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Transportation Brief for 302-306 Edinburgh Road South

INTRODUCTION

GHD Ltd. has been retained to prepare this Transportation Brief and to provide a professional opinion regarding the proposed driveways for a residential development located on the property with municipal address of 302 and 306 Edinburgh Road South in the City of Guelph.

This brief provides a professional assessment of the traffic impacts associated with the proposed redevelopment of two single-family homes into four semi-detached homes, introducing a total of five new driveways along Edinburgh Road South. The goal is to demonstrate that the proposed development along with new driveway configuration will not significantly impact traffic operations or safety along Edinburgh Road South.

The location of the subject site is illustrated in **Figure 1** below.

Figure 1 Site Location

Existing Road Network

Edinburgh Road South is a north/south arterial road under the jurisdiction of the City of Guelph. It extends from Gordon Street in the south to Woodlawn Road West to the north. It has a four-lane urban cross-section adjacent to the subject site with an assumed speed limit of 50 km/h.

Existing Pedestrian and Cycling Network

Sidewalks are provided along both sides of Edinburgh Road South. No cycling infrastructure is provided along Edinburgh Road South.

Existing Transit Service

Guelph Transit operates the following route near the subject site:

Route 8 (Stone Road Mall) Route 8 to Stone Road Mall operates Monday to Friday from 5:45 AM to 12:38 AM, with buses running every 20 minutes during peak hours (5:45 AM to 6:55 PM) and every 30 minutes in the evening (7:15 PM to 12:38 AM). On Saturdays, service begins at 9:15 AM and ends at 12:38 AM, maintaining a 30-minute frequency throughout the day. Sundays and holidays offer hourly service from 9:45 AM to 7:08 PM. The route connects Guelph Central Station (Platforms 2 and 3), Stone Road Mall (Platform 1), and key stops along Edinburgh Road, College Avenue, and Scottsdale Drive. Evening and holiday service frequencies are reduced to accommodate lower demand.

The nearest existing transit routes and stops adjacent to the subject site is illustrated in **Figure 2**.

Figure 2 Existing Transit Stop and Route Near the Subject Site

Existing Vehicle Volumes

GHD contracted Ontario Traffic Inc. to conduct a survey of the existing traffic volumes on Edinburgh Road South in the vicinity of the subject site. The surveys were completed on Thursday January 9th, 2025, during the morning and afternoon peak periods.

Figure 3 below illustrates the volume of traffic observed with the full data provided in **Appendix A**.

Figure 3 Existing Volumes on Edinburgh Road South

PROPOSED DEVELOPMENT

The proposed development of the subject site would demolish the existing single family detached unit on both sites and sever each lot into four new lots, each containing a semi-detached dwelling unit for a total of four new semi-detached dwellings. A copy of the Site Plan is provided in **Figure 4** below.

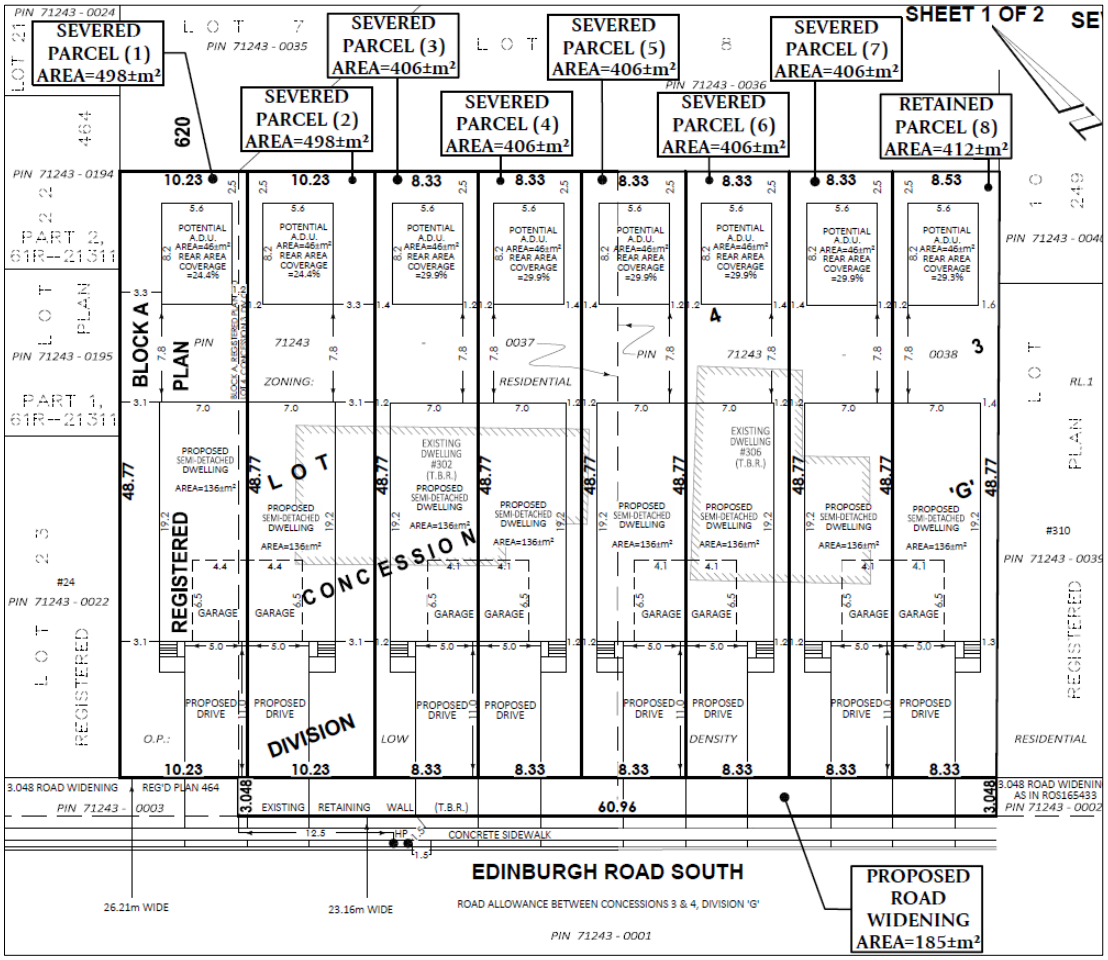


Figure 4 Proposed Site Plan

Each semi-detached unit is further proposed to contain one potential external Accessory Dwelling Unit resulting in a total of two dwelling units per lot.

An Accessory Dwelling Unit (ADU) is a secondary, smaller residential unit located on the same lot as a primary dwelling. ADUs can provide additional living space for family members, renters, or other occupants.

Key characteristics of ADUs include:

- They have their own kitchen, bathroom, and sleeping areas, functioning as a complete, self-contained unit.
- ADUs can be detached from the main home (a separate structure), attached (such as a converted garage), or built within the main home (like a basement or attic conversion).
- Smaller footprint: ADUs are typically smaller than the primary residence.

ADUs are popular for creating rental income, providing housing for extended family or elderly parents or increasing housing availability in urban areas without large-scale developments.

The Ontario Planning Act “as-of-right” permits ADUs as part of a strategy to address housing shortages and affordability.

TRAFFIC CONSIDERATIONS AND SAFETY

Road Characteristics

The proposed driveways are situated along a straight, level section of Edinburgh Road South, which has a speed limit of 50 km/h. This moderate speed limit supports safe vehicle operations by allowing drivers ample time to respond to typical road conditions and anticipate interactions with other vehicles. Also, this stretch of Edinburgh Road South already features numerous residential driveways, creating an environment where drivers are accustomed to vehicles making turning movements into and out of private properties. This conditioning contributes to an overall driving behavior that accounts for potential ingress and egress activities, thereby reducing the likelihood of operational issues or unforeseen hazards associated with the addition of new driveways.

Furthermore, Edinburgh Road South's straight and level design offers unobstructed visibility for vehicles entering and exiting the proposed driveways. This optimal sightline condition extends to pedestrians and cyclists using adjacent sidewalks, enhancing overall safety for all road users. The clear visibility allows drivers to see and react appropriately to any movement within the vicinity, further supporting safe operations. The combination of a moderate speed limit, driver familiarity with similar existing conditions, and excellent sightlines reinforces the suitability of these proposed driveways from a traffic engineering perspective. This ensures that the additional driveways will integrate smoothly into the current road network without compromising safety or operational efficiency.

Driveway Frontage Compliance

Despite being currently under appeal, the proposed driveway widths of 5 metres meet the City’s new zoning By-law (2023)-20790 requirements, as outlined in Table 5.10 – Maximum residential driveway width. This is significant as it demonstrates that the proposed driveways align with the most current municipal standards, ensuring consistency with broader urban planning and safety guidelines.

Moreover, by aligning with the City’s zoning standards, the proposal contributes to maintaining traffic flow efficiency and minimizing potential conflicts between vehicles and pedestrians, which is essential for a safe and functional urban environment.

Setbacks and Visibility

The driveways comply with the setback and visibility requirements in the City’s Zoning By-law (2023)-20790, ensuring clear sightlines for both vehicles entering/exiting the driveways and pedestrians/cyclists using the adjacent sidewalks. No obstructions or hazards are anticipated that would affect the operational safety of these access points.

Precedent Along the Corridor

This section of Edinburgh Road South is characterized by a well established pattern of residential driveways, providing direct property access along the corridor. The addition of any new driveways aligns with this existing built form, ensuring that the road continues to operate within familiar operational characteristics for drivers. The existing residential driveways contribute to a consistent and navigable roadway environment and facilitates the seamless integration of new access points without impacting the overall character or functional expectations of the corridor.

Proposed Trip Generation

The proposed development consists of a total of 16 dwelling units consisting of four semi's and 8 additional dwelling units.

GHD reviewed the ITE's definitions for possible land use codes to determine the most appropriate land use in order to estimate the subject site's trip generation. Land use code (LUC) 215 Single-Family Attached Housing was identified as the land uses that most closely resembled the proposed dwelling types of the subject site.

Single-family Attached Housing is defined as "any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space." As a result, site traffic generated by the proposed development for the weekday a.m. and p.m. peak hours was estimated by applying the trip rates for Land Use Code 215.

A comparison of the fitted curve equations and average rates for the Land Use Code was undertaken and whichever calculation resulted in the greater trip generation was used as a conservative measure.

With the lack of active transportation facilities and only general public transit service provided within the study area, no modal split reductions were applied to the ITE Trip Generation rates.

Table 1 summarizes the estimated trip generation for the subject site.

Table 1 Total Site Trip Generation

Land Use Code	Dwelling Units	Parameters	Peak Hour Trip Generation					
			Weekday AM			Weekday PM		
			In	Out	Total	In	Out	Total
Single Family Attached Housing (LUC 215)	16 units	Trip Rate	0.125	0.375	0.50	0.3125	0.25	0.563
		Trip Ratio	25%	75%	100%	59%	38%	41%
		Gross Trips	2	6	8	5	4	9

The proposed development is expected to generate 8 two-way vehicle trips during the a.m. peak hour (2 inbound and 6 outbound) and 9 two-way vehicle trips during the p.m. peak hour (5 inbound and 4 outbound). However, these figures represent gross trip generation and do not account for the pre-existing land use on both properties, which consisted of two single-family homes. Single-family homes typically generate approximately 1 trip during the a.m. peak hour and 1 trip during the p.m. peak hour per dwelling unit, based on ITE Trip Generation rates for Land Use Code 210 (Single-Family Detached Housing).

Therefore, the former single-family homes would have generated approximately 2 two-way vehicle trips during both the a.m. and p.m. peak hours. When subtracting these baseline trips from the gross trip generation of the proposed development, the net increase in vehicle trips is reduced to 6 two-way trips during the a.m. peak hour and 7 two-way trips during the p.m. peak hour.

Driveway Capacity Analysis

Multiple individual driveways for a semi-detached dwelling, positioned side by side, offer operational advantages to accommodate more volumes than a single driveway. This configuration allows each

driveway to independently utilize available gaps in road traffic, thereby improving access efficiency. With multiple driveways, the traffic entering and exiting the site is dispersed which reduces the likelihood of queuing and delays, as each driver can respond to smaller, more frequent gaps in traffic. Multiple individual driveways also reduce the potential for congestion at each driveway, enhances traffic safety by lowering the probability of conflicting manoeuvres, and provides greater flexibility for multiple residents to enter and exit their individual property simultaneously.

GHD completed an HCM capacity analysis to determine the expected delays for a vehicle making the southbound left or northbound right turn into one of the driveways during each peak hour. The results are summarized in the following table and provided in **Appendix B**.

Table 2 Capacity Analysis Inbound Movements

Scenario	AM Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2025 (Right-Turn In)	WBLR = 0.01 (A) 0 NBT = 0.28 (A) 0 **NBTR = 0.14 (A) 0** **SBTL = 0 (A) 0** SBT = 0.34 (A) 0	WBLR = 0 m NBT = 0 m **NBTR = 0 m** **SBTL = 0 m** SBT = 0 m	WBLR = 0.01 (A) 0 NBT = 0.39 (A) 0 **NBTR = 0.19 (A) 0** **SBTL = 0 (A) 0** SBT = 0.35 (A) 0	WBLR = 0 m NBT = 0 m **NBTR = 0 m** **SBTL = 0 m** SBT = 0 m
Existing 2025 (Left-Turn Out)	WBLR = 0.01 (A) 0 NBT = 0.28 (A) 0 **NBTR = 0.14 (A) 0** **SBTL = 0 (A) 0** SBT = 0.34 (A) 0	WBLR = 0 m NBT = 0 m **NBTR = 0 m** **SBTL = 0 m** SBT = 0 m	WBLR = 0.01 (A) 0 NBT = 0.39 (A) 0 **NBTR = 0.19 (A) 0** **SBTL = 0 (A) 0** SBT = 0.35 (A) 0	WBLR = 0 m NBT = 0 m **NBTR = 0 m** **SBTL = 0 m** SBT = 0 m

The capacity analysis for vehicles turning left and right into a driveway indicates minimal delays during both the a.m. and p.m. peak hours. In the a.m. peak hour, the northbound right-turning vehicle experiences a negligible delay of 0 seconds with a volume-to-capacity ratio (V/C) of 0.14 (LOS A), while the southbound left-turning vehicle similarly faces no delay with a V/C of 0 (LOS A). Through traffic on the main street remains unaffected, with zero queuing observed for all movements. In the p.m. peak hour, the northbound right-turning vehicle also incurs no delay, maintaining a V/C of 0.19 (LOS A), and the southbound left-turning vehicle continues to face no delay with a V/C of 0 (LOS A). Again, through traffic on the main street experiences no queuing indicative of smooth traffic flow with negligible impacts from turning movements.

The outbound movements from the driveways were not analyzed using the Highway Capacity Manual (HCM) methodology due to its limitations in addressing the unique characteristics of such movements. Specifically, the HCM framework is designed for standardized analysis, where outbound movements would involve typical forward motion with well-defined operational parameters. However, in many cases for the proposed residential driveways, vehicles exiting are required to back out onto the roadway, which inherently takes more time due to the need for cautious manoeuvring, additional observation of oncoming traffic, and alignment into the travel lane. This scenario introduces variability that the HCM does not account for, such as the longer duration required to safely execute the manoeuvre and the potential for interruptions to the flow of traffic. As a result, a qualitative assessment is more appropriate to reflect the realistic conditions of these movements which is summarized in the next section.

Field Observations

GHD staff were on site to observe the operation of traffic along Edinburgh Road South during the a.m. and p.m. peak hours of a typical weekday. A video camera was also installed to capture video of the roadway so that it could be reviewed in more detail in the office. The camera was installed at the following location at the intersection of Edinburgh Road South and Flora Drive/Lynwood Avenue.

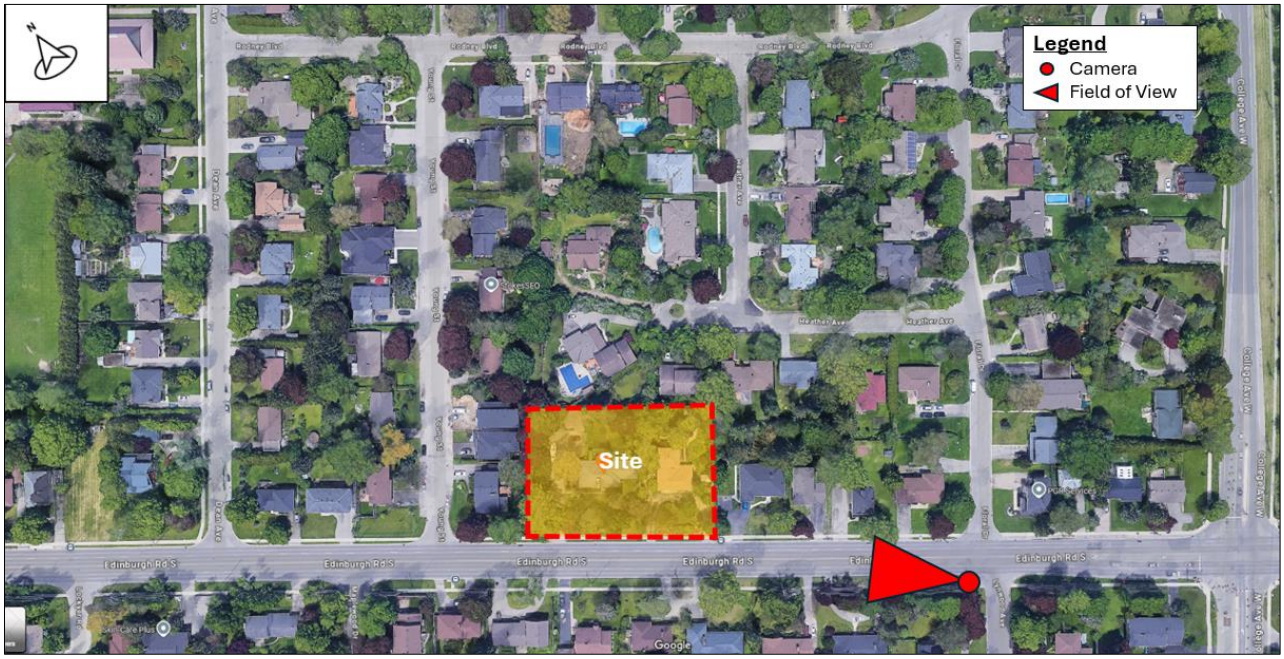


Figure 5 Field Camera location and Field of View

A sample screenshot of the field of view is provided in the following figure.

Figure 6 Camera Field of View on Edinburgh Drive facing North

The assessment was conducted using video observations of traffic flows on Edinburgh Road South to analyze the availability of gaps in traffic created by the influence of traffic signals located to the north and south of the subject site.

Traffic signals located on either side of a development play a critical role in influencing traffic flow patterns, creating a phenomenon known as traffic platooning. Platooning refers to the grouping of vehicles into clusters or "platoons," which are typically separated by relatively larger gaps in traffic. This dynamic occurs because traffic signals control the flow of vehicles by alternately stopping and releasing them in response to the red and green light phases. As vehicles are released from a traffic signal during a green light, they tend

to travel in a compact formation until they encounter downstream influences such as another traffic signal, intersections, or variations in vehicle speeds.

Traffic signals act as gatekeepers of vehicular movement, breaking what would otherwise be a continuous flow of vehicles into structured intervals. With each red phase when the signal turns red again, the platooning process is repeated, ensuring that traffic flow is punctuated by periodic gaps.

For any development with driveways accessing a roadway flanked by traffic signals, these gaps generated by platooning offer significant operational benefits. Vehicles entering or exiting the driveways can take advantage of the periods when the platoons have passed, as the gaps in traffic provide safer and more convenient opportunities for maneuvers. This is particularly important on arterial roads or collector roads where traffic volumes are higher, and uninterrupted traffic flow would otherwise make driveway movements more challenging.

One of the primary advantages of traffic platooning for driveway operations is the reduction in conflict points. When vehicles exiting the driveways encounter a platoon, they may need to wait momentarily until the platoon passes. However, the subsequent gap provides a window of opportunity for safe entry onto the roadway. Similarly, vehicles entering the driveways can utilize these gaps to reduce the risk of rear-end collisions with following vehicles. This dynamic enhances safety and efficiency, as drivers are more likely to find sufficient time and space to complete their maneuvers without disrupting the overall flow of traffic.

Moreover, the predictability of platoons can improve driver decision-making. When drivers anticipate the arrival of a platoon, they can adjust their behavior accordingly, either by preparing to yield or by timing their movements to align with the gaps. This predictability reduces hesitation and indecision, which are common contributors to traffic conflicts and delays. For the development, this translates to smoother ingress and egress operations, minimizing the potential for congestion or bottlenecks at the driveways.

During GHD's site visit and subsequent review of the video footage of traffic flows on Edinburgh Road South near the subject site, we observed several instances of vehicles backing out of existing driveways onto Edinburgh Road South. This manoeuvre is typical for residential driveways without turnarounds and requires drivers to exercise caution by checking for oncoming traffic in one or both directions before reversing onto the road. These observations confirm that such movements are an existing regular part of traffic patterns along Edinburgh Road South. Despite the additional time required for vehicles to back out of a driveway, the frequent and sizable gaps in traffic flow along Edinburgh Road South as documented in the analysis below, demonstrates sufficient opportunities for drivers to complete these manoeuvres without significant delay or risk to traffic flow. These findings align with the recorded data, demonstrating that traffic conditions along Edinburgh Road South can accommodate turning movements from residential driveway effectively.

In reviewing the video footage during the busiest hours during the morning and afternoon, GHD recorded the instances of gaps larger than 20 seconds in the northbound and southbound traffic flows to determine how much traffic can exit and enter the driveways during the peak hours. A 20 second gap is considered appropriate for analysis as it provides ample time for a driver to enter a driveway or to safely assess traffic conditions, reverse onto the road, accelerate, and merge into the flow of traffic without causing significant disruption to oncoming vehicles when exiting a driveway. A summary of the recorded gaps in each direction is summarized in the table below.

Table 3 Summary of Existing Gaps on Edinburgh Road South

Peak Hour	Direction	Number of Gaps Greater than 20 Seconds	Average Length of Gaps
A.M. (8:00 – 9:00 a.m.)	Northbound	47	34 seconds
	Southbound	36	28 seconds
PM (4:30 – 5:30 p.m.)	Northbound	31	25 seconds
	Southbound	28	30 seconds

A review of the available gaps indicate that sufficient gaps are available in both the a.m. and p.m. peak hours to accommodate outbound traffic from the eight residential driveways. During the a.m. peak hour, 47 gaps greater than 20 seconds were observed in the northbound direction, with an average length of 34 seconds, while the southbound direction had 36 gaps greater than 20 seconds, averaging 28 seconds. In

the p.m. peak hour, the northbound direction recorded 31 gaps with an average length of 25 seconds, and the southbound direction had 28 gaps averaging 30 seconds.

On average, during the a.m. peak hour, there are approximately 26.6 minutes when there are no vehicles in the northbound direction and 16.8 minutes when there are no vehicles in the southbound direction. During the p.m. peak hour, there are approximately 12.9 minutes with no vehicles in the northbound direction and 14.0 minutes with no vehicles in the southbound direction. These clear periods provide ample opportunities for vehicles to enter or exit each driveway safely.

With only two inbound and six outbound vehicles during the a.m. peak hour and five inbound and four outbound trips during the p.m. peak hour, the available gaps significantly exceed the demand, ensuring that vehicles exiting the residential driveways have the opportunity to safely and efficiently enter and exit the driveways.

It should be noted that the same traffic gap can be utilized by multiple driveways, further enhancing the efficiency of vehicle movements along Edinburgh Road South. When a sufficient gap, such as those greater than 20 seconds, is present, multiple vehicles entering or exiting from adjacent or nearby driveways can utilize this time to enter or cross the roadway. This is particularly beneficial on busier roads as the proximity allows multiple vehicles to take advantage of the same clear intervals in traffic.

Existing Examples in the City

A similar built form has been approved and constructed within the city on Paisley Road north of Imperial Road South, where new lots with closely spaced driveways front directly onto an arterial road with a 50 km/h speed limit. The operational impact of semi-detached and single-detached driveways on the roadway is minimal, making this development a suitable comparison to the subject site in terms of traffic flow and driveway operation.

This example demonstrates that multiple driveway designs can integrate well into the overall road network without compromising traffic flow or safety.

Figure 7 Existing Example in the City on Paisley Road north of Imperial Road South

CONCLUSION

After a review of the proposed Site Plan, the City's zoning regulations and the current on-site conditions, it is our professional opinion that the proposed driveways are appropriate and safe from a traffic engineering standpoint. The proposed design integrates smoothly into the current streetscape without disrupting traffic flow or pedestrian safety.

From an engineering perspective, the proposed driveways adhere to all applicable zoning requirements outlined in the City's By-laws.

Edinburgh Road South is a level and straight road that provides clear visibility for vehicles entering and exiting the driveways, as well as for pedestrians and cyclists using adjacent sidewalks or road. This ensures that the driveways will not impair operational safety or create unforeseen hazards.

The proposed driveways will be anticipated by drivers traveling along the arterial road, as they are already accustomed to similar residential access points. This ensures that the proposed new driveways do not introduce a new or unfamiliar element to the roadway. Instead, they align with the existing driving environment, where motorists and pedestrians can expect and are conditioned to interact with vehicles entering and exiting driveways.

The expected trip generation from the site during peak hours is minimal and well within the capacity of Edinburgh Road South and can be accommodated safely.

The analysis demonstrates that the proposed driveways will operate efficiently, with minimal delays or impact on traffic flow.

Observations of existing traffic volumes during peak periods confirm that frequent and sufficient traffic gaps on Edinburgh Road South allow safe driveway ingress and egress, even with vehicles backing out.

Comparable developments in the city demonstrate the feasibility of similar driveway designs in terms of safety and operational compatibility.

In conclusion, after a comprehensive review of zoning regulations, site-specific details, and city planning guidelines, it is GHD's opinion that the proposed driveways are appropriate and safe for the intended residential development. They meet all relevant requirements and align with existing conditions, ensuring seamless integration into the current roadway environment.

If further discussions are needed or additional information is required, please do not hesitate to contact me.

Regards

[redacted]

Rafael Andrenacci, B. Eng,
Transportation Planner

William Maria, P. Eng.
Transportation Planning Lead

Appendices

Appendix A

Traffic Count Data

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Project #25-019 - GHD

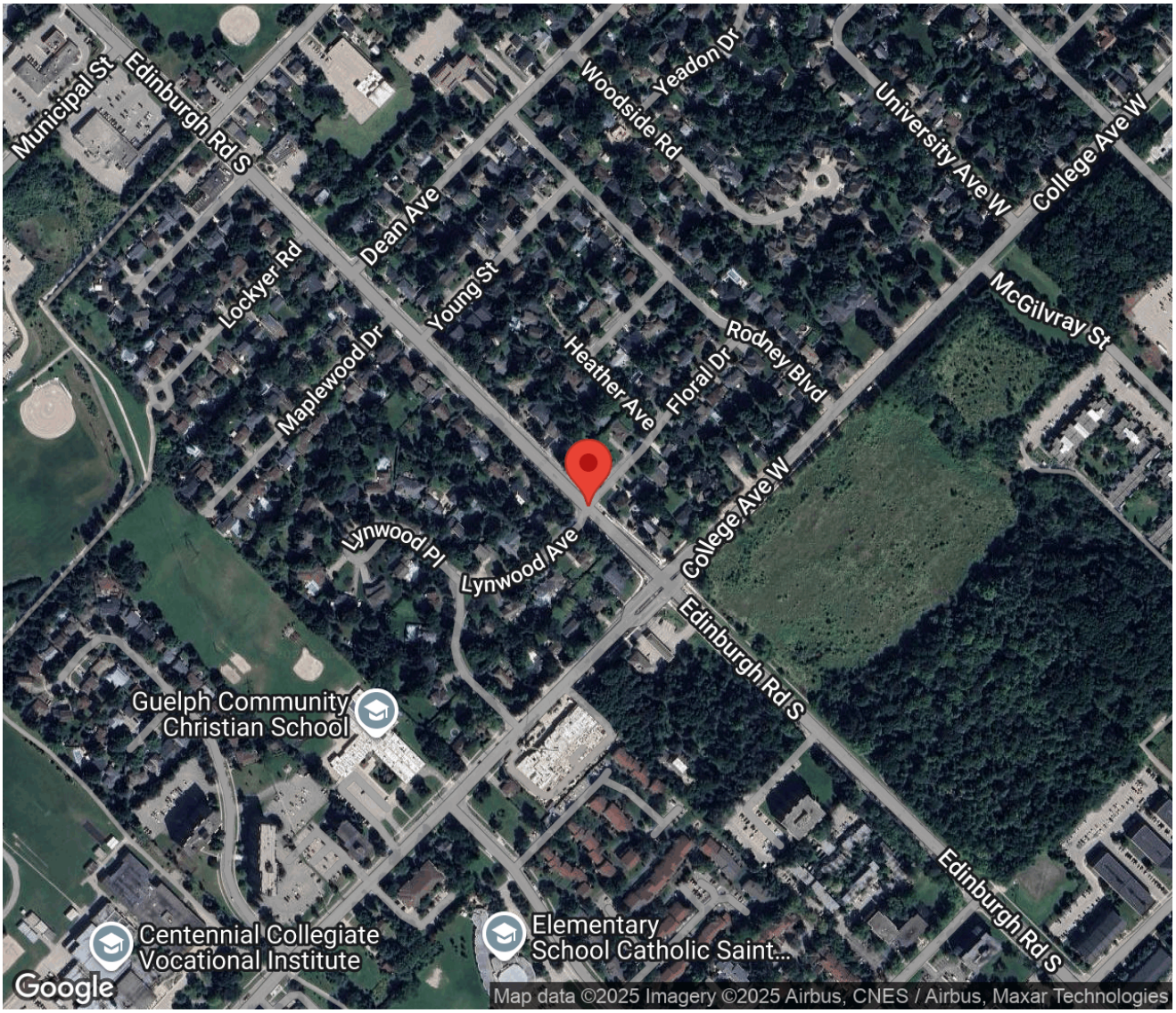
Intersection Count Report

Intersection:	Edinburgh Rd S & Floral Dr - Lynwood Ave
Municipality:	Guelph
Count Date:	Thursday, Jan 09, 2025
Site Code:	2501900001
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:	Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code:	2501900001
Municipality:	Guelph
Count Date:	Jan 09, 2025



Ontario Traffic Inc.
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Traffic Count Summary

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

Edinburgh Rd S - 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	308	0	0	308	0	0	302	0	0	302	0	610
08:00 - 09:00	0	727	0	0	727	0	0	607	0	0	607	0	1334
BREAK													
16:00 - 17:00	0	851	0	0	851	0	0	890	0	0	890	0	1741
17:00 - 18:00	0	779	0	0	779	0	0	871	0	0	871	0	1650
GRAND TOTAL	**0**	**2665**	**0**	**0**	**2665**	**0**	**0**	**2670**	**0**	**0**	**2670**	**0**	**5335**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

Floral 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	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 - 09:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BREAK													
16:00 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 - 18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

North Approach - Edinburgh Rd S

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	61	0	0	61	0	0	0	0	0	0	0	0	0	0	0
07:15	0	56	0	0	56	0	1	0	0	1	0	0	0	0	0	0
07:30	0	72	0	0	72	0	0	0	0	0	0	0	0	0	0	0
07:45	0	115	0	0	115	0	3	0	0	3	0	0	0	0	0	0
08:00	0	147	0	0	147	0	7	0	0	7	0	0	0	0	0	0
08:15	0	160	0	0	160	0	6	0	0	6	0	0	0	0	0	0
08:30	0	195	0	0	195	0	6	0	0	6	0	0	0	0	0	0
08:45	0	204	0	0	204	0	2	0	0	2	0	0	0	0	0	0
SUBTOTAL	0	1010	0	0	1010	0	25	0	0	25	0	0	0	0	0	0

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

North Approach - Edinburgh Rd S

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	0	211	0	0	211	0	4	0	0	4	0	0	0	0	0	0
16:15	0	218	0	0	218	0	1	0	0	1	0	0	0	0	0	0
16:30	0	210	0	0	210	0	1	0	0	1	0	0	0	0	0	0
16:45	0	205	0	0	205	0	1	0	0	1	0	0	0	0	0	0
17:00	0	211	0	0	211	0	1	0	0	1	0	0	0	0	0	0
17:15	0	209	0	0	209	0	1	0	0	1	0	0	0	0	0	0
17:30	0	193	0	0	193	0	1	0	0	1	0	0	0	0	0	0
17:45	0	162	0	0	162	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	0	1619	0	0	1619	0	11	0	0	11	0	0	0	0	0	0
GRAND TOTAL	0	2629	0	0	2629	0	36	0	0	36	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

South Approach - Edinburgh Rd S

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	0	47	0	0	47	0	1	0	0	1	0	0	0	0	0	0
07:15	0	60	0	0	60	0	0	0	0	0	0	0	0	0	0	0
07:30	0	83	0	0	83	0	1	0	0	1	0	0	0	0	0	0
07:45	0	106	0	0	106	0	4	0	0	4	0	0	0	0	0	0
08:00	0	98	0	0	98	0	1	0	0	1	0	0	0	0	0	0
08:15	0	159	0	0	159	0	3	0	0	3	0	0	0	0	0	0
08:30	0	189	0	0	189	0	4	0	0	4	0	0	0	0	0	0
08:45	0	148	0	0	148	0	5	0	0	5	0	0	0	0	0	0
SUBTOTAL	0	890	0	0	890	0	19	0	0	19	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

South Approach - Edinburgh Rd S

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	0	203	0	0	203	0	3	0	0	3	0	1	0	0	1	0
16:15	0	199	0	0	199	0	1	0	0	1	0	2	0	0	2	0
16:30	0	256	0	0	256	0	1	0	0	1	0	0	0	0	0	0
16:45	0	223	0	0	223	0	1	0	0	1	0	0	0	0	0	0
17:00	0	206	0	0	206	0	1	0	0	1	0	0	0	0	0	0
17:15	0	244	0	0	244	0	1	0	0	1	0	0	0	0	0	0
17:30	0	222	0	0	222	0	1	0	0	1	0	0	0	0	0	0
17:45	0	195	0	0	195	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	0	1748	0	0	1748	0	10	0	0	10	0	3	0	0	3	0
GRAND TOTAL	0	2638	0	0	2638	0	29	0	0	29	0	3	0	0	3	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

East Approach - Floral 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	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

East Approach - Floral Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
16:00	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

West Approach - Lynwood Ave

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	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Municipality: Guelph
Count Date: Jan 09, 2025

West Approach - Lynwood Ave

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
16:00	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Diagram

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

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Count Date: Jan 09, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Edinburgh Rd S runs N/S

North Approach

	Out	In	Total
Cars	706	594	1300
Trucks	21	13	34
Bicycles	0	0	0
	727	**607**	**1334**

Edinburgh Rd S

Bicycles	0	0	0	0
Trucks	0	21	0	0
Cars	0	706	0	0
Totals	**0**	**727**	**0**	**0**

East Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Peds: 0

Lynwood Ave

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**

Peds: 0

Peds: 0

Floral Dr

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

Peds: 0

West Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Edinburgh Rd S

Totals	**0**	**607**	**0**	**0**
Cars	0	594	0	0
Trucks	0	13	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	594	706	1300
Trucks	13	21	34
Bicycles	0	0	0
	607	**727**	**1334**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Count Date: Jan 09, 2025
Period: 07:00 - 09:00

Peak Hour Data (08:00 - 09:00)

Start Time	North Approach Edinburgh Rd S						South Approach Edinburgh Rd S						East Approach Floral Dr						West Approach Lynwood Ave						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	0	154	0	0	0	154	0	99	0	0	0	99	0	0	0	0	0	0	0	0	0	0	0	0	253
08:15	0	166	0	0	0	166	0	162	0	0	0	162	0	0	0	0	0	0	0	0	0	0	0	0	328
08:30	0	201	0	0	0	201	0	193	0	0	0	193	0	0	0	0	0	0	0	0	0	0	0	0	394
08:45	0	206	0	0	0	206	0	153	0	0	0	153	0	0	0	0	0	0	0	0	0	0	0	0	359
Grand Total	**0**	**727**	**0**	**0**	**0**	**727**	**0**	**607**	**0**	**0**	**0**	**607**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1334**
Approach %	0	100	0	0		-	0	100	0	0		-	0	0	0	0		-	0	0	0	0		-	
Totals %	0	54.5	0	0		54.5	0	45.5	0	0		45.5	0	0	0	0		0	0	0	0	0		0	
PHF	**0**	**0.88**	**0**	**0**		**0.88**	**0**	**0.79**	**0**	**0**		**0.79**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**		**0**	**0.85**
Cars	0	706	0	0		706	0	594	0	0		594	0	0	0	0		0	0	0	0	0		0	1300
% Cars	0	97.1	0	0		97.1	0	97.9	0	0		97.9	0	0	0	0		0	0	0	0	0		0	97.5
Trucks	0	21	0	0		21	0	13	0	0		13	0	0	0	0		0	0	0	0	0		0	34
% Trucks	0	2.9	0	0		2.9	0	2.1	0	0		2.1	0	0	0	0		0	0	0	0	0		0	2.5
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	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Peak Hour Diagram

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Specified Period
From: 16:00:00
To: 18:00:00

One Hour Peak
From: 16:30:00
To: 17:30:00

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Count Date: Jan 09, 2025

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Edinburgh Rd S runs N/S

North Approach

	Out	In	Total
Cars	835	929	1764
Trucks	4	4	8
Bicycles	0	0	0
	839	**933**	**1772**

Edinburgh Rd S

Bicycles	0	0	0	0
Trucks	0	4	0	0
Cars	0	835	0	0
Totals	**0**	**839**	**0**	**0**

East Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Peds: 0

Lynwood Ave

			Totals
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**
0	0	0	**0**

Peds: 0

N
W E
S

Peds: 0

Floral Dr

	Totals			
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

Peds: 0

West Approach

	Out	In	Total
Cars	0	0	0
Trucks	0	0	0
Bicycles	0	0	0
	0	**0**	**0**

Totals	**0**	**933**	**0**	**0**
Cars	0	929	0	0
Trucks	0	4	0	0
Bicycles	0	0	0	0

Edinburgh Rd S

South Approach

	Out	In	Total
Cars	929	835	1764
Trucks	4	4	8
Bicycles	0	0	0
	933	**839**	**1772**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Edinburgh Rd S & Floral Dr - Lynwood Ave
Site Code: 2501900001
Count Date: Jan 09, 2025
Period: 16:00 - 18:00

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

Start Time	North Approach Edinburgh Rd S						South Approach Edinburgh Rd S						East Approach Floral Dr						West Approach Lynwood Ave						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:30	0	211	0	0	0	211	0	257	0	0	0	257	0	0	0	0	0	0	0	0	0	0	0	0	468
16:45	0	206	0	0	0	206	0	224	0	0	0	224	0	0	0	0	0	0	0	0	0	0	0	0	430
17:00	0	212	0	0	0	212	0	207	0	0	0	207	0	0	0	0	0	0	0	0	0	0	0	0	419
17:15	0	210	0	0	0	210	0	245	0	0	0	245	0	0	0	0	0	0	0	0	0	0	0	0	455
Grand Total	**0**	**839**	**0**	**0**	**0**	**839**	**0**	**933**	**0**	**0**	**0**	**933**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1772**
Approach %	0	100	0	0		-	0	100	0	0		-	0	0	0	0		-	0	0	0	0		-	
Totals %	0	47.3	0	0		47.3	0	52.7	0	0		52.7	0	0	0	0		0	0	0	0	0		0	
PHF	**0**	**0.99**	**0**	**0**		**0.99**	**0**	**0.91**	**0**	**0**		**0.91**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**		**0**	**0.95**
Cars	0	835	0	0		835	0	929	0	0		929	0	0	0	0		0	0	0	0	0		0	1764
% Cars	0	99.5	0	0		99.5	0	99.6	0	0		99.6	0	0	0	0		0	0	0	0	0		0	99.5
Trucks	0	4	0	0		4	0	4	0	0		4	0	0	0	0		0	0	0	0	0		0	8
% Trucks	0	0.5	0	0		0.5	0	0.4	0	0		0.4	0	0	0	0		0	0	0	0	0		0	0.5
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	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	

Appendix B

Capacity Analysis

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	607	0	1	727
Future Volume (vph)	0	0	607	0	1	727
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1921	0	3579	0	0	3544
Flt Permitted						
Satd. Flow (perm)	1921	0	3579	0	0	3544
Link Speed (k/h)	48		48			48
Link Distance (m)	119.7		273.0			176.8
Travel Time (s)	9.0		20.5			13.3
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	2%	0%	0%	3%
Adj. Flow (vph)	0	0	714	0	1	855
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	714	0	0	856
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	607	0	1	727
Future Volume (Veh/h)	0	0	607	0	1	727
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	0	714	0	1	855
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	1144	357			714	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1144	357			714	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	196	645			895	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	0	476	238	286	570
Volume Left	0	0	0	1	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	895	1700
Volume to Capacity	0.00	0.28	0.14	0.00	0.34
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS	A			A	
Approach Delay (s)	0.0	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	933	0	1	839
Future Volume (vph)	0	0	933	0	1	839
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1921	0	3614	0	0	3614
Flt Permitted						
Satd. Flow (perm)	1921	0	3614	0	0	3614
Link Speed (k/h)	48		50			50
Link Distance (m)	119.7		273.0			176.8
Travel Time (s)	9.0		19.7			12.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	0	0	982	0	1	883
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	982	0	0	884
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	933	0	1	839
Future Volume (Veh/h)	0	0	933	0	1	839
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	982	0	1	883
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	1426	491			982	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1426	491			982	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	129	529			711	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	0	655	327	295	589
Volume Left	0	0	0	1	0
Volume Right	0	0	0	0	0
cSH	1700	1700	1700	711	1700
Volume to Capacity	0.00	0.39	0.19	0.00	0.35
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.1	0.0
Lane LOS	A			A	
Approach Delay (s)	0.0	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	607	1	0	727
Future Volume (vph)	0	0	607	1	0	727
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1921	0	3579	0	0	3544
Flt Permitted						
Satd. Flow (perm)	1921	0	3579	0	0	3544
Link Speed (k/h)	48		48			48
Link Distance (m)	119.7		273.0			176.8
Travel Time (s)	9.0		20.5			13.3
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	2%	0%	0%	3%
Adj. Flow (vph)	0	0	714	1	0	855
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	715	0	0	855
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.4%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	607	1	0	727
Future Volume (Veh/h)	0	0	607	1	0	727
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	0	714	1	0	855
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	1142	358			715	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1142	358			715	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	197	645			895	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	0	476	239	285	570
Volume Left	0	0	0	0	0
Volume Right	0	0	1	0	0
cSH	1700	1700	1700	895	1700
Volume to Capacity	0.00	0.28	0.14	0.00	0.34
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	0.0	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	933	1	0	839
Future Volume (vph)	0	0	933	1	0	839
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1921	0	3614	0	0	3614
Flt Permitted						
Satd. Flow (perm)	1921	0	3614	0	0	3614
Link Speed (k/h)	48		50			50
Link Distance (m)	119.7		273.0			176.8
Travel Time (s)	9.0		19.7			12.7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	0	0	982	1	0	883
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	983	0	0	883
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.7		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.2%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	933	1	0	839
Future Volume (Veh/h)	0	0	933	1	0	839
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	0	982	1	0	883
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	1424	492			983	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1424	492			983	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	129	528			711	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	0	655	328	294	589
Volume Left	0	0	0	0	0
Volume Right	0	0	1	0	0
cSH	1700	1700	1700	711	1700
Volume to Capacity	0.00	0.39	0.19	0.00	0.35
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	0.0	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		