TRAFFIC IMPACT AND PARKING STUDY

INSPIRED ARCHITECTURAL GROUP

PROPOSED DAY NURSERY FACILITY

PART OF LOT 20, CONCESSION 1

15,867 AIRPORT ROAD

TOWN OF CALEDON

FILE NOS. DART 2024-0001 & DART 2024-0002

UPDATED SEPTEMBER 18TH 2024

CANDEVCON GROUP INC.
CONSULTING ENGINEERS & PLANNERS
TEL (905) 794-0600 FAX (905) 794-0611

PROJECT NO. W23171

TRAFFIC IMPACT AND PARKING STUDY

INSPIRED ARCHITECTURAL GROUP

PROPOSED DAY NURSERY FACILITY

PART OF LOT 20, CONCESSION 1

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1. INTRODUCTION

CANDEVCON GROUP INC. was retained by Inspired Architectural Group to undertake a Traffic Impact and Parking Study in support of the Site Plan Application for the proposed Day Nursery Facility at 15,867 Airport Road, which is immediately east of Airport Road and approximately 400 metres south of Old Church Road, in the Town of Caledon. **Figure 1** illustrates the location of the Subject Site.

As a part of the approval process, the Town of Caledon and the Region of Peel require the preparation of a Traffic Impact and Parking Study to support the proposed Day Nursery Facility and to examine the implications of the proposed Day Nursery Facility on the adjacent transportation infrastructure.

Study parameters, assumptions and analytical approaches were presented through the terms of reference and were submitted to the Town of Caledon and Region of Peel staff. The terms of reference and the comments received are provided in **Appendix A**.

It is anticipated that the proposed Day Nursery Facility will be fully operational by 2024. As a result, this Study will analyze the traffic operations during 2029, which represents the five (5) year post full build-out. In the comments to the Terms of Reference, the Region asked to include a ten (10) year post full build-out. Since there are too many variables associated with a 10 year build-out in the context of other potential developments and a 10 year build-out is not typically considered for a development of this size, a 10 year build-out was not analyzed. In addition, the proposed Day Nursery Facility will be utilizing an existing residential unit.

The purpose of this Study is to determine the traffic impacts of the proposed Day Nursery Facility on the surrounding road network and at nearby intersections.

The Traffic Impact and Parking Study analyzes the future operations at the following intersections:

- Old Church Road/private Site Accesss at Airport Road,
- Cranston Drive/future Local Road at Airport Road,
- Subject Site Access at Airport Road.

1. INTRODUCTION (CONT'D)

The Old Church Road/private Site Access at Airport Road and Cranston Drive/future Local Road at Airport Road intersections were studied under the Existing (2023), Future (2029) Total Background and Future (2029) Total Traffic scenarios. The Subject Site Access at Airport Road intersection was studied under the Future (2029) Total Traffic scenario.

The Traffic Impact and Parking Study addresses the traffic operations during the Weekday A.M. and Weekday P.M. Peak Hours.

TRAFFIC IMPACT AND PARKING STUDY
PROPOSED DAY NURSERY FACILITY
15867 AIRPORT ROAD
TOWN OF CALEDON

LOCATION PLAN

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE
BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

DATE: NOV. 27th 2023	JOB No. W23171
DESIGN: R.V.M	FIG. No. 1
SCALE: N.T.S	

2. SUBJECT DEVELOPMENT – STUDY AREA

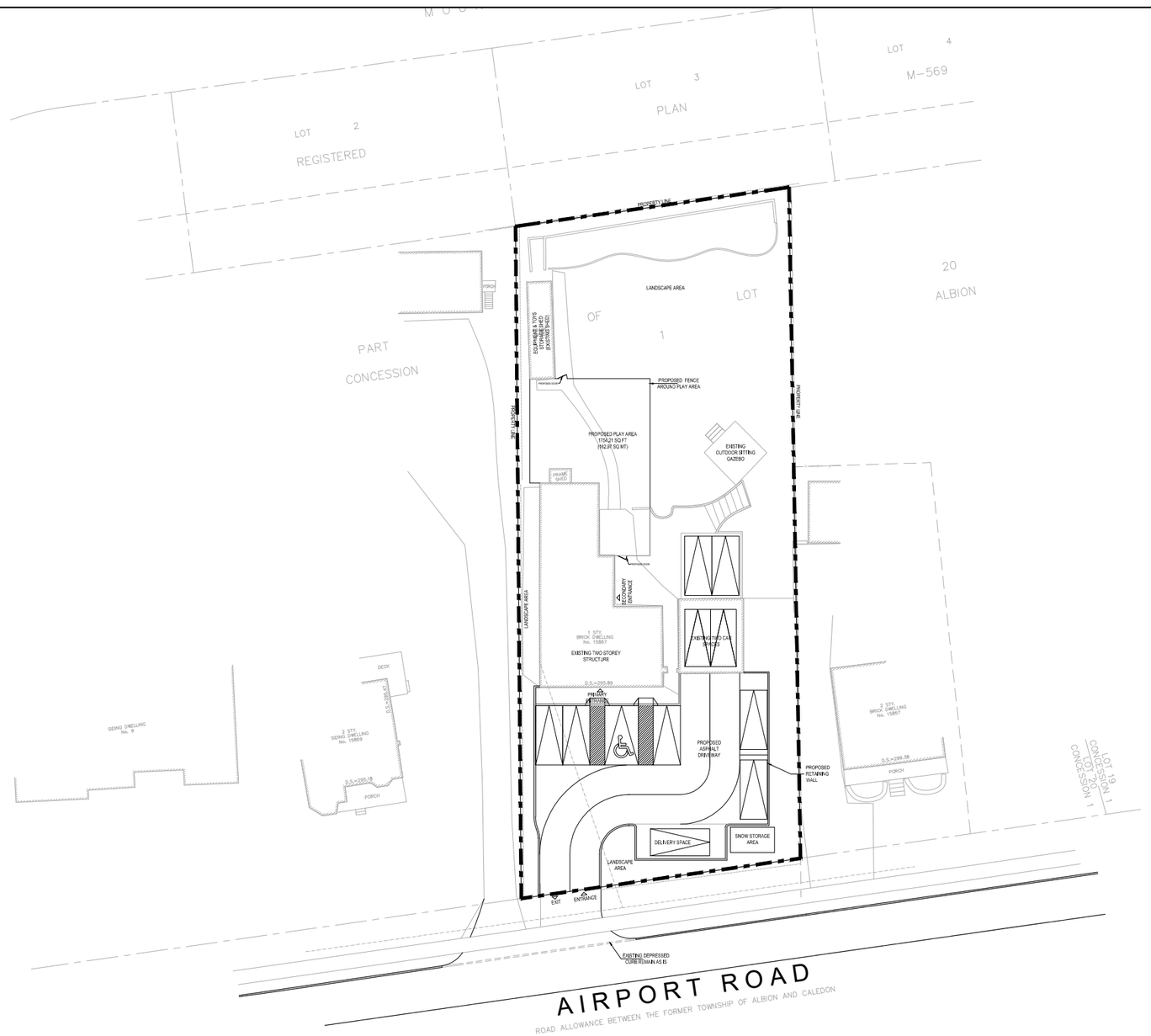
The Subject Development is located immediately east of Airport Road and approximately 400 metres south of Old Church Road. The total area of the Subject Development is 0.47 acres.

The Subject Development is surrounded by the following land uses:

- existing residential to the north, east and south,
- Airport Road with existing residential beyond to the west.

The proposed Day Nursery Facility will utilize the existing home that has a building area of 1,850 ft^2 (172 m^2) to accommodate 28 students. Twenty (20) of the students will be between 18 and 30 months old and eight (8) of the students will be between 30 months and 6 years old. The students will be supported by five (5) staff members. The proposed Day Nursery Facility will be serviced by the reconstructed driveway that connects with Airport Road, ten (10) parking spaces (includes one (1) barrier free parking space) for staff and visitors and one (1) parking space for delivery.

The proposed Site Plan is provided in **Figure 2**.



TRAFFIC IMPACT AND PARKING STUDY
PROPOSED DAY NURSERY FACILITY
15867 AIRPORT ROAD
TOWN OF CALEDON

PROPOSED SITE PLAN

CANDEVCON GROUP INC.
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TEL (905) 794-0600
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DATE: AUGUST. 7th 2024	JOB No. W23171
DESIGN: S.N.	FIG. No. 2
SCALE: N.T.S	

3. EXISTING AND FUTURE ROAD NETWORK

3.1 Existing Road Network

The road network within the Study Area comprises Airport Road from Old Church Road to Cranston Drive.

Airport Road (Regional Road 7)

Airport Road is a north-south Major Arterial Road that is under the jurisdiction of the Region of Peel. Within the Study Area, Airport Road is a two (2) lane roadway with a posted speed limit of 50 km/h. From Old Church Road to Mountcrest Road, layby parking is provided on both sides of the roadway. From approximately 300 metres north of Cranston Drive to Old Church Road, an urban cross-section is provided with pedestrian sidewalks on both sides. From approximately 300 metres north of Cranston Drive to Cranston Drive, a rural cross-section is provided. Improvements to Airport Road within the vicinity of the Study Area are anticipated by the 2029 horizon year[1].

Old Church Road (Regional Road 22)

Old Church Road is an east-west Arterial Road that is under the jurisdiction of the Region of Peel. The roadway has a westerly connection with Airport Road and an easterly connection with Highway 50. Within the vicinity of the Study Area, Old Church Road is a two (2) lane roadway with an urban cross-section, pedestrian sidewalks provided on both sides and a posted speed limit of 50 km/h. At the intersection of Old Church Road at Airport Road, layby parking is provided on both sides. There are no plans to widen Old Church Road by the 2029 horizon year[2].

[1] Environmental Study Report, Arcadis IBI Group and Region of Peel, September 2021.
[2] Region of Peel 2023 Budget, Region of Peel, Approved by Regional Council on February 2, 2023.

3. EXISTING AND FUTURE ROAD NETWORK (CONT'D)

3.1 Existing Road Network

Cranston Drive

Cranston Drive is an east-west Collector Road that is under the jurisdiction of the Town of Caledon. The roadway has a westerly connection with Mountainview Road and an easterly connection with Airport Road. Cranston Drive is a two (2) lane roadway with an urban cross-section and a posted speed limit of 40 km/h. Within the Study Area, a pedestrian sidewalk is provided on the north side of the roadway. There are no plans to widen Cranston Drive by the 2029 horizon year.[3]

3.2 Future Road Network

The proposed Day Nursery Facility will be serviced by the reconstructed driveway that connects with Airport Road, ten (10) parking spaces (includes one (1) barrier free parking space) for staff and visitors and one (1) parking space for delivery.

In addition, as part of the future Residential Subdivision that is owned by Triple Crown Line Development Inc., a local road will connect with the Cranston Drive at Airport Road intersection and act as the east leg.

By the 2029 horizon year, within the Study Area, improvements anticipated for Airport Road include:

- A roundabout at the intersection of Cranston Drive/future Local Road at Airport Road,
- From Cranston Drive/future Local Road to south of Hilltop Drive, a multi-use path on both sides of the roadway,
- From Mountcrest Road to Old Church Road, a multi-use path on the west side of the roadway.

[3] Multi-Modal Transportation Master Plan (MMTMP) – Public Meeting, Town of Caledon, September 19th, 2023.

4. EXISTING TRAFFIC CONDITIONS

4.1 Existing Traffic

The Existing (2023) traffic volumes are based on the turning movement counts that were received from the Region of Peel and taken by Ontario Traffic Inc. (OTI) (See **Appendix B**)

For the intersection of Old Church Road/private Site Access at Airport Road, the traffic counts that were received from the Region of Peel were conducted on Wednesday June 29, 2022. The traffic counts were from 7:00 A.M. to 9:00 A.M. and from 3:00 P.M. to 6:00 P.M. The A.M. and P.M. Peak Hour traffic volumes for the intersection occurred between 8:00 A.M. and 9:00 A.M. and between 4:00 P.M. and 5:00 P.M., respectively. The 2022 Peak Hour traffic counts were projected to the existing year of 2023. The growth in background traffic is summarized in Section 5.2.

For the intersection of Cranston Drive at Airport Road, the traffic counts were conducted by OTI on Wednesday November 29, 2023. The traffic counts were from 7:00 A.M. to 9:00 A.M. and from 4:00 P.M. to 6:00 P.M. The A.M. and P.M. Peak Hour traffic volumes for the intersection occurred between 7:15 A.M. and 8:15 A.M. and between 4:30 P.M. and 5:30 P.M., respectively.

The Existing (2023) peak hour traffic volumes are provided in **Figures 3 and 4**.

Existing (2023) Traffic Volumes - A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

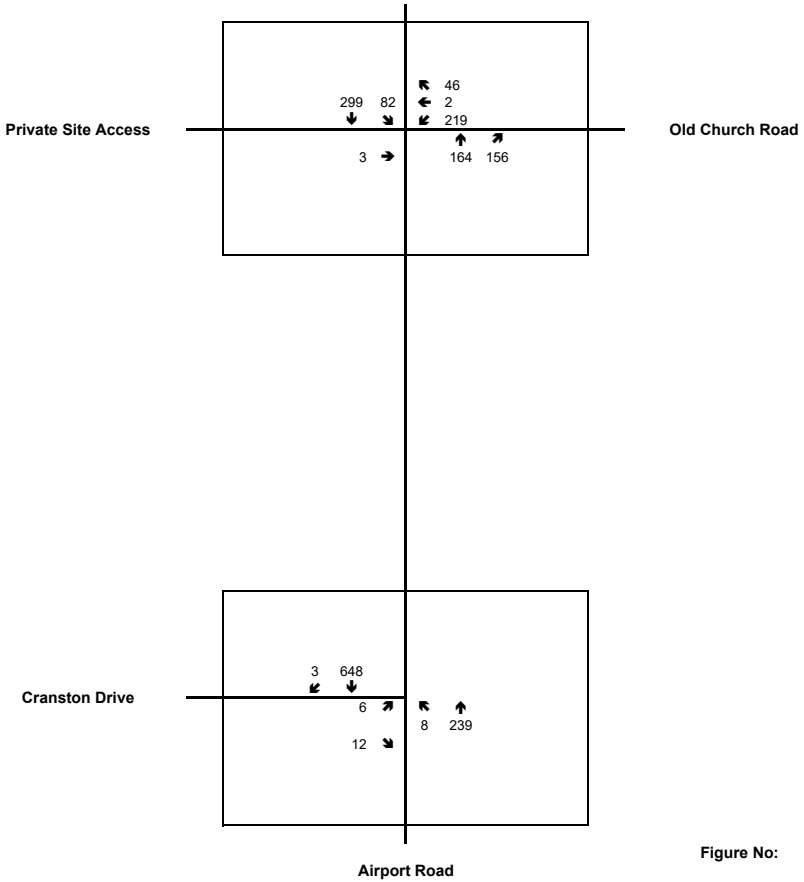

Figure No: 3

Date: December 6 2023

Prepared by: B.W.

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Existing (2023) Traffic Volumes - P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

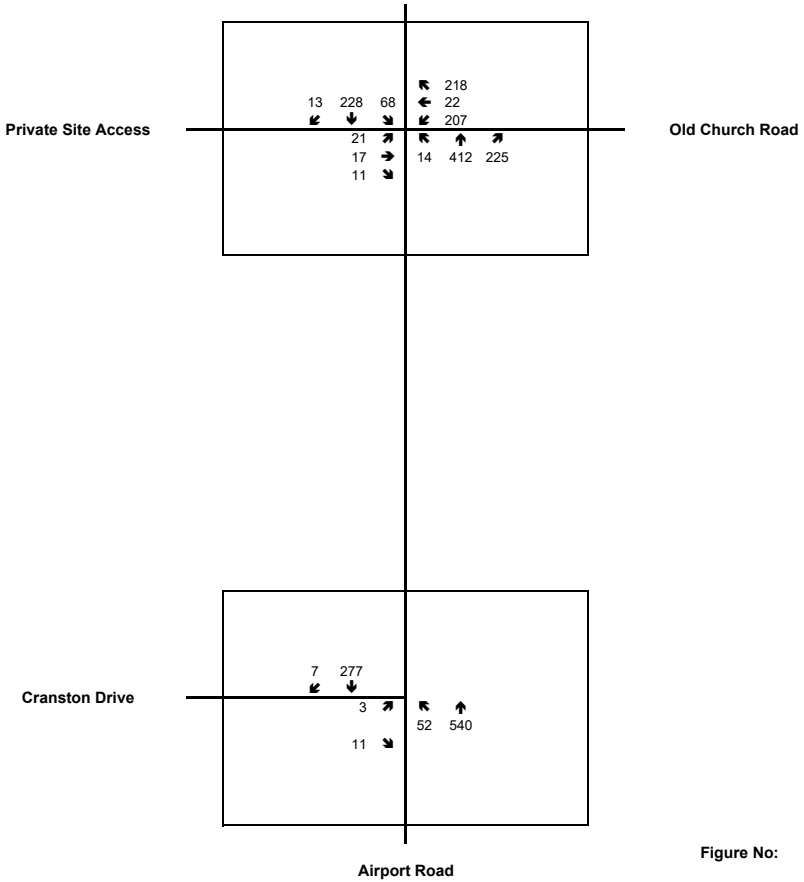

Figure No: 4

Date: December 6 2023

Prepared by: B.W.

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4. EXISTING TRAFFIC CONDITIONS (CONT'D)

4.2 Existing Traffic Analysis

The Existing (2023) peak hour traffic volumes are provided in **Figures 3 and 4**. For the Existing (2023) Traffic Volumes, the Level of Service (LOS) was analyzed using SYNCHRO 9.0 software[4].

The intersection of Old Church Road/private Site Access at Airport Road was analyzed as an actuated coordinated signalized intersection with Airport Road as the main street. However, the eastbound approach is stop-controlled. This Study will model the eastbound approach to be a part of the signal timing. However, eastbound traffic will yield to the westbound traffic. The signal timing plans were received from the Region of Peel and are included in **Appendix C**. The lane configuration used in the analysis comprises: a shared through-left and a right turning lane at the northbound approach; a shared left-through-right turning lane at the eastbound and southbound approaches; and a left and a shared through-right turning lane at the westbound approach.

The intersection of Cranston Drive at Airport Road was analyzed as an un-signalized intersection with a stop-control at the eastbound approach. The lane configuration used in the analysis comprises: a left and a through lane at the northbound approach; a shared left-right turning lane at the eastbound approach; and a through and a right turning lane at the southbound approach.

The results of the analysis are summarized in **Table 1**. The related calculations are provided in **Appendix E**. The LOS definitions for signalized and un-signalized intersections are included in **Appendix D** for reference.

[4] Synchro 9 Traffic Signal Optimization and Simulation Modeling Software, Version 9, Trafficware Corporation, 2014.

4. EXISTING TRAFFIC CONDITIONS (CONT'D)

4.2 Existing Traffic Analysis (Cont'd)

Table 1: Existing (2023) Traffic – Level of Service

Intersection	Turning Movement/ Approach	A.M. Peak Hour				P.M. Peak Hour			
		V/C	LOS	Delay[1]	95th% Queue (m)	V/C	LOS	Delay[1]	95th% Queue (m)
Old Church Road/ private Site Access at Airport Road (Signalized)	**Overall**	**0.63**	**B**	**13.6**	**n/a**	**0.61**	**B**	**11.7**	**n/a**
	EB Approach	0.01	B	19.7	2.1	0.17	B	19.0	11.6
	WBL	0.63	C	33.3	44.3	0.61	C	32.8	41.7
	WB T/R	0.13	A	8.1	7.4	0.50	A	8.4	18.0
	NB L/T	0.17	A	7.8	21.0	0.39	A	9.3	54.7
	NBR	0.17	A	2.1	7.7	0.22	A	1.9	9.1
	SB Approach	0.41	B	10.1	51.9	0.37	A	9.5	42.0
Cranston Drive at Airport Road (Un-signalized)	**Overall**	**0.38**	**A**	**0.4**	**n/a**	**0.32**	**A**	**0.6**	**n/a**
	EB Approach	0.05	B	14.4	1.1	0.02	B	11.5	0.6
	NBL	0.01	A	9.1	0.2	0.04	A	7.9	1.0
	NBT	0.14	A	0.0	0.0	0.32	A	0.0	0.0
	SBT	0.38	A	0.0	0.0	0.16	A	0.0	0.0
	SBR	0.00	A	0.0	0.0	0.00	A	0.0	0.0

Note 1: Delays are measured in seconds per vehicle.

Old Church Road/private Site Access at Airport Road

The analysis of the Existing (2023) Traffic Conditions indicates that the signalized intersection operates at a Level of Service "B" during the A.M. and P.M. Peak Hours.

All of the turning movements operate at a Level of Service "C" or better during the A.M. and P.M. Peak Hours.

Cranston Drive at Airport Road

The analysis of the Existing (2023) Traffic Conditions indicates that the un-signalized intersection operates at a Level of Service "A" during the A.M. and P.M. Peak Hours.

During the A.M. and P.M. Peak Hours, all of the turning movements operate at a Level of Service "B" or better.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS

5.1 Other Background Traffic

This Study will consider seven (7) anticipated background developments for the 2029 horizon year[5].

A future Residential Subdivision owned by Triple Crown Line Development Inc. (Town File Number(s): 21T-17004C, RZ 17-06 and POPA 17-01) that is located immediately east of Airport Road and Cranston Drive and approximately one (1) kilometre south of Old Church Road comprises 671 dwelling units, which includes 30 dwelling units for senior adult housing. The future Residential Subdivision will be serviced by a local road that will connect with Airport Road and align with Cranston Drive to form a four-legged intersection, a local road that will connect with Airport Road and align with an existing Site Access (Exit Only) to the Caledon East Public School to form a four-legged intersection and a local road that will connect with Mountcrest Road. Details regarding the background development's site-generated traffic volumes were taken from its Traffic Impact Study[6]. Excerpts from the Traffic Impact Study that were used in this Report are provided in **Appendix F**.

A proposed Commercial Development owned by Ganni Properties Inc. (Town File Number(s): POPA 2019-0007 and RZ 2019-0010), located at 16054-16068 Airport Road, is immediately west of Airport Road and approximately 200 metres north of Old Church Road. The proposed Commercial Development will replace (3) buildings with a fast-food restaurant with a drive-thru that has a gross floor area (G.F.A.) of 2,500 ft^2 and retail land uses that will have a total gross leasable area (G.L.A.) of 2,310 ft^2. The proposed Commercial Development will be serviced by a full-moves access that connects with Airport Road. Details regarding the background development's site-generated traffic volumes were taken from its Traffic Operation Assessment[7]. Excerpts from the Traffic Operation Assessment that were used in this Report are provided in **Appendix F**.

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5 Current Development Applications, Town of Caledon, Site Visited on November 21st, 2023. https://caledon.maps.arcgis.com/apps/instant/sidebar/index.html?appid=64ee4b915f0a4e1cacb6cff4f2a099f5

6 Revised Traffic Impact Study - 15717 Airport Road, Cole Engnieering, August 2018.

7 Traffic Operations Assessment – Proposed Restaurant Development, Nextrans Consulting Engineers, March 31st, 2022.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1 Other Background Traffic (Cont'd)

A proposed Retirement Home owned by Wyndham Holdings Inc. (Town File Number(s): POPA 2021-0006 and RZ 2021-0012), located at 15728 Airport Road, is immediately west of Airport Road and approximately 250 metres north of Cranston Drive. The proposed Retirement Home will replace a single detached home with a retirement home with 150 beds in 127 units. The proposed Retirement Home will be serviced by a left-in/right-in/right-out access that connects with Airport Road. Details regarding the background development's site-generated traffic volumes were taken from its Transportation Impact Study[8]. Excerpts from the Transportation Impact Study that were used in this Report are provided in **Appendix F**.

A proposed Mixed-Use Development owned by Shacca Caledon Holdings (Town File No.: POPA 17-02, 21T-17005C and RZ 17-08), located at 16,114 Airport Road, is immediately west of Airport Road and approximately 400 metres north of Old Church Road. The proposed Mixed-Use Development will replace one (1) single detached home with 32 condominium townhouse units and two (2) buildings with 13,864 ft^2 of commercial land use in total. The commercial buildings will be serviced by a full-moves access at Walker Road and a right-in access at Airport Road. The condominium townhouse units will be serviced by a full-moves access at Airport Road. Details regarding the background development's site-generated traffic volumes were taken from its Traffic Impact Study[9]. Excerpts from the Traffic Impact Study that were used in this Report are provided in **Appendix F**.

[8] Transportation Impact Study – 15728 Airport Road, Paradigm Transportation Solutions Limited (Paradigm), February 2021.

[9] Traffic Impact Study – 16114 Airport Road, C.F. Crozier & Associates, Updated November 2020.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1 Other Background Traffic (Cont'd)

A proposed Elementary School, located at 15 Jean Street, is immediately west of Airport Road and approximately 150 metres north of Cranston Drive. The proposed Elementary School will replace the Caledon East Public School that is currently in operation and is on the same property. The proposed Elementary School comprises 650 students, a daycare with a capacity for 73 children and a right-in/right-out access that connects with Airport Road[10]. In addition, the proposed Elementary School will utilize the inbound-only access at Jean Street and the outbound-only access at Airport Road that services the Caledon East Public School. Details regarding the background development's site-generated traffic volumes were provided by the Town of Caledon. The excerpts that were received from the Town of Caledon can be found in **Appendix F**.

A proposed Residential Subdivision owned by Stylux Caledon Inc. (Town File Number(s): POPA 2020-0002, 21T-20003C and RZ 2020-0006) is immediately north of Old Church Road and east of Marilyn Street. The Subject Subdivision will replace seven (7) single detached homes and a commercial development with 14 single detached homes and 34 townhouse units. Two (2) local roads within the Subject Property will form two (2) intersections with Marilyn Street and an intersection with Old Church Road. Details regarding the background development's site-generated traffic volumes were taken from its Traffic Impact Brief.[11] Excerpts from the Traffic Impact Brief that were used in this Report are provided in **Appendix F**.

[10] Ontario government investing $19.4M to replace Caledon East Public School, Caledon Enterprise.com, Site Visited on December 1st, 2023. https://www.caledonenterprise.com/news/ontario-government-investing-19-4m-to-replace-caledon-east-public-school/article_29594a14-1b82-5db5-8971-7f00bb95f336.html

[11] Traffic Impact Brief – Old Church Road Residential Development, Tatham Engineering, September 1st, 2022.

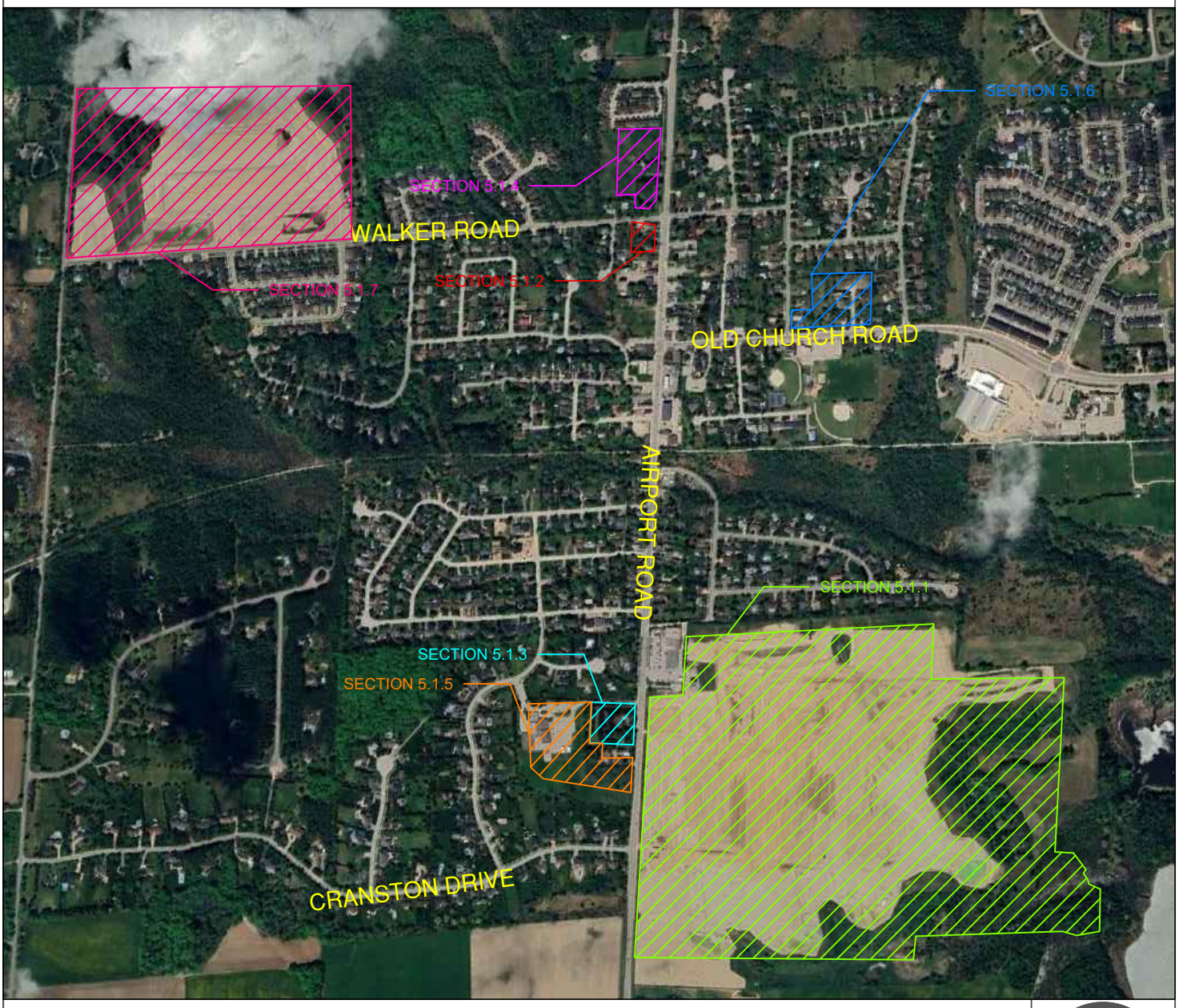
5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1 Other Background Traffic (Cont'd)

A future Residential Subdivision owned by Castles of Caledon Corporation (Town File Number: 21T-13003C) is immediately north of Walker Road West and east of Mountainview Road. The future Residential Subdivision that is currently being constructed comprises 203 single detached homes. The future Residential Subdivision will construct a local road that connects with Walker Road West to form a T-intersection at the west end of the Subject Property, construct a local road that connects with Walker Road West and aligns with the west end of Borland Crescent to form a four-legged intersection and construct a local road that connects with Walker Road West and aligns with the east end of Borland Crescent to form a four-legged intersection. Details regarding the background development's site-generated traffic volumes were taken from its Traffic Impact Study[12]. Excerpts from the Traffic Impact Study that were used in this Report are provided in **Appendix F**.

The location of the anticipated background developments is illustrated in **Figure 5**.

[12] Revised Traffic Impact Study - Mountainview Road and Walker Road West, Cole Engineering Group Ltd., March 12th, 2024.



TRAFFIC IMPACT AND PARKING STUDY

INSPIRE ARCHITECTURAL GROUP

PROPOSED DAY NURSERY FACILITY
15867 AIRPORT ROAD
TOWN OF CALEDON

LOCATION OF ANTICIPATED BACKGROUND DEVELOPMENTS

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE, BRAMPTON, ONTARIO L6P 0M7
TEL. (905) 794-0600 FAX (905) 794-0611

DRAWN BY: B.W.	PROJECT No. W23171
CHECKED BY: D.L.	FIGURE No. 5
SCALE: N.T.S.	
AUG. 13th 2024	

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.1 Future Residential Subdivision (Triple Crown Line Development Inc.)

For the dwelling units for the senior adult housing (Land Use 252) and all of the other dwelling units (Land Use 230) within the future Residential Subdivision, trip generation rates from the ITE Trip Generation Manual (9th Edition) were applied during the A.M. and P.M. Peak Hours[13].

Table 2 summarizes the trip generation rates and the percentages of incoming and outgoing trips for the A.M. and P.M. Peak Hours.

Table 2: Future Residential Subdivision (Triple Crown Line Development Inc.) - Trip Generation Rates with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Trip Rate	% In	% Out	Trip Rate	% In	% Out
Residential Condominium/Townhouse (LU 230)	0.44 (Note 1)	17%	83%	0.52 (Note 1)	67%	33%
Senior Adult Housing – Attached (LU 252)	0.20 (Note 1)	34%	66%	0.25 (Note 1)	54%	46%

Note 1: Trip Rate is per dwelling unit.

The resulting number of trips generated was determined by the trip generation rates provided in **Table 2** and the proposed land uses. The future Residential Subdivision comprises 671 dwelling units with 30 dwelling units for senior adult housing.

The resulting number of trips generated is provided in **Table 3** for the A.M. and P.M. Peak Hours of adjacent street traffic.

[13] ITE. 2012. Trip Generation Manual (9th Edition). Institute of Transportation Engineers. Virginia, Maryland.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.1 Future Residential Subdivision (Triple Crown Line Development Inc.) (Cont'd)

Table 3: Future Residential Subdivision (Triple Crown Line Development Inc.) - Site-Generated Trips

Land Use	No. of Dwelling Units	A.M. Peak Hour (Adj. Street)			P.M. Peak Hour (Adj. Street)		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
Residential Condominium/Townhouse (LU 230)	641	48	234	**282**	223	110	**333**
Senior Adult Housing – Attached (LU 252)	30	2	4	**6**	4	4	**8**
TOTAL	671	50	238	**288**	227	114	**341**

The anticipated background development is expected to generate a total of 288 trips during the A.M. Peak Hour (50 inbound trips and 238 outbound trips) and 341 trips during the P.M. Peak Hour (227 inbound trips and 114 outbound trips).

The trip distribution and assignment for the anticipated background development was determined by using the results of the 2011 Transportation Tomorrow Survey and the existing traffic patterns.

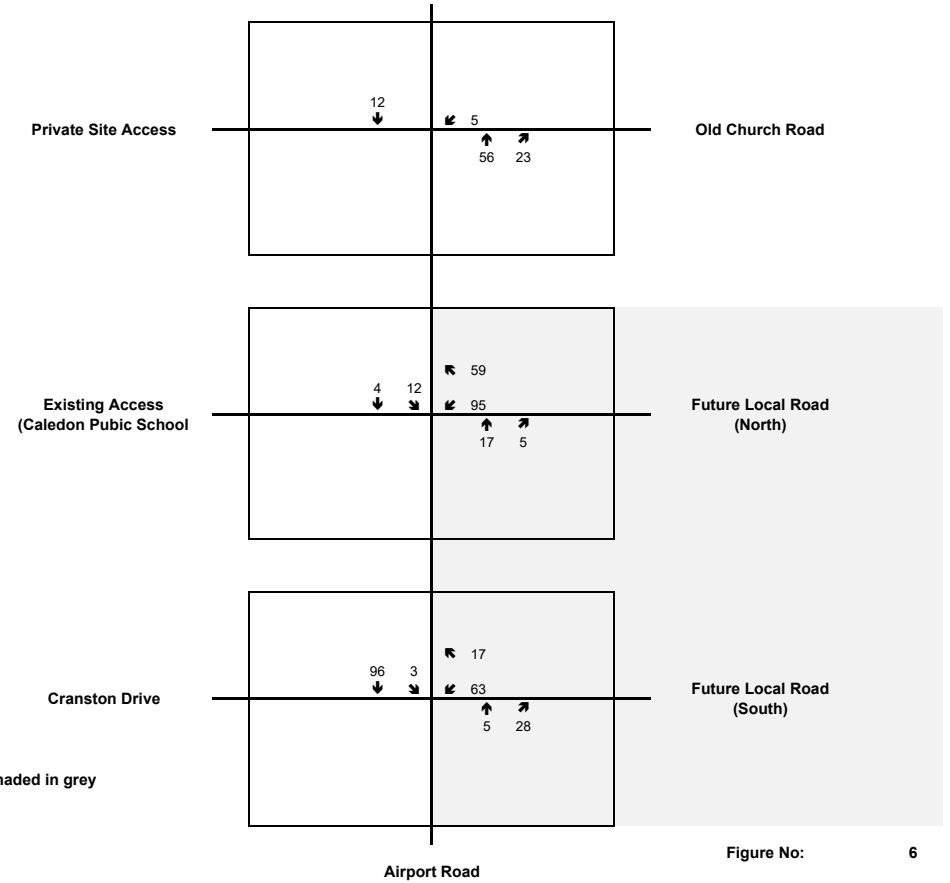
The assumed trip distribution and assignment for the anticipated background development is shown below:

- 24% (24%) to/from the north via Airport Road,
- 10% (10%) to/from the east via Old Church Road and Airport Road,
- 54% (54%) to/from the south via Airport Road,
- 12% (12%) to/from the west via Olde Base Line Road and Airport Road.

The trip assignment for the future Residential Subdivision that was taken from its Traffic Impact Study is illustrated in **Figures 6 and 7**.

Trip Assignment for the Future Residential Subdivision (Triple Crown Line Development Inc.)
A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon



Note: The Location of the Anticipated Background Development is shaded in grey

Figure No: **6**

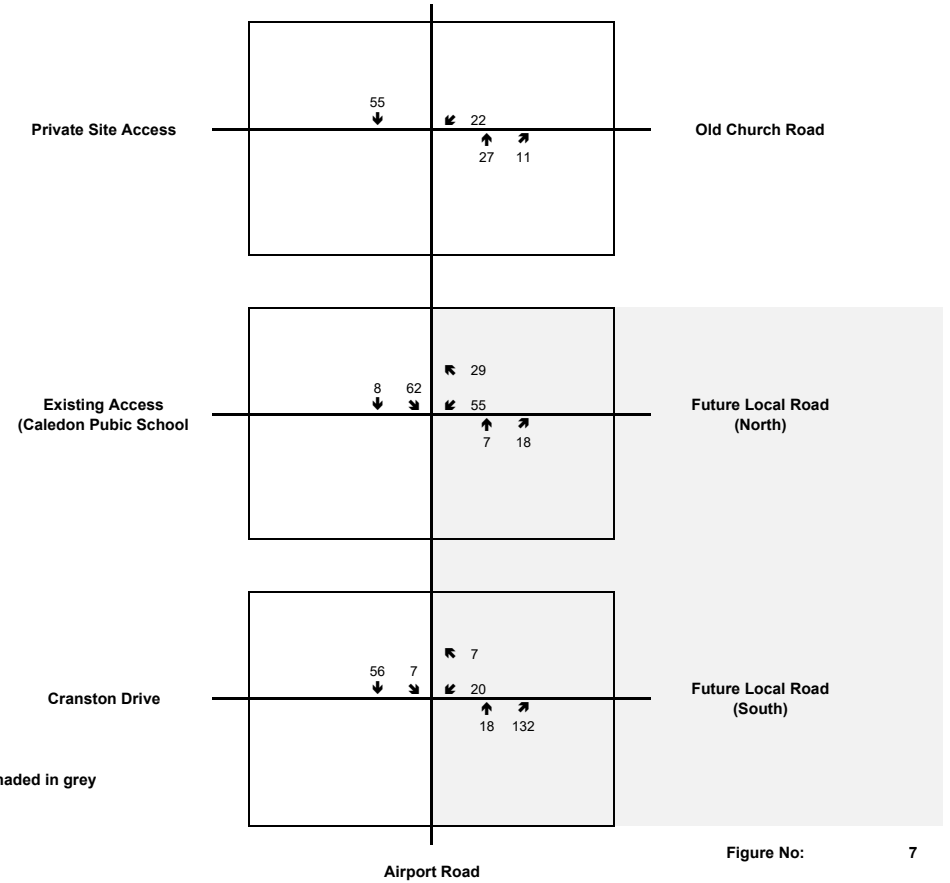
Date: **December 12 2023**

Prepared by: **B.W.**

N

Trip Assignment for the Future Residential Subdivision (Triple Crown Line Development Inc.)
P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon



Note: The Location of the Anticipated Background Development is shaded in grey

Figure No: 7

Date: December 6 2023

Prepared by: B.W.

N

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.2 Proposed Commercial Development (Ganni Properties Inc.)

For the fast-food restaurant with a drive-thru (Land Use 934) and the proposed retail land uses (Land Use 820), trip generation rates from the ITE Trip Generation Manual (10th Edition) were applied during the A.M. and P.M. Peak Hours[14].

Table 4 summarizes the trip generation rates and the percentages of incoming and outgoing trips for the A.M. and P.M. Peak Hours.

Table 4: Proposed Commercial Development (Ganni Properties Inc.)
- Trip Generation Rates with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Trip Rate	% In	% Out	Trip Rate	% In	% Out
Shopping Centre (LU 820)	0.94 (Note 1)	62%	38%	3.81 (Note 1)	48%	52%
Fast-Food Restaurant with Drive-Through Window (LU 934)	40.19 (Note 1)	51%	49%	32.67 (Note 1)	52%	48%

Note 1: Trip Rate is per every 1,000 ft^2 of G.L.A/G.F.A.

The resulting number of trips generated was determined by the trip generation rates provided in **Table 4** and the proposed land uses. The proposed Commercial Development comprises a fast-food restaurant with a drive-thru that will have a gross floor area (G.F.A.) of 2,500 ft^2 and 2,310 ft^2 of retail land use.

The resulting number of trips generated is provided in **Table 5** for the A.M. and P.M. Peak Hours of adjacent street traffic.

[14] Trip Generation Manual, 10th Edition, Institute of Transportation Engineers, 2017.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.2 Proposed Commercial Development (Ganni Properties Inc.) (Cont'd)

Table 5: Proposed Commercial Development (Ganni Properties Inc.) - Site-Generated Trips

Land Use	G.F.A./ G.L.A.	A.M. Peak Hour (Adj. Street)			P.M. Peak Hour (Adj. Street)		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
Shopping Centre (LU 820)	2,310 ft^2	1	1	**2**	4	5	**9**
Fast-Food Restaurant with Drive-Through Window (LU 934)	2,500 ft^2	51	49	**100**	43	39	**82**
TOTAL	4,810 ft^2	52	50	**102**	47	44	**91**

The anticipated background development is expected to generate a total of 102 trips during the A.M. Peak Hour (52 inbound trips and 50 outbound trips) and 91 trips during the P.M. Peak Hour (47 inbound trips and 44 outbound trips).

The trip distribution and assignment for the anticipated background development was determined by using engineering judgement and the existing traffic patterns. The Traffic Operations Assessment for the proposed Commercial Development did not provide the site-generated traffic volumes for the Cranston Drive/future Local Road at Airport Road intersection. As a result, this Study determined the site-generated traffic volumes for this intersection using the future residential land uses within the vicinity of the Study Area.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.2 Proposed Commercial Development (Ganni Properties Inc.) (Cont'd)

The assumed trip distribution and assignment for the anticipated background development is shown below:

A.M. Peak Hour

- 27% from the north via Airport Road,
- 29% from the east via Old Church Road,
- 5% from the south via Airport Road and Cranston Drive,
- 37% from the south via Airport Road and proposed Local Road, (Triple Crown Line Development Inc.)
- 2% from the west via Walker Road.

Total 100% inbound

- 24% to the north via Airport Road,
- 18% to the east via Old Church Road,
- 7% to the south via Airport Road and Cranston Drive,
- 47% to the south via Airport Road and proposed Local Road, (Triple Crown Line Development Inc.)
- 4% to the west via Walker Road.

Total 100% outbound

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.2 Proposed Commercial Development (Ganni Properties Inc.) (Cont'd)

P.M. Peak Hour

- 56% from the north via Airport Road,
- 2% from the east via Walker Road
- 8% from the east via Old Church Road,
- 3% from the south via Airport Road and Cranston Drive,
- 18% from the south via Airport Road and proposed Local Road, (Triple Crown Line Development Inc.)
- 13% from the west via Walker Road.

Total 100% inbound

- 60% to the north via Airport Road,
- 2% to the east via Walker Road,
- 4% to the east via Old Church Road,
- 3% to the south via Airport Road and Cranston Drive,
- 21% to the south via Airport Road and proposed Local Road, (Triple Crown Line Development Inc.)
- 10% to the west via Walker Road.

Total 100% outbound

The assumed trip assignment for the proposed Commercial Development is provided in **Figures 8 and 9**.

Trip Assignment for the Proposed Commercial Development (Ganni Properties Inc.)
A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

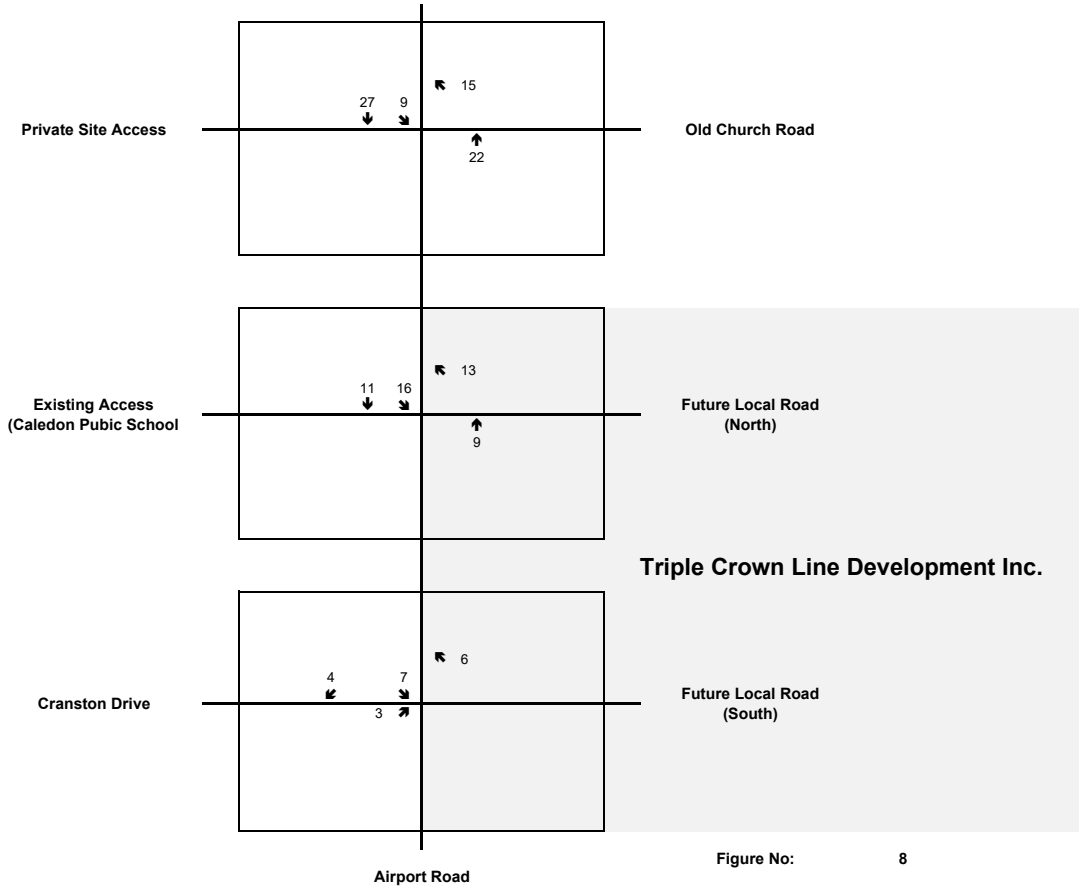


Figure No: 8

Date: December 6 2023

Prepared by: B.W.

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Trip Assignment for the Proposed Commercial Development (Ganni Properties Inc.)
P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

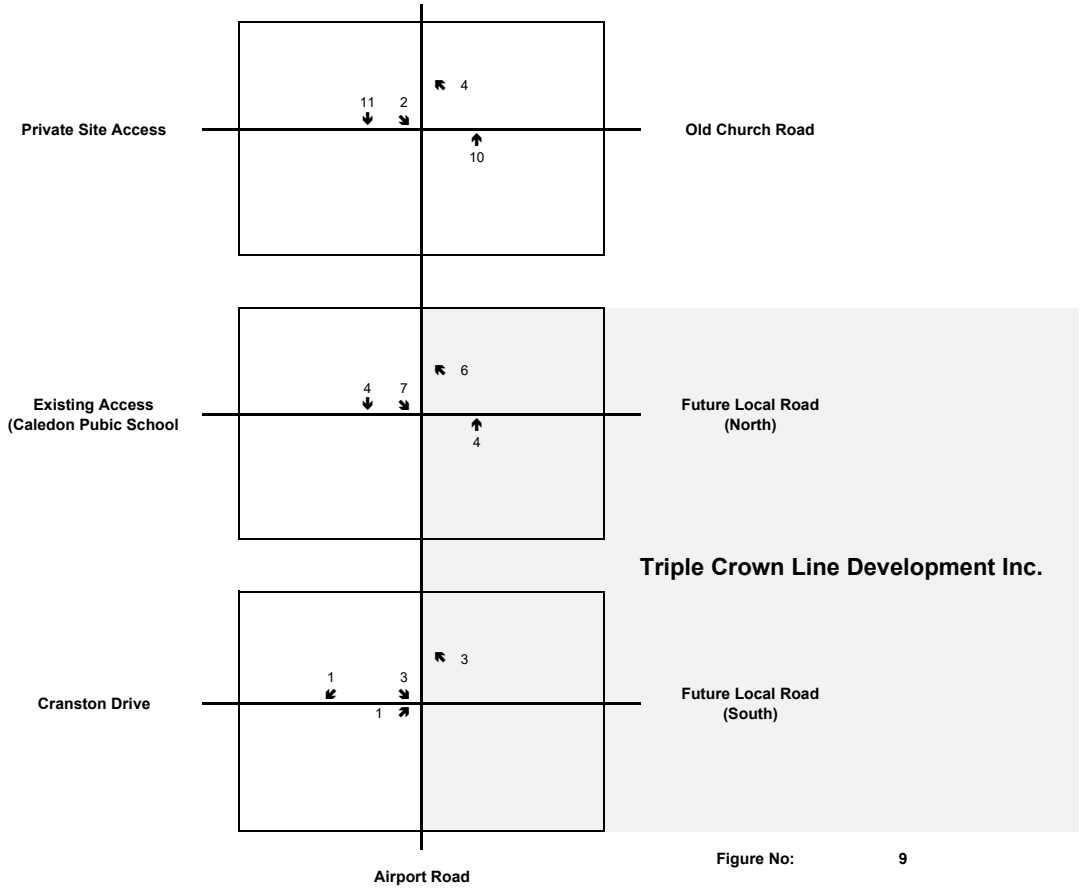

Figure No: 9

Date: December 12 2023

Prepared by: B.W.

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5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.3 Proposed Retirement Home (Wyndham Holdings Inc.)

For the proposed Retirement Home (Lane Use 254), trip rates from the ITE Trip Generation Manual (10th Edition) were applied during the A.M. and P.M. Peak Hours.

Table 6 summarizes the trip generation rates and the percentages of incoming and outgoing trips for the A.M. and P.M. Peak Hours.

Table 6: Proposed Retirement Home (Wyndham Holdings Inc.)
- Trip Generation Rates with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Trip Rate	% In	% Out	Trip Rate	% In	% Out
Assisted Living (LU 254)	0.19 (Note 1)	63%	37%	0.26 (Note 1)	38%	62%

Note 1: Trip Rate is per bed

The resulting number of trips generated was determined by the trip generation rates provided in **Table 6** and the number of beds. The proposed Retirement Home comprises 150 beds.

The resulting number of trips generated is provided in **Table 7** for the A.M. and P.M. Peak Hours of adjacent street traffic.

Table 7: Proposed Retirement Home (Wyndham Holdings Inc.) - Site-Generated Trips

Land Use	Quantity	A.M. Peak Hour (Adj. Street)			P.M. Peak Hour (Adj. Street)		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
Assisted Living (LU 254)	150 beds	18	11	**29**	15	24	**39**

The anticipated background development is expected to generate a total of 29 trips during the A.M. Peak Hour (18 inbound trips and 11 outbound trips) and 39 trips during the P.M. Peak Hour (15 inbound trips and 24 outbound trips).

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.3 Proposed Retirement Home (Wyndham Holdings Inc.) (Cont'd)

The trip distribution and assignment for the anticipated background development was determined by using results of the 2016 Transportation Tomorrow Survey. The Transportation Impact Study for the proposed Retirement Home did not provide the site-generated volumes for the Old Church Road/private Site Access at Airport Road intersection. As a result, this Study determined the site-generated volumes for the Old Church Road/private Site Access at Airport Road intersection by using the existing traffic patterns.

The assumed trip distribution and assignment for the anticipated background development is shown below:

A.M. Peak Hour

- 30% from the north via Airport Road,
- 20% from the north via Airport Road and Old Church Road,
- 45% from the south via Airport Road,
- 5% from the south via Cranston Drive and Airport Road.

Total 100% inbound

- 82% to the south via Airport Road,
- 18% to the south via Cranston Drive and Airport Road.

Total 100% outbound

P.M. Peak Hour

- 13% from the north via Airport Road,
- 12% from the north via Airport Road and Old Church Road,
- 75% from the south via Airport Road.

Total 100% inbound

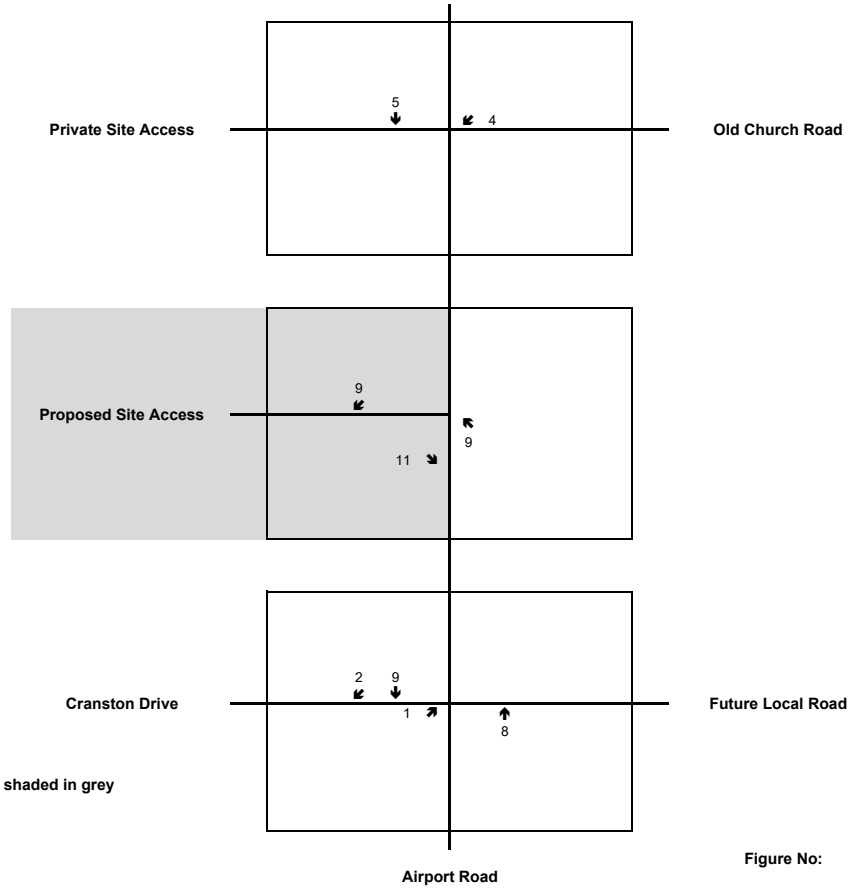
- 59% to the south via Airport Road,
- 41% to the south via Cranston Drive and Airport Road.

Total 100% outbound

The assumed trip assignment for the proposed Retirement Home is provided in **Figures 10 and 11**.

Trip Assignment for the Proposed Retirement Home (Wyndham Holdings Inc.)
A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon



Note: The Location of the Anticipated Background Development is shaded in grey

Figure No: 10

Date: December 6 2023

Prepared by: B.W.

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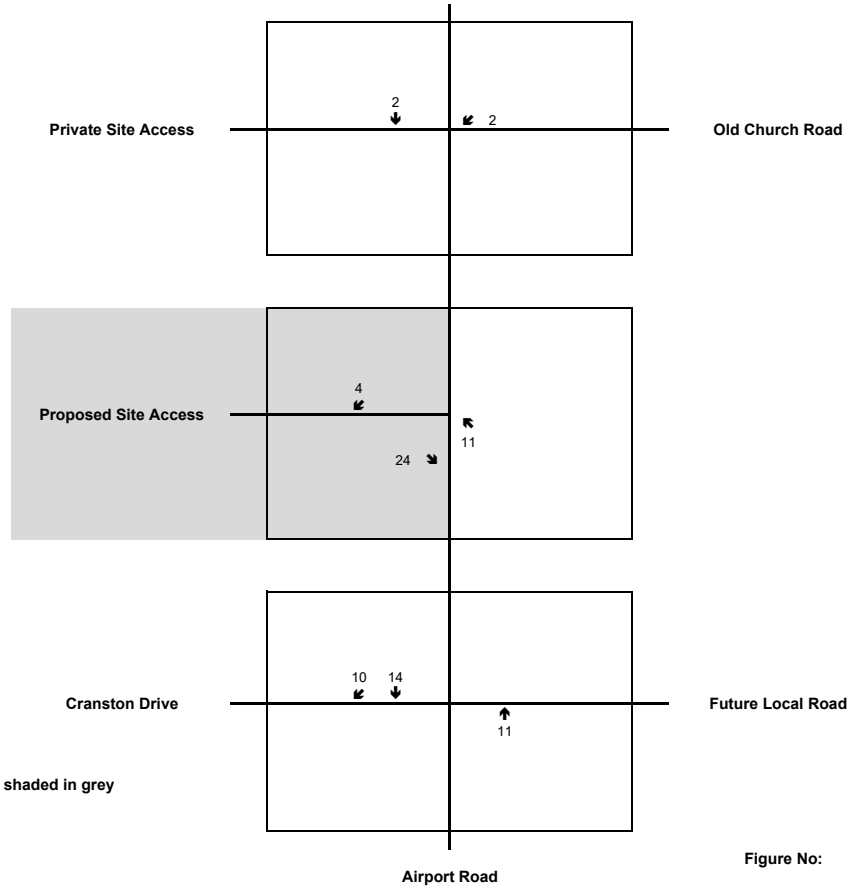
Trip Assignment for the Proposed Retirement Home (Wyndham Holdings Inc.)
P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon



Note: The Location of the Anticipated Background Development is shaded in grey

Figure No: 11

Date: December 12 2023

Prepared by: B.W.

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5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.4 Proposed Mixed-Use Development (Shacca Caledon Holdings)

For the condominium townhouse units (Lane Use 220) and the commercial land uses (Land Use 820), the trip generation formulae and rates from the ITE Trip Generation Manual (10th Edition) were applied during the A.M. and P.M. Peak Hours.

Table 8 summarizes the trip generation formulae and rates and the percentages of incoming and outgoing trips for the A.M. and P.M. Peak Hours.

Table 8: Proposed Mixed-Use Development (Shacca Caledon Holdings) - Trip Generation Formulae and Rates with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Trip Rate/ Fitted Curve Equation	% In	% Out	Trip Rate/ Fitted Curve Equation	% In	% Out
Multifamily Housing (Low-Rise) (LU 220)	Ln(T) = 0.95 Ln(X) - 0.51 (Note 1)	23%	77%	Ln(T) = 0.89 Ln(X) - 0.02 (Note 1)	63%	37%
Shopping Centre (LU 820)	0.94 (Note 2)	62%	38%	3.81 (Note 2)	48%	52%

Note 1: T represents the total number of trips and X represents the number of dwelling units.
Note 2: Trip Rate is per every 1,000 ft^2 of G.L.A.

The resulting number of trips generated was determined by the trip generation formulae and rates provided in **Table 8** and the proposed land uses. The proposed Mixed-Use Development comprises 32 condominium townhouse units and two (2) buildings with 13,160 ft^2 of commercial land use in total. For the commercial land uses, this Study applied a pass-by percentage of 34% for the P.M. Peak Hour. The pass-by trip percentage was based on the data provided in the ITE Trip Generation Handbook 3rd Edition[15].

The resulting number of trips generated is provided in **Table 9** for the A.M. and P.M. Peak Hours of adjacent street traffic.

[15] Trip Generation Handbook (3rd Edition), Institute of Transportation Engineers, September 2017.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.4 Proposed Mixed-Use Development (Shacca Caledon Holdings) (Cont'd)

Table 9: Proposed Mixed-Use Development (Shacca Caledon Holdings) - Site-Generated Trips

Land Use	Quantity	Trips	A.M. Peak Hour (Adj. Street)			P.M. Peak Hour (Adj. Street)		
			Trips In	Trips Out	Total	Trips In	Trips Out	Total
Multifamily Housing (Low-Rise) (LU 220)	32 dwelling units	Gross Trips	3	12	**15**	11	7	**18**
Shopping Centre (LU 820)	13,864 ft^2	Gross Trips	8	5	**13**	17	18	**35**
		Passby Trips	0	0	**0**	8	10	**18**
TOTAL	-	Gross Trips	11	17	**28**	28	25	**53**
		Passby Trips	0	0	**0**	8	10	**18**

The anticipated background development is expected to generate a total of 28 trips during the A.M. Peak Hour (11 inbound trips and 17 outbound trips) and 53 trips during the P.M. Peak Hour (28 inbound trips and 25 outbound trips).

For the residential land use, the trip distribution and assignment is based on the results of the 2011 Transportation Tomorrow Survey along with the land uses within the Town of Caledon. For the commercial land uses, the trip distribution and assignment is based on the results of the 2011 Transportation Tomorrow Survey along with the future background traffic patterns. The Traffic Impact Study for this anticipated background development did not include any of the intersections that are being considered for this Study. As a result, this Study will determine the site-generated trip volumes for the Old Church Road/private Site Access at Airport Road and Cranston Drive/future Local Road at Airport Road intersections by using the results of the 2011 Transportation Tomorrow Survey that were provided in the proposed Mixed-Use Development's Traffic Impact Study.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.4 Proposed Mixed-Use Development (Shacca Caledon Holdings) (Cont'd)

The trip distribution and assignment for the residential land use is shown below:

A.M. Peak Hour

- 32% from the north via Airport Road,
- 2% from the east via Walker Road,
- 35% from the south via Airport Road,
- 15% from the south via Old Church Road,
- 16% from the west via Walker Road.

Total 100% inbound

- 8% to the north via Airport Road,
- 2% to the east via Walker Road,
- 53% to the south via Airport Road,
- 37% to the west via Walker Road.

Total 100% outbound

P.M. Peak Hour

- 12% from the north via Airport Road,
- 1% from the east via Walker Road,
- 15% from the south via Airport Road,
- 40% from the south via Old Church Road,
- 32% from the west via Walker Road.

Total 100% inbound

- 31% to the north via Airport Road,
- 1% to the east via Walker Road,
- 40% to the south via Old Church Road,
- 20% to the south via Airport Road,
- 8% to the west via Walker Road.

Total 100% outbound

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.4 Proposed Mixed-Use Development (Shacca Caledon Holdings) (Cont'd)

The trip distribution and assignment for the commercial land use is shown below:

A.M. Peak Hour

- 53% from the north via Airport Road,
- 2% from the east via Walker Road,
- 19% from the south via Airport Road,
- 8% from the south via Old Church Road,
- 18% from the west via Walker Road.

Total 100% inbound

- 53% to the north via Airport Road,
- 2% to the east via Walker Road,
- 27% to the south via Airport Road,
- 18% to the west via Walker Road.

Total 100% outbound

P.M. Peak Hour

- 22% from the north via Airport Road,
- 18% from the south via Airport Road,
- 48% from the south via Old Church Road,
- 12% from the west via Walker Road.

Total 100% inbound

- 22% to the north via Airport Road,
- 22% to the south via Airport Road,
- 44% to the south via Old Church Road,
- 12% to the west via Walker Road.

Total 100% outbound

The assumed trip assignment for the proposed Mixed-Use Development is provided in **Figures 12 and 13**.

Trip Assignment for the Proposed Mixed-Use Development (Shacca Caledon Holdings)
A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

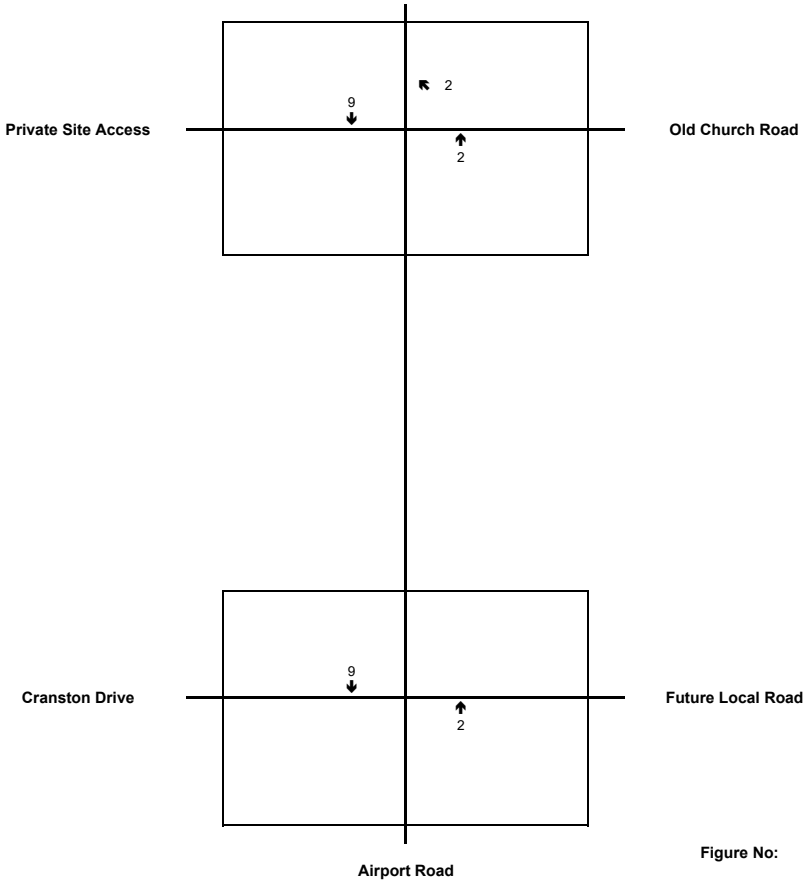

Figure No: 12

Date: December 12 2023

Prepared by: B.W.

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Trip Assignment for the Proposed Mixed-Use Development (Shacca Caledon Holdings)
P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

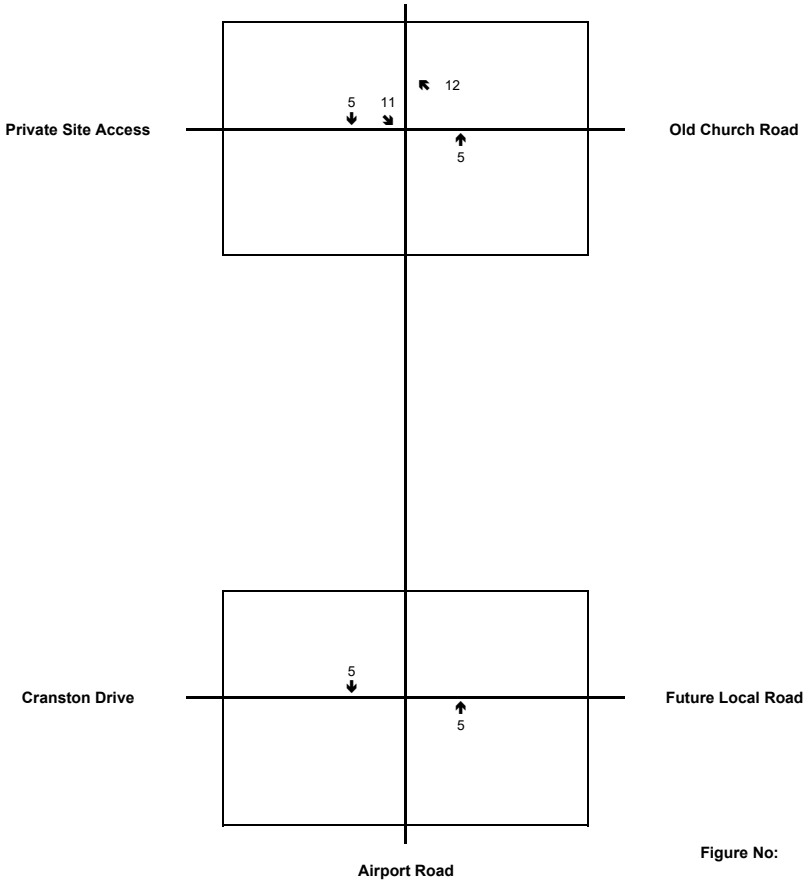

Figure No: 13

Date: December 7 2023

Prepared by: B.W.

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5.1.5 Proposed Elementary School

The trip assignment for the anticipated background development that was received from the Town of Caledon did not include the Old Church Road/private Site Access at Airport Road intersection. Using the future residential land uses within the vicinity of the development for site-generated trips entering the proposed Day Nursery Facility during the A.M. Peak Hour and site-generate trips leaving the proposed Day Nursery Facility during the P.M. Peak Hour and using the results from the A.M. Peak Period work trip distribution from the 2016 Transportation Tomorrow Survey for site-generated trips leaving the proposed Day Nursery Facility during the A.M. Peak Hour and site-generate trips entering the proposed Day Nursery Facility during the P.M. Peak Hour, this Study determined the site-generated volumes for the Old Church Road/private Site Access at Airport Road intersection.

The assumed trip distribution and assignment will be as follows:

A.M. Peak Hour

- 10% from the north via Airport Road or Jean Street,
- 59% from the east via Old Church Road,
- 16% from the south via Airport Road,
- 15% from the west via Cranston Drive or Hilltop Drive.

Total 100% inbound

- 37% to the north via Airport Road or Jean Street,
- 16% to the east via Old Church Road,
- 47% to the south via Airport Road.

Total 100% outbound

5.1.5 Proposed Elementary School (Cont'd)

P.M. Peak Hour

- 49% from the north via Airport Road or Jean Street,
- 21% from the east via Old Church Road,
- 15% from the south via Airport Road,
- 15% from the west via Cranston Drive or Hilltop Drive.

Total 100% inbound

- 58% to the north via Airport Road or Jean Street,
- 10% to the east via Old Church Road,
- 32% to the south via Airport Road.

Total 100% outbound

The site-generated trip volumes and trip assignment used in the analysis for the anticipated background development are illustrated in **Figures 14 and 15**.

5.1.6 Proposed Residential Subdivision (Stylux Caledon Inc.)

For the single detached homes (Land Use 210) and the townhouse units (Land Use 220), the trip generation formulae from the ITE Trip Generation Manual 11th Edition were applied for the A.M. and P.M. Peak Hours[16].

Table 10 summarizes the trip generation formulae and the percentages of incoming and outgoing trips for the A.M. and P.M. Peak Hours.

[16] Trip Generation Manual (11th Edition), Institute of Transportation Engineers, September 2021.

Trip Assignment for the Proposed Elementary School
A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

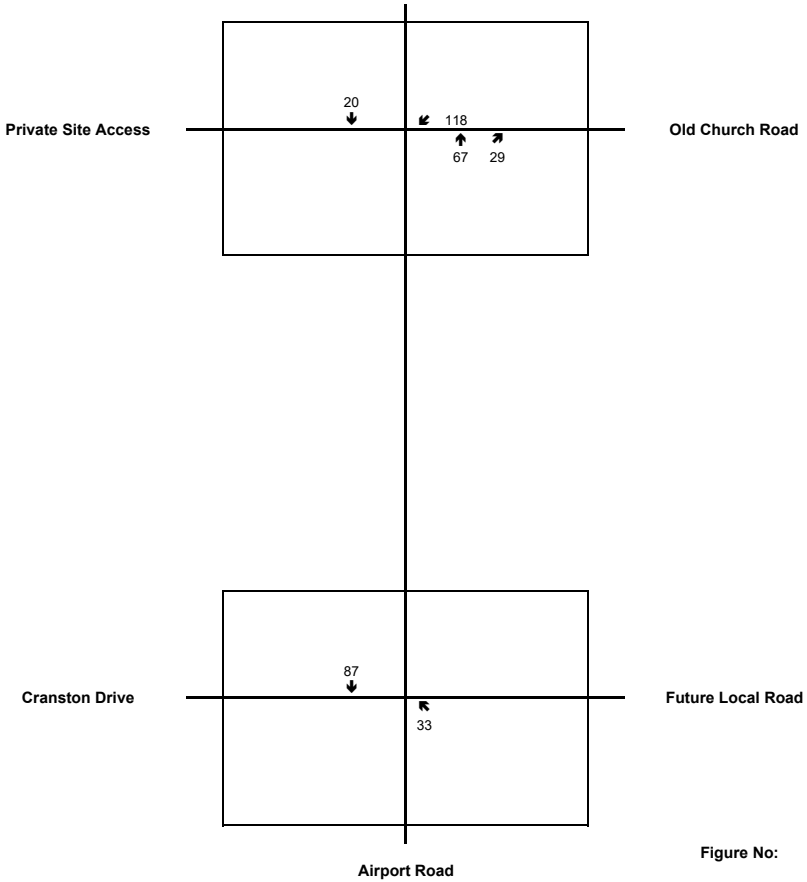

Figure No: 14

Date: December 7 2023

Prepared by: B.W.

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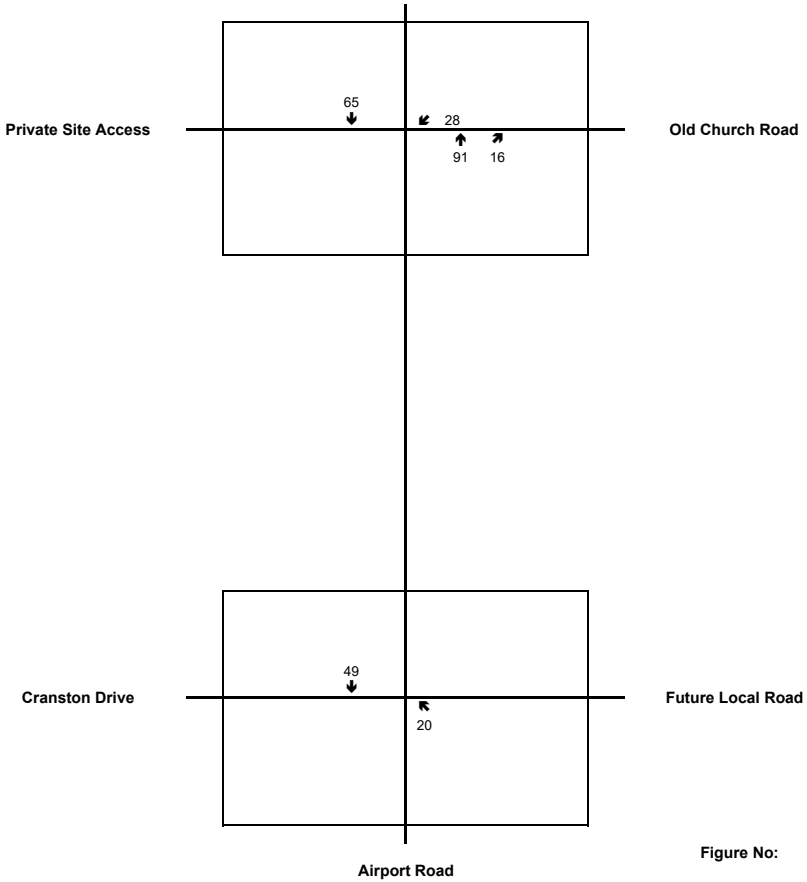
Trip Assignment for the Proposed Elementary School P.M. Peak Hour	W23171 Proposed Day Nursery Facility 15,867 Airport Road Town of Caledon



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Date:	December 7 2023
Prepared by:	B.W.

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5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.6 Proposed Residential Subdivision (Stylux Caledon Inc.) (Cont'd)

Table 10: Proposed Residential Subdivision (Stylux Caledon Inc.) - Trip Generation Formulae with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Fitted Curve Equation	% In	% Out	Fitted Curve Equation	% In	% Out
Single-Family Detached Housing (LU 210)	Ln(T) = 0.91 Ln(X) + 0.12 (Note 1)	26%	74%	Ln(T) = 0.94 Ln(X) + 0.27 (Note 1)	63%	37%
Multifamily Housing (Low-Rise) (LU 220)	T = 0.31X + 22.85 (Note 1)	24%	76%	T = 0.43X + 20.55 (Note 1)	63%	37%

Note 1: T represents the total number of trips and X represents the number of dwelling units.

The resulting number of trips generated was determined by the trip generation formulae provided in **Table 10** and the proposed land uses. The proposed Residential Subdivision comprises 14 single detached homes and 34 townhouse units.

The resulting number of trips generated is provided in **Table 11** for the A.M. and P.M. Peak Hours of adjacent street traffic.

Table 11: Proposed Residential Subdivision (Stylux Caledon Inc.) - Site-Generated Trips

Land Use	No. of Dwelling Units	A.M. Peak Hour (Adj. Street)			P.M. Peak Hour (Adj. Street)		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
Single-Family Detached Housing (LU 210)	14	4	9	**13**	10	6	**16**
Multifamily Housing (Low-Rise) (LU 220)	34	8	25	**33**	22	13	**35**
TOTAL	48	12	34	**46**	32	19	**51**

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.6 Proposed Residential Subdivision (Stylux Caledon Inc.) (Cont'd)

The anticipated background development is expected to generate a total of 46 trips during the A.M. Peak Hour (12 inbound trips and 34 outbound trips) and 51 trips during the P.M. Peak Hour (32 inbound trips and 19 outbound trips).

The Traffic Impact Brief based the trip distribution and trip assignment on the developments within the vicinity of the anticipated background development and the existing traffic patterns of the Marilyn Street at Old Church Road intersection. The Traffic Impact Brief for this anticipated background development did not include any of the intersections that are being considered for this Study. As a result, this Study will determine the site-generated trip volumes for the Old Church Road/private Site Access at Airport Road and Cranston Drive/future Local Road at Airport Road intersections using the results from the A.M. Peak Period work trip distribution from the 2016 Transportation Tomorrow Survey and the future road network.

The assumed trip distribution and assignment for the anticipated background development is shown below:

- 50% (50%) to/from the east via Old Church Road,
- 50% (50%) to/from the south via Old Church Road and Airport Road.

The site-generated trip volumes and trip assignment used in the analysis for the anticipated background development are illustrated in **Figures 16 and 17**.

5.1.7 Future Residential Subdivision (Castles of Caledon Corporation)

For the single detached homes (Land Use 210), trip generation rates from the ITE Trip Generation Manual (9th Edition) were applied during the A.M. and P.M. Peak Hours.

Table 12 summarizes the trip generation rates and the percentages of incoming and outgoing trips for the A.M. and P.M. Peak Hours.

Trip Assignment for the Proposed Residential Subdivision (Stylux Caledon Inc.) A.M. Peak Hour	W23171 Proposed Day Nursery Facility 15,867 Airport Road Town of Caledon

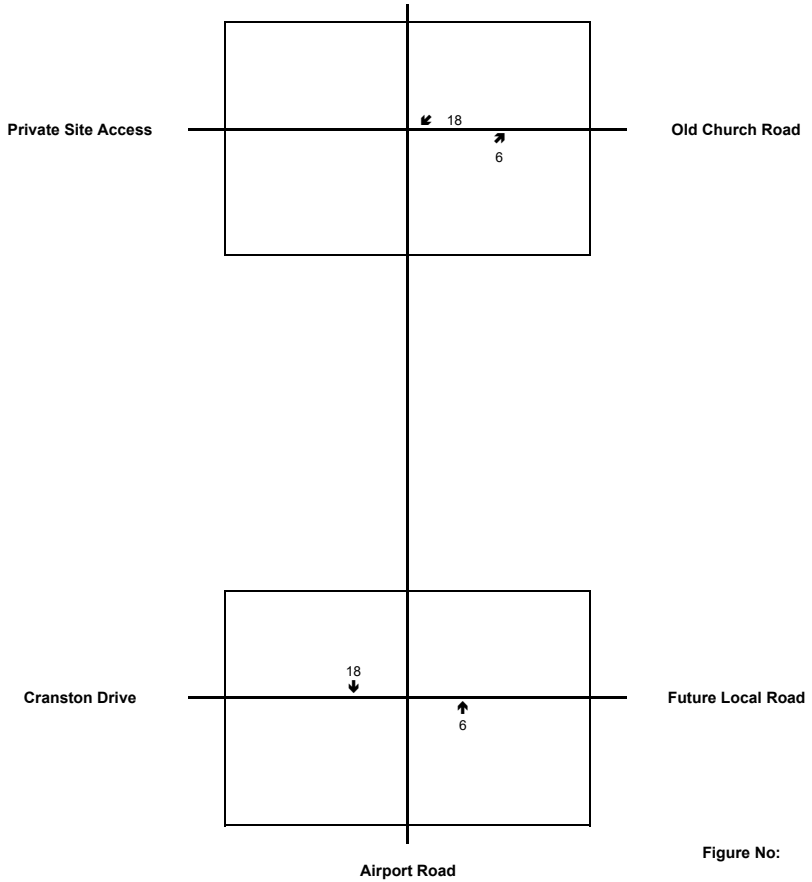

Figure No: 16

Date: June 26 2024

Prepared by: B.W.

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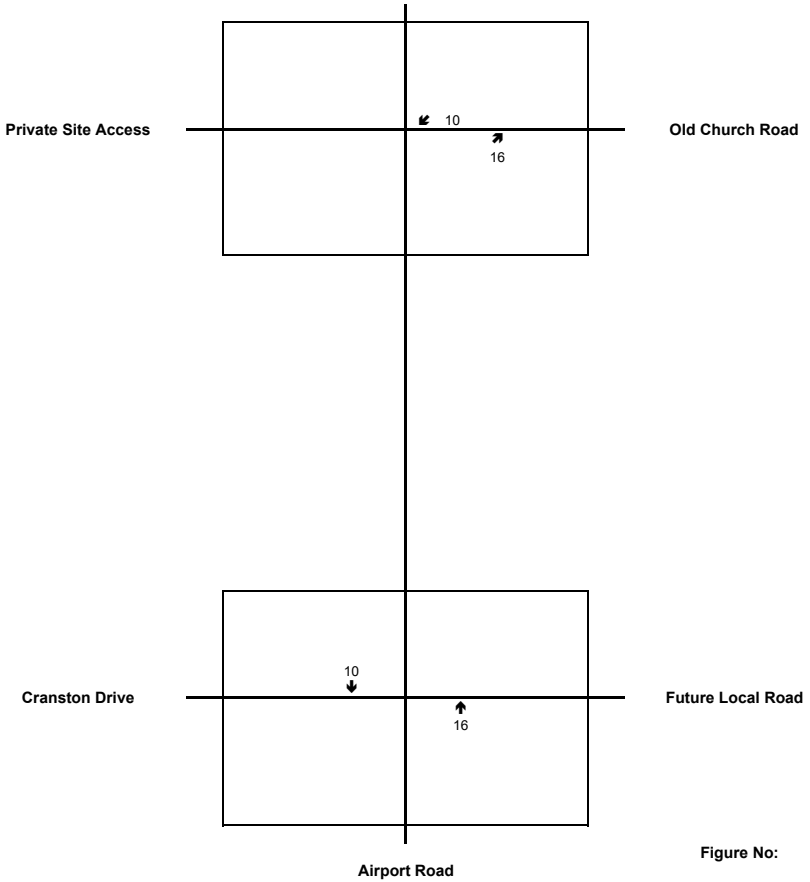
Trip Assignment for the Proposed Residential Subdivision (Stylux Caledon Inc.)
P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon



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Date: June 26 2024

Prepared by: B.W.

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5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.7 Future Residential Subdivision (Castles of Caledon Corporation) (Cont'd)

Table 12: Future Residential Subdivision (Castles of Caledon Corporation) - Trip Generation Rates with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Trip Rate	% In	% Out	Trip Rate	% In	% Out
Single-Family Detached Housing (LU 210)	0.75 (Note 1)	25%	75%	1.05 (Note 1)	63%	37%

Note 1: Trip Rate is per dwelling unit.

The resulting number of trips generated was determined by the trip generation rates provided in **Table 12** and the number of single detached homes. The future Residential Subdivision comprises 203 single detached homes.

The resulting number of trips generated is provided in **Table 13** for the A.M. and P.M. Peak Hours of adjacent street traffic.

Table 13: Future Residential Subdivision (Castles of Caledon Corporation) - Site-Generated Trips

Land Use	No. of Dwelling Units	A.M. Peak Hour (Adj. Street)			P.M. Peak Hour (Adj. Street)		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
Single-Family Detached Housing (LU 210)	203	38	114	**152**	134	79	**213**

The anticipated background development is expected to generate a total of 152 trips during the A.M. Peak Hour (38 inbound trips and 114 outbound trips) and 213 trips during the P.M. Peak Hour (134 inbound trips and 79 outbound trips).

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.1.7 Future Residential Subdivision (Castles of Caledon Corporation) (Cont'd)

The trip distribution and trip assignment used in the Traffic Impact Study for the anticipated background development is based on the 2006 TTS and existing traffic data. The trip distribution and trip assignment did not include any of the intersections that are being considered for this Study. As a result, this Study will determine the site-generated trip volumes for the Old Church Road/private Site Access at Airport Road and Cranston Drive/future Local Road at Airport Road intersections using the information provided in the background study and engineering judgement.

The assumed trip distribution and assignment for the anticipated background development is shown below:

- 1% (1%) to/from the north via Airport Road,
- 40% (40%) to/from the east via Airport Road and Old Church Road,
- 39% (39%) to/from the south via Airport Road,
- 20% (20%) to/from the south via Mountainview Road.

The site-generated trip volumes and trip assignment used in the analysis for the anticipated background development are illustrated in **Figures 18 and 19**.

Trip Assignment for the Future Residential Subdivision (Castles of Caledon Corporation)
A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

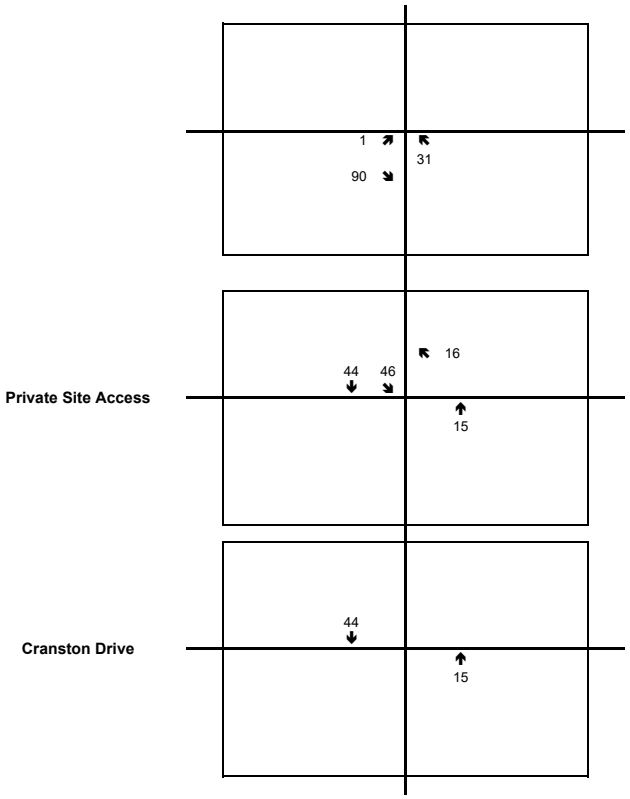

Figure No: 18

Date: June 26 2024

Prepared by: B.W.

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Trip Assignment for the Future Residential Subdivision (Castles of Caledon Corporation)
P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

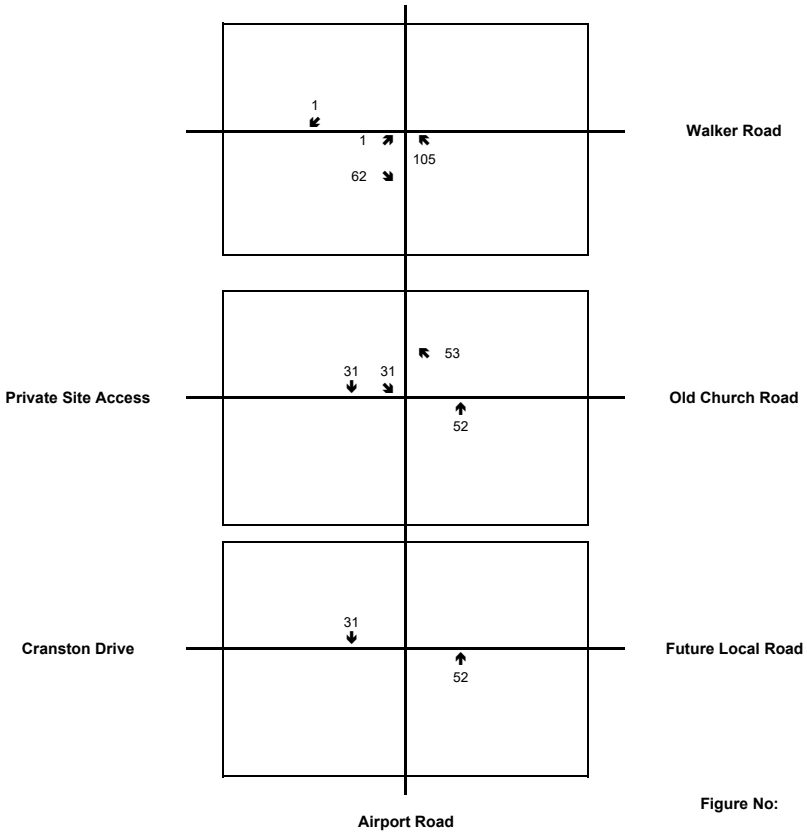

Figure No: 19

Date: June 26 2024

Prepared by: B.W.

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5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.2 Traffic Growth Rate

For Airport Road and Old Church Road, an annual growth rate of 1.5% was applied to the Existing (2023) Traffic Volumes. The growth rates were derived from the traffic volume outputs from the Peel Region Travel Demand Forecasting Model. The traffic growth rates that were received from the Region of Peel can be found in **Appendix G**.

For the Old Church Road/private Site Access at Airport Road intersection, traffic growth for Airport Road and Old Church Road was applied to the turning movements entering the roadway. (with the exception of turning movements leaving the private Site Access) For the Cranston Drive/future Local Road at Airport Road intersection, traffic growth for Airport Road was applied to the through movements.

5.3 Future (2029) Total Background Traffic

The Future (2029) Total Background Traffic is based on the Existing (2023) Traffic volumes projected with six (6) years of growth plus the site-generated trips from the anticipated background developments.

The Future (2029) Total Background Traffic Volumes are illustrated in **Figures 20 and 21** for the A.M. and P.M. Peak Hours.

Future (2029) Total Background Traffic Volumes - A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

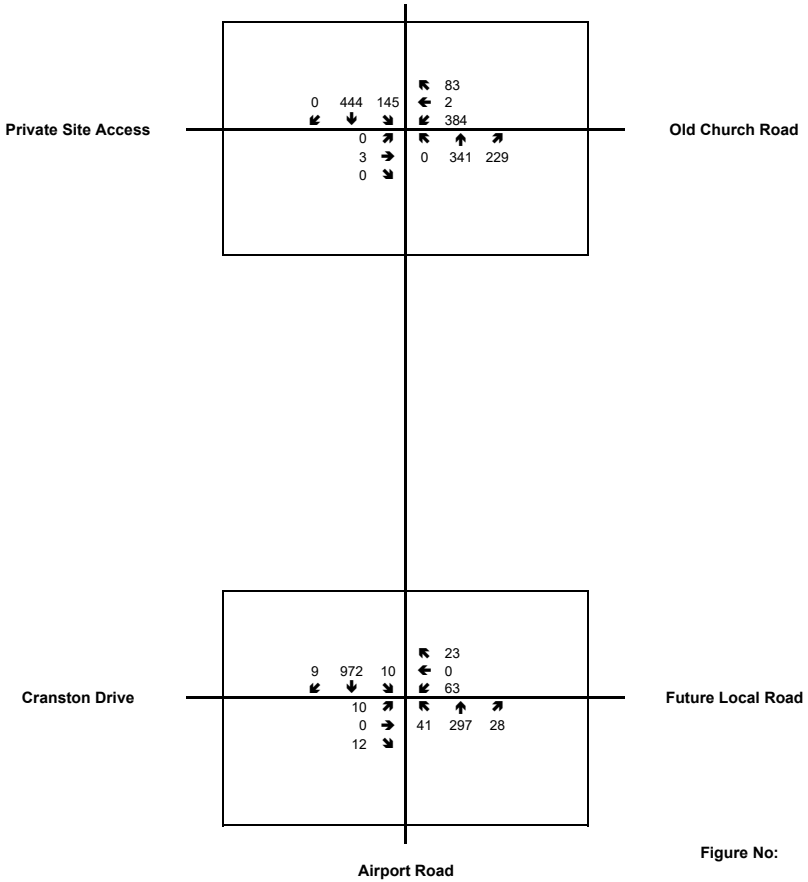

Figure No: 20

Date: June 26 2024

Prepared by: B.W.

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Future (2029) Total Background Traffic Volumes - P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

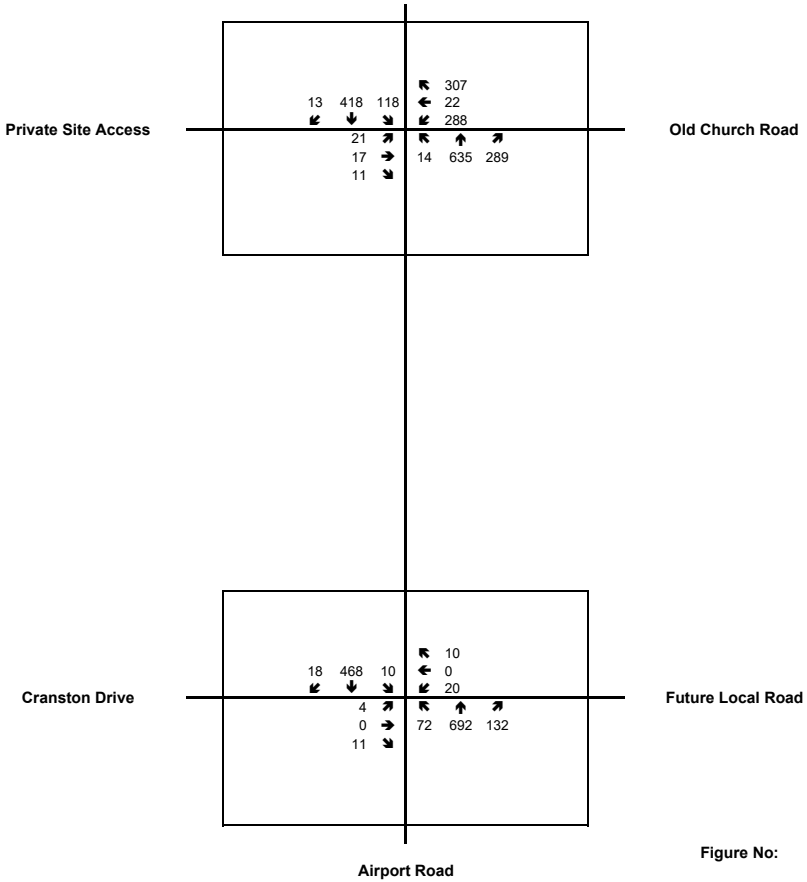

Figure No: 21

Date: June 26 2024

Prepared by: B.W.

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5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.4 Future (2029) Total Background Traffic Analysis

For the Future (2029) Total Background Traffic Volumes, the Level of Service (LOS) was analyzed using SYNCHRO 9.0 software. For the Old Church Road/private Site Access at Airport Road intersection, the lane configurations and the signal timing plans used in the Existing (2023) Traffic Analysis are used in the Future (2029) Total Background Traffic Analysis.

As per the Environmental Study Report for the anticipated improvements on Airport Road, Cranston Drive/future Local Road at Airport Road was analyzed as a roundabout intersection that is yield controlled at all of the approaches. The lane configuration used in the analysis comprises a shared through-left and a shared through-right turning lane that is channelized at the northbound and southbound approaches; and a shared left-through-right turning lane at the eastbound and westbound approaches.

The results of the analysis are summarized in **Table 14**. The related calculations are provided in **Appendix E**.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.4 Future (2029) Total Background Traffic Analysis (Cont'd)

Table 14: Future (2029) Total Background Traffic – Level of Service

Intersection	Turning Movement/ Approach	A.M. Peak Hour				P.M. Peak Hour			
		V/C	LOS	Delay[1]	95th% Queue (m)	V/C	LOS	Delay[1]	95th% Queue (m)
Old Church Road/ private Site Access at Airport Road (Signalized)	**Overall**	**0.82**	**C**	**22.0**	**n/a**	**0.98**	**C**	**25.4**	**n/a**
	EB Approach	0.01	B	17.0	2.0	0.16	B	16.9	11.2
	WBL	0.82	D	38.9	85.6	0.70	C	33.3	55.7
	WB T/R	0.17	A	6.0	9.3	0.63	B	14.7	36.1
	NB L/T	0.41	B	12.4	47.8	0.64	B	15.0	105.4
	NBR	0.26	A	2.4	9.9	0.29	A	2.2	10.9
	SB Approach	0.82	C	26.6	131.7	0.98	D	52.9	147.5
Cranston Drive/ future Local Road at Airport Road (Roundabout)	**Overall**	**0.55**	**A**	**8.8**	**n/a**	**0.44**	**A**	**7.2**	**n/a**
	EB Approach	0.04	A	7.6	0.0	0.02	A	4.9	0.0
	WB Approach	0.10	A	5.2	0.0	0.05	A	6.0	0.0
	NB L/T	0.17	A	5.3	8.0	0.39	A	7.3	16.0
	NB T/R	0..20	A	5.5	8.0	0.44	A	8.0	16.0
	SB L/T	0.49	A	9.7	24.0	0.25	A	6.4	8.0
	SB T/R	0.55	B	10.9	24.0	0.28	A	6.7	8.0

Note 1: Delays are measured in seconds per vehicle.

5. FUTURE TOTAL BACKGROUND TRAFFIC CONDITIONS (CONT'D)

5.4 Future (2029) Total Background Traffic Analysis (Cont'd)

Old Church Road/private Site Access at Airport Road

The analysis of the Future (2029) Total Background Traffic Conditions indicates that the signalized intersection will begin to operate at a Level of Service "C" during the A.M. and P.M. Peak Hours. With the growth in background traffic, impacts to the intersection are low during the A.M. Peak Hour and moderate during the P.M. Peak Hour.

The southbound approach will begin to operate at a volume over capacity ratio that is greater than 0.90 during the P.M. Peak Hour.

All of the turning movements will begin to operate at a Level of Service "D" or better during the A.M. and P.M. Peak Hours.

Cranston Drive/future Local Road at Airport Road

The analysis of the Future (2029) Total Background Traffic Conditions indicates that the un-signalized intersection will continue to operate at a Level of Service "A" during the A.M. and P.M. Peak Hours. With the growth in background traffic and the road improvements, impacts to the intersection are low during the A.M. and P.M. Peak Hours.

During the A.M. Peak Hour, the shared through-right turning lane at the southbound approach may result in a spillback of vehicles into the adjacent lane.

During the P.M. Peak Hour, the shared through-right turning lane at the northbound approach may result in a spillback of vehicles into the adjacent lane.

During the A.M. Peak Hour, all of the turning movements will continue to operate at a Level of Service "B" or better. During the P.M. Peak Hour, all of the turning movements will operate at a Level of Service "A".

6. TRIP GENERATION AND DISTRIBUTION

6.1. Trip Generation

For the proposed Day Nursery Facility (Land Use 565), the trip generation formulae from the ITE Trip Generation Manual 11th Edition were applied for the A.M. and P.M. Peak Hours.

Table 15 summarizes the trip generation formulae along with the percentages of incoming and outgoing trips for the A.M. and P.M. Peak Hours.

Table 15: Trip Generation Formulae with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Fitted Curve Equation	% In	% Out	Fitted Curve Equation	% In	% Out
Day Care Center (LU 565)	T = 0.66X + 8.42 (Note 1)	53%	47%	Ln(T) = 0.87 Ln(X) + 0.29 (Note 1)	47%	53%

Note 1: T represents the total number of trips and X represents the number of students.

6.2 Total Site-Generated Trips

The resulting number of trips generated was determined by using the trip generation formulae provided in **Table 15** and the number of students. The proposed Day Nursery Facility will accommodate 28 students.

The resulting number of trips generated is provided in **Table 16** for the A.M. and P.M. Peak Hours of adjacent street traffic.

6. TRIP GENERATION AND DISTRIBUTION (CONT'D)

6.2 Total Site-Generated Trips (Cont'd)

Table 16: Site-Generated Trips

Land Use	No. of Students	A.M. Peak Hour (Adj. Street)			P.M. Peak Hour (Adj. Street)		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
Day Care Center (LU 565)	28	14	13	**27**	11	13	**24**

The proposed Day Nursery Facility is expected to generate a total of 27 net trips during the A.M. Peak Hour (14 inbound trips and 13 outbound trips) and 24 trips during the P.M. Peak Hour (11 inbound trips and 13 outbound trips).

6.3 Trip Distribution and Assignment

The trip distribution and assignment for site-generated trips entering the proposed Day Nursery Facility during the A.M. Peak Hour and site-generate trips leaving the proposed Day Nursery Facility during the P.M. Peak Hour is based on the future residential land uses within the vicinity of the development. The trip distribution and assignment for site-generated trips leaving the proposed Day Nursery Facility during the A.M. Peak Hour and site-generate trips entering the proposed Day Nursery Facility during the P.M. Peak Hour is based on the future road network and the results from the A.M. Peak Period work trip distribution from the 2016 Transportation Tomorrow Survey.

6. TRIP GENERATION AND DISTRIBUTION (CONT'D)

6.3 Trip Distribution and Assignment (Cont'd)

The assumed trip distribution and assignment will be as follows:

A.M. Peak Hour

- 26% from the north via Airport Road,
- 9% from the south via Cranston Drive,
- 39% from the south via future Local Road (Triple Crown Line Development Inc.),
- 26% from the east via Old Church Road.

Total 100% inbound

- 95% to the south via Airport Road,
- 5% to the east via Old Church Road.

Total 100% outbound

P.M. Peak Hour

- 95% from the south via Airport Road,
- 5% from the east via Old Church Road.

Total 100% inbound

- 26% to the north via Airport Road,
- 9% to the south via Cranston Drive,
- 39% to the south via future Local Road (Triple Crown Line Development Inc.),
- 26% to the east via Old Church Road.

Total 100% outbound

The site-generated trip volumes and trip assignment used in the analysis for the proposed Day Nursery Facility are illustrated in **Figures 22 and 23**.

Trip Assignment for the Subject Development - A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

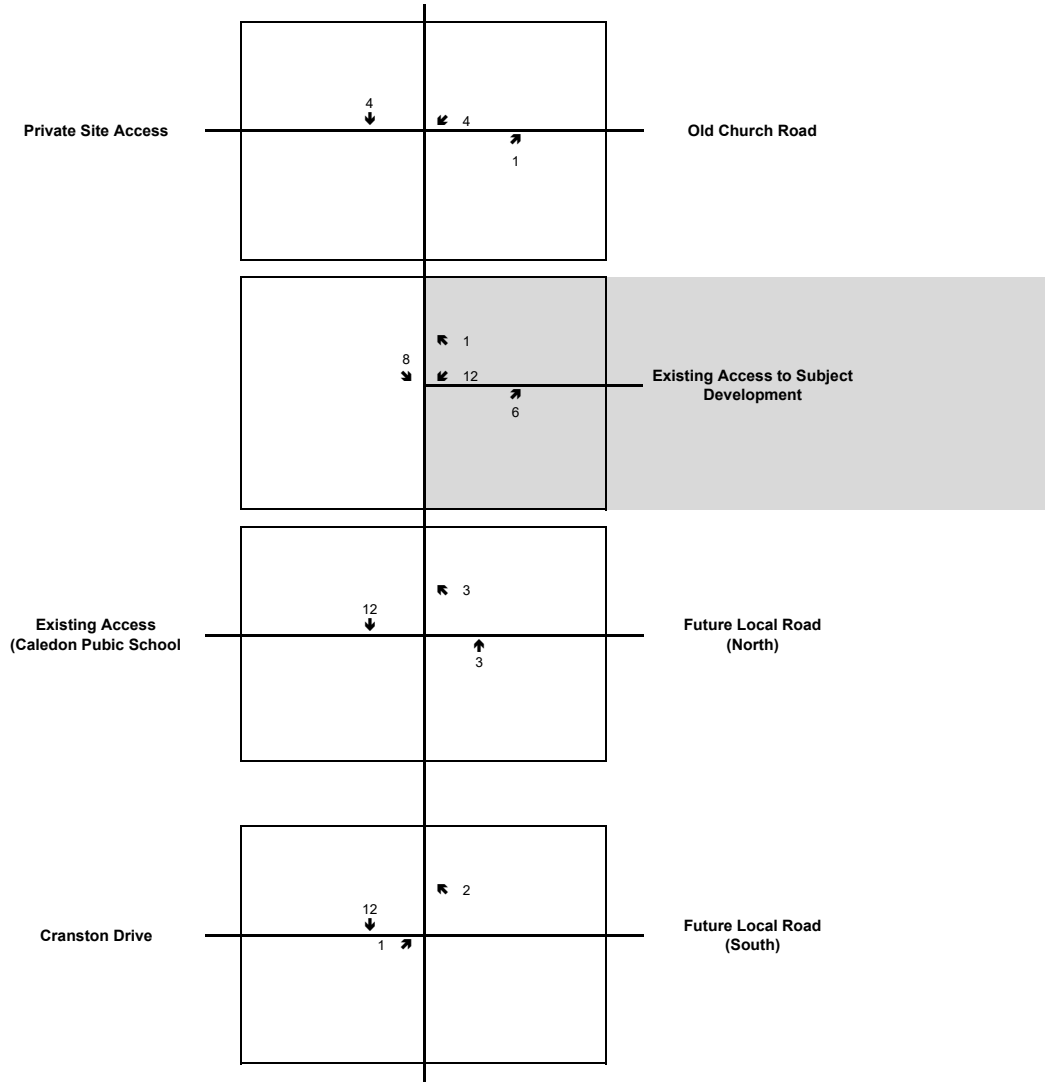

Figure No: 22

Date: June 26 2024

Prepared by: B.W.

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Trip Assignment for the Subject Development - P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

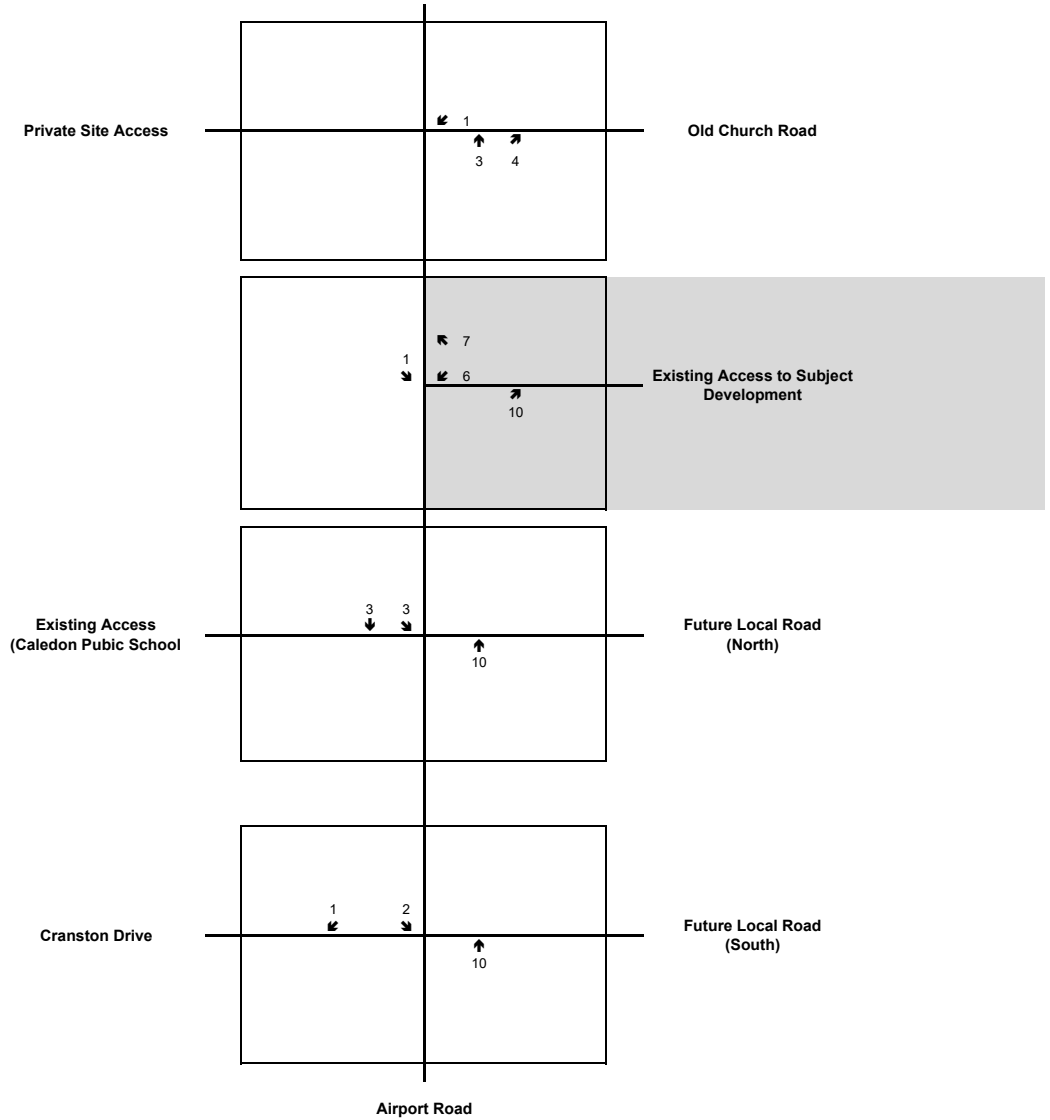

Figure No: 23

Date: June 26 2024

Prepared by: B.W.

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7. FUTURE TOTAL TRAFFIC CONDITIONS

7.1 Future (2029) Total Traffic

The Site-Generated traffic volumes from the proposed Day Nursery Facility were added to the Future (2029) Total Background Traffic to yield the Future (2029) Total Traffic Volumes.

In addition, for the Subject Site Access at Airport Road intersection, the Future (2029) Total Background Traffic Volumes were determined by projecting the traffic counts for the Mountcrest Road at Airport Road intersection with six (6) years of background growth and adding the site-generated trips from the anticipated background developments. Since the Subject Site Access at Airport Road intersection is approximately 140 metres south of the Mountcrest Road at Airport Road intersection, the inbound and outbound volumes from the south leg of the Mountcrest Road at Airport Road intersection were used to determine the traffic volumes for Airport Road.

For the intersection of Mountcrest Road at Airport Road, the traffic counts were conducted by OTI on Wednesday November 29, 2023. The traffic counts were from 7:00 A.M. to 9:00 A.M. and from 4:00 P.M. to 6:00 P.M. The A.M. and P.M. Peak Hour traffic volumes for the intersection occurred between 7:30 A.M. and 8:30 A.M. and between 4:15 P.M. and 5:15 P.M., respectively. The turning movement counts that were received from OTI are provided in **Appendix B**.

The Future (2029) Total Traffic Volumes are provided in **Figures 24 and 25** for the A.M. and P.M. Peak Hours.

Future (2029) Total Traffic Volumes - A.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

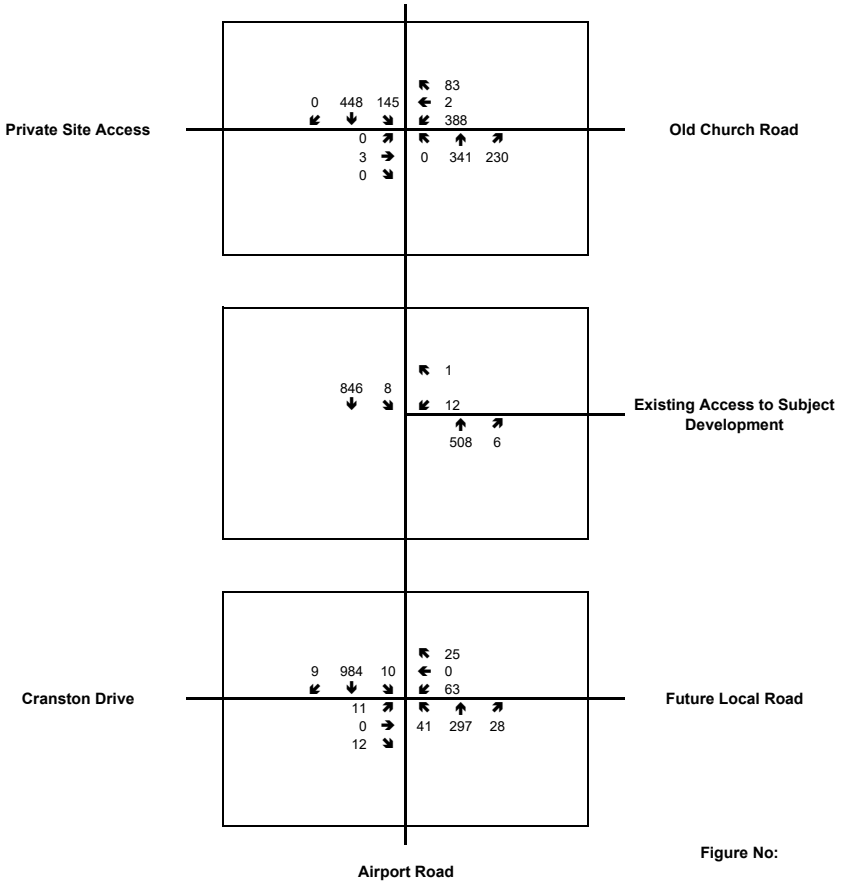

Figure No: 24

Date: June 26 2024

Prepared by: B.W.

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Future (2029) Total Traffic Volumes - P.M. Peak Hour

W23171
Proposed Day Nursery Facility
15,867 Airport Road
Town of Caledon

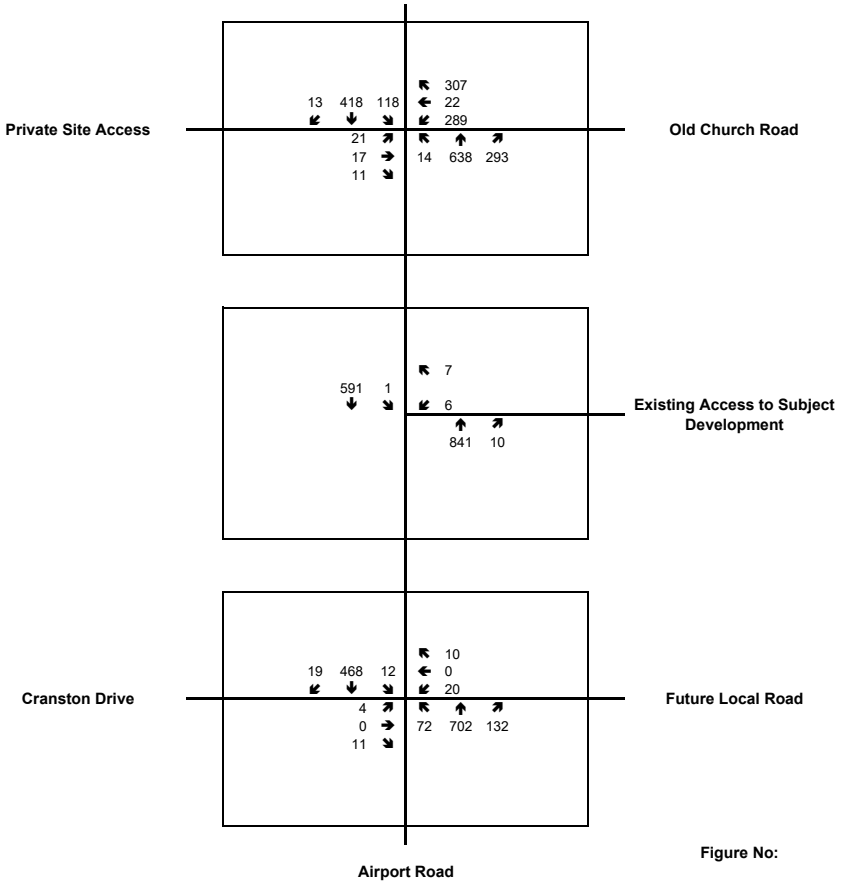

Figure No: 25

Date: June 26 2024

Prepared by: B.W.

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7. FUTURE TOTAL TRAFFIC CONDITIONS (CONT'D)

7.2 Future (2029) Total Traffic Analysis

For the Future (2029) Total Traffic Volumes, the Level of Service (LOS) was analyzed using SYNCHRO 9.0 software.

For the Old Church Road/private Site Access at Airport Road and Cranston Drive/future Local Road at Airport Road intersections, the lane configurations and the signal timing plans used in the Future (2029) Total Background Analysis were used in the Future (2029) Total Traffic Analysis.

The Subject Site Access at Airport Road intersection was analyzed as an un-signalized intersection with a stop-control at the westbound approach. The lane configuration used in the analysis comprises a shared through-right turning lane at the northbound approach; a shared through-left turning lane at the southbound approach; and a shared left-right turning lane at the westbound approach.

The results of the analysis are summarized in **Table 17.** The related calculations are provided in **Appendix E**.

7. FUTURE TOTAL TRAFFIC CONDITIONS (CONT'D)

7.2 Future (2029) Total Traffic Analysis

Table 17: Future (2029) Total Traffic – Level of Service

Intersection	Turning Movement/ Approach	A.M. Peak Hour				P.M. Peak Hour			
		V/C	LOS	Delay[1]	95th% Queue (m)	V/C	LOS	Delay[1]	95th% Queue (m)
Old Church Road/ private Site Access at Airport Road (Signalized)	**Overall**	**0.82**	**C**	**22.4**	**n/a**	**0.98**	**C**	**25.7**	**n/a**
	EB Approach	0.01	B	17.0	2.0	0.16	B	16.9	11.2
	WBL	0.82	D	39.3	86.8	0.70	C	33.4	56.0
	WB T/R	0.17	A	6.0	9.3	0.63	B	14.8	36.2
	NB L/T	0.41	B	12.5	47.8	0.64	B	15.1	105.9
	NBR	0.26	A	2.4	9.9	0.29	A	2.2	11.0
	SB Approach	0.82	C	27.3	132.9	0.98	D	54.3	147.9
Cranston Drive/ future Local Road at Airport Road (Roundabout)	**Overall**	**0.55**	**A**	**8.9**	**n/a**	**0.44**	**A**	**7.3**	**n/a**
	EB Approach	0.05	A	7.7	0.0	0.02	A	4.9	0.0
	WB Approach	0.11	A	5.3	0.0	0.05	A	6.1	0.0
	NB L/T	0.17	A	5.3	8.0	0.39	A	7.4	16.0
	NB T/R	0.20	A	5.5	8.0	0.44	A	8.1	16.0
	SB L/T	0.49	A	9.8	24.0	0.25	A	6.4	8.0
	SB T/R	0.55	B	11.1	24.0	0.28	A	6.7	8.0
Subject Site Access at Airport Road (Un-signalized)	**Overall**	**0.30**	**A**	**0.4**	**n/a**	**0.50**	**A**	**0.2**	**n/a**
	WB Approach	0.08	D	28.1	2.0	0.06	C	22.8	1.5
	NB Approach	0.30	A	0.0	0.0	0.50	A	0.0	0.0
	SB Approach	0.01	A	0.2	0.2	0.00	A	0.0	0.0

Note 1: Delays are measured in seconds per vehicle.

7. FUTURE TOTAL TRAFFIC CONDITIONS (CONT'D)

7.2 Future (2029) Total Traffic Analysis (Cont'd)

Old Church Road/private Site Access at Airport Road

The analysis of the Future (2029) Total Traffic Conditions indicates that the signalized intersection will continue to operate at a Level of Service "C" during the A.M. and P.M.. Peak Hours. With the inclusion of site-generated traffic, impacts to the intersection during the A.M. and P.M. Peak Hours will be minimal.

During the P.M. Peak Hour, the southbound approach will continue to operate at a volume over capacity ratio that is greater than 0.90.

All of the turning movements will continue to operate at a Level of Service "D" or better during the A.M. and P.M.. Peak Hours.

Cranston Drive/future Local Road at Airport Road

The analysis of the Future (2029) Total Traffic Conditions indicates that the roundabout will continue to operate at a Level of Service "A" during the A.M. and P.M.. Peak Hours. With the inclusion of site-generated traffic, impacts to the intersection during the A.M. and P.M. Peak Hours will be minimal.

The queue length for the shared through-right turning lane at the northbound approach may continue to result in a spillback of vehicles into the adjacent lane during the P.M. Peak Hour and the queue length for the shared through-right turning lane at the southbound approach may continue to result in a spillback of vehicles into the adjacent lane during the A.M. Peak Hour.

All of the turning movements will continue to operate at a Level of Service "B" or better during the A.M. Peak Hour and a Level of Service "A" during the P.M. Peak Hour.

7. FUTURE TOTAL TRAFFIC CONDITIONS (CONT'D)

7.2 Future (2029) Total Traffic Analysis (Cont'd)

Subject Site Access at Airport Road

The analysis of the Future (2029) Total Traffic Conditions indicates that the un-signalized intersection will operate at a Level of Service "A" during the A.M. and P.M. Peak Hours.

During the A.M. and P.M. Peak Hours, the northbound and southbound approaches will operate at a Level of Service "A".

The access approach will operate at a Level of Service "D" during the A.M. Peak Hour and at a Level of Service "C" during the P.M. Peak Hour.

7.2.1 Future (2029) Total Traffic Analysis – Recommended Improvements

For the Cranston Drive/future Local Road at Airport Road, the queue length for the shared through-right turning lane at the northbound approach may result in a spillback of vehicles into the adjacent lane during the P.M. Peak Hour and the queue length for the shared through-right turning lane at the southbound approach may result in a spillback of vehicles into the adjacent lane during the A.M. Peak Hour.

To improve the traffic operations of the intersection, the following recommendations are made:

Cranston Drive/future Local Road at Airport Road

- Extend the storage for the shared through-right turning at the northbound approach to 20 metres,
- Extend the storage for the shared through-right turning at the southbound approach to 25 metres.

7. FUTURE TOTAL TRAFFIC CONDITIONS (CONT'D)

7.2.1 Future (2029) Total Traffic Analysis – Recommended Improvements (Cont'd)

The results of the analysis are summarized in **Table 18.** The related calculations are provided in **Appendix E**.

Table 18: Future (2029) Total Traffic – with Improvements - Level of Service

Intersection	Turning Movement/ Approach	A.M. Peak Hour				P.M. Peak Hour			
		V/C	LOS	Delay[1]	95th% Queue (m)	V/C	LOS	Delay[1]	95th% Queue (m)
Cranston Drive/ future Local Road at Airport Road (Roundabout)	**Overall**	**0.55**	**A**	**8.9**	**n/a**	**0.44**	**A**	**7.3**	**n/a**
	EB Approach	0.05	A	7.7	0.0	0.02	A	4.9	0.0
	WB Approach	0.11	A	5.3	0.0	0.05	A	6.1	0.0
	NB L/T	0.17	A	5.3	8.0	0.39	A	7.4	16.0
	NB T/R	0.20	A	5.5	8.0	0.44	A	8.1	16.0
	SB L/T	0.49	A	9.8	24.0	0.25	A	6.4	8.0
	SB T/R	0.55	B	11.1	24.0	0.28	A	6.7	8.0

Note 1: Delays are measured in seconds per vehicle.

During the A.M. and P.M. Peak Hours, there will be no critical movements with the recommended improvements.

8. PARKING JUSTIFICATION

The proposed Day Nursery Facility comprises an existing home with a building area of 1,850 ft^2 (172 m^2) that will accommodate 28 students and five (5) staff members. The proposed Day Nursery Facility will provide ten (10) parking spaces for staff and visitors.

As per the Town of Caledon's Comprehensive Zoning By-Law 2006-50, the minimum parking rate for a day nursery is "1 parking space per staff member + 1 parking space per 30 m^2 of net floor area or portion thereof". Therefore, the proposed Day Nursery Facility will require 11 parking spaces; resulting in a deficiency of one (1) parking space.

To justify the parking supply for the proposed Day Nursery Facility, CANDEVCON GROUP INC. reviewed the parking utilization survey for a similar development. The existing Montessori School (KM School – Toddler and Casa Location) located at 1,499 The Gore Road, in the City of Brampton, comprises 60 students that are between 18 months and six (6) years of age along with eight (8) staff members. The location of the proxy site is provided in **Figure 26**.

The parking utilization survey was conducted by CANDEVCON GROUP INC. on Friday September 30, 2022. Occupancy counts were taken between 8:00 A.M. and 9:00 A.M. and between 3:00 P.M. and 4:00 P.M., which was the time period for when students are to be dropped-off or picked-up.

Although the proxy site has access to transit, transit trips were not generated by the KM School during the survey. Therefore, although the Subject Development does not have access to transit, the results of this survey are applicable.

Table 19 summarizes the results of the survey.

TRAFFIC IMPACT AND PARKING STUDY
PROPOSED DAY NURSERY FACILITY
15,867 AIRPORT ROAD
TOWN OF CALEDON

LOCATION PLAN OF PROXY SITE

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE
BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

DRAWN BY: K.F.	PROJECT No. W23171
CHECKED BY: B.W.	FIGURE No. 26
SCALE: N.T.S.	
DATE: AUG. 9th 2024	

8. PARKING JUSTIFICATION (CONT'D)

Table 19: Parking Utilization Survey for 1,499 The Gore Road

Time Interval	No. of Occupied Parking Spaces
8:00 AM to 8:15 AM	4
8:15 AM to 8:30 AM	6
8:30 AM to 8:45 AM	6
8:45 AM to 9:00 AM	6
3:00 PM to 3:15 PM	**7**
3:15 PM to 3:30 PM	6
3:30 PM to 3:45 PM	6
3:45 PM to 4:00 PM	1

In the parking utilization survey, a peak parking demand of seven (7) parking spaces was observed. Since the existing Montessori School at 1,499 The Gore Road has 32 more students and 3 more staff members, the parking demand is expected to be higher than the parking demand for the proposed Day Nursery Facility; and since the peak parking demand observed in the parking utilization survey is less than the proposed parking supply (a surplus of three (3) parking spaces), the parking supply for the proposed Day Nursery Facility is sufficient.

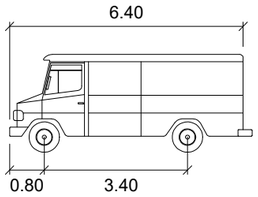
In the next section, a swept path plan will be provided that confirms that passenger vehicles will be able to drop-off and pick-up students without having to use a parking space.

9. INTERNAL TRAFFIC CIRCULATION

Using the proposed Site Plan, the internal traffic circulation was analyzed for delivery trucks and passenger vehicles. The vehicle swept paths have been analysed in the AutoTURN software.

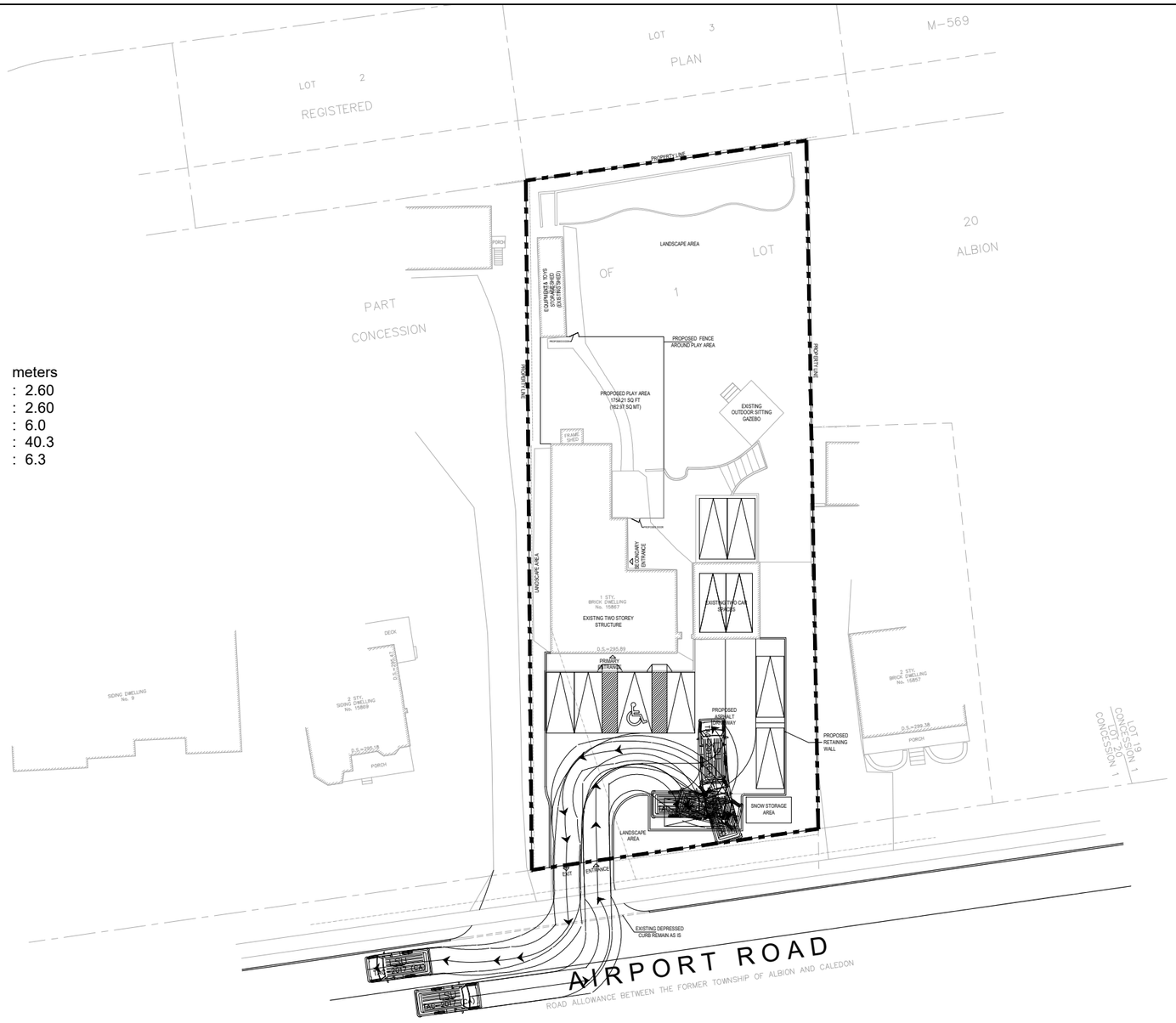
A swept path plan was prepared for delivery trucks using the parking stall at the west end of the Subject Property. After using the existing site access, the delivery truck will move to the parking stall by driving forward before moving backwards to align itself with the parking space. To exit the Subject Property, the vehicle will make a three-point turn; moving forward to head east, backing into the parking stall for the delivery truck and then heading to the existing site access to exit the property by moving forward. The swept path plan is provided in **Figure 27**.

For passenger vehicles dropping-off/picking up passengers, after using the existing site access to enter the Subject Property, they will move to the area of the parking lot that is immediately west of the existing two-car garage. After dropping-off/picking up the passengers, the passenger vehicle will back-up to the other side of the parking aisle before exiting the Subject Property by moving forward. The swept path plan is provided in **Figure 28**. For the parking spaces that are not immediately west of the existing building, coordination among visitors and staff will ensure that cars parking and leaving those parking spaces can do so adequately; although the parking utilization analysis has determined that the parking demand will typically not be high enough to where coordination is needed. Cars that will arrive before and leave after the cars that will park in the garage will use the parking spaces that are east of the garage. In addition, cars that will arrive before and leave after that cars that will use the parking space immediately east of the snow storage area will use the parking space that is immediately west and south of the garage. For cars using the parking space that is immediately east of the snow storage area, the swept path plan is provided in **Figure 29**. After using the existing site access to enter the Subject Property, they will move forward to the area immediately west of the garage before backing into the parking space. Passenger vehicles will move forward and turn left before backing into the parking space that they parked into and use the existing site access to exit the Subject Property by moving forward.



LSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	: 6.0
Steering Angle	: 40.3
Minimum Turning Radius	: 6.3

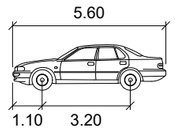


TRAFFIC IMPACT AND PARKING STUDY
PROPOSED DAY NURSERY FACILITY
15867 AIRPORT ROAD
TOWN OF CALEDON

SWEPT PATH PLAN FOR A LIGHT SINGLE UNIT TRUCK

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE
BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

DATE: AUG. 12th 2024	JOB No. W23171
DESIGN: B.W.	FIG. No. 27
SCALE: 1:500	



Passenger Vehicle - TAC 2017

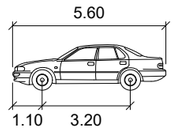
		meters
Width	:	2.00
Track	:	2.00
Lock to Lock Time	:	6.0
Steering Angle	:	35.9
Minimum Turning Radius	:	6.3

TRAFFIC IMPACT AND PARKING STUDY
PROPOSED DAY NURSERY FACILITY
15867 AIRPORT ROAD
TOWN OF CALEDON

SWEPT PATH PLAN FOR PASSENGER VEHICLES - SCENARIO 1

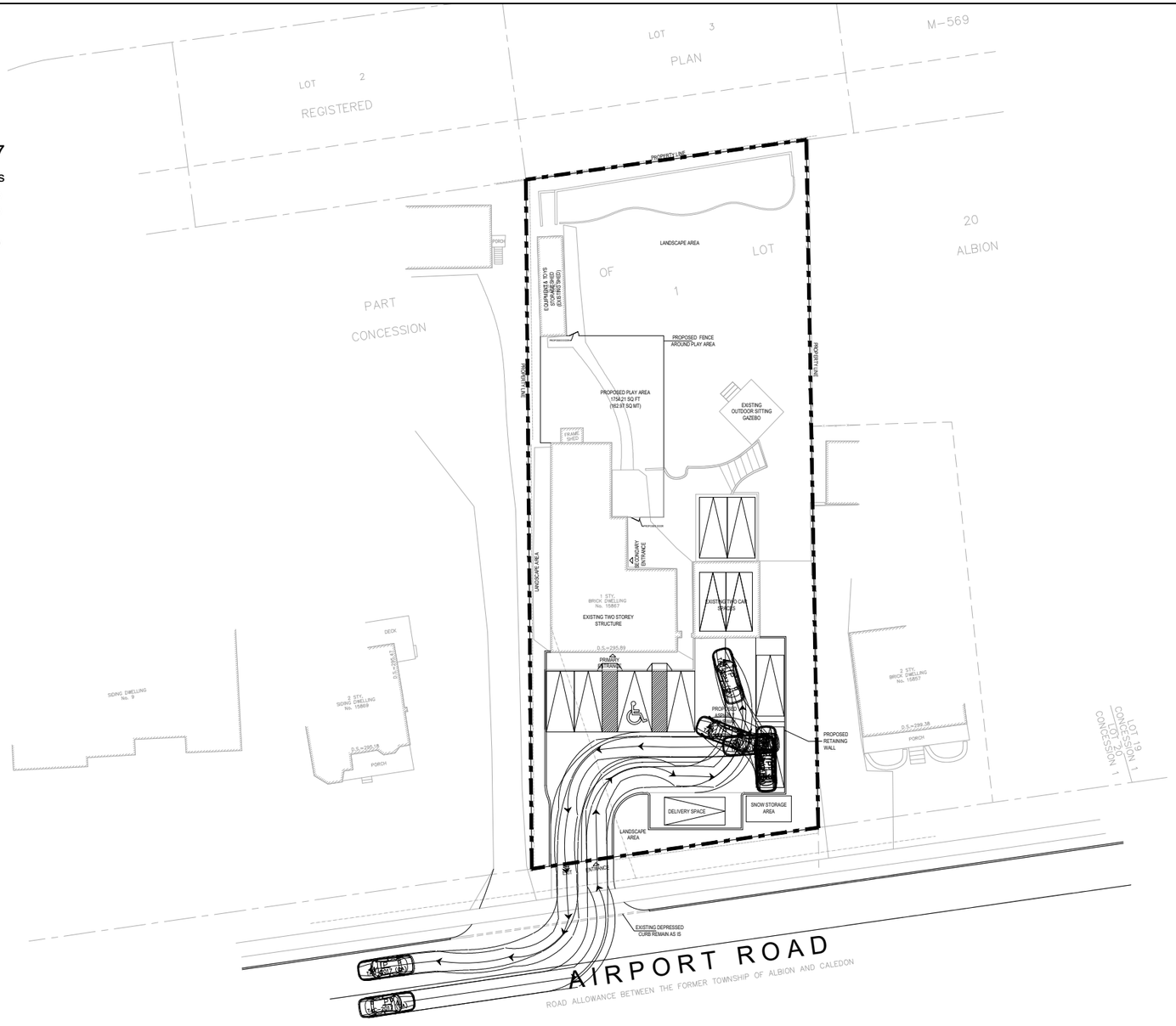
CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE
BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

DATE: AUG. 12th 2024	JOB No. W23171
DESIGN: B.W.	FIG. No. 28
SCALE: 1:500	



Passenger Vehicle - TAC 2017

		meters
Width	:	2.00
Track	:	2.00
Lock to Lock Time	:	6.0
Steering Angle	:	35.9
Minimum Turning Radius	:	6.3



TRAFFIC IMPACT AND PARKING STUDY
PROPOSED DAY NURSERY FACILITY
15867 AIRPORT ROAD
TOWN OF CALEDON

SWEPT PATH PLAN FOR PASSENGER VEHICLES - SCENARIO 2

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE
BRAMPTON ON. L6P-0M7
TEL (905) 794-0600
FAX (905) 794-0611

DATE: AUG. 12th 2024	JOB No. W23171
DESIGN: B.W.	FIG. No. 29
SCALE: 1:500	

10. ACTIVE TRANSPORTATION CONSIDERATIONS

Within the vicinity of the proposed Day Nursery Facility, a pedestrian sidewalk is provided on both sides of Airport Road. Along Airport Road, bicyclists can share the roadway with automobiles. These pedestrian and bicycle facilities on Airport Road provide a connection to the Caledon Trailway Path, which is approximately 200 metres north of the proposed Day Nursery Facility. The Caledon Trailway Path extends westerly to the west end of the Town of Caledon (Terra Cotta Hamlet) and easterly to the south end of Simcoe County (Tottenham Community).

To manage the demand of automotive travel, students and staff that live within the vicinity of the Subject Property can be encouraged by management to commute via walking or cycling. In addition, carpooling can be arranged among staff members or students.

11. SUMMARY

The proposed Day Nursery Facility is expected to generate a total of 27 net trips during the A.M. Peak Hour (14 inbound trips and 13 outbound trips) and 24 trips during the P.M. Peak Hour (11 inbound trips and 13 outbound trips). Traffic impacts from the site-generated trips to the concerned intersections will be minimal.

The proposed Day Nursery Facility will utilize the existing home to accommodate 28 students and will be serviced by the reconstructed driveway that connects with Airport Road.

By the 2029 horizon year, as part of the future Residential Subdivision that is owned by Triple Crown Line Development Inc., a local road will connect with the Cranston Drive at Airport Road intersection and act as the east leg. In addition, the intersection will act as a roundabout with a channelized auxiliary lane with a storage length of 8 metres for the northbound and southbound approaches.

For the 2029 horizon year, the following recommendations were made to mitigate the traffic impacts that are mainly attributed to the growth in background traffic:

Cranston Drive/future Local Road at Airport Road

- Extend the storage for the shared through-right turning at the northbound approach to 20 metres,
- Extend the storage for the shared through-right turning at the southbound approach to 25 metres.

With the recommended improvements, all the concerned intersections will operate at an acceptable Levels of Service during the A.M. and P.M. Peak Hours.

As per the Town of Caledon's Comprehensive Zoning By-Law 2006-50, the proposed Day Nursery Facility will have a deficiency of one (1) parking space. To justify the parking supply for the proposed Day Nursery Facility, CANDEVCON GROUP INC. reviewed the parking utilization survey for a similar development; an existing Montessori School located at 1,499 The Gore Road, in the City of Brampton. Based on the parking demand that was captured during the survey, the proposed Day Nursery Facility will have a surplus of three (3) parking spaces.

11. SUMMARY (CONT'D)

Based on the analysis outlined in the Study, the key intersections will operate at acceptable levels of service during the Weekday A.M. and P.M. Peak Hours under the 2029 horizon year.

This Report was prepared by:

CANDEVCON GROUP INC.

Brian Wong, P. Eng.
Intermediate Transportation Engineer

David Lee, P. Eng.
Project Manager

APPENDIX A

TERMS OF REFERENCE

Traffic Impact and Parking Study – Terms of Reference

a) Assemble, review and confirm background data (i.e. traffic volume/flow on the adjacent road network during weekday peak hours) available from official sources, existing road geometry and access location.

b) Conduct turning movement counts (if necessary) at the Mountcrest Road at Airport Road, Old Church Road at Airport Road and Cranston Drive at Airport Road intersections during Weekday AM and Weekday PM Peak Hours.

c) Establish existing traffic patterns and historic travel growth rates for the study area.

d) Consult with the Town of Caledon and the Region of Peel to confirm data as required (i.e. growth trends, other proposed development timing etc.), issues/developments to be addressed and any anticipated future road improvements.

e) Assess future trips generated by the Proposed Day Nursery Facility during Weekday AM and Weekday PM Peak Hours.

f) Develop the trip distribution and traffic assignment for the Proposed Day Nursery Facility during Weekday AM and Weekday PM Peak Hours.

g) Establish the five (5) year time horizon post build-out of the Proposed Day Nursery Facility to forecast future peak periods of street traffic.

h) Analyze the traffic operations during peak periods at the following key site access points. (To be confirmed with the Town of Caledon and the Region of Peel)

- Old Church Road at Airport Road,
- Cranston Drive at Airport Road,
- Existing Site Access at Airport Road.

i) Complete traffic operations and volume-capacity analyses using the Synchro 9.0 software.

j) Assess existing and future total background and total traffic operations (five (5) year post horizon) at the proposed key access points mentioned above.

k) Review the proposed parking provided and compare it to the Zoning Parking By-Law requirement to ensure adequate parking supply is provided. If not, provide justification for the reduced parking supply.

l) Prepare AutoTURN swept path simulations for passenger vehicles to confirm that internal circulation is adequate.

Traffic Impact and Parking Study – Terms of Reference (Cont'd)

m) Identify existing and/or future active transportation facilities within the vicinity of the Proposed Day Nursery Facility and recommend on-site strategies for transportation demand management.

n) Prepare a Study to summarize the findings of the traffic impact and parking analyses, as well as recommend any improvements required to mitigate the traffic and parking impacts. Submit Study to the Town of Caledon and the Region of Peel for review/comments.

o) Provide and circulate copies of the Study to all applicable approval authorities (first submission only).

Brian Wong

From: Emma Howlett <Emma.Howlett@caledon.ca>
Sent: November-27-23 11:34 AM
To: Brian Wong
Cc: David Lee; Filing West; Kavleen Younan
Subject: RE: W23171 - 15867 Airport Road - Terms of Reference (Town)
Attachments: 89 Walker Rd 2014.pdf; 15 Jean Street - 06.06.2023.pdf

Morning Brian,

Thank you for circulating the ToR. Our comments are below:

1. Airport Road falls under the jurisdiction of the Region of Peel as a Regional Road; therefore, the Terms of Reference should be shared with the Region for their thorough review and feedback. a. It's imperative to incorporate the Regional Transportation Study requirements and anticipated roadway improvements into consideration.
2. Please ensure all raw data and assumptions (turning movement counts, synchro reports, etc.) are appended to the report.
3. Institute of Transportation Engineers (ITE) Trip Generation Manual (latest edition) should be used for the estimated trips generated for the subject site.
4. Site access operations/design and internal circulation (AutoTurn, parking layout, safety and operations) to be reviewed.
5. PTAC vehicles should be used in the AutoTURN analysis
6. Detailed Recommendations regarding on-site/off-site roadway improvements, site access, and site circulation (vehicular & pedestrian) are to be made. The report should include a review of onsite proposed infrastructure from a Transportation Engineering perspective to ensure that industry standards are maintained to ensure the safety of both pedestrians and drivers.
7. Barrier-free accessible spaces should be designed according to the requirements contained within Schedule K of the Town's Traffic By-Law 2015-058.
8. Please follow the Town's Transportation Study Guidelines.
9. The following background developments have been identified near the study area:
    a. Triple Crown line Development Inc. – 15717 Airport Road
    b. 15 Jean Street
    c. 15728 Airport Road
    d. 6098 - 6142 Old Church Road
    e. 16114 Airport Road
    f. 89 Walker Road West
    g. SB 21T-06006C Address: 0 Airport Road

Applications are linked (blue) or attached (regular font color)

Feel free to reach out to us if there are any questions.

Emma Howlett, EIT
Transportation Coordinator, Engineering, Public Works, & Transportation Department

Office: 905.584.2272 x 4309 | Email: Emma.Howlett@caledon.ca

Town of Caledon | www.caledon.ca | www.visitcaledon.ca | Follow us @TownofCaledon

From: Brian Wong <brian@candevcon.com>
Sent: November 27, 2023 9:04 AM
To: Emma Howlett <Emma.Howlett@caledon.ca>
Cc: David Lee <david@candevcon.com>; Filing West <filingwest@candevcon.com>
Subject: RE: W23171 - 15867 Airport Road - Terms of Reference (Town)

Good Morning Emma,

I am just following up with regards to this email.

Thanks,

Brian

From: Brian Wong
Sent: Tuesday, November 21, 2023 4:22 PM
To: Emma Howlett <Emma.Howlett@caledon.ca>
Cc: David Lee <david@candevcon.com>; Filing West <filingwest@candevcon.com>
Subject: RE: W23171 - 15867 Airport Road - Terms of Reference (Town)

Hello Emma,

I am just following up with regards to the Terms of Reference. This project is time sensitive so any efforts to expedite this process will be most appreciated.

If you require any further information, please do not hesitate to contact me.

Brian Wong, P.Eng.

Intermediate Transportation Engineer

CANDEVCON GROUP INC.
CONSULTING ENGINEERS & PLANNERS
GTA WEST OFFICE (CORPORATE)
9358 Goreway Drive, Brampton, Ontario, L6P 0M7
Tel.: (905)794-0600 Ext 2059

Brian Wong

From: Shen, Yifan <yifan.shen@peelregion.ca>
Sent: November-09-23 3:01 PM
To: Brian Wong
Cc: Hamdani, Hashim; David Lee; Filing West
Subject: RE: W23171 - 15867 Airport Road - Terms of Reference (Region)

Hi Brian,

Good afternoon, The Region has reviewed the Terms of Reference you provided and finds it to be satisfactory.

Please see the traffic comments below and the link here for the detailed Region of Peel TIS formatting and contact information for background traffic (growth rate, AADT, signal timing, etc.).

- Regional Road 7 (Airport Road) – Rural Main Street

Access Type	Minimum Spacing Requirement
Full to Full	150 m
Full to RI/RO	75 m
RI/RO to RI/RO	Individual Site Review

- Please review the Controlled Access By-law 62-2013, which speaks to the Road Characterization Study (RCS). The RCS defines our various road classifications as well as the minimum access spacing distances that are associated with them.
- Analysis Period - Acceptable.
- Intersections - Acceptable.
- Horizon Years - Please include a 10-year horizon period in addition to the 5-year horizon period.
- Please see the following contacts to obtain data for your analysis:
    - Please contact transportationplanningdata@peelregion.ca to confirm growth rates along the subject Regional road(s).
    - Please contact Damian Jamroz (damian.jamroz@peelregion.ca) Supervisor of Traffic Operations to obtain the most recent TMCs and/or average annual daily traffic (AADT).
    - Please contact Rebecca Caughey (Rebecca.caughey@peelregion.ca) Supervisor of Traffic Signals and Streetlighting, to obtain traffic signal timing parameters and ensure that the information includes the appropriate walk/don't walk splits, recall modes and offsets.
    - **Please contact your Local Municipality Planning Department to obtain details on surrounding developments in the area that would affect traffic capacity in the planning horizon year(s).**

Should you have any questions or concerns, please do not hesitate to let me know.

Warm regards,

Yifan Shen
Specialist, Transportation Development
Transportation Development
Region of Peel
10 Peel Centre Drive, Suite B, 4th Floor
Brampton, ON L6T 4B9

From: Shen, Yifan
Sent: November 9, 2023 1:02 PM
To: Brian Wong <brian@candevcon.com>
Cc: Hamdani, Hashim <HashimAli.Hamdani@peelregion.ca>; David Lee <david@candevcon.com>; Filing West <filingwest@candevcon.com>
Subject: RE: W23171 - 15867 Airport Road - Terms of Reference (Region)

Hi Brian,

Good afternoon, thank you for providing us with the TOR. This email is to acknowledge that we have received the Terms of Reference and I will provide you with our comments after a fulsome review.

Warm regards,

Yifan Shen
Specialist, Transportation Development
Transportation Development
Region of Peel
10 Peel Centre Drive, Suite B, 4th Floor
Brampton, ON L6T 4B9

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From: Brian Wong <brian@candevcon.com>
Sent: November 8, 2023 4:26 PM
To: Hamdani, Hashim <hashimali.hamdani@peelregion.ca>
Cc: David Lee <david@candevcon.com>; Filing West <filingwest@candevcon.com>
Subject: W23171 - 15867 Airport Road - Terms of Reference (Region)

Good Afternoon Hashim,

We are preparing a Traffic Impact and Parking Study for a proposed Day Nursery Facility that is immediately east of Airport Road and approximately 400 metres south of Old Church Road. (PRE 2023-0063) Please find the Terms of Reference and the proposed Site Plan attached for your review and comment.

If you require any further information, please do not hesitate to contact me.

Brian Wong, P.Eng.

Intermediate Transportation Engineer

CANDEVCON GROUP INC.
CONSULTING ENGINEERS & PLANNERS
GTA WEST OFFICE (CORPORATE)
9358 Goreway Drive, Brampton, Ontario, L6P 0M7
Tel.: (905)794-0600 Ext 2059

APPENDIX B

TURNING MOVEMENT COUNTS

Turning Movement Count (97 . AIRPORT RD & OLD CHURCH RD) CustID: 00729337

Start Time	Southbound AIRPORT RD						Westbound OLD CHURCH RD						Northbound AIRPORT RD						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	9	96	0	0	0	105	36	0	4	0	0	40	0	26	19	0	0	45	0	0	0	0	0	0	190
07:15:00	6	80	0	0	0	86	60	0	5	0	0	65	0	34	17	0	0	51	0	0	1	0	0	1	203
07:30:00	11	79	0	0	0	90	50	0	13	0	1	63	0	36	13	0	0	49	0	0	0	0	2	0	202
07:45:00	8	87	0	0	0	95	52	0	9	0	0	61	0	27	19	0	0	46	0	0	0	0	1	0	202
Hourly	34	342	0	0	0	376	198	0	31	0	1	229	0	123	68	0	0	191	0	0	1	0	3	1	797
08:00:00	12	72	0	0	0	84	51	0	16	0	0	67	0	27	38	0	3	65	0	1	0	0	2	1	217
08:15:00	25	86	0	0	0	111	46	0	7	0	0	53	0	47	46	0	0	93	0	0	0	0	3	0	257
08:30:00	20	66	0	0	0	86	55	0	12	0	0	67	0	40	30	0	2	70	0	0	0	0	0	0	223
08:45:00	24	71	0	0	0	95	64	2	10	0	3	76	0	48	40	0	0	88	0	2	0	0	0	2	261
Hourly	81	295	0	0	0	376	216	2	45	0	3	263	0	162	154	0	5	316	0	3	0	0	5	3	958
BREAK																									
11:00:00	12	53	2	0	0	67	15	2	18	0	1	35	0	43	25	0	0	68	0	1	1	0	5	2	172
11:15:00	15	50	2	0	1	67	33	1	15	0	3	49	0	52	26	0	1	78	0	1	2	0	5	3	197
11:30:00	10	52	1	0	1	63	17	1	19	0	0	37	4	58	29	0	30	91	1	1	2	0	5	4	195
11:45:00	21	58	1	0	0	80	34	0	14	0	0	48	3	53	38	0	1	94	1	2	1	0	8	4	226
Hourly	58	213	6	0	2	277	99	4	66	0	4	169	7	206	118	0	32	331	2	5	6	0	23	13	790
12:00:00	18	47	2	0	4	67	43	4	9	0	1	56	4	53	46	0	1	103	3	1	0	0	5	4	230
12:15:00	22	64	1	0	3	87	43	1	22	0	0	66	2	58	74	0	2	134	2	4	0	0	5	6	293
12:30:00	20	64	2	0	3	86	32	2	16	0	5	50	0	71	50	0	2	121	4	0	2	0	6	6	263
12:45:00	14	60	4	0	4	78	46	2	14	0	1	62	4	65	34	0	1	103	4	2	3	0	7	9	252
Hourly	74	235	9	0	14	318	164	9	61	0	7	234	10	247	204	0	6	461	13	7	5	0	23	25	1038
13:00:00	23	51	0	0	0	74	32	6	17	0	2	55	1	53	41	0	1	95	0	1	2	0	4	3	227
13:15:00	14	53	2	0	1	69	43	1	21	0	0	65	1	68	33	0	0	102	1	0	4	0	9	5	241
13:30:00	13	50	3	0	0	66	35	1	34	0	1	70	4	58	47	0	1	109	1	1	4	0	9	6	251
13:45:00	12	67	2	0	2	81	61	4	41	0	1	106	2	56	33	0	0	91	1	1	1	0	8	3	281
Hourly	62	221	7	0	3	290	171	12	113	0	4	296	8	235	154	0	2	397	3	3	11	0	30	17	1000
BREAK																									
15:00:00	20	67	1	0	1	88	34	5	14	0	1	53	2	80	50	0	0	132	5	2	5	0	12	12	285
15:15:00	19	80	1	0	4	100	43	2	18	0	1	63	2	70	71	0	0	143	1	5	2	0	6	8	314
15:30:00	10	61	1	0	5	72	37	3	22	0	1	62	5	97	64	0	7	166	2	1	3	0	11	6	306
15:45:00	12	55	3	0	4	70	59	4	28	0	1	91	9	82	63	0	3	154	6	3	2	0	17	11	326
Hourly	61	263	6	0	14	330	173	14	82	0	4	269	18	329	248	0	10	595	14	11	12	0	46	37	1231
16:00:00	19	61	4	0	4	84	48	8	37	0	2	93	3	95	58	0	0	156	6	5	1	0	9	12	345
16:15:00	17	66	2	0	2	85	53	6	52	0	1	111	3	108	57	0	1	168	5	6	1	0	6	12	376
16:30:00	17	63	3	0	0	83	52	7	64	0	0	123	3	107	56	0	1	166	2	1	3	0	8	6	378
16:45:00	14	35	4	0	0	53	51	1	62	0	1	114	5	96	51	0	0	152	8	5	6	0	17	19	338
Hourly	67	225	13	0	6	305	204	22	215	0	4	441	14	406	222	0	2	642	21	17	11	0	40	49	1437
17:00:00	20	64	4	0	0	88	56	3	57	0	3	116	4	82	65	0	0	151	5	0	4	0	13	9	364
17:15:00	17	56	0	0	0	73	57	2	45	0	2	104	2	103	72	0	1	177	6	2	3	0	5	11	365
17:30:00	14	53	5	0	1	72	43	3	27	0	2	73	3	97	63	0	0	163	2	4	0	0	7	6	314
17:45:00	10	42	4	0	1	56	43	5	19	0	0	67	6	73	69	0	0	148	5	4	3	0	20	12	283
Hourly	61	215	13	0	2	289	199	13	148	0	7	360	15	355	269	0	1	639	18	10	10	0	45	38	1326
Grand Total	498	2009	54	0	41	2561	1424	76	761	0	34	2261	72	2063	1437	0	58	3572	71	56	56	0	215	183	**8577**
Approach%	19.4%	78.4%	2.1%	0%		-	63%	3.4%	33.7%	0%		-	2%	57.8%	40.2%	0%		-	38.8%	30.6%	30.6%	0%		-	**-**
Totals %	5.8%	23.4%	0.6%	0%		29.9%	16.6%	0.9%	8.9%	0%		26.4%	0.8%	24.1%	16.8%	0%		41.6%	0.8%	0.7%	0.7%	0%		2.1%	**-**

Heavy	36	306	0	0	-	47	0	24	0	-	1	203	44	0	-	0	0	1	0	-	-
Heavy %	7.2%	15.2%	0%	0%	-	3.3%	0%	3.2%	0%	-	1.4%	9.8%	3.1%	0%	-	0%	0%	1.8%	0%	-	-
Bicycles	0	0	0	0	-	0	0	0	0	-	0	0	2	0	-	0	0	0	0	-	-
Bicycle %	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0.1%	0%	-	0%	0%	0%	0%	-	-

Spectrum

Turning Movement Count
Location Name: AIRPORT RD & OLD CHURCH RD
Date: Wed, Jun 29, 2022 Deployment Lead: Tasos Issaaakidis

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 08:00 AM - 09:00 AM Weather: Light Rain (13.54 °C)

Start Time	Southbound AIRPORT RD						Westbound OLD CHURCH RD						Northbound AIRPORT RD						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
08:00:00	12	72	0	0	0	84	51	0	16	0	0	67	0	27	38	0	3	65	0	1	0	0	2	1	217
08:15:00	25	86	0	0	0	111	46	0	7	0	0	53	0	47	46	0	0	93	0	0	0	0	3	0	257
08:30:00	20	66	0	0	0	86	55	0	12	0	0	67	0	40	30	0	2	70	0	0	0	0	0	0	223
08:45:00	24	71	0	0	0	95	64	2	10	0	3	76	0	48	40	0	0	88	0	2	0	0	0	2	261
Grand Total	81	295	0	0	0	376	216	2	45	0	3	263	0	162	154	0	5	316	0	3	0	0	5	3	**958**
Approach%	21.5%	78.5%	0%	0%		-	82.1%	0.8%	17.1%	0%		-	0%	51.3%	48.7%	0%		-	0%	100%	0%	0%		-	**-**
Totals %	8.5%	30.8%	0%	0%		39.2%	22.5%	0.2%	4.7%	0%		27.5%	0%	16.9%	16.1%	0%		33%	0%	0.3%	0%	0%		0.3%	**-**
PHF	0.81	0.86	0	0		0.85	0.84	0.25	0.7	0		0.87	0	0.84	0.84	0		0.85	0	0.38	0	0		0.38	**-**
Heavy	8	39	0	0		47	9	0	2	0		11	0	35	10	0		45	0	0	0	0		0	**-**
Heavy %	9.9%	13.2%	0%	0%		12.5%	4.2%	0%	4.4%	0%		4.2%	0%	21.6%	6.5%	0%		14.2%	0%	0%	0%	0%		0%	**-**
Lights	73	256	0	0		329	207	2	43	0		252	0	127	144	0		271	0	3	0	0		3	**-**
Lights %	90.1%	86.8%	0%	0%		87.5%	95.8%	100%	95.6%	0%		95.8%	0%	78.4%	93.5%	0%		85.8%	0%	100%	0%	0%		100%	**-**
Single-Unit Trucks	1	19	0	0		20	5	0	1	0		6	0	15	2	0		17	0	0	0	0		0	**-**
Single-Unit Trucks %	1.2%	6.4%	0%	0%		5.3%	2.3%	0%	2.2%	0%		2.3%	0%	9.3%	1.3%	0%		5.4%	0%	0%	0%	0%		0%	**-**
Buses	5	5	0	0		10	3	0	0	0		3	0	7	5	0		12	0	0	0	0		0	**-**
Buses %	6.2%	1.7%	0%	0%		2.7%	1.4%	0%	0%	0%		1.1%	0%	4.3%	3.2%	0%		3.8%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	2	15	0	0		17	1	0	1	0		2	0	13	3	0		16	0	0	0	0		0	**-**
Articulated Trucks %	2.5%	5.1%	0%	0%		4.5%	0.5%	0%	2.2%	0%		0.8%	0%	8%	1.9%	0%		5.1%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	5	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	23.1%		-	-	-	-	38.5%		-	-	-	-	38.5%		**-**
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%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 12:00 PM - 01:00 PM Weather: Light Rain (15.1 °C)

Start Time	Southbound AIRPORT RD						Westbound OLD CHURCH RD						Northbound AIRPORT RD						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
12:00:00	18	47	2	0	4	67	43	4	9	0	1	56	4	53	46	0	1	103	3	1	0	0	5	4	230
12:15:00	22	64	1	0	3	87	43	1	22	0	0	66	2	58	74	0	2	134	2	4	0	0	5	6	293
12:30:00	20	64	2	0	3	86	32	2	16	0	5	50	0	71	50	0	2	121	4	0	2	0	6	6	263
12:45:00	14	60	4	0	4	78	46	2	14	0	1	62	4	65	34	0	1	103	4	2	3	0	7	9	252
Grand Total	74	235	9	0	14	318	164	9	61	0	7	234	10	247	204	0	6	461	13	7	5	0	23	25	**1038**
Approach%	23.3%	73.9%	2.8%	0%		-	70.1%	3.8%	26.1%	0%		-	2.2%	53.6%	44.3%	0%		-	52%	28%	20%	0%		-	**-**
Totals %	7.1%	22.6%	0.9%	0%		30.6%	15.8%	0.9%	5.9%	0%		22.5%	1%	23.8%	19.7%	0%		44.4%	1.3%	0.7%	0.5%	0%		2.4%	**-**
PHF	0.84	0.92	0.56	0		0.91	0.89	0.56	0.69	0		0.89	0.63	0.87	0.69	0		0.86	0.81	0.44	0.42	0		0.69	**-**
Heavy	5	35	0	0		40	2	0	4	0		6	1	32	7	0		40	0	0	0	0		0	**-**
Heavy %	6.8%	14.9%	0%	0%		12.6%	1.2%	0%	6.6%	0%		2.6%	10%	13%	3.4%	0%		8.7%	0%	0%	0%	0%		0%	**-**
Lights	69	200	9	0		278	162	9	57	0		228	9	215	197	0		421	13	7	5	0		25	**-**
Lights %	93.2%	85.1%	100%	0%		87.4%	98.8%	100%	93.4%	0%		97.4%	90%	87%	96.6%	0%		91.3%	100%	100%	100%	0%		100%	**-**
Single-Unit Trucks	4	12	0	0		16	2	0	4	0		6	1	17	7	0		25	0	0	0	0		0	**-**
Single-Unit Trucks %	5.4%	5.1%	0%	0%		5%	1.2%	0%	6.6%	0%		2.6%	10%	6.9%	3.4%	0%		5.4%	0%	0%	0%	0%		0%	**-**
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	1	23	0	0		24	0	0	0	0		0	0	15	0	0		15	0	0	0	0		0	**-**
Articulated Trucks %	1.4%	9.8%	0%	0%		7.5%	0%	0%	0%	0%		0%	0%	6.1%	0%	0%		3.3%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	11	-	-	-	-	-	7	-	-	-	-	-	4	-	-	-	-	-	21	-	**-**
Pedestrians%	-	-	-	-	22%		-	-	-	-	14%		-	-	-	-	8%		-	-	-	-	42%		**-**
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%		**-**
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	2	-	**-**
Bicycles on Crosswalk%	-	-	-	-	6%		-	-	-	-	0%		-	-	-	-	4%		-	-	-	-	4%		**-**

Peak Hour: 04:00 PM - 05:00 PM Weather: Light Rain (21.06 °C)

Start Time	Southbound AIRPORT RD						Westbound OLD CHURCH RD						Northbound AIRPORT RD						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
16:00:00	19	61	4	0	4	84	48	8	37	0	2	93	3	95	58	0	0	156	6	5	1	0	9	12	345
16:15:00	17	66	2	0	2	85	53	6	52	0	1	111	3	108	57	0	1	168	5	6	1	0	6	12	376
16:30:00	17	63	3	0	0	83	52	7	64	0	0	123	3	107	56	0	1	166	2	1	3	0	8	6	378
16:45:00	14	35	4	0	0	53	51	1	62	0	1	114	5	96	51	0	0	152	8	5	6	0	17	19	338
Grand Total	67	225	13	0	6	305	204	22	215	0	4	441	14	406	222	0	2	642	21	17	11	0	40	49	**1437**
Approach%	22%	73.8%	4.3%	0%		-	46.3%	5%	48.8%	0%		-	2.2%	63.2%	34.6%	0%		-	42.9%	34.7%	22.4%	0%		-	**-**
Totals %	4.7%	15.7%	0.9%	0%		21.2%	14.2%	1.5%	15%	0%		30.7%	1%	28.3%	15.4%	0%		44.7%	1.5%	1.2%	0.8%	0%		3.4%	**-**
PHF	0.88	0.85	0.81	0		0.9	0.96	0.69	0.84	0		0.9	0.7	0.94	0.96	0		0.96	0.66	0.71	0.46	0		0.64	**-**
Heavy	3	48	0	0		51	7	0	8	0		15	0	20	3	0		23	0	0	0	0		0	**-**
Heavy %	4.5%	21.3%	0%	0%		16.7%	3.4%	0%	3.7%	0%		3.4%	0%	4.9%	1.4%	0%		3.6%	0%	0%	0%	0%		0%	**-**
Lights	64	177	13	0		254	197	22	207	0		426	14	386	219	0		619	21	17	11	0		49	**-**
Lights %	95.5%	78.7%	100%	0%		83.3%	96.6%	100%	96.3%	0%		96.6%	100%	95.1%	98.6%	0%		96.4%	100%	100%	100%	0%		100%	**-**
Single-Unit Trucks	2	25	0	0		27	5	0	3	0		8	0	8	2	0		10	0	0	0	0		0	**-**
Single-Unit Trucks %	3%	11.1%	0%	0%		8.9%	2.5%	0%	1.4%	0%		1.8%	0%	2%	0.9%	0%		1.6%	0%	0%	0%	0%		0%	**-**
Buses	1	2	0	0		3	2	0	3	0		5	0	1	1	0		2	0	0	0	0		0	**-**
Buses %	1.5%	0.9%	0%	0%		1%	1%	0%	1.4%	0%		1.1%	0%	0.2%	0.5%	0%		0.3%	0%	0%	0%	0%		0%	**-**
Articulated Trucks	0	21	0	0		21	0	0	2	0		2	0	11	0	0		11	0	0	0	0		0	**-**
Articulated Trucks %	0%	9.3%	0%	0%		6.9%	0%	0%	0.9%	0%		0.5%	0%	2.7%	0%	0%		1.7%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	6	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	40	-	**-**
Pedestrians%	-	-	-	-	11.5%		-	-	-	-	5.8%		-	-	-	-	3.8%		-	-	-	-	76.9%		**-**
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%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	1.9%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 08:00 AM - 09:00 AM **Weather: Light Rain (13.54 °C)**

	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	5
E	0	3
W	0	5

Peak Hour: 12:00 PM - 01:00 PM **Weather: Light Rain (15.1 °C)**

	Bicycles on Crosswalk	Pedestrians
N	3	11
S	2	4
E	0	7
W	2	21

Peak Hour: 04:00 PM - 05:00 PM **Weather: Light Rain (21.06 °C)**

	Bicycles on Crosswalk	Pedestrians
N	0	6
S	0	2
E	1	3
W	0	40

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #23-389 - Candevcon Group Inc.

Intersection Count Report

Intersection:	Cranston Dr & Airport Rd
Municipality:	Caledon
Count Date:	Wednesday, Nov 29, 2023
Site Code:	2338900002
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
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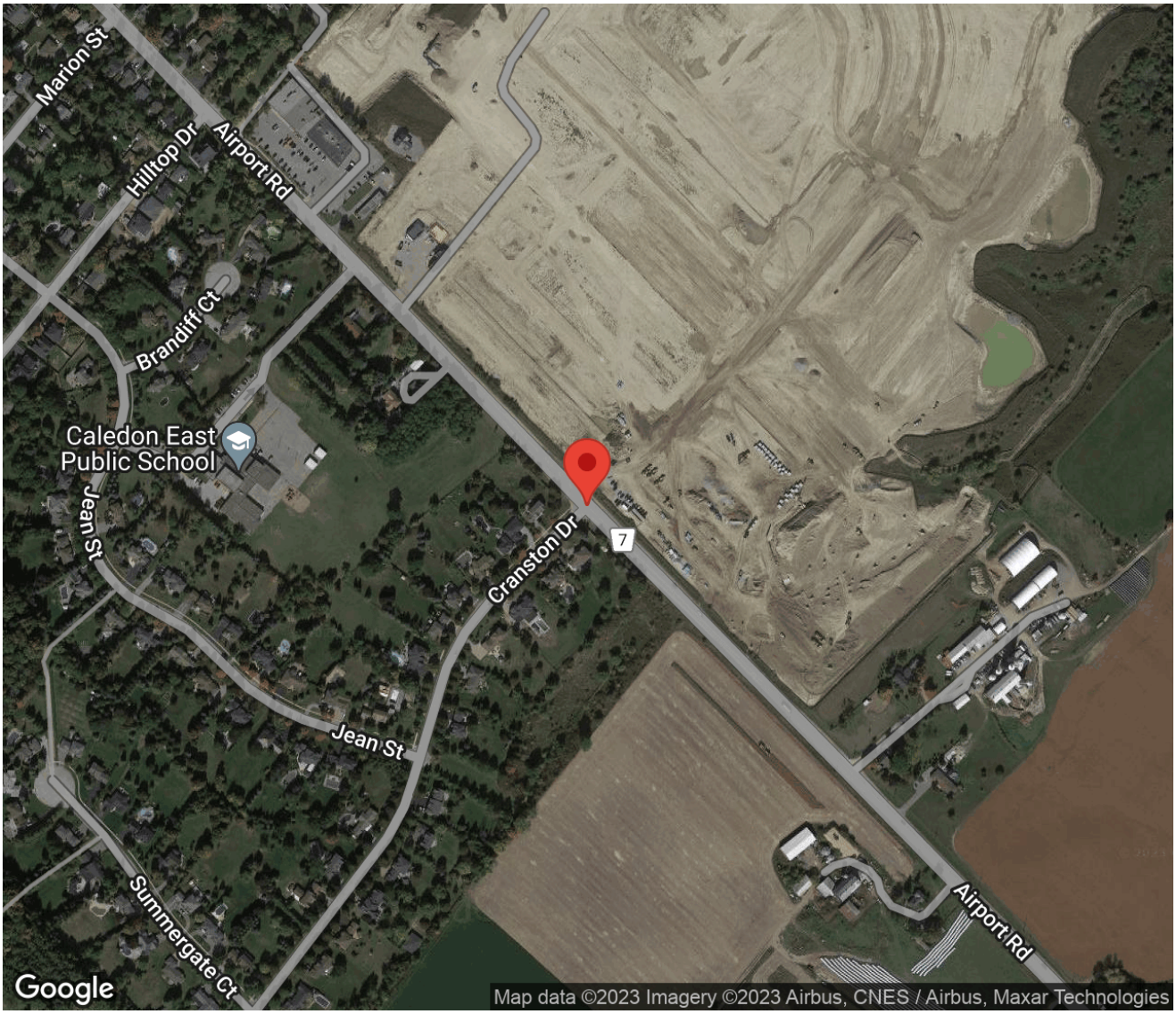
Traffic Count Map

Intersection:	Cranston Dr & Airport Rd
Site Code:	2338900002
Municipality:	Caledon
Count Date:	Nov 29, 2023



Ontario Traffic Inc.
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Traffic Count Summary

Intersection:	Cranston Dr & Airport Rd
Site Code:	2338900002
Municipality:	Caledon
Count Date:	Nov 29, 2023

Airport Rd - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	2	626	4	0	632	0	5	218	5	0	228	7	860
08:00 - 09:00	1	475	3	0	479	1	17	292	3	0	312	0	791
BREAK													
16:00 - 17:00	0	290	6	0	296	1	41	481	3	0	525	0	821
17:00 - 18:00	0	279	9	0	288	1	33	548	1	0	582	0	870
GRAND TOTAL	**3**	**1670**	**22**	**0**	**1695**	**3**	**96**	**1539**	**12**	**0**	**1647**	**7**	**3342**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

Cranston Dr - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	1	0	1	0	2	1	4	0	8	0	12	0	14
08:00 - 09:00	0	0	1	0	1	0	16	1	20	0	37	2	38
BREAK													
16:00 - 17:00	7	0	1	0	8	0	6	0	8	0	14	0	22
17:00 - 18:00	0	0	1	0	1	0	2	0	10	0	12	0	13
GRAND TOTAL	**8**	**0**	**4**	**0**	**12**	**1**	**28**	**1**	**46**	**0**	**75**	**2**	**87**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

North Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	135	1	0	137	0	10	0	0	10	0	0	0	0	0	0
07:15	0	172	1	0	173	0	10	0	0	10	0	0	0	0	0	0
07:30	0	135	2	0	137	0	21	0	0	21	0	0	0	0	0	0
07:45	1	122	0	0	123	0	21	0	0	21	0	0	0	0	0	0
08:00	0	159	0	0	159	0	8	0	0	8	0	0	0	0	0	0
08:15	0	101	1	0	102	0	12	1	0	13	0	0	0	0	0	0
08:30	1	79	0	0	80	0	12	1	0	13	0	0	0	0	0	0
08:45	0	89	0	0	89	0	15	0	0	15	0	0	0	0	0	1
SUBTOTAL	3	992	5	0	1000	0	109	2	0	111	0	0	0	0	0	1

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

North Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	0	63	0	0	63	0	11	0	0	11	0	0	0	0	0	0
16:15	0	57	2	0	59	0	12	0	0	12	0	0	0	0	0	0
16:30	0	65	2	0	67	0	9	0	0	9	0	0	0	0	0	0
16:45	0	58	2	0	60	0	15	0	0	15	0	0	0	0	0	1
17:00	0	45	3	0	48	0	5	0	0	5	0	0	0	0	0	1
17:15	0	74	0	0	74	0	6	0	0	6	0	0	0	0	0	0
17:30	0	71	2	0	73	0	15	0	0	15	0	0	0	0	0	0
17:45	0	59	4	0	63	0	4	0	0	4	0	0	0	0	0	0
SUBTOTAL	0	492	15	0	507	0	77	0	0	77	0	0	0	0	0	2
GRAND TOTAL	3	1484	20	0	1507	0	186	2	0	188	0	0	0	0	0	3

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

South Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	36	1	0	37	0	10	0	0	10	0	0	0	0	0	3
07:15	1	42	0	0	43	0	5	0	0	5	0	0	0	0	0	0
07:30	3	33	1	0	37	1	11	2	0	14	0	0	0	0	0	4
07:45	0	70	0	0	70	0	11	1	0	12	0	0	0	0	0	0
08:00	3	63	0	0	66	0	4	1	0	5	0	0	0	0	0	0
08:15	2	56	0	0	58	0	8	0	0	8	0	0	0	0	0	0
08:30	4	70	1	0	75	1	8	0	0	9	0	0	0	0	0	0
08:45	7	77	1	0	85	0	6	0	0	6	0	0	0	0	0	0
SUBTOTAL	20	447	4	0	471	2	63	4	0	69	0	0	0	0	0	7

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

South Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	
16:00	2	123	0	0	125	0	11	0	0	11	0	0	0	0	0	0
16:15	9	119	1	0	129	0	4	0	0	4	0	0	0	0	0	0
16:30	13	100	0	0	113	0	9	1	0	10	0	0	0	0	0	0
16:45	17	111	0	0	128	0	4	1	0	5	0	0	0	0	0	0
17:00	14	164	0	0	178	0	3	0	0	3	0	0	0	0	0	0
17:15	8	148	1	0	157	0	1	0	0	1	0	0	0	0	0	0
17:30	4	99	0	0	103	0	2	0	0	2	0	0	0	0	0	0
17:45	7	131	0	0	138	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	74	995	2	0	1071	0	34	2	0	36	0	0	0	0	0	0
GRAND TOTAL	**94**	**1442**	**6**	**0**	**1542**	**2**	**97**	**6**	**0**	**105**	**0**	**0**	**0**	**0**	**0**	**7**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

East Approach - Cranston Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

East Approach - Cranston Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	5	0	0	0	5	1	0	0	0	1	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
16:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	6	0	1	0	7	1	0	1	0	2	0	0	0	0	0	0
GRAND TOTAL	7	0	3	0	10	1	0	1	0	2	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

West Approach - Cranston Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0
07:15	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	2	0	4	0	6	0	0	0	0	0	0	0	0	0	0	0
08:00	3	0	6	0	9	0	0	0	0	0	0	0	0	0	0	0
08:15	5	1	7	0	13	1	0	0	0	1	0	0	0	0	0	0
08:30	1	0	1	0	2	0	0	1	0	1	0	0	0	0	0	0
08:45	6	0	5	0	11	0	0	0	0	0	0	0	0	0	0	2
SUBTOTAL	19	1	27	0	47	1	0	1	0	2	0	0	0	0	0	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Municipality: Caledon
Count Date: Nov 29, 2023

West Approach - Cranston Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	3	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0
16:15	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
16:45	1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0
17:00	2	0	5	0	7	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	8	0	18	0	26	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	**27**	**1**	**45**	**0**	**73**	**1**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:15:00
To:	09:00:00	To:	08:15:00

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Count Date: Nov 29, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Airport Rd runs N/S

North Approach

	Out	In	Total
Cars	592	215	807
Trucks	60	31	91
Bicycles	0	0	0
	652	**246**	**898**

Airport Rd

Bicycles	0	0	0	0
Trucks	0	60	0	0
Cars	3	588	1	0
Totals	**3**	**648**	**1**	**0**

East Approach

	Out	In	Total
Cars	2	2	4
Trucks	0	4	4
Bicycles	0	0	0
	2	**6**	**8**

Cranston Dr

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	6	**6**	
0	0	0	**0**	
0	0	12	**12**	

Peds: 0

Peds: 1

Cranston Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	1	1	0	0
	0	0	0	0
	1	1	0	0

Peds: 4

West Approach

	Out	In	Total
Cars	18	10	28
Trucks	0	1	1
Bicycles	0	0	0
	18	**11**	**29**

Airport Rd

Totals	**8**	**239**	**5**	**0**
Cars	7	208	1	0
Trucks	1	31	4	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	216	601	817
Trucks	36	60	96
Bicycles	0	0	0
	252	**661**	**913**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection:	Cranston Dr & Airport Rd
Site Code:	2338900002
Count Date:	Nov 29, 2023
Period:	07:00 - 09:00

Peak Hour Data (07:15 - 08:15)

Start Time	North Approach Airport Rd						South Approach Airport Rd						East Approach Cranston Dr						West Approach Cranston Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:15	0	182	1	0	0	183	1	47	0	0	0	48	0	0	0	0	1	0	1	0	2	0	0	3	234
07:30	0	156	2	0	0	158	4	44	3	0	4	51	0	0	0	0	0	0	0	0	0	0	0	0	209
07:45	1	143	0	0	0	144	0	81	1	0	0	82	1	0	1	0	0	2	2	0	4	0	0	6	234
08:00	0	167	0	0	0	167	3	67	1	0	0	71	0	0	0	0	0	0	3	0	6	0	0	9	247
Grand Total	**1**	**648**	**3**	**0**	**0**	**652**	**8**	**239**	**5**	**0**	**4**	**252**	**1**	**0**	**1**	**0**	**1**	**2**	**6**	**0**	**12**	**0**	**0**	**18**	**924**
Approach %	0.2	99.4	0.5	0		-	3.2	94.8	2	0		-	50	0	50	0		-	33.3	0	66.7	0		-	
Totals %	0.1	70.1	0.3	0		70.6	0.9	25.9	0.5	0		27.3	0.1	0	0.1	0		0.2	0.6	0	1.3	0		1.9	
PHF	**0.25**	**0.89**	**0.38**	**0**		**0.89**	**0.5**	**0.74**	**0.42**	**0**		**0.77**	**0.25**	**0**	**0.25**	**0**		**0.25**	**0.5**	**0**	**0.5**	**0**		**0.5**	**0.94**
Cars	1	588	3	0		592	7	208	1	0		216	1	0	1	0		2	6	0	12	0		18	828
% Cars	100	90.7	100	0		90.8	87.5	87	20	0		85.7	100	0	100	0		100	100	0	100	0		100	89.6
Trucks	0	60	0	0		60	1	31	4	0		36	0	0	0	0		0	0	0	0	0		0	96
% Trucks	0	9.3	0	0		9.2	12.5	13	80	0		14.3	0	0	0	0		0	0	0	0	0		0	10.4
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					4	-					1	-					0	-	5
% Peds					0	-					80	-					20	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:30:00
To:	18:00:00	To:	17:30:00

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Count Date: Nov 29, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Airport Rd runs N/S

North Approach

	Out	In	Total
Cars	249	527	776
Trucks	35	18	53
Bicycles	0	0	0
	284	**545**	**829**

Airport Rd

Bicycles	0	0	0	0
Trucks	0	35	0	0
Cars	7	242	0	0
Totals	**7**	**277**	**0**	**0**

East Approach

	Out	In	Total
Cars	2	1	3
Trucks	1	2	3
Bicycles	0	0	0
	3	**3**	**6**

Peds: 2

Cranston Dr

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	3	**3**
0	0	0	**0**
0	0	11	**11**

Peds: 0

Peds: 0

Cranston Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	2	1	1	0
	0	0	0	0
	1	1	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	14	59	73
Trucks	0	0	0
Bicycles	0	0	0
	14	**59**	**73**

Airport Rd

Totals	**52**	**540**	**3**	**0**
Cars	52	523	1	0
Trucks	0	17	2	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	576	254	830
Trucks	19	35	54
Bicycles	0	0	0
	595	**289**	**884**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Cranston Dr & Airport Rd
Site Code: 2338900002
Count Date: Nov 29, 2023
Period: 16:00 - 18:00

Peak Hour Data (16:30 - 17:30)

Start Time	North Approach Airport Rd						South Approach Airport Rd						East Approach Cranston Dr						West Approach Cranston Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:30	0	74	2	0	0	76	13	109	1	0	0	123	0	0	1	0	0	1	0	0	1	0	0	1	201
16:45	0	73	2	0	1	75	17	115	1	0	0	133	1	0	0	0	0	1	1	0	3	0	0	4	213
17:00	0	50	3	0	1	53	14	167	0	0	0	181	0	0	1	0	0	1	2	0	5	0	0	7	242
17:15	0	80	0	0	0	80	8	149	1	0	0	158	0	0	0	0	0	0	0	0	2	0	0	2	240
Grand Total	**0**	**277**	**7**	**0**	**2**	**284**	**52**	**540**	**3**	**0**	**0**	**595**	**1**	**0**	**2**	**0**	**0**	**3**	**3**	**0**	**11**	**0**	**0**	**14**	**896**
Approach %	0	97.5	2.5	0		-	8.7	90.8	0.5	0		-	33.3	0	66.7	0		-	21.4	0	78.6	0		-	
Totals %	0	30.9	0.8	0		31.7	5.8	60.3	0.3	0		66.4	0.1	0	0.2	0		0.3	0.3	0	1.2	0		1.6	
PHF	**0**	**0.87**	**0.58**	**0**		**0.89**	**0.76**	**0.81**	**0.75**	**0**		**0.82**	**0.25**	**0**	**0.5**	**0**		**0.75**	**0.38**	**0**	**0.55**	**0**		**0.5**	**0.93**
Cars	0	242	7	0		249	52	523	1	0		576	1	0	1	0		2	3	0	11	0		14	841
% Cars	0	87.4	100	0		87.7	100	96.9	33.3	0		96.8	100	0	50	0		66.7	100	0	100	0		100	93.9
Trucks	0	35	0	0		35	0	17	2	0		19	0	0	1	0		1	0	0	0	0		0	55
% Trucks	0	12.6	0	0		12.3	0	3.1	66.7	0		3.2	0	0	50	0		33.3	0	0	0	0		0	6.1
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					2	-					0	-					0	-					0	-	2
% Peds					100	-					0	-					0	-					0	-	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #23-389 - Candevcon Group Inc.

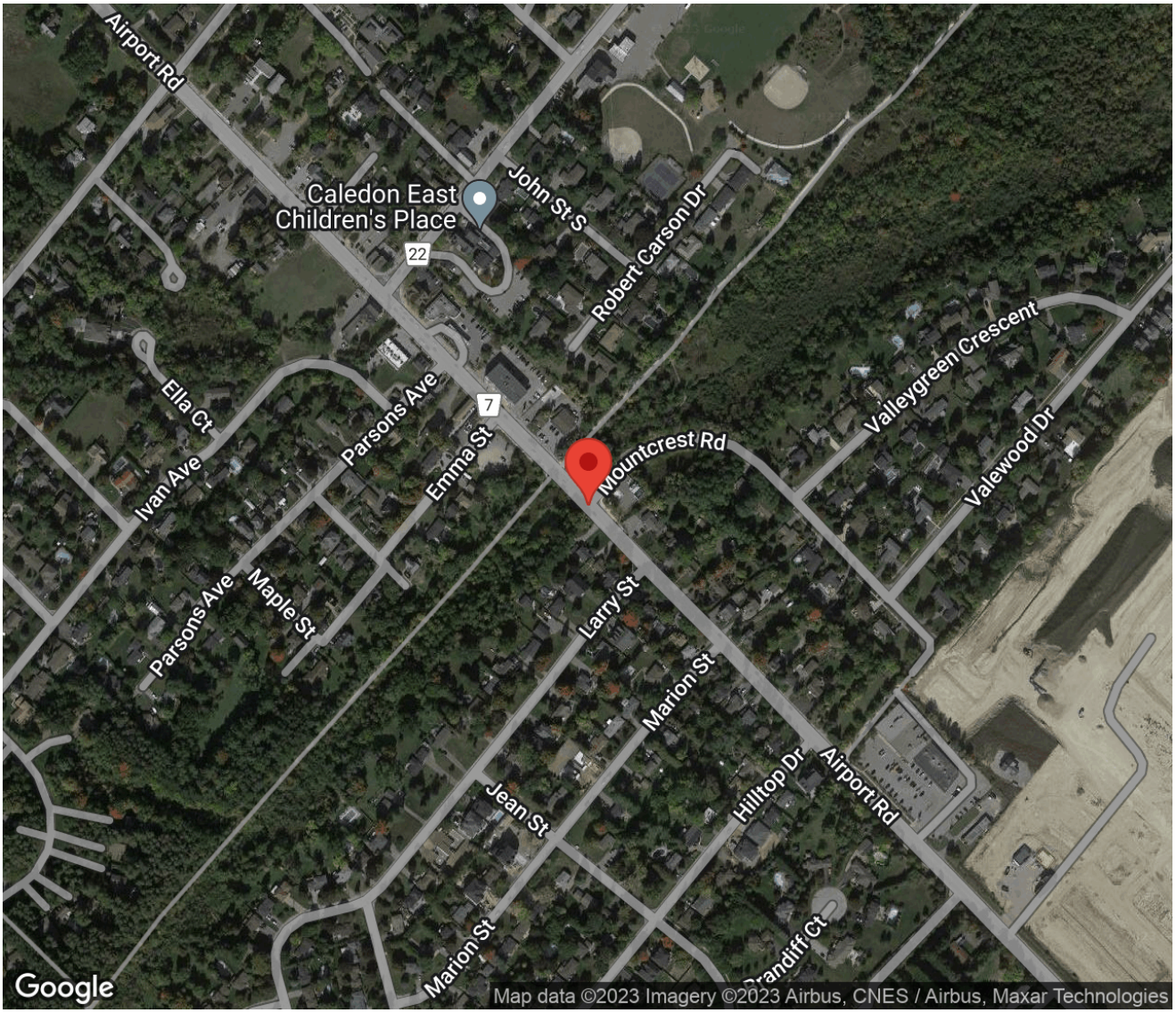
Intersection Count Report

Intersection:	Mountcrest Rd & Airport Rd
Municipality:	Caledon
Count Date:	Wednesday, Nov 29, 2023
Site Code:	2338900001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-18:00
Weather:	Clear
Comments:	

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Map

Intersection:	Mountcrest Rd & Airport Rd
Site Code:	2338900001
Municipality:	Caledon
Count Date:	Nov 29, 2023



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Mountcrest Rd & Airport Rd
Site Code:	2338900001
Municipality:	Caledon
Count Date:	Nov 29, 2023

Airport Rd - Traffic Summary

	North Approach Totals						South Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	0	500	0	0	500	0	0	181	1	0	182	0	682
08:00 - 09:00	8	462	0	0	470	1	0	301	5	0	306	0	776
BREAK													
16:00 - 17:00	8	328	0	0	336	0	0	534	9	0	543	0	879
17:00 - 18:00	12	297	0	0	309	0	0	475	11	0	486	0	795
GRAND TOTAL	**28**	**1587**	**0**	**0**	**1615**	**1**	**0**	**1491**	**26**	**0**	**1517**	**0**	**3132**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Mountcrest Rd & Airport Rd
Site Code:	2338900001
Municipality:	Caledon
Count Date:	Nov 29, 2023

Mountcrest Rd - Traffic Summary

	East Approach Totals						West Approach Totals						
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	11	0	3	0	14	1	0	0	0	0	0	0	14
08:00 - 09:00	10	0	12	0	22	2	0	0	0	0	0	0	22
BREAK													
16:00 - 17:00	2	0	6	0	8	0	0	0	0	0	0	0	8
17:00 - 18:00	1	0	9	0	10	0	0	0	0	0	0	0	10
GRAND TOTAL	**24**	**0**	**30**	**0**	**54**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**54**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Municipality: Caledon
Count Date: Nov 29, 2023

North Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	116	0	0	116	0	13	0	0	13	0	0	0	0	0	0
07:15	0	103	0	0	103	0	8	0	0	8	0	0	0	0	0	0
07:30	0	105	0	0	105	0	16	0	0	16	0	0	0	0	0	0
07:45	0	119	0	0	119	0	20	0	0	20	0	0	0	0	0	0
08:00	2	123	0	0	125	0	9	0	0	9	0	0	0	0	0	0
08:15	3	120	0	0	123	1	14	0	0	15	0	0	0	0	0	0
08:30	0	66	0	0	66	0	14	0	0	14	0	0	0	0	0	0
08:45	1	99	0	0	100	1	17	0	0	18	0	0	0	0	0	1
SUBTOTAL	6	851	0	0	857	2	111	0	0	113	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Municipality: Caledon
Count Date: Nov 29, 2023

North Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	0	65	0	0	65	0	9	0	0	9	0	0	0	0	0	0
16:15	2	84	0	0	86	0	12	0	0	12	0	0	0	0	0	0
16:30	6	75	0	0	81	0	7	0	0	7	0	1	0	0	1	0
16:45	0	65	0	0	65	0	10	0	0	10	0	0	0	0	0	0
17:00	4	70	0	0	74	0	10	0	0	10	0	0	0	0	0	0
17:15	2	66	0	0	68	0	7	0	0	7	0	0	0	0	0	0
17:30	2	76	0	0	78	0	11	0	0	11	0	0	0	0	0	0
17:45	4	55	0	0	59	0	2	0	0	2	0	0	0	0	0	0
SUBTOTAL	20	556	0	0	576	0	68	0	0	68	0	1	0	0	1	0
GRAND TOTAL	26	1407	0	0	1433	2	179	0	0	181	0	1	0	0	1	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Municipality: Caledon
Count Date: Nov 29, 2023

South Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	35	0	0	35	0	10	0	0	10	0	0	0	0	0	0
07:15	0	27	0	0	27	0	2	0	0	2	0	0	0	0	0	0
07:30	0	37	0	0	37	0	9	0	0	9	0	0	0	0	0	0
07:45	0	49	1	0	50	0	11	0	0	11	0	1	0	0	1	0
08:00	0	72	2	0	74	0	5	0	0	5	0	0	0	0	0	0
08:15	0	72	1	0	73	0	6	0	0	6	0	0	0	0	0	0
08:30	0	60	1	0	61	0	6	0	0	6	0	0	0	0	0	0
08:45	0	74	0	0	74	0	6	1	0	7	0	0	0	0	0	0
SUBTOTAL	0	426	5	0	431	0	55	1	0	56	0	1	0	0	1	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Municipality: Caledon
Count Date: Nov 29, 2023

South Approach - Airport Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
16:00	0	121	2	0	123	0	3	0	0	3	0	0	0	0	0	0
16:15	0	170	2	0	172	0	6	0	0	6	0	0	0	0	0	0
16:30	0	123	2	0	125	0	3	0	0	3	0	0	0	0	0	0
16:45	0	103	3	0	106	0	5	0	0	5	0	0	0	0	0	0
17:00	0	134	4	0	138	0	7	0	0	7	0	0	0	0	0	0
17:15	0	119	1	0	120	0	2	0	0	2	0	0	0	0	0	0
17:30	0	86	3	0	89	0	0	0	0	0	0	0	0	0	0	0
17:45	0	127	3	0	130	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	983	20	0	1003	0	26	0	0	26	0	0	0	0	0	0
GRAND TOTAL	0	1409	25	0	1434	0	81	1	0	82	0	1	0	0	1	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Municipality: Caledon
Count Date: Nov 29, 2023

East Approach - Mountcrest Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
07:15	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1
07:30	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:45	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0
08:00	3	0	3	0	6	0	0	0	0	0	0	0	0	0	0	0
08:15	1	0	3	0	4	1	0	0	0	1	0	0	0	0	0	0
08:30	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0
08:45	2	0	2	0	4	1	0	1	0	2	0	0	0	0	0	2
SUBTOTAL	19	0	14	0	33	2	0	1	0	3	0	0	0	0	0	3

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Municipality: Caledon
Count Date: Nov 29, 2023

East Approach - Mountcrest Rd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
16:30	1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
17:00	1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	3	0	15	0	18	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	**22**	**0**	**29**	**0**	**51**	**2**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period		One Hour Peak	
From:	07:00:00	From:	07:30:00
To:	09:00:00	To:	08:30:00

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Count Date: Nov 29, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Airport Rd runs N/S

North Approach

	Out	In	Total
Cars	472	239	711
Trucks	60	31	91
Bicycles	0	1	1
	532	**271**	**803**

Airport Rd

Bicycles	0	0	0
Trucks	59	1	0
Cars	467	5	0
Totals	**526**	**6**	**0**

Peds: 0

Peds: 0

Peds: 0

Totals	**262**	**4**	**0**
Cars	230	4	0
Trucks	31	0	0
Bicycles	1	0	0

Airport Rd

East Approach

	Out	In	Total
Cars	17	9	26
Trucks	1	1	2
Bicycles	0	0	0
	18	**10**	**28**

Mountcrest Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	9	9	0	0
	9	8	1	0

South Approach

	Out	In	Total
Cars	234	475	709
Trucks	31	60	91
Bicycles	1	0	1
	266	**535**	**801**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Count Date: Nov 29, 2023
Period: 07:00 - 09:00

Peak Hour Data (07:30 - 08:30)

Start Time	North Approach Airport Rd						South Approach Airport Rd						East Approach Mountcrest Rd						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
07:30	0	121		0	0	121		46	0	0	0	46	2		0	0	0	2					0		169
07:45	0	139		0	0	139		61	1	0	0	62	2		3	0	0	5					0		206
08:00	2	132		0	0	134		77	2	0	0	79	3		3	0	0	6					0		219
08:15	4	134		0	0	138		78	1	0	0	79	2		3	0	0	5					0		222
Grand Total	**6**	**526**		**0**	**0**	**532**		**262**	**4**	**0**	**0**	**266**	**9**		**9**	**0**	**0**	**18**					**0**	**0**	**816**
Approach %	1.1	98.9		0		-		98.5	1.5	0		-	50		50	0		-						-	
Totals %	0.7	64.5		0		65.2		32.1	0.5	0		32.6	1.1		1.1	0		2.2						0	
PHF	**0.38**	**0.95**		**0**		**0.96**		**0.84**	**0.5**	**0**		**0.84**	**0.75**		**0.75**	**0**		**0.75**						**0**	**0.92**
Cars	5	467		0		472		230	4	0		234	8		9	0		17						0	723
% Cars	83.3	88.8		0		88.7		87.8	100	0		88	88.9		100	0		94.4						0	88.6
Trucks	1	59		0		60		31	0	0		31	1		0	0		1						0	92
% Trucks	16.7	11.2		0		11.3		11.8	0	0		11.7	11.1		0	0		5.6						0	11.3
Bicycles	0	0		0		0		1	0	0		1	0		0	0		0						0	1
% Bicycles	0	0		0		0		0.4	0	0		0.4	0		0	0		0						0	0.1
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Specified Period		One Hour Peak	
From:	16:00:00	From:	16:15:00
To:	18:00:00	To:	17:15:00

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Count Date: Nov 29, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Airport Rd runs N/S

North Approach

	Out	In	Total
Cars	306	539	845
Trucks	39	21	60
Bicycles	1	0	1
	346	**560**	**906**

Airport Rd

Bicycles	1	0	0
Trucks	39	0	0
Cars	294	12	0
Totals	**334**	**12**	**0**

Peds: 0

Peds: 0

Peds: 0

Totals	**551**	**11**	**0**
Cars	530	11	0
Trucks	21	0	0
Bicycles	0	0	0

Airport Rd

East Approach

	Out	In	Total
Cars	11	23	34
Trucks	0	0	0
Bicycles	0	0	0
	11	**23**	**34**

Mountcrest Rd

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	9	9	0	0
	2	2	0	0

South Approach

	Out	In	Total
Cars	541	296	837
Trucks	21	39	60
Bicycles	0	1	1
	562	**336**	**898**

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Mountcrest Rd & Airport Rd
Site Code: 2338900001
Count Date: Nov 29, 2023
Period: 16:00 - 18:00

Peak Hour Data (16:15 - 17:15)

Start Time	North Approach Airport Rd						South Approach Airport Rd						East Approach Mountcrest Rd						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:15	2	96		0	0	98		176	2	0	0	178	0		2	0	0	2					0		278
16:30	6	83		0	0	89		126	2	0	0	128	1		3	0	0	4					0		221
16:45	0	75		0	0	75		108	3	0	0	111	0		1	0	0	1					0		187
17:00	4	80		0	0	84		141	4	0	0	145	1		3	0	0	4					0		233
Grand Total	**12**	**334**		**0**	**0**	**346**		**551**	**11**	**0**	**0**	**562**	**2**		**9**	**0**	**0**	**11**					**0**	**0**	**919**
Approach %	3.5	96.5		0		-		98	2	0		-	18.2		81.8	0		-						-	
Totals %	1.3	36.3		0		37.6		60	1.2	0		61.2	0.2		1	0		1.2						0	
PHF	**0.5**	**0.87**		**0**		**0.88**		**0.78**	**0.69**	**0**		**0.79**	**0.5**		**0.75**	**0**		**0.69**						**0**	**0.83**
Cars	12	294		0		306		530	11	0		541	2		9	0		11						0	858
% Cars	100	88		0		88.4		96.2	100	0		96.3	100		100	0		100						0	93.4
Trucks	0	39		0		39		21	0	0		21	0		0	0		0						0	60
% Trucks	0	11.7		0		11.3		3.8	0	0		3.7	0		0	0		0						0	6.5
Bicycles	0	1		0		1		0	0	0		0	0		0	0		0						0	1
% Bicycles	0	0.3		0		0.3		0	0	0		0	0		0	0		0						0	0.1
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

APPENDIX C

SIGNAL TIMING PLANS
RECEIVED BY THE REGION OF PEEL

REGIONAL MUNICIPALITY OF PEEL

Traffic Signal Timing Parameters

Database Date	**November 28, 2023**		**Prepared Date**	**November 28, 2023**
Database Rev	**iNET**		**Completed By**	**TF**
Timing Card / Field rev	**20**		**Checked By**	**JV**

Location — **Airport Road at Old Church Road**

Phase #	Street Name - Direction	Vehicle Minimum (s)	Pedestrian Minimum (s)		Amber (s)	All Red (s)	Time Period (s)		
			WALK	FDWALK			AM SPLITS	OFF MAX	PM SPLITS
1	Not In Use	-	-	-	-	-	-	-	-
2	Airport Road - SB	8.0	8.0	17.0	4.0	3.1	42.0	49.1	42.0
3	Not In Use	-	-	-	-	-	-	-	-
4	Old Church Road - WB	8.0	8.0	10.0	4.0	2.6	28.0	14.6 min, 56.6 max	28.0
5	Not In Use	-	-	-	-	-	-	-	-
6	Airport Road - NB	8.0	8.0	17.0	4.0	3.1	42.0	49.1	42.0
7	Not In Use	-	-	-	-	-	-	-	-
8	Computer Phase - EB	8.0	8.0	10.0	4.0	2.6	28.0	14.6 min, 56.6 max	28.0

System Control
Yes

Semi-Actuated Mode
Yes

TIME (M-F)	PEAK	CYCLE LENGTH (s)	OFFSET (s)
06:30 - 09:00	AM	70	19
09:00 - 15:00 18:30 - 00:00	OFF	FREE	FREE
15:00 - 18:30	PM	70	45

APPENDIX D

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE DEFINITIONS

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	**Excellent.** Progression is extremely favourable and most of the vehicles arrive during the green phase. Most vehicles do not stop at all
B	>10 & ≤ 20	**Very Good.** Good progressing, short cycle lengths or both. More vehicles stop than with LOS "A", causing higher levels of average delay.
C	>20 & ≤ 35	**Good.** Fair progressing, 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.
D	>35 & ≤ 55	**Fair.** At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavourable progression, long cycle lengths, or high V/C ratio. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	>55 & ≤ 80	**Poor.** 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.
F	>80	**Unsatisfactory.** 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 occurs at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delays. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.

Source: *From Highway Capacity Manual Special Report 209-Table 9-1, Page 9-7*

LEVEL OF SERVICE DEFINITIONS

Level of Service Criteria for Two Way Stop Control (TWSC) Intersections

Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	**Excellent.** Large & frequent gaps in traffic on the main roadway. Queuing on the minor street is rare
B	>10 & ≤ 15	**Very Good**. Fewer gaps exist in the traffic on the main roadway. Queuing on the minor street is minimal.
C	>15 & ≤ 25	**Good.** Fewer gaps exist in traffic on the main roadway. Delay on the minor approach becomes more noticeable.
D	>25 & ≤ 35	**Fair.** Infrequent & shorter gaps in traffic on the main roadway. Queuing lengths develop on the minor street.
E	>35 & ≤ 50	**Poor.** Very infrequent gaps in traffic on the main roadway. Queuing lengths become noticeable.
F	>50	**Unsatisfactory.** Very few gaps in traffic on the main roadway. Excessive delays with significant queue lengths on the minor street

Source: *From Highway Capacity Manual Special Report 209-Table 10-7, Page No.10-25*

APPENDIX E

SIGNALIZED AND UN-SIGNALIZED INTERSECTION CAPACITY ANALYSIS FOR EXISTING (2023), FUTURE (2029) TOTAL BACKGROUND AND FUTURE (2029) TOTAL TRAFFIC SCENARIOS

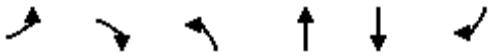
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	3	0	219	2	46	0	164	156	82	299	0
Future Volume (vph)	0	3	0	219	2	46	0	164	156	82	299	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.7	3.6	3.5	3.7	3.6	3.6	3.7	3.5	3.6	3.7	3.6
Storage Length (m)	0.0		0.0	0.0		22.0	0.0		45.0	0.0		0.0
Storage Lanes	0		0	1		1	0		1	0		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	0	1921	0	1716	1584	0	0	1575	1493	0	1691	0
Flt Permitted				0.950							0.897	
Satd. Flow (perm)	0	1921	0	1700	1584	0	0	1575	1457	0	1533	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					46				156			
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		79.0			244.6			1296.8			96.6	
Travel Time (s)		5.7			17.6			93.4			7.0	
Confl. Peds. (#/hr)			5	5			5		3	3		5
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	4%	0%	4%	0%	22%	7%	10%	13%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	219	48	0	0	164	156	0	381	0
Turn Type		NA		Split	NA			NA	custom	Perm	NA	
Protected Phases				4!	4			6			2	
Permitted Phases	8	8!					6		2	2		
Detector Phase	8	8		4	4		6	6	2	2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		32.1	32.1	32.1	32.1	32.1	
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0	42.0	42.0	42.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.6		6.6	6.6			7.1	7.1		7.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		14.1		14.1	14.1			42.2	42.2		42.2	
Actuated g/C Ratio		0.20		0.20	0.20			0.60	0.60		0.60	
v/c Ratio		0.01		0.63	0.13			0.17	0.17		0.41	
Control Delay		19.7		33.3	8.1			7.8	2.1		10.1	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		19.7		33.3	8.1			7.8	2.1		10.1	
LOS		B		C	A			A	A		B	
Approach Delay		19.7			28.7			5.0			10.1	
Approach LOS		B			C			A			B	
Queue Length 50th (m)		0.4		27.8	0.2			8.9	0.0		24.7	
Queue Length 95th (m)		2.1		44.3	7.4			21.0	7.7		51.9	
Internal Link Dist (m)		55.0			220.6			1272.8			72.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)									45.0			
Base Capacity (vph)		587		524	516			948	939		923	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.01		0.42	0.09			0.17	0.17		0.41	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 19 (27%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 77.8%		ICU Level of Service D	
Analysis Period (min) 15			

! Phase conflict between lane groups.

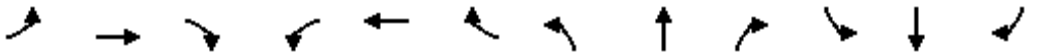
Splits and Phases: 5: Airport Road & Private Site Access/Old Church Road



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	12	8	239	648	3
Future Volume (Veh/h)	6	12	8	239	648	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	12	8	239	648	3
Pedestrians				4		
Lane Width (m)				3.6		
Walking Speed (m/s)				1.2		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	903	652	651			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	903	652	651			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.3			
p0 queue free %	98	97	99			
cM capacity (veh/h)	308	470	885			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	18	8	239	648	3
Volume Left	6	8	0	0	0
Volume Right	12	0	0	0	3
cSH	400	885	1700	1700	1700
Volume to Capacity	0.05	0.01	0.14	0.38	0.00
Queue Length 95th (m)	1.1	0.2	0.0	0.0	0.0
Control Delay (s)	14.4	9.1	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	14.4	0.3		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		



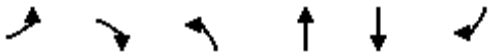
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	17	11	207	22	218	14	412	225	68	228	13
Future Volume (vph)	21	17	11	207	22	218	14	412	225	68	228	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.7	3.6	3.5	3.7	3.6	3.6	3.7	3.5	3.6	3.7	3.6
Storage Length (m)	0.0		0.0	0.0		22.0	0.0		45.0	0.0		0.0
Storage Lanes	0		0	1		1	0		1	0		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	0	1815	0	1733	1556	0	0	1829	1581	0	1615	0
Flt Permitted		0.770		0.950				0.986			0.838	
Satd. Flow (perm)	0	1422	0	1727	1556	0	0	1805	1541	0	1367	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			218				225		5	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		79.0			244.6			1296.8			96.6	
Travel Time (s)		5.7			17.6			93.4			7.0	
Confl. Peds. (#/hr)	6		2	2		6	40		4	4		40
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	3%	0%	4%	0%	5%	1%	5%	21%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	207	240	0	0	426	225	0	309	0
Turn Type	custom	NA		Split	NA		Perm	NA	custom	Perm	NA	
Protected Phases				4!	4			6			2	
Permitted Phases	8	8!					6		2	2		
Detector Phase	8	8		4	4		6	6	2	2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		32.1	32.1	32.1	32.1	32.1	
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0	42.0	42.0	42.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.6		6.6	6.6			7.1	7.1		7.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		13.7		13.7	13.7			42.6	42.6		42.6	
Actuated g/C Ratio		0.20		0.20	0.20			0.61	0.61		0.61	
v/c Ratio		0.17		0.61	0.50			0.39	0.22		0.37	
Control Delay		19.0		32.8	8.4			9.3	1.9		9.5	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		19.0		32.8	8.4			9.3	1.9		9.5	
LOS		B		C	A			A	A		A	
Approach Delay		19.0			19.7			6.7			9.5	
Approach LOS		B			B			A			A	
Queue Length 50th (m)		4.4		26.3	2.5			26.5	0.0		18.6	
Queue Length 95th (m)		11.6		41.7	18.0			54.7	9.1		42.0	
Internal Link Dist (m)		55.0			220.6			1272.8			72.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)									45.0			
Base Capacity (vph)		442		529	627			1097	1025		832	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.11		0.39	0.38			0.39	0.22		0.37	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 45 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 11.7		Intersection LOS: B	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

! Phase conflict between lane groups.

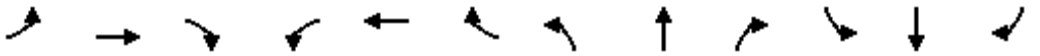
Splits and Phases: 5: Airport Road & Private Site Access/Old Church Road



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	11	52	540	277	7
Future Volume (Veh/h)	3	11	52	540	277	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	3	11	52	540	277	7
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	923	277	284			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	923	277	284			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	96			
cM capacity (veh/h)	289	767	1290			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	14	52	540	277	7
Volume Left	3	52	0	0	0
Volume Right	11	0	0	0	7
cSH	566	1290	1700	1700	1700
Volume to Capacity	0.02	0.04	0.32	0.16	0.00
Queue Length 95th (m)	0.6	1.0	0.0	0.0	0.0
Control Delay (s)	11.5	7.9	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.5	0.7		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		



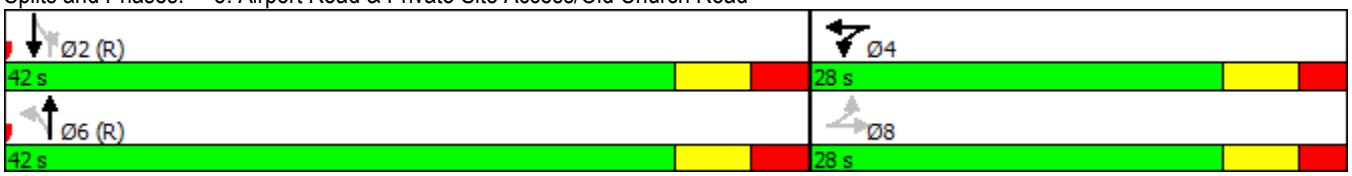
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	3	0	384	2	83	0	341	229	145	444	0
Future Volume (vph)	0	3	0	384	2	83	0	341	229	145	444	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.7	3.6	3.5	3.7	3.6	3.6	3.7	3.5	3.6	3.7	3.6
Storage Length (m)	0.0		0.0	0.0		22.0	0.0		45.0	0.0		0.0
Storage Lanes	0		0	1		1	0		1	0		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	0	1921	0	1716	1579	0	0	1575	1493	0	1691	0
Flt Permitted				0.950							0.796	
Satd. Flow (perm)	0	1921	0	1700	1579	0	0	1575	1457	0	1361	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					83				229			
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		79.0			244.6			1183.9			96.6	
Travel Time (s)		5.7			17.6			85.2			7.0	
Confl. Peds. (#/hr)			5	5			5		3	3		5
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	4%	0%	4%	0%	22%	7%	10%	13%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	384	85	0	0	341	229	0	589	0
Turn Type		NA		Split	NA			NA	custom	Perm	NA	
Protected Phases				4!	4			6			2	
Permitted Phases	8	8!					6		2	2		
Detector Phase	8	8		4	4		6	6	2	2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		32.1	32.1	32.1	32.1	32.1	
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0	42.0	42.0	42.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.6		6.6	6.6			7.1	7.1		7.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		19.2		19.2	19.2			37.1	37.1		37.1	
Actuated g/C Ratio		0.27		0.27	0.27			0.53	0.53		0.53	
v/c Ratio		0.01		0.82	0.17			0.41	0.26		0.82	
Control Delay		17.0		38.9	6.0			12.4	2.4		26.6	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		17.0		38.9	6.0			12.4	2.4		26.6	
LOS		B		D	A			B	A		C	
Approach Delay		17.0			33.0			8.4			26.6	
Approach LOS		B			C			A			C	
Queue Length 50th (m)		0.3		47.4	0.2			27.7	0.0		66.0	
Queue Length 95th (m)		2.0		#85.6	9.3			47.8	9.9		#131.7	
Internal Link Dist (m)		55.0			220.6			1159.9			72.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)									45.0			
Base Capacity (vph)		587		524	540			835	880		722	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.01		0.73	0.16			0.41	0.26		0.82	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 19 (27%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 22.0 Intersection LOS: C
Intersection Capacity Utilization 97.5% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

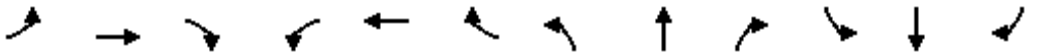
Splits and Phases: 5: Airport Road & Private Site Access/Old Church Road



Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	22	86	366	991
Demand Flow Rate, veh/h	22	87	411	1078
Vehicles Circulating, veh/h	1133	392	20	110
Vehicles Exiting, veh/h	55	39	1135	369
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	4	0
Ped Cap Adj	1.000	1.000	0.996	1.000
Approach Delay, s/veh	7.6	5.2	5.4	10.3
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	22	87	193	218	507	571
Cap Entry Lane, veh/h	511	859	1113	1114	1040	1046
Entry HV Adj Factor	1.000	0.989	0.892	0.891	0.918	0.919
Flow Entry, veh/h	22	86	172	194	466	525
Cap Entry, veh/h	511	849	989	988	955	962
V/C Ratio	0.043	0.101	0.174	0.197	0.487	0.546
Control Delay, s/veh	7.6	5.2	5.3	5.5	9.7	10.9
LOS	A	A	A	A	A	B
95th %tile Queue, veh	0	0	1	1	3	3



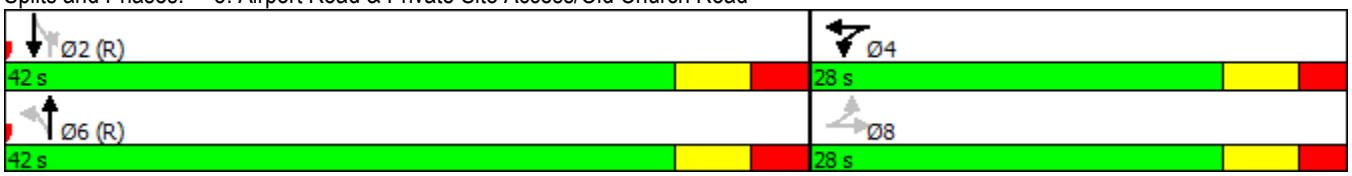
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	17	11	288	22	307	14	635	289	118	418	13
Future Volume (vph)	21	17	11	288	22	307	14	635	289	118	418	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.7	3.6	3.5	3.7	3.6	3.6	3.7	3.5	3.6	3.7	3.6
Storage Length (m)	0.0		0.0	0.0		22.0	0.0		45.0	0.0		0.0
Storage Lanes	0		0	1		1	0		1	0		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	0	1815	0	1733	1546	0	0	1830	1581	0	1615	0
Flt Permitted		0.699		0.950				0.985			0.607	
Satd. Flow (perm)	0	1292	0	1727	1546	0	0	1803	1541	0	991	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			201				289		2	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		79.0			244.6			1216.6			96.6	
Travel Time (s)		5.7			17.6			87.6			7.0	
Confl. Peds. (#/hr)	6		2	2		6	40		4	4		40
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	3%	0%	4%	0%	5%	1%	5%	21%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	288	329	0	0	649	289	0	549	0
Turn Type	custom	NA		Split	NA		Perm	NA	custom	Perm	NA	
Protected Phases				4!	4			6			2	
Permitted Phases	8	8!					6		2	2		
Detector Phase	8	8		4	4		6	6	2	2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		32.1	32.1	32.1	32.1	32.1	
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0	42.0	42.0	42.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.6		6.6	6.6			7.1	7.1		7.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		16.6		16.6	16.6			39.7	39.7		39.7	
Actuated g/C Ratio		0.24		0.24	0.24			0.57	0.57		0.57	
v/c Ratio		0.16		0.70	0.63			0.64	0.29		0.98	
Control Delay		16.9		33.3	14.7			15.0	2.2		52.9	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		16.9		33.3	14.7			15.0	2.2		52.9	
LOS		B		C	B			B	A		D	
Approach Delay		16.9			23.4			11.1			52.9	
Approach LOS		B			C			B			D	
Queue Length 50th (m)		4.1		36.3	14.6			55.3	0.0		66.8	
Queue Length 95th (m)		11.2		55.7	36.1			105.4	10.9		#147.5	
Internal Link Dist (m)		55.0			220.6			1192.6			72.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)									45.0			
Base Capacity (vph)		402		529	612			1021	998		562	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.12		0.54	0.54			0.64	0.29		0.98	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 45 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 103.5% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Splits and Phases: 5: Airport Road & Private Site Access/Old Church Road



Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	15	30	896	496
Demand Flow Rate, veh/h	15	30	920	557
Vehicles Circulating, veh/h	559	789	14	92
Vehicles Exiting, veh/h	90	145	560	727
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	2
Ped Cap Adj	1.000	1.000	1.000	0.998
Approach Delay, s/veh	4.9	6.0	7.7	6.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	15	30	432	488	262	295
Cap Entry Lane, veh/h	764	650	1118	1119	1055	1059
Entry HV Adj Factor	1.000	1.000	0.975	0.973	0.890	0.891
Flow Entry, veh/h	15	30	421	475	233	263
Cap Entry, veh/h	764	650	1090	1089	937	942
V/C Ratio	0.020	0.046	0.386	0.436	0.249	0.279
Control Delay, s/veh	4.9	6.0	7.3	8.0	6.4	6.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	2	2	1	1

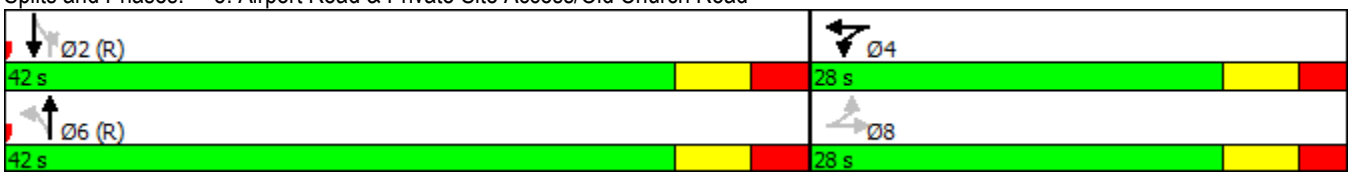
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	3	0	388	2	83	0	341	230	145	448	0
Future Volume (vph)	0	3	0	388	2	83	0	341	230	145	448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.7	3.6	3.5	3.7	3.6	3.6	3.7	3.5	3.6	3.7	3.6
Storage Length (m)	0.0		0.0	0.0		22.0	0.0		45.0	0.0		0.0
Storage Lanes	0		0	1		1	0		1	0		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	0	1921	0	1716	1579	0	0	1575	1493	0	1691	0
Flt Permitted				0.950							0.796	
Satd. Flow (perm)	0	1921	0	1700	1579	0	0	1575	1457	0	1361	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					83				230			
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		79.0			244.6			457.9			96.6	
Travel Time (s)		5.7			17.6			33.0			7.0	
Confl. Peds. (#/hr)			5	5			5		3	3		5
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	4%	0%	4%	0%	22%	7%	10%	13%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	388	85	0	0	341	230	0	593	0
Turn Type		NA		Split	NA			NA	custom	Perm	NA	
Protected Phases				4!	4			6			2	
Permitted Phases	8	8!					6		2	2		
Detector Phase	8	8		4	4		6	6	2	2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		32.1	32.1	32.1	32.1	32.1	
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0	42.0	42.0	42.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.6		6.6	6.6			7.1	7.1		7.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		19.3		19.3	19.3			37.0	37.0		37.0	
Actuated g/C Ratio		0.28		0.28	0.28			0.53	0.53		0.53	
v/c Ratio		0.01		0.82	0.17			0.41	0.26		0.82	
Control Delay		17.0		39.3	6.0			12.5	2.4		27.3	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		17.0		39.3	6.0			12.5	2.4		27.3	
LOS		B		D	A			B	A		C	
Approach Delay		17.0			33.3			8.4			27.3	
Approach LOS		B			C			A			C	
Queue Length 50th (m)		0.3		47.8	0.2			27.9	0.0		67.4	
Queue Length 95th (m)		2.0		#86.8	9.3			47.8	9.9		#132.9	
Internal Link Dist (m)		55.0			220.6			433.9			72.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)									45.0			
Base Capacity (vph)		587		524	540			833	879		720	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.01		0.74	0.16			0.41	0.26		0.82	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 19 (27%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 22.4 Intersection LOS: C
Intersection Capacity Utilization 97.9% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Splits and Phases: 5: Airport Road & Private Site Access/Old Church Road



Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	23	88	366	1003
Demand Flow Rate, veh/h	23	90	411	1092
Vehicles Circulating, veh/h	1147	393	21	110
Vehicles Exiting, veh/h	55	39	1149	372
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	4	0
Ped Cap Adj	1.000	1.000	0.996	1.000
Approach Delay, s/veh	7.7	5.3	5.4	10.5
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	23	90	193	218	513	579
Cap Entry Lane, veh/h	506	858	1112	1113	1040	1046
Entry HV Adj Factor	1.000	0.978	0.892	0.891	0.919	0.918
Flow Entry, veh/h	23	88	172	194	472	532
Cap Entry, veh/h	506	839	988	987	956	961
V/C Ratio	0.045	0.105	0.174	0.197	0.493	0.553
Control Delay, s/veh	7.7	5.3	5.3	5.5	9.8	11.1
LOS	A	A	A	A	A	B
95th %tile Queue, veh	0	0	1	1	3	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	1	508	6	8	846
Future Volume (Veh/h)	12	1	508	6	8	846
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	12	1	508	6	8	846
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1373	511			514	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1373	511			514	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	100			99	
cM capacity (veh/h)	159	563			1052	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	13	514	854
Volume Left	12	0	8
Volume Right	1	6	0
cSH	169	1700	1052
Volume to Capacity	0.08	0.30	0.01
Queue Length 95th (m)	2.0	0.0	0.2
Control Delay (s)	28.1	0.0	0.2
Lane LOS	D		A
Approach Delay (s)	28.1	0.0	0.2
Approach LOS	D		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

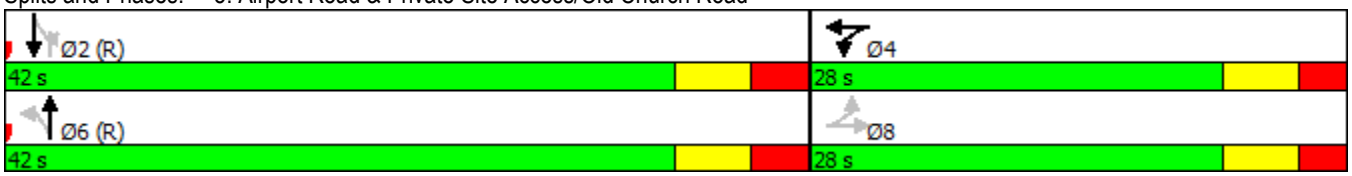
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	17	11	289	22	307	14	638	293	118	418	13
Future Volume (vph)	21	17	11	289	22	307	14	638	293	118	418	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.6	3.7	3.6	3.5	3.7	3.6	3.6	3.7	3.5	3.6	3.7	3.6
Storage Length (m)	0.0		0.0	0.0		22.0	0.0		45.0	0.0		0.0
Storage Lanes	0		0	1		1	0		1	0		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Satd. Flow (prot)	0	1815	0	1733	1546	0	0	1830	1581	0	1615	0
Flt Permitted		0.699		0.950				0.985			0.604	
Satd. Flow (perm)	0	1292	0	1727	1546	0	0	1803	1541	0	986	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			200				293		2	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		79.0			244.6			465.5			96.6	
Travel Time (s)		5.7			17.6			33.5			7.0	
Confl. Peds. (#/hr)	6		2	2		6	40		4	4		40
Peak Hour 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
Heavy Vehicles (%)	0%	0%	0%	3%	0%	4%	0%	5%	1%	5%	21%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	289	329	0	0	652	293	0	549	0
Turn Type	custom	NA		Split	NA		Perm	NA	custom	Perm	NA	
Protected Phases				4!	4			6			2	
Permitted Phases	8	8!					6		2	2		
Detector Phase	8	8		4	4		6	6	2	2	2	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		32.1	32.1	32.1	32.1	32.1	
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0	42.0	42.0	42.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)		6.6		6.6	6.6			7.1	7.1		7.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)		16.6		16.6	16.6			39.7	39.7		39.7	
Actuated g/C Ratio		0.24		0.24	0.24			0.57	0.57		0.57	
v/c Ratio		0.16		0.70	0.63			0.64	0.29		0.98	
Control Delay		16.9		33.4	14.8			15.1	2.2		54.3	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		16.9		33.4	14.8			15.1	2.2		54.3	
LOS		B		C	B			B	A		D	
Approach Delay		16.9			23.5			11.1			54.3	
Approach LOS		B			C			B			D	
Queue Length 50th (m)		4.1		36.4	14.8			55.7	0.0		67.3	
Queue Length 95th (m)		11.2		56.0	36.2			105.9	11.0		#147.9	
Internal Link Dist (m)		55.0			220.6			441.5			72.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (m)									45.0			
Base Capacity (vph)		402		529	611			1021	1000		559	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.12		0.55	0.54			0.64	0.29		0.98	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 45 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 103.8% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Splits and Phases: 5: Airport Road & Private Site Access/Old Church Road



Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	15	30	906	499
Demand Flow Rate, veh/h	15	30	930	560
Vehicles Circulating, veh/h	561	799	16	92
Vehicles Exiting, veh/h	91	147	560	737
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	2
Ped Cap Adj	1.000	1.000	1.000	0.998
Approach Delay, s/veh	4.9	6.1	7.8	6.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	15	30	437	493	263	297
Cap Entry Lane, veh/h	763	646	1116	1117	1055	1059
Entry HV Adj Factor	1.000	1.000	0.974	0.974	0.892	0.891
Flow Entry, veh/h	15	30	426	480	235	265
Cap Entry, veh/h	763	646	1088	1088	939	942
V/C Ratio	0.020	0.046	0.391	0.441	0.250	0.281
Control Delay, s/veh	4.9	6.1	7.4	8.1	6.4	6.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	2	2	1	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	7	841	10	1	591
Future Volume (Veh/h)	6	7	841	10	1	591
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	7	841	10	1	591
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1439	846			851	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1439	846			851	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	98			100	
cM capacity (veh/h)	146	362			788	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	13	851	592
Volume Left	6	0	1
Volume Right	7	10	0
cSH	215	1700	788
Volume to Capacity	0.06	0.50	0.00
Queue Length 95th (m)	1.5	0.0	0.0
Control Delay (s)	22.8	0.0	0.0
Lane LOS	C		A
Approach Delay (s)	22.8	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	23	88	366	1003
Demand Flow Rate, veh/h	23	90	411	1092
Vehicles Circulating, veh/h	1147	393	21	110
Vehicles Exiting, veh/h	55	39	1149	372
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	4	0
Ped Cap Adj	1.000	1.000	0.996	1.000
Approach Delay, s/veh	7.7	5.3	5.4	10.5
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	23	90	193	218	513	579
Cap Entry Lane, veh/h	506	858	1112	1113	1040	1046
Entry HV Adj Factor	1.000	0.978	0.892	0.891	0.919	0.918
Flow Entry, veh/h	23	88	172	194	472	532
Cap Entry, veh/h	506	839	988	987	956	961
V/C Ratio	0.045	0.105	0.174	0.197	0.493	0.553
Control Delay, s/veh	7.7	5.3	5.3	5.5	9.8	11.1
LOS	A	A	A	A	A	B
95th %tile Queue, veh	0	0	1	1	3	3

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	15	30	906	499
Demand Flow Rate, veh/h	15	30	930	560
Vehicles Circulating, veh/h	561	799	16	92
Vehicles Exiting, veh/h	91	147	560	737
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	2
Ped Cap Adj	1.000	1.000	1.000	0.998
Approach Delay, s/veh	4.9	6.1	7.8	6.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Critical Headway, s	4.113	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	15	30	437	493	263	297
Cap Entry Lane, veh/h	763	646	1116	1117	1055	1059
Entry HV Adj Factor	1.000	1.000	0.974	0.974	0.892	0.891
Flow Entry, veh/h	15	30	426	480	235	265
Cap Entry, veh/h	763	646	1088	1088	939	942
V/C Ratio	0.020	0.046	0.391	0.441	0.250	0.281
Control Delay, s/veh	4.9	6.1	7.4	8.1	6.4	6.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	2	2	1	1

APPENDIX F

EXCERPTS FROM BACKGROUND STUDIES

5 Site Traffic Operations

Trip generation forecasts were undertaken using information contained in the *Trip Generation, 9th Edition* published by ITE. For the assessment of traffic generation, the ITE land use code (LUC) 230 was used to estimate residential land use trips for the weekday AM and PM peak hour. The current application is for 671 units including a Senior Adult Housing comprise 30 units. The trips generated by the proposed residential development are outlined in. To be more conservative the fitted curve equation used. The future lane configuration is illustrated in **Figure 5-1**. The trip generation calculation is summarized in **Table 5.2**.

The information contained in the 2011 Transportation Tomorrow Survey (TTS) for zone 3197 (the Subject Zone) has been reviewed but, since there are no residential zones near the subject site, zones 3442, 3386, and 3447 located in the City of Brampton have also been included in the calculations. The subject zone and adjacent TTS Zones have an existing non-auto modal split of approximately 8%. The non-auto modal split calculation is summarized in **Table 5.1**.

Table 5.1 Non-Auto Modal Split Calculation Summary

Zones	Transit Excluding GO Rail	Auto Driver	GO Rail Only	Joint GO Rail and Local Transit	Auto Passenger	School Bus	Walk	Total
3197	117	5317	35	0	987	0	134	6590
3386	1352	15018	206	62	1938	0	31	18607
3442	263	5697	118	242	949	57	0	7326
3447	295	6122	47	47	806	57	57	7431
Total	2033	32154	406	351	4680	114	222	39954
Percent	5%	80%	1%	1%	12%	0%	1%	100%
Non-Auto Reduction								**8%**

Currently, the Town does not operate a transit service. To be more conservative, we will not be applying a non-auto split reduction.

Table 5.2 Site Trip Generation Summary

Use	Parameter	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential Townhouse – 641 Units (LUC 230)	Gross Trip	48	234	282	223	110	333
	Rate (trips / unit)	0.07	0.37	0.44	0.35	0.17	0.52
	Net Trip	**48**	**234**	**282**	**223**	**110**	**333**
Senior Adult Housing – Attached - 30 Units (LUC 252)	Gross Trip	2	4	6	4	4	8
	Rate (trips / unit)	0.07	0.13	0.2	0.14	0.12	0.26
	Net Trip	**2**	**4**	**6**	**4**	**4**	**8**
Gross Total		**50**	**238**	**288**	**227**	**114**	**341**

Based on the foregoing, the proposed development is expected to generate 288 two-way (50 inbound and 238 outbound) trips during the roadway a.m. peak hour and 341 two-way (227 inbound and 114 outbound) trips during the roadway p.m. peak hour.

5.1 Trip Distribution

Trip distribution and assignments will be based on the latest 2011 Transportation Tomorrow Survey (TTS) and existing traffic patterns. The applied trip distribution is summarized in **Table 5.3** with detailed information provided in **Appendix F.**

Table 5.3 Site Trip Distribution

Direction	Via	Proportions (AM/PM)
North	Airport Road	24%
South	Airport Road	54%
East	Old Church Road via Airport Road	10%
West	Olde Base Line Road via Airport Road	12%
Total		**100%**

The site development traffic is assigned to the study area intersections based on the trip distribution presented and the projected site traffic volumes are illustrated in **Figure 5-2.**

5.2 Trip Assignment

The proposed site development traffic volumes noted in **Section 5.0** were assigned to the study area intersections based on the trip distribution presented in **Table 5.3** and are provided in **Figure 5-2**.

6 Future Total Traffic Operations

6.1 2023 Future Total Traffic Analysis – 5-Year Post Build-Out

Future (2023) total traffic volumes are illustrated in **Figure 6-1**. The proposed future total traffic volumes were analyzed using *Synchro 9.0* software with detailed information provided in **Appendix G**. The Synchro output is summarized in **Table 6.1.** The critical movements (i.e. above volume to capacity (v/c) ratio of 0.90 for shared through/turning movements and 1.0 for exclusive movements).

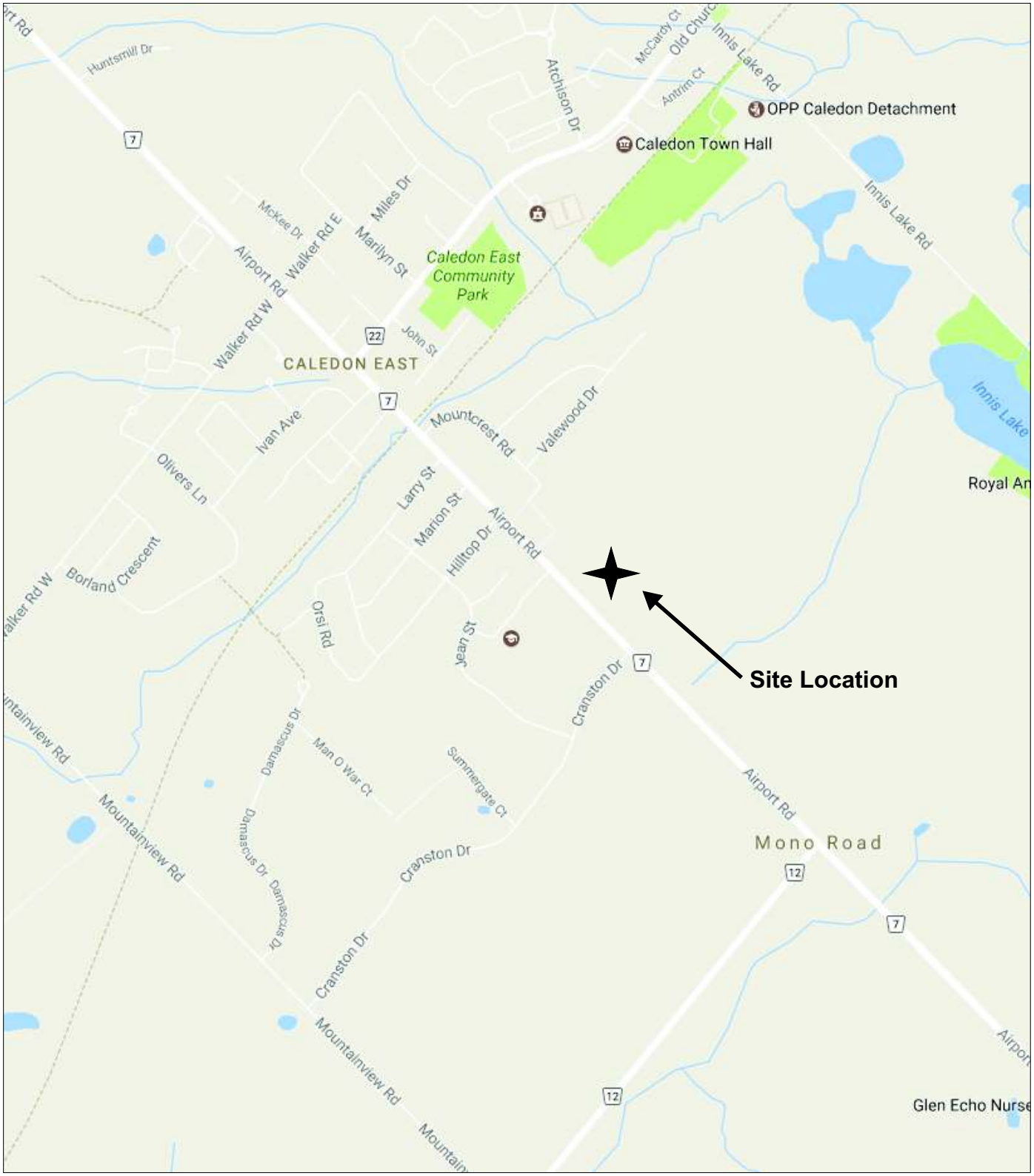


Figure 1-1
Site Location

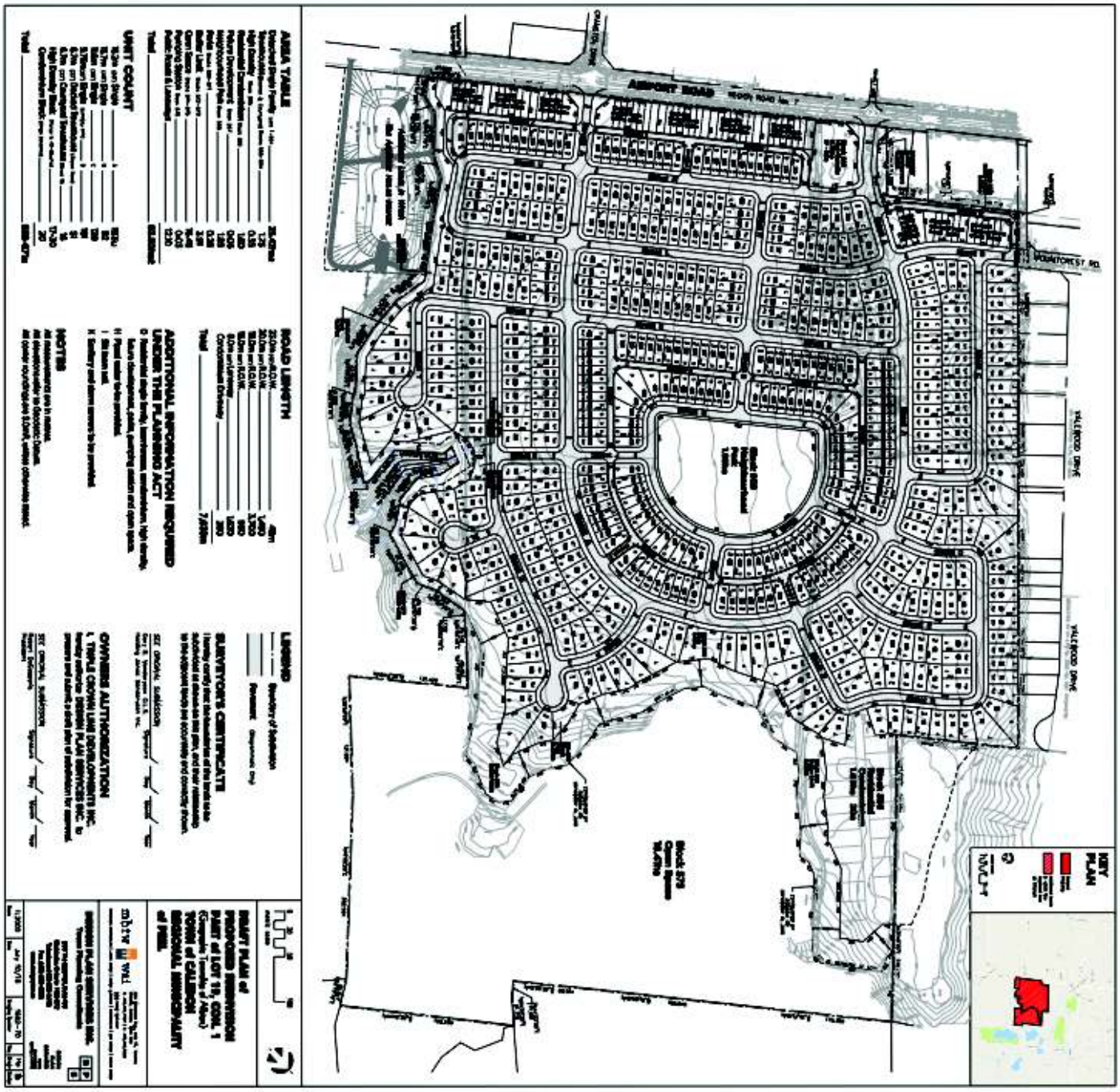
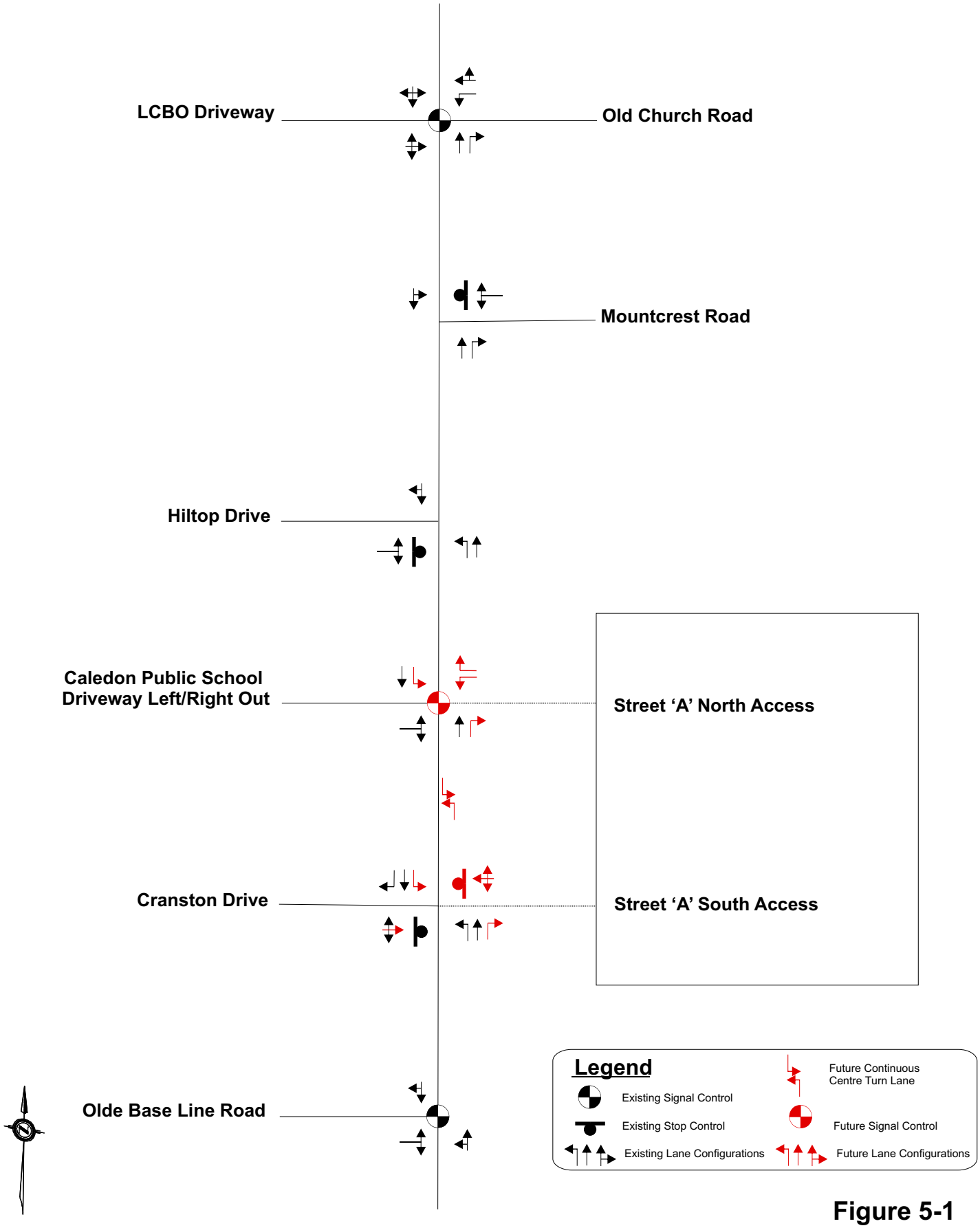
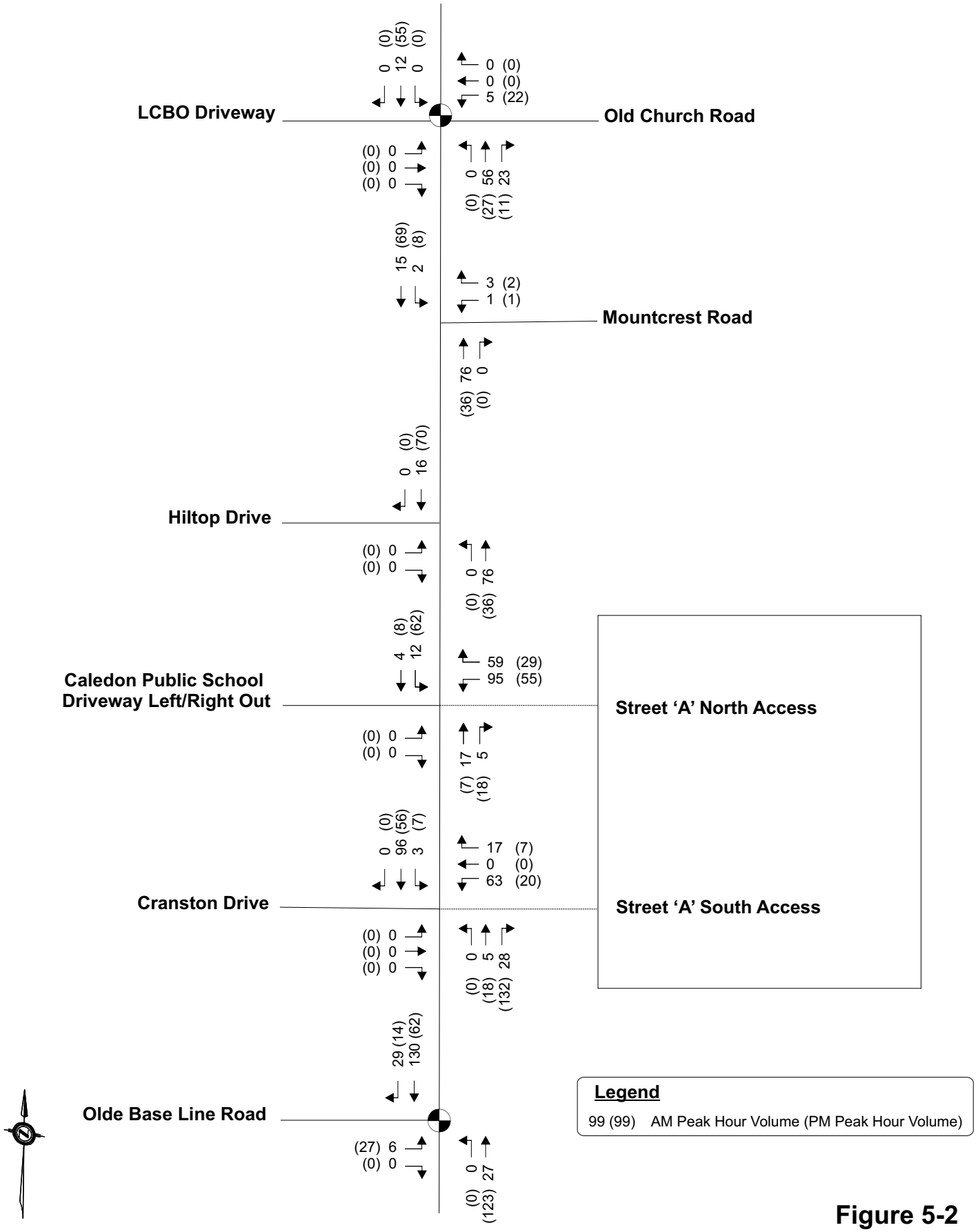


Figure 1-2
Proposed Conceptual Draft Subdivision Plan



N.T.S.

Figure 5-1
Future Lane Configuration



N.T.S.

Figure 5-2
Site Total Traffic Volumes

1.0 INTRODUCTION

Nextrans Consulting Engineers was retained by Ganni Properties Inc. (the 'Client') to undertake a Traffic Operations Assessment for a Site Plan Application in support of a proposed restaurant with ancillary drive-through located southwest of Airport Road and Walker Road, in the Town of Caledon. The location of the proposed development is illustrated in **Figure 1-1**.

Figure 1-1 – Site Location

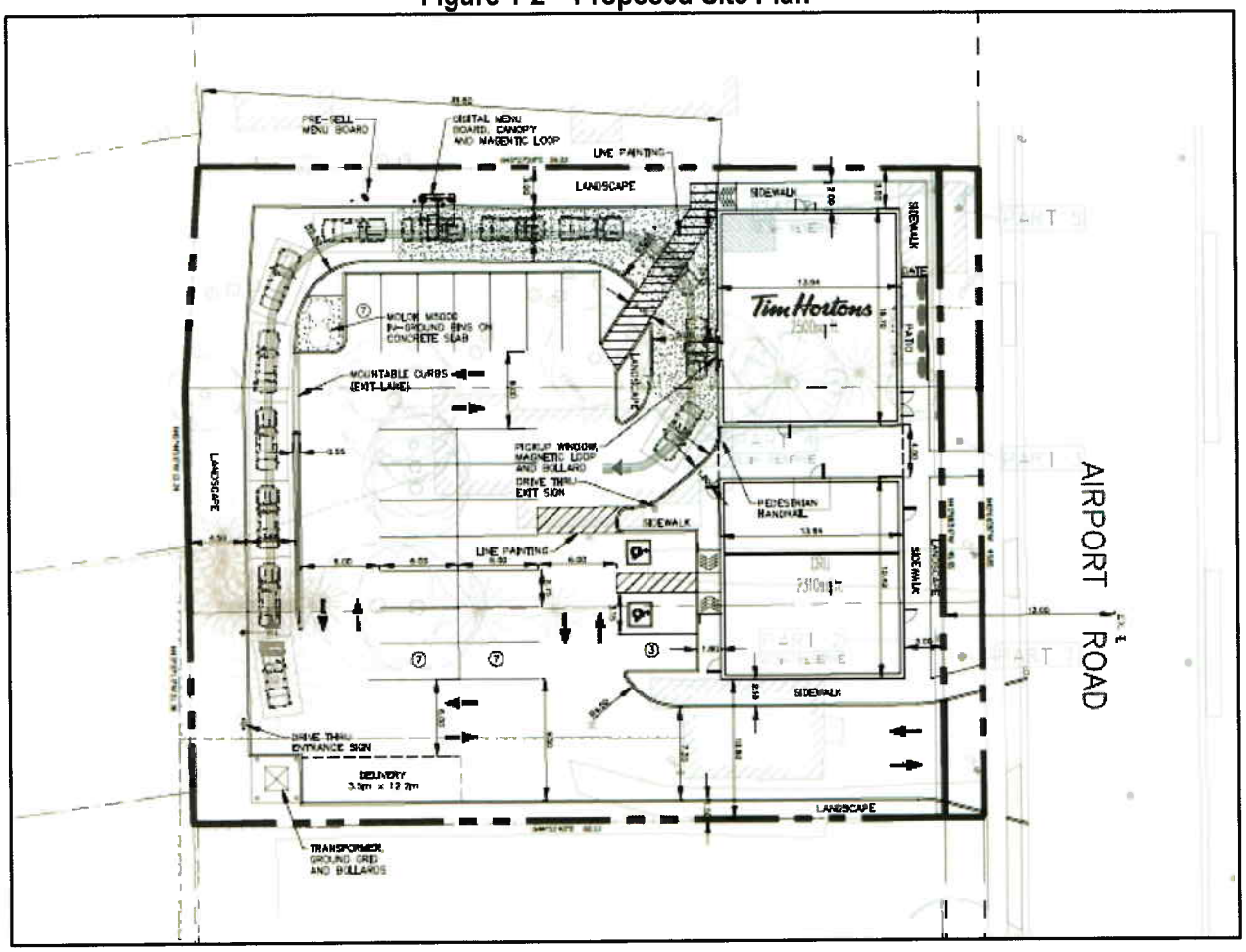
It is noted that Nextrans previously a Traffic Operations Assessment for the proposed development, dated December 11, 2020, in support of a restaurant with a total GFA of 232.26 m^2. The development proposal also included an ancillary drive-thru and 15 vehicular parking spaces. Access to the site was previously envisioned through a full movement access onto Airport Road.

Subsequent to our last submission, the development proposal has been revised, and the site plan dated February 25, 2022, includes a restaurant with a total GFA of 2,500 ft^2 and a retail building with a GFA of 2,310 ft^2. An ancillary drive-thru is provided for the proposed restaurant use on-site and the site provides a total of 24 vehicular parking spaces. A comparison of the site statistics is provided in **Table 1.1** and the revised site plan is illustrated in **Figure 1-2**. The full-scale site plan is enclosed in **Appendix A**.

Table 1.1 – Proposed Site Statistics

	July 25, 2019	January 27, 2021	Net Change
Restaurant GFA	2,500 ft²	2,500 ft²	-
Retail GFA	-	2,310 ft²	+2,310 ft²
Parking	15 spaces	24 spaces	+9 spaces

Figure 1-2 – Proposed Site Plan



1.1. Tertiary Plan

A tertiary plan has been prepared showing the future internal road connection from McCaffery's Lane to Ivan Avenue. The tertiary plan is provided in **Appendix B**.

2.0 EXISTING TRAFFIC CONDITIONS

2.1. Existing Road Network

The existing subject lands are located southwest of Airport Road and Walker Road, in the Town of Caledon. The road network is described as follows:

Airport Road: Airport Road is classified as an arterial road and maintains a posted speed limit of 50 km/h. Airport Road maintains a two (2) lane cross section in the vicinity of the subject site and has layby parking provided on both sides of the roadway. Sidewalks are provided on both sides of the roadway.

Table 3.1: Future (2024) Background Traffic Levels of Service

Intersection	Movement	Weekday AM Peak Hour			Weekday PM Peak Hour		
		LOS (v/c)	Delay (s)	95th Queue (m)	LOS (v/c)	Delay (s)	95th Queue (m)
Airport Road and Walker Road (Unsignalized)	EBLTR	C (0.32)	20.6	10.2	E (0.56)	39.1	23.3
	WBLTR	C (0.14)	19.3	3.6	D (0.17)	28.4	4.6
	NBLTR	A (0.03)	1.3	0.7	A (0.07)	1.8	1.8
	SBLTR	A (0.01)	0.3	0.2	A (0.02)	0.7	0.4
Airport Road and Old Church Road / LCBO Site Access (Signalized)	**Overall**	**B (0.79)**	**20.7**	-	**B (0.74)**	**17.1**	-
	EBLTR	B (0.02)	14.4	1.7	B (0.11)	15.6	7.8
	WBL	C (0.78)	27.4	55.5	C (0.69)	23.8	42.7
	WBTR	B (0.09)	14.9	0.4	B (0.23)	16.3	3.8
	NBLT	B (0.20)	11.0	22.0	C (0.77)	21.1	118.3
	NBR	B (0.16)	10.7	10.8	A (0.21)	10.0	13.6
	SBLTR	C (0.81)	24.6	125.8	B (0.49)	13.5	52.6

As summarized in **Table 3.1**, it is shown that during future background traffic conditions the subject study area intersection continues to operate at acceptable level of services with no changes to expected operations.

4.0 SITE TRAFFIC

As previously identified in this report, the development proposal is to redevelop the existing subject lands to construct a restaurant with a total GFA of 2,500 ft^2 and a retail building with a GFA of 2,310 ft^2. Trip rates and site generated trips were derived from the information contained in the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE) for "Fast-Food Restaurant with Drive-Through Window" (LUC 934), and for "Shopping Centre" (LUC 820).

It is noted that the average rate was used to calculate the trips generated by LUC 934 as there is no fitted curve provided for this land use. In addition, the average rate was also used to calculate trips generated by LUC 820 as the fitted curve does not accurately represent the size of the proposed development. The trip generation summary is shown in **Table 4.1**.

Table 4.1 – Site Traffic Trip Generation (Based on ITE)

ITE Land Use	Parameter	Morning Peak Hour			Afternoon Peak Hour		
		In	Out	Total	In	Out	Total
Fast-Food Restaurant with Drive-Through Window	Gross Trips	51	49	100	43	39	82
	Gross Rate	20.40	19.60	40.00	17.20	15.60	32.80
Shopping Centre	Gross Trips	1	1	2	4	5	9
	Gross Rate	0.43	0.44	0.87	0	0	0
Total	**New Trips**	**52**	**50**	**102**	**47**	**44**	**91**

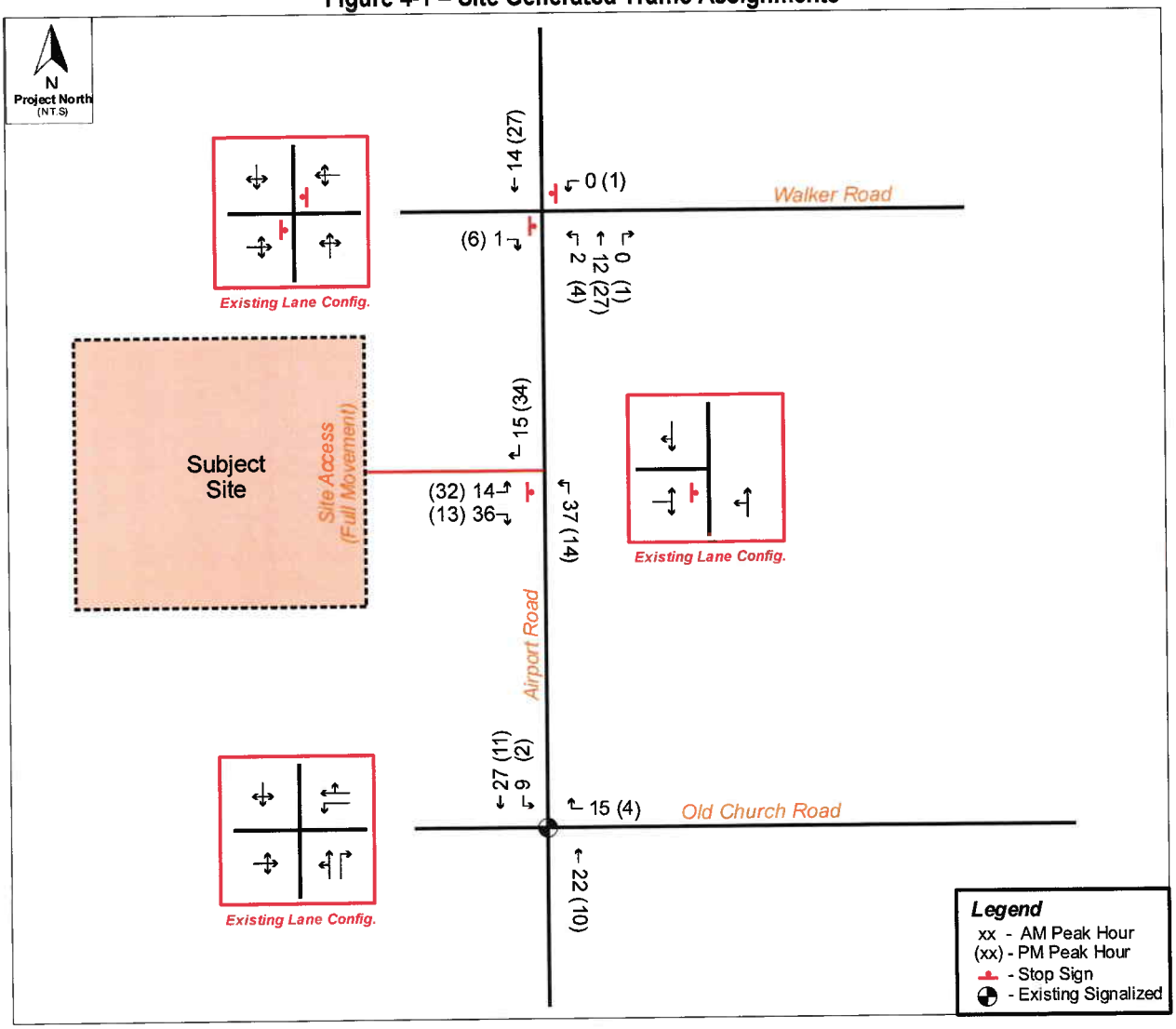
As shown in **Table 4.1**, the proposed development is anticipated to generate 102 two-way auto trips (52 inbound and 50 outbound) during the AM peak hour and 91 two-way auto trips (47 inbound and 44 outbound) during the PM peak hour.

The assumptions for the trip distribution rates are based on existing traffic patterns and routes that drivers would likely take to access the subject site and engineering judgement based on ease of site access. As a result, site trip distribution is summarized for the inbound and outbound site traffic movements during the morning and afternoon peak hour in **Tables 4.2**, with the trip assignment illustrated in **Figure 4-1**.

Table 4.2 – Site Traffic Trip Distribution

Direction	Via	AM Peak Hour		PM Peak Hour	
		Inbound	Outbound	Inbound	Outbound
Airport Road and Site Access					
North	Airport Road	28%	28%	70%	70%
South	Airport Road	72%	72%	30%	30%
Total		**100%**	**100%**	**100%**	**100%**
Airport Road and Old Church Road					
East	Old Church Road	40%	24%	27%	19%
South	Airport Road	60%	76%	73%	81%
Total		**100%**	**100%**	**100%**	**100%**
Airport Road and Walker Road					
East	Walker Road	1%	3%	2%	2%
North	Airport Road	90%	85%	81%	86%
West	Walker Road	9%	12%	17%	12%
Total		**100%**	**100%**	**100%**	**100%**

Figure 4-1 – Site Generated Traffic Assignments



Study Area and Subject Site Location

3 Site Concept

3.1 Description

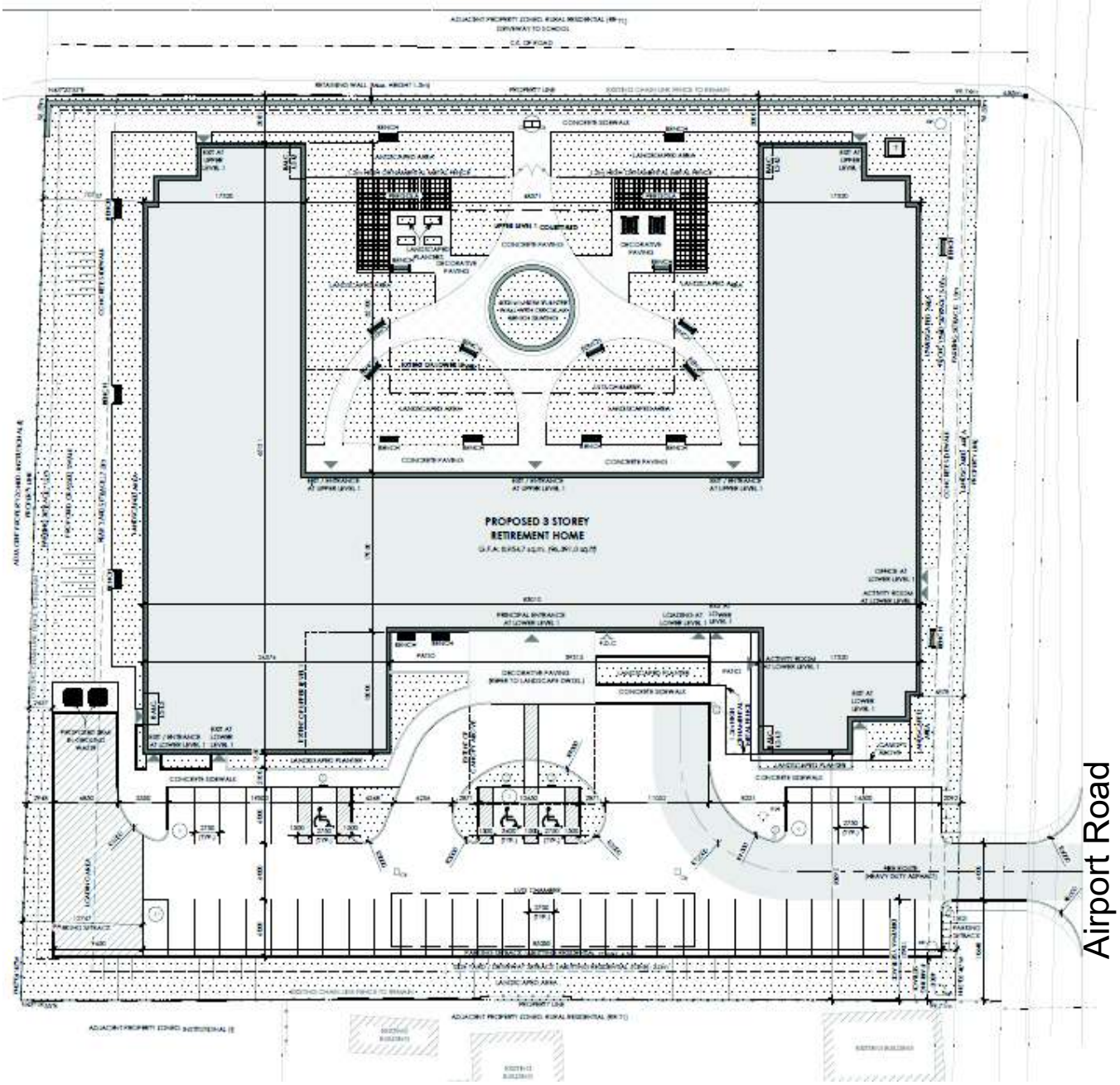
The subject site is located at 15728 Airport Road in the Town of Caledon. The proposed Retirement Home is expected to consist of up to 150 beds in 127 units. Build-out is anticipated to occur by the end of Year 2026.

Vehicle access to the site is proposed by a single driveway connection to Airport Road located approximately 80 metres south of the Caledon East Public School Driveway. Left-turns out of the driveway are assumed to be restricted by a raised centre median on Airport Road.

The site provides direct sidewalk connections to Airport Road and the Caledon Public School East Driveway. Sidewalks are provided along the perimeter of the proposed building which also provides access to the internal courtyard area. The sites parking supply consists of 45 spaces of which three are designed as accessible.

The site's loading zone is east of the main entrance and the waste collection area is on the end of the parking lot drive aisle. **Section 3.3** reviews heavy vehicle movements to/from the loading zone.

Figure 3.1 illustrates the proposed site plan.



NTS

Site Concept Plan

15728 Airport Rd TIS
200052

Figure 3.1

3.2 Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation[4] methods are used to estimate the site trip generation. Land Use Code (LUC) 254 (Assisted Living) was used to estimate the site trip generation. Average rates were used as the regression equation was unavailable for this LUC.

The subject site is forecast to generate approximately 29 vehicle trips during the AM peak hour and approximately 39 vehicle trips during the PM peak hour. **Table 3.1** summarizes the estimated trip generation. To remain conservative, a mode share reduction was not applied to this development.

TABLE 3.1: SITE GENERATED TRAFFIC

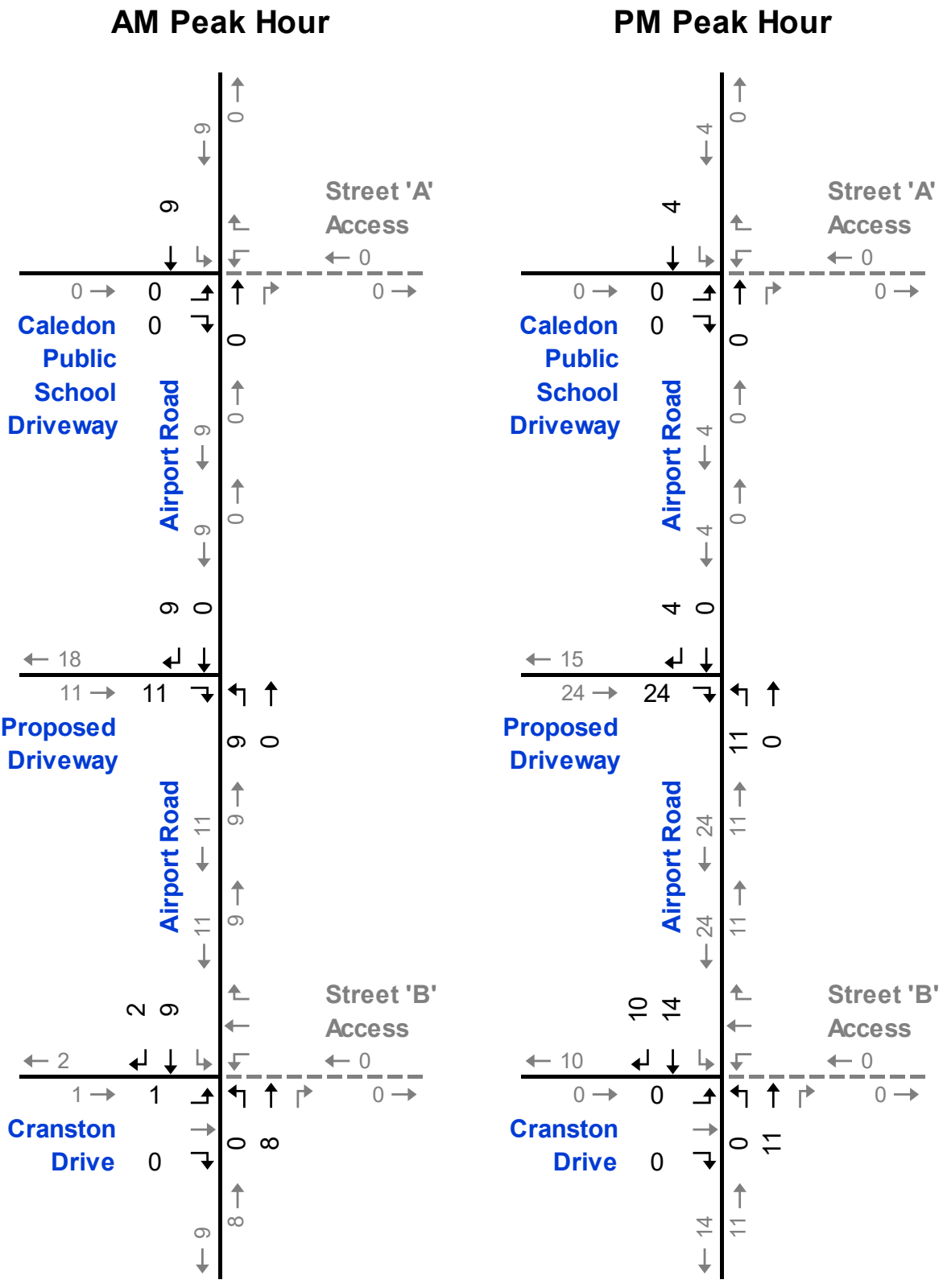
Land Use Code	AM Peak Hour				PM Peak Hour			
	Rate	In	Out	Sum	Rate	In	Out	Sum
254: Assisted Living (150 Beds) Average Rates	0.19	18	11	**29**	0.26	15	24	**39**
Total New Trips		**18**	**11**	**29**		**15**	**24**	**39**

Table 3.2 summarizes the estimated trip distribution for site generated traffic. The residential distribution was developed using the Transportation Tomorrow Survey[5] (TTS) data for the zone containing the subject site. **Appendix B** contains the TTS survey data. **Figure 3.2** illustrates site-generated traffic volumes.

TABLE 3.2: ESTIMATED TRIP DISTRIBUTION

Origin / Destination	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
North via Airport Road	50%	20%	25%	40%
West via Cranston Drive	5%	0%	0%	0%
South via Airport Road	45%	80%	75%	60%
Total	**100%**	**100%**	**100%**	**100%**

[4] *Trip Generation Tenth Edition*, Institute of Transportation Engineers, Washington D.C., 2017
[5] *Transportation Tomorrow Survey 2016*, University of Toronto Data Management Group. Zone 3197



Forecast Site Traffic

volume-to-capacity ratios of 0.34 (EB), 0.25 (EB), and 0.56 (EB) in the weekday a.m., mid-day and p.m. peak hours, respectively. This indicates that the intersection is expected to continue operating efficiently under future background traffic conditions throughout all horizon years, with excess capacity for increases in traffic volumes.

The traffic metrics listed above indicate that there are no operational issues expected to occur under the future background traffic conditions, through to the 2029 horizon year.

5. Site Generated Traffic

The proposed development will result in additional vehicles on the boundary road network that previously did not exist. The proposed development will also result in additional turning movements at the boundary road intersections.

The following trip generation calculations for the mixed-use development were conducted based on the site statistics summarized on a previous version of the Development Concept Plan dated June 12, 2019. These calculations were based on a unit count of 32 residential units and a commercial GFA of 13,864 square feet.

This resulted in a forecasted trip generation that is overstated by one trip, four trips and one trip in the weekday a.m., mid-day and p.m. peak hours, respectively. As such, the findings and conclusions contained within this report remain valid when considering the revised Site Plan dated November 16, 2020.

5.1 Trip Generation

The trip generation of the residential townhomes was forecasted using the fitted curve equations found in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, under Land Use Category 220 "Multifamily Housing (Low-Rise)". Per the Site Plan the proposed development is comprised of 32 townhomes.

The trip generation of the commercial retail development was forecasted using the average rates provided for Land Use Category 820 "Shopping Centre". The June 12, 2019 Development Concept Plan proposes a total commercial GFA of 1,288 square metres (13,864 ft^2). The average rate was used because the trip generation resulting from the fitted curve equation is too high for such a small commercial retail GFA.

As defined by the ITE Trip Generation Handbook, 3rd Edition, primary trips are made for the specific purpose of visiting the generator. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Accordingly, these vehicles do not increase the volume of vehicles on the roadway.

The pass-by trip percentage of the commercial retail pass-by trips was forecasted using the rates provided by the ITE Trip Generation Handbook. Land Use Category 820 "Shopping Centre" was used to forecast a pass-by trip percentage of 34 percent for the mid-day and p.m. peak periods. A pass-by percentage was not applied to the a.m. peak periods as this trip generation generally captures employees of the commercial retail uses.

Per the Terms of Reference discussed with the Region of Peel, the analysis is to include the weekday mid-day trips generated from the site. The ITE Trip Generation Manual does not have fitted curve equations or average values for a mid-day peak, therefore these values were forecasted as percentages of the daily trip generation given for each Land Use Category in Appendix A of the Trip

Generation Manual.

The mid-day peak hour of the roadway was recorded from 12:30 p.m. to 1:30 p.m. According to the Trip Generation Manual, the Multifamily Housing (Low-Rise) trip generation at 12:30 p.m. represents 5.2 percent of the daily traffic. Accordingly, the daily traffic volumes were forecasted using the fitted curve equation and resulted in a weekday trip generation of 234 trips (117 inbound, 117 outbound). Assuming 5.2 percent, the mid-day traffic volumes are forecasted to be 12 vehicles. Directional distribution information is not available for the mid-day, accordingly, a 50 percent split was assumed.

According to the Trip Generation Manual, the Shopping Centre trip generation at 12:30 p.m. represents 9.8 percent of the daily traffic. Accordingly, the daily traffic volumes were forecasted using the average rate and resulted in a weekday trip generation of 523 trips (261 inbound, 262 outbound). Assuming 9.8 percent, the mid-day traffic volumes are forecasted to be 51 vehicles. Directional distribution information is not available for the mid-day, accordingly, a 50 percent split was assumed. Relevant excerpts from the ITE Trip Generation Manual, 10th Edition and ITE Trip Generation Handbook, 3rd Edition have been included in **Appendix H** for reference. The forecasted trips are tabulated in **Table 6**.

Table 6: Trip Generation

Proposed Use[1]	Roadway Peak Hour	Trip Type	Number of Trips		
			Inbound	Outbound	Total
LUC 820: Shopping Centre (13,864 square feet)	Weekday A.M.	Primary	8	5	13
		Pass-By	0	0	0
	Weekday Mid-Day	Primary	17	17	34
		Pass-By	9	8	17
	Weekday P.M.	Primary	17	18	35
		Pass-By	8	10	18
LUC 220: Multifamily Housing (Low-Rise) (32 units)	Weekday A.M.	Primary	3	12	15
	Weekday Mid-Day	Primary	6	6	12
	Weekday P.M.	Primary	11	7	18
Total	**Weekday A.M.**	**Primary**	**11**	**17**	**28**
		Pass-By	**0**	**0**	**0**
	Weekday Mid-Day	**Primary**	**23**	**23**	**46**
		Pass-By	**9**	**8**	**17**
	Weekday P.M.	**Primary**	**28**	**25**	**53**
		Pass-By	**8**	**10**	**18**

Note[1]: The trip generation forecasts presented in this table were based on a previous version of the Development Concept Plan dated June 12, 2019 and represents a forecasted trip generation that is overstated by one trip, four trips and one trip in the weekday a.m., mid-day and p.m. peak hours, respectively.

5.2 Trip Distribution and Assignment

The residential trips generated by the proposed development were distributed to the boundary road network based on Transportation Tomorrow Survey (TTS) published data, and the location of employment, retail and residential areas within Caledon. The TTS data was generated for trips to and from Caledon and surrounding areas, as well as trips within the Caledon area. The residential trip distribution was determined for the weekday a.m., mid-day and p.m. peak hours. TTS survey data has been included in **Appendix I**.

The inbound and outbound trip distributions for the residential trips are illustrated in **Figure 7** and summarized in **Table 7** below.

The commercial trips generated by the proposed development were previously distributed to the boundary road network based on a combination of TTS data and observed travel patterns. The addition of the Castles of Caledon development results in more vehicles on the west approach of the intersection of Airport Road and Walker Road. Accordingly, the 2024 future background traffic volumes were used to establish the primary and pass-by trip distributions for the commercial portion of the development.

The commercial trip distribution is summarized in **Table 8** below. The primary and pass-by commercial trip distributions are illustrated in **Figures 9 and 11**, respectively.

Table 7: Residential Trip Distribution

Peak Hour	Inbound	Outbound
A.M.	• 32% from the north via Airport Road • 50% from the south via Airport Road • 2% from the east via Walker Road • 16% from the west via Walker Road	• 8% to the north via Airport Road • 53% to the south via Airport Road • 2% to the east via Walker Road • 37% to the west via Walker Road
Mid-Day	• 24% from the north via Airport Road • 57% from the south via Airport Road • 2% from the east via Walker Road • 17% from the west via Walker Road	• 16% to the north via Airport Road • 76% to the south via Airport Road • 2% to the east via Walker Road • 6% to the west via Walker Road
P.M.	• 12% from the north via Airport Road • 55% from the south via Airport Road • 1% from the east via Walker Road • 32% from the west via Walker Road	• 31% to the north via Airport Road • 60% to the south via Airport Road • 1% to the east via Walker Road • 8% to the west via Walker Road

Table 8: Commercial Trip Distribution

Peak Hour	Inbound	Outbound
A.M.	• 53% from the north via Airport Road • 27% from the south via Airport Road • 18% from the west/south via Walker Road • 2% from the east via Walker Road	• 53% to the north via Airport Road • 27% to the south via Airport Road • 18% to the west/south via Walker Road • 2% to the east via Walker Road
Mid-Day	• 35% from the north via Airport Road • 48% from the south via Airport Road • 16% from the west/south via Walker Road • 1% from the east via Walker Road	• 35% to the north via Airport Road • 48% to the south via Airport Road • 16% to the west/south via Walker Road • 1% to the east via Walker Road
P.M.	• 22% from the north via Airport Road • 66% from the south via Airport Road • 12% from the west/south via Walker Road • 0% from the east via Walker Road	• 22% to the north via Airport Road • 66% to the south via Airport Road • 12% to the west/south via Walker Road • 0% to the east via Walker Road

Legend

= SUBJECT LANDS

Project

16114 AIRPORT ROAD
TOWN OF CALEDON EAST

Drawing

SITE LOCATION PLAN

CROZIER & ASSOCIATES Consulting Engineers
The HarbourEdge Building, 40 Huron Street, Suite 301, Collingwood, ON L9Y 4R3
705-446-3510 T
705-446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	Design By	Project	
K.J.L.	S.W.		110-4331
Scale	Date	Check By	Drawing
N.T.S.	SEPT 25, 2020	M.L.	FIG. 1

GENERAL NOTES

1. Builder and Surveyor to confirm difference between FF, and USF before proceeding with excavation. Report discrepancies to the Architect.
2. Surveyor is to comply with current subdivision zoning regarding setbacks in laying out the work. Any discrepancies are to be reported to the Architect and the builder immediately.
3. The builder shall comply with all current standards for Local Municipal Subdivision Lot Drainage and Grading as they relate to max. & min. slopes for yards, swales & drives and clearances to street furniture and services for driveways.
4. The builder shall check and verify all given grade elevations and drainage prior to commencement of construction. Builder shall verify location of existing and proposed utilities prior to commencement of construction.
5. Footings to bear on natural undisturbed soil and be a min. of 1.22m below finished grade. Underside of footings shown are taken from architectural plans and may not represent actual footing level.
6. All dimensions and grade elevations are shown in metres.
7. Unless otherwise indicated, finished floor level is 0.40m above Specified House Grade at entry points to house and provision of 2 risers at entries must be made to gain entry into house. Maintain top of foundation wall min. 0.15m above finished grade.
8. Unprotected openings (windows,doors) must be min 1.2m from lot lines. Builder to verify location of all windows relative to lot line to maintain min. setback for unprotected openings.
9. These General Notes apply to all drawings for Siting & Grading including siting on individual sheets.
10. Footing adjacent to R.L.C.B. lead to be extended to undisturbed ground and verified by soil consultant.

NOTES:
ACCESSIBLE PARKING SPACES SHALL COMPLY WITH SCHEDULE K OF BY-LAW 2015-058.

THE ENTRANCES TO THE RETAIL / COMMERCIAL BUILDINGS ARE TO BE BARRIER FREE WITH EITHER POWER DOOR OPERATORS OR SLIDING DOOR FEATURES AS PER THE ONTARIO BUILDING CODE.

KEY PLAN NTS

LEGEND:

DEVELOPMENT CONCEPT PLAN

SHACCA CALEDON HOLDINGS INC.

16114 AIRPORT ROAD
PART 1, PLAN OF PART OF LOT 4, CONCESSION 6, E.H.S.
TOWN OF CALEDON, REGION OF PEEL

Development Statistics - Total Site

Wetland / Woodlot	1.832ha (4.53ac)
Compensation Area:	0.1844ha (0.46ac)
Compensation Area Buffer:	0.469ha (1.16ac)
Potential Park:	0.1037ha (0.26ac)
Net Residential Area*:	0.842ha (2.08ac)
Commercial Area	0.565ha (1.37ac)
Road Widening & 0.3m Reserve:	0.10ha (0.25ac)
Gross Site Area:	**4.09ha (10.11ac)**
Net Site Area*:	**1.50ha (3.71ac)**

Development Statistics - 6.1m Condo Townhouse Residential

Total Units:	32 Units
Net Residential Density:	32 Units / 0.842ha = 38.0UPH
Total Visitor Parking:	9 Spaces (0.28 per unit)
Total Landscaped / Snow Storage:	361m² (4.28%)
Total Hard Surface (HS) Area:	1,836m²
Total Snow Storage % of HS Area:	19.7%
Total Parkland Dedication required:	0.042ha (5%)
Total Parkland Dedication provided:	0.1037ha (12%)
Building Coverage:	35.7%

Development Statistics - Retail Commercial (Buildings A & B)

Total GFA:	1,222.59m² (13,160ft²)
Building Coverage:	17.8%
Total Landscaped / Snow Storage:	620m²
Total Hard Surface (HS) Area:	2,580m²
Total Snow Storage % of HS Area:	24.0%
Total Parking Required:	62 Spaces *(1 space per 20m²)*
Total Parking Provided:	59 Spaces
Total Barrier Free Parking Required:	3 *(2 Type 'A' ; 1 Type 'B')*
Total Barrier Free Parking Provided:	4 *(2 Type 'A' ; 2 Type 'B')*
Delivery Spaces Required:	1
Delivery Spaces Provided:	1

Notes:

* Net Site Area only includes: Net Residential Area, Commercial & Potential Park

^ Net Residential Area includes 4.5m Residential Buffers

- Typical Parking Space: 2.75m x 6.0m
- Typical Type 'A' Barrier Free Space: 3.4m x 6.0m
- Typical Type 'B' Barrier Free Space: 2.75m x 6.0m
- Typical Barrier Free Aisle: 1.5m x 6.0m
- Typical Delivery Space: 3.5m x 9.0m
- Wetland / Woodlot constraint information provided by Dillon Consulting
- Denotes pedestrian circulation

TOWNHOUSE UNIT BREAKDOWN

MODEL	UNITS NUMBER	HEIGHT (STORIES)	UNIT GFA (SF)	TOTAL GFA (SF)
TOWNHOUSE				
TYPE 1				
CORNER	2	2	1616	3232
INTERIOR	12	2	1688	20256
INTERIOR	10	2	1650	16500
END	8	2	1700	13600
TOTAL	32			53588 ft²
				4978.32 m²

DENSITY: 32 UNITS / 0.842 Ha = 38.0 UpHA

FLOOR SPACE INDEX (FSI): Gross floor area 4978.32 m² / Gross site area 8399.99 m² = 0.592

ROAD WIDTH: 7.0 m

CL ROAD RADIUS: 13.0 m

TOTAL VISITOR PARKING: 9 Spaces (0.28 per unit)

COMMERCIAL STATISTICS		
SITE AREA	5555.00 m²	
COVERAGE	1000.00 m²	18.0%
PARKING, WALKWAY	2472.00 m²	44.5%
LANDSCAPE	2083.00 m²	37.5%
COMMERCIAL G.F.A.	1222.59 m²	

Total Parking Required: 62 Spaces (1 space per 20m²)
Total Parking Provided: 59 Spaces
Total Barrier Free Parking Required: 3 (2 Type 'A' ; 1 Type 'B')
Total Barrier Free Parking Provided: 4 (2 Type 'A' ; 2 Type 'B')
Delivery Spaces Required: 1
Delivery Spaces Provided: 1

Date	Ref.	Description
11.16.20	FP	UPDATES & ISSUED PER CITY SPA COMMENTS
10.25.19	FP	UPDATES & ISSUED FOR CITY SUBMISSION
09.24.19	FP	UPDATED COMMERCIAL BLOCK & ADJUSTED STATISTICS
09.13.19	FP	UPDATED GFA FOR CORNER MODEL & ADJUSTED STATISTICS
09.18.19	FP	REV. SITE PER NEW DRAFT PLAN
04.07.17	FP	ADDED MATRIX, LOT NUMBERS UPDATED STATISTICS
03.01.17	CZ	Added RETAIL/COMMERCIAL
02.22.17	CZ	UPDATED BUILDING FOOTPRINTS & STATS
02.01.17	CZ	PRELIMINARY SITE PLAN

Revisions

Drawn: CZ
Date: 01/27/17
Checked:
Approved:
Printed: 07.18.19
CAD File: 61338-SP5.DWG

architects inc.
70 Silton Road, Unit #7,
Woodbridge, Ontario, L4L 8B9
(905) 265-2688

SP

Shacca Caledon Holdings

PROPOSED CONDOMINIUM TOWNHOUSE DEVELOPMENT

16114 AIRPORT ROAD
TOWN OF CALEDON
ONTARIO

16114 AIRPORT ROAD
PART OF LOT 4, CONCESSION 6, E.H.S.
BEING PART 1 ON 43R-20293
EXCEPT PARTS 1&2 ON 43R-21686
AND PART LOT 4, CONCESSION 6, E.H.S.
BEING PART 1 ON 43R-21686
TOWN OF CALEDON, REGION OF PEEL

Sheet Title: SITEPLAN
Scales: 1:500
Sheet Number: 16-1338-SP1

APPENDIX I

TTS Data

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_dest => Caledon
FILTER 3 : start_time => 700-900
FILTER 4 : gta06_dest => 3197
FILTER 5 : purp_dest => Market/Shop
ROW : pd_orig
COLUMN : pd_dest

	Trips	Direction
Caledon	18	North
Brampton	7	South
Brampton	6	West

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_dest => Caledon
FILTER 3 : start_time => 1100-1400
FILTER 4 : gta06_dest => 3197
FILTER 5 : purp_dest => Market/Shop
ROW : pd_orig
COLUMN : pd_dest

	Trips	Direction
Caledon	99	

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_dest => Caledon
FILTER 3 : start_time => 1500-1800
FILTER 4 : gta06_dest => 3197
FILTER 5 : purp_dest => Market/Shop
ROW : pd_orig
COLUMN : pd_dest

	Caledon	
Caledon	101	
Brampton	8	South
	7	West

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_orig => Caledon
FILTER 3 : start_time => 700-900
FILTER 4 : gta06_dest => 3197
FILTER 5 : purp_dest => Market/Shop
ROW : gta06_orig
COLUMN : gta06_dest

	Trips	Direction
3100	18	North

Row Labels	Sum of Trips	
North	18	58%
South	7	23%
West	6	19%
Grand Total	**31**	100%

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_orig => Caledon
FILTER 3 : start_time => 1100-1400
FILTER 4 : gta06_dest => 3197
FILTER 5 : purp_dest => Market/Shop
ROW : gta06_orig
COLUMN : gta06_dest

	Trips	Direction
3001	18	South
3151	13	South
3152	18	North
	18	West
3193	14	South
3197	2	North
	2	West
	2	East
	13	South

Row Labels	Sum of Trips	
East	2	2%
North	20	20%
South	58	58%
West	20	20%
Grand Total	**99**	100%

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_orig => Caledon
FILTER 3 : start_time => 1500-1800
FILTER 4 : gta06_dest => 3197
FILTER 5 : purp_dest => Market/Shop
ROW : gta06_orig
COLUMN : gta06_dest

	Trips	Direction
3001	18	South
3108	9	North
3108	9	South
3152	9	North
	8	West
3196	11	South
3197	2	North
	2	West
	2	East
	13	South
3198	20	South
Brampton	8	South
	7	West

Row Labels	Sum of Trips	
East	2	2%
North	20	17%
South	79	67%
West	17	14%
Grand Total	**117**	100%

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_orig => Caledon
FILTER 3 : start_time => 700-900
FILTER 4 : gta06_orig => 3197
FILTER 5 : purp_orig => Market/Shop
ROW : pd_dest
COLUMN : pd_orig

	Trips	Direction
Aurora	13	South
Brampton	9	South
	9	West

Row Labels	Sum of Trips	
South	22	71%
West	9	29%
Grand Total	**31**	100%

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_orig => Caledon
FILTER 3 : start_time => 1100-1400
FILTER 4 : gta06_orig => 3197
FILTER 5 : purp_orig => Market/Shop
ROW : pd_dest
COLUMN : pd_orig

	Trips	Direction
Caledon	97	

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_orig => Caledon
FILTER 3 : start_time => 1500-1800
FILTER 4 : gta06_orig => 3197
FILTER 5 : purp_orig => Market/Shop
ROW : pd_dest
COLUMN : pd_orig

	Trips	Direction
Caledon	149	
Mulmur	15	North

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_dest => Caledon
FILTER 3 : start_time => 1100-1400
FILTER 4 : gta06_orig => 3197
FILTER 5 : purp_orig => Market/Shop
ROW : gta06_dest
COLUMN : gta06_orig

	Trips	Direction
3001	18	South
3151	14	South
3152	24	North
	23	West
3197	2	North
	2	West
	2	East
	13	South

Row Labels	Sum of Trips	
East	2	2%
North	26	27%
South	45	46%
West	25	26%
Grand Total	**97**	100%

USER : Alexander Fleming - CF Crozier and Associates
DATE : Sep 20 2016 (14:19:07)
DATA : 2011 TTS V1.0 Trips
FILTER 1 : mode_prime => Auto driver
FILTER 2 : pd_dest => Caledon
FILTER 3 : start_time => 1500-1800
FILTER 4 : gta06_orig => 3197
FILTER 5 : purp_orig => Market/Shop
ROW : gta06_dest
COLUMN : gta06_orig

	Trips	Direction
3001	18	South
3108	9	North
	9	South
3151	30	South
3152	9	North
	9	West
3196	11	South
3197	4	North
	4	West
	4	East
	25	South
3198	20	South
Mulmur	15	North

Row Labels	Sum of Trips	
East	4	2%
North	37	22%
South	113	68%
West	13	8%
Grand Total	**165**	100%

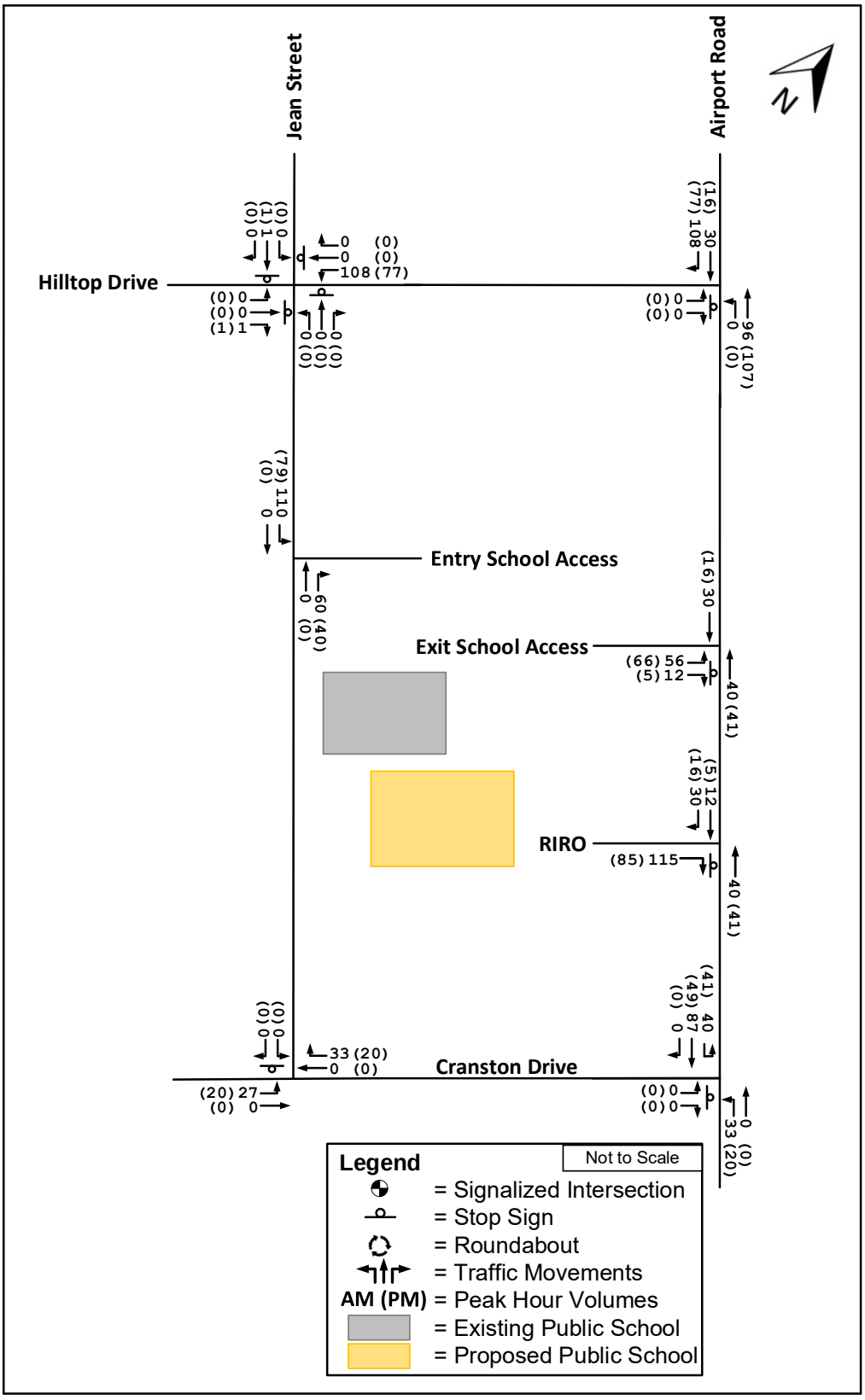
Draft Report

Traffic Impact Study
Proposed PDSB Elementary School
15 Jean Street, Town of Caledon

ARCADIS
IBI GROUP

Prepared for MG Architects Inc.
by Arcadis IBI Group
June 6, 2023

Exhibit 7-10: Net New Site Traffic Volumes



TATHAM ENGINEERING

Enhancing our communities

Old Church Road Residential Development

TRAFFIC IMPACT BRIEF

Stylux Caledon Inc.

File 419414 | September 7, 2022

3 Proposed Development

This section will provide additional details with respect to the proposed development, including its location, the projected site generated traffic volumes and the assignment of such to the adjacent road network.

3.1 LOCATION

As illustrated in Figure 1, the development site is located on the north side of Old Church Road, extending from Marilyn Street (west) to Russell Mason Court in the Town of Caledon. The site is bounded by Old Church Road to the south, Marilyn Street to the west and residential property to the north and east.

3.2 LAND USE

The proposed development will consist of 14 single detached lots and 34 townhouse units with access provided via a new municipal road and 8.0 metre laneway. Build-out of the site is anticipated by 2025.

A site plan is provided in Figure 4.

3.3 SITE ACCESS

As illustrated in Figure 4, the development will be served by a new municipal road (identified as Russell Mason Drive on the site plan) with connection to Old Church Road and Marilyn Street. Access to the individual lots will be provided via direct driveway access to the new municipal road. As per the site plan, the townhouse lots will have driveway access via an 8.0 metre rear laneway connecting to Marilyn Street and the new municipal road (i.e. no driveway access is proposed to Old Church Road).

As illustrated on the site plan, the development will result in two new intersections on Marilyn Street (while there will also be an intersection on Old Church Road, such will be located in the same location as the existing intersection of Old Church Road with Russell Mason Court). As per TAC's *Geometric Design Guide for Canadian Roads*, the recommended intersection spacing along a local road is 40 metres for 3-legged intersections. The proposed municipal road will result in intersection spacing of approximately 95 metres (from proposed municipal road to Miles Drive) and 65 metres (from proposed municipal road to Old Church Road). As such, the proposed intersection location is appropriate. With respect to the proposed laneway, TAC suggests a corner clearance of 15 metres between an access or public lane on a local road to the adjacent intersection (measured from the edge of crossroad to the edge of access/public lane). Based

on a review of the site plan, the proposed location of the laneway intersection with Marilyn Street will result in a corner clearance of approximately 30 metres in both directions, thus satisfying the TAC guidelines.

3.4 ON-SITE CIRCULATION

The proposed municipal road serving the site will have an 18.0 metre right-of-way and maintain an 8.0-metre wide paved surface, satisfying the Town's design standards for a local residential roadway. The 8.0 metre laneway will have a paved width of 5.4 metres and will be constructed in accordance with the Town's Standard Drawing 200 (provided in Appendix D).

A swept path assessment has been conducted for a fire truck, snowplow and waste collection vehicle. The resulting turning templates are provided in Appendix E. It is understood that fire operations for the townhouse units fronting Old Church Road will occur from Old Church Road rather than the rear laneway.

In considering the above, the internal site layout as proposed is sufficient with respect to the circulation of site generated traffic and the manoeuvring requirements of the design vehicles accessing the site (i.e. passenger cars, SUV's, vans, etc.).

3.5 SITE TRAFFIC

3.5.1 Trip Generation

The number of vehicle trips to be generated by the proposed development has been determined based on type of use, development size, and trip generation rates as per the *ITE Trip Generation Manual, 11th Edition*. Based on the proposed residential uses, the *single family detached* (ITE code 210) and multifamily low-rise housing (ITE code 220) land-uses have been applied to the development. Trip estimates have been established using the fitted curve equations derived from the ITE survey data for the respective land-use and peak hour, considering 14 single detached and 34 townhouse units. The ITE Trip Generation Handbook recommends that the fitted curve equation, when provided, be applied instead of the average rates, particularly when the data indicates a high correlation between the independent variable (i.e. number of units) and dependent variable (i.e. trips). The fitted curve equation results in a more accurate representation of the anticipated site trip generation that the average rate. With respect to the subject development, the application of the fitted curve equation results in greater trip estimates when compared to application of the average rate. As such, application of the fitted curve equation is considered conservative.

The associated trip rates and trip estimates are provided in Table 2.

Table 2: Trip Generation

LAND USE	TRIP BASES	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
		In	Out	Total	In	Out	Total
single family detached (ITE 210)	equation[1]	Ln(T) = 0.91Ln(X) + 0.12			Ln(T) = 0.94Ln(X) + 0.27		
	distribution	26%	74%	100%	63%	37%	100%
	estimate	4	9	13	10	6	16
multi-family low-rise (ITE 220)	equation[1]	T = 0.31(X) + 22.85			T = 0.43(X) + 20.55		
	distribution	24%	76%	100%	63%	37%	100%
	estimate	8	25	33	22	13	35
Total		**12**	**34**	**46**	**32**	**19**	**51**

[1] ITE fitted curve equations - where T = the number of trips, and X = the number of residential units

Overall, the proposed development is expected to generate 46 trips during the weekday AM peak hour and 51 trips during the weekday PM peak hour (total of inbound and outbound trips).

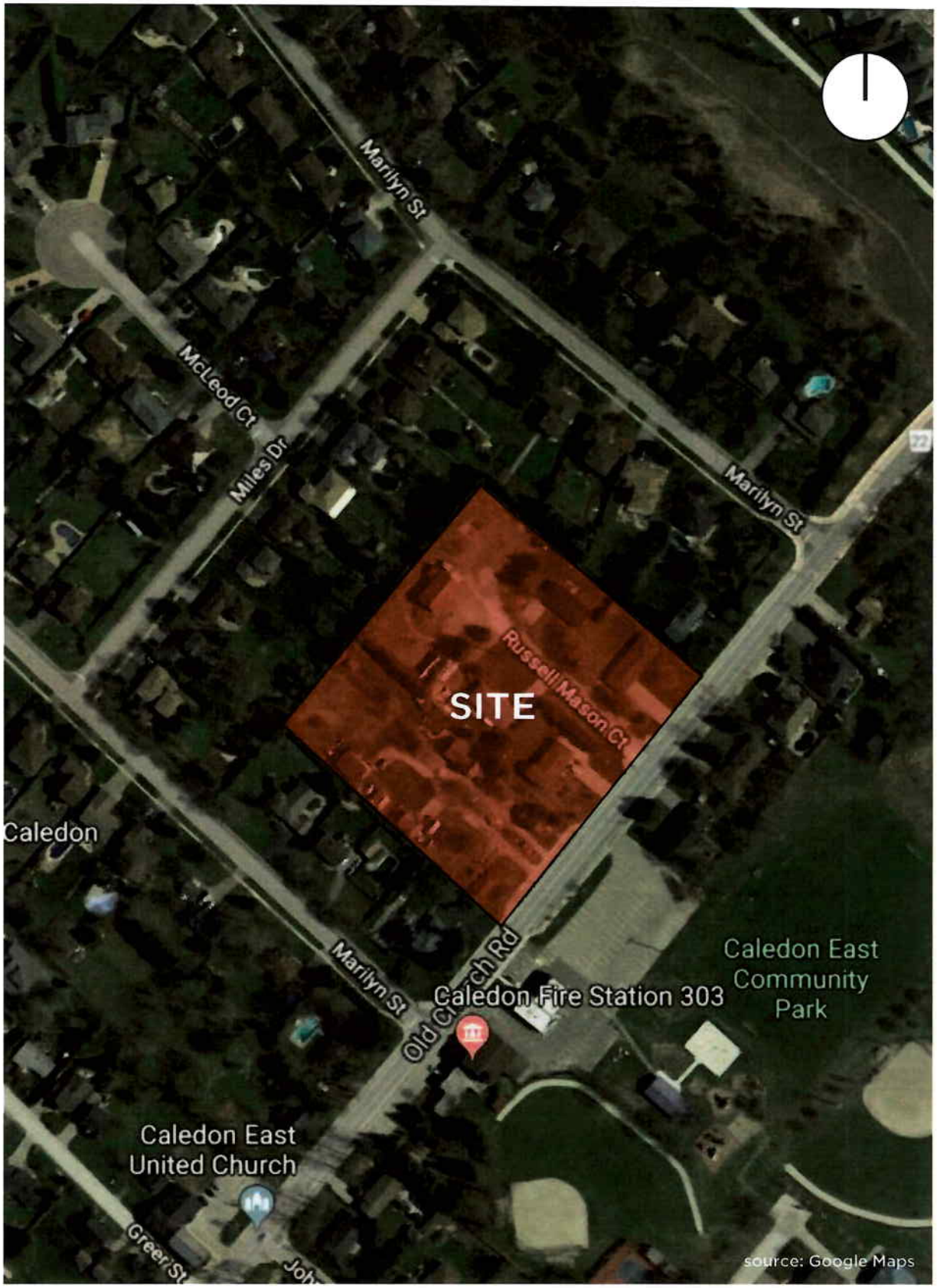
3.5.2 Trip Distribution & Assignment

The distribution of the new trips generated by the site has been developed based on the location of the site in relation to surrounding development and population centres, and existing traffic patterns observed at the intersection of Old Church Road with Marilyn Street.

The following distribution has been assumed:

- 50% to/from the east (via Old Church Road); and
- 50% to/from the west (via Old Church Road).

The assignment of the site trips generated by the development to the access points and the area road network is based on the trip distribution noted above with consideration given to the expected travel routes. The resulting site generated traffic volumes assigned to the road network is illustrated in Figure 5.

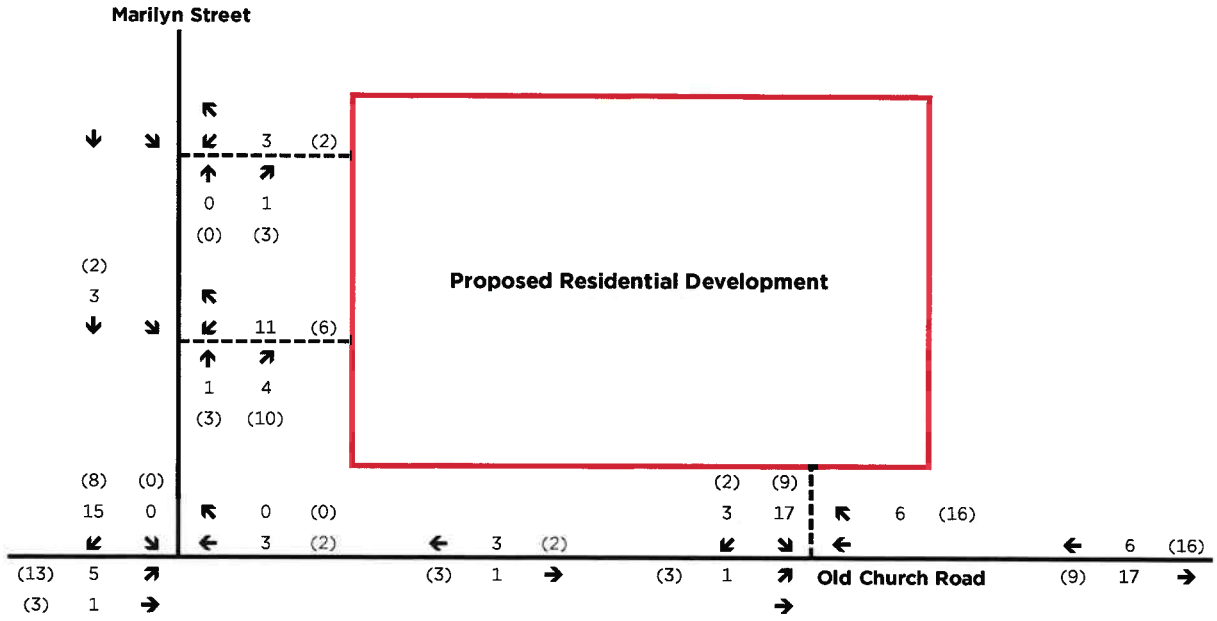


OLD CHURCH ROAD

Figure 2A: Area Road Network

OLD CHURCH ROAD

Figure 4: Draft Plan



100 Weekday AM Peak Hour
(100) Weekday PM Peak Hour

OLD CHURCH ROAD

Figure 5: Site Generated Traffic

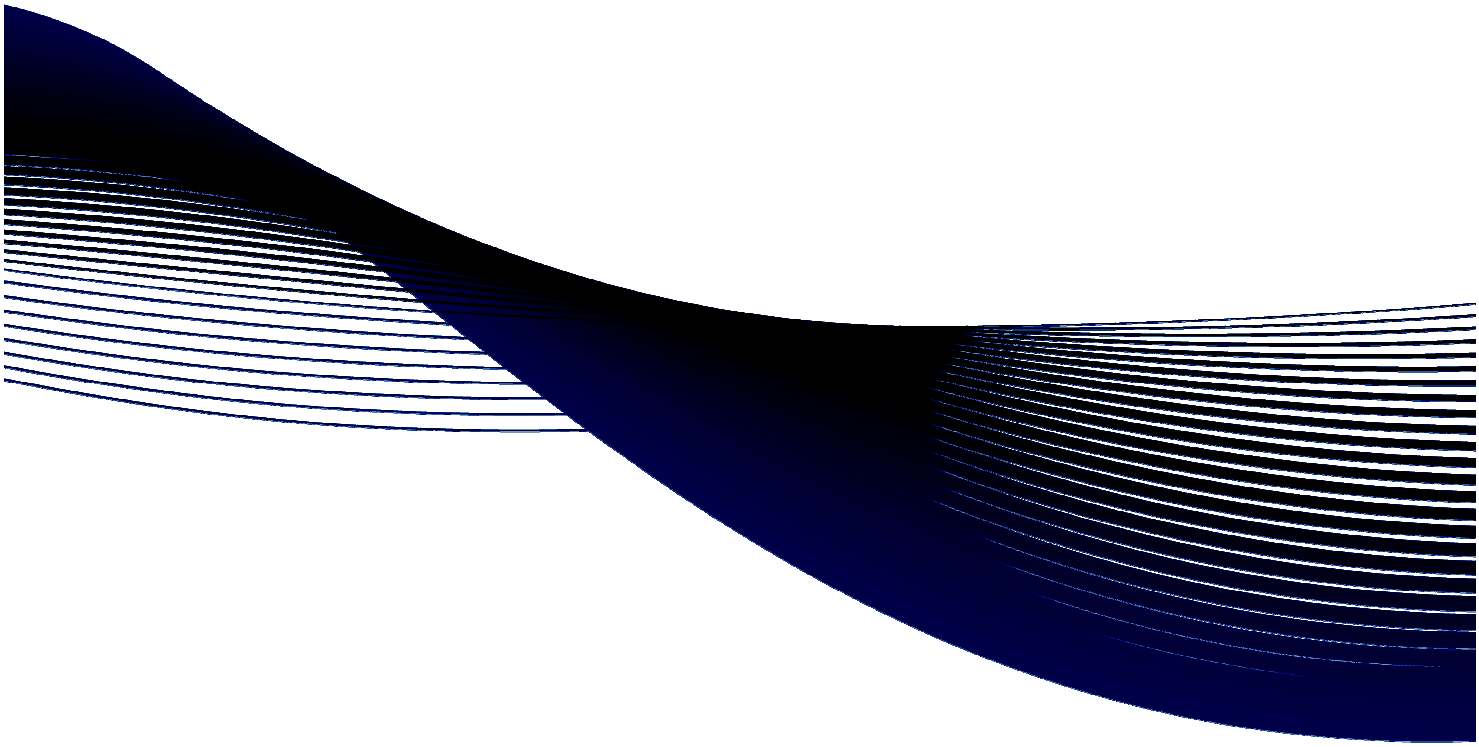
CASTLES OF CALEDON CORPORATION

REVISED TRAFFIC IMPACT STUDY

Mountainview Road and Walker Road West

Town of Caledon

Project No.: TR13-0575



MARCH 2014

COLE ENGINEERING GROUP LTD.

HEAD OFFICE
70 Valleywood Drive
Markham, ON CANADA L3R 4T5
T. 905.940.6161 | 416.987.6161
F. 905.940.2064 | www.ColeEngineering.ca

GTA WEST OFFICE
150 Courtneypark Drive West, Unit C100
Mississauga, ON CANADA L5W 1Y6
T. 905.364.6161
F. 905.364.6162

5.0 Site Traffic

5.1. Trip Generation

As previously noted, the proposed development plan for the site is a residential development comprising of 203 single family detached dwellings as well as a 0.38 ha parkette and a 0.97 ha storm water management (SWM) pond. Trip generation for the singe family detached residential units was undertaken using information contained in the Trip Generation Manual, 9th Edition, published by the ITE for Single-Family Detached Housing (Land Use Code 210). The 2006 Transportation Tomorrow Survey (TTS) data for the zones within the subject site's neighbourhood (3101, 3151, 3189 and 3197) indicate a three percent (3%) non-automotive split. However, for a conservative analysis, a non-auto split reduction was not applied. The trip generation calculation is summarized in **Table 5.1.**

Table 5.1 – Site Trip Generation

Land Use	Unit	Parameter	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Single-Family Detached Housing	203 units	Gross Rate (trips / unit)	0.19	0.56	0.75	0.66	0.39	1.05
		Gross Trips	**38**	**114**	**152**	**134**	**79**	**213**

Based on the foregoing, the proposed development is expected to generate 152 two (2)-way (38 inbound and 114 outbound) trips during the roadway a.m. peak hour and 213 two (2)-way (134 inbound and 79 outbound) trips during the roadway p.m. peak hour.

5.2. Trip Distribution

The trip distribution and assignment is based on the traffic patterns extracted from the approved traffic impact study prepared by MMM for the proposed Châteaux of Caledon mixed-use development projects traffic patterns as extracted from the 2006 Transportation Tomorrow Survey (TTS) and existing traffic flows. The applied trip distribution is summarized in **Table 5.2**.

Table 5.2 – Site Trip Distribution

Direction	Via	Proportions
North	Airport Road	1%
South	Airport Road Mountainview Road	9% 3%
East	Airport Road Mountainview Road	40% 8%
West	Airport Road Mountainview Road	30% 9%
Total		**100%**

The site development traffic is assigned to the study area intersections based on the trip distribution presented and the projected site traffic volumes are illustrated in **Figure 5-1**.

6.0 Future Total Traffic Operations

For the purpose of this study, future traffic was assessed in the 2018 and 2023 horizons. The future study area's future road network configuration is illustrated in **Figure 6-1**.

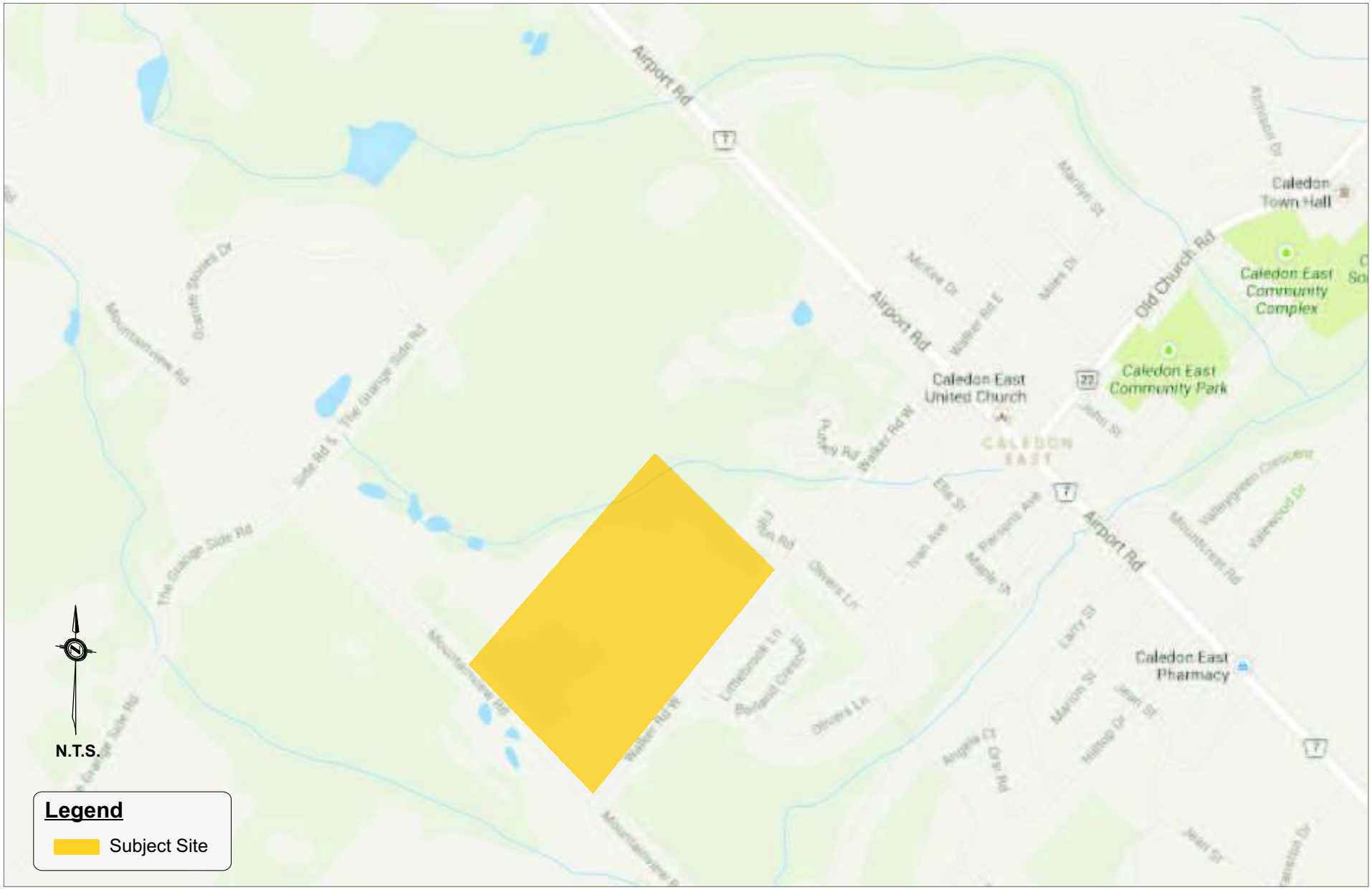


Figure 1-1
Site Location

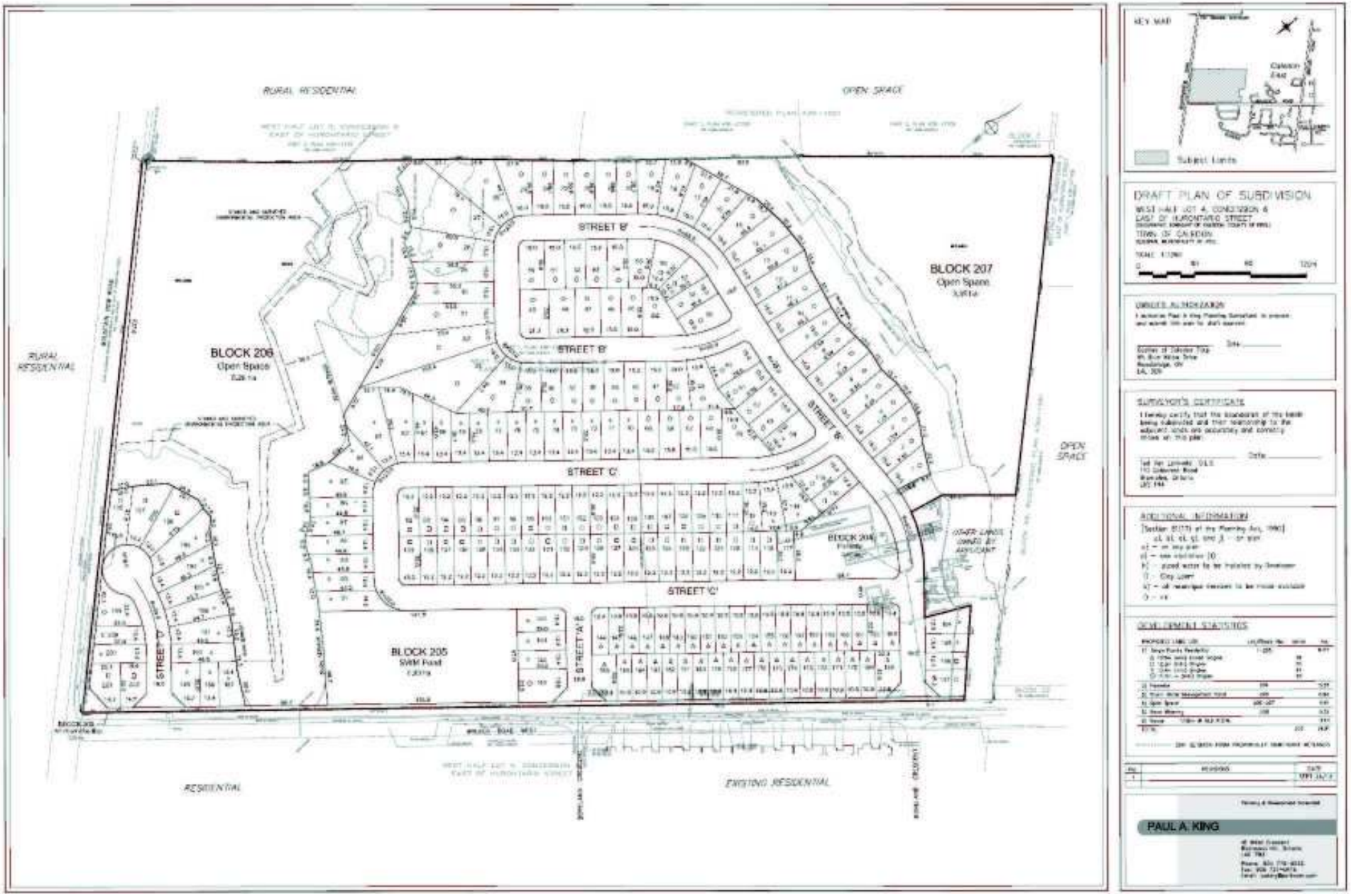


Figure 1-2
Draft Plan of Subdivision

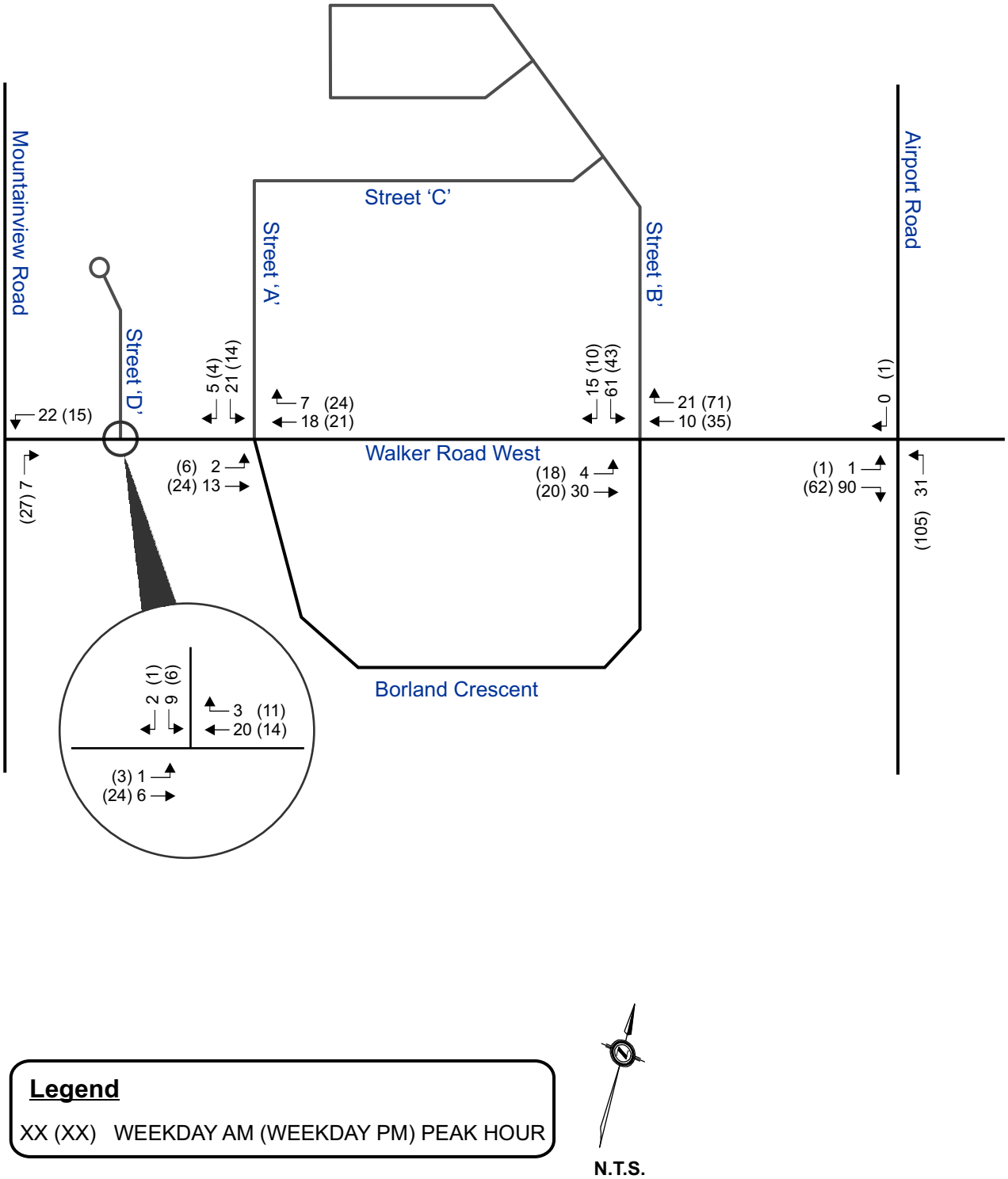


Figure 5-1
Site Traffic Volumes

APPENDIX G

TRAFFIC GROWTH RATES – RECEIVED FROM THE REGION OF PEEL

Date: November 23, 2023
Requestor: Brian Wong, CANDEVCON GROUP INC.
Request Type: Growth Rate Data Request
Location: Airport Rd between Old Church Rd and Cranston Dr

Brian Wong,

See below the forecasted compound annual growth rate values for Airport Rd between Old Church Rd and Cranston Dr.

2011 to 2021	2021 to 2031	2031 to 2041
1.5%	1.5%	0.5%

These growth rates are estimated using several sources including socioeconomic data and results from the Region of Peel's Travel Demand Forecasting Model. It is important to exercise professional judgment when using these values.

If you require further assistance, please contact me at transportationplanningdata@peelregion.ca

Regards,

Ucchas Saha
Transportation Planner, Transportation Planning
Transportation Division | Public Works | Region of Peel
10 Peel Centre Drive, Suite B, 4th Floor
Brampton, ON L6T 4B9

Date: November 23, 2023
Requestor: Brian Wong, CANDEVCON GROUP INC.
Request Type: Growth Rate Data Request
Location: Old Church Rd east of Airport Rd

Brian Wong,

See below the forecasted compound annual growth rate values for Old Church Rd east of Airport Rd.

2011 to 2021	2021 to 2031	2031 to 2041
1.5%	1.5%	1.0%

These growth rates are estimated using several sources including socioeconomic data and results from the Region of Peel's Travel Demand Forecasting Model. It is important to exercise professional judgment when using these values.

If you require further assistance, please contact me at transportationplanningdata@peelregion.ca

Regards,

Ucchas Saha
Transportation Planner, Transportation Planning
Transportation Division | Public Works | Region of Peel
10 Peel Centre Drive, Suite B, 4th Floor
Brampton, ON L6T 4B9