

WELCOME

**Public Information Centre #2
Municipal Class Environmental Assessment Schedule 'C'**

**City of Brampton Arterial Roads Within Highway
427 Industrial Secondary Plan (Area 47)**

**Part B Roadways – Countryside Drive, Clarkway Drive and
East-West Arterial**

Date: July 28, 2022

www.brampton.ca/SP47EA

Welcome to the Public Information Centre

- 01 Watch the recording
- 02 Learn about the process
- 03 Review findings of previous studies
- 04 Discover how we plan to address the problems and opportunities
- 05 Learn about the preferred alternative
- 06 Provide feedback via comment forms
- 07 Let us know what is most important to you
- 08 Find out where the study is going next

Your feedback is important and will be incorporated and considered in the design process!

Comment Period Closing: **August 25, 2022**



Study Area and Structure

Study Area

- Located in the northeast area of the City of Brampton
- Strategically located at the York/Peel Boundary and close to Highway 427, the CP Railway Terminal and the potential GTA West Corridor

Study Structure

This Schedule 'C' Class Environmental Assessment is being carried out in two parts, as illustrated in the figure to the right and further explained below. Technical studies were completed for both Part A and B at the same time. **This PIC is only for Part B roadways.**

PUBLIC INFORMATION CENTRE #2 FOR THESE ROADS HELD NOV 2019

FOCUS OF THIS PUBLIC INFORMATION CENTRE

PART 'A' ROADWAYS

Part 'A' roadways will be owned and operated by the Region of Peel.

They include:

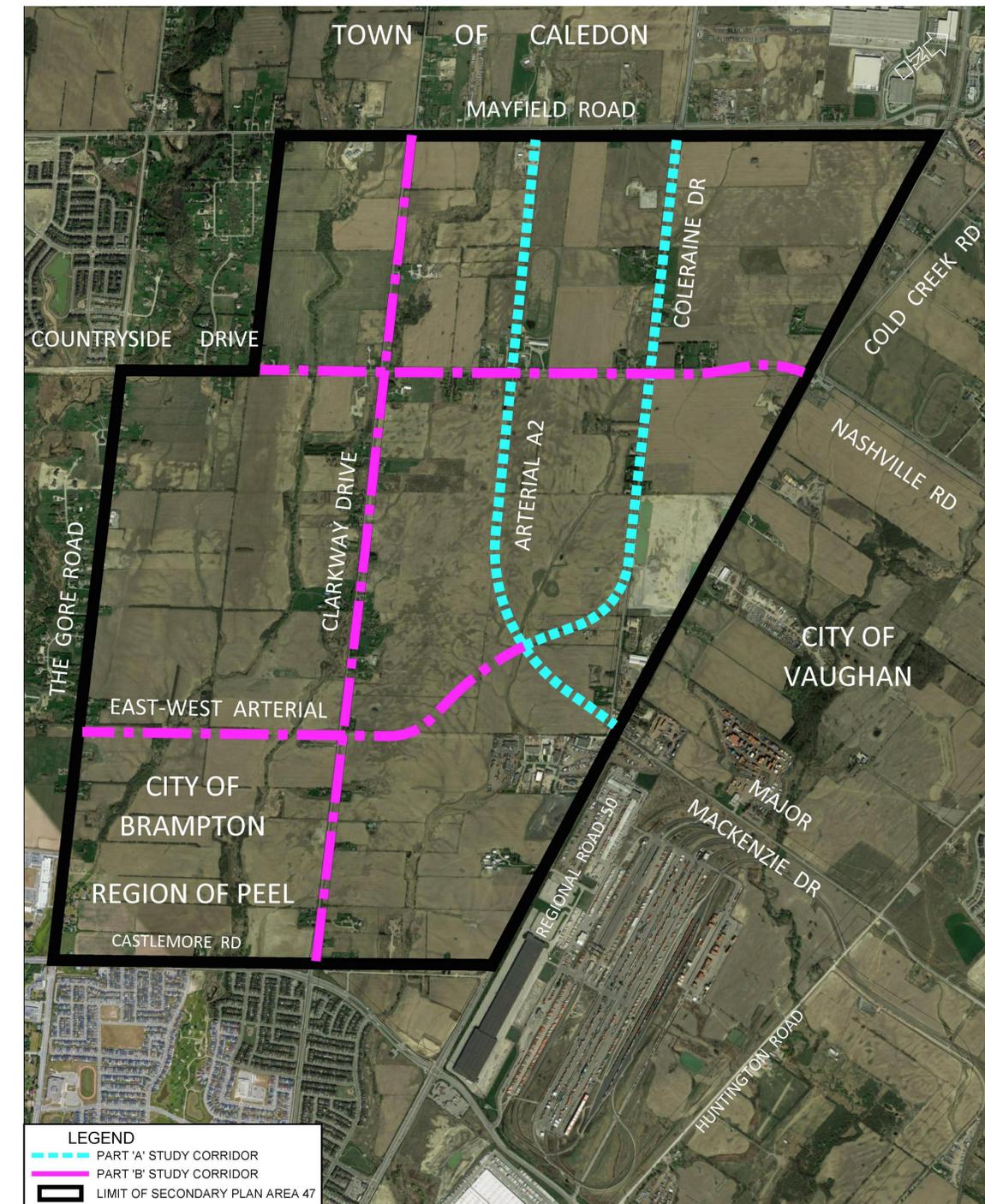
- Arterial A2 – a new six lane north-south roadway that connects Major Mackenzie Drive to Mayfield Road
- Coleraine Drive – an existing roadway which will be widened to four lanes and be upgraded to include curb and gutter and multi-use pathways

PART 'B' ROADWAYS

Part 'B' roadways will be owned and operated by the City of Brampton.

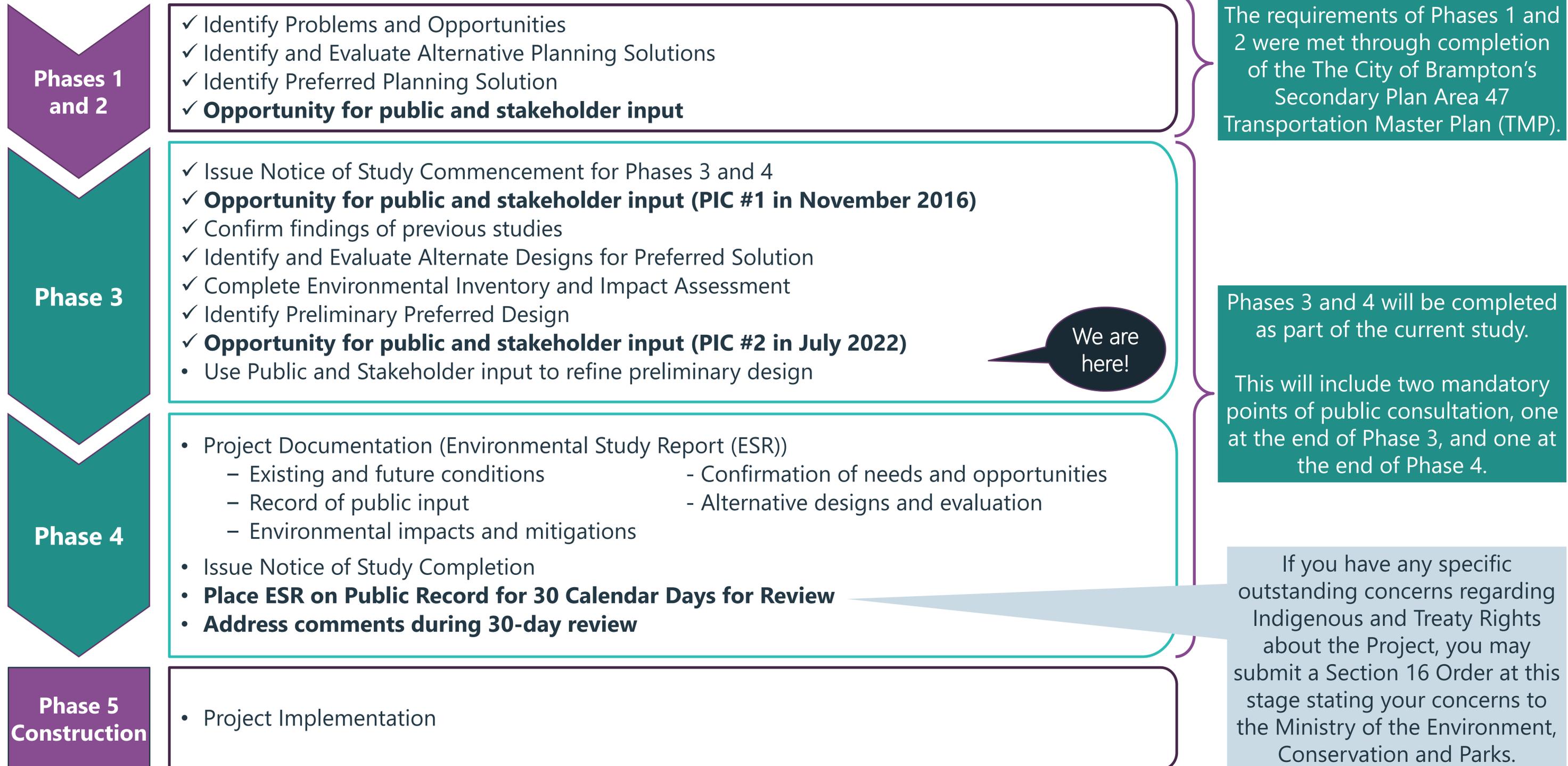
They include:

- Countryside Drive - an existing roadway which will be widened to four lanes and be upgraded to include curb and gutter and multi-use pathways
- Clarkway Drive – an existing roadway which will have portions widened to four lanes and upgraded to include storm sewers, sidewalks and cycle lanes
- East-West Arterial – a new four lane roadway connecting The Gore Road to Arterial A2



Environmental Assessment Process

The current study is being completed as two coordinated Schedule 'C' Municipal Class Environmental Assessments (one for regional roads and one for city roads). The Class EA process is regulated by the Ministry of the Environment, Conservation and Parks and is followed to make sure environmental impacts are identified and mitigated, and that the public is informed of major works being completed in their community.



Project Timelines

PART A ROADWAYS (Arterial A2 & Coleraine Drive) Q4 2019-2022



PIC #2



PART B ROADWAYS (Countryside Drive, Clarkway Drive, East-West Arterial) 2020-2022



Project delays have resulted from:

- Extensive study required to confirm need and preferred design for interchange at Arterial A2 / Regional Road 50
- Coordination with TransCanada Pipeline before designing East-West Arterial
- Additional consultation with Agencies to design the crossings of Rainbow Creek
- Timelines to receive creek models from external sources
- Timelines to receive permissions to enter
- Consideration of additional design alternatives brought forward by stakeholders
- Coordination with proposed GTA West Transportation Corridor

EA Problem and Opportunity Statement

The following problems and opportunities will be addressed through the current Class Environmental Assessment Study:

- Provide enhanced inter-regional connectivity
- Provide access to proposed development
- Address anticipated traffic capacity issues resulting from extension of Highway 427 to Major Mackenzie Drive, as well as development of the study area
- Improve roadway geometrics to meet or exceed City and Regional standards
- Provide transit, pedestrian and cycling facilities
- Improve traffic, pedestrian and cyclist safety
- Improve intersection safety and operations
- Design watercourse crossings to enhance hydraulics, stream function and fisheries and wildlife passage
- Address structural deficiencies
- Improve pavement conditions
- Provide a mosaic of safe, integrated transportation choices and new modes
- Support civic sustainability, emphasizing walking, cycling, and transit

What We Heard During PIC # 1

The policy direction for the next Transportation Master Plan is to provide the network plan, policies and programs to support Brampton's 2040 Vision. Brampton 2040 Vision began in mid-2017 following Council direction to develop a comprehensive document guiding Brampton's future as a connected, inclusive and innovative city. Implementing Vision Zero as a strategy, the goal is to increase safe, healthy, equitable mobility for all. The Complete Streets Plan recognizes that although streets may have varying priorities, all streets should be designed for people, for placemaking and for prosperity. This will be considered for this Study.

What have we heard from you so far?

The first Public Information Centre was held on Thursday, November 24, 2016. The event introduced the Project to the public and allowed them to voice specific issues and concerns. Public comments were received at the information event and received via mail and e-mail following the event. Key areas of concern are summarized below:



Concerns regarding how existing properties will be managed once development begins

- Access to existing driveways will be maintained
- Temporary traffic signalling will be used during construction



How will the Project impact land use, specifically impacts on a proposed park at the east end of the E-W Arterial Road

- The preferred design will accommodate the boundaries set for the planned Community Park, as well as planned and future businesses to create both an economic and environmentally sustainable community



Concerns regarding access to property

- Proposed driveways will maintain adequate frontage for ease of parking and exiting/entering the roadway
- Temporary access to new developments will be provided to support the growth of those businesses



Clarification requested on the cultural and built heritage study, specifically regarding mitigations for impacted heritage properties

- Portions of Clarkway Drive will maintain its rural character
- The preferred design will minimize impact to heritage properties



Timing of construction and property acquisition process

- Property acquisition process will start once council approval is received and once detailed design has advanced to at least 60%

Existing and Future Land Use

Area 47, including Heritage Hights is the last significant greenfield area within the City of Brampton. The study area is close to the future convergence point of three of the most important transportation/goods movement corridors within the Greater Golden Horseshoe – Highway 427, GTA West Transportation Corridor (future), and the CN Rail Line. As such, the comprehensive planning, design and integration of the arterial roads network is critically important.

EXISTING LAND USE

- Primarily agricultural and rural residential
- Some industrial and commercial developments
- Currently less than 100 households and 300 jobs within study area
- Identified as residential, industrial and Corridor Protection Areas in the City of Brampton’s Official Plan

FUTURE LAND USE

- The entire study area is subject to the Highway 427 Industrial Secondary Plan Area 47, illustrated in the figure on the next slide, and the Block Plan Areas 47-1 and 47-2.

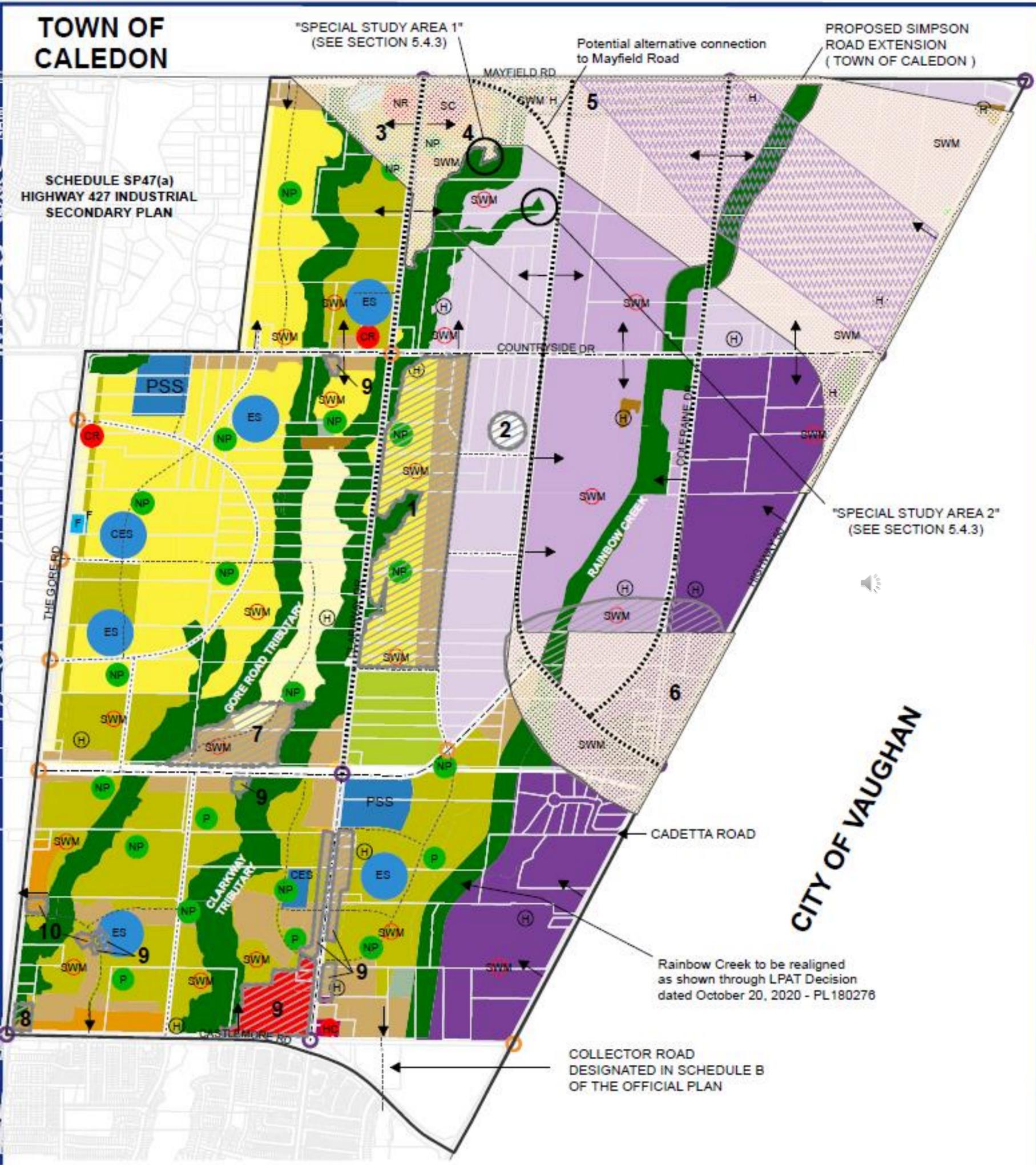
Growth Area	Population			Employment		
	2021	2031	2041	2021	2031	2041
Area 47	360	31,030	31,120	90	7,640	8,130
Brampton	698,200	863,720	930,730	210,500	276,430	314,910

TOWN OF CALEDON

"SPECIAL STUDY AREA 1"
(SEE SECTION 5.4.3)

PROPOSED SIMPSON ROAD EXTENSION
(TOWN OF CALEDON)

SCHEDULE SP47(a)
HIGHWAY 427 INDUSTRIAL
SECONDARY PLAN



PREPARING FOR GROWTH IS THE MAIN DRIVER BEHIND THIS PROJECT

The alignments shown on the map were established as part of the Secondary Plan and are subject to change based on this EA.

RESIDENTIAL

- LOW DENSITY RESIDENTIAL
- LOW / MEDIUM DENSITY RESIDENTIAL
- EXECUTIVE RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL

EMPLOYMENT

- OFFICE NODE
- LOGISTIC/WAREHOUSE/TRANSPORTATION
- BUSINESS PARK
- PRESTIGE INDUSTRIAL
- MIXED COMMERCIAL / INDUSTRIAL

COMMERCIAL

- DISTRICT RETAIL
- NEIGHBOURHOOD RETAIL
- CONVENIENCE RETAIL
- HIGHWAY COMMERCIAL
- SERVICE COMMERCIAL

ROAD NETWORK

- MAJOR ARTERIAL ROAD
- MINOR ARTERIAL ROAD
- TRANS CANADA PIPELINE
- ROAD ACCESS (POTENTIAL/CONCEPTUAL)
- COLLECTOR ROAD
- MAJOR COLLECTOR ROAD

UTILITIES AND INFRASTRUCTURE

- PRIMARY GATEWAY
- HERITAGE RESOURCE
- SPECIAL POLICY AREA
- SP-47 BOUNDARY
- SECONDARY GATEWAY
- SWM FACILITY
- CEMETERY
- SCOPED APPEALED LANDS
- Corridor Protection Area (Reduced in accordance with the Northwest GTA Corridor Identification Study Area - MTO 2018)

NATURAL HERITAGE SYSTEM

- SIGNIFICANT WOODLANDS
- WETLAND RESTORATION AREA
- VALLEYLAND

RECREATION OPEN SPACE

- COMMUNITY PARK
- NEIGHBOURHOOD PARK
- PARKETTE

INSTITUTIONAL

- PUBLIC SECONDARY SCHOOL
- CATHOLIC ELEMENTARY SCHOOL
- ELEMENTARY SCHOOL
- FIRE STATION
- PLACE OF WORSHIP

CITY OF VAUGHAN

Rainbow Creek to be realigned as shown through LPAT Decision dated October 20, 2020 - PL180278

COLLECTOR ROAD DESIGNATED IN SCHEDULE B OF THE OFFICIAL PLAN

Completed Technical Studies

Archaeology

Findings

- 84% of land adjacent to the study corridors exhibit archaeological potential as identified in the report and seen in the maps below

Recommendations

- Stage 2 Archaeological Assessment recommended in areas of archaeological potential. This will be deferred to detailed design



- | | | | |
|-------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  | Photography Location, Number and Direction |  | Areas of Archaeological Potential Removed due to Previous Construction Activities |
|  | Areas of Archaeological Potential |  | Study Area |

Built & Cultural Heritage

Findings

- 12 built heritage resources and cultural heritage landscapes
- Indirect impacts are anticipated to 2 properties
- Direct impacts are anticipated to four properties

Preliminary Recommendations for Potentially Impacted Properties

- Heritage documentation prior to road improvements
- Construction fencing and tree hoarding adjacent to heritage resource
- Standard road construction techniques, excluding all avoidable construction techniques that could cause structural damage to heritage resources
- Replacement trees should replicate current trees
- The Heritage impact mitigation will be considered during the detail design process

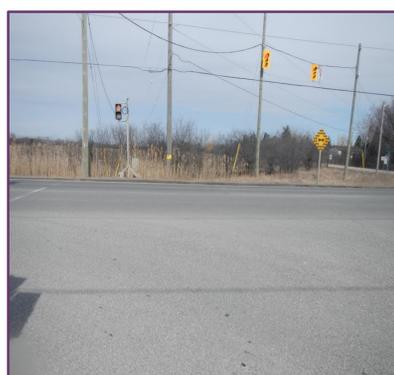


- | | |
|---------------------------------------------------------------------------------------|--------------------------|
|  | Part B Project Footprint |
|  | No Anticipated Impacts |
|  | Direct Impacts |
|  | Indirect Impacts |

Completed Technical Studies

Transportation Safety

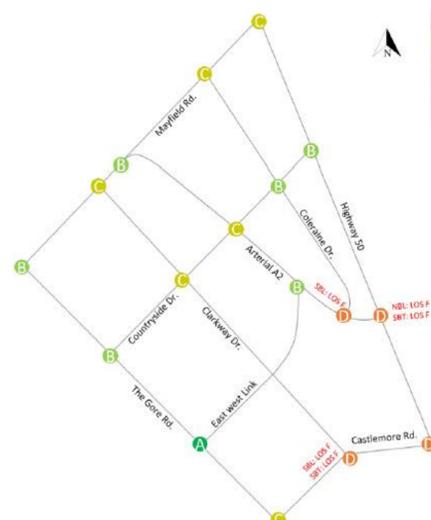
- Steep roadside slopes will be mitigated through “urban” cross sections (for all roadways, except a section of Clarkway Dr. will remain rural), meaning ditches will be replaced with flat boulevards beyond the clear zone and the roads will have curb and gutter
- Proposed cross sections are wide enough that hydro poles will be located far from the road
- The lack of pedestrian, cycling, and transit facilities within the study area will be addressed with multi-use pathways on both sides of Countryside Drive, Clarkway Drive and East-West Arterial. Bus bays will be at all major intersections
- AODA-compliant traffic signals will be installed at all signalized intersections
- Proposed horizontal and vertical alignment meet/exceeds geometric design standards for enhanced safety



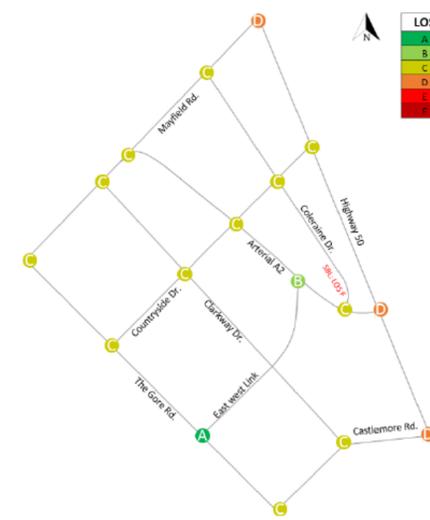
Traffic Operations

- Without the proposed improvements, drivers will experience significant travel delays throughout the network within the next 10 years
- The suggested improvements will address existing and anticipated traffic operation issues
- Improvements include:
 - Construction of a new 4-lane arterial roadway (East-West Arterial)
 - Widen existing Countryside Drive to 4-lanes
 - Widen existing Clarkway Drive to 4-lanes, from Castlemore to Collector Road C.
- Traffic signals at all major intersections

LOS	Description of Operations	LOS	Description of Operations
A	Little to no delay at intersections	D	Frequent queuing and delay (< 55 sec/vehicle)
B	Minimal delay	E	Significant delay and queuing, occasionally vehicles may need to wait for a second green
C	Some queuing and delay (<35 sec/vehicle)	F	Intolerable delays and queues.



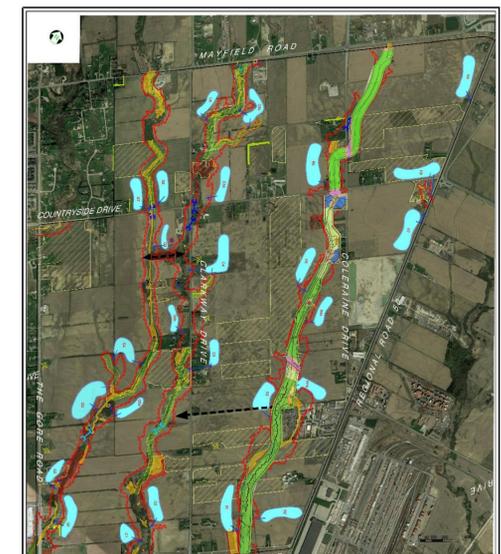
Signalized Intersections
Level of Service - 2041
AM Peak



Signalized Intersections
Level of Service - 2041 PM
Peak

Integration with Master Environmental Servicing Plan & Addendum

- A Master Environmental Servicing Plan (MESP) was completed for the entirety of the Secondary Plan area to guide overall development
- MESP Identified environmental features and constraints for what cannot be impacted and how the impacts will be compensated
- MESP Addendum – Rainbow creek: To increase developable land, Rainbow Creek is being realigned and the floodplain is being narrowed. In exchange for loss of floodplain, the natural corridor along the creek will be significantly improved
- Bridges over Rainbow Creek have been designed for its future, improved condition. Includes providing higher and wider openings to allow for more light and animal movement under the bridges.



Completed Technical Studies

Fluvial Geomorphology

- Field Observations – Watercourse crossings in the study area predominantly consist of channels that have been highly impacted by agricultural land practices
- Recommendation – All watercourses require channel realignment as a result of the road widening/construction works, and that these channels accommodate a minimum span of the largest meander amplitude within the vicinity of the crossing
- The replacement and redesign of the new crossing structures will help reduce channel instability and they will stabilize these watercourse crossings



Contamination Overview Study

- The study identified properties on or near the road that may be sources of soil and groundwater contamination and may affect construction
- 36 properties were identified as having a high potential, 10 parcels had medium potential for environmental contamination. 13 significant spill locations were identified
- Recommendations – Soil and ground water sampling recommended for areas within the footprint of the future road to assess site conditions for soil and groundwater quality



Ongoing Technical Studies

Natural Environment - Terrestrial

- 8 Reptiles, 11 amphibians, 36 species of birds, and 42 species of mammals were identified
- There were 3 Species at Risk (SAR) in the area: Bobolink, Barn Swallow, Caspian Tern
- To mitigate damages to the natural environment, minimal removal of natural materials, stabilize and re-vegetation of all areas of disturbed/exposed soil, using temporary matting to reduce disturbance to wetland, etc.
- Terrestrial enhancement opportunities - Placing vegetation at culvert inlets and outlets which encourage wildlife crossing and remove crossing barriers such as culvert grading, log jams, or fencing
- Any proposed work activities in migratory bird habitat is recommended to be undertaken outside of the active breeding season (April 1 to August 31)

Natural Environment - Aquatic

- There are three primary drainage features within the limits of the "Part B Roadways area". These tributaries have unstable flow regimes with limited canopy cover, making the tributaries unstable habitats for specialized feeders and fish-eating fish in the area
- Preliminary Mitigation Measures - include designing and installing culverts to prevent barriers to fish movement, designing and implementing standard Erosion and Sediment Control, properly operating, storing, and maintaining equipment, vehicles, and associated materials to avoid impact to the watercourse, minimize removal of natural materials, and restore riparian vegetation, banks, and waterbody bed to pre-construction state or better
- Aquatic enhancement opportunities – Shading enhancement to maintain or cool water temperatures by planting shrubs along the channel banks, enhancing watercourse buffers through the riparian restoration and revegetation, and protection of the natural areas that exist to provide refuge for fish species

Stormwater Management

- Existing Conditions – The study area is rural in nature. The roadways consist of asphalt lanes, gravel shoulders and road-side ditches. No storm sewers or formal stormwater management are currently present. There are four (4) existing culvert/bridge crossings and drainage exists in the right-of-way at either tributary crossings or local drainage draws in the Part B roads
- Proposed conditions – Urbanized right-of-way with multiple travel lanes and multi-use paths, storm sewer system draining to a formal stormwater management infrastructure, and Low Impact Development features within right-of-way limits, and six (6) culvert/bridge crossings sized to convey the Regional Storm event
- The Stormwater Management is ongoing and currently awaiting information from the Toronto and Region Conservation Authority



Bobolink

Barn Swallow

Caspian Tern



Ongoing Technical Studies

Geotechnical Investigation

- Foundational investigations for bridges and culverts (structures & retaining walls)
- Slope stability analysis for embankments
- Preliminary soil chemical analysis
- Existing pavement condition analysis
- Pavement design alternatives
- Roadway cut and fill operations
- Dewatering requirements
- Chemical analysis and disposal requirements of surplus materials



Hydrogeological Investigations

- Existing conditions - identification of wells, description of watershed boundary or catchment area(s), land use, existing drainage, existing culverts and structures, regulatory flood plain, and environmental sensitivities
- Determine water well or aquifers impacts and mitigation measures
- Identification of potential water bearing formations that may be impacted
- Impacts to groundwater
- Evaluation of proposed construction methods
- Need for dewatering, depressurization, and/or sumping
- Borehole logs and water level measurements in monitoring wells
- A headwater streams assessment
- Servicing or relocation of servicing (e.g., sanitary sewer, watermain, storm sewer) where a watercourse crossing is located

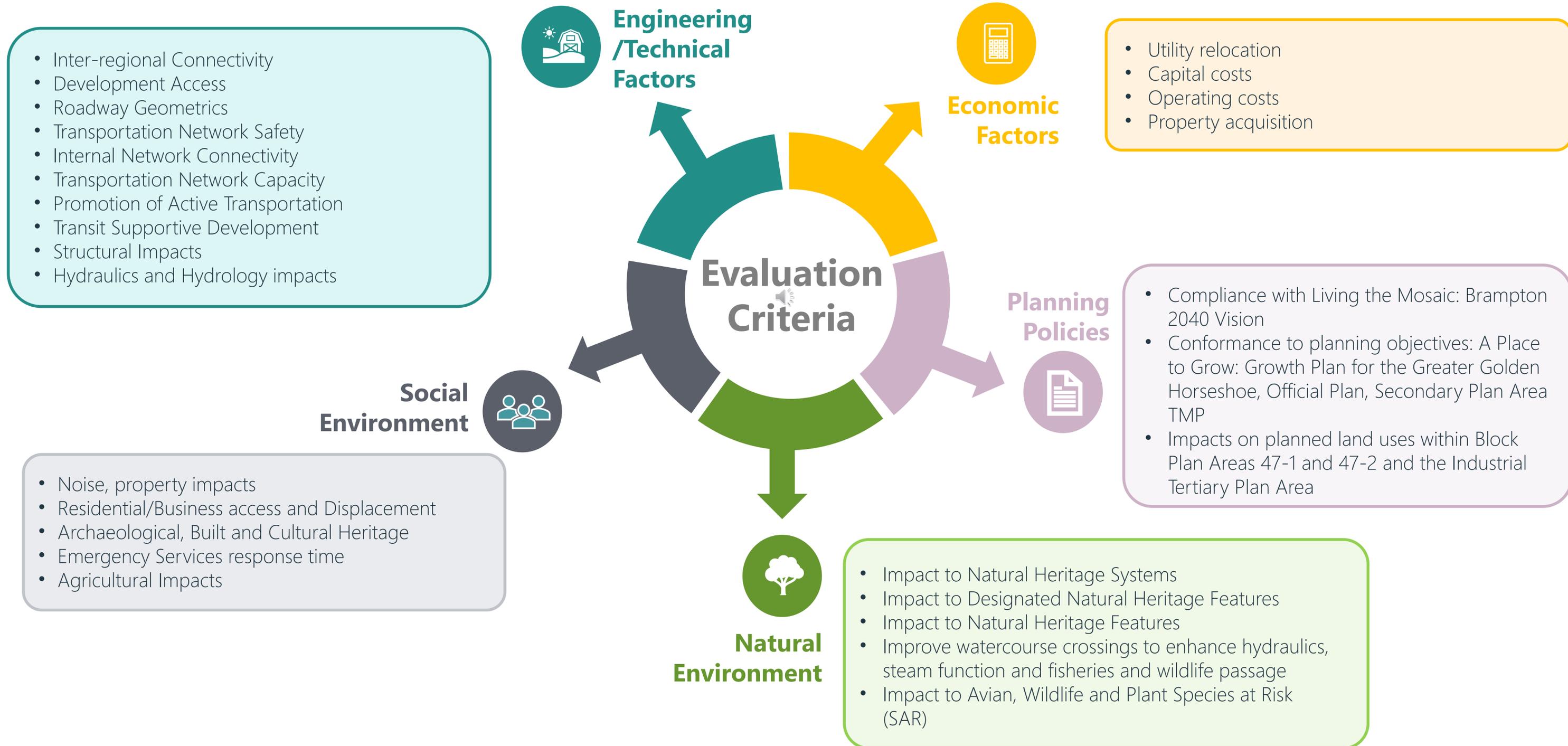
Noise Studies

- The results of the noise study indicate the need for noise barriers along certain locations of Part B roadways.
- Further investigations are being conducted to confirm the height of the noise walls.
- Any noise mitigation required as part of the development will be addressed through the development process.



Evaluation Criteria

All alternative route choice options were measured against a set of detailed evaluation criteria, which are listed below. All criteria were considered to carry equivalent weight.



East-West Arterial Alternative Alignment Options

Alternative 1 – SP47 TMP Alignment- **PREFERRED**



Alternative 2 – Shift to the South of SP47 TMP Alignment



Alternative 3 – Shift to the North of the TransCanada Pipeline



Alternative 4 – Shift One Block North



Approximate location of the TransCanada Pipeline/Enbridge Gas Pipeline 

East-West Arterial – Evaluation of Alternatives

Criteria	Alternative 1 SP 47 TMP Alignment (Blue)	Alternative 2 Shift to the South (Red)	Alternative 3 Shift North of the Pipeline (Yellow)	Alternative 4 Shift One Block North (Green)
Social Environment	<ul style="list-style-type: none"> Requires buyout of one residence, aligns with planned development Limited impact to emergency services No identified archaeological sites Minimal impact to agricultural properties 10 properties affected 	<ul style="list-style-type: none"> Requires buyout of one residence/farm, creates strip of limited development potential Limited impact to emergency services No identified archaeological sites Would segment small section of two agricultural properties 11 properties affected 	<ul style="list-style-type: none"> Requires buyout of two residences and impacts adjacent property Ease of access to four properties impacted during construction Alignment borders a listed heritage property Minimal impacts to agricultural properties 14 properties affected 	<ul style="list-style-type: none"> Requires buyout of three residences/farms; divides planned commercial blocks Ease of access to seven properties impacted during construction No identified archaeological sites Minimal impact to agricultural properties 8 properties affected
Economic Factors	<ul style="list-style-type: none"> May require hydro pole relocation Two new structures required Two signalized intersections, 2400m of roadway required Property acquisition and one residential property required for buyout 	<ul style="list-style-type: none"> May require hydro pole relocation Two new structures required Two signalized intersections, 2400m of roadway required Property acquisition and one residential property required for buyout 	<ul style="list-style-type: none"> May require hydro pole relocation Two new structures required Two signalized intersections, 2400m of roadway required Property acquisition and two residential properties required for buyout 	<ul style="list-style-type: none"> May require hydro pole relocation Two new structures required Two signalized intersections, 2000m of roadway required Property acquisition and three residential properties required for buyout
Natural Environment	<ul style="list-style-type: none"> No designated natural heritage features Requires new crossing of Clarkway Creek Tributary No impact to species at risk (SAR) habitat or groundwater 	<ul style="list-style-type: none"> No designated natural heritage features Requires new crossing of Clarkway Creek Tributary No impact to SAR habitat or groundwater 	<ul style="list-style-type: none"> No designated natural heritage features Requires new crossing of Clarkway Creek Tributary No impact to SAR habitat or groundwater 	<ul style="list-style-type: none"> No designated natural heritage features Requires two new crossings of Clarkway Creek Tributary Alignment borders SAR habitat No impact to groundwater
Technical / Engineering	<ul style="list-style-type: none"> Profile of proposed road to pass through two flood plain areas Provides access to proposed development and additionally capacity for vehicle traffic 	<ul style="list-style-type: none"> Profile of proposed road to pass through two flood plain areas Provides access to proposed development and additionally capacity for vehicle traffic 	<ul style="list-style-type: none"> Profile of proposed road to pass through two flood plain areas Provides access to proposed development and additionally capacity for vehicle traffic 	<ul style="list-style-type: none"> Profile of proposed road to pass through three flood plain areas Provides access to proposed development, but not in line with original developers plan Provides additional capacity for vehicle traffic
Planning Policies	<ul style="list-style-type: none"> In line with both Secondary Plan & SP47 TMP 	<ul style="list-style-type: none"> Generally consistent with both Secondary Plan & SP47 TMP 	<ul style="list-style-type: none"> Generally consistent with both Secondary Plan & SP47 TMP 	<ul style="list-style-type: none"> Varies slightly from what was indicated in SP47 TMP
Summary	<ul style="list-style-type: none"> Preferred option, as it is the option indicated in the SP47 TMP 	<ul style="list-style-type: none"> Similar to Alternative 1, but strip of limited developmental land inconvenient 	<ul style="list-style-type: none"> Similar to Alternative 1, but more properties are affected 	<ul style="list-style-type: none"> Potential impact to SAR habitat and variance from SP47 TMP make this option not preferred



PREFERRED



Countryside Drive Alternative Alignment Options

Alternative 1 – Widen Evenly on Either Side of Existing Right-of-Way



Alternative 2 – Widen to the North of Existing Right-of-Way



Alternative 3 – Widen to the South of Existing Right-of-Way - **PREFERRED**



Alternative 4 – (Widened to the south to east of Clarkway Drive, then to the north to Regional Road 50)



Countryside Drive – Evaluation of Alternatives

Criteria	Alternative 1 Widen about existing centreline (Blue)	Alternative 2 Widen to the North (Yellow)	Alternative 3 Widen to the South (Red)	Alternative 4 Winding Alignment (Green)
Social Environment	<ul style="list-style-type: none"> Requires buyout of zero properties, and fourteen residences will be significantly impacted Would pass through designated and listed heritage properties 30 properties affected 	<ul style="list-style-type: none"> Requires buyout of two properties, and ten residences will be significantly impacted Would pass through designated heritage property 23 properties affected 	<ul style="list-style-type: none"> Requires buyout of zero properties, and five residences will be significantly impacted Would pass through designated and built heritage property and listed built heritage property 12 properties affected 	<ul style="list-style-type: none"> Requires buyout of one property, and thirteen residences will be significantly impacted 23 properties affected
Economic Factors	<ul style="list-style-type: none"> Requires relocation of all overhead utilities Watermain may require relocation 	<ul style="list-style-type: none"> Requires relocation of some overhead utilities Some Bell pedestal boxes will require relocation Requires relocation of watermain 	<ul style="list-style-type: none"> Requires relocation of some overhead utilities Some Bell pedestal boxes will require relocation Watermain may require relocation 	<ul style="list-style-type: none"> Requires relocation of some overhead utilities All Bell pedestal boxes will require relocation
Natural Environment	<ul style="list-style-type: none"> Would infringe on very small area of three species at risk (SAR) habitats Infringes on additional nameless tributary connected to Robinson Creek Tributary 	<ul style="list-style-type: none"> Would infringe on small area of one SAR habitat Avoids infringing on nameless tributary connected to Robinson Creek Tributary 	<ul style="list-style-type: none"> Would infringe on small area of two SAR habitats Infringes on additional nameless tributary connected to Robinson Creek Tributary 	<ul style="list-style-type: none"> Would infringe on small area of one SAR habitat Avoids infringing on nameless tributary connected to Robinson Creek Tributary
Technical / Engineering	<ul style="list-style-type: none"> Right of way (ROW) moved closer to Clarkway Creek, an existing pond, and private property. Requires replacement of guardrail Active transportation facilities moved closer to roadway, reducing space between vehicles and pedestrians Potential impact to providing transit platforms Approx. 100m of Clarkway Creek will require relocation, extending 8m into planned natural heritage systems (NHS) 	<ul style="list-style-type: none"> Requires replacement of existing guardrail Active transportation facilities moved closer to roadway, reducing space between vehicles and pedestrians Potential impact to providing transit platforms Approximately 100m of Clarkway Creek will require relocation, no impact to planned NHS 	<ul style="list-style-type: none"> Requires replacement of existing guardrail, additional guardrails may be required Active transportation facilities to be provided Approximately 40m of Clarkway Creek will require relocation; ROW to extend 16m into planned NHS 	<ul style="list-style-type: none"> Requires replacement of existing guardrail Active transportation facilities to be provided Approximately 40m of Clarkway Creek will require relocation, no impact to planned NHS
Planning Policies	<ul style="list-style-type: none"> Primarily matches assumptions regarding ROW widening adjacent to Block 47-2 and proposed developments 	<ul style="list-style-type: none"> Located 7m north of where the Block 47-2 and proposed developments assumed the future ROW would be located 	<ul style="list-style-type: none"> Future ROW located 9m south of Block 47-2 and proposed developments assumption Would have impacts on developable properties within Block 47-2 and would reduce available parking for proposed developments 	<ul style="list-style-type: none"> Would have impacts on number of developable properties within Block 47-2 Would provide additional developable land
Summary	<ul style="list-style-type: none"> Similar to Alternative 3, but larger impact to existing properties 	<ul style="list-style-type: none"> Similar to Alternative 3, but more impact to Clarkway Creek and existing properties 	<ul style="list-style-type: none"> Preferred option, as there is less impact to existing properties 	<ul style="list-style-type: none"> Not preferred due to impacts to potential development and existing properties



PREFERRED



Countryside Drive and Hwy 50 Alternatives Alignment Options

Alternative 1 – Shift North with Standard Tangent



Alternative 2 – Shortened Tangent



Alternative 3 – Curve Through Intersection - **PREFERRED**



Alternative 4 – Shift South with Shortened Tangent



Countryside Drive and Hwy 50 – Evaluation of Alternatives

Criteria	Alternative 1 Shift North with Standard Tangent (Blue)	Alternative 2 Shortened Tangent (Yellow)	Alternative 3 Curve Through Intersection (Red)	Alternative 4 Shift South with Shortened Tangent (Green)
Social Environment	<ul style="list-style-type: none"> Would pass through eleven properties, with significant segmentation of five properties Requires buyout of six properties Would avoid passing through a listed heritage property Would infringe on small section of Esso Gas Station parking, causing potential relocation of pumps and parking 	<ul style="list-style-type: none"> Would pass through four properties, with segments of one property Requires buyout of zero properties Would avoid passing through a listed heritage property Would infringe on small section of Esso Gas Station parking, causing potential relocation of pumps and parking 	<ul style="list-style-type: none"> Would pass through four properties, with no segmentation of any properties Requires buyout of zero properties Would avoid passing through a listed heritage property Would infringe on small section of Esso Gas Station parking, causing potential relocation of pumps and parking 	<ul style="list-style-type: none"> Would pass through five properties, with segmentation of one property Requires buyout of one property Would pass through a small area of a listed heritage property Removal/relocation of Esso Gas Station building, pumps, and parking required
Economic Factors	<ul style="list-style-type: none"> Would require relocation of very small section of overhead pole line on north side of Countryside Drive Small section of gas line would require relocation where Countryside Drive intersects Coleraine Drive 	<ul style="list-style-type: none"> Would require relocation of 300m of hydro line on south side of road Would remove connecting hydro line to two houses 	<ul style="list-style-type: none"> Would require relocation of 200m of hydro line on south side of road Would remove connecting hydro line to two houses 	<ul style="list-style-type: none"> Would require relocation of 180m of hydro line on south side of Countryside and west side of Regional Road 50
Natural Environment	<ul style="list-style-type: none"> Would pass through large area of Bobolink habitat 	<ul style="list-style-type: none"> Would infringe/border on small area of Bobolink habitat 	<ul style="list-style-type: none"> Would infringe/border on small area of Bobolink habitat 	<ul style="list-style-type: none"> Would infringe/border on small area of Bobolink habitat
Technical / Engineering	<ul style="list-style-type: none"> Would require three crossings of Robinson Creek Tributary Alignment greatly reduces skew of Countryside Drive at Hwy 50 intersection, improving safety 	<ul style="list-style-type: none"> Would require two crossings of Robinson Creek Tributary Alignment reduces skew of Countryside Drive at Hwy 50 intersection, improving safety 	<ul style="list-style-type: none"> Would require two crossings of Robinson Creek Tributary Alignment reduces skew of Countryside Drive at Hwy 50 intersection, improving safety 	<ul style="list-style-type: none"> Would require one crossing of Robinson Creek Tributary Alignment reduces skew of Countryside Drive at Hwy 50 intersection, improving safety
Summary	<ul style="list-style-type: none"> Not preferred, due to significant impact to properties 	<ul style="list-style-type: none"> Not preferred, due to potential of shifting Robinson Creek 	<ul style="list-style-type: none"> Preferred options, as there is minimal impact to existing properties 	<ul style="list-style-type: none"> Not preferred, due to impact of Esso Gas Station



PREFERRED



Clarkway Drive Alternative Alignment Options

Alternative 1 – Widen Evenly on Either Side of Existing Right-of-Way - **PREFERRED**



Alternative 2 – Widen to the East of Existing Right-of-Way



Alternative 3 – Widen to the West of Existing Right-of-Way



Alternative 4 – Winding Alignment



Clarkway Drive – Evaluation of Alternatives

Criteria	Alternative 1 Widen About Existing Centreline (Blue)	Alternative 2 Widen to the West (Red)	Alternative 3 Widen to the East (Yellow)	Alternative 4 Winding Alignment (Green)
Social Environment	<ul style="list-style-type: none"> Requires buyout of one property, three residential properties require bridges over Clarkway Creek for access Some impact to heritage properties anticipated 36 properties affected 	<ul style="list-style-type: none"> Requires buyout of one property, three residential properties require bridges over Clarkway Creek for access Limited impact to heritage properties anticipated 35 properties affected 	<ul style="list-style-type: none"> Required buyout of one property, parking at one property will require reconfiguration Some impact to heritage properties anticipated 33 properties affected 	<ul style="list-style-type: none"> Requires buyout of seven properties Limited impact to heritage properties anticipated 36 properties affected
	●	●	●	●
Economic Factors	<ul style="list-style-type: none"> Extensive watermain, sanitary sewer, hydro, and bell relocation required 	<ul style="list-style-type: none"> Extensive watermain, sanitary sewer, hydro, and bell relocation required 	<ul style="list-style-type: none"> Extensive watermain, sanitary sewer, hydro, and bell relocation required 	<ul style="list-style-type: none"> Extensive watermain, sanitary sewer, and bell relocation required, moderate hydro relocation required
	●	●	●	●
Natural Environment	<ul style="list-style-type: none"> Would infringe on five species at risk (SAR) habitat areas Moderate impact to aquatic features anticipated 	<ul style="list-style-type: none"> Would infringe on five SAR habitat areas Moderate impact to aquatic features anticipated 	<ul style="list-style-type: none"> Would infringe on five SAR habitat areas Significant impact to aquatic features anticipated 	<ul style="list-style-type: none"> Would infringe on five SAR habitat areas Limited impact to aquatic features anticipated
	●	●	●	●
Technical / Engineering	<ul style="list-style-type: none"> Additional guardrail required; Intersection realignment required at Mayfield Road 	<ul style="list-style-type: none"> Additional guiderail required; Intersection realignment required at Mayfield Road 	<ul style="list-style-type: none"> Intersection realignments required at Mayfield Road and Castlemore Road 	<ul style="list-style-type: none"> Intersection realignment required at Mayfield Road and Castlemore Road
	●	●	●	●
Planning Policies	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned mixed-use commercial development Remainder of alignments in-line with Block Plans 	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned mixed-use commercial development Remainder of alignments further west than assumed in Block Plans 	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned mixed-use commercial development Remainder of alignments further east than assumed in Block Plans Edge impacts to community park and secondary school 	<ul style="list-style-type: none"> Alignment improvements at Mayfield Road result in impacts to planned mixed-use commercial development Remainder of alignments require extensive modifications to Block Plans Edge impacts to community park and secondary school
	●	●	●	●
Summary	<ul style="list-style-type: none"> Preferred option, as it is more in-line with Block Plans 	<ul style="list-style-type: none"> Similar to Alternative 1, but not in-line with Block Plans 	<ul style="list-style-type: none"> Similar to Alternative 1, but not in-line with Block Plans 	<ul style="list-style-type: none"> Required excessive property buyouts, making this option not preferred
	●	●	●	●



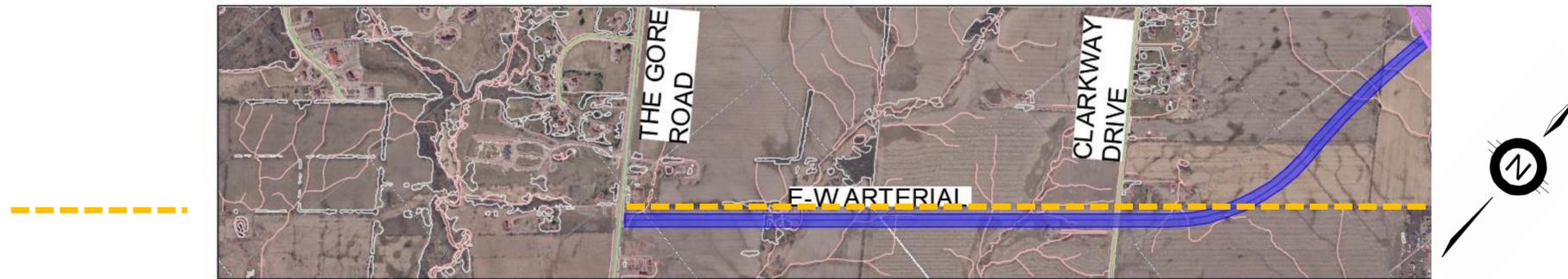
PREFERRED



Summary of Preliminary Preferred Options

East-West Arterial (Alternative 1 – SP47 TMP Alignment)

Approximate location of the TransCanada Pipeline/Enbridge Gas Pipeline



Countryside Drive (Alternative 3 – Widen to the South of Existing Right-of-Way and Curve Through Hwy 50 Intersection)

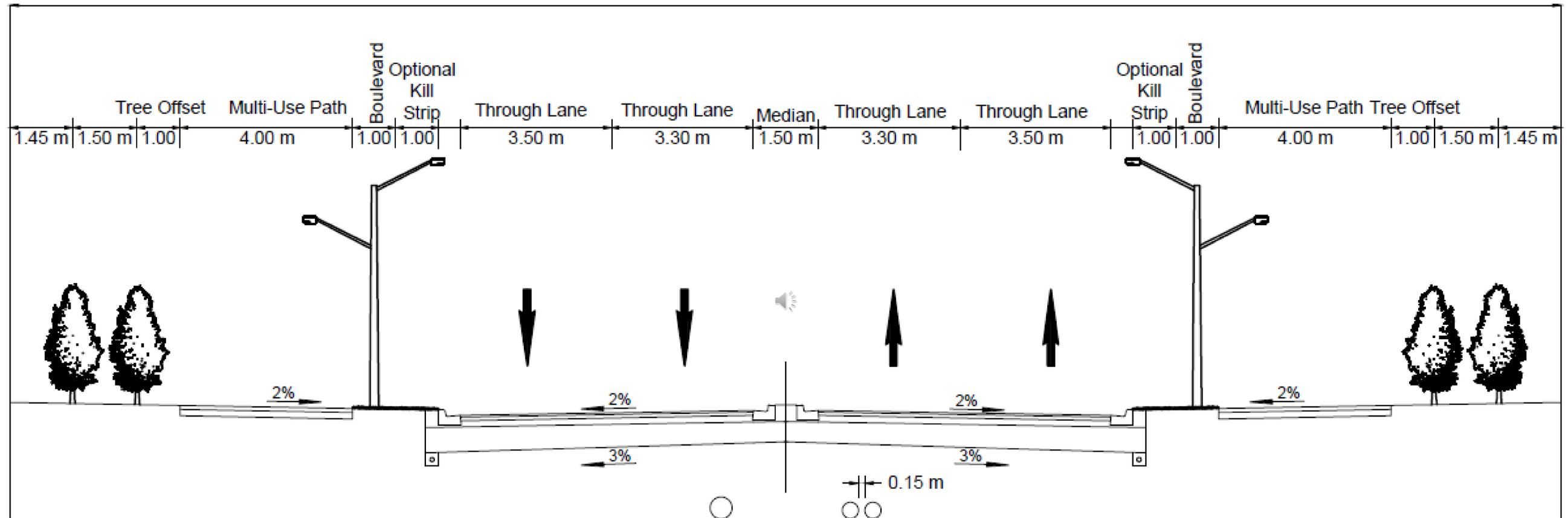


Clarkway Drive (Alternative 1 – Widen evenly on Either Side of Existing Right-of-Way)



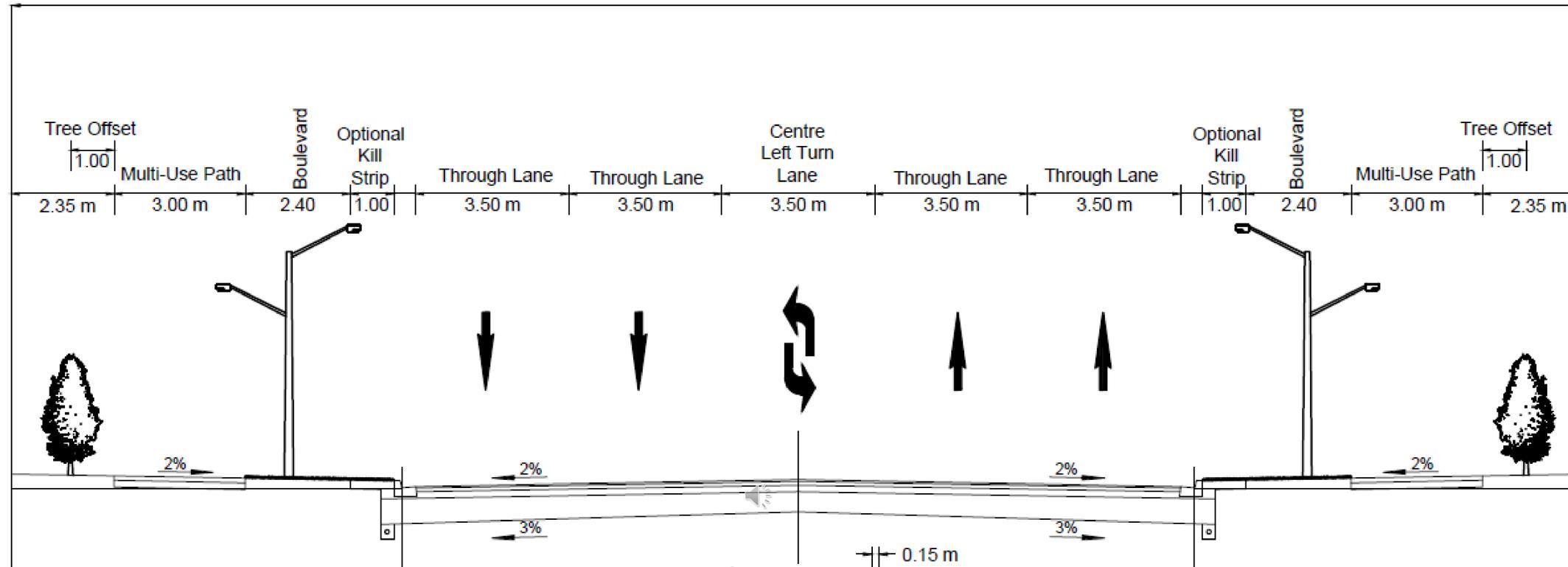
Preliminary Cross Sections – East-West Arterial

East-West Arterial (36.0 m ROW)

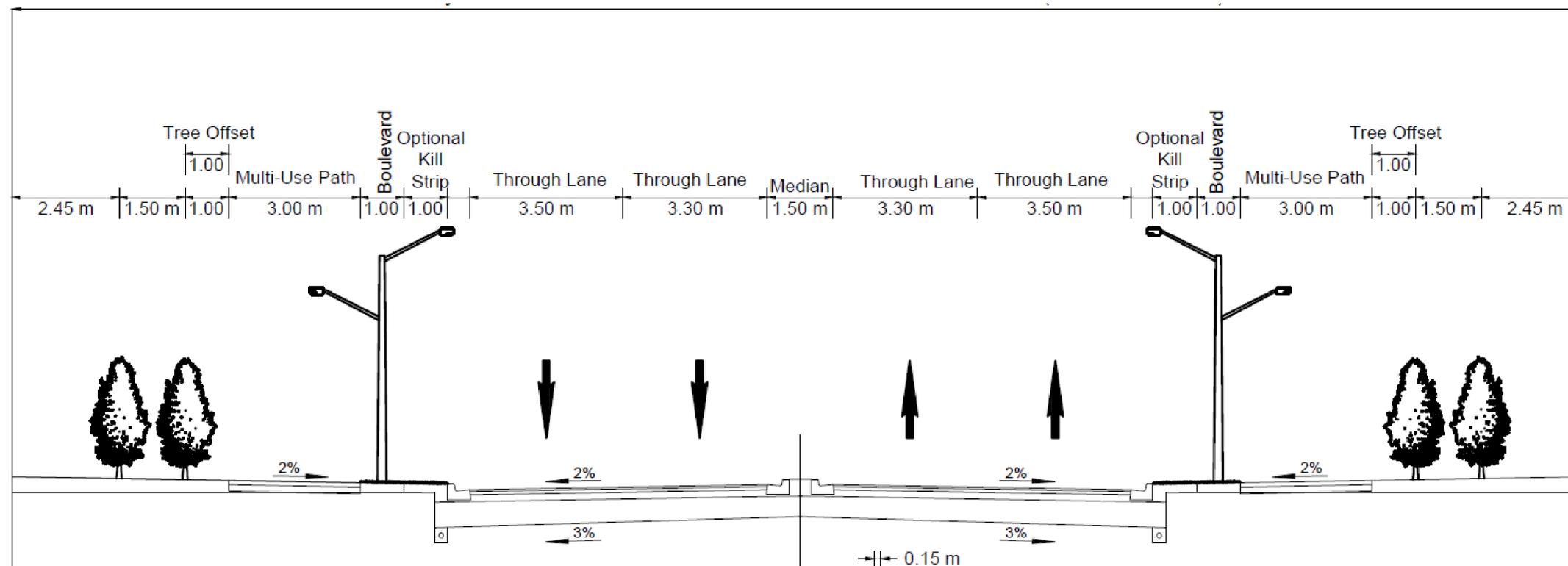


Preliminary Cross Sections – Countryside Drive

Section 1: Countryside Drive: East of Arterial A2 (36.0 m ROW)

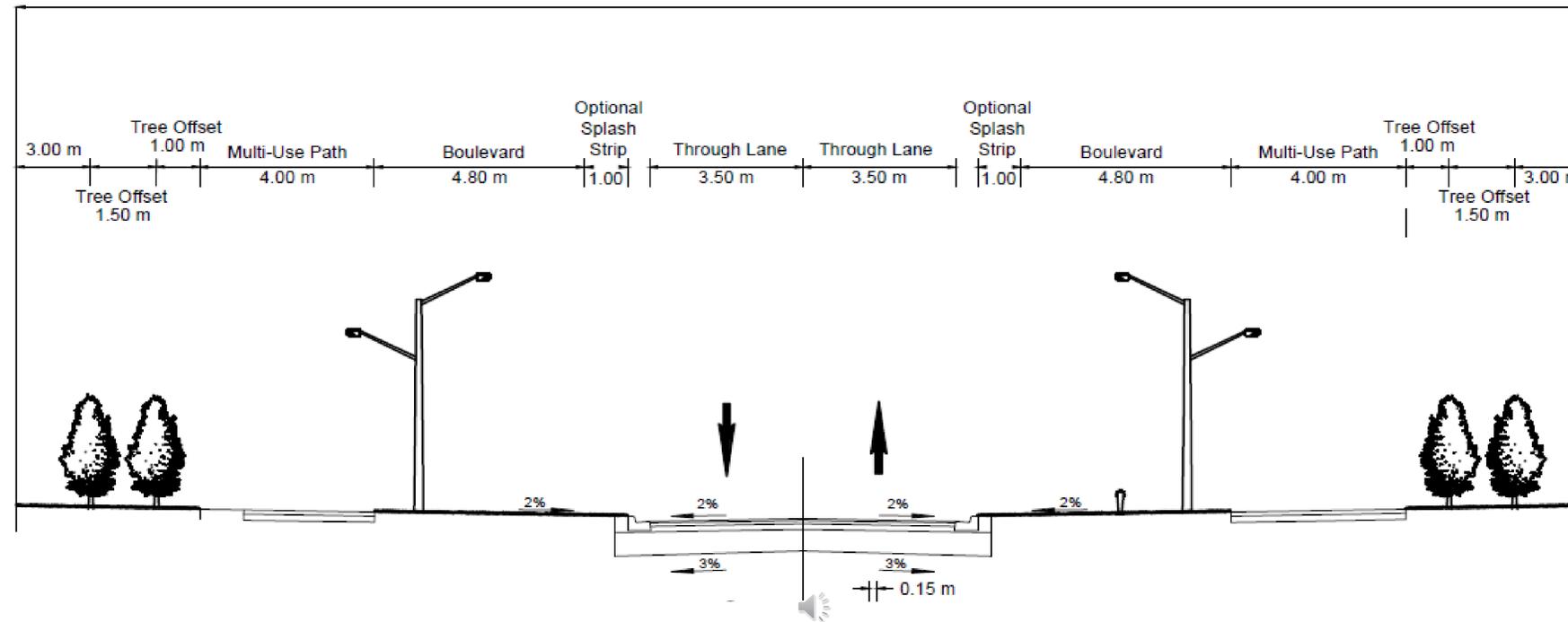


Section 2: Countryside Drive: West of Arterial A2 (36.0 m ROW)

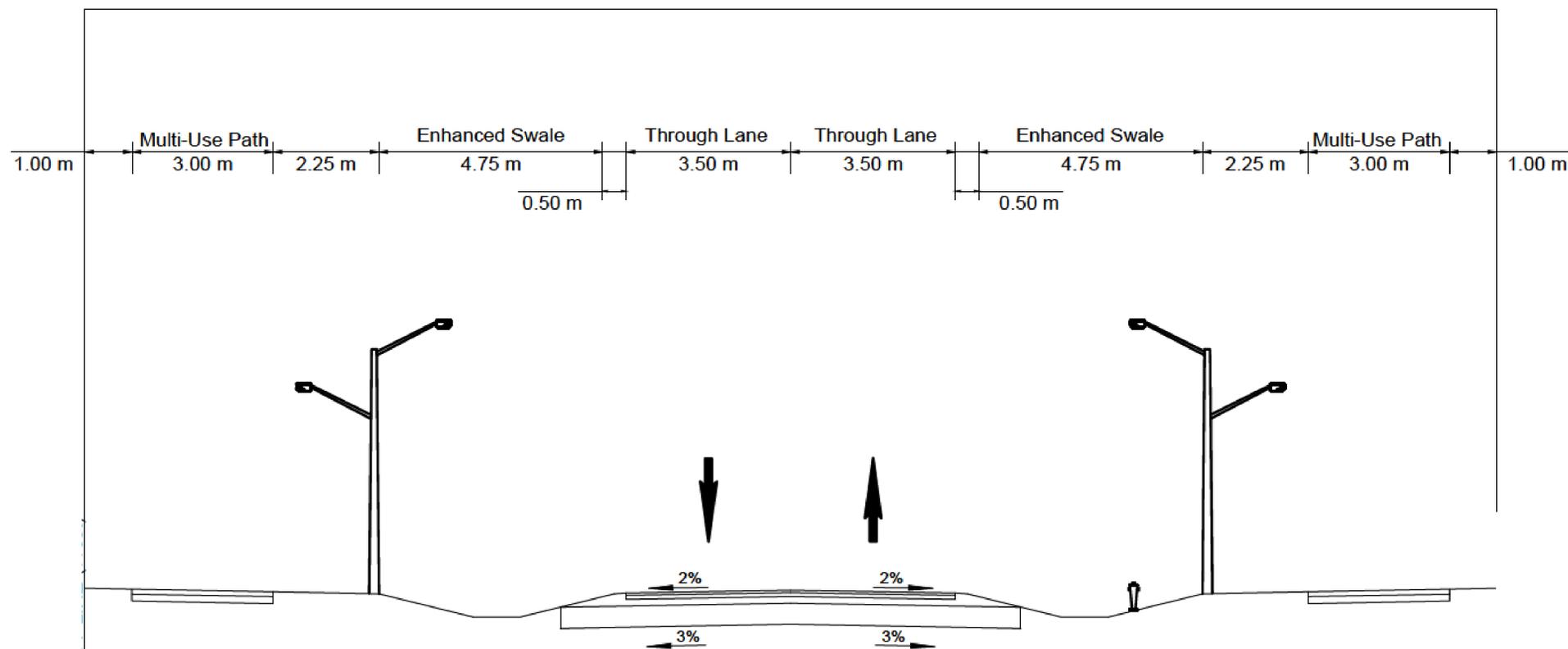


Preliminary Cross Sections – Clarkway Drive

Section 1: Clarkway Drive: Mayfield Road to Countryside Drive (36.0 m ROW)

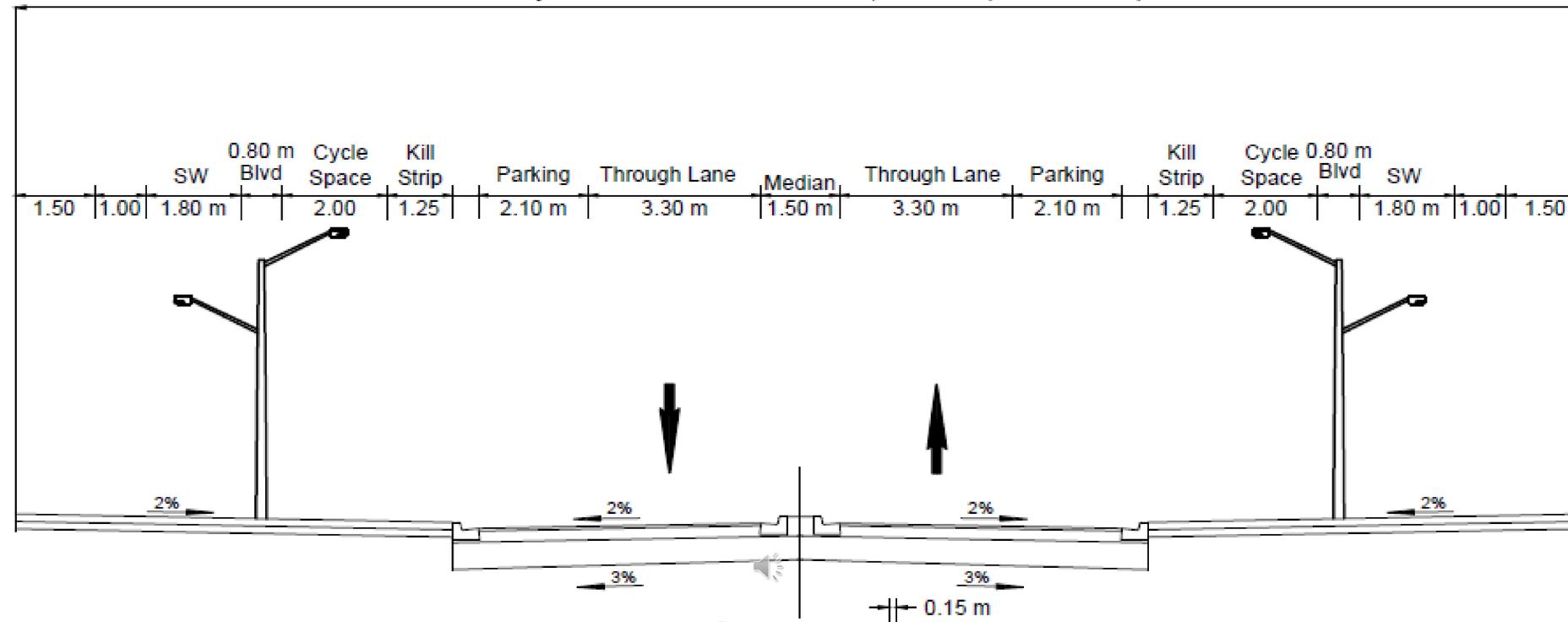


Section 2: Clarkway Drive: Countryside Drive to East-West Arterial (30.0 m ROW)

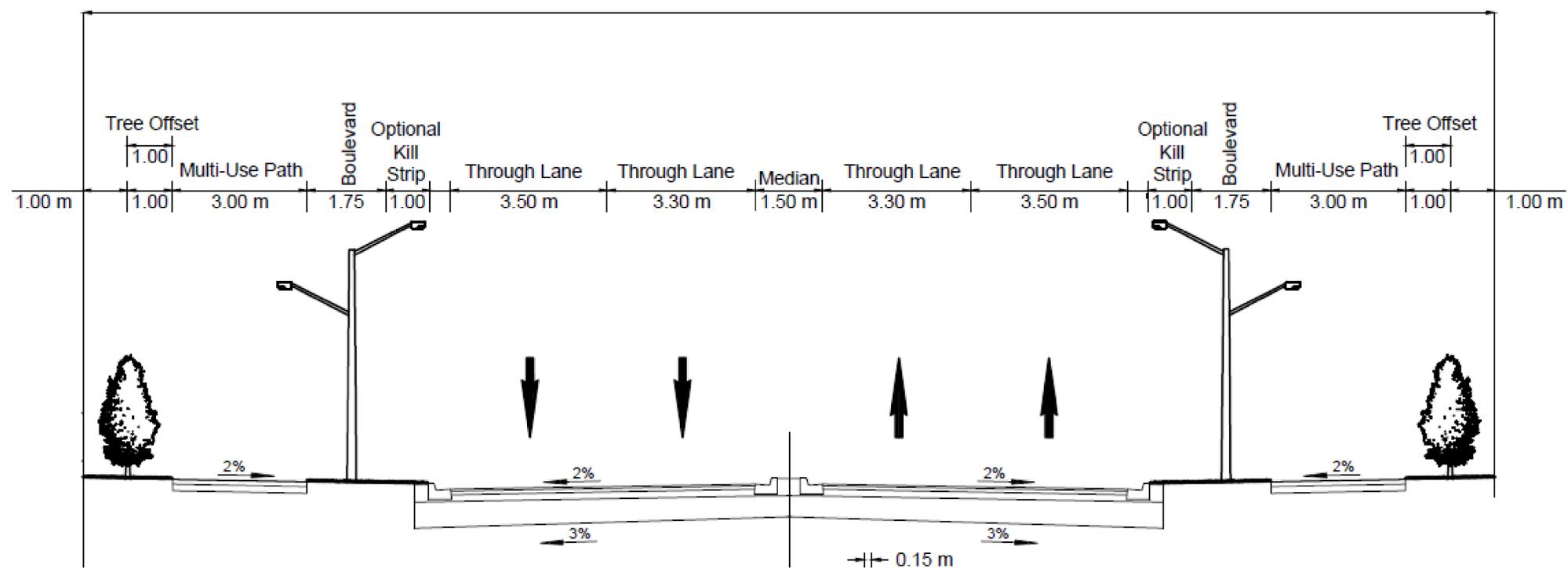


Preliminary Cross Sections – Clarkway Drive

Section 3: Clarkway Drive: E-W Arterial to Collector Road 'C' (30.0 m ROW)



Section 4: Clarkway Drive: Collector Road 'C' to Castlemore Road (31.5 m ROW)



Thank-you for your Participation!

Next Steps

1. Your input is important! The project team will be finalizing the preliminary preferred designs based on feedback from this PIC, technical investigations, and consultation with technical and regulatory agencies.
2. Prepare and file the Environmental Study Report. The Environmental Study Report will be prepared and placed in public record for a 30-day period.
3. Issue a notice of study completion when the ESR is available for public review.



We Want to Hear From You!



Let us know what is most important to you, your family and/or your business.

Please complete the comment sheet from the website or send your comments to one of the mailing or email addresses listed below.

Soheil Nejatian, P.Eng.

Project Engineer
 Public Works and Engineering
 City of Brampton

1975 Williams Parkway
 Brampton, ON L6S 6E5

Tel: 905-874-5909

Soheil.Nejatian@brampton.ca

Muhammad Khan, P.Eng.

Consultant Project Manager
 Wood Environment & Infrastructure
 Solutions

3450 Harvester Road, Suite 100
 Burlington, ON L7N 3W5

Tel: 905-407-3438

Muhammad.Khan@woodplc.com

Sonya Bubas, MCIP, RPP

Project Manager
 Infrastructure Programming and Studies
 Region of Peel

10 Peel Centre Drive, Suite B, 4th Floor
 Brampton, ON L6T 4B9

Tel: 905-791-7800 ext. 7801

Sonya.Bubas@peelregion.ca