

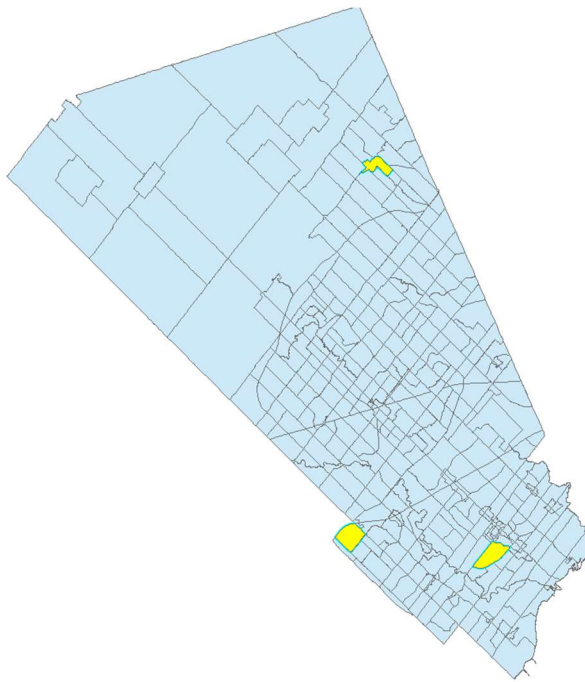
## MEMO

# RE: Transportation Analysis for Future Employment Conversions

October 2023

## Overview

This memo presents the results of the high-level transportation analysis, focusing on the impacts of several proposed employment conversions within three (3) traffic zones (TZs) across Peel Region, shown in **Figure 1**. This memo outlines the findings associated with two growth scenarios (low and high, compared to the base conditions) across the horizon years of 2031, 2041 and 2051. This analysis was conducting using EMME modelling software.



**Figure 1:** Traffic Zones with Proposed Employment Conversions

## Study Area

The project study area is composed of four (4) sites across three (3) TZs:

- |                |  |
|----------------|--|
| <b>TZ 3153</b> | <b>Caledon Dry Industrial Lands (1 site)</b><br>Located at King Street and Humber Station Road |
| <b>TZ 3617</b> | <b>Lisgar GO Station (1 site)</b><br>Located at 3155 Argentia Road                             |
| <b>TZ 3671</b> | <b>Burnhamthorpe Road (2 sites)</b><br>Located between Central Parkway West and Mavis Road     |
|                | i. 1100 Burnhamthorpe Road West  |
|                | ii. 780 Burnhamthorpe Road West  |

## Land Use Distributions

The change in population and employment, as a result of the proposed site conversions can be seen in **Table 1**, below. These distributions form the low and high growth scenarios.

**Table 1:** Difference between Revised and Approved Land Use Distributions

TZ #	Low Growth Scenario						High Growth Scenario					
	Population			Employment			Population			Employment		
	2031	2041	2051	2031	2041	2051	2031	2041	2051	2031	2041	2051
<b>3153*</b>	0	2,227	4,070	-179	114	746	0	2,227	4,070	-179	114	746
<b>3617</b>	3,636	7,272	7,272	-602	0	0	5,165	10,331	10,331	366	1,937	1,937
<b>3671</b>	2,479	4,960	4,960	-541	0	0	3,542	7,085	7,085	-439	205	205

\* **Note:** there is no difference between the low and high growth scenario for the Caledon Dry Industrial Lands

## Analysis and Conclusion

The analysis focuses on the horizon years of 2031, 2041 and 2051, and considers the three growth scenarios of base (existing), low, and high. A total of 40 kilometres of roads were selected for the analysis, across the three traffic zones. The proposed Highway 413 has been included as part of this analysis.

### Vehicle Kilometres Travelled

Across the three traffic zones, there was only a slight increase identified for **total** vehicle kilometres travelled (VKT) for all horizon years. Results are shown below.

**Table 2:** Increase in Total VKT Compared to Base Conditions

Growth Scenario	Horizon Year		
	2031	2041	2051
Low	0.4%	1.5%	1.9%
High	0.4%	2.1%	2.5%

Traffic Zone 3153 (Caledon Dry Industrial Lands) demonstrated the highest individual increase in VKT by 2051, with a forecasted increase of 5%. The zones located in Mississauga showed a maximum increase in VKT of 1.6% by 2051.

### Volume-to-Capacity Ratio

Volume-to-capacity (V/C) ratio is the measure of the amount of traffic (volume) on any given road, relative to the amount of traffic the road can physically accommodate (capacity). A V/C ratio greater than 1.0 indicates that the volume on the road has exceeded the capacity. When the V/C ratio is greater than 0.9 is considered "over acceptable capacity".

Across both the high and low growth scenarios, the percentage of roads operating over acceptable capacity (V/C greater than 0.9) increases by a maximum of only 2% when compared to the base scenario. This is true across all traffic zones. When observing roads over capacity (V/C greater than 1), the Lisgar GO Station zone only increases by 2% when compared to the base scenario. The other two sites remain unaffected, across both growth scenarios. Results are shown in the tables below.

**Table 3:** Percentage of Road with Volume-to-Capacity > 0.9

	3153 (Caledon)			3617 (Lisgar)			3671 (Burnhamthorpe)		
Growth Scenario	Horizon Year			Horizon Year			Horizon Year		
	2031	2041	2051	2031	2041	2051	2031	2041	2051
Base	2%	2%	9%	4%	4%	6%	2%	2%	4%
Low	2%	4%	11%	5%	6%	7%	2%	3%	4%
High	2%	4%	11%	5%	6%	7%	2%	3%	6%

**Table 4:** Percentage of Road with Volume-to-Capacity > 1.0

	3153 (Caledon)			3617 (Lisgar)			3671 (Burnhamthorpe)		
Growth Scenario	Horizon Year			Horizon Year			Horizon Year		
	2031	2041	2051	2031	2041	2051	2031	2041	2051
Base	2%	2%	6%	2%	2%	4%	0%	0%	0%
Low	2%	2%	6%	2%	2%	5%	0%	0%	0%
High	2%	2%	6%	2%	4%	5%	0%	0%	0%

## Conclusion

The proposed growth scenarios should not pose a significant impact on the surrounding Regional road network, across any of the horizon years, for all zones. Based on the information provided, the existing infrastructure should be able to accommodate the proposed site conversions. However, to fully capture the impact of the proposed population and employment increases, a more detailed transportation analysis should be conducted. Further analysis would provide additional insight on the operational level impacts, as well as nearby intersection operations.

Both the Caledon and Burnhamthorpe zones are located along primary truck routes. Argentia Road (Lisgar zone) is not identified as a designated truck route in the Region’s 2017 Goods Movement Strategic Plan (GMSP). However, as there are industrial lands west of this zone, trucks tend to travel along Argentia Road to access Highway 401 via Winston Churchill Boulevard. Since Argentia Road is considered an important connection for these truck generating businesses, it should be assessed for potential as a connector truck route, either through an updated GMSP or future studies. Careful consideration should be made when proposing community zones along designated truck routes, including mitigation measures to minimize negative impacts on the community.