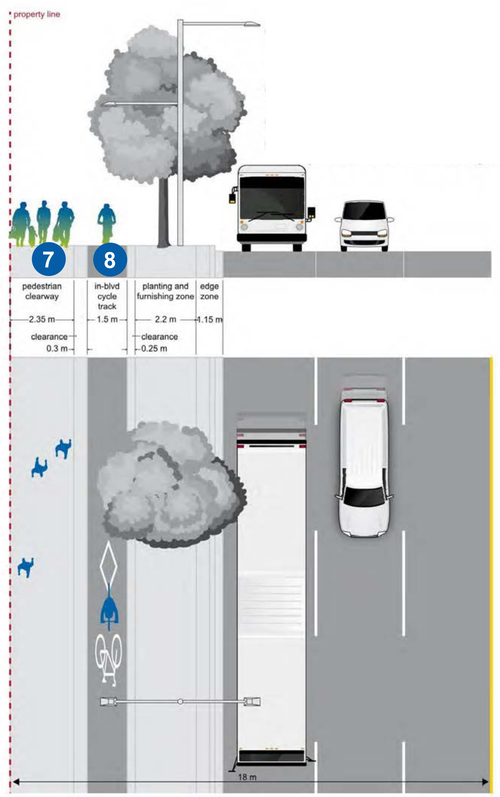
Connectors are categorized by:

- Generous landscaped boulevards
- Enhanced Transit Elements
- Enhanced Active Transportation Elements
- Predominantly residential land-uses along Right-of-Way

Typical 36 m ROW Connector Cross-Section (Multi-Use Path)



Typical 36 m ROW Connector Cross-Section (Cycle Track and Sidewalk)



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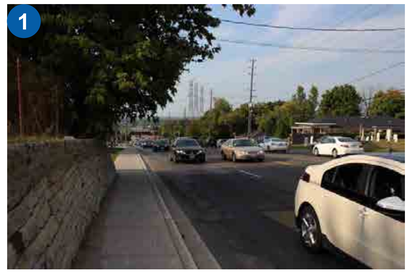
Right-of-Way along Kennedy Road

< 36m Right-of-Way

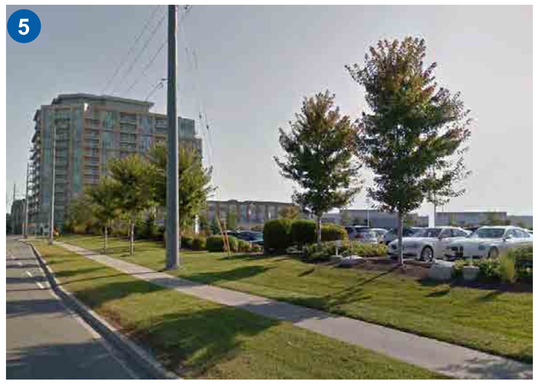


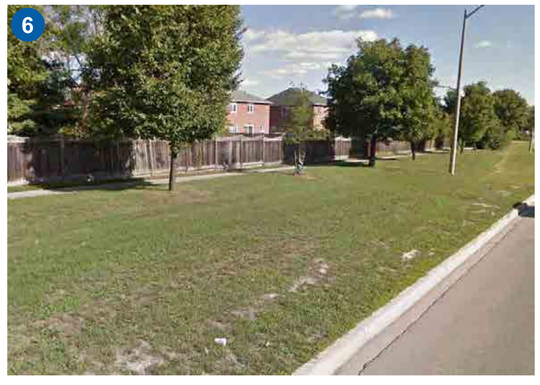
- No separation between various modes of travel
- No landscaped boulevard within this section
- Land-use is primarily cemetery uses

> 36m Right-of-Way

- Some separation between modes of travel
- Narrow landscaped boulevard within this section
- Land-use is primarily residential with commercial plazas at major intersection

Approximate 43m Right-of-Way



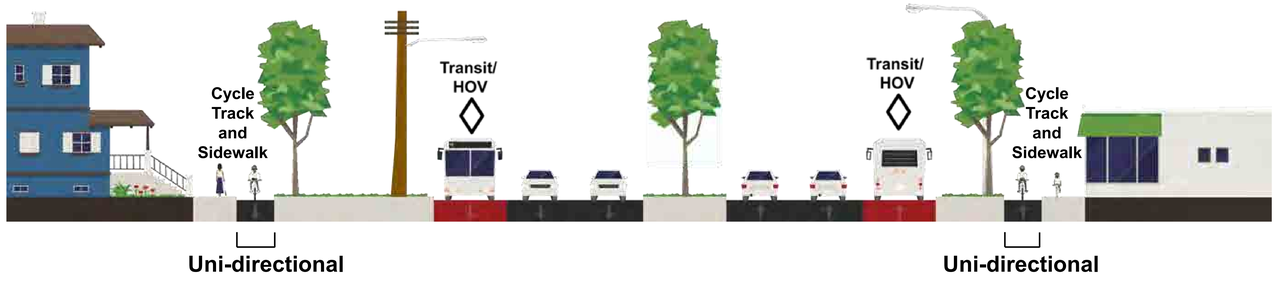
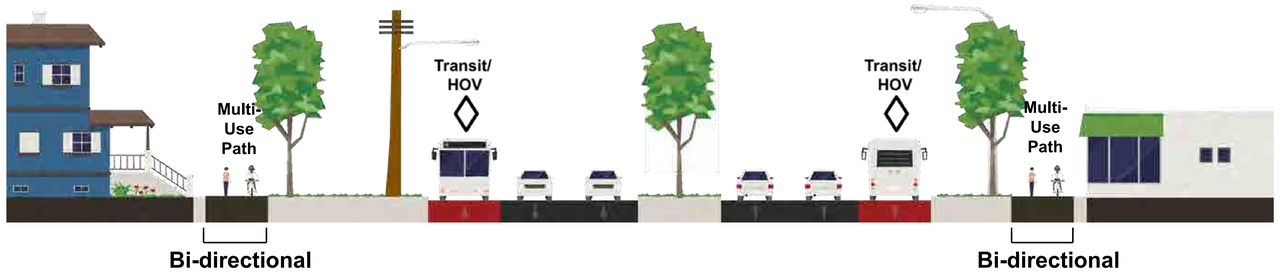


- Greater separation among modes of travel
- Wide landscaped boulevards exist within this segment
- Land-use is primarily commercial and residential

Design Concepts – Typical 43m Cross-Sections

The following design alternatives were identified for 43m typical cross-sections along the Kennedy Road study corridor:

Place a dot beside your preferred image(s)

Alternative 1: Cycle Track and Sidewalk on Both Sides		
Alternative 2: Multi-Use Path on Both Sides		

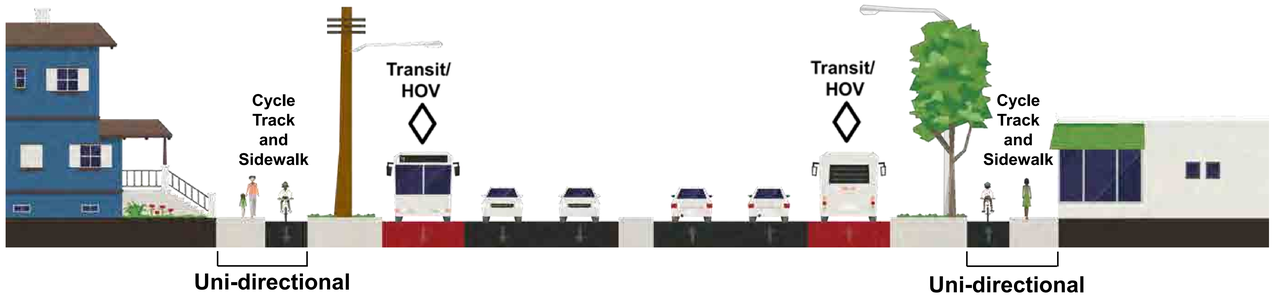
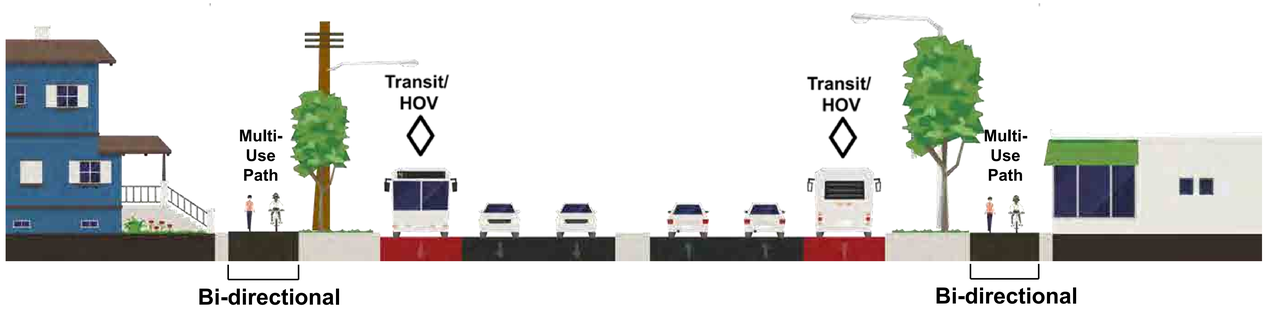
Cross-Section Trade-offs between Alternative 1 and Alternative 2:

- Slightly reduced landscaping opportunities for Alternative 1 due to width requirements of cycle track and sidewalk component
- Pedestrian and cyclists have exclusive facilities in Alternative 1, whereas facilities are combined in Alternative 2
- Cycle tracks in Alternative 1 are one-directional, whereas multi-use paths in Alternative 2 are bi-directional
- Less potential for pedestrian and cyclist conflicts in Alternative 1 due to the separation of pedestrian and cyclist facilities

Design Concepts – Typical 36m Cross-Sections

The following design alternatives were identified for 36m typical cross-sections along the Kennedy Road study corridor:

Place a dot beside your preferred image(s)

Alternative 1: Cycle Track and Sidewalk on Both Sides		
Alternative 2: Multi-Use Path on Both Sides		

Cross-Section Trade-offs between Alternative 1 and Alternative 2:

- Reduced landscaping opportunities in Alternative 1 due to width requirements of cycle track and sidewalk component
- Pedestrian and cyclists have exclusive facilities in Alternative 1, whereas facilities are combined in Alternative 2
- Cycle tracks in Alternative 1 are one-directional, whereas multi-use paths in Alternative 2 are bi-directional
- Less potential for pedestrian and cyclist conflicts in Alternative 1 due to the separation of pedestrian and cyclist facilities

Cross-Section Trade-offs between 43m and 36 m Typical Cross Sections:

- Reduced landscaping opportunities within the boulevard and median in Typical 36m Cross-Section alternatives due to Right-of-Way constraints
- Separation between travel lanes and active transportation facilities is reduced in Typical 36m Cross-Section alternatives as boulevard width is reduced

Design Concepts - Roundabout Screening and Results

What is a Roundabout?

A roundabout is a circular intersection control in which drivers travel around a center island. There are no traffic signals in a roundabout and drivers yield at entry to traffic, and exit at the desired street.

Why Roundabouts?

Research has demonstrated that roundabouts are safer than traditional intersection controls due to:

Lower operating speeds

Elimination of "Beating the Light"

One-way travel and the reduction of angle collision

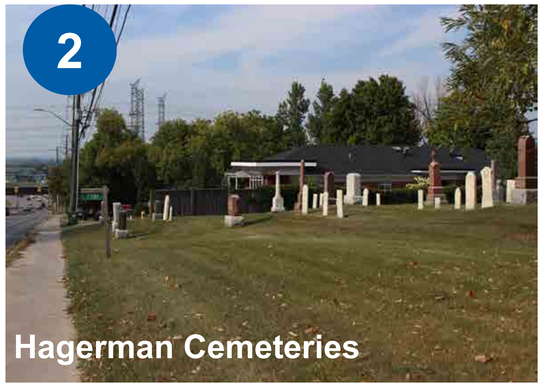
ROUNDABOUT SCREENING ANALYSIS

Number of lanes required based on intersection volumes	→	Not recommended if candidate intersection requires more than 2 lanes
Proximity to nearest intersection, access, or rail crossing	→	Queuing can adversely affect roundabout operations, not recommended if the nearest intersection is less than 215m away
The need for a signalized pedestrian crossing	→	Not recommended if there is a high demand for pedestrians or need for a pedestrian crossing at the selected intersection

Due to the number of lanes recommended for the preferred solution (2 general purpose lanes and 1 Transit/HOV in each direction), and the anticipated future quantity of pedestrian demand, roundabouts have not been carried forward as a treatment for intersection improvements

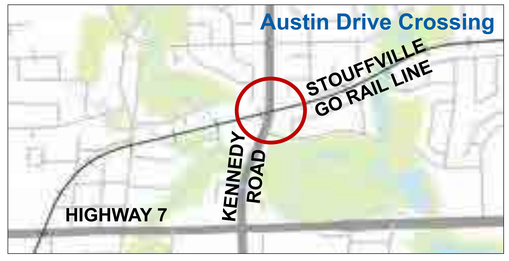
Areas of ROW Constraint and Opportunity

Locations along the Study Corridor



Stouffville GO Rail Crossings

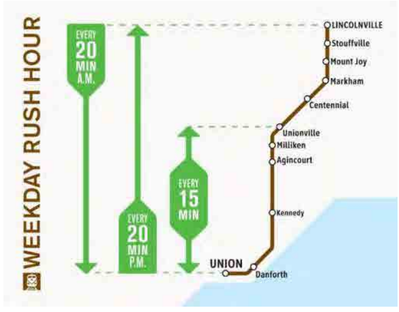
North of Clayton Drive / North of Austin Drive



Existing Issues

- Currently, both Stouffville GO Rail Crossings do not support cycling facilities
- Safety concerns for pedestrians and less attractive pedestrian environment
- Delays to vehicles as they are required to stop for trains to cross – safety concerns for motorists due to conflicts with crossing trains

Regional Express Rail – Stouffville GO Corridor



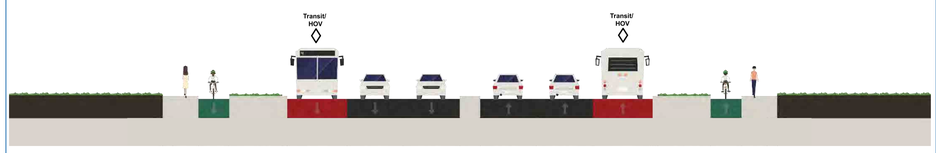
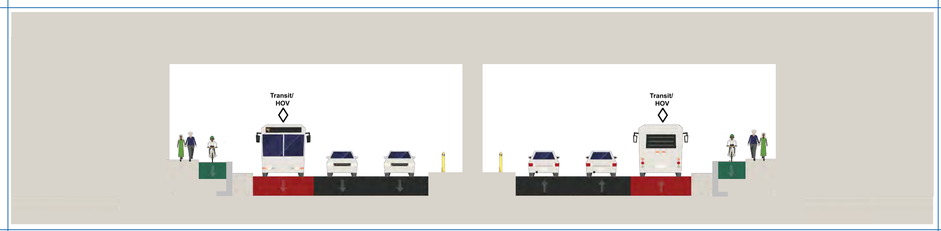
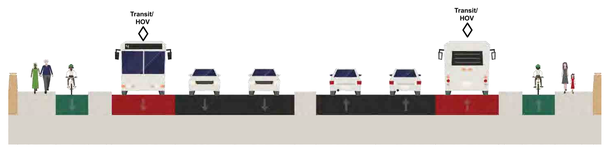
Implications for the Kennedy Road EA

- Analysis on future conditions indicate increasing transportation demand for all modes
- Increased train frequency due to Regional Express Rail service
- **Opportunities to review a grade separation (overpass or underpass)**

All-day, two-way rail services between Union Station and Unionville Station in the medium to long term

The following design alternatives were identified for both Stouffville GO Rail Crossings:

Place a dot beside your preferred image(s)

Alternative 1 (Interim Solution): At-Grade Crossing with Cycle Track and Sidewalk		
Alternative 2: Underpass with Multi-Use Path on Both Sides	 *For illustrative purposes only	
Alternative 3: Overpass with Cycle Track and Sidewalk	 *For illustrative purposes only	

*Cycle Track and Sidewalk shown as Active Transportation Facility is preliminary and subject to change with option of Multi-Use Path based on the evaluation of the overall corridor

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Hagerman Cemeteries

North of 14th Avenue

Existing Issues

Currently, the Hagerman Cemeteries segment of the road does not support cycling facilities

Pedestrian safety issues and less attractive pedestrian environment as there is minimal separation between pedestrian facilities and vehicular traffic

Heritage considerations at this segment due to the proximity of Hagerman Cemeteries and Thomas Morely House

GREAT STREETS
Building Roads that Build Community

York Region

Hagerman Cemeteries

North of 14th Avenue

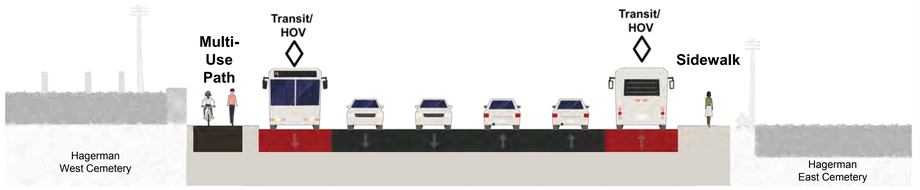
The following design alternatives were identified for the Hagerman Cemeteries Segment:

Place a dot beside your preferred image(s)

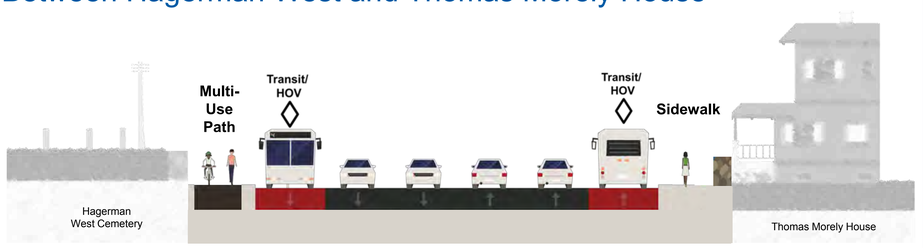
Alternative 1: Multi-Use Path on one side and Sidewalk on the other side (Reduced Lane Width)

(Suggested at narrowest segment to avoid impacts to the existing graves)

Between Hagerman Cemeteries

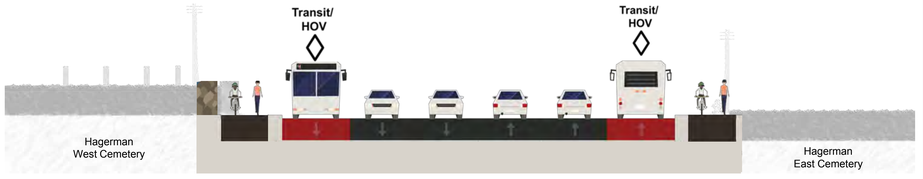


Between Hagerman West and Thomas Morely House

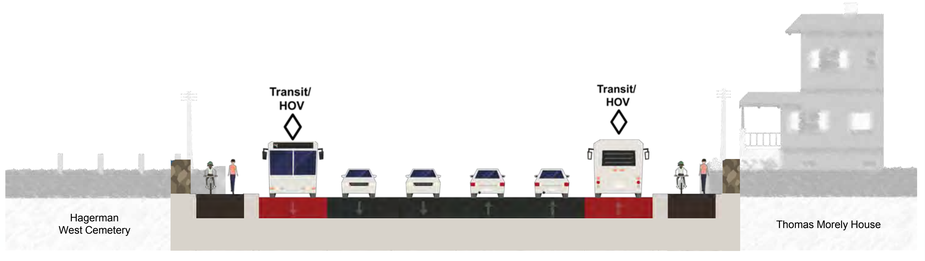


Alternative 2: Multi-Use Paths on Both Sides, Shift alignment west of Hagerman East, Shift alignment east at Hagerman West

Between Hagerman Cemeteries



Between Hagerman West and Thomas Morely House



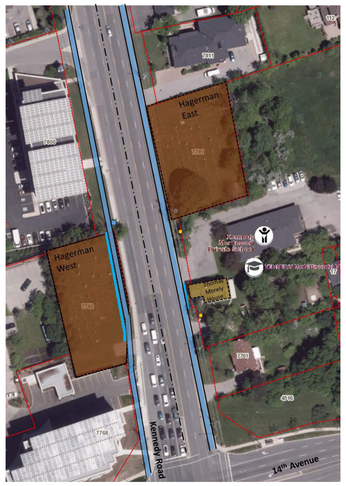
Hagerman Cemeteries

North of 14th Avenue

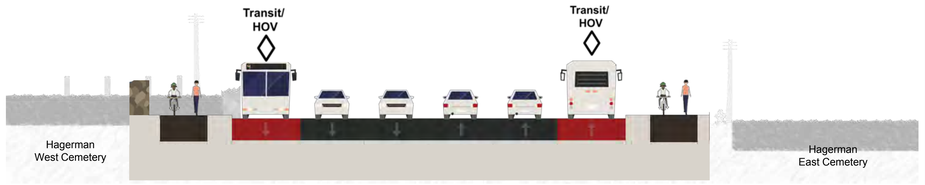
The following design alternatives were identified for the Hagerman Cemeteries Segment:

Place a dot beside your preferred image(s)

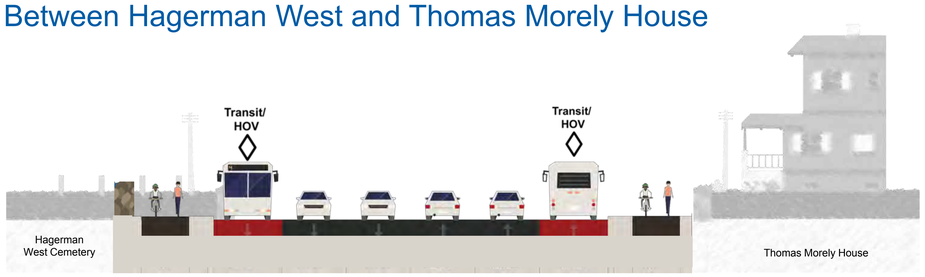
Alternative 3: Multi-Use Paths on Both Sides, Shift alignment west of Hagerman East



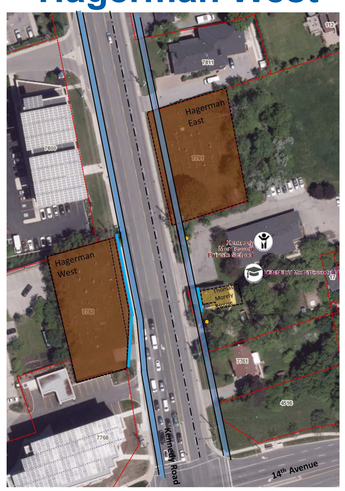
Between Hagerman Cemeteries



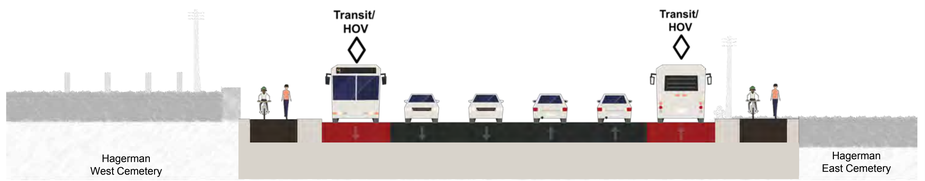
Between Hagerman West and Thomas Morely House



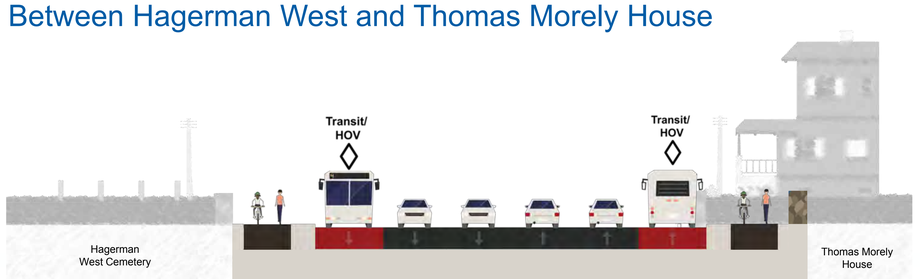
Alternative 4: Multi-Use Paths on Both Sides, Shift alignment east of Hagerman West



Between Hagerman Cemeteries

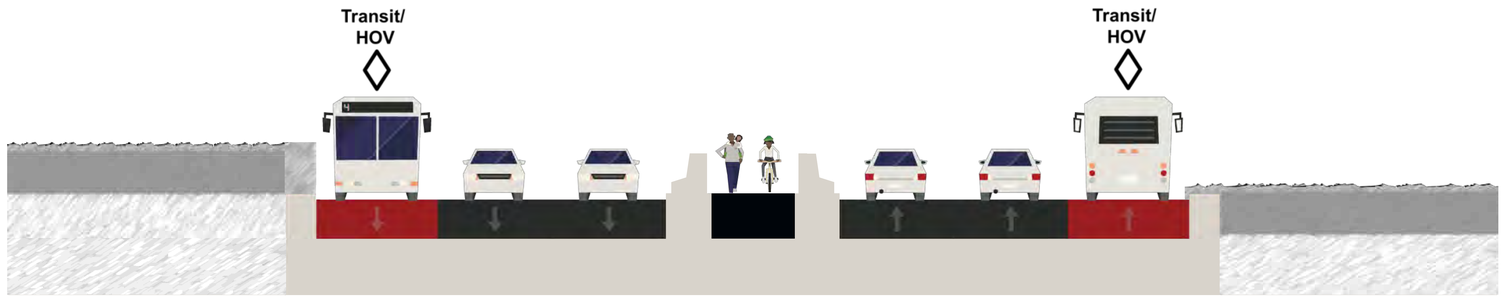
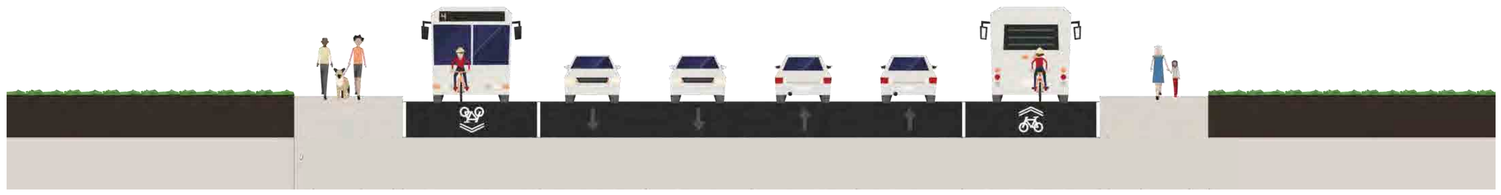
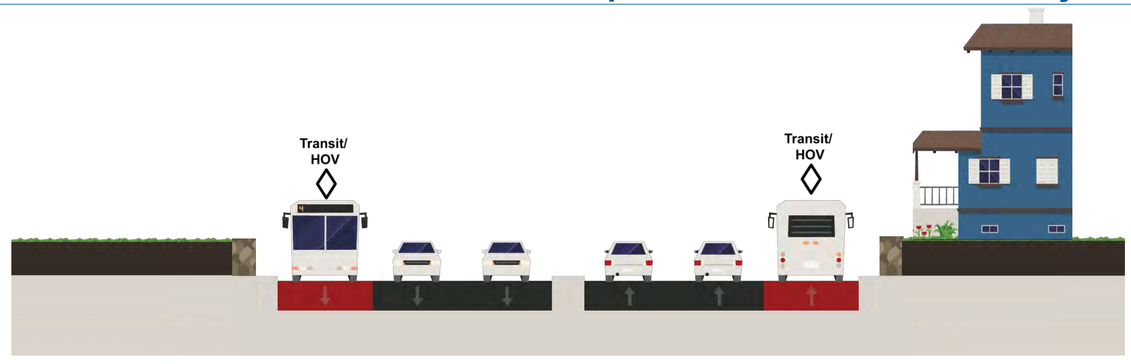


Between Hagerman West and Thomas Morely House



Hagerman Cemeteries
North of 14th Avenue

The following design alternatives were considered, but WILL NOT be carried forward:

Alternative 5: 6 Lanes, with Centre Active Transportation (Multi-Use Path)	 **Not Recommended to be carried forward due to complications for median AT access**
Alternative 6: 6 Lanes, Shared Roadway between Cyclists and Vehicles	 **Not Recommended to be carried forward due to non-compliance with YR Pedestrian/Cyclist Guidelines**
Alternative 7: 6 Lanes, No Active Transportation Facilities	 **Not Recommended to be carried forward due to impacts to AT facilities**

Miller Avenue Extension

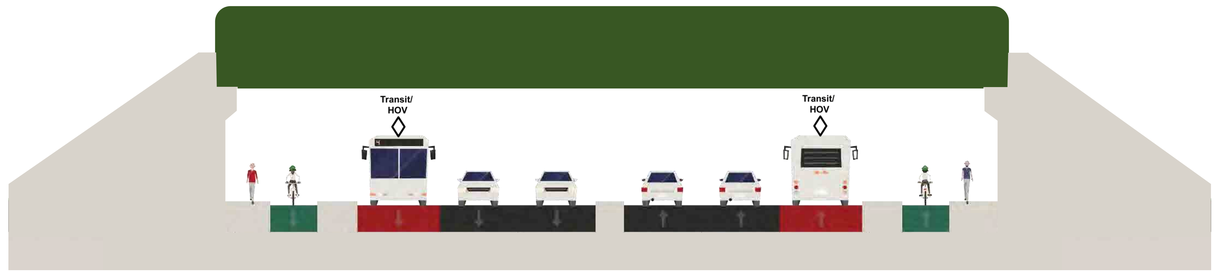
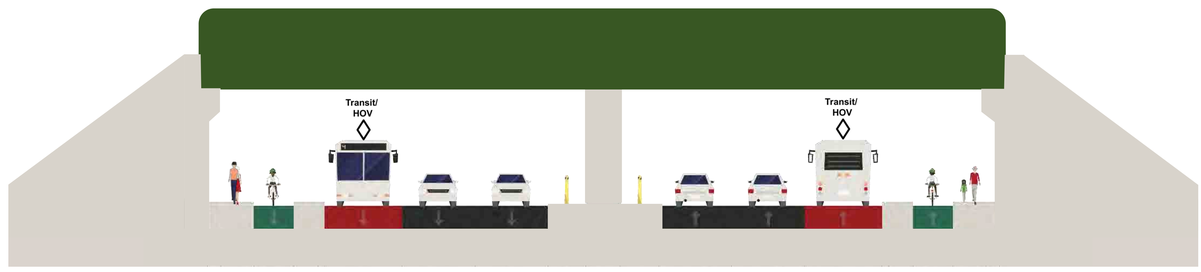
- EA completed 2013 by City of Markham
- Preferred Alternative: new 4-lane urbanized section connecting to Duffield Drive
- Preferred alternative to be reviewed as part of Kennedy Road EA

CN Rail Crossing

Existing Issues

- Currently, the CN Rail Overpass does not support cycling facilities
- Pedestrian safety issues and less attractive pedestrian environment
- Existing structure may need to be removed and replaced

The existing CN structure must be replaced. The alternative designs, with and without a pier are under review.

Alternative 1: Without centre pier – Cycle Tracks and Sidewalks on Both Sides	
Alternative 2: With centre pier – Cycle Tracks and Sidewalks on Both Sides	

*Cycle Track and Sidewalk shown as Active Transportation Facility is preliminary and subject to change with option of Multi-Use Path based on the evaluation of the overall corridor

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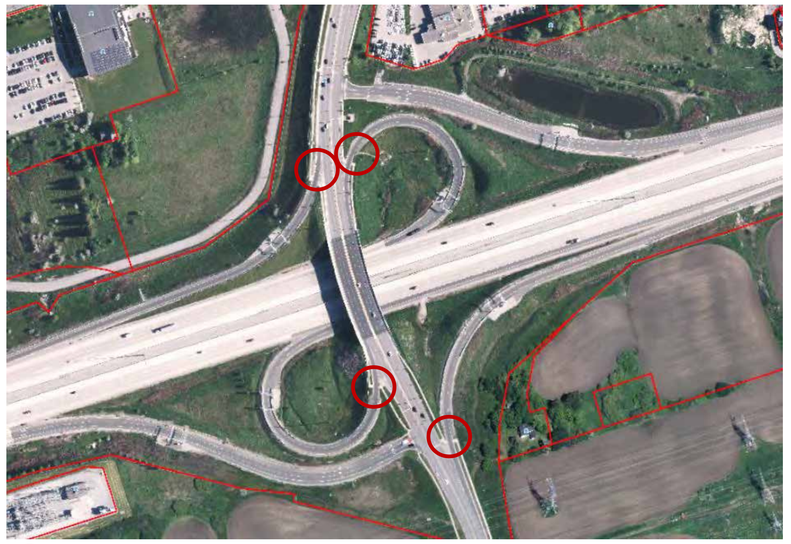
407ETR Interchange

Existing Issues

- Currently, the 407ETR Interchange does not support cycling facilities
- The proposed design may require ramp reconfiguration to eliminate pedestrian and cyclist conflicts
- Four conflict points exist at the ramp interchanges, affecting pedestrian and cyclist safety
- The proposed improvements must align with the Ministry of Transportation's plans for the future 407 Transitway



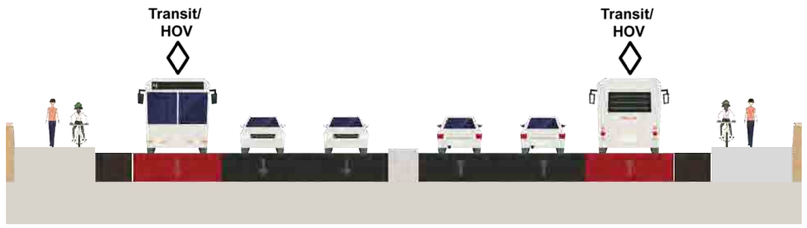
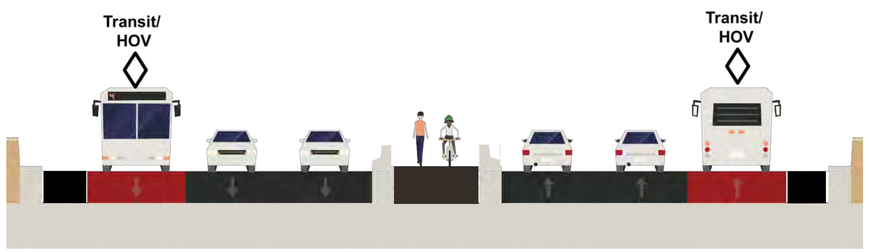
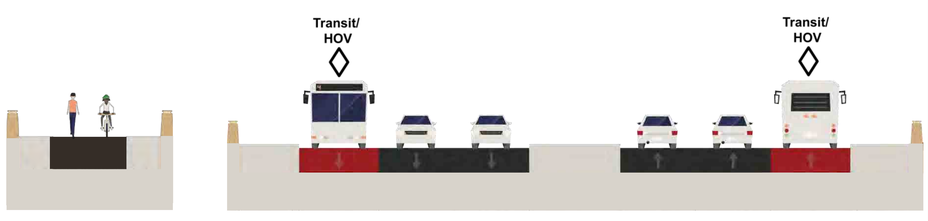
Point of Vehicular and Pedestrian/Cyclist Conflict

Proposed 407 Transitway Alignment across 407ETR

407ETR Interchange

The following design alternatives were identified for the 407ETR Interchange:

Place a dot beside your preferred image(s)

Alternative 1: Multi-Use Path on Both Sides		
Alternative 2: Active Transportation Facilities in Median – Multi-Use Path 		
Alternative 3: Separate AT Bridge – Multi-Use Path 		

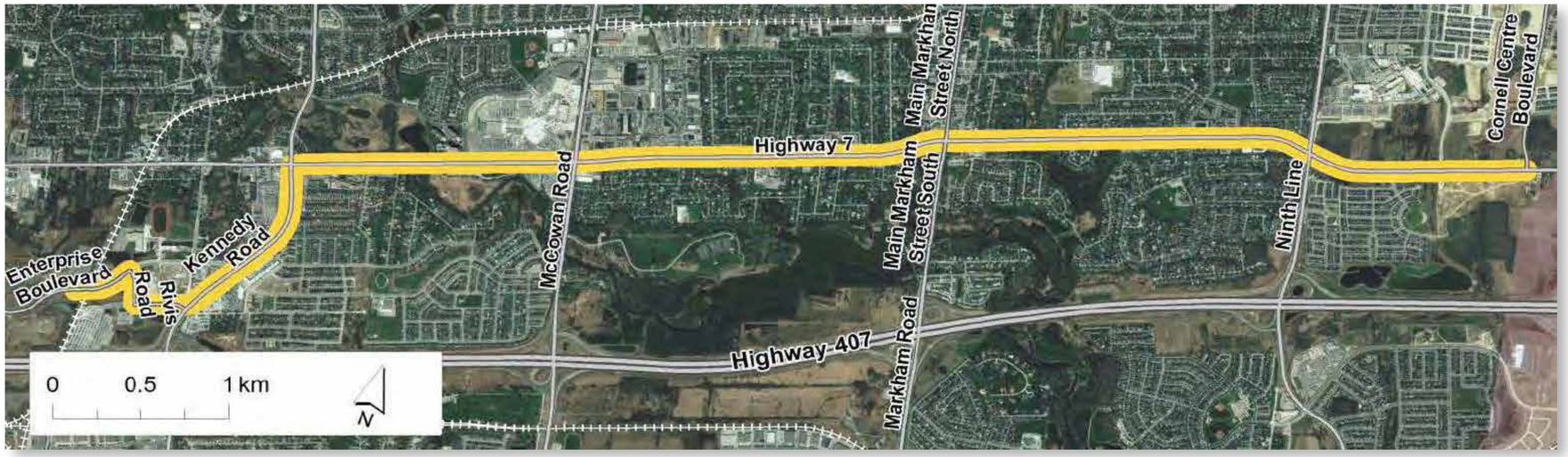
YRRTC Environmental Assessment

VIVA Rapidway – YMCA Boulevard to Highway 7

York Region's Rapid Transit Network

YR-TMP outlines York Region's Rapid Transit Network – the Highway 7 corridor contains a link through Markham Centre on Kennedy Road.

The Highway 7 Corridor and Vaughan North-South Link Public Transit Improvements Environmental Assessment (YRRTC EA) was completed and approved in 2005.



The YRRTC EA Recommended Option C-D2 as the Preferred Alternative for this Segment based on the following rationale:

- Future station location offers convenient access to mixed-uses on west side of Kennedy Road and residential neighbourhoods on east side
- Transitway offers opportunity for enhancement of Kennedy Road streetscape
- Minimal impacts to the natural environment as this alternative bypasses both Rouge River Crossings
- Supports urban structure of area and provides good potential for increase in existing business activities along Highway 7 and Kennedy Road

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VIVA Rapidway

YMCA Boulevard to Highway 7

Existing Issues

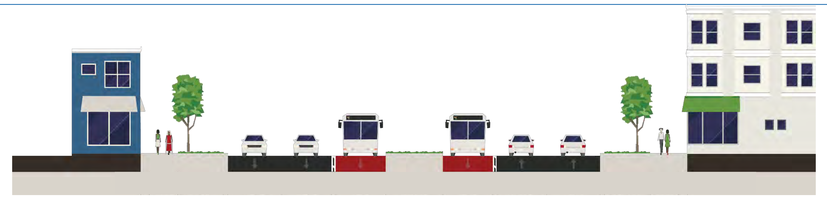
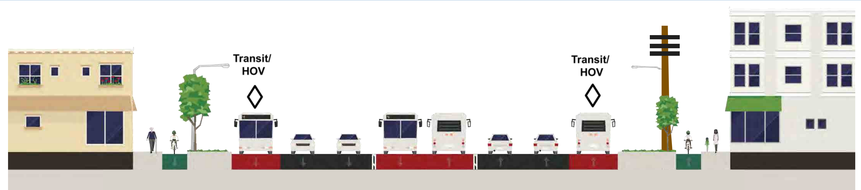
Currently, this segment does not support cycling facilities

Pedestrian safety issues and less attractive pedestrian environment

The proposed improvements must align with VIVA's Approved Plans for the Rapidway

The following design alternatives were identified for the VIVA Rapidway mid-block north of Castan Avenue:

Place a dot beside your preferred image(s)

Alternative 1: Median VIVA Rapidway, Cycle Track and Sidewalk		
Alternative 2: Median VIVA Rapidway, Transit/HOV curb lanes, Cycle Track and Sidewalk		
Alternative 3: Shift VIVA Rapidway to share Transit/HOV curb lanes, Multi-Use Path		

***Cycle Track and Sidewalk shown as Active Transportation Facility is preliminary and subject to change with option of Multi-Use Path based on the evaluation of the overall corridor**

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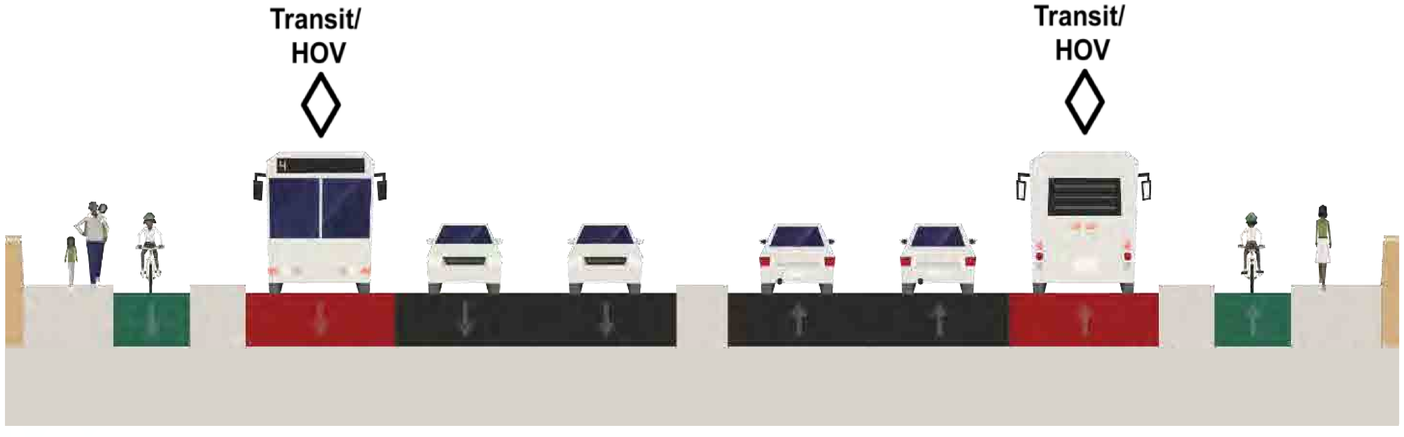
Rouge River Crossing

Existing Issues

- Currently, the Rouge River Crossing does not support cycling facilities
- Pedestrian safety issues and less attractive pedestrian environment as there is minimal separation between pedestrian facilities and vehicular traffic
- Existing structure cannot accommodate the preferred design alternative, widening or replacement of the structure is required

The structure over the Rouge River must be widened/replaced to accommodate 6 Lanes with Active Transportation Facilities



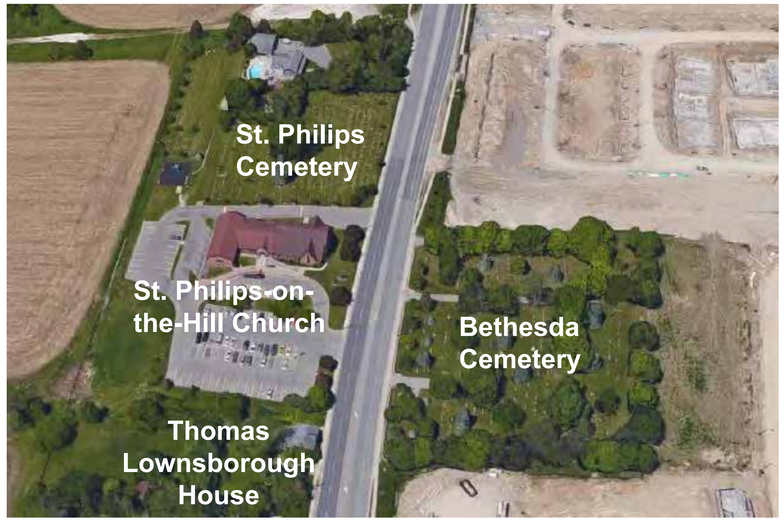
*Cycle Track and Sidewalk shown as Active Transportation Facility is preliminary and subject to change with option of Multi-Use Path based on the evaluation of the overall corridor

St. Philips and Bethesda Cemeteries

North of 16th Avenue

Existing Issues

- Currently, this segment of the road does not support cycling facilities
- Pedestrian safety issues and low level of service (LOS) as there is minimal separation between pedestrian facilities and vehicular traffic
- Heritage considerations at this segment due to the proximity of St. Philips and Bethesda Cemeteries and Thomas Lownsborough House

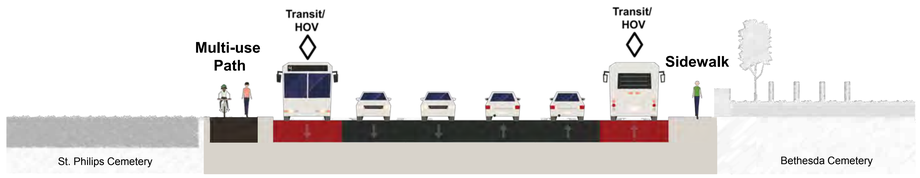
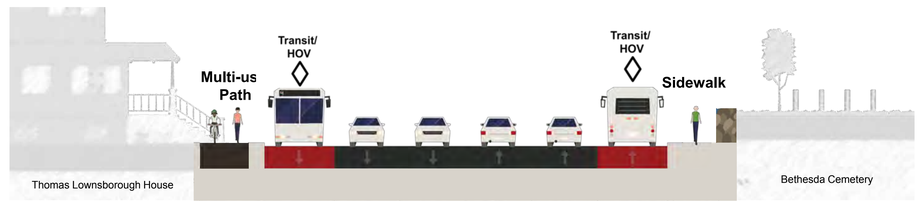
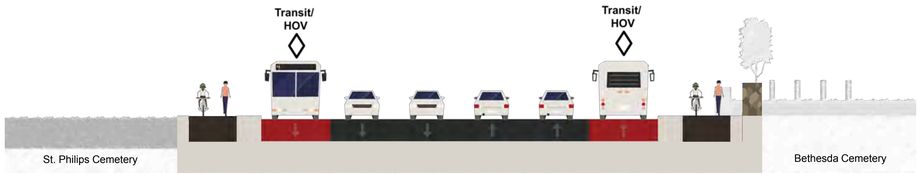
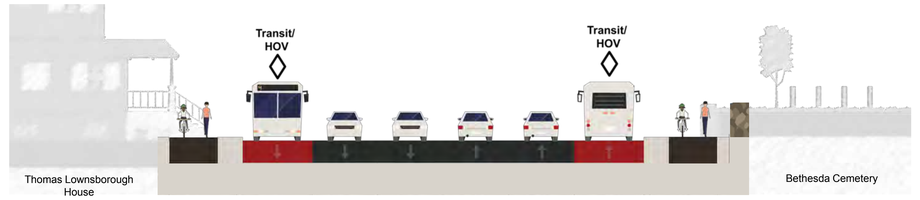


St. Philips and Bethesda Cemeteries

North of 16th Avenue

The following design alternatives were identified for the St. Philips and Bethesda Cemeteries Segment:

Place a dot beside your preferred image(s)

Alternative 1: 6 Lanes with Multi-Use Path and Sidewalk (Reduced Lane Width) **(Suggested at narrowest segment to avoid impacts to the existing graves)**	Between St. Philips and Bethesda Cemetery 	
	Between Thomas Lownsborough House and Bethesda Cemetery 	
Alternative 2: 6 Lanes with Dual Multi-Use Paths - Shift alignment to the west 	Between St. Philips and Bethesda Cemetery 	
	Between Thomas Lownsborough House and Bethesda Cemetery 	

St. Philips and Bethesda Cemeteries

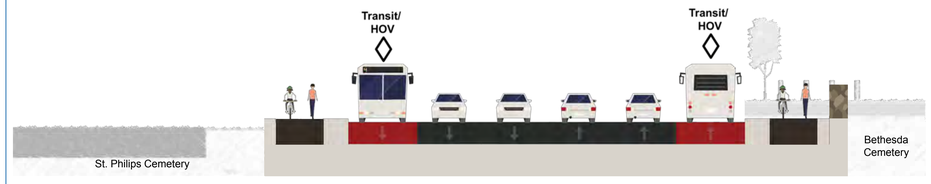
North of 16th Avenue

The following design alternatives were identified for the St. Philips and Bethesda Cemeteries Segment:

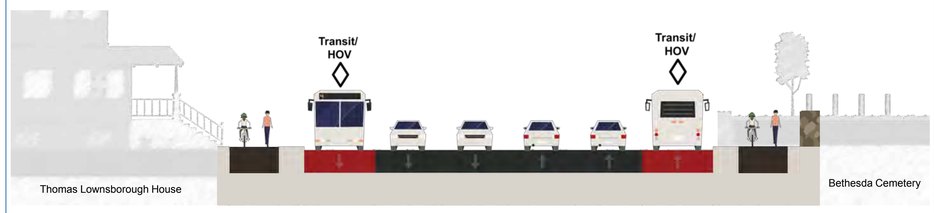
Place a dot beside your preferred image(s)

Alternative 3: 6 Lanes with Dual Multi-Use Paths - Shift alignment to the east

Between St. Philips and Bethesda Cemetery

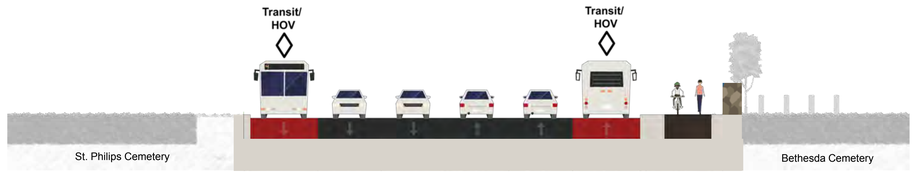


Between Thomas Lownsborough House and Bethesda Cemetery

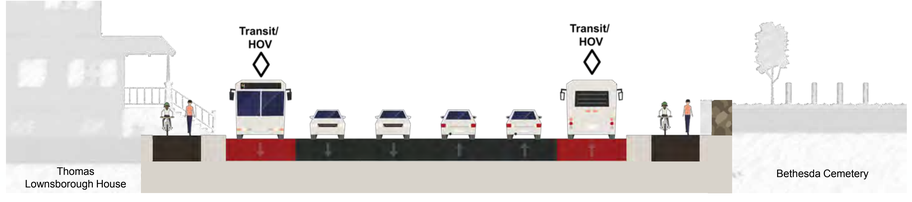


Alternative 4: 6 Lanes with Dual Multi-Use Paths - Shift alignment to the west with discontinuous AT

Between St. Philips and Bethesda Cemetery



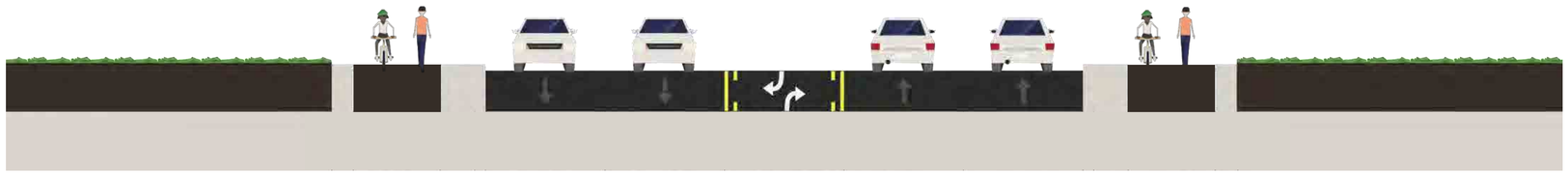
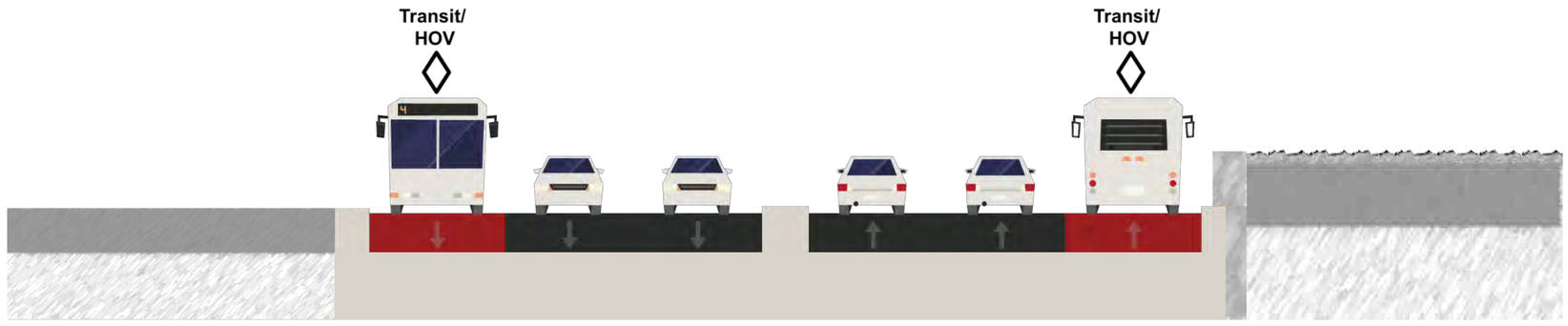
Between Thomas Lownsborough House and Bethesda Cemetery



St. Philips and Bethesda Cemeteries

North of 16th Avenue

The following design alternatives were considered, but WILL NOT be carried forward:

Alternative 5: 4 Lanes with Centre Turn Lane, Multi-Use Path on Both Sides	 **Not Recommended to be carried forward due to impacts to Transit/HOV Lanes**
Alternative 6: 6 Lanes, No Active Transportation Facilities	 **Not Recommended to be carried forward due to impacts to AT facilities**

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 design concept.

Transportation Service

- Improve Public Transit Service
- Reduce Traffic Congestion and Delays
- Create a Pedestrian-Friendly Environment
- Create a Cyclist-Friendly Environment
- Improve Safety for all Travel Modes
- Improve Mode Choice

Social Environment

- Minimize Impacts on Existing Residential, Institutional and Recreational Dwellings / Properties
- Improve Access to Residential Areas, Institutional and Recreational Facilities
- Mitigate Traffic on Local Streets
- Minimize Traffic Noise
- Preserve Archaeological and Cultural Heritage Features
- Minimize impacts to cemeteries and burial grounds
- Improve Visual Aesthetics
- Improve Community Character

Infrastructure Design

- Minimize Utility Relocation
- Minimize Disruption due to Construction
- Minimize Constructability Complexity

Economic Environment and Cost Effectiveness

- Accommodate Planned Development and Growth
- Minimize Impacts on Business Properties
- Improve Access to Businesses and Key Employment Areas
- Maximize Construction Value
- Minimize Property Requirements
- Minimize Operating Costs

Natural Environment

- Protect Designated Natural Areas
- Protect Vegetation
- Protect Wildlife
- Protect Aquatic Habitat
- Protect Surface Water and Ground Water
- Improve Air Quality
- Minimizes Effects on Climate Change

Thank you for attending the open house

Your input is very valuable to us!

Please fill in the comment form and return it to us today or provide your comments by mail, email, or phone by March 21, 2018.

Contact Us

For more information visit us at:

www.york.ca/kennedyroad

Please send your thoughts or opinions about the corridor by sending us an email at:

roads.ea@york.ca

Get Involved

- **Apply to be a member of the Stakeholder Group**
- **Complete the Online Survey**
- **Join the Study Mailing List**

Next Steps

- **Review feedback from the public**
- **Refine and Evaluate Design Concepts**
- **Select and Develop Preferred Designs**
- **Present the Preferred Design at Open House 2 (Spring 2019)**

GREAT STREETS
Building Roads that Build Community

York Region