

Environmental Assessment

Airport Road from King Street to Huntsmill Drive



Public Information Centre No. 2

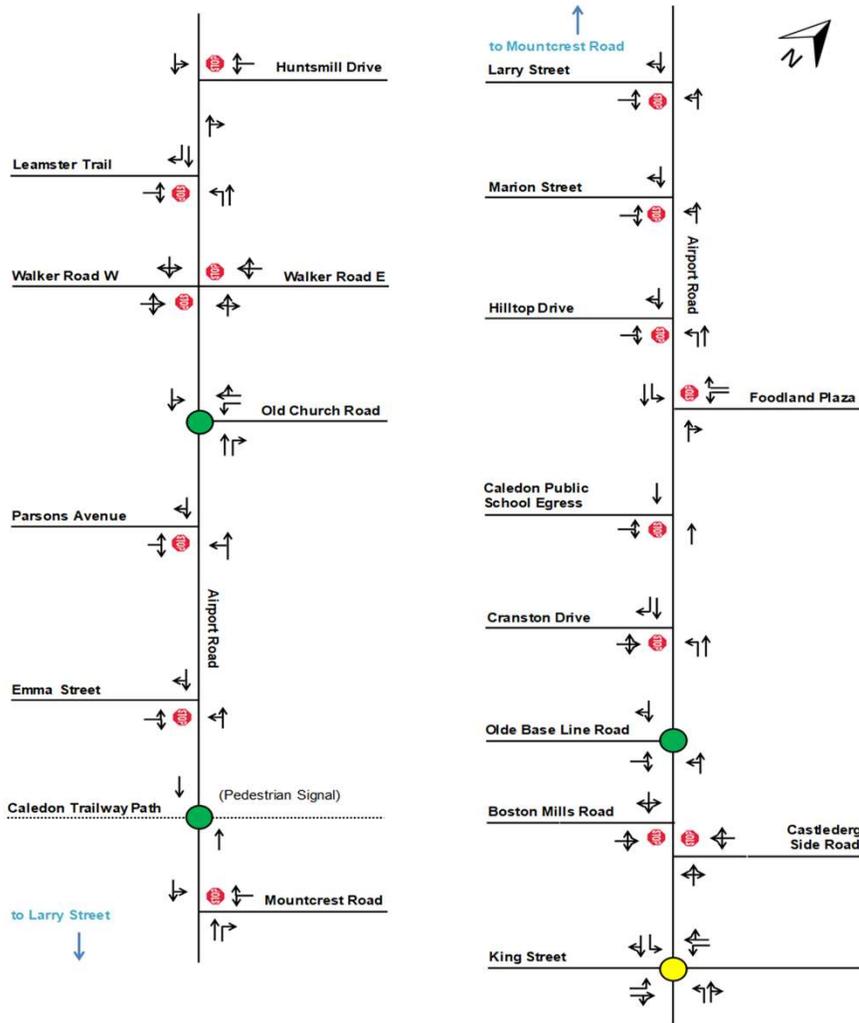
Summary of Technical Study Findings

September 17 to October 14, 2020

Existing Traffic Conditions



Level-of-Service (LOS) Map (afternoon peak hour)



What is Level-of-Service?

Level-of-service is a measure of performance based on average delay at each intersection:

- LOS 'A' means drivers experience little or no delay
- LOS 'E' or 'F' signifies long delays, which can be in excess of 1 minute

Existing Traffic Operations

- Airport Road currently operates well overall
- Some delay is incurred for traffic turning onto Airport Road during busy periods
- No locations with collisions that are of high-frequency or common type
- Heavy trucks frequently use Airport Road

Map Legend:

Overall LOS of signalized intersections:

- LOS A or B
- LOS C or D
- LOS E or F

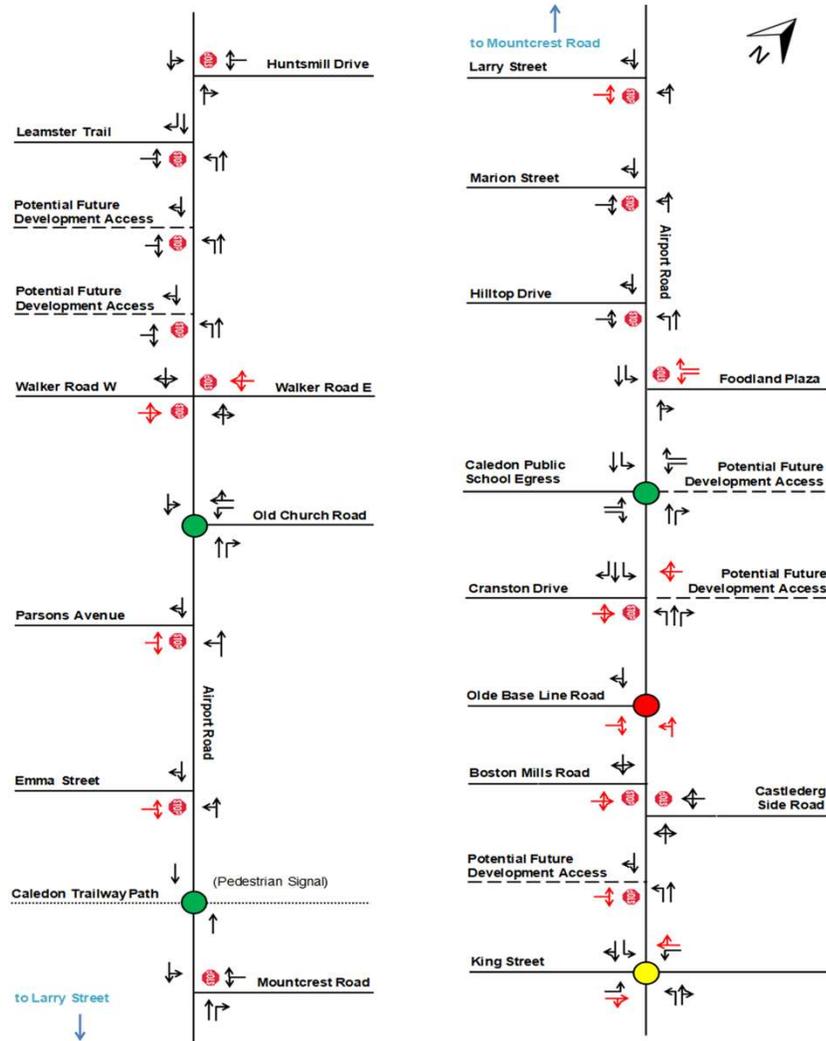
LOS of intersection movements:

- ↑ LOS D or better
- ↓ LOS E or F

Future Traffic Conditions to 2041



Level of Service (LOS) Map (afternoon peak hour)



Future Constraints

Traffic growth will introduce new operational constraints:

- Turning left and right onto Airport Road incurs long delays in the peak hours:
 - Walker Road
 - Parsons Avenue
 - Emma Street
 - Larry Street
 - Foodland Plaza
 - Cranston Drive
 - Olde Base Line Road
 - Boston Mills Road
- Some intersections may warrant improvements, signals or a roundabout:
 - Walker Road
 - Cranston Drive
 - Olde Base Line Road
 - Boston Mills Road / Castleberg Side Road

Map Legend:

Overall LOS of signalized intersections:

- LOS A or B
- LOS C or D
- LOS E or F

LOS of intersection movements:

- ↗ LOS D or better
- ↘ LOS E or F

Active Transportation



Existing Conditions and Challenges

- Where sidewalks exist, they are not always in good condition

- Incomplete pedestrian network between communities

- Major recreational trail crossing the study limits (Caledon Trailway)

- Lack of cycling facilities along Airport Road

- Constrained corridor through Caledon East, particularly south of Caledon Trailway to Foodland

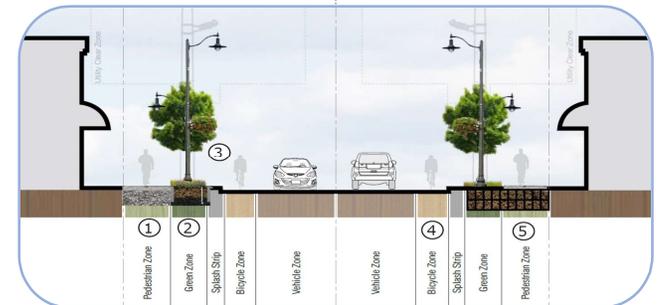


Opportunities

- Desire for enhanced active transportation facilities supported by Caledon East Community Improvement Plan

- Support for downtown pedestrian priority corridor improvements and planned cycling facilities through Peel Sustainable Transportation Strategy

- Opportunities to provide enhanced streetscaping identified through the Region of Peel Streetscaping Toolbox Update (2017)



Archaeological & Cultural Heritage



Archaeology

A Stage 1 assessment was conducted and found:

- Parts of the study area will require a Stage 2 assessment during detail design.
- Two previously registered sites within the study area:

Tarbox Site

- Retains Cultural Heritage Value or Interest.
- If impacted, the site will require a Stage 3 assessment prior to any proposed development.

Yeoman Site

- Retains Cultural Heritage Value or Interest.
- If impacted, the site will require Stage 4 mitigation, prior to any proposed development.

Cultural Heritage

A Cultural Heritage Resource Assessment was conducted and found:

- 63 cultural heritage resources are located within the study area.
- A Heritage Impact Assessment (HIA) should be conducted during detail design for any potentially impacted cultural heritage resources.
- A HIA was completed for 16000 Airport Road, which determined that the building retains Cultural Heritage Value or Interest.



Study area overlaid on 1919 Bolton National Topographic System (NTS) map



Photograph of the property at 16000 Airport Road, circa 1900

Heritage Impact Assessment



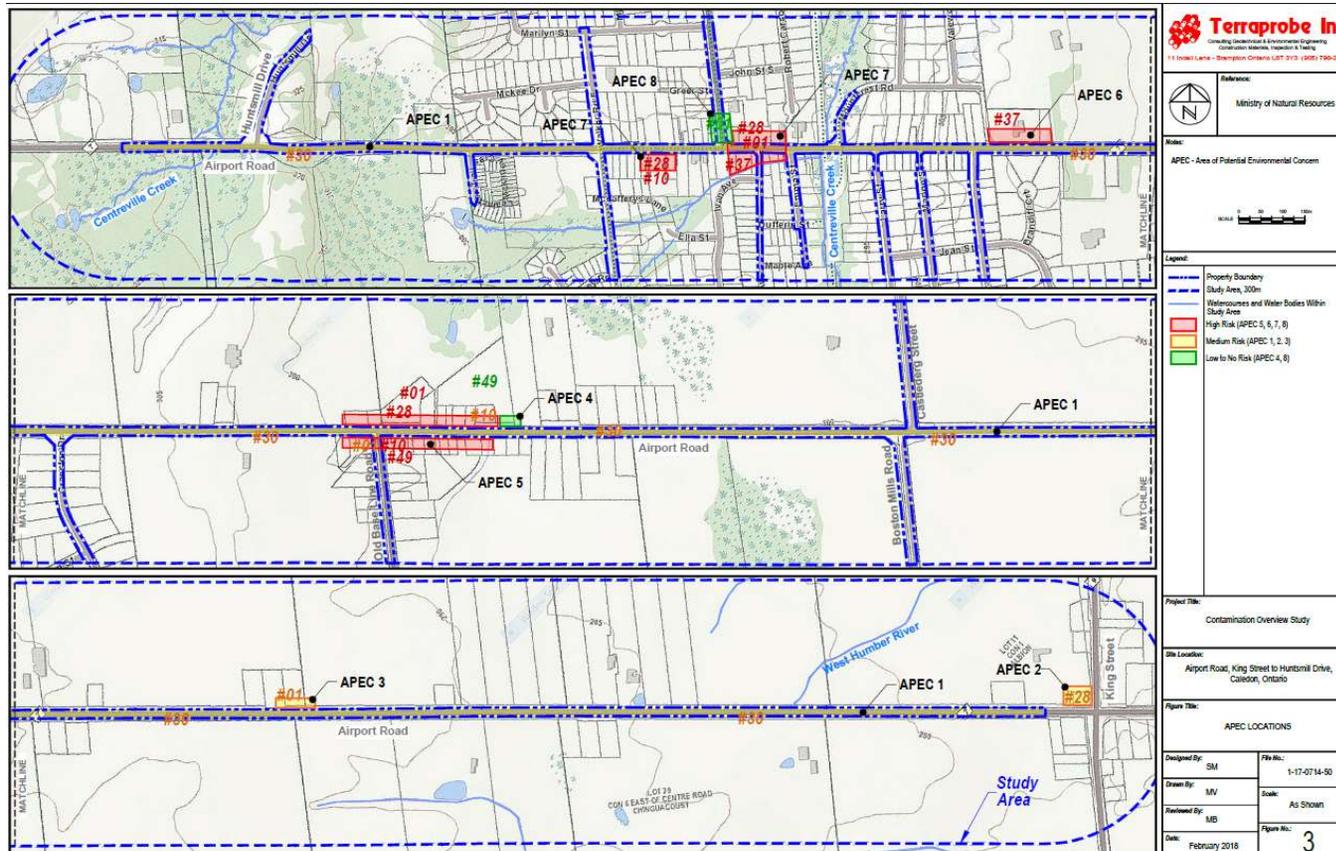
16000 Airport Road

- Retains cultural heritage value (eligible for designation)
- Realignment of proposed extension to avoid heritage attributes not technically feasible
- Options to mitigate heritage impact:
 1. Relocate structure, or
 2. Remove building, and
 - i. Salvage or document heritage attributes
 - ii. Consider a commemorative plaque nearby

Contamination Overview



- 19 Potentially Contaminating Activities identified at site specific locations (1 identified at various locations)
- 12 Areas of Potential Environmental Concern identified at site specific locations (1 identified at various locations)
- Environmental Site Assessments including soils and ground water investigation may be required to investigate potential impacts caused by surrounding land uses
- Potential for soil and ground water disposal implications when completing the replacement of culverts or other roadway works. Mitigation measures to minimize impacts should be applied.



Air Quality

An Air Quality Impact Assessment was conducted. The study examined Future-Build and No-Build scenarios. The study found:

- Future-Build scenario results in slightly higher concentrations than No-Build scenario.
- The maximum contaminant concentrations are less than current respective thresholds for both the Future No-Build and Future-Build scenarios.
- Overall, the proposed project has similar air quality impacts as the Future No-Build scenario.



Noise

A Noise Impact Assessment was conducted. The study found:

- For both operational and construction sound levels, the project results in small sound level changes.
- Future sound levels are predicted to exceed 60 dBA at some receptors.
- Noise barriers were investigated for seven receptors, five of which are technically feasible.

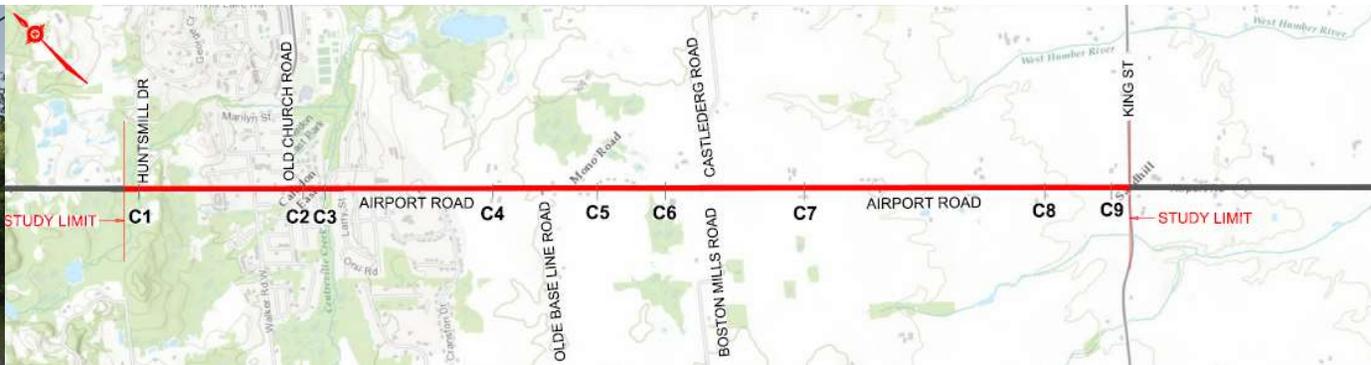


In the proposed condition:

- Ditches will continue to provide water quality control.
- Underground infiltration chambers proposed along the corridor will provide storage volumes and reduce the quantity and rate of runoff leaving the site
- Proposed Oil Grit Separators (OGS), infiltration chambers and Jellyfish Filters will enhance water quality protection prior to discharge

Culverts:

- All culverts will be replaced, with the exception of C2 and C5.
 - C1, C3, C4, C7, C8 and C9 will be replaced due to inadequate hydraulic capacity.
 - C6 will be replaced to improve structural integrity.
- C1, C3 and C7 to be replaced with Concrete Box Culverts
- **C3 / Centreville Creek in Caledon East is considered a major replacement (~12 m wide culvert).**
- C4, C6, C8, C9 to be replaced with Concrete Pipes.



C3 / Centreville Creek
9/17/2020

Fluvial Geomorphology

- A fluvial geomorphological assessment was completed for 4 regulated watercourse crossings (1, 2, 3 and 7).
- Boyce's Creek has a meander belt width of 15.1 m. Recommended culvert replacement span is 3.67 m.
- Centreville Creek has a meander belt width of 20 m. Recommended culvert replacement span is 10.35 m.
- The meander belt width of Centreville Creek Tributary (Crossing 2) was not determined since there is no open channel within the road allowance, and the likelihood of daylighting the creek within the road allowance is low.
- The meander belt width of East Credit River Tributary (Crossing 7) was not determined as the culvert inlet was located in a private property well outside of the road allowance.



- **Geotechnical Investigation to:**

- Assess pavement condition and explore subsurface conditions
- Recommend pavement rehabilitation techniques

- **Hydrogeological Investigation to:**

- Determine water well and aquifer impacts
- Recommend mitigation measures

