

File 419414

June 29, 2020

Anas Khattani  
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40 Vogell Road, Suite 51  
Richmond Hill, ON L4B 3N6

Re: Old Church Road Residential Development, Town of Caledon  
Traffic Impact Brief

Dear Anas:

As requested, we have reviewed the site plan for the proposed townhouse development to be located at on Old Church Road in the Town of Caledon (as illustrated in Figure 1) from a transportation perspective, addressing site access, site traffic volumes, sight lines at the access point, potential impacts to the adjacent road system and potential transportation demand management opportunities. Our comments are set out in this letter report.

## EXISTING CONDITIONS

### Existing Site

The subject site is located on the north side of Old Church Road, with an overall area of 1.61 hectares (3.95 acres). The site currently consists of several residential lots, including 1 and 2 Russell Mason Court and 6122, 6124, 6126, 6142, 6110, 6112 and 6114 Old Church Road. The lands are legally known as Part 21, Concession 1, Town of Caledon, Regional Municipality of Peel.

### Road Network

Old Church Road (Regional Road 22) is an arterial road under the jurisdiction of the Regional Municipality of Peel. It is oriented from the southwest to the northeast (and vice versa); for purposes of this report it is considered an east-west road. The road has a two-lane urban cross-section with curb and gutter and sidewalks on both sides of the road. The posted speed limit is 50 km/h and thus a design speed of 60 km/h has been considered (posted speed limit + 10 km/h for lower speed roads). As an arterial road, Old Church Road has an assumed planning capacity of 800 vphpl.

The study area road network is illustrated in Figure 2.

**Traffic Volumes**

To establish the existing conditions on Old Church Road, traffic counts were conducted at the intersection of Old Church Road with Marilyn Street (the most westerly intersection recognizing that Marilyn Street is effectively a crescent thereby having 2 intersections with Old Church Road) on Wednesday June 19, 2019 from 7:00 to 10:00 and 16:00 to 19:00. The corresponding traffic count details are provided in Appendix A. Given the timing of the traffic counts, the observed volumes are considered reflective of typical summer conditions.

The 2019 peak hour volumes are illustrated in Figure 3.

**Road Section Operations**

As indicated in Figure 3, the existing peak directional peak hour volumes along Old Church Road are in the order of 376 to 419 vehicles. As previously noted, Old Church Road has an assumed lane capacity of 800 vphpl. As such, Old Church Road is operating at 52% of capacity or less. Thus, the study area road network is operating well below capacity and can readily accommodate additional growth.

**PROPOSED DEVELOPMENT**

**Site Location**

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

**Proposed Land-use**

The proposed development will consist of 12 single detached lots and 25 townhouse units with access provided via a new municipal road and 8.0 metre laneway. Build-out of the site is anticipated by 2022.

A concept plan is provided in Figure 4.

As indicated on the concept plan, an additional development may occur to the west of the site with extension of the municipal road and laneway through to Marilyn Street (the noted lands are currently occupied by 3 residences). However, the timing for the development of the additional lots is unknown - thus, this study has only considered the 37-unit development as per the concept plan.

**Site Access**

As illustrated in Figure 4, the development will be served by a new municipal road with connection to Old Church Road. The new intersection will be located approximately 145 metres east of the west intersection with Marilyn Street and 80 metres west of the east intersection with Marilyn Street. As a new municipal road, the intersection with Old Church Road will be designed to Town standards.

Access to the individual lots will be provided via direct driveway access to the new municipal road. As per the concept plan, the townhouse lots fronting onto Old Church Road will have driveway access via an 8.0 metre rear laneway (i.e. no driveway access is proposed to Old Church Road).

As previously noted, additional development to the west of the site is anticipated at a later date (the timing of which is currently unknown). While the future development of these lands has not been explicitly considered in terms of traffic impacts, a brief review of the extension of the proposed municipal road and laneway through to Marilyn Street has been provided. 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 future extension of 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 location of the future extension of the proposed municipal road 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.

Based on the above, the future intersections of municipal road and laneway with Marilyn Street are acceptable in terms of intersection separation and corner clearance.

### **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 B). It is noted that the site will also include a temporary 6.0 metre laneway to be located at the west limit of the site, connecting the rear lane way to the new municipal road. The intent of the temporary laneway is to facilitate circulation for service vehicles (i.e. snowplow operations, waste collection, etc.) until such time that the lands to the west are developed and the 8.0m laneway extended west to Marilyn Street. In terms of design elements for the temporary lane, a minimum inside curb radius of 6.0 metres and centreline radius of 9.0 metres is considered reasonable.

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.).

### **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 published ITE trip generation rates. Based on the proposed

residential uses, the *single family detached* (ITE code 210) and *multifamily housing (low-rise)* (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 12 single detached and 25 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 than 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 1.

**Table 1: Trip Generation**

LAND-USE	TRIP BASIS	WEEKDAY AM PEAK HOUR			WEEKDAY PM PEAK HOUR		
		IN	OUT	TOTAL	IN	OUT	TOTAL
single family detached (ITE 210)	equation <sup>1</sup>	$(T) = 0.71(X) + 4.80$			$\ln(T) = 0.96\ln(X) + 0.20$		
	distribution	25%	75%	100%	58%	42%	100%
	estimate	3	10	13	8	5	13
multi-family housing (low-rise) (ITE 220)	equation <sup>1</sup>	$\ln(T) = 0.92\ln(X) - 0.51$			$\ln(T) = 0.98\ln(X) - 0.52$		
	distribution	20%	80%	100%	65%	35%	100%
	estimate	3	9	12	9	5	14
<b>Total</b>		<b>6</b>	<b>19</b>	<b>25</b>	<b>17</b>	<b>10</b>	<b>27</b>

<sup>1</sup> 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 25 trips during the weekday AM peak hour and 27 trips during the weekday PM peak hour (total of inbound and outbound trips).

**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 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.

**FUTURE CONDITIONS**

**Population Growth**

The *Town of Caledon Official Plan*<sup>1</sup> indicates the population of the Town grew 4.2% between 2006 to 2011, translating to 0.83% per annum. The 2016 Census Canada profile indicates a population growth from 59,460 in 2011 to 66,502 in 2016, translating to 2.3% per annum

The *Official Plan* also provides population and employment forecasts for the period of 2011 to 2031. From 2011 to 2031, the official plan forecasts that the population and employment are expected to increase by 80% and 44% respectively, or 3.0% and 2.2% per annum.

**Traffic Growth**

The Town's *Transportation Master Plan*<sup>2</sup> utilized a growth rate of 2.3% per annum between 2011 and 2033 for the screenline analysis along Old Church Road.

**Overall Background Growth**

In consideration of the historic growth in the area (both traffic and population) and future growth projections for the Town, a background growth rate of 3.0% per annum has been applied to the traffic volumes on Old Church Road.

**Future Traffic Volumes**

Future traffic volumes expected for the 2022 horizon year have been determined based on the 2019 traffic volumes, adjusted to reflect an annual background growth rate of 3.0% and the additional traffic to be generated by the proposed residential development.

The resulting total traffic volumes are presented in Figure 6.

**TRAFFIC OPERATIONS**

**Road Section Operations**

As per the 2022 total traffic volumes, the peak directional peak hour volumes along Old Church Road are in the order of 416 to 467 vehicles. In considering an assumed lane capacity of 800 vphpl, Old Church Road is expected to operate at 58% of capacity or less. Thus, the study area road network has significant excess capacity to accommodate the 2022 future traffic volumes, including the additional traffic

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<sup>1</sup> *Town of Caledon Official Plan*. Town of Caledon Community Services, April 2018

<sup>2</sup> *Town of Caledon Transportation Master Plan*. Paradigm Transportation Services Limited, October 2017

associated with the proposed development. With respect to lane capacity, no improvements are required to accommodate the proposed development.

It is further noted, that should the distribution realized differ from that which is assumed, the road system will continue to operate acceptably. The future traffic volumes are such that all site traffic can be destined to/from the east or to/from the west on Old Church Road without issue.

**Access Operations**

In consideration of the relatively low volume of trips to be generated by the development and the excess reserve capacity on Old Church Road, the site access is expected to provide excellent operations with minimal delays.

**SIGHT LINE ASSESSMENT**

As per the TAC *Geometric Design Guide for Canadian Roads*<sup>3</sup>, the minimum stopping sight distance for a design speed of 60 km/h (posted 50 km/h + 10 km/h) is 85 metres. This provides sufficient distance for an approaching motorist to observe a stationary hazard in the road (i.e. a vehicle slowing or stopped to turn into the subject site) and bring their vehicle to a complete stop prior to the hazard. The available sight lines along Old Church Road at the proposed site access is provided in Table 2.

**Table 2: Sight Line Assessment**

LOCATION	DESIGN SPEED	MINIMUM STOPPING SIGHT DISTANCE	AVAILABLE SIGHTLINES TO/FROM	
			EAST	WEST
Old Church Road at Site Access	60 km/h	85	200 m +	200 m +

As indicated, the sight lines to/from the east and west along Old Church Road at the proposed site access satisfy the TAC stopping distance requirements for a design speed of 60 km/h. No improvements are required to address the available sight distances.

**TURN LANE REQUIREMENTS**

The need for exclusive right and left turn lanes along Old Church Road at the proposed municipal road was reviewed in consideration of MTO warrants for exclusive left and right turn lanes at unsignalized intersections on a two lane highway with a design speed of 60 km/h (posted speed + 10 km/h).

MTO guidelines suggest that exclusive right turn lanes be considered where right turn volumes exceed 60 vehicles per hour and impede the operations of through traffic. Based on the estimated volume of right

<sup>3</sup> *Geometric Design Guide for Canadian Roads*, Transportation Association of Canada. June 2017

turning traffic accessing the site (in the order of 3 to 9 vehicles per hour) an exclusive right turn lane is not warranted.

With respect to a left turn lane to serve the intersection, the need for such is based on the volume of left turn traffic, the volume of advancing and opposing traffic and the design speed. Given the limited volume of left turns accessing the site (in the order of 3 to 8 vehicles per hour) and excess capacity on Old Church Road, a left turn lane is not required. Furthermore, should 100% of traffic arrive from the west (and thus turn left into the site), a left turn lane would not be required.

**TRANSPORTATION DEMAND MANAGEMENT**

Transportation Demand Management (TDM) is the use of policies, infrastructure, services and marketing and education programs to influence or encourage a behavioural shift in people with respect to how they travel. More specifically, TDM aims to reduce single occupancy vehicle trips and ultimately, the reliance on the private automobile by promoting alternative travel options.

**TDM Opportunities**

The transportation demand management opportunities relevant to the subject development are included below.

**Public Transit**

The site is not currently served by public transit. While the wider area includes inter-regional commuter bus service operated by GO Transit, access to such would likely require use of an automobile (private, taxi, etc). In this respect, transit is not anticipated to be relied on by tenants of the proposed development.

**Pedestrian & Cycling Infrastructure**

The study area is well served by the existing sidewalk infrastructure with sidewalks located on both sides of Old Church Road. As per the *Caledon Transportation Master Plan*<sup>4</sup>, there is a signed cycling route to the north of the site, consisting of Marilyn Street, Miles Drive and Walker Road. The *Transportation Master Plan* further identifies a recommended cycling network for the Town, which includes a shared on-road cycling route along Old Church Road through the study area. The site will provide direct connection to Old Church Road and thus ready access to the existing and proposed pedestrian and cycling facilities.

**Marketing & Education**

A site specific TDM marketing and education package can be prepared and distributed to all new residents of the development. The TDM package should include the following information:

- introduction to TDM objectives, goals and benefits;

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<sup>4</sup> *Caledon Transportation Master Plan*. Paradigm Transportation Solutions. November 2017.

- a travel survey;
- maps of cycling routes in the Town of Caledon and Region of Peel;
- bicycle safety information;
- school travel planning initiatives;
- transit schedules for regional services (i.e. GO Transit); and
- carpool/rideshare information and registration forms.

The marketing and education package should be organized in conjunction with Town and Region staff to ensure consistency with the TDM programs being delivered to other residential developments of similar size within the Town/Region.

**Communication Strategy**

The information packages should be provided to the to the new residents in coordination with the Town/Region. Given the limited size of the development, extensive information sessions are not necessary; rather, TDM details can be provided at point of sale.

**SUMMARY**

**Proposed Development**

The proposed residential development, to be located on Old Church Road in the Town of Caledon will consist of 12 single detached lots and 25 townhouse units. Upon build-out, the development is expected to generate 25 new trips during the AM peak hour and 27 new trips during the PM peak hour.

**Road Section Operations**

In consideration of the available capacity on the road network, the traffic volumes to be generated by the proposed residential development will not have any appreciable impacts on the adjacent road system. No improvements to the road network are required to accommodate the proposed development.

**Turn Lane Requirements**

The need for exclusive right and left turn lanes along Old Church Road at the proposed municipal road was assessed in consideration of MTO warrant criteria. Based on the projected total traffic volumes, exclusive left and right turn lanes are not warranted on Old Church Road at the site access.

**Sight Line Assessment**

The sight lines along Old Church Road at the site access were reviewed based on TAC minimum stopping distance requirements. The available sight lines at the proposed access exceed the TAC minimum



stopping sight distance requirements for a 60 km/h design speed. As such, no improvements are required to address the available sight distances.

**Transportation Demand Management**

The benefits and objectives of Transportation Demand Management was discussed and opportunities for such were identified for the subject site. The proposed development can include a variety of TDM opportunities including a marketing and education package that is distributed to new residents of the residential development. The package should include a travel survey, cycling maps, transit maps and schedules, safety tips and other information regarding programs supporting alternative modes of transportation.

Should you have any questions or comments concerning the above, please do not hesitate to contact us directly.

Yours truly,  
**Tatham Engineering Limited**



David Perks, M.Sc., PTP  
Transportation Planner, Project Manager  
JL/DP:jl/dp



Michael Cullip, B.Eng. & Mgmt., M.Eng., P.Eng.  
Vice President Head Office Operations



**6311 Old Church Road**  
Figure 1: Site Location





**6311 Old Church Road**

Figure 2A: Area Road Network





Looking east along Old Church Road from Marilyn Street (west)



Looking west along Old Church Road from Marilyn Street (west)

**6311 Old Church Road**

Figure 2B: Area Road Network





Looking east along Old Church Road from Russell Mason Court

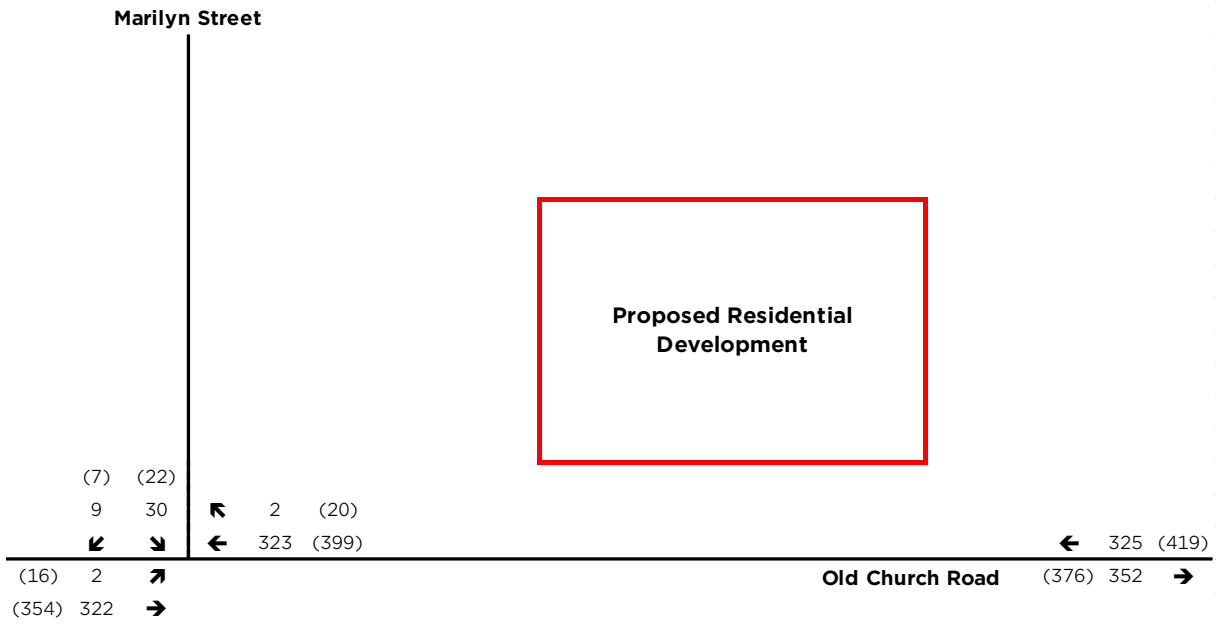


Looking west along Old Church Road from Russell Mason Court

**6311 Old Church Road**

Figure 2C: Area Road Network

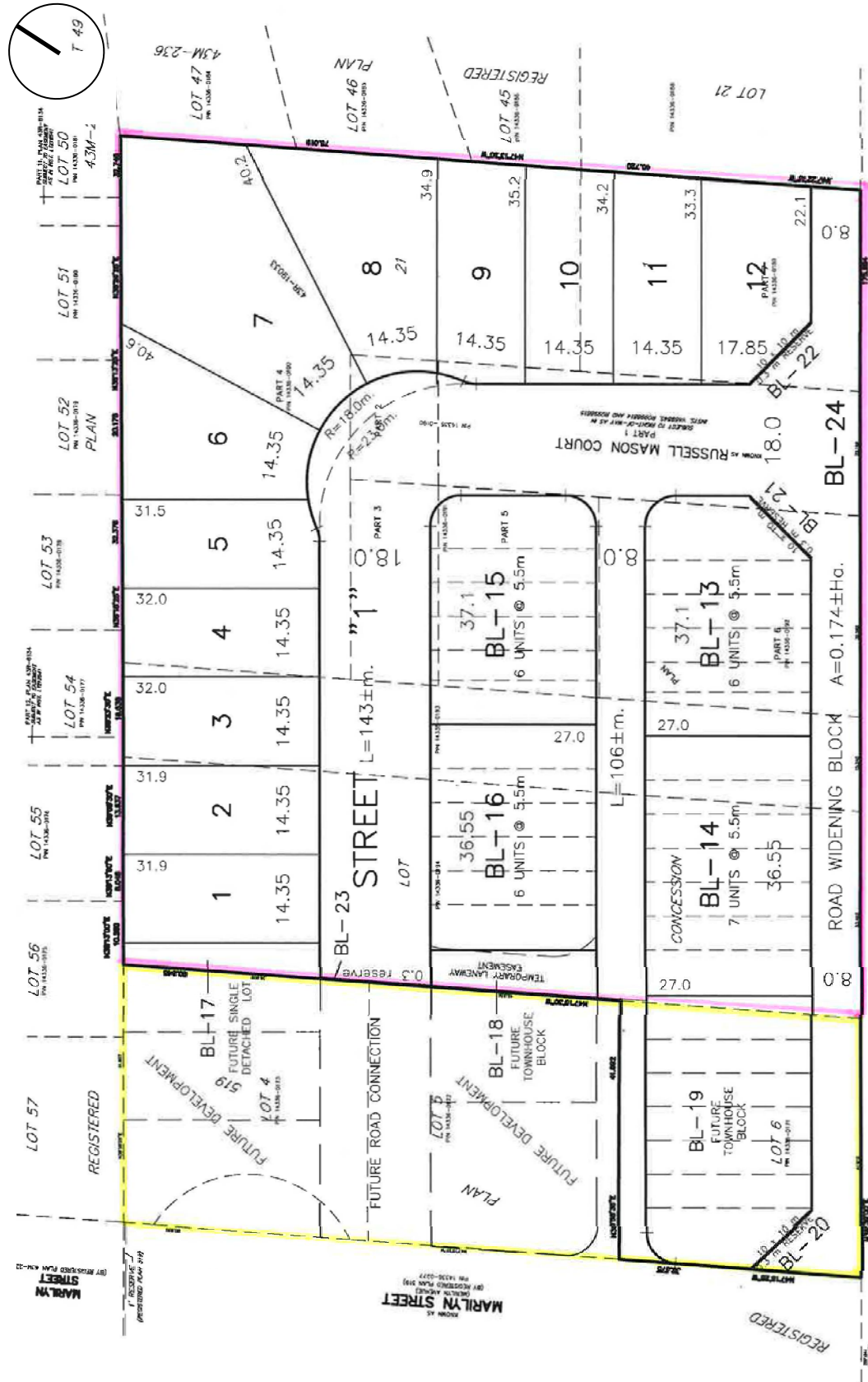




100 Weekday AM Peak Hour  
 (100) Weekday PM Peak Hour

**6311 Old Church Road**  
 Figure 3: 2019 Traffic Volumes

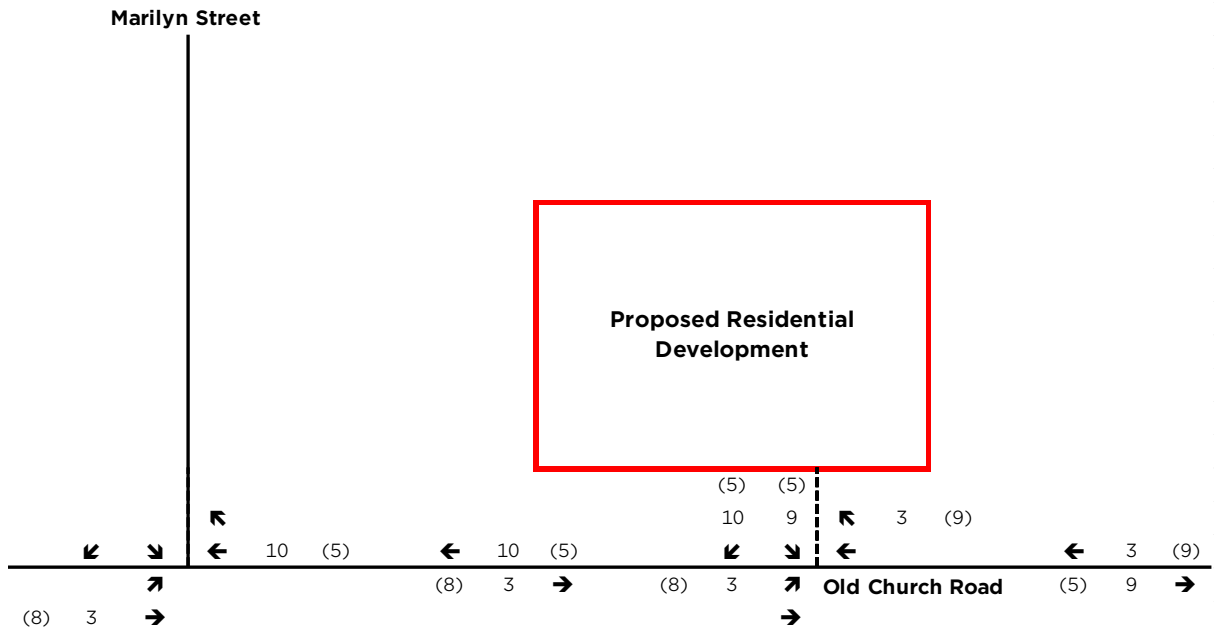




KNOWN AS OLD CHURCH ROAD  
 ROAD ALLOWANCE BETWEEN LOTS 20 AND 21, CONCESSION 1  
 PLAN 1426-1043

6311 Old Church Road  
 Figure 4: Concept Plan





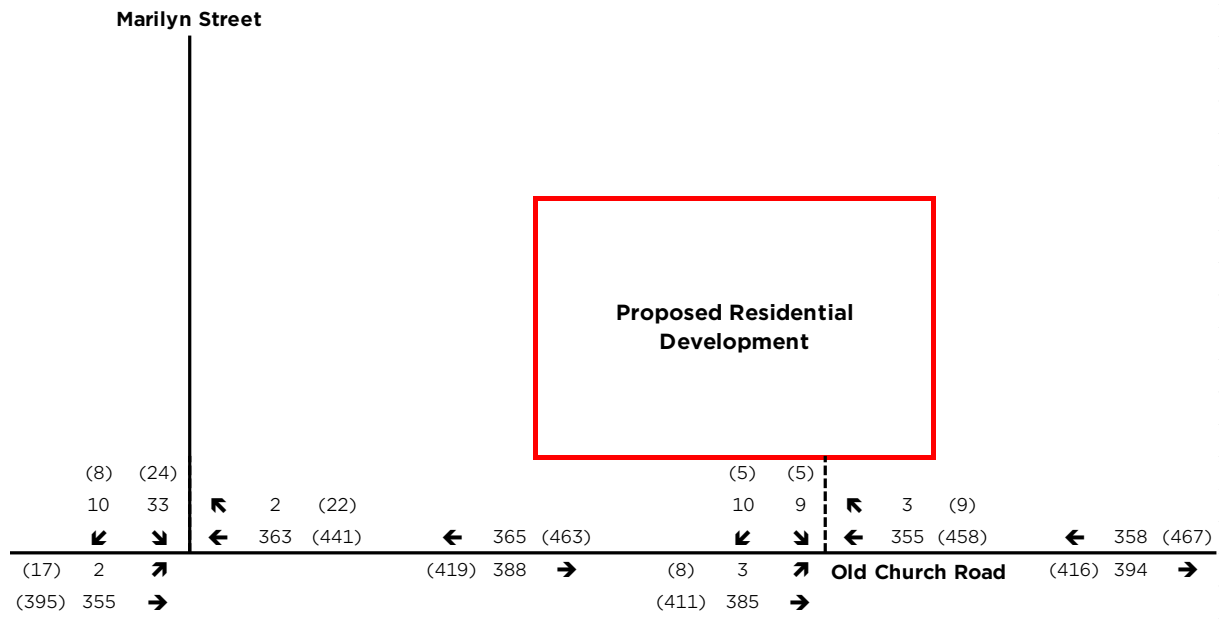
100 Weekday AM Peak Hour  
 (100) Weekday PM Peak Hour

**6311 Old Church Road**

Figure 5: Site Generated Traffic Volumes







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

**6311 Old Church Road**  
 Figure 6: 2022 Total Traffic Volumes



# Appendix A: Traffic Counts

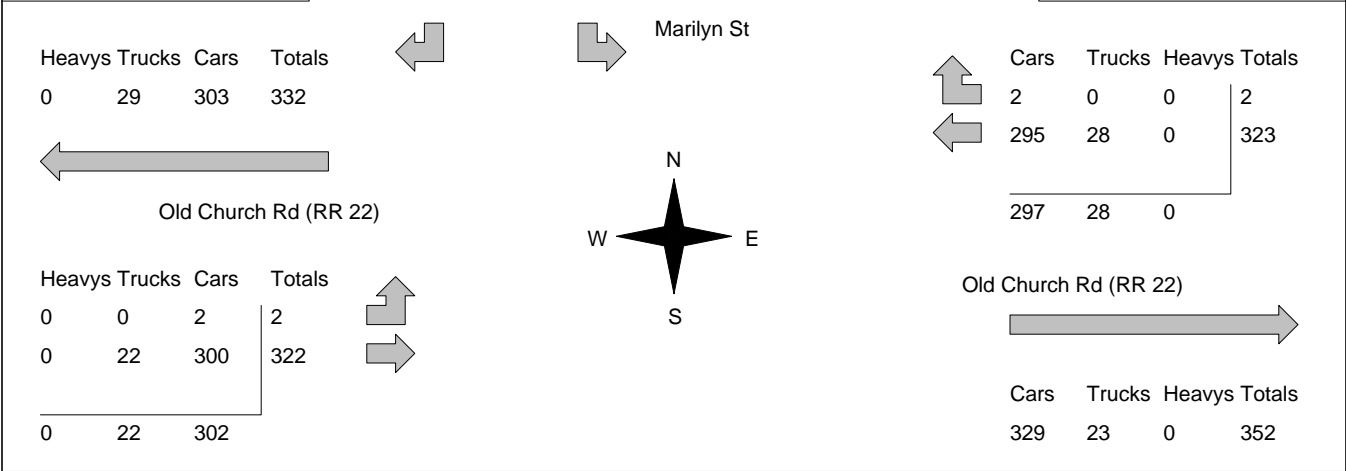
# Ontario Traffic Inc.

<b>Morning Peak Diagram</b>	<b>Specified Period</b> <b>From:</b> 7:00:00 <b>To:</b> 10:00:00	<b>One Hour Peak</b> <b>From:</b> 7:45:00 <b>To:</b> 8:45:00
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<b>Municipality:</b> Caledon <b>Site #:</b> 1922600001 <b>Intersection:</b> Old Church Rd (RR 22) & Marilyn St <b>TFR File #:</b> 16 <b>Count date:</b> 19-Jun-19	<b>Weather conditions:</b>  <b>Person(s) who counted:</b>
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**\*\* Non-Signalized Intersection \*\***      **Major Road:** Old Church Rd (RR 22) runs W/E

North Leg Total: 43 North Entering: 39 North Peds: 3 Peds Cross: $\times$	<table border="1" style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>Trucks</td><td>1</td><td>1</td><td>2</td></tr> <tr><td>Cars</td><td>8</td><td>29</td><td>37</td></tr> <tr><td>Totals</td><td>9</td><td>30</td><td></td></tr> </table>	Heavys	0	0	0	Trucks	1	1	2	Cars	8	29	37	Totals	9	30			<table border="1" style="border-collapse: collapse;"> <tr><td>Heavys</td><td>0</td></tr> <tr><td>Trucks</td><td>0</td></tr> <tr><td>Cars</td><td>4</td></tr> <tr><td>Totals</td><td>4</td></tr> </table>	Heavys	0	Trucks	0	Cars	4	Totals	4	East Leg Total: 677 East Entering: 325 East Peds: 0 Peds Cross: $\times$
Heavys	0	0	0																									
Trucks	1	1	2																									
Cars	8	29	37																									
Totals	9	30																										
Heavys	0																											
Trucks	0																											
Cars	4																											
Totals	4																											



Peds Cross: $\times$ West Peds: 0 West Entering: 324 West Leg Total: 656	
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Comments

# Ontario Traffic Inc.

## Afternoon Peak Diagram

### Specified Period

**From:** 16:00:00

**To:** 19:00:00

### One Hour Peak

**From:** 16:15:00

**To:** 17:15:00

**Municipality:** Caledon  
**Site #:** 1922600001  
**Intersection:** Old Church Rd (RR 22) & Marilyn St  
**TFR File #:** 16  
**Count date:** 19-Jun-19

**Weather conditions:**

**Person(s) who counted:**

**\*\* Non-Signalized Intersection \*\***

**Major Road:** Old Church Rd (RR 22) runs W/E

North Leg Total: 65

North Entering: 29

North Peds: 0

Peds Cross:  $\times$

Heavys	0	0	0
Trucks	0	0	0
Cars	7	22	29
<b>Totals</b>	<b>7</b>	<b>22</b>	



Heavys 0

Trucks 1

Cars 35

Totals 36

East Leg Total: 795

East Entering: 419

East Peds: 0

Peds Cross:  $\times$

Heavys	Trucks	Cars	Totals
0	10	396	406



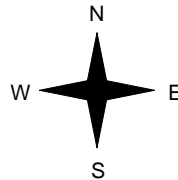
Marilyn St



Cars	Trucks	Heavys	Totals
20	0	0	20
389	10	0	399
<b>409</b>	<b>10</b>	<b>0</b>	



Old Church Rd (RR 22)



Heavys	Trucks	Cars	Totals
0	1	15	16
0	20	334	354



Old Church Rd (RR 22)



Heavys 0

Trucks 21

Cars 349

Totals 370

West Entering: 370

West Leg Total: 776

Cars	Trucks	Heavys	Totals
356	20	0	376

Peds Cross:  $\times$

West Peds: 1

West Entering: 370

West Leg Total: 776

## Comments

# Ontario Traffic Inc.

## Total Count Diagram

**Municipality:** Caledon  
**Site #:** 1922600001  
**Intersection:** Old Church Rd (RR 22) & Marilyn St  
**TFR File #:** 16  
**Count date:** 19-Jun-19

**Weather conditions:**  
**Person(s) who counted:**

**\*\* Non-Signalized Intersection \*\***

**Major Road:** Old Church Rd (RR 22) runs W/E

North Leg Total: 310  
 North Entering: 197  
 North Peds: 28  
 Peds Cross:  $\times$

Heavys	0	0	0
Trucks	5	2	7
Cars	60	130	190
<b>Totals</b>	<b>65</b>	<b>132</b>	



Heavys	0
Trucks	5
Cars	108
<b>Totals</b>	<b>113</b>

East Leg Total: 3933  
 East Entering: 1893  
 East Peds: 2  
 Peds Cross:  $\times$

Heavys	Trucks	Cars	Totals
0	98	1796	1894



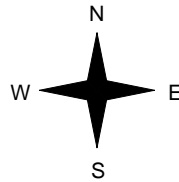
Marilyn St



Cars	Trucks	Heavys	Totals
62	2	0	64
1736	93	0	1829
<b>1798</b>	<b>95</b>	<b>0</b>	



Old Church Rd (RR 22)



Heavys	Trucks	Cars	Totals
0	3	46	49
0	101	1807	1908
<b>0</b>	<b>104</b>	<b>1853</b>	



Old Church Rd (RR 22)



Cars	Trucks	Heavys	Totals
1937	103	0	2040

Peds Cross:  $\times$   
 West Peds: 18  
 West Entering: 1957  
 West Leg Total: 3851

### Comments

# Ontario Traffic Inc. Traffic Count Summary

Intersection: Old Church Rd (RR 22) & Marilyn      Count Date: 19-Jun-19      Municipality: Caledon

North Approach Totals						South Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	North/South Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	25	0	18	43	9	43	8:00:00	0	0	0	0	3
9:00:00	28	0	10	38	3	38	9:00:00	0	0	0	0	4
10:00:00	20	0	8	28	0	28	10:00:00	0	0	0	0	9
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	20	0	7	27	8	27	17:00:00	0	0	0	0	4
18:00:00	19	0	9	28	1	28	18:00:00	0	0	0	0	13
19:00:00	20	0	13	33	7	33	19:00:00	0	0	0	0	7
Totals:	132	0	65	197	28	197		0	0	0	0	40

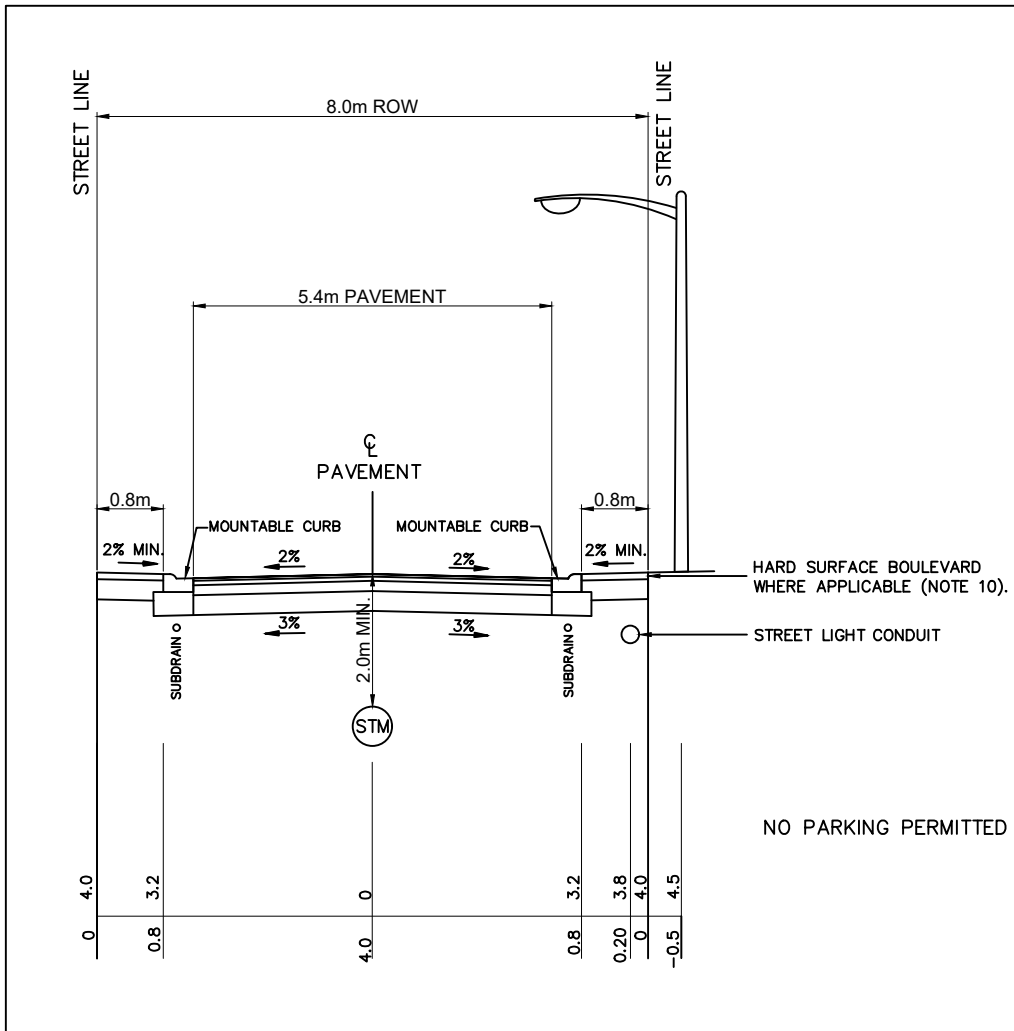
East Approach Totals						West Approach Totals						
Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds	East/West Total Approaches	Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total				Left	Thru	Right	Grand Total	
7:00:00	0	0	0	0	0	0	7:00:00	0	0	0	0	0
8:00:00	0	291	3	294	0	504	8:00:00	1	209	0	210	0
9:00:00	0	304	5	309	0	648	9:00:00	2	337	0	339	0
10:00:00	0	257	10	267	0	522	10:00:00	4	251	0	255	0
16:00:00	0	0	0	0	0	0	16:00:00	0	0	0	0	0
17:00:00	0	426	18	444	0	788	17:00:00	14	330	0	344	3
18:00:00	0	302	21	323	2	719	18:00:00	12	384	0	396	4
19:00:00	0	249	7	256	0	669	19:00:00	16	397	0	413	11
Totals:	0	1829	64	1893	2	3850		49	1908	0	1957	18

**Calculated Values for Traffic Crossing Major Street**

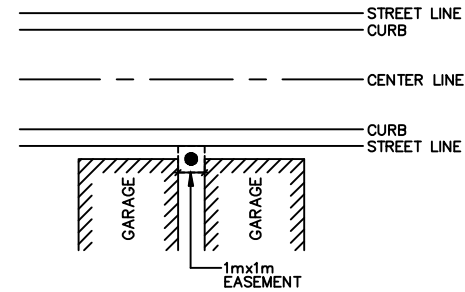
Hours Ending:	7:00	8:00	9:00	10:00	16:00	17:00	18:00	19:00
Crossing Values:	0	25	28	20	0	23	25	31

# Appendix B: Town of Caledon Development Standard Drawings

Jul 21, 2020



PLAN:



NOTES

1. THE FOLLOWING IS A MINIMUM ROAD BASE AND WILL REQUIRE A SOILS REPORT VERIFICATION  
40 mm HL3  
65 mm HL8  
150 mm GRANULAR "A"  
300 mm GRANULAR "B"
2. STREETLIGHT FIXTURE PER APPROVED TOWN STANDARD.
3. FULL LENGTH MINIMUM 100 MM DIA. SUB-DRAINS C/W FILTERCLOTH SHALL BE INSTALLED, AS PER APPROVED TOWN OF CALEDON STANDARD NO. 218.
4. SUB-GRADE SHALL BE COMPACTED TO A MINIMUM 95% OF S.P.D. AT OPTIMUM MOISTURE CONTENT.
5. WHERE POSSIBLE MANHOLE LIDS TO BE LOCATED OUT OF TIRE LANE OF TRAFFIC.
6. TRANSFORMERS TO BE LOCATED ON SIDE STREETS WHERE POSSIBLE OR ALTERNATIVELY ON EASEMENT ADJACENT TOLANEWAY.
7. STREET LIGHT POLE IN 1mx1m EASEMENT.
8. 50m MAXIMUM POLE SPACING AND THEREFORE MAXIMUM LANEWAY LENGTH IS 50m WITHOUT LANEWAY ILLUMINATION.
9. ONLY STORM SEWERS ARE PERMITTED WITHIN LANEWAYS.
10. WHERE LANEWAYS ARE PROPOSED ADJACENT RESIDENTIAL REAR YARDS, HARD SURFACING IS TO BE INSTALLED FROM THE BACK OF CURB TO THE STREET LINE. HARD SURFACE TYPE IS AT THE DISCRETION OF THE TOWN.

TOWN OF CALEDON		4	TEXT AND SLOPE REVISIONS	JULY 19	APR'D: C.C.	DATE: JUNE 08
		3	DIMENSION AND TEXT REVISION	JAN. 09		
8.0m LANEWAY 6.0m ROADWAY (5.4m PAVEMENT)		2	DIMENSION AND LAYOUT REVISION	JULY 08	DRAWN:	SCALE: N.T.S.
		1	NOTES EDIT, STANDARD No. 225 NOW 200	JUNE 08		
		NO.	REVISION	APR'D	DATE	STANDARD No. 200