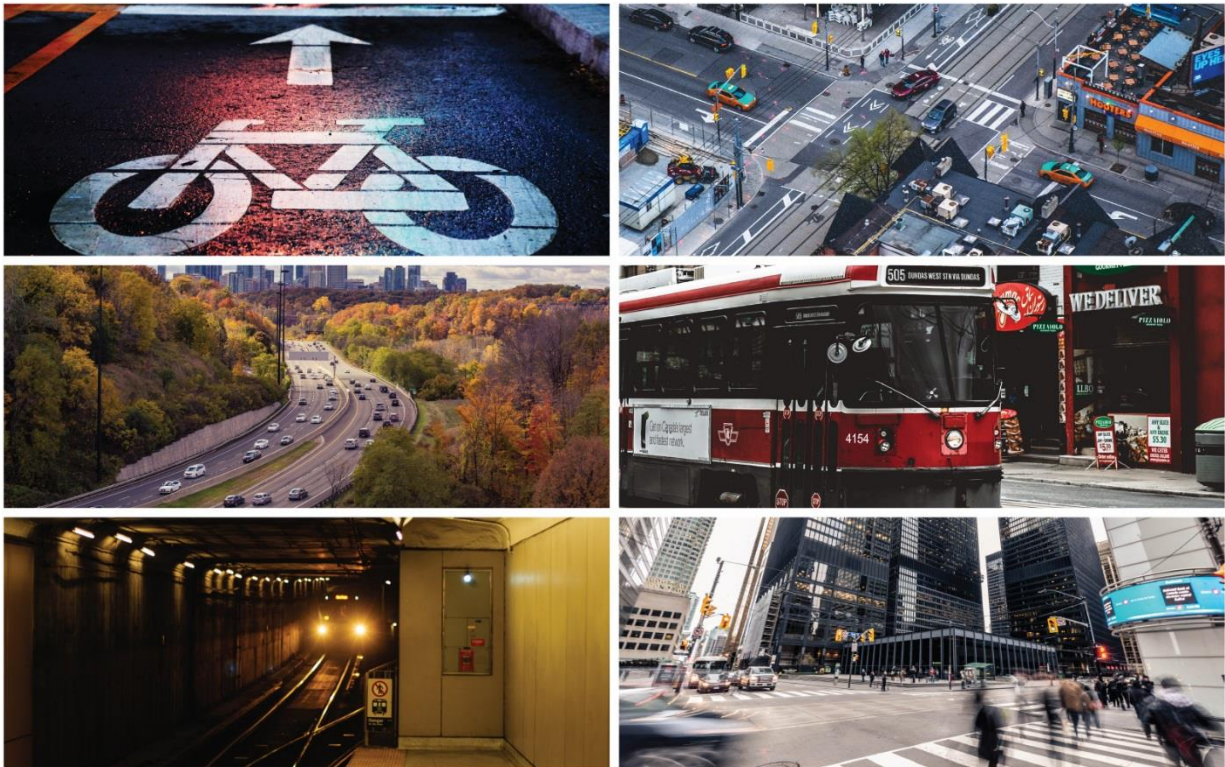


AIRFIELD DEVELOPMENTS INC. & AIRFIELD II DEVELOPMENTS INC.

6034 MAYFIELD ROAD

TRANSPORTATION IMPACT STUDY AND DEMAND MANAGEMENT PLAN

JULY 29, 2021





6034 MAYFIELD ROAD TRANSPORTATION IMPACT STUDY AND DEMAND MANAGEMENT PLAN

**AIRFIELD DEVELOPMENTS INC. & AIRFIELD II
DEVELOPMENTS INC.**

**PROJECT NO.: XXX
DATE: JULY 2021**

**WSP
100 COMMERCE VALLEY DRIVE WEST
THORNHILL, ON, CANADA L3T 0A1**

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THORNHILL, ON, CANADA L3T 0A1

wsp.com

July 29, 2021

AIRFIELD DEVELOPMENTS INC. & AIRFIELD II DEVELOPMENTS INC.
c/o Lilly Wu
Senior Development Manager
SmartCentres REIT
3200 Highway 7
Vaughan, ON L4K 5Z5

Dear Ms. Wu:

**Subject: Transportation Impact Study and Demand Management Plan
6034 Mayfield Road
Town of Caledon**

WSP Canada Inc. is pleased to submit this Transportation Impact Study (TIS) with respect to the subject site located on the northeast quadrant of the intersection of Airport Road and Mayfield Road, in the Town of Caledon.

The subject site is expected to generate 142 and 109 total trips during the weekday a.m. and p.m. peak hours, respectively. Our analysis indicates that the auto traffic generated by the subject site can be accommodated by the boundary roadway intersections.

We thank you for the opportunity to complete this Transportation Impact Study. We would be pleased to respond to any questions should they arise.

Yours sincerely,

Ismet Medic, BASc
Senior Project Manager
Transportation Planning
and Science

Jason Small, EIT
Jr. Transportation Planner
Transportation Planning
and Science

Binuji Liyanage
Transportation Planning Intern
Transportation Planning
and Science

WSP ref.: XXX



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C	EXISTING INTERSECTION OPERATIONS
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E	2031 FUTURE BACKGROUND INTERSECTION OPERATIONS
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1 INTRODUCTION

WSP was retained by Airfield Developments Inc. and Airfield II Developments Inc. to undertake a Transportation Impact Study (TIS) for the proposed development located at the northeast quadrant of the intersection of Airport Road & Mayfield Road in the Town of Caledon. **Figure 1.1** illustrates the site location and context.

The development proposal will consist of two industrial buildings with a combined gross floor area (GFA) of 44,535 m².

The development will have three vehicular driveways onto Airport Road and Mayfield Road, one of which will be a full-moves access.

Figure 1.2 illustrates the proposed site plan.



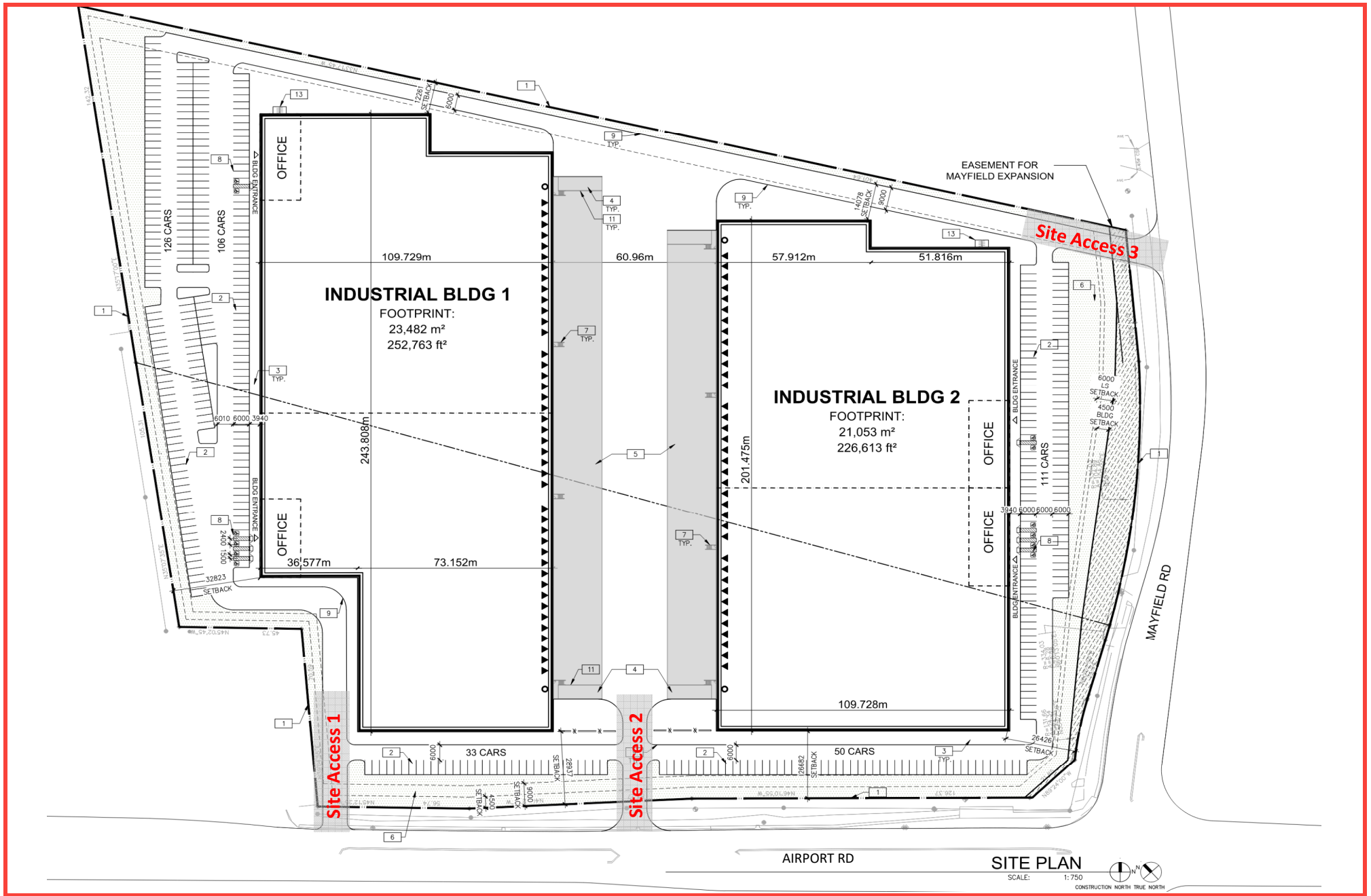


Figure 1.2
Proposed
Site Plan

2 EXISTING TRANSPORTATION CONDITIONS

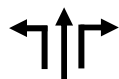
2.1 BOUNDARY ROADWAYS

The following boundary roadways are within the vicinity of the subject site.

Airport Road is a north-south high capacity arterial roadway under the jurisdiction of the Regional Municipality of Peel. Within the study area, it has a four-lane cross section, with exclusive right and left turn lanes at the intersection with Mayfield Road. It has a posted speed limit of 60 km/h in the vicinity of the site.

Mayfield Road is an east-west high capacity arterial roadway under the jurisdiction of the Regional Municipality of Peel. Within the study area, it has a six-lane cross section west of Airport Road and a two-lane cross section east of Airport Road. It has exclusive right and left turn lanes at the intersection with Airport Road. Mayfield Road has a posted speed limit of 50 km/h west of Airport Road and 60 km/h east of Airport Road.

Based on the extent of the development, the intersection of Airport Road & Mayfield Road as well as all proposed site accesses have been included in the study. The existing lane configurations are shown in **Figure 2.1**.



Turning
Movement



Legend

Signalized
Intersection



Stop-Controlled
Approach

Figure 2.1
Existing
Lane Configurations

2.2 TRAFFIC DATA

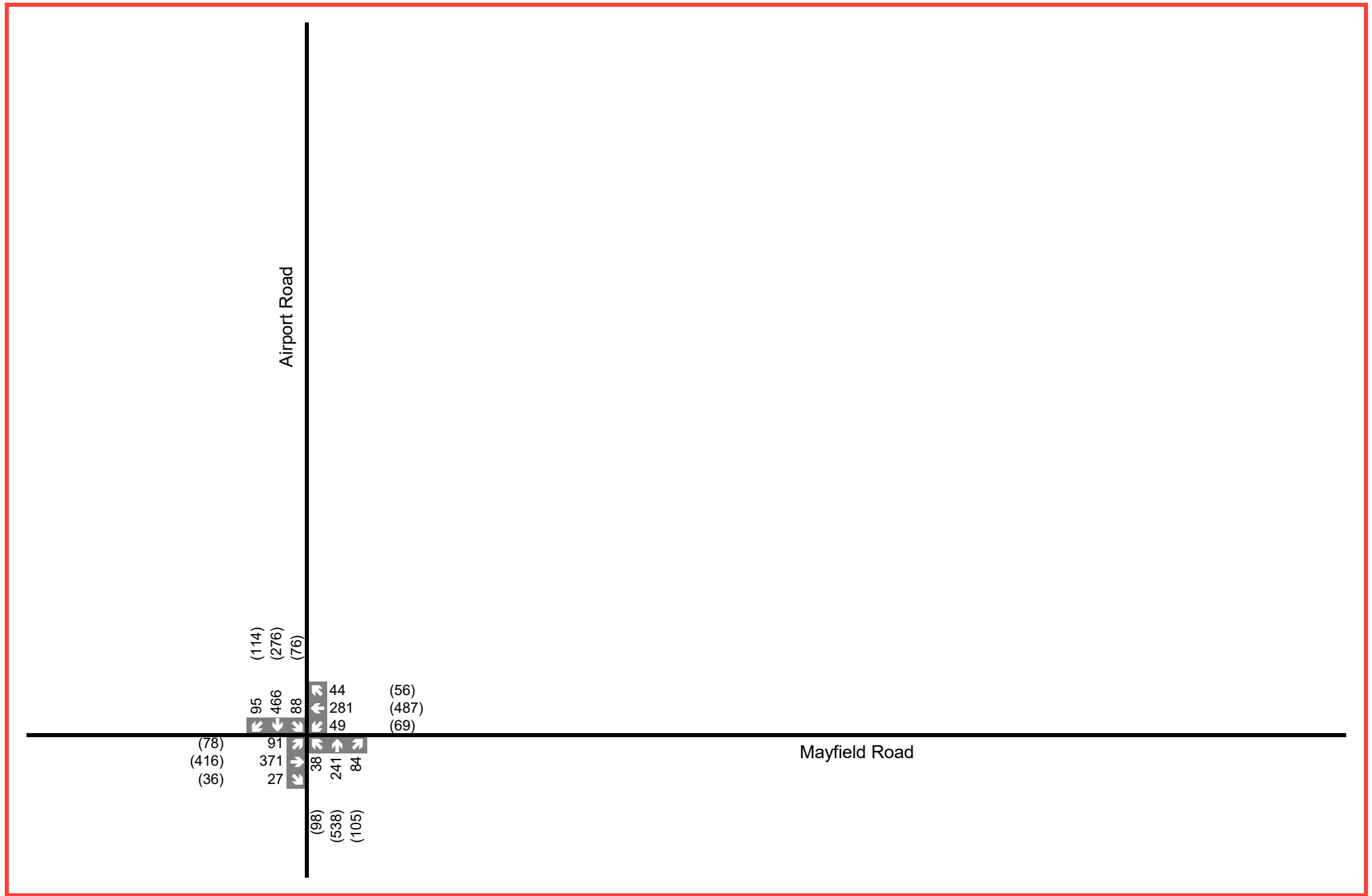
Due to the ongoing COVID-19 pandemic, no new traffic counts were conducted as part of this study. The current traffic conditions would be atypical with people working from home, virtual learning, and public health directives in place influencing travel patterns. Instead, the most recent historical traffic data from the intersection has been reviewed and found to be appropriate for use in this study.

The date and source of the turning movement count (TMC) used in this study are summarized in **Table 2.1** below. Traffic data for weekday a.m. and p.m. peak periods was evaluated. The details of the TMC are provided in **Appendix A**. The signal timing plan for the intersection was obtained from the Region of Peel and is provided in **Appendix A**.

Table 2.1: Traffic Data Information

Intersection	Date	Source
Airport Road & Mayfield Road	January 9, 2019	Spectrum Traffic Data Inc.

Given the recency of the TMC, it has been considered to adequately represent existing traffic conditions without the need for any adjustments. The existing volumes are illustrated in **Figure 2.2**.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 2.2
Existing Traffic Volumes

2.3 EXISTING INTERSECTION OPERATIONS

2.3.1 TRAFFIC ANALYSIS METHODOLOGY

To analyze the existing traffic conditions in the study area, capacity analyses were undertaken using the Synchro 11 traffic analysis software. This software incorporates the methodology outlined in the Highway Capacity Manual (HCM), Transportation Research Board, 2000 and 2010. An intersection capacity analysis provides an indication of traffic operations based on calculations of volume-to-capacity (v/c) and delays for individual movements at an intersection. Level of Service (LOS) denoted by letters 'A' through 'D', represent satisfactory traffic operations. LOS denoted by the letters 'E' and 'F' represent congested traffic operations. The Level of Service definitions for signalized and unsignalized intersections are included in **Appendix B**.

2.3.2 INPUTS AND PARAMETERS

For the same reasons why new traffic counts cannot be conducted due to COVID-19, calibration surveys are not appropriate. The following evaluation parameters have been applied based on the industry best practice and the Peel's Regional Guidelines for Using Synchro 7.0 dated December 2010. All of these evaluation parameters are maintained from existing to future evaluations to allow for "Apples to Apples" comparisons.

PEAK HOUR FACTORS

The intersection-based peak hour factors (PHF) for the study intersections were calculated based on the 15-minute counts and applied in order to reflect the traffic peaking patterns of the study intersections. For the evaluation of the proposed driveway intersections, the default PHF of 0.92 was adopted.

BUS BLOCKAGES & HEAVY VEHICLE PERCENTAGES

No bus blockages were inputted for the approaches at the intersection as there are no near-side bus stops. The existing heavy vehicle percentages at each of the study intersections were inputted based on the observed heavy vehicle proportions for each movement and maintained for future evaluations. For the site access movements, heavy vehicle percentages were calculated based on the generated peak hour truck trips (see **Section 4.2**).

SATURATION FLOW RATE

The default saturation flow rate of 1,900 vphpl from Synchro has been applied as per the Regional Guidelines.

LOST TIME ADJUSTMENTS

The default lost time adjustment of 0.0 seconds from Synchro has been applied as per the Regional Guidelines.

LANE WIDTHS

In accordance with Regional Guidelines, lane widths of 3.7 metres for through lanes and 3.5 metres for exclusive turning lanes have been applied.

2.3.3 INTERSECTION CAPACITY ANALYSIS

Traffic operations were analyzed at the study intersections based on the existing volumes presented in Figure 2.2 to determine the existing intersection operations during the weekday a.m. and p.m. peak hours. **Table 2.2** outlines the existing LOS, and detailed Synchro work sheets are provided in **Appendix C**.

Table 2.2: Existing Intersection Operations

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	LOS (Delay in Seconds)	Volume/ Capacity Ratio	LOS (Delay in Seconds)	Volume/ Capacity Ratio
Signalized Intersections				
Airport Road & Mayfield Road	C (29)	-	D (39)	-

1 For signalized intersections, the level of service is based on the overall delay of the intersection. Critical v/c ratios are only listed for movements with values over 0.90.

As indicated in **Table 2.2**, the study intersection is operating at an acceptable LOS 'D' or better during the weekday a.m. and p.m. peak hours. All movements are operating well within capacity.

2.3.4 QUEUING ANALYSIS

The projected queues at exclusive left-turn and right-turn lanes under existing conditions are listed in **Table 2.3**. The detailed Synchro queuing reports are provided in **Appendix C**.

The 50th percentile queue length represents the median queue reach, meaning that half of the queues that occur within a peak hour will be of this length or less. The 95th percentile queue length reach provides the queue length that would only be exceeded five percent of the time. The 95th percentile queue represents the worst-case scenario and are used as an indicator to determine where further examination of storage length is required.

Table 2.3: Existing Intersection Queue Lengths

Intersections	Lane	Storage Length (m)	95 th Percentile Queue (m) [50 th Percentile Queue (m)]	
			AM Peak Hour	PM Peak Hour
Airport Road & Mayfield Road	EBL	57	24	18
	EBR	55	1	3
	WBL	32	21	24
	WBR	65	2	5
	NBL	94	12	32
	NBR	60	12	15
	SBL	109	25	26
	SBR	100	13	15

1 50th percentile queues are only shown if the 95th percentile queue exceeds its available storage length.

As shown above, all of the existing 95th percentile queues are contained within their available storage lengths.

2.4 PUBLIC TRANSIT

The subject site is situated in an area served by Brampton Transit, which operates the following local bus service:

Route 30 – Airport Road operates along Airport Road from Davis Lane in Caledon to Westwood Mall Terminal in Mississauga.

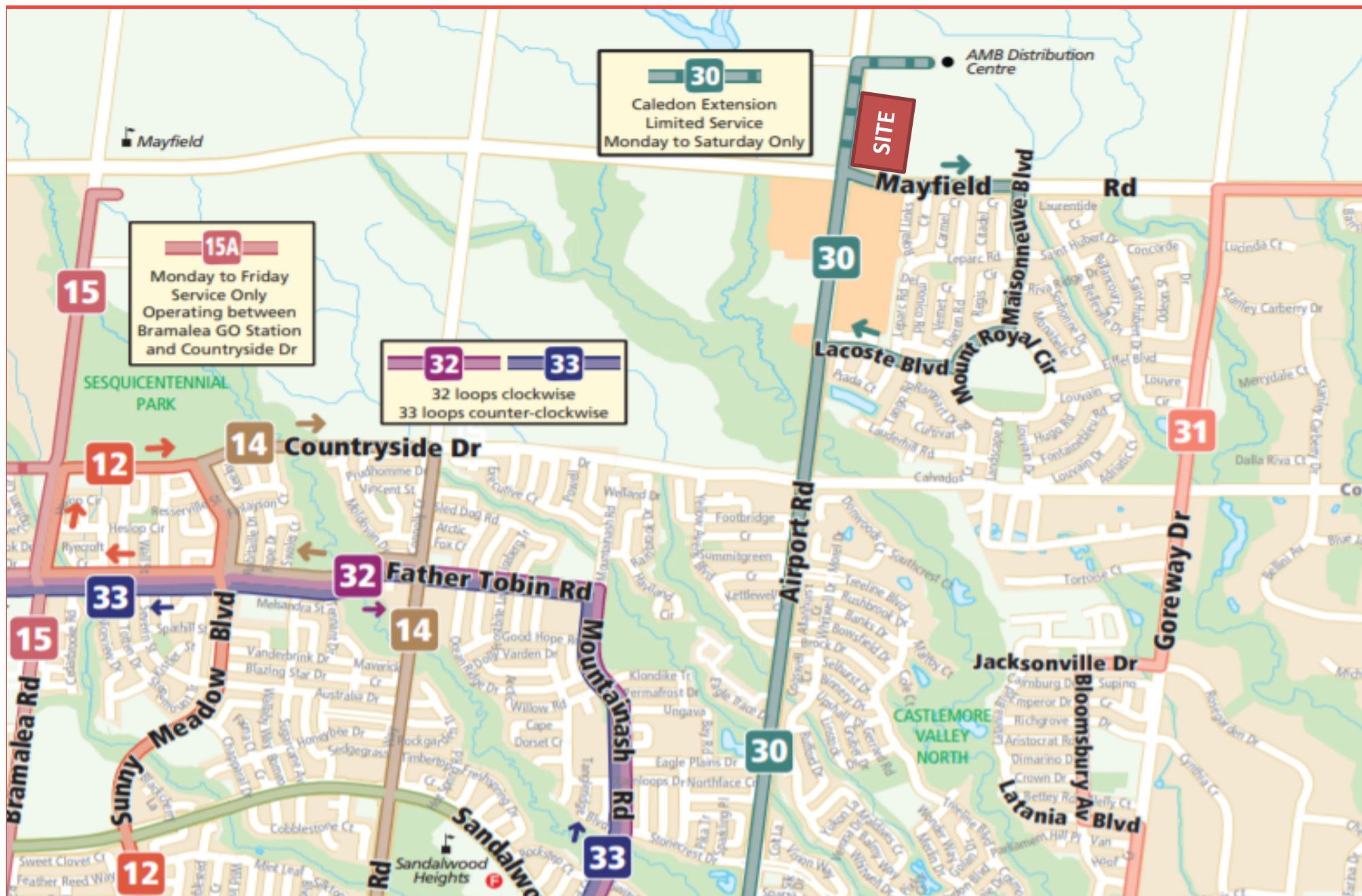
Table 2.4 summarizes the above-noted transit route in operation, along with its approximate headways throughout the service period. **Figure 2.3** illustrates the transit service within the study area.

Table 2.4: Existing Transit Services within the Study Area

Route	Transit Service Operating Headway				
	A.M. Peak	Weekday Midday	P.M. Peak	Weekday Evening	Saturday Midday
Route 30 – Airport Road	10 minutes	10-20 minutes	10 minutes	10 minutes	30 minutes

2.5 ACTIVE TRANSPORTATION INFRASTRUCTURE

Sidewalks or multi-use pathways are provided on both sides of Airport Road and along the south side of Mayfield Road west of Airport Road. No exclusive cycling facilities are located within the study area.



Source: Brampton Transit



Figure 2.3
Existing
Transit Services

3 FUTURE BACKGROUND TRAFFIC CONDITIONS

3.1 TIME FRAME

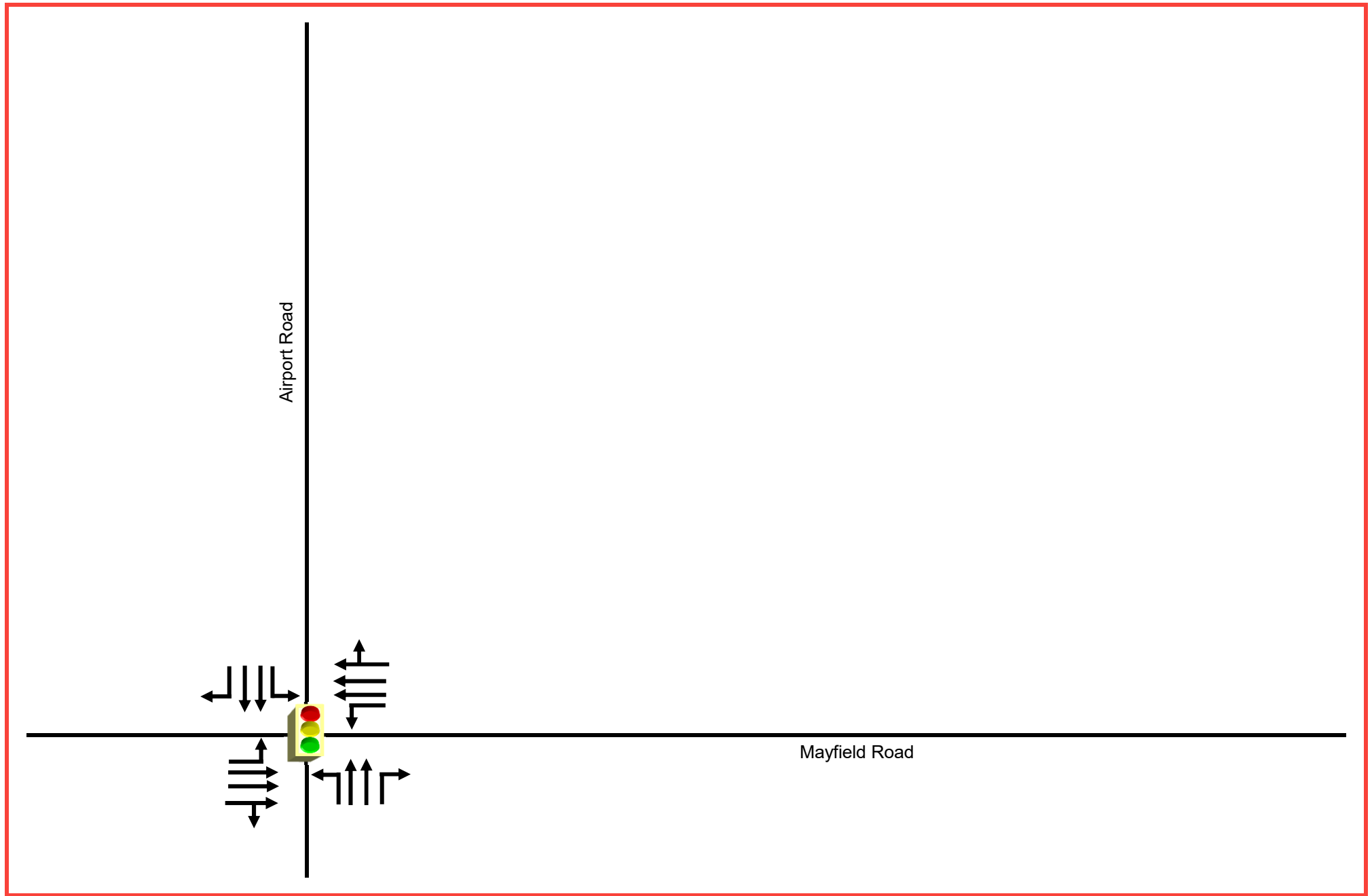
The subject development is expected to be built within five years. As such, horizon years of 2026 (full build-out) and 2031 (five years post build-out) will be assessed.

3.2 PLANNED TRANSPORTATION NETWORK IMPROVEMENTS

Based on the Region of Peel's 2019 Long Range Transportation Plan and 2021 Capital Program, Mayfield Road is expected to be widened east of Airport Road from two to six lanes in 2023. This will complement the recently completed widening west of Airport Road.

WSP is not aware of any changes or improvements to transit services, sidewalks, or cycling facilities in the area that are planned to be implemented by 2031. Therefore, future transit and active transportation network conditions are assumed to remain the same as existing conditions.

Figure 3.1 illustrates the lane configurations analyzed under future background conditions.



Turning
Movement



Legend

Signalized
Intersection



Stop-Controlled
Approach

Figure 3.1
Future Background
Lane Configurations

3.3 BACKGROUND CORRIDOR TRAFFIC GROWTH

The general growth rates applicable to the study area road network were determined using a historical turning movement count (included in **Appendix A**) that was conducted at the intersection of Airport Road & Mayfield Road in 2013. Based on a volume comparison between this count and the count used to analyze existing conditions, annual growth rates were calculated for each approach direction during each peak hour, as shown in **Table 3.1**.

Table 3.1: Corridor Growth Rates

Direction	A.M. Peak Hour	P.M. Peak Hour
Northbound	3.3 %	1.3 %
Southbound	-3.8 %	4.9 %
Eastbound	-6.9 %	-5.1 %
Westbound	-8.0 %	-2.4 %

Based on the above review, the growth rates that were found to be positive were applied to the applicable movements at the intersection for both of the horizon years. As a conservative measure, no negative growth rates were applied. The resulting grown traffic volumes are shown in **Figures 3.2 and 3.3** for the 2026 and 2031 horizon years, respectively.

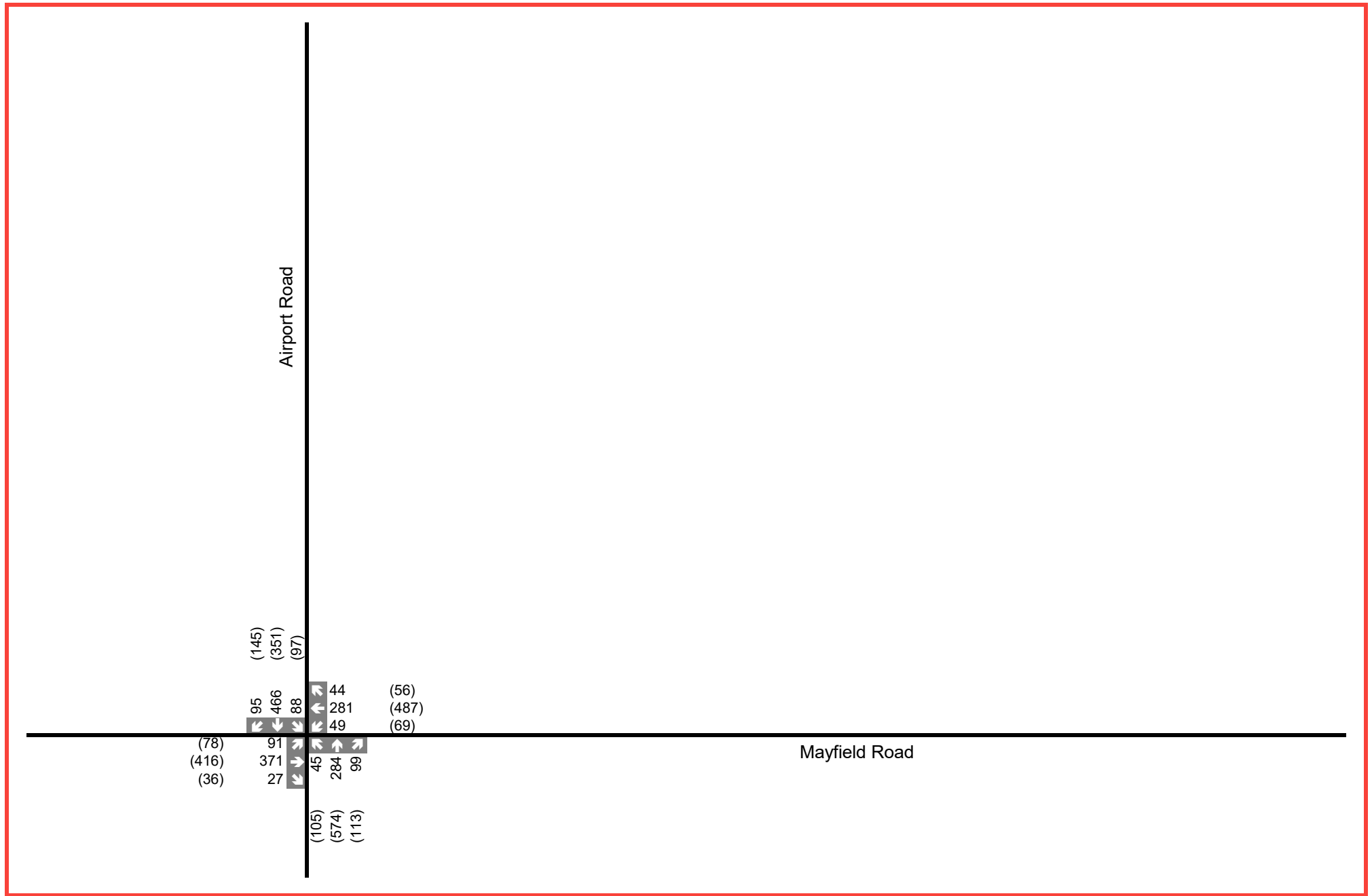
3.4 BACKGROUND DEVELOPMENTS

In addition to the general growth noted in Section 3.3, traffic generated by background developments has also been considered. Two background developments were identified within the study vicinity and have been included in this study. **Table 3.2** details the background developments.

Table 3.2: Background Development Information

Location	Development Statistics	Source
5603 Mayfield Road & 11825 Torbram Road	856.5-1101.5 residential units; 1.463 hectares of retail and mixed-use components; part of 2 schools	Stringham East Plan, Letter Report, September 2019, Cole Engineering
Southeast of Mayfield Road and Airport Road	14 commercial buildings with a GFA of 20,257 m ²	Proposed Commercial Development, Minuk Contracting Company Ltd., Traffic Impact and Parking Study, December 2019, Candevcon

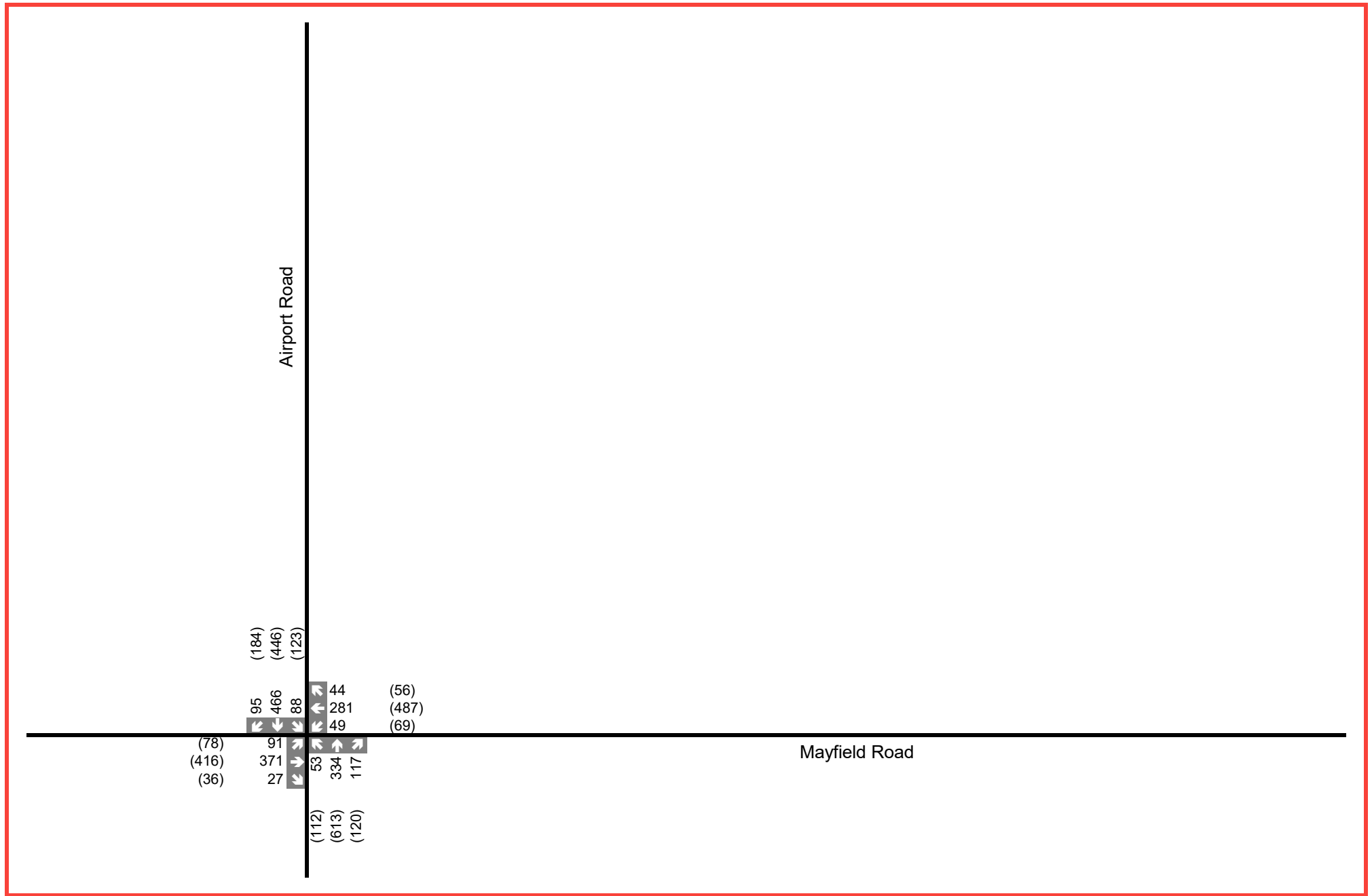
The traffic related to the background developments in Table 3.2 were extracted from their respective studies. It is assumed that all background developments will be built and occupied by the 2026 horizon. **Figure 3.4** illustrates the traffic generated by the background developments. Though the Stringham East Plan TIS did not share any intersections with the study area, it was assumed all site traffic generated along Mayfield Road would travel east along the corridor past the current site access. All site traffic generated along Airport Road was also assumed to travel north past the current site accesses.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

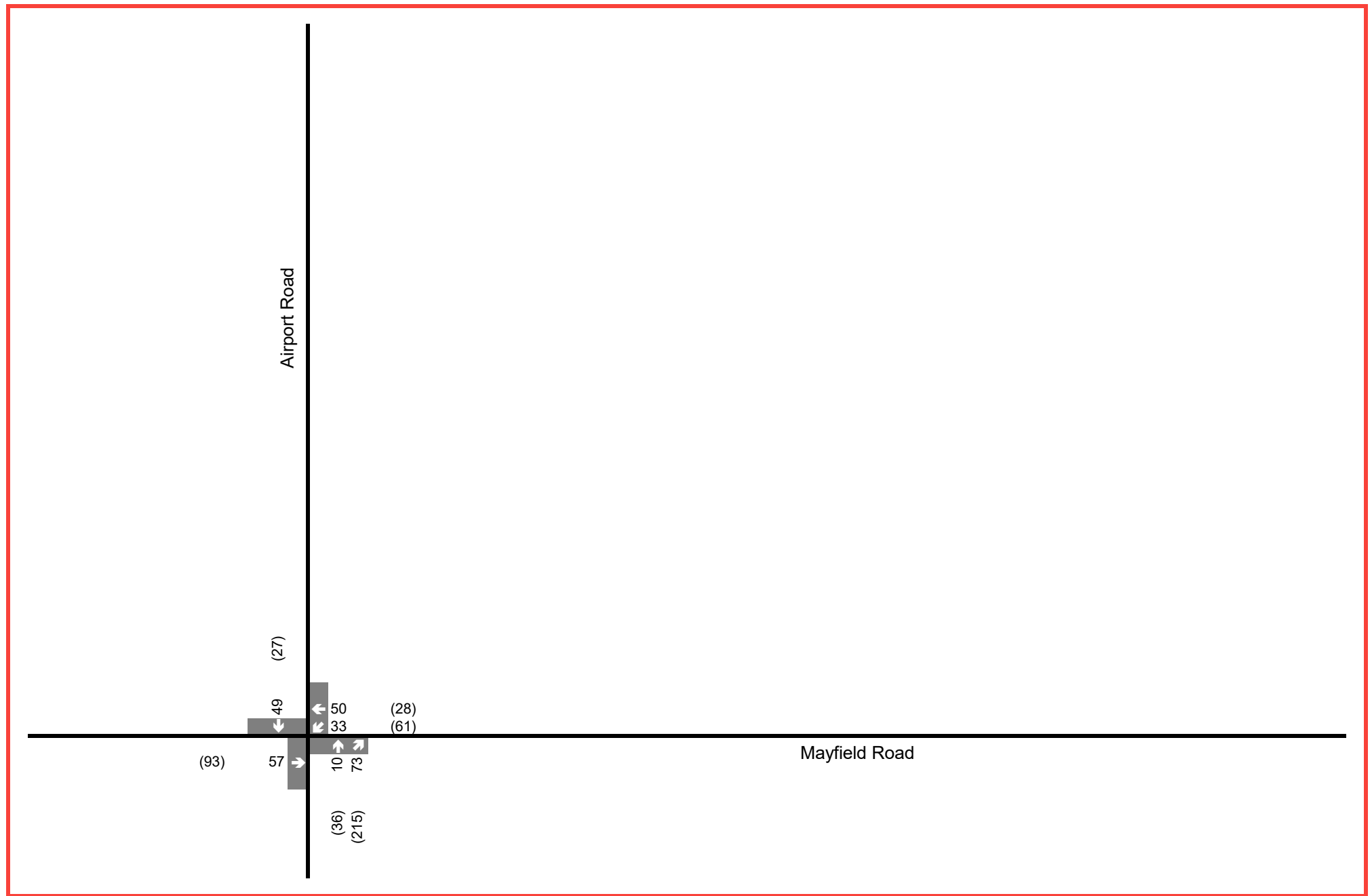
Figure 3.2
2026 Grown
Traffic Volumes



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 3.3
2031 Grown
Traffic Volumes



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 3.4
Background Development
Traffic Volumes

3.5 2026 FUTURE BACKGROUND TRAFFIC OPERATIONS

3.5.1 INTERSECTION CAPACITY ANALYSIS

The 2026 future background traffic volumes were derived by superimposing the background development traffic volumes in Figure 3.4 onto the grown traffic volumes in Figure 3.2. The resulting future background volumes are shown in **Figure 3.5**, which are the basis of the 2026 future background intersection evaluation.

The resulting levels of service are outlined in **Table 3.3** with the details related to the intersection operations provided in **Appendix D**. The signal timings remain as under existing conditions.

Table 3.3: 2026 Future Background Intersection Operations

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	LOS (Delay in Seconds)	Volume/ Capacity Ratio	LOS (Delay in Seconds)	Volume/ Capacity Ratio
Signalized Intersections				
Airport Road & Mayfield Road	C (30)	-	C (32)	-

1 For signalized intersections, the level of service is based on the overall delay of the intersection. Critical v/c ratios are only listed for movements with values over 0.90.

During 2026 future background conditions, the study intersection is projected to operate at an acceptable LOS 'C' during the weekday a.m. and p.m. peak hours. This represents a minimal increase in delays compared to existing conditions during the a.m. peak hour and a decrease in delays compared to existing conditions during the p.m. peak hour. All movements continue to operate well within capacity.

3.5.2 QUEUING ANALYSIS

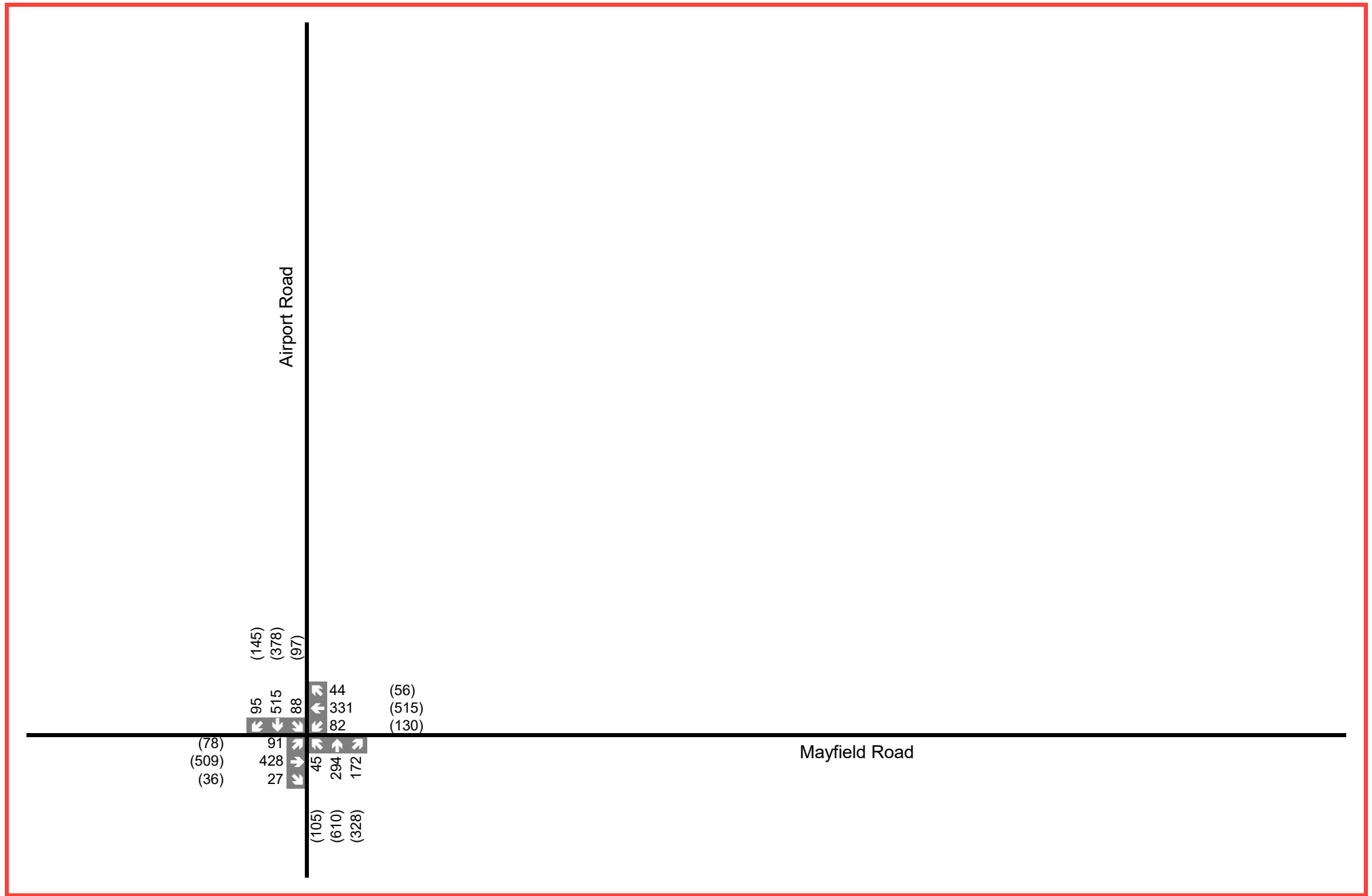
The projected queues at exclusive left-turn and right-turn lanes under 2026 future background conditions are listed in **Table 3.4**. The detailed Synchro queuing reports are provided in **Appendix D**.

Table 3.4: 2026 Future Background Intersection Queue Lengths

Intersections	Lane	Storage Length (m)	95 th Percentile Queue (m) [50 th Percentile Queue (m)]	
			AM Peak Hour	PM Peak Hour
Airport Road & Mayfield Road	EBL	57	27	21
	WBL	32	38 [23]	55 [35]
	NBL	94	13	30
	NBR	60	16	34
	SBL	109	23	28
	SBR	100	12	16

1 50th percentile queues are only shown if the 95th percentile queue exceeds its available storage length.

As shown above, all of the 95th percentile queues are contained within their available storage lengths with the exception of the westbound left-turn lane at Airport Road & Mayfield Road. However, this analysis was conducted under the assumption that all storage lengths would remain the same as under existing conditions. Since the westbound approach is to be reconfigured as part of the planned widening of Mayfield Road, the opportunity exists for the Region to increase the storage length of the westbound left-turn lane. As such, it is recommended that the storage length be increased to accommodate these expected queues.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 3.5
2026 Future Background
Traffic Volumes

3.6 2031 FUTURE BACKGROUND TRAFFIC OPERATIONS

3.6.1 INTERSECTION CAPACITY ANALYSIS

The 2031 future background traffic volumes were derived by superimposing the background development traffic volumes in Figure 3.4 onto the grown traffic volumes in Figure 3.3. The resulting future background volumes are shown in **Figure 3.6**, which are the basis of the 2031 future background intersection evaluation.

The resulting levels of service are outlined in **Table 3.5** with the details related to the intersection operations provided in **Appendix E**. The signal timings remain as under existing conditions.

Table 3.5: 2031 Future Background Intersection Operations

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	LOS (Delay in Seconds)	Volume/ Capacity Ratio	LOS (Delay in Seconds)	Volume/ Capacity Ratio
Signalized Intersections				
Airport Road & Mayfield Road	C (29)	-	C (32)	-

1 For signalized intersections, the level of service is based on the overall delay of the intersection. Critical v/c ratios are only listed for movements with values over 0.90.

During 2031 future background conditions, the study intersection is projected to operate at an acceptable LOS 'C' during the weekday a.m. and p.m. peak hours. This represents a minimal decrease in delays compared to 2026 future background conditions during the a.m. peak hour and no change in delays compared to 2026 future background conditions during the p.m. peak hour. All movements continue to operate well within capacity.

3.6.2 QUEUING ANALYSIS

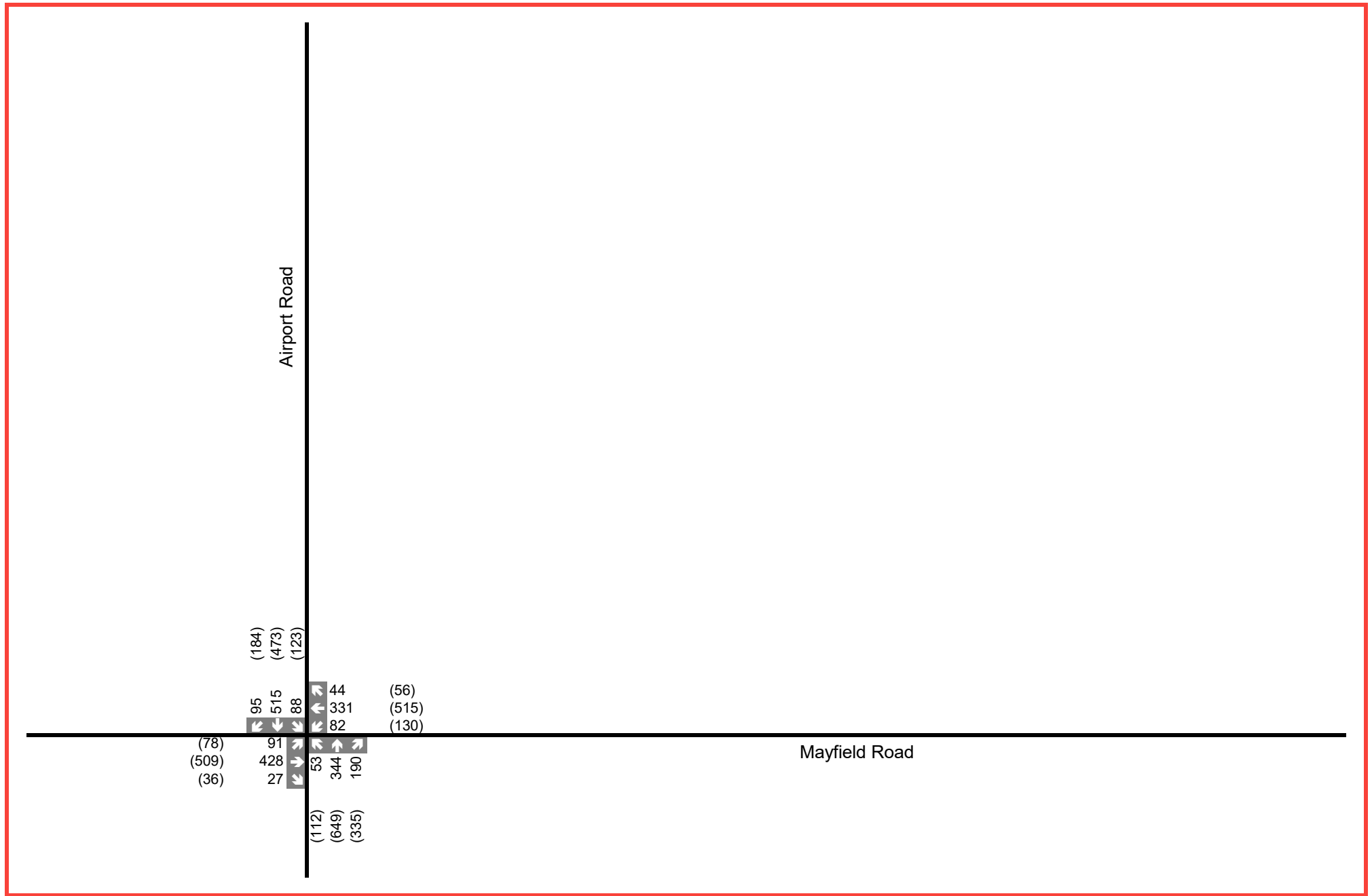
The projected queues at exclusive left-turn and right-turn lanes under 2031 future background conditions are listed in **Table 3.6**. The detailed Synchro queuing reports are provided in **Appendix E**.

Table 3.6: 2031 Future Background Intersection Queue Lengths

Intersections	Lane	Storage Length (m)	95 th Percentile Queue (m) [50 th Percentile Queue (m)]	
			AM Peak Hour	PM Peak Hour
Airport Road & Mayfield Road	EBL	57	27	21
	WBL	32	38 [23]	55 [35]
	NBL	94	15	31
	NBR	60	17	42
	SBL	109	23	35
	SBR	100	12	19

1 50th percentile queues are only shown if the 95th percentile queue exceeds its available storage length.

As shown above, all of the 95th percentile queues continue to be contained within their available storage lengths with the continuing exception of the westbound left-turn at Airport Road & Mayfield Road, whose queues remain similar to those under 2026 future background conditions.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

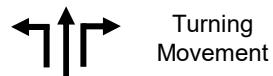
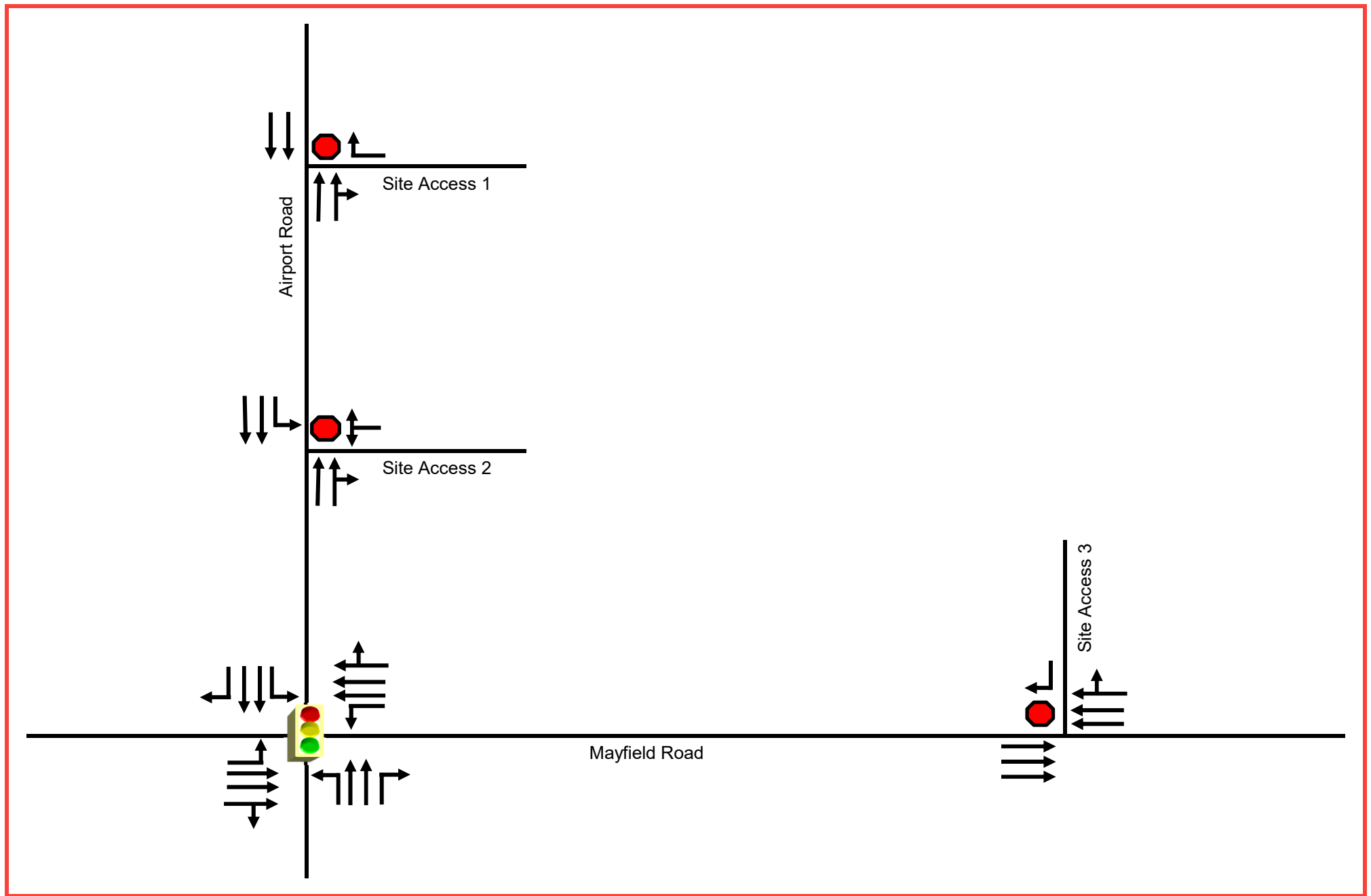
Figure 3.6
2031 Future Background Traffic Volumes

4 SITE-GENERATED TRAFFIC

4.1 SITE ACCESSSES

At full buildout, the proposed development will feature three vehicular driveways connecting to Airport Road and Mayfield Road as illustrated in the site plan (Figure 1.2). Site accesses 1 and 3 will operate as right-in/right-out access while site access 2 will operate with full-moves. For site access 2, WSP is proposing a southbound left-turn auxiliary lane with, in accordance with Transportation Association of Canada guidelines, a storage length of 77 metres and a taper of 60 metres. All three site accesses are proposed to be stop-controlled.

The lane configurations under future total conditions are illustrated in **Figure 4.1**.



Turning
Movement



Legend

Signalized
Intersection



Stop-Controlled
Approach

Figure 4.1
Future Total
Lane Configurations

4.2 TRIP GENERATION

The trips generated by the proposed development during the weekday a.m. and p.m. peak hours were estimated using the trip generation equations outlined in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. As both warehouse and general industrial uses are currently being contemplated for the development, trip generation estimates using the ITE Land Use Codes 150 (Warehousing) and 110 (General Light Industrial) are compared in **Table 4.1**. Since, as shown in the table, general industrial uses are expected to generate a greater number of peak hour trips, the trip generation estimate for this use was conservatively adopted for this study.

It should be noted that these equations include both vehicle and truck trips to the development; truck trips were assumed to account for 13% of total peak hour trips based on truck trip generation information available from the ITE.

Based on Transportation Tomorrow Survey (TTS) 2016 data for employment trips to/from zones 3014, 3015, 3441, and 3442, it was determined that there was very minimal use of non-auto modes of travel. As such, no mode share adjustments were applied to the ITE-derived trips.

Table 4.1: Site Generated Trips

ITE Land Use (Code)		Weekday A.M. Peak Hour			Weekday P.M. Peak Hour		
		In	Out	Total	In	Out	Total
Warehousing (150)	Equation ($X=1000 \text{ ft}^2$)	$T = 0.12 X + 25.32$			$T = 0.12 X + 27.82$		
	Directional Splits	77%	23%	100%	27%	73%	100%
	Trips (479,375 ft^2)	64	19	83	23	62	85
General Light Industrial (110)	Equation ($X=1000 \text{ ft}^2$)	$\ln(T) = 0.74 \ln(X) + 0.39$			$\ln(T) = 0.69 \ln(X) + 0.43$		
	Directional Splits	88%	12%	100%	13%	87%	100%
	Trips (479,375 ft^2)	125	17	142	14	95	109
	Vehicle Trips (87%)	109	15	124	12	83	95
	Truck Trips (13%)	16	2	18	2	12	14

As presented above, the proposed development is forecasted to generate **142 and 109 total trips** during the a.m. and p.m. peak hours, respectively.

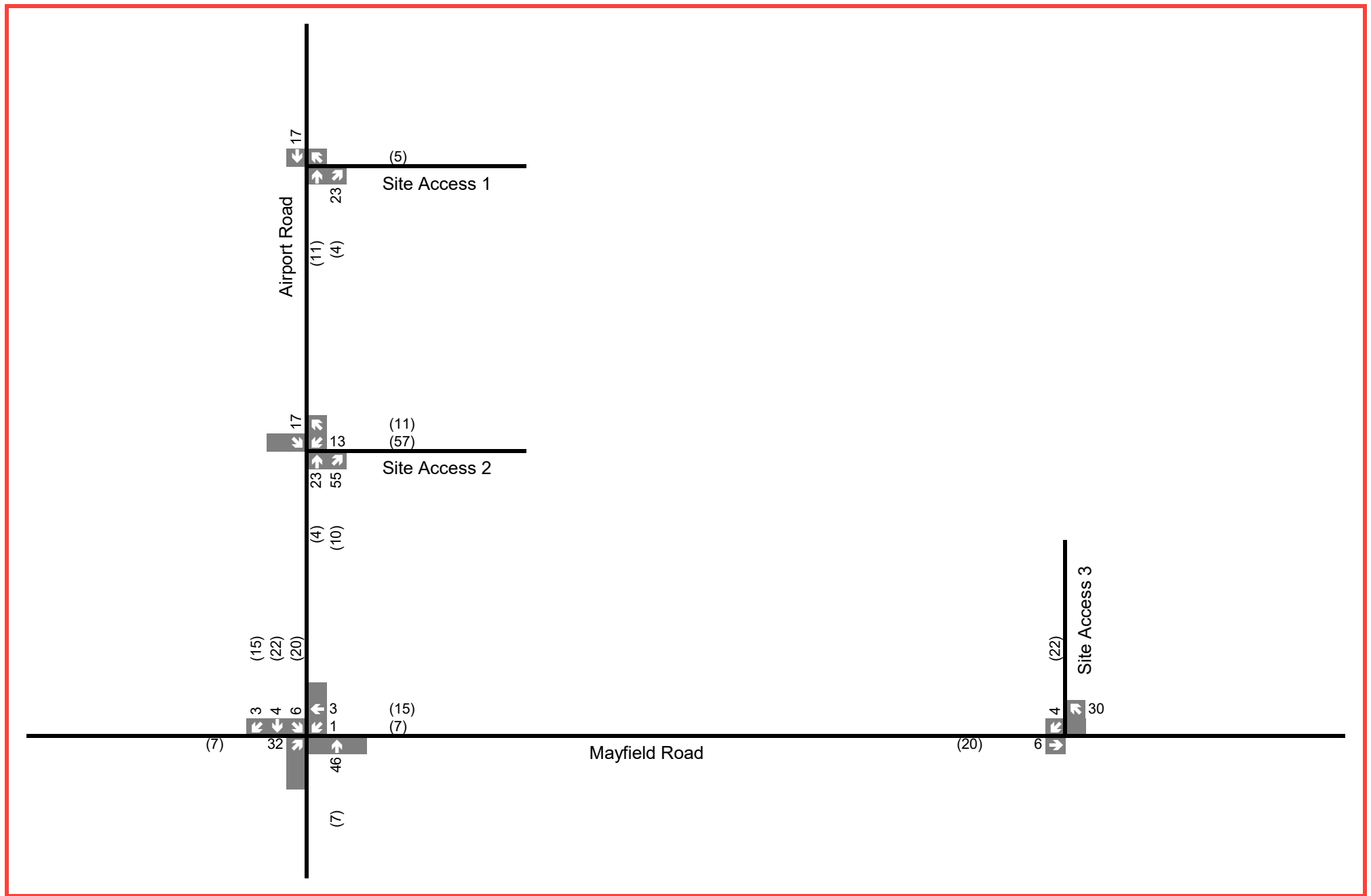
4.3 TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment of the site-generated trips was derived from the TTS data and assigned to the gateways based on local road network and land use considerations. The overall trip distribution is shown in **Table 4.2**.

Table 4.2: Trip Distribution

Gateway Direction	AM Inbound	AM Outbound	PM Inbound	PM Outbound
North	14%	0%	0%	17%
West	26%	34%	50%	31%
South	37%	34%	50%	31%
East	24%	32%	0%	20%

Figure 4.2 illustrates the resulting site traffic volumes for future horizon years.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 4.2
Site Generated Traffic Volumes

5 FUTURE TOTAL TRAFFIC CONDITIONS

5.1 BASIS OF ASSESSMENT

The future total traffic volumes for the horizon years evaluated were developed by aggregating the site-generated traffic volumes illustrated in Figure 4.2 onto the respective future background traffic volumes shown in Figures 3.6 and 3.7. The total future intersection operations were assessed based on these volumes and with signal timings maintained as in existing conditions.

5.2 2026 FUTURE TOTAL INTERSECTION OPERATIONS

5.2.1 INTERSECTION CAPACITY ANALYSIS

The resulting 2026 future total traffic volumes are illustrated in **Figure 5.1**. The resulting levels of service are outlined in **Table 5.1**. Detailed Synchro worksheets are available in **Appendix F**.

Table 5.1: 2026 Future Total Intersection Operations

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	LOS (Delay in Seconds)	Volume/ Capacity Ratio	LOS (Delay in Seconds)	Volume/ Capacity Ratio
Signalized Intersections				
Airport Road & Mayfield Road	C (30)	-	C (32)	-
Unsignalized Intersections				
Airport Road & Site Access 1	A (0.0)	WB-R (0.00)	A (9)	WB-R (0.01)
Airport Road & Site Access 2	C (19)	WB-LR (0.05)	C (24)	WB-LR (0.28)
Mayfield Road & Site Access 3	A (10)	SB-R (0.01)	B (10)	SB-R (0.03)

1 For signalized intersections, the level of service is based on the overall delay of the intersection. Critical v/c ratios are only listed for movements with values over 0.90.

2 For unsignalized intersections, the level of service is based on the critical movement, which is the movement with the highest delay.

During 2026 future total conditions, the signalized intersection of Airport Road & Mayfield Road is projected to operate at an acceptable LOS 'C' during the weekday a.m. and p.m. peak hours. This represents virtually no change in delays compared to 2026 future background conditions. All movements continue to operate well within capacity.

The site access intersections are all projected to operate at an acceptable LOS 'C' or better during the weekday a.m. and p.m. peak hours. All movements are expected to operate well within capacity.

5.2.2 QUEUING ANALYSIS

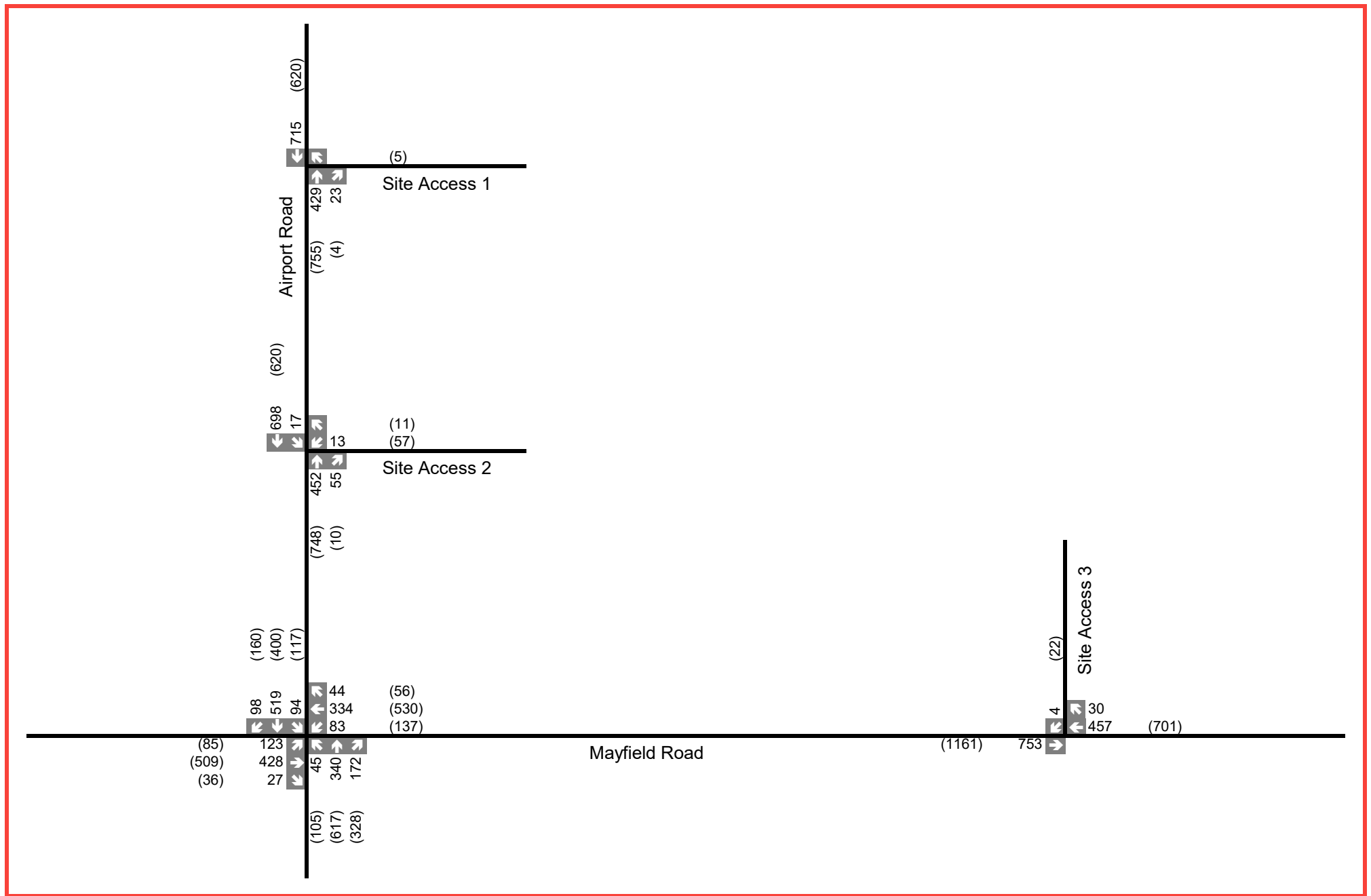
The projected queues at exclusive left-turn and right-turn lanes under 2026 future total conditions are listed in **Table 5.2**. The detailed Synchro queuing reports are provided in **Appendix F**.

Table 5.2: 2026 Future Total Intersection Queue Lengths

Intersections	Lane	Storage Length (m)	95 th Percentile Queue (m) [50 th Percentile Queue (m)]	
			AM Peak Hour	PM Peak Hour
Airport Road & Mayfield Road	EBL	57	34	22
	WBL	32	38 [23]	57 [37]
	NBL	94	14	31
	NBR	60	17	37
	SBL	109	25	34
	SBR	100	12	18
Airport Road & Site Access 2	SBL	77	0.4	0.0

1 50th percentile queues are only shown if the 95th percentile queue exceeds its available storage length.

As shown above, all of the 95th percentile queues continue to be contained within their available storage lengths with the continuing exception of the westbound left-turn at Airport Road & Mayfield Road, whose queues remain similar to those under 2026 future background conditions.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 5.1
2026 Total Future
Traffic Volumes

5.3 2031 FUTURE TOTAL INTERSECTION OPERATIONS

5.3.1 INTERSECTION CAPACITY ANALYSIS

The 2031 future total traffic forecasts are illustrated in **Figure 5.2**. The resulting levels of service are outlined in **Table 5.3**. Detailed Synchro worksheets are available in **Appendix G**.

Table 5.3: 2031 Total Future Intersection Operations

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	LOS (Delay in Seconds)	Volume/ Capacity Ratio	LOS (Delay in Seconds)	Volume/ Capacity Ratio
Signalized Intersections				
Airport Road & Mayfield Road	C (30)	-	C (32)	-
Unsignalized Intersections				
Airport Road & Site Access 1	A (0.0)	WB-R (0.01)	A (9)	WB-R (0.01)
Airport Road & Site Access 2	C (22)	WB-LR (0.06)	D (30)	WB-LR (0.34)
Mayfield Road & Site Access 3	A (10)	SB-R (0.01)	B (10)	SB-R (0.03)

1 For signalized intersections, the level of service is based on the overall delay of the intersection. Critical v/c ratios are only listed for movements with values over 0.90.

2 For unsignalized intersections, the level of service is based on the critical movement, which is the movement with the highest delay.

During 2031 future total conditions, the signalized intersection of Airport Road & Mayfield Road is projected to operate at an acceptable LOS 'C' during the weekday a.m. and p.m. peak hours. This represents a marginal increase in delays compared to 2031 future background conditions during the a.m. peak hour and no change in delays compared to 2031 future background conditions during the p.m. peak hour. All movements continue to operate well within capacity.

The site access intersections are all projected to operate at an acceptable LOS 'D' or better during the weekday a.m. and p.m. peak hours. All movements are expected to operate well within capacity.

Based on the above results, it can be concluded that the traffic anticipated to be generated by the proposed development can be accommodated by the study road network.

5.3.2 QUEUING ANALYSIS

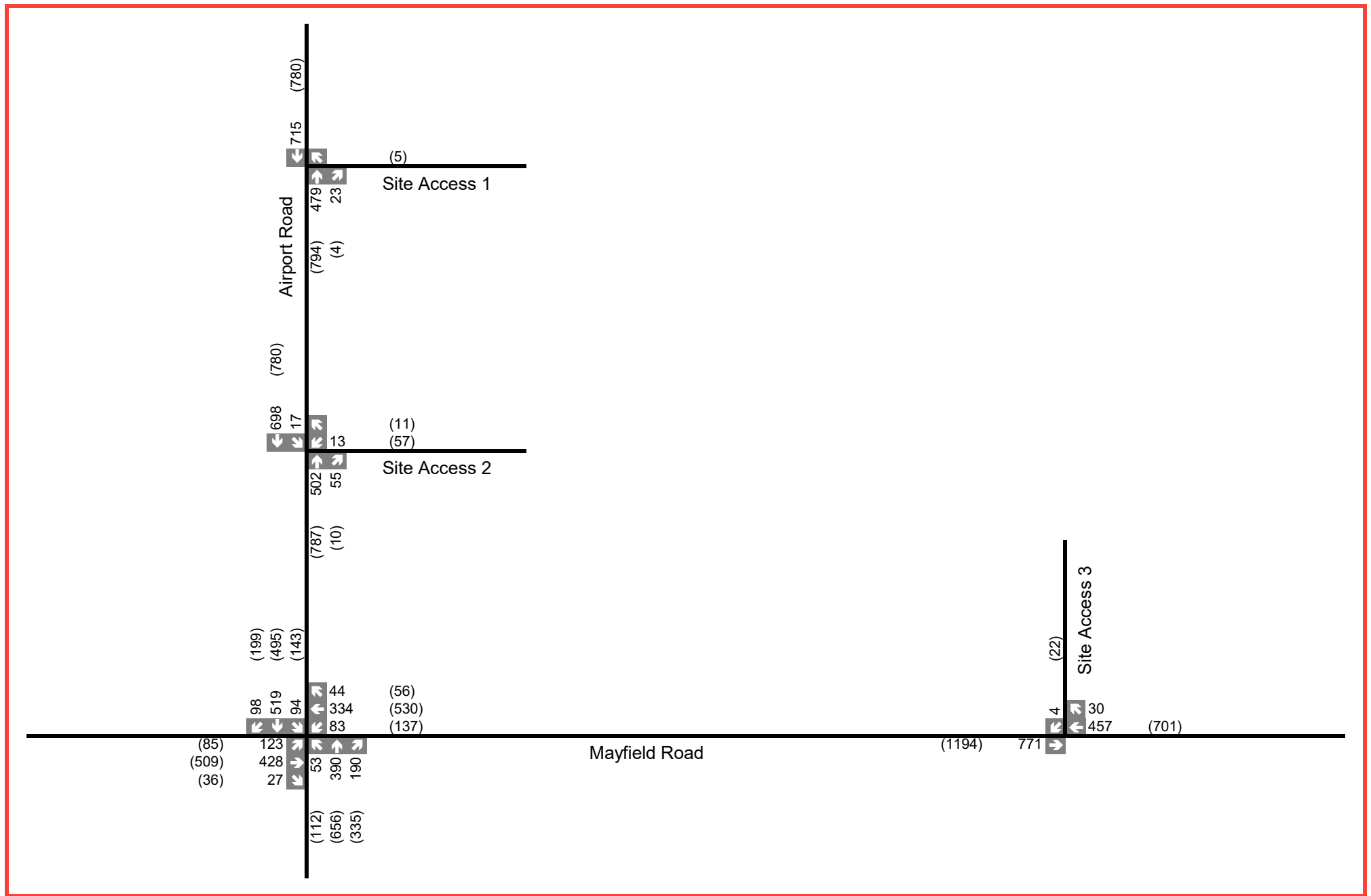
The projected queues at exclusive left-turn and right-turn lanes under 2031 future total conditions are listed in **Table 5.4**. The detailed Synchro queuing reports are provided in **Appendix G**.

Table 5.4: 2031 Future Total Intersection Queue Lengths

Intersections	Lane	Storage Length (m)	95 th Percentile Queue (m) [50 th Percentile Queue (m)]	
			AM Peak Hour	PM Peak Hour
Airport Road & Mayfield Road	EBL	57	34	22
	WBL	32	38 [23]	57 [37]
	NBL	94	15	32
	NBR	60	18	44
	SBL	109	25	41
	SBR	100	13	20
Airport Road & Site Access 2	SBL	77	0.4	0.0

1 50th percentile queues are only shown if the 95th percentile queue exceeds its available storage length.

As shown above, all of the 95th percentile queues continue to be contained within their available storage lengths with the continuing exception of the westbound left-turn at Airport Road & Mayfield Road, whose queues remain similar to those under 2031 future background conditions.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 5.2
2031 Total Future
Traffic Volumes

6 PARKING SUPPLY ASSESSMENT

The minimum parking requirements for the development have been evaluated under both the “Warehouse” and “Industrial Use” standards stated in the Town of Caledon’s Zoning By-law. Office floor area is included in the floor area for either assessed use as it is less than 15% of the total floor area. **Table 6.1** summarizes the minimum parking requirements.

Table 6.1: Overall Parking Requirements

Assessed Land Use	Unit	GFA	By-Law Requirement	Minimum Parking Required
Warehouse	Building 1	23,482 m ²	168 spaces, plus one space per 170 m ² or portion thereof over 20,000 m ²	189 spaces
	Building 2	21,053 m ²	168 spaces, plus one space per 170 m ² or portion thereof over 20,000 m ²	175 spaces
	Total Parking Requirement			364 spaces
Industrial Use	Building 1	23,482 m ²	139 spaces, plus one space per 170 m ² or portion thereof over 10,000 m ²	219 spaces
	Building 2	21,053 m ²	139 spaces, plus one space per 170 m ² or portion thereof over 10,000 m ²	204 spaces
	Total Parking Requirement			423 spaces

As shown above, the minimum required vehicular parking for the development is **364 spaces** if used as a warehouse or **423 spaces** if used for industrial purposes. The current site plan proposes **426 spaces**. Therefore, the proposed vehicular parking supply can accommodate either proposed use for the development.

Based on By-law 2015-058, which requires two barrier free parking spaces plus 2% of the number of required parking spaces to be designated barrier free parking spaces, the proposed development requires **eleven (11)** barrier free parking spaces. The development proposes **twelve (12)** barrier free parking spaces. Therefore, the by-law requirement is met.

7 TRANSPORTATION DEMAND MANAGEMENT

7.1 RATIONALE

Transportation Demand Management (TDM) is a set of policies and programs that support the reduction of single-occupant vehicle (SOV) trips, especially during peak hours. This can be done through shifting when the trips occur (out of peak hours), increasing vehicle occupancy, or increasing use of non-auto modes. An effective TDM program is successful at reducing peak hour roadway demand. This section of the report details the specific TDM initiatives that are proposed for the subject development. Additionally, it should be noted that, due to the nature of the operations of the proposed development, employees would not necessarily arrive or depart for their shifts during peak traffic conditions.

7.2 CARPOOLING

A TDM initiative currently used in Peel Region is carpooling. The Smart Commute Brampton-Caledon program operates to encourage employee carpooling by allowing carpools registered with Smart Commute to park in reserved carpool parking spaces. The Smart Commute website also provides links to programs where commuters can find other drivers to carpool with. It is recommended that 2 parking spaces, conveniently located near employee entrances to the buildings, be reserved for carpooling. It is also recommended that notices encouraging and facilitating carpooling be posted on the employee message boards on site.

7.3 BICYCLE PARKING

In order to facilitate commuters choosing to commute to work by bicycle, it is recommended that 16 bicycle parking spaces be provided in a convenient location.

8 CONCLUSIONS AND RECOMMENDATIONS

This study has evaluated the transportation aspects of the proposed development by Airfield Developments Inc. and Airfield II Developments Inc. located at the northeast quadrant of the intersection of Airport Road & Mayfield Road. The proposal consists of two industrial buildings with a combined gross floor area (GFA) of 44,535 m² and three vehicular driveways onto Airport Road and Mayfield Road, one of which will be a full-moves access.

Based on the analysis contained in this report, our conclusions and recommendations are as follows:

- The site is expected to generate a total of 142 and 109 trips (including both truck and vehicle trips) during the weekday a.m. and p.m. peak hours, respectively.
- Under 2031 future total conditions, the intersection of Airport Road & Mayfield Road operates at an acceptable LOS 'C' while the site accesses operate at an acceptable LOS 'D' or better. All movements continue to operate well within capacity. As such, it can be concluded that the traffic anticipated to be generated by the proposed development can be accommodated by the study road network.
- Under 2031 future total conditions, the queuing results indicate that the storage lengths at all intersections, with the exception of the westbound left-turn lane at Airport Road & Mayfield Road, will be adequate to accommodate the 95th percentile queues in both the a.m. and p.m. peak hours. However, this analysis was conducted under the assumption that all storage lengths would remain the same as under existing conditions. Since the westbound approach is to be reconfigured as part of the planned widening of Mayfield Road, the opportunity exists for the Region to increase the storage length of the westbound left-turn lane. As such, it is recommended that the storage length be increased to accommodate the expected queues. Since queues exceeding the storage length were observed under future background conditions, this improvement would be required regardless of this development.
- The proposed vehicular parking supply satisfies the Town of Caledon's minimum requirements for both warehouse and industrial uses.
- The following TDM measures are recommended for the development:
 - 2 parking spaces, conveniently located near employee entrances to the building, be reserved for carpooling;
 - notices encouraging and facilitating carpooling be posted on the employee message boards on site; and
 - 16 bicycle parking spaces be provided in a convenient location.

APPENDIX

A TRAFFIC DATA





Turning Movement Count (2 . AIRPORT RD & MAYFIELD RD) CustID: 00717433 MioID: 610538

Start Time	N Approach AIRPORT RD						E Approach MAYFIELD RD						S Approach AIRPORT RD						W Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)	
	Right N-W	Thru N-S	Left N-E	U-Turn N-N	Peds N:	Approach Total	Right E-N	Thru E-W	Left E-S	U-Turn E-E	Peds E:	Approach Total	Right S-E	Thru S-N	Left S-W	U-Turn S-S	Peds S:	Approach Total	Right W-S	Thru W-E	Left W-N	U-Turn W-W	Peds W:	Approach Total			
06:00:00	12	90	10	1	0	113	7	55	13	0	0	75	11	23	7	0	0	41	10	73	15	0	0	98	327		
06:15:00	17	103	17	2	0	139	8	46	10	0	0	64	22	35	9	0	0	66	6	86	29	0	0	121	390		
06:30:00	24	121	16	1	2	162	7	65	17	0	3	89	27	68	12	0	0	107	3	121	30	0	0	154	512		
06:45:00	15	101	24	2	0	142	12	61	8	0	0	81	23	82	10	0	0	115	3	80	31	0	0	114	452	1681	
07:00:00	37	124	23	0	0	184	11	89	12	0	0	112	12	51	7	0	0	70	5	70	18	0	0	93	459	1813	
07:15:00	19	120	25	0	0	164	14	66	12	0	0	92	22	40	9	0	0	71	16	100	12	0	0	128	455	1878	
07:30:00	23	140	19	1	0	183	7	59	9	0	2	75	18	42	18	0	0	78	12	91	14	0	0	117	453	1819	
07:45:00	16	117	20	3	0	156	7	89	10	0	1	106	14	39	16	0	0	69	7	122	23	0	0	152	483	1850	
08:00:00	9	107	22	4	1	142	10	75	15	0	2	100	16	36	22	0	1	74	15	102	27	0	1	144	460	1851	
08:15:00	16	91	16	4	2	127	8	73	19	0	1	100	15	35	20	0	1	70	8	103	31	0	2	142	439	1835	
08:30:00	19	86	18	2	0	125	15	70	13	0	0	98	24	48	7	0	1	79	8	82	24	0	1	114	416	1798	
08:45:00	17	86	18	1	2	122	12	79	23	0	4	114	23	57	16	0	0	96	13	99	17	0	0	129	461	1776	
09:00:00	26	78	18	1	1	123	13	70	17	0	1	100	14	49	19	0	0	82	9	71	33	0	0	113	418	1734	
09:15:00	25	106	22	1	0	154	17	81	19	0	0	117	22	51	19	0	2	92	8	65	26	0	2	99	462	1757	
09:30:00	17	82	21	3	0	123	10	70	11	0	0	91	12	36	16	0	0	64	10	84	22	1	0	117	395	1736	
09:45:00	25	78	28	1	0	132	5	61	13	0	1	79	17	37	18	0	0	72	14	63	18	0	0	95	378	1653	
BREAK																											
15:00:00	30	73	24	2		130	9	92	26	0	2	127	19	87	23	0	3	129	8	78	24	0	1	110	496		
15:15:00	26	55	19	1	0	101	9	103	14	0	12	126	25	108	15	0	1	148	10	120	18	0	1	148	523		
15:30:00	20	65	20	0	1	105	8	84	9	0	7	101	31	77	13	0	0	121	14	102	20	1	1	137	464		
15:45:00	31	67	15	1	1	114	16	112	24	0	1	152	23	115	25	0	0	163	12	102	23	0	0	137	566	2049	
16:00:00	16	56	24	2	0	98	20	117	26	0	0	163	18	114	28	0	1	160	14	101	23	0	0	138	559	2112	
16:15:00	28	75	22	0	1	125	20	111	14	0	1	145	26	150	29	0	1	205	6	90	25	0	1	121	596	2185	
16:30:00	26	70	16	2	2	114	15	112	20	0	3	147	31	132	18	1	1	182	7	117	15	0	0	139	582	2303	
16:45:00	25	61	16	1	1	103	13	153	19	0	4	185	18	115	25	0	2	158	15	120	20	0	2	155	601	2338	
17:00:00	35	70	22	1	0	128	8	111	16	0	1	135	30	141	26	0	0	197	8	89	18	0	0	115	575	2354	
17:15:00	38	72	16	0	0	126	15	135	29	0	2	179	18	121	22	0	0	161	10	86	27	0	0	123	589	2347	
17:30:00	21	43	14	0	0	78	8	119	34	0	3	161	18	94	18	0	1	130	14	88	18	0	1	120	489	2254	
17:45:00	17	60	17	1	2	95	7	112	22	0	1	141	22	116	24	0	0	162	11	110	18	1	0	140	538	2191	
18:00:00	21	51	14	0	0	86	5	91	21	0	1	117	27	94	29	0	0	150	16	80	23	0	1	119	472	2088	
18:15:00	23	33	9	0	0	65	6	95	14	0	1	115	18	90	19	0	0	127	14	82	23	0	0	119	426	1925	
18:30:00	14	43	15	0	0	72	11	76	17	0	0	104	22	75	22	0	2	119	11	81	12	0	0	104	399	1835	
18:45:00	22	33	16	3	0	74	5	74	19	0	1	98	11	67	16	0	0	94	8	63	16	0	0	87	353	1650	
Grand Total	710	2557	596	41	17	3905	338	2806	545	0	55	3689	649	2425	577	1	17	3652	325	2921	693	3	14	3942	15188	-	
Approach%	18.2%	65.5%	15.3%	1%		-	9.2%	76.1%	14.8%	0%		-	17.8%	66.4%	15.8%	0%		-	8.2%	74.1%	17.6%	0.1%		-	-	-	
Totals %	4.7%	16.8%	3.9%	0.3%		25.7%	2.2%	18.5%	3.6%	0%		24.3%	4.3%	16%	3.8%	0%		24%	2.1%	19.2%	4.6%	0%		26%	-	-	
Heavy	208	288	138	1		-	137	382	117	0		-	204	353	30	0		-	26	354	199	0		-	-	-	
Heavy %	29.3%	11.3%	23.2%	2.4%		-	40.5%	13.6%	21.5%	0%		-	31.4%	14.6%	5.2%	0%		-	8%	12.1%	28.7%	0%		-	-	-	
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	



Peak Hour: 06:30 AM - 07:30 AM Weather: Overcast Clouds (-0.22 °C)

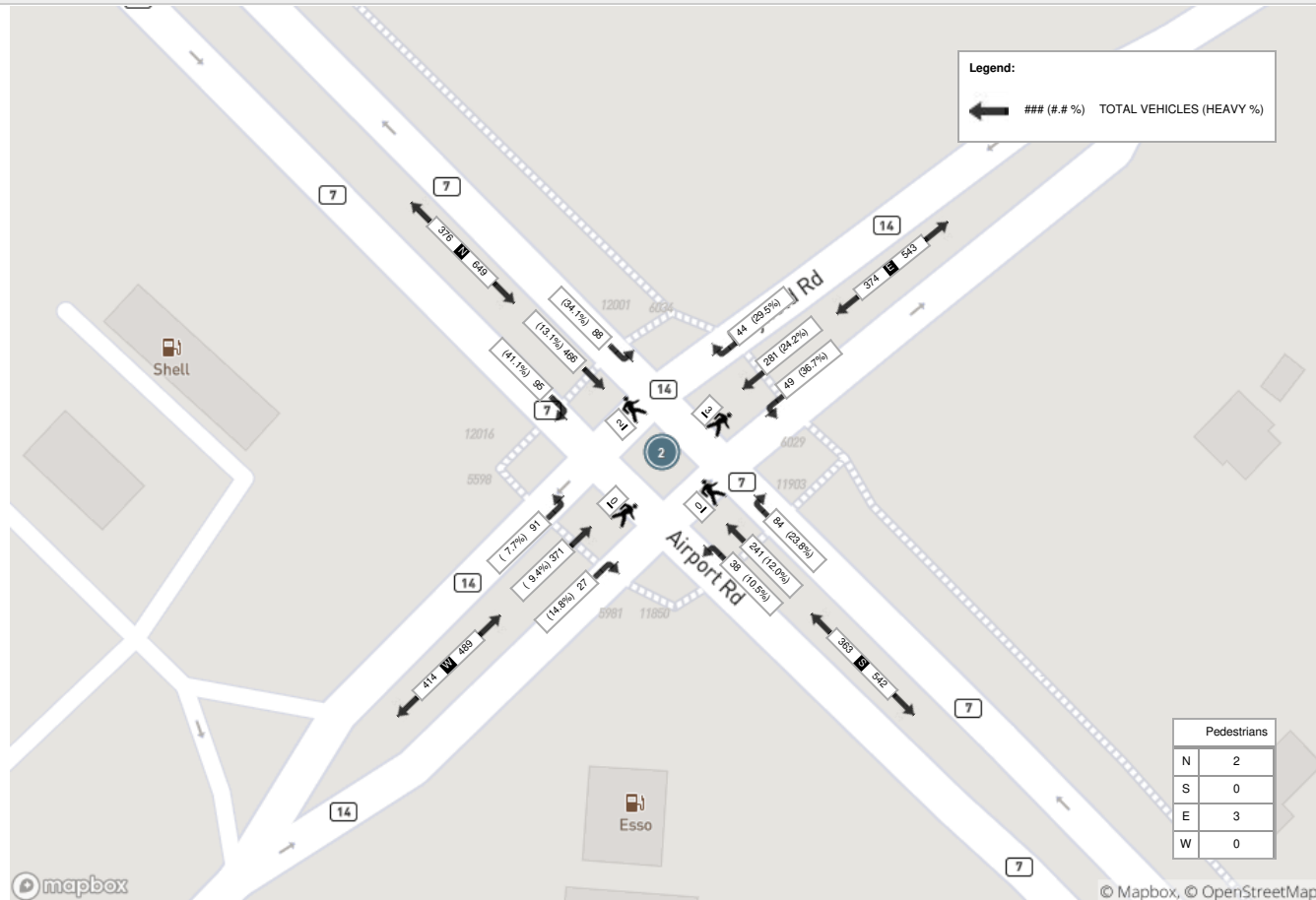
Start Time	N Approach AIRPORT RD						E Approach MAYFIELD RD						S Approach AIRPORT RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
06:30:00	24	121	16	1	2	162	7	65	17	0	3	89	27	68	12	0	0	107	3	121	30	0	0	154	512
06:45:00	15	101	24	2	0	142	12	61	8	0	0	81	23	82	10	0	0	115	3	80	31	0	0	114	452
07:00:00	37	124	23	0	0	184	11	89	12	0	0	112	12	51	7	0	0	70	5	70	18	0	0	93	459
07:15:00	19	120	25	0	0	164	14	66	12	0	0	92	22	40	9	0	0	71	16	100	12	0	0	128	455
Grand Total	95	466	88	3	2	652	44	281	49	0	3	374	84	241	38	0	0	363	27	371	91	0	0	489	1878
Approach%	14.6%	71.5%	13.5%	0.5%		-	11.8%	75.1%	13.1%	0%		-	23.1%	66.4%	10.5%	0%		-	5.5%	75.9%	18.6%	0%		-	-
Totals %	5.1%	24.8%	4.7%	0.2%		34.7%	2.3%	15%	2.6%	0%		19.9%	4.5%	12.8%	2%	0%		19.3%	1.4%	19.8%	4.8%	0%		26%	-
PHF	0.64	0.94	0.88	0.38		0.89	0.79	0.79	0.72	0		0.83	0.78	0.73	0.79	0		0.79	0.42	0.77	0.73	0		0.79	-
Heavy	39	61	30	1		131	13	68	18	0		99	20	29	4	0		53	4	35	7	0		46	-
Heavy %	41.1%	13.1%	34.1%	33.3%		20.1%	29.5%	24.2%	36.7%	0%		26.5%	23.8%	12%	10.5%	0%		14.6%	14.8%	9.4%	7.7%	0%		9.4%	-
Lights	56	405	58	2		521	31	213	31	0		275	64	212	34	0		310	23	336	84	0		443	-
Lights %	58.9%	86.9%	65.9%	66.7%		79.9%	70.5%	75.8%	63.3%	0%		73.5%	76.2%	88%	89.5%	0%		85.4%	85.2%	90.6%	92.3%	0%		90.6%	-
Single-Unit Trucks	7	23	5	1		36	8	20	7	0		35	4	10	2	0		16	1	14	2	0		17	-
Single-Unit Trucks %	7.4%	4.9%	5.7%	33.3%		5.5%	18.2%	7.1%	14.3%	0%		9.4%	4.8%	4.1%	5.3%	0%		4.4%	3.7%	3.8%	2.2%	0%		3.5%	-
Buses	21	17	20	0		58	2	1	0	0		3	4	8	0	0		12	0	3	0	0		3	-
Buses %	22.1%	3.6%	22.7%	0%		8.9%	4.5%	0.4%	0%	0%		0.8%	4.8%	3.3%	0%	0%		3.3%	0%	0.8%	0%	0%		0.6%	-
Articulated Trucks	11	21	5	0		37	3	47	11	0		61	12	11	2	0		25	3	18	5	0		26	-
Articulated Trucks %	11.6%	4.5%	5.7%	0%		5.7%	6.8%	16.7%	22.4%	0%		16.3%	14.3%	4.6%	5.3%	0%		6.9%	11.1%	4.9%	5.5%	0%		5.3%	-
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	40%	-	-	-	-	-	60%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-



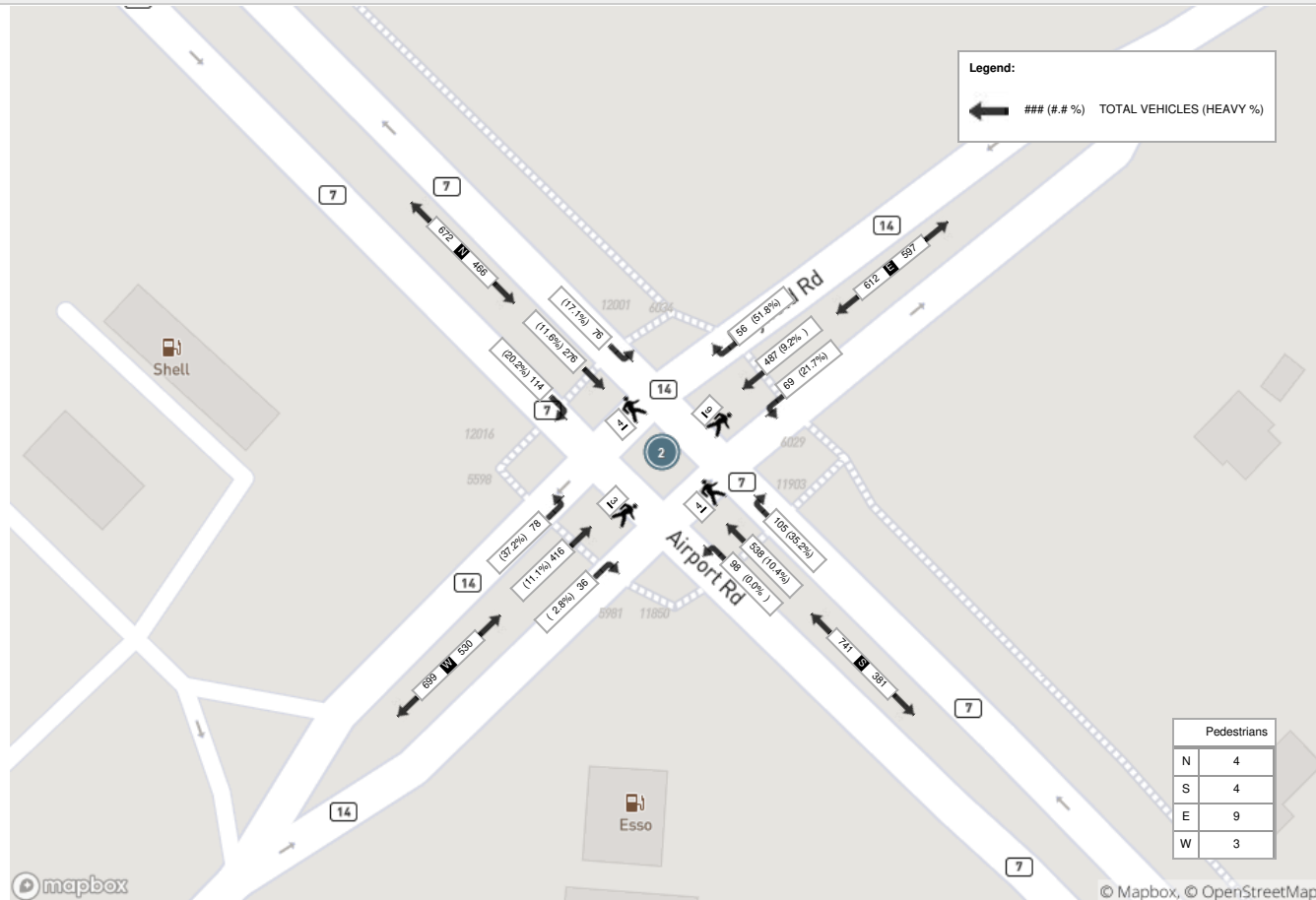
Peak Hour: 04:15 PM - 05:15 PM Weather: Light Shower Snow (-1.55 °C)

Start Time	N Approach AIRPORT RD						E Approach MAYFIELD RD						S Approach AIRPORT RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	Right	Thru	Left	U-Turn	Peds	Approach Total	
16:15:00	28	75	22	0	1	125	20	111	14	0	1	145	26	150	29	0	1	205	6	90	25	0	1	121	596
16:30:00	26	70	16	2	2	114	15	112	20	0	3	147	31	132	18	1	1	182	7	117	15	0	0	139	582
16:45:00	25	61	16	1	1	103	13	153	19	0	4	185	18	115	25	0	2	158	15	120	20	0	2	155	601
17:00:00	35	70	22	1	0	128	8	111	16	0	1	135	30	141	26	0	0	197	8	89	18	0	0	115	575
Grand Total	114	276	76	4	4	470	56	487	69	0	9	612	105	538	98	1	4	742	36	416	78	0	3	530	2354
Approach%	24.3%	58.7%	16.2%	0.9%		-	9.2%	79.6%	11.3%	0%		-	14.2%	72.5%	13.2%	0.1%		-	6.8%	78.5%	14.7%	0%		-	-
Totals %	4.8%	11.7%	3.2%	0.2%		20%	2.4%	20.7%	2.9%	0%		26%	4.5%	22.9%	4.2%	0%		31.5%	1.5%	17.7%	3.3%	0%		22.5%	-
PHF	0.81	0.92	0.86	0.5		0.92	0.7	0.8	0.86	0		0.83	0.85	0.9	0.84	0.25		0.9	0.6	0.87	0.78	0		0.85	-
Heavy	23	32	13	0		68	29	45	15	0		89	37	56	0	0		93	1	46	29	0		76	-
Heavy %	20.2%	11.6%	17.1%	0%		14.5%	51.8%	9.2%	21.7%	0%		14.5%	35.2%	10.4%	0%	0%		12.5%	2.8%	11.1%	37.2%	0%		14.3%	-
Lights	91	244	63	4		402	27	442	54	0		523	68	482	98	1		649	35	370	49	0		454	-
Lights %	79.8%	88.4%	82.9%	100%		85.5%	48.2%	90.8%	78.3%	0%		85.5%	64.8%	89.6%	100%	100%		87.5%	97.2%	88.9%	62.8%	0%		85.7%	-
Single-Unit Trucks	7	9	4	0		20	8	15	7	0		30	12	11	0	0		23	0	13	6	0		19	-
Single-Unit Trucks %	6.1%	3.3%	5.3%	0%		4.3%	14.3%	3.1%	10.1%	0%		4.9%	11.4%	2%	0%	0%		3.1%	0%	3.1%	7.7%	0%		3.6%	-
Buses	3	7	0	0		10	5	1	1	0		7	5	19	0	0		24	0	3	9	0		12	-
Buses %	2.6%	2.5%	0%	0%		2.1%	8.9%	0.2%	1.4%	0%		1.1%	4.8%	3.5%	0%	0%		3.2%	0%	0.7%	11.5%	0%		2.3%	-
Articulated Trucks	13	16	9	0		38	16	29	7	0		52	20	26	0	0		46	1	30	14	0		45	-
Articulated Trucks %	11.4%	5.8%	11.8%	0%		8.1%	28.6%	6%	10.1%	0%		8.5%	19%	4.8%	0%	0%		6.2%	2.8%	7.2%	17.9%	0%		8.5%	-
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	9	-	-	-	-	-	4	-	-	-	-	-	3	-	-
Pedestrians%	-	-	-	-	20%	-	-	-	-	-	45%	-	-	-	-	-	20%	-	-	-	-	-	15%	-	-

Peak Hour: 06:30 AM - 07:30 AM Weather: Overcast Clouds (-0.22 °C)



Peak Hour: 04:15 PM - 05:15 PM Weather: Light Shower Snow (-1.55 °C)



MG8 ENG

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 9:00:00

One Hour Peak

From: 7:30:00

To: 8:30:00

Municipality: Region of Peel
Site #: 0000717433
Intersection: Airport Road & Mayfield Road
TFR File #: 8
Count date: 18-Apr-2013

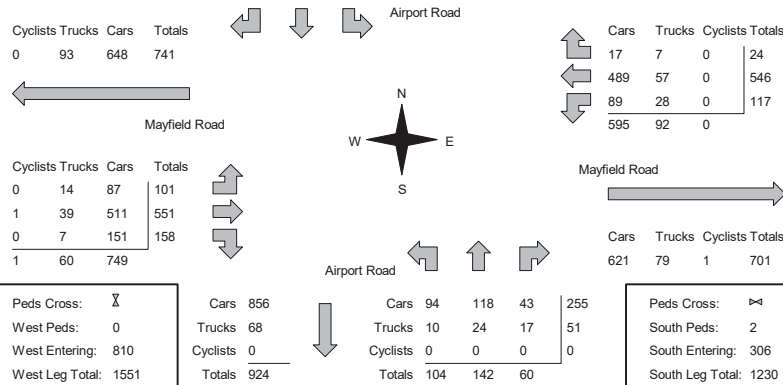
Weather conditions:

Person(s) who counted:
 STEVE

** Signalized Intersection **

Major Road: Airport Road runs N/S

North Leg Total: 1097	Cyclists 0 0 0 0	Trucks 26 33 23 82	Cars 65 616 67 748	East Leg Total: 1388
North Entering: 830				East Entering: 687
North Peds: 0				East Peds: 0
Peds Cross: 0				Peds Cross: 0
	Totals 91 649 90			Totals 267



Comments

MG8 ENG

Mid-day Peak Diagram

Specified Period

From: 11:00:00

To: 14:00:00

One Hour Peak

From: 12:45:00

To: 13:45:00

Municipality: Region of Peel
Site #: 0000717433
Intersection: Airport Road & Mayfield Road
TFR File #: 8
Count date: 18-Apr-2013

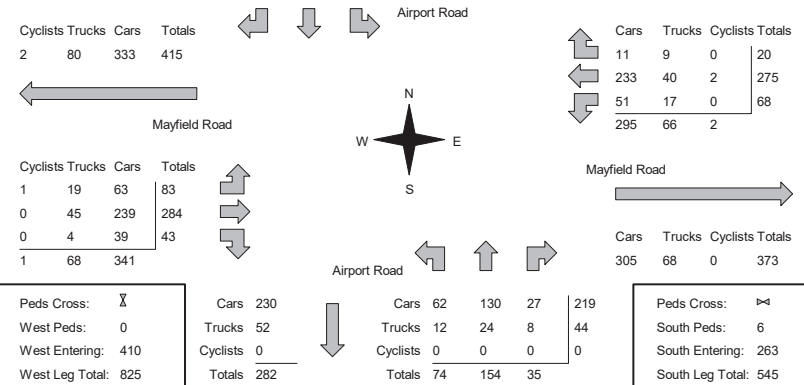
Weather conditions:

Person(s) who counted:
 STEVE

** Signalized Intersection **

Major Road: Airport Road runs N/S

North Leg Total: 548	Cyclists 0 0 0 0	Trucks 28 31 15 74	Cars 38 140 39 217	East Leg Total: 736
North Entering: 291				East Entering: 363
North Peds: 1				East Peds: 4
Peds Cross: 0				Peds Cross: 0
	Totals 66 171 54			Totals 257



Comments

MG8 ENG

Afternoon Peak Diagram

Specified Period

From: 15:00:00

To: 18:00:00

One Hour Peak

From: 16:30:00

To: 17:30:00

Municipality: Region of Peel
Site #: 0000717433
Intersection: Airport Road & Mayfield Road
TFR File #: 8
Count date: 18-Apr-2013

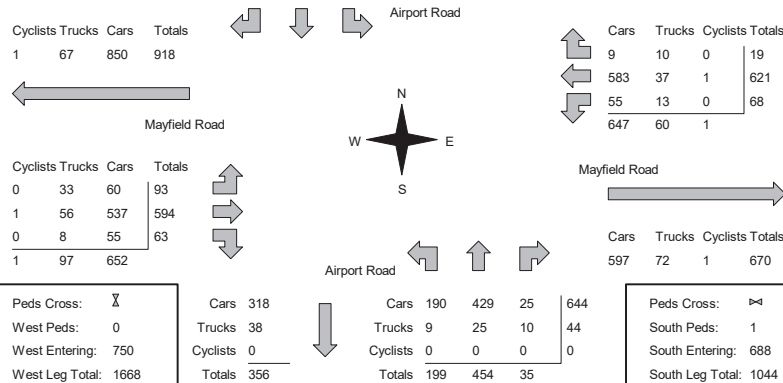
Weather conditions:

Person(s) who counted:
 STEVE

** Signalized Intersection **

Major Road: Airport Road runs N/S

North Leg Total: 930	Cyclists 0 0 0 0	Trucks 21 17 6 44	Cars 77 208 35 320	Totals 98 225 41	Cyclists 0	Trucks 68	Cars 498	Totals 566	East Leg Total: 1378	East Entering: 708	East Peds: 0	Peds Cross: X
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Comments

MG8 ENG

Total Count Diagram

Municipality: Region of Peel
Site #: 0000717433
Intersection: Airport Road & Mayfield Road
TFR File #: 8
Count date: 18-Apr-2013

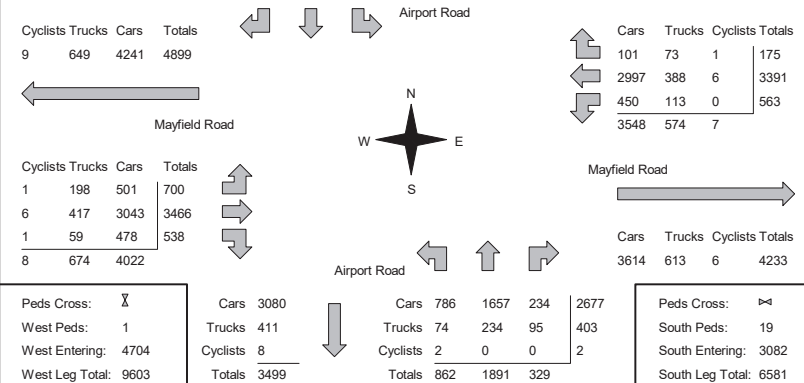
Weather conditions:

Person(s) who counted:
 STEVE

** Signalized Intersection **

Major Road: Airport Road runs N/S

North Leg Total: 6248	Cyclists 1 7 0 8	Trucks 187 239 101 527	Cars 458 2152 337 2947	Totals 646 2398 438	Cyclists 2	Trucks 505	Cars 2259	Totals 2766	East Leg Total: 8362	East Entering: 4129	East Peds: 19	Peds Cross: X
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Comments

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	June 23, 2021		Prepared Date	June 23, 2021
Database Rev	MaxView		Completed By	S.J
Timing Card / Field rev	-		Checked By	B.L

Location	Airport Road at Mayfield Road								
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Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	TIME PERIOD (s) (Green+Amber+All Red)		
			WALK	FDWALK			AM SPLITS	OFF SPLITS	PM SPLITS
1	Airport Road - NBLT Prot. Perm.	5	-	-	3.0	-	12	12	12
2	Airport Road - SB	12	12	23	4.0	2.9	43	43	43
3	Mayfield Road - EBLT Prot. Perm.	5	-	-	3.0	-	15	15	25
4	Mayfield Road - WB	12	12	27	4.0	3.1	50	50	55
5	Airport Road - SBLT Prot. Perm.	5	-	-	3.0	-	12	12	12
6	Airport Road - NB	12	12	23	4.0	2.9	43	43	43
7	Not In Use	-	-	-	-	-	-	-	-
8	Mayfield Road - EB	12	12	27	4.0	3.1	65	65	80

System Control Yes Semi-Actuated Mode Yes	TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
	06:30 - 09:00	AM	120	30
	09:00 - 15:00	OFF	120	94
	15:00 - 19:30	PM	135	65

APPENDIX

B

LEVEL OF SERVICE
DEFINITIONS

LEVEL OF SERVICE DEFINITIONS AT SIGNALIZED INTERSECTIONS⁽¹⁾

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average control delay per vehicle, typically for a 15-min analysis period. The criteria are given in the table below. Delay may be measured in the field or estimated using software such as Highway Capacity Software. Delay is a complex measure and is dependent upon a number of variables, including quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

Level of Service	Features	Control Delay per vehicle (sec)
A	LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favourable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	≤ 10
B	LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	$> 10 \text{ and } \leq 20$
C	LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.	$> 20 \text{ and } \leq 35$
D	LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavourable progression, long cycle lengths, of high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	$> 35 \text{ and } \leq 55$
E	LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.	$> 55 \text{ and } \leq 80$
F	LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	> 80

(1) Highway Capacity Manual 2000

LEVEL OF SERVICE DEFINITIONS AT UNSIGNALIZED INTERSECTIONS⁽¹⁾

The level of service criteria for unsignalized intersections are given in the table below. As used here, total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position. The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation.

Level of Service	Features	Average Total Delay (sec/veh)
A	Little or no traffic delay occurs. Approaches appear open, turning movements are easily made, and drivers have freedom of operation.	≤ 10
B	Short traffic delays occur. Many drivers begin to feel somewhat restricted in terms of freedom of operation.	> 10 and ≤ 15
C	Average traffic delays occur. Operations are generally stable, but drivers emerging from the minor street may experience difficulty in completing their movement. This may occasionally impact on the stability of flow on the major street.	> 15 and ≤ 25
D	Long traffic delays occur. Motorists emerging from the minor street experience significant restriction and frustration. Drivers on the major street will experience congestion and delay as drivers emerging from the minor street interfere with the major through movements.	> 25 and ≤ 35
E	Very long traffic delays occur. Operations approach the capacity of the intersection.	> 35 and ≤ 50
F	Saturation occurs, with vehicle demand exceeding the available capacity. Very long traffic delays occur.	> 50

(1) Highway Capacity Manual 2000.

APPENDIX

C













EXISTING
INTERSECTION
OPERATIONS

Queues

<Existing> AM

1: Airport Road & Mayfield Road

























07-23-2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	99	403	29	53	305	48	41	262	91	96	507	103
v/c Ratio	0.32	0.34	0.05	0.31	0.81	0.13	0.09	0.19	0.15	0.20	0.34	0.18
Control Delay	24.5	28.2	0.7	39.3	58.7	1.5	15.6	24.8	6.5	16.0	24.3	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	28.2	0.7	39.3	58.7	1.5	15.6	24.8	6.5	16.0	24.3	5.9
Queue Length 50th (m)	15.7	38.1	0.0	10.8	71.5	0.0	4.4	21.2	0.0	10.8	42.8	0.0
Queue Length 95th (m)	23.5	43.8	0.9	21.0	95.1	1.5	12.2	37.7	12.3	24.5	69.1	12.7
Internal Link Dist (m)	1322.3				91.7				681.5			
Turn Bay Length (m)	57.0		55.0	32.0		65.0	94.0		60.0	109.0		100.0
Base Capacity (vph)	325	1600	702	252	549	491	475	1368	590	481	1471	572
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.25	0.04	0.21	0.56	0.10	0.09	0.19	0.15	0.20	0.34	0.18
Intersection Summary												

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road

<Existing> AM
07-23-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	371	27	49	281	44	38	241	84	88	466	95
Future Volume (vph)	91	371	27	49	281	44	38	241	84	88	466	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1	7.1	7.1	7.1	7.1	3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1652	3318	1389	1303	1537	1212	1608	3230	1269	1321	3202	1125
Flt Permitted	0.32	1.00	1.00	0.51	1.00	1.00	0.46	1.00	1.00	0.56	1.00	1.00
Satd. Flow (perm)	556	3318	1389	706	1537	1212	777	3230	1269	774	3202	1125
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	99	403	29	53	305	48	41	262	91	96	507	103
RTOR Reduction (vph)	0	0	19	0	0	36	0	0	52	0	0	56
Lane Group Flow (vph)	99	403	10	53	305	12	41	262	39	96	507	47
Confl. Peds. (#/hr)	2					2			3	3		
Heavy Vehicles (%)	8%	10%	15%	37%	25%	30%	11%	13%	24%	35%	14%	42%
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	42.5	42.5	42.5	29.4	29.4	29.4	56.7	50.8	50.8	63.5	54.6	54.6
Effective Green, g (s)	42.5	42.5	42.5	29.4	29.4	29.4	56.7	50.8	50.8	63.5	54.6	54.6
Actuated g/C Ratio	0.35	0.35	0.35	0.24	0.24	0.24	0.47	0.42	0.42	0.53	0.46	0.46
Clearance Time (s)	3.0	7.1	7.1	7.1	7.1	7.1	3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	289	1175	491	172	376	296	407	1367	537	453	1456	511
v/s Ratio Prot	0.03	c0.12			c0.20		0.00	0.08		c0.02	c0.16	
v/s Ratio Perm	0.09		0.01	0.08		0.01	0.04		0.03	0.09		0.04
v/c Ratio	0.34	0.34	0.02	0.31	0.81	0.04	0.10	0.19	0.07	0.21	0.35	0.09
Uniform Delay, d1	27.6	28.5	25.2	37.0	42.7	34.5	17.1	21.7	20.6	14.4	21.2	18.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.2	0.0	1.0	12.5	0.1	0.1	0.3	0.3	0.2	0.7	0.4
Delay (s)	28.3	28.7	25.2	38.0	55.2	34.6	17.2	22.0	20.8	14.6	21.8	19.0
Level of Service	C	C	C	D	E	C	B	C	C	B	C	B
Approach Delay (s)		28.4			50.5			21.3			20.4	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay			28.7									
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			120.0							20.0		
Intersection Capacity Utilization			75.2%									
Analysis Period (min)			15									
c Critical Lane Group												

Queues

<Existing> PM

1: Airport Road & Mayfield Road

07-23-2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	80	424	37	70	497	57	100	549	107	78	282	116
v/c Ratio	0.26	0.31	0.04	0.19	0.83	0.10	0.24	0.86	0.28	0.31	0.38	0.27
Control Delay	15.4	18.0	1.7	24.7	46.9	2.4	28.7	61.8	8.6	30.5	42.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	18.0	1.7	24.7	46.9	2.4	28.7	61.8	8.6	30.5	42.0	8.1
Queue Length 50th (m)	9.8	33.4	0.0	11.6	120.5	0.0	18.1	78.0	0.0	14.1	34.1	0.0
Queue Length 95th (m)	18.0	45.1	3.0	23.7	#193.6	4.7	31.5	#110.4	15.2	25.9	48.3	15.3
Internal Link Dist (m)	1322.3			91.7			681.5			413.1		
Turn Bay Length (m)	57.0		55.0	32.0		65.0	94.0		60.0	109.0		100.0
Base Capacity (vph)	402	1350	866	370	597	592	426	636	388	255	747	429
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.31	0.04	0.19	0.83	0.10	0.23	0.86	0.28	0.31	0.38	0.27

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road

<Existing> PM
07-23-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	416	36	69	487	56	98	538	105	76	276	114
Future Volume (vph)	78	416	36	69	487	56	98	538	105	76	276	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1	7.1	7.1	7.1	7.1	3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1383	2500	1556	1549	1325	1218	1783	2340	1140	1578	2765	1278
Flt Permitted	0.30	1.00	1.00	0.50	1.00	1.00	0.54	1.00	1.00	0.30	1.00	1.00
Satd. Flow (perm)	435	2500	1556	822	1325	1218	1022	2340	1140	504	2765	1278
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	80	424	37	70	497	57	100	549	107	78	282	116
RTOR Reduction (vph)	0	0	17	0	0	31	0	0	78	0	0	85
Lane Group Flow (vph)	80	424	20	70	497	26	100	549	29	78	282	31
Confl. Peds. (#/hr)	4		4	4		4	3		9	9		3
Heavy Vehicles (%)	29%	46%	1%	15%	45%	29%	0%	56%	37%	13%	32%	23%
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	72.9	72.9	72.9	60.8	60.8	60.8	45.3	36.7	36.7	44.9	36.5	36.5
Effective Green, g (s)	72.9	72.9	72.9	60.8	60.8	60.8	45.3	36.7	36.7	44.9	36.5	36.5
Actuated g/C Ratio	0.54	0.54	0.54	0.45	0.45	0.45	0.34	0.27	0.27	0.33	0.27	0.27
Clearance Time (s)	3.0	7.1	7.1	7.1	7.1	7.1	3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	298	1350	840	370	596	548	391	636	309	234	747	345
v/s Ratio Prot	0.02	c0.17			c0.38		0.02	c0.23		c0.02	0.10	
v/s Ratio Perm	0.13		0.01	0.09		0.02	0.07		0.03	0.09		0.02
v/c Ratio	0.27	0.31	0.02	0.19	0.83	0.05	0.26	0.86	0.09	0.33	0.38	0.09
Uniform Delay, d1	17.6	17.2	14.5	22.3	32.7	20.8	31.6	46.8	36.7	32.2	40.0	36.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.1	0.0	0.2	9.8	0.0	0.3	14.5	0.6	0.8	1.5	0.5
Delay (s)	18.1	17.3	14.5	22.5	42.4	20.9	31.9	61.2	37.3	33.0	41.5	37.4
Level of Service	B	B	B	C	D	C	C	E	D	C	D	D
Approach Delay (s)		17.3			38.2			54.0			39.1	
Approach LOS		B			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			38.6		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			135.0		Sum of lost time (s)					20.0		
Intersection Capacity Utilization			83.7%		ICU Level of Service					E		
Analysis Period (min)			15									
c Critical Lane Group												

APPENDIX

D

2026 FUTURE
BACKGROUND
INTERSECTION
OPERATIONS

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	93	465	84	383	46	300	176	90	526	97
v/c Ratio	0.31	0.35	0.72	0.51	0.09	0.18	0.24	0.17	0.30	0.15
Control Delay	33.3	36.8	81.7	48.3	12.9	20.4	4.6	12.9	19.8	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	36.8	81.7	48.3	12.9	20.4	4.6	12.9	19.8	5.0
Queue Length 50th (m)	19.1	37.5	22.7	34.4	4.4	22.2	0.0	8.9	40.7	0.0
Queue Length 95th (m)	26.9	38.9	37.7	39.4	13.2	43.2	16.1	23.1	72.3	11.9
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	378	2549	230	1465	528	1681	744	527	1761	662
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.18	0.37	0.26	0.09	0.18	0.24	0.17	0.30	0.15
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road

<FB 2026> AM
07-23-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	428	27	82	331	44	45	294	172	88	515	95
Future Volume (vph)	91	428	27	82	331	44	45	294	172	88	515	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1652	4712		1303	4096		1608	3230	1268	1321	3202	1125
Flt Permitted	0.42	1.00		0.48	1.00		0.45	1.00	1.00	0.55	1.00	1.00
Satd. Flow (perm)	725	4712		652	4096		765	3230	1268	758	3202	1125
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	93	437	28	84	338	45	46	300	176	90	526	97
RTOR Reduction (vph)	0	8	0	0	16	0	0	0	84	0	0	44
Lane Group Flow (vph)	93	457	0	84	367	0	46	300	92	90	526	53
Confl. Peds. (#/hr)	2					2			3	3		
Heavy Vehicles (%)	8%	10%	15%	37%	25%	30%	11%	13%	24%	35%	14%	42%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	38.3	38.3		24.3	24.3		76.2	70.2	70.2	82.7	73.7	73.7
Effective Green, g (s)	38.3	38.3		24.3	24.3		76.2	70.2	70.2	82.7	73.7	73.7
Actuated g/C Ratio	0.28	0.28		0.18	0.18		0.56	0.52	0.52	0.61	0.55	0.55
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	281	1336		117	737		469	1679	659	503	1748	614
v/s Ratio Prot	0.03	c0.10			0.09		0.00	0.09		c0.01	c0.16	
v/s Ratio Perm	0.07			c0.13			0.05		0.07	0.10		0.05
v/c Ratio	0.33	0.34		0.72	0.50		0.10	0.18	0.14	0.18	0.30	0.09
Uniform Delay, d1	36.8	38.4		52.1	49.9		13.2	17.1	16.8	10.9	16.7	14.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.2		18.9	0.5		0.1	0.2	0.4	0.2	0.4	0.3
Delay (s)	37.5	38.5		71.0	50.4		13.3	17.4	17.2	11.1	17.1	14.9
Level of Service	D	D		E	D		B	B	B	B	B	B
Approach Delay (s)		38.3			54.1			17.0			16.0	
Approach LOS		D			D			B			B	
Intersection Summary												
HCM 2000 Control Delay			29.6			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			75.0%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	80	556	133	583	107	622	335	99	386	148
v/c Ratio	0.35	0.34	0.82	0.52	0.18	0.42	0.48	0.26	0.26	0.22
Control Delay	28.5	31.1	81.2	43.5	17.0	29.5	7.2	18.2	26.7	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	31.1	81.2	43.5	17.0	29.5	7.2	18.2	26.7	5.9
Queue Length 50th (m)	14.6	40.6	35.2	50.5	13.2	61.4	2.8	12.3	34.9	0.0
Queue Length 95th (m)	21.1	41.0	54.7	54.3	29.7	102.4	33.5	28.4	61.1	16.4
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	301	2520	236	1613	592	1486	692	388	1484	672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.22	0.56	0.36	0.18	0.42	0.48	0.26	0.26	0.22

Intersection Summary

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road

<FB 2026> PM
07-23-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	509	36	130	515	56	105	610	328	97	378	145
Future Volume (vph)	78	509	36	130	515	56	105	610	328	97	378	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1293	4656		1460	4522		1783	3288	1148	1511	3259	1300
Flt Permitted	0.31	1.00		0.43	1.00		0.51	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)	420	4656		666	4522		950	3288	1148	555	3259	1300
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	80	519	37	133	526	57	107	622	335	99	386	148
RTOR Reduction (vph)	0	8	0	0	11	0	0	0	174	0	0	81
Lane Group Flow (vph)	80	548	0	133	572	0	107	622	161	99	386	67
Confl. Peds. (#/hr)	4		4	4		4	3		9	9		3
Heavy Vehicles (%)	38%	12%	3%	22%	10%	52%	0%	11%	36%	18%	12%	21%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	47.0	47.0		33.0	33.0		70.6	61.1	61.1	71.4	61.5	61.5
Effective Green, g (s)	47.0	47.0		33.0	33.0		70.6	61.1	61.1	71.4	61.5	61.5
Actuated g/C Ratio	0.35	0.35		0.24	0.24		0.52	0.45	0.45	0.53	0.46	0.46
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	217	1620		162	1105		555	1488	519	363	1484	592
v/s Ratio Prot	c0.03	0.12			0.13		0.01	c0.19		c0.02	0.12	
v/s Ratio Perm	0.10			c0.20			0.09		0.14	0.12		0.05
v/c Ratio	0.37	0.34		0.82	0.52		0.19	0.42	0.31	0.27	0.26	0.11
Uniform Delay, d1	31.0	32.5		48.2	44.1		16.4	24.9	23.5	16.5	22.7	21.1
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1		27.1	0.4		0.2	0.9	1.6	0.4	0.4	0.4
Delay (s)	32.0	32.6		75.3	44.5		16.5	25.8	25.1	16.9	23.1	21.5
Level of Service	C	C		E	D		B	C	C	B	C	C
Approach Delay (s)		32.6			50.2			24.7			21.8	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay			31.7			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			79.3%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

APPENDIX

E

2031 FUTURE
BACKGROUND
INTERSECTION
OPERATIONS

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	93	465	84	383	54	351	194	90	526	97
v/c Ratio	0.31	0.35	0.72	0.51	0.11	0.21	0.26	0.18	0.30	0.15
Control Delay	33.3	36.8	81.7	48.3	12.8	20.7	4.5	13.0	20.0	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	36.8	81.7	48.3	12.8	20.7	4.5	13.0	20.0	5.1
Queue Length 50th (m)	19.1	37.5	22.7	34.4	5.2	26.4	0.0	8.9	40.9	0.0
Queue Length 95th (m)	26.9	38.9	37.7	39.4	14.8	50.4	16.8	23.1	72.8	11.9
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	378	2549	230	1465	528	1681	752	503	1756	660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.18	0.37	0.26	0.10	0.21	0.26	0.18	0.30	0.15
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road

<FB 2031> AM
07-23-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	428	27	82	331	44	53	344	190	88	515	95
Future Volume (vph)	91	428	27	82	331	44	53	344	190	88	515	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1652	4712		1303	4096		1608	3230	1268	1321	3202	1125
Flt Permitted	0.42	1.00		0.48	1.00		0.45	1.00	1.00	0.52	1.00	1.00
Satd. Flow (perm)	725	4712		652	4096		761	3230	1268	717	3202	1125
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	93	437	28	84	338	45	54	351	194	90	526	97
RTOR Reduction (vph)	0	8	0	0	16	0	0	0	93	0	0	44
Lane Group Flow (vph)	93	457	0	84	367	0	54	351	101	90	526	53
Confl. Peds. (#/hr)	2					2			3	3		
Heavy Vehicles (%)	8%	10%	15%	37%	25%	30%	11%	13%	24%	35%	14%	42%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	38.3	38.3		24.3	24.3		76.5	70.2	70.2	82.7	73.4	73.4
Effective Green, g (s)	38.3	38.3		24.3	24.3		76.5	70.2	70.2	82.7	73.4	73.4
Actuated g/C Ratio	0.28	0.28		0.18	0.18		0.57	0.52	0.52	0.61	0.54	0.54
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	281	1336		117	737		470	1679	659	481	1740	611
v/s Ratio Prot	0.03	c0.10			0.09		0.01	0.11		c0.01	c0.16	
v/s Ratio Perm	0.07			c0.13			0.06		0.08	0.10		0.05
v/c Ratio	0.33	0.34		0.72	0.50		0.11	0.21	0.15	0.19	0.30	0.09
Uniform Delay, d1	36.8	38.4		52.1	49.9		13.1	17.4	16.9	10.9	16.8	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.2		18.9	0.5		0.1	0.3	0.5	0.2	0.4	0.3
Delay (s)	37.5	38.5		71.0	50.4		13.2	17.7	17.4	11.1	17.3	15.0
Level of Service	D	D		E	D		B	B	B	B	B	B
Approach Delay (s)		38.3			54.1			17.2			16.2	
Approach LOS		D			D			B			B	
Intersection Summary												
HCM 2000 Control Delay			29.3			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.39									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			75.0%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	80	556	133	583	114	662	342	126	483	188
v/c Ratio	0.35	0.34	0.82	0.52	0.22	0.45	0.51	0.34	0.33	0.27
Control Delay	28.5	31.1	81.2	43.5	17.3	31.2	8.8	19.1	27.8	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	31.1	81.2	43.5	17.3	31.2	8.8	19.1	27.8	5.6
Queue Length 50th (m)	14.6	40.6	35.2	50.5	14.1	67.5	6.1	15.9	45.4	0.0
Queue Length 95th (m)	21.1	41.0	54.7	54.3	31.4	112.7	42.2	34.9	77.4	18.5
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	301	2520	236	1613	533	1455	677	374	1477	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.22	0.56	0.36	0.21	0.45	0.51	0.34	0.33	0.27

Intersection Summary

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road

<FB 2031> PM
07-23-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	509	36	130	515	56	112	649	335	123	473	184
Future Volume (vph)	78	509	36	130	515	56	112	649	335	123	473	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1293	4656		1460	4522		1784	3288	1148	1511	3259	1300
Flt Permitted	0.31	1.00		0.43	1.00		0.45	1.00	1.00	0.32	1.00	1.00
Satd. Flow (perm)	420	4656		666	4522		837	3288	1148	506	3259	1300
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	80	519	37	133	526	57	114	662	342	126	483	188
RTOR Reduction (vph)	0	8	0	0	11	0	0	0	169	0	0	103
Lane Group Flow (vph)	80	548	0	133	572	0	114	662	173	126	483	85
Confl. Peds. (#/hr)	4		4	4		4	3		9	9		3
Heavy Vehicles (%)	38%	12%	3%	22%	10%	52%	0%	11%	36%	18%	12%	21%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	47.0	47.0		33.0	33.0		69.6	59.8	59.8	72.4	61.2	61.2
Effective Green, g (s)	47.0	47.0		33.0	33.0		69.6	59.8	59.8	72.4	61.2	61.2
Actuated g/C Ratio	0.35	0.35		0.24	0.24		0.52	0.44	0.44	0.54	0.45	0.45
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	217	1620		162	1105		500	1456	508	354	1477	589
v/s Ratio Prot	c0.03	0.12			0.13		0.02	c0.20		c0.03	0.15	
v/s Ratio Perm	0.10			c0.20			0.10		0.15	0.16		0.07
v/c Ratio	0.37	0.34		0.82	0.52		0.23	0.45	0.34	0.36	0.33	0.14
Uniform Delay, d1	31.0	32.5		48.2	44.1		17.0	26.2	24.7	16.6	23.7	21.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1		27.1	0.4		0.2	1.0	1.8	0.6	0.6	0.5
Delay (s)	32.0	32.6		75.3	44.5		17.2	27.3	26.5	17.2	24.3	22.1
Level of Service	C	C		E	D		B	C	C	B	C	C
Approach Delay (s)		32.6			50.2			26.0			22.6	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay			31.8			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			80.3%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

APPENDIX

F

2026 FUTURE TOTAL
INTERSECTION
OPERATIONS

Queues
1: Airport Road & Mayfield Road

<FT 2026> AM
07-26-2021

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	126	465	85	386	46	347	176	96	530	100
v/c Ratio	0.38	0.33	0.73	0.51	0.09	0.21	0.24	0.20	0.31	0.15
Control Delay	33.6	35.1	82.1	48.4	14.0	22.4	4.9	14.1	21.2	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	35.1	82.1	48.4	14.0	22.4	4.9	14.1	21.2	5.3
Queue Length 50th (m)	25.8	36.4	23.0	34.7	4.6	27.4	0.0	10.1	42.9	0.0
Queue Length 95th (m)	33.8	37.7	38.0	39.8	13.7	51.8	16.8	25.3	75.1	12.4
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	389	2549	230	1466	510	1616	722	494	1708	646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.18	0.37	0.26	0.09	0.21	0.24	0.19	0.31	0.15
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road











<FT 2026> AM
07-26-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	428	27	83	334	44	45	340	172	94	519	98
Future Volume (vph)	123	428	27	83	334	44	45	340	172	94	519	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1652	4712		1303	4096		1608	3230	1268	1321	3202	1125
Flt Permitted	0.41	1.00		0.48	1.00		0.45	1.00	1.00	0.51	1.00	1.00
Satd. Flow (perm)	721	4712		652	4096		759	3230	1268	716	3202	1125
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	126	437	28	85	341	45	46	347	176	96	530	100
RTOR Reduction (vph)	0	8	0	0	16	0	0	0	88	0	0	47
Lane Group Flow (vph)	126	457	0	85	370	0	46	347	88	96	530	53
Confl. Peds. (#/hr)	2					2			3	3		
Heavy Vehicles (%)	8%	10%	15%	37%	25%	30%	11%	13%	24%	35%	14%	42%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	40.5	40.5		24.4	24.4		73.7	67.6	67.6	80.5	71.4	71.4
Effective Green, g (s)	40.5	40.5		24.4	24.4		73.7	67.6	67.6	80.5	71.4	71.4
Actuated g/C Ratio	0.30	0.30		0.18	0.18		0.55	0.50	0.50	0.60	0.53	0.53
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	306	1413		117	740		452	1617	634	471	1693	595
v/s Ratio Prot	c0.04	0.10			0.09		0.00	0.11		c0.01	c0.17	
v/s Ratio Perm	0.08			c0.13			0.05		0.07	0.11		0.05
v/c Ratio	0.41	0.32		0.73	0.50		0.10	0.21	0.14	0.20	0.31	0.09
Uniform Delay, d1	35.9	36.6		52.2	49.8		14.3	18.9	18.1	11.9	18.0	15.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.1		20.0	0.5		0.1	0.3	0.5	0.2	0.5	0.3
Delay (s)	36.8	36.8		72.1	50.3		14.4	19.2	18.5	12.1	18.4	16.0
Level of Service	D	D		E	D		B	B	B	B	B	B
Approach Delay (s)		36.8			54.3			18.6			17.3	
Approach LOS		D			D			B			B	
Intersection Summary												
HCM 2000 Control Delay			29.9			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.41									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			75.3%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

101: Airport Road & Site Access 2










<FT 2026> AM
07-26-2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	0	452	55	17	698
Future Volume (Veh/h)	13	0	452	55	17	698
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	0	491	60	18	759
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)			181			
pX, platoon unblocked	0.95	0.95			0.95	
vC, conflicting volume	936	276			551	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	833	139			429	
tC, single (s)	7.1	7.2			4.4	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.4	
p0 queue free %	95	100			98	
cM capacity (veh/h)	267	809			985	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	14	327	224	18	380	380
Volume Left	14	0	0	18	0	0
Volume Right	0	0	60	0	0	0
cSH	267	1700	1700	985	1700	1700
Volume to Capacity	0.05	0.19	0.13	0.02	0.22	0.22
Queue Length 95th (m)	1.3	0.0	0.0	0.4	0.0	0.0
Control Delay (s)	19.2	0.0	0.0	8.7	0.0	0.0
Lane LOS	C			A		
Approach Delay (s)	19.2	0.0		0.2		
Approach LOS	C					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			29.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

102: Airport Road & Site Access 1

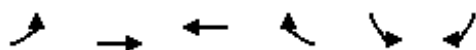
<FT 2026> AM
07-26-2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	429	23	0	715
Future Volume (Veh/h)	0	0	429	23	0	715
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	466	25	0	777
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)			284			
pX, platoon unblocked	0.98	0.98			0.98	
vC, conflicting volume	867	246			491	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	816	180			431	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	311	819			1113	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	0	311	180	388	388	
Volume Left	0	0	0	0	0	
Volume Right	0	0	25	0	0	
cSH	1700	1700	1700	1700	1700	
Volume to Capacity	0.00	0.18	0.11	0.23	0.23	
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	0.0	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			23.1%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

103: Mayfield Road & Site Access 3

<FT 2026> AM
07-26-2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑↑↑	↑↑↑↱			↱	
Traffic Volume (veh/h)	0	753	457	30	0	4	
Future Volume (Veh/h)	0	753	457	30	0	4	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	818	497	33	0	4	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage veh							
Upstream signal (m)		247					
pX, platoon unblocked					0.95		
vC, conflicting volume	530				786	182	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	530				586	182	
tC, single (s)	4.1				6.8	7.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.4	
p0 queue free %	100				100	99	
cM capacity (veh/h)	1048				423	796	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	273	273	273	199	199	132	4
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	33	4
cSH	1700	1700	1700	1700	1700	1700	796
Volume to Capacity	0.16	0.16	0.16	0.12	0.12	0.08	0.01
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.5
Lane LOS							A
Approach Delay (s)	0.0			0.0			9.5
Approach LOS							A
Intersection Summary							
Average Delay			0.0				
Intersection Capacity Utilization			19.5%		ICU Level of Service		A
Analysis Period (min)			15				

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	87	556	140	598	107	630	335	119	408	163
v/c Ratio	0.37	0.33	0.83	0.51	0.19	0.44	0.50	0.32	0.28	0.24
Control Delay	28.0	29.9	80.9	42.4	18.0	31.7	8.0	19.8	28.2	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	29.9	80.9	42.4	18.0	31.7	8.0	19.8	28.2	6.0
Queue Length 50th (m)	15.6	39.6	37.1	51.3	13.7	65.1	3.7	15.5	38.2	0.0
Queue Length 95th (m)	21.9	39.8	56.9	54.6	30.6	107.2	36.5	34.2	66.2	17.5
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	304	2520	238	1627	566	1425	674	376	1442	666
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.59	0.37	0.19	0.44	0.50	0.32	0.28	0.24
Intersection Summary										

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road











<FT 2026> PM
07-26-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	509	36	137	530	56	105	617	328	117	400	160
Future Volume (vph)	85	509	36	137	530	56	105	617	328	117	400	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1293	4656		1460	4528		1783	3288	1148	1511	3259	1300
Flt Permitted	0.31	1.00		0.43	1.00		0.50	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)	416	4656		666	4528		929	3288	1148	528	3259	1300
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	87	519	37	140	541	57	107	630	335	119	408	163
RTOR Reduction (vph)	0	8	0	0	11	0	0	0	177	0	0	91
Lane Group Flow (vph)	87	548	0	140	587	0	107	630	158	119	408	72
Confl. Peds. (#/hr)	4		4	4		4	3		9	9		3
Heavy Vehicles (%)	38%	12%	3%	22%	10%	52%	0%	11%	36%	18%	12%	21%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	48.6	48.6		34.3	34.3		68.1	58.5	58.5	70.7	59.8	59.8
Effective Green, g (s)	48.6	48.6		34.3	34.3		68.1	58.5	58.5	70.7	59.8	59.8
Actuated g/C Ratio	0.36	0.36		0.25	0.25		0.50	0.43	0.43	0.52	0.44	0.44
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	223	1676		169	1150		529	1424	497	355	1443	575
v/s Ratio Prot	c0.03	0.12			0.13		0.01	c0.19		c0.03	0.13	
v/s Ratio Perm	0.11			c0.21			0.09		0.14	0.15		0.06
v/c Ratio	0.39	0.33		0.83	0.51		0.20	0.44	0.32	0.34	0.28	0.13
Uniform Delay, d1	30.1	31.3		47.6	43.2		17.7	26.8	25.1	17.2	23.9	22.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1		27.1	0.4		0.2	1.0	1.7	0.6	0.5	0.4
Delay (s)	31.2	31.4		74.7	43.5		17.8	27.8	26.8	17.8	24.4	22.6
Level of Service	C	C		E	D		B	C	C	B	C	C
Approach Delay (s)		31.4			49.4			26.5			22.9	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay			32.1				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			135.0				Sum of lost time (s)			20.0		
Intersection Capacity Utilization			80.0%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

101: Airport Road & Site Access 2










<FT 2026> PM
07-26-2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	57	11	748	10	0	620
Future Volume (Veh/h)	57	11	748	10	0	620
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	62	12	813	11	0	674
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)			181			
pX, platoon unblocked	0.87	0.87			0.87	
vC, conflicting volume	1156	412			824	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	886	34			506	
tC, single (s)	7.1	7.2			4.5	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.4	
p0 queue free %	73	99			100	
cM capacity (veh/h)	229	867			824	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	74	542	282	0	337	337
Volume Left	62	0	0	0	0	0
Volume Right	12	0	11	0	0	0
cSH	260	1700	1700	1700	1700	1700
Volume to Capacity	0.28	0.32	0.17	0.00	0.20	0.20
Queue Length 95th (m)	9.1	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	24.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	24.3	0.0		0.0		
Approach LOS	C					
Intersection Summary						
Average Delay		1.1				
Intersection Capacity Utilization		31.5%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

102: Airport Road & Site Access 1

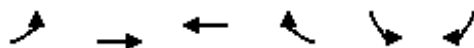
<FT 2026> PM
07-26-2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	5	755	4	0	620
Future Volume (Veh/h)	0	5	755	4	0	620
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	5	821	4	0	674
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)			284			
pX, platoon unblocked	0.88	0.88			0.88	
vC, conflicting volume	1160	412			825	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	905	54			524	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	246	886			925	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	5	547	278	337	337	
Volume Left	0	0	0	0	0	
Volume Right	5	0	4	0	0	
cSH	886	1700	1700	1700	1700	
Volume to Capacity	0.01	0.32	0.16	0.20	0.20	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	
Control Delay (s)	9.1	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	9.1	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			31.0%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

103: Mayfield Road & Site Access 3

<FT 2026> PM
07-26-2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑↑↑	↑↑↑↓			↗	
Traffic Volume (veh/h)	0	1161	701	0	0	22	
Future Volume (Veh/h)	0	1161	701	0	0	22	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	1262	762	0	0	24	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage (veh)							
Upstream signal (m)		247					
pX, platoon unblocked					0.94		
vC, conflicting volume	762				1183	254	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	762				968	254	
tC, single (s)	4.1				6.8	7.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.4	
p0 queue free %	100				100	97	
cM capacity (veh/h)	859				239	710	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	421	421	421	305	305	152	24
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	24
cSH	1700	1700	1700	1700	1700	1700	710
Volume to Capacity	0.25	0.25	0.25	0.18	0.18	0.09	0.03
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS							B
Approach Delay (s)	0.0			0.0			10.2
Approach LOS							B
Intersection Summary							
Average Delay			0.1				
Intersection Capacity Utilization			25.8%		ICU Level of Service		A
Analysis Period (min)			15				

APPENDIX

G

2031 FUTURE TOTAL
INTERSECTION
OPERATIONS

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	126	465	85	386	54	398	194	96	530	100
v/c Ratio	0.38	0.33	0.73	0.51	0.11	0.25	0.27	0.21	0.31	0.16
Control Delay	33.6	35.1	82.1	48.4	13.9	22.7	4.8	14.2	21.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	35.1	82.1	48.4	13.9	22.7	4.8	14.2	21.4	5.3
Queue Length 50th (m)	25.8	36.4	23.0	34.7	5.5	32.0	0.0	10.1	43.2	0.0
Queue Length 95th (m)	33.8	37.7	38.0	39.8	15.3	59.3	17.5	25.3	75.7	12.5
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	389	2549	230	1466	509	1616	731	468	1701	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.18	0.37	0.26	0.11	0.25	0.27	0.21	0.31	0.16

Intersection Summary

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road











<FT 2031> AM
07-26-2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	428	27	83	334	44	53	390	190	94	519	98
Future Volume (vph)	123	428	27	83	334	44	53	390	190	94	519	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1652	4712		1303	4096		1608	3230	1268	1321	3202	1125
Flt Permitted	0.41	1.00		0.48	1.00		0.45	1.00	1.00	0.48	1.00	1.00
Satd. Flow (perm)	721	4712		652	4096		755	3230	1268	669	3202	1125
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	126	437	28	85	341	45	54	398	194	96	530	100
RTOR Reduction (vph)	0	8	0	0	16	0	0	0	97	0	0	47
Lane Group Flow (vph)	126	457	0	85	370	0	54	398	97	96	530	53
Confl. Peds. (#/hr)	2					2			3	3		
Heavy Vehicles (%)	8%	10%	15%	37%	25%	30%	11%	13%	24%	35%	14%	42%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	40.5	40.5		24.4	24.4		74.0	67.6	67.6	80.5	71.1	71.1
Effective Green, g (s)	40.5	40.5		24.4	24.4		74.0	67.6	67.6	80.5	71.1	71.1
Actuated g/C Ratio	0.30	0.30		0.18	0.18		0.55	0.50	0.50	0.60	0.53	0.53
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	306	1413		117	740		454	1617	634	446	1686	592
v/s Ratio Prot	c0.04	0.10			0.09		0.01	0.12		c0.02	c0.17	
v/s Ratio Perm	0.08			c0.13			0.06		0.08	0.11		0.05
v/c Ratio	0.41	0.32		0.73	0.50		0.12	0.25	0.15	0.22	0.31	0.09
Uniform Delay, d1	35.9	36.6		52.2	49.8		14.3	19.2	18.2	12.0	18.1	15.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.1		20.0	0.5		0.1	0.4	0.5	0.2	0.5	0.3
Delay (s)	36.8	36.8		72.1	50.3		14.4	19.6	18.7	12.2	18.6	16.2
Level of Service	D	D		E	D		B	B	B	B	B	B
Approach Delay (s)		36.8			54.3			18.9			17.4	
Approach LOS		D			D			B			B	
Intersection Summary												
HCM 2000 Control Delay			29.6			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.41									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			75.3%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

101: Airport Road & Site Access 2










<FT 2031> AM
07-26-2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	0	502	55	17	698
Future Volume (Veh/h)	13	0	502	55	17	698
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	0	546	60	18	759
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)			181			
pX, platoon unblocked	0.94	0.94			0.94	
vC, conflicting volume	992	303			606	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	866	134			456	
tC, single (s)	7.3	7.4			4.3	
tC, 2 stage (s)						
tF (s)	3.8	3.6			2.3	
p0 queue free %	94	100			98	
cM capacity (veh/h)	230	768			985	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	14	364	242	18	380	380
Volume Left	14	0	0	18	0	0
Volume Right	0	0	60	0	0	0
cSH	230	1700	1700	985	1700	1700
Volume to Capacity	0.06	0.21	0.14	0.02	0.22	0.22
Queue Length 95th (m)	1.5	0.0	0.0	0.4	0.0	0.0
Control Delay (s)	21.7	0.0	0.0	8.7	0.0	0.0
Lane LOS	C			A		
Approach Delay (s)	21.7	0.0		0.2		
Approach LOS	C					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			29.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

102: Airport Road & Site Access 1

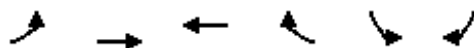
<FT 2031> AM
07-26-2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	479	23	0	715
Future Volume (Veh/h)	0	0	479	23	0	715
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	521	25	0	777
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)			284			
pX, platoon unblocked	0.96	0.96			0.96	
vC, conflicting volume	922	273			546	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	842	167			451	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	296	822			1078	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	0	347	199	388	388	
Volume Left	0	0	0	0	0	
Volume Right	0	0	25	0	0	
cSH	1700	1700	1700	1700	1700	
Volume to Capacity	0.01	0.20	0.12	0.23	0.23	
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	0.0	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			23.1%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

103: Mayfield Road & Site Access 3

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑↑↑	↑↑↑↓			↗	
Traffic Volume (veh/h)	0	771	457	30	0	4	
Future Volume (Veh/h)	0	771	457	30	0	4	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	838	497	33	0	4	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage (veh)							
Upstream signal (m)		247					
pX, platoon unblocked					0.95		
vC, conflicting volume	530				793	182	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	530				593	182	
tC, single (s)	4.1				6.8	7.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.4	
p0 queue free %	100				100	99	
cM capacity (veh/h)	1048				419	796	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	279	279	279	199	199	132	4
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	33	4
cSH	1700	1700	1700	1700	1700	1700	796
Volume to Capacity	0.16	0.16	0.16	0.12	0.12	0.08	0.01
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.5
Lane LOS							A
Approach Delay (s)	0.0			0.0			9.5
Approach LOS							A
Intersection Summary							
Average Delay			0.0				
Intersection Capacity Utilization			19.5%		ICU Level of Service		A
Analysis Period (min)			15				

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	87	556	140	598	114	669	342	146	505	203
v/c Ratio	0.37	0.33	0.83	0.51	0.23	0.48	0.52	0.40	0.35	0.30
Control Delay	28.0	29.9	80.9	42.4	18.4	33.3	9.5	21.0	29.4	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	29.9	80.9	42.4	18.4	33.3	9.5	21.0	29.4	5.7
Queue Length 50th (m)	15.6	39.6	37.1	51.3	14.6	72.0	6.9	19.4	49.1	0.0
Queue Length 95th (m)	21.9	39.8	56.9	54.6	32.3	114.9	43.7	41.2	83.0	19.9
Internal Link Dist (m)	1322.3		91.7		681.5		157.2			
Turn Bay Length (m)	57.0		32.0		94.0		60.0	109.0		100.0
Base Capacity (vph)	304	2520	238	1627	509	1391	659	364	1436	686
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.59	0.37	0.22	0.48	0.52	0.40	0.35	0.30

Intersection Summary

HCM Signalized Intersection Capacity Analysis

1: Airport Road & Mayfield Road











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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	509	36	137	530	56	112	656	335	143	495	199
Future Volume (vph)	85	509	36	137	530	56	112	656	335	143	495	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1293	4656		1460	4528		1784	3288	1148	1511	3259	1300
Flt Permitted	0.31	1.00		0.43	1.00		0.44	1.00	1.00	0.30	1.00	1.00
Satd. Flow (perm)	416	4656		666	4528		818	3288	1148	479	3259	1300
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	87	519	37	140	541	57	114	669	342	146	505	203
RTOR Reduction (vph)	0	8	0	0	11	0	0	0	174	0	0	114
Lane Group Flow (vph)	87	548	0	140	587	0	114	669	168	146	505	89
Confl. Peds. (#/hr)	4		4	4		4	3		9	9		3
Heavy Vehicles (%)	38%	12%	3%	22%	10%	52%	0%	11%	36%	18%	12%	21%
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)	48.6	48.6		34.3	34.3		67.0	57.1	57.1	71.8	59.5	59.5
Effective Green, g (s)	48.6	48.6		34.3	34.3		67.0	57.1	57.1	71.8	59.5	59.5
Actuated g/C Ratio	0.36	0.36		0.25	0.25		0.50	0.42	0.42	0.53	0.44	0.44
Clearance Time (s)	3.0	7.1		7.1	7.1		3.0	6.9	6.9	3.0	6.9	6.9
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	223	1676		169	1150		476	1390	485	348	1436	572
v/s Ratio Prot	c0.03	0.12			0.13		0.02	c0.20		c0.04	0.15	
v/s Ratio Perm	0.11			c0.21			0.10		0.15	0.18		0.07
v/c Ratio	0.39	0.33		0.83	0.51		0.24	0.48	0.35	0.42	0.35	0.16
Uniform Delay, d1	30.1	31.3		47.6	43.2		18.4	28.2	26.3	17.4	25.0	22.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1		27.1	0.4		0.3	1.2	2.0	0.8	0.7	0.6
Delay (s)	31.2	31.4		74.7	43.5		18.6	29.4	28.3	18.2	25.7	23.3
Level of Service	C	C		E	D		B	C	C	B	C	C
Approach Delay (s)		31.4			49.4			28.0			23.8	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay			32.3			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			135.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			81.4%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

101: Airport Road & Site Access 2










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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	57	11	787	10	0	780
Future Volume (Veh/h)	57	11	787	10	0	780
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	62	12	855	11	0	848
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)			181			
pX, platoon unblocked	0.86	0.86			0.86	
vC, conflicting volume	1284	433			866	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1003	12			516	
tC, single (s)	7.0	7.1			5.0	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.6	
p0 queue free %	68	99			100	
cM capacity (veh/h)	191	888			689	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	74	570	296	0	424	424
Volume Left	62	0	0	0	0	0
Volume Right	12	0	11	0	0	0
cSH	219	1700	1700	1700	1700	1700
Volume to Capacity	0.34	0.34	0.17	0.00	0.25	0.25
Queue Length 95th (m)	11.4	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	29.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	D					
Approach Delay (s)	29.7	0.0		0.0		
Approach LOS	D					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			32.6%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

102: Airport Road & Site Access 1

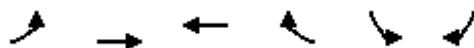
<FT 2031> PM
07-26-2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	5	794	4	0	780
Future Volume (Veh/h)	0	5	794	4	0	780
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	5	863	4	0	848
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)			284			
pX, platoon unblocked	0.86	0.86			0.86	
vC, conflicting volume	1289	434			867	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1020	31			532	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	204	902			904	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	5	575	292	424	424	
Volume Left	0	0	0	0	0	
Volume Right	5	0	4	0	0	
cSH	902	1700	1700	1700	1700	
Volume to Capacity	0.01	0.34	0.17	0.25	0.25	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	
Control Delay (s)	9.0	0.0	0.0	0.0	0.0	
Lane LOS						
Approach Delay (s)	9.0	0.0		0.0		
Approach LOS						
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			32.1%	ICU Level of Service		A
Analysis Period (min)			15			

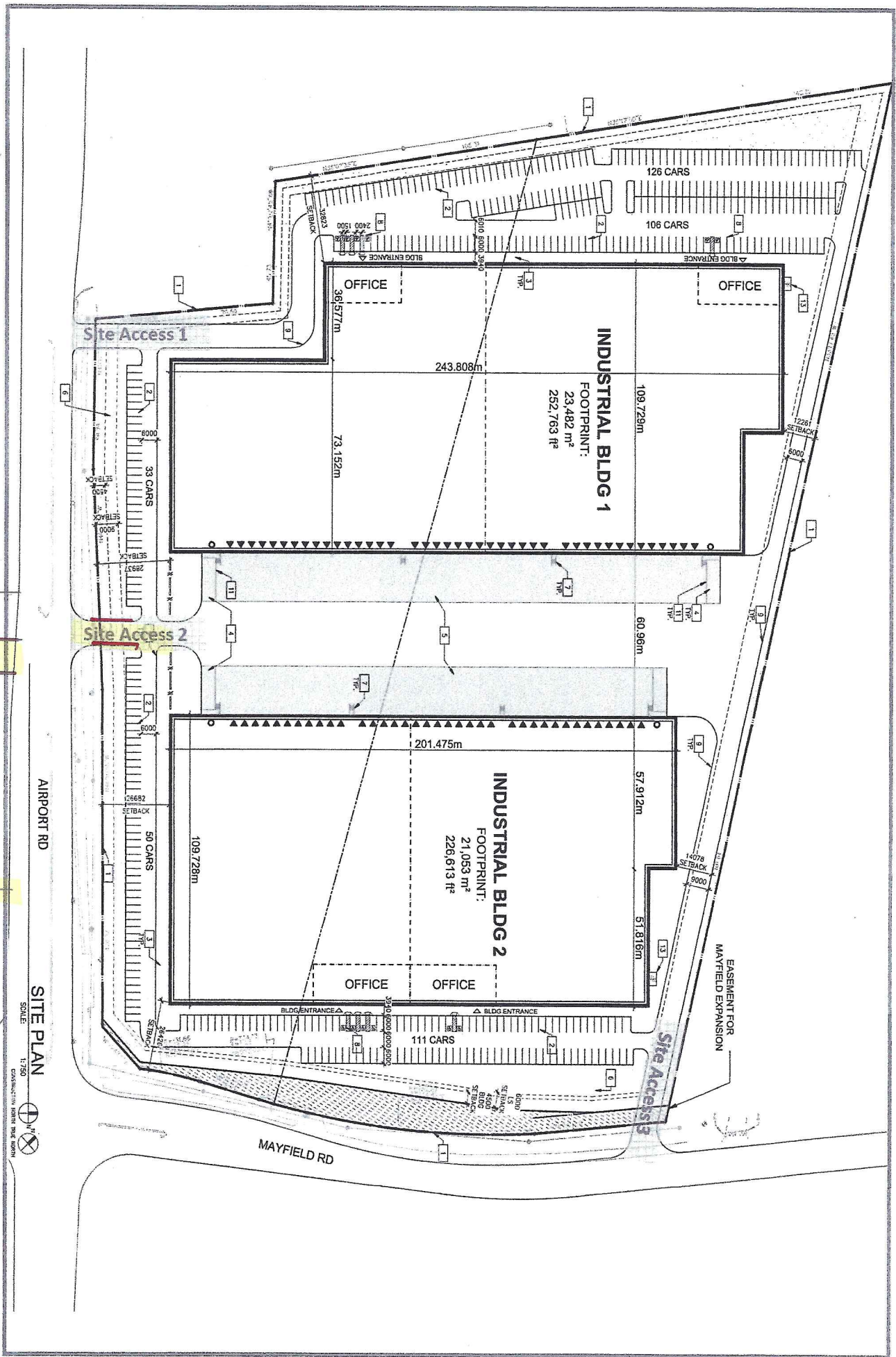
HCM Unsignalized Intersection Capacity Analysis

103: Mayfield Road & Site Access 3

<FT 2031> PM
07-26-2021



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		↑↑↑↑	↑↑↑↓			↗	
Traffic Volume (veh/h)	0	1194	701	0	0	22	
Future Volume (Veh/h)	0	1194	701	0	0	22	
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	1298	762	0	0	24	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type		None	None				
Median storage (veh)							
Upstream signal (m)		247					
pX, platoon unblocked					0.94		
vC, conflicting volume	762				1195	254	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	762				981	254	
tC, single (s)	4.1				6.8	7.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.4	
p0 queue free %	100				100	97	
cM capacity (veh/h)	859				235	710	
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	433	433	433	305	305	152	24
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	24
cSH	1700	1700	1700	1700	1700	1700	710
Volume to Capacity	0.25	0.25	0.25	0.18	0.18	0.09	0.03
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS							B
Approach Delay (s)	0.0			0.0			10.2
Approach LOS							B
Intersection Summary							
Average Delay			0.1				
Intersection Capacity Utilization			26.4%		ICU Level of Service		A
Analysis Period (min)			15				



WSP

ESTIMATED
EXISTING SITE
ACCESS
12050 AIRPORT RD
SHELL

SITE PLAN
SCALE: 1:750
CONSTRUCTION PERMIT FILE NUMBER

Figure 1.2
Proposed
Site Plan

**TOWN OF CALEDON
PLANNING
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PLANNING JUSTIFICATION AND URBAN DESIGN **REPORT**

OFFICIAL PLAN AMENDMENT &
ZONING BY-LAW AMENDMENT

6034 MAYFIELD ROAD
Town of Caledon

Date:

July 2021

Prepared for:

Airfield Developments

Airfield II Developments Inc.

Prepared by:

MacNaughton Hermesen Britton Clarkson Planning Limited (MHBC)

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Our File 07132EB

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1.0

INTRODUCTION

1.1 Purpose of the Application

MacNaughton Hermesen Britton Clarkson Planning Limited ("MHBC") has been retained by Airfield Developments, Airfield II Developments Inc. (hereinafter the "Owner") to seek approval of an Official Plan Amendment ("OPA") and Zoning By-law Amendment ("ZBA"). The applications would facilitate two one-storey industrial buildings on the lands located at the northeast corner of Airport Road and Mayfield Road, municipally addressed as 6034 Mayfield Road as shown on **Figure 1** (hereinafter "the Subject Lands")

The proposed development will contribute to the overall development of the Tullamore settlement area. The Subject Lands are in proximity to a variety of industrial, commercial and residential uses. The Subject Lands are within 100 m of the Brampton Transit Route Bus 30 route, which connects to Zum Transit Routes and Malton GO Station.

The Owner is seeking an amendment to the Caledon Official Plan and Zoning By-law 2006-50 ("ZBL 2006-50") to permit employment/industrial uses and site specific development standards.

The proposed amendments will permit two one-storey industrial buildings with a total gross floor area of 44,535.19 sq. m (479,375.78 sq. ft.). Additional details on the proposal can be found in **Section 1.3.**

This report has been prepared in support of the OPA and ZBA application. Based on the review of analysis contained herein, we conclude that the proposed request is consistent with the Provincial Policy Statement; conforms to or does not conflict with the Growth Plan; conforms to the Region of Peel and conforms to the Town of Caledon's Official Plans. The proposal has had regard to matters of Provincial Interest.



1.2 Subject Lands and Surrounding Area

1.2.1 Subject Lands

The Subject Lands are approximately 9.43 hectares (23.31 acres) in size and are located on the northeast corner of Mayfield Road and Airport Road (**Figure 1**). The Subject Lands are currently vacant. The Subject Lands are in proximity to a variety of industrial uses and are within 100 m of the Brampton Transit Route Bus 30 route, which connects to Zum Transit Routes and Malton GO Station.

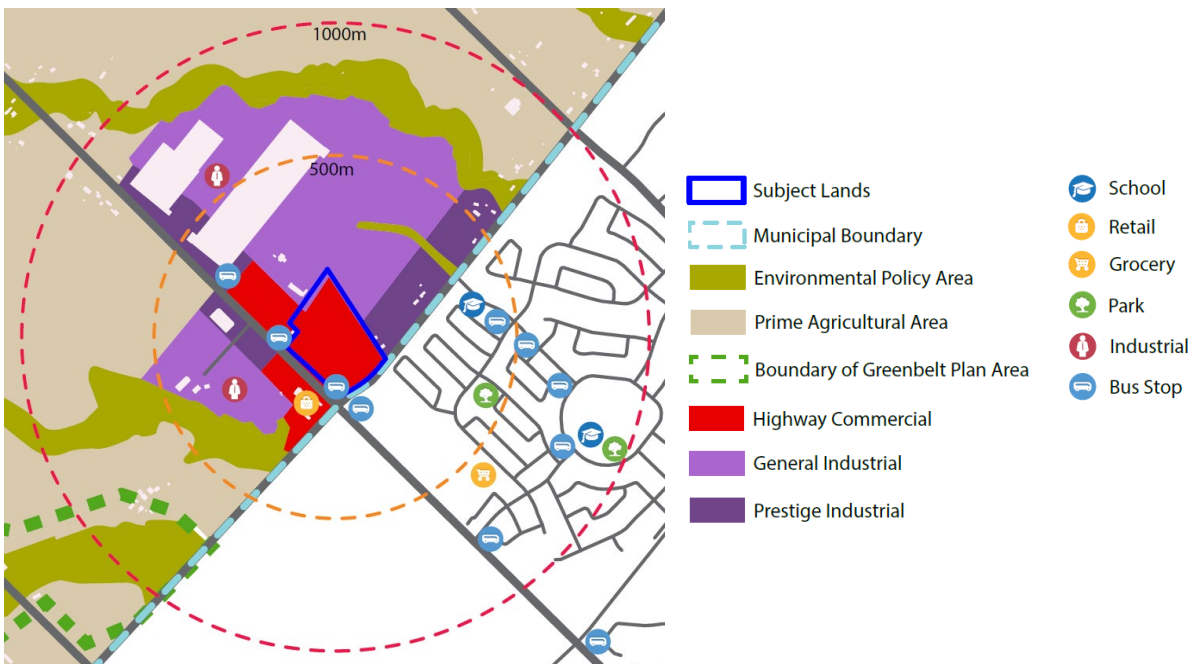
1.2.2 Surrounding Area

A summary of the uses that surround the Subject Lands (**Figure 2**) include the following:

- NORTH:** Immediately north of the Subject Lands is Parkview Transit Yard, Pepsico South Yard and DHL Warehouse Store.
- WEST:** Immediately west of the Subject Lands is Airport Road and restaurant, further west is a range of commercial and industrial uses.
- EAST:** Immediately east of the Subject Lands is a range of industrial and agricultural uses.
- SOUTH:** Immediately south of the Subject Lands is Mayfield Road, further south is a range of residential and agricultural uses.

Currently there are no active development applications within 500 m of the Subject Lands.

Figure 2: Context Plan



1.3 DESCRIPTION OF THE UPDATED PROPOSAL

As noted above, the proposed amendments will permit two one-storey industrial buildings with a total gross floor area of 44,535.19 sq. m (479,375.78 sq. ft.). The overall density is 0.47 times the lot area.

The proposed industrial buildings will provide opportunities for future accessory office uses within the industrial building up to a maximum gross floor area of 2,034.6 sq. m. (21,900.3sq. ft.), 5% of the total proposed gross floor area.

Building 1 will have a total gross floor area of 23,482.19 sq. m. (252,763.18 sq. ft.) which consists of 22,488.12 sq. m. (242,063.10 sq. ft.) of industrial use and 994.07 sq. m. (10,700.08 sq. ft.) of accessory office use.

Building 2 will have a total gross floor area of 21,053 sq. m. (226,612.6 sq. ft.) which consists of 20,012.47 sq. m. (215,412.43 sq. ft.) of industrial use and 1,040.53 sq. m. (11,200.17 sq. ft.) of accessory office use.

Parking will be provided at grade, along the frontages of Airport Road, Mayfield Road and internally to the Subject Lands. A total of 426 parking spaces are proposed. A total of 83 dock-high doors are proposed on the south façade of Building 1 and north façade of Building 2, internal to the Subject Lands, to screen loading from the public realm.

1.4 POLICY CONTEXT

The following is an overview of the status of the Provincial and Town planning documents that affect the Subject Lands, namely, the Region of Peel Official Plan, the Town of Caledon Official Plan, and the Town of Caledon Zoning By-law. The Provincial Policies along with the Region and Town Official Plan policies will be used to evaluate the proposed Official Plan and Zoning By-law Amendments to determine if it represents good planning and is in the public interest. This evaluation can be found in **Section 3.0** of this report.

The proposed development supports the matters of Provincial Interest as outlined in Section 2 of *Planning Act* by:

- Protecting the ecological system, the proposed development will not have any negative impacts on the environment;
- The proposed employment/industrial buildings will be supported by the existing higher order transit and will promote patterns of development that reduce impacts on climate change;
- The proposed buildings will be constructed in accordance with the Ontario Building Code, AODA, and all required accessible standards;
- The proposed development will efficiently use land that is currently vacant, and will further contribute to the employment nature of this area of the Town;
- The proposed employment/industrial buildings will contribute to the mix and range of uses within the Tullamore Settlement Area. The proposed development will assist the Town in meeting its long-term needs for growth; and
- The Subject Lands are located in an area designated for growth and development, and not located in an area subject to any environmental, public health or safety concerns.

1.4.1 Provincial Policy Statement & Growth Plan for the Greater Golden Horseshoe

The Provincial Policy Statement (“PPS”) and Growth Plan for the Greater Golden Horseshoe (“Growth Plan”) directs development to establish built-up areas where there is existing municipal infrastructure. Intensification and redevelopment is encouraged as is a range and mix of employment uses in a compact urban form.

The policy direction set out in the PPS and Growth Plan requires municipalities to undertake planning for the Industrial/Commercial Centre such that they are protected and enhanced. Furthermore both documents call for the efficient use of land and the optimization of infrastructure. The proposed development will support the investment of infrastructure that has been put in place within this area.

1.4.2 Region of Peel Official Plan

The Subject Lands are designated “Prime Agricultural Area” on **Schedule B – Prime Agricultural Area (Figure 3)** and “Rural System” on **Schedule D – Regional Structure (Figure 4)** within the Region of Peel Official Plan (“RPOP”). Prime Agricultural Areas are to support and permit normal farm practices and a full range of agricultural, agriculture-related and secondary uses within the prime agricultural area. Further, the Rural System has diverse natural and rural landscapes. The Rural System is to promote healthy rural communities that collectively contains living, working and recreational opportunities, and respect the natural environment and resources.

The Subject Lands are also designated “Settlement with Undelineated Built Boundary” on **Schedule D4 – The Growth Plan Policy Areas in Peel (Figure 5)**. Rural Settlements as identified on Schedule D4 comprise of Villages, Hamlets and Industrial/Commercial Centres located within the Rural System. Industrial/Commercial Centres play a supportive function to the Rural Service Centres and provide at a small scale, opportunities for industrial and commercial developments.

1.4.3 Town of Caledon Official Plan

The Subject Lands are designated “Agricultural and Rural Area of the Growth Plan” with an identifier as being located within an “Industrial/Commercial Centre” on **Schedule A1 Town Structure (Figure 6)** within the Town of Caledon’s Official Plan (“COP”). More particularly, the Subject Lands are located within a “Settlement Area” on **Schedule F Rural Estate Residential Areas (Figure 7)**. The Industrial/Commercial Centre designation provides for a range of general industrial uses and a range of commercial uses, including but not limited to warehousing, office related industrial uses and service commercial uses.

The majority of the Subject Lands are designated “Highway Commercial” and the strip of lands at the northeast corner are designated “General Industrial”, and subject to OPA 239 on **Schedule N Tullamore Land Use Area (Figure 8)**. In addition, a conceptual road network is planned to go through from the north to east boundary of the Subject Lands. Lastly, the Subject Lands are also located within “Settlement with Undelineated Built-up Area” on **Figure 1 Growth Plan Policy Area in Caledon**. The Tullamore Secondary Plan Area is intended to serve primarily industrial uses.

The Town of Caledon Council adopted Official Plan Amendment No. 239 to re-designate a portion of the Subject Lands (Part of Lot 1, Concession 1 (Albion) in the Town of Caledon, located at the northeast corner

of Mayfield Road and Airport Road) as “Highway Commercial” and include additional policies within the Highway Commercial designation pertaining to the site within the Tullamore Secondary Plan, to permit retail and service commercial centre on the Subject Lands.

An Official Plan Amendment is sought to permit the proposed employment/industrial use and redesignate the Subject Lands to one designation (Highway Commercial) as the Subject Lands currently have a split designation in the Caledon Official Plan.

1.4.4. Town of Caledon Zoning By-law

The Subject Lands are zoned **Highway Commercial (CH-556-H19 and CH-480-H13)** and **Service Industrial (MS-483-H13)**. The Highway Commercial Zone permits a range of commercial uses while the Service Industrial Zone permits a range of industrial uses.

A Zoning By-law Amendment is sought to permit the proposed employment / industrial uses, outdoor storage and site specific provisions to rezone the entire Subject Lands one zone.

1.4.5. Tullamore Community Design Guidelines

The Tullamore Community is located on the north side of Mayfield Road at the intersection of Airport Road and Mayfield Road. The Tullamore Community is currently occupied by agricultural land, commercial, industrial and residential uses.

The purpose of the Tullamore Community Guidelines is to establish a coordinated approach to landscaping in the area that will assist in creating an attractive and desirable community. In addition, the guidelines are to provide direction to individual developers and their landscape architect when preparing detailed plans for each subdivision and site plan.

A full analysis of the key Tullamore Community Design Guidelines that are directly engaged in the review of the proposed development can be found in **Appendix G**.

2.0

PLANNING AND DESIGN EVALUATION

2.1 OVERALL CONTEXT

The overall design direction of the Tullamore Secondary Plan Area is to allow for the planned concentration of industrial, commercial and service industries as an important component of the Town's overall rural settlement structure. The Tullamore Secondary Plan Area policies that the area is a prestigious area and is to be integrated in a compact form, be pedestrian-oriented accessible by public transit and promote an efficient and effective use of land.

The Subject Lands are immediately adjacent to a range of industrial uses, in this context the proposed industrial buildings will contribute to and will be complementary to the Tullamore Secondary Plan Area.

Additional review and analysis of the proposal relative to the Tullamore Secondary Plan Area can be found in **Appendix F**.

2.2 SITE DESIGN, BUILT FORM AND MASSING

The proposed development has been designed to improve the existing pedestrian environment and public realm along Airport Road and Mayfield Road. The primary entrance of the industrial buildings will be accessible from Airport Road, Mayfield Road and the proposed pedestrian walkways along Airport Road and Mayfield Road. Landscaping will be adjacent to pedestrian walkways to further create an inviting public realm for employees and visitors.

The primary vehicular accesses (Airport Road) for employees is separate from the primary vehicular access (Mayfield Road) for trailers to help reduce conflict between pedestrians and vehicular traffic. The proposed design will provide an animated streetscape at the ground-level through the proposed accessory office uses along Airport Road and Mayfield Road.

The proposed two one-storey industrial buildings are consistent with the planned character area of Tullamore Secondary Plan Area, by establishing a street wall along Airport Road and Mayfield and to improve the existing condition.

The massing and scale of the proposed building is appropriate to the employment context of the area. The proposed buildings provide a prominent presence for a corner lot, establishing a street wall and extending the built form present along Airport Road and Mayfield Road.

2.3 ARCHITECTURAL DESIGN

An attractive architectural design and range of materials will be achieved to reflect a high level of quality and contribute to the existing and future employment use architectural character of the area. Specific details will be determined through Site Plan.

The proposed façade design will be animated and articulated by incorporating breaks in the façade. Along the Airport Road and Mayfield Road frontages, the proposed building provides wall projection and recesses, utilizing relief and rhythm to enhance the visual interest of the proposed building design.

The loading area is proposed centrally between both buildings thereby screened from Airport Road and Mayfield Road. Overall, the proposed design of the building is compatible and complementary to the existing surrounding employment conditions through the use of materials, colours, fenestration and articulation. The building design conforms to the vision and design direction of Tullamore Secondary Plan Area which encourages employment uses. As such the proposed building will be compatible and complimentary with future industrial and commercial buildings within the immediate area.

2.4 LANDSCAPE DESIGN

Enhanced landscaping will increase visual interest and wayfinding signage will be used to direct people to the employment area. In addition, the street-level design will be further defined through a mixture of landscaping to act as a focal point. Together the proposed development will support a comfortable pedestrian realm within the Subject Lands. High-quality landscaping will be provided in order to screen and enhance visual interest along the street edge, softening the existing hard edges. The plantings around the active edges of the site that will be consistent with local tree and plant species, as well as be native, drought tolerant species, withstanding seasonal changes and road side conditions.

Attractive light standards and fixtures will be located around the pedestrian walkways and driveway to enhance safety. Light standards will be of a similar design and style to existing light standards within Tullamore Secondary Plan Area to further integrate the proposal with the high quality designs proposed and existing. Cutoffs will be used to ensure light spillage onto adjacent properties will not occur.

2.5 ACCESS, PARKING AND SERVICING

The majority of parking is located at the front and side yard of the proposed building due to the shape and orientation of the Subject Lands and proposed building. The proposed building and parking layout will make efficient use of the property. The proposed vehicular parking supply satisfies the Town of Caledon's minimum requirements for both warehouse and industrial uses.

Four vehicular access points is proposed within the Subject Lands, two on Airport Road and one on Mayfield Road. The site is expected to generate a total of 142 and 109 trips (including both truck and vehicle trips)

during the weekday a.m. and p.m. peak hours, respectively. All movements to/from the Subject Lands will operate within the existing capacity of Airport Road and Mayfield Road.

2.6 CONCLUSION

Based on our review of the proposed design, the employment mixed use context, applicable Provincial, Regional and Town policies, it is our opinion that the proposal adheres to the design direction of the Caledon Official Plan based on the following:

- The design of the Subject Lands will focus on the improving the pedestrian environment along Airport Road and Mayfield Road will ensure safe connection from the proposed buildings.
- The proposed building will be appropriately massed along both frontages and will create a strong street wall presence along Airport Road and Mayfield Road which is appropriate for an Employment Area. The proposed industrial buildings will incorporate office uses to provide animation at grade.
- The massing and scale of the proposed building is appropriate to the existing employment context and will compliment future employment uses within the area.
- The proposed development is adjacent to existing transit facilities along Mayfield Road, including Zum bus stations, supporting existing and future transit infrastructure within the area.
- Design considerations have been made for proposed development due to the shape and orientation of the Subject Lands. The proposed building, parking layout and access onto Airport Road and Mayfield Road will make efficient use of the property.

Overall, the proposal represents good design and will build upon the existing and planned employment mixed use context.

3.0

PLANNING ANALYSIS

The following section sets out our analysis of the proposal in relation to Provincial, Regional and Local Policies. More specifically, the proposed development is evaluated against policies within the Provincial Policy Statement, Growth Plan for the Greater Golden Horseshoe, the Region of Peel and the Town of Caledon Official Plans including the Tullamore Secondary Plan. The following sections summarize our analysis of key policies and how they are addressed through the proposed development. A detailed analysis of each policy documented can be found in **Appendices C to F**.

3.1 PROVINCIAL POLICY STATEMENT

The 2020 Provincial Policy Statement was approved by the Ministry of Municipal Affairs and Housing on May 1st, 2020 and is applicable to the Town of Caledon. The PPS provides general policy direction on matters relating to land use planning and development. The PPS outlines policy for Ontario's long term prosperity, economic health and social well-being. These directives help to inform Municipalities' Official Plans and Zoning By-laws, which then allow for the efficient use of lands and development patterns that support strong, livable and healthy communities that protect the environment and public health and safety, and facilitate economic growth.

Building strong healthy communities is one of the key policy directives of the PPS as found in **Section 1.0**. It helps to inform the management and promotion of efficient development and land use patterns for accommodating an appropriate mix of residential, employment, institutional, recreation, park and open space uses and improving accessibility by removing land use barriers in order to create livable communities. The policies support the promotion of healthy, livable and safe communities through such matters as, intensification, land use compatibility, provision of housing, and the efficient use of public services and infrastructure.

Section 1.3 promotes economic development by providing an appropriate mix and range of employment, institutional, and broader mixed uses to meet long-term needs.

In addition, **Section 1.5** promotes healthy, active communities by providing a full range and equitable distribution of publicly-accessible built and natural settings for recreation, including parkland, public spaces, open space areas, trails and linkages. Furthermore, by providing safe public streets, spaces and facilities that meet the needs of pedestrians, foster social interaction and facilitate active transportation and community connectivity.

The policies in **Section 1.6** deal with the efficient use of existing water, storm water, sanitary sewer, and transportation infrastructure. New developments are encouraged to utilize and support existing municipal infrastructure and support and enhance existing and planned transportation networks and corridors.

Section 1.7 focuses on how to achieve and support long-term economic prosperity. The policies recognize that promoting development that can optimize the use of land, resources and infrastructure.

Section 1.8 provides policy directions to support energy conservation through appropriate land use and development patterns.

A full analysis of the relevant Provincial Policy Statements in relation to the proposed amendments can be found in **Appendix C**. In summary:

1. The proposed Official Plan Amendment and Zoning By-law Amendment will allow for the efficient development of underutilized (vacant) lands within the existing rural settlement area of the Town of Caledon.
2. The proposed Official Plan Amendment and Zoning By-law Amendment will allow the development of approximately 37 jobs per hectare to the Town's employment stock and assist the Town in providing a mixture of employment opportunities.
3. The proposed Official Plan Amendment and Zoning By-law Amendment will allow for an appropriate employment built form that optimizes existing infrastructure and efficiently utilizes the land for employment purposes.
4. The proposed development permitted by the Official Plan Amendment and Zoning By-law Amendment does not cause undue environmental or public health and safety concerns.
5. The proposed Official Plan Amendment and Zoning By-law Amendment will ensure that the Subject Lands are developed in a manner that is supportive of the adjacent existing and emerging commercial and industrial uses.
6. The proposed development area will be developed in a manner that is compatible with existing and future employment uses through appropriate design.
7. The proposed development permitted by the Official Plan Amendment and Zoning By-law Amendment will comply with all applicable Provincial legislation, including the Ontario Building Code and Accessibility for Ontarians with Disabilities Act (AODA).

In our opinion the proposed Official Plan Amendment and Zoning By-law Amendment are consistent with the 2020 PPS.

3.2 GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE, 2020

The Growth Plan for the Greater Golden Horseshoe was approved by the Province of Ontario on June 16th, 2006 and amended July 1, 2017, May 16, 2019 and August 28, 2020 (“Growth Plan”). The Growth Plan sets out policies to manage growth in the Greater Golden Horseshoe to achieve compact, complete communities in the future. The Growth Plan 2019 as consolidated with amendment 1 (2020) will be referred to as the “Growth Plan” in this analysis. Under the Planning Act, the proposal must conform to or not conflict with the Growth Plan. The management of growth in existing areas, and where it should be taking place, is guided through the Growth Plan as it recognizes the importance of intensification and the way municipalities plan that growth.

The Subject Lands are within the built-up area of the Growth Plan, an area prioritized for intensification by the Growth Plan. The policies within **Section 2.2** discuss the management of growth to accommodate a greater number of people and jobs in order to build complete, compact and transit-oriented communities through the better use of land and infrastructure. Policies within the Growth Plan require development to support and achieve complete communities, within walking distance and accessible for residents and employees.

A full analysis of the relevant Growth Plan policies in relation to the proposed amendments can be found in **Appendix D**, in summary:

1. The proposed Official Plan Amendment and Zoning By-law Amendment will provide for an appropriate employment built-form within a defined intensification area which contributes to creating a complete community. The proposed compact built form of an industrial building is an efficient and appropriate utilization of land.
2. The proposed industrial building is compatible with surrounding land uses and implement the City's intensification vision for Tullamore Secondary Plan Area at a density of 37 jobs per hectare.
3. The proposed amendments will permit the development of two industrial buildings that will allow for the efficient use of the Subject Lands and optimization of infrastructure.
4. The development permitted by the proposal by the proposed amendments will incorporate green design measures to minimize the developments energy consumption and greenhouse gas emission. Specific details will be determined through detailed design.

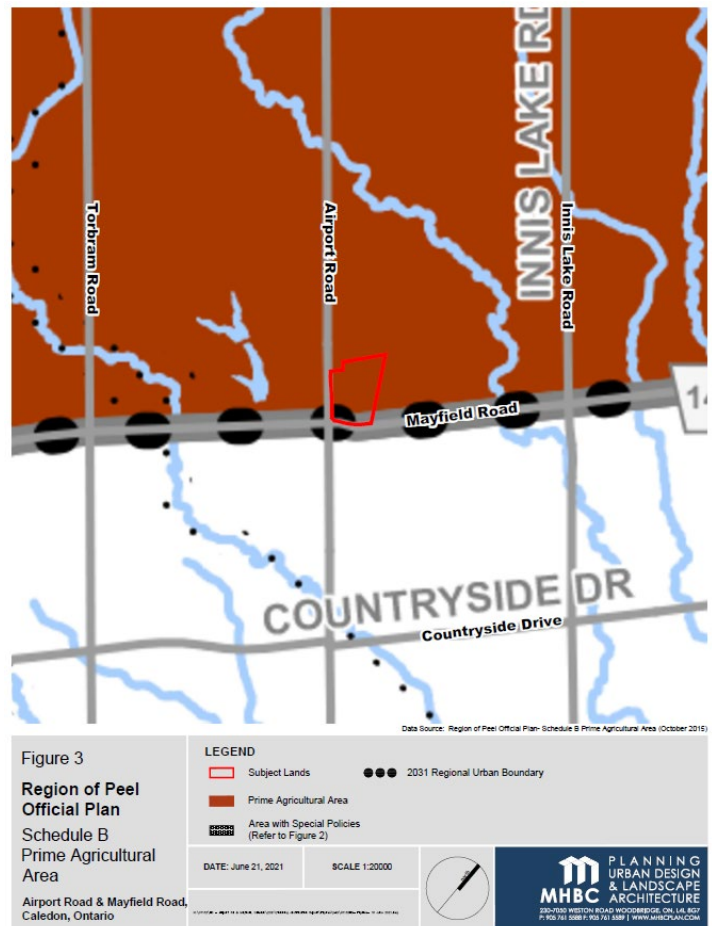
In our opinion, the proposed Official Plan Amendment and Zoning By-law Amendment conform to and/ or do not conflict with the Growth Plan.

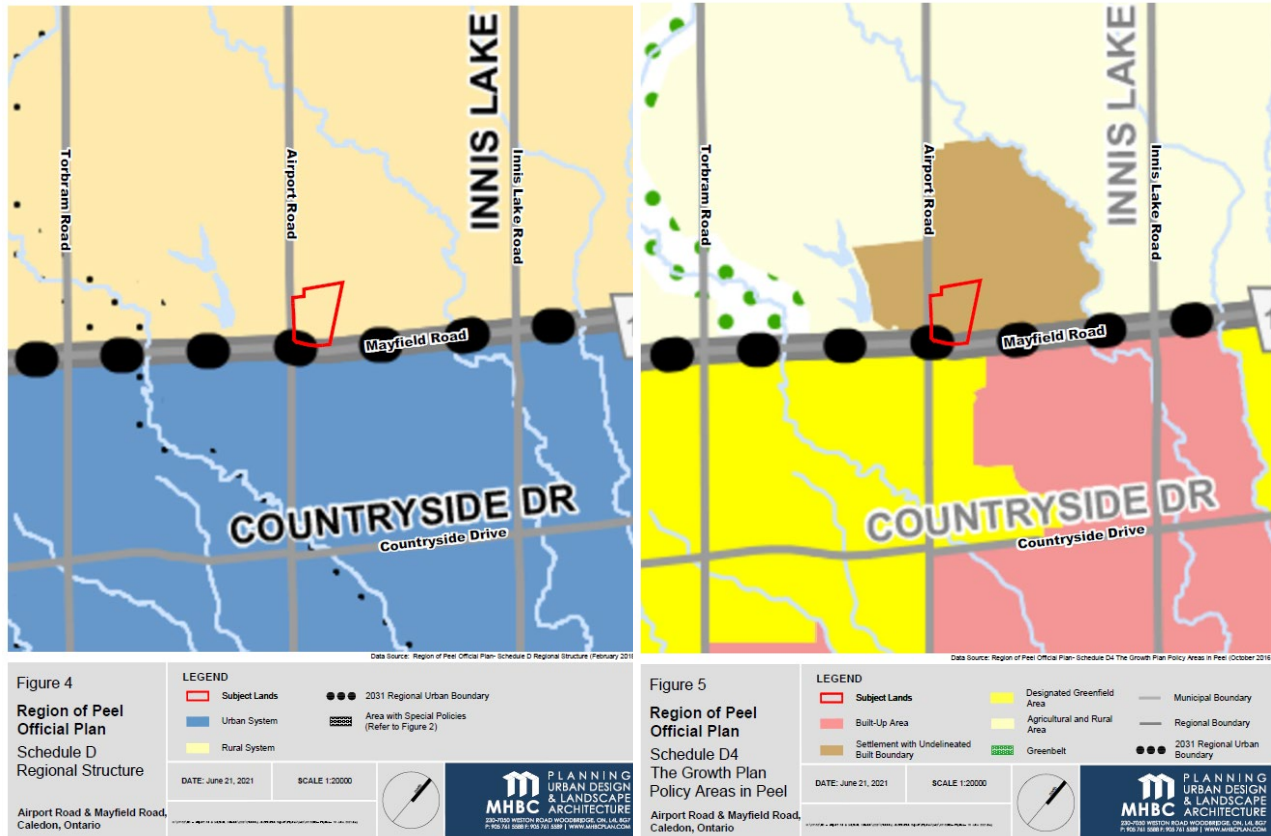
3.3 REGION OF PEEL OFFICIAL PLAN

The Region of Peel Official Plan (hereinafter as “RPOP”) was adopted by Council on July 11, 1996 and approved with modification by the Minister of Municipal Affairs and Housing on October 22, 1996. The Region of Peel recently completed the Peel Region Official Plan Review to bring its Official Plan policies into conformity with provincial requirements.

The Subject Lands are designated “Prime Agricultural Area” on **Schedule B – Prime Agricultural Area (Figure 3)** and “Rural System” on **Schedule D – Regional Structure (Figure 4)** within the Region of Peel Official Plan (“RPOP”). Prime Agricultural Areas are to support and permit normal farm practices and a full range of agricultural, agriculture-related and secondary uses within the prime agricultural area. Further, the Rural System has diverse natural and rural landscapes. The Rural System is to promote healthy rural communities that collectively contains living, working and recreational opportunities, and respect the natural environment and resources.

The Subject Lands are also designated “Settlement with Undelineated Built Boundary” on **Schedule D4 – The Growth Plan Policy Areas in Peel (Figure 5)**. Rural Settlements as identified on Schedule D4 comprise of Villages, Hamlets and Industrial/Commercial Centres located within the Rural System. Industrial/Commercial Centres play a supportive function to the Rural Service Centres and provide at a small scale, opportunities for industrial and commercial developments.





A full analysis of the key Regional OP policies that are directly engaged in the review of the proposed development can be found in **Appendix E**. In summary:

1. The proposed amendments will facilitate the efficient use of the development site by permitting an employment development within a settlement area at a density of 37 jobs per hectare.
2. The proposal conforms to Regional OP policies regarding development within Rural System and Settlement areas, as it encourages a more land-efficient and cost-effective use of land and infrastructure.
3. The Subject Lands will be developed in a manner that is compatible with existing and proposed uses through appropriate design, buffering and separation to ensure no adverse impact to future employees and visitors.
4. The proposed amendment will permit a transit-supportive employment development (at a density of 37 jobs per hectare) that is within walking distance to the Zum bus station along Mayfield Road. Transportation demand management measures are proposed to further assist with the reduction of single occupancy vehicle use, including but not limited to allocating parking stalls for car pooling.
5. The proposed employment development as permitted by the proposed amendments will incorporate low impact development and other sustainable measures to assist the Region and the Municipality to become resilient to climate change.

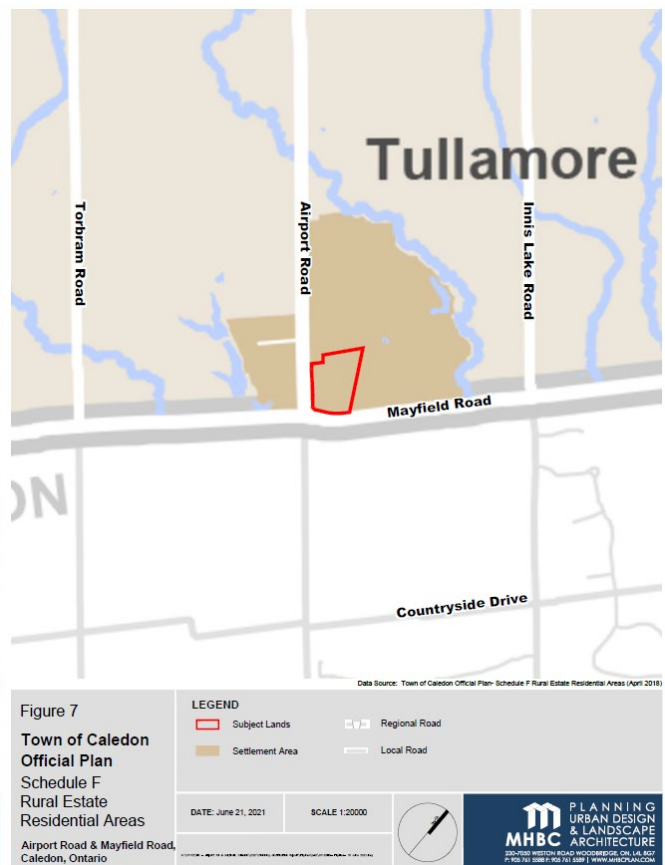
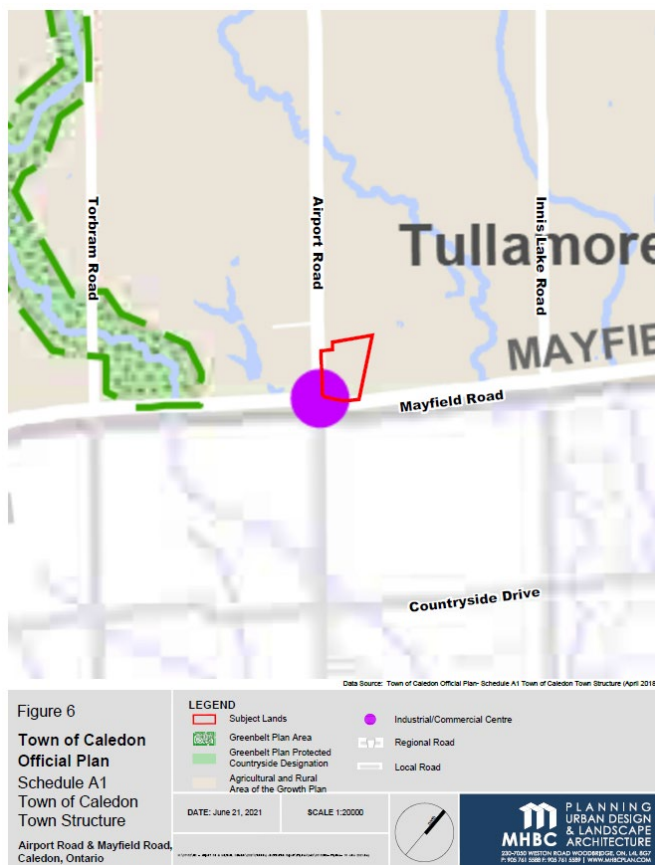
6. The proposed amendments will have no negative impact on existing road networks as determined by WSP.

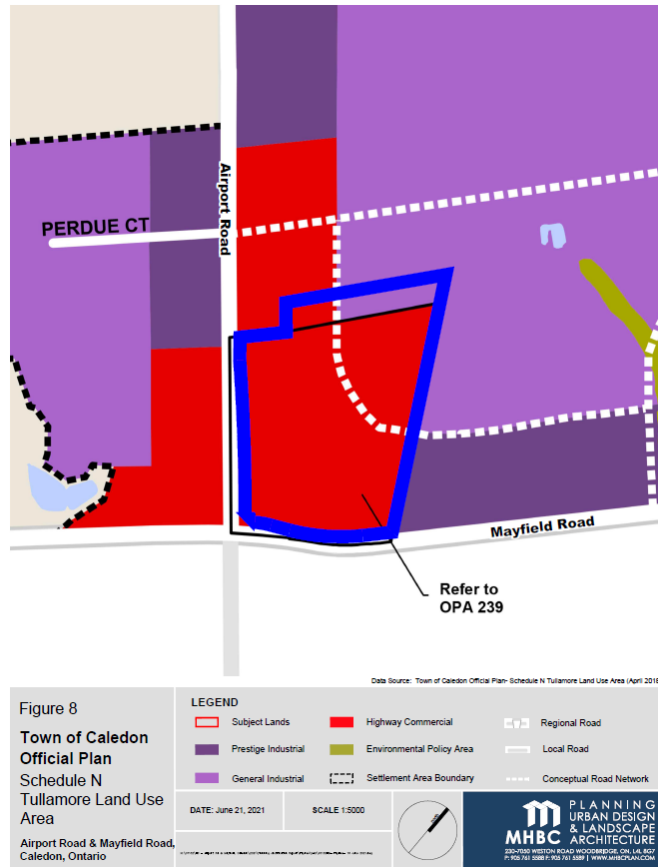
In our opinion the proposed Official Plan Amendment and Zoning By-law Amendment conform to and /or does not conflict with the Regional OP.

3.4 TOWN OF CALEDON OFFICIAL PLAN

The Town of Caledon Official Plan (“COP”) came into effect in 1979. Since that time, the Town OP has been reviewed and amended to keep it current and reflect changing community needs and to respond to new Regional and Provincial planning policies and legislation. The Town OP has been updated to include Region of Peel and Ontario Municipal Board (“OMB”) decisions and Town Council approved Official Plan as of June 8, 2010.

The Subject Lands are designated “Agricultural and Rural Area of the Growth Plan” with an identifier as being located within an “Industrial/Commercial Centre” on **Schedule A1 Town Structure (Figure 6)** within the Town of Caledon’s Official Plan (“COP”). More particularly, the Subject Lands are located within a “Settlement Area” on **Schedule F Rural Estate Residential Areas (Figure 7)**. The Industrial/Commercial Centre designation provides for a range of general industrial uses and a range of commercial uses, including but not limited to warehousing, office related industrial uses and service commercial uses.





The majority of the Subject Lands are designated “Highway Commercial” and the strip of lands at the northeast corner are designated “General Industrial”, and subject to OPA 239 on **Schedule N Tullamore Land Use Area (Figure 8)**. In addition, a conceptual road network is planned to go through from the north to east boundary of the Subject Lands. Lastly, the Subject Lands are also located within “Settlement with Undelineated Built-up Area” on **Figure 1 Growth Plan Policy Area in Caledon**. The Tullamore Secondary Plan Area is intended to serve primarily industrial uses.

The Town of Caledon Council adopted Official Plan Amendment No. 239 to re-designate a portion of the Subject Lands (Part of Lot 1, Concession 1 (Albion) in the Town of Caledon, located at the northeast corner of Mayfield Road and Airport Road) as “Highway Commercial” and include additional policies within the Highway Commercial designation pertaining to the site within the Tullamore Secondary Plan, to permit retail and service commercial centre on the Subject Lands.

Section 7.8 of the Town OP provides specific policies for lands within the Tullamore Secondary Plan Area. The Tullamore Secondary Plan is a result of review and analysis of land use designations and applicable Official Plan policies to lands within the Tullamore Industrial/ Commercial Centre. **The** Tullamore Secondary Plan Area is to serve primarily as an industrial centre and to a lesser extent as a highway commercial centre in accordance with the Official Plan policies

An analysis of key policies of Town OP that are directly engaged by the proposed development can be found in **Appendix F**. In summary:

1. The proposed amendments conform to the policies of Town OP to permit an employment development within an Industrial/ Commercial Centre.
2. The proposed development of 37 jobs per hectare¹ on underutilized (vacant) lands supports and adds to the mixture of employment options in the Town of Caledon.
3. The proposed development represents an appropriate employment built form that supports the intensification goals of the Town.

¹ Region of Peel, Development Charges Background Study 2020 (Town of Caledon: 160 sq. m. per employee).

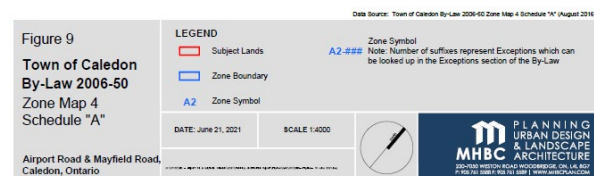
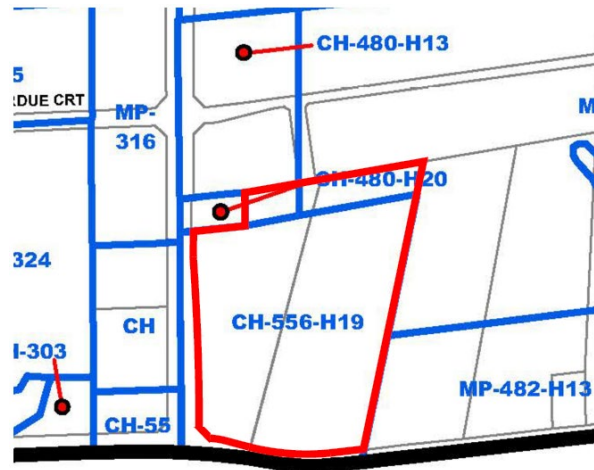
4. The proposed amendments will allow for a development that will efficiently utilize and support the optimization of existing and planned infrastructure, including municipal water and sewage services, utilities, roads and public transit.

The proposed development contributes to the vision of the Tullamore Secondary Area of the Town OP, focusing on providing employment opportunities. In our opinion, the proposal conforms to the vision and policies of the Town OP, with the exception of amendment being sought to permit an industrial use on the Subject Lands.

3.5 TOWN OF CALEDON ZONING BY-LAW

The Subject Lands are zoned **Highway Commercial (CH-556-H19 and CH-480-H13)** and **Service Industrial (MS-483-H13)** (Figure 9). The Highway Commercial Zone permits a range of commercial uses while the Service Industrial Zone permits a range of industrial uses.

A Zoning By-law Amendment is sought to permit the proposed industrial buildings and site specific provision.



3.6 RATIONALE FOR PROPOSED AMENDMENTS

3.6.1 Rationale for Official Plan Amendment

The majority of the Subject Lands are designated "Highway Commercial" and the strip of lands at the northeast corner are designated "General Industrial", and subject to OPA 239 on **Schedule N Tullamore Land Use Area**. In addition, a conceptual road network is planned to go through from the north to east boundary of the Subject Lands.

The proposed amendment will designate the entire Subject Lands “Highway Commercial” and remove the conceptual road network as shown on Schedule N of the Town OP. Highway Commercial uses permit large-scale business, professional office uses and high quality prestige industrial type of use.

Overall, the proposed development is in keeping with the vision of the Tullamore Secondary Plan as the proposal will assist the Town to achieve the planned concentration of industrial, commercial and service industries within this area.

It is our opinion that the proposed amendment is in the public interest. A copy of the draft Official Plan Amendment can be found in **Appendix A**.

3.6.2 Rationale for Zoning By-law Amendment

Height

The proposed building height meets the intent of the Caledon Official Plan and is generally in keeping with other 1-storey employment/industrial buildings built in the area. The proposed height will enhance the Airport Road and Mayfield Road corridor and supported by existing and future transit infrastructure.

Lot Coverage

The general intent and purpose of a maximum lot coverage requirement is to ensure that the sizes of the proposed uses are appropriate for the development of the Subject Lands. The proposal contemplates a total maximum GFA of 56,590 sq. m. The proposed gross floor area is in keeping with existing, recently approved and proposed industrial buildings within the immediate area. The proposal seeks a lot coverage of 60%, as the proposed industrial buildings are 1-storey to provide a feasible gross floor area at grade for future operations.

Setbacks and Landscape Buffers

The general intent and purpose of a front setback and landscape buffers is to create orientation of a building in relation to the development area property line. The proposed setback reductions will maintain adequate separation between buildings and the property line. Furthermore, the proposed landscape buffers will provide adequate and high quality landscaping to ensure no adverse impact on adjacent uses and create an active street frontage.

Additional Permitted Use

The proposed addition of industrial, warehouse, accessory office and open storage uses are permitted uses that are consistent with policy objectives within the Regional Official Plan and Town of Caledon Official Plan of providing employment uses in an Employment Area. The proposed uses will accommodate economic growth within the City at an appropriate density of 37 jobs per hectare.

The requested Zoning By-law Amendment, provided in **Appendix B**, and adds the site-specific provisions above.

4.0

SUMMARY & CONCLUSIONS

MHBC has prepared this Planning Justification Report in support of a request for an Official Plan Amendment and Zoning By-law Amendment Application by the Owners to set in place the policy framework for the proposed development.

The proposed development will contribute to the overall development of the Tullamore settlement area. The Subject Lands are in proximity to a variety of industrial, commercial and residential uses. The Subject Lands are in proximity to a variety of industrial uses. The Subject Lands are within 100 m of the Brampton Transit Route Bus 30 route, which connects to Zum Transit Routes and Malton GO Station.

The proposed amendments will permit two one-storey industrial buildings with a total gross floor area of 44,535.19 sq. m (479,375.78 sq. ft.).

This Planning Justification Report concludes that the proposed OPA and ZBA will achieve an industrial development within a higher order transit area, is in the public interest and represents good planning for the following reasons:

1. The proposed development has regard to matters of Provincial interest as outlined in Section 2 of *Planning Act*.
2. The proposed amendment is consistent with the Provincial Policy Statement.
3. The proposed amendment conforms to and / or does not conflict with Growth Plan for the Greater Golden Horseshoe.
4. The proposed amendment conforms to and / or does not conflict with Peel Region Official Plan.
5. The proposal conforms to and / or does not conflict with the Town of Caledon Official Plan and the vision of the Tullamore Secondary Plan Area.
6. The proposed employment building is compatible within the existing and planned land uses of the surrounding area within the Tullamore Secondary Plan Area.
7. The proposed employment building is meets the general intent of the Tullamore Community Design Guidelines.

8. The proposed Official Plan Amendment and Zoning By-law Amendment will support the utilization of land and the optimization of existing and planned municipal infrastructure at an appropriate employment density of 37 jobs per hectare.
9. The proposed development is transit supportive and will take advantage of, and enhance the viability of multi-modal transportation available to, and proposed for this area: Zum and the local road network.
10. The proposed development is or can be readily serviced, including water, sanitary, stormwater and transit / traffic infrastructure.
11. The proposed Official Plan Amendment and Zoning By-law Amendment will conform to policies on sustainable development and promoting a sustainable community by incorporating low impact development measures, and transportation demand management measures.

Based on our analysis it is our opinion that the proposed OPA and ZBA should be approved.

We certify that this report was prepared jointly by the identified authors and under the supervision of a Registered Professional Planner (RPP) within the meaning of the Ontario Professional Planners Institute Act, 1994.



David A. McKay, MSc, MLAI, MCIP, RPP
Vice President and Partner



Celeste Salvagna, B.U.R.P.I
Senior Planner

APPENDIX **A**

AMENDMENT NO. ____
TO THE OFFICIAL PLAN FOR
THE TOWN OF CALEDON PLANNING AREA

DRAFT

THE CORPORATION OF THE TOWN OF CALEDON

BY-LAW NO. 2021- ____

A By-law to adopt Amendment No. ____ to the Official Plan for the Town of Caledon

WHEREAS the Council of the Corporation of the Town of Caledon, in accordance with the provisions of the Planning Act, R.S.O. 1990, as amended, HEREBY ENACTS AS FOLLOWS:

1. Amendment No. ____ to the Official Plan for the Town of Caledon Planning Area shall be and is hereby adopted.

Read three times and finally passed in open Council this ____ day of _____, 2021.

Alan Thompson, Mayor

Carey deGorter, Clerk

THE CONSTITUTIONAL STATEMENT

- PART A - THE PREAMBLE - does not constitute part of this amendment.
- PART B - THE AMENDMENT - consisting of the following text and Schedule "A" constitutes Amendment No. _____ of the Town of Caledon Official Plan.

DRAFT

AMENDMENT NO. ____

OF THE TOWN OF CALEDON OFFICIAL PLAN

PART A - THE PREAMBLE

Purpose of the Amendment:

The purpose of this Amendment is to amend Schedule "N" Tullamore Land Use Area of the Town of Caledon Official Plan by redesignating the lands subject to this Amendment from Highway Commercial and General Industrial to Highway Commercial and to eliminate the conceptual road network shown thereto.

Location:

The lands subject to this Amendment, as indicated on the attached Schedule "A", northeast corner of Airport Road and Mayfield Road.

Basis:

The basis for this Amendment is contained in Planning Report PD ____ - ____, as adopted by Council on _____. The applicant, Airfield Developments Inc., Airfield II Developments Inc. has requested an amendment to the Town of Caledon Official Plan to permit Highway Commercial uses in addition to industrial uses on the property in order to facilitate the construction of two one-storey industrial buildings. In support of the application, the applicant submitted the following reports:

- Functional Servicing and Stormwater Management Report;
- Preliminary Geotechnical Investigation;
- Phase 1 Environmental Site Assessment;
- Stationary Noise Feasibility Assessment;
- Traffic Impact Study;
- Arborist and Tree Inventory and Preservation Plan Report; and
- Planning Justification and Urban Design Report.

The proposed amendment to the Official Plan to permit two one-storey industrial buildings within the Town of Caledon is consistent with the objectives established in the Strategic Direction and General Policies of the Official Plan. The location of the two one-storey industrial buildings addresses an identified need for additional employment uses within the Tullamore Secondary Plan Area.

PART B - THE AMENDMENT

This part of the document, entitled "Part B - The Amendment", and consisting of the following text constitutes Amendment No. _____ of the Town of Caledon Official Plan.

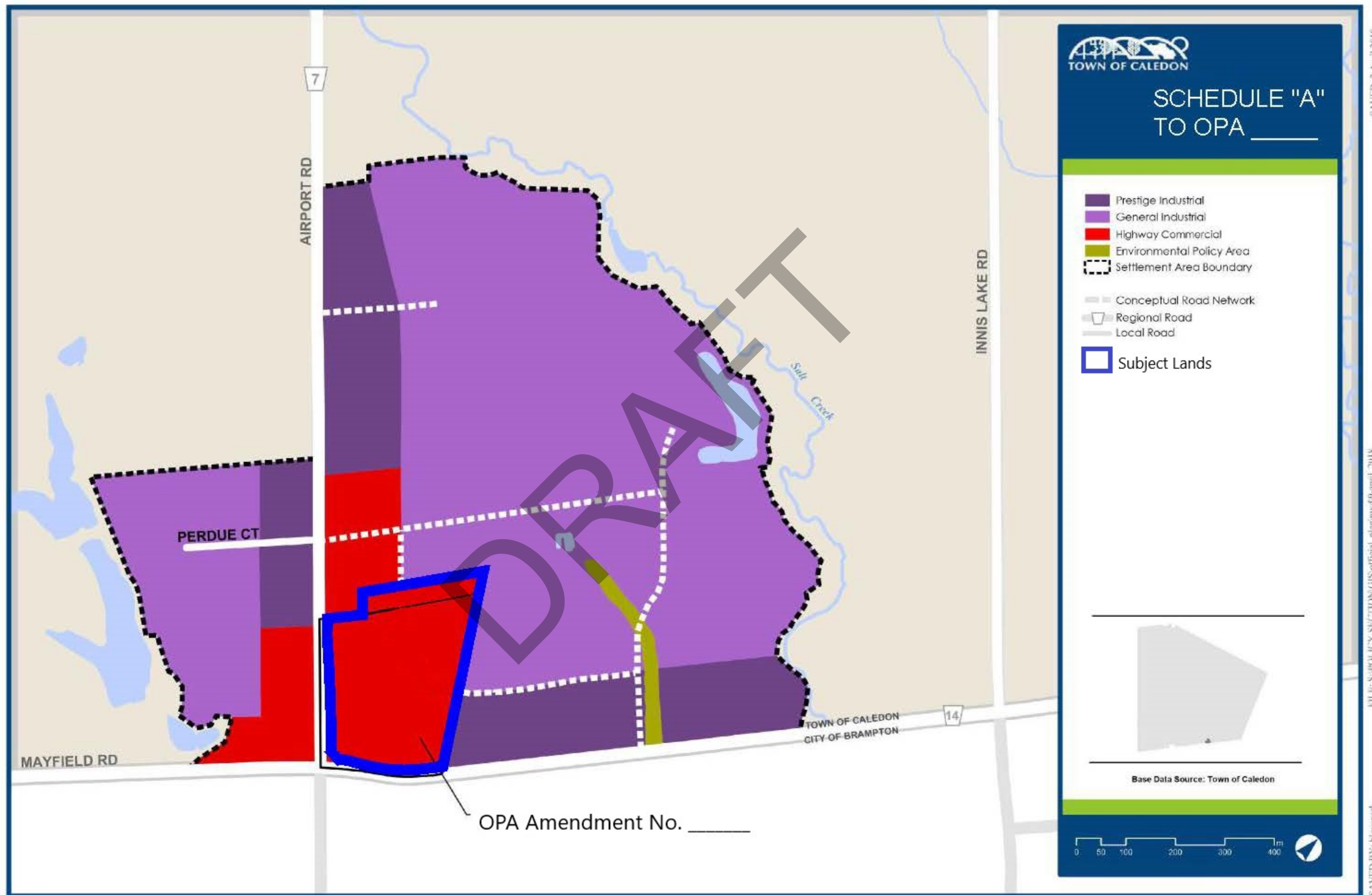
Details of the Amendment

The Town of Caledon Official Plan is amended as follows:

1. "Schedule N" Tullamore Land Use Plan of the Town of Caledon Official Plan shall be amended for the lands described as northeast corner of Airport Road and Mayfield Road in Town of Caledon, Regional Municipality of Peel, from Highway Commercial and General Industrial to Highway Commercial subject to Section 7.8, in accordance with Schedule "A" attached hereto.
2. "Schedule N" Tullamore Land Use Plan of the Town of Caledon Official Plan shall be amended for the lands described as northeast corner of Airport Road and Mayfield Road in Town of Caledon, Regional Municipality of Peel, to delete the conceptual road network.
3. Notwithstanding Policy 5.4.1 employment/industrial uses and open storage shall be permitted.

Implementation and Interpretation

The implementation and interpretation of this Amendment shall be in accordance with the policies of the Town of Caledon Official Plan.



APPENDIX **B**

**THE CORPORATION OF THE TOWN OF CALEDON
BY-LAW NO. 20xx-xxx**

Being a by-law to amend Comprehensive Zoning By-law 2006-50, as amended,
with respect to 6034 Mayfield Road, PT Lt 1 CON 1 ALBION as in RO829323,
Town of Caledon, Regional Municipality of Peel.

WHEREAS Section 34 of the Planning Act, as amended, permits the councils of local municipalities to pass zoning by-laws for prohibiting the use of land or the erecting, locating or using of buildings or structures for or except for such purposes as may be set out in the by-law;

AND WHEREAS the Council of The Corporation of the Town of Caledon considers it desirable to pass a zoning by-law to permit the use of 6034 Mayfield Road, Town of Caledon, Regional Municipality of Peel, for employment/industrial purposes.

NOW THEREFORE the Council of The Corporation of the Town of Caledon enacts that By-law 2006-50, as amended, being the Comprehensive Zoning By-law for the Town of Caledon, shall be and is hereby amended as follows:

1. The following is added to Table 13.1:

Zone Prefix	Exception Number	Permitted Uses	Special Standards
CH	<insert exception #> (# to be provided by Planning Staff) (<insert by-law #>)	<ul style="list-style-type: none"> - Animal Hospital - Automotive Store - Business Office - Clinic - Communication Equipment Outlet - Drive-through Service Facility - Dry Cleaning or Laundry Outlet - Farmers Market - Financial Institution - Fitness Centre - Funeral Home - Grocery Store - Home Improvement Centre - Hotel - Laundromat - Medical Centre - Merchandise Service Shop - Motel - Motor Vehicle Gas Bar - Motor Vehicle Sales Establishment 	Front Lot Line: For the purposes of this zone, the lot line adjacent to Airport Road shall be considered to be a front lot line. Yard, Interior Side (minimum): 6 m Yard, Exterior Side (minimum): 2 m a) Adjacent to Mayfield Road: 4.5 m Yard, Front (minimum): 2 m a) Adjacent to Airport Road: 4.5 m Yard, Rear (Minimum): 10 m Building Height (maximum): a) Hotel: 18 m b) All other uses: 15 m Gross Floor Areas Total Maximum: 56,590 sq. m. Maximum office gross floor area shall be 5% of total non-residential gross floor area. Lot Coverage Total Maximum: 60%

Zone Prefix	Exception Number	Permitted Uses	Special Standards
		<ul style="list-style-type: none"> - Motor Vehicle Service Centre - Motor Vehicle Rental Establishment - Motor Vehicle Repair Facility - Motor Vehicle Used Sales Establishment - Outdoor Seasonal Garden Centre, Accessory - Outside Sales or Display Area, Accessory - Outdoor Storage Use - Accessory Office use - Industrial Use - Personal Service Shop - Place of Assembly - Place of Entertainment - Public Transit Depot - Private Club - Supermarket - Restaurant - Retail Store - Sales, Service and Repair Shop - Shopping Centre - Training facility - Video outlet/rental store - Warehouse, Retail - Warehouse - Wellness Centre 	<p>Parking Space Setbacks (minimum):</p> <ul style="list-style-type: none"> a) Airport Road: 4.5 m b) Mayfield Road: 4.5 m <p>Landscaping Area (minimum): 15%</p> <p>Planting Strip (minimum):</p> <ul style="list-style-type: none"> a) Adjacent to Airport Road: 4.5 m b) Adjacent to Mayfield Road: 6 m c) Adjacent to all other Lot Lines abutting a street: 1 m <p>Planting Strip encroachments are permitted adjacent to a public road for a Building or Outdoor Patio to the applicable minimum yard requirement.</p> <p>Driveway Setback (minimum)</p> <ul style="list-style-type: none"> a) From any Interior Side Lot Line: Nil b) From any other Lot Line: Nil <p>Pedestrian Street Entrance</p> <ul style="list-style-type: none"> a) A Pedestrian Street Entrance shall be provided where a building is located within: <ul style="list-style-type: none"> a. 26 m of Airport Road; b. 26 m of Mayfield Road.
HXX			<p>Deleting H-13 and H-19 in its entirety and replacing with the following:</p> <ul style="list-style-type: none"> a) With respect to lands shown on Schedule "A" a Fiscal Impact Analysis will be required to support the lifting of holding symbol.

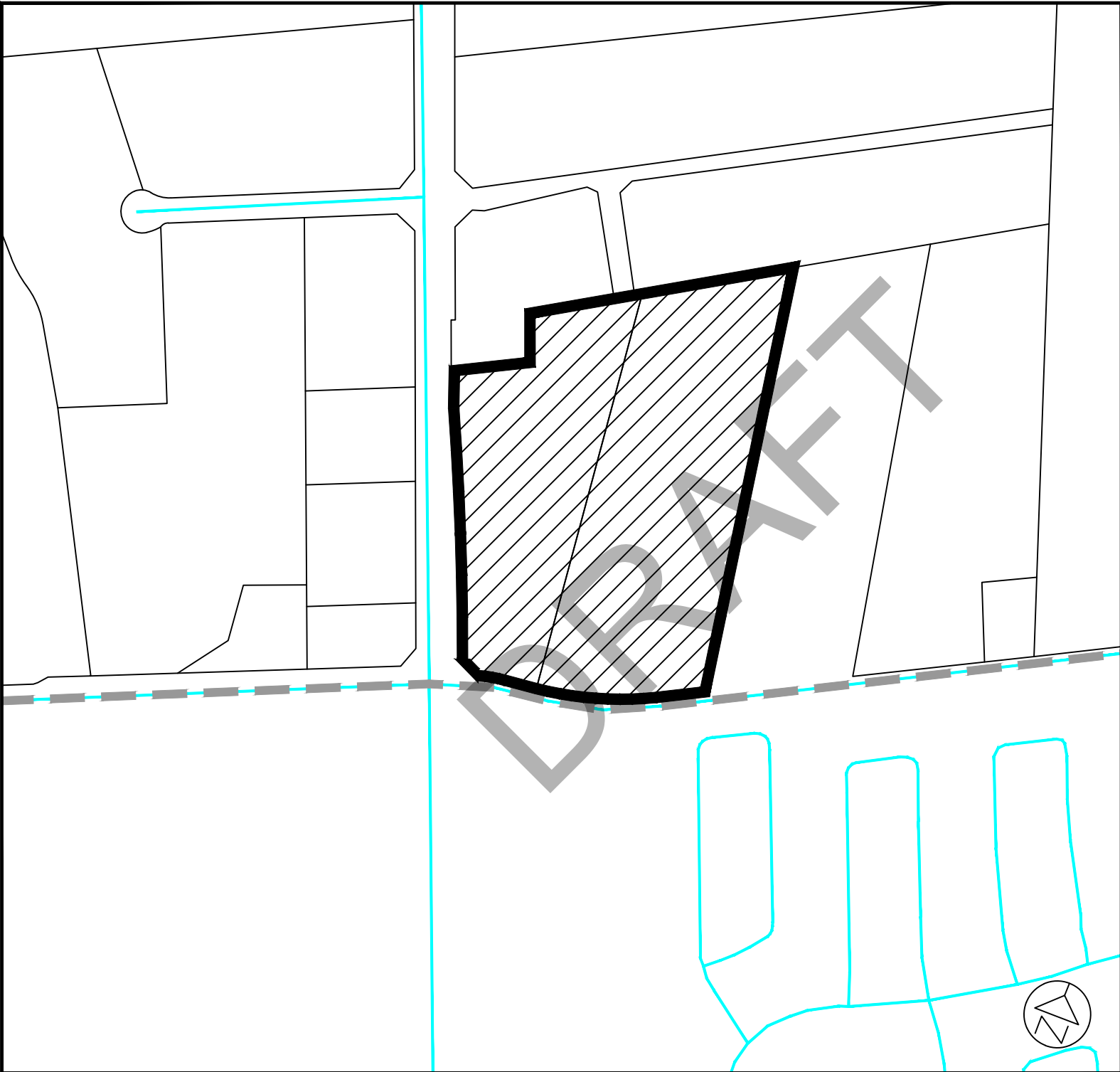
Schedule "A", Zone Map 4 of By-law 2006-50, as amended is further amended for 6034 Mayfield Road, PT Lt 1 CON 1 ALBION as in RO829323, Town of Caledon, Regional Municipality of Peel from Highway Commercial (CH-556-H19 and CH-480-H13) and Service Industrial (MS-483-H13) to Highway Commercial (CH-XX-HXX) in accordance with Schedule "A" attached hereto.

Read three times and finally
passed in open Council on the
XX day of XXXXXX, 20XX.

Allan Thompson, Mayor

Carey Herd, Clerk

DRAFT






SCHEDULE "A"

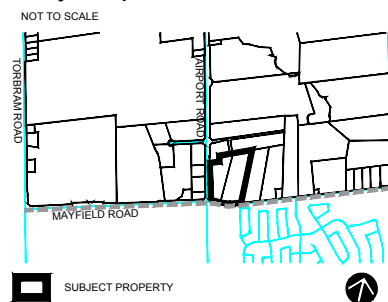
By-Law 2021-XXX-XX

Airport Road & Mayfield Road
Part 1 Lot Concession 1 Albion
Town of Caledon
Regional Municipality of Peel

Legend

-  Legend
-  Lands to be Rezoned to CH-XXX
-  Municipal Boundary

Key Map



THE CORPORATION
OF THE
TOWN OF CALEDON
PLANNING DEPARTMENT

File:
Date:

APPENDIX C

APPENDIX C: Provincial Policy Statement Analysis, 2020

The Provincial Policy Statement, 2020 ("PPS") was approved by the Ministry of Municipal Affairs and Housing on August 28th, 2020 and functions as the policy foundation for regulating the development and use of land in Ontario.

The PPS, 2020 aims to facilitate the construction of healthy, livable, safe communities by encouraging efficient use of land, resources, and infrastructure that in turn contribute to citizens' well-being, economic vitality and environmental protection. The following is a summary of policies within the PPS, 2020 that are applicable to the proposed development and how the proposal addresses these policies.

The following is an analysis of the proposed Official Plan Amendment and Zoning By-law Amendment in relation to the 2020 Provincial Policy Statement.

Section 1.0 – Building Strong Healthy Communities

Policy 1.1 – Managing and Directing Land Use to Achieve Efficient and Resilient Development and Land Use Patterns

Within **Section 1.0** Building Strong Healthy Communities, **Policy 1.1, Subsection 1.1.1**, describes how healthy, liveable and safe communities are sustained. The following is a review of the relevant policies and how the proposed amendments addresses them.

POLICY

- a) *Promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long-term;*
- b) *Accommodating an appropriate affordable and market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs;*
- c) *Avoiding development and land use patterns which may cause environmental or public health and safety concerns;*

EVALUATION

The proposed amendments will permit development of employment/industrial uses with an existing urban settlement area, within the Town's limits. The proposed development represents efficient development and land use and will help support the financial well-being of the neighbourhood, Town and Province over the long-term.

The proposed development will contribute employment opportunities to a range of uses within the industrial/commercial centre, meeting the long-term needs of the residents and employees within the area and Town.

The Subject Lands are located in an area designated for growth and development, and will not cause environmental, public health or safety concerns.

- | | |
|--|---|
| d) <i>Avoiding development and land use patterns that would prevent the efficient expansion of settlement areas in those areas which are adjacent or close to settlement areas;</i> | The Subject Lands are located within a settlement area and are designated for growth. No expansion to the existing settlement boundary is required to accommodate the proposed development. |
| e) <i>Promoting the integration of land use planning, growth management transit-supportive development, intensification and infrastructure planning to achieve cost-effective development patterns, optimization of transit investments, and standards to minimize land consumption and servicing costs;</i> | The proposed amendments will permit the development of an underutilized site within industrial/commercial centre, which is serviced by existing transit and infrastructure, thereby optimizing transit investment and minimizing servicing costs to the Town. |
| f) <i>Improving accessibility for persons with disabilities and older persons by addressing land use barriers which restrict their full participation in society;</i> | The proposed building will meet and be constructed in accordance with the Ontario Building Code, Accessibility of Ontarians with Disabilities Act and all other required accessible standards. |
| g) <i>Ensuring that necessary infrastructure and public service facilities are or will be available to meet current and projected needs;</i> | The proposed development will utilize the existing municipal infrastructure that is available to the Subject Lands, reducing servicing costs. |
| h) <i>Promoting development and land use patterns that conserve biodiversity; and</i> | The proposed development will make more efficient use of an underutilize site, will promote the use of transit and utilization of existing infrastructure, and will provide a compact sustainable urban form. |
| i) <i>Preparing for the regional and local impacts of a changing climate.</i> | The proposed development will not cause any undue environmental concerns. |

Policy 1.1.2 states that *sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years.*

Evaluation: The proposed development will provide employment/industrial uses that will contribute to the range and mix of land uses within a settlement area, especially the industrial and commercial centre and will assist the Town in meeting its growth projections.

Policy 1.1.3 – Settlement Areas

The Provincial Policy Statement is applicable to the proposed development as it states that:

“The vitality and regeneration of settlement areas is critical to the long-term economic prosperity of our communities. Development pressures and land use change will vary across Ontario. It is in the interest of all communities to use land and resources wisely, to promote efficient development patterns, protect resources,

promote green spaces, ensure effective use of infrastructure and public service facilities and minimize unnecessary public expenditures."

Within **Policy 1.1.3**, the following is relevant:

Policy 1.1.3.1 states that settlement areas shall be the focus of growth and development.

Evaluation: The Subject Lands are located in a settlement area. The proposed development expands the range of permitted uses supporting the vitality of the Industrial/Commercial Centre.

Policy 1.1.3.2 states that *land use patterns within settlement areas shall be based on densities and a mix of land uses which:*

- a) Efficiently use land and resources;*
- b) Are appropriate for, and efficiently use, the infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;*
- c) Minimize negative impacts to air quality and climate change, and promote energy efficiency;*
- d) Prepare for the impacts of a changing climate;*
- e) Support active transportation;*
- f) Are transit-supportive, where transit is planned, exists or may be developed; and*
- g) Are freight-supportive.*

Land use patterns within settlement areas shall also be based on a range of uses and opportunities for intensification and redevelopment in accordance with the criteria in policy 1.1.3.3, where this can be accommodated.

Evaluation: The proposed application supports **Policy 1.1.3.2** as the proposal will allow for infill and intensification of underutilized lands with a higher density built form and will connect to existing municipal infrastructure. The proposed application will provide for an efficient use of land and resources by maximizing the developable area of the property. Furthermore, the proposed industrial development will contribute to the range of industrial employment opportunities and uses within this settlement area, in proximity to a variety of existing businesses and residential neighbourhoods, and promotes minimal travel distance to reduce carbon emissions. The proposed development is supportive of existing transit infrastructure given the Subject Land's proximity to existing bus routes along Mayfield Road and Airport Road that provide further connection to City of Brampton and City of Mississauga; providing Town-wide and cross regional transit connections. Accordingly, the proposed development is supportive of existing transit infrastructure that will promote sustainable methods of transportation to minimize negative impacts to air quality and climate change.

Policy 1.1.3.3 states that *planning authorities shall identify appropriate locations and promote opportunities for transit-supportive development, accommodating a significant supply and range of housing options through intensification and redevelopment where this can be accommodated taking into account existing building stock or areas, including brownfield sites, and the availability of suitable existing or planned infrastructure and public service facilities required to accommodate projected needs.*

Evaluation: The proposed development represents an industrial intensification opportunity on a site within an established settlement area where intensification in the form proposed is permitted.

The proposed development also utilizes and supports existing municipal infrastructure in the form of water, wastewater, stormwater, road, and transit.

Policy 1.1.3.4 states that *appropriate development standards should be promoted which facilitate intensification, redevelopment and compact form, while avoiding or mitigating risks to public health and safety.*

Evaluation: The proposed amendments provide for the proposed two (2) industrial buildings, consisting of a total of 44,535.19 sq. m. (479,375.78 sq. ft.), representing a more efficient and compact development of lands. The proposed intensification is in keeping with the Industrial/Commercial Centre objectives and will maintain appropriate levels of public health and safety issues.

Section 1.3 Employment

Policy 1.3.1 states that *planning authorities shall promote economic development and competitiveness by:*

- a) *Providing for an appropriate mix and range of employment, institutional, and broader mixed uses to meet long-term needs;*
- b) *Providing opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;*
- c) *Facilitating the conditions for economic investment by identifying strategic sites for investment, monitoring the availability and suitability of employment sites, including market-ready sites, and seeking to address potential barriers to investment;*
- d) *Encouraging compact, mixed-use development that incorporates compatible employment uses to support liveable and resilient communities, with consideration of housing policy 1.4; and*
- e) *Ensuring the necessary infrastructure is provided to support current and projected needs.*

Evaluation: The proposed employment/industrial development contributes to the mix and range of employment uses in the area and meeting long-term needs. The amendments will allow employment/industrial use on underutilized lands which are already designated for industrial and commercial uses. The proposed industrial space will provide further opportunities for a diversified economic base in the area and will support the needs of businesses and residents in the immediate area and Town as a whole. The proposed buildings will be designed in a compact and sustainable form.

Section 1.6 Infrastructure and Public Service Facilities

Policy 1.6.3 states that *before consideration is given to developing new infrastructure and public service facilities:*

- a) *the use of existing infrastructure and public service facilities should be optimized; and*
- b) *opportunities for adaptive re-use should be considered, wherever feasible.*

Section 1.6.6 of the PPS 2020 addresses sewage and water infrastructure and states that planning for sewage and water services shall direct and accommodate expected growth in a manner that promotes the efficient use of existing municipal sewage services and municipal water services. Municipal services are established as the preferred method of servicing new development.

Evaluation: The proposed development will make efficient use of and support the optimization of the existing public service facilities and infrastructure.

Policy 1.6.7.2 states that *efficient use should be made of existing and planned infrastructure, including through the use of transportation demand management strategies, where feasible.*

Evaluation: The proposed development will make efficient use of the existing infrastructure. In addition, the Transportation Impact Assessment prepared by WSP recommends the following transportation demand management initiatives:

- it is recommended that 2 parking spaces, conveniently located near employee entrances to the building be reserved for carpooling; and
- it is recommended that 16 bicycle parking spaces be provided in a convenient location.

Policy 1.6.7.4 states that *a land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and active transportation.*

Evaluation: The proposed industrial development will provide for a range of employment uses that will support the use of current and planned transit and active transportation corridors.

Section 1.6.8 Transportation and Infrastructure Corridors

Policy 1.6.8.3 states that *new development proposed on adjacent lands to existing or planned corridors and transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, mitigate or minimize negative impacts on and from the corridor and transportation facilities.*

Evaluation: The proposal is compatible with and will promote the type of industrial development contemplated for the Airport Road and Mayfield corridors. Further, the proposal will allow for greater utilization of existing transit facilities.

Policy 1.6.10.1 states that *waste management systems need to be provided that are an appropriate size and type to accommodate present and future requirements, and facilitate, encourage and promote reduction, reuse and recycling objectives.*

Evaluation: The proposed development will provide for waste management systems that are of an appropriate size to accommodate the requirements of this development. This will be further defined at the Site Plan approval stage.

Section 1.7 Long-Term Economic Prosperity

Policy 1.7.1 states *long-term economic prosperity should be supported by:*

- promoting opportunities for economic development and community investment-readiness;*
- encouraging residential uses to respond to dynamic market-based needs and provide necessary housing supply and range of housing options for a diverse workforce;*
- optimizing the long-term availability and use of land, resources infrastructure and public service facilities;*
- maintaining and, where possible, enhancing the vitality and visibility of downtowns and mainstreets;*
- encouraging a sense of place, by promoting well-designed built form and cultural planning, and by conserving features that help define character, including built heritage resources and cultural heritage landscapes;*

Evaluation: The proposal takes advantage of the lands designated as Industrial/Commercial area. The proposal introduces a use that is complementary to the surrounding commercial, residential and industrial uses. The proposed development represents an intensification of the subject lands and will utilize the existing infrastructure available for the site, taking advantage of infrastructure investments.

Policy 1.8.1 Energy Conservation, Air Quality and Climate Change

Policy 1.8.1 states that *planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and climate change adaptation through land use and development patterns which:*

POLICY

- a) *Promote compact form and a structure of nodes and corridors;*
- b) *Promote the use of active transportation and transit in and between residential, employment (including commercial and industrial) and institutional uses and other areas;*
- c) *Focus major employment, commercial and other travel-intensive land uses on sites which are well served by transit where this exists or is to be developed, or designing these to facilitate the establishment of transit in the future;*
- e) *Encourage transit-supportive development and intensification to improve the mix of employment and housing uses to shorten commute journeys and decrease transportation congestion;*
- f) *Promote design and orientation which maximizes energy efficiency and conservation, and considers the mitigating effects of vegetation and green infrastructure*

EVALUATION

The proposed buildings will provide for compact built-form.

The proposed development will utilize planned and existing transportation connections and will create a pedestrian friendly environment with linkages to the surrounding neighbourhoods and industrial offices.

The Subject Lands are currently serviced by existing transit stops along Mayfield Road and Airport Road. The proposal will take advantage of existing facilities connecting the proposed industrial buildings to the surrounding residential, commercial and employment uses.

The proposal will diversify employment opportunities, therefore shortening commutes to work and decreasing traffic congestion.

The energy efficiency requirements of the Town and the Province will be encouraged to maximize energy efficiency and conservation.

Section 2.6 Cultural Heritage and Archaeology

Policy 2.6.2 of the PPS states that *development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.*

Evaluation: Should any archaeological resources be found during construction, the appropriate authorities will be notified.

Section 3.2 Human-Made Hazards

Policy 3.2.2 of the PPS states that *sites with contaminants in land or water shall be assessed and remediated as necessary prior to any activity on the site associated with the proposed use such that there will be no adverse effects.*

Evaluation: No contamination has been identified from previous uses on the Subject Lands.

In our opinion, the proposed Official Plan and Zoning By-law Amendment are consistent with the policies of the 2020 Provincial Policy Statement.

APPENDIX **D**

APPENDIX D: Growth Plan Analysis, 2020

The Growth Plan for the Greater Golden Horseshoe 2019 was prepared and approved under the *Places to Grow Act, 2005* on May 16, 2019. Amendment 1 (2020) to the Growth Plan for the Greater Golden Horseshoe 2019 was approved by the Lieutenant Governor in Council, Order in Council No 1244/2020 on August 28, 2020. The Growth Plan, 2019 as consolidated with Amendment 1 (2020) will be referred to as the “Growth Plan” in this analysis. Under the Planning Act, the proposal must conform to or not conflict with the Growth Plan. The management of growth in existing areas, and where it should be taking place, is guided through the Growth Plan as it recognizes the importance of intensification and the way municipalities plan that growth.

An analysis of the Growth Plan policies has been conducted. In our opinion, the applications for Official Plan and Zoning By-law Amendments conform to and/ or do not conflict with the Growth Plan policies. The following is a summary of key policies that are directly engaged by the proposed development.

Section 1.2.1 states that *the successful realization of this vision for the GGH centres on effective collaboration amongst the Province, other levels of government, First Nations and Metis communities, residents, private and non-profit sector across all industries, and other stakeholders. The policies of this Plan regarding how land is developed, resources are managed and protected, and public dollars are invested are based on the following principles:*

- *Support the achievement of complete communities that are designed to support healthy and active living and meet people’s needs for daily living throughout an entire lifetime.*
- *Prioritize intensification and higher densities in strategic growth areas to make efficient use of land and infrastructure and support transit viability.*
- *Provide flexibility to capitalize on new economic and employment opportunities as they emerge, while providing certainty for traditional industries, including resource-based sectors.*
- *Improve the integration of land use planning with planning and investment in infrastructure and public service facilities, including integrated service delivery through community hubs, by all levels of government.*
- *Provide for different approaches to manage growth that recognize the diversity of communities in the GGH.*
- *Integrate climate change considerations into planning and managing growth such as planning for more resilient communities and infrastructure – that are adaptive to the impacts of a changing climate –and moving towards environmentally sustainable communities by incorporating approaches to reduce greenhouse gas emissions.*

Evaluation: The proposal optimizes the use of existing water, wastewater and stormwater infrastructure to support growth in a compact and efficient form. The proposal will also provide industrial uses to the surrounding area, offering additional services to local residents in the immediate area and Town of Caledon, and contributing to a compact, vibrant, and complete community.

Section 2.2.1 Managing Growth

Policy 2.2.1.1 provides that *population and employment forecasts contained in Schedule 3 or such higher forecasts as established by the applicable upper- or single-tier municipality through its municipal comprehensive*

review will be used for planning and managing growth in the GGH to the horizon of this Plan in accordance with the policies in subsection 5.2.4.

Evaluation: The amendments will permit the development of employment/industrial uses which will assist the Town in achieving the planned growth of the Town's settlement area.

Policy 2.2.1.2 states that *forecasted growth to the horizon of this Plan will be allocated based on the following:*

- a) *The vast majority of growth will be directed to settlement areas that:*
 - i. *Have a delineated built boundary;*
 - ii. *Have existing or planned municipal water and wastewater systems; and*
 - iii. *Can support the achievement of complete communities;*
- c) *Within settlement areas, growth will be focused in:*
 - i. *Delineated built-up areas;*
 - ii. *Strategic growth areas;*
 - iii. *Locations with existing or planned transit, with a priority on higher order transit where it exists or is planned; and*
 - iv. *Areas with existing or planned public service facilities;*
- d) *Development will be directed to settlement areas, except where the policies of this Plan permit otherwise;*
- e) *Development will be generally directed away from hazardous lands;*

Evaluation: The proposal supports the Growth Plan's intensification directives by being located within a settlement area with existing or planned transit and where intensification is promoted. The proposed amendments will provide for an appropriate built-form and will contribute to creating a complete community. In addition, the proposal adds additional uses to the existing mixture of employment uses, within proximity to public transit. Lastly, the proposal is located away from hazardous lands.

Policy 2.2.1.4 states that *applying the policies of this Plan will support the achievement of complete communities that:*

- a) *Feature a diverse mix of land uses, including residential and employment uses, and convenient access to local stores, services, and public service facilities;*
- b) *Improve social equity and overall quality of life, including human health, for people of all ages, abilities, and incomes;*
- c) *Provide a diverse range and mix of housing options, including additional residential units and affordable housing, to accommodate people at all stages of life, and to accommodate the needs of all household sizes and incomes;*
- d) *Expand convenient access to:*
 - i. *A range of transportation options, including options for the safe, comfortable and convenient use of active transportation;*
 - ii. *public service facilities, co-located and integrated in community hubs;*
 - iii. *an appropriate supply of safe, publicly-accessible open spaces, parks, trails, and other recreational facilities; and*
 - iv. *healthy, local, and affordable food options, including through urban agriculture;*
- e) *provide for a more compact built form and a vibrant public realm, including public open spaces;*
- f) *mitigate and adapt to the impacts of a changing climate, improve resilience and reduce greenhouse gas emissions, and contribute to environmental sustainability; and*

g) integrate green infrastructure and appropriate low-impact development.

Evaluation: The proposed development will contribute to achieving complete community by:

- contributing to a diverse range of non-residential land uses;
- providing non-residential uses that are appropriately located to serve the needs of existing and future residents and businesses;
- Providing conveniences to the community through the following:
 - Connect with the community through local and regional transportation modes, including public transportation and the existing network of sidewalks;
 - Locating within the industrial/commercial centre and in proximity to a range of retail, commercial and service uses;
- Proposing a high-quality built-form with high visual interest, and a frame work that will achieve an attractive and vibrant public realm;
- The proposed development on the Subject Lands will reduce the demand of vehicles by being located in proximity to transit options, thereby reducing travel demands and thus greenhouse gas emissions; and
- The proposal will include green infrastructure and low-impact development measures that contribute to sustainable development.

Section 2.2.5 Employment

Policy 2.2.5.1 states that *economic development and competitiveness in the GGH will be promoted by:*

- a) making more efficient use of existing employment areas and vacant and underutilized employment lands and increasing employment densities;*
- b) ensuring the availability of sufficient land, in appropriate locations, for a variety of employment to accommodate forecasted employment growth to the horizon of this Plan;*
- c) planning to better connect areas with high employment densities to transit; and*
- d) integrating and aligning land use planning and economic development goals and strategies to retain and attract investment and employment.*

Evaluation: The proposed development is located on vacant and underutilized lands within the industrial/commercial centre and will provide high-quality employment opportunities to help achieve the employment goals and strategies of the Growth Plan. Further, the development will be connected to planned and existing public transit connections.

Section 3.2.2 – Transportation – General

Policy 3.2.2.2 states that *the transportation system within the GGH will be planned and managed to:*

- a) provide connectivity among transportation modes for moving people and for moving goods;*
- b) offer a balance of transportation choices that reduces reliance upon the automobile and promotes transit and active transportation;*
- d) offer multimodal access to jobs, housing, schools, cultural, and recreational opportunities, and goods and services;*

Evaluation: The proposed development will supports the Growth Plan's employment policy directives by a proposing non-residential building that will add employment opportunities to an existing employment area, as well as uses that support the function of the employment area.

.Section 3.2.4 – Moving Goods

Policy 3.2.4.1 states that *linking major goods movement facilities and corridors, international gateways, and employment areas to facilitate efficient goods movement will be the first priority of highway investment.*

Evaluation: The proposal will facilitate efficient goods movement to the employment lands via Mayfield Road and Airport Road which fronts the Subject Lands.

Section 3.2.7 – Stormwater Management

Policy 3.2.7.2 states that *proposals for large-scale development proceeding by way of a secondary plan, plan of subdivision, vacant land plan of condominium or site plan will be supported by a stormwater management plan or equivalent, that:*

- a) is informed by a subwatershed plan or equivalent;*
- b) incorporates an integrated treatment approach to minimize stormwater flows and reliance on stormwater ponds, which includes appropriate low impact development and green infrastructure;*
- c) establishes planning, design, and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces; and*
- d) aligns with the stormwater master plan or equivalent for the settlement area, where applicable.*

Evaluation: The proposal will integrate stormwater management best practices, such as low impact development techniques to meet subwatershed planning requirements of the Town as further outlined by the Stormwater Management Report prepared by WSP. The development proposal will utilize planning, design, and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces on the Subject lands.

In our opinion the proposed Official Plan Amendment and Zoning By-law Amendments conform to and/or do not conflict with the Growth Plan.

APPENDIX **E**

APPENDIX E: Region of Peel Official Plan Analysis

The Region of Peel Official Plan (hereinafter as "Region OP") was adopted by Council on July 11, 1996 and approved with modification by the Minister of Municipal Affairs and Housing on October 22, 1996. The Region of Peel recently completed the Peel Region Official Plan Review to bring its Official Plan policies into conformity with provincial requirements.

An analysis of the Region OP policies has been conducted to demonstrate the proposed development applications are in keep with the direction of and thus conformity with the Region OP policies. The following is a summary of the policies applicable to the proposed development.

The Subject Lands are designated "Prime Agricultural Area" on **Schedule B – Prime Agricultural Area** and "Rural System" on **Schedule D – Regional Structure**. The Subject Lands are also designated "Settlement with Undelineated Built Boundary" on **Schedule D4 – The Growth Plan Policy Areas in Peel**. Airport Road and Mayfield Road are designated "Major Road" on **Schedule E – Major Road Network** and the Region OP calls for a right-of-width of Mayfield Road of 50 m. (165 ft.) and Airport Road of 45 m. (150 ft.) on **Schedule F – Regional Road Mid-Block Right-of-Way Requirements**.

In addition, the Subject Lands are located within Humber River area on **Figure 3 – Watershed**. Furthermore, the Region OP identifies that wastewater facilities – trunk sewer is available on Airport Road and water facilities – transmission main is available on Mayfield Road on **Figure 9 – Existing Water and Wastewater Facilities**.

Section 1.3.5 Themes of the Plan

Policy 1.3.6.3 states *to recognize the importance of vital, competitive and diverse economy and a sound tax base, and manage and stage growth and development in accordance with financial goals and overall fiscal sustainability of the Region.*

Evaluation: The proposed employment/industrial use buildings will support long-term economic diversification by proposing uses which are complementary and compatible within built-up area and the surrounding areas and Region as a whole.

Section 2.2.4 Watersheds

Policy 2.2.4.1 states *that the proposal should work jointly with the area and neighbouring municipalities, conservation authorities, and other provincial agencies in regards to watershed plans and subwatershed plans, in order to assess and analysis of cumulative effects of land use changes and the implementation of subwatershed plans.*

Evaluation: The applicant will work with the Town, conservation authority and other provincial agencies to ensure that the proposed development will not have a significant immediate or cumulative impact on water resources and related natural systems in a watershed or subwatershed.

Section 2.2.10.4 Geographic Specific Policies in the Protect Countryside

Policy 2.2.10.4.1 states for Council *to direct the Town of Caledon to include policies in its official plan that will support and permit normal farm practices and a full range of agricultural, agriculture-related and secondary uses*

within the prime agricultural area of Protected Countryside. Further, **Policy 2.2.10.4.3** prohibits the redesignation of prime agricultural areas for non-agricultural uses except for: (b) settlement area expansion subject to the settlement area policies of Section 2.2.10.4 of this Plan and Section 3.4 of the Greenbelt Plan.

Evaluation: The Subject Lands are designated “Settlement with Undelineated Built Boundary” on Schedule D4 – The Growth Plan Policy Areas in Peel. Rural Settlements as identified on Schedule D4 comprise of Villages, Hamlets and Industrial/Commercial Centres located within the Rural System. The Town of Caledon has identified the Subject Lands as being within an Industrial/Commercial Centres which are intended to play a supportive function to the Rural Service Centres and provide opportunities for industrial and commercial developments. The proposed amendments will permit an employment/industrial use on the Subject Lands meeting the overall intent of Regional policies for the Subject Lands. We note the Subject Land are not located within the Protected Countryside designation of the Greenbelt Plan.

Section 3.2 Agricultural Resources

Section 3.2 of this Plan provides agricultural resource policies for the Region of Peel, specifically land designated Prime Agricultural on Schedule D. The Region Official Plan notes that *Prime Agricultural Area excludes existing settlement areas as identified in the area municipal official plans*. As the Subject Lands are within a “Settlement with Undelineated Built Boundary” the Town of Caledon has identified the Subject Lands as an Industrial/Commercial Centre within a settlement area. **Policy 3.2.2.11** states that *direct the Town of Caledon, in the Prime Agricultural Area, only to permit a non-residential use, subject to an area municipal official plan amendment and provided that:*

- a) *there are no reasonable alternative locations which avoid the Prime Agricultural Area;*
- b) *there are no reasonable alternative locations in the Prime Agricultural Area with lower priority agricultural lands;*
- c) *there is a demonstrated need for the use, which has been justified in the context of applicable growth management policies; and*
- d) *impacts from any new non-residential use on surrounding agricultural operations and lands are minimal or will be satisfactorily mitigated.*

Evaluation: The Subject Lands are located within an Industrial/Commercial Centre and further designated Highway Commercial and General Industrial. As noted above, the Subject Lands are designated “Settlement with Undelineated Built Boundary” on Schedule D4 – The Growth Plan Policy Areas in Peel. Rural Settlements as identified on Schedule D4 comprise of Villages, Hamlets and Industrial/Commercial Centres located within the Rural System. As the Town of Caledon has identified the Subject Lands as being within an Industrial/Commercial Centres. the proposed amendments will permit an employment/industrial use on the Subject Lands meeting the overall intent of Regional policies for the Subject Lands.

Section 4.2 Population and Employment Forecasts

Policy 4.2.2.1 states that *Regional Council should use the population, household and employment forecasts shown in Table 3 as the basis of this Plan*. Furthermore, **Policy 4.2.2.3** states that *cooperation with the area municipalities, the population, household and employment forecasts shown in Table 3 for determining Regional services and establishing requirements to accommodate growth to the year 2031. Forecasts beyond the 2031 planning horizon may be used for long-term infrastructure planning, as well as community planning within the urban boundary, undertaken by the Region and the Region and/or Area Municipalities, as long as they maintain consistency with the objectives and intent of the provincial Growth Plan and the Regional Official Plan*.

Evaluation: The proposed development will contribute to the planned employment targets in the Town of Caledon as the Subject Lands are located within the industrial/commercial centre. The amendments will promote land uses at a height and density that is consistent with the industrial uses in the surrounding neighbourhoods.

Section 5.4 The Rural System

Policy 5.4.2.7 states that *direct the area municipalities to require, as appropriate, proponents of development, in the absence of municipal servicing, to provide a comprehensive assessment of alternative methods of providing water and sewer servicing for the proposed development. The preferred servicing option will ensure that groundwater quality and quantity is protected, is financially feasible for the Region and is most suitable to the characteristics of the site and existing communities.*

Evaluation: The proposed development will take advantage of the existing water and sewer servicing, as confirmed by the Functional Servicing and Stormwater Management Report prepared by WSP.

Policy 5.4.5.2.3 states *consider development in rural settlements, as designated in the Town of Caledon Official Plan, consistent with the policies of this Plan and if applicable, the Niagara Escarpment, the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan and the Growth Plan.*

Evaluation: The amendments will permit a land use which is in keeping with the Town of Caledon's Official Plan employment land use designations. A detailed analysis is provided in **Appendix F** of this report.

Section 5.5 Growth Management

Section 5.5 states that *growth management objectives are achieved while achieving the sustainability objectives, this Plan identifies specific growth management policies area such as urban growth centres, built-up area and designated Greenfield areas.*

Policy 5.5.1.6 states that *to support planning for complete communities in Peel that are compact, well-designed, transit-oriented, offer transportation choices, include a diverse mix of land uses, accommodate people at all stages of life and have an appropriate mix of housing, a good range of jobs, high quality open space, and easy access to retail and services to meet daily needs.*

Evaluation: The proposed employment/industrial use buildings will support long-term economic diversification by proposing uses which are complementary and compatible within built-up area and the surrounding areas. The employment/industrial use will help achieve employment forecasts of the Regional and Town Official Plan by creating intensification on vacant land within industrial/commercial centre. The proposed development will enhance existing pedestrian's connections within the area and will support transit initiatives by a proposed development that is accessible to workers.

Policy 5.5.2.1 states that *direct the area municipalities to incorporate official plan policies to develop complete communities that are compact, well-designed, transit-oriented, offer transportation choices, include a diverse mix of land uses, accommodate people at all stages of life and have an appropriate mix of housing, a good range of jobs, high quality public open space and easy access to retail and services.*

Evaluation: As noted above, the proposed development will create an intensified built-form within the built-up area on lands which are currently vacant. The proposed development will meet the intensification policies of the Region and Town by providing industrial buildings at an appropriate density and height along Airport Road and Mayfield Road.

Policy 5.5.2.2 states that *direct a significant portion of new growth to the built-up areas of the community through intensification.*

Evaluation: The proposed development will provide non-residential uses in proximity to existing and planned residential, employment, retail, employment, office and community uses. The proposed development will provide for employment opportunities to residents of the Town in an intensified employment development on the Subject Lands

Section 5.6 Employment Areas

Policy 5.6.2.1 states that *direct area municipalities to designate in the area municipal official plans, an adequate supply of employment land within the Urban System and Rural Service Centres and Industrial/Commercial Centres in the Rural System to achieve the forecasts in Table 3.* **Policy 5.6.2.2** states that *require the area municipalities to include a range of employment designations in their official plans for employment areas within the Urban System and Rural Service Centres, Industrial/Commercial Centres, as appropriate, to achieve the employment forecasts set out in Table 3 and to accommodate a variety of employment uses in accordance with the locational and market requirements of these uses.* **Policy 5.6.2.3** states that *use the employment forecasts in Table 3 for employment land use planning in the Region.*

Evaluation: The proposed development will assist the Region in meeting employment targets within the built up area by providing 44,535 sq. m. of employment/industrial space on the Subject Lands.

Policy 5.6.2.6 state that *protect and support employment areas for employment uses, as defined and designated in area municipal official plans. For the purposes of this policy, the employment areas are those that contain lands designated:*

- *In Caledon: Prestige Industrial, General Industrial and Dry Industrial.*

Evaluation: The proposed amendments will allow for further employment uses on the Subject Lands thus conforming to this policy.

Section 5.9 The Transportation System in Peel

Policy 5.9.2.5 states that *optimize the use of existing and new Regional transportation infrastructure to support growth in an efficient, compact form, and encourage the area municipalities to do the same for infrastructure under their jurisdiction.*

Evaluation: The proposed amendments will permit the development of industrial uses which will allow for the efficient use of the Subject Lands and available infrastructure along Mayfield Road and Airport Road. Further details are provided in the FSRSWM Report prepared by WSP and the Transportation Impact Study prepared by WSP.

Policy 5.9.2.11 states that *ensure, in accordance with the requirements of the Region and the area municipalities, that development only proceed with adequate existing or committed improvements to regional transportation capacity and, if necessary, development be phased until that capacity is or will be available.*

Evaluation: The Transportation Impact Study prepared by WSP states the site is expected to generate a total of 142 and 109 trips (including both truck and vehicle trips) during the weekday a.m. and p.m. peak hours, respectively. All movements continue to operate well within capacity.

Policy 5.9.2.12 states that *work with the area municipalities, adjacent municipalities, other levels of government and non-governmental agencies to develop and implement Transportation Demand Management programs to reduce trip distance and time and increase the modal share of alternatives to single-occupant automobiles.*

Evaluation: A Transportation Demand Management is included in the Transportation Impact Study in support of the proposed development.

Policy 5.9.2.20 states that *to work with the Province and area municipalities to support long-term economic prosperity by optimizing the long-term availability and use of transportation infrastructure.* Furthermore, **Policy 5.9.2.23** states that *work with the Province and area municipalities to encourage increased public and business awareness of activities and actions which will lead to increased use of sustainable transportation alternatives.*

Evaluation: As noted above, the proposed employment / industrial use will support long-term economic diversification by proposing a use which is complementary and compatible surrounding land uses. The proposed compact built form is an efficient and appropriate utilization of lands within an Industrial/Commercial Centre.

Policy 5.9.4.2.11 states that *control frontage development and vehicular access onto Regional roads consistent with relevant Regional By-laws.* **Policy 5.9.4.2.12** states that *control access to Regional roads so as to optimize traffic safety and carrying capacity, and control the number and location of intersections with Regional roads in consultation with the affected area municipality.*

Evaluation: The proposed development provides appropriate vehicular access to the Subject Lands that will not affect the existing road infrastructure along Airport Road and Mayfield Road. Further details are outlined in the TIS prepared by WSP.

Policy 6.4.2.5 requires *new development to comply with the Peel Waste Collection Design Standards Manual to ensure safe and efficient waste collection and diversion through consultation with the same area municipalities and applicants.*

Evaluation: The proposed development provides garbage room for waste management on the Subject Lands.

Based on our analysis, the proposed Official Plan Amendment and Zoning By-law Amendment conforms to and / or does not conflict with the Region of Peel Official Plan.

APPENDIX **F**

APPENDIX F: Town of Caledon Official Plan Analysis

The Town of Caledon Official Plan ("Town OP") came into effect in 1979. Since that time, the Town OP has been reviewed and amendment to keep it current and reflect changing community needs and to respond to new Regional and Provincial planning policies and legislation. The Town OP has been updated include Region of Peel and Ontario Municipal Board ("OMB") decisions and Town Council approved Official Plan as of June 8, 2010.

The Subject Lands are designated "Agricultural and Rural Area of the Growth Plan" with an identifier as being located within an "Industrial/Commercial Centre" on **Schedule A1 Town Structure** within the Town of Caledon's Official Plan ("COP"). More particularly, the Subject Lands are located within a "Settlement Area" on **Schedule F Rural Estate Residential Areas**. The Industrial/Commercial Centre designation provides for a range of general industrial uses and a range of commercial uses, including but not limited to warehousing, office related industrial uses and service commercial uses.

The Town of Caledon Council adopted Official Plan Amendment No. 239 to re-designate a portion of the Subject Lands (Part of Lot 1, Concession 1 (Albion) in the Town of Caledon, located at the northeast corner of Mayfield Road and Airport Road) as "Highway Commercial" and include additional policies within the Highway Commercial designation pertaining to the site within the Tullamore Secondary Plan, to permit retail and service commercial centre on the Subject Lands.

The majority of the Subject Lands are designated "Highway Commercial" and the strip of lands at the northeast corner are designated "General Industrial", and subject to OPA 239 on **Schedule N Tullamore Land Use Area**. In addition, a conceptual road network is planned to go through from the north to east boundary of the Subject Lands. Lastly, the Subject Lands are also located within "Settlement with Undelineated Built-up Area" on **Figure 1 Growth Plan Policy Area in Caledon**. The Tullamore Secondary Plan Area is intended to serve primarily industrial uses.

Mayfield Road and Airport Road are identified as "High Capacity Arterial" on **Schedule J Long Range Road Network** and identifies a road right-of-way width of 50 metres for Mayfield Road and 36 metres for Airport Road on **Schedule K Road Right-of-Way Widths**.

The following is a summary of the policies application to the proposed development.

Section 2.2.3 Goals

Together the following goals provide the context within which the policies in this Plan should be interpreted (which include but not limited to):

- *To establish a growth pattern for the Town, including rates and location of population and employment growth that maximizes the overall quality of life for Caledon's residents.*
- *To strengthen the local economy and tax base.*
- *To allow development in a manner that provides the best opportunity to optimize municipal service provision.*

Evaluation: The proposed development will contribute to these goals by directing employment growth to an appropriate location, which will assist in meeting employment targets within the Town.

Section 3.1 Sustainability

Policy 3.1.3.9.4 states *proponents of new development shall be encouraged to minimize the percentage of impervious surfaces as well as adopt Low Impact Development (LID) or similar standards so as to reduce rates of surface water flow and run-off.* In addition, **Policy 3.1.3.11.2** states *the proponents of new developments shall be encouraged to use green building guidelines and rating systems for new construction to promote the use of building materials and products that have minimal potential to radiate harmful emissions that affect air quality.*

Evaluation: The proposed development will utilize the existing municipal services as confirmed by the Functional and Servicing Report, prepared by WSP.

Section 3.4 Fiscal and Economic Management

Policy 3.4.2.1 encourages *industrial, commercial, and other assessable non-residential growth in the Town, in particular through economic development in areas of competitive advantage.* In addition, **Policy 3.4.3.2** recognizing the potential financial benefits of additional industrial/commercial development, the Town shall endeavour to:

- a) *Commit an effective level of financial resources and staff effort to formulating and implementing promotion strategies that will attract such development;*
- b) *Streamline any necessary approval process associated with industrial or commercial development proposals;*
- c) *Ensure, at all times, the availability of an adequate supply of appropriately located, lotted, priced, and designated serviced and unserved land for industrial or commercial purposes; and,*
- d) *Review its parking standards, building setbacks, landscaping and site plan standards, from time to time, considering changing market trends, to ensure that appropriate standards for industrial and commercial uses are maintained.*

Lastly, **Policy 3.4.3.5** states *individual developments requiring Official Plan Amendment, Rezoning, or Draft Plan of Subdivision approval shall be assessed utilizing a fiscal impact model designed to determine the net fiscal impact on the municipality, of each development, based on estimated assessment revenues and annual service costs. A fiscal impact analysis shall not be required for renovations or minor additions to existing industrial or commercial development, any application proposing ten or fewer residential dwelling units, nor to applications for new, or expansions of, gravel pits, pending the completion of the Caledon Community Resource Study.*

Evaluation: The proposed development will contribute positively to the Town's revenue sources by providing for employment development on currently vacant and underutilized lands.

Section 4.1 Town Structure

Policy 4.1.1.2.1 states that *to designate a hierarchy of settlements, where new growth and a range of services will be concentrated.* **Policy 4.1.1.2.2** states that *to allocate growth according to the hierarchy of settlements to foster and enhance the distinct community character of settlements in Caledon, develop Caledon as a complete community, ensure equitable and efficient provision of services, maintain a high quality of life and promote economic development and employment.*

Evaluation: The proposed employment/industrial development will assist in promoting a healthy community by locating development in proximity to existing public transit and utilizing existing infrastructure. Being in proximity to transit, will encourage walkability and active transportation which will reduce the demand of private vehicles, thereby reducing travel demands and thus greenhouse gas emissions. The proposed development will further promote a live-work relationship with the existing community and support the local economy.

Policy 4.1.1.3.1 d) states that *Industrial/Commercial Centres – small, mixed-use settlements that provide at a small scale, a supportive function to the Rural Service Centres for industrial and commercial development. The Centres are located in the southern part of the Town in close proximity to the rest of the Greater Toronto Area and growing markets and are located at the intersections of Provincial or Regional transportation routes. The Industrial/Commercial Centres are Sandhill, Tullamore and Victoria.*

Evaluation: The proposed amendments will introduce employment/industrial use to the Subject Lands, and will provide both employment and be supportive of existing and future businesses in the Town.

Policy 4.1.3 states *Prime Agricultural Area and General Agricultural Area The Prime Agricultural Areas and General Agricultural Areas designated on Schedule A, Land Use Plan, Schedule B, Mayfield West Land Use Plan, Schedule C, Bolton Land Use Plan, and generally coincides with a relatively large area of high capability agricultural lands recognized as Classes 1, 2 and 3 agricultural lands according to the Canada Land Inventory of Soil Capability for Agriculture through the Region of Peel Official Plan. Smaller pockets of land with lower capability for agriculture have been included in the Prime Agricultural Area. The function of the Prime Agricultural Area and General Agricultural Area within the Town Structure is to protect and promote agricultural uses and support the conservation of agriculturally productive soils and lands. Specific objectives and policies for the Prime Agricultural Area and General Agricultural Area designations are contained in Section 5.1 of this Plan.*

Evaluation: The Subject Lands are also designated “Settlement with Undelineated Built Boundary” on Schedule D4 – The Growth Plan Policy Areas in Peel. Rural Settlements as identified on Schedule D4 comprise of Villages, Hamlets and Industrial/Commercial Centres located within the Rural System. The Town of Caledon has identified the Subject Lands as an Industrial/Commercial Centre which are intended to play a supportive function to the Rural Service Centres and provide at a small scale, opportunities for industrial and commercial developments. The proposed amendments will permit an employment/industrial use on lands intended for this use, thus meeting the overall intent of the Town’s policies.

Section 4.2 Growth Management

Policy 4.2.1.3.1 states that *Caledon will encourage intensification within the built-up area and undelineated built-up areas shown on Figure 1 of this Plan and will work to overcome barriers to intensification, where consistent with Section 3 of the Provincial Policy Statement.*

Evaluation: The proposal consists of two (2) industrial buildings, comprised of accessory office use within an intensification area within Tullamore. The Subject Lands are currently vacant and underutilized, the proposed buildings will increase density within the built-up area.

Policy 4.2.5.1 states that *the 2021 and 2031 population and employment forecasts for the Town of Caledon over the Plan Period are detailed on the following Table 4.1. The 2031 population and employment forecasts and the population allocations assigned in Tables 4.2 through 4.6 will be used as a guide to:*

- Manage both population and employment growth within the Town;
- Plan for the provisions of hard and soft services;
- Establish land area requirements; and,
- Enhance the relationship between local employment and population growth.

The 2021 population and employment forecasts are included as reference numbers in order to monitor progress towards the 2031 population and employment forecasts.

TABLE 4.1 Population and Employment Forecasts

Year	Population	Employment
2021	87,000	40,000
2031	108,000	46,000

In addition, **Policy 4.2.7.2** states that the Industrial/Commercial Centres population allocations in Table 4.6 generally reflect the historically established populations for these settlements. The historically established populations will be used as a guide only in regulating the population to be accommodated within the existing settlement boundaries.

TABLE 4.6 Population Allocations -Industrial/Commercial Centres

Population Allocations	2021 Population	2031 Population
Total - (from Table 4.2)	175	175
Historically Established Populations		
Sandhill	55	
Tullamore	50	
Victoria	71	

Evaluation: The proposed development will contribute to the overall employment growth in the Town through efficient use of the Subject Lands. The proposed uses will be compatible with existing and future development in the Tullamore area.

Section 5.4 Commercial

Policy 5.4.3.2 states that commercial development of a small scale will also be encouraged in the Industrial/Commercial Centres of Sandhill, Tullamore and Victoria, and will be primarily focused on providing commercial services to the travelling public and local residents. Recognizing the transitional nature of the Tullamore Industrial/Commercial Centre at the gateway to Caledon, a wider range of retail and service commercial uses may be permitted to accommodate contemporary retail formats to adequately service the area.

Evaluation: The proposed amendments will permit employment/industrial uses on the Subject Lands that will complement the Town's vision of the growth of the intensification area at the intersection of Mayfield Road and Airport. The proposed development provides approximately 44,535.19 m² (479,375.78 ft²) of new industrial space to contribute to diversifying and strengthening the areas important economic role as a location for jobs and employment uses. Furthermore, the proposed development will attract new investment and business opportunities to increase the diversity of employment uses in the area.

Section 5.4.5 Highway Commercial

Policy 5.4.5.1 states that *Highway Commercial applies to those commercial areas within the Rural Service Centres and Industrial/Commercial Centres that provide for a wide range of service opportunities for the travelling public. Such areas shall be located at key points along major highways/arterials for accessibility and visibility. Highway Commercial Uses shall include the following: tourist accommodation, automotive, recreation, restaurant, and other similar uses, and such uses shall be permitted subject to the general policies and general design policies in Section 5.4.3 and 5.4.9.*

Evaluation: The proposed amendment will permit employment/industrial use on the Subject Lands to contribute to the mix and range of employment uses in the area and meeting long-term needs. The proposed development makes more efficient use of underutilized lands that are consistent with the uses in the surrounding areas. The proposed industrial spaces will provide further opportunities for a consistent economic base in the area and will support the needs for businesses, local residents and employees in the immediate area and the Town of Caledon as a whole.

The Subject Lands are located at the north of intersection of Mayfield Road and Airport Road, and is in proximity to existing local transit routes along Mayfield Road and Airport Road that provides further connection to existing and emerging higher-order transit services. The proposed amendment will create a transit-supportive development.

Section 5.4.9 General Design Policies

Policy 5.4.9.1 states that *all commercial development permitted in Sections 5.4, shall be subject to the following General Design Policies to ensure that the development will have a high standard of site and building architectural design, appropriate buffering from possible adjacent residential uses, a safe and efficient design for internal and external vehicular/pedestrian circulation, and an adequate supply of parking/loading facilities on-site including:*

- a) *The architectural design and development of commercial districts shall encourage a variety of massings of commercial buildings, which shall be compatible with the scale of the surrounding community and shall discourage linear commercial strip development along roadways in commercial areas;*
- b) *The development shall have, wherever possible, consolidated access/egress on the site and with adjacent development(s), and also an integrated parking and vehicular/pedestrian circulation. Vehicular access and egress points to and from commercial parking areas shall be limited in number, as specified in the implementing Zoning Bylaw, and shall be designed to minimize danger to pedestrian and vehicular traffic, and conflict with adjacent uses;*
- c) *A high standard of landscape and streetscape features shall be provided for all commercial uses; and,*
- d) *Adequate off-street parking and loading spaces are to be provided for all commercial uses.*

Evaluation: The proposed amendments will focus on the pedestrian connectivity from the surrounding street network and the proposed buildings. The proposed massing and scale of the proposed buildings are appropriate and compatible to the existing and future employment context of the area and provides for an appropriate height and density for Highway Commercial designation. Main entrances will be clearly visible and accessible from the sidewalk and limiting shadows wind impacts on neighbouring properties or public realm. The proposed Landscape Plan in support of the development will promote a high quality design by providing a range of landscaped features and plantings. Further details regarding landscape vegetation, sustainable elements, and stormwater techniques will be addressed at the Site Plan stage.

Section 5.5 Employment Areas

Policy 5.5.3.1 states that *employment areas within the Town will be focused primarily in the Rural Service Centres of Mayfield West, and Bolton, and will also be permitted in the Industrial/Commercial Centres of Tullamore, Sandhill, and Victoria, in order to: concentrate industrial activities and employment opportunities within the Town; maximize use of available sanitary, water, and transportation infrastructure; and, provide locations for industrial growth proximate to larger markets to the south and east.*

Evaluation: The proposed development will be located in the Industrial/Commercial Centres of Tullamore and will provide new industrial activities and employment opportunities within the Town. Furthermore, the proposed development will assist the Town to meet growth forecast targets (which per the Growth Plan are to be planned for to 2051). The proposed development will utilize the existing sanitary, water, and transportation infrastructure.

Policy 5.5.3.2 states that *an adequate supply of employment land will be designated within the Rural Service Centres and Industrial/Commercial Centres to achieve the employment forecasts in Table 4.1.*

Evaluation: As noted above, the proposed development will assist in achieving the employment forecasts listed in Table 4.1 (and beyond to 2051).

Policy 5.5.3.3 states that a range of employment designations will be provided to meet the locational and market requirements of a variety of employment uses.

Evaluation: The proposed employment/industrial uses supports long-term economic diversification by proposing uses which are complementary and compatible with the surrounding land uses.

Policy 5.5.3.4 states that *Caledon will encourage the planning and development of employment areas in a manner consistent with the sustainability objectives and policies of Section 3.1 of this Plan. Energy efficient buildings that meet Regional green development standards, as may be prepared by the Region, will be encouraged.*

Evaluation: The proposed development will meet the sustainability and policies of the Town OP through the provision of passive and active energy consumption, bicycle parking, and proposed reduce parking spaces.

Policy 5.5.3.13 states that *employment areas will be developed either on full regional piped services, individual private services or a combination of both. The servicing requirements of employment areas are set out in each land use designation.*

Evaluation: The proposed development will utilize the existing municipal services as confirmed by the Functional and Servicing Report prepared by WSP.

Policy 5.5.3.15 states that *employment uses that are noxious by reason of the emission of noise, smoke, odour, and pollution shall be discouraged.*

Evaluation: The results of the proposal indicate that noise levels at nearby points of reception are expected to fall below the MECP noise criteria, provided that the assumptions and guidelines for noise control are followed. Further details are provided in the Noise Impact Study prepared by Gradient.

Policy 5.5.3.21 states that *employment Areas may be further classified as: Prestige Industrial; General Industrial; and Dry Industrial, with each type of land use being identified in separate industrial classifications in the implementing Zoning By-law. These designations are generally described as follows:*

- b) General Industrial applies to employment lands with full municipal water and sewer services which provide for various industrial uses including manufacturing, fabricating, and accessory outside storage.*

Evaluation: As noted above, the proposed development will utilize the existing municipal services as confirmed by the Functional and Servicing Report prepared by WSP.

Policy 5.9.4.3 states that *this Plan recognizes that the primary mode of individual travel during the plan period will be the automobile although the Town shall endeavour to provide for a holistic transportation system comprising all modes and related elements.* **Policy 5.9.4.4** states that *adequate transportation infrastructure shall be made available to service new development, in order to ensure the safe and efficient movement of traffic.*

Evaluation: The Subject Lands have direct access to Mayfield Road and Airport Road, major arterial roads, further supporting the proposed uses. The Subject Lands are located within a walking distance to the neighbourhoods in the surrounding area and promote creating a healthy community to encourage walkability and active transportation to serve the needs and reduce the demand of vehicles.

Section 5.9 Transportation

Policy 5.9.5.2.9 b) provides the following policies for High Capacity Arterials, which Airport Road and Mayfield Road are designated as:

- i. Are roadways under Provincial or Regional jurisdiction;*
- ii. Serve high volumes of medium to long distance inter and intra-regional traffic at moderate speeds and will provide access to major attraction centres.*
- iii. Will generally have a 30 to 50 metre road allowance width with 2 to 6 lane capability and limited property access.*
- iv. On-street parking will be discouraged.*

Evaluation: The proposed development respects the intent of the High Capacity Arterials by providing two separated main accesses to the Subject Lands: an access on Airport Road for employees and an access on Mayfield Road for trailers, it will help to reduce conflict between conflicts between pedestrians and vehicle traffic. Furthermore, the main trailer access will be provided on the northeast of the Subject Lands to reduce the impacts on Mayfield Road and Airport Road that serve high volumes of medium to long distance inter and intra-regional traffic at moderate speeds. The Subject Lands will dedicate 1,951.48 sq. m. of strip of lands for future Mayfield Road expansion. The majority of parking will be located at the front and side yard of the proposed buildings, and the parking layout will make efficient use of the Subject Lands. No on-street parking on Mayfield Road and Airport Road will be proposed for this development. The TIS prepared by WSP confirms all movements proposed on the Subject Lands will continue to operate well within existing capacity.

Policy 5.9.5.2.11 states that *the Town will seek to achieve the necessary right-of-way widths and provide the number of lanes within the range set in this plan. Necessary right-of-way widths will be acquired through*

Secondary Plan process and/or conditions of approval for subdivisions, severance, or site plans, or through purchase, expropriation, gift, bequeathment or other appropriate means. Furthermore:

- a. Any road that has less than the minimum public right-of-way width requirements identified on Schedule K will be considered for widening pursuant to the relevant sections of the Planning Act, dealing with road widenings as a condition of development approvals.*
- b. Intersection road allowances may be required in excess of the designated road allowances to provide for daylight triangles, lane channelization, or traffic control devices.*
- c. Road widenings in excess of road allowance requirements may be required along roads to provide lands for environmental considerations, facilitate culverts, cut and fill requirements, bridges, overpasses and for auxiliary turn lanes to provide better access and improve traffic operations.*
- d. In cases where a road widening is obtained by dedication through the development process, land will generally be obtained in equal amounts from both sides of the roadway. However, under certain circumstances, such as where there are physical constraints, such as environmental features or cemeteries, or other policy objectives to be considered, such as heritage conservation, off-set or single sided road allowance widenings may be considered.*
- e. Where existing developments, road alignments, or topography make it impractical to obtain desired road widenings, road improvements may be designed within the existing right-of-way.*

Evaluation: The proposed development will accommodate and dedicate lands for the planned right-of-way expansion along Mayfield Road. The TIS prepared by WSP confirms all movements proposed on the Subject Lands will continue to operate well within existing capacity.

Policy 5.9.5.2.12 states that *to maintain and protect the traffic capacity of all arterial and collector roadways, the Town will:*

- a) Minimize the number and restrict the location of intersections and driveways by:
 - i. controlling driveway access and on-site circulation through the development review process;*
 - ii. encouraging, where appropriate, reverse frontage for residential lots on arterial roads; and,*
 - iii. encouraging common access for commercial and industrial development.**
- a) Control future land uses that would have adverse effects on congested roads and intersections; and,*
- b) Generally require submission of Traffic Impact studies for development proposals that the Town considers significant traffic generators, or that have proposed locations which contribute traffic to roadways which are experiencing congestion problems.*

Evaluation: Main access will be provided from Airport Road to provide an easy access from and to the surrounding area. Furthermore, the Subject Lands are located within a walking distance to the neighbourhoods on the east of Mayfield Road and Airport Road and promote creating a healthy community to encourage walkability and active transportation to serve the needs and reduce the demand of vehicles, thereby reducing travel demands and thus greenhouse gas emissions. The TIS prepared by WSP confirms all movements proposed on the Subject Lands will continue to operate well within existing capacity.

Policy 5.10.3.6 states that *provision of appropriate services, including transportation and municipal water and sanitary sewer infrastructure, fire and police protection, and health services, must be made when releasing land for development.* **Policy 5.10.3.8** states that *the Town will endeavour to ensure, in consultation with the Region of Peel, that water and sewer services are planned, developed and utilized in an efficient manner, and the Town, in consultation with the Region of Peel, may impose conditions on servicing, including placing time limits on approvals that reserve servicing capacity.* **Policy 5.10.3.9** states that *a comprehensive water and sewer servicing study may be required in any individual settlement, prior to the release of lands for development, to ensure adequate and appropriate water and sewer services are available.*

Evaluation: The Subject Lands will take advantage of the existing municipal services as confirmed by the Functional Servicing and Stormwater Management prepared by WSP.

Section 5.10 Settlements

Policy 5.10.7.2.1 states the boundaries of the Industrial/Commercial Centres are shown on Schedules N, R and T and Figures 13 and 15. Further, **Policy 5.10.7.2.2** states Tullamore and Victoria will serve primarily as industrial centres and will also function, to a lesser extent, as highway commercial centres in accordance with the policies and related uses in Section 5.4.5 and 5.5. In accordance with the direction provided in Policy 5.4.5.4, a wider range of retail and service commercial uses are permitted up to a maximum gross floor area of 24,500 square metres on the lands located at the northeast corner of Airport Road and Mayfield Road and legally described as Part of Lot 1 Concession 1 (Albion), Town of Caledon, Regional Municipality of Peel, as shown on Schedule "N", Tullamore Land Use Area Plan.

Evaluation: The proposed amendments meet the general intent of the Tullamore Secondary Plan as further evaluated in this Appendix.

Policy 5.10.7.2.6 states that *industrial and commercial development of lands adjacent to any residential uses in Sandhill, Tullamore and Victoria shall be developed in a manner to minimize any land use conflict utilizing such provisions as buffering, landscaping, berming and appropriate site design in accordance with the provisions of Section 5.4.9 and 5.5.7.*

Evaluation: The proposed development will provide adequate buffers, landscaping and berming to minimize any land use conflicts.

Tullamore Secondary Plan

A Secondary Plan has been completed for the Tullamore Industrial Policy Area. The Town of Caledon will review the function of Tullamore as an enhanced focus for employment growth that goes beyond its current function as an Industrial/Commercial Centre. The following policies for the Tullamore Industrial Policy Area are applicable to the Subject Lands.

Policy 7.8.1.3 states the *basis The Tullamore Industrial/Commercial Secondary Plan is a result of review and analysis of land use designations and applicable Official Plan policies to lands within the Tullamore Industrial/Commercial Centre. In accordance with Official Plan policy 5.10.7.3.1, the Tullamore Industrial Policy Area requires the preparation of a Secondary Plan prior to the release of lands for development. The Plan was prepared in the context of:*

- a) The need for Industrial /Commercial Centres to serve a complementary role to other settlements;*
- b) To provide, at a small scale, a supportive function to the Rural Service Centres for industrial and commercial development;*
- c) The strategic location of Tullamore in the southern part of the Town in close proximity to the rest of the GTA and growing markets;*
- d) The accessibility/visibility afforded by its location at the intersection of two regional roads, Mayfield and Airport Roads*

Further, **Policy 7.8.1.3.1** states *Tullamore will serve primarily as an industrial centre and to a lesser extent as a highway commercial centre in accordance with the Official Plan policies as set out in Section 5.4.5 and 5.5. It is recognized that the Tullamore Industrial/Commercial Centre is transitioning toward a more urban development*

pattern. A wider range of retail and service uses shall be permitted at the northeast corner of Mayfield Road and Airport Road in the Tullamore Industrial/Commercial Centre in accordance with Policy 5.10.7.2.2.

Evaluation: The proposed amendments will permit employment/ industrial uses on the Subject Lands meet the general intent of the Tullamore Secondary Plan as further evaluated in this Appendix.

Policy 7.8.1.3.2 states that *joint access will be encouraged for lands within the centre to limit conflicts with arterial roads.* **Policy 7.8.1.3.6** states that *the principal means of access will be from Airport and Mayfield Road as well as from the internal collector road system.*

Evaluation: Main access can be provided from Airport Road and an internal driveway will be connected to Airport and Mayfield Roads to provide access into the Subject Lands. The TIS prepared by WSP confirms all movements proposed on the Subject Lands will continue to operate well within existing capacity.

Policy 7.8.1.3.4 states that *only prestige industrial and highway commercial development will be permitted along Mayfield Road.*

Evaluation: The proposed amendments will permit the proposed industrial use on the Subject Lands. The proposed development will provide high-quality architecture, attractive pedestrian experience and public realm and appropriate built form along Mayfield Road complimentary to existing employment/industrial uses within the immediate area.

Policy 7.8.1.3.7 states that *high quality industrial development can be achieved through the adoption of community design guidelines for land uses within the Secondary Plan.*

Evaluation: The proposed development will be designed to ensure adequate built form transition and safe, convenient, and efficient access to existing and future commercial, community, and transit facilities and services are provided for the stable communities. Specific detailed design standards will be implemented at the detailed design stage of the approval process.

Policy 7.8.1.3.8 states that *new development shall proceed by way of full municipal services.*

Evaluation: As noted above, the subject lands will utilize the existing municipal services.

Policy 7.8.2 states that *in general, the Tullamore Industrial/Commercial Secondary Plan promotes high quality industrial and commercial development in a comprehensive manner through the provision of appropriate policies respecting land use, environment, municipal servicing, transportation and community design. Although some complementary highway commercial development is anticipated in this Plan, including a wider range of retail uses located at the gateway location of Airport Road and Mayfield Road, it is not intended that this development shall compete with the retail uses planned for Caledon East.*

Specific goals for the Tullamore Industrial Commercial centre include:

- a. To provide for a mix of high quality industrial and highway commercial uses that would contribute to the Town's employment and commercial/industrial assessment base;*
- b. To provide for logical and orderly development on full urban services;*
- c. To ensure land use compatibility with adjacent uses both in the Town of Caledon and within the City of Brampton to the south;*

- d. *To ensure a high standard of community design is provided particularly on the frontages of Mayfield and Airport Roads;*
- e. *To recognize and protect significant environment features and functions within and adjacent to the secondary plan area, and, where possible, restore and enhance the environment*

Evaluation: The proposed development meets **Policy 7.8.2** as follows:

- The proposed development has been designed to improve the existing pedestrian environment along Airport Road. The primary entrance to the proposed buildings will be directly accessible to Airport Road.
- Landscaping will be adjacent to pedestrian walkways, including enhanced planting along Airport Road and Mayfield Road to further create an inviting public realm and to integrate the sidewalk connections to the future public sidewalks.
- The primary vehicular access to the subject lands is separated from pedestrian walkways to help reduce conflict between pedestrian and vehicular traffic. The proposed design will provide an animated streetscape at the ground-level through the provision of ground level office use in the proposed buildings.
- The proposed buildings represents a compact employment built form that is consistent with the existing and planned character area of Tullamore Area. The proposed buildings will help frame Airport Road and Mayfield Road, creating an attractive pedestrian friendly streetscape.

Policy 7.8.3 states that *the Tullamore Industrial/Commercial Secondary Plan promotes Tullamore primarily as an industrial centre; with a secondary function as a highway commercial centre, with a limited retail commercial focus. The Plan provides for highway and service commercial uses as well as prestige industrial uses without outdoor storage along the frontages of Airport and Mayfield Roads that can benefit from the high accessibility and exposure. Interior lands within the Secondary Plan boundary are planned for uses of a more general industrial nature with provisions for outdoor storage.*

Recognizing the transitional nature of the Tullamore Industrial/Commercial Centre at the gateway to Caledon, a wider range of retail and service commercial uses may be permitted to accommodate contemporary retail formats to adequately service the area.

The collector road configuration throughout the Secondary Plan provides for appropriate circulation and division of property to provide for maximum flexibility of end users. The collector road pattern reflects the regional requirements for distance separation from the intersection of Mayfield and Airport Roads, as well as the land use considerations and access on the south side of Mayfield Road, within the City of Brampton.

The land uses proposed will respect the features and functions on the east and west side of the Secondary Plan area, associated with Salt Creek and the west branch of the West Branch of the Humber River, respectively, and small tributaries, woodlots and hedgerows within the Secondary Plan area.

Evaluation: An attractive architectural design and range of materials will be achieved to reflect a high level of quality and contribute to the existing and future employment use architectural character of the area. Specific details will be determined through Site Plan.

Policy 7.8.4 states that *in recognition of the location of these lands at the entrance to the Town of Caledon and at the intersection of two major regional roads, and the need for buffering of adjacent sensitive land uses, the streetscape and community design of the area shall be of a consistently high quality. To this end, the Town of Caledon shall adopt overall design principles and standards for the Secondary Plan Area.* **Policy 7.8.4.1** states

that *all development shall conform to the Tullamore Community Design Guidelines, prepared by Paul Cosburn Associates Limited, adopted by Caledon Council May 15, 2000, as may be amended by Council from time to time. This shall include the submission of Landscape Plans, prepared by a landscape architect, for approval through the subdivision and/or site plan approval process.*

Evaluation: Appropriate landscaping will be provided on the Subject Lands to reduce visual impacts from service areas on the Subject Lands. An attractive architectural design and range of materials are provided to reflect a high level of quality and detailed design will be prepared and provided at the Site Plan approval stage, per the Tullamore Community Design Guidelines. A set of Landscape Plans has been provided to support the proposed amendments.

Policy 7.8.4.2 states that *in order to address visual impacts, aesthetics and compatibility of uses, development adjacent to Mayfield and Airport Roads shall, in addition to conforming to the General Design policies of Sections 5.4.9 and 5.5.7 and the Community Design Guidelines referenced in Section 7.8.4.1, be guided by the following general site design principles:*

- a) *Truck parking and truck storage, waste enclosures, overhead doors, accessory buildings, and loading/unloading bays shall be oriented away from Mayfield and Airport Roads, unless fully screened by a solid wall or a building;*
- b) *High quality building façades are encouraged and building elevation drawings may be required as part of the development approvals process. This shall include screening/enclosure of rooftop mechanical units, and limiting the height of buildings;*
- c) *Signage shall be co-ordinated and integrated into the landscaped areas, specific restrictions may be placed on signage in order to reduce visual impacts;*
- d) *Larger minimum lot sizes and wider frontages shall be required.*

Evaluation: The proposed development meets **Policy 7.8.4.2** by:

- As per the architectural plans prepared by Ware Malcomb, the proposed loading area is centrally located between both buildings thereby screened from Airport Road and Mayfield Road.
- An attractive architectural design and range of materials are provided to reflect a high level of quality and contribute to the existing commercial, office and residential architectural character of the area. The proposed building design will provide visual interest through a mixture of façade materials, such as glass, curtain wall glazing, masonry, spandrel, concrete, back-lit glass, and aluminum and metal panels. The proposed design will incorporate a mixture of colours on all sides of the proposed building to further enhance visual interest.

Detailed designs will be provided through the Site Plan application process.

Policy 7.8.5.2 states that *development shall only be permitted on full municipal services including sanitary and storm sewers, municipal roads, municipal water, hydro and other utilities.*

Evaluation: As noted above, the FSR report confirms that the Subject Lands will utilize the existing municipal services including sanitary and storm sewers, municipal roads, municipal water, hydro and other available utilities.

Policy 7.8.5.3 states that *no outdoor storage will be permitted in the Industrial designations adjacent Airport or Mayfield Roads.*

Evaluation: No outdoor storage is be proposed on the Subject Lands.

Policy 7.8.6.2 states that *notwithstanding Subsection 7.8.6.1, a wide range of retail and service commercial uses are permitted up to a maximum gross floor area of 24,500 square metres on the lands located at the northeast corner of Airport Road and Mayfield Road and legally described as Part of Lot 1 Concession 1 (Albion), Town of Caledon, Regional Municipality of Peel, as shown on Schedule “N”, Tullamore Land Use Area Plan. In accordance with the goals of Section 7.8.2, a market impact assessment must be submitted to demonstrate that the proposed development will not compete with retail uses planned for Caledon East.*

Evaluation: The proposed amendments will permit two one-storey industrial buildings with a total gross floor area of 44,535.19 m² (479,375.78 ft²) on an underutilized lands that are consistent with the uses in the surrounding areas. The proposal is not proposing any retail uses on the Subject Lands, therefore, a market impact assessment is not required as the proposed development will not compete with retail uses planned for Caledon East.

Policy 7.8.9.2 states that *new development shall only be serviced by full municipal roads and temporary access will not be permitted.*

Evaluation: The proposed development will be serviced by full municipal roads (Airport and Mayfield Roads).

Policy 7.8.9.6 states that *new direct access from individual properties to Airport and Mayfield Roads shall be limited to consolidated access points.*

Evaluation: The proposed development respects the **Policy 7.8.9.6** by separating the two main accesses for employees and trailers to reduce the impact to the pedestrian and vehicle traffic.

Policy 7.8.9.3 states that *an industrial collector road shall provide internal access and circulation on the lands east of Airport Road. Policy 7.8.9.5* states that *where roads are proposed to intersect with Regional roads, the transportation system shall also have regard to Regional requirements and standards. Policy 7.8.9.6* states that *new direct access from individual properties to Airport and Mayfield Roads shall be limited to consolidated access points.*

Evaluation: Given that adjacent development to the north would not allow this internal collector road to be developed in the short term, it is proposed that the industrial collector road be deleted from the schedule and that access be directly from Airport Road. The TIS confirms that access to Airport Road is appropriate from a functional perspective and has had regard to Regional requirements and standards.

Policy 7.8.10.1 and **7.8.10.2** indicate that all development in the Secondary Plan area are required to provide full municipal sanitary and storm sewers, municipal roads, municipal water, hydro and other utilities. The design of the above services are required to be complied with the Town’s standards.

Evaluation: As noted above, the FSR report confirms that the Subject Lands will utilize the existing municipal services including sanitary and storm sewers, municipal roads, municipal water, hydro and other available utilities.

Section 7.8.11 provides detailed stormwater management policies for the Secondary Plan Area. Developments of stormwater management infrastructure, including location, design, size and function of facilities shall be in accordance with the Secondary Plan Area Master Environmental Servicing Plan.

Evaluation: The Functional Servicing and Stormwater Management Report prepared by WSP confirms that the proposed development will be serviced from the Region's existing 300 mm diameter watermain on Airport Road and Mayfield Road. Further the proposed sanitary sewage will be conveyed to the existing 750 mm diameter sanitary sewer on Airport Road.

Based on our analysis, the proposed amendments conform to and / or do not conflict with the Town of Caledon Official Plan.

APPENDIX **G**

APPENDIX G: Tullamore Community Design Guidelines Analysis

The Tullamore Community is located on the north side of Mayfield Road at the intersection of Airport Road and Mayfield Road. The Tullamore Community is currently occupied by agricultural land, commercial, industrial and residential uses.

The purpose of the Tullamore Community Guidelines is to establish a coordinated approach to landscaping in the area that will assist in creating an attractive and desirable community. In addition, the guidelines are to provide direction to individual developers and their landscape architect when prepared details plans for each subdivision and site plan.

The following is a summary of the policies application to the proposed development.

3.2 Private Lands

The design of lands fronting Airport Road and Mayfield Road will include the following design elements:

- *Landscape Zones*
- *Decorative Elements*
- *Site Entrances*
- *Building Façade Treatment*
- *Landforms*
- *Planting*
- *Peninsulas*
- *Sideyard Treatment*

3.2.1 Landscape Zones

Highway commercial frontage along major roads shall have a 6.0m wide Landscape Zone.

Evaluation: The proposed development will have a minimum 6.0 m landscape zone along Mayfield Road and minimum 9.0 m landscape zone along Airport Road, which meets the intent of this guideline.

3.2.2 Landforms

3.2.2.1 Height and Slope

Landscape Zone within highway commercial properties and prestige industrial properties along major roadways will be dominated by 3: 1 slopes reaching heights between 0.6m to 0.8m and 1.2m to 1.7m respectively. This landform treatment will reduce visibility of parking areas. The combination of sloping berms and decorative elements (ie. limestone ledgerock and granite stone) will be encouraged.

Evaluation: The proposed development will incorporate appropriate grading and landscaping along major roadways to screen parking from the public realm.

3.2.2.1 Style

In both highway commercial and prestige industrial lands, the landform will have a rectilinear style.

Evaluation: The proposed landforms and landscaping are rectilinear in style and provide screening along Airport Road & Mayfield Road. The rectilinear planting beds and tree spacing provide a continuous buffer resulting in an attractive development from the adjacent roadways.

3.2.3 Decorative Elements

3.2.3.1 Types

Highway commercial and prestige industrial properties along major roadways will contain limestone ledgerrock and granite stones as decorative elements within the landscape zones.

Evaluation: Decorative armour stones have been provided in several planting beds/landscape zones along the major roadways. These armour stone accents provide visual interest from the street and contribute to the overall aesthetic of the development.

3.2.3.2 Density

The decorative elements will be used with a frequency of 5.0 lin.m. per 10.0 lin.m. of frontage for limestone ledgerrock and 2.5 sq.m. per 10.0 lin.m. of frontage for granite boulders. The ledgerrock may vary in thickness from 250 to 750 mm in one or two bedding courses and have an average width of 1.0 m. The granite stones shall be arranged in well-defined beds.

Evaluation: Decorative armour stone has been proposed throughout the roadway frontage planting beds and has been spaced accordingly to provide visual accents along the development frontage.

3.2.4 Planting

3.2.4.1 Size

For highway commercial and prestige industrial properties along major roadways, all deciduous trees shall be 50, 60 or 70 caliper in size and all coniferous trees shall be 1.5, 2.0, 2.5m in height (in equal proportions).

Evaluation: All deciduous trees along the major roadways will be large canopy species and be 70mm caliper as per Town of Caledon standards. All coniferous trees will be 2.0m height at installation to provide an immediate buffer from the roadways.

3.2.4.2 Density and Style

For highway commercial and prestige industrial properties along major roadways, deciduous trees shall be planted at a rate of one tree per 10 lin.m. of frontage, coniferous trees at one tree per 20 lin.m. of frontage and 2 shrubs per lin.m. of frontage. Daylilies will be planted in a continuous double row at a spacing of 4 plants per lin.m. of frontage for all highway commercial properties. Daylily beds along prestige industrial properties will be planted at the discretion of the developer. For highway commercial and prestige industrial properties along major roadways, plantings shall be installed in a 'linear' form.

Evaluation: Linear form planting beds inclusive of coniferous trees, deciduous trees, shrubs, and perennials have been proposed along the development frontage to provide screening from the major roadways. The plant material selected will be hardy species and a mix of flowering and winter interest varieties that will contribute to an attractive frontage all year long. In several areas, a double row of trees has been proposed along the development frontage with street trees proposed off property within the right-of-way and coniferous and deciduous species spaced throughout the planting strip on property. These trees will all be large canopy species providing adequate canopy cover along both planting strip frontages.

3.2.5 Site Entrances

All site entrances for highway commercial properties will provide accent areas with decorative features and planting. The density and style of the landscape treatment shall be an extension of the frontage design. All landscape treatment will be low in profile to ensure that visibility is not hampered.

Evaluation: The proposed main entrance along Airport Road will consist of high quality landscaping including a range of plantings and trees. Further, decorative armour stone edges are proposed on either side of the main entrance highlighting the main access points.

3.2.6 Peninsulas

For highway commercial properties along major roads, peninsulas will be provided in the parking areas at the rate of one peninsula (5.0m minimum width) for every 25 parking stalls.

Evaluation: High quality landscaping has been provided to screen surface parking for adjacent properties and major streets, meeting the general intent of this policy. Peninsulas have been added where feasible due to the irregular shape of the Subject Lands. Specific details will be determined through Site Plan.

3.2.7 Building Façade Treatment

Shrub and tree planting along the front building facade is strongly recommended.

Evaluation: Foundation shrub planting has been proposed along the building façade to contribute to the building aesthetic and provide an attractive barrier between the building and the parking area. Where space permits, deciduous trees and coniferous trees have been proposed to provide additional softscape buffering.

3.2.8 Sideyard Planting

Planting along the yards from the front corner of lot to the building is strongly recommended except when joint entrances are provided.

Evaluation: High quality landscaping is proposed along all street frontages and within the side yards which includes large canopy coniferous and deciduous trees. These trees within the side yard will provide additional screening from adjacent properties.

4.2.2 Landform

4.2.2.1 Height and Slope

The Landscape Zone along all internal roads will be dominated by 3: 1 slopes and conform to a rectilinear grading style.

Evaluation: The proposed development will incorporate appropriate grading and landscaping along major roadways to screen parking from the public realm.

4.2.3 Planting

4.2.3.1 Size

Deciduous trees shall be 50, 60 or 70 caliper in size and all coniferous trees shall be 1.5, 2.0, 2.5m in height (in equal proportions).

Evaluation: All deciduous trees along the major roadways will be large canopy species and be 70mm caliper as per Town of Caledon standards. All coniferous trees will be 2.0m height at installation.

4.2.3.2 Density and Style

All planting will conform to a density of 1 deciduous tree per 10.0 lin.m of frontage, one coniferous tree per 15.0 lin.m frontage and one shrub per lin.m of frontage. Planting style shall be at the discretion of the owner.

Evaluation: A mix of coniferous and deciduous trees have been provided along both roadway frontages providing adequate canopy cover. Understory shrub and perennial species have been proposed to provide screening from the public realm.

5.0 Primary Entrance – Gateway

The intersection of Airport Road and Mayfield Road forms an important vehicular gateway into the Town of Caledon, as illustrated on Figure 5a. To accentuate the entrance into the municipality, a strong landscape treatment and signage is recommended. In combination with municipal signage, the landscape treatment will also recognize the Tullamore Commercial and Industrial Community. The accompanying concept plan illustrates the level of treatment envisioned for the intersection.

The gateway is situated on private property and is subject to a satisfactory agreement being reached with the respective landowners. In addition, the location and configuration of the design is strongly dependent on future roadway improvements at this intersection.

The gateway design has an estimated construction cost of \$150,000.00. It is anticipated that this cost will be distributed between the Tullamore development community and the Town of Caledon.

Evaluation: The corner of Airport Road & Mayfield Road has been proposed with an enhanced landscape treatment and community gateway signage. The landscape treatment in this area will provide a visual cue into the Tullamore Commercial and Industrial Community and accentuate the entrance into the Town of Caledon. This corner is proposed to have several flowering trees, winter interest and flowering shrub species, and decorative armour stone pieces. These landscape features will highlight the proposed entry signage without obstructing the views of the gateway from the roadway.

7.2 Internal Buffer

Buffering views from internal roadways into industrial land uses is an important landscape requirement. Due to the wide variation in facilities and site plan configurations for industrial uses, specific guidelines are not provided in this document. However, as a general rule, the landscape treatment used in buffering industrial uses must have aesthetic appeal and block or screen views to the full height of industrial facilities when being viewed from adjacent public roadways. The Town of Caledon may require the appropriate. Cross sections to demonstrate that this design requirement is met with each site plan application.

Evaluation: Proposed planting within the right-of-way, within the roadway frontage landscape strips, and along the building frontage provides adequate buffering from the adjacent public roadways. Large canopy deciduous trees, coniferous trees, and layered understory shrub plantings enhance the streetscape while screening the industrial uses of the development.

Based on our analysis, the proposed development meets the general intent of the Tullamore Community Design Guidelines.