800 Burloak Road Proposed Multi-Use Development

Traffic Impact Study

EMSHIH Developments Inc

04 May 2026

→ The Power of Commitment

Executive Summary

This Traffic Impact Study evaluates the transportation and parking impacts associated with a proposed mixed-use development located at 800 Burloak Drive in the City of Burlington.

The proposed development consists of two 8-storey buildings containing a total of 274 residential units, together with 247.12 m² of restaurant space, 218.50 m² of retail space, and 496.45 m² of childcare space. The study area includes the following intersections:

- Burloak Drive and the site right-in/right-out driveway
- Burloak Drive and Prince William Drive / Superior Court
- Fothergill Boulevard and Prince William Drive

Vehicular access to the site is proposed via a right-in/right-out connection to Burloak Drive, with a secondary access connection to Fothergill Boulevard through adjacent lands.

Based on Institute of Transportation Engineers (ITE) trip generation rates, the development is expected to generate approximately 198 two-way vehicle trips during the weekday a.m. peak hour and 214 two-way vehicle trips during the weekday p.m. peak hour.

Traffic operations were assessed under existing conditions and with the addition of site-generated traffic using industry-standard methodologies. Under existing conditions, all study intersections operate within acceptable limits, with the exception of the eastbound left-turn movement at Burloak Drive and Prince William Drive / Superior Court, where queue lengths exceed the marked storage length during peak periods. With the addition of site traffic, overall intersection operations remain acceptable and no new critical movements are introduced. The eastbound left-turn movement remains constrained, consistent with existing conditions, and warrants continued monitoring.

In accordance with the City of Burlington Zoning By-law, the development would be required to provide 417 parking spaces, including 13 accessible spaces. The proposed development provides a total of 285 parking spaces, including 11 accessible spaces, resulting in a shortfall of 132 spaces relative to the Zoning By-law requirements.

The proposed parking supply is supported by a detailed review of parking utilization at reasonably comparable residential and mixed-use developments where proxy survey data has been collected by GHD as part of previous projects. These proxy sites consistently demonstrate lower residential and visitor parking demand than assumed under conventional zoning standards. The observed parking patterns indicate that the proposed parking supply is expected to align with real-world demand and accommodate day-to-day parking needs without resulting in spillover or operational issues.

Transportation Demand Management measures, including the consideration of unbundled parking and car-share opportunities, are proposed to further reduce reliance on private vehicles and support alternative modes of transportation.

Traffic calming measures, including speed humps and raised crosswalks, are also recommended within the site to enhance pedestrian safety and improve internal circulation.

Based on the findings of this study, the proposed development is not expected to result in adverse operational impacts to the surrounding road network. The site-generated traffic can be accommodated within the existing transportation system, and the proposed parking supply is considered appropriate given the mixed-use context, site characteristics, and demonstrated parking demand.

We trust that this satisfies your requirements, but do not hesitate to contact the undersigned if you have any questions.

Sincerely,

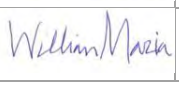
GHD





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1. Introduction

1.1 Retainer and Objective

GHD Limited is pleased to provide the following Traffic Impact Study assessing the impacts from a proposed multi-use development that includes residential units, retail space and childcare space located at 800 Burloak Drive in the City of Burlington.

The site location is illustrated in **Figure 1**.

The purpose of this study is to:

- Establish baseline traffic conditions for the study area in 2024 and future operating conditions with the addition of site trips.
- Estimate the site trips generated by the proposed development and distribute the traffic to the adjacent road network.
- Determine future operating traffic conditions during the weekday peak periods through intersection capacity analysis.



Figure 1 Site Location

1.2 Study Team

The GHD team involved in the preparation of the study are:

- William Maria, P. Eng., Transportation Planning Lead
- Vincenzo Costantino, B.Eng., Transportation Planner

2. Site Characteristics

2.1 Study Area

the following existing intersections were included in the study area:

- Burloak Drive and Right-In-Right-Out Driveway
- Burloak Drive and Prince William Drive/Superior Court
- Fothergill Boulevard and Prince William Drive

2.2 Proposed Development Content

A site plan prepared by EMSHIH Developments Inc. for the subject site is shown on **Figure 2** and provided in **Appendix A**. The proposed development consists of two 8-storey residential buildings comprising a total of 274 dwelling units (151 units in Building A and 123 units in Building B). The residential component is intended to function as a retirement-oriented lifestyle community for seniors, with unit design, on-site programming, and shared amenities specifically tailored to the needs of an aging population. These amenities are intended to support independent senior living by providing day-to-day services and social opportunities on site, thereby reducing the need for frequent off-site trips and reliance on private automobiles. As a result, travel behaviour and parking demand associated with the development are expected to be lower than that of conventional market-oriented apartment housing.

The development also includes 247.12 m² of restaurant space, 218.50 m² of retail space, and 496.45 m² of childcare space.

Vehicular access to the subject site is proposed via a right-in/right-out driveway on Burloak Drive, as well as a second access on the west side of the site from Fothergill Boulevard, which connects to the adjacent Sherwood Park parking lot.

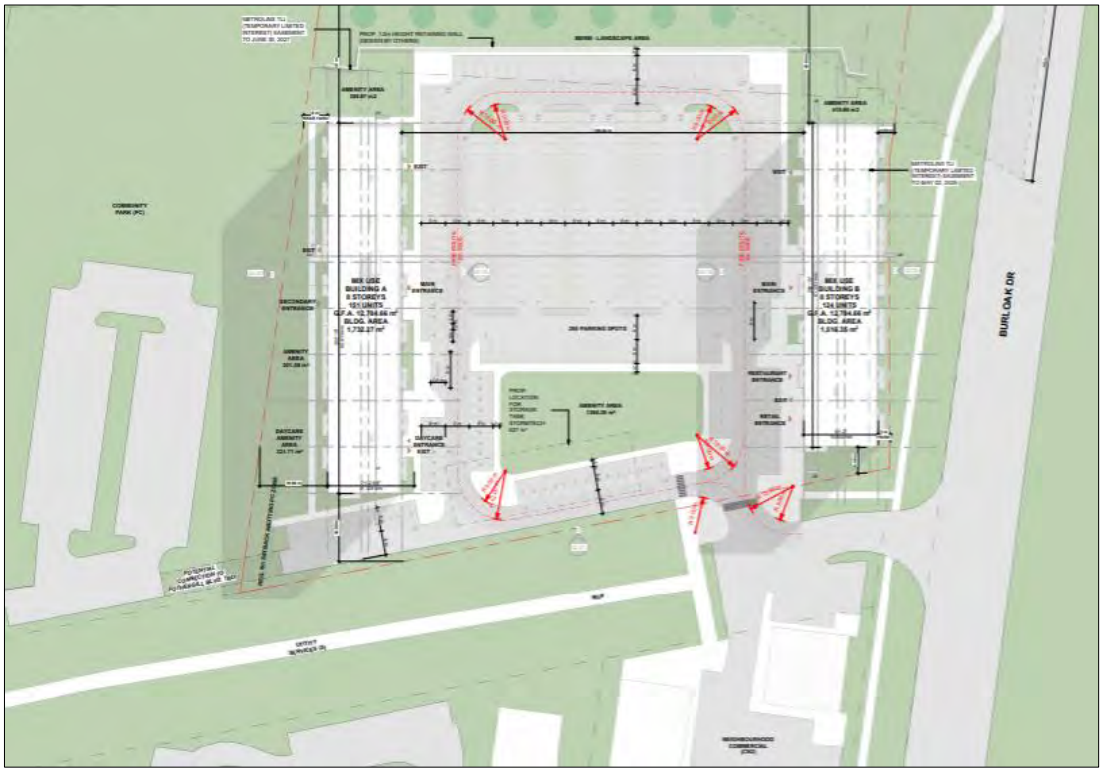


Figure 2 Proposed Site Plan

3. Existing Conditions

3.1 Existing Road Network

Burloak Drive is a north/south multi-purpose arterial under the jurisdiction of the City of Burlington. Within the study area it has a four-lane cross-section. Its intersection with the right-in-right-out intersection is unsignalized. Its intersection with Prince Williams Dr/Superior Court has a two-way auxiliary left-turn lane. The posted speed limit along Burloak Drive is 60 km/h.

Prince William Drive is an east/west Neighbourhood connector road under the jurisdiction of the City of Burlington. Within the study area it generally has a two-lane cross-section. Its intersection with Burloak Drive is a signalized intersection with an auxiliary left-turn lane. Its intersection with Fothergill Boulevard is an unsignalized intersection with an all-way stop. The posted speed limit along Prince William Drive is 40 km/h.

Fothergill Boulevard is a north/south Neighbourhood connector road under the jurisdiction of the City of Burlington. Within the study area it has a two-lane cross-section. Its intersection with Prince Williams Drive is unsignalized with an all-way stop. The posted speed limit on Fothergill Drive is 40 km/h.

Superior Court is an east/west local road under the jurisdiction of the Town of Oakville. Within the study area it generally has a two-lane cross-section. Its intersection with Burloak Drive is a signalized intersection with an auxiliary left-turn lane. The assumed posted speed limit along Superior Court is 40 km/h.

The existing lane configurations and intersection control are shown in the figure below.

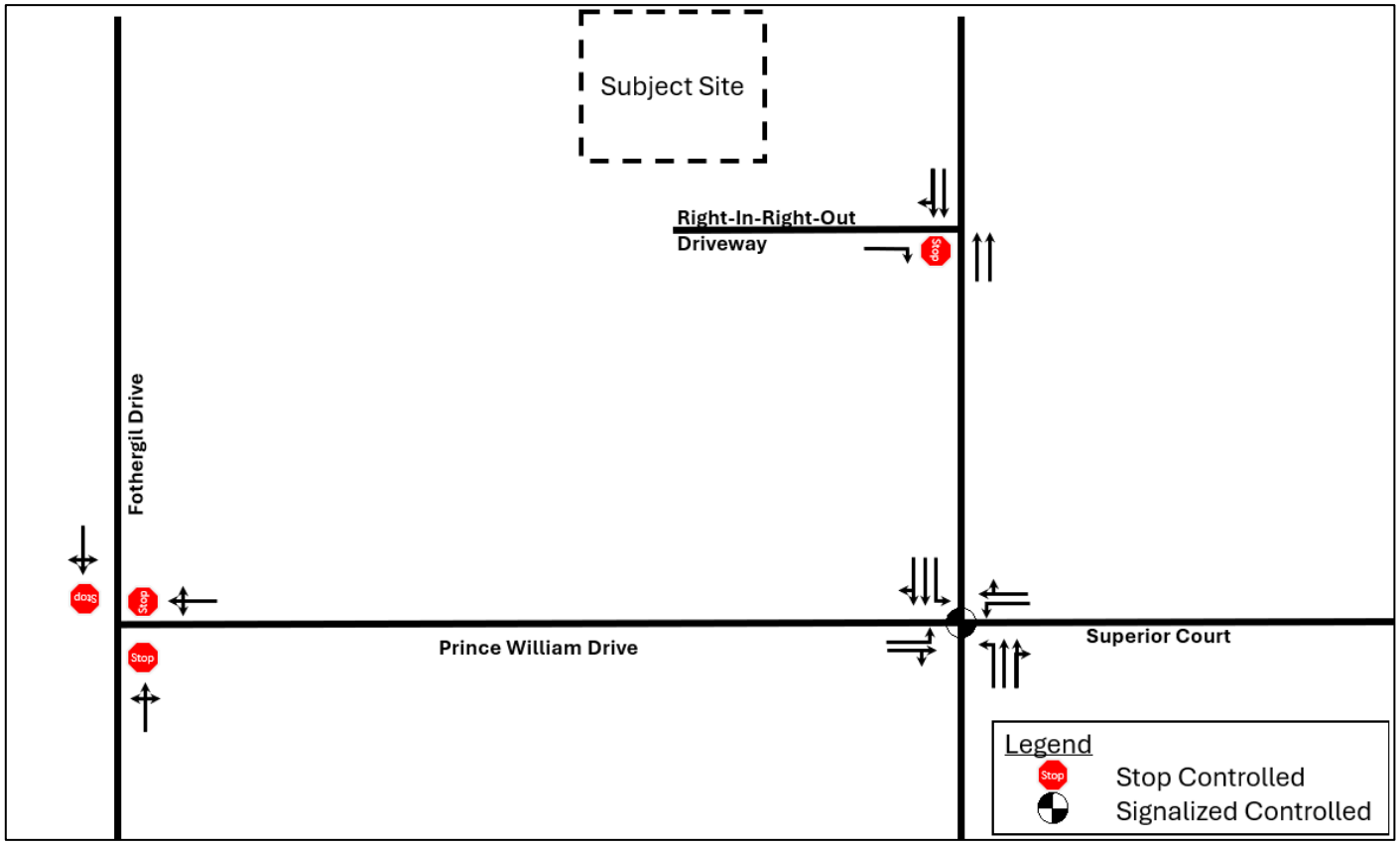


Figure 3 Existing Study Area Lane Configurations and Traffic Controls

3.2 Existing Traffic Data

GHD contracted Ontario Traffic Inc. to conduct updated turning movement counts at all study intersections during the weekday a.m. and p.m. peak hour on November 21, 2024. The baseline 2024 volumes are summarized in **Figure 4** below with the full turning movement counts provided in **Appendix B**

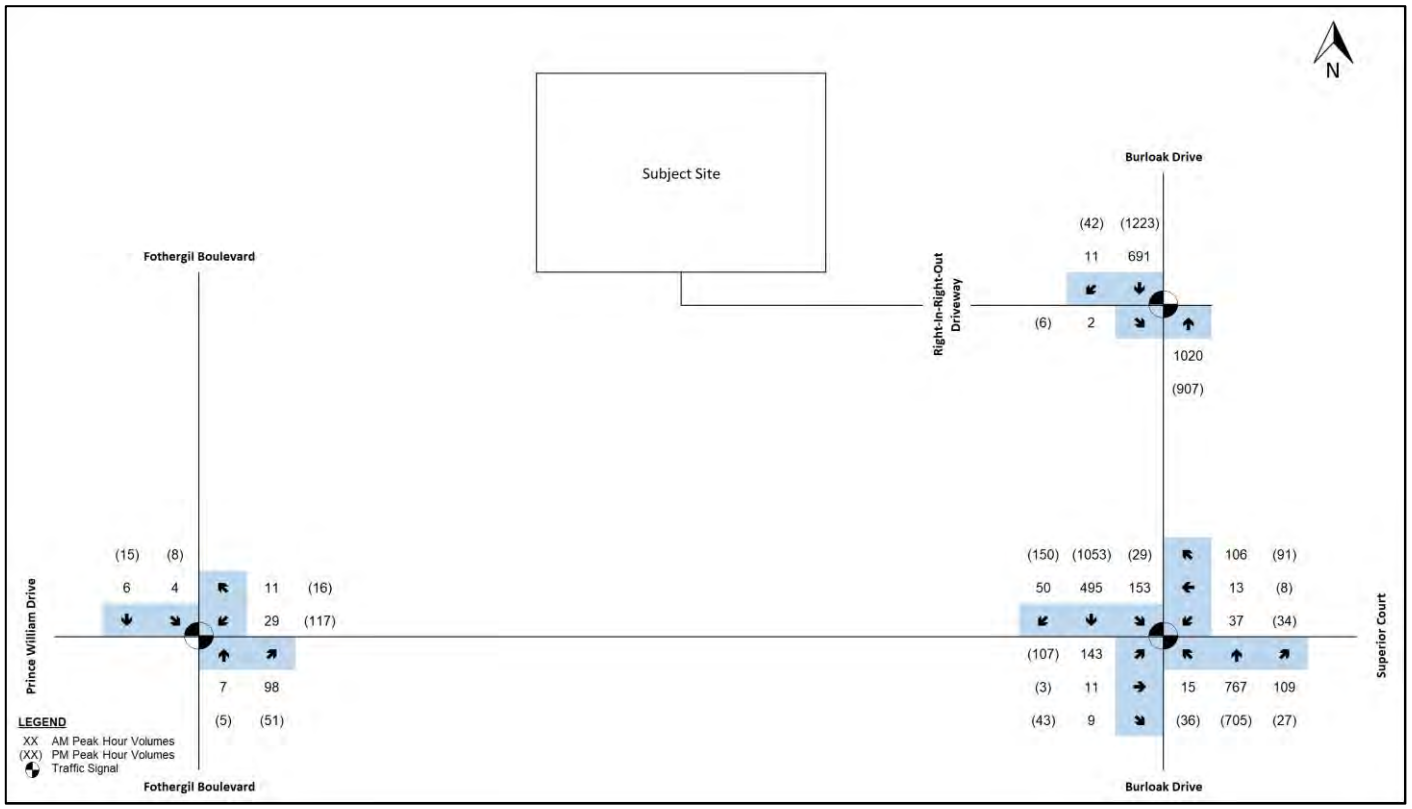


Figure 4 Existing 2024 Traffic Volumes

A review of the operational characteristics of Sherwood Park indicates that park-related traffic does not materially overlap with the peak periods generated by the proposed development. The site reaches its highest trip activity during the weekday morning and afternoon commuter peak hours, whereas scheduled park programming typically occur during the weekday evenings after 6:00 p.m. and on weekends, particularly throughout the summer months.

Traffic counts for this study were collected in November, a period in which park usage is substantially lower and broadly representative of non-peak conditions for this recreational facility. As a result, park-related trips do not coincide with, nor meaningfully influence, the critical weekday peak hours used for assessing capacity and operational impacts.

4. Future Conditions

With the introduction of the proposed development, the potential extension of Fothergill Boulevard through Sherwood Park is being examined to provide an additional point of access for residents. This new connection would improve internal circulation by allowing residents to travel directly between the development and Prince William Drive via Fothergill Drive. The proposed future lane configuration is illustrated in **Figure 5**.

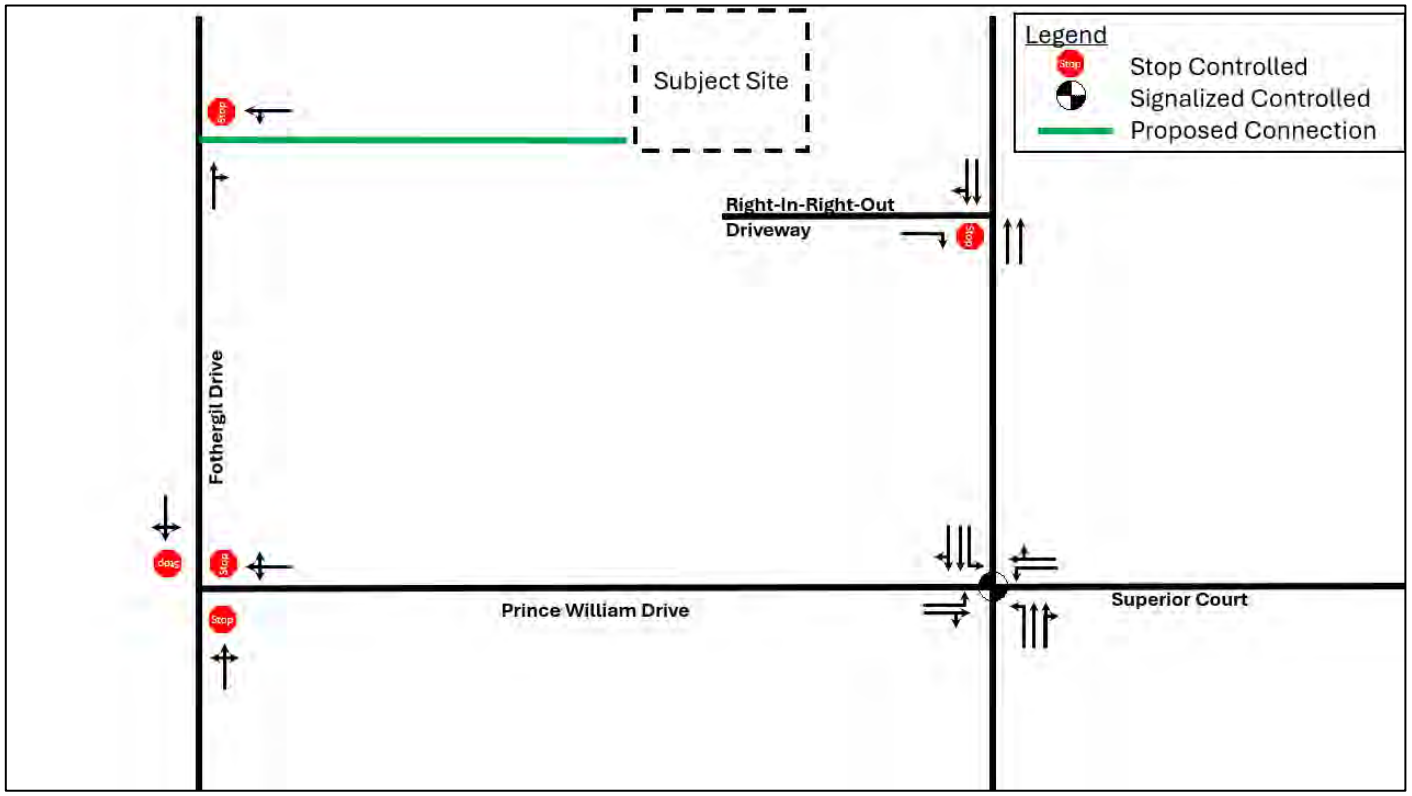


Figure 5 Proposed Future Lane Configuration

5. Site Generated Traffic

5.1 Site Trip Generation

The proposed development consists of a total of two 8-storey buildings with 274 residential units (151units for Building A, 123 units for Building B), 247.12 m^2 of restaurant space, 218.50 m^2 of retail space and 496.45 m^2 of childcare space.

Site traffic generated by the proposed development for the weekday a.m. and p.m. peak hours was estimated by applying the trip rates in the 12th Edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE) for Land Use Code (LUC) 822 Strip Retail Plaza (<40k) for the retail component, (LUC) 565 Day Care Center for the Daycare, (LUC) 221 Multifamily Housing (Mid-Rise) and (LUC) 932 High Turnover Sit-Down Restaurant. No modal split reduction was applied to the estimated trip generation to account for transit use in the area.

A comparison of the fitted curve equations and average rates for this Land Use Code was completed, whichever calculation resulted in a greater trip generation was used as a conservative measure. **Table 1** Summarizes the estimated trip generation for the subject site.

Table 1 Total Site Trip Generation

Land Use	Rooms /GFA	Parameters	Peak Hour Trip Generation					
			Weekday a.m.			Weekday p.m.		
			In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) (LUC 220)	274 Dwelling Units	Gross Trips	25	82	107	67	37	104
Daycare Center (LUC 565)	496.45 m^2 (5343.74 Ft^2)	Gross Trips	31	27	58	27	30	57
Strip Retail Plaza (<40k) (LUC 822)	218.50 m^2 (2351.91 Ft^2)	Gross Trips	5	4	9	14	15	29
High Turnover (Sit-Down) Restaurant (LUC 933)	247.12 m^2 (2659.98 Ft^2)	Gross Trips	13	11	24	15	9	24
Total New Primary Trips			**74**	**124**	**198**	**123**	**91**	**214**

The proposed development is expected to generate a total of 198 new two-way vehicle trips during the a.m. peak hour consisting of 74 inbound and 124 outbound trips. During the p.m. peak hour, it is expected to generate 214 new two-way vehicle trips consisting of 123 inbound and 91 outbound trips.

5.2 Site Traffic Distribution and Assignment

For the purpose of the trip distribution, assumptions were made in order to assign site generated traffic to the internal road network. These assumptions were based on first principles based on the land use in addition to a review of the existing travel patterns.

The assumptions for the trip assignment include:

- For the trip distribution of the childcare center, it was assumed that the majority of trips would originate within close proximity of the proposed site and contain a majority of local traffic. For the a.m. inbound trips it was assumed that 5% of trips originate from the north on Fothergill Boulevard, 60% from the south on Fothergill Boulevard, 10% from the south on Burloak Drive, and 5% from remaining roads connecting to Prince William Drive, all which would travel along Fothergill Boulevard to access the site and 10% from the north on Burloak Drive which would access the right-in/out driveway. For the a.m. outbound trips, it was assumed that half of the trips would travel back home to account for work from home and parents that drop off children at daycare before work and the remaining allocation is towards north on Burloak Drive towards the Highway 403 interchange. The allocation includes 10% towards the south of Burloak Drive, 50% towards the north on Burloak Drive, 30% towards the South on Fothergill Boulevard, 5% towards the north on Fothergill Drive and 5% towards the remaining accesses along Prince Wiliam Drive. For the p.m. distribution it was assumed that the patterns will follow similarly to account for parents arriving from the same direction they left, which has the p.m. inbound as the a.m. outbound and the p.m. outbound the same as the a.m. inbound.
- For the residential trip distribution, it was assumed that during the a.m. peak the inbound trips would contain a 60/40 split between the north on Burloak Drive and the rest from the south on Burloak Drive. For the a.m.

outbound it was assumed that there would be a 70/30 split between the north and south on Burloak Drive. During the p.m. peak it was assumed that the trips that left in the morning would come from the same location they left so a 70/30 split on Burloak was similarly applied. For the p.m. outbound following existing trends and assuming more traffic within the neighbourhood it was assumed that 50% of trips will travel towards the south of Burloak Drive, 35% towards the North on Burloak Drive, 10% towards Fothergill Boulevard and 5% towards the remaining accesses along Prince Williams Drive.

- For the trip distribution of the retail trips it was assumed during the a.m. peak majority of trips would consist of workers arriving to work and morning operations so the inbound and outbound operate relatively similar. The inbound of the a.m. peak consists of 30% of trips originating from south of Burloak Drive, 55% of trips originating from the north on Burloak Drive, 5% from the south on Fothergill Boulevard, north on Fothergill Boulevard and the other intersections along Prince William Drive. The outbound remains similar to the inbound where north on Burloak Drive is 50% and south on Burloak Drive is 35%. During the p.m. peak it was assumed that there would be more variance in distribution as traffic may arrive from local sources. As such the inbound distribution consist of 25% from the south on Burloak Drive, 50% from the north on Burloak Drive, 15% from the south on Fothergill Boulevard and 5% to the north on Fothergill Boulevard and the remaining accesses. The outbound was assigned 25% from the south on Burloak Drive, 45% from the north on Burloak Drive, 20% from the south on Fothergill Boulevard and 5% on Fothergill Boulevard and the remaining accesses along Prince William Drive.
- For the trip distribution of the restaurant, it is assumed that the trips for the restaurant will operate similarly to the retail trip generation where the a.m. peak may see more local traffic coming from the South of Fothergill Boulevard compared to the retail use and as such 25% was assigned to that movement. The remainder of the inbound distribution has 35% coming from the south of Burloak Road, 30% from the north on Burloak Road, 5% from the north on Fothergill Boulevard and 5% from the other intersections along Prince William Drive. The p.m. peak is assumed to match the travel patterns as the retail.

The site generated traffic assignment for the Childcare Facility, Residential, Retail, Restaurant and total for the weekday a.m. and p.m. peak hours are provided in **Figure 6, Figure 7, Figure 8, Figure 9** and **Figure 10** below.

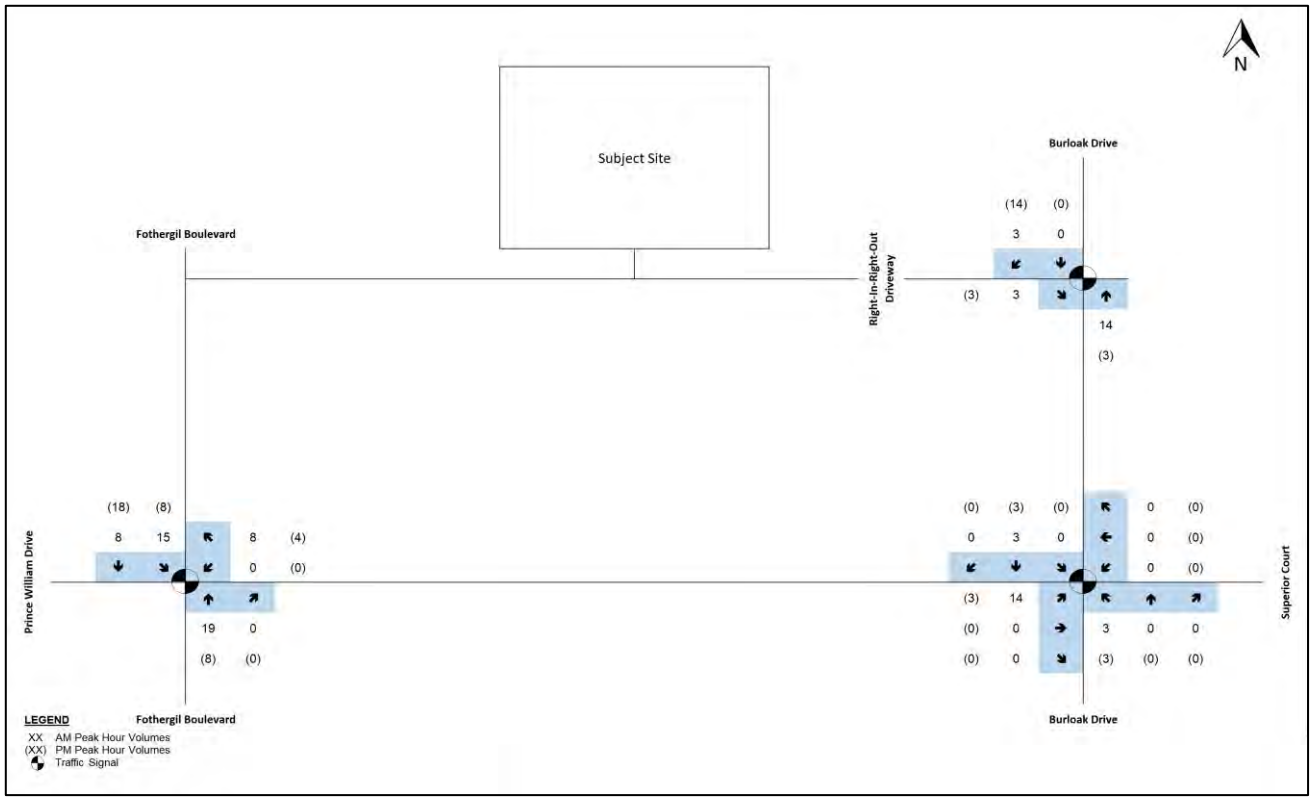


Figure 6 Daycare Site Trips

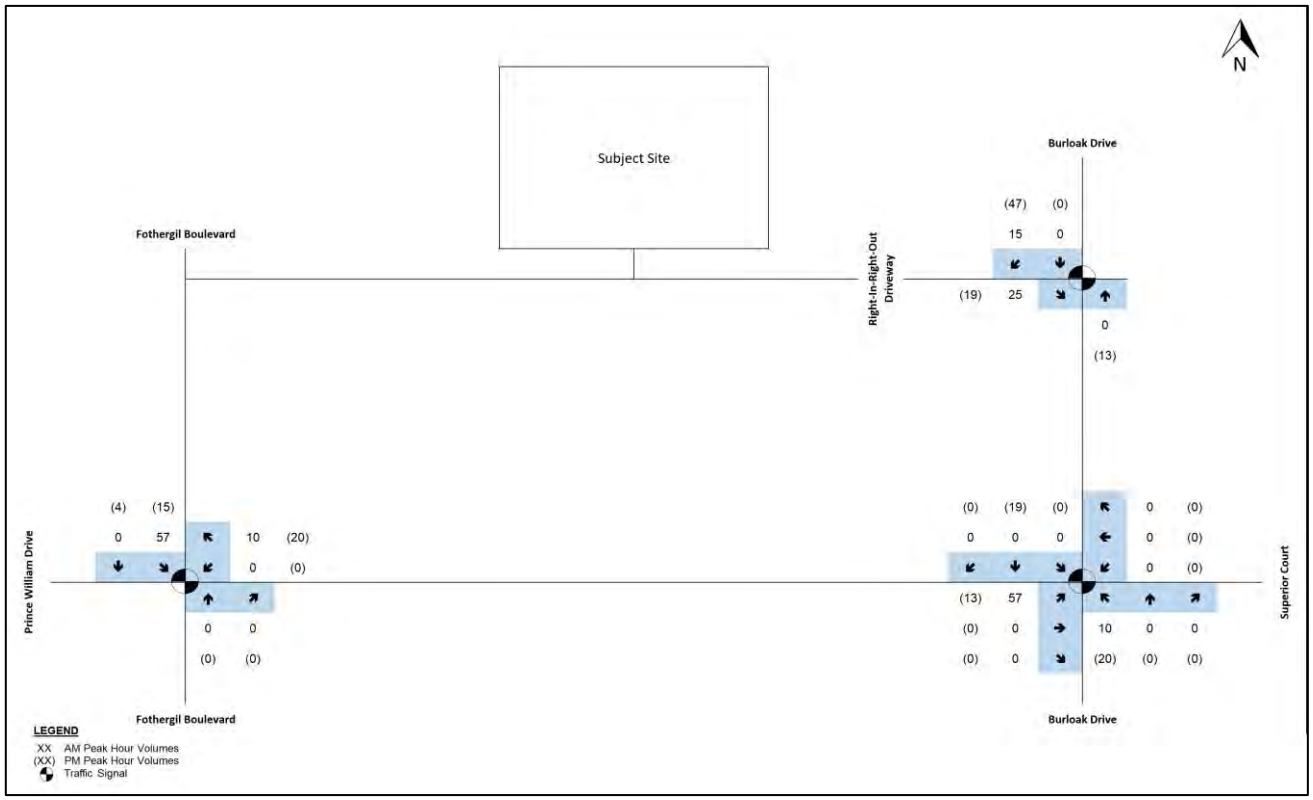


Figure 7 Site Trips Residential

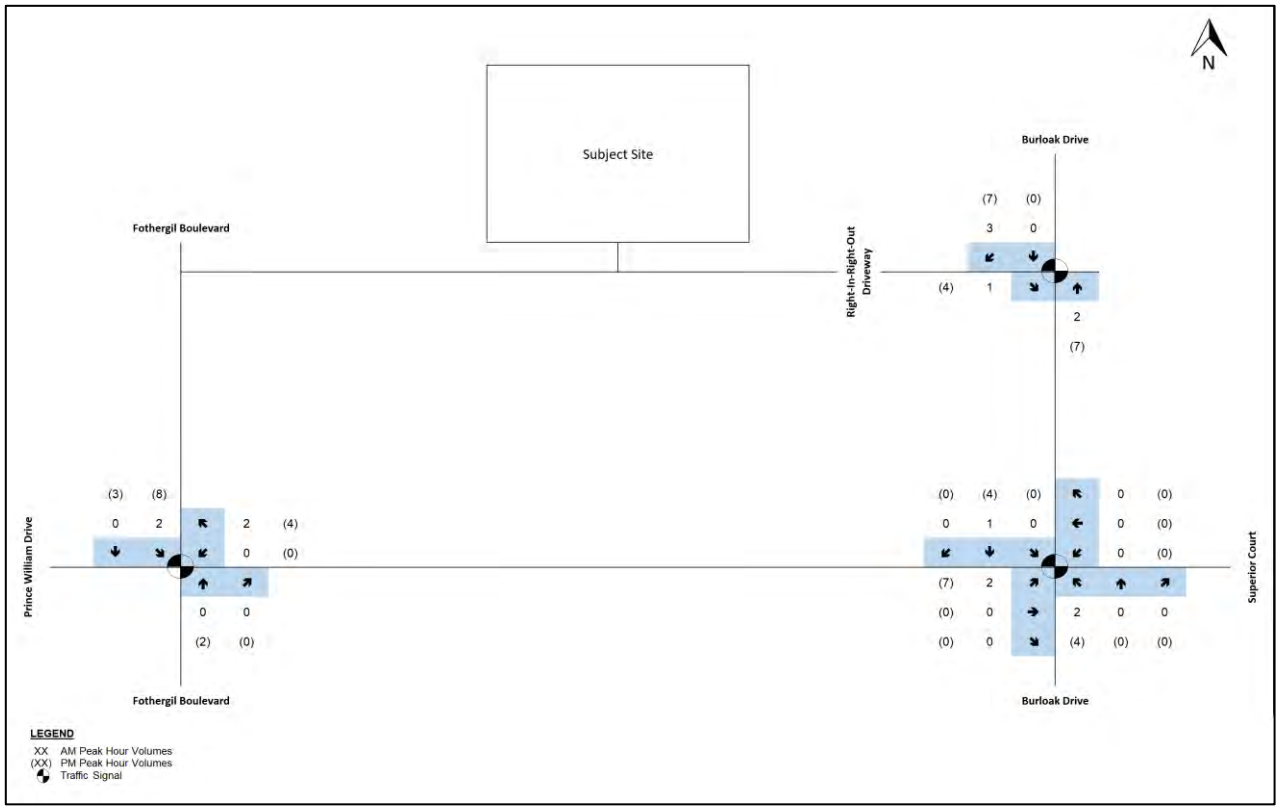


Figure 8 Site Trips Commercial

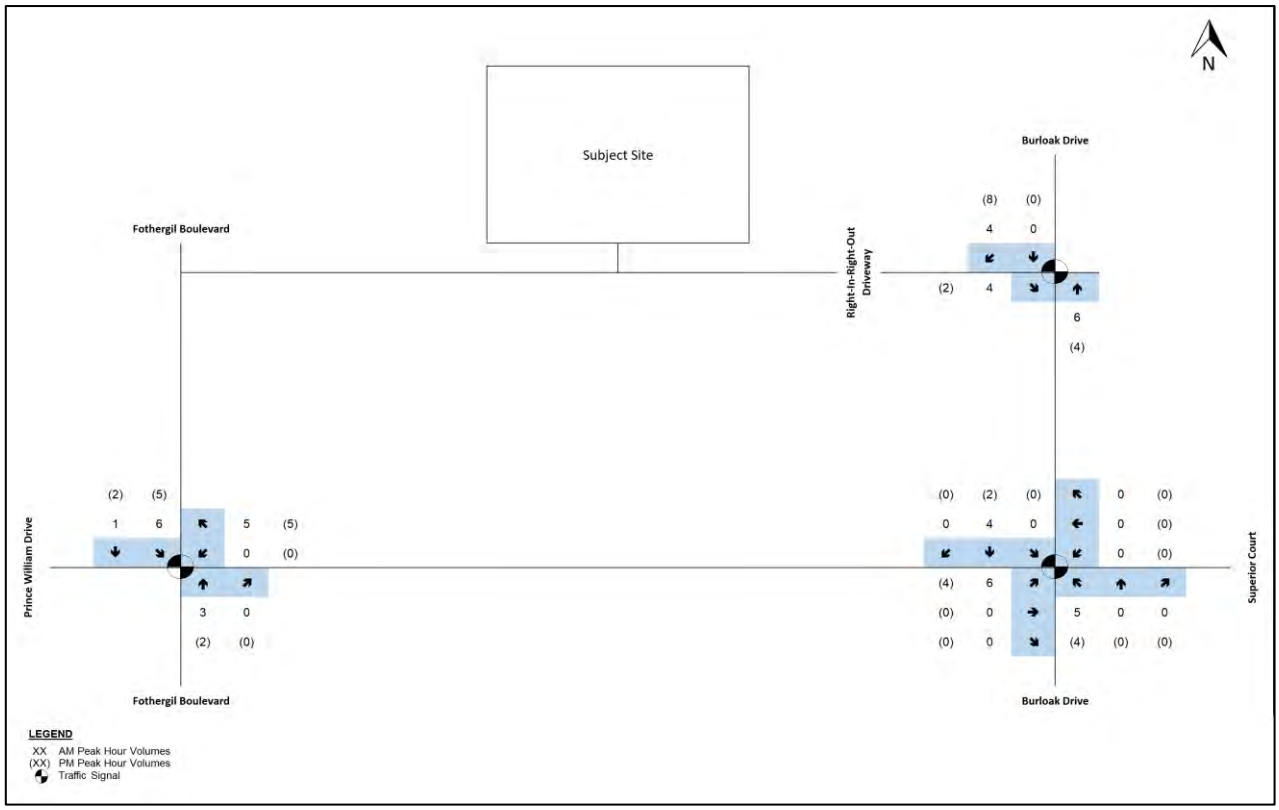


Figure 9 Site Trips Restaurant

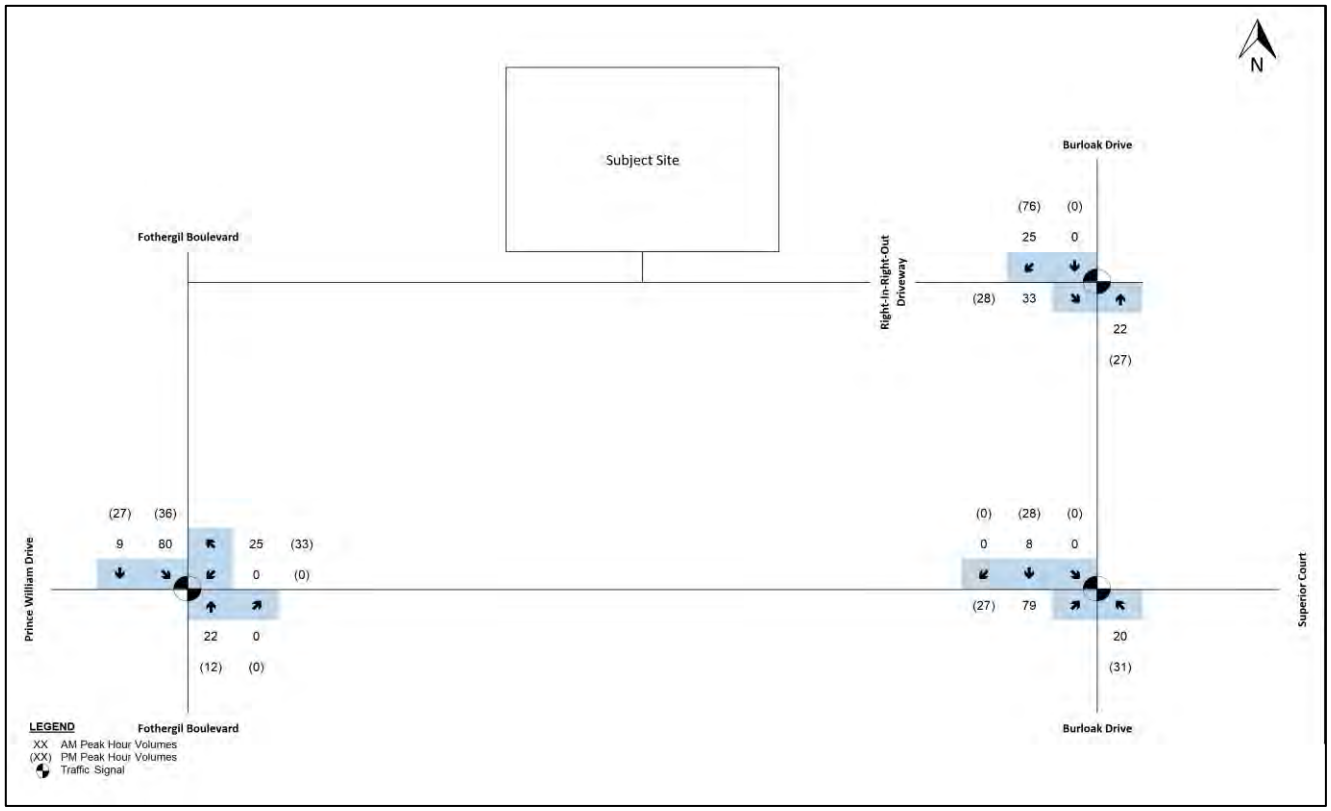


Figure 10 Site Trips Total

6. Future Total Traffic

The future total traffic conditions including the site traffic in the weekday a.m. and p.m. peak hours was derived by combining the existing traffic with the corresponding estimated site generated traffic. This analysis does not include corridor growth for a future planning horizon but is limited to demonstrating how the existing network would perform with the new site traffic. The resulting traffic volumes are presented in **Figure 11**.

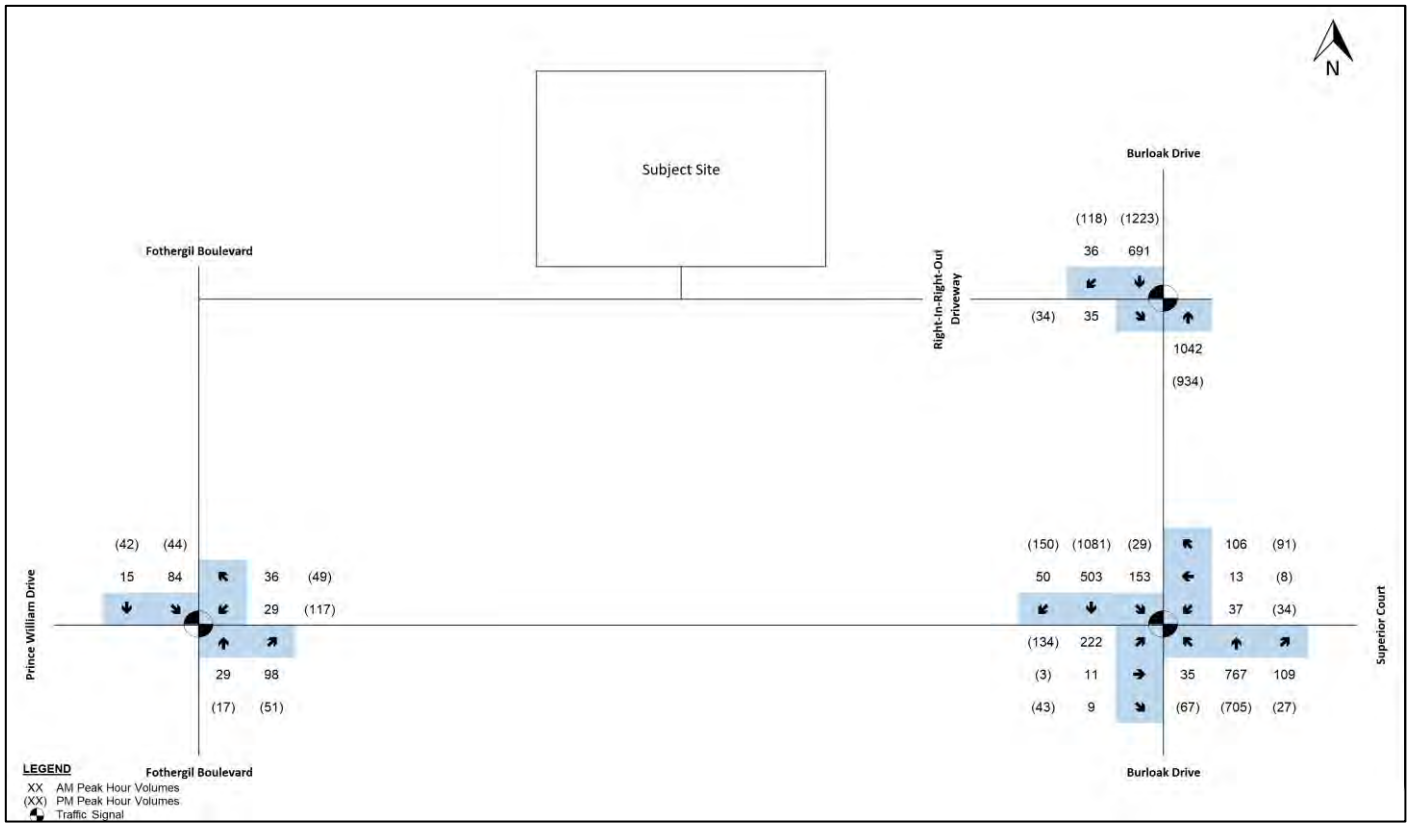


Figure 11 Future Total Traffic

6.1 Capacity Analysis

The capacity analysis identifies how well the intersections and driveways are operating. The analysis contained within this report utilized the Highway Capacity Manual (HCM) 2000 procedure within the Synchro Version 11 Software package. The reported intersection volume-to-capacity ratios (v/c) are a measure of the saturation volume for each turning movement, while the levels-of-service (LOS) are a measure of the average delay for each turning movement. Queuing characteristics are reported as the predicted 95th percentile queue for each turning movement. Both pedestrian crossing volumes and heavy vehicle proportions are included in the analyses. The peak hour factors from the counts were used to analyze existing traffic conditions. Existing peak hour factors were also used for future traffic conditions.

The analysis includes identification and required modifications and improvements (if any) at intersections where the addition of background growth or background growth plus site-generated traffic volumes causes the following:

'Critical' intersections and movements for a signalized intersection include:

- V/C ratios for overall intersections operations, through movements, or shared through/turning movements increase to 0.85 or above;
- V/C ratios for exclusive movements increase to 0.95 or above; or
- 95th percentile queue length for individual movements that are projected to, or exceed, the storage length.

'Critical' intersections and movements for an unsignalized intersection include:

- Level of Services (LOS), based on average delay per vehicle, on individual movements exceeds LOS "E"; or
- Queue length for individual movements that exceeds the available queue storage.

The following tables summarize the HCM Capacity results for the study intersections during the weekday a.m. and p.m. Future Total traffic conditions consisting of site trips added to the existing traffic volumes. The detailed calculation sheets are provided in **Appendix C**

6.2 Prince William Drive/Superior Court and Burloak Drive

Capacity analysis for this intersection during the weekday a.m. and p.m. peak hours for the existing, and existing with site traffic inclusion are summarized in the following table.

Table 2 Capacity Analysis for Prince William Drive/Superior Court and Burloak Drive

Scenario	AM Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2024	Overall: 0.5 (B) 15 EBL = 0.69 (D) 46 EBTR = 0.05 (C) 33 WBL = 0.16 (C) 34 WBTR = 0.12 (C) 34 NBL = 0.03 (A) 10 NBTR = 0.46 (B) 13 SBL = 0.37 (A) 7 SBTR = 0.24 (A) 6	**EBL = 50 m** EBTR = 10 m WBL = 15 m WBTR = 20 m NBL = 10 m NBTR = 85 m SBL = 20 m SBTR = 35 m	Overall: 0.62 (B) 11 EBL = 0.68 (D) 44 EBTR = 0.04 (C) 31 WBL = 0.21 (C) 32 WBTR = 0.1 (C) 32 NBL = 0.16 (A) 8 NBTR = 0.39 (A) 8 SBL = 0.07 (A) 4 SBTR = 0.56 (A) 7	**EBL = 35 m** EBTR = 10 m WBL = 15 m WBTR = 15 m NBL = 10 m NBTR = 60 m SBL = 5 m SBTR = 80 m
Existing 2024 (Site Trips Included)	Overall: 0.61 (B) 17 EBL = 0.78 (D) 41 EBTR = 0.04 (C) 24 WBL = 0.12 (C) 24 WBTR = 0.11 (C) 24 NBL = 0.09 (B) 12 NBTR = 0.54 (B) 16 SBL = 0.46 (B) 9 SBTR = 0.28 (A) 8	**EBL = 60 m** EBTR = 10 m WBL = 15 m WBTR = 15 m NBL = 10 m NBTR = 75 m SBL = 20 m SBTR = 35 m	Overall: 0.65 (B) 12 EBL = 0.65 (D) 38 EBTR = 0.04 (C) 29 WBL = 0.16 (C) 29 WBTR = 0.09 (C) 29 NBL = 0.34 (B) 13 NBTR = 0.42 (B) 10 SBL = 0.07 (A) 5 SBTR = 0.61 (A) 9	**EBL = 40 m** EBTR = 10 m WBL = 15 m WBTR = 15 m NBL = 20 m NBTR = 60 m SBL = 5 m SBTR = 90 m

Under existing traffic conditions, the intersection is operating at satisfactory levels with an overall v/c ratio of 0.50 LOS B during the a.m. peak hour, and 0.62 LOS B during the p.m. peak hour. During the a.m. peak hour, the intersection operates with a critical movement in the eastbound left-turning direction where the queueing of 50 metres exceeds the storage length. The northbound through right direction with v/c 0.46 LOB operates with a queue of 85 metres which may encroach the left-turning movement as it exceeds the northbound left storage length. The remaining movements operate with acceptable v/c ratios. During the p.m. peak there is reported slight improvements in the eastbound left-turn lane where the v/c is 0.68 LOS D, a delay of 44 seconds and the queueing is 35 metres, which exceeds the left-turn storage length, while not encroaching into the commercial driveway. The northbound left-turn lane reports an increase in v/c to 0.16 with LOS A, 8-second delay and 10 metre queues while the northbound through/right report an improvement in v/c to 0.39 LOS B, 8-second delay and a 60-metre queue. Additionally, the southbound through/right direction reports an increase in v/c to 0.56 LOS A, a 7-second delay and an 80-metre queue. The remaining movements operate similar to the a.m. peak with satisfactory v/c, delays and queues.

With the addition of site traffic and optimization of signal timing splits to minimize delays and queues, the overall reported v/c of the intersection is reported to increase to 0.61 LOS B during the a.m. peak hour, and 0.65 LOS B during the p.m. peak hour. During the a.m. peak the intersection continues to operate with a critical queue in the eastbound left-turn lane where the v/c increases to 0.78 LOS D and a 60-metre queue which exceeds past the location of the commercial driveway similar to the existing condition without the site traffic addition. The northbound through/right direction reports an increase in v/c to 0.54 LOS B, 16 second delay and a 75-metre queue which exceeds past the left-turn lane storage length and may contribute to northbound left-turn lane delays, however, is an improvement from the 85 metres queue reported in the existing scenario without site traffic. The remaining movements experience slight increases in v/c, delays and queuing however remain at acceptable levels. During the p.m. peak the

intersection continues to operate with a critical movement in the eastbound left-turn lane where the v/c is reported lower than the a.m. peak at 0.65 LOS D, 38-second delay and a 40-metre queue which exceeds the storage length. The northbound through/right direction reports an increase in v/c from the a.m. peak to 0.43 LOS B, 10 second delay and a 60-metre queue. The northbound left-turn lane reports an increase in v/c ratio to 0.34 LOS B, 13 second delay and 20-metre queue. The southbound through/right direction also reports an increase in v/c to 0.61 LOS B, 9 second delay and a 90-metre queue. The remaining movements are similar to the previous scenario in v/c, delays and queuing and remain at acceptable levels.

Therefore, with the inclusion of site traffic (excluding background growth or corridor improvements), a critical movement is observed for the eastbound left-turn at Prince William Drive/Superior Court and Burloak Drive, where the 95th percentile queue length extends beyond the existing storage length and taper during the a.m. peak hour, while the corresponding v/c ratio remains within acceptable limits.

It is noted, however, that despite the queue extending beyond the delineated storage and taper, the available pavement width along the eastbound approach is sufficient to accommodate two outbound lanes of travel. As a result, queued vehicles are able to form an effective extended left-turn lane without impeding the adjacent through movement. In practice, the lane operates beyond its marked storage length under peak conditions, allowing left-turning vehicles to queue within the available width while maintaining through traffic operations.

The current storage length and taper appear to have been designed primarily to accommodate the adjacent commercial driveway, and not to reflect the full operational capacity of the eastbound approach. Given the available roadway width and observed operating conditions, there is no functional constraint preventing the left-turn queue from extending beyond the marked taper, as it continues to operate effectively as an extended auxiliary lane.

6.3 Burloak Drive and Right-In-Right-Out Driveway

Capacity analysis for this intersection during the weekday a.m. and p.m. peak hours for the existing, and existing with site traffic inclusion are summarized in the following table.

Table 3 Capacity Analysis of Burloak Drive and Right-In-Right-Out Driveway

Scenario	AM Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2024	EBR = 0 (B) 11 SBTR = 0.15 (A) 0	EBR = 5 m SBTR = 0 m	EBR = 0.02 (B) 15 SBTR = 0.29 (A) 0	EBR = 5 m SBTR = 0 m
Existing 2024 (Site Trips Included)	EBR = 0.06 (B) 11 SBTR = 0.16 (A) 0	EBR = 5 m SBTR = 0 m	EBR = 0.10 (C) 16 SBTR = 0.34 (A) 0	EBR = 5 m SBTR = 0 m

Under existing traffic conditions, the intersection is operating at satisfactory levels with the highest delay in the eastbound right direction at 11 seconds with a 5-metre queue during the a.m. peak and 15 seconds with a 5-metre queue during the p.m. peak.

With the addition site traffic there is an observed slight increase in v/c ratios in the Northbound and Southbound direction but maintain within satisfactory delays and queues. The eastbound right-turn increases in v/c slightly during the a.m. peak from 0 to 0.06 LOS B, 11 second delay and 5-metre queue, while during the p.m. peak the v/c increases from 0.02 to 0.10 LOS C, 16 second delay and a 5-metre queue.

Overall, the intersection operates at satisfactory levels and no recommended improvements required.

6.4 Fothergill Boulevard and Prince William Drive

Capacity analysis for this intersection during the weekday a.m. and p.m. peak hours for the existing, and existing with site traffic inclusion are summarized in the following table.

Table 4 Fothergill Boulevard and Prince William Drive Capacity Analysis

Scenario	AM Peak Hour		PM Peak Hour	
	V/C (LOS) seconds	95th % Que.	V/C (LOS) seconds	95th % Que
Existing 2024	WBLR = 0.05 (A) 8 NBTR = 0.12 (A) 7 SBTL = 0.01 (A) 8	WBLR = 5 m NBTR = 5 m SBTL = 0 m	WBLR = 0.18 (A) 8 NBTR = 0.07 (A) 7 SBTL = 0.03 (A) 8	WBLR = 5 m NBTR = 5 m SBTL = 5 m
Existing 2024 (Site Trips Included)	WBLR = 0.9 (A) 8 NBTR = 0.15 (A) 8 SBTL = 0.15 (A) 9	WBLR = 5 m NBTR = 5 m SBTL = 5 m	WBLR = 0.22 (A) 8 NBTR = 0.09 (A) 7 SBTL = 0.12 (A) 8	WBLR = 5 m NBTR = 5 m SBTL = 5 m

Under existing traffic conditions, the intersection is operating at satisfactory levels with low v/c ratios, delays and queuing.

With the addition of the site traffic there is a slight increase in v/c ratios in all directions while the delays and queueing remain similar the previous scenario. During the a.m. peak the westbound left/right v/c increases to 0.09, the northbound through/right increases to 0.15 and the southbound through/left increases to 0.15. During the p.m. peak the westbound left/right v/c increases to 0.22, the northbound through/right increases to 0.09 and the southbound through/left increases to 0.12.

Overall, the intersection performs at satisfactory levels, and no geometric improvements are required as a result of the proposed development.

7. Parking Review

GHD reviewed the City's current Zoning By-law for parking and loading requirements for the proposed mixed-use development.

7.1 Vehicular Parking

As per the City of Burlington Zoning By-law 2020 the minimum parking requirements are found in Section 2.25 Table 1.2.6 for Residential and Non-Residential uses. The parking requirements are as follows:

Apartment Building

As per the official plan Schedule B-1 Growth Framework map the subject site falls within the secondary growth area and as such the parking requirement is 1.25 spaces per unit inclusive of visitor parking.

The minimum requirement for the proposed apartment is as follows:

- 1.25 spaces per unit inclusive of visitor parking = 1.25 x 274 units = 343 parking spots required.

Day Care Centre

- 4 parking spaces per 100 m^2 gross floor area

The minimum parking required for the childcare facility are as follows:

- 4 parking spaces per 100 m^2 gross floor area = 4 x 496.45 m^2/100 m^2 = 20 parking spaces required

Restaurant

The restaurant is assumed to classified as a standard restaurant as per the parking provision table

- 18.5 parking spaces per 100 m^2 gross floor area

The minimum parking for the restaurant is as follows:

- 18.5 parking spaces per 100 m^2 gross floor area = 18.5 x 247.12 m^2/100 m^2 = 46 parking spaces required

Retail Store

- 3.5 parking spaces per 100 m^2 gross floor area

The minimum parking for the retail store is as follows:

- 3.5 parking spaces per 100 m^2 gross floor area = 3.5 x 218.50 m^2/100 m^2 = 8 parking spaces required

Therefore, the site is required to provide a total of 417 parking spaces which includes (343 for the apartment use, 20 for the daycare use, 46 for the restaurant use and 8 retail use.

7.2 Accessible Parking

As per the City of Burlington Zoning By-law the provision for accessible parking is found in section 2.26 table 1.2.7. The accessible parking for the subject site is based on the total number of parking spaces required in all parking areas on a lot and is as follows:

- Over 90 spaces – 3% of required parking spaces.

The minimum accessible parking is as follows:

- 3% of required parking spaces = 3% x 417 required parking spaces = 13 accessible parking spaces.

7.3 Proposed Site Parking Review

The following table summarizes the minimum By-law requirements and the proposed parking for the proposed site.

Table 5 Parking Requirements and Provisions

Type	Site Statistics	By-Law 2020 Requirement	Provided	Parking Shortfall
Vehicle Parking	274 apartment units 496.45 m^2 Day Care GFA 247.12 m^2 Restaurant GFA 218.50 m^2 Retail GFA	417 parking spaces including: ➢ 274 resident ➢ 69 visitor ➢ 20 Daycare ➢ 46 restaurant ➢ 8 retail	285 parking spaces including: ➢ 229 resident ➢ 56 combined visitor and commercial parking	132 parking spaces: ➢ 45 resident ➢ 87 combined visitor and commercial parking
Accessible Parking		13 accessible parking spaces	11 accessible parking spaces	2 accessible parking spaces

The proposed development does not fully satisfy the City's Zoning By-law requirements for parking. Specifically, there is a deficiency of 132 vehicle parking spaces relative to the total number required.

As barrier-free parking requirements are derived from the total number of spaces required under the By-law (rather than the number of spaces provided), the current supply also results in a deficiency of two accessible parking spaces, as these have been calculated based on the reduced parking provision rather than the full By-law requirement.

7.4 Parking Justification

In support of the proposed reduction in parking, additional details are provided in the following sections including:

- Site usage
- Major Transit Station Area review
- Multi-modal availability
- Proxy Survey Parking Rates

7.4.1 Major Transit Station Area

Schedule H of the City of Burlington July 2025 Office Consolidation Official Plan shows the Major Transit Station Area (MTSA) for the Appleby GO train station.

As part of the Bill 185 Cutting Red Tape to Build More Homes Act, 2024, received Royal Assent on June 6th, 2024. The Bill made various amendments to the Planning Act, including the inability of a municipality's Official Plan or

Zoning By-law to require parking (with the exception of bicycle parking) on land that is not part of a highway and that is located within:

- a protected major transit station area identified in accordance with subsection (15) or (16);
- an area delineated in the official plan of the municipality surrounding and including an existing or planned higher order transit station or stop, within which area the official plan policies identify the minimum number of residents and jobs, collectively, per hectare that are planned to be accommodated, but only if those policies are required to be included in the official plan to conform with a provincial plan or be consistent with a policy statement issued under subsection 3 (1); or
- any other area prescribed for the purposes of this clause.

The subject site is located approximately 257 metres from the Appleby GO MTSA boarder and approximately 1.40 kilometres from the site as shown in **Figure 12.**

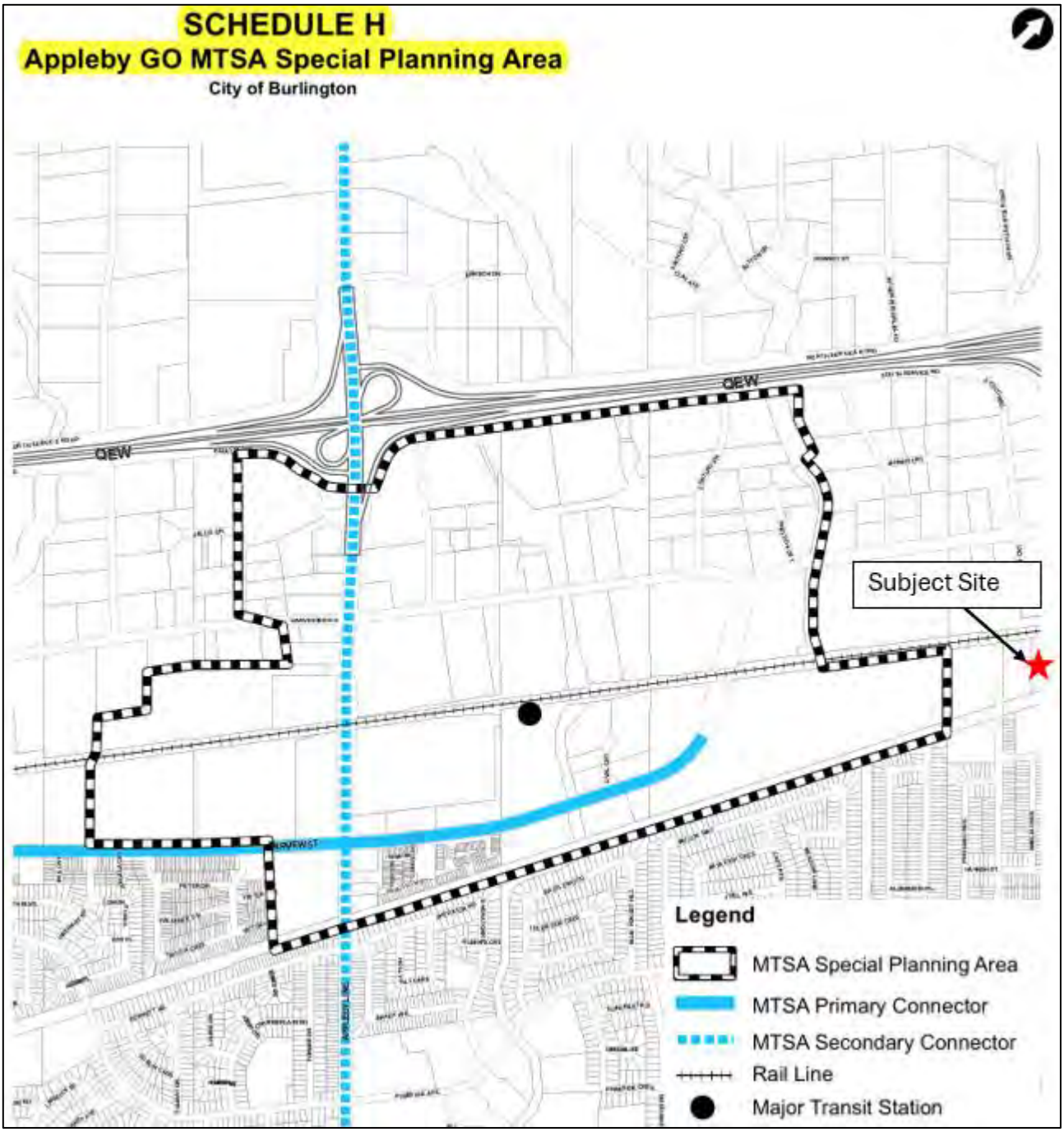


Figure 12 Appleby GO MTSA Area

7.4.2 Existing Site Active Transportation

Although the subject site does not qualify for the MTSA reductions, similar sites within similar proximity of the Appleby GO station that are within the MTSA were reviewed to evaluate factors including existing transit and active transportation opportunities. The following sites were evaluated:

- 5280 South Service Road
- 4480 Paletta Court
- Undeveloped Lot at Fairview Street and Angela Court

Although the selected sites do not currently contain residential land uses, they were selected as potential proxy locations as they exhibit characteristics that are reasonably representative of potential future residential redevelopment within the MTSA. These sites are located at the outer limits of the MTSA boundary and reflect conditions where access to transit and active transportation facilities is comparatively less direct than sites closer to the station. As such, they provide a good basis for assessing travel behaviour at the periphery of the MTSA.

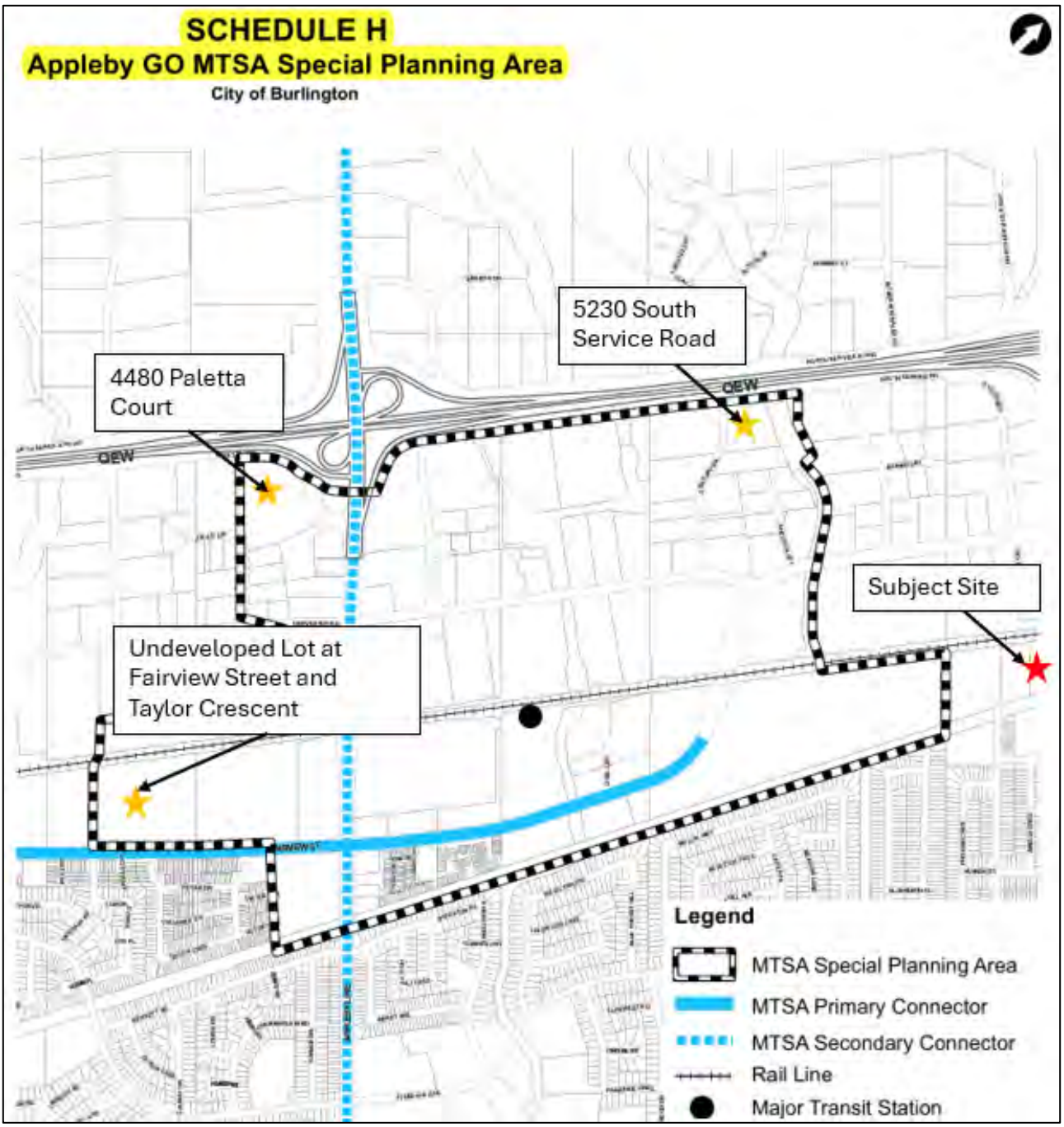


Figure 13 Furthest Sites Selected with MTSA Area Boundary

7.4.2.1 Active Transportation from Appleby GO

The below figures shows the average travel times from Appleby GO to the identified proxy sites. Additionally, they are summarized in **Table 6**



Figure 14 AM Peak from Appleby GO to 4480 Paletta Court



Figure 15 PM Peak from 4480 Paletta Court to Appleby GO

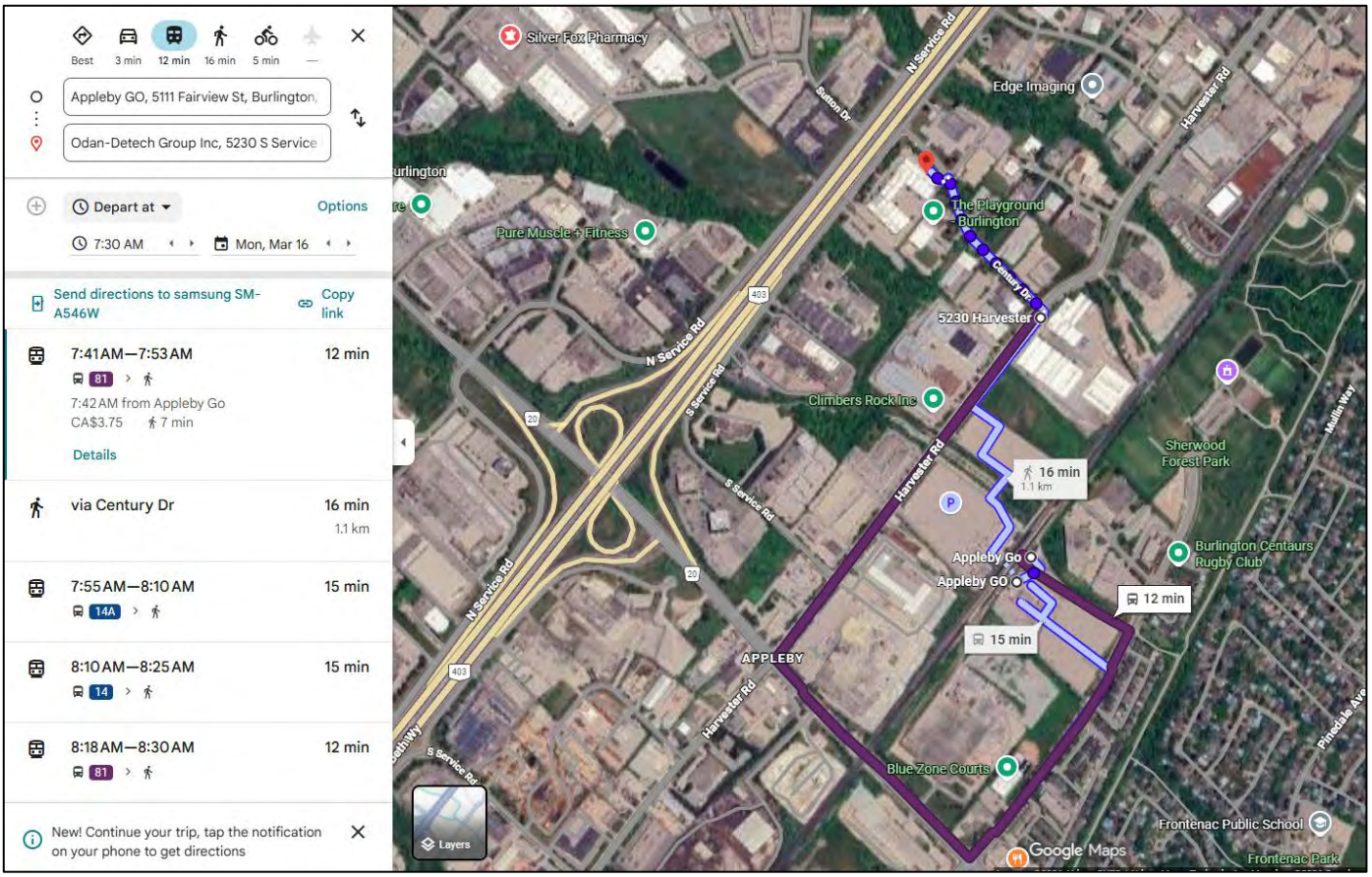


Figure 16 AM Peak from Appleby GO 5230 South Service Road



Figure 17 PM Peak from Appleby GO to 4480 Paletta Court



Figure 18 AM Peak from Undeveloped Lot to Appleby GO

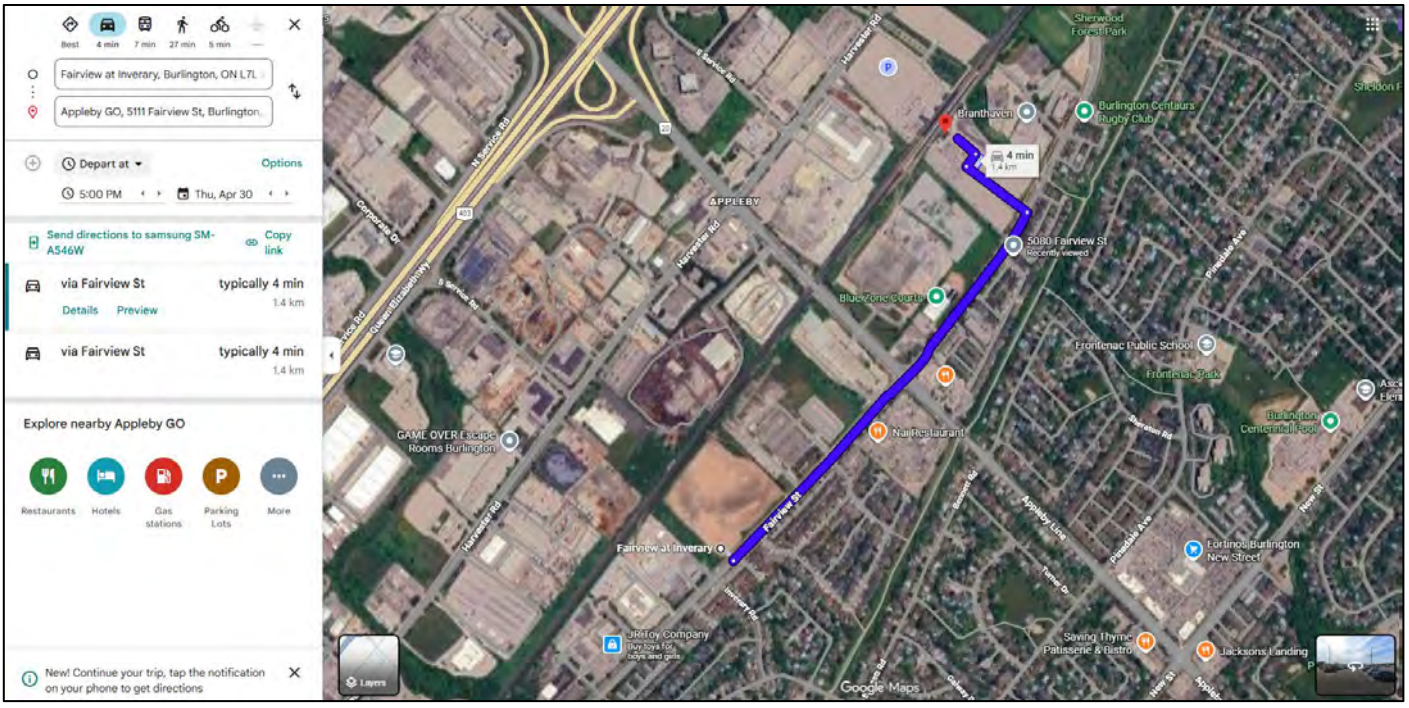


Figure 19 PM Peak from Undeveloped Lot to Appleby GO



Figure 20 AM Peak from 800 Burloak Drive to Appleby GO

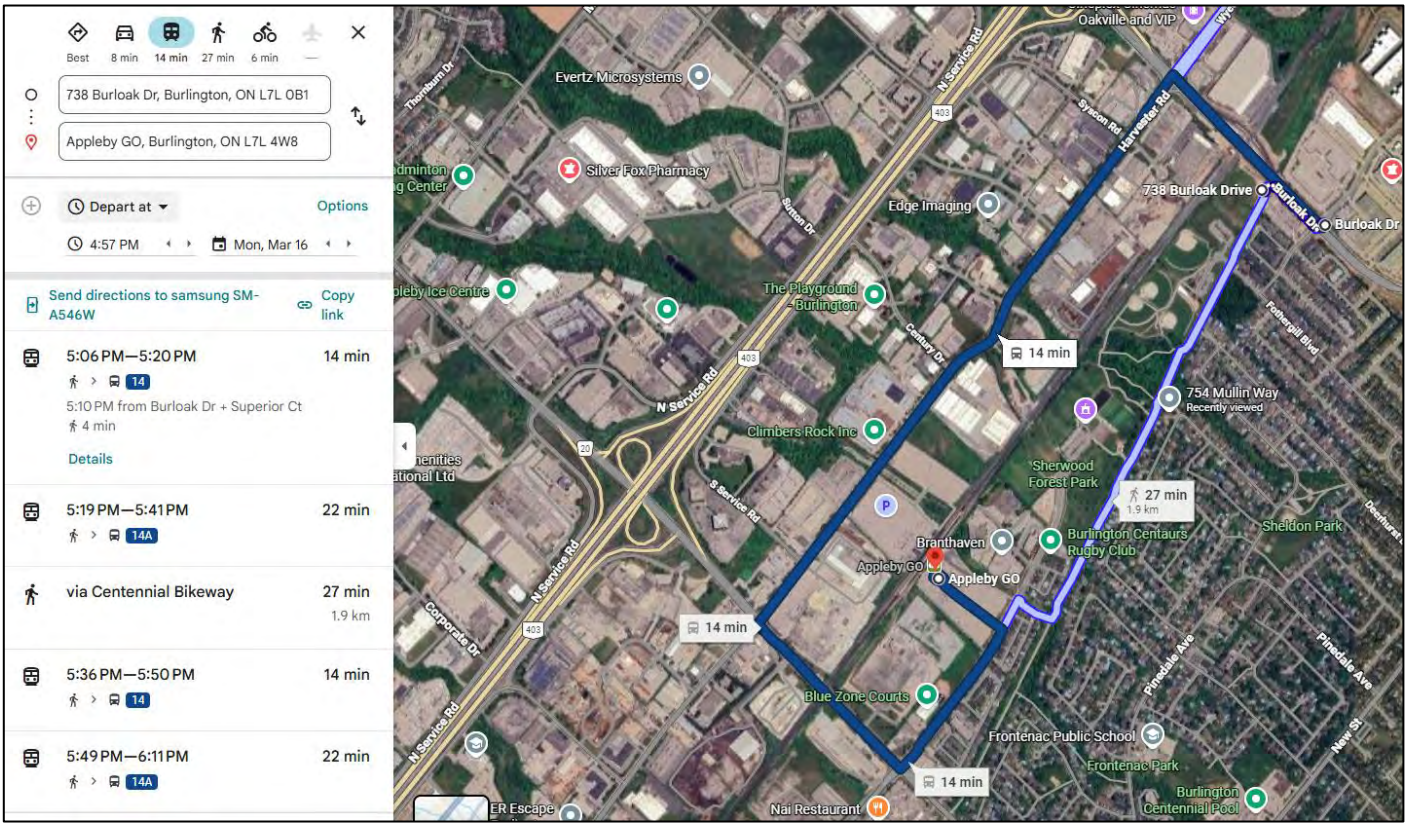


Figure 21 PM Peak from 800 Burloak Drive to Appleby GO

Table 6 Travel Time to and from Appleby GO

Site	Distance to Appleby GO	Transit Travel Time (min)		Walking Travel Time (min)		Cycling Travel Time (min)	
		AM	PM	AM	PM	AM	PM
5230 South Service Road	Approx. 850 m	12	10	16	15	5	4
4480 Paletta Court	Approx. 1.4 km	21	20	35	34	9	9
Undeveloped Lot (Fairview Street and Angela Court)	Approx. 1.4 km	7	7	27	27	5	5
Average Travel Times of Similar Sites		13	12	26	25	6	6
Subject Site at 800 Burloak Drive	Approx. 1.4 km	12	14	27	27	6	6

Comparing the travel times between the proxy sites and subject sites as shown in **Table 6** the transit time of 14 minutes, walking time of 27 minutes and cycling time of 6 minutes is comparable to the average between the three sites of 5280 South Service Road, 4480 Paletta Court and the Undeveloped lot.

This shows that although the proposed site is outside of the MTSA area by approximately 257 metres, it has similar active transportation opportunities to Appleby GO to sites that are on the furthest extent from of the identified MTSA boundaries. These active transportation opportunities encourage users to opt for alternative methods of transportation rather than using a vehicle for transportation and fall within the strategies outlined in the City of Burlington Integrated Mobility Plan dated September 2023 to decrease car mode share from 91% to 70% by 2051.

Travel times between the subject site and surrounding destinations are comparable to those observed at developments currently located within the MTSA. As such, a reduced parking supply at the subject site can reasonably be supported by the existing availability of alternative modes of connectivity, including transit, walking, cycling, and shared mobility options. Notably, has the proposed residential development be located on the proxy sites summarized above the parking supply would be reduced to zero for residents and visitors. Given the similarities between the location of these proxy sites and the subject development in terms of access to trip lengths and travel behaviour for transit and active transportation, these examples support the appropriateness of a lower parking supply at the subject site.

In addition, the subject development is intended to function as a retirement-oriented senior lifestyle community, with programs and amenities provided on-site to address many day-to-day needs of residents. This form of development is typically associated with reduced automobile reliance when compared to conventional market-based residential developments, as residents are less likely to engage in regular work-related travel and generally exhibit lower trip frequencies and shorter travel distances. As mobility needs shift toward more local, discretionary, and non-peak travel, a greater reliance on active transportation, transit, and shared mobility options can reasonably be anticipated.

Accordingly, the combined effects of comparable MTSA travel characteristics, senior-focused programming, and access to alternative transportation modes reduce the need for a parking supply based on conventional zoning standards. The proposed parking reduction is therefore considered appropriate and aligns with broader municipal objectives to support efficient land use and sustainable transportation options.

7.4.3 Proposed Site Usage Parking Demand

As tabulated in **Table 5** the mixed use development requires a total of 74 visitor parking spaces for non-residential uses and assuming all residents are provided 1 parking space per unit, the remainder 0.25 parking spaces per unit will be dedicated towards visitor parking which requires 69 spaces for the visitor parking of the residential units which results in a total of 417 parking spaces.

The proposed development provides a combined residential and non-residential parking supply that falls short of the Zoning By-law requirement by 132 spaces, relative to a total requirement of 417 spaces and provided 285 spaces, this represents an approximate 68% reduction.

To support the proposed reduction in residential, residential visitor, and non-residential visitor parking, previously undertaken GHD proxy parking surveys were reviewed and applied as outlined below.

Residential Parking Rate

The proposed residential parking rate is based on observed parking utilization at comparable, exclusively residential developments. This approach isolates resident parking demand from visitor demand, consistent with the manner in which residential and visitor parking are treated separately within the zoning By-law.

Visitor Parking

Given the shared-use nature of the parking supply, the proposed approach is informed by previous parking utilization studies for mixed-use developments, which support consolidating residential visitor and commercial parking into a single, shared parking rate. Consistent with these studies, the applicable rate is governed by the more conservative of the two demands. In this case, the non-residential parking rate has been applied, as it represents the higher requirement relative to residential visitor parking.

7.4.4 Residential Proxy Site Surveys and Parking Demand

The residential parking utilization survey (**attached in Appendix D**) were undertaken by GHD on two separate days Sunday August 11th 2024 and Monday August 12th 2024 for M2 Condominium, located east of the subject site on Sandalwood Parkway at 215 Veterans Drive in the City of Brampton. This proxy survey data was chosen as it is located approximately 2.2 kilometres away from the nearest GO station (Mount Pleasant GO) similar to the subject site which is located approximately 1.5 kilometres from the nearest GO station (Appleby GO).

At the time of the survey, the following information was provided by the property management regarding the unit count and parking provision:

- The development consists of a total of 255 residential units and 271 resident parking spaces, providing resident parking at a rate of 1.06 spaces per unit.
- A total of 10 units remained unsold at the time the survey was undertaken.
- Every unit is provided one parking space with the purchase of the unit, unbundled parking is not an option at this location.
- Every purchaser is also provided the opportunity to purchase a second parking space from the additional 16 spaces available. At the time of the survey, only 7 of the 16 second spaces have been purchased.

Based on the parking demand survey conducted by Ontario Traffic Inc. for the M2 condos on August 11th and 12th, 2024, here is an analysis of the findings:

Sunday, August 11th:

- Resident Parking Demand: 169 spaces occupied.
- Utilization Rate: 0.69 spaces per unit.

Monday, August 12th:

- Resident Parking Demand: 180 spaces occupied.
- Utilization Rate: 0.73 spaces per unit.

The maximum observed residential rate per unit was 0.73 residential parking spaces per unit.

7.4.4.1 Proposed Residential Parking Rate

Based on the findings in **Section 7.4.4**, the proposed parking rate is informed by the maximum observed shared visitor parking demand at the proxy sites, which reflects the expected peak utilization conditions.

Applying the higher observed rate of 0.73 residential parking spaces per unit to the subject site, the expected parking demand is as follows:

Residential Parking Spaces = 0.73 × 274 units ≈ 200 residential parking spaces

Accordingly, based on peak observed demand derived from the proxy parking surveys, the proposed development would require approximately 200 residential parking spaces. The proposed supply of 229 residential parking spaces exceeds this estimated demand and is therefore sufficient to accommodate observed residential parking needs.

The proxy survey results further indicate that a comparable site located approximately 2.2 kilometres from the nearest GO Station, and functioning as a conventional condominium development, exhibits a residential parking demand rate of approximately 0.74 spaces per unit. Given the similarities between these proxy sites and the subject development in terms of access to services, trip lengths, and availability of non-auto travel options, the observed parking demand at the proxy site is a valid benchmark for evaluating parking requirements at the subject site.

In addition, the subject development is intended to operate as a senior-oriented retirement and lifestyle community, with programs and amenities provided on site to support day-to-day living needs. This form of housing is typically associated with reduced automobile ownership and lower trip-making rates compared to conventional market-based residential developments, reflecting decreased work-related travel, fewer peak-period trips, and a greater reliance on local destinations, active transportation, transit, and shared mobility options. As residents' mobility needs evolve, a shift toward slower-paced, local, and discretionary travel patterns can reasonably be anticipated.

Taking these factors together, the provision of 229 residential parking spaces, representing a rate of approximately 0.84 spaces per unit, is considered conservative, appropriate, and supportable for the subject site.

7.4.5 Shared Visitor Proxy Site Surveys and Parking Demand

Parking utilization surveys (**attached in Appendix D)** were undertaken by GHD on June 7, 2019 to evaluate two proxy sites within the Town of Oakville, in support of establishing a shared parking approach for a separate mixed-use development in the municipality:

- Ballantry Homes located at 216 Oak Park Boulevard
    - A 4 storey condominium building consisting of 108 apartment units.
    - 14, 199 ft^2 (1,319.11m^2) of commercial GFA
- Mint Mondos located at 2486 Old Bronte Rd
    - Building 1 consisting of 176 residential units;
    - Building 2 consisting of 224 residential units; and.
    - 1,004.61 m^2 of commercial GFA

The surveys took place on the following days:

- Friday May 10, 2019 from 5:00 PM to 10:00 PM;
- Saturday May 11, 2019 from 11:00 AM to 1:00 PM and 5:00 PM to 10:00 PM; and

- Sunday May 12, 2019 from 11:00 AM to 1:00 PM and 5:00 PM to 10:00 PM

Ballantry Homes

- This site provides 131 residential parking spaces and 48 shared visitor spaces (combined residential and commercial), for a total of 179 spaces.
- The observed peak demand for shared visitor parking was 38 spaces, representing approximately 79% utilization of the visitor supply. Based on this peak demand, the shared visitor parking rate is calculated as:
- Shared Visitor Parking Rate = 38 / (1,319.11 / 100) = 2.88 spaces per 100 m² of non-residential GFA

Mint Condos

- This site provides 470 residential parking spaces and 82 shared visitor spaces.
- The observed peak demand for shared visitor parking was 78 spaces, representing approximately 95% utilization. Based on this peak demand, the shared visitor parking rate is calculated as:
- Shared Visitor Parking Rate = 78 / (1,004.61 / 100) = 7.76 spaces per 100 m² of non-residential GFA

Summary of Proxy Rates

The derived shared visitor parking rates from the two proxy sites are:

- Ballantry Homes: 2.88 spaces per 100 m²
- Mint Condos: 7.76 spaces per 100 m²

The maximum observed shared visitor parking rate derived from the proxy sites is approximately 7.76 spaces per 100 m² of non-residential GFA, while the average rate across the sites is approximately 5.32 spaces per 100 m².

7.4.5.1 Visitor Parking Proposed Rate

Based on the findings in **Section 0**, the proposed parking rate is informed by the maximum observed shared visitor parking demand at the proxy sites, which reflects the expected peak utilization conditions.

Applying the higher observed rate of 7.76 shared visitor parking spaces per 100 m² of non-residential GFA to the subject site, and a total non-residential GFA of 962.07 m² (comprised of 247.12 m² of restaurant space, 218.50 m² of retail space, and 496.45 m² of childcare space), the expected parking demand is as follows:

- Shared Residential and Commercial Visitor Parking Spaces = 7.76 × (962.07 m² / 100 m²) = 74.7 ≈ 75 spaces

Accordingly, the proposed development would require approximately 75 shared residential and non-residential visitor parking spaces based on peak observed demand derived from the proxy surveys. The proposed supply of 56 combined visitor parking spaces results in a shortfall of 19 vehicle spaces.

As there is a variance between the maximum and minimum observed rate of the visitor parking survey data the use of the appropriate as a middle ground between the subject sites. Applying the average rate of 5.32 spaces per 100 m^2 the expected parking demand is as follows:

- Shared Residential and Commercial Visitor Parking Spaces = 5.32 × (962.07 m² / 100 m²) = 51.2 ≈ 52 spaces

Therefore, by applying the average rate, the provision of 56 shared visitor parking spaces for the subject site would be sufficient.

Furthermore, it is important to note that the shared-use nature of the parking supply introduces additional efficiencies, as residential visitor demand and non-residential demand (restaurant, retail, and childcare) are expected to peak at different times of day and days of the week. For example, childcare demand is typically concentrated during weekday daytime periods, whereas residential visitor demand is more pronounced during evenings and weekends. Retail and restaurant uses may exhibit more variable patterns but are similarly unlikely to coincide fully with residential peak periods.

In addition, parking demand associated with the childcare use is generally short in duration and characterized by high turnover, particularly during drop-off and pick-up periods. These activities typically occur over brief time windows and do not result in sustained occupancy of parking spaces throughout the day. As such, while the childcare component may generate localized peak activity, it does not contribute significantly to prolonged parking accumulation and can be effectively accommodated within a shared parking supply. This transient demand profile further supports the efficiency of a shared-use parking arrangement, as spaces can be reused by other users throughout the day.

Given these temporal differences in demand, the combined peak parking requirement is not expected to occur simultaneously across all uses. As such, the provision of 56 shared visitor parking spaces is anticipated to adequately accommodate real-world parking demand on the site without resulting in adverse operational impacts.

In consideration of the above, the proposed visitor parking supply can be considered appropriate and supportable, as it is grounded in survey data, reflects the average across the proxy survey assessments, and accounts for the efficiencies associated with shared parking in a mixed-use context.

8. Transportation Demand Management

TDM refers to a variety of strategies to reduce congestion, minimize the number of single occupant vehicles, encourage non-auto modes of travel, and reduce vehicle dependency to create a sustainable transportation system. TDM strategies have multiple benefits including the following:

- Reduced auto-related emissions to improve air quality.
- Decreased traffic congestion to reduce travel time.
- Increased travel options for businesses and commuters.
- Reduced personal transportation costs and energy consumptions.
- Support Provincial smart growth objectives.

The combined benefits listed above will assist in creating a more active and liveable community through improvements to overall active transportation standards for the local businesses and surrounding community.

Providing off-street residential parking influences a commuter's choice on whether to drive or choose alternate forms of transportation. Providing more parking in general leads to a higher percentage of auto ownership and auto usage as well. Changing travel behaviour is best done when a prospective buyer is looking to purchase a unit and providing the opportunity for a prospective buyer to easily purchase a parking space either through making it affordable, at no additional cost, or having an excess in number of spaces available to purchase can introduce travel behaviour into an area that once established is hard to change.

Municipalities within the GTA have begun to assist developers in helping to change travel behaviour by reducing or eliminating parking within areas with higher order transit stations.

The proposed development will be heavily marketed to prospective purchasers who are looking to live in a walkable transit-oriented community where a vehicle is not required for commuting or discretionary trips and the limited number of parking spaces will be explicitly noted in any promotional material. Consequently, the subject site provides an excellent opportunity to introduce a significant population to the area that is transit-oriented.

Sustainable transportation is a crucial component of achieving climate change adaptation and environmental protection goals and reducing traffic related air pollutant and greenhouse gas emissions.

8.1.1 Policy Justification

8.1.1.1 Ontario's Five Year Climate Change Action Plan

The purpose of Ontario's Climate Change Action Plan, announced in 2016, is to address climate change through transportation and land-use measures. The plan aims to reduce emissions, create more livable, mixed-use communities, and prioritize addressing climate change at the municipal level.

In terms of development, the plan outlines key actions such as supporting cycling and walking, reducing single-passenger vehicle trips, and eliminating minimum parking requirements. These actions are aimed at promoting alternative modes of transportation and creating complete, compact, and mixed-use communities. The elimination of minimum parking requirements is also a change in perspective toward auto-ownership and travel and is becoming a more common in urban areas as population increases, transit expands, and auto-ownership declines.

The concept of eliminating the minimum parking requirements for high density buildings in areas with access to public transportation is not a new concept in North America. Examples of such developments can be found in a variety of cities including Toronto, London, Brampton, Oakville, Ottawa, Calgary and Vancouver.

As the population of Burlington continues to grow, transit infrastructure expands across the city, and personal vehicle ownership declines, more residential buildings with reduced parking standards relative to the Zoning By-law requirements will become more commonplace.

8.1.1.2 Provincial Policy Statement - 2020

The reduced parking supply is consistent with the Provincial Policy Statement-2020 (PPS). Part V of the PPS, through policies in Section 1.6.7, promotes maintaining and improving connectivity within and among transportation systems and modes (1.6.7.3) as well as land use pattern, density and mix of uses that minimizes the length and number of vehicle trips and supports current and future use of transit and active transportation (1.6.7.4). The proposed density of the subject site, integration of residential and retail uses and reduced parking supply, along with its proximity to current transit, support and are consistent with this policy direction.

8.1.1.3 Metrolinx 2041 Regional Transportation Plan

The reduced parking is consistent with the Metrolinx 2041 Regional Transportation Plan (RTP) which aims to put traveler needs at the core of planning and operations by providing even more people with fast, frequent and reliable transit; design communities, transit stations and Mobility Hubs to support transit use and active transportation; and using parking demand strategies to encourage car-sharing and other modes besides the car.

The RTP specifies that through secondary plans, zoning bylaws and development applications, the land use planning process can help to minimize parking demands by ensuring that residential and commercial sites support walking, cycling, carsharing, and transit use.

8.2 Existing TDM Opportunities

Adjacent to the site there is an existing multi-use path which connects to Appleby Go allowing for cyclists and pedestrians and sidewalks along Burloak Drive, Fothergill Boulevard and Prince William Drive which connects pedestrians to the nearby neighbourhoods.

Burlington and Oakville and GO Transit stops are Stationed along Burloak Drive and Harvester Road.

8.3 Proposed TDM Opportunities

Pedestrian Connectivity and Bicycle Parking

The proposed building will include both short term and long-term bicycle parking for visitors and residents.

Information Distribution and Community Building

The developer should create a comprehensive information package for all new residents highlighting available pedestrian trails, cycling, and transit facilities, as well as carpool options. This package should include a community map, Burlington Transit route map, GO Transit route map and schedules. A community board promoting carpooling can also be implemented to foster a sense of community and encourage shared transportation.

Unbundled Parking

To reduce parking demand and encourage a more sustainable lifestyle, the applicant is considering an unbundled parking scheme for prospective residents. This would allow residents to rent parking spaces separately from their units, leading to a lower monthly rents and parking utilization rate.

Carshare Parking Spaces

The subject site proposes to provide carshare spaces for use by future residents of the subject site. The provision of the carshare vehicles will support the residents who require the occasional use of a personal vehicle but prefer to not have the hassle of vehicle ownership. Having car share options available can make it easier for residents to rely on public transit for their daily commute, and relying on a shared vehicle when necessary, thus promoting a multi-modal transport approach.

Providing car shares services directly within the development provides many benefits including:

- Car sharing eliminates the expenses associated with owning a vehicle, such as the cost of the vehicle, maintenance and insurance.
- Fewer vehicles on the road mean reduced carbon emissions and pollution, contributing to a cleaner and healthier environment.
- Car share services provide the convenience of a vehicle without the commitment of ownership, ideal for residents who only need a vehicle occasionally.
- Users of car share services are more likely to utilize public transit, walk, or cycle, leading to more sustainable and active transportation habits.
- With fewer privately-owned vehicles in use, car sharing can help reduce overall traffic congestion in urban areas.
- Encourages Responsible Vehicle Use: When users pay per trip, they tend to plan their car use more efficiently, reducing unnecessary travel.

In summary, car share services offer a practical, flexible, and environmentally friendly alternative to private car ownership, particularly in urban settings where they can significantly contribute to more sustainable and efficient transportation systems.

8.4 Traffic Calming Measures

As part of GHD's review of the proposed development and its surrounding road network, several measures have been identified to enhance pedestrian safety and reduce vehicular speeds within the vicinity of the subject site. Given the expected vehicular traffic and pedestrian activity with the potential connection to the adjacent Sherwood Forest Park, it is essential to implement physical and regulatory traffic calming measures that encourage driver awareness and compliance with posted limits. The following recommendations have been reviewed are intended to improve overall safety and enhance visibility and comfort for pedestrians crossing within the subject site.

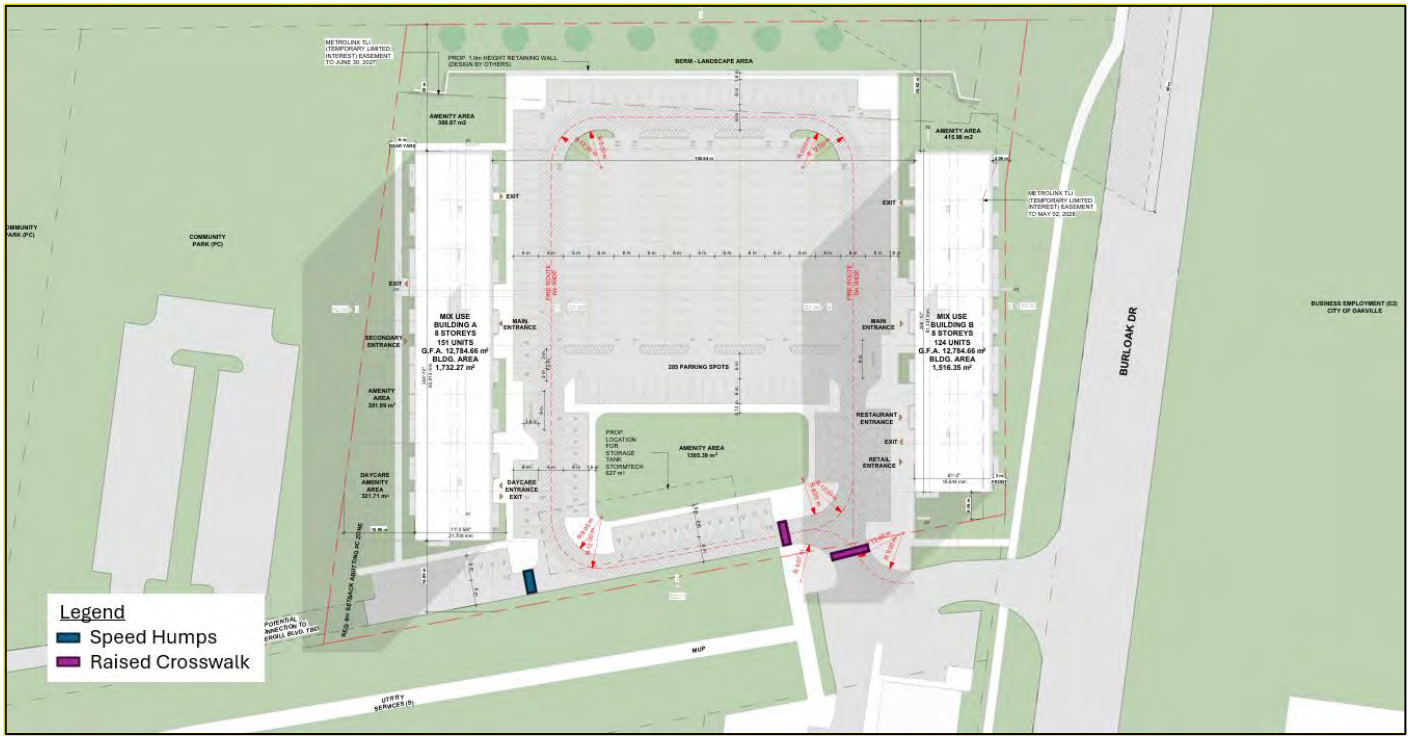


Figure 22 Proposed Traffic Calming Measures

Speed Humps/Raised Crosswalk

It is recommended that speed humps be installed closest to the daycare and a point prior to entering potential future connection to the adjacent parking lot of Sherwood Forest Park. Additionally raised crosswalks are proposed along the entrance to the site and the crossing between the southern sidewalk connection and into the amenity area of the subject site. Speed humps and raised crosswalks are a proven traffic calming measure designed to reduce midblock vehicle speeds while maintaining accessibility for larger vehicles such as emergency services.

The installation of speed the speed humps and raised crosswalks will effectively reduce vehicular speeds within the site around the daycare area, entrance to the park and entrance into the site to create a more controlled traffic environment near the site accesses and internal to the site. The reduction in speed will also enhance visibility and reaction time for both drivers exiting the school site and oncoming traffic, improving overall operational safety. In particular, reduced speeds will provide additional opportunity for motorists exiting the site to identify and respond to approaching vehicles, thereby reducing the risk of conflicts and improving sightline conditions along access and with the adjacent commercial development south of the site.

9. Conclusion

The development is forecast to generate approximately 198 two-way vehicle trips during the weekday a.m. peak hour and 214 two-way vehicle trips during the weekday p.m. peak hour.

Under existing conditions, all study intersections operate at acceptable levels of service, with the exception of the eastbound left-turn movement at Burloak Drive and Prince William Drive/Superior Court, where queue lengths exceed the marked storage length during peak periods. With the addition of site-generated traffic, overall intersection

operations remain within acceptable limits, and no new critical movements are introduced. The eastbound left-turn movement continues to experience extended queuing consistent with existing conditions, without materially affecting overall intersection performance.

Based on the City of Burlington Zoning By-law, the development would be required to provide a total of 417 parking spaces, including 13 accessible spaces. The proposed design provides 285 parking spaces, including 229 residential spaces and 56 shared visitor and non-residential spaces, representing a shortfall of 132 spaces relative to the By-law requirement.

The proposed parking supply is supported by a detailed parking justification informed by proxy parking surveys and a review of site context. Residential proxy survey data indicates a maximum observed demand of approximately 0.73 parking spaces per unit, translating to an estimated requirement of approximately 200 residential parking spaces for the subject development.

The proposed provision of 229 residential parking spaces exceeds this observed demand and is therefore considered sufficient. Shared visitor and non-residential parking demand was assessed using proxy surveys of comparable mixed-use developments, which support an average shared parking rate of approximately 5.32 spaces per 100 m² of non-residential gross floor area. Applying this rate results in an estimated demand of approximately 52 shared visitor spaces, which can be accommodated by the proposed supply of 56 spaces.

A review of developments located at the periphery of the Appleby GO Major Transit Station Area demonstrates that the subject site exhibits comparable transit, walking, and cycling travel times to sites located within the MTSA boundary. While the subject site is located just outside the MTSA limits, its connectivity and access to alternative transportation modes support reduced reliance on private automobiles. This is further reinforced by the senior-oriented nature of the residential development, which is anticipated to generate lower auto ownership and trip-making rates than conventional market-based apartment housing.

Transportation Demand Management measures, including consideration of unbundled parking, car-sharing opportunities, enhanced pedestrian and cycling facilities, and proximity to transit services, further support the reduced parking supply.

Traffic calming measures, including speed humps and raised crosswalks, are also recommended within the site to enhance pedestrian safety and improve overall internal circulation.

Based on the findings of this study, the surrounding road network is capable of accommodating the site-generated traffic associated with the proposed development. The proposed parking supply is considered appropriate and supportable given observed demand characteristics, shared-parking efficiencies, site context, and transportation mode availability. No external road network improvements are required as a result of the proposed development.

Appendix A

Site Plan

FastTrack Proposal for:

800 BURLOAK DRIVE

CONTENT

01. PROPOSAL METRICS
02. SITE PLAN
03. ENLARGE FLOOR PLANS
04. ELEVATIONS
05. 3D VIEWS
06. OPENING TAKE - OFF
07. PRECAST MATERIAL TAKE - OFF
08. FAST TRACK CATALOGUE
09. FEATURED PROJECTS
10. WHY BUILD TOTAL PRECAST ?
11. PRECAST INSTALLTIONS



FastTrack BY STUBBE'S

ADDRESS
800 BURLOAK DRIVE,
BURLINGTON, ON

PROJECT CODE

0080

COVER PAGE

800 BURLOAK DRIVE

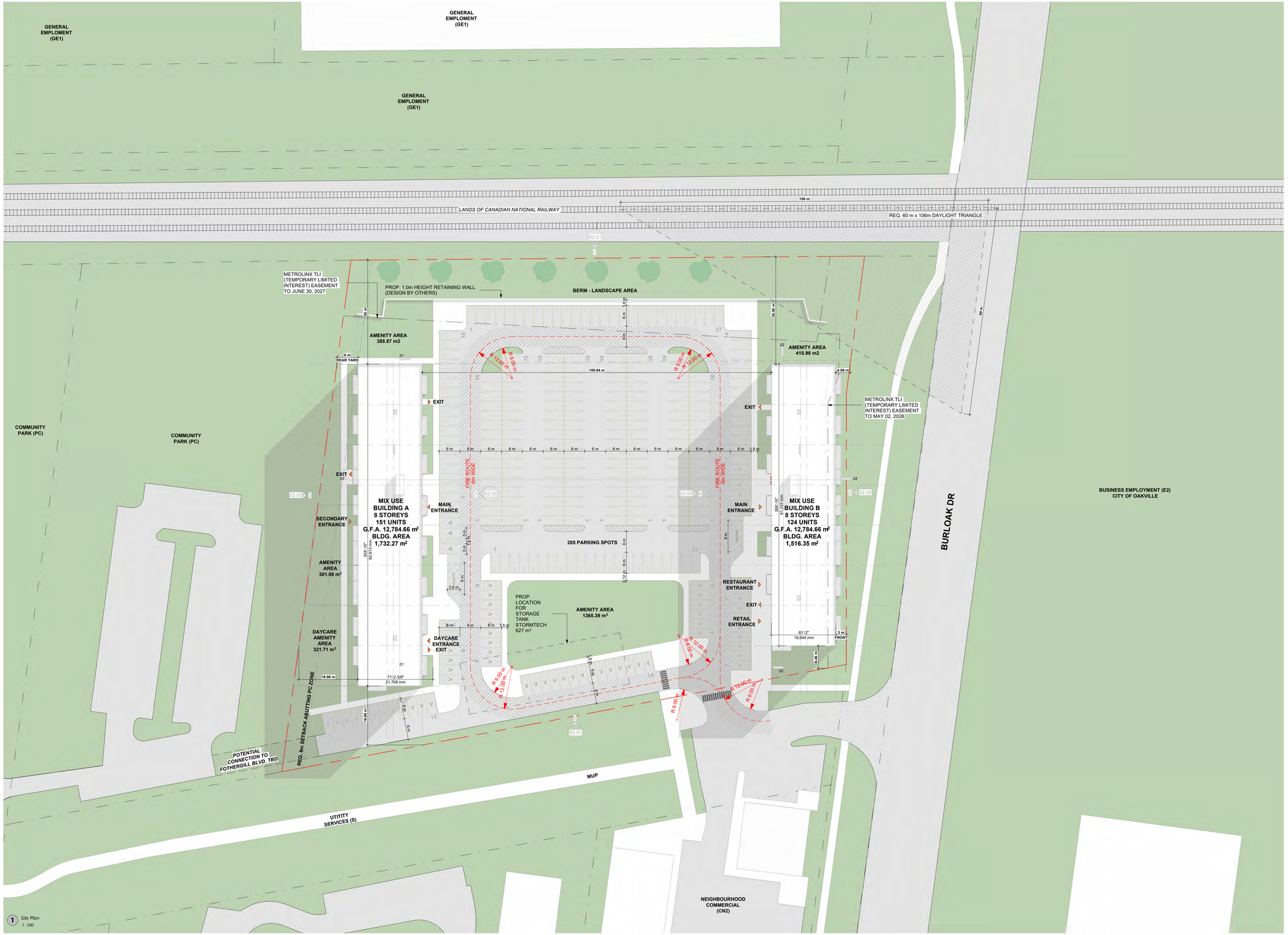
NORTH

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UNIT TYPE BREAKDOWN - TOTAL BUILDING

Name	Unit Area	Count	Total Area (sqft)	Count Ratio
BUILDING A				
ONE BED	524 SF	22	11,525	8%
ONE BED	676 SF	7	4,729	3%
ONE BED PLUS	635 SF	22	13,976	8%
ONE BED PLUS	799 SF	14	11,187	5%
STUDIO	413 SF	21	8,683	8%
THREE BED	1,199 SF	8	9,595	3%
TWO BED	906 SF	7	6,343	3%
TWO BED	940 SF	7	6,577	3%
TWO BED	1,048 SF	21	22,003	8%
TWO BED PLUS	1,048 SF	22	23,051	8%
		151	117,648	55%
BUILDING B				
ONE BED	524 SF	15	7,858	5%
ONE BED PLUS	635 SF	15	9,529	5%
ONE BED PLUS	799 SF	14	11,187	5%
STUDIO	413 SF	15	6,188	5%
THREE BED	1,199 SF	15	17,991	5%
TWO BED	906 SF	7	6,343	3%
TWO BED	940 SF	7	6,577	3%
TWO BED	1,048 SF	14	14,669	5%
TWO BED	1,059 SF	7	7,415	3%
TWO BED PLUS	1,048 SF	15	15,717	5%
		124	103,472	45%
Grand Total:		275	221,120	100%

SITE INFORMATION

CURRENT ZONE : H-CN1-48
PROPOSED ZONE : CN1-48

Zoning Bylaw Number of Units		~~0~~ 275	✓
Zoning Bylaw - Part 4 - 7.1 Property Area	10000 m² *min*	20220.5 m²	✓
Zoning Bylaw - Part 4 - 7.1 Lot Width	45 m *min*	118.15 m	✓
Zoning Bylaw - Part 4 - 7.1 Front Yard Setback	6 m *min*	3 m	✗
Zoning Bylaw - Part 4 - 7.1 Rear Yard Setback	6 m *min*	6 m	✓
Zoning Bylaw - Part 4 - 7.1 Interior Side Yard Setback	~~0 m~~	30 m	✓
Zoning Bylaw - Part 4 - 7.1 Street Side Yard Setback	6 m *min*	6.46 m	✓
Zoning Bylaw - Part 4 - 7.1 Yard abutting a PC or P zone	6 m *min*	6 m	✓
Zoning Bylaw - Part 4 - 7.1 Separation distance from a railway right-of-way	30 m *min*	30 m	✓
Zoning Bylaw - Part 4 - 7.1 Building Height	12 m *max*	26.96 m	✗
Zoning Bylaw Lot Coverage	~~0%~~	16.07%	✓
Zoning Bylaw - Part 4 - 7.2 Floor Area (Non-Residential Uses)	3600 m² *max*	962.07 m²	✓
Floor Area Breakdown (Non-Residential Uses) Day Care = 496.45 m² Restaurant = 247.12 m² Retail = 218.50 m² **Total Floor Area = 962.07 m²**			
Zoning Bylaw Landscape Area	~~0%~~	44.39%	✓
Landscape Open Space Breakdown Hardscape (Sidewalk Area): = 2711.47 m² (13.40%) Softscape (Green area): = 6267.51 m² (30.99%) **Total Landscape Open Space: = 7847.20 m² (44.39%)**			
Zoning Bylaw - Part 4 - 7.10 Residential Amenity Area	20 m² per unit *min*	20.05 m² per unit	✓
Minimum Amenity Area Breakdown **Total Required Amenity Area: 5480 m²** Patios at Ground Floor: **76.76 m²** Balconies Area: **2298.82 m²** Indoor Amenity: **668.46 m²** Outdoor Amenity: **2471.33 m²** **Total Provided Amenity Area: 5515.37 m²**			
Zoning Bylaw - Part 1 - 2.25 Parking Ratio Requirement	1.25 *min*	0.84	✗
Residential Parking Count Breakdown Total units = **274** x 1.25 = **343** Parking spots **Required** Total units = **274** x 0.84 = **229** Parking spots **Provided**			
Required Visitor and Commercial Parking Count Breakdown 1. **Visitor Requirement: 0.25 Spaces per Residential unit.** Total Units = **274** x 0.25 = **69** Parking spots **Required** 2. **Daycare Requirement: 4 Spaces per 100 m2 of GFA.** Total Daycare Area = **496.45 m²** / 100m² = **20** Parking spots **Required** 3. **Restaurant Requirement: 18.5 Spaces per 100 m2 of GFA.** Total Rest. Area = **247.12 m²** / 100m² = **46** Parking spots **Required** 4. **Retail Requirement: 4 Spaces per 100 m2 of GFA.** Total Retail Area = **218.50 m²** / 100m² = **9** Parking spots **Required** *** Combined Total Required = 144 Parking Spots** **Provided** Visitor and Commercial Parking Count Breakdown *** Combined Total Provided = 56 Parking Spots**			

PARKING INFORMATION

Type	Required	Provided	Location: Surface	Location: Garage
ACCESSIBLE WITH AISLE	4	3	3	0
STANDARD	140	53	53	0
VISITOR AND COMMERCIAL	144	56	56	0
ACCESSIBLE WITH AISLE	10	8	8	0
STANDARD	333	221	221	0
RESIDENTIAL	343	229	229	0
TOTAL SITE PARKING	487	285	285	0

FastTrack BY STUBBE'S

ADDRESS

800 BURLOAK DRIVE, BURLINGTON, ON

PROJECT CODE

0080

SITE PLAN

800 BURLOAK DRIVE

NORTH

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Appendix B

Traffic Data

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Project #24-405 - GHD

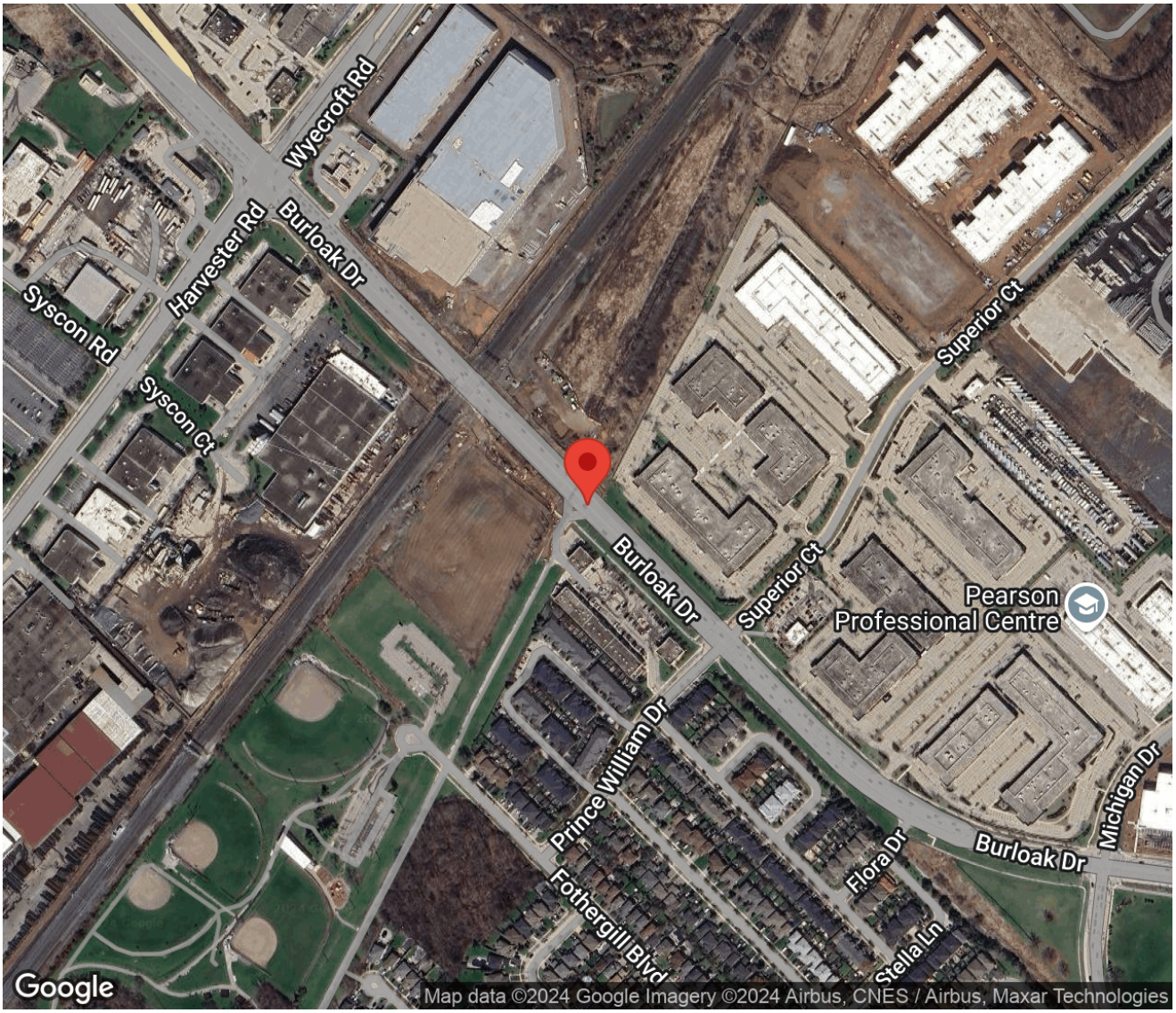
Intersection Count Report

Intersection:	Burloak Dr & Right-In - Right-Out Driveway
Municipality:	Burlington
Count Date:	Thursday, Nov 21, 2024
Site Code:	2440500001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-18:00
Weather:	Clear
Comments:	

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Traffic Count Map

Intersection:	Burloak Dr & Right-In - Right-Out Driveway
Site Code:	2440500001
Municipality:	Burlington
Count Date:	Nov 21, 2024



Ontario Traffic Inc.
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Traffic Count Summary

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

Burloak Dr - Traffic Summary

Hour	North Approach Totals (Includes Cars, Trucks, Bicycles)						South Approach Totals (Includes Cars, Trucks, Bicycles)						Total
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	
07:00 - 08:00	0	444	5	0	449	0	0	836	0	0	836	0	1285
08:00 - 09:00	0	691	11	0	702	6	1	1020	0	0	1021	2	1723
BREAK													
16:00 - 17:00	0	1186	48	0	1234	0	0	885	0	0	885	0	2119
17:00 - 18:00	0	1102	40	0	1142	0	1	853	0	0	854	0	1996
GRAND TOTAL	**0**	**3423**	**104**	**0**	**3527**	**6**	**2**	**3594**	**0**	**0**	**3596**	**2**	**7123**

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Traffic Count Summary

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

Commercial Driveway - 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	2	0	0	0	2	13	2
08:00 - 09:00	0	0	0	0	0	0	0	0	2	0	2	6	2
BREAK													
16:00 - 17:00	0	0	0	0	0	0	5	0	1	0	6	7	6
17:00 - 18:00	0	0	0	0	0	0	3	0	8	0	11	1	11
GRAND TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**11**	**0**	**21**	**27**	**21**

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Traffic Count Data

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

North Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	0	84	0	0	84	0	6	0	0	6	0	0	0	0	0	0
07:15	0	85	0	0	85	0	12	1	0	13	0	0	0	0	0	0
07:30	0	108	2	0	110	0	14	0	0	14	0	0	0	0	0	0
07:45	0	128	2	0	130	0	7	0	0	7	0	0	0	0	0	0
08:00	0	139	4	0	143	0	9	1	0	10	0	0	0	0	0	0
08:15	0	168	0	0	168	0	4	2	0	6	0	0	0	0	0	2
08:30	0	175	3	0	178	0	7	0	0	7	0	0	0	0	0	2
08:45	0	182	1	0	183	0	7	0	0	7	0	0	0	0	0	2
SUBTOTAL	0	1069	12	0	1081	0	66	4	0	70	0	0	0	0	0	6

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Traffic Count Data

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

North Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	0	298	9	0	307	0	6	0	0	6	0	0	0	0	0	0
16:15	0	271	18	0	289	0	7	0	0	7	0	2	0	0	2	0
16:30	0	271	6	0	277	0	0	0	0	0	0	0	0	0	0	0
16:45	0	329	15	0	344	0	2	0	0	2	0	0	0	0	0	0
17:00	0	321	12	0	333	0	5	0	0	5	0	0	0	0	0	0
17:15	0	273	7	0	280	0	6	1	0	7	0	0	0	0	0	0
17:30	0	286	7	0	293	0	1	0	0	1	0	0	0	0	0	0
17:45	0	207	13	0	220	0	3	0	0	3	0	0	0	0	0	0
SUBTOTAL	0	2256	87	0	2343	0	30	1	0	31	0	2	0	0	2	0
GRAND TOTAL	0	3325	99	0	3424	0	96	5	0	101	0	2	0	0	2	6

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

South Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	0	152	0	0	152	0	3	0	0	3	0	0	0	0	0	0
07:15	0	171	0	0	171	0	2	0	0	2	0	0	0	0	0	0
07:30	0	253	0	0	253	0	7	0	0	7	0	1	0	0	1	0
07:45	0	236	0	0	236	0	11	0	0	11	0	0	0	0	0	0
08:00	0	259	0	0	259	0	9	0	0	9	0	0	0	0	0	0
08:15	0	244	0	0	244	0	6	0	0	6	0	0	0	0	0	1
08:30	0	267	0	0	267	0	5	0	0	5	0	0	0	0	0	1
08:45	1	227	0	0	228	0	3	0	0	3	0	0	0	0	0	0
SUBTOTAL	1	1809	0	0	1810	0	46	0	0	46	0	1	0	0	1	2

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

South Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	0	197	0	0	197	0	9	0	0	9	0	0	0	0	0	0
16:15	0	212	0	0	212	0	8	0	0	8	0	0	0	0	0	0
16:30	0	228	0	0	228	0	7	0	0	7	0	0	0	0	0	0
16:45	0	219	0	0	219	0	5	0	0	5	0	0	0	0	0	0
17:00	0	230	0	0	230	0	3	0	0	3	0	0	0	0	0	0
17:15	1	208	0	0	209	0	4	0	0	4	0	0	0	0	0	0
17:30	0	230	0	0	230	0	4	0	0	4	0	0	0	0	0	0
17:45	0	170	0	0	170	0	4	0	0	4	0	0	0	0	0	0
SUBTOTAL	1	1694	0	0	1695	0	44	0	0	44	0	0	0	0	0	0
GRAND TOTAL	2	3503	0	0	3505	0	90	0	0	90	0	1	0	0	1	2

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

West Approach - Commercial Driveway

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

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Municipality: Burlington
Count Date: Nov 21, 2024

West Approach - Commercial Driveway

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	↰	↑	↱	↩	Total	
16:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
16:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
16:30	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
16:45	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
17:00	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
17:15	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
17:45	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	8	0	9	0	17	0	0	0	0	0	0	0	0	0	0	8
GRAND TOTAL	10	0	11	0	21	0	0	0	0	0	0	0	0	0	0	27

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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: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Count Date: Nov 21, 2024

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Burloak Dr runs N/S

North Approach

	Out	In	Total
Cars	672	997	1669
Trucks	30	23	53
Bicycles	0	0	0
	702	**1020**	**1722**

Burloak Dr

Bicycles	0	0	0
Trucks	3	27	0
Cars	8	664	0
Totals	**11**	**691**	**0**

Peds: 6

Commercial Driveway

			Totals
0	0	0	**0**
0	0	0	**0**
0	0	2	**2**

Peds: 6



Peds: 0

Peds: 2

West Approach

	Out	In	Total
Cars	2	9	11
Trucks	0	3	3
Bicycles	0	0	0
	2	**12**	**14**

Totals	**1**	**1020**	**0**
Cars	1	997	0
Trucks	0	23	0
Bicycles	0	0	0

Burloak Dr

South Approach

	Out	In	Total
Cars	998	666	1664
Trucks	23	27	50
Bicycles	0	0	0
	1021	**693**	**1714**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Count Date: Nov 21, 2024
Period: 07:00 - 09:00

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

Start Time	North Approach Burloak Dr						South Approach Burloak Dr						East Approach						West Approach Commercial Driveway						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00		148	5	0	0	153	0	268		0	0	268					0		0		1	0	0	1	422
08:15		172	2	0	2	174	0	250		0	1	250					0		0		0	0	1	0	424
08:30		182	3	0	2	185	0	272		0	1	272					0		0		1	0	3	1	458
08:45		189	1	0	2	190	1	230		0	0	231					0		0		0	0	2	0	421
Grand Total		**691**	**11**	**0**	**6**	**702**	**1**	**1020**		**0**	**2**	**1021**					**0**	**0**	**0**		**2**	**0**	**6**	**2**	**1725**
Approach %		98.4	1.6	0		-	0.1	99.9		0		-						-	0		100	0		-	
Totals %		40.1	0.6	0		40.7	0.1	59.1		0		59.2						0	0		0.1	0		0.1	
PHF		**0.91**	**0.55**	**0**		**0.92**	**0.25**	**0.94**		**0**		**0.94**						**0**	**0**		**0.5**	**0**		**0.5**	**0.94**
Cars		664	8	0		672	1	997		0		998						0	0		2	0		2	1672
% Cars		96.1	72.7	0		95.7	100	97.7		0		97.7						0	0		100	0		100	96.9
Trucks		27	3	0		30	0	23		0		23						0	0		0	0		0	53
% Trucks		3.9	27.3	0		4.3	0	2.3		0		2.3						0	0		0	0		0	3.1
Bicycles		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
Peds					6	-					2	-					0	-					6	-	14
% Peds					42.9	-					14.3	-					0	-					42.9	-	

Peak Hour Diagram

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

One Hour Peak
From: 16:45:00
To: 17:45:00

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Count Date: Nov 21, 2024

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Burloak Dr runs N/S

North Approach

	Out	In	Total
Cars	1250	891	2141
Trucks	15	16	31
Bicycles	0	0	0
	1265	**907**	**2172**

Burloak Dr

Bicycles	0	0	0
Trucks	1	14	0
Cars	41	1209	0
Totals	**42**	**1223**	**0**

Peds: 0

Commercial Driveway

			Totals
0	0	0	**0**
0	0	4	**4**
0	0	6	**6**

Peds: 3



Peds: 0

Peds: 0

West Approach

	Out	In	Total
Cars	10	42	52
Trucks	0	1	1
Bicycles	0	0	0
	10	**43**	**53**

Totals	**1**	**903**	**0**
Cars	1	887	0
Trucks	0	16	0
Bicycles	0	0	0

Burloak Dr

South Approach

	Out	In	Total
Cars	888	1215	2103
Trucks	16	14	30
Bicycles	0	0	0
	904	**1229**	**2133**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Burloak Dr & Right-In - Right-Out Driveway
Site Code: 2440500001
Count Date: Nov 21, 2024
Period: 16:00 - 18:00

Peak Hour Data (16:45 - 17:45)

Start Time	North Approach Burloak Dr						South Approach Burloak Dr						East Approach						West Approach Commercial Driveway						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:45		331	15	0	0	346	0	224		0	0	224					0		2		0	0	2	2	572
17:00		326	12	0	0	338	0	233		0	0	233					0		0		2	0	0	2	573
17:15		279	8	0	0	287	1	212		0	0	213					0		2		3	0	1	5	505
17:30		287	7	0	0	294	0	234		0	0	234					0		0		1	0	0	1	529
Grand Total		**1223**	**42**	**0**	**0**	**1265**	**1**	**903**		**0**	**0**	**904**					**0**	**0**	**4**		**6**	**0**	**3**	**10**	**2179**
Approach %		96.7	3.3	0		-	0.1	99.9		0		-						-	40		60	0		-	
Totals %		56.1	1.9	0		58.1	0	41.4		0		41.5						0	0.2		0.3	0		0.5	
PHF		**0.92**	**0.7**	**0**		**0.91**	**0.25**	**0.96**		**0**		**0.97**						**0**	**0.5**		**0.5**	**0**		**0.5**	**0.95**
Cars		1209	41	0		1250	1	887		0		888						0	4		6	0		10	2148
% Cars		98.9	97.6	0		98.8	100	98.2		0		98.2						0	100		100	0		100	98.6
Trucks		14	1	0		15	0	16		0		16						0	0		0	0		0	31
% Trucks		1.1	2.4	0		1.2	0	1.8		0		1.8						0	0		0	0		0	1.4
Bicycles		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
Peds					0	-					0	-					0	-					3	-	3
% Peds					0	-					0	-					0	-					100	-	

Ontario Traffic Inc.
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Project #24-405 - GHD

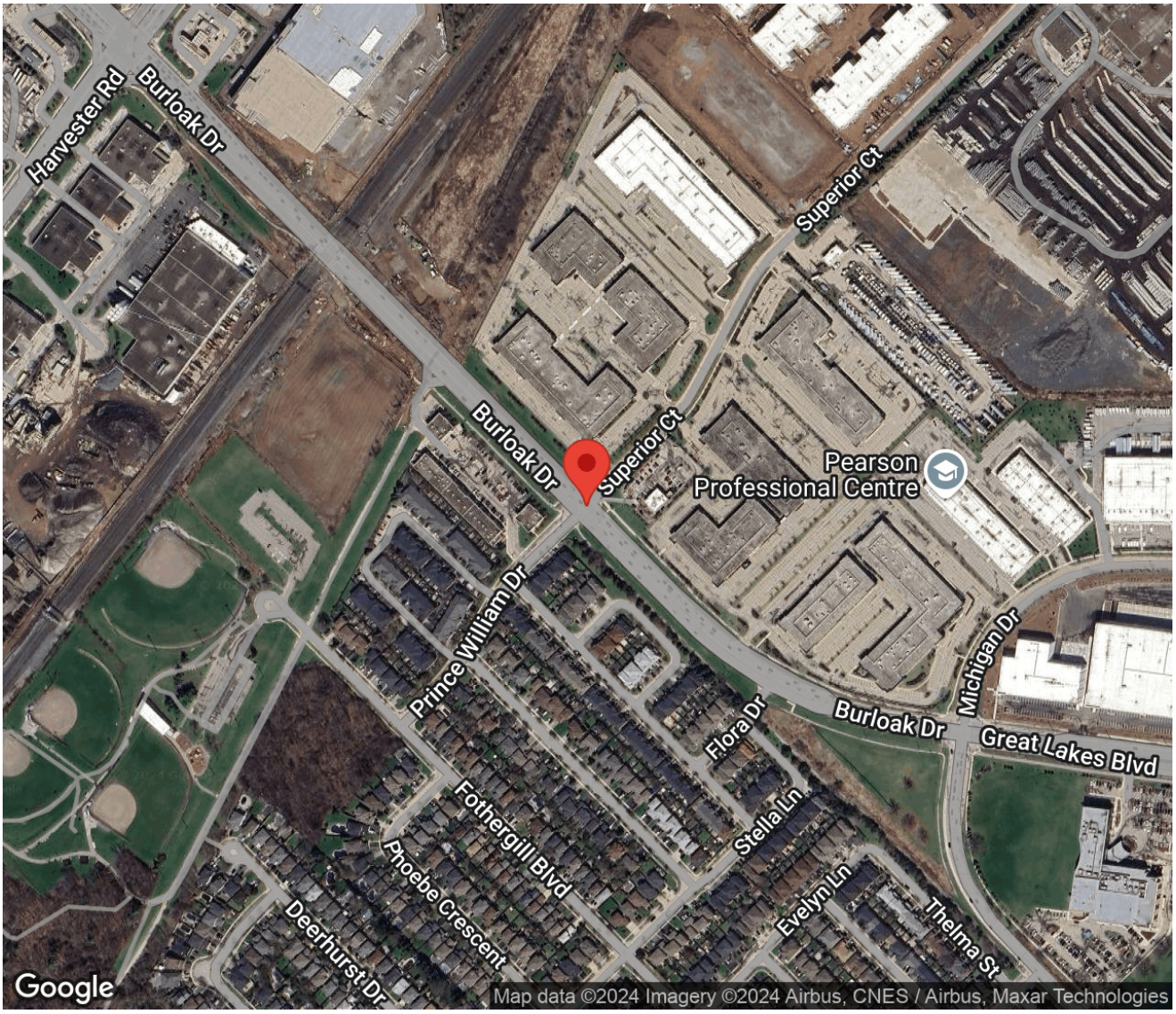
Intersection Count Report

Intersection:	Burloak Dr & Prince William Dr - Superior Ct
Municipality:	Burlington
Count Date:	Thursday, Nov 21, 2024
Site Code:	2440500002
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 16:00-18:00
Weather:	Clear
Comments:	

Traffic Count Map

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Intersection:	Burloak Dr & Prince William Dr - Superior Ct
Site Code:	2440500002
Municipality:	Burlington
Count Date:	Nov 21, 2024



Ontario Traffic Inc.
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Traffic Count Summary

Intersection:	Burloak Dr & Prince William Dr - Superior Ct
Site Code:	2440500002
Municipality:	Burlington
Count Date:	Nov 21, 2024

Burloak Dr - 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	88	315	34	0	437	1	4	634	102	0	740	7	1177
08:00 - 09:00	153	495	50	0	698	3	14	767	109	0	890	7	1588
BREAK													
16:00 - 17:00	40	1021	133	0	1194	1	28	686	27	0	741	7	1935
17:00 - 18:00	27	935	144	0	1106	3	38	672	24	0	734	7	1840
GRAND TOTAL	**308**	**2766**	**361**	**0**	**3435**	**8**	**84**	**2759**	**262**	**0**	**3105**	**28**	**6540**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection:	Burloak Dr & Prince William Dr - Superior Ct
Site Code:	2440500002
Municipality:	Burlington
Count Date:	Nov 21, 2024

Superior Ct - 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	47	5	98	0	150	1	108	20	4	0	132	2	282
08:00 - 09:00	37	13	106	0	156	0	143	11	9	0	163	7	319
BREAK													
16:00 - 17:00	36	4	100	0	140	5	96	10	34	0	140	5	280
17:00 - 18:00	31	7	87	0	125	3	101	2	47	0	150	4	275
GRAND TOTAL	**151**	**29**	**391**	**0**	**571**	**9**	**448**	**43**	**94**	**0**	**585**	**18**	**1156**

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

North Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	14	72	8	0	94	1	2	2	0	5	0	0	0	0	0	0
07:15	17	57	1	0	75	1	9	1	0	11	0	0	0	0	0	0
07:30	18	81	12	0	111	4	9	2	0	15	0	0	0	0	0	0
07:45	30	82	7	0	119	3	3	1	0	7	0	0	0	0	0	1
08:00	32	104	11	0	147	1	6	2	0	9	0	0	0	0	0	1
08:15	34	119	12	0	165	0	4	0	0	4	0	0	0	0	0	0
08:30	40	122	13	0	175	0	6	1	0	7	0	0	0	0	0	0
08:45	46	128	11	0	185	0	6	0	0	6	0	0	0	0	0	2
SUBTOTAL	231	765	75	0	1071	10	45	9	0	64	0	0	0	0	0	4

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

North Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	14	255	36	0	305	1	6	0	0	7	0	0	0	0	0	0
16:15	6	233	27	0	266	1	5	0	0	6	0	0	0	0	0	0
16:30	9	235	36	0	280	0	1	0	0	1	0	0	0	0	0	1
16:45	9	284	34	0	327	0	2	0	0	2	0	0	0	0	0	0
17:00	4	280	44	0	328	0	5	0	0	5	0	0	0	0	0	0
17:15	8	217	43	0	268	1	5	0	0	6	0	0	0	0	0	0
17:30	7	259	29	0	295	0	1	0	0	1	0	0	0	0	0	2
17:45	7	166	27	0	200	0	2	1	0	3	0	0	0	0	0	1
SUBTOTAL	64	1929	276	0	2269	3	27	1	0	31	0	0	0	0	0	4
GRAND TOTAL	295	2694	351	0	3340	13	72	10	0	95	0	0	0	0	0	8

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

South Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
07:00	3	118	26	0	147	0	2	0	0	2	0	0	0	0	0	0
07:15	1	133	19	0	153	0	2	0	0	2	0	0	0	0	0	1
07:30	0	186	34	0	220	0	4	0	0	4	0	0	0	0	0	5
07:45	0	181	23	0	204	0	8	0	0	8	0	0	0	0	0	1
08:00	1	189	30	0	220	0	8	0	0	8	0	0	0	0	0	0
08:15	2	194	29	0	225	0	4	1	0	5	0	0	0	0	0	4
08:30	4	198	24	0	226	0	4	0	0	4	0	0	0	0	0	1
08:45	7	168	25	0	200	0	2	0	0	2	0	0	0	0	0	2
SUBTOTAL	18	1367	210	0	1595	0	34	1	0	35	0	0	0	0	0	14

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

South Approach - Burloak Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	1	144	8	0	153	0	8	0	0	8	0	0	0	0	0	3
16:15	7	177	6	0	190	1	6	0	0	7	0	0	0	0	0	1
16:30	12	177	7	0	196	0	6	0	0	6	0	0	0	0	0	0
16:45	7	164	6	0	177	0	4	0	0	4	0	0	0	0	0	3
17:00	8	177	10	0	195	0	3	0	0	3	0	0	0	0	0	0
17:15	11	170	7	0	188	0	4	0	0	4	0	0	0	0	0	4
17:30	9	179	4	0	192	0	4	0	0	4	0	0	0	0	0	1
17:45	10	131	3	0	144	0	4	0	0	4	0	0	0	0	0	2
SUBTOTAL	65	1319	51	0	1435	1	39	0	0	40	0	0	0	0	0	14
GRAND TOTAL	83	2686	261	0	3030	1	73	1	0	75	0	0	0	0	0	28

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

East Approach - Superior Ct

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	8	2	22	0	32	0	0	1	0	1	0	0	0	0	0	0
07:15	13	0	19	0	32	0	0	0	0	0	0	0	0	0	0	0
07:30	10	1	24	0	35	2	0	2	0	4	0	0	0	0	0	0
07:45	13	2	26	0	41	1	0	4	0	5	0	0	0	0	0	1
08:00	3	3	25	0	31	0	0	1	0	1	0	0	0	0	0	0
08:15	11	1	25	0	37	0	0	1	0	1	0	0	0	0	0	0
08:30	12	2	29	0	43	0	1	1	0	2	0	0	0	0	0	0
08:45	11	5	24	0	40	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	81	16	194	0	291	3	2	10	0	15	0	0	0	0	0	1

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

East Approach - Superior Ct

Start Time	Cars					Trucks					Bicycles					Total Peds
					Total					Total					Total	
16:00	13	1	25	0	39	0	0	0	0	0	0	0	0	0	0	1
16:15	8	1	26	0	35	0	0	0	0	0	0	0	0	0	0	3
16:30	8	0	28	0	36	0	0	1	0	1	0	0	0	0	0	1
16:45	7	2	19	0	28	0	0	1	0	1	0	0	0	0	0	0
17:00	11	1	31	0	43	0	0	0	0	0	0	0	0	0	0	1
17:15	9	1	15	0	25	0	0	0	0	0	0	0	0	0	0	0
17:30	7	4	25	0	36	0	0	0	0	0	0	0	0	0	0	2
17:45	4	1	16	0	21	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	67	11	185	0	263	0	0	2	0	2	0	0	0	0	0	8
GRAND TOTAL	148	27	379	0	554	3	2	12	0	17	0	0	0	0	0	9

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

West Approach - Prince William Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
07:00	19	4	0	0	23	0	0	0	0	0	0	0	0	0	0	0
07:15	21	4	2	0	27	0	0	0	0	0	0	0	0	0	0	0
07:30	35	6	1	0	42	0	0	0	0	0	0	0	0	0	0	0
07:45	33	5	1	0	39	0	1	0	0	1	0	0	0	0	0	2
08:00	39	2	2	0	43	0	0	1	0	1	0	0	0	0	0	1
08:15	32	3	3	0	38	1	0	0	0	1	0	0	0	0	0	3
08:30	42	1	1	0	44	1	0	0	0	1	0	0	0	0	0	1
08:45	28	5	2	0	35	0	0	0	0	0	0	0	0	0	0	2
SUBTOTAL	249	30	12	0	291	2	1	1	0	4	0	0	0	0	0	9

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Municipality: Burlington
Count Date: Nov 21, 2024

West Approach - Prince William Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	↰	↑	↱	↶	Total	
16:00	24	3	10	0	37	2	0	0	0	2	0	0	0	0	0	2
16:15	9	4	5	0	18	1	0	0	0	1	0	0	0	0	0	0
16:30	30	2	10	0	42	0	0	0	0	0	0	0	0	0	0	2
16:45	30	1	9	0	40	0	0	0	0	0	0	0	0	0	0	1
17:00	27	2	13	0	42	0	0	0	0	0	0	0	0	0	0	0
17:15	23	0	9	0	32	0	0	0	0	0	0	0	0	0	0	2
17:30	23	0	12	0	35	0	0	0	0	0	0	0	0	0	0	2
17:45	27	0	13	0	40	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	193	12	81	0	286	4	0	0	0	4	0	0	0	0	0	9
GRAND TOTAL	442	42	93	0	577	6	1	1	0	8	0	0	0	0	0	18

Peak Hour Diagram

Specified Period
From: 07:00:00
To: 09:00:00

One Hour Peak
From: 08:00:00
To: 09:00:00

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Count Date: Nov 21, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Burloak Dr runs N/S

North Approach

	Out	In	Total
Cars	672	993	1665
Trucks	26	23	49
Bicycles	0	0	0
	698	**1016**	**1714**

Burloak Dr

Bicycles	0	0	0	0
Trucks	3	22	1	0
Cars	47	473	152	0
Totals	**50**	**495**	**153**	**0**

Peds: 3

East Approach

	Out	In	Total
Cars	151	271	422
Trucks	5	2	7
Bicycles	0	0	0
	156	**273**	**429**

Prince William Dr

Bicycles	Trucks	Cars	Totals
0	0	0	**0**
0	2	141	**143**
0	0	11	**11**
0	1	8	**9**

Peds: 7



Peds: 0

Superior Ct

Totals	Cars	Trucks	Bicycles
0	0	0	0
106	103	3	0
13	11	2	0
37	37	0	0

Peds: 7

West Approach

	Out	In	Total
Cars	160	72	232
Trucks	3	5	8
Bicycles	0	0	0
	163	**77**	**240**

Burloak Dr

Totals	**14**	**767**	**109**	**0**
Cars	14	749	108	0
Trucks	0	18	1	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	871	518	1389
Trucks	19	23	42
Bicycles	0	0	0
	890	**541**	**1431**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Count Date: Nov 21, 2024
Period: 07:00 - 09:00

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

Start Time	North Approach Burloak Dr						South Approach Burloak Dr						East Approach Superior Ct						West Approach Prince William Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	33	110	13	0	1	156	1	197	30	0	0	228	3	3	26	0	0	32	39	2	3	0	1	44	460
08:15	34	123	12	0	0	169	2	198	30	0	4	230	11	1	26	0	0	38	33	3	3	0	3	39	476
08:30	40	128	14	0	0	182	4	202	24	0	1	230	12	3	30	0	0	45	43	1	1	0	1	45	502
08:45	46	134	11	0	2	191	7	170	25	0	2	202	11	6	24	0	0	41	28	5	2	0	2	35	469
Grand Total	**153**	**495**	**50**	**0**	**3**	**698**	**14**	**767**	**109**	**0**	**7**	**890**	**37**	**13**	**106**	**0**	**0**	**156**	**143**	**11**	**9**	**0**	**7**	**163**	**1907**
Approach %	21.9	70.9	7.2	0		-	1.6	86.2	12.2	0		-	23.7	8.3	67.9	0		-	87.7	6.7	5.5	0		-	
Totals %	8	26	2.6	0		36.6	0.7	40.2	5.7	0		46.7	1.9	0.7	5.6	0		8.2	7.5	0.6	0.5	0		8.5	
PHF	**0.83**	**0.92**	**0.89**	**0**		**0.91**	**0.5**	**0.95**	**0.91**	**0**		**0.97**	**0.77**	**0.54**	**0.88**	**0**		**0.87**	**0.83**	**0.55**	**0.75**	**0**		**0.91**	**0.95**
Cars	152	473	47	0		672	14	749	108	0		871	37	11	103	0		151	141	11	8	0		160	1854
% Cars	99.3	95.6	94	0		96.3	100	97.7	99.1	0		97.9	100	84.6	97.2	0		96.8	98.6	100	88.9	0		98.2	97.2
Trucks	1	22	3	0		26	0	18	1	0		19	0	2	3	0		5	2	0	1	0		3	53
% Trucks	0.7	4.4	6	0		3.7	0	2.3	0.9	0		2.1	0	15.4	2.8	0		3.2	1.4	0	11.1	0		1.8	2.8
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					3	-					7	-					0	-					7	-	17
% Peds					17.6	-					41.2	-					0	-					41.2	-	

Peak Hour Diagram

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

One Hour Peak
From: 16:45:00
To: 17:45:00

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Count Date: Nov 21, 2024

Weather conditions: Clear

**** Signalized Intersection ****

Major Road: Burloak Dr runs N/S

North Approach

	Out	In	Total
Cars	1218	883	2101
Trucks	14	16	30
Bicycles	0	0	0
	1232	**899**	**2131**

Burloak Dr

Bicycles	0	0	0	0
Trucks	0	13	1	0
Cars	150	1040	28	0
Totals	**150**	**1053**	**29**	**0**

Peds: 2

East Approach

	Out	In	Total
Cars	132	58	190
Trucks	1	1	2
Bicycles	0	0	0
	133	**59**	**192**

Prince William Dr

Bicycles	Trucks	Cars	Totals	
0	0	0	**0**	
0	0	103	**103**	
0	0	3	**3**	
0	0	43	**43**	

Peds: 5



Peds: 3

Superior Ct

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	91	90	1	0
	8	8	0	0
	34	34	0	0

Peds: 8

West Approach

	Out	In	Total
Cars	149	193	342
Trucks	0	0	0
Bicycles	0	0	0
	149	**193**	**342**

Burloak Dr

Totals	**35**	**705**	**27**	**0**
Cars	35	690	27	0
Trucks	0	15	0	0
Bicycles	0	0	0	0

South Approach

	Out	In	Total
Cars	752	1117	1869
Trucks	15	13	28
Bicycles	0	0	0
	767	**1130**	**1897**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Burloak Dr & Prince William Dr - Superior Ct
Site Code: 2440500002
Count Date: Nov 21, 2024
Period: 16:00 - 18:00

Peak Hour Data (16:45 - 17:45)

Start Time	North Approach Burloak Dr						South Approach Burloak Dr						East Approach Superior Ct						West Approach Prince William Dr						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:45	9	286	34	0	0	329	7	168	6	0	3	181	7	2	20	0	0	29	30	1	9	0	1	40	579
17:00	4	285	44	0	0	333	8	180	10	0	0	198	11	1	31	0	1	43	27	2	13	0	0	42	616
17:15	9	222	43	0	0	274	11	174	7	0	4	192	9	1	15	0	0	25	23	0	9	0	2	32	523
17:30	7	260	29	0	2	296	9	183	4	0	1	196	7	4	25	0	2	36	23	0	12	0	2	35	563
Grand Total	**29**	**1053**	**150**	**0**	**2**	**1232**	**35**	**705**	**27**	**0**	**8**	**767**	**34**	**8**	**91**	**0**	**3**	**133**	**103**	**3**	**43**	**0**	**5**	**149**	**2281**
Approach %	2.4	85.5	12.2	0		-	4.6	91.9	3.5	0		-	25.6	6	68.4	0		-	69.1	2	28.9	0		-	
Totals %	1.3	46.2	6.6	0		54	1.5	30.9	1.2	0		33.6	1.5	0.4	4	0		5.8	4.5	0.1	1.9	0		6.5	
PHF	**0.81**	**0.92**	**0.85**	**0**		**0.92**	**0.8**	**0.96**	**0.68**	**0**		**0.97**	**0.77**	**0.5**	**0.73**	**0**		**0.77**	**0.86**	**0.38**	**0.83**	**0**		**0.89**	**0.93**
Cars	28	1040	150	0		1218	35	690	27	0		752	34	8	90	0		132	103	3	43	0		149	2251
% Cars	96.6	98.8	100	0		98.9	100	97.9	100	0		98	100	100	98.9	0		99.2	100	100	100	0		100	98.7
Trucks	1	13	0	0		14	0	15	0	0		15	0	0	1	0		1	0	0	0	0		0	30
% Trucks	3.4	1.2	0	0		1.1	0	2.1	0	0		2	0	0	1.1	0		0.8	0	0	0	0		0	1.3
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	-					8	-					3	-					5	-	18
% Peds					11.1	-					44.4	-					16.7	-					27.8	-	

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Project #24-405 - GHD

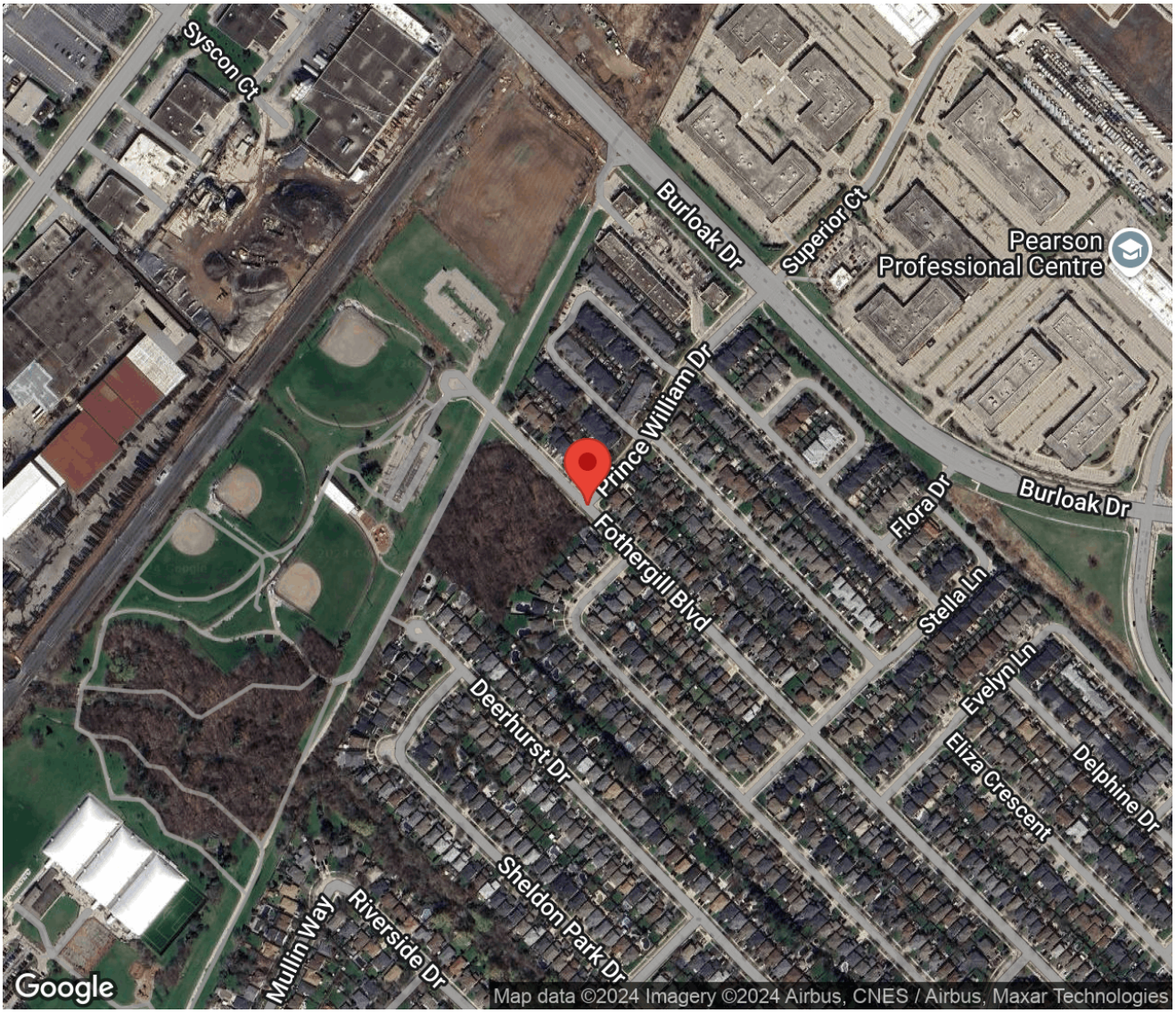
Intersection Count Report

Intersection:	Fothergill Blvd & Prince William Dr
Municipality:	Burlington
Count Date:	Thursday, Nov 21, 2024
Site Code:	2440500004
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:	Fothergill Blvd & Prince William Dr
Site Code:	2440500004
Municipality:	Burlington
Count Date:	Nov 21, 2024



Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

Fothergill Blvd - 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	4	2	0	0	6	1	0	2	78	0	80	10	86
08:00 - 09:00	4	6	0	0	10	4	0	7	98	0	105	2	115
BREAK													
16:00 - 17:00	10	12	0	0	22	0	0	13	49	0	62	0	84
17:00 - 18:00	1	12	0	0	13	2	0	2	46	0	48	1	61
GRAND TOTAL	**19**	**32**	**0**	**0**	**51**	**7**	**0**	**24**	**271**	**0**	**295**	**13**	**346**

Ontario Traffic Inc.
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Traffic Count Summary

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

Prince William 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	17	0	4	0	21	5	0	0	0	0	0	0	21
08:00 - 09:00	29	0	11	0	40	4	0	0	0	0	0	0	40
BREAK													
16:00 - 17:00	95	0	17	0	112	7	0	0	0	0	0	0	112
17:00 - 18:00	104	0	10	0	114	7	0	0	0	0	0	0	114
GRAND TOTAL	**245**	**0**	**42**	**0**	**287**	**23**	**0**	**0**	**0**	**0**	**0**	**0**	**287**

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

North Approach - Fothergill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:30	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1
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	1	0	0	0	1	0	0	0	0	0	0
08:15	1	2	0	0	3	0	0	0	0	0	1	0	0	0	1	1
08:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
08:45	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	1
SUBTOTAL	5	5	0	0	10	1	3	0	0	4	2	0	0	0	2	5

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

North Approach - Fothergill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0
16:15	1	4	0	0	5	1	0	0	0	1	0	0	0	0	0	0
16:30	3	4	0	0	7	0	0	0	0	0	0	0	0	0	0	0
16:45	2	1	0	0	3	0	0	0	0	0	2	1	0	0	3	0
17:00	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	1
17:15	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0
17:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:45	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1
SUBTOTAL	8	21	0	0	29	1	0	0	0	1	2	3	0	0	5	2
GRAND TOTAL	13	26	0	0	39	2	3	0	0	5	4	3	0	0	7	7

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

South Approach - Fothergill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	0	1	13	0	14	0	0	0	0	0	0	0	0	0	0	0
07:15	0	1	14	0	15	0	0	0	0	0	0	0	0	0	0	4
07:30	0	0	27	0	27	0	0	0	0	0	0	0	0	0	0	5
07:45	0	0	24	0	24	0	0	0	0	0	0	0	0	0	0	1
08:00	0	0	24	0	24	0	0	0	0	0	0	0	0	0	0	2
08:15	0	2	27	0	29	0	0	0	0	0	0	0	0	0	0	0
08:30	0	2	28	0	30	0	1	0	0	1	0	0	0	0	0	0
08:45	0	2	19	0	21	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	8	176	0	184	0	1	0	0	1	0	0	0	0	0	12

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Traffic Count Data

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

South Approach - Fothergill Blvd

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
16:00	0	3	12	0	15	0	0	1	0	1	0	0	0	0	0	0
16:15	0	5	10	0	15	0	1	0	0	1	0	0	0	0	0	0
16:30	0	2	15	0	17	0	0	0	0	0	0	0	0	0	0	0
16:45	0	2	11	0	13	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	1
17:15	0	1	10	0	11	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0
17:45	0	1	11	0	12	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	14	94	0	108	0	1	1	0	2	0	0	0	0	0	1
GRAND TOTAL	0	22	270	0	292	0	2	1	0	3	0	0	0	0	0	13

Ontario Traffic Inc.
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Traffic Count Data

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

East Approach - Prince William Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	↰	↑	↱	↻	Total	
07:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
07:15	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
07:30	5	0	0	0	5	2	0	0	0	2	0	0	0	0	0	1
07:45	6	0	3	0	9	0	0	1	0	1	0	0	0	0	0	0
08:00	5	0	3	0	8	1	0	0	0	1	0	0	0	0	0	0
08:15	8	0	0	0	8	0	0	1	0	1	0	0	1	0	1	3
08:30	6	0	2	0	8	0	0	1	0	1	0	0	0	0	0	1
08:45	8	0	2	0	10	1	0	1	0	2	0	0	0	0	0	0
SUBTOTAL	41	0	10	0	51	5	0	4	0	9	0	0	1	0	1	9

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Data

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Municipality: Burlington
Count Date: Nov 21, 2024

East Approach - Prince William Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	↰	↑	↱	↷	Total	
16:00	24	0	4	0	28	0	0	0	0	0	0	0	1	0	1	1
16:15	19	0	2	0	21	0	0	0	0	0	0	0	0	0	0	1
16:30	29	0	6	0	35	0	0	0	0	0	0	0	1	0	1	2
16:45	23	0	2	0	25	0	0	0	0	0	0	0	1	0	1	3
17:00	32	0	2	0	34	0	0	0	0	0	0	0	0	0	0	4
17:15	33	0	4	0	37	0	0	0	0	0	0	0	0	0	0	0
17:30	20	0	3	0	23	0	0	0	0	0	0	0	0	0	0	1
17:45	18	0	1	0	19	1	0	0	0	1	0	0	0	0	0	2
SUBTOTAL	198	0	24	0	222	1	0	0	0	1	0	0	3	0	3	14
GRAND TOTAL	239	0	34	0	273	6	0	4	0	10	0	0	4	0	4	23

Ontario Traffic Inc.
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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: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Count Date: Nov 21, 2024

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Fothergill Blvd runs N/S

North Approach

	Out	In	Total
Cars	4	13	17
Trucks	4	4	8
Bicycles	2	1	3
	10	**18**	**28**

Fothergill Blvd

Bicycles	0	2	0
Trucks	3	1	0
Cars	3	1	0
Totals	**6**	**4**	**0**

Peds: 4

Peds: 0



Peds: 4

Peds: 2

Totals	**7**	**98**	**0**
Cars	6	98	0
Trucks	1	0	0
Bicycles	0	0	0

Fothergill Blvd

East Approach

	Out	In	Total
Cars	34	99	133
Trucks	5	1	6
Bicycles	1	2	3
	40	**102**	**142**

Prince William Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	11	7	3	1
	29	27	2	0

South Approach

	Out	In	Total
Cars	104	30	134
Trucks	1	5	6
Bicycles	0	0	0
	105	**35**	**140**

Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Count Date: Nov 21, 2024
Period: 07:00 - 09:00

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

Start Time	North Approach Fothergill Blvd						South Approach Fothergill Blvd						East Approach Prince William Dr						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
08:00	1	0		0	0	1		0	24	0	2	24	6		3	0	0	9					0		34
08:15	2	2		0	1	4		2	27	0	0	29	8		2	0	3	10					0		43
08:30	0	2		0	2	2		3	28	0	0	31	6		3	0	1	9					0		42
08:45	1	2		0	1	3		2	19	0	0	21	9		3	0	0	12					0		36
Grand Total	**4**	**6**		**0**	**4**	**10**		**7**	**98**	**0**	**2**	**105**	**29**		**11**	**0**	**4**	**40**					**0**	**0**	**155**
Approach %	40	60		0		-		6.7	93.3	0		-	72.5		27.5	0		-						-	
Totals %	2.6	3.9		0		6.5		4.5	63.2	0		67.7	18.7		7.1	0		25.8						0	
PHF	**0.5**	**0.75**		**0**		**0.63**		**0.58**	**0.88**	**0**		**0.85**	**0.81**		**0.92**	**0**		**0.83**						**0**	**0.9**
Cars	1	3		0		4		6	98	0		104	27		7	0		34						0	142
% Cars	25	50		0		40		85.7	100	0		99	93.1		63.6	0		85						0	91.6
Trucks	1	3		0		4		1	0	0		1	2		3	0		5						0	10
% Trucks	25	50		0		40		14.3	0	0		1	6.9		27.3	0		12.5						0	6.5
Bicycles	2	0		0		2		0	0	0		0	0		1	0		1						0	3
% Bicycles	50	0		0		20		0	0	0		0	0		9.1	0		2.5						0	1.9
Peds					4	-					2	-					4	-					0	-	10
% Peds					40	-					20	-					40	-					0	-	

Peak Hour Diagram

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

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

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Count Date: Nov 21, 2024

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Fothergill Blvd runs N/S

North Approach

	Out	In	Total
Cars	20	19	39
Trucks	0	0	0
Bicycles	3	2	5
	23	**21**	**44**

Fothergill Blvd

Bicycles	1	2	0
Trucks	0	0	0
Cars	14	6	0
Totals	**15**	**8**	**0**

Peds: 1

Peds: 0

Peds: 9

Peds: 1

Totals	**5**	**51**	**0**
Cars	5	51	0
Trucks	0	0	0
Bicycles	0	0	0

Fothergill Blvd

East Approach

	Out	In	Total
Cars	131	57	188
Trucks	0	0	0
Bicycles	2	2	4
	133	**59**	**192**

Prince William Dr

	Totals	Cars	Trucks	Bicycles
	0	0	0	0
	16	14	0	2
	117	117	0	0

South Approach

	Out	In	Total
Cars	56	131	187
Trucks	0	0	0
Bicycles	0	1	1
	56	**132**	**188**

- Cars - Trucks - Bicycles

Comments

Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Peak Hour Summary

Intersection: Fothergill Blvd & Prince William Dr
Site Code: 2440500004
Count Date: Nov 21, 2024
Period: 16:00 - 18:00

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

Start Time	North Approach Fothergill Blvd						South Approach Fothergill Blvd						East Approach Prince William Dr						West Approach						Total Vehicles
					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:30	3	4		0	0	7		2	15	0	0	17	29		7	0	2	36					0		60
16:45	4	2		0	0	6		2	11	0	0	13	23		3	0	3	26					0		45
17:00	1	1		0	1	2		0	15	0	1	15	32		2	0	4	34					0		51
17:15	0	8		0	0	8		1	10	0	0	11	33		4	0	0	37					0		56
Grand Total	**8**	**15**		**0**	**1**	**23**		**5**	**51**	**0**	**1**	**56**	**117**		**16**	**0**	**9**	**133**					**0**	**0**	**212**
Approach %	34.8	65.2		0		-		8.9	91.1	0		-	88		12	0		-						-	
Totals %	3.8	7.1		0		10.8		2.4	24.1	0		26.4	55.2		7.5	0		62.7						0	
PHF	**0.5**	**0.47**		**0**		**0.72**		**0.63**	**0.85**	**0**		**0.82**	**0.89**		**0.57**	**0**		**0.9**						**0**	**0.88**
Cars	6	14		0		20		5	51	0		56	117		14	0		131						0	207
% Cars	75	93.3		0		87		100	100	0		100	100		87.5	0		98.5						0	97.6
Trucks	0	0		0		0		0	0	0		0	0		0	0		0						0	0
% Trucks	0	0		0		0		0	0	0		0	0		0	0		0						0	0
Bicycles	2	1		0		3		0	0	0		0	0		2	0		2						0	5
% Bicycles	25	6.7		0		13		0	0	0		0	0		12.5	0		1.5						0	2.4
Peds					1	-					1	-					9	-					0	-	11
% Peds					9.1	-					9.1	-					81.8	-					0	-	

Appendix C

Synchro Outputs



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	2	0	1020	691	11
Future Volume (vph)	0	2	0	1020	691	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1662	0	3579	3606	0
Flt Permitted						
Satd. Flow (perm)	0	1662	0	3579	3606	0
Link Speed (k/h)	50			60	60	
Link Distance (m)	82.8			192.8	252.2	
Travel Time (s)	6.0			11.6	15.1	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	2%	1%	2%
Adj. Flow (vph)	0	2	0	1074	727	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	2	0	1074	739	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.7	3.7	
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	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2	0	1020	691	11
Future Volume (Veh/h)	0	2	0	1020	691	11
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	2	0	1074	727	12
Pedestrians	3					
Lane Width (m)	3.7					
Walking Speed (m/s)	1.1					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				193		
pX, platoon unblocked	0.86					
vC, conflicting volume	1273	372	742			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	992	372	742			
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)	211	629	872			

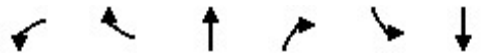
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	2	537	537	485	254
Volume Left	0	0	0	0	0
Volume Right	2	0	0	0	12
cSH	629	1700	1700	1700	1700
Volume to Capacity	0.00	0.32	0.32	0.29	0.15
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0
Control Delay (s)	10.7	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.7	0.0		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	31.5%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	29	11	7	98	4	6
Future Volume (vph)	29	11	7	98	4	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.963		0.874			
Flt Protected	0.965					0.982
Satd. Flow (prot)	1588	0	1663	0	0	1339
Flt Permitted	0.965					0.982
Satd. Flow (perm)	1588	0	1663	0	0	1339
Link Speed (k/h)	40		40			40
Link Distance (m)	85.0		102.4			115.8
Travel Time (s)	7.7		9.2			10.4
Confl. Peds. (#/hr)	2	4		4	4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	27%	14%	0%	25%	50%
Adj. Flow (vph)	32	12	8	109	4	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	44	0	117	0	0	11
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		Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	29	11	7	98	4	6
Future Volume (vph)	29	11	7	98	4	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	32	12	8	109	4	7

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	44	117	11
Volume Left (vph)	32	0	4
Volume Right (vph)	12	109	0
Hadj (s)	0.19	-0.54	0.77
Departure Headway (s)	4.3	3.5	4.9
Degree Utilization, x	0.05	0.11	0.01
Capacity (veh/h)	803	1012	726
Control Delay (s)	7.6	6.9	7.9
Approach Delay (s)	7.6	6.9	7.9
Approach LOS	A	A	A

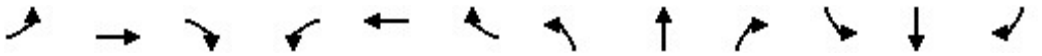
Intersection Summary			
Delay	7.1		
Level of Service	A		
Intersection Capacity Utilization	18.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	11	7	98	4	6
Future Vol, veh/h	29	11	7	98	4	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	7	27	14	0	25	50
Mvmt Flow	32	12	8	109	4	7
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.5	7.2	7.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	72%	40%
Vol Thru, %	7%	0%	60%
Vol Right, %	93%	28%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	105	40	10
LT Vol	0	29	4
Through Vol	7	0	6
RT Vol	98	11	0
Lane Flow Rate	117	44	11
Geometry Grp	1	1	1
Degree of Util (X)	0.119	0.052	0.014
Departure Headway (Hd)	3.665	4.221	4.573
Convergence, Y/N	Yes	Yes	Yes
Cap	976	846	781
Service Time	1.692	2.258	2.61
HCM Lane V/C Ratio	0.12	0.052	0.014
HCM Control Delay	7.2	7.5	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.2	0

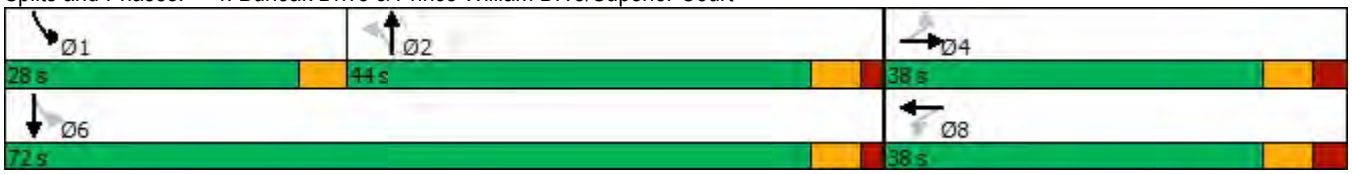


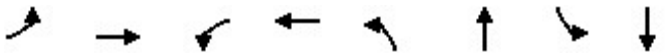
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	11	9	37	13	106	15	767	109	153	495	50
Future Volume (vph)	143	11	9	37	13	106	15	767	109	153	495	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	27.0		0.0	76.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		0.99	0.99		1.00				1.00	
Frt		0.936			0.867			0.981			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	1701	0	1825	1574	0	1825	3515	0	1807	3445	0
Flt Permitted	0.676			0.744			0.436			0.238		
Satd. Flow (perm)	1281	1701	0	1416	1574	0	834	3515	0	453	3445	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			112			16			17	
Link Speed (k/h)		40			50			60			60	
Link Distance (m)		97.5			165.7			157.4			192.8	
Travel Time (s)		8.8			11.9			9.4			11.6	
Confl. Peds. (#/hr)	3		7	7		3	7					7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	11%	0%	15%	3%	0%	2%	1%	1%	4%	6%
Adj. Flow (vph)	151	12	9	39	14	112	16	807	115	161	521	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	151	21	0	39	126	0	16	922	0	161	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			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	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0	8.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		44.0	44.0		10.0	44.0	
Total Split (s)	38.0	38.0		38.0	38.0		44.0	44.0		28.0	72.0	
Total Split (%)	34.5%	34.5%		34.5%	34.5%		40.0%	40.0%		25.5%	65.5%	
Maximum Green (s)	31.0	31.0		31.0	31.0		38.0	38.0		24.0	66.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0		25.0	25.0			25.0	
Flash Dont Walk (s)	16.0	16.0		16.0	16.0		13.0	13.0			13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	16.4	16.4		16.4	16.4		53.8	53.8		68.2	66.2	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.56	0.56		0.71	0.69	
v/c Ratio	0.69	0.07		0.16	0.35		0.03	0.46		0.36	0.24	
Control Delay	53.5	23.4		34.3	11.2		12.3	14.2		7.5	6.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	53.5	23.4		34.3	11.2		12.3	14.2		7.5	6.1	
LOS	D	C		C	B		B	B		A	A	
Approach Delay		49.8			16.6			14.2			6.4	
Approach LOS		D			B			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 95.6			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			

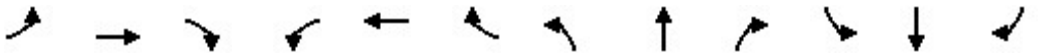
Splits and Phases: 4: Burloak Drive & Prince William Drve/Superior Court





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	151	21	39	126	16	922	161	574
v/c Ratio	0.69	0.07	0.16	0.35	0.03	0.46	0.36	0.24
Control Delay	53.5	23.4	34.3	11.2	12.3	14.2	7.5	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	23.4	34.3	11.2	12.3	14.2	7.5	6.1
Queue Length 50th (m)	26.4	1.9	6.2	2.2	1.2	48.1	7.9	17.1
Queue Length 95th (m)	46.2	8.0	14.8	16.5	5.3	81.4	18.5	31.1
Internal Link Dist (m)		73.5		141.7		133.4		168.8
Turn Bay Length (m)			27.0		76.0		60.0	
Base Capacity (vph)	416	559	460	587	468	1983	664	2390
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.04	0.08	0.21	0.03	0.46	0.24	0.24

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	11	9	37	13	106	15	767	109	153	495	50
Future Volume (vph)	143	11	9	37	13	106	15	767	109	153	495	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.87		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1802	1702		1810	1574		1818	3516		1807	3446	
Flt Permitted	0.68	1.00		0.74	1.00		0.44	1.00		0.24	1.00	
Satd. Flow (perm)	1282	1702		1417	1574		834	3516		452	3446	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	151	12	9	39	14	112	16	807	115	161	521	53
RTOR Reduction (vph)	0	7	0	0	93	0	0	7	0	0	5	0
Lane Group Flow (vph)	151	14	0	39	33	0	16	915	0	161	569	0
Confl. Peds. (#/hr)	3		7	7		3	7					7
Heavy Vehicles (%)	1%	0%	11%	0%	15%	3%	0%	2%	1%	1%	4%	6%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.4	16.4		16.4	16.4		53.8	53.8		66.2	66.2	
Effective Green, g (s)	16.4	16.4		16.4	16.4		53.8	53.8		66.2	66.2	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.56	0.56		0.69	0.69	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	219	291		243	270		469	1978		432	2386	
v/s Ratio Prot		0.01			0.02			c0.26		c0.03	0.17	
v/s Ratio Perm	c0.12			0.03			0.02			0.23		
v/c Ratio	0.69	0.05		0.16	0.12		0.03	0.46		0.37	0.24	
Uniform Delay, d1	37.2	33.1		33.7	33.5		9.3	12.4		6.3	5.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	8.7	0.1		0.3	0.2		0.1	0.8		0.5	0.2	
Delay (s)	45.9	33.1		34.0	33.7		9.5	13.1		6.8	5.7	
Level of Service	D	C		C	C		A	B		A	A	
Approach Delay (s)		44.4			33.8			13.1			5.9	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	95.6	Sum of lost time (s)	17.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	6	0	907	1223	42
Future Volume (vph)	0	6	0	907	1223	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.995	
Flt Protected						
Satd. Flow (prot)	0	1629	0	3579	3561	0
Flt Permitted						
Satd. Flow (perm)	0	1629	0	3579	3561	0
Link Speed (k/h)	48			48	48	
Link Distance (m)	82.8			192.8	252.2	
Travel Time (s)	6.2			14.5	18.9	
Confl. Peds. (#/hr)	6	2	6			6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	7	0	986	1329	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	7	0	986	1375	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.7	3.7	
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	24			14
Sign Control	Stop			Free	Free	

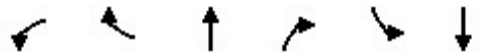
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	6	0	907	1223	42
Future Volume (Veh/h)	0	6	0	907	1223	42
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	7	0	986	1329	46
Pedestrians	6			2	6	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			0	1	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				193		
pX, platoon unblocked	0.91					
vC, conflicting volume	1857	696	1381			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1742	696	1381			
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	98	100			
cM capacity (veh/h)	70	381	489			

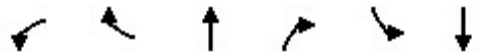
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	7	493	493	886	489
Volume Left	0	0	0	0	0
Volume Right	7	0	0	0	46
cSH	381	1700	1700	1700	1700
Volume to Capacity	0.02	0.29	0.29	0.52	0.29
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.0
Control Delay (s)	14.6	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	14.6	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	117	16	5	51	8	15
Future Volume (vph)	117	16	5	51	8	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.984		0.878			
Flt Protected	0.958					0.983
Satd. Flow (prot)	1811	0	1687	0	0	1888
Flt Permitted	0.958					0.983
Satd. Flow (perm)	1811	0	1687	0	0	1888
Link Speed (k/h)	40		40			40
Link Distance (m)	85.0		102.4			115.8
Travel Time (s)	7.7		9.2			10.4
Confl. Peds. (#/hr)	1	1		9	9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	133	18	6	58	9	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	0	64	0	0	26
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		Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	117	16	5	51	8	15
Future Volume (vph)	117	16	5	51	8	15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	133	18	6	58	9	17

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	151	64	26
Volume Left (vph)	133	0	9
Volume Right (vph)	18	58	0
Hadj (s)	0.10	-0.54	0.07
Departure Headway (s)	4.2	3.7	4.4
Degree Utilization, x	0.18	0.07	0.03
Capacity (veh/h)	839	921	791
Control Delay (s)	8.1	7.0	7.5
Approach Delay (s)	8.1	7.0	7.5
Approach LOS	A	A	A

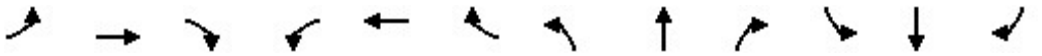
Intersection Summary			
Delay	7.7		
Level of Service	A		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	117	16	5	51	8	15
Future Vol, veh/h	117	16	5	51	8	15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	133	18	6	58	9	17
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.1	7	7.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	88%	35%
Vol Thru, %	9%	0%	65%
Vol Right, %	91%	12%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	56	133	23
LT Vol	0	117	8
Through Vol	5	0	15
RT Vol	51	16	0
Lane Flow Rate	64	151	26
Geometry Grp	1	1	1
Degree of Util (X)	0.064	0.175	0.031
Departure Headway (Hd)	3.637	4.159	4.285
Convergence, Y/N	Yes	Yes	Yes
Cap	967	861	824
Service Time	1.725	2.188	2.373
HCM Lane V/C Ratio	0.066	0.175	0.032
HCM Control Delay	7	8.1	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.6	0.1

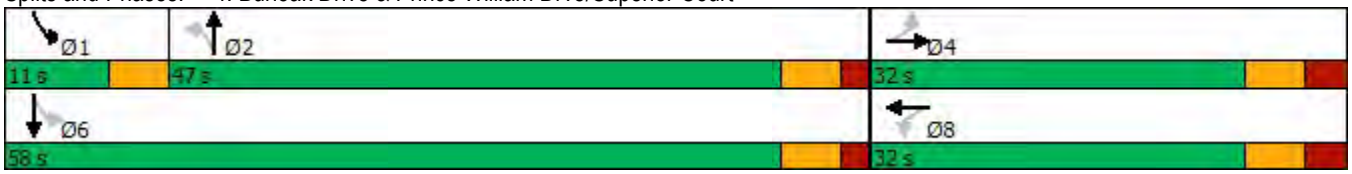


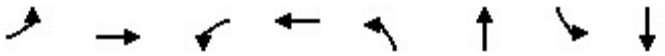
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	3	43	34	8	91	36	705	27	29	1053	150
Future Volume (vph)	107	3	43	34	8	91	36	705	27	29	1053	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	27.0		0.0	76.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.98		0.99	0.99		1.00	1.00		1.00	1.00	
Frt		0.859			0.863			0.994			0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1618	0	1825	1621	0	1825	3167	0	1807	3205	0
Flt Permitted	0.688			0.725			0.206			0.309		
Satd. Flow (perm)	1319	1618	0	1381	1621	0	395	3167	0	587	3205	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			98			6			29	
Link Speed (k/h)		40			50			60			60	
Link Distance (m)		97.5			165.7			157.4			192.8	
Travel Time (s)		8.8			11.9			9.4			11.6	
Confl. Peds. (#/hr)	2		8	8		2	5		3	3		5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	15%	0%	1%	13%	0%
Adj. Flow (vph)	115	3	46	37	9	98	39	758	29	31	1132	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	49	0	37	107	0	39	787	0	31	1293	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			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	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0	8.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		44.0	44.0		10.0	44.0	
Total Split (s)	32.0	32.0		32.0	32.0		47.0	47.0		11.0	58.0	
Total Split (%)	35.6%	35.6%		35.6%	35.6%		52.2%	52.2%		12.2%	64.4%	
Maximum Green (s)	25.0	25.0		25.0	25.0		41.0	41.0		7.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0		25.0	25.0			25.0	
Flash Dont Walk (s)	16.0	16.0		16.0	16.0		13.0	13.0			13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	12.2	12.2		12.2	12.2		52.5	52.5		57.3	56.5	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.68	0.68		0.74	0.73	
v/c Ratio	0.55	0.17		0.17	0.32		0.15	0.37		0.06	0.55	
Control Delay	40.4	11.0		29.4	10.3		11.3	9.0		4.6	7.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	40.4	11.0		29.4	10.3		11.3	9.0		4.6	7.7	
LOS	D	B		C	B		B	A		A	A	
Approach Delay		31.6			15.2			9.1			7.6	
Approach LOS		C			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 77.3			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

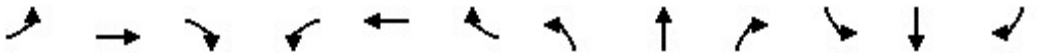
Splits and Phases: 4: Burloak Drive & Prince William Drve/Superior Court





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	49	37	107	39	787	31	1293
v/c Ratio	0.55	0.17	0.17	0.32	0.15	0.37	0.06	0.55
Control Delay	40.4	11.0	29.4	10.3	11.3	9.0	4.6	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	11.0	29.4	10.3	11.3	9.0	4.6	7.7
Queue Length 50th (m)	15.7	0.4	4.7	1.1	1.7	21.8	1.1	44.2
Queue Length 95th (m)	30.8	8.7	12.4	13.2	9.5	55.6	4.1	77.0
Internal Link Dist (m)		73.5		141.7		133.4		168.8
Turn Bay Length (m)			27.0		76.0		60.0	
Base Capacity (vph)	427	555	447	591	268	2154	545	2351
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.09	0.08	0.18	0.15	0.37	0.06	0.55

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	3	43	34	8	91	36	705	27	29	1053	150
Future Volume (vph)	107	3	43	34	8	91	36	705	27	29	1053	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.86		1.00	0.86		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1822	1620		1811	1621		1823	3169		1807	3206	
Flt Permitted	0.69	1.00		0.73	1.00		0.21	1.00		0.31	1.00	
Satd. Flow (perm)	1319	1620		1382	1621		396	3169		588	3206	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	115	3	46	37	9	98	39	758	29	31	1132	161
RTOR Reduction (vph)	0	40	0	0	85	0	0	2	0	0	8	0
Lane Group Flow (vph)	115	9	0	37	22	0	39	785	0	31	1285	0
Confl. Peds. (#/hr)	2		8	8		2	5		3	3		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	15%	0%	1%	13%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.5	10.5		10.5	10.5		51.3	51.3		57.8	57.8	
Effective Green, g (s)	10.5	10.5		10.5	10.5		51.3	51.3		57.8	57.8	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.63	0.63		0.71	0.71	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	170	209		178	209		249	1999		455	2279	
v/s Ratio Prot		0.01			0.01			0.25		0.00	c0.40	
v/s Ratio Perm	c0.09			0.03			0.10			0.05		
v/c Ratio	0.68	0.04		0.21	0.10		0.16	0.39		0.07	0.56	
Uniform Delay, d1	33.8	31.0		31.7	31.2		6.1	7.4		3.8	5.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.2	0.1		0.6	0.2		1.3	0.6		0.1	1.0	
Delay (s)	44.0	31.1		32.3	31.5		7.5	7.9		3.8	6.7	
Level of Service	D	C		C	C		A	A		A	A	
Approach Delay (s)		40.1			31.7			7.9			6.6	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	81.3	Sum of lost time (s)	17.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	35	0	1042	691	36
Future Volume (vph)	0	35	0	1042	691	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1662	0	3579	3587	0
Flt Permitted						
Satd. Flow (perm)	0	1662	0	3579	3587	0
Link Speed (k/h)	50			60	60	
Link Distance (m)	82.8			192.8	252.2	
Travel Time (s)	6.0			11.6	15.1	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	2%	1%	2%
Adj. Flow (vph)	0	37	0	1097	727	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	37	0	1097	765	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.7	3.7	
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	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	35	0	1042	691	36
Future Volume (Veh/h)	0	35	0	1042	691	36
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	37	0	1097	727	38
Pedestrians	3					
Lane Width (m)	3.7					
Walking Speed (m/s)	1.1					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				193		
pX, platoon unblocked	0.84					
vC, conflicting volume	1298	386	768			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	975	386	768			
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	94	100			
cM capacity (veh/h)	211	617	852			

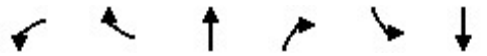
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	37	548	548	485	280
Volume Left	0	0	0	0	0
Volume Right	37	0	0	0	38
cSH	617	1700	1700	1700	1700
Volume to Capacity	0.06	0.32	0.32	0.29	0.16
Queue Length 95th (m)	1.5	0.0	0.0	0.0	0.0
Control Delay (s)	11.2	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.2	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	29	36	29	98	84	15
Future Volume (vph)	29	36	29	98	84	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.925		0.896			
Flt Protected	0.978					0.959
Satd. Flow (prot)	1471	0	1668	0	0	1430
Flt Permitted	0.978					0.959
Satd. Flow (perm)	1471	0	1668	0	0	1430
Link Speed (k/h)	40		40			40
Link Distance (m)	85.0		102.4			115.8
Travel Time (s)	7.7		9.2			10.4
Confl. Peds. (#/hr)	2	4		4	4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	27%	14%	0%	25%	50%
Adj. Flow (vph)	32	40	32	109	93	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	0	141	0	0	110
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		Stop			Stop

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						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	29	36	29	98	84	15
Future Volume (vph)	29	36	29	98	84	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	32	40	32	109	93	17

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	72	141	110
Volume Left (vph)	32	0	93
Volume Right (vph)	40	109	0
Hadj (s)	0.06	-0.41	0.66
Departure Headway (s)	4.5	3.8	4.9
Degree Utilization, x	0.09	0.15	0.15
Capacity (veh/h)	744	919	714
Control Delay (s)	8.0	7.5	8.7
Approach Delay (s)	8.0	7.5	8.7
Approach LOS	A	A	A

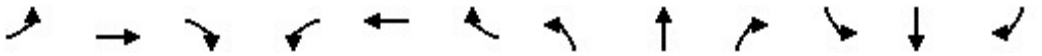
Intersection Summary			
Delay	8.0		
Level of Service	A		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	36	29	98	84	15
Future Vol, veh/h	29	36	29	98	84	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	7	27	14	0	25	50
Mvmt Flow	32	40	32	109	93	17
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.8	7.7	8.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	45%	85%
Vol Thru, %	23%	0%	15%
Vol Right, %	77%	55%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	127	65	99
LT Vol	0	29	84
Through Vol	29	0	15
RT Vol	98	36	0
Lane Flow Rate	141	72	110
Geometry Grp	1	1	1
Degree of Util (X)	0.152	0.087	0.145
Departure Headway (Hd)	3.885	4.34	4.73
Convergence, Y/N	Yes	Yes	Yes
Cap	909	831	751
Service Time	1.972	2.34	2.8
HCM Lane V/C Ratio	0.155	0.087	0.146
HCM Control Delay	7.7	7.8	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.3	0.5

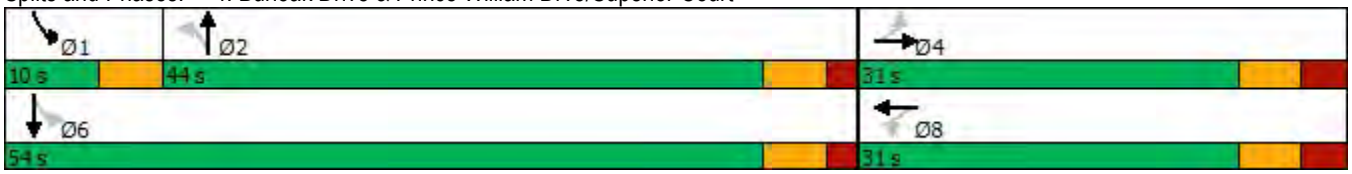


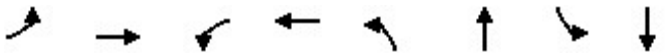
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	11	9	37	13	106	35	767	109	153	503	50
Future Volume (vph)	222	11	9	37	13	106	35	767	109	153	503	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	27.0		0.0	76.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		0.99	0.99		1.00				1.00	
Frt		0.936			0.867			0.981			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1807	1703	0	1825	1575	0	1825	3515	0	1807	3446	0
Flt Permitted	0.676			0.744			0.433			0.211		
Satd. Flow (perm)	1282	1703	0	1419	1575	0	829	3515	0	401	3446	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			112			24			20	
Link Speed (k/h)		40			50			60			60	
Link Distance (m)		97.5			165.7			157.4			192.8	
Travel Time (s)		8.8			11.9			9.4			11.6	
Confl. Peds. (#/hr)	3		7	7		3	7					7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	11%	0%	15%	3%	0%	2%	1%	1%	4%	6%
Adj. Flow (vph)	234	12	9	39	14	112	37	807	115	161	529	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	234	21	0	39	126	0	37	922	0	161	582	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			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	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0	8.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		44.0	44.0		10.0	44.0	
Total Split (s)	31.0	31.0		31.0	31.0		44.0	44.0		10.0	54.0	
Total Split (%)	36.5%	36.5%		36.5%	36.5%		51.8%	51.8%		11.8%	63.5%	
Maximum Green (s)	24.0	24.0		24.0	24.0		38.0	38.0		6.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0		25.0	25.0			25.0	
Flash Dont Walk (s)	16.0	16.0		16.0	16.0		13.0	13.0			13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	18.7	18.7		18.7	18.7		38.1	38.1		50.2	48.2	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.48	0.48		0.63	0.60	
v/c Ratio	0.78	0.05		0.12	0.28		0.09	0.55		0.45	0.28	
Control Delay	47.2	16.9		24.1	8.1		13.9	16.6		11.2	8.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	47.2	16.9		24.1	8.1		13.9	16.6		11.2	8.4	
LOS	D	B		C	A		B	B		B	A	
Approach Delay		44.7			11.9			16.5			9.0	
Approach LOS		D			B			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 79.9			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 16.9		Intersection LOS: B	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

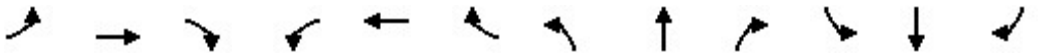
Splits and Phases: 4: Burloak Drive & Prince William Drve/Superior Court





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	234	21	39	126	37	922	161	582
v/c Ratio	0.78	0.05	0.12	0.28	0.09	0.55	0.45	0.28
Control Delay	47.2	16.9	24.1	8.1	13.9	16.6	11.2	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	16.9	24.1	8.1	13.9	16.6	11.2	8.4
Queue Length 50th (m)	33.3	1.4	4.7	1.6	3.0	49.3	9.2	19.8
Queue Length 95th (m)	57.7	6.5	11.8	13.6	9.0	73.2	19.2	32.3
Internal Link Dist (m)		73.5		141.7		133.4		168.8
Turn Bay Length (m)			27.0		76.0		60.0	
Base Capacity (vph)	386	520	427	553	395	1690	357	2085
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.04	0.09	0.23	0.09	0.55	0.45	0.28

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	11	9	37	13	106	35	767	109	153	503	50
Future Volume (vph)	222	11	9	37	13	106	35	767	109	153	503	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.87		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1802	1703		1813	1575		1819	3516		1807	3447	
Flt Permitted	0.68	1.00		0.74	1.00		0.43	1.00		0.21	1.00	
Satd. Flow (perm)	1283	1703		1419	1575		828	3516		402	3447	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	234	12	9	39	14	112	37	807	115	161	529	53
RTOR Reduction (vph)	0	7	0	0	86	0	0	13	0	0	8	0
Lane Group Flow (vph)	234	14	0	39	40	0	37	909	0	161	574	0
Confl. Peds. (#/hr)	3		7	7		3	7					7
Heavy Vehicles (%)	1%	0%	11%	0%	15%	3%	0%	2%	1%	1%	4%	6%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	18.7	18.7		18.7	18.7		38.2	38.2		48.2	48.2	
Effective Green, g (s)	18.7	18.7		18.7	18.7		38.2	38.2		48.2	48.2	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.48	0.48		0.60	0.60	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	300	398		332	368		395	1680		348	2079	
v/s Ratio Prot		0.01			0.03			c0.26		c0.03	0.17	
v/s Ratio Perm	c0.18			0.03			0.04			0.24		
v/c Ratio	0.78	0.04		0.12	0.11		0.09	0.54		0.46	0.28	
Uniform Delay, d1	28.7	23.6		24.1	24.1		11.4	14.7		8.4	7.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.3	0.0		0.2	0.1		0.5	1.3		1.0	0.3	
Delay (s)	41.0	23.7		24.3	24.2		11.9	15.9		9.4	7.9	
Level of Service	D	C		C	C		B	B		A	A	
Approach Delay (s)		39.6			24.2			15.8			8.2	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	79.9	Sum of lost time (s)	17.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	34	0	934	1223	118
Future Volume (vph)	0	34	0	934	1223	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor						
Frt		0.865			0.987	
Flt Protected						
Satd. Flow (prot)	0	1629	0	3579	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1629	0	3579	3532	0
Link Speed (k/h)	48			48	48	
Link Distance (m)	82.8			192.8	252.2	
Travel Time (s)	6.2			14.5	18.9	
Confl. Peds. (#/hr)	6	2	6			6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	37	0	1015	1329	128
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	37	0	1015	1457	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.7	3.7	
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	24			14
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	34	0	934	1223	118
Future Volume (Veh/h)	0	34	0	934	1223	118
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	37	0	1015	1329	128
Pedestrians	6			2	6	
Lane Width (m)	3.7			3.7	3.7	
Walking Speed (m/s)	1.1			1.1	1.1	
Percent Blockage	1			0	1	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				193		
pX, platoon unblocked	0.89					
vC, conflicting volume	1912	736	1463			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1784	736	1463			
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	90	100			
cM capacity (veh/h)	64	358	455			

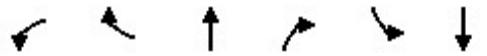
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	37	508	508	886	571
Volume Left	0	0	0	0	0
Volume Right	37	0	0	0	128
cSH	358	1700	1700	1700	1700
Volume to Capacity	0.10	0.30	0.30	0.52	0.34
Queue Length 95th (m)	2.6	0.0	0.0	0.0	0.0
Control Delay (s)	16.2	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	16.2	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	117	49	17	51	44	42
Future Volume (vph)	117	49	17	51	44	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.960		0.898			
Flt Protected	0.966					0.975
Satd. Flow (prot)	1782	0	1725	0	0	1873
Flt Permitted	0.966					0.975
Satd. Flow (perm)	1782	0	1725	0	0	1873
Link Speed (k/h)	40		40			40
Link Distance (m)	85.0		102.4			115.8
Travel Time (s)	7.7		9.2			10.4
Confl. Peds. (#/hr)	1	1		9	9	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	133	56	19	58	50	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	0	77	0	0	98
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		Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Traffic Volume (vph)	117	49	17	51	44	42
Future Volume (vph)	117	49	17	51	44	42
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	133	56	19	58	50	48

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	189	77	98
Volume Left (vph)	133	0	50
Volume Right (vph)	56	58	0
Hadj (s)	-0.04	-0.45	0.10
Departure Headway (s)	4.3	4.0	4.5
Degree Utilization, x	0.22	0.09	0.12
Capacity (veh/h)	815	849	752
Control Delay (s)	8.5	7.4	8.2
Approach Delay (s)	8.5	7.4	8.2
Approach LOS	A	A	A

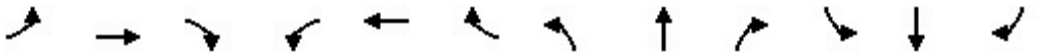
Intersection Summary			
Delay	8.2		
Level of Service	A		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	117	49	17	51	44	42
Future Vol, veh/h	117	49	17	51	44	42
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	133	56	19	58	50	48
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.4	7.4	8.1
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	70%	51%
Vol Thru, %	25%	0%	49%
Vol Right, %	75%	30%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	68	166	86
LT Vol	0	117	44
Through Vol	17	0	42
RT Vol	51	49	0
Lane Flow Rate	77	189	98
Geometry Grp	1	1	1
Degree of Util (X)	0.086	0.218	0.122
Departure Headway (Hd)	3.988	4.164	4.51
Convergence, Y/N	Yes	Yes	Yes
Cap	903	847	799
Service Time	1.99	2.263	2.512
HCM Lane V/C Ratio	0.085	0.223	0.123
HCM Control Delay	7.4	8.4	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0.8	0.4

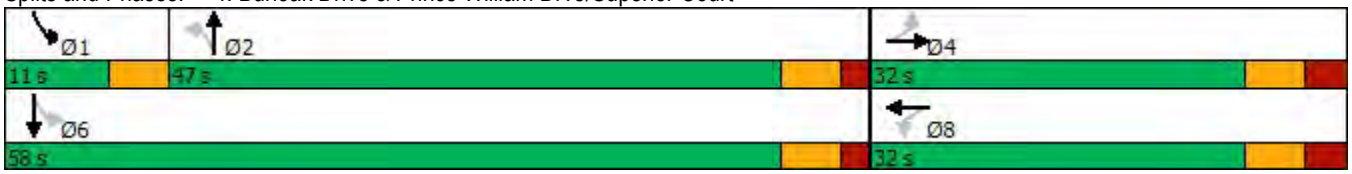


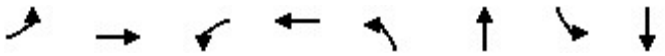
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	3	43	34	8	91	67	705	27	29	1081	150
Future Volume (vph)	134	3	43	34	8	91	67	705	27	29	1081	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	27.0		0.0	76.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.98		0.99	0.99		1.00	1.00		1.00	1.00	
Frt		0.859			0.863			0.994			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1825	1618	0	1825	1621	0	1825	3167	0	1807	3207	0
Flt Permitted	0.688			0.725			0.189			0.300		
Satd. Flow (perm)	1319	1618	0	1381	1621	0	363	3167	0	570	3207	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			98			6			29	
Link Speed (k/h)		40			50			60			60	
Link Distance (m)		97.5			165.7			157.4			192.8	
Travel Time (s)		8.8			11.9			9.4			11.6	
Confl. Peds. (#/hr)	2		8	8		2	5		3	3		5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	15%	0%	1%	13%	0%
Adj. Flow (vph)	144	3	46	37	9	98	72	758	29	31	1162	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	49	0	37	107	0	72	787	0	31	1323	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			3.7			3.7	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			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	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	6.1	1.8		6.1	1.8		6.1	1.8		6.1	1.8	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0		6.0	8.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		44.0	44.0		10.0	44.0	
Total Split (s)	32.0	32.0		32.0	32.0		47.0	47.0		11.0	58.0	
Total Split (%)	35.6%	35.6%		35.6%	35.6%		52.2%	52.2%		12.2%	64.4%	
Maximum Green (s)	25.0	25.0		25.0	25.0		41.0	41.0		7.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0		25.0	25.0			25.0	
Flash Dont Walk (s)	16.0	16.0		16.0	16.0		13.0	13.0			13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	13.8	13.8		13.8	13.8		48.6	48.6		54.6	52.6	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.61	0.61		0.69	0.66	
v/c Ratio	0.63	0.15		0.15	0.30		0.33	0.41		0.06	0.62	
Control Delay	42.7	10.3		28.3	9.6		16.9	10.5		5.3	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	42.7	10.3		28.3	9.6		16.9	10.5		5.3	9.8	
LOS	D	B		C	A		B	B		A	A	
Approach Delay		34.5			14.4			11.1			9.7	
Approach LOS		C			B			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 79.4			
Natural Cycle: 85			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 72.7%		ICU Level of Service C	
Analysis Period (min) 15			

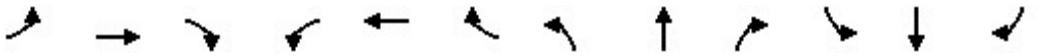
Splits and Phases: 4: Burloak Drive & Prince William Drve/Superior Court





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	144	49	37	107	72	787	31	1323
v/c Ratio	0.63	0.15	0.15	0.30	0.33	0.41	0.06	0.62
Control Delay	42.7	10.3	28.3	9.6	16.9	10.5	5.3	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	10.3	28.3	9.6	16.9	10.5	5.3	9.8
Queue Length 50th (m)	20.2	0.4	4.7	1.1	3.9	23.8	1.3	50.3
Queue Length 95th (m)	37.5	8.6	12.3	12.9	20.0	59.7	4.6	88.5
Internal Link Dist (m)		73.5		141.7		133.4		168.8
Turn Bay Length (m)			27.0		76.0		60.0	
Base Capacity (vph)	415	541	435	578	221	1940	501	2133
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.09	0.09	0.19	0.33	0.41	0.06	0.62

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	3	43	34	8	91	67	705	27	29	1081	150
Future Volume (vph)	134	3	43	34	8	91	67	705	27	29	1081	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.86		1.00	0.86		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1822	1620		1811	1621		1824	3169		1807	3206	
Flt Permitted	0.69	1.00		0.73	1.00		0.19	1.00		0.30	1.00	
Satd. Flow (perm)	1319	1620		1382	1621		362	3169		571	3206	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	144	3	46	37	9	98	72	758	29	31	1162	161
RTOR Reduction (vph)	0	38	0	0	81	0	0	2	0	0	9	0
Lane Group Flow (vph)	144	11	0	37	26	0	72	785	0	31	1314	0
Confl. Peds. (#/hr)	2		8	8		2	5		3	3		5
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	15%	0%	1%	13%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	13.8	13.8		13.8	13.8		48.6	48.6		55.1	55.1	
Effective Green, g (s)	13.8	13.8		13.8	13.8		48.6	48.6		55.1	55.1	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.59	0.59		0.67	0.67	
Clearance Time (s)	7.0	7.0		7.0	7.0		6.0	6.0		4.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	222	272		232	273		214	1880		421	2156	
v/s Ratio Prot		0.01			0.02			0.25		0.00	c0.41	
v/s Ratio Perm	c0.11			0.03			0.20			0.05		
v/c Ratio	0.65	0.04		0.16	0.09		0.34	0.42		0.07	0.61	
Uniform Delay, d1	31.8	28.5		29.1	28.8		8.5	9.0		4.9	7.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.4	0.1		0.3	0.1		4.2	0.7		0.1	1.3	
Delay (s)	38.2	28.6		29.4	28.9		12.7	9.7		4.9	8.7	
Level of Service	D	C		C	C		B	A		A	A	
Approach Delay (s)		35.7			29.0			9.9			8.6	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	81.9	Sum of lost time (s)	17.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Appendix D

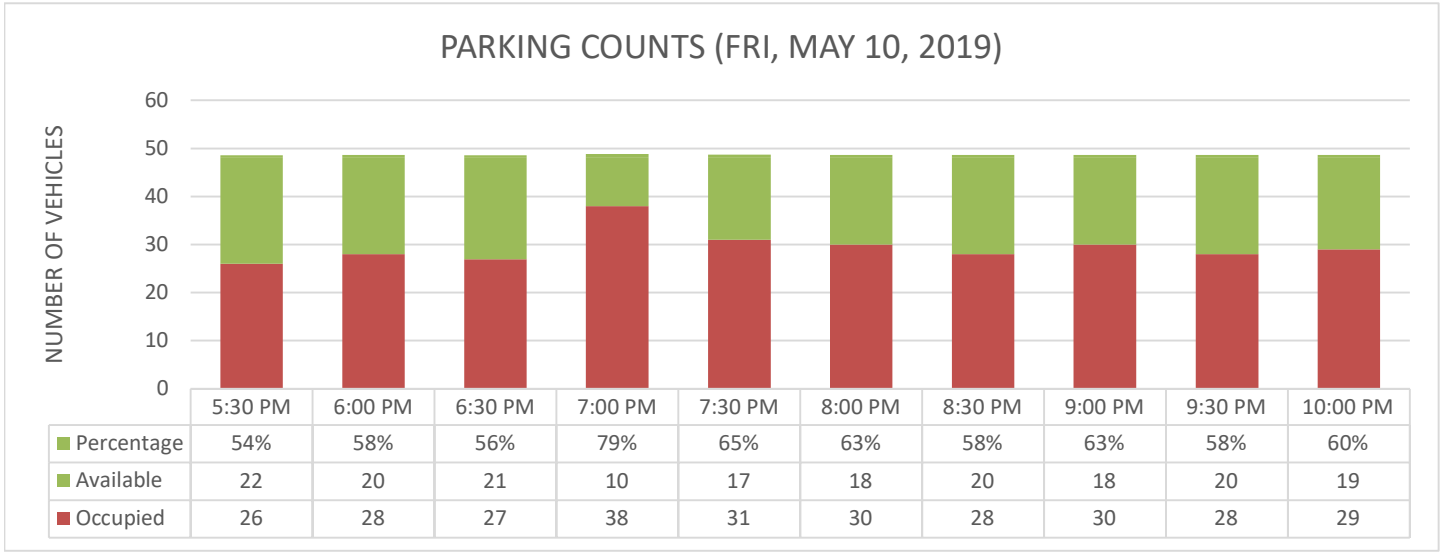
Proxy Site Parking Survey Report

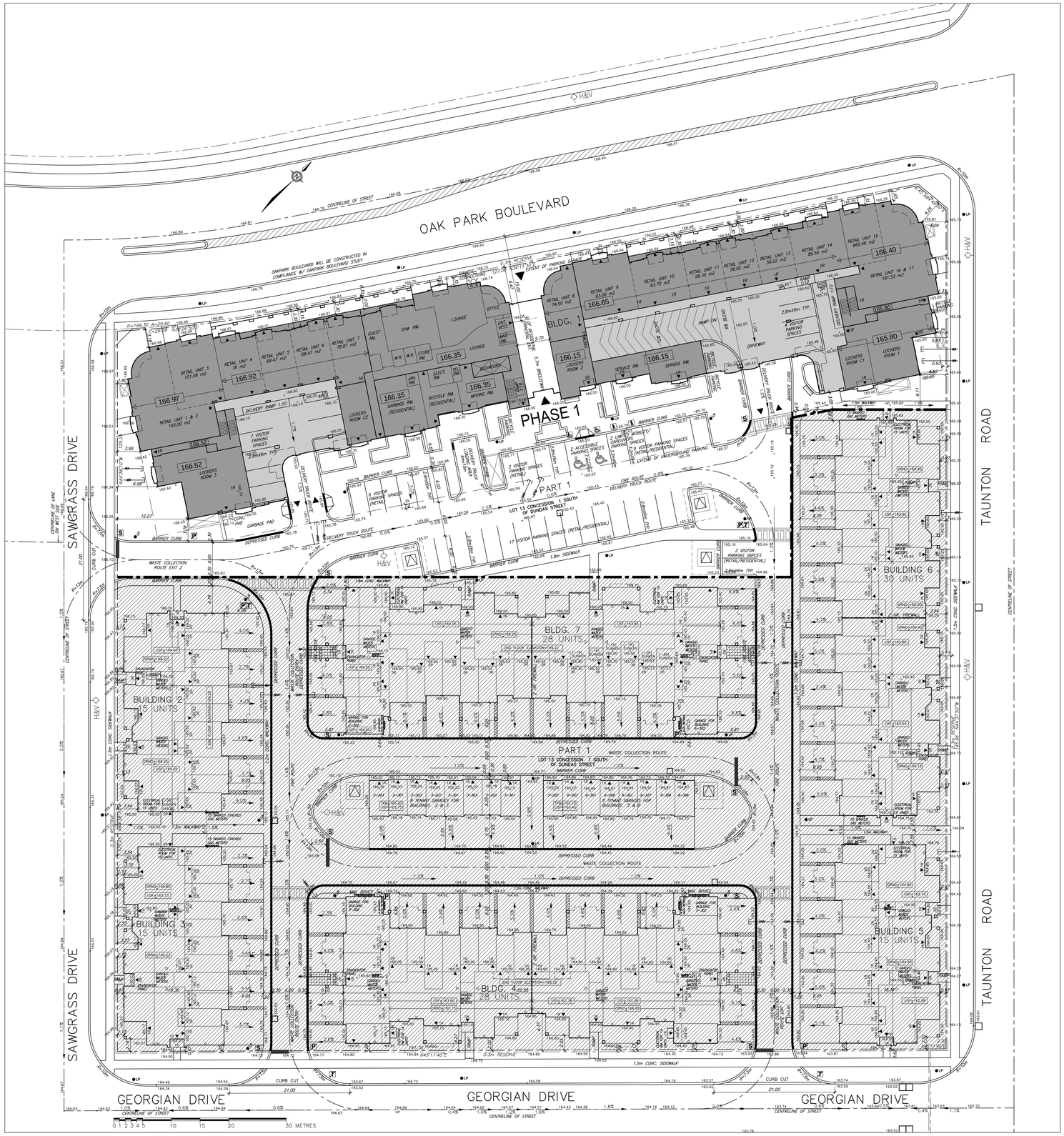
ONTARIO TRAFFIC INC - PARKING SURVEY

Location: 216 Oak Park Blvd

Date: Friday, May 10, 2019

Time			Parked Vehicles 48 Occupied	Available	Percentage
17:00	to	17:30	26	22	54%
17:30	to	18:00	28	20	58%
18:00	to	18:30	27	21	56%
18:30	to	19:00	38	10	79%
19:00	to	19:30	31	17	65%
19:30	to	20:00	30	18	63%
20:00	to	20:30	28	20	58%
20:30	to	21:00	30	18	63%
21:00	to	21:30	28	20	58%
21:30	to	22:00	29	19	60%





SITE PLAN

SIGNED CONDOMINIUM DECLARATIONS FOR MULTIPLE FAMILY RESIDENTIAL DEVELOPMENTS

AS FOLLOWS:

DOMINION OF CANADA
PROVINCE OF ONTARIO

REGIONAL MUNICIPALITY
OF HALTON

IN THE MATTER OF A MULTIPLE RESIDENTIAL CONDOMINIUM DEVELOPMENT ON PROPERTY LOCATED IN THE TOWN OF OAKVILLE BEING KNOWN AS

TO WIT: _____

_____

_____

I, _____

MAKE OATH AND SAY AS FOLLOWS

1. I am the President of _____ which is the owner and builder of multiple Residential Building(s) on property described above

2. That the said Multiple Residential Building(s) are intended to be sold as Condominium Townhomes [As a Section ____]

AND I make this Solemn Declaration Conscientiously believing it to be true and knowing that it is of the same force and effect as if I make it under Oath.

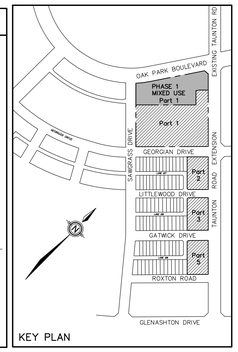
DECLARATION
before me
In the Municipality of

_____)

This _____ Day Of _____
2011.
A Commissioner Etc.

_____

The Town of Oakville does not require off site snow removal, however, in the case of heavy snow falls, the limited snow storage space available on the property may make it necessary to truck snow off the site and the cost of same will be included in the common expense fees.



KEY PLAN

SITE STATISTICS SUMMARY – PART 1

REVISED MAY 24, 2012

LEGAL DESCRIPTION
TOWN OF OAKVILLE REGIONAL MUNICIPALITY OF HALTON, PART 1 OF LOT 13, CONCESSION 1 SOUTH OF DUNDAS STREET / PLAN 20R-____

BY-LAW:	H1-UCC3R & H1-UCR1B(b) ZONE IN 1997-24 & SECTION 592 IN 1984-63
ZONING AMMENDMENT:	Silwell Developments Ltd. FILE # Z.1413.27

MIXED USE SITE STATISTICS – PART 1 (Phase 1)

RETAIL AREA – Building 1 Only = 1,319.11m2

Building No.	Total Gross Floor Area (sq.m.)	Sellable G.F.A. (sq.m.)	Common Floor Area (sq.m.)	Building Coverage (sq.m.)	Coverage W/Balconies (sq.m.)	Total Area of Balconies (sq.m.)
1	10,766.43m2	8,565.22m2	1,813.92m2	3,327.10m2	3,562.15m2	802.11m2

1	NUMBER OF STOREYS:	4 STOREYS
2	HIGHEST BUILDING HEIGHT:	15.5m
3	PERMITTED USE:	MIXED USE / APARTMENT BUILDING
4	APPROX. LOT AREA:	Part 1 – Mixed Use Block 0.71626 Ha / 1.77 Acres / 7,162.6m2
5	UNIT NUMBER (YIELD):	108 APARTMENTS
6	DENSITY:	150.78 Uph (61.01 UPA)
7	RETAIL G.F.A.	14,199 SF / 1,319.11 m2
8	TOTAL GROSS FLOOR AREA:	10,766.43 m2
9	FLOOR SPACE INDEX (GFA / LOT AREA)	1.503
10	AREA OF PARKING GARAGE	53,731 SF / 4,991.73 m2
11	BUILDING COVERAGE W/ PORCHES, BALCONIES, BAY PROJECTIONS, & VENTILATION SHAFTS	±3,562.15 m2 (49.73%)
12	UNCOVERED ROADS/CURBS, UNCOVERED DRIVEWAYS & UNCOVERED PARKING	±1,831.62 m2 (25.57%)
13	PROVIDED OPEN SPACE INCLUDES STEPS, SIDEWALKS, WALKWAYS SIDEWALKS & SOFT LANDSCAPING	±1,768.98 m2 (24.70%)
14	TOTAL AREA OF AMENITY BALCONIES:	±802.00 m2 (11.19%)
15	VISITOR PARKING FOR 4 STOREY MULTI-USE BUILDING:	
	REQUIRED VISITOR PARKING	108 UNITS x 0.25 = 27
	REQUIRED RETAIL PARKING	1 SPACE / 32.6m2 1301m2 / 32.6m2 = 40
	REQUIRED COMBINED VISITOR PARKING	40 SPACES
	PROVIDED COMBINED VISITOR PARKING	48 SPACES
16	TENANT PARKING FOR 4 STOREY MULTI-USE BUILDING:	
	REQUIRED TENANT PARKING	108 UNITS x 1 = 108
	PROVIDED TENANT PARKING	131 SPACES
17	MAXIMUM UNCOVERED SURFACE PARKING AREA:	20% OF LOT AREA
	TOTAL AREA OF UNCOVERED SURFACE PARKING	±680 m2 (9.5%)
18	MINIMUM LENGTH OF CONTINUOUS MAIN WALL ALONG OAKPARK BOULEVARD:	85% OF (147.89 M.) LENGTH OF THE FRONTAGE
	TOTAL LENGTH OF CONTINUOUS MAIN WALL PROVIDED	±132.46 M. (89.5%)
19	MINIMUM GLAZED AREA AT GRADE ALONG OAKPARK BOULEVARD:	60% OF (611.50 m2) THE GROSS AREA OF THE MAIN WALL
	GLAZED AREA AT GRADE PROVIDED:	±368.26 m2 (60.22%)

CONTACT LIST

Client: Ballantry Homes
Project Name: OAK PARK
Condominium Maisonettes and 4 Storey Multi-use Building
Location: Oakville, Ontario

Client
Ballantry Homes
20 Cachet Woods Court
Markham, Ontario L6C 3G1
Tel: (905) 887-7100
Fax: (905) 887-7101
Contact: Sam Rupp
Email: sam@ballantryhomes.com

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3042 Bur Oak Avenue, Unit 2
Markham, Ontario L6B 0R1
Tel: (905) 707-0818
Fax: (905) 472-6167
Contact: John Lau
Email: jslarchitect@bellnet.ca

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5050 Dufferin Street, Suite 240
Toronto, Ontario M3H 5T5
Tel: (416) 665-7165
Fax: (416) 665-4259
Contact: Lucio Amato
Email: lucio@kalshenko.com

Electrical Consultant
E-Lumen International Inc.
595 Cityview Blvd., Suite 204/205
Vaughan, Ontario L4H 3M7
Tel: (905) 417-6881
Fax: (905) 417-6882
Contact: Benny Valerio ext.-222
Email: benny@e-lumen.ca

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27 Roytec Road, Unit 1, Suite 101
Vaughan, Ontario L4L 8E3
Tel: (905) 856-7737
Fax: (905) 856-7338
Contact: Maythem Ibrahim
Email: maythem@sossciaeng.ca

Surveyor for Mplan:
MMM Group Limited
2410 Meadowpine Blvd. Unit 106
Mississauga, Ontario L5N 6S2
Tel: (905) 826-4770
Fax: (905) 826-8007
Contact: Michael Macek, B.sc, OLS
Email: WithamR@mmm.ca

Surveyor for Condo Documents:
Krcmar Surveyors Ltd.
1137 Centre Street
Thornhill, Ontario L4J 3M6
Tel: (905) 738-0053
Fax: (905) 738-9221
Contact: Rod Batol
Email: rod@krcmar.ca

Engineering Consultant
MMM Group Limited
100 Commerce Valley Drive West
Thornhill, Ontario L3T 0A1
Tel: (905) 882-4211 x6332
Fax: (905) 882-0055
Contact: Rob Witham P.Eng.
Email: WithamR@mmm.ca

Landscaping
Alexander Budrevics + Associates
895 Don Mills Road, Second Tower
Suite 212, Toronto, Ontario M3C 1W3
Tel: (416) 444-5201
Fax: (416) 444-5208
Contact: Shannon Gallant
Email: shannon@budrevics.com

Planner
Macaulay Shiomi Howson Ltd.
600 Annette Street
Toronto, Ontario M6S 2C4
Tel: (416) 487-4100
Contact: –
Email: –

The information shown on this site/plan shows the latest information received from the following consultants;

Ontario Land surveyors' RPlan Received Oct. 18, 2011

Landscape Architect's Drawings Received May 17, 2012

Site Engineer's Servicing Drawings Drawings Dated Sep 06, 2011

Site Engineer's Grading Drawings Draft Grading Received Feb 27, 2012

Electrical Engineer's Drawings Received N/A

LEGEND:

- LP LIGHT POLE
- H HYDRANT
- TRANSFORMER
- WATER SERVICE
- DOUBLE STM. CONNECTION
- DOUBLE SAN. CONNECTION
- SINGLE STM. CONNECTION
- SINGLE SAN. CONNECTION
- CB CATCH BASIN
- EXTERIOR DOOR LOCATION
- (_R= No. OF RISERS)
- SIDE WINDOW LOCATION
- SWALE DIRECTION
- CABLE TELEVISION PEDESTAL
- BELL PEDESTAL
- PROPOSED VALVE
- RAIN WATER DOWNSPOUT LOCATION (DISCHARGE ONTO SPLASHPAD)
- REV REVERSE PLAN
- FF FINISHED FLOOR ELEVATION
- UF UNDERSIDE FOOTING ELEVATION
- BF FIN. BASEMENT FLOOR SLAB
- TFW TOP OF FOUNDATION WALL
- UFR UNDERSIDE FOOTING AT REAR
- UFF UNDERSIDE FOOTING AT FRONT
- W.O.D. WALK OUT DECK
- W.O.B. WALK OUT BASEMENT
- HYDRO SERVICE LATERAL
- 1.5m BLACK VINYL CHAIN LINK FENCE
- EMBANKMENT 3:1 SLOPE
- RETAINING WALL
- ACOUSTICAL FENCE (SEE LANDSCAPE PLAN)
- WOOD SCREEN FENCE (SEE LANDSCAPE PLAN)
- STOP SIGN
- NO PARKING SIGN
- NO DELIVERY TRUCKS SIGN
- DO NOT ENTER SIGN
- PRIVATE ROAD–DO NOT ENTER SIGN
- ACCESSIBLE PARKING SPACE SIGN
- LIMITED MOBILITY & CAREGIVERS PARKING SPACE SIGN

25	GENERAL REVISIONS	AUG 27/14 HC
24	REVISED AS PER LANDSCAPE ARCHITECT'S COMMENTS	FEB 26/14 HC
23	AREA UPDATED	OCT 15/13 HC
22	REISSUED FOR BUILDING PERMIT	AUG 06/13 HC
21	ISSUED FOR PERMIT	MAR 11/13 HC
20	ISSUED FOR CLIENT REVIEW	DEC 12/12 HC
19	UPDATE TRANSFORMER LOCATIONS, ROADS & CURBS	OCT 09/12 HC
18	REVISED AS PER CITY'S COMMENTS	AUG 23/12 HC
17	REISSUED FOR SITE PLAN APPROVAL	MAY 25/12 HC
16	ISSUED FOR COORDINATION	APR. 27/12 HC
15	REVISED AS PER CLIENT'S COMMENTS	MAR. 22/12 HC
14	ADD ENG. GRADING & F.F. ELEVATIONS	FEB. 29/12 SL
13	SEPARATE SITE STATISTICS	JAN. 04/12 SL
12	ISSUED FOR SITE PLAN APPROVAL	DEC. 02/11 SL
11	ADD SITE STATISTICS	NOV. 24/11 SL
10	REMOVE LAY BY PARKING ON OAKPARK	NOV. 10/11 SL
9	WIDEN SITE BY 1.5m PER NEW RPLAN	OCT. 25/11 SL
8	UPDATE BUILDING FOOTPRINTS	SEP. 27/11 SL
7	REVISED SITE STATISTICS & SURVEY	APR. 27/11 SL
6	PROPOSED WASTE COLLECTION ROUTE	APR. 05/11 SL
5	REVISED TO ADDRESS CITY COMMENTS	NOV. 15/10 SL
4	REISSUED FOR CITY REVIEW	OCT. 07/10 SL
3	REVISED WITH PHASE LINES	SEP. 15/10 SL
2	ISSUED FOR CITY REVIEW	JUN. 25/10 SL
1	ISSUED FOR CLIENT REVIEW	JUN. 21/10 SL
No.	Revision	Date By

REVISIONS

CONTRACTOR MUST VERIFY ALL DIMENSIONS ON THE JOB AND REPORT ANY DISCREPANCY TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. ALL DRAWINGS AND SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND THE PROPERTY OF THE ARCHITECT WHICH MUST BE RETURNED AT THE COMPLETION OF THE WORK. DO NOT COMMENCE THE WORK UNLESS THE DRAWING IS ISSUED FOR CONSTRUCTION. DO NOT SCALE DRAWINGS.

ONTARIO ASSOCIATION of ARCHITECTS
JOHN SHUKI LAU LICENCE 4955

JOHN SHUKI LAU ARCHITECT INC.
3042 BUR OAK AVENUE, UNIT 2
MARKHAM, ONTARIO L6B 0R1
TEL: (905) 707-0818
FAX:(905) 472-6167

CLIENT
BALLANTRY HOMES

PROJECT TITLE
OAK PARK
OAKVILLE, ONTARIO

DRAWING TITLE
SITE PLAN
PHASE 1

BUILDING 1

SCALE 1:300	DRN. HC	PROJECT NO. 2011-20
DATE JUNE 2011	CHKD. JL	DWG.NO. A1.1
2011-20-A		

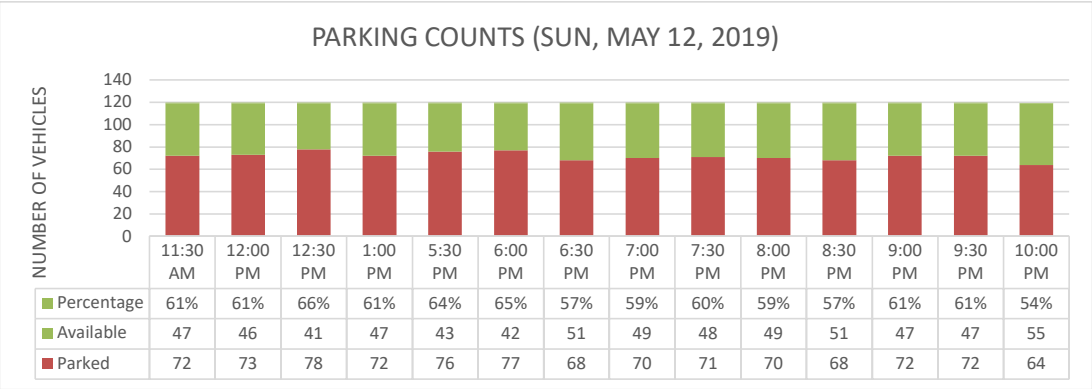
ONTARIO TRAFFIC INC - PARKING SURVEY

Location: 2486 Old Bronte Rd

Date: Sunday, May 12, 2019

Time			Parked Vehicles						
			Zone 1	Zone 2	Zone 3	Zone 4			Percentage
11:00	to	11:30	29	16	6	21	72	47	61%
11:30	to	12:00	30	15	5	23	73	46	61%
12:00	to	12:30	31	16	9	22	78	41	66%
12:30	to	13:00	27	15	8	22	72	47	61%
17:00	to	17:30	31	15	8	22	76	43	64%
17:30	to	18:00	29	17	9	22	77	42	65%
18:00	to	18:30	26	14	6	22	68	51	57%
18:30	to	19:00	27	13	8	22	70	49	59%
19:00	to	19:30	28	15	8	20	71	48	60%
19:30	to	20:00	27	17	7	19	70	49	59%
20:00	to	20:30	25	16	7	20	68	51	57%
20:30	to	21:00	27	17	8	20	72	47	61%
21:00	to	21:30	26	17	8	21	72	47	61%
21:30	to	22:00	24	15	7	18	64	55	54%

Legend:	
Zone 1 =	Visitor (including the accessible parking stalls) parking outlined as red
Zone 2 =	Shared visitor and commercial parking outlined as blue
Zone 3 =	Commercial parking outlined as green
Zone 4 =	Underground and Layby parking on Old Bronte Road outlined as yellow

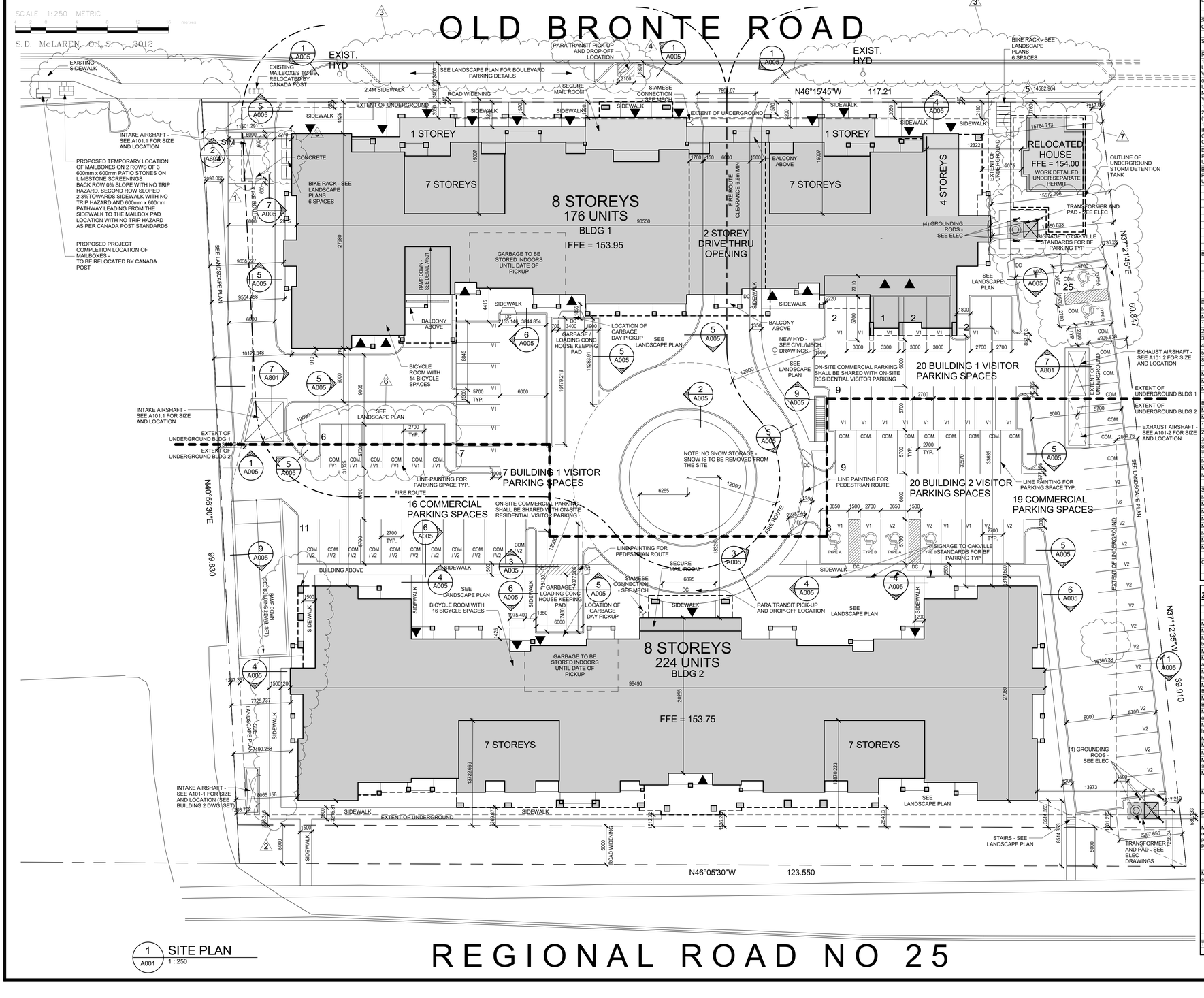


INFORMATION TAKEN FROM:
PLAN OF SURVEY
OF PART OF
LOT 31
CONCESSION 1, SOUTH OF DUNDAS STREET
GEOGRAPHIC
TOWNSHIP OF TRAFALGAR
IN THE
TOWN OF OAKVILLE
REGIONAL MUNICIPALITY OF HALTON

SCALE 1:250 METRIC

S.D. McLAREN, O.L.S. 2012

FOR EXISTING AND PROPOSED TOPOGRAPHIC AND GRADING INFORMATION REFER TO CIVIL DRAWINGS. FOR EXISTING AND PROPOSED SERVICES REFER TO CIVIL / MECHANICAL DRAWINGS.



1 A001 SITE PLAN
1 : 250

BUILDING STATISTICS

	REQUIRED	PROVIDED		
LOT AREA		1.1356 HA (11,355.9 sq.m.)		
DENSITY	N / A	352.2 UNITS PER HA		
BUILDING HEIGHT		8 Storeys		
G.F.A. ABOVE GRADE				
BUILDING 1		13,917.60 sq.m.		
BUILDING 2		15,977.81 sq.m.		
HERITAGE HOUSE		143.50 sq.m.		
TOTAL		30,038.91 sq.m.		
LANDSCAPED OPEN SPACE		Site	3,425.79 sq. m.	
		Percentage of Site Area	30.2%	
SURFACE PARKING COVERAGE		Site	3,845.14 sq. m.	
		Percentage of Site Area	33.9%	
SNOW STORAGE	15%	Snow is to be removed from the site		
REQUIRED PARKING	456 SPACES	562 SPACES		
1.0 PARKING SPACES PER UNIT NOT INCLUDES 0.25 VISITOR SPACES PER UNIT	55 PARKING SPACES	83 SPACES		
0.75 PARKING SPACES PER UNIT LESS THAN 75 sq.m. NOT INCLUDES 0.25 VISITOR SPACES PER UNIT	259 PARKING SPACES	376 SPACES		
1.0 PARKING SPACES PER 24 sq.m. OF COMMERCIAL (1.0 PARKING SPACES PER 18 O sq.m. OF COMMERCIAL IF GREATER THAN 60% OF COMMERCIAL IS MEDICAL OFFICES)	42 PARKING SPACES / 51 PARKING SPACES	42 SPACES		
BUILDING 1: 0.25 VISITOR PARKING SPACES PER UNIT	44 PARKING SPACES	27 PARKING SPACES		VARIANCE REQUIRED
BUILDING 2: 0.25 VISITOR PARKING SPACES PER UNIT	56 PARKING SPACES	34 PARKING SPACES		VARIANCE REQUIRED
		SURFACE		82 SPACES
		UG LEVEL 1	BLDG 1	106 SPACES
			BLDG 2	132 SPACES
			TOTAL	238 SPACES
		UG LEVEL 2	BLDG 1	108 SPACES
			BLDG 2	134 SPACES
			TOTAL	242 SPACES
BICYCLE PARKING	TENANT & VISITOR TOTAL PROVIDED	40 SPACES		
	TENANT	30 SPACES		
	VISITOR	10 SPACES		
	COMMERCIAL PROVIDED	2 SPACES		
BUILDING 1				
No. STOREYS	8 STOREYS			
No. RESIDENTIAL SUITES		1 BEDROOM	2 BEDROOM	LOFT
1st FLOOR	0 SUITES	-	-	-
2nd FLOOR	14 SUITES	11	3	-
3rd FLOOR	35 SUITES	22	5	8
4th FLOOR	27 SUITES	20	7	-
5th - 7th FLOORS	26 SUITES	20	6	-
8th FLOOR	22 SUITES	16	6	-
TOTAL	176 UNITS	129	39	8
No. BARRIER FREE SUITES	18 SUITES (10.0%)			
No. NON-RES. SUITES	± 10 SUITES			
No. SUITES UNDER 75 sq.m.	153 SUITES			
BUILDING 2	8 STOREYS			
No. STOREYS				
No. RESIDENTIAL SUITES		1 BEDROOM	2 BEDROOM	LOFT
1st FLOOR	20 SUITES	15	5	-
2nd FLOOR	28 SUITES	22	6	-
3rd - 7th FLOORS	30 SUITES	24	6	-
8th FLOOR	26 SUITES	20	6	-
TOTAL	224 SUITES	177	47	-
No. BARRIER FREE SUITES	23 SUITES (10.0%)			
No. NON-RES. SUITES	0 SUITES			
No. SUITES UNDER 75 sq.m.	192 SUITES			
SITE TOTAL				
No. STOREYS	8 STOREYS			
No. RESIDENTIAL SUITES	400 SUITES			
No. 1 BEDROOM SUITES	306 SUITES			
No. 2 BEDROOM SUITES	86 SUITES			
No. LOFT SUITES	8 SUITES			
No. BARRIER FREE SUITES	41 SUITES (10.0%)			
No. NON-RES. SUITES	± 10 SUITES			
No. SUITES UNDER 75 sq.m.	345 SUITES			
COMMERCIAL SPACE	BUILDING 1	861.11 sq.m.		
	HERITAGE HOUSE	143.5 sq.m.		
	TOTAL	1,004.61 sq.m.		

ZONING STATISTICS

	REQUIRED	PROVIDED	COMPLY
Maximum lot Coverage	45%	42.1% (4,776.1 sq.m.)	YES
Minimum Front Yard	0.0m	0.0m	YES
Maximum Front Yard for an apartment building	4.5m for maximum of 25% of the base building	0% Beyond 4.5m	YES
Maximum Front Yard for Heritage Building	2.0m	1.46m	YES
Minimum southerly interior side yard for an apartment building	9.0m	15.5m	YES
Minimum southerly interior side yard for heritage building	1.2m	1.21m	YES
Minimum northerly interior side yard Building 1	9.0m	9.5m	YES
Minimum northerly interior side yard Building 2	9.0m	7.49m	NO
Minimum Rear Yard (Bronte Road) for an apartment building	1.5m	1.51m	YES
Minimum separation distance between heritage building and apartment building	5.0m excluding underground parking garage	5.075m	YES
Maximum number of apartment buildings	2	2	YES
Minimum number of dwelling units	100 per site hectare	352.2	YES
Maximum number of dwelling units	400	400	YES
Maximum number of storeys for an apartment building	8 exclusive of rooftop mechanical room and parpets	8	YES
Maximum overall height	29.0m	27.375m to top of main roof (30.990 to top of mechanical roof)	YES
Maximum height for heritage building	as legally existing on the effective date of by-law 2014-025 plus 1.0m		YES
Parking			
Minimum number of parking spaces for residential uses, inclusive of 0.25 spaces per unit which shall be designated as visitor parking spaces.	i 1.25 per unit	55 x 1.25 = 69 spaces	YES
	ii 1.0 per unit less than 75 sq.m. in size	345 x 1 = 345 spaces	YES
Minimum number of parking spaces for commercial uses	i. 1.0 per 24.0 sq.m.	1,004.61 sq.m. / 24 sq.m. = 42 spaces	YES
	ii. Notwithstanding this, where medical offices cumulatively occupy greater than 60% of the commercial ground floor area of the building fronting Old Bronte Road, the minimum number of parking spaces shall be 1.0 per 18.0 sq.m. for medical office uses	if more than 60% of the commercial space is medical offices 1,004.61 sq.m. / 18 sq.m. = 56 spaces	YES
Total Parking	456 Parking Spaces	559 Parking Spaces	YES

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS BEFORE PROCEEDING WITH WORK

ALL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE ARCHITECTS AND MUST BE RETURNED AT THE COMPLETION OF THE WORK

THE CONTRACTOR WORKING FROM DRAWINGS NOT SPECIFICALLY MARKED "FOR CONSTRUCTION" MUST ASSUME FULL RESPONSIBILITY AND BEAR COSTS FOR ANY CORRECTIONS OR DAMAGES RESULTING FROM HIS OR HER WORK.

KEY TO DETAIL LOCATION

No. DETAIL NUMBER
No. DRAWING SHEET NUMBER

BUILDING PERMIT NUMBER:

14-2028

PRINTS ISSUED	No.	DATE (DD.MM.YY)	BY
FOR PRELIMINARY PRICING	1.	(13.06.13)	TB
SITE PLAN APPROVAL	2.	(25.04.14)	TB
UNDERGRD. PARKING STRUCT. PERMIT	3.	(09.05.14)	TB
REVISED SITE PLAN APPROVAL	4.	(27.06.14)	TB
FOR BUILDING PERMIT / PRICING	5.	(17.09.14)	TB
REVISED PRICING	6.	(03.12.14)	TB
REVISED SITE PLAN APPROVAL	7.	(11.12.14)	TB
AS PER SITE PLAN COMMENTS	8.	(15.01.15)	TB
AS PER SITE PLAN COMMENTS	9.	(25.02.15)	TB
AS PER PERMIT COMMENTS	10.	(10.03.15)	TB
AS PER PERMIT COMMENTS	11.	(25.03.15)	TB
FOR FINAL PRICING	12.	(27.03.15)	TB
AS PER PERMIT COMMENTS	13.	(14.04.15)	TB
FOR CONSTRUCTION	14.	(14.08.15)	TB
AS PER PERMIT COMMENTS	15.	(02.12.15)	TB
FOR FINAL CONSTRUCTION	16.	(10.02.16)	TB

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

REVISIONS TO DRAWING	No.	DATE (DD.MM.YY)	BY
AS PER CITY COMMENTS	1	(22.10.14)	TB
AS PER CITY COMMENTS	2	(28.10.14)	TB
AS PER CITY COMMENTS	3	(10.11.14)	TB
CURB REVISIONS	4	(09.01.15)	TB
AS PER SITE PLAN REVISIONS	5	(25.03.15)	TB
REV. PARKING AND TRANSFORMER5	6	(03.02.16)	TB
TRANSFORMER AND STORM TANK.	7	(29.03.16)	TB

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OAKVILLE, ONTARIO

DRAWING SHEET TITLE:

SITE PLAN

DRAWING SCALE	KNY PROJECT NUMBER:
1 : 250	12300
DRAWN BY: TB	DRAWING SHEET NUMBER: A001
ISSUED DATE: April 12, 2016	
PLOT DATE: April 12, 2016	

For the purpose of evaluating the Primont M3 development, transit accessibility is a significant factor in reducing the need for resident parking at the development, as it allows residents easy access to the broader transit network, including the GO Train, which is a major commuting option for longer-distance travel. The subject site's proximity to the Mount Pleasant GO station enhances its appeal for residents who prioritize transit accessibility, as it offers a fast and direct connection to downtown Toronto and other key regional destinations.

The short 10 minute transit ride to the GO station means that residents are more likely to utilize public transit for commuting to work, school, and other daily activities, rather than relying on personal vehicles. The subject site's accessibility to transit is likely to encourage fewer car trips and, in turn, lower the demand for parking spaces. By reducing resident parking, the development can capitalize on the existing transit infrastructure, which already serves as a major transportation hub for the community.

Additionally, the subject site benefits from its location across the street from a commercial retail area, including a grocery store, which is within walking distance for residents. This retail proximity adds significant convenience to daily living, making it easier for residents to meet their shopping and service needs without relying on a vehicle. The combination of nearby retail, easy access to transit, and the potential for active transportation options such as walking and cycling strengthens the case for reduced parking demand.

Consequently, the parking demand at the site is expected to be lower compared to other areas with less access to transit, aligning with trends observed at the proxy sites closer to transit hubs. The average observed utilization values should therefore provide a representative and balanced basis for estimating realistic parking demand. As such, applying the average observed rate of approximately 0.60 spaces per unit, represents an appropriate estimate of resident parking demand in this context.

Furthermore, because the Phase 1 (north) building will operate as a purpose-built rental development, parking spaces will be available for rent separately from the residential units. Prospective tenants will be aware of parking availability and associated costs at the time of leasing, allowing them to make an informed decision based on their transportation needs and lifestyle. This market-based allocation approach inherently aligns parking supply with actual demand, ensuring that spaces are utilized efficiently by residents who require them while discouraging unnecessary vehicle ownership among those who do not.

Overall, the findings confirm that the previously approved 0.80 spaces per unit standard would exceed the parking average demand observed in comparable Brampton rental developments. The proposed reduction to 0.75 spaces per unit for the Phase 1 building is therefore supported by both empirical data and operational considerations, reflecting a practical, transit-supportive, and resident-driven approach to parking management within the Mount Pleasant Community. The adjustment also advances broader municipal objectives related to sustainability, housing affordability, and efficient land use by reducing the need for costly underground parking construction and encouraging a continued shift toward active and sustainable modes of travel.

CONDO PROXY SURVEY

To support the original minor variance for the site to 0.80 spaces per unit for residents, GHD had previously completed a parking demand survey of the occupied and registered MontVert (M2) Condominium, located east of the subject site on Sandalwood Parkway at 215 Veterans Drive. It is important to note that the M2 building represents an ownership-based condominium form, while the proposed Phase 1 building of M3 will be a purpose-built rental building. The location of the proxy site is shown in the figure below.

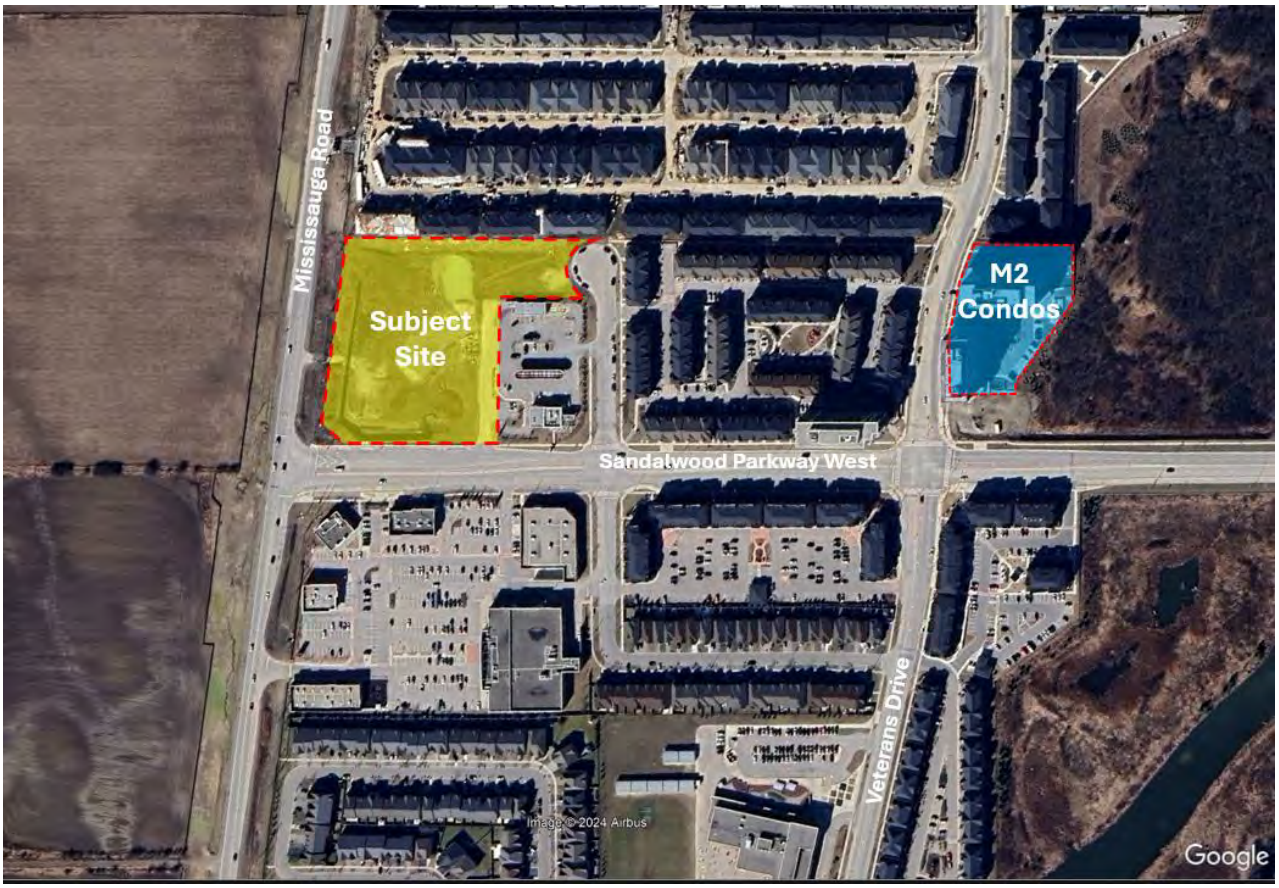


Figure 4 Ownership Based Condo Proxy Site Location

The following information was provided by the property management regarding the unit count and parking provision:

- The development consists of a total of 255 residential units and 271 resident parking spaces, providing resident parking at a rate of 1.06 spaces per unit.
- A total of 10 units remained unsold at the time the survey was undertaken.
- Every unit is provided one parking space with the purchase of the unit, unbundled parking is not an option at this location.
- Every purchaser is also provided the opportunity to purchase a second parking space from the additional 16 spaces available. At the time of the survey, only 7 of the 16 second spaces have been purchased.

GHD contracted Ontario Traffic Inc. to conduct a parking demand survey of the existing resident parking demand for the M2 condos on Sunday, August 11th, 2024, and Monday, August 12th, 2024. The survey was conducted through observations of the underground parking demand between 1:00 a.m. and 2:00 a.m. in targeting the expected peak resident parking demand.

Based on the parking demand survey conducted by Ontario Traffic Inc. for the M2 condos on August 11th and 12th, 2024, here is an analysis of the findings:

Sunday, August 11th:

- Resident Parking Demand: 169 spaces occupied.
- Utilization Rate: 0.69 spaces per unit.

Monday, August 12th:

- Resident Parking Demand: 180 spaces occupied.
- Utilization Rate: 0.73 spaces per unit.

Conducting the survey between 1:00 a.m. and 2:00 a.m. is appropriate for capturing peak residential parking demand, as most residents are likely at home during these hours.

There is a slight increase in parking demand from Sunday to Monday (an increase of 11 spaces or approximately 6.5%). The difference in the data points between the Sunday and Monday observations can be explained by a few factors:

- Many people tend to travel or engage in leisure activities on weekends, which can reduce the number of vehicles parked overnight on a Sunday. By Monday night, more residents are likely back home in preparation for the workweek, increasing the number of vehicles parked in the garage.
- Some residents may return later in the evening or even early morning on Monday after weekend trips, contributing to higher parking demand by Monday night.

The difference between 169 spaces on Sunday (0.69 spaces per unit) and 180 spaces on Monday (0.73 spaces per unit) is relatively small and such fluctuations are common in parking demand due to normal daily variations in resident activities, commuting schedules, and vehicle use.

It is also important to note that, at the time of the survey, M2's property management had not yet implemented active parking controls or resident vehicle registration protocols. As a result, it is possible that the observed 0.73 spaces per unit includes a small portion of vehicles that were not formally assigned to residential units such as visitors, unregistered tenants, or secondary household vehicles using unregulated spaces.

Accordingly, the recorded utilization of 0.73 spaces per unit likely represents a conservative (slightly inflated) estimate of true residential demand for ownership based residential units in the area. Once parking registration and permit systems are in place and occupancy levels stabilize, this parking demand may decrease.

COMPARISON OF CONDOMINIUM VS RENTAL PARKING REQUIREMENTS (MISSISSAUGA EXAMPLE)

The City of Mississauga Zoning By-law 0225-2007 is the only GTA zoning framework that explicitly differentiates between condominium apartments and rental apartments. Across all four precincts of the city, rental buildings require approximately 0.1 fewer resident parking spaces per unit than condominiums, as summarized below:


GHD