

AIRPORT ROAD ENVIRONMENTAL ASSESSMENT

From Braydon Boulevard/Stonecrest Drive to Countryside Drive



November 28, 2019

6:00 PM – 8:30 PM

Please sign in and fill out a comment form



Study Purpose

- **Complete** a Municipal Class Environmental Assessment (Schedule 'C') and Preliminary Design for improvements to Airport Road.
- **Identify, define and evaluate** existing and future network capacity, traffic safety, design, and operational needs along the transportation network.
- **Determine improvements** to accommodate the current and future transportation needs of pedestrians, cyclists, transit users and motorists.
- **Identify potential impacts** to the natural, social and economic environments as well as cultural heritage and archaeology.



Objectives of PIC #2

- **Learn about alternative design concepts that address the preferred solution**

Summarize the technical work completed to date

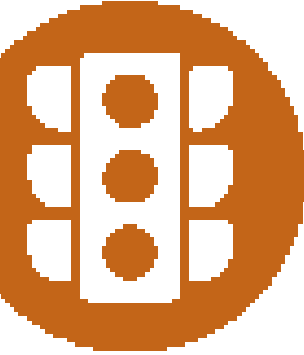


- **Share preliminary alternative designs and evaluation methods**

Share the preferred designs for the corridor

- **Obtain your input and answer any questions you may have**

Discuss next steps

Existing characteristics

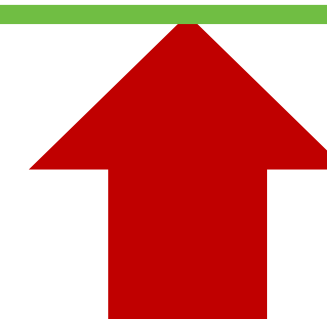
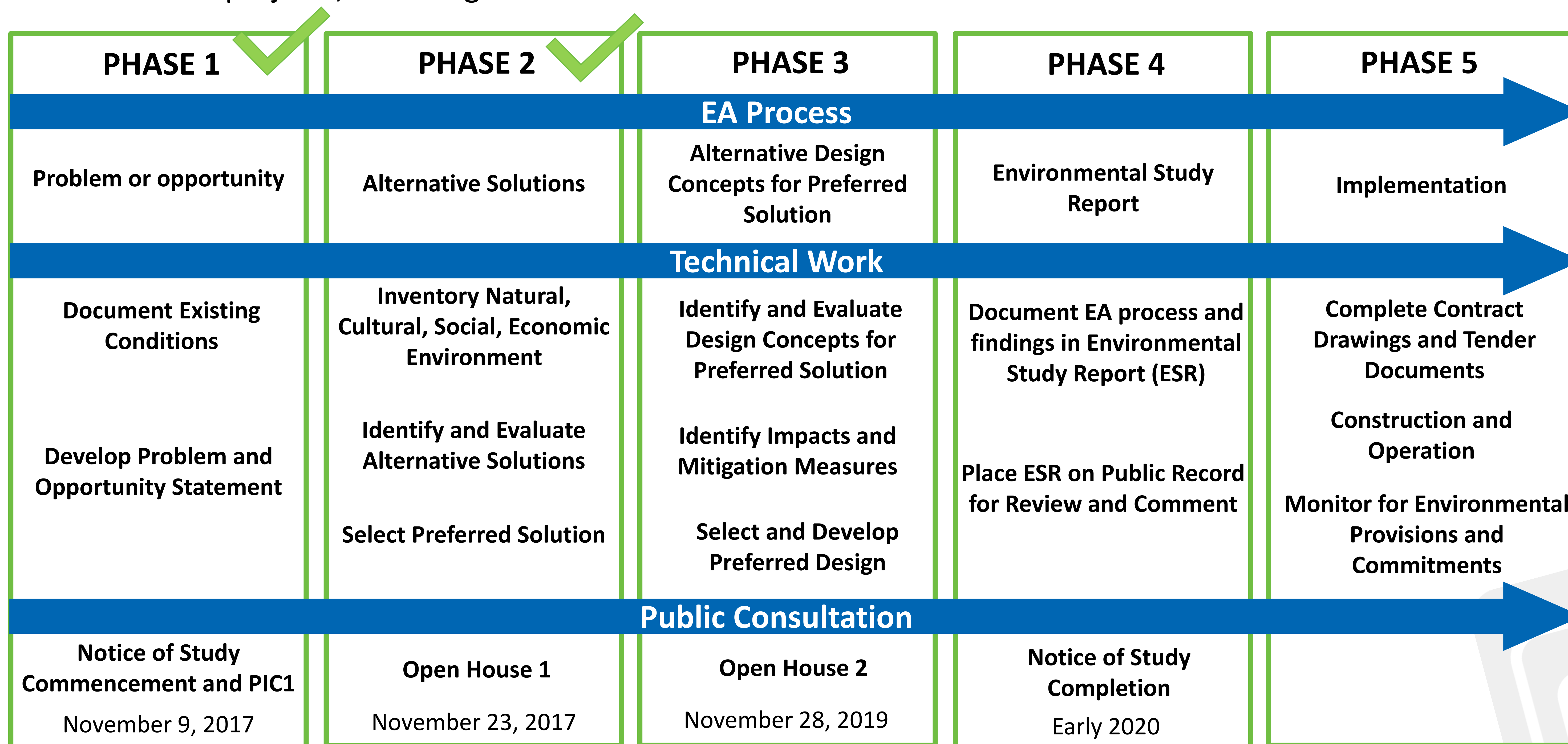
- ✓ **2.2** km long (approx.)
- ✓ **70** km/h posted speed
- ✓ **4** travel lanes (2 per direction)
-  **3** signalized intersections
-  **4** schools within 1 km of study area
-  **2** watercourse crossings



Overview of the EA Process

What is a Municipal Class Environmental Assessment ?

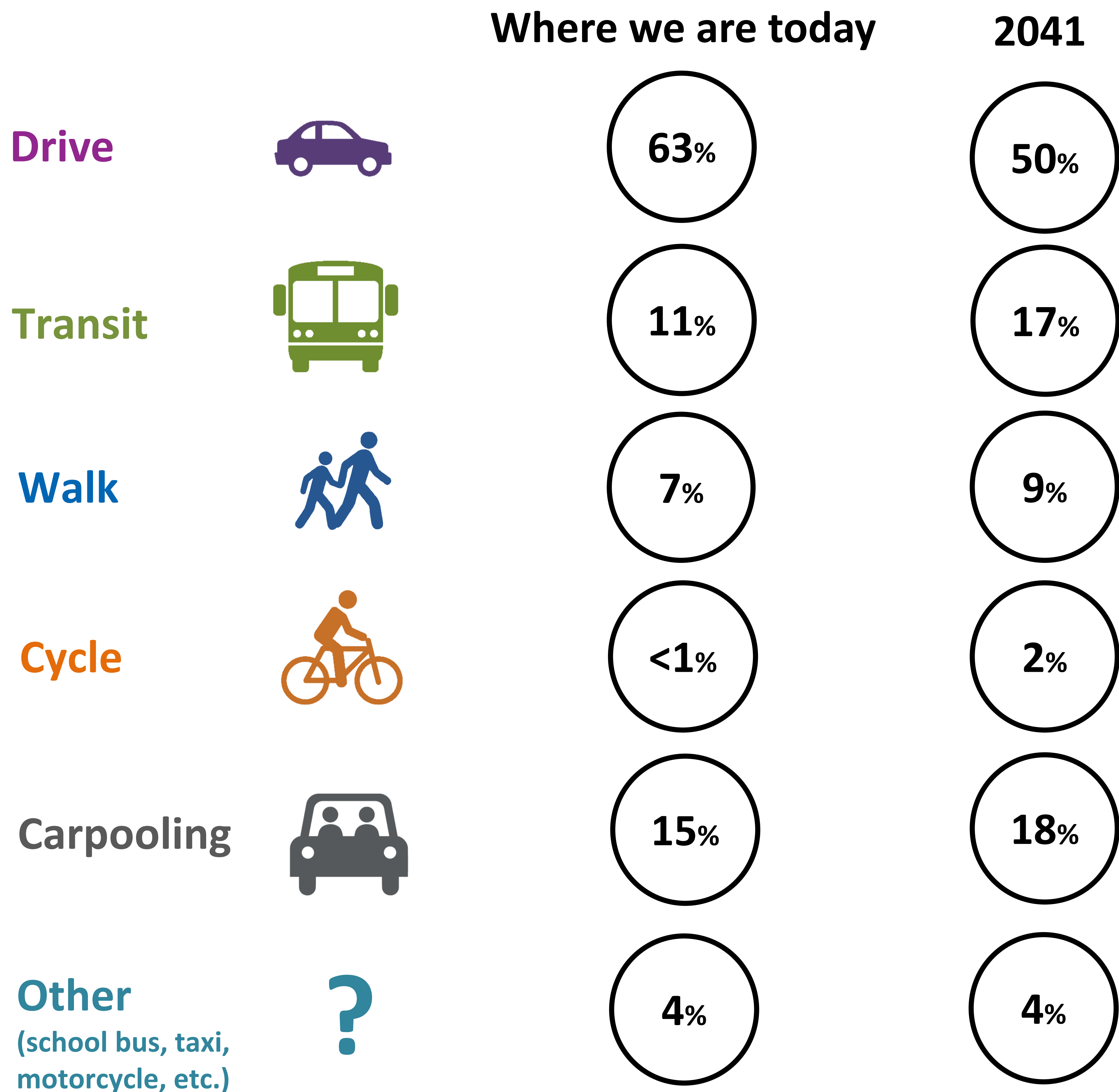
A **Municipal Class Environmental Assessment (EA)** is a planning and approval process for municipal infrastructure projects, following Ontario's Environmental Assessment Act.



WE ARE HERE

Region of Peel Transportation Vision

How are people traveling in Peel Region?



The Vision



Peel Region is aiming for a **50%** sustainable mode share by 2041



Providing infrastructure and programs to shift travel behaviour away from driving is a priority



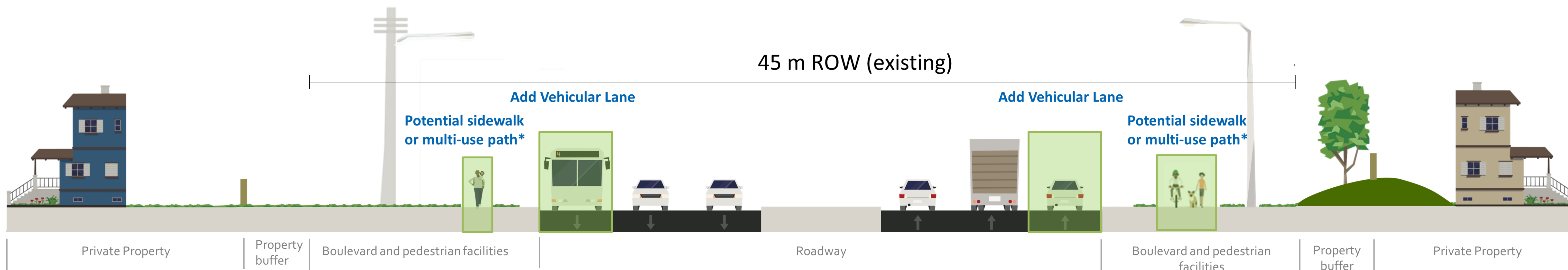
Sustainable modes of travel allow us to build physical activity back into our lives, and reduce vehicle emissions and its associated health impacts.

Source: Peel Region
Transportation Tomorrow Survey (TTS), 2011 AM data
(as assumed in the 2019 Long Range Transportation Plan)

Summary of Preferred Solution and Public Feedback

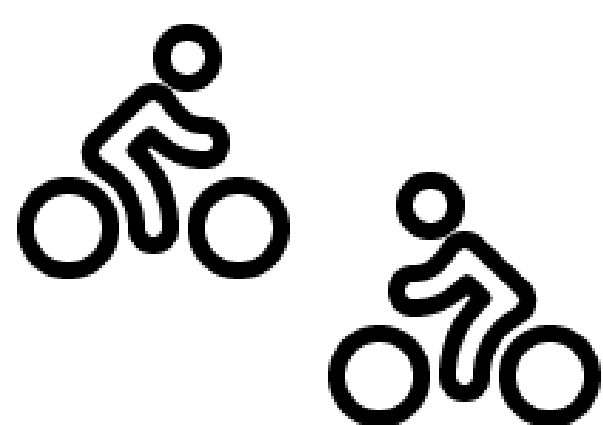
The following **preferred solution** was selected and presented at the last Public Information Centre:

Implement Active Transportation Improvements, Widen Airport Road, and Implement Intersection Improvements



*Details and location of active transportation to be confirmed in the next phase

What we've heard so far



Strong support for active transportation facilities, with requests to provide MUPs on both sides of Airport Road



More effective methods to advertise public consultation events.



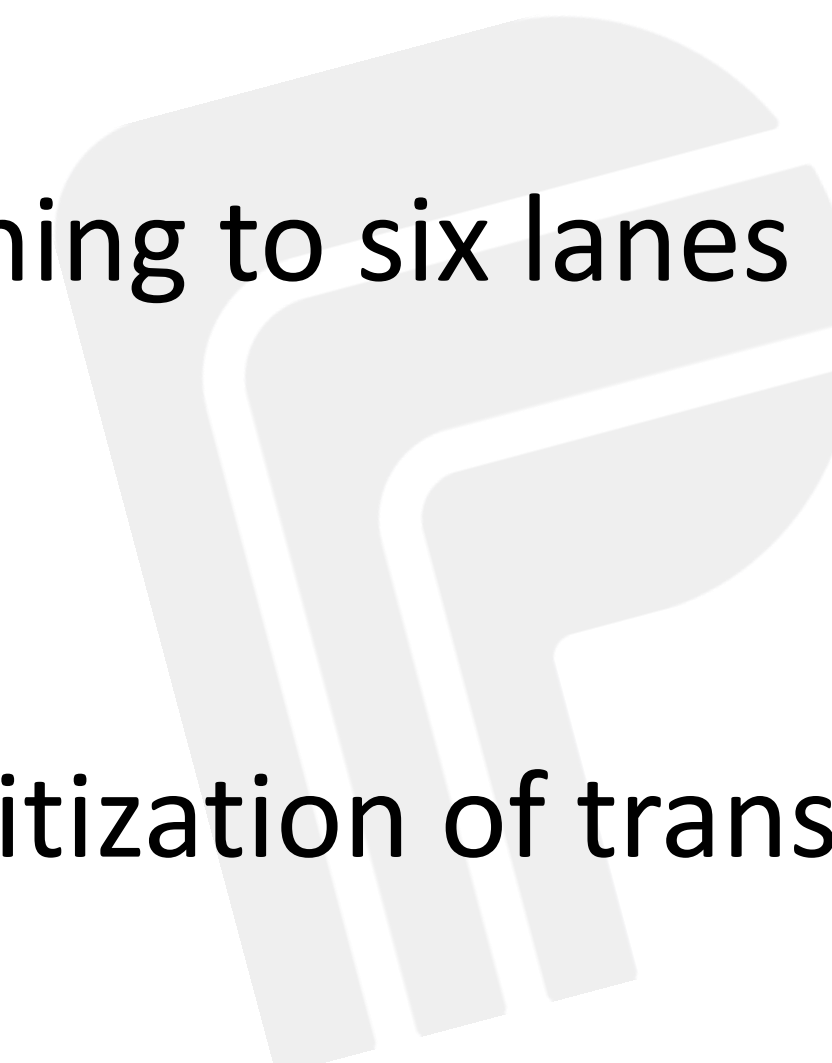
General support for widening to six lanes




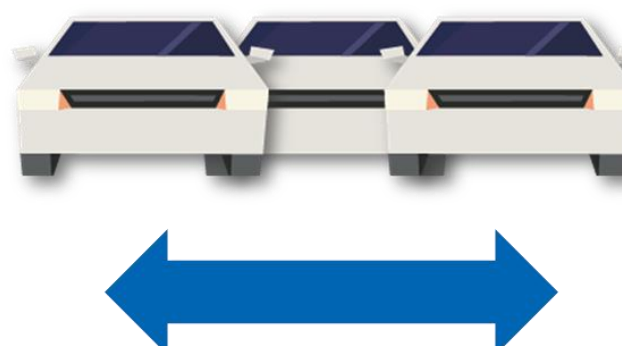



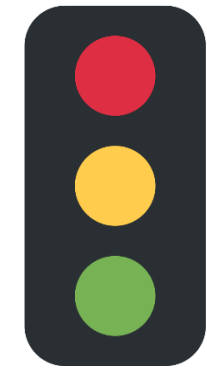

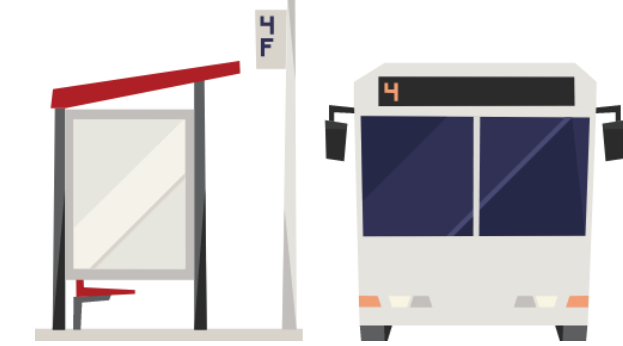

Request for traffic calming measures such as reduced lane widths to reduce speeds.



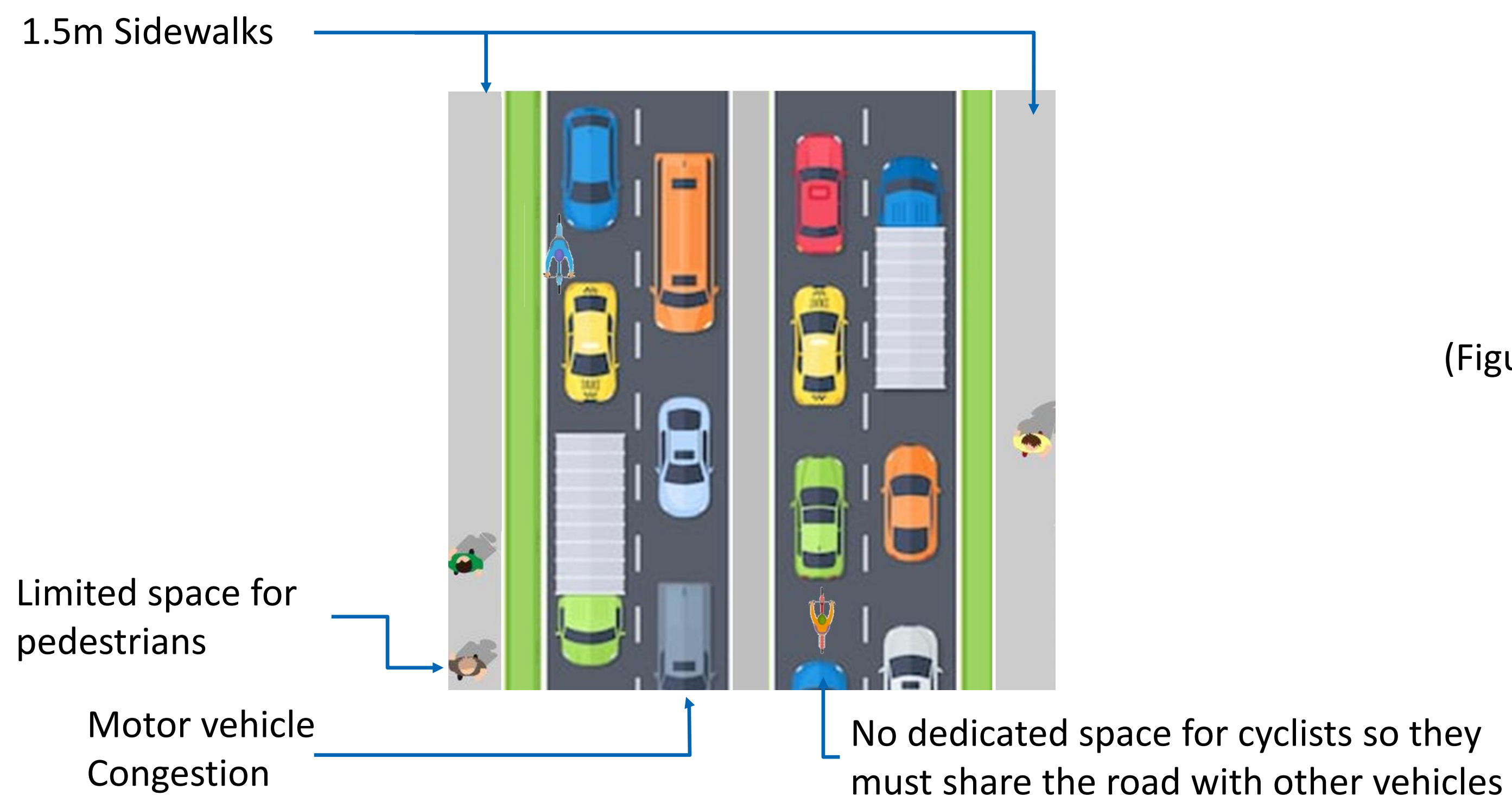
Some interest in the prioritization of transit



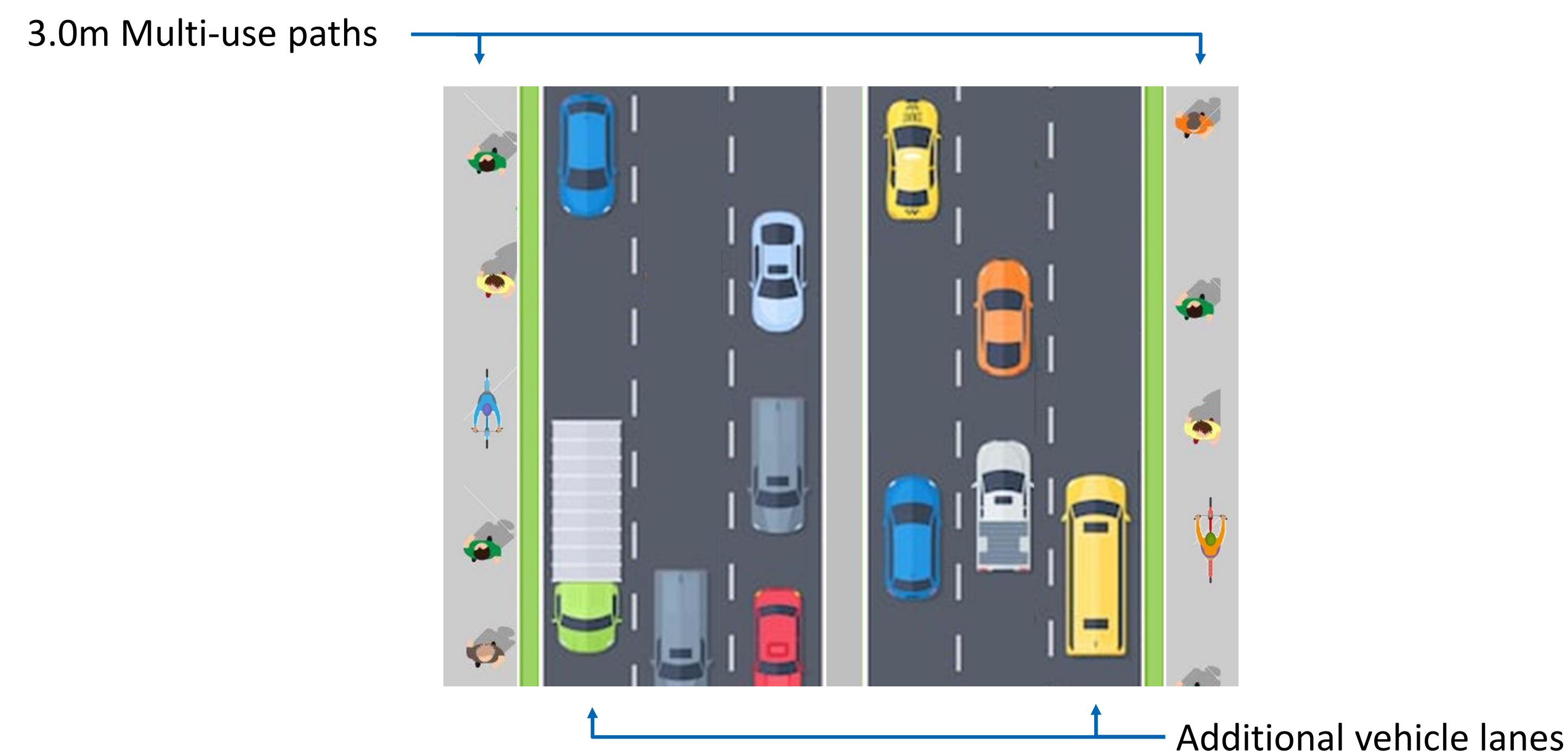
Needs, Opportunities, and Outcomes

Need	Opportunity	Outcome
 <p>Existing study corridor cannot accommodate traffic volume growth</p> <hr/> <p>With regional roads at capacity, there is the potential for increased traffic on local roads.</p>	<p>Improve Airport Road to accommodate projected traffic demand and maximize capacity</p>	 <p>Widen Airport Road from four (4) to six (6) lanes</p>
 <p>Lack of active transportation facilities, particularly for cyclists</p>	<p>Provide cyclist facilities to accommodate existing users and growth as a result of future development</p>	 <p>Implement a multi-use path on both sides of Airport Road with streetscaping as feasible in the boulevard. Cross-rides are also recommended at intersections to facilitate cyclists.</p>
 <p>Walking and cycling are uncommon for short and local trips</p>	<p>Improve streetscape to promote walking and cycling. Enhance comfort and overall experience for cyclists, pedestrians, and transit users.</p>	
 <p>Long distance between signalized intersections and pedestrian crossing locations between Stonecrest Drive / Braydon Boulevard and Yellow Avens Boulevard</p>	<p>Review if the signalization of Airport Road at Eagle Plains Drive is warranted</p>	 <p>The Airport Road and Eagle Plains Drive intersection did not satisfy the criteria for the Regional Traffic Signal Warrant</p>
 <p>Concerns regarding the bus stop spacing being too large on the east side between Braydon Boulevard/ Stonecrest Drive and Yellow Avens / Brock Drive</p>	<p>Review bus stop location in consultation with Brampton Transit</p>	 <p>Because traffic signals are not warranted at Eagle Plains Drive, a bus stop at this location is not recommended.</p>

No Improvements



With Proposed Improvements



(Figures are not to scale)

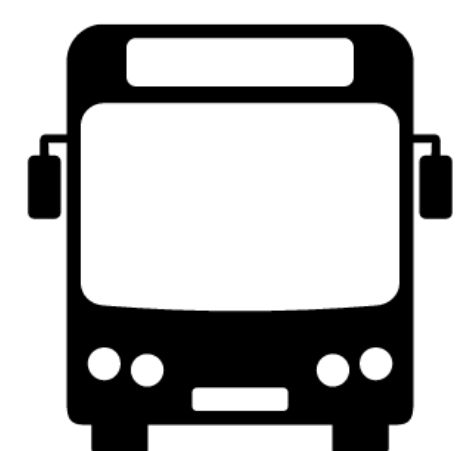
Project Benefits



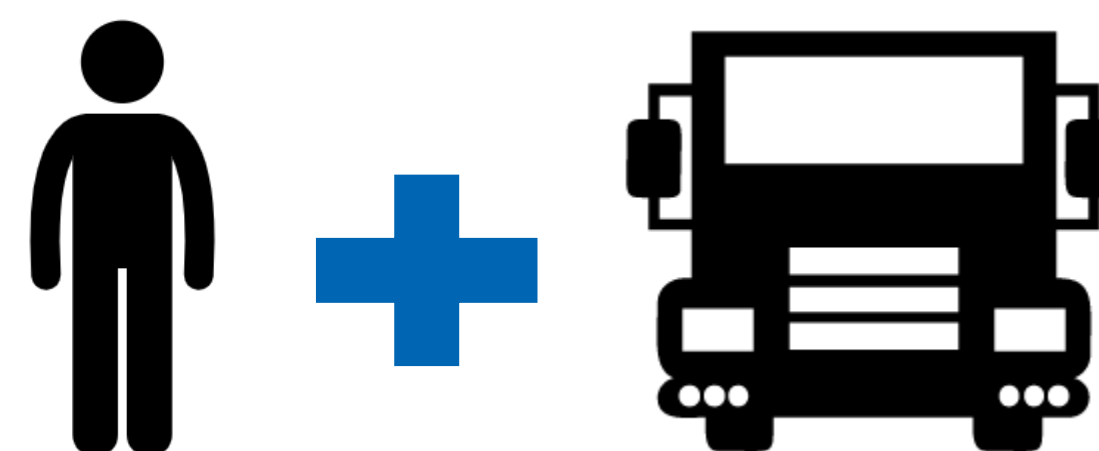
Time savings for drivers of up to 3.5 minutes along study area

↑ 50%

Increase in vehicle carrying capacity due to the widening, resulting in improvement to level of service



Improvements to transit service and reliability



Support Airport Road as a People and Goods Movement Corridor



Improved comfort for walking and cycling on both sides of Airport Road and at intersections



Access to Commercial Properties and Gateway Features

- There are entrances to commercial plazas on the east and west side of Airport Road which may be impacted by the proposed road widening
- Gateway features located at intersections may also be affected



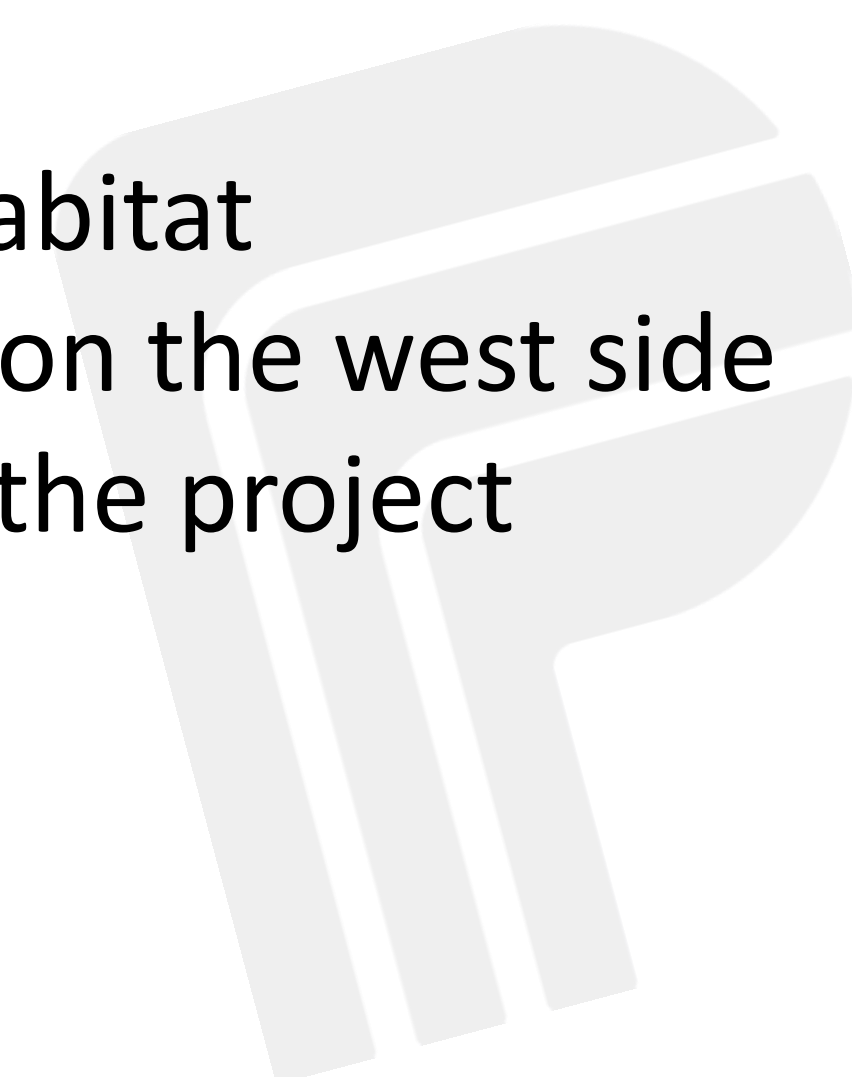
Overhead Hydro Line

- A hydro pole line is located on the west side of Airport Road along the entire length of the study corridor
- There are significant costs associated with any utility relocation



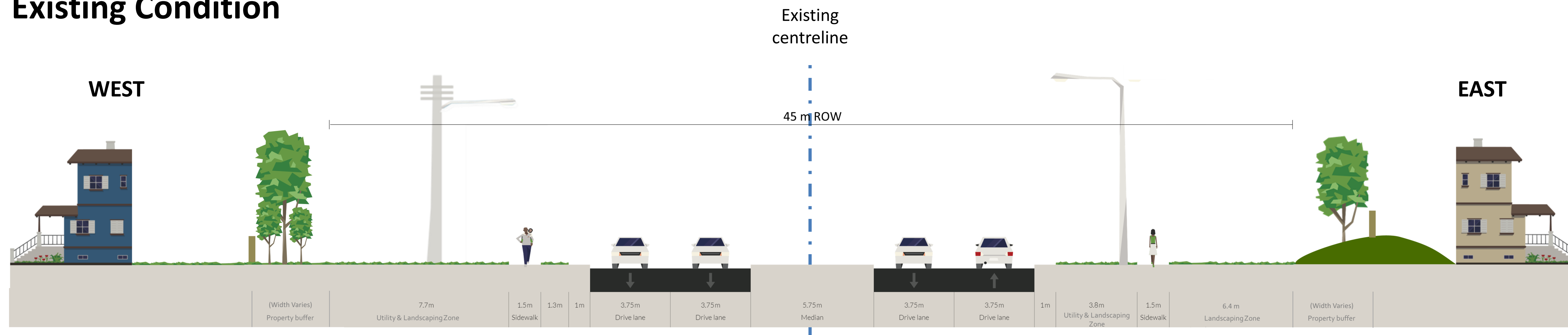
Watercourse Impacts

- The two watercourse crossings in the study area contain sensitive fisheries habitat
- The culverts are limited in their ability to accommodate a roadway widening on the west side
- Culvert extensions have implications on both the aquatic habitat and cost of the project

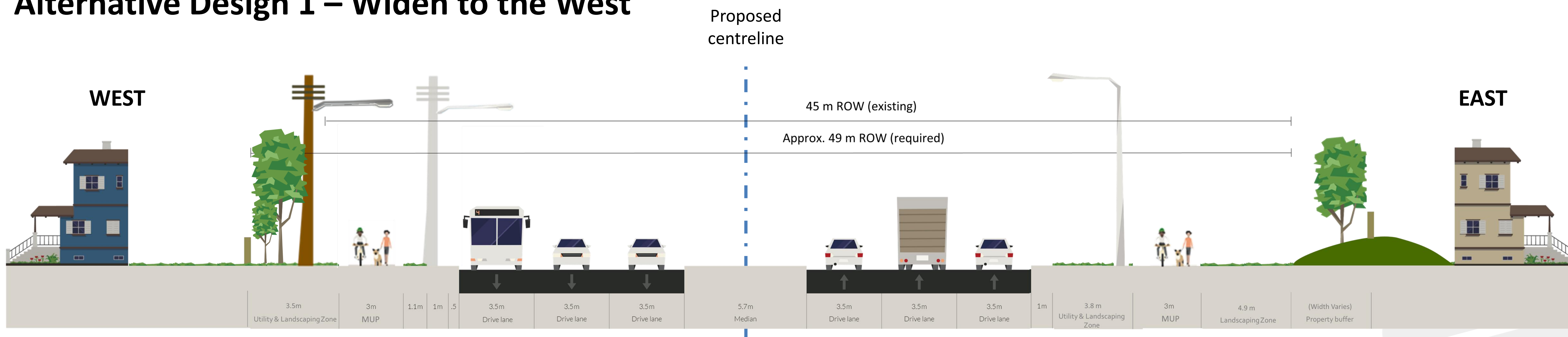


Alternative Design 1 - Widen to the West

Existing Condition



Alternative Design 1 – Widen to the West

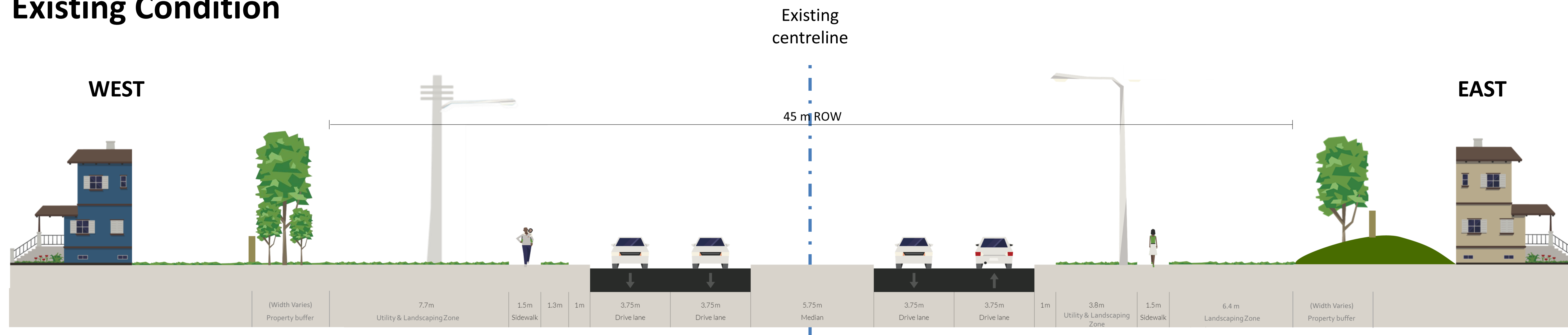


This alternative design proposes shifting the roadway centreline to the west. Impacts associated with this alternative design include:

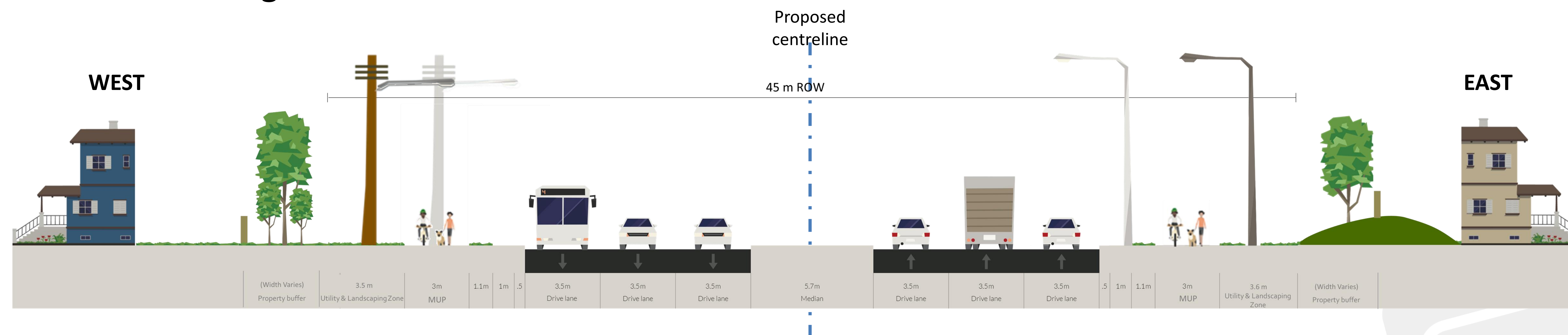
- Relocating utilities (hydro poles and streetlight luminaires) to meet minimum safety setbacks
- Acquiring property at some locations along the west side of Airport Road
- Extending the two existing culverts to the west
- Retaining walls in the vicinity of stormwater management ponds
- Removal of vegetation/trees, primarily on the west side of Airport Road

Alternative Design 2 - Widen about the Centreline

Existing Condition



Alternative Design 2 – Widen about the Centreline

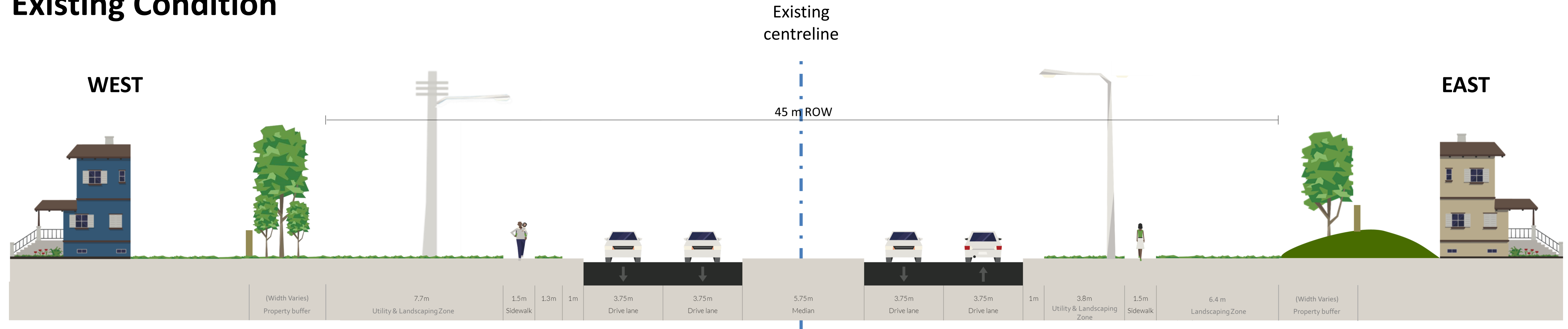


This alternative design proposes widening equally on both sides of Airport Road. Impacts associated with this alternative design include:

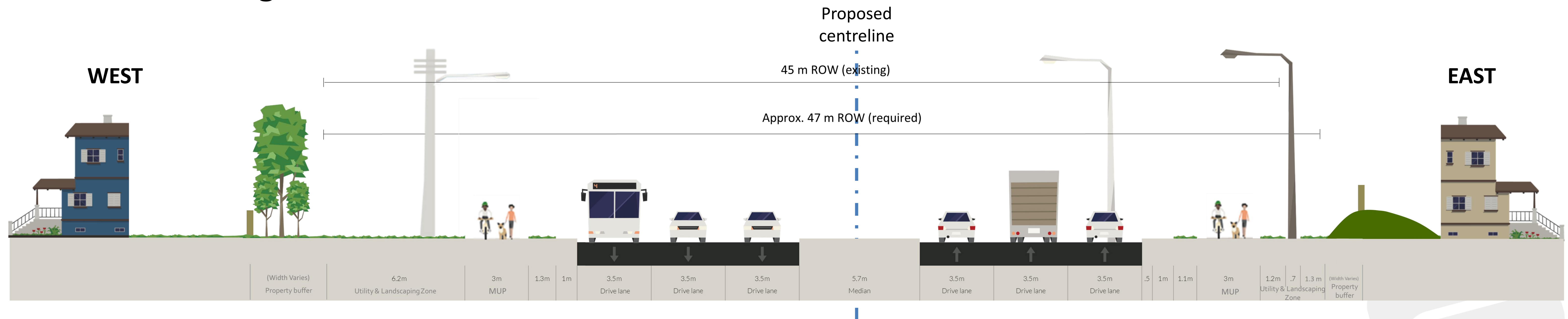
- Relocating utilities (hydro poles and streetlight luminaires) to meet minimum safety setbacks
- Relocating illumination on the east side of Airport Road to meet minimum safety setbacks
- Removal of vegetation/tree on both sides of Airport Road

Alternative Design 3 - Widen to the East

Existing Condition



Alternative Design 3 – Widen to the East



This alternative design proposes shifting the roadway centreline to the east. Impacts associated with this alternative design include:

- Relocating illumination on the east side of Airport Road to meet minimum safety setbacks
- Acquiring property at some locations along the east side of Airport Road
- Removal of vegetation/trees, primarily on the east side of Airport Road

Alternative designs were developed and evaluated based on the following criteria. The impacts and benefits of each option were studied and discussed with stakeholders and agencies.



Transportation Service

- Improve Public Transit Service
- Reduce Traffic Congestion and Delays
- Create a Pedestrian-Friendly Environment
- Create a Cyclist-Friendly Environment
- Facilitates Goods Movement
- Improve Safety for All Travel Modes
- Improve Mode Choice
- Meets Region's Long Range Transportation Plan Objectives



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
- Improve Visual Aesthetics
- Improve Community Character



Natural Environment

- Protect Designated Natural Areas
- Protect Vegetation
- Protect Wildlife
- Protect Aquatic Habitat
- Protect Surface Water and Ground Water



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 Operating Costs
- Minimize Property Requirements



Infrastructure Design

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

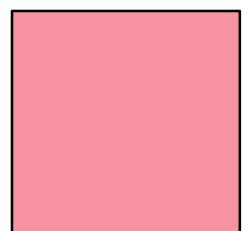
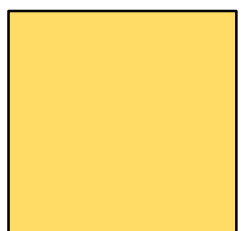
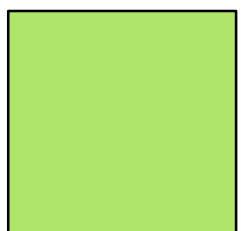





Public Health

- Improve Air Quality
- Support Age-Friendly Living and Accessibility
- Promotes Healthy Living by Encouraging Active Transportation such as Cycling and Walking



Evaluation of Alternative Designs

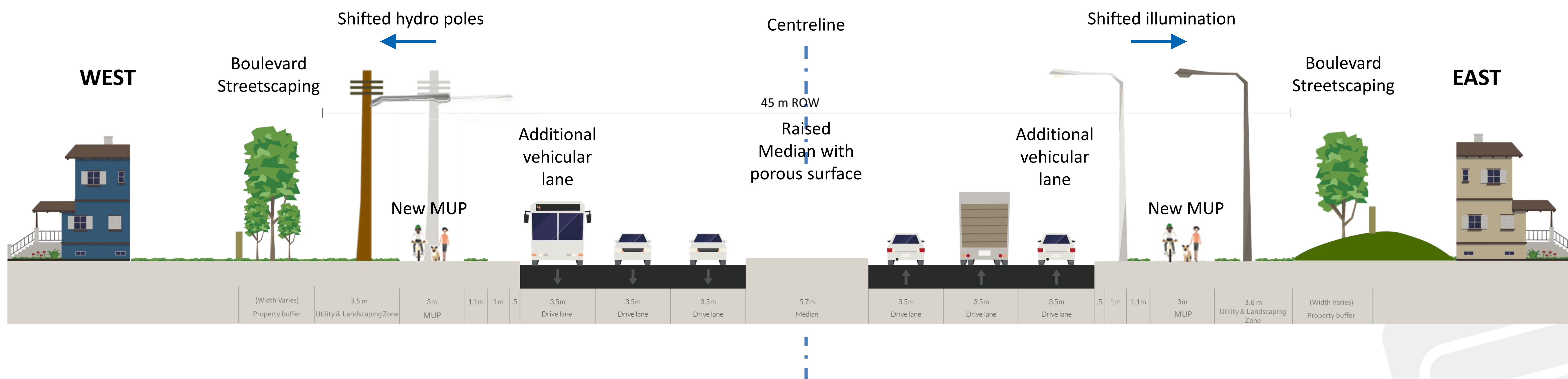
Legend  Not Preferred  Less Preferred  Preferred	Alternative Design 1 Widen to the west	Alternative Design 2 Widen about the centerline	Alternative Design 3 Widen to the east
Transportation Service	All Alternative Designs yield similar transportation service improvements as they involve the widening of Airport Road from 4 to 6 lanes and the addition of multi-use paths (MUPs) to accommodate cyclists and pedestrians.		
Natural Environment	Widening to the west requires extending the two existing culverts to accommodate the additional roadway footprint, resulting in disturbance to aquatic species at risk and their contributing habitat. Approx. 91 trees are expected to be removed.	Widening about the centerline offers the opportunity to balance the impact to vegetation on both sides of Airport Road and eliminate culvert extensions and their associated impacts to aquatic species at risk and their contributing habitat. Approx. 128 trees are expected to be removed.	Widening to the east does not require culvert extensions, but it will result in greater impacts to vegetation communities and terrestrial wildlife compared to Alternative Designs 1 and 2. Approx. 224 trees are expected to be removed.
Public Health	All Alternative Designs involve similar impacts to air quality, age-friendly living, accessibility and active transportation as the underlying improvements are the same. Additional through lanes will reduce congestion thus minimizing the impact of vehicle “stop-and-go” on air quality. Additional traffic lanes have the potential to improve transit reliability and service, increasing transit ridership and potentially reducing the number of cars on the road in the long term. The provision of MUPs on both sides of Airport Road will support walking and cycling, which are associated with health benefits.		
Social Environment	Encroachment into the Region’s buffer zone and potentially into private properties is anticipated. Impacts on residential properties are higher compared to Alternative Design 2 but lower than Alternative Design 3.	The proposed road works are mostly contained within the existing ROW. Minimal encroachment into the Region’s buffer zone may be required at some locations. No property acquisition is anticipated.	Encroachment into the Region’s buffer zone and into private properties is anticipated for a large part of the corridor. Property impacts are highest for this alternative design when compared to Alternative Designs 1 and 2.
Infrastructure Design	Widening to the west requires complete relocation of utility (hydro and light) poles on the west side, worsening disruption in addition to the high constructability complexity due to the shift in the roadway alignment.	Lowest construction complexity and shorter construction duration are anticipated as the existing roadway alignment and raised median are maintained. Hydro poles on the west side and light poles on both sides are anticipated to require relocation to provide adequate safety setbacks.	Widening to the east avoids relocation of hydro poles on the west side but would require relocation of light poles on the east side. High constructability complexity is anticipated under this alternative design due to the shift in the roadway alignment.
Economic Environment and Cost Effectiveness	Widening to the west poses potential impacts to 2 commercial plazas and their businesses. Significant capital costs are expected due to the combination of utility relocation (hydro+light), culvert extensions, shifting of the roadway alignment and property acquisition.	Moderate capital construction costs are expected because centerline widening will maintain the existing raised median and roadway alignment but results in utility relocations. No anticipated culvert extensions or property acquisition contributes to lower capital costs.	Widening to the east poses potential impacts to only 1 commercial plaza and its businesses. Compared to Alternative Design 1, capital costs are expected to be lower as no culvert extension is anticipated and utility relocations are less significant.
RECOMMENDATION		 PREFERRED DESIGN	

Summary of Preliminary Preferred Design

The Preliminary Preferred Design for the Airport Road Corridor is **Alternative Design 2**, which consists of:

- Widening Airport Road from 4 to 6 lanes about the roadway centreline
- Implementing active transportation improvements in the form of a multi-use path on both sides and cross-rides at intersections
- Providing landscaped zones as feasible; potential to use retaining walls to minimize vegetation impacts at some locations
- Improvements to transit operations at bus stop locations as the elimination of dedicated right-turn lanes will minimize the need for buses merging into live traffic

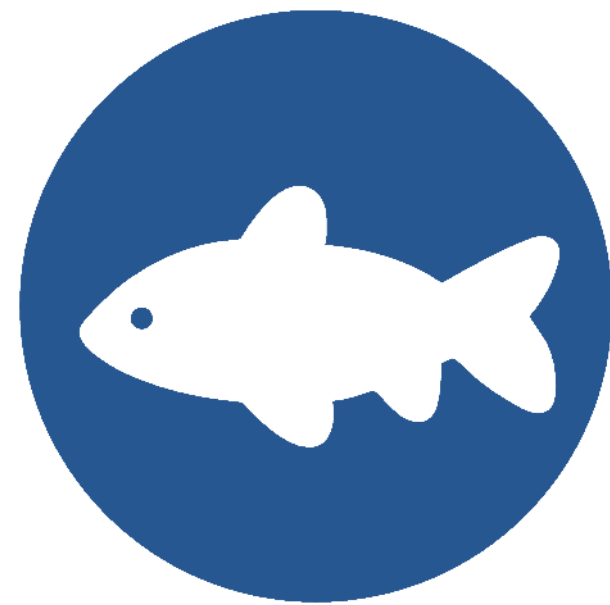
Widen about the Centreline



Refer to roll plan for complete details

Please let us know your thoughts by filling out a comment form or marking up the roll plan

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



Natural Heritage Impact Assessment



Structural Assessment



Drainage and Stormwater
Management Report



Contamination Overview Study



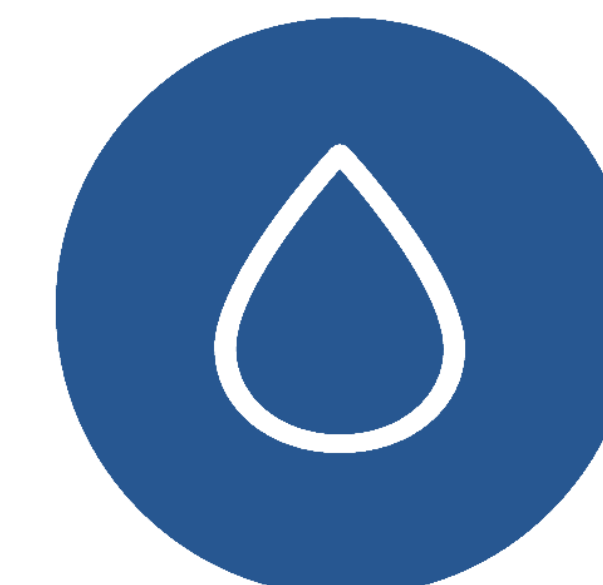
Archaeological Assessment



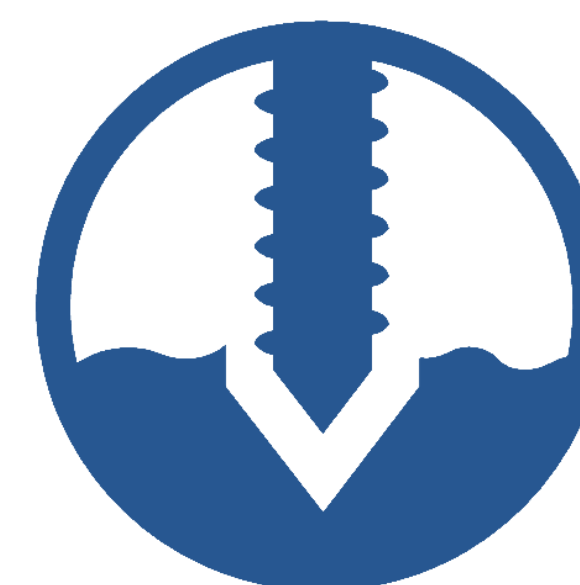
Noise Impact Study



Cultural Heritage Resource Assessment



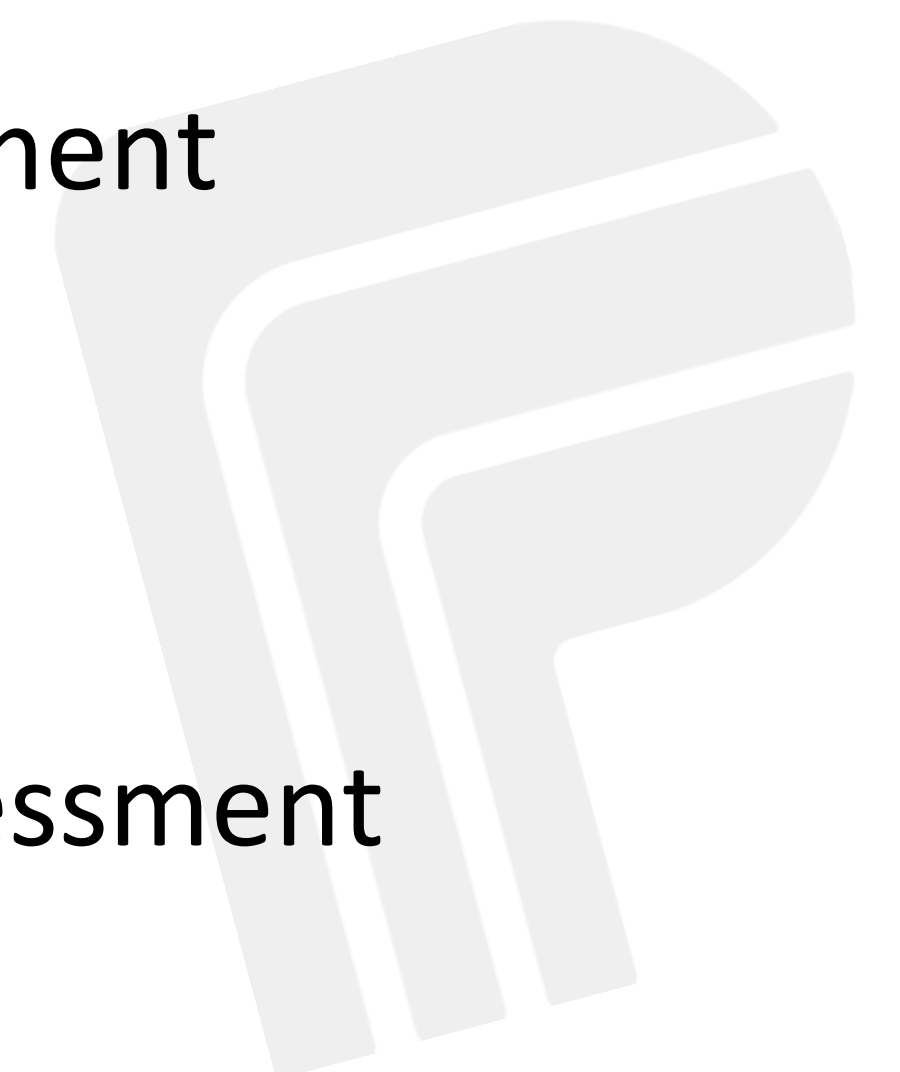
Hydrogeological Assessment



Geotechnical and Pavement Assessment



Fluvial Geomorphic Assessment



Natural Environment



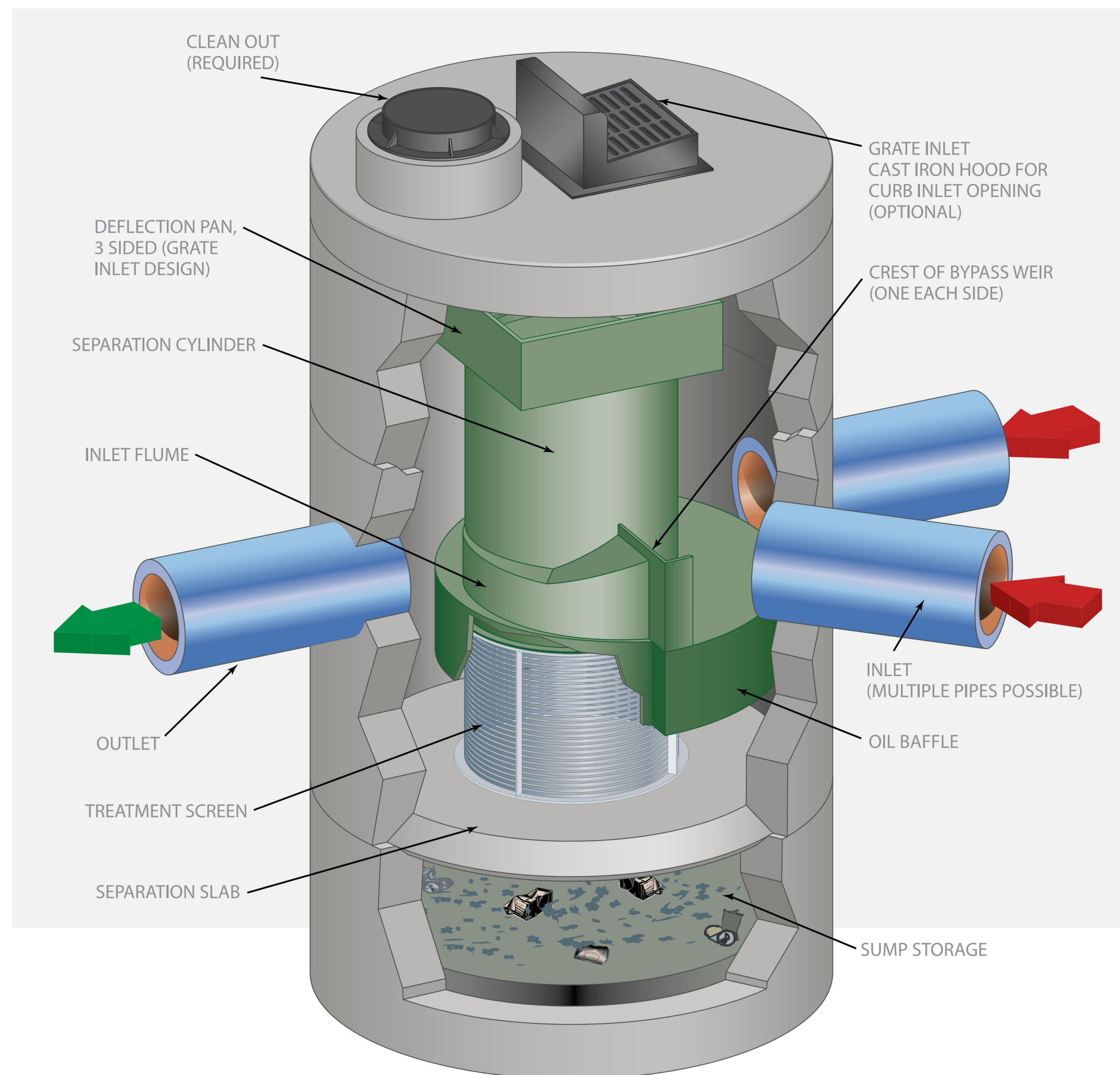
- **2 watercourse crossings**, both are TRCA regulated and designated as contributing habitat for Redside Dace
- **No designated natural areas** are found within or adjacent to the study corridor
- Streetscape **vegetation is more prevalent on the east side** than on the west side
- Wildlife species identified within the study area are largely **tolerant of human disturbance**
- Barn Swallow was documented during field investigations, but **no nests were observed**
- Three fish species (Creek Chub, Fathead Minnow and Goldfish) were observed at both tributary locations, downstream of Airport Road
- **No Vegetation Species at Risk were identified** within or adjacent to the study corridor

- **2 existing culverts**, reconstructed in 2004 when Airport Road was widened from two (2) to four (4) lanes
- Culverts are concrete pre-cast box structures
- Structural condition assessment was carried out and both structures are **generally in good condition** and do not require significant remediation or upgrades at this time

Structural Assessment



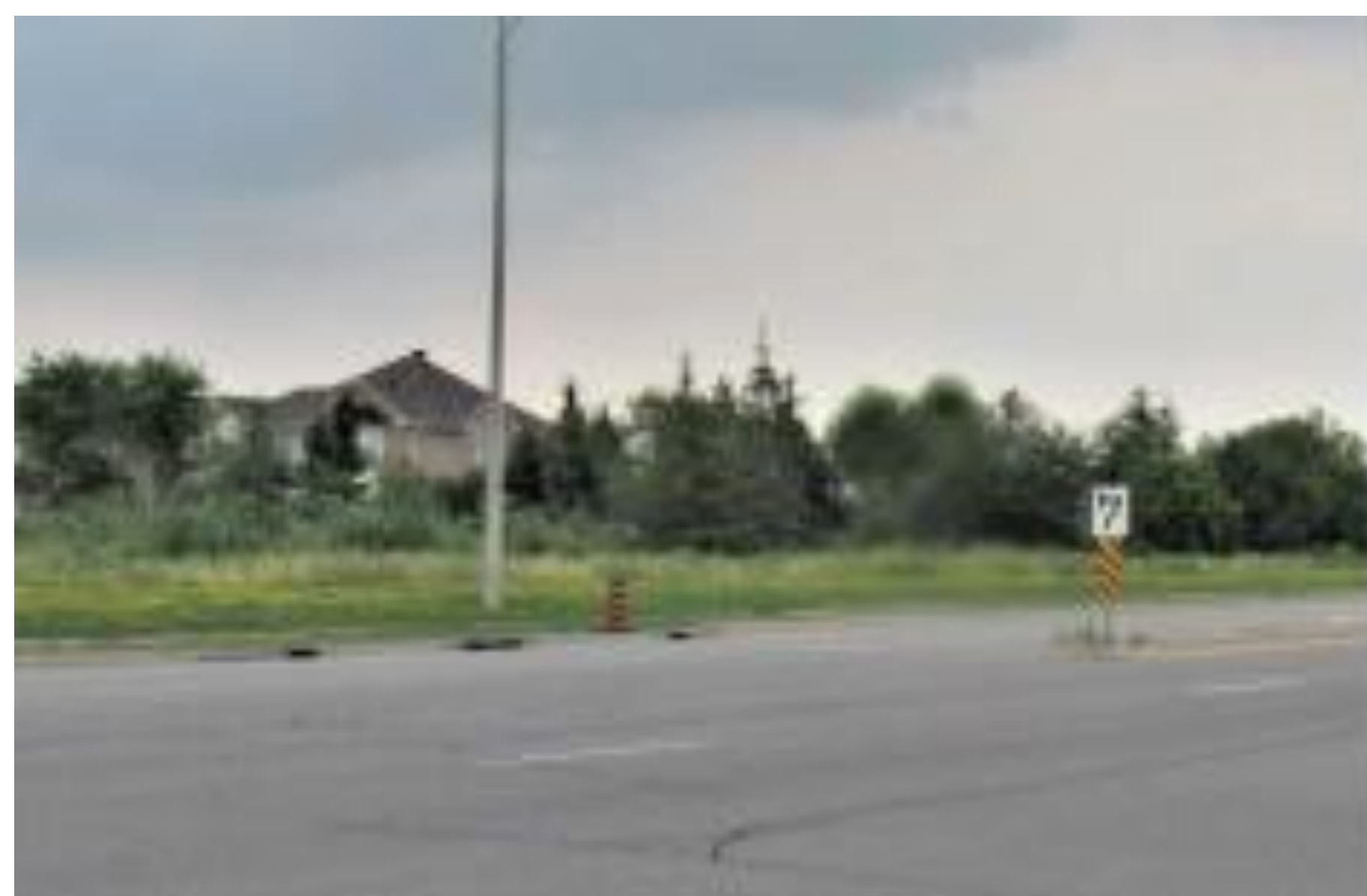
Drainage and Stormwater Management



Typical OGS unit
Source: CDS Brochure

- Airport Road within the study limits is currently drained by a subsurface storm system with outfalls to Tributary B and Tributary C of the West Humber River, and municipal storm sewer at Braydon Boulevard.
- **Hydraulic capacity of Tributary B culvert** (4500 x 1200 mm concrete box) – **does not meet** MTO hydraulic criteria. Overtopping occurs under Regional storm conditions.
- **Hydraulic capacity Tributary C culvert** (3000 x 1250 mm concrete box) – **meets** MTO hydraulic criteria. No overtopping of flows under Regional storm conditions.
- Current treatment measures include three oil grit separator (OGS) units at the sewer outfall locations to each of the two watercourse crossings, and at the Braydon Boulevard storm sewer system which discharges to an existing stormwater management facility.
- The following **Low Impact Development (LID) measures** are recommended for implementation into the storm drainage system:
 - Maintain the three existing oil grit separator units
 - Use of underground retention chambers
 - Conversion of the existing asphalt median to a permeable surface

Archaeological Assessment



Southeastern view at West Humber River Tributary, requires Stage 2 test pit

- **23 previously registered archaeological sites** are located within 1km of the Study Area, but **only one within 50m of the study area** (which was previously assessed and not considered to have further cultural heritage value or interest, and was subsequently cleared for development)
- **Parts of the study area** (adjacent to the watercourse crossings) exhibit archaeological potential and will **require Stage 2 assessment**.

- **30 representative** Noise Sensitive Areas (NSAs) and associated Outdoor Living Areas (OLAs) were identified within the Area of Investigation
- OLAs are located in backyards or side yards abutting the corridor
- All assessed OLAs have existing noise barriers
- Generally, the predicted change in noise level is no greater than 1 dB
- No new noise barriers or mitigation measures are required
- Peel Region is undertaking a noise barrier conversion initiative as part of the state of good repairs program for existing noise attenuation walls on private property and adjacent to Regional Roads reaching the end of their service life

Noise Impact Study



Cultural Heritage



Humber River Tributary to the east of Airport Road, looking southeast

Background research, data collection, and field review was conducted for the study area, confirming that:

- One Cultural Heritage Landscape (CHL) is found in the study area
- The CHL includes two tributaries of the Humber River and its associated treed river valley

An impact assessment resulted in the following recommendations:

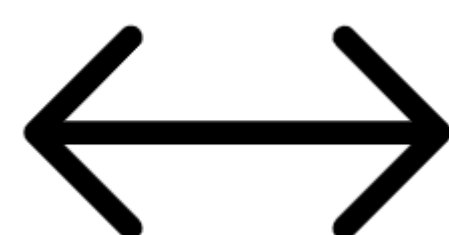
- Construction activities and staging should be suitably planned and undertaken, such as No-Go zones and instructions to prevent impacts
- Post-construction landscaping with historically-sympathetic native tree species should be employed to mitigate impacts to the heritage value of the resource.

- Preliminary assessment indicates both tributaries are stable or in regime
- Replacement of the structures is not considered necessary from a watercourse erosion perspective
- It is not anticipated that channel works will be required to accommodate proposed road widening

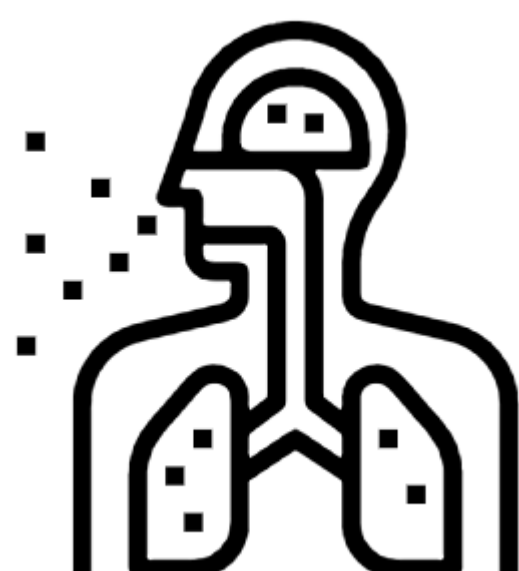
Fluvial Geomorphology



Air Quality

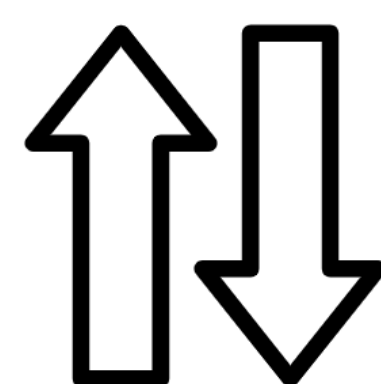


An **air quality impact assessment** was completed to assess the impact of widening Airport Road to six (6) lanes
→ A **small increase** in predicted concentrations of all indicator compounds at receptors closest to Airport Road



The **cumulative air quality** was also reviewed to examine the predicted concentrations relative to ambient air quality

- Cumulative concentrations are **below the relevant ambient air quality criteria** for all indicator compounds *with the exception of* nitrogen dioxide, PM_{2.5} and benzene on an annual averaging period
- For these indicator compounds, the background air quality concentration is **already close to or above** the relevant ambient air quality criteria. The road itself contributes less than 30% of the total concentration.



Air quality impacts associated with the projected increased traffic volumes in the study area are **minimized** through:
→ *improved traffic flows within the local vicinity of the proposed project*
→ *reduced queuing times at other roads surrounding the proposed project*



The widening of Airport Road is anticipated to be a **relatively minor source** of emissions, and the impact on overall air quality in the Region is expected to be **negligible**



Contamination Potential

- **No high risk issues** of potential environmental concern were identified
- **A low risk potential contaminating activity** from an accidental spill of 400 L diesel from a tanker truck due to an operator error to a ditch at the intersection of Airport Road and Countryside Drive in 2004 was noted.
- Three references to petroleum product storage were identified within the study area.
- A detailed **Phase Two ESA is not proposed**, however a limited soil sampling should be conducted concurrently with the geotechnical investigation to verify the environmental condition of the soil within the road allowance




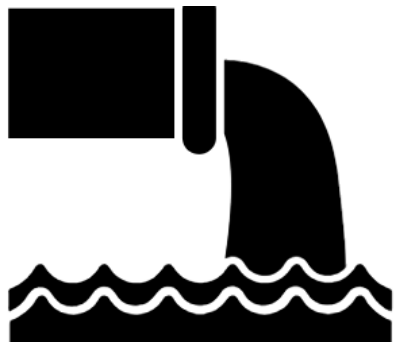
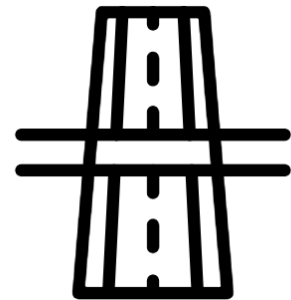
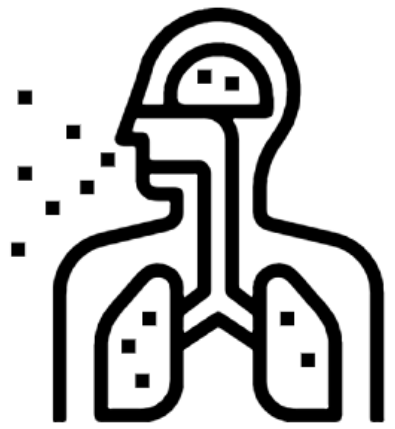


Geotechnical and Pavement Assessment

- Field work is underway and the results will be documented in Phase 4 of the EA study

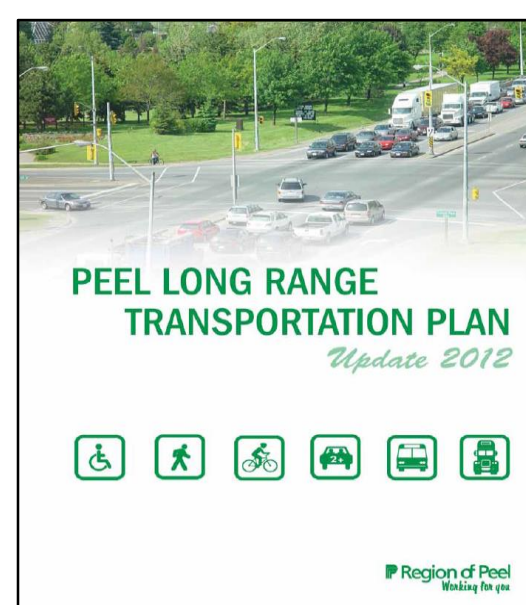
Hydrogeology

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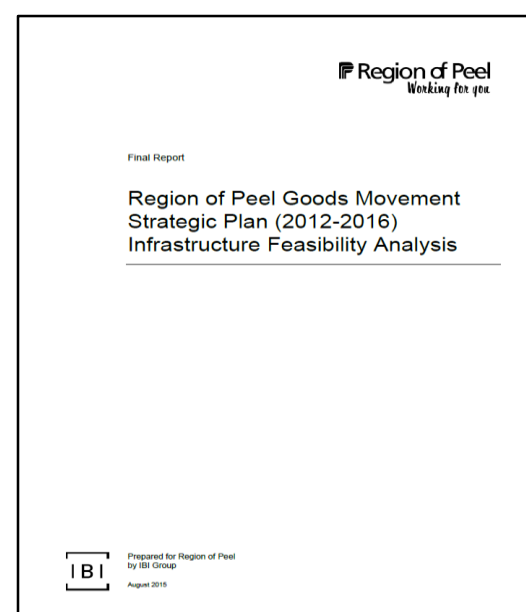


Type	Impact	Mitigation Measures
Natural Environment	Some tree / vegetation removal due to widening.	 <p>Retaining walls are proposed at some locations to minimize vegetation removals to approx. 42 trees requiring removal. Tree protection fencing to be installed during construction. Post-construction landscaping and tree planting as feasible.</p>
Stormwater Management	Increase in pavement surface due to widening will result in increased risk of flooding and degraded water quality.	 <p>Stormwater management measures such as the implementation of OGS units, underground retention chamber, and permeable surface in the roadway median will improve the quantity and quality of runoff.</p>
Property Impacts	No property requirements are anticipated.	 <p>Some existing driveways may be impacted and may need to be re-graded when the roadway improvements are implemented.</p>
Air quality	The widening of Airport Road is anticipated to be a relatively minor source of emissions, and the impact on overall air quality is expected to be negligible .	 <p>During construction, will follow best practices to mitigate air quality issues such as using equipment in good repair, machinery equipped with emission controls and on-site dust suppression.</p>
Noise	The long term predicted change in noise level associated with the road widening is no greater than 1 decibel and does not exceed the 5 decibel threshold. Construction noise will be temporary in nature.	 <p>As the abutting properties along Airport Road have existing acoustic barriers, no further mitigation is required. During construction, will follow best practices and abide by noise complaint process and the applicable noise by-laws.</p>
Contamination	Disposal of the excess soil that is generated as part of the project may contain certain contaminants.	 <p>Soil sampling should be conducted to verify the environmental condition of the soil within the road allowance and to confirm disposal procedures.</p>

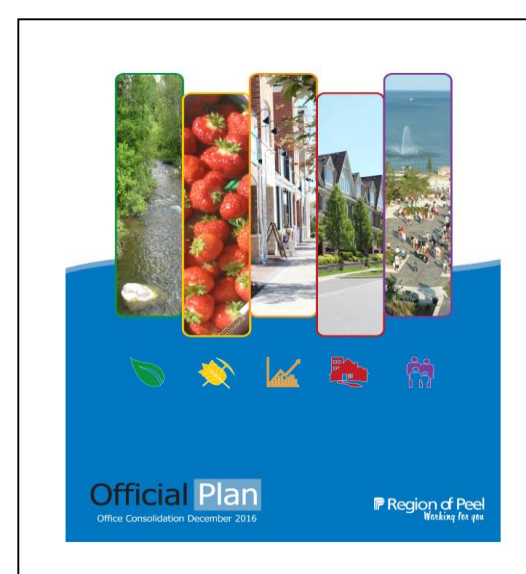
Key Policy Document



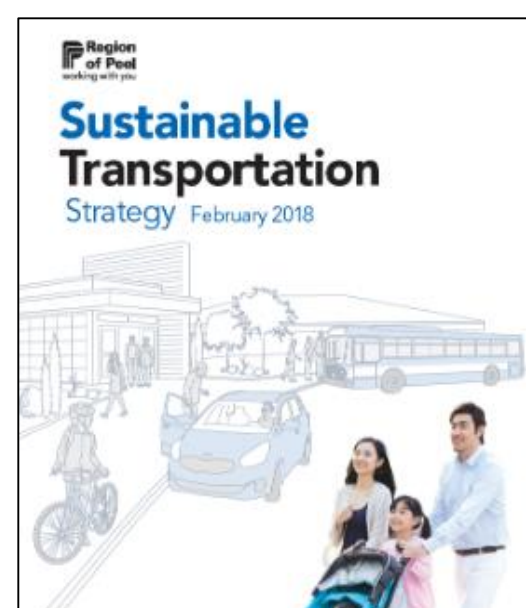
Long Range Transportation Plan Update, Region of Peel 2019



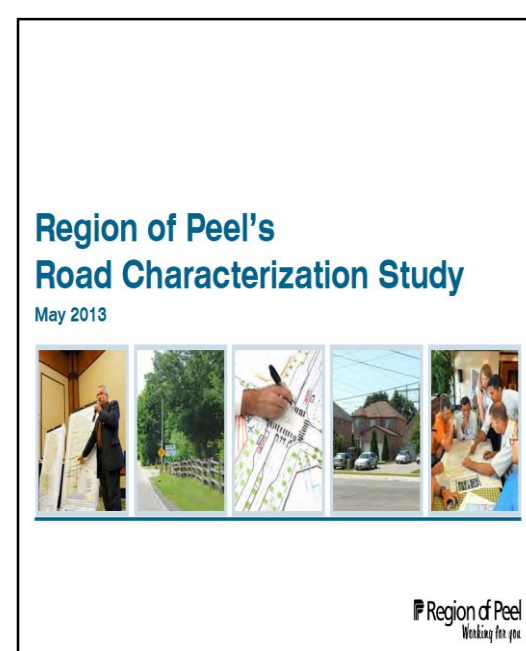
Goods Movement Strategic Plan



Region of Peel Official Plan, 2016



Sustainable Transportation Strategy, 2018



Peel Region Road Characterization Study, 2013

Key Direction

Vehicular Mobility: Improve Capacity on Airport Rd

Safe mobility: Reduce collisions by 10% in 5 years

Sustainable mobility: Improve active transportation

Maintain Airport Road as a **designated goods movement corridor**

Airport Road identified as **Major Regional Road** with midblock Right-of-Way requirements of 45m

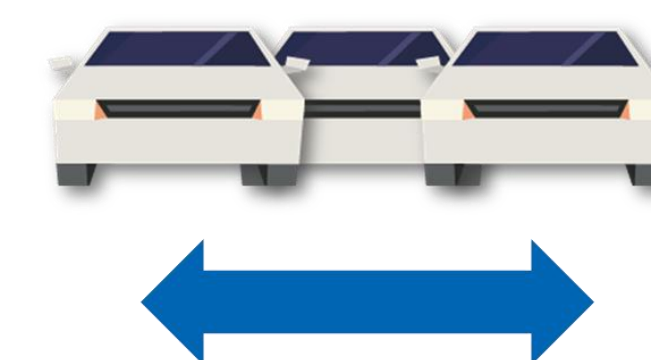
Protect the natural and cultural environment, manage resources, direct sustainable growth

Increase proportion of trips made by walking, cycling and transit

Proposed Long Term Cycling Network indicates **Multi-Use Trail** along the study area

Airport Road within the study area to act as a **Suburban Connector**.

How were they satisfied?



Widening Airport Road from four (4) to six (6) lanes, reducing individual lane widths to discourage speeding



Implementing best practices and measures to mitigate impacts on the natural, cultural heritage, social and economic environments



Preferred design widens about centreline and within available Right-of-way

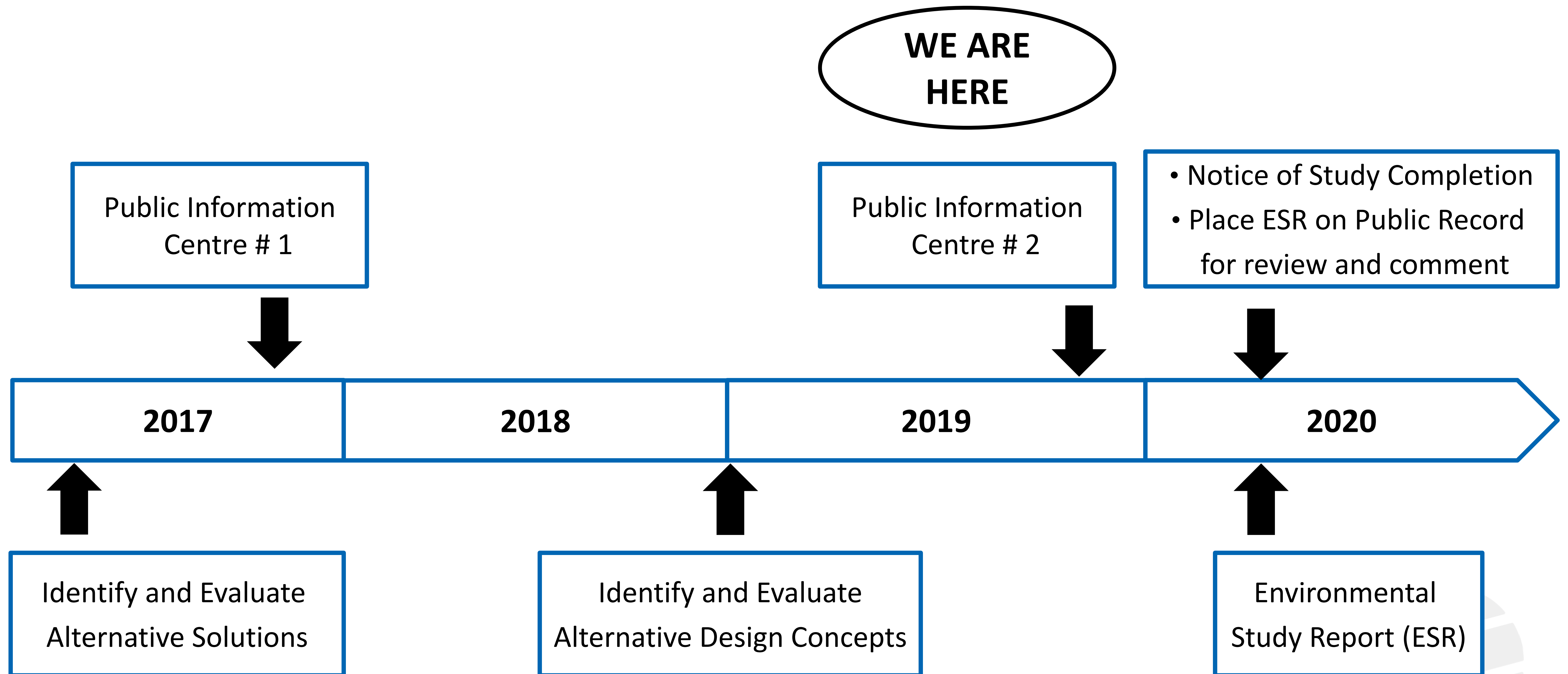


Implementing a multi-use path on both sides of Airport Road with streetscaping as feasible in the boulevard



Preferred design consistent with Suburban Connector designation consisting of 4 to 6 lanes, 50 to 70km desired operating speeds, multi-use paths on both sides, planning zone, splash strip and utility zone.

Project Schedule and Next Steps



How you can stay involved



Joining the mailing list or email mailing list



Visiting the website regularly
www.peelregion.ca/pw/transportation/environmental-assess/ea-airport-road-bray-countryside



Following Peel Region's social media channels



Twitter: @regionofpeel



Emailing the project team at any time



Completing a comment form



Responding to Direct Mail Notices



Keeping up with Newspaper Notices



Calling the project team at any time

Your input is very valuable to us!

Please fill out the feedback form and return it to us today

OR



**Send us your comments by email/letter
within 2 weeks,
by December 13, 2019**

For More Information

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