Residential Development, Woolwich Street & Irvine Street, Elora, ON
Transportation Impact Study

Paradigm Transportation Solutions Limited

June 2022
210662

ptsl.com

Project Summary

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Residential Development, Woolwich Street & Irvine Street, Elora, ON
Transportation Impact Study

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Executive Summary

Content

Paradigm Transportation Solutions Limited (Paradigm) was retained to conduct this Transportation Impact Study for a residential development located in the southwest corner of Woolwich Street/Nichole Road 15 and Irvine Street in the community of Elora, Township of Centre Wellington, Ontario.

This Transportation Impact Study (TIS) includes an analysis of existing traffic conditions, a description of the proposed development, traffic forecasts for the assumed full build-out (2026) and five-year horizon (2031) from the assumed build-out, and any recommendations required to improve future traffic conditions.

Development Concept

The property owner is proposing to develop the approximately 12.4-hectare block into 296 residential units, in a mix of townhouses (149 units) and single detached homes (147 units). Vehicle access is proposed via new municipal street connection to Irvine Street and the extension of Marr Drive and Clegg Road to Bricker Avenue.

Conclusions

Based on the investigations carried out, it is concluded that:

- **Existing Traffic Conditions:** The study area intersections are currently operating within acceptable levels of service with no specific problem movements during the AM and PM peak hours.
- **Development Trip Generation:** The residential development is forecast to generate approximately 175 and 228 trips during the AM and PM peak hours upon full build-out.
- **2026 Background Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements during the AM and PM peak hours.
- **2026 Total Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service during the AM and PM peak hours with no specific problem movements.
- The proposed municipal street connection to Irvine Street is forecast to operate within acceptable levels of service during the AM and PM peak hours.

- The addition of the site generated traffic increases the overall delay at the study area intersections by two second or less during the AM and PM peak hours.
- **2031 Background Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements during the AM and PM peak hours.
- **2031 Total Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service during the AM and PM peak hours with no specific problem movements.
- The proposed municipal street connection to Irvine Street is forecast to operate within acceptable levels of service during the AM and PM peak hours.
- The addition of the site generated traffic increases the overall delay at the study area intersections by three second or less during the AM and PM peak hours.
- **Remedial Measures:** Left-turn lanes are not warranted at the following intersections:
  - Westbound on Nichol Road 15 at Irvine;
  - Northbound on Irvine Street at Bricker Avenue;
  - Eastbound on East Mill Street (WR 18) at Irvine Street; and
  - Northbound on Irvine Street at Street C.

Recommendations

Based on the findings of this study, it is recommended that the development application be approved with no provision for off-site transportation network improvements.

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1 Introduction

1.1 Overview

Cachet Developments retained Paradigm Transportation Solutions Limited (Paradigm) to conduct this Transportation Impact Study (TIS) for a residential development located in the southwest corner of Woolwich Street/Nichol Road 15 and Irvine Street in the community of Elora, Township of Centre Wellington, Ontario. **Figure 1.1** illustrates the location of the subject site.

This study determines the impacts of the additional traffic on the surrounding road network, and the remedial measures necessary (if any) to accommodate future traffic in a satisfactory manner. The scope of the study includes:

- Assessment of the current traffic and site conditions within the study area;
- Estimates of background traffic growth;
- Estimates of additional traffic generated by the subject site;
- Analysis of the impact of the future traffic on the surrounding road network for assumed full build-out (year 2026) and five-years after full build-out (year 2031) horizon years; and
- Recommendations necessary to mitigate this future traffic in a satisfactory manner.

The study scope was developed in consultation with the Township of Centre Wellington and County of Wellington via email in December 2021. **Appendix A** contains the pre-study consultation material and response from the Township and County.

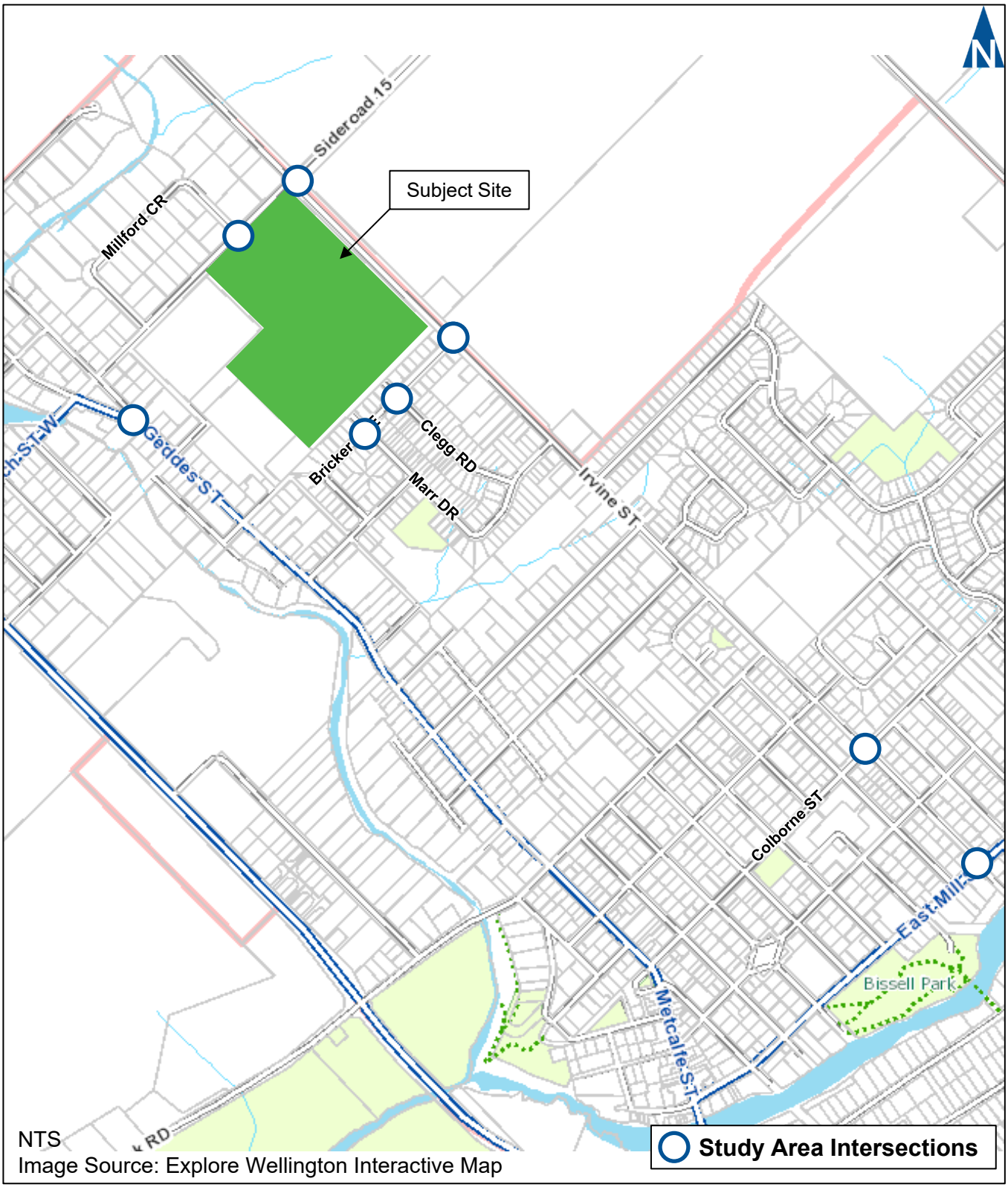

Image Source: Explore Wellington Interactive Map

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Study Area and Subject Development Location

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Figure 1.1

1.2 Study Area

The intersections assessed in this study include:

- Woolwich Street/Nichol Road 15 and Irvine Street (unsignalized);
- Woolwich Street and Milford Crescent (unsignalized);
- Irvine Street and Bricker Avenue (unsignalized);
- Irvine Street and Colborne Street (unsignalized);
- Irvine Street and East Mill Street (unsignalized);
- Geddes Street and James Street (unsignalized);
- Bricker Avenue and Clegg Road (unsignalized);
- Bricker Avenue and Marr Drive (unsignalized); and
- One new municipal connection to Irvine Street.

2 Existing Conditions

2.1 Road Characteristics

The roadways are under the jurisdiction of the County of Wellington[1] and Township of Centre Wellington[2] and are generally described as follows:

- **Woolwich Street/Nichol Road 15** is an east-west Township collector roadway with a two-lane cross-section. It has a posted speed limit of 40 km/h from James Street to east of Irvine Street where it transitions to a 80 km/h speed limit. A sidewalk is provided on the southside of the roadway from James Street to the east driveway of the public school.
- **Irvine Street** is a north-south Township collector roadway with a two-lane cross-section. Between Woolwich Street and Bricker Avenue, Irvine Street is gravel with a speed limit of 50 km/h. South of Marr Drive is has a posted speed limit of 40 km/h. A sidewalk is provided on the east side of the roadway from East Mill Street to Marr Drive, then on the west side of the roadway between Marr Drive and Bricker Avenue.
- **Colborne Street** is an east-west Township collector roadway with a posted speed limit of 40 km/h. A sidewalk is provided on the north side of the roadway in the study area.
- **East Mill Street (Wellington Road 18)** is an east-west County arterial roadway with a two-lane cross-section and a posted speed limit of 40 km/h. A sidewalk is provided on the north side of the roadway within the study area.
- **Geddes Street (Wellington Road 18)** is a north-south County arterial roadway with a two-lane cross-section and a posted speed limit of 50 km/h. A sidewalk is provided on the east side of the roadway within the study area.
- **Bricker Avenue**, **Clegg Drive**, and **Marr Drive** are local Township residential roads with two-lane cross-sections. Sidewalks are provided on both sides of the roadways of Bricker Avenue and Marr Drive. A sidewalk is provided on the west side only of Clegg Drive.

Figure 2.1 details the existing traffic control and lane configurations at the study area intersections.

[1] County of Wellington Official Plan, Schedule A1 Centre Wellington
[2] Township of Centre Wellington Transportation Master Plan, January 2019, Figure 12 Principal Roadway Classification Elora and Fergus

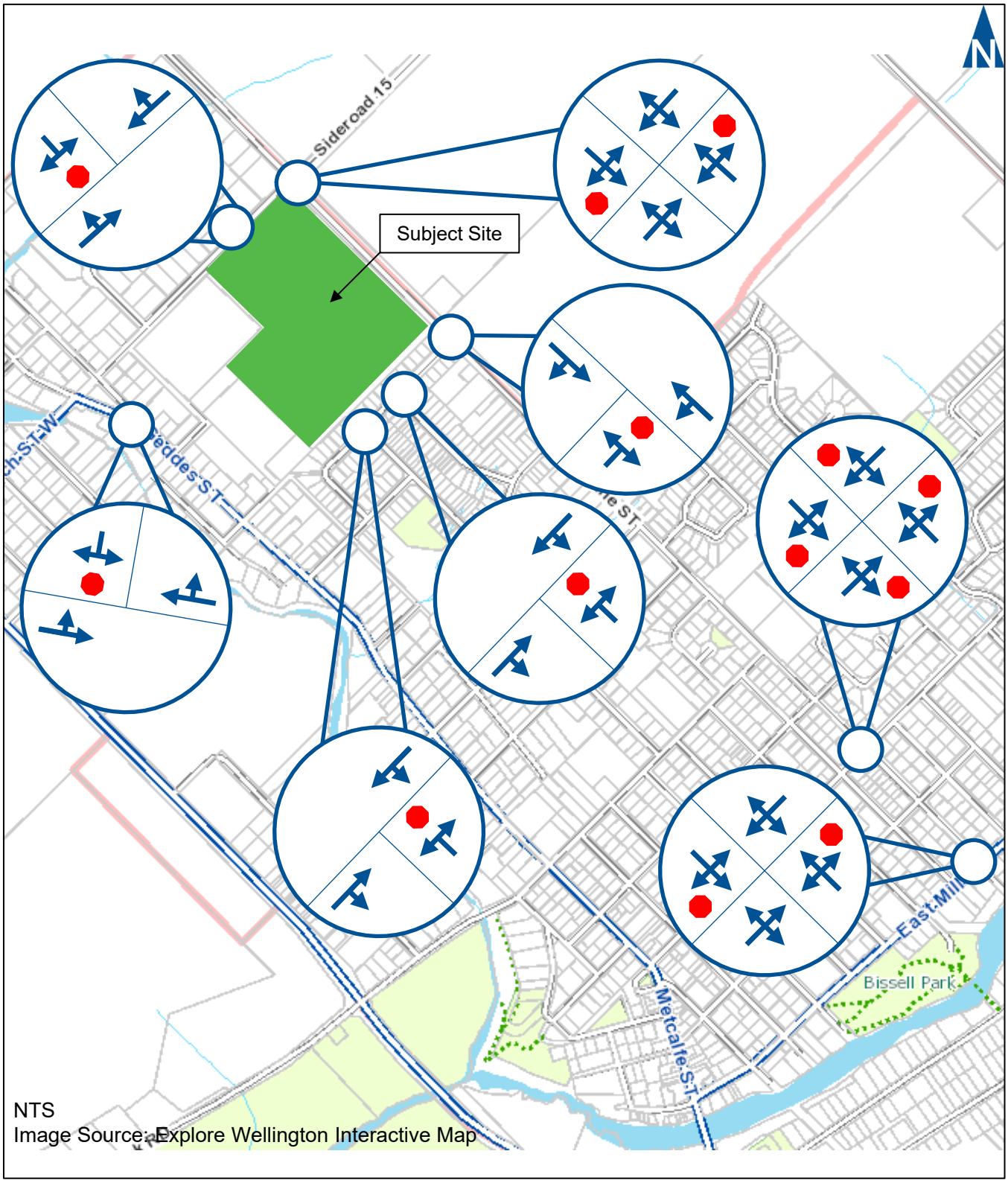

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Image Source: Explore Wellington Interactive Map

Existing Lane Configurations & Traffic Control

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Figure 2.1

2.2 Active Transportation

Near the subject site, there are sidewalks on Irvine Street from north of Bricker Avenue southwards, on Woolwich Street from Salem Public School westwards, on both sides of Bricker Avenue, and on Marr Drive and Clegg Road.

Figure 2.2 illustrates the existing and proposed active transportation network in the community of Elora. It shows an existing on-road route along Geddes Street. Proposed routes include Woolwich Street/Nichol Road 15.

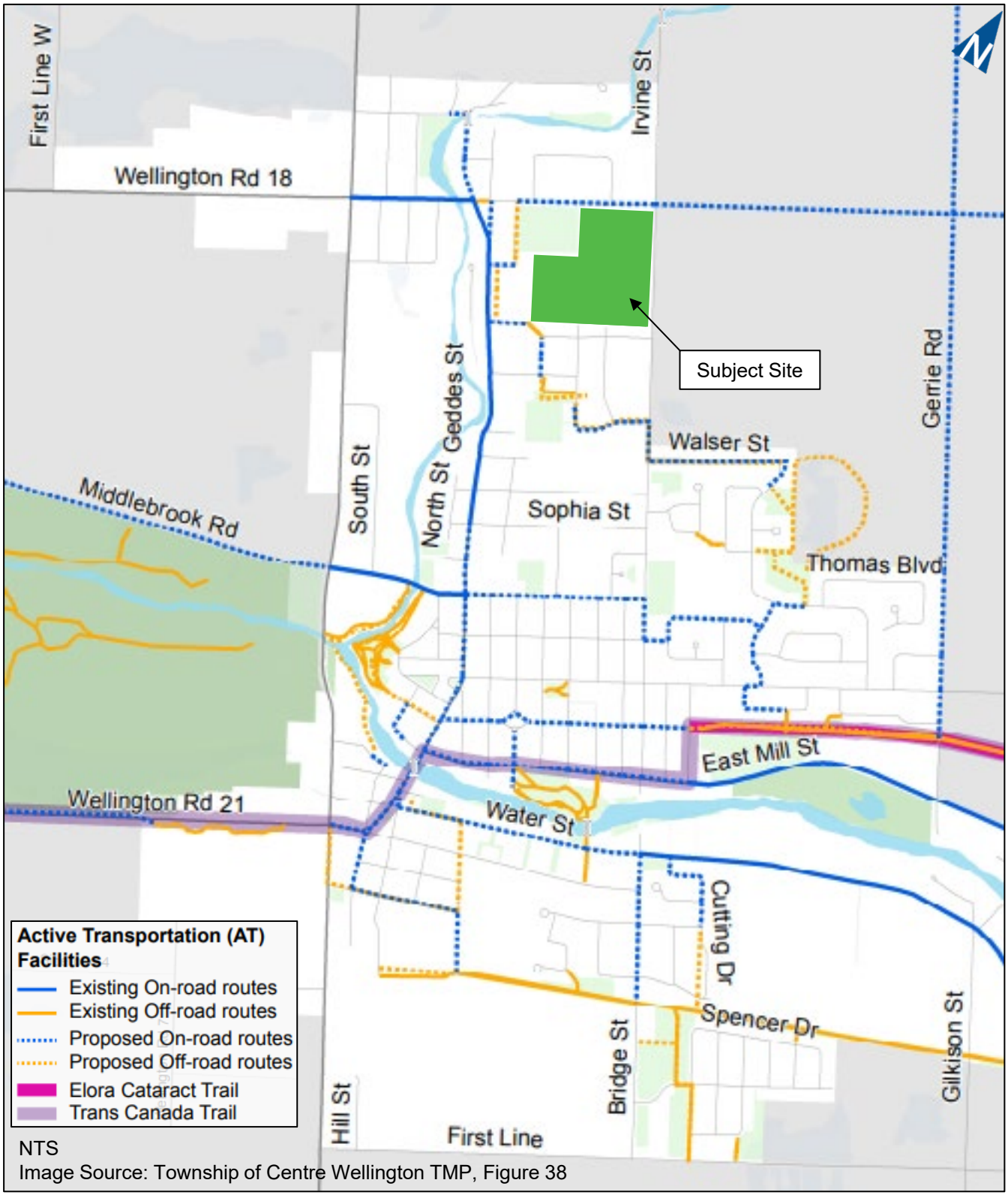

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Image Source: Township of Centre Wellington TMP, Figure 38

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Cycle and Pedestrian Network

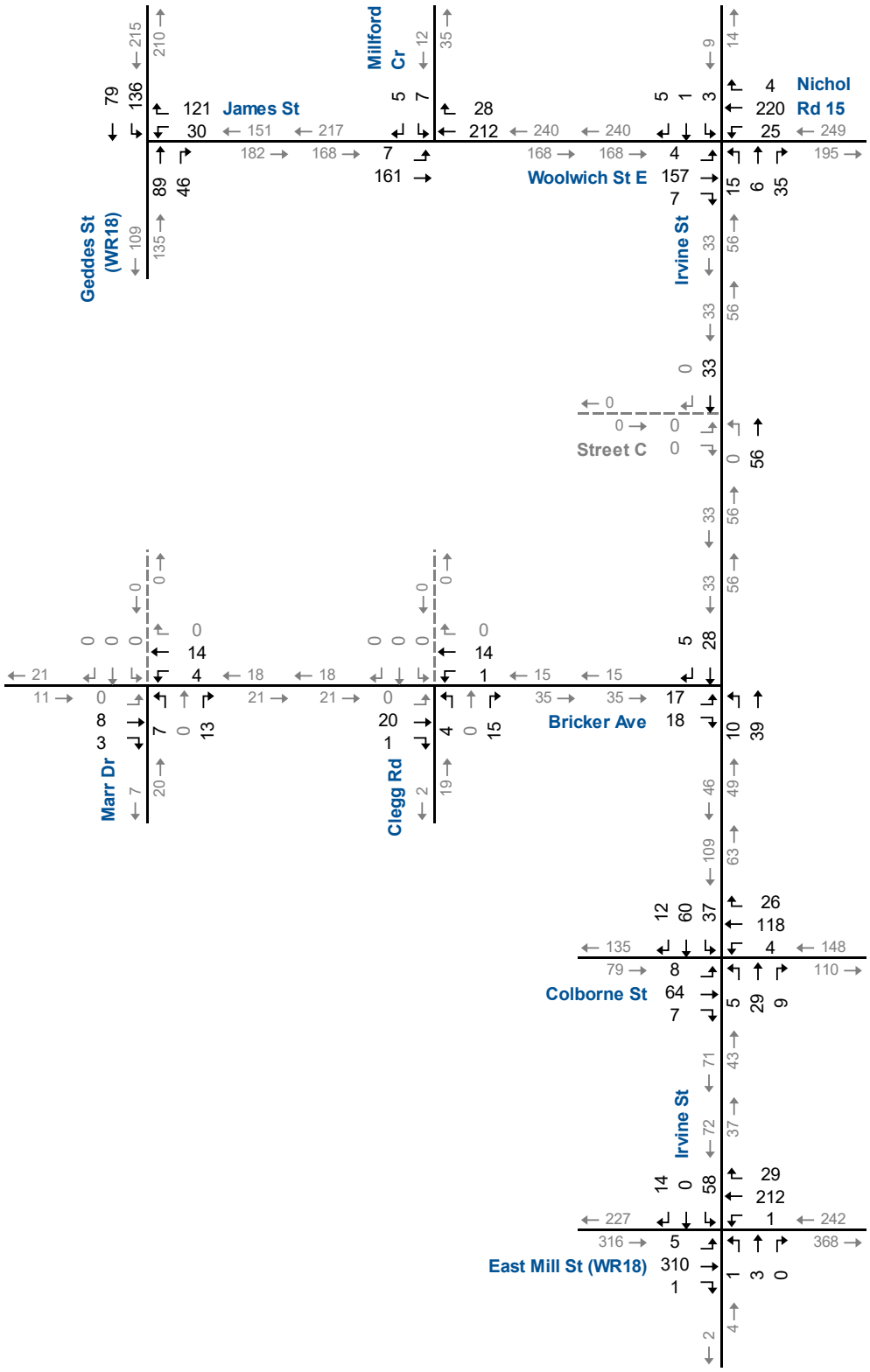
2.3 Traffic Volumes

Traffic volumes were counted in November 2021 and February 2022 at the study area intersections. A factor[3] was applied to the turning movement counts to account for any discrepancies due to lockdown and traveling restrictions.

Figure 2.3A-B display the factored base year weekday AM and PM peak hour traffic volumes respectively.

Appendix B contains the detailed historic traffic counts for the study area intersections.

[3] A factor of 1.3 was applied to the AM peak hour traffic volumes and 1.1 was applied to the PM peak hour traffic volumes. Factors are from other intersections in Centre Wellington where current pandemic and historic turning movements counts were available.



Base Year Traffic Volumes AM Peak Hour

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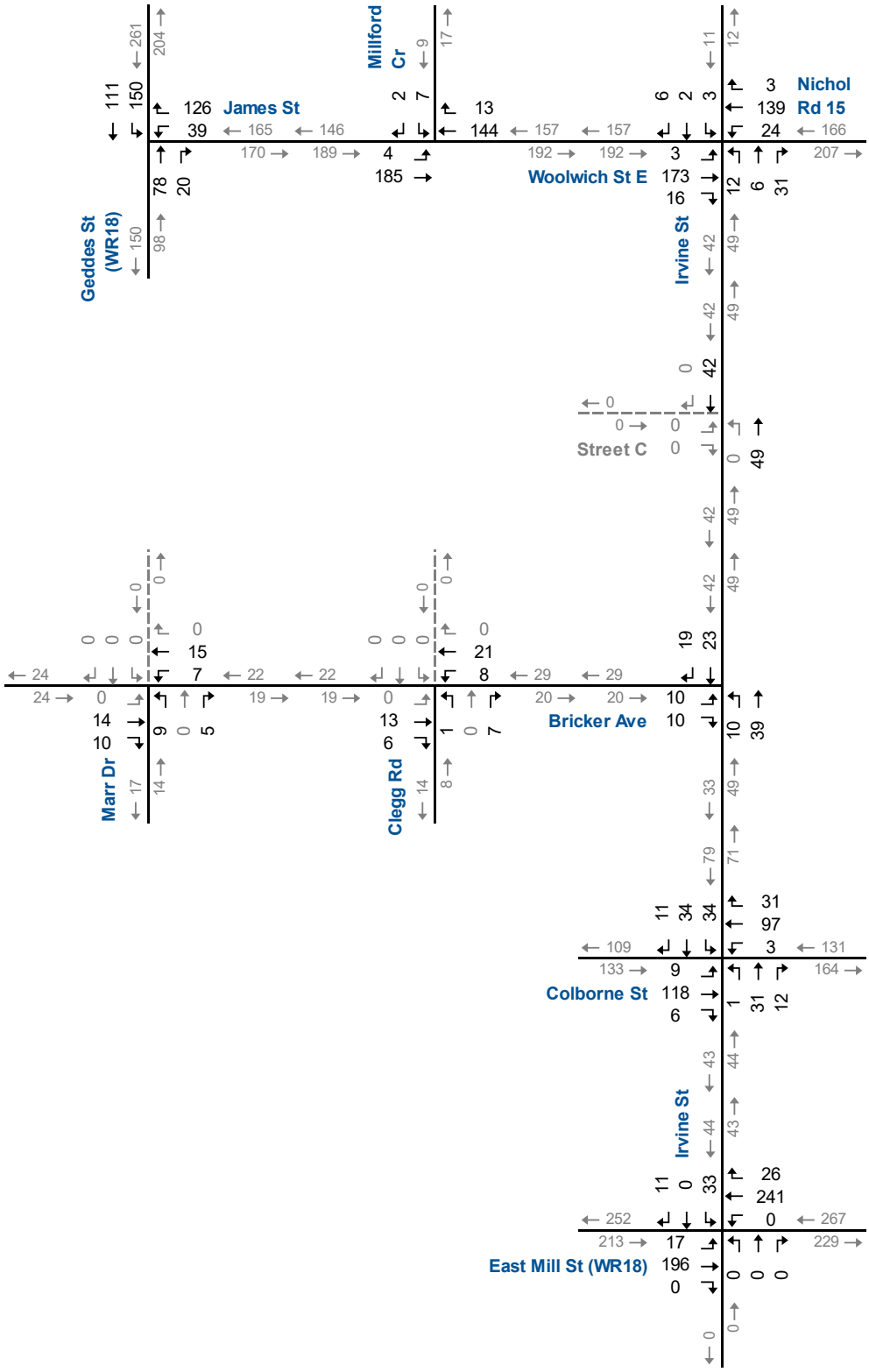
Figure 2.3A



Base Year Traffic Volumes PM Peak Hour

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Figure 2.3B

2.4 Traffic Operations

Intersection level of service (LOS) is a recognized method of quantifying the average delay experienced by drivers at intersections. It is based on the delay experienced by individual vehicles executing the various movements. The delay is related to the number of vehicles intending to make a particular movement, compared to the estimated capacity for that movement. The capacity is based on a number of criteria related to the opposing traffic flows and intersection geometry.

The highest possible rating is LOS A, under which the average total delay is equal or less than 10.0 seconds per vehicle. When the average delay exceeds 80 seconds for signalized intersections, 50 seconds for unsignalized intersections or when the volume to capacity ratio is greater than 1.0, the movement is classed as LOS F and remedial measures are usually implemented if they are feasible. LOS E is usually used as a guideline for the determination of road improvement needs on through lanes, while LOS F may be acceptable for left-turn movements at peak times, depending on delays.

The operations of the study intersections were evaluated using the existing lane configurations, traffic controls, and the base year traffic peak volumes. The level of service conditions on the existing road network have been assessed using Synchro 10.

Table 2.1A-B summarizes the existing intersection operations with the entries in the table indicating level of service (LOS), volume to capacity ratios (V/C), and 95th percentile queues experienced for the weekday AM and PM peak hours, respectively.

The study area intersections are currently operating with acceptable levels of service with no specific problem movements.

Appendix C contains the detailed Synchro 10 reports.

TABLE 2.1A: BASE YEAR OPERATIONS (AM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		A		A	>	A					B		>	B	A
			Delay	<	0		0		0	>	0					11		>	11	1
			V/C	<	0.01				0.15	>						0.02		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	A	<	A	>	A	<	B	>	B	<	B	>	B	A
			Delay	<	0	>	0	<	1	>	1	<	11	>	11	<	11	>	11	2
			V/C	<	0.00	>		<	0.02	>		<	0.09	>		<	0.02	>		
			Q	<	0	>		<	1	>		<	2	>		<	0	>		
	Irvine St & Bricker St	TWSC	LOS	A		>	A					<	A		A		A	>	A	A
			Delay	9		>	9					<	2		2		0	>	0	3
			V/C	0.04		>						<	0.01				0.02	>		
			Q	1		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	0	>	0	<	9	>	9	<	0	>	0	3
			V/C	<	0.00	>		<	0.00	>		<	0.02	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	1	>		<	0	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	2	>	2	<	10	>	10	<	0	>	0	5
			V/C	<	0.00	>		<	0.00	>		<	0.03	>		<	0.00	>		
			Q	<	0.0	>		<	0.1	>		<	0.6	>		<	0.0	>		
	Geddes St (WR18) & James St	TWSC	LOS					B		>	B		A	>	A	<	A		A	A
			Delay					11		>	11		0	>	0	<	5		5	6
			V/C					0.22		>			0.09	>		<	0.11			
			Q					6		>			0	>		<	3			
	Irvine St & Colborne St	AWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	8	>	8	<	8	>	8	<	8	>	8	<	9	>	9	9
			V/C	<	0.11	>		<	0.20	>		<	0.07	>		<	0.16	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	A	<	A	>	A	<	B	>	B	<	C	>	C	A
			Delay	<	0	>	0	<	0	>	0	<	15	>	15	<	16	>	16	2
			V/C	<	0.00	>		<	0.00	>		<	0.01	>		<	0.19	>		
			Q	<	0	>		<	0	>		<	0	>		<	5	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

TABLE 2.1B: BASE YEAR OPERATIONS (PM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		A		A	>	A					B		>	B	A
			Delay	<	0		0		0	>	0					10		>	10	0
			V/C	<	0.00				0.10	>						0.02		>		
			Q	<	0				0	>						0		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	A	<	A	>	A	<	B	>	B	<	B	>	B	A
			Delay	<	0	>	0	<	1	>	1	<	11	>	11	<	10	>	10	2
			V/C	<	0	>		<	0.02	>		<	0.08	>		<	0.02	>		
			Q	<	0	>		<	1	>		<	2	>		<	0	>		
	Irvine St & Bricker St	TWSC	LOS	A		>	A					<	A		A		A	>	A	A
			Delay	9		>	9					<	2		2		0	>	0	2
			V/C	0.02		>						<	0.01				0.03	>		
			Q	1		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	2	>	2	<	9	>	9	<	0	>	0	2
			V/C	<	0.00	>		<	0.01	>		<	0.01	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	0	>		<	0	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	3	>	3	<	10	>	10	<	0	>	0	3
			V/C	<	0.00	>		<	0.01	>		<	0.02	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	0	>		<	0	>		
	Geddes St (WR18) & James St	TWSC	LOS					B		>	B		A	>	A	<	A		A	A
			Delay					11		>	11		0	>	0	<	5		5	6
			V/C					0.24		>			0.06	>		<	0.11			
			Q					7		>			0	>		<	3			
	Irvine St & Colborne St	AWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	8	>	8	<	8	>	8	<	8	>	8	<	8	>	8	8
			V/C	<	0.18	>		<	0.17	>		<	0.06	>		<	0.12	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	B	>	B	A
			Delay	<	1	>	1	<	0	>	0	<	0	>	0	<	14	>	14	2
			V/C	<	0.01	>		<	0.00	>		<	0.00	>		<	0.11	>		
			Q	<	0	>		<	0	>		<	0	>		<	3	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

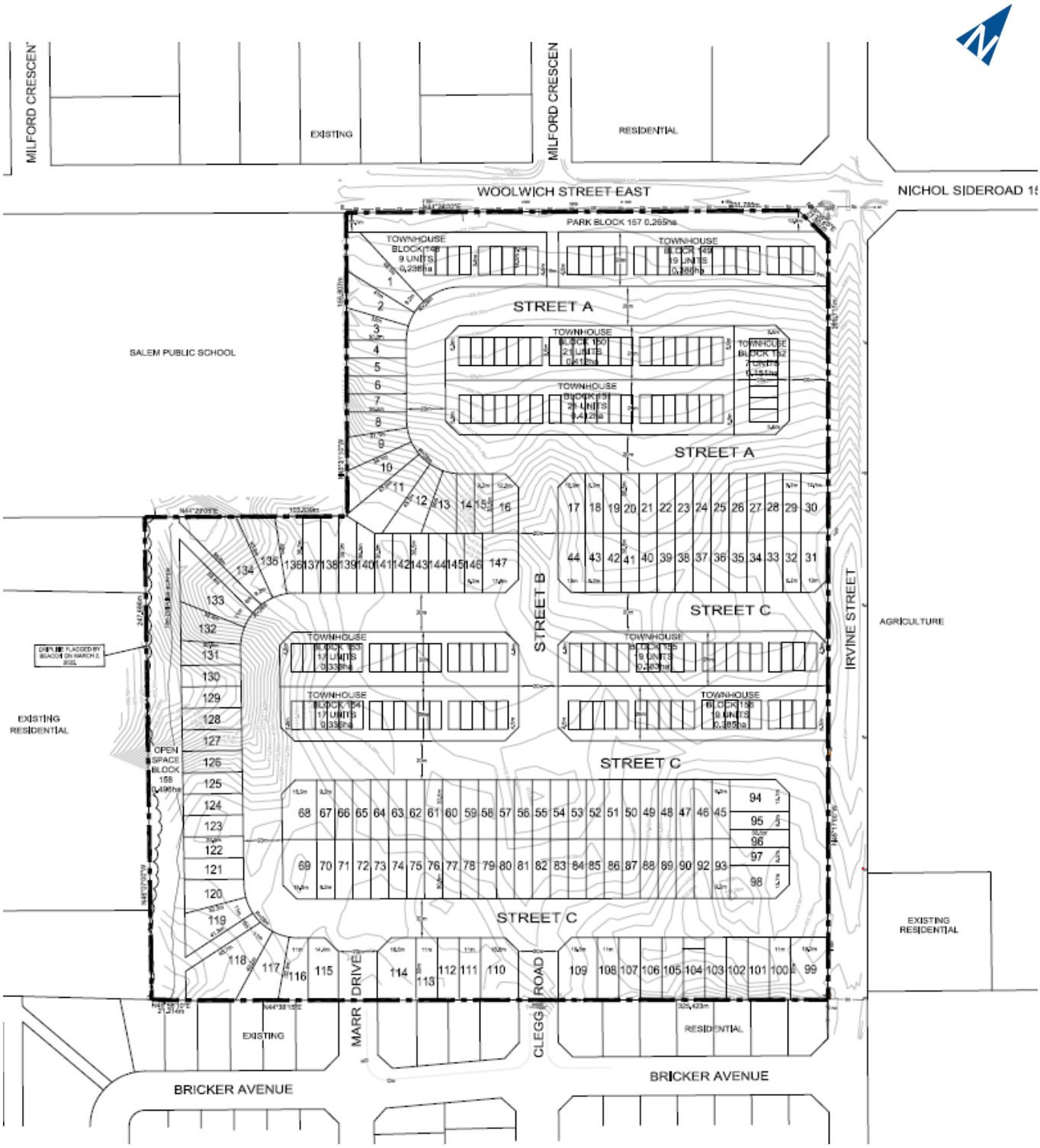
3 Development Concept

3.1 Development Description

The subject site is located in the southwest corner of Woolwich Street/Nichol Road 15 and Irvine Street in the community of Elora, Township of Centre Wellington. The property owner is proposing to develop the approximately 12.4-hectare block with 296 residential units comprised of 147 single detached and 149 townhomes.

Vehicle access is proposed via a new street connection to Irvine Street, and the continuation of Marr Drive and Clegg Road from Bricker Avenue. An emergency access is proposed from Street A to Irvine Street. This access would be restricted to emergency vehicles only.

Figure 3.1 shows the proposed development concept.



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Concept Plan

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Figure 3.1

3.2 Site Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation[4] methods are used to estimate the site trip generation. The following Land Use Code (LUC) was used to estimate the site trip generation:

- 210 – Single Family, Detached Housing (dwelling units);
- 220 – Multifamily Housing, Low-Rise (dwelling units).

The fitted curve equations were used to calculate the trips generated by the development. **Table 3.1** summarizes the estimated trip generation and is estimated to be approximately 175 AM peak hour trips and 228 PM peak hour trips. No reductions for alternative modes of transportation were used in the calculation.

TABLE 3.1: TRIP GENERATION

ITE Land Use	Units	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
210 - Single-Family, Detached Housing (Dwelling Units)	147	28	78	106	90	53	143
220 - Multifamily Housing, Low-Rise (Dwelling Units)	149	17	52	69	53	32	85
Total Trip Generation	**296**	**45**	**130**	**175**	**143**	**85**	**228**

210: AM Ln(T) = 0.91 Ln(X) + 0.12 | PM Ln(T) = 0.94 Ln(X) + 0.27
220: AM: T = 0.31(X) + 22.85 | PM T = 0.43(X) + 20.55

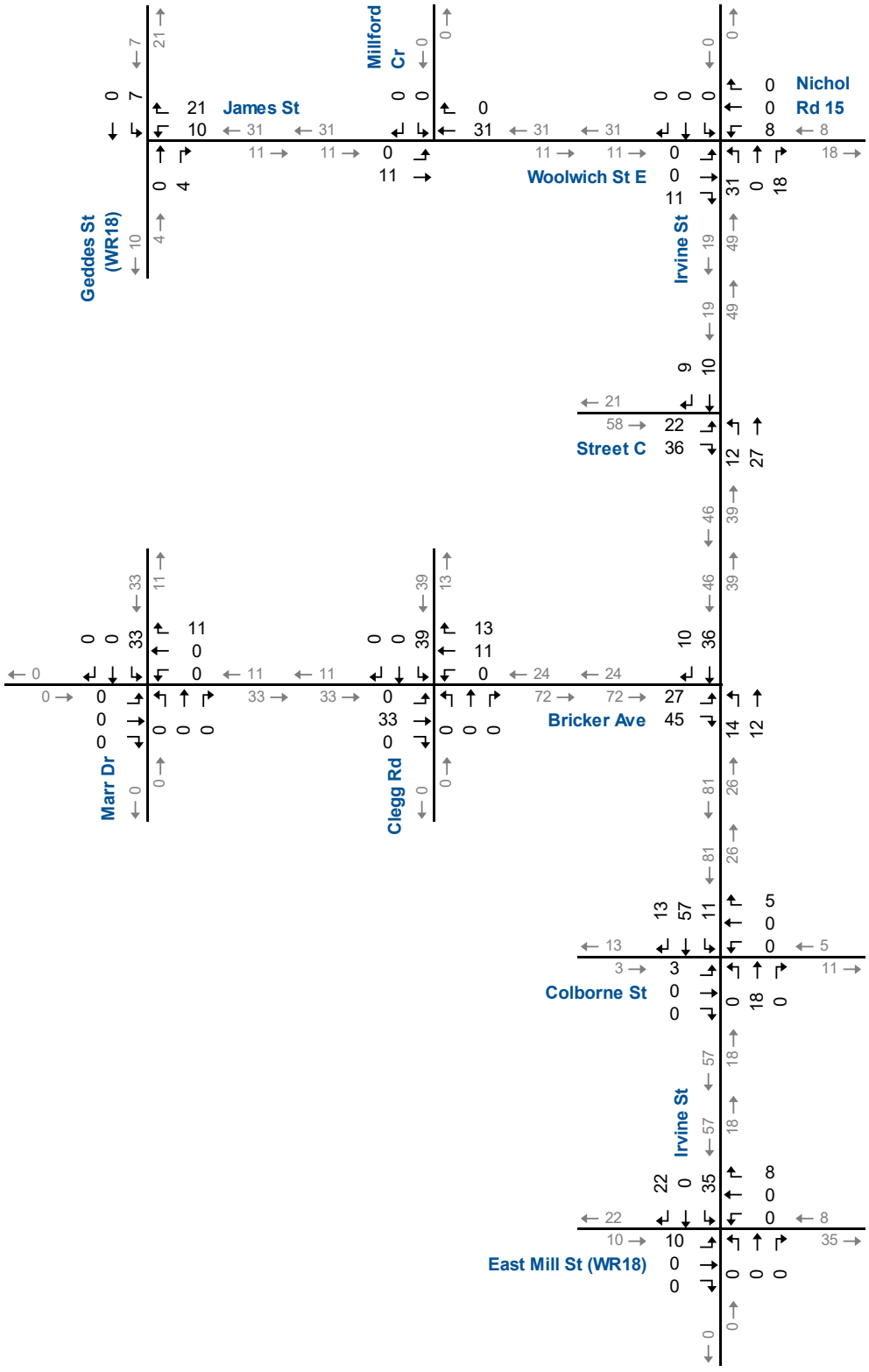
The trip distribution used for this study was based on the existing traffic patterns at the boundary study area intersections. These intersections provide access to the local arterial/collector network and provide access to the neighbouring communities as well as typical commuting patterns in the Township. The trip distribution is shown in **Table 3.2**.

[4] *Trip Generation Tenth Edition*, Institute of Transportation Engineers, Washington D.C., 2017

TABLE 3.2: TRIP DISTRIBUTION

Origin / Destination		AM Peak Hour		PM Peak Hour	
		Inbound	Outbound	Inbound	Outbound
North	Geddes Street (WR 18)	16%	16%	21%	16%
South	Geddes Street (WR 18)	10%	8%	8%	11%
East	Nichol Road 15	18%	14%	13%	16%
	Colborne Street	11%	8%	10%	12%
	East Mill Street (WR 18)	18%	27%	21%	17%
West	Colborne Street	6%	10%	10%	8%
	East Mill Street (WR 18)	23%	17%	17%	19%
Total		**100%**	**100%**	**100%**	**100%**

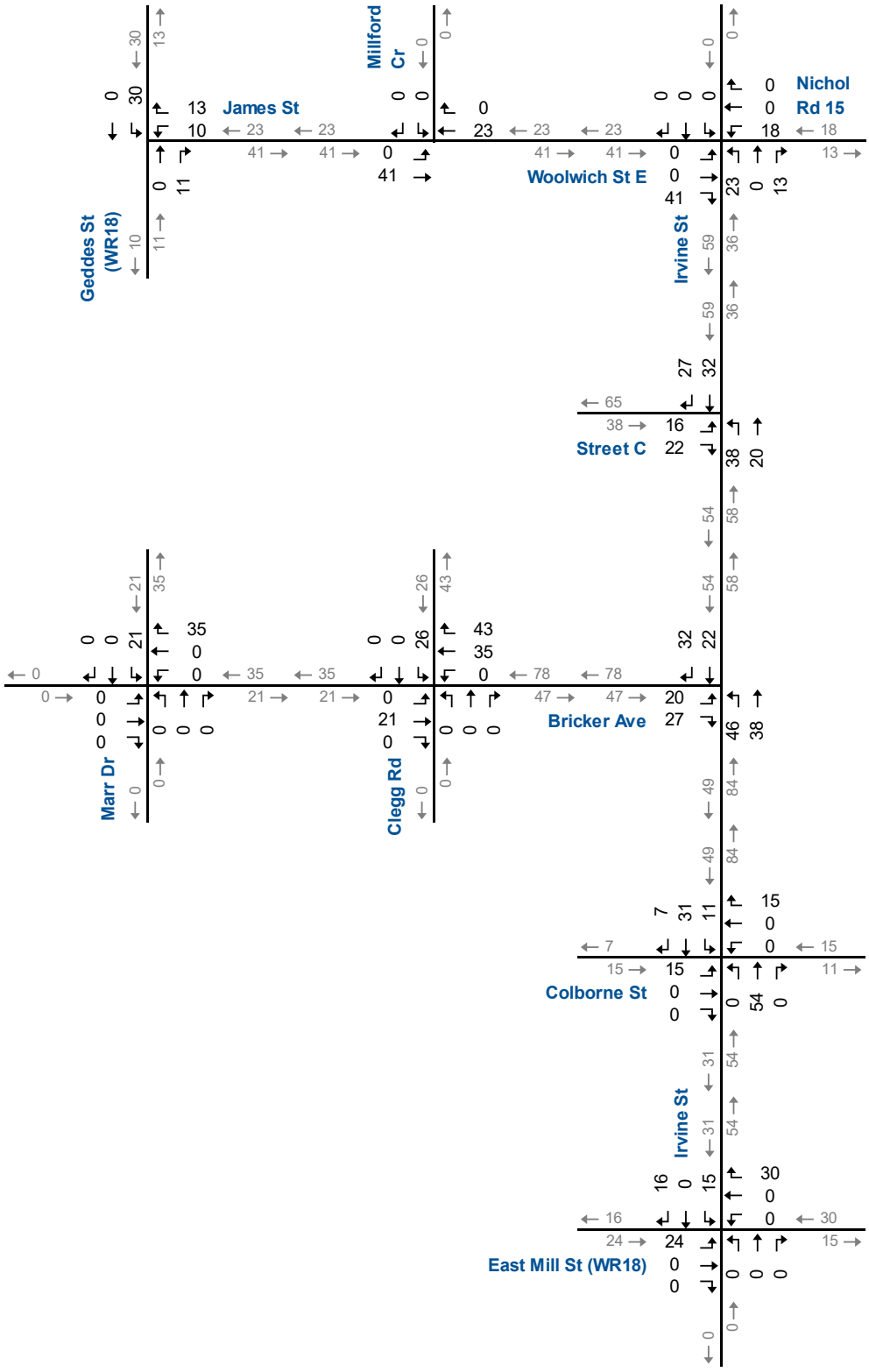
Figure 3.2A-B contains the AM and PM peak hour trip assignment, respectively



Site Generated Traffic Volumes AM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

Figure 3.2A



Site Generated Traffic Volumes PM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

Figure 3.2B

4 Evaluation of Future Traffic Conditions

The assessment of the future traffic conditions contained in this section includes the future traffic forecasts as well as the level of service analysis. An assumed full-build-out horizon (2026) and five-year horizon (2031) following from the assumed build-out date has been assessed to determine the impact of the subject site.

No changes to the road network traffic control and lane geometry has been assumed.

4.1 Forecast Traffic Volumes

The likely future traffic volumes are estimated to consist of:

- Increased non-site traffic (generalized background traffic growth) estimated to be 2.0 percent per annum as noted in the pre-study consultation;
- Traffic generated from the following developments:
  - Ainley Subdivision, Elora[5] - 251 residential units comprised of 126 single detached, 63 apartments, and 62 townhouse units; and
  - North West Fergus Secondary Plan[6] - a mixed-use site situated in the Colborne Street and Beatty Line area of the community of Fergus;
- Traffic generated by the subject site.

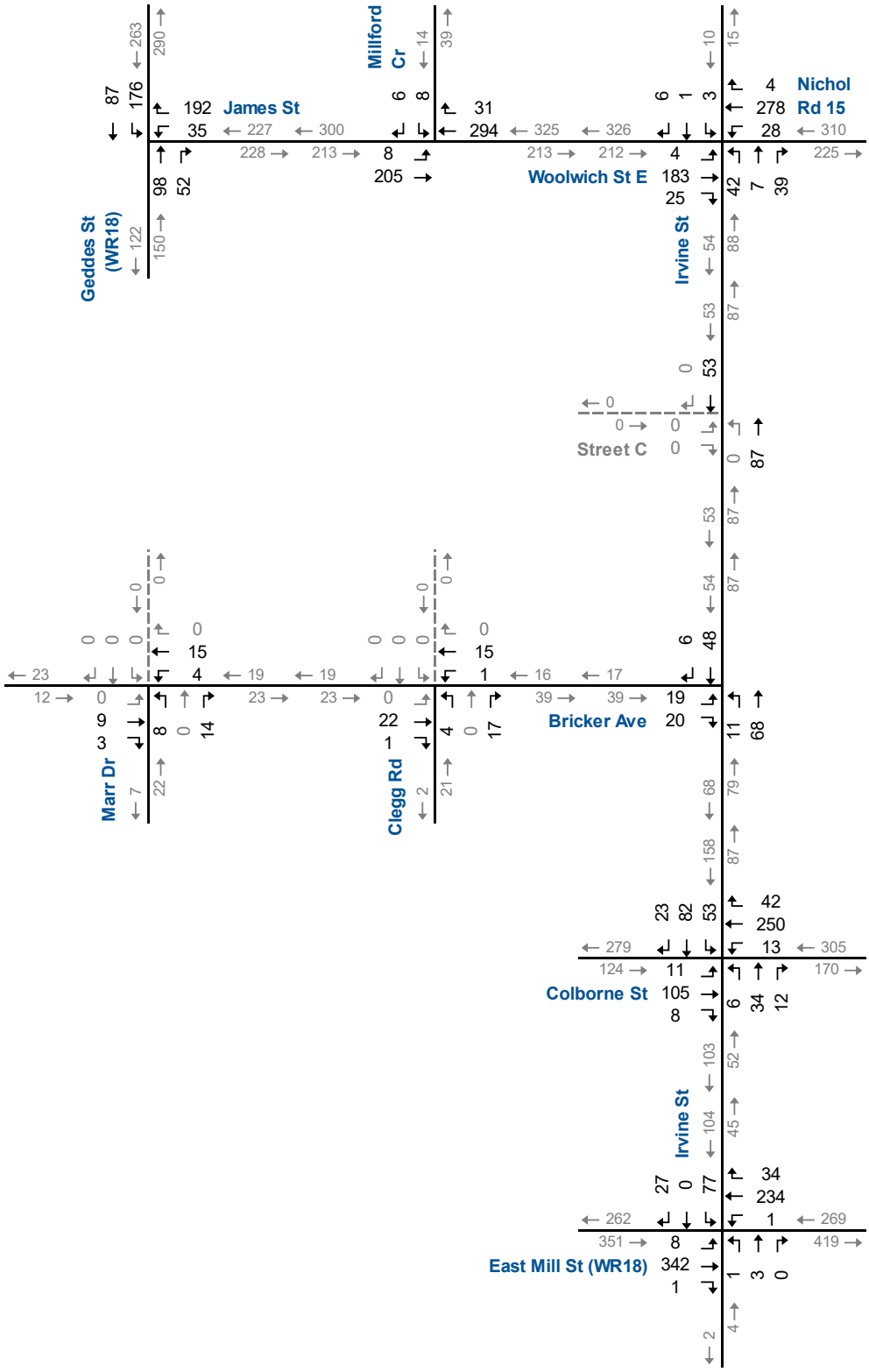
The traffic volumes from the background developments were obtained from their respective studies.

Appendix D contains the background development trip assignments.

Figure 4.1A-B details the forecast 2026 background traffic volumes for the weekday AM and PM peak hours, respectively. **Figure 4.2A-B** details the forecast 2031 background traffic volumes for the weekday AM and PM peak hours, respectively. **Figure 4.3A-B** details the forecast 2026 total traffic volumes for the weekday AM and PM peak hours, respectively. **Figure 4.4A-B** details the forecast 2031 total traffic volumes for the weekday AM and PM peak hours, respectively.

[5] Ainley Subdivision, Elora Transportation Impact Study, Paradigm Transportation Solution Limited, October 2017 (170136)

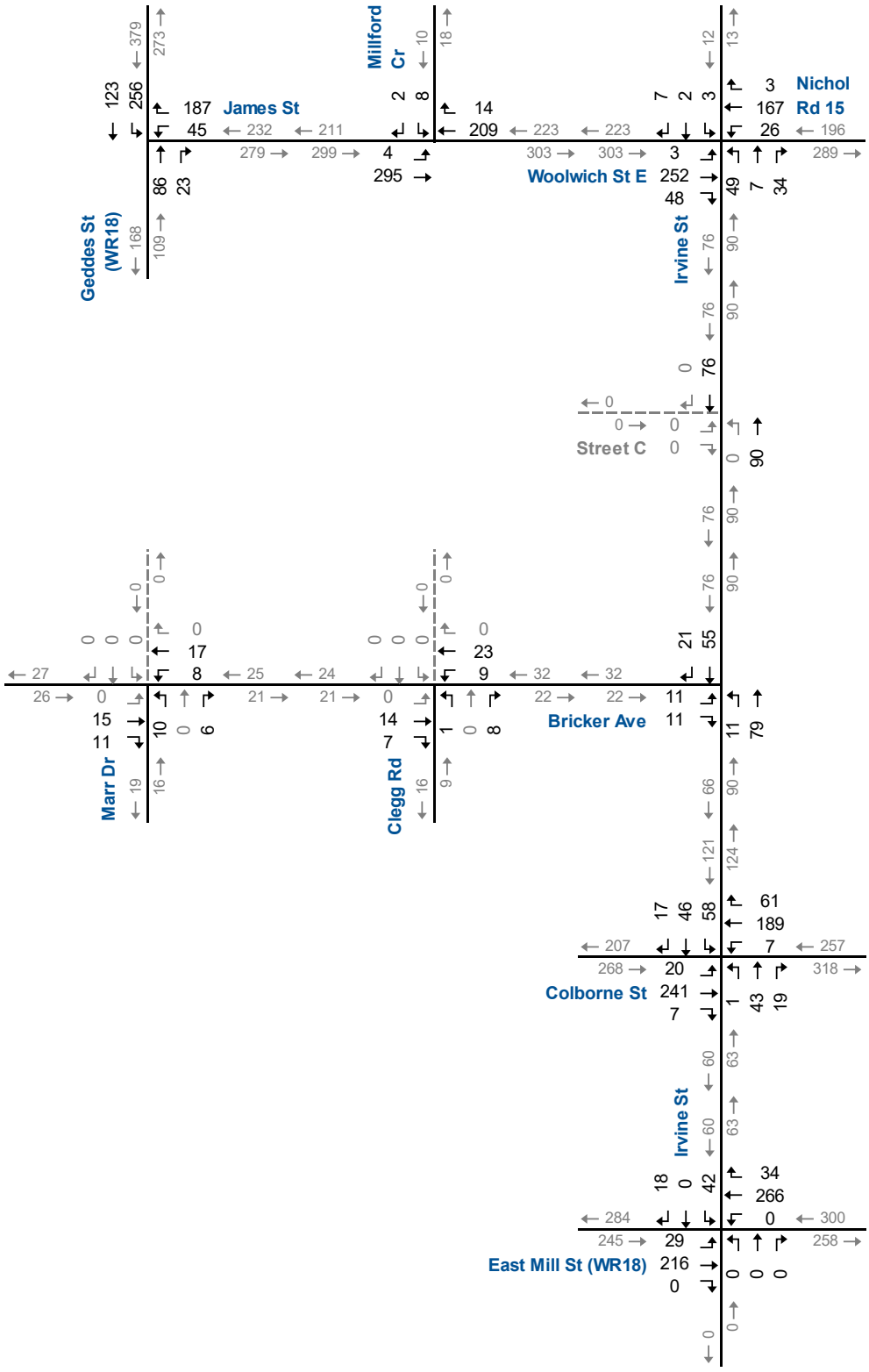
[6] Traffic Impact Study in support of Draft Plan Approval (Phases 2 & 3), Township of Centre Wellington North West Fergus Secondary Plan, RJ Burnside & Associates Limited, December 2016



2026 Background Traffic Volumes AM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

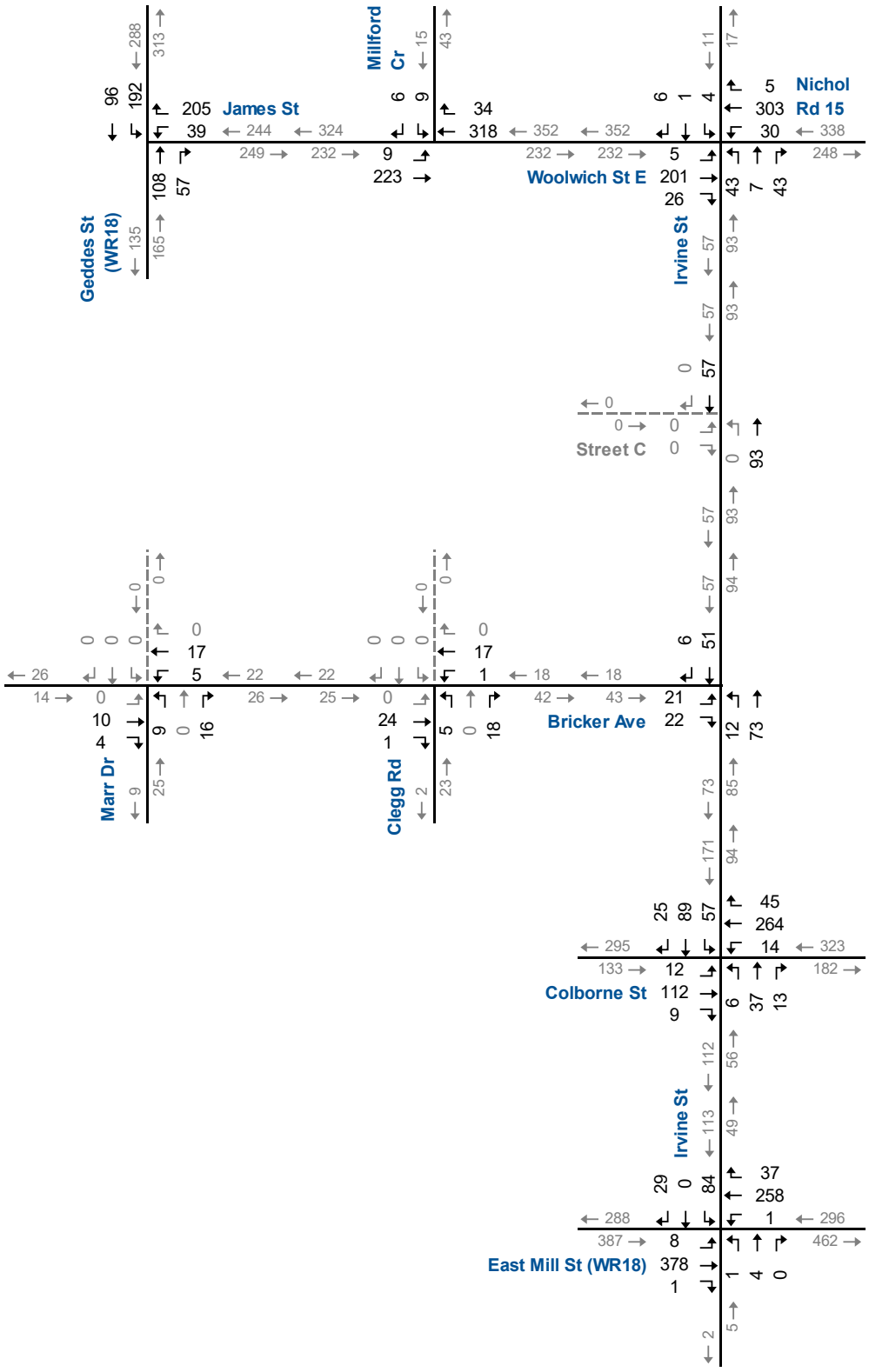
Figure 4.1A



2026 Background Traffic Volumes PM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

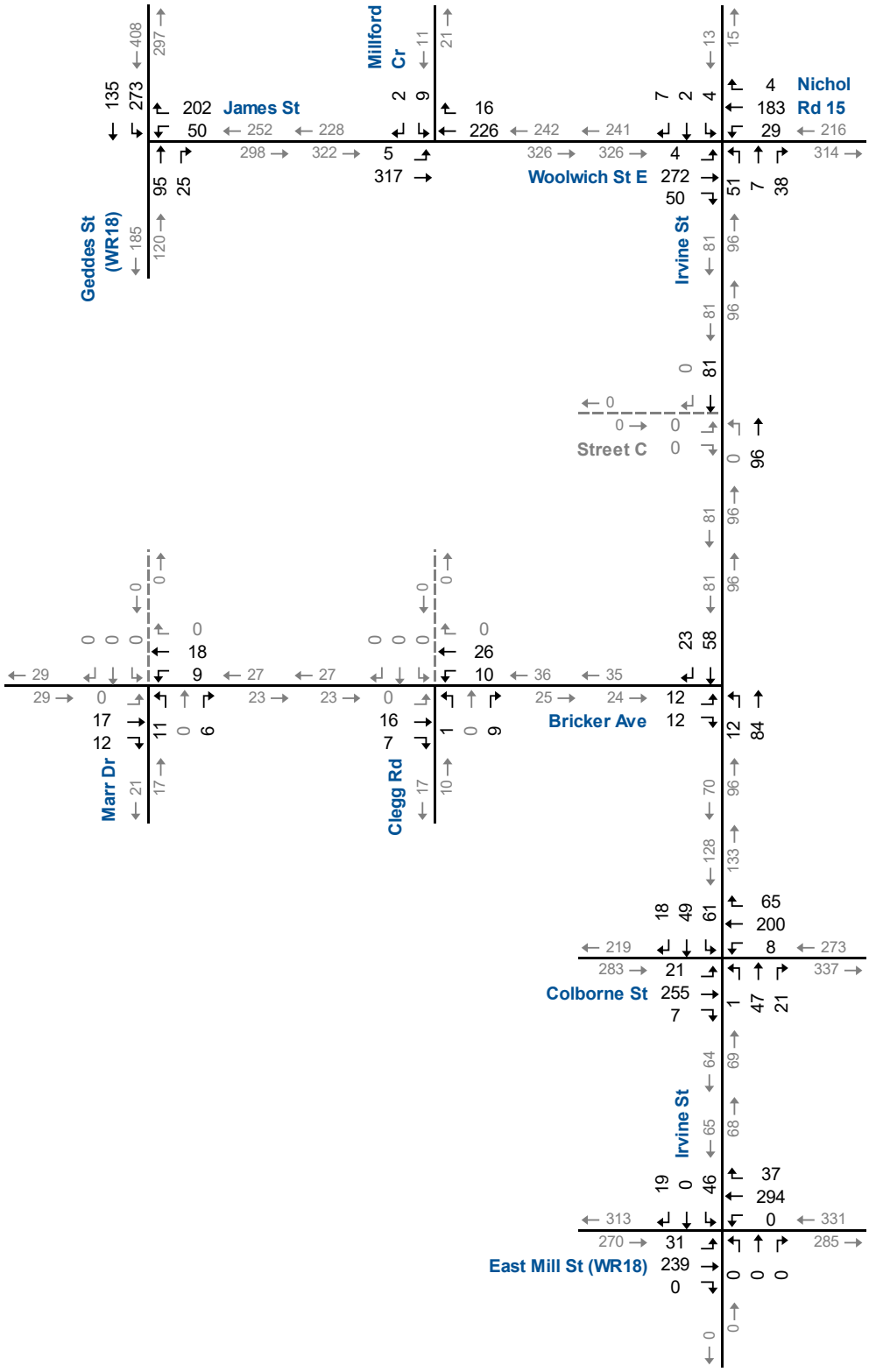
Figure 4.1B



2031 Background Traffic Volumes AM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

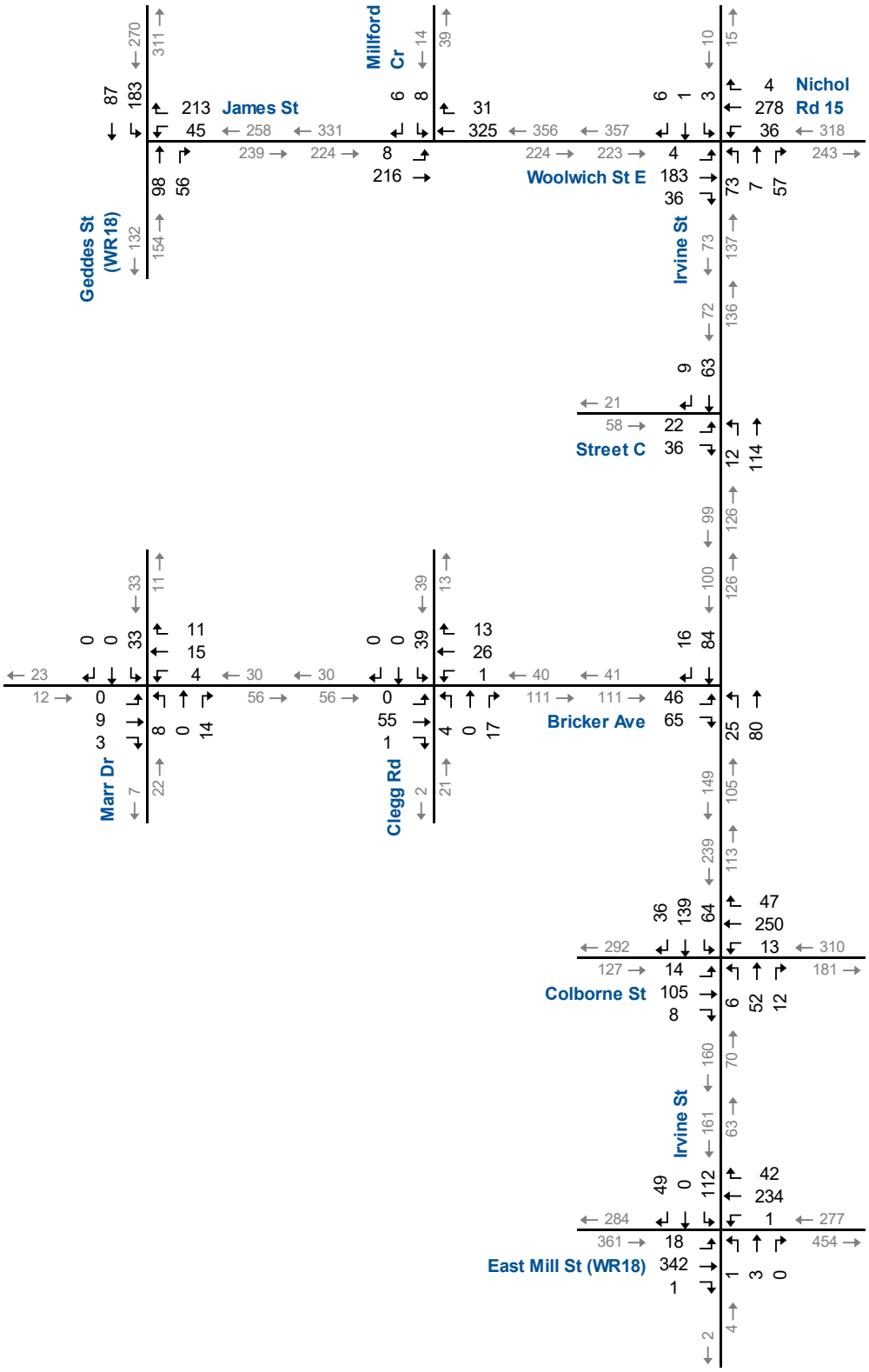
Figure 4.2A



2031 Background Traffic Volumes PM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

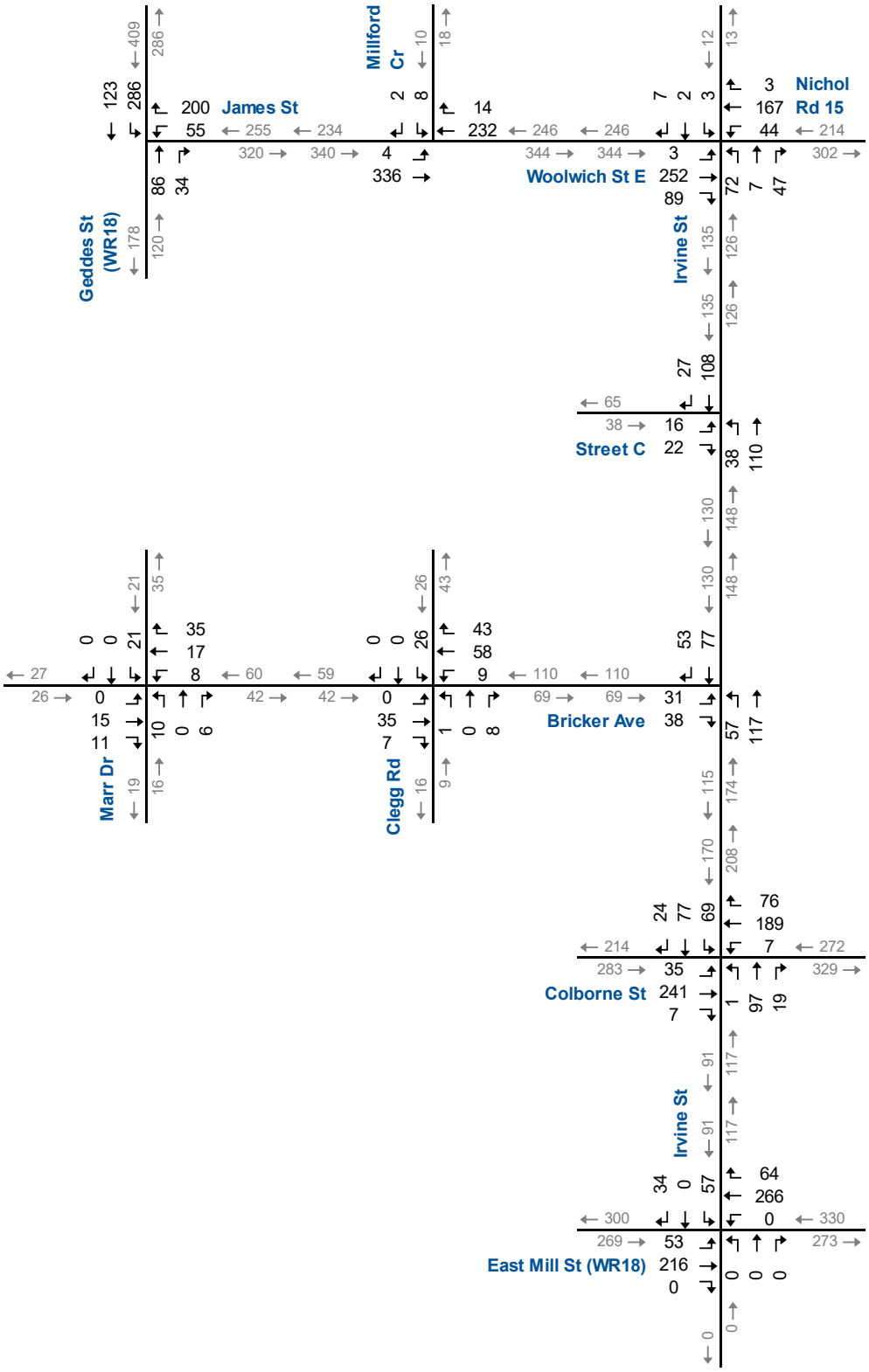
Figure 4.2B



2026 Total Traffic Volumes AM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

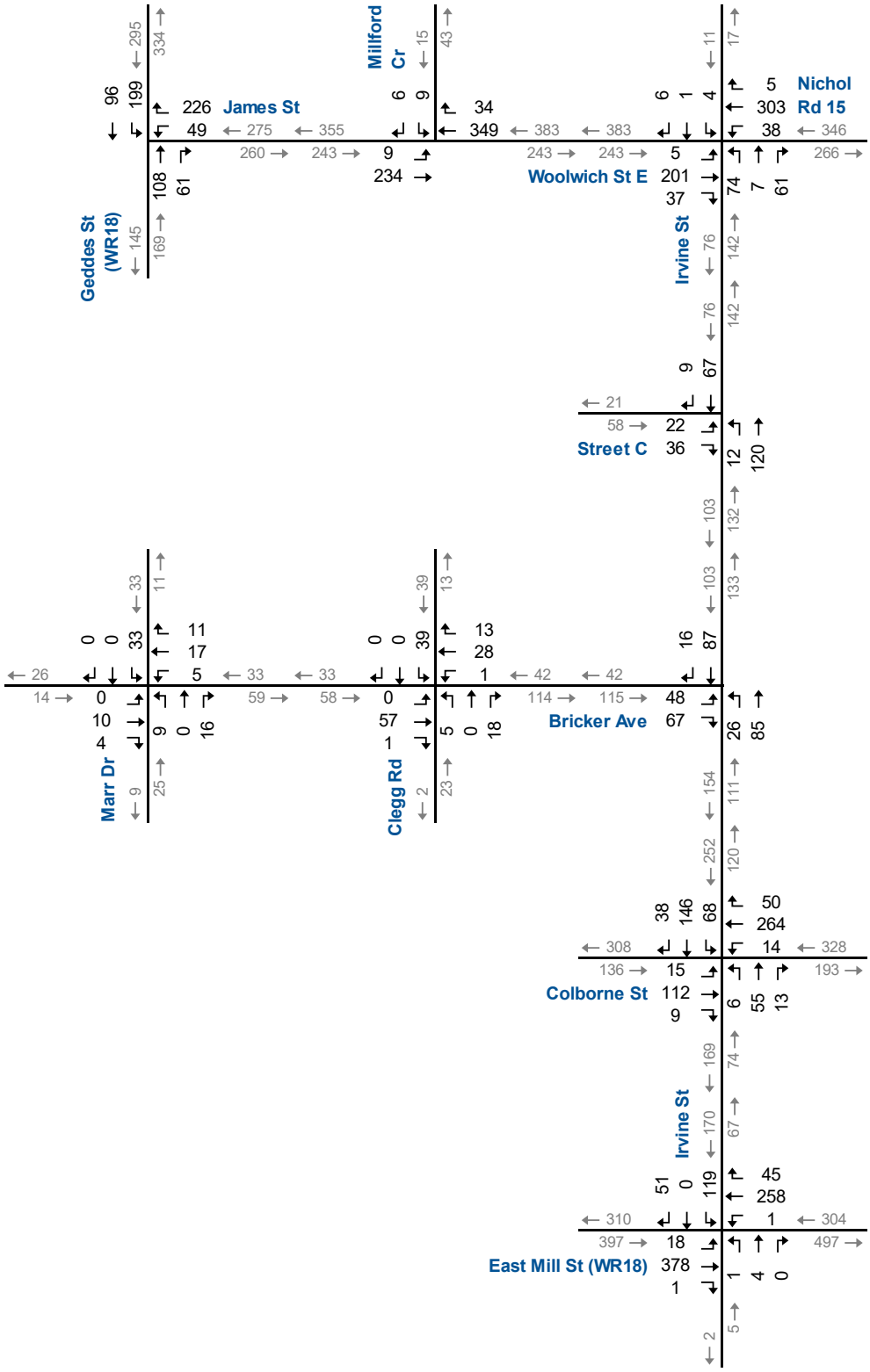
Figure 4.3A



2026 Total Traffic Volumes PM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

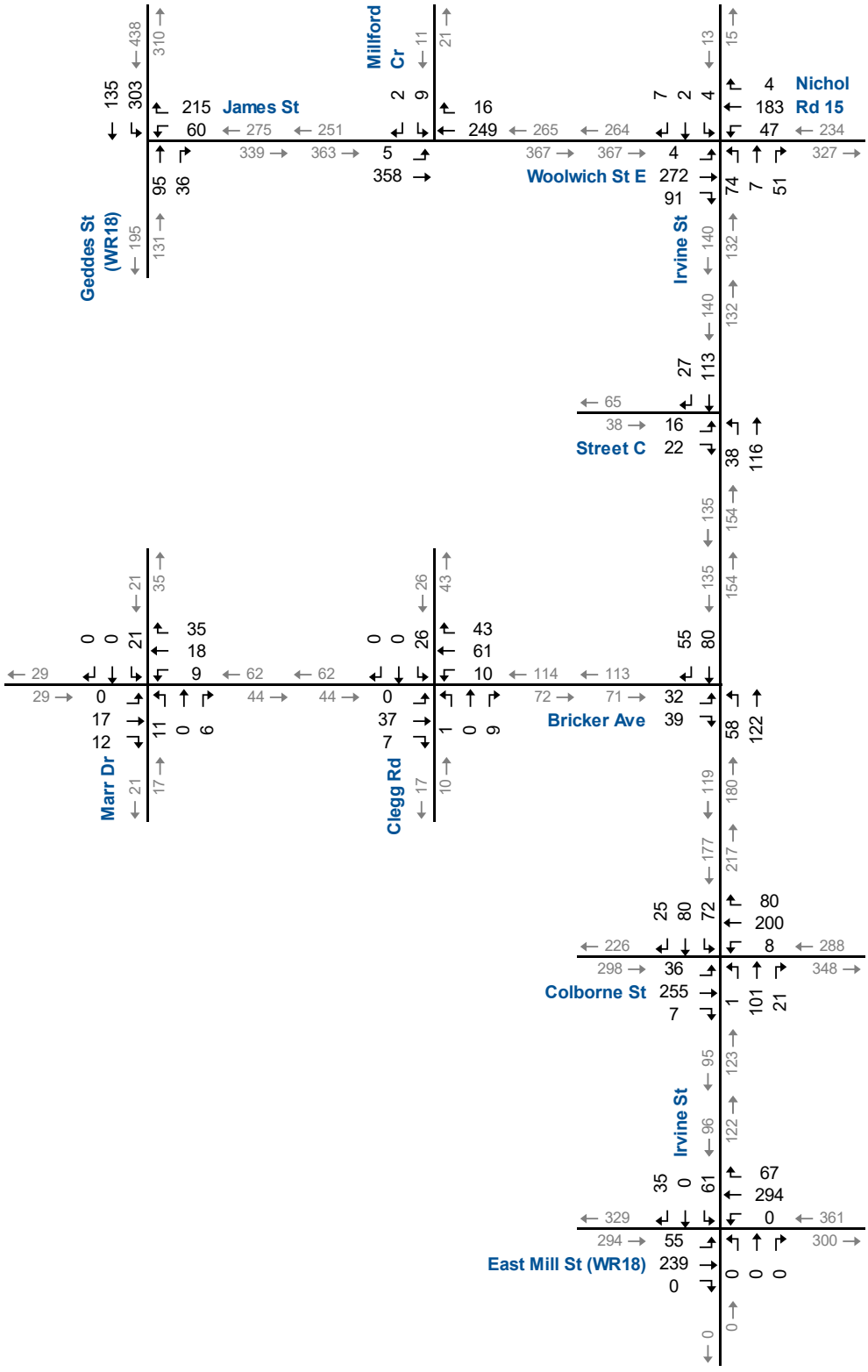
Figure 4.3B



2031 Total Traffic Volumes AM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

Figure 4.4A



2031 Total Traffic Volumes PM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

Figure 4.4B

4.2 Forecast Traffic Operations

4.2.1 2026 Background Traffic Operations

The study area intersection operations analysis for the 2026 background traffic scenario followed the same methodology used for the existing traffic conditions with the existing lane configurations. **Table 4.1A-B** details the level of service conditions for the weekday AM and PM peak hours, respectively.

The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements for the weekday AM and PM peak hours.

Appendix E1 contains the detailed Synchro 10 reports.

TABLE 4.1A: 2026 BACKGROUND OPERATIONS (AM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		**A**		A	>	**A**					B		>	**B**	**A**
			Delay	<	0		**0**		0	>	**0**					12		>	**12**	**1**
			V/C	<	0.01				0.21	>						0.03		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	B	>	**B**	<	B	>	**B**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	13	>	**13**	<	12	>	**12**	**3**
			V/C	<	0.00	>		<	0.02	>		<	0.18	>		<	0.02	>		
			Q	<	0	>		<	1	>		<	5	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	A		>	**A**					<	A		**A**		A	>	**A**	**A**
			Delay	9		>	**9**					<	1		**1**		0	>	**0**	**3**
			V/C	0.05		>						<	0.01				0.03	>		
			Q	1		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	0	>	**0**	<	9	>	**9**	<	0	>	**0**	**3**
			V/C	<	0.00	>		<	0.00	>		<	0.02	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	1	>		<	0	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	2	>	**2**	<	10	>	**10**	<	0	>	**0**	**5**
			V/C	<	0.00	>		<	0.00	>		<	0.03	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	1	>		<	0	>		
	Geddes St (WR18) & James St	TWSC	LOS					B		>	**B**		A	>	**A**	<	A		**A**	**A**
			Delay					12		>	**12**		0	>	**0**	<	6		**6**	**7**
			V/C					0.34		>			0.10	>		<	0.14			
			Q					11		>			0	>		<	4			
	Irvine St & Colborne St	AWSC	LOS	<	A	>	**A**	<	B	>	**B**	<	A	>	**A**	<	B	>	**B**	**B**
			Delay	<	9	>	**9**	<	11	>	**11**	<	9	>	**9**	<	10	>	**10**	**11**
			V/C	<	0.19	>		<	0.44	>		<	0.09	>		<	0.26	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	<	C	>	**C**	**A**
			Delay	<	0	>	**0**	<	0	>	**0**	<	16	>	**16**	<	18	>	**18**	**3**
			V/C	<	0.01	>		<	0.00	>		<	0.01	>		<	0.30	>		
			Q	<	0	>		<	0	>		<	0	>		<	9	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

TABLE 4.1B: 2026 BACKGROUND OPERATIONS (PM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		**A**		A	>	**A**					B		>	**B**	**A**
			Delay	<	0		**0**		0	>	**0**					12		>	**12**	**0**
			V/C	<	0				0.14	>						0.02		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	B	>	**B**	<	B	>	**B**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	14	>	**14**	<	11	>	**11**	**3**
			V/C	<	0.00	>		<	0.02	>		<	0.19	>		<	0.02	>		
			Q	<	0	>		<	1	>		<	5	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	A		>	**A**					<	A		**A**		A	>	**A**	**A**
			Delay	9		>	**9**					<	1		**1**		0	>	**0**	**2**
			V/C	0.03		>						<	0.01				0.05	>		
			Q	1		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	2	>	**2**	<	9	>	**9**	<	0	>	**0**	**2**
			V/C	<	0.00	>		<	0.01	>		<	0.01	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	0	>		<	0	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	3	>	**3**	<	10	>	**10**	<	0	>	**0**	**3**
			V/C	<	0.00	>		<	0.01	>		<	0.02	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	1	>		<	0	>		
	Geddes St (WR18) & James St	TWSC	LOS					B		>	**B**		A	>	**A**	<	A		**A**	**A**
			Delay					14		>	**14**		0	>	**0**	<	6		**6**	**8**
			V/C					0.39		>			0.07	>		<	0.19			
			Q					14		>			0	>		<	5			
	Irvine St & Colborne St	AWSC	LOS	<	B	>	**B**	<	B	>	**B**	<	A	>	**A**	<	B	>	**B**	**B**
			Delay	<	11	>	**11**	<	10	>	**10**	<	9	>	**9**	<	10	>	**10**	**11**
			V/C	<	0.40	>		<	0.37	>		<	0.11	>		<	0.21	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	**A**
			Delay	<	1	>	**1**	<	0	>	**0**	<	0	>	**0**	<	16	>	**16**	**2**
			V/C	<	0.03	>		<	0.00	>		<	0.00	>		<	0.16	>		
			Q	<	1	>		<	0	>		<	0	>		<	4	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

4.2.2 2031 Background Traffic Operations

The study area intersection operations analysis for the 2031 background traffic scenario followed the same methodology used for the existing traffic conditions with the existing lane configurations. **Table 4.2A-B** details the level of service conditions for the weekday AM and PM peak hours, respectively.

The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements for the weekday AM and PM peak hours.

Appendix E2 contains the detailed Synchro 10 reports.

TABLE 4.2A: 2031 BACKGROUND OPERATIONS (AM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		A		A	>	A					B		>	B	A
			Delay	<	0		0		0	>	0					12		>	12	1
			V/C	<	0.01				0.23	>						0.03		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	A	<	A	>	A	<	B	>	B	<	B	>	B	A
			Delay	<	0	>	0	<	1	>	1	<	14	>	14	<	13	>	13	3
			V/C	<	0.00	>		<	0.03	>		<	0.21	>		<	0.02	>		
			Q	<	0	>		<	1	>		<	6	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	A		>	A					<	A		A		A	>	A	A
			Delay	9		>	9					<	1		1		0	>	0	3
			V/C	0.05		>						<	0.01				0.04	>		
			Q	1		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	0	>	0	<	9	>	9	<	0	>	0	3
			V/C	<	0.00	>		<	0.00	>		<	0.02	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	1	>		<	0	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	2	>	2	<	10	>	10	<	0	>	0	5
			V/C	<	0.00	>		<	0.00	>		<	0.03	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	1	>		<	0	>		
	Geddes St (WR18) & James St	TWSC	LOS					B		>	B		A	>	A	<	A		A	A
			Delay					13		>	13		0	>	0	<	6		6	7
			V/C					0.38		>			0.11	>		<	0.15			
			Q					13		>			0	>		<	4			
	Irvine St & Colborne St	AWSC	LOS	<	A	>	A	<	B	>	B	<	A	>	A	<	B	>	B	B
			Delay	<	10	>	10	<	12	>	12	<	10	>	10	<	11	>	11	11
			V/C	<	0.21	>		<	0.47	>		<	0.10	>		<	0.28	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	A	<	A	>	A	<	C	>	C	<	C	>	C	A
			Delay	<	0	>	0	<	0	>	0	<	17	>	17	<	21	>	21	3
			V/C	<	0.01	>		<	0.00	>		<	0.02	>		<	0.36	>		
			Q	<	0	>		<	0	>		<	0	>		<	12	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

TABLE 4.2B: 2031 BACKGROUND OPERATIONS (PM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		A		A	>	A					B		>	B	A
			Delay	<	0		0		0	>	0					12		>	12	0
			V/C	<	0.00				0.15	>						0.02		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	A	<	A	>	A	<	B	>	B	<	B	>	B	A
			Delay	<	0	>	0	<	1	>	1	<	14	>	14	<	12	>	12	3
			V/C	<	0.00	>		<	0.03	>		<	0.22	>		<	0.03	>		
			Q	<	0	>		<	1	>		<	6	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	A		>	A					<	A		A		A	>	A	A
			Delay	9		>	9					<	1		1		0	>	0	2
			V/C	0.03		>						<	0.01				0.05	>		
			Q	1		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	2	>	2	<	9	>	9	<	0	>	0	2
			V/C	<	0.00	>		<	0.01	>		<	0.01	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	0	>		<	0	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	3	>	3	<	10	>	10	<	0	>	0	3
			V/C	<	0.00	>		<	0.01	>		<	0.02	>		<	0.00	>		
			Q	<	0	>		<	0	>		<	1	>		<	0	>		
	Geddes St (WR18) & James St	TWSC	LOS					C		>	C		A	>	A	<	A		A	A
			Delay					16		>	16		0	>	0	<	6		6	8
			V/C					0.45		>			0.08	>		<	0.21			
			Q					18		>			0	>		<	6			
	Irvine St & Colborne St	AWSC	LOS	<	B	>	B	<	B	>	B	<	A	>	A	<	B	>	B	B
			Delay	<	12	>	12	<	11	>	11	<	10	>	10	<	10	>	10	11
			V/C	<	0.43	>		<	0.40	>		<	0.12	>		<	0.22	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	C	>	C	A
			Delay	<	1	>	1	<	0	>	0	<	0	>	0	<	17	>	17	2
			V/C	<	0.03	>		<	0.00	>		<	0.00	>		<	0.19	>		
			Q	<	1	>		<	0	>		<	0	>		<	5	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

4.2.3 2026 Total Traffic Operations

The study area intersection operations analysis for the future total traffic scenario followed the same methodology used for the 2026 background traffic conditions. **Table 4.3A-B** details the level of service conditions for the weekday AM and PM peak hours, respectively.

The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements for the weekday AM and PM peak hours.

Appendix F1 contains the detailed Synchro 10 reports.

The new municipal roadway approach to Irvine Street is forecast to operate at LOS A and v/c ratio of 0.07 or lower during the AM and PM peak hours.

The addition of the site generated traffic increases the overall intersection delay by two seconds or less during the AM and PM peak hours.

Site traffic impacts are minimal with minor changes in delay at the study area intersections.

TABLE 4.3A: 2026 TOTAL OPERATIONS (AM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		**A**		A	>	**A**					B		>	**B**	**A**
			Delay	<	0		**0**		0	>	**0**					12		>	**12**	**1**
			V/C	<	0.01				0.23	>						0.03		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	<	B	>	**B**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	15	>	**15**	<	12	>	**12**	**4**
			V/C	<	0.00	>		<	0.03	>		<	0.30	>		<	0.02	>		
			Q	<	0	>		<	1	>		<	9	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	B		>	**B**					<	A		**A**		A	>	**A**	**A**
			Delay	10		>	**10**					<	2		**2**		0	>	**0**	**4**
			V/C	0.15		>						<	0.02				0.06	>		
			Q	4		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	0	>	**0**	<	9	>	**9**	<	10	>	**10**	**4**
			V/C	<	0.00	>		<	0.00	>		<	0.02	>		<	0.05	>		
			Q	<	0	>		<	0	>		<	1	>		<	1	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	10	>	**10**	<	9	>	**9**	**6**
			V/C	<	0.00	>		<	0.00	>		<	0.03	>		<	0.04	>		
			Q	<	0	>		<	0	>		<	1	>		<	1	>		
	Geddes St (WR18) & James St	TWSC	LOS					B		>	**B**		A	>	**A**	<	A		**A**	**A**
			Delay					13		>	**13**		0	>	**0**	<	6		**6**	**7**
			V/C					0.40		>			0.10	>		<	0.15			
			Q					15		>			0	>		<	4			
	Irvine St & Colborne St	AWSC	LOS	<	A	>	**A**	<	B	>	**B**	<	A	>	**A**	<	B	>	**B**	**B**
			Delay	<	10	>	**10**	<	13	>	**13**	<	10	>	**10**	<	12	>	**12**	**12**
			V/C	<	0.21	>		<	0.48	>		<	0.13	>		<	0.40	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	<	C	>	**C**	**A**
			Delay	<	1	>	**1**	<	0	>	**0**	<	17	>	**17**	<	23	>	**23**	**5**
			V/C	<	0.02	>		<	0.00	>		<	0.01	>		<	0.47	>		
			Q	<	0	>		<	0	>		<	0	>		<	18	>		
	Irvine St & Street C	TWSC	LOS	A		>	**A**					<	A		**A**		A	>	**A**	**A**
			Delay	9		>	**9**					<	1		**1**		0	>	**0**	**3**
			V/C	0.07		>						<	0.01				0.05	>		
			Q	2		>						<	0				0	>		

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds
V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

TABLE 4.3B: 2026 TOTAL OPERATIONS (PM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		A		A	>	A					B		>	B	A
			Delay	<	0		0		0	>	0					13		>	13	0
			V/C	<	0.00				0.16	>						0.02		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	A	<	A	>	A	<	C	>	C	<	B	>	B	A
			Delay	<	0	>	0	<	2	>	2	<	16	>	16	<	12	>	12	4
			V/C	<	0	>		<	0.04	>		<	0.29	>		<	0.02	>		
			Q	<	0	>		<	1	>		<	9	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	B		>	B					<	A		A		A	>	A	A
			Delay	11		>	11					<	3		3		0	>	0	3
			V/C	0.10		>						<	0.04				0.08	>		
			Q	3		>						<	1				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	1	>	1	<	9	>	9	<	10	>	10	2
			V/C	<	0.00	>		<	0.01	>		<	0.01	>		<	0.04	>		
			Q	<	0	>		<	0	>		<	0	>		<	1	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	A
			Delay	<	0	>	0	<	1	>	1	<	10	>	10	<	9	>	9	3
			V/C	<	0.00	>		<	0.01	>		<	0.02	>		<	0.03	>		
			Q	<	0	>		<	0	>		<	1	>		<	1	>		
	Geddes St (WR18) & James St	TWSC	LOS					C		>	C		A	>	A	<	A		A	A
			Delay					17		>	17		0	>	0	<	6		6	9
			V/C					0.47		>			0.08	>		<	0.22			
			Q					19		>			0	>		<	6			
	Irvine St & Colborne St	AWSC	LOS	<	B	>	B	<	B	>	B	<	B	>	B	<	B	>	B	B
			Delay	<	13	>	13	<	12	>	12	<	11	>	11	<	12	>	12	12
			V/C	<	0.46	>		<	0.43	>		<	0.22	>		<	0.31	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	C	>	C	A
			Delay	<	2	>	2	<	0	>	0	<	0	>	0	<	18	>	18	3
			V/C	<	0.05	>		<	0.00	>		<	0.00	>		<	0.26	>		
			Q	<	1	>		<	0	>		<	0	>		<	8	>		
	Irvine St & Street C	TWSC	LOS	A		>	A					<	A		A		A	>	A	A
			Delay	10		>	10					<	2		2		0	>	0	2
			V/C	0.05		>						<	0.03				0.09	>		
			Q	1		>						<	1				0	>		

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AWSC - All-Way Stop Control
< / > - Shared with through movement

4.2.4 2031 Total Traffic Operations

The study area intersection operations analysis for the future total traffic scenario followed the same methodology used for the 2030 background traffic conditions. **Table 4.4A-B** details the level of service conditions for the weekday AM and PM peak hours, respectively.

The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements for the weekday AM and PM peak hours.

Appendix F1 contains the detailed Synchro 10 reports.

The new municipal roadway approach to Irvine Street is forecast to operate at LOS A and v/c ratio of 0.07 or lower during the AM and PM peak hours.

The addition of the site generated traffic increases the overall intersection delay by three seconds or less during the AM and PM peak hours.

Site traffic impacts are minimal with minor changes in delay at the study area intersections.

TABLE 4.4A: 2031 TOTAL OPERATIONS (AM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		**A**		A	>	**A**					B		>	**B**	**A**
			Delay	<	0		**0**		0	>	**0**					13		>	**13**	**1**
			V/C	<	0.01				0.24	>						0.03		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	<	B	>	**B**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	16	>	**16**	<	13	>	**13**	**4**
			V/C	<	0.00	>		<	0.03	>		<	0.33	>		<	0.03	>		
			Q	<	0	>		<	1	>		<	11	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	B		>	**B**					<	A		**A**		A	>	**A**	**A**
			Delay	10		>	**10**					<	2		**2**		0	>	**0**	**4**
			V/C	0.15		>						<	0.02				0.07	>		
			Q	4		>						<	0				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	0	>	**0**	<	9	>	**9**	<	10	>	**10**	**4**
			V/C	<	0.00	>		<	0.00	>		<	0.03	>		<	0.05	>		
			Q	<	0	>		<	0	>		<	1	>		<	1	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	10	>	**10**	<	9	>	**9**	**6**
			V/C	<	0.00	>		<	0.00	>		<	0.03	>		<	0.04	>		
			Q	<	0	>		<	0	>		<	1	>		<	1	>		
	Geddes St (WR18) & James St	TWSC	LOS					B		>	**B**		A	>	**A**	<	A		**A**	**A**
			Delay					15		>	**15**		0	>	**0**	<	6		**6**	**8**
			V/C					0.44		>			0.11	>		<	0.16			
			Q					17		>			0	>		<	4			
	Irvine St & Colborne St	AWSC	LOS	<	B	>	**B**	<	B	>	**B**	<	B	>	**B**	<	B	>	**B**	**B**
			Delay	<	10	>	**10**	<	14	>	**14**	<	10	>	**10**	<	13	>	**13**	**13**
			V/C	<	0.23	>		<	0.52	>		<	0.14	>		<	0.43	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	<	D	>	**D**	**A**
			Delay	<	1	>	**1**	<	0	>	**0**	<	18	>	**18**	<	28	>	**28**	**6**
			V/C	<	0.02	>		<	0.00	>		<	0.02	>		<	0.54	>		
			Q	<	0	>		<	0	>		<	0	>		<	23	>		
	Irvine St & Street C	TWSC	LOS	A		>	**A**					<	A		**A**		A	>	**A**	**A**
			Delay	9		>	**9**					<	1		**1**		0	>	**0**	**2**
			V/C	0.07		>						<	0.01				0.05	>		
			Q	2		>						<	0				0	>		

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Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

TABLE 4.4B: 2031 TOTAL OPERATIONS (PM PEAK HOUR)

Analysis Period	Intersection	Control Type	MOE	Direction/Movement/Approach																	
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	Woolwich St & Milford Cres	TWSC	LOS	<	A		**A**		A	>	**A**					B		>	**B**	**A**
			Delay	<	0		**0**		0	>	**0**					13		>	**13**	**0**
			V/C	<	0.00				0.17	>						0.03		>		
			Q	<	0				0	>						1		>		
	Irvine St & Woolwich St/Nichol Rd 15	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	<	B	>	**B**	**A**
			Delay	<	0	>	**0**	<	2	>	**2**	<	17	>	**17**	<	12	>	**12**	**4**
			V/C	<	0.00	>		<	0.05	>		<	0.33	>		<	0.03	>		
			Q	<	0	>		<	1	>		<	11	>		<	1	>		
	Irvine St & Bricker St	TWSC	LOS	B		>	**B**					<	A		**A**		A	>	**A**	**A**
			Delay	11		>	**11**					<	3		**3**		0	>	**0**	**3**
			V/C	0.11		>						<	0.04				0.09	>		
			Q	3		>						<	1				0	>		
	Clegg Rd & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	9	>	**9**	<	10	>	**10**	**2**
			V/C	<	0.00	>		<	0.01	>		<	0.01	>		<	0.04	>		
			Q	<	0	>		<	0	>		<	0	>		<	1	>		
	Marr Dr & Bricker St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	**A**
			Delay	<	0	>	**0**	<	1	>	**1**	<	10	>	**10**	<	9	>	**9**	**3**
			V/C	<	0	>		<	0.01	>		<	0.02	>		<	0.03	>		
			Q	<	0	>		<	0	>		<	1	>		<	1	>		
	Geddes St (WR18) & James St	TWSC	LOS					C		>	**C**		A	>	**A**	<	A		**A**	**A**
			Delay					19		>	**19**		0	>	**0**	<	6		**6**	**10**
			V/C					0.54		>			0.08	>		<	0.23			
			Q					25		>			0	>		<	7			
	Irvine St & Colborne St	AWSC	LOS	<	B	>	**B**	<	B	>	**B**	<	B	>	**B**	<	B	>	**B**	**B**
			Delay	<	14	>	**14**	<	13	>	**13**	<	11	>	**11**	<	12	>	**12**	**13**
			V/C	<	0.50	>		<	0.47	>		<	0.23	>		<	0.33	>		
			Q	<		>		<		>		<		>		<		>		
	East Mill St (WR18) & Irvine St	TWSC	LOS	<	A	>	**A**	<	A	>	**A**	<	A	>	**A**	<	C	>	**C**	**A**
			Delay	<	2	>	**2**	<	0	>	**0**	<	0	>	**0**	<	20	>	**20**	**3**
			V/C	<	0.05	>		<	0.00	>		<	0.00	>		<	0.30	>		
			Q	<	1	>		<	0	>		<	0	>		<	9	>		
	Irvine St & Street C	TWSC	LOS	A		>	**A**					<	A		**A**		A	>	**A**	**A**
			Delay	10		>	**10**					<	2		**2**		0	>	**0**	**2**
			V/C	0.05		>						<	0.03				0.09	>		
			Q	1		>						<	1				0	>		

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V/C - Volume to Capacity Ratio
Q - 95th Percentile Queue Length (m)
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control
< / > - Shared with through movement

4.3 Future Daily Traffic Volumes

Table 4.5 shows the forecast future daily traffic volumes on the local roadways in the study area. The daily volumes were derived from the PM peak hour traffic volume shown in **Figure 2.3B**, **Figure 3.2B**, **Figure 4.1B**, **Figure 4.2B**, **Figure 4.3B** and **Figure 4.4B**. The PM peak hour volumes were assumed to be 10 per cent of total daily traffic.

The Transportation Association of Canada (TAC)[7] identifies 1,000 or less vehicles per day for local residential roads, 8,000 or less for residential collector roads, and between 5,000 and 20,000 for arterial roadways. The roads in the study area are designated[8] as follows:

- Irvine Street – Collector between Woolwich Street and David Street, Local between David Street and East Mill Street;
- Woolwich Street/Nichol Road 15 – Collector;
- Colborne Street – Collector;
- East Mill Street (WR 18) – Arterial;
- Geddes Street (WR 18) – Arterial;
- Bricker Avenue – Local
- Marr Drive – Local; and
- Clegg Drive – Local.

Based on the base year traffic volumes, the study road network are currently experiencing daily traffic volumes that are within their designations.

With the forecast background traffic growth and the introduction of the site generated traffic, majority of the study area roadways maintain their assigned designations. Bricker Avenue between Irvine Street and Marr Drive is forecast to exceed its TAC daily volume threshold for a local road designation with a forecast of approximately 1,860 vehicles per day.

The proposed extension of Marr Drive and Clegg Road are forecast to be under 1,000 vehicles per day which assigns them to local roads. The proposed Street C is forecast to have a daily traffic volume just over the local road threshold of 1,000 vehicles per day.

[7] Transportation Association of Canada, Geometric Design Guide for Canadian Roads, Table 2.6.5: Characteristics of Urban Roads, June 2017

[8] Township of Centre Wellington Transportation Master Plan Final Report, January 2019, Figure 12: Principal Roadway Classification in Elora and Fergus

TABLE 4.5: FUTURE DAILY TRAFFIC VOLUMES

Road Section	Two-Way Daily Traffic*				Transportation Association of Canada^	
	Base Year	Background 2031	Site Generated	Total 2031	Threshold	Designation
Irvine Street (Local/Collector)						
North of Woolwich Street	230	280	-	280	<1,000	Local
Between Woolwich Street & Street C	910	1,770	950	2,720	<8,000	Collector
Between Street C & Bricker Avenue	910	1,770	1,120	2,890	<8,000	Collector
Between Bricker Avenue & Colborne Street	1,500	2,610	1,330	3,940	<8,000	Collector
Between Colborne Street & East Mill Street	870	1,330	850	2,180	<8,000	Collector
Woolwich Street (James Street)/Nichol Road 15 (Collector)						
From Geddes Street to Milford Crescent	3,350	5,500	640	6,140	<8,000	Collector
Between Miford Crescent & Irvine Street	3,490	5,680	640	6,320	<8,000	Collector
East of Irvine Street	3,730	5,300	310	5,610	<8,000	Collector
Colborne Street (Collector)						
West of Irvine Street	2,420	5,020	220	5,240	<8,000	Collector
East of Irvine STreet	2,950	6,100	260	6,360	<8,000	Collector
East Mill Street (Arterial)						
West of Irvine Street	4,650	5,830	400	6,230	5,000 - 20,000	Arterial
East Mill Street	4,960	6,160	450	6,610	5,000 - 20,000	Arterial
Geddes Street (Arterial)						
North of James Street	4,650	7,050	430	7,480	5,000 - 20,000	Arterial
South of James Street	2,480	3,050	210	3,260	5,000 - 20,000	Arterial
Bricker Avenue (Local)						
West of Marr Drive	480	580	-	580		Local
Between Marr Drive & Clegg Road	410	500	560	1,060	<8,000	Collector
Between Clegg Road & Irvine Street	490	610	1,250	1,860	<8,000	Collector
Clegg Road (Local)						
North of Bricker Avenue	-	-	690	690	<1,000	Local
South of Bricker Avenue	220	270	-	270	<1,000	Local
Marr Drive (Local)						
North of Bricker Avenue	-	-	560	560	<1,000	Local
South of Bricker Avenue	310	380	-	380	<1,000	Local
Street C						
West of Irvine Street	-	-	1,030	1,030	<8,000	Collector

* PM peak hour x 10

^ TAC Table 2.6.5: Classificatoin of Urban Roads

5 Remedial Measures

5.1 Left-Turn Lanes

The warrants for left-turn lanes follow the requirements in the Ministry of Transportation's (MTO) Geometric Design Standards[9]. The percentages of left-turning vehicles in the approaching volume were rounded to the nearest 5%, as nomographs are only provided for 5% increments. This apparent requirement is due to the nature of the warrant procedure that assumes a minimum of 5% of left turning vehicles in the advancing volume.

Appendix G contains the left-turn lane warrant nomographs.

5.1.1 Woolwich Street/Nichol Road 15 at Irvine Street

A design speed of 50 km/h (10 km/h over the posted speed limit was used for Nichol Road.

Table 5.1 summarizes the left-turn lane warrants for a westbound left-turn lane at Irvine Street with future traffic volumes. The warrant analysis suggests that a westbound left-turn lane on Nichol Road 15 at Irvine Street is not warranted.

5.1.2 Irvine Street at Bricker Avenue

A design speed of 60 km/h (10 km/h over the posted speed limit was used for Irvine Street.

Table 5.2 summarizes the left-turn lane warrants for a northbound left-turn lane on Irvine Street at Bricker Avenue with future traffic volumes. The warrant analysis suggests that a northbound left-turn lane on Irvine Street is not warranted.

5.1.3 East Mill Street (WR 18) at Irvine Steet

A design speed of 50 km/h (10 km/h over the posted speed limit was used for Irvine Street.

Table 5.3 summarizes the left-turn lane warrants for an eastbound left-turn lane on East Mill Street (WR 18) at Irvine Street with future traffic volumes. The warrant analysis suggests that an eastbound left-turn lane on East Mill Street (WR 18) is not warranted.

[9] Design Supplement for TAC Geometric Design Guide for Canadian Roads, Ministry of Transportation Ontario, June 2017

TABLE 5.1: LEFT-TURN LANE WARRANT SUMMARY – NICHOL ROAD 15

Intersection	Woolwich Street/Nichol Road 15 & Irvine Street							
Approach Direction Design Speed	Westbound 50 km/h							
Horizon	Background (2026)		Total (2026)		Background (2031)		Total (2031)	
Peak Hour	AM	PM	AM	PM	AM	PM	AM	PM
Advancing Volumes	310	196	318	214	338	216	346	234
Opposing Volumes	212	303	223	344	232	326	243	367
Left-Turning Traffic	28	26	36	44	30	29	38	47
% of Left-Turning Traffic	9%	13%	11%	21%	9%	13%	11%	20%
Figure Used*	9A-2	9A-3	9A-2	9A-3	9A-2	9A-3	9A-2	9A-3
Warranted	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Storage Length Required	-	-	-	-	-	-	-	-

*Based on MTO Design Supplement for TAC Geometric Design Guide for Canadian Roads - June 2017

TABLE 5.2: LEFT-TURN LANE WARRANT SUMMARY – IRVINE STREET

Intersection	Irvine Street & Bricker Avenue							
Approach Direction Design Speed	Northbound 60 km/h							
Horizon	Background (2026)		Total (2026)		Background (2031)		Total (2031)	
Peak Hour	AM	PM	AM	PM	AM	PM	AM	PM
Advancing Volumes	79	90	105	174	85	96	111	180
Opposing Volumes	54	76	100	130	57	81	103	135
Left-Turning Traffic	11	11	25	57	12	12	26	58
% of Left-Turning Traffic	14%	12%	24%	33%	14%	13%	23%	32%
Figure Used*	9A-7	9A-6	9A-8	9A-9	9A-7	9A-7	9A-8	9A-8
Warranted	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Storage Length Required	-	-	-	-	-	-	-	-

*Based on MTO Design Supplement for TAC Geometric Design Guide for Canadian Roads - June 2017

TABLE 5.3: LEFT-TURN LANE WARRANT SUMMARY – EAST MILL STREET (WR 18)

Intersection	East Mill Street (WR 18) & Irvine Street							
Approach Direction Design Speed	Westbound 50 km/h							
Horizon	Background (2026)		Total (2026)		Background (2031)		Total (2031)	
Peak Hour	AM	PM	AM	PM	AM	PM	AM	PM
Advancing Volumes	351	245	361	269	387	270	397	294
Opposing Volumes	269	300	277	330	296	331	304	361
Left-Turning Traffic	8	29	18	53	8	31	18	55
% of Left-Turning Traffic	2%	12%	5%	20%	2%	11%	5%	19%
Figure Used*	9A-2	9A-2	9A-2	9A-3	9A-2	9A-2	9A-2	9A-3
Warranted	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Storage Length Required	-	-	-	-	-	-	-	-

*Based on MTO Design Supplement for TAC Geometric Design Guide for Canadian Roads - June 2017

5.1.4 Irvine Street at Street C

A design speed of 60 km/h (10 km/h over the posted speed limit was used for Irvine Street.

Table 5.4 summarizes the left-turn lane warrants for a northbound left-turn lane on Irvine Street at Street C with future total traffic volumes. The warrant analysis suggests that a northbound left-turn lane on Irvine Street is not warranted.

TABLE 5.4: LEFT-TURN LANE WARRANT SUMMARY – IRVINE STREET AT STREET C

Intersection	Irvine Street & Street C			
Approach Direction Design Speed	Northbound 60 km/h			
Horizon	Total (2026)		Total (2031)	
Peak Hour	AM	PM	AM	PM
Advancing Volumes	126	148	132	154
Opposing Volumes	72	135	76	140
Left-Turning Traffic	12	38	12	38
% of Left-Turning Traffic	10%	26%	9%	25%
Figure Used*	9A-6	9A-8	9A-6	9A-8
Warranted	**No**	**No**	**No**	**No**
Storage Length Required	-	-	-	-

*Based on MTO Design Supplement for TAC Geometric Design Guide for Canadian Roads - June 2017

As the future intersection operations at the study area intersections show no significant impacts, the need for auxiliary turn lanes are not warranted. No changes to the existing lane geometrics are recommended at this time.

6 Conclusions and Recommendations

6.1 Conclusions

Based on the investigations carried out, it is concluded that:

- **Existing Traffic Conditions:** The study area intersections are currently operating within acceptable levels of service with no specific problem movements during the AM and PM peak hours.
- **Development Trip Generation:** The residential development is forecast to generate approximately 175 and 228 trips during the AM and PM peak hours upon full build-out.
- **2026 Background Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements during the AM and PM peak hours.
- **2026 Total Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service during the AM and PM peak hours with no specific problem movements.
- The proposed municipal street connection to Irvine Street is forecast to operate within acceptable levels of service during the AM and PM peak hours.
- The addition of the site generated traffic increases the overall delay at the study area intersections by two second or less during the AM and PM peak hours.
- **2031 Background Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service with no specific problem movements during the AM and PM peak hours.
- **2031 Total Traffic Conditions:** The study area intersections are forecast to operate within acceptable levels of service during the AM and PM peak hours with no specific problem movements.
- The proposed municipal street connection to Irvine Street is forecast to operate within acceptable levels of service during the AM and PM peak hours.
- The addition of the site generated traffic increases the overall delay at the study area intersections by three second or less during the AM and PM peak hours.
- **Remedial Measures:** Left-turn lanes are not warranted at the following intersections:

- Westbound on Nichol Road 15 at Irvine;
- Northbound on Irvine Street at Bricker Avenue;
- Eastbound on East Mill Street (WR 18) at Irvine Street; and
- Northbound on Irvine Street at Street C.

6.2 Recommendations

Based on the findings of this study, it is recommended that the development application be approved with no provision for off-site transportation network improvements.

Appendix A

Pre-Study Consultation

From:	Lee Wheildon
To:	Andrew Evans
Cc:	Colin Baker; Pasquale Costanzo; Ray Kirtz; Dustin Lyttle; Howard Wray; Erica Bayley; Chris Skelton
Subject:	RE: (210662) Residential Development, Woolwich Street & Irvine Street, Elora - Scope of Work
Date:	December 3, 2021 11:29:29 AM
Attachments:	image002.jpg image005.png image001.jpg

Andrew,

Please note that Triton Engineering Services Limited has completed a review of the Scope of Work outlined below on behalf of both the Township and County. Please see the redline comments below regarding the scope of work.

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

Regards,

Lee Wheildon C.E.T.,rcca | Engineering Technologist - Development

Township of Centre Wellington | 1 MacDonald Square, Elora, ON N0B 1S0
519.846.9691 x253 CentreWellington.ca

From: Howard Wray <hwray@tritoneng.on.ca>
Sent: November 30, 2021 9:29 AM
To: Lee Wheildon <LWheildon@centrewellington.ca>
Cc: Colin Baker <CBaker@centrewellington.ca>; Pasquale Costanzo <pasqualec@wellington.ca>; Ray Kirtz <rkirtz@tritoneng.on.ca>; Dustin Lyttle <dlyttle@tritoneng.on.ca>
Subject: RE: (210662) Residential Development, Woolwich Street & Irvine Street, Elora - Scope of Work

> You don't often get email from hwray@tritoneng.on.ca. Learn why this is important

Lee,

Pls see our comments on the study scope below in red.

Note that while we have attempted to identify the study requirements, the Township should reserve the right to require additional analysis should other issues be identified during the review.

Howard Wray, P. Eng.

Triton Engineering Services Limited
229 Broadway, Unit 1 Orangeville, ON L9W 1K4
Tel (519) 941-0330 ext 223 • Fax (519) 941-1830 • *www.tritoneng.on.ca*

From: Lee Wheildon <LWheildon@centrewellington.ca>
Sent: November 29, 2021 2:55 PM
To: Howard Wray <hwray@tritoneng.on.ca>
Cc: Colin Baker <CBaker@centrewellington.ca>; Pasquale Costanzo <pasqualec@wellington.ca>
Subject: FW: (210662) Residential Development, Woolwich Street & Irvine Street, Elora - Scope of Work

Howard,

As discussed, are you available to provide some peer review comments for the Terms of Reference/Scope of Work on Paradigms proposed TIS Study below? Additionally, once the reporting is completed, do you have capacity to complete a peer review on the Township's behalf?

Both Township and County Staff have highlighted the need for the intersection of James Street/Geddes Street to be included into their scope of the study.

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

Regards,

Lee Wheildon C.E.T.,rcca | Engineering Technologist - Development

Township of Centre Wellington | 1 MacDonald Square, Elora, ON N0B 1S0
519.846.9691 x253 CentreWellington.ca

From: Andrew Evans <aevans@ptsl.com>
Sent: November 15, 2021 9:52 AM
To: Lee Wheildon <LWheildon@centrewellington.ca>; pasqualec@wellington.ca
Cc: Erica Bayley <ebayley@ptsl.com>; Chris Skelton <cskelton@ptsl.com>
Subject: (210662) Residential Development, Woolwich Street & Irvine Street, Elora - Scope of Work

Greetings,

Paradigm was retained to undertake a Transportation Impact Stady for a proposed residential development to be located on the southwest corner of Woolwich Street/Nichol Road 15 and Irvine Street, Township of Centre Wellington (Elora).

The property owner is proposing to develop the approximately 12.4 hectare block into 222 residential units, in a mix of townhouse (63 units) and single-detached homes (159 units).

Vehicle access is proposed via new street connections to Woolwich Street, Irvine Street, and Bricker Avenue.

Below is our scope of work for you review and approval:

Study Area Intersections:

- Woolwich Street/Nichol Road 15 & Irvine Street (unsignalized);
- Woolwich Street & Milford Crescent East (unsignalized);
- Irvine Street & Bricker Avenue (unsignalized);
- Bricker Avenue & Clegg Road (unsignalized);
- Bricker Avenue & Marr Drive (unsignalized); and
- Two new connections to Irvine Street (assumed unsignalized).

The following two intersections are required to be studied to identify the impact on the collector/arterial system

- Geddes/James
- Irvine/Colborne
- Irvine/East Mill Street

Planning Horizons:

- Five years from date of study (Year 2026) Revise to year of anticipated build-out, plus 5 year horizon from build-out.

Analysis Periods:

- Weekday AM and PM peak hours. OK

Existing Traffic:

- Derived from Turning Movement Counts at study area intersections OK. Note that traffic counts should be representative of AADT (typically spring or fall). Counts taken outside this period should be adjusted. The impact of Covid-19 restrictions and work from home should be considered based on the conditions at the time the counts are taken. Although restrictions have largely been lifted, this should still be addressed in the report.

Background Traffic:

- A background growth rate of 2.0% per annum (please confirm) Rate is acceptable, in addition to traffic from adjacent approved and planned developments
- Please provide any background developments from nearby approved and/or in-stream developments Township to provide.

Site Generated Traffic:

- ITE Trip Generation Manual (11th Edition) OK
- Trip Distribution based on Existing Traffic Patterns Trip Distribution should be developed based on an analysis of anticipated destinations (work/shopping) as well as Existing Traffic Patterns. Convenient access to arterials and collectors should be considered in the analysis. The Consultant may provide their Trip

Distribution assumptions for comment to the Township/Peer Reviewer prior to completion of the report if they wish.

Report

- We will document the study methodologies, findings, and conclusions in a report with appendices containing the detailed analysis results and any data collected. The Report will include
  - Site Plan and Map,
  - Size & Number of Development Phases (if any)
  - Existing Conditions (Study Area Intersections, Road Network, Pedestrian Routes, Cycling Routes, Transit Services, etc.)
  - Existing Traffic Conditions (Site Operating Characteristics, Data Collection/Traffic Counts, Analysis Periods (5 years Ahead),
  - Future Background Conditions (Horizon Years, Horizon Year Volumes)
  - Background Traffic Demand Forecast (with acceptable growth rates)
  - Site Generated Traffic (Transit Modal Split, Trip Generation/Distribution/Assignment)
  - Future Total Traffic Demand,
  - Capacity Analysis (by Intersection, with LOS, Avg. Delay, V/C ratios, 95th Queue length),
  - Traffic Impacts (Tables – Total Traffic with/without Mitigation)
  - Access Considerations – Existing, Proposed, Geometrics (turn lanes, sight lines),
  - Recommendations - Identify required/recommended road improvements either as a result of the development impacts, or general non-development improvements.

    A review of pedestrian and active transportation routes and objectives is required. Connectivity to existing and proposed pedestrian and active transportation routes shall be considered. Identify the potential need for pedestrian crossings (pedestrian signals or PXOs).

Thank you and regards.

Andrew Evans, M.Sc.
Transportation Planner

Paradigm Transportation Solutions Limited
5A-150 Pinebush Road Cambridge ON N1R 8J8
p: 905.381.2229 x **305**
m: 519.497.3239
e: aevans@ptsl.com

w: www.ptsl.com

Appendix B

Traffic Data

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Data

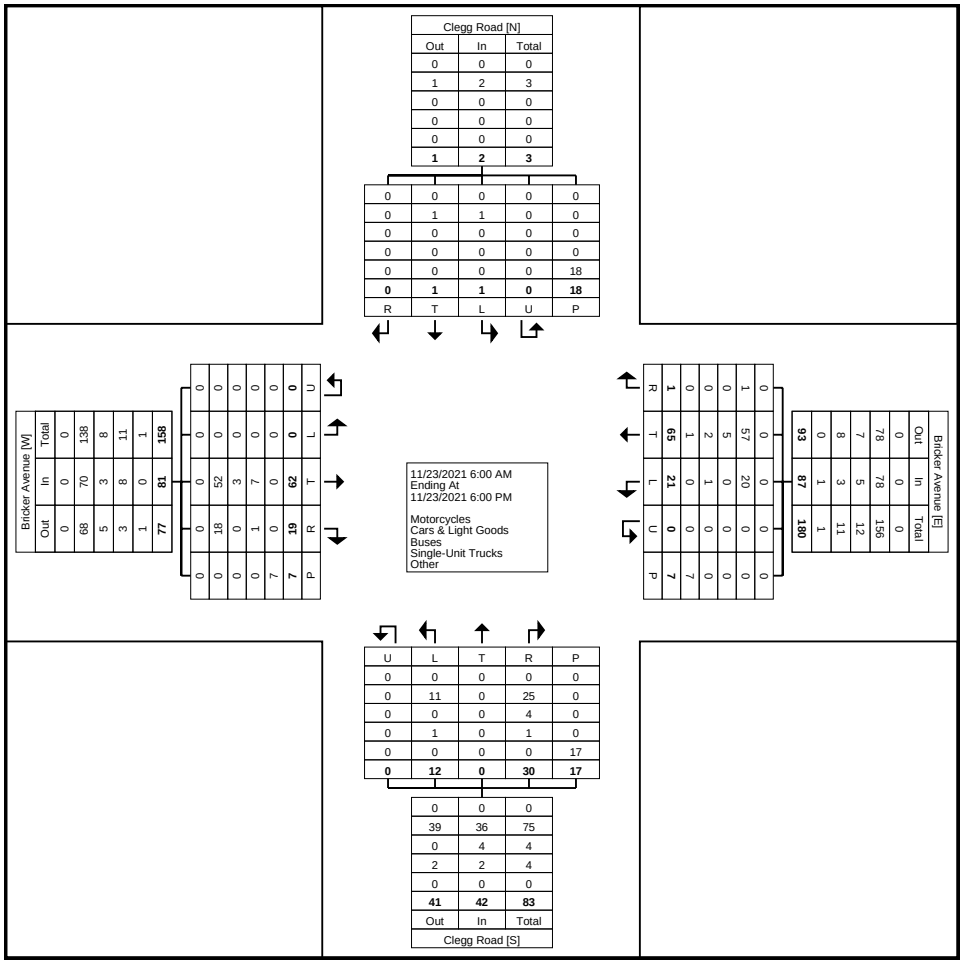
Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Clegg Road Northbound						Clegg Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	2	0	0	0	0	1	0	3
6:45 AM	0	0	0	0	1	0	0	3	0	0	1	3	0	0	0	0	0	0	0	0	0	0	2	0	3
Hourly Total	0	0	0	0	1	0	1	3	0	0	1	4	2	0	1	0	0	3	0	0	0	0	3	0	7
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	2
7:15 AM	0	1	0	0	0	1	1	2	0	0	0	3	1	0	2	0	0	3	0	0	0	0	0	0	7
7:30 AM	0	0	0	0	0	0	0	2	0	0	0	2	1	0	1	0	0	2	0	0	0	0	0	0	4
7:45 AM	0	3	0	0	0	3	1	2	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	6
Hourly Total	0	4	0	0	0	4	2	7	0	0	0	9	2	0	3	0	2	5	1	0	0	0	0	1	19
8:00 AM	0	2	0	0	0	2	0	4	0	0	0	4	0	0	4	0	2	4	0	0	0	0	0	0	10
8:15 AM	0	5	0	0	2	5	0	1	0	0	1	1	2	0	2	0	2	4	0	0	0	0	2	0	10
8:30 AM	0	4	0	0	0	4	1	1	0	0	0	2	1	0	4	0	0	5	0	0	0	0	0	0	11
8:45 AM	0	1	1	0	0	2	0	4	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	7
Hourly Total	0	12	1	0	2	13	1	10	0	0	1	11	3	0	11	0	4	14	0	0	0	0	2	0	38
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	3	0	0	0	3	1	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	5
12:15 PM	0	1	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	3
12:30 PM	0	1	1	0	0	2	0	2	0	0	0	2	1	0	0	0	1	1	0	0	0	0	1	0	5
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	3
Hourly Total	0	5	1	0	0	6	1	5	0	0	0	6	1	0	3	0	2	4	0	0	0	0	1	0	16
1:00 PM	0	3	1	0	0	4	0	2	0	0	0	2	0	0	1	0	2	1	0	0	0	0	0	0	7
1:15 PM	0	1	0	0	0	1	0	4	0	0	0	4	1	0	0	0	0	1	0	0	0	0	1	0	6
1:30 PM	0	2	0	0	0	2	2	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	1	0	4
1:45 PM	0	3	0	0	2	3	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4
Hourly Total	0	9	1	0	2	10	2	6	0	0	0	8	2	0	1	0	3	3	0	0	0	0	2	0	21
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	1	0	0	1	2	1	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	5
3:15 PM	0	1	2	0	0	3	3	5	0	0	0	8	0	0	4	0	0	4	0	0	0	0	2	0	15
3:30 PM	0	4	1	0	1	5	2	6	0	0	4	8	0	0	0	0	0	0	0	0	0	0	3	0	13
3:45 PM	0	6	2	0	0	8	2	2	0	0	0	4	1	0	2	0	2	3	0	1	0	0	0	1	16
Hourly Total	0	11	6	0	1	17	9	14	0	0	4	23	1	0	7	0	2	8	0	1	0	0	5	1	49
4:00 PM	0	1	1	0	0	2	0	4	0	0	0	4	0	0	1	0	0	1	0	0	0	0	1	0	7
4:15 PM	0	0	2	0	1	2	1	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	4
4:30 PM	0	3	2	0	0	5	2	3	0	0	0	5	1	0	1	0	2	2	0	0	0	0	1	0	12

4:45 PM	0	1	2	0	0	3	1	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	7
Hourly Total	0	5	7	0	1	12	4	11	0	0	0	15	1	0	2	0	3	3	0	0	0	0	2	0	30
5:00 PM	0	9	0	0	0	9	0	2	0	0	0	2	0	0	1	0	1	1	0	0	0	0	1	0	12
5:15 PM	0	1	2	0	0	3	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	3	1	0	0	4	1	3	1	0	1	5	0	0	0	0	0	0	0	0	0	0	2	0	9
5:45 PM	0	3	0	0	0	3	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	6
Hourly Total	0	16	3	0	0	19	1	9	1	0	1	11	0	0	2	0	1	2	0	0	0	0	3	0	32
Grand Total	0	62	19	0	7	81	21	65	1	0	7	87	12	0	30	0	17	42	1	1	0	0	18	2	212
Approach %	0.0	76.5	23.5	0.0	-	-	24.1	74.7	1.1	0.0	-	-	28.6	0.0	71.4	0.0	-	-	50.0	50.0	0.0	0.0	-	-	-
Total %	0.0	29.2	9.0	0.0	-	38.2	9.9	30.7	0.5	0.0	-	41.0	5.7	0.0	14.2	0.0	-	19.8	0.5	0.5	0.0	0.0	-	0.9	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0
Cars & Light Goods	0	52	18	0	-	70	20	57	1	0	-	78	11	0	25	0	-	36	1	1	0	0	-	2	186
% Cars & Light Goods	-	83.9	94.7	-	-	86.4	95.2	87.7	100.0	-	-	89.7	91.7	-	83.3	-	-	85.7	100.0	100.0	-	-	-	100.0	87.7
Buses	0	3	0	0	-	3	0	5	0	0	-	5	0	0	4	0	-	4	0	0	0	0	-	0	12
% Buses	-	4.8	0.0	-	-	3.7	0.0	7.7	0.0	-	-	5.7	0.0	-	13.3	-	-	9.5	0.0	0.0	-	-	-	0.0	5.7
Single-Unit Trucks	0	7	1	0	-	8	1	2	0	0	-	3	1	0	1	0	-	2	0	0	0	0	-	0	13
% Single-Unit Trucks	-	11.3	5.3	-	-	9.9	4.8	3.1	0.0	-	-	3.4	8.3	-	3.3	-	-	4.8	0.0	0.0	-	-	-	0.0	6.1
Articulated Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	-	-	0.0	0.0	1.5	0.0	-	-	1.1	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	7	-	-	-	-	-	7	-	-	-	-	-	17	-	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021
Page No: 3



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021

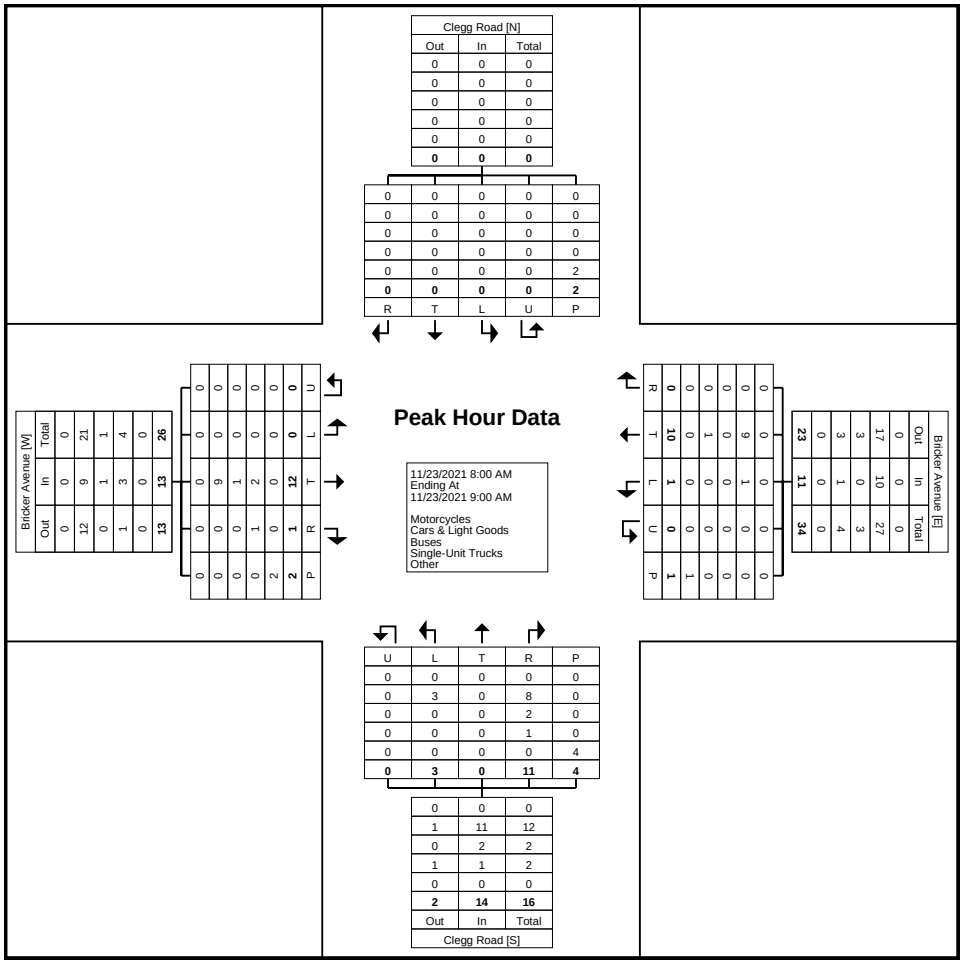
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Clegg Road Northbound						Clegg Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:00 AM	0	2	0	0	0	2	0	4	0	0	0	4	0	0	4	0	2	4	0	0	0	0	0	0	10
8:15 AM	0	5	0	0	2	5	0	1	0	0	1	1	2	0	2	0	2	4	0	0	0	0	2	0	10
8:30 AM	0	4	0	0	0	4	1	1	0	0	0	2	1	0	4	0	0	5	0	0	0	0	0	0	11
8:45 AM	0	1	1	0	0	2	0	4	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	7
Total	0	12	1	0	2	13	1	10	0	0	1	11	3	0	11	0	4	14	0	0	0	0	2	0	38
Approach %	0.0	92.3	7.7	0.0	-	-	9.1	90.9	0.0	0.0	-	-	21.4	0.0	78.6	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	31.6	2.6	0.0	-	34.2	2.6	26.3	0.0	0.0	-	28.9	7.9	0.0	28.9	0.0	-	36.8	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.600	0.250	0.000	-	0.650	0.250	0.625	0.000	0.000	-	0.688	0.375	0.000	0.688	0.000	-	0.700	0.000	0.000	0.000	0.000	-	0.000	0.864
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Cars & Light Goods	0	9	0	0	-	9	1	9	0	0	-	10	3	0	8	0	-	11	0	0	0	0	-	0	30
% Cars & Light Goods	-	75.0	0.0	-	-	69.2	100.0	90.0	-	-	-	90.9	100.0	-	72.7	-	-	78.6	-	-	-	-	-	-	78.9
Buses	0	1	0	0	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	3
% Buses	-	8.3	0.0	-	-	7.7	0.0	0.0	-	-	-	0.0	0.0	-	18.2	-	-	14.3	-	-	-	-	-	-	7.9
Single-Unit Trucks	0	2	1	0	-	3	0	1	0	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	5
% Single-Unit Trucks	-	16.7	100.0	-	-	23.1	0.0	10.0	-	-	-	9.1	0.0	-	9.1	-	-	7.1	-	-	-	-	-	-	13.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021

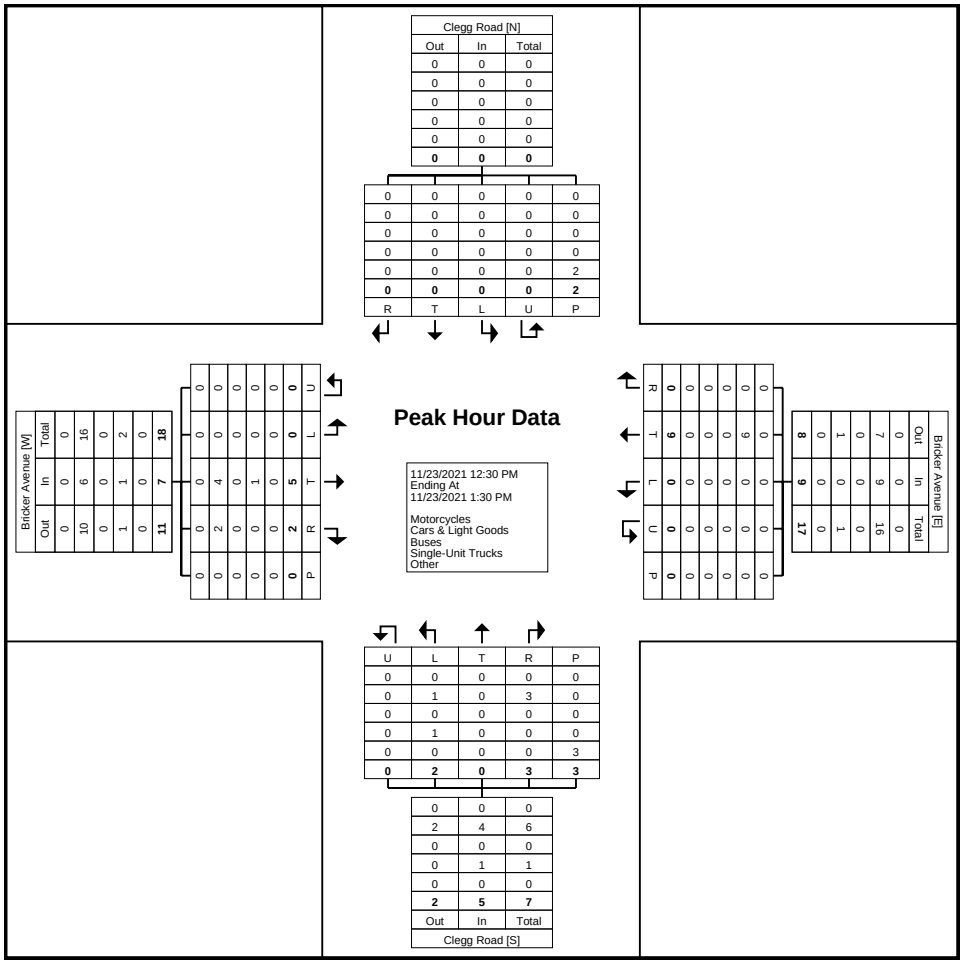
Turning Movement Peak Hour Data (12:30 PM)

Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Clegg Road Northbound						Clegg Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
12:30 PM	0	1	1	0	0	2	0	2	0	0	0	2	1	0	0	0	1	1	0	0	0	0	1	0	5
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	3
1:00 PM	0	3	1	0	0	4	0	2	0	0	0	2	0	0	1	0	2	1	0	0	0	0	0	0	7
1:15 PM	0	1	0	0	0	1	0	4	0	0	0	4	1	0	0	0	0	1	0	0	0	0	1	0	6
Total	0	5	2	0	0	7	0	9	0	0	0	9	2	0	3	0	3	5	0	0	0	0	2	0	21
Approach %	0.0	71.4	28.6	0.0	-	-	0.0	100.0	0.0	0.0	-	-	40.0	0.0	60.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	23.8	9.5	0.0	-	33.3	0.0	42.9	0.0	0.0	-	42.9	9.5	0.0	14.3	0.0	-	23.8	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.417	0.500	0.000	-	0.438	0.000	0.563	0.000	0.000	-	0.563	0.500	0.000	0.375	0.000	-	0.625	0.000	0.000	0.000	0.000	-	0.000	0.750
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	-	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Cars & Light Goods	0	4	2	0	-	6	0	9	0	0	-	9	1	0	3	0	-	4	0	0	0	0	-	0	19
% Cars & Light Goods	-	80.0	100.0	-	-	85.7	-	100.0	-	-	-	100.0	50.0	-	100.0	-	-	80.0	-	-	-	-	-	-	90.5
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	-	0.0	-	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Single-Unit Trucks	0	1	0	0	-	1	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	2
% Single-Unit Trucks	-	20.0	0.0	-	-	14.3	-	0.0	-	-	-	0.0	50.0	-	0.0	-	-	20.0	-	-	-	-	-	-	9.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	-	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (12:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021

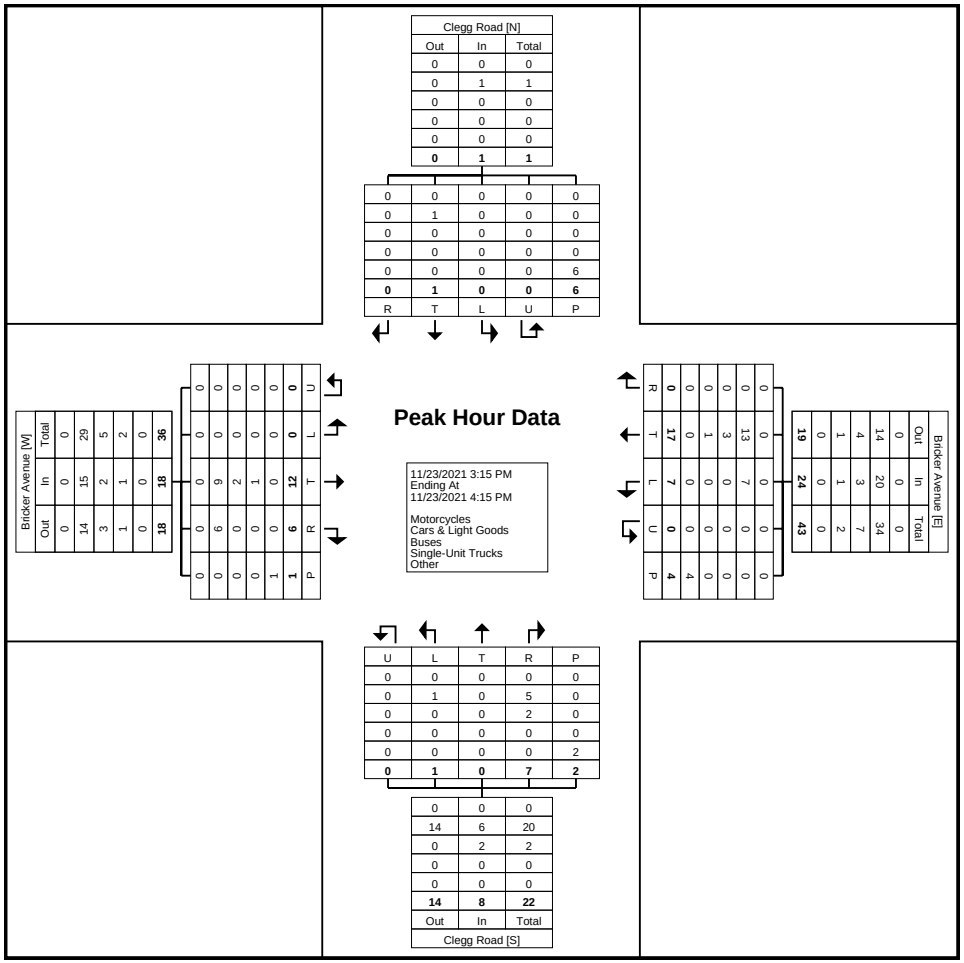
Turning Movement Peak Hour Data (3:15 PM)

Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Clegg Road Northbound						Clegg Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
3:15 PM	0	1	2	0	0	3	3	5	0	0	0	8	0	0	4	0	0	4	0	0	0	0	2	0	15
3:30 PM	0	4	1	0	1	5	2	6	0	0	4	8	0	0	0	0	0	0	0	0	0	0	3	0	13
3:45 PM	0	6	2	0	0	8	2	2	0	0	0	4	1	0	2	0	2	3	0	1	0	0	0	1	16
4:00 PM	0	1	1	0	0	2	0	4	0	0	0	4	0	0	1	0	0	1	0	0	0	0	1	0	7
Total	0	12	6	0	1	18	7	17	0	0	4	24	1	0	7	0	2	8	0	1	0	0	6	1	51
Approach %	0.0	66.7	33.3	0.0	-	-	29.2	70.8	0.0	0.0	-	-	12.5	0.0	87.5	0.0	-	-	0.0	100.0	0.0	0.0	-	-	-
Total %	0.0	23.5	11.8	0.0	-	35.3	13.7	33.3	0.0	0.0	-	47.1	2.0	0.0	13.7	0.0	-	15.7	0.0	2.0	0.0	0.0	-	2.0	-
PHF	0.000	0.500	0.750	0.000	-	0.563	0.583	0.708	0.000	0.000	-	0.750	0.250	0.000	0.438	0.000	-	0.500	0.000	0.250	0.000	0.000	-	0.250	0.797
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	0.0	0.0
Cars & Light Goods	0	9	6	0	-	15	7	13	0	0	-	20	1	0	5	0	-	6	0	1	0	0	-	1	42
% Cars & Light Goods	-	75.0	100.0	-	-	83.3	100.0	76.5	-	-	-	83.3	100.0	-	71.4	-	-	75.0	-	100.0	-	-	-	100.0	82.4
Buses	0	2	0	0	-	2	0	3	0	0	-	3	0	0	2	0	-	2	0	0	0	0	-	0	7
% Buses	-	16.7	0.0	-	-	11.1	0.0	17.6	-	-	-	12.5	0.0	-	28.6	-	-	25.0	-	0.0	-	-	-	0.0	13.7
Single-Unit Trucks	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Single-Unit Trucks	-	8.3	0.0	-	-	5.6	0.0	5.9	-	-	-	4.2	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	0.0	3.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Clegg Road
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (3:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Marr Drive
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Data

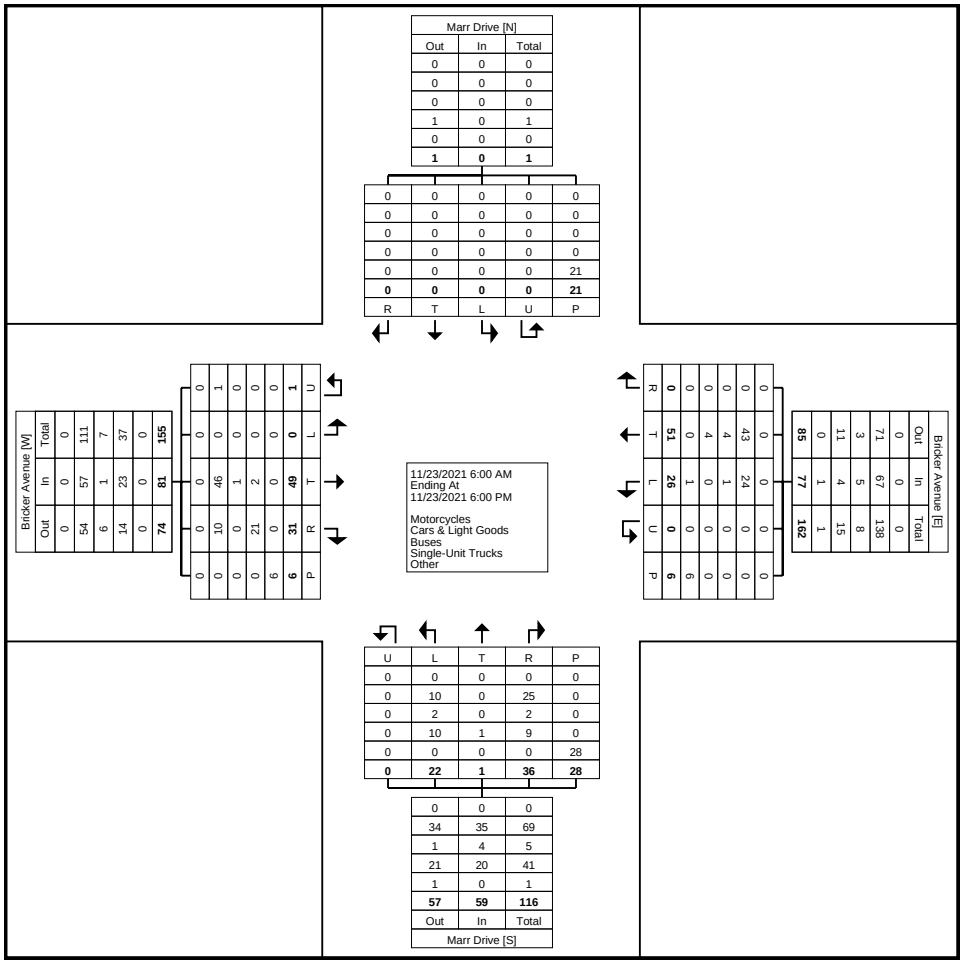
Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Marr Drive Northbound						Marr Drive Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	1	0	0	0	0	1	0	3
6:45 AM	0	0	0	0	1	0	1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	3
Hourly Total	0	0	0	0	2	0	2	3	0	0	0	5	1	0	0	0	0	1	0	0	0	0	3	0	6
7:00 AM	0	0	1	0	0	1	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	1	0	0	0	1	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	0	0	0	0	0	0	3	0	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0	4
7:45 AM	0	2	1	0	0	3	2	2	0	0	0	4	0	0	2	0	1	2	0	0	0	0	0	0	9
Hourly Total	0	3	2	0	0	5	3	9	0	0	0	12	1	0	2	0	1	3	0	0	0	0	0	0	20
8:00 AM	0	1	0	0	0	1	1	3	0	0	0	4	3	0	3	0	1	6	0	0	0	0	0	0	11
8:15 AM	0	3	1	0	0	4	0	3	0	0	1	3	2	0	2	0	0	4	0	0	0	0	4	0	11
8:30 AM	0	0	0	0	0	0	1	1	0	0	3	2	0	0	3	0	7	3	0	0	0	0	1	0	5
8:45 AM	0	1	1	0	1	2	1	4	0	0	0	5	0	1	2	0	1	3	0	0	0	0	0	0	10
Hourly Total	0	5	2	0	1	7	3	11	0	0	4	14	5	1	10	0	9	16	0	0	0	0	5	0	37
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	0	1	0	0	1	1	0	0	0	0	1	1	0	3	0	1	4	0	0	0	0	0	0	6
12:15 PM	0	0	2	0	0	2	0	1	0	0	0	1	2	0	1	0	0	3	0	0	0	0	0	0	6
12:30 PM	0	1	1	0	0	2	0	3	0	0	1	3	1	0	1	0	1	2	0	0	0	0	0	0	7
12:45 PM	0	0	3	0	1	3	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0	5
Hourly Total	0	1	7	0	1	8	1	5	0	0	1	6	5	0	5	0	2	10	0	0	0	0	1	0	24
1:00 PM	0	2	2	0	0	4	2	0	0	0	0	2	0	0	2	0	0	2	0	0	0	0	1	0	8
1:15 PM	0	0	1	0	0	1	3	1	0	0	0	4	0	0	1	0	0	1	0	0	0	0	1	0	6
1:30 PM	0	1	2	0	0	3	0	0	0	0	0	0	1	0	1	0	0	2	0	0	0	0	2	0	5
1:45 PM	0	2	3	0	0	5	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	0	6
Hourly Total	0	5	8	0	0	13	5	1	0	0	0	6	1	0	5	0	0	6	0	0	0	0	6	0	25
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	1	2	0	0	3	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4
3:15 PM	0	2	2	0	0	4	2	3	0	0	0	5	1	0	1	0	2	2	0	0	0	0	2	0	11
3:30 PM	0	4	3	0	0	7	1	4	0	0	0	5	1	0	1	0	9	2	0	0	0	0	0	0	14
3:45 PM	0	6	4	1	0	11	2	2	0	0	1	4	3	0	2	0	0	5	0	0	0	0	2	0	20
Hourly Total	0	13	11	1	0	25	6	9	0	0	1	15	5	0	4	0	12	9	0	0	0	0	4	0	49
4:00 PM	0	1	0	0	0	1	2	1	0	0	0	3	3	0	1	0	0	4	0	0	0	0	1	0	8
4:15 PM	0	1	0	0	0	1	0	2	0	0	0	2	1	0	1	0	1	2	0	0	0	0	0	0	5
4:30 PM	0	4	0	0	2	4	1	3	0	0	0	4	0	0	2	0	2	2	0	0	0	0	0	0	10

4:45 PM	0	3	1	0	0	4	1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	7
Hourly Total	0	9	1	0	2	10	4	8	0	0	0	12	4	0	4	0	3	8	0	0	0	0	1	0	30
5:00 PM	0	7	0	0	0	7	1	1	0	0	0	2	0	0	2	0	1	2	0	0	0	0	1	0	11
5:15 PM	0	1	0	0	0	1	0	2	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	5
5:30 PM	0	3	0	0	0	3	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	6
5:45 PM	0	2	0	0	0	2	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	4
Hourly Total	0	13	0	0	0	13	2	5	0	0	0	7	0	0	6	0	1	6	0	0	0	0	1	0	26
Grand Total	0	49	31	1	6	81	26	51	0	0	6	77	22	1	36	0	28	59	0	0	0	0	21	0	217
Approach %	0.0	60.5	38.3	1.2	-	-	33.8	66.2	0.0	0.0	-	-	37.3	1.7	61.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	22.6	14.3	0.5	-	37.3	12.0	23.5	0.0	0.0	-	35.5	10.1	0.5	16.6	0.0	-	27.2	0.0	0.0	0.0	0.0	-	0.0	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Cars & Light Goods	0	46	10	1	-	57	24	43	0	0	-	67	10	0	25	0	-	35	0	0	0	0	-	0	159
% Cars & Light Goods	-	93.9	32.3	100.0	-	70.4	92.3	84.3	-	-	-	87.0	45.5	0.0	69.4	-	-	59.3	-	-	-	-	-	-	73.3
Buses	0	1	0	0	-	1	1	4	0	0	-	5	2	0	2	0	-	4	0	0	0	0	-	0	10
% Buses	-	2.0	0.0	0.0	-	1.2	3.8	7.8	-	-	-	6.5	9.1	0.0	5.6	-	-	6.8	-	-	-	-	-	-	4.6
Single-Unit Trucks	0	2	21	0	-	23	0	4	0	0	-	4	10	1	9	0	-	20	0	0	0	0	-	0	47
% Single-Unit Trucks	-	4.1	67.7	0.0	-	28.4	0.0	7.8	-	-	-	5.2	45.5	100.0	25.0	-	-	33.9	-	-	-	-	-	-	21.7
Articulated Trucks	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	3.8	0.0	-	-	-	1.3	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	6	-	-	-	-	-	28	-	-	-	-	-	21	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Marr Drive
Site Code: 210662
Start Date: 11/23/2021
Page No: 3



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Marr Drive
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Marr Drive Northbound						Marr Drive Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:00 AM	0	1	0	0	0	1	1	3	0	0	0	4	3	0	3	0	1	6	0	0	0	0	0	0	11
8:15 AM	0	3	1	0	0	4	0	3	0	0	1	3	2	0	2	0	0	4	0	0	0	0	4	0	11
8:30 AM	0	0	0	0	0	0	1	1	0	0	3	2	0	0	3	0	7	3	0	0	0	0	1	0	5
8:45 AM	0	1	1	0	1	2	1	4	0	0	0	5	0	1	2	0	1	3	0	0	0	0	0	0	10
Total	0	5	2	0	1	7	3	11	0	0	4	14	5	1	10	0	9	16	0	0	0	0	5	0	37
Approach %	0.0	71.4	28.6	0.0	-	-	21.4	78.6	0.0	0.0	-	-	31.3	6.3	62.5	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	13.5	5.4	0.0	-	18.9	8.1	29.7	0.0	0.0	-	37.8	13.5	2.7	27.0	0.0	-	43.2	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.417	0.500	0.000	-	0.438	0.750	0.688	0.000	0.000	-	0.700	0.417	0.250	0.833	0.000	-	0.667	0.000	0.000	0.000	0.000	-	0.000	0.841
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Cars & Light Goods	0	3	2	0	-	5	3	9	0	0	-	12	1	0	6	0	-	7	0	0	0	0	-	0	24
% Cars & Light Goods	-	60.0	100.0	-	-	71.4	100.0	81.8	-	-	-	85.7	20.0	0.0	60.0	-	-	43.8	-	-	-	-	-	-	64.9
Buses	0	0	0	0	-	0	0	0	0	0	-	0	1	0	1	0	-	2	0	0	0	0	-	0	2
% Buses	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	20.0	0.0	10.0	-	-	12.5	-	-	-	-	-	-	5.4
Single-Unit Trucks	0	2	0	0	-	2	0	2	0	0	-	2	3	1	3	0	-	7	0	0	0	0	-	0	11
% Single-Unit Trucks	-	40.0	0.0	-	-	28.6	0.0	18.2	-	-	-	14.3	60.0	100.0	30.0	-	-	43.8	-	-	-	-	-	-	29.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	9	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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Count Name: Bricker Avenue & Marr Drive
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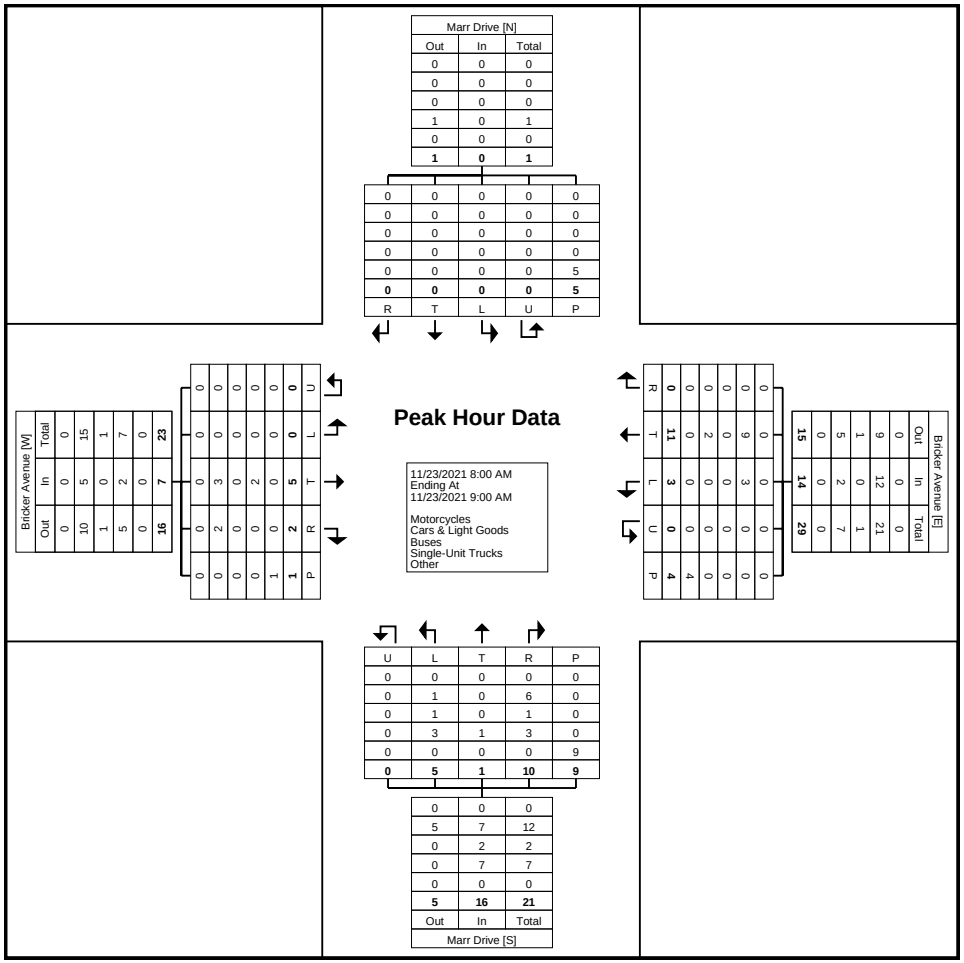
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Marr Drive
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Peak Hour Data (12:15 PM)

Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Marr Drive Northbound						Marr Drive Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
12:15 PM	0	0	2	0	0	2	0	1	0	0	0	1	2	0	1	0	0	3	0	0	0	0	0	0	6
12:30 PM	0	1	1	0	0	2	0	3	0	0	1	3	1	0	1	0	1	2	0	0	0	0	0	0	7
12:45 PM	0	0	3	0	1	3	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	1	0	5
1:00 PM	0	2	2	0	0	4	2	0	0	0	0	2	0	0	2	0	0	2	0	0	0	0	1	0	8
Total	0	3	8	0	1	11	2	5	0	0	1	7	4	0	4	0	1	8	0	0	0	0	2	0	26
Approach %	0.0	27.3	72.7	0.0	-	-	28.6	71.4	0.0	0.0	-	-	50.0	0.0	50.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	11.5	30.8	0.0	-	42.3	7.7	19.2	0.0	0.0	-	26.9	15.4	0.0	15.4	0.0	-	30.8	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.375	0.667	0.000	-	0.688	0.250	0.417	0.000	0.000	-	0.583	0.500	0.000	0.500	0.000	-	0.667	0.000	0.000	0.000	0.000	-	0.000	0.813
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Cars & Light Goods	0	3	0	0	-	3	2	4	0	0	-	6	2	0	2	0	-	4	0	0	0	0	-	0	13
% Cars & Light Goods	-	100.0	0.0	-	-	27.3	100.0	80.0	-	-	-	85.7	50.0	-	50.0	-	-	50.0	-	-	-	-	-	-	50.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Single-Unit Trucks	0	0	8	0	-	8	0	1	0	0	-	1	2	0	2	0	-	4	0	0	0	0	-	0	13
% Single-Unit Trucks	-	0.0	100.0	-	-	72.7	0.0	20.0	-	-	-	14.3	50.0	-	50.0	-	-	50.0	-	-	-	-	-	-	50.0
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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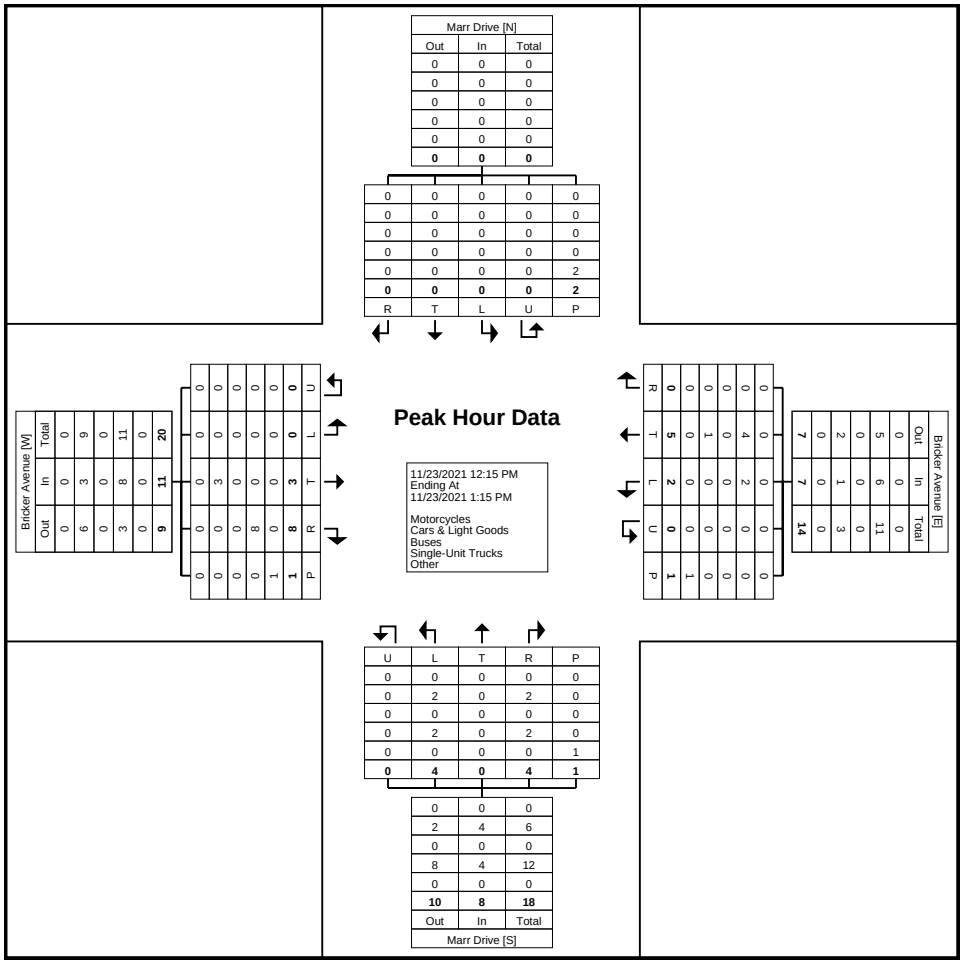

Turning Movement Peak Hour Data Plot (12:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
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Count Name: Bricker Avenue & Marr Drive
Site Code: 210662
Start Date: 11/23/2021

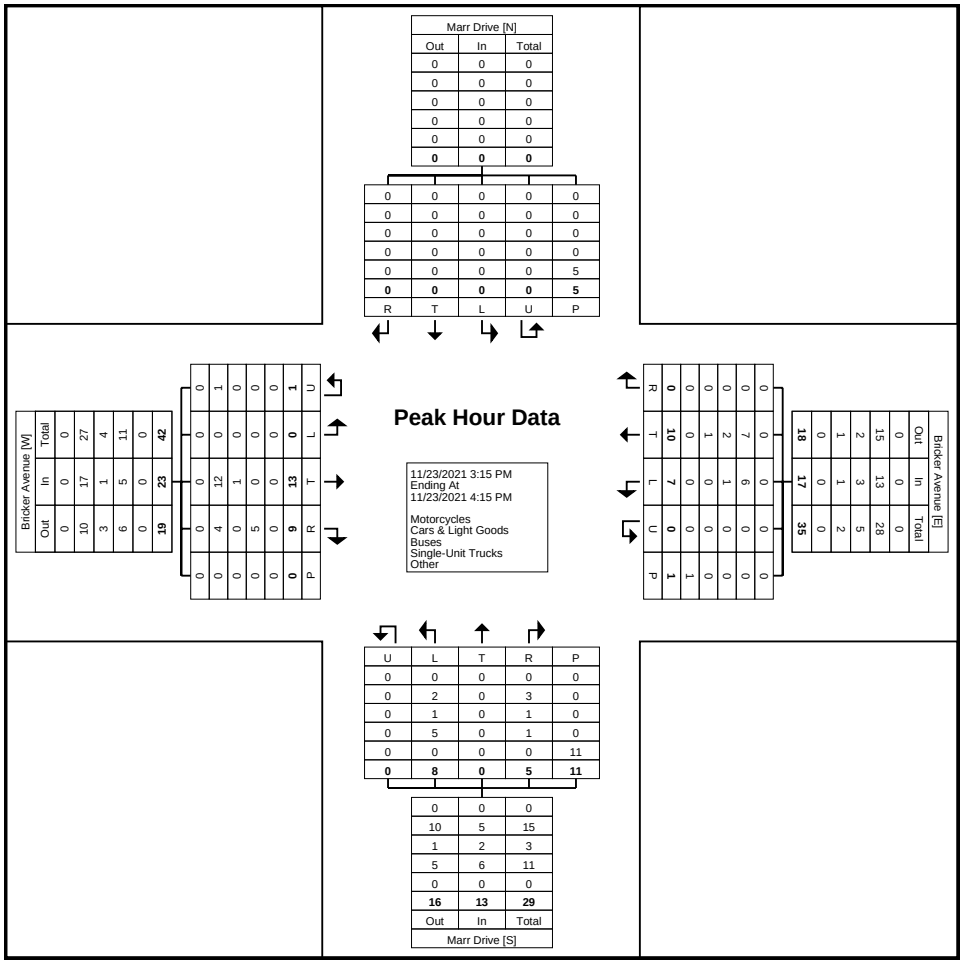
Turning Movement Peak Hour Data (3:15 PM)

Start Time	Bricker Avenue Eastbound						Bricker Avenue Westbound						Marr Drive Northbound						Marr Drive Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
3:15 PM	0	2	2	0	0	4	2	3	0	0	0	5	1	0	1	0	2	2	0	0	0	0	2	0	11
3:30 PM	0	4	3	0	0	7	1	4	0	0	0	5	1	0	1	0	9	2	0	0	0	0	0	0	14
3:45 PM	0	6	4	1	0	11	2	2	0	0	1	4	3	0	2	0	0	5	0	0	0	0	2	0	20
4:00 PM	0	1	0	0	0	1	2	1	0	0	0	3	3	0	1	0	0	4	0	0	0	0	1	0	8
Total	0	13	9	1	0	23	7	10	0	0	1	17	8	0	5	0	11	13	0	0	0	0	5	0	53
Approach %	0.0	56.5	39.1	4.3	-	-	41.2	58.8	0.0	0.0	-	-	61.5	0.0	38.5	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	24.5	17.0	1.9	-	43.4	13.2	18.9	0.0	0.0	-	32.1	15.1	0.0	9.4	0.0	-	24.5	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.542	0.563	0.250	-	0.523	0.875	0.625	0.000	0.000	-	0.850	0.667	0.000	0.625	0.000	-	0.650	0.000	0.000	0.000	0.000	-	0.000	0.663
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Cars & Light Goods	0	12	4	1	-	17	6	7	0	0	-	13	2	0	3	0	-	5	0	0	0	0	-	0	35
% Cars & Light Goods	-	92.3	44.4	100.0	-	73.9	85.7	70.0	-	-	-	76.5	25.0	-	60.0	-	-	38.5	-	-	-	-	-	-	66.0
Buses	0	1	0	0	-	1	1	2	0	0	-	3	1	0	1	0	-	2	0	0	0	0	-	0	6
% Buses	-	7.7	0.0	0.0	-	4.3	14.3	20.0	-	-	-	17.6	12.5	-	20.0	-	-	15.4	-	-	-	-	-	-	11.3
Single-Unit Trucks	0	0	5	0	-	5	0	1	0	0	-	1	5	0	1	0	-	6	0	0	0	0	-	0	12
% Single-Unit Trucks	-	0.0	55.6	0.0	-	21.7	0.0	10.0	-	-	-	5.9	62.5	-	20.0	-	-	46.2	-	-	-	-	-	-	22.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	-	-	-	-	-	-	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	11	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Bricker Avenue & Marr Drive
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (3:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022

Turning Movement Data

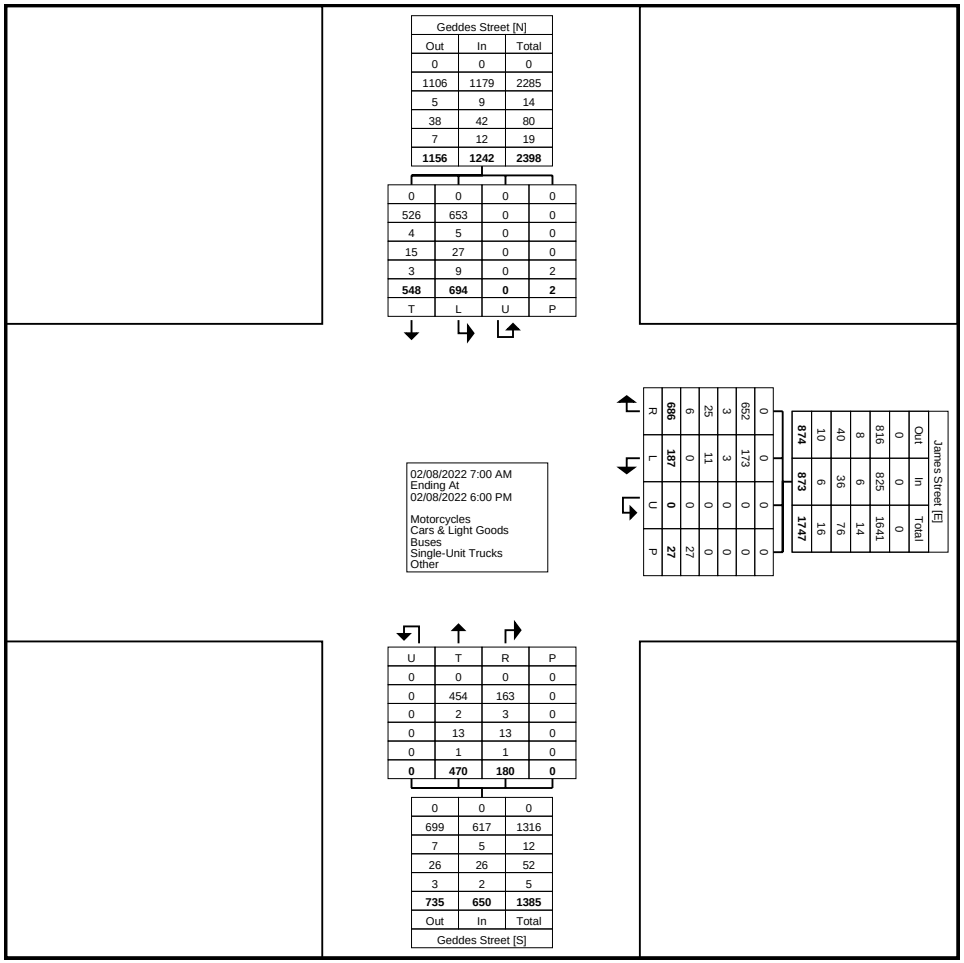
Start Time	James Street Westbound					Geddes Street Northbound					Geddes Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
7:00 AM	1	21	0	1	22	16	3	0	0	19	9	9	0	0	18	59
7:15 AM	1	31	0	0	32	18	4	0	0	22	14	12	0	0	26	80
7:30 AM	2	32	0	1	34	20	1	0	0	21	28	9	0	0	37	92
7:45 AM	7	31	0	0	38	11	6	0	0	17	23	13	0	0	36	91
Hourly Total	11	115	0	2	126	65	14	0	0	79	74	43	0	0	117	322
8:00 AM	5	28	0	0	33	18	6	0	0	24	23	13	0	0	36	93
8:15 AM	2	23	0	1	25	16	7	0	0	23	26	12	0	0	38	86
8:30 AM	5	20	0	0	25	16	6	0	0	22	25	24	0	0	49	96
8:45 AM	11	21	0	3	32	18	16	0	0	34	30	11	0	0	41	107
Hourly Total	23	92	0	4	115	68	35	0	0	103	104	60	0	0	164	382
9:00 AM	13	19	0	1	32	12	4	0	0	16	18	14	0	0	32	80
9:15 AM	5	17	0	0	22	15	1	0	0	16	2	9	0	0	11	49
9:30 AM	7	18	0	0	25	12	4	0	0	16	13	12	0	0	25	66
9:45 AM	3	7	0	2	10	11	2	0	0	13	19	9	0	0	28	51
Hourly Total	28	61	0	3	89	50	11	0	0	61	52	44	0	0	96	246
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	1	12	0	1	13	22	3	0	0	25	10	12	0	0	22	60
12:15 PM	5	14	0	0	19	7	3	0	0	10	18	13	0	2	31	60
12:30 PM	4	13	0	0	17	15	4	0	0	19	12	22	0	0	34	70
12:45 PM	4	17	0	0	21	17	7	0	0	24	17	9	0	0	26	71
Hourly Total	14	56	0	1	70	61	17	0	0	78	57	56	0	2	113	261
1:00 PM	11	13	0	0	24	7	8	0	0	15	8	12	0	0	20	59
1:15 PM	3	19	0	0	22	7	3	0	0	10	13	15	0	0	28	60
1:30 PM	7	17	0	0	24	12	6	0	0	18	20	21	0	0	41	83
1:45 PM	4	21	0	0	25	13	7	0	0	20	26	18	0	0	44	89
Hourly Total	25	70	0	0	95	39	24	0	0	63	67	66	0	0	133	291
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	4	23	0	0	27	9	12	0	0	21	23	18	0	0	41	89
3:15 PM	9	23	0	0	32	20	11	0	0	31	26	22	0	0	48	111
3:30 PM	14	24	0	6	38	16	5	0	0	21	19	20	0	0	39	98
3:45 PM	5	22	0	2	27	14	10	0	0	24	28	23	0	0	51	102
Hourly Total	32	92	0	8	124	59	38	0	0	97	96	83	0	0	179	400
4:00 PM	1	23	0	3	24	23	5	0	0	28	20	15	0	0	35	87
4:15 PM	9	21	0	2	30	17	3	0	0	20	35	20	0	0	55	105
4:30 PM	9	33	0	1	42	13	3	0	0	16	42	22	0	0	64	122
4:45 PM	12	32	0	1	44	17	7	0	0	24	39	30	0	0	69	137

Hourly Total	31	109	0	7	140	70	18	0	0	88	136	87	0	0	223	451
5:00 PM	6	32	0	1	38	26	6	0	0	32	24	32	0	0	56	126
5:15 PM	7	23	0	1	30	11	6	0	0	17	27	29	0	0	56	103
5:30 PM	4	20	0	0	24	11	8	0	0	19	27	28	0	0	55	98
5:45 PM	6	16	0	0	22	10	3	0	0	13	30	20	0	0	50	85
Hourly Total	23	91	0	2	114	58	23	0	0	81	108	109	0	0	217	412
Grand Total	187	686	0	27	873	470	180	0	0	650	694	548	0	2	1242	2765
Approach %	21.4	78.6	0.0	-	-	72.3	27.7	0.0	-	-	55.9	44.1	0.0	-	-	-
Total %	6.8	24.8	0.0	-	31.6	17.0	6.5	0.0	-	23.5	25.1	19.8	0.0	-	44.9	-
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	173	652	0	-	825	454	163	0	-	617	653	526	0	-	1179	2621
% Cars & Light Goods	92.5	95.0	-	-	94.5	96.6	90.6	-	-	94.9	94.1	96.0	-	-	94.9	94.8
Buses	3	3	0	-	6	2	3	0	-	5	5	4	0	-	9	20
% Buses	1.6	0.4	-	-	0.7	0.4	1.7	-	-	0.8	0.7	0.7	-	-	0.7	0.7
Single-Unit Trucks	11	25	0	-	36	13	13	0	-	26	27	15	0	-	42	104
% Single-Unit Trucks	5.9	3.6	-	-	4.1	2.8	7.2	-	-	4.0	3.9	2.7	-	-	3.4	3.8
Articulated Trucks	0	6	0	-	6	1	1	0	-	2	9	3	0	-	12	20
% Articulated Trucks	0.0	0.9	-	-	0.7	0.2	0.6	-	-	0.3	1.3	0.5	-	-	1.0	0.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	27	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022

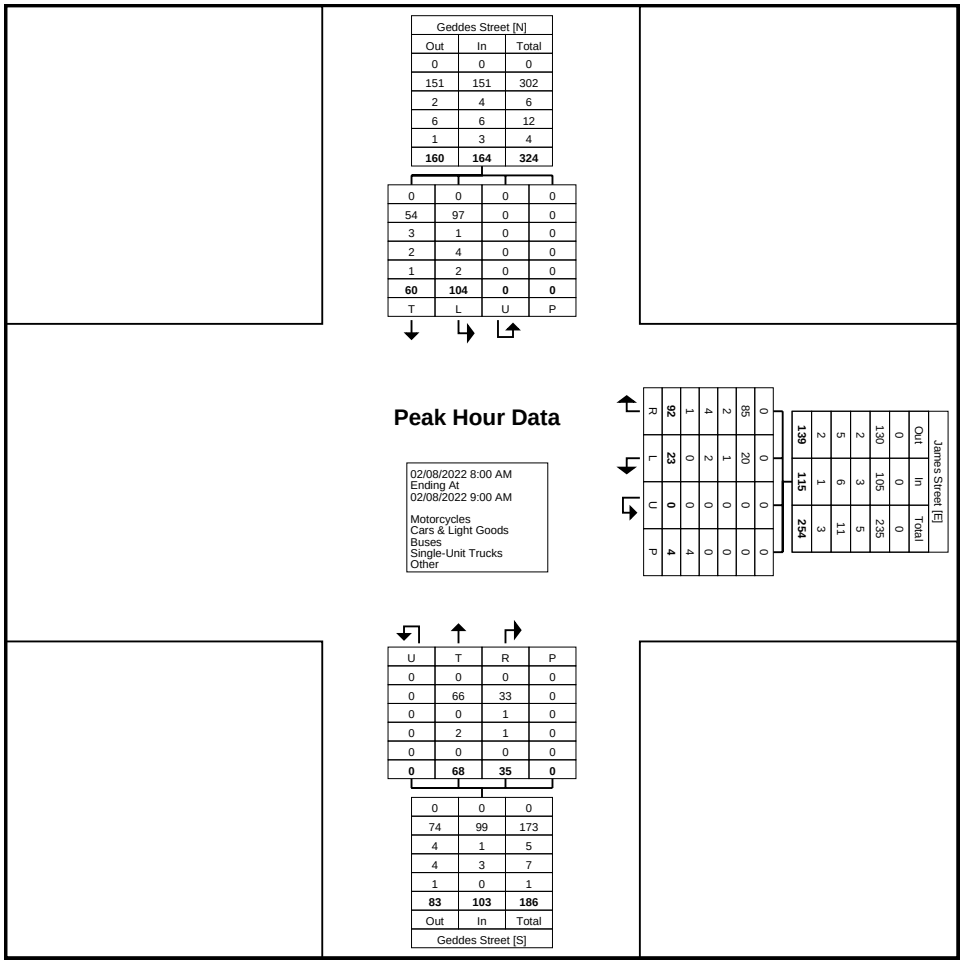
Turning Movement Peak Hour Data (8:00 AM)

Start Time	James Street Westbound					Geddes Street Northbound					Geddes Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
8:00 AM	5	28	0	0	33	18	6	0	0	24	23	13	0	0	36	93
8:15 AM	2	23	0	1	25	16	7	0	0	23	26	12	0	0	38	86
8:30 AM	5	20	0	0	25	16	6	0	0	22	25	24	0	0	49	96
8:45 AM	11	21	0	3	32	18	16	0	0	34	30	11	0	0	41	107
Total	23	92	0	4	115	68	35	0	0	103	104	60	0	0	164	382
Approach %	20.0	80.0	0.0	-	-	66.0	34.0	0.0	-	-	63.4	36.6	0.0	-	-	-
Total %	6.0	24.1	0.0	-	30.1	17.8	9.2	0.0	-	27.0	27.2	15.7	0.0	-	42.9	-
PHF	0.523	0.821	0.000	-	0.871	0.944	0.547	0.000	-	0.757	0.867	0.625	0.000	-	0.837	0.893
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	20	85	0	-	105	66	33	0	-	99	97	54	0	-	151	355
% Cars & Light Goods	87.0	92.4	-	-	91.3	97.1	94.3	-	-	96.1	93.3	90.0	-	-	92.1	92.9
Buses	1	2	0	-	3	0	1	0	-	1	1	3	0	-	4	8
% Buses	4.3	2.2	-	-	2.6	0.0	2.9	-	-	1.0	1.0	5.0	-	-	2.4	2.1
Single-Unit Trucks	2	4	0	-	6	2	1	0	-	3	4	2	0	-	6	15
% Single-Unit Trucks	8.7	4.3	-	-	5.2	2.9	2.9	-	-	2.9	3.8	3.3	-	-	3.7	3.9
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	2	1	0	-	3	4
% Articulated Trucks	0.0	1.1	-	-	0.9	0.0	0.0	-	-	0.0	1.9	1.7	-	-	1.8	1.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	4	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022

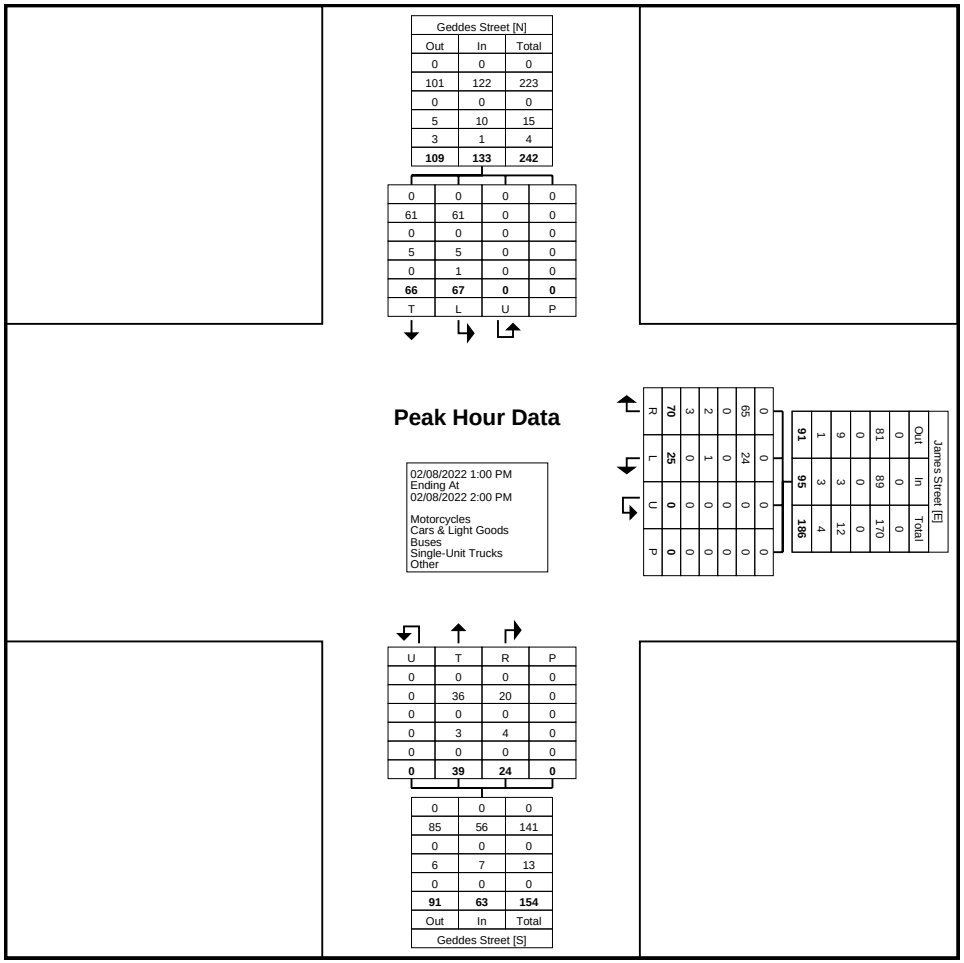
Turning Movement Peak Hour Data (1:00 PM)

Start Time	James Street Westbound					Geddes Street Northbound					Geddes Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
1:00 PM	11	13	0	0	24	7	8	0	0	15	8	12	0	0	20	59
1:15 PM	3	19	0	0	22	7	3	0	0	10	13	15	0	0	28	60
1:30 PM	7	17	0	0	24	12	6	0	0	18	20	21	0	0	41	83
1:45 PM	4	21	0	0	25	13	7	0	0	20	26	18	0	0	44	89
Total	25	70	0	0	95	39	24	0	0	63	67	66	0	0	133	291
Approach %	26.3	73.7	0.0	-	-	61.9	38.1	0.0	-	-	50.4	49.6	0.0	-	-	-
Total %	8.6	24.1	0.0	-	32.6	13.4	8.2	0.0	-	21.6	23.0	22.7	0.0	-	45.7	-
PHF	0.568	0.833	0.000	-	0.950	0.750	0.750	0.000	-	0.788	0.644	0.786	0.000	-	0.756	0.817
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	24	65	0	-	89	36	20	0	-	56	61	61	0	-	122	267
% Cars & Light Goods	96.0	92.9	-	-	93.7	92.3	83.3	-	-	88.9	91.0	92.4	-	-	91.7	91.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	1	2	0	-	3	3	4	0	-	7	5	5	0	-	10	20
% Single-Unit Trucks	4.0	2.9	-	-	3.2	7.7	16.7	-	-	11.1	7.5	7.6	-	-	7.5	6.9
Articulated Trucks	0	3	0	-	3	0	0	0	-	0	1	0	0	-	1	4
% Articulated Trucks	0.0	4.3	-	-	3.2	0.0	0.0	-	-	0.0	1.5	0.0	-	-	0.8	1.4
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (1:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022

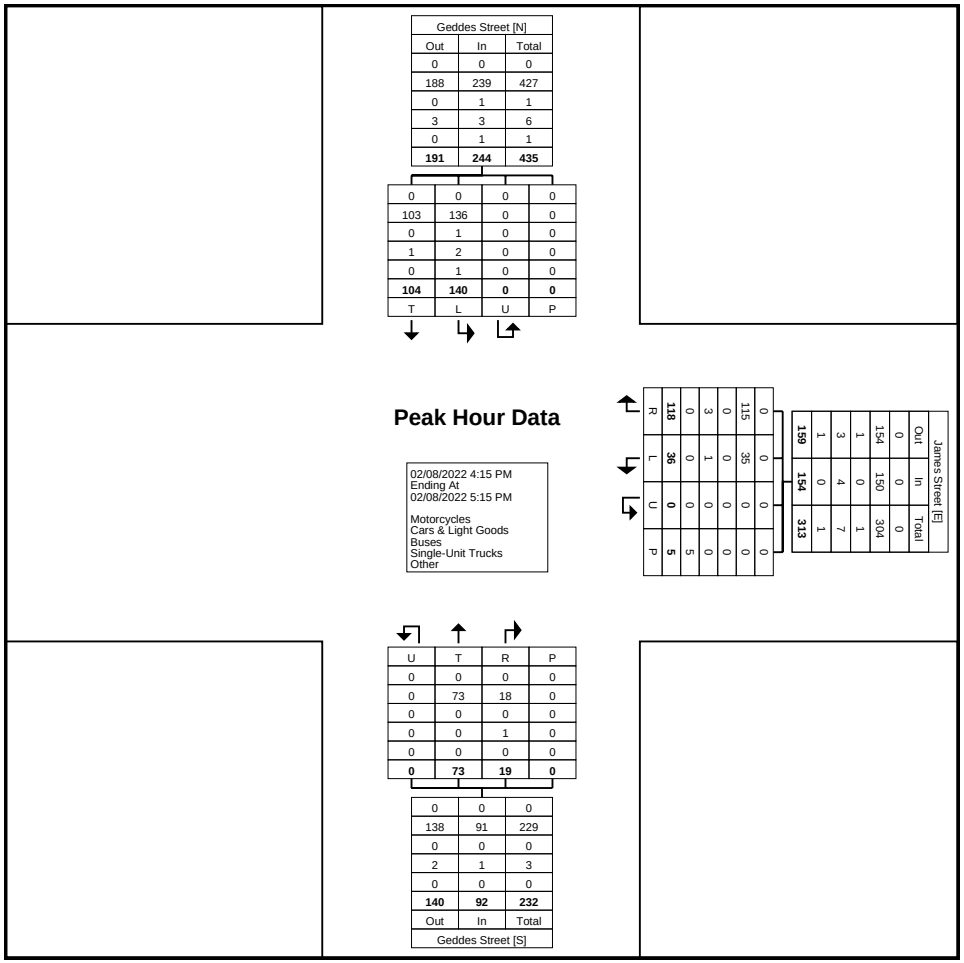
Turning Movement Peak Hour Data (4:15 PM)

Start Time	James Street Westbound					Geddes Street Northbound					Geddes Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
4:15 PM	9	21	0	2	30	17	3	0	0	20	35	20	0	0	55	105
4:30 PM	9	33	0	1	42	13	3	0	0	16	42	22	0	0	64	122
4:45 PM	12	32	0	1	44	17	7	0	0	24	39	30	0	0	69	137
5:00 PM	6	32	0	1	38	26	6	0	0	32	24	32	0	0	56	126
Total	36	118	0	5	154	73	19	0	0	92	140	104	0	0	244	490
Approach %	23.4	76.6	0.0	-	-	79.3	20.7	0.0	-	-	57.4	42.6	0.0	-	-	-
Total %	7.3	24.1	0.0	-	31.4	14.9	3.9	0.0	-	18.8	28.6	21.2	0.0	-	49.8	-
PHF	0.750	0.894	0.000	-	0.875	0.702	0.679	0.000	-	0.719	0.833	0.813	0.000	-	0.884	0.894
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	35	115	0	-	150	73	18	0	-	91	136	103	0	-	239	480
% Cars & Light Goods	97.2	97.5	-	-	97.4	100.0	94.7	-	-	98.9	97.1	99.0	-	-	98.0	98.0
Buses	0	0	0	-	0	0	0	0	-	0	1	0	0	-	1	1
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.7	0.0	-	-	0.4	0.2
Single-Unit Trucks	1	3	0	-	4	0	1	0	-	1	2	1	0	-	3	8
% Single-Unit Trucks	2.8	2.5	-	-	2.6	0.0	5.3	-	-	1.1	1.4	1.0	-	-	1.2	1.6
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	1	0	0	-	1	1
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.7	0.0	-	-	0.4	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	5	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Geddes Street & James Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (4:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Data

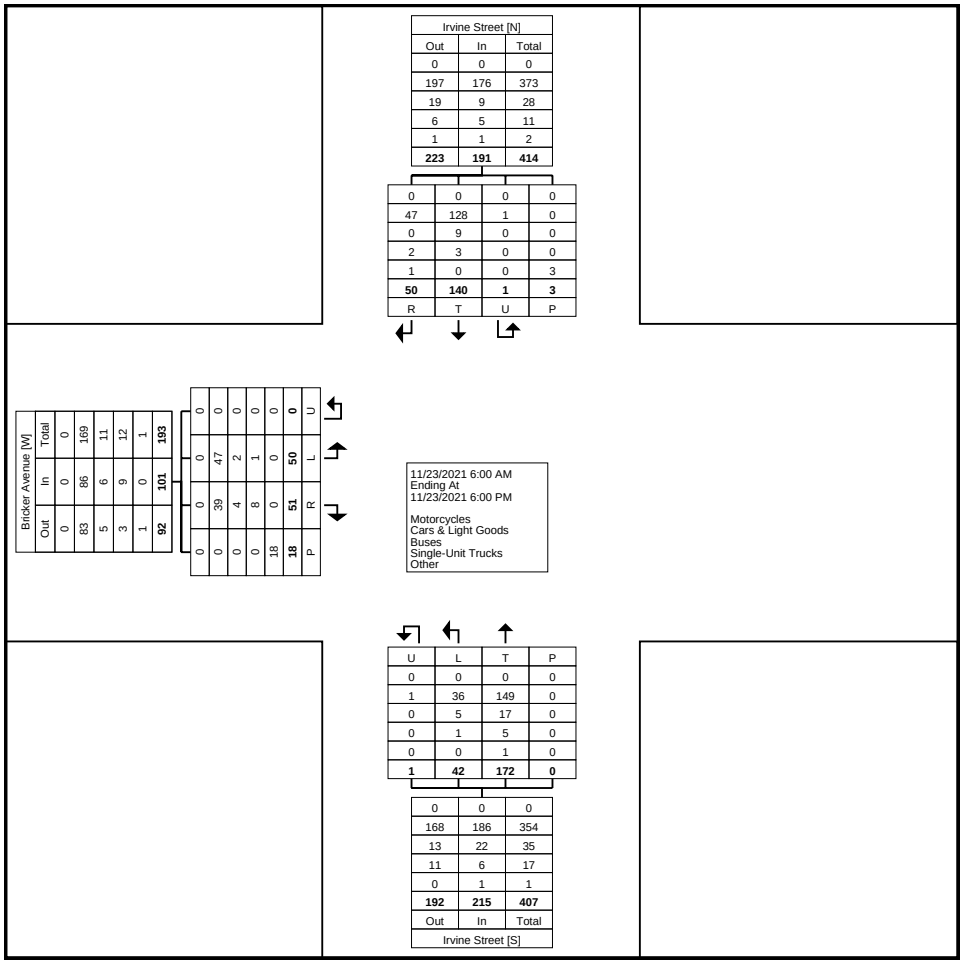
Start Time	Bricker Avenue Eastbound					Irvine Street Northbound					Irvine Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
6:15 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	4
6:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
6:45 AM	0	0	0	1	0	1	2	0	0	3	3	2	0	0	5	8
Hourly Total	0	2	0	1	2	1	6	0	0	7	3	2	0	1	5	14
7:00 AM	0	2	0	1	2	1	5	0	0	6	2	0	0	0	2	10
7:15 AM	1	2	0	0	3	0	6	0	0	6	3	1	0	0	4	13
7:30 AM	0	2	0	0	2	1	2	0	0	3	2	0	0	0	2	7
7:45 AM	2	1	0	0	3	0	8	0	0	8	8	2	0	0	10	21
Hourly Total	3	7	0	1	10	2	21	0	0	23	15	3	0	0	18	51
8:00 AM	5	3	0	1	8	1	3	0	0	4	2	1	0	0	3	15
8:15 AM	2	6	0	1	8	0	7	0	0	7	4	0	0	0	4	19
8:30 AM	5	4	0	0	9	1	9	0	0	10	7	1	0	0	8	27
8:45 AM	1	1	0	1	2	1	11	0	0	12	7	2	0	0	9	23
Hourly Total	13	14	0	3	27	3	30	0	0	33	20	4	0	0	24	84
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	2	0	0	0	2	1	2	0	0	3	3	0	0	0	3	8
12:15 PM	2	1	0	0	3	0	2	0	0	2	5	0	0	0	5	10
12:30 PM	1	0	0	0	1	4	9	1	0	14	3	0	0	0	3	18
12:45 PM	3	0	0	1	3	2	2	0	0	4	4	0	1	0	5	12
Hourly Total	8	1	0	1	9	7	15	1	0	23	15	0	1	0	16	48
1:00 PM	2	2	0	0	4	0	8	0	0	8	4	2	0	0	6	18
1:15 PM	0	1	0	0	1	2	1	0	0	3	2	3	0	0	5	9
1:30 PM	1	1	0	1	2	1	8	0	0	9	3	3	0	0	6	17
1:45 PM	1	1	0	0	2	0	3	0	0	3	0	0	0	0	0	5
Hourly Total	4	5	0	1	9	3	20	0	0	23	9	8	0	0	17	49
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	2	0	0	0	2	1	4	0	0	5	6	2	0	0	8	15
3:15 PM	2	3	0	6	5	3	10	0	0	13	4	4	0	0	8	26
3:30 PM	2	2	0	2	4	6	9	0	0	15	6	6	0	2	12	31
3:45 PM	5	2	0	0	7	0	5	0	0	5	6	4	0	0	10	22
Hourly Total	11	7	0	8	18	10	28	0	0	38	22	16	0	2	38	94
4:00 PM	0	1	0	0	1	0	12	0	0	12	4	4	0	0	8	21
4:15 PM	0	1	0	0	1	3	8	0	0	11	11	2	0	0	13	25
4:30 PM	0	4	0	0	4	4	9	0	0	13	4	3	0	0	7	24
4:45 PM	0	2	0	2	2	2	3	0	0	5	8	2	0	0	10	17

Hourly Total	0	8	0	2	8	9	32	0	0	41	27	11	0	0	38	87
5:00 PM	8	3	0	0	11	2	4	0	0	6	11	2	0	0	13	30
5:15 PM	0	1	0	1	1	0	5	0	0	5	11	2	0	0	13	19
5:30 PM	2	1	0	0	3	4	4	0	0	8	5	1	0	0	6	17
5:45 PM	1	2	0	0	3	1	7	0	0	8	2	1	0	0	3	14
Hourly Total	11	7	0	1	18	7	20	0	0	27	29	6	0	0	35	80
Grand Total	50	51	0	18	101	42	172	1	0	215	140	50	1	3	191	507
Approach %	49.5	50.5	0.0	-	-	19.5	80.0	0.5	-	-	73.3	26.2	0.5	-	-	-
Total %	9.9	10.1	0.0	-	19.9	8.3	33.9	0.2	-	42.4	27.6	9.9	0.2	-	37.7	-
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	47	39	0	-	86	36	149	1	-	186	128	47	1	-	176	448
% Cars & Light Goods	94.0	76.5	-	-	85.1	85.7	86.6	100.0	-	86.5	91.4	94.0	100.0	-	92.1	88.4
Buses	2	4	0	-	6	5	17	0	-	22	9	0	0	-	9	37
% Buses	4.0	7.8	-	-	5.9	11.9	9.9	0.0	-	10.2	6.4	0.0	0.0	-	4.7	7.3
Single-Unit Trucks	1	8	0	-	9	1	5	0	-	6	3	2	0	-	5	20
% Single-Unit Trucks	2.0	15.7	-	-	8.9	2.4	2.9	0.0	-	2.8	2.1	4.0	0.0	-	2.6	3.9
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	2.0	0.0	-	0.5	0.2
Bicycles on Road	0	0	0	-	0	0	1	0	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.6	0.0	-	0.5	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	18	-	-	-	-	0	-	-	-	-	3	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021

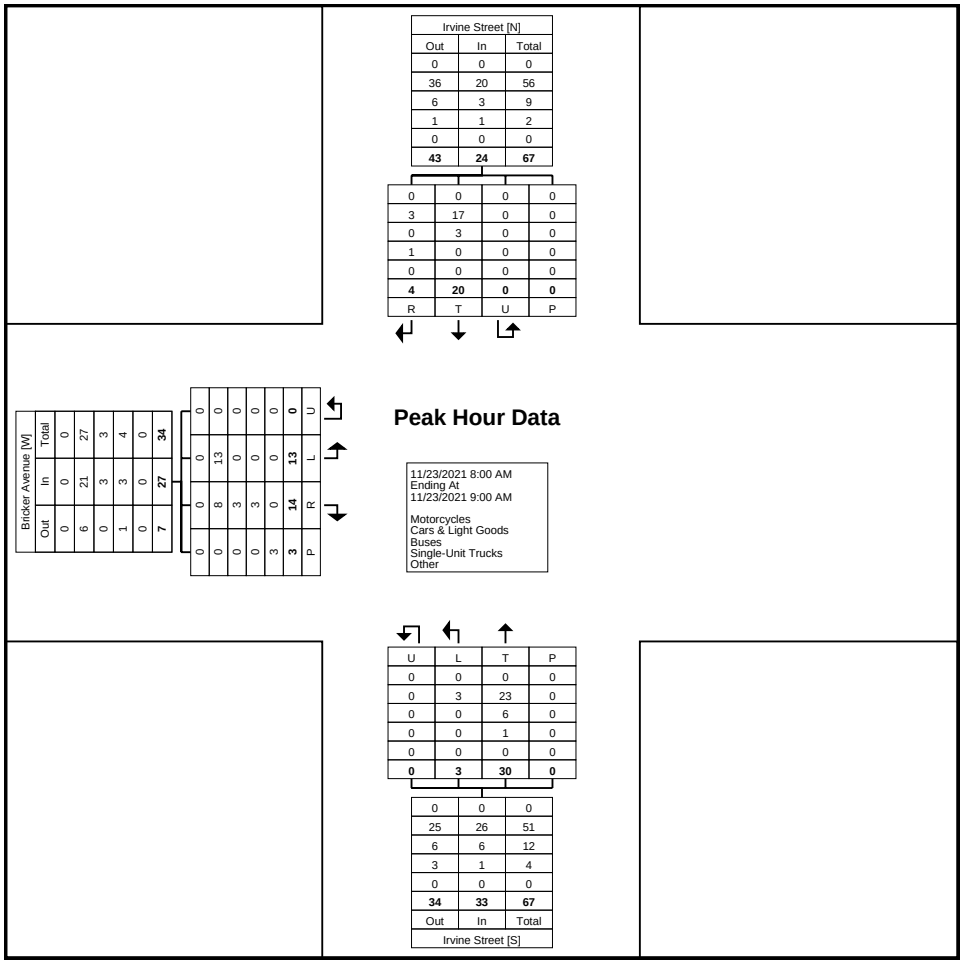
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Bricker Avenue Eastbound					Irvine Street Northbound					Irvine Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
8:00 AM	5	3	0	1	8	1	3	0	0	4	2	1	0	0	3	15
8:15 AM	2	6	0	1	8	0	7	0	0	7	4	0	0	0	4	19
8:30 AM	5	4	0	0	9	1	9	0	0	10	7	1	0	0	8	27
8:45 AM	1	1	0	1	2	1	11	0	0	12	7	2	0	0	9	23
Total	13	14	0	3	27	3	30	0	0	33	20	4	0	0	24	84
Approach %	48.1	51.9	0.0	-	-	9.1	90.9	0.0	-	-	83.3	16.7	0.0	-	-	-
Total %	15.5	16.7	0.0	-	32.1	3.6	35.7	0.0	-	39.3	23.8	4.8	0.0	-	28.6	-
PHF	0.650	0.583	0.000	-	0.750	0.750	0.682	0.000	-	0.688	0.714	0.500	0.000	-	0.667	0.778
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	13	8	0	-	21	3	23	0	-	26	17	3	0	-	20	67
% Cars & Light Goods	100.0	57.1	-	-	77.8	100.0	76.7	-	-	78.8	85.0	75.0	-	-	83.3	79.8
Buses	0	3	0	-	3	0	6	0	-	6	3	0	0	-	3	12
% Buses	0.0	21.4	-	-	11.1	0.0	20.0	-	-	18.2	15.0	0.0	-	-	12.5	14.3
Single-Unit Trucks	0	3	0	-	3	0	1	0	-	1	0	1	0	-	1	5
% Single-Unit Trucks	0.0	21.4	-	-	11.1	0.0	3.3	-	-	3.0	0.0	25.0	-	-	4.2	6.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021

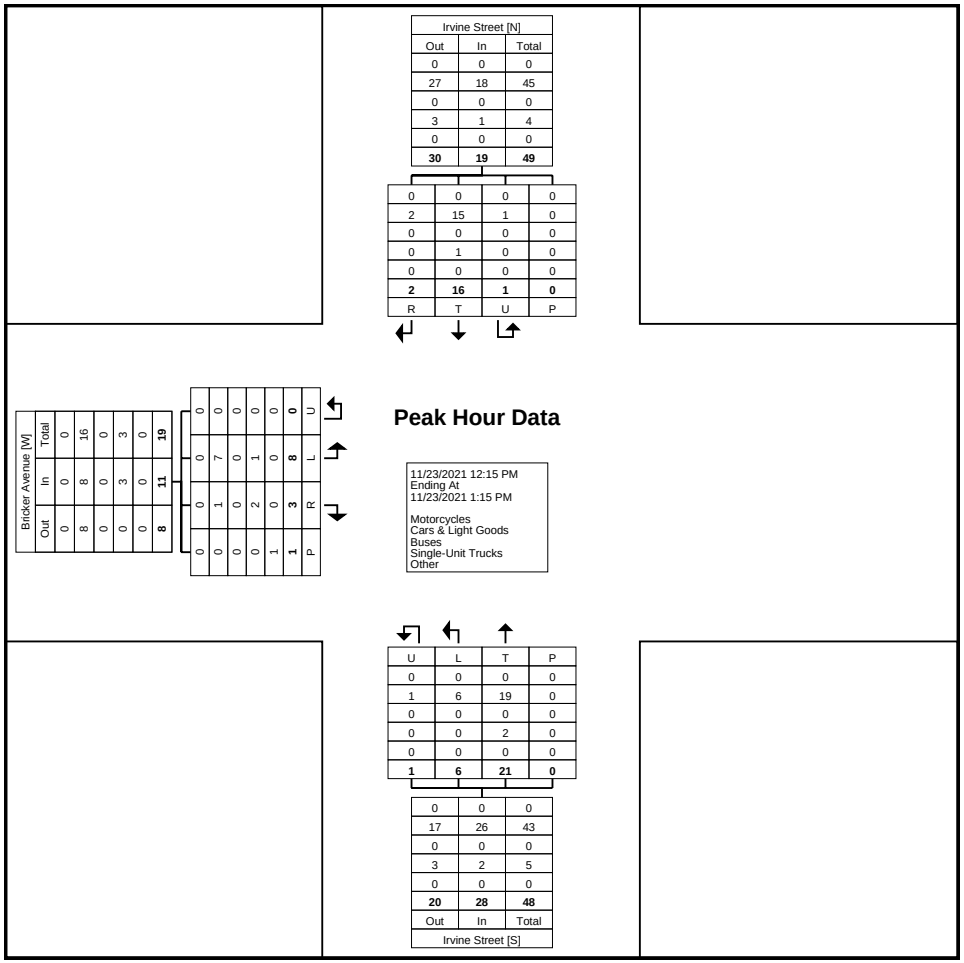
Turning Movement Peak Hour Data (12:15 PM)

Start Time	Bricker Avenue Eastbound					Irvine Street Northbound					Irvine Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
12:15 PM	2	1	0	0	3	0	2	0	0	2	5	0	0	0	5	10
12:30 PM	1	0	0	0	1	4	9	1	0	14	3	0	0	0	3	18
12:45 PM	3	0	0	1	3	2	2	0	0	4	4	0	1	0	5	12
1:00 PM	2	2	0	0	4	0	8	0	0	8	4	2	0	0	6	18
Total	8	3	0	1	11	6	21	1	0	28	16	2	1	0	19	58
Approach %	72.7	27.3	0.0	-	-	21.4	75.0	3.6	-	-	84.2	10.5	5.3	-	-	-
Total %	13.8	5.2	0.0	-	19.0	10.3	36.2	1.7	-	48.3	27.6	3.4	1.7	-	32.8	-
PHF	0.667	0.375	0.000	-	0.688	0.375	0.583	0.250	-	0.500	0.800	0.250	0.250	-	0.792	0.806
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	7	1	0	-	8	6	19	1	-	26	15	2	1	-	18	52
% Cars & Light Goods	87.5	33.3	-	-	72.7	100.0	90.5	100.0	-	92.9	93.8	100.0	100.0	-	94.7	89.7
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	1	2	0	-	3	0	2	0	-	2	1	0	0	-	1	6
% Single-Unit Trucks	12.5	66.7	-	-	27.3	0.0	9.5	0.0	-	7.1	6.3	0.0	0.0	-	5.3	10.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (12:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021

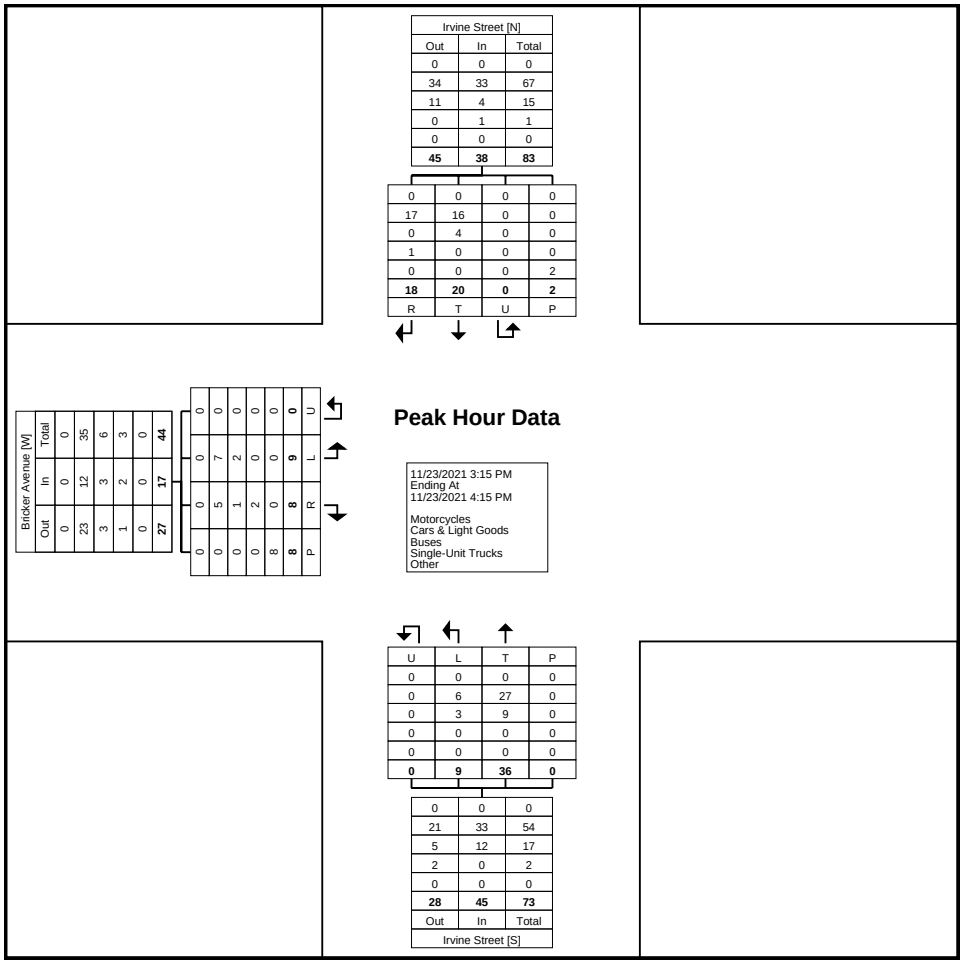
Turning Movement Peak Hour Data (3:15 PM)

Start Time	Bricker Avenue Eastbound					Irvine Street Northbound					Irvine Street Southbound					
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Int. Total
3:15 PM	2	3	0	6	5	3	10	0	0	13	4	4	0	0	8	26
3:30 PM	2	2	0	2	4	6	9	0	0	15	6	6	0	2	12	31
3:45 PM	5	2	0	0	7	0	5	0	0	5	6	4	0	0	10	22
4:00 PM	0	1	0	0	1	0	12	0	0	12	4	4	0	0	8	21
Total	9	8	0	8	17	9	36	0	0	45	20	18	0	2	38	100
Approach %	52.9	47.1	0.0	-	-	20.0	80.0	0.0	-	-	52.6	47.4	0.0	-	-	-
Total %	9.0	8.0	0.0	-	17.0	9.0	36.0	0.0	-	45.0	20.0	18.0	0.0	-	38.0	-
PHF	0.450	0.667	0.000	-	0.607	0.375	0.750	0.000	-	0.750	0.833	0.750	0.000	-	0.792	0.806
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	7	5	0	-	12	6	27	0	-	33	16	17	0	-	33	78
% Cars & Light Goods	77.8	62.5	-	-	70.6	66.7	75.0	-	-	73.3	80.0	94.4	-	-	86.8	78.0
Buses	2	1	0	-	3	3	9	0	-	12	4	0	0	-	4	19
% Buses	22.2	12.5	-	-	17.6	33.3	25.0	-	-	26.7	20.0	0.0	-	-	10.5	19.0
Single-Unit Trucks	0	2	0	-	2	0	0	0	-	0	0	1	0	-	1	3
% Single-Unit Trucks	0.0	25.0	-	-	11.8	0.0	0.0	-	-	0.0	0.0	5.6	-	-	2.6	3.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	8	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Bricker Avenue
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (3:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Colborne Street
Site Code: 210662
Start Date: 02/08/2022

Turning Movement Data

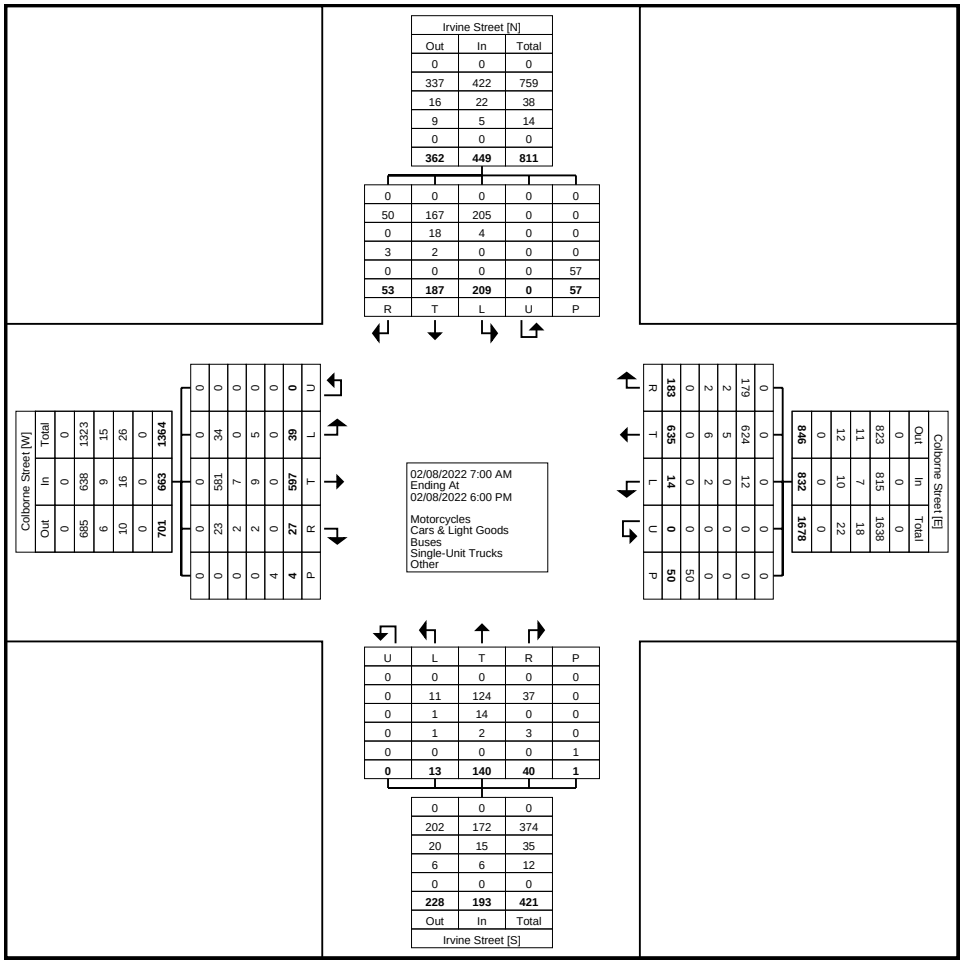
Start Time	Colborne Street Eastbound						Colborne Street Westbound						Irvine Street Northbound						Irvine Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	1	4	1	0	0	6	0	14	1	0	1	15	0	2	1	0	0	3	5	1	0	0	0	6	30
7:15 AM	1	5	0	0	0	6	0	17	0	0	0	17	0	3	0	0	0	3	3	2	1	0	0	6	32
7:30 AM	0	10	0	0	0	10	0	21	3	0	1	24	0	3	1	0	0	4	3	4	0	0	1	7	45
7:45 AM	0	6	1	0	0	7	0	19	2	0	0	21	0	5	0	0	0	5	6	6	1	0	0	13	46
Hourly Total	2	25	2	0	0	29	0	71	6	0	2	77	0	13	2	0	0	15	17	13	2	0	1	32	153
8:00 AM	2	8	0	0	0	10	0	22	3	0	1	25	1	1	0	0	0	2	4	5	2	0	3	11	48
8:15 AM	2	14	1	0	4	17	0	21	6	0	3	27	0	3	3	0	0	6	9	9	3	0	5	21	71
8:30 AM	1	12	1	0	0	14	2	12	8	0	10	22	1	6	1	0	0	8	10	21	1	0	2	32	76
8:45 AM	1	15	3	0	0	19	1	35	3	0	1	39	2	12	3	0	0	17	5	11	3	0	6	19	94
Hourly Total	6	49	5	0	4	60	3	90	20	0	15	113	4	22	7	0	0	33	28	46	9	0	16	83	289
9:00 AM	1	11	0	0	0	12	0	17	6	0	0	23	2	2	1	0	0	5	4	2	0	0	0	6	46
9:15 AM	1	19	0	0	0	20	0	20	2	0	0	22	0	4	0	0	0	4	4	5	1	0	2	10	56
9:30 AM	0	8	0	0	0	8	1	21	4	0	1	26	1	1	1	0	0	3	7	3	2	0	1	12	49
9:45 AM	0	14	2	0	0	16	2	14	0	0	0	16	0	1	0	0	0	1	6	6	3	0	1	15	48
Hourly Total	2	52	2	0	0	56	3	72	12	0	1	87	3	8	2	0	0	13	21	16	6	0	4	43	199
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	1	23	0	0	0	24	0	14	9	0	0	23	0	4	2	0	0	6	8	8	0	0	2	16	69
12:15 PM	1	14	2	0	0	17	1	22	7	0	0	30	0	1	1	0	0	2	8	3	1	0	3	12	61
12:30 PM	0	17	1	0	0	18	0	21	7	0	0	28	0	4	2	0	0	6	4	7	1	0	0	12	64
12:45 PM	2	17	0	0	0	19	0	20	5	0	0	25	0	4	0	0	0	4	9	7	5	0	1	21	69
Hourly Total	4	71	3	0	0	78	1	77	28	0	0	106	0	13	5	0	0	18	29	25	7	0	6	61	263
1:00 PM	1	17	1	0	0	19	1	18	6	0	0	25	0	6	1	0	0	7	4	3	2	0	0	9	60
1:15 PM	1	19	1	0	0	21	0	20	6	0	0	26	0	3	1	0	0	4	9	4	2	0	1	15	66
1:30 PM	1	14	1	0	0	16	0	15	3	0	1	18	0	2	3	0	0	5	9	2	1	0	2	12	51
1:45 PM	2	24	0	0	0	26	0	22	3	0	2	25	2	2	2	0	0	6	5	1	2	0	1	8	65
Hourly Total	5	74	3	0	0	82	1	75	18	0	3	94	2	13	7	0	0	22	27	10	7	0	4	44	242
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	32	3	0	0	35	1	28	7	0	7	36	0	3	1	0	0	4	6	12	3	0	2	21	96
3:15 PM	1	26	1	0	0	28	0	23	8	0	11	31	1	10	5	0	0	16	7	12	3	0	3	22	97
3:30 PM	4	18	1	0	0	23	2	19	5	0	4	26	0	11	4	0	1	15	6	5	3	0	5	14	78
3:45 PM	3	34	1	0	0	38	0	21	9	0	0	30	0	5	1	0	0	6	13	3	1	0	5	17	91
Hourly Total	8	110	6	0	0	124	3	91	29	0	22	123	1	29	11	0	1	41	32	32	10	0	15	74	362
4:00 PM	1	25	1	0	0	27	1	28	11	0	1	40	0	3	0	0	0	3	4	8	1	0	2	13	83
4:15 PM	0	23	2	0	0	25	0	29	9	0	1	38	1	6	1	0	0	8	10	3	1	0	2	14	85
4:30 PM	1	27	0	0	0	28	0	21	13	0	3	34	2	4	1	0	0	7	9	5	4	0	2	18	87

4:45 PM	4	31	0	0	0	35	2	16	9	0	0	27	0	9	1	0	0	10	9	8	3	0	0	20	92
Hourly Total	6	106	3	0	0	115	3	94	42	0	5	139	3	22	3	0	0	28	32	24	9	0	6	65	347
5:00 PM	2	31	0	0	0	33	0	21	10	0	2	31	0	4	2	0	0	6	5	7	0	0	1	12	82
5:15 PM	3	23	1	0	0	27	0	9	6	0	0	15	0	5	0	0	0	5	4	4	2	0	3	10	57
5:30 PM	1	28	1	0	0	30	0	18	8	0	0	26	0	5	0	0	0	5	7	5	0	0	0	12	73
5:45 PM	0	28	1	0	0	29	0	17	4	0	0	21	0	6	1	0	0	7	7	5	1	0	1	13	70
Hourly Total	6	110	3	0	0	119	0	65	28	0	2	93	0	20	3	0	0	23	23	21	3	0	5	47	282
Grand Total	39	597	27	0	4	663	14	635	183	0	50	832	13	140	40	0	1	193	209	187	53	0	57	449	2137
Approach %	5.9	90.0	4.1	0.0	-	-	1.7	76.3	22.0	0.0	-	-	6.7	72.5	20.7	0.0	-	-	46.5	41.6	11.8	0.0	-	-	-
Total %	1.8	27.9	1.3	0.0	-	31.0	0.7	29.7	8.6	0.0	-	38.9	0.6	6.6	1.9	0.0	-	9.0	9.8	8.8	2.5	0.0	-	21.0	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	34	581	23	0	-	638	12	624	179	0	-	815	11	124	37	0	-	172	205	167	50	0	-	422	2047
% Cars & Light Goods	87.2	97.3	85.2	-	-	96.2	85.7	98.3	97.8	-	-	98.0	84.6	88.6	92.5	-	-	89.1	98.1	89.3	94.3	-	-	94.0	95.8
Buses	0	7	2	0	-	9	0	5	2	0	-	7	1	14	0	0	-	15	4	18	0	0	-	22	53
% Buses	0.0	1.2	7.4	-	-	1.4	0.0	0.8	1.1	-	-	0.8	7.7	10.0	0.0	-	-	7.8	1.9	9.6	0.0	-	-	4.9	2.5
Single-Unit Trucks	5	9	2	0	-	16	2	6	2	0	-	10	1	2	3	0	-	6	0	2	3	0	-	5	37
% Single-Unit Trucks	12.8	1.5	7.4	-	-	2.4	14.3	0.9	1.1	-	-	1.2	7.7	1.4	7.5	-	-	3.1	0.0	1.1	5.7	-	-	1.1	1.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	4.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	48	-	-	-	-	-	1	-	-	-	-	-	57	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	96.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Colborne Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Colborne Street
Site Code: 210662
Start Date: 02/08/2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Colborne Street Eastbound						Colborne Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
8:00 AM	2	8	0	0	0	10	0	22	3	0	1	25	1	1	0	0	0	2	4	5	2	0	3	11	48
8:15 AM	2	14	1	0	4	17	0	21	6	0	3	27	0	3	3	0	0	6	9	9	3	0	5	21	71
8:30 AM	1	12	1	0	0	14	2	12	8	0	10	22	1	6	1	0	0	8	10	21	1	0	2	32	76
8:45 AM	1	15	3	0	0	19	1	35	3	0	1	39	2	12	3	0	0	17	5	11	3	0	6	19	94
Total	6	49	5	0	4	60	3	90	20	0	15	113	4	22	7	0	0	33	28	46	9	0	16	83	289
Approach %	10.0	81.7	8.3	0.0	-	-	2.7	79.6	17.7	0.0	-	-	12.1	66.7	21.2	0.0	-	-	33.7	55.4	10.8	0.0	-	-	-
Total %	2.1	17.0	1.7	0.0	-	20.8	1.0	31.1	6.9	0.0	-	39.1	1.4	7.6	2.4	0.0	-	11.4	9.7	15.9	3.1	0.0	-	28.7	-
PHF	0.750	0.817	0.417	0.000	-	0.789	0.375	0.643	0.625	0.000	-	0.724	0.500	0.458	0.583	0.000	-	0.485	0.700	0.548	0.750	0.000	-	0.648	0.769
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	5	46	4	0	-	55	2	87	19	0	-	108	2	15	6	0	-	23	27	36	9	0	-	72	258
% Cars & Light Goods	83.3	93.9	80.0	-	-	91.7	66.7	96.7	95.0	-	-	95.6	50.0	68.2	85.7	-	-	69.7	96.4	78.3	100.0	-	-	86.7	89.3
Buses	0	2	0	0	-	2	0	2	1	0	-	3	1	6	0	0	-	7	1	9	0	0	-	10	22
% Buses	0.0	4.1	0.0	-	-	3.3	0.0	2.2	5.0	-	-	2.7	25.0	27.3	0.0	-	-	21.2	3.6	19.6	0.0	-	-	12.0	7.6
Single-Unit Trucks	1	1	1	0	-	3	1	1	0	0	-	2	1	1	1	0	-	3	0	1	0	0	-	1	9
% Single-Unit Trucks	16.7	2.0	20.0	-	-	5.0	33.3	1.1	0.0	-	-	1.8	25.0	4.5	14.3	-	-	9.1	0.0	2.2	0.0	-	-	1.2	3.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	15	-	-	-	-	-	0	-	-	-	-	-	16	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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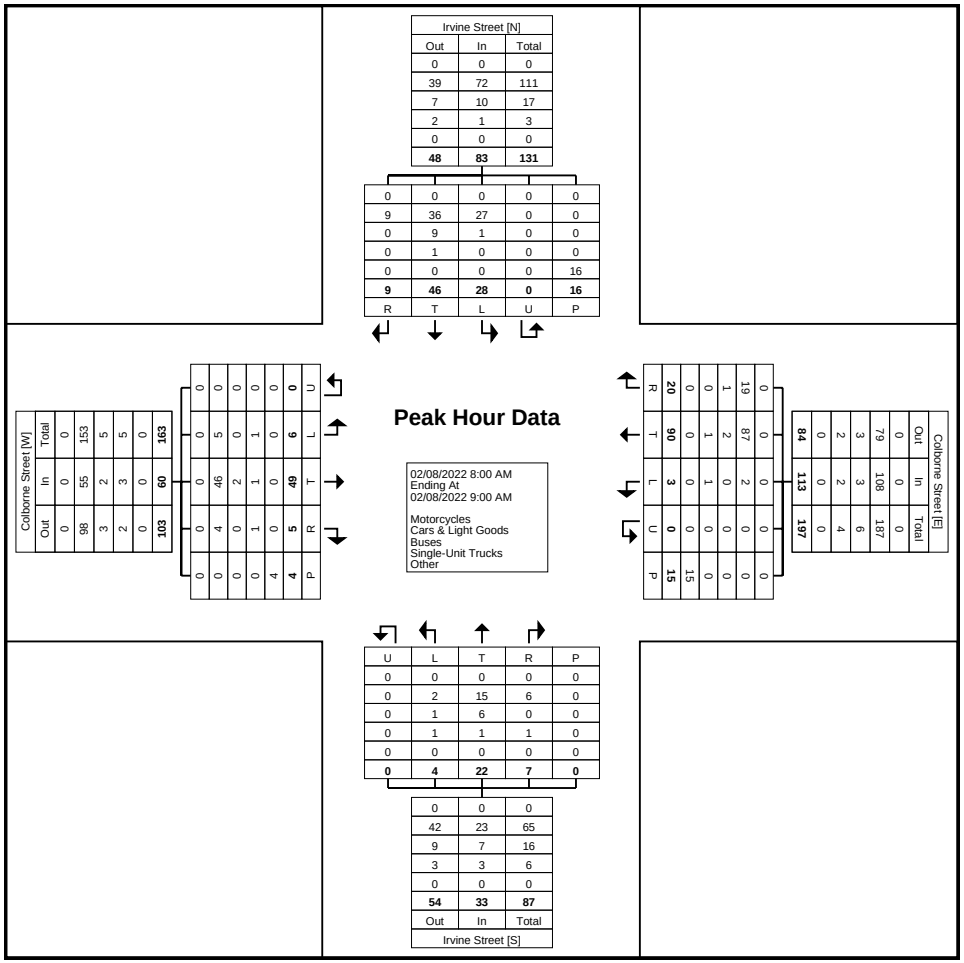
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Colborne Street
Site Code: 210662
Start Date: 02/08/2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Colborne Street Eastbound						Colborne Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
12:00 PM	1	23	0	0	0	24	0	14	9	0	0	23	0	4	2	0	0	6	8	8	0	0	2	16	69
12:15 PM	1	14	2	0	0	17	1	22	7	0	0	30	0	1	1	0	0	2	8	3	1	0	3	12	61
12:30 PM	0	17	1	0	0	18	0	21	7	0	0	28	0	4	2	0	0	6	4	7	1	0	0	12	64
12:45 PM	2	17	0	0	0	19	0	20	5	0	0	25	0	4	0	0	0	4	9	7	5	0	1	21	69
Total	4	71	3	0	0	78	1	77	28	0	0	106	0	13	5	0	0	18	29	25	7	0	6	61	263
Approach %	5.1	91.0	3.8	0.0	-	-	0.9	72.6	26.4	0.0	-	-	0.0	72.2	27.8	0.0	-	-	47.5	41.0	11.5	0.0	-	-	-
Total %	1.5	27.0	1.1	0.0	-	29.7	0.4	29.3	10.6	0.0	-	40.3	0.0	4.9	1.9	0.0	-	6.8	11.0	9.5	2.7	0.0	-	23.2	-
PHF	0.500	0.772	0.375	0.000	-	0.813	0.250	0.875	0.778	0.000	-	0.883	0.000	0.813	0.625	0.000	-	0.750	0.806	0.781	0.350	0.000	-	0.726	0.953
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	4	67	3	0	-	74	1	77	28	0	-	106	0	13	5	0	-	18	29	25	6	0	-	60	258
% Cars & Light Goods	100.0	94.4	100.0	-	-	94.9	100.0	100.0	100.0	-	-	100.0	-	100.0	100.0	-	-	100.0	100.0	100.0	85.7	-	-	98.4	98.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	4	0	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	5
% Single-Unit Trucks	0.0	5.6	0.0	-	-	5.1	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	14.3	-	-	1.6	1.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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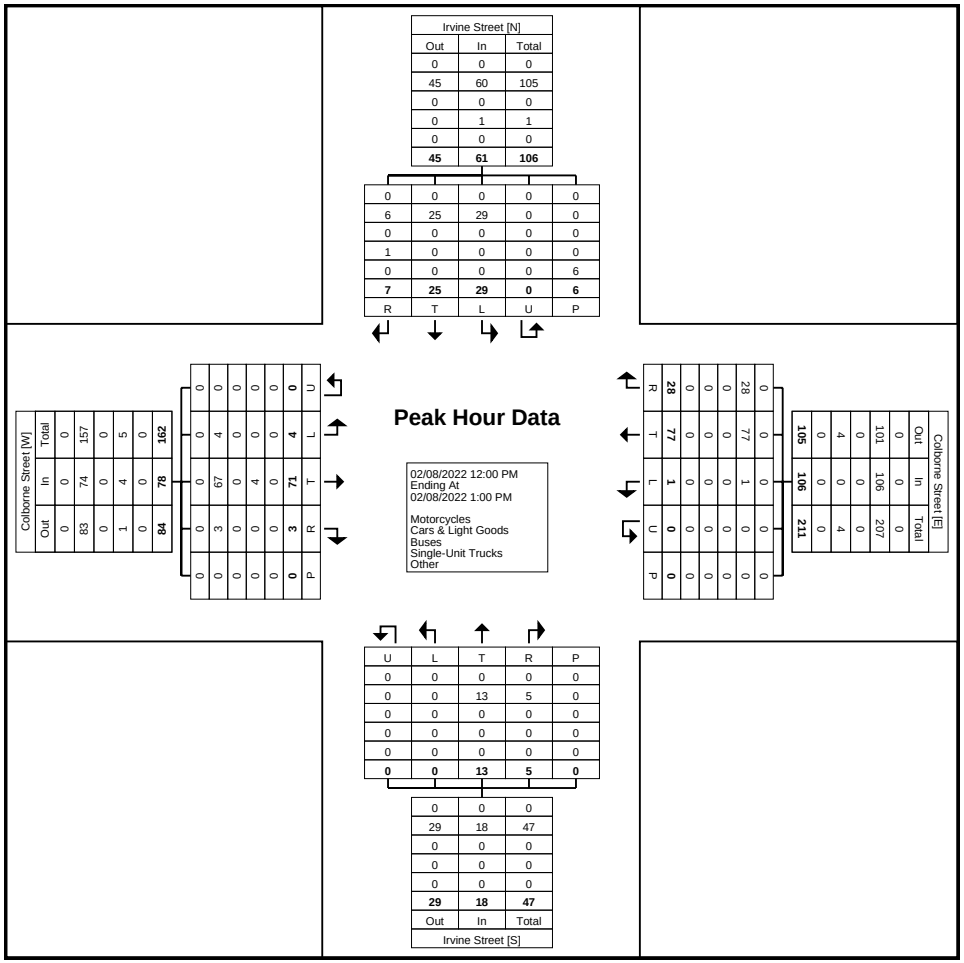
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (12:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Colborne Street
Site Code: 210662
Start Date: 02/08/2022

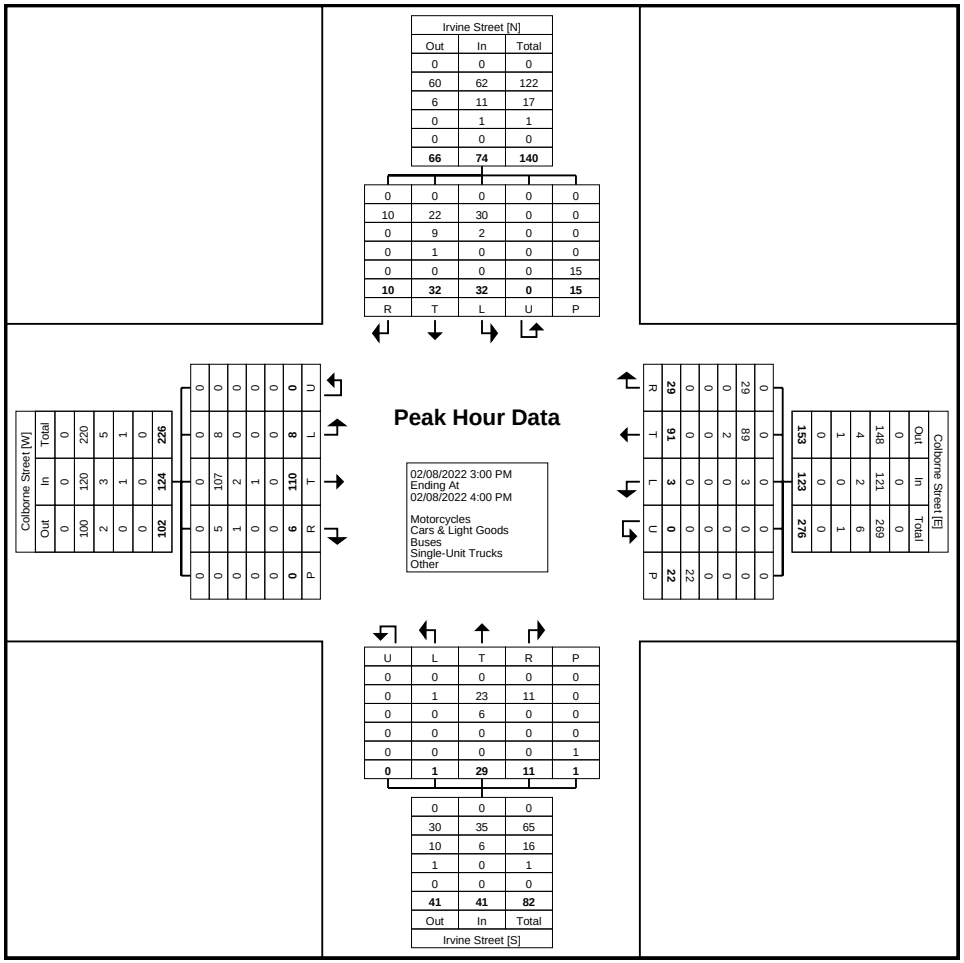
Turning Movement Peak Hour Data (3:00 PM)

Start Time	Colborne Street Eastbound						Colborne Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
3:00 PM	0	32	3	0	0	35	1	28	7	0	7	36	0	3	1	0	0	4	6	12	3	0	2	21	96
3:15 PM	1	26	1	0	0	28	0	23	8	0	11	31	1	10	5	0	0	16	7	12	3	0	3	22	97
3:30 PM	4	18	1	0	0	23	2	19	5	0	4	26	0	11	4	0	1	15	6	5	3	0	5	14	78
3:45 PM	3	34	1	0	0	38	0	21	9	0	0	30	0	5	1	0	0	6	13	3	1	0	5	17	91
Total	8	110	6	0	0	124	3	91	29	0	22	123	1	29	11	0	1	41	32	32	10	0	15	74	362
Approach %	6.5	88.7	4.8	0.0	-	-	2.4	74.0	23.6	0.0	-	-	2.4	70.7	26.8	0.0	-	-	43.2	43.2	13.5	0.0	-	-	-
Total %	2.2	30.4	1.7	0.0	-	34.3	0.8	25.1	8.0	0.0	-	34.0	0.3	8.0	3.0	0.0	-	11.3	8.8	8.8	2.8	0.0	-	20.4	-
PHF	0.500	0.809	0.500	0.000	-	0.816	0.375	0.813	0.806	0.000	-	0.854	0.250	0.659	0.550	0.000	-	0.641	0.615	0.667	0.833	0.000	-	0.841	0.933
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	8	107	5	0	-	120	3	89	29	0	-	121	1	23	11	0	-	35	30	22	10	0	-	62	338
% Cars & Light Goods	100.0	97.3	83.3	-	-	96.8	100.0	97.8	100.0	-	-	98.4	100.0	79.3	100.0	-	-	85.4	93.8	68.8	100.0	-	-	83.8	93.4
Buses	0	2	1	0	-	3	0	2	0	0	-	2	0	6	0	0	-	6	2	9	0	0	-	11	22
% Buses	0.0	1.8	16.7	-	-	2.4	0.0	2.2	0.0	-	-	1.6	0.0	20.7	0.0	-	-	14.6	6.3	28.1	0.0	-	-	14.9	6.1
Single-Unit Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	2
% Single-Unit Trucks	0.0	0.9	0.0	-	-	0.8	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	3.1	0.0	-	-	1.4	0.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	9.1	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	20	-	-	-	-	-	1	-	-	-	-	-	15	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	90.9	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Colborne Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (3:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & East Mill Street
Site Code: 210662
Start Date: 02/08/2022

Turning Movement Data

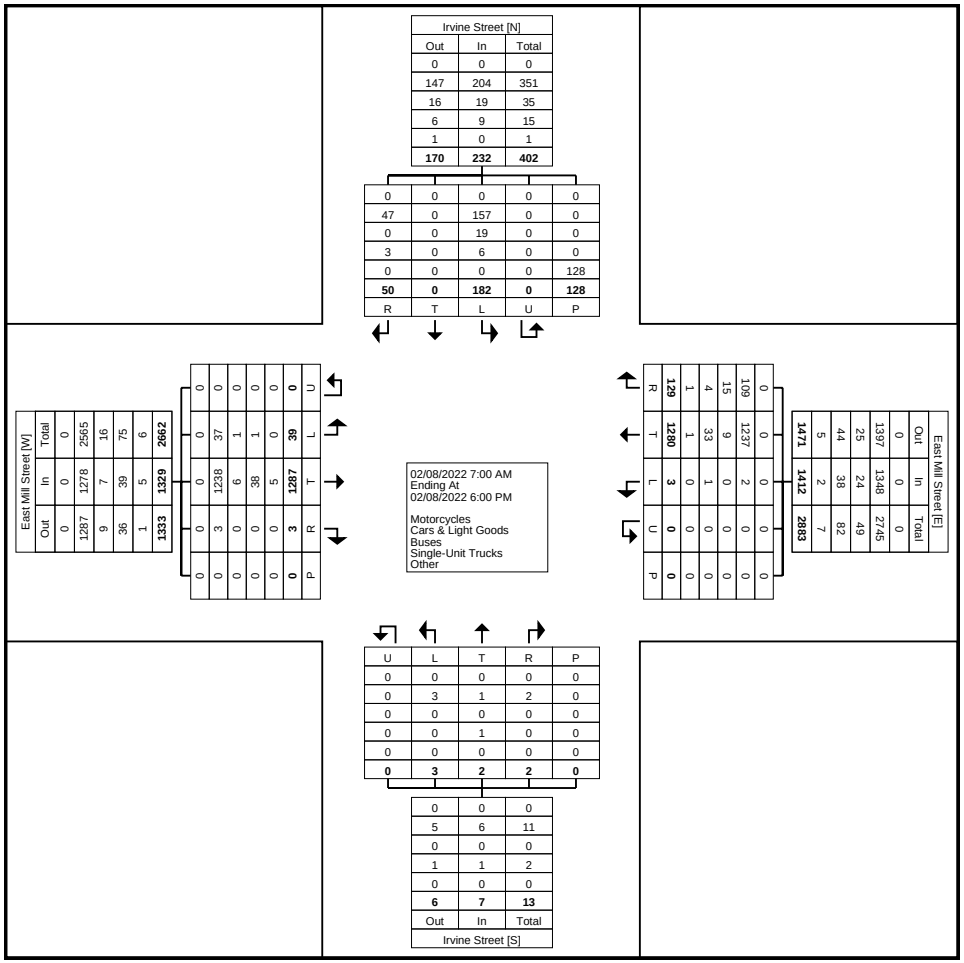
Start Time	East Mill Street Eastbound						East Mill Street Westbound						Irvine Street Northbound						Irvine Street Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	25	0	0	0	25	0	16	3	0	0	19	0	0	0	0	0	0	3	0	1	0	5	4	48
7:15 AM	0	16	0	0	0	16	0	23	3	0	0	26	0	0	0	0	0	0	2	0	0	0	0	2	44
7:30 AM	1	27	0	0	0	28	0	23	2	0	0	25	0	0	0	0	0	0	5	0	3	0	0	8	61
7:45 AM	1	32	0	0	0	33	0	18	2	0	0	20	0	0	0	0	0	0	5	0	2	0	1	7	60
Hourly Total	2	100	0	0	0	102	0	80	10	0	0	90	0	0	0	0	0	0	15	0	6	0	6	21	213
8:00 AM	0	41	0	0	0	41	0	26	2	0	0	28	0	0	0	0	0	0	7	0	3	0	0	10	79
8:15 AM	2	57	0	0	0	59	1	30	4	0	0	35	0	1	0	0	0	1	7	0	1	0	11	8	103
8:30 AM	0	72	1	0	0	73	0	33	7	0	0	40	1	1	0	0	0	2	22	0	3	0	23	25	140
8:45 AM	2	67	0	0	0	69	0	73	9	0	0	82	0	0	0	0	0	0	8	0	4	0	8	12	163
Hourly Total	4	237	1	0	0	242	1	162	22	0	0	185	1	2	0	0	0	3	44	0	11	0	42	55	485
9:00 AM	0	21	0	0	0	21	0	30	4	0	0	34	0	0	0	0	0	0	2	0	1	0	0	3	58
9:15 AM	0	32	0	0	0	32	0	43	4	0	0	47	0	0	0	0	0	0	5	0	0	0	4	5	84
9:30 AM	1	34	0	0	0	35	1	39	2	0	0	42	0	0	0	0	0	0	1	0	1	0	0	2	79
9:45 AM	0	38	0	0	0	38	0	39	2	0	0	41	0	0	0	0	0	0	6	0	4	0	1	10	89
Hourly Total	1	125	0	0	0	126	1	151	12	0	0	164	0	0	0	0	0	0	14	0	6	0	5	20	310
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	27	0	0	0	27	0	46	3	0	0	49	0	0	0	0	0	0	9	0	0	0	2	9	85
12:15 PM	0	29	0	0	0	29	0	42	0	0	0	42	0	0	0	0	0	0	6	0	2	0	2	8	79
12:30 PM	2	42	0	0	0	44	1	41	3	0	0	45	0	0	0	0	0	0	5	0	1	0	1	6	95
12:45 PM	1	54	0	0	0	55	0	34	5	0	0	39	0	0	0	0	0	0	7	0	0	0	0	7	101
Hourly Total	3	152	0	0	0	155	1	163	11	0	0	175	0	0	0	0	0	0	27	0	3	0	5	30	360
1:00 PM	0	29	0	0	0	29	0	42	4	0	0	46	0	0	0	0	0	0	3	0	1	0	0	4	79
1:15 PM	0	41	0	0	0	41	0	48	3	0	0	51	1	0	0	0	0	1	4	0	0	0	0	4	97
1:30 PM	1	43	1	0	0	45	0	41	3	0	0	44	0	0	0	0	0	0	3	0	1	0	2	4	93
1:45 PM	1	43	0	0	0	44	0	38	4	0	0	42	1	0	0	0	0	1	1	0	0	0	2	1	88
Hourly Total	2	156	1	0	0	159	0	169	14	0	0	183	2	0	0	0	0	2	11	0	2	0	4	13	357
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	1	66	0	0	0	67	0	41	2	0	0	43	0	0	0	0	0	0	13	0	3	0	2	16	126
3:15 PM	3	44	0	0	0	47	0	85	10	0	0	95	0	0	0	0	0	0	9	0	1	0	35	10	152
3:30 PM	9	38	0	0	0	47	0	51	8	0	0	59	0	0	0	0	0	0	4	0	5	0	16	9	115
3:45 PM	3	35	0	0	0	38	0	48	4	0	0	52	0	0	0	0	0	0	5	0	1	0	1	6	96
Hourly Total	16	183	0	0	0	199	0	225	24	0	0	249	0	0	0	0	0	0	31	0	10	0	54	41	489
4:00 PM	1	38	0	0	0	39	0	40	4	0	0	44	0	0	0	0	0	0	6	0	3	0	3	9	92
4:15 PM	3	55	0	0	0	58	0	42	5	0	0	47	0	0	1	0	0	1	2	0	4	0	1	6	112
4:30 PM	1	50	0	0	0	51	0	34	2	0	0	36	0	0	0	0	0	0	5	0	0	0	3	5	92

4:45 PM	3	54	0	0	0	57	0	52	5	0	0	57	0	0	0	0	0	0	6	0	1	0	0	7	121
Hourly Total	8	197	0	0	0	205	0	168	16	0	0	184	0	0	1	0	0	1	19	0	8	0	7	27	417
5:00 PM	0	44	0	0	0	44	0	62	4	0	0	66	0	0	0	0	0	0	6	0	0	0	3	6	116
5:15 PM	1	38	0	0	0	39	0	46	6	0	0	52	0	0	0	0	0	0	3	0	4	0	1	7	98
5:30 PM	1	23	1	0	0	25	0	29	8	0	0	37	0	0	0	0	0	0	5	0	0	0	0	5	67
5:45 PM	1	32	0	0	0	33	0	25	2	0	0	27	0	0	1	0	0	1	7	0	0	0	1	7	68
Hourly Total	3	137	1	0	0	141	0	162	20	0	0	182	0	0	1	0	0	1	21	0	4	0	5	25	349
Grand Total	39	1287	3	0	0	1329	3	1280	129	0	0	1412	3	2	2	0	0	7	182	0	50	0	128	232	2980
Approach %	2.9	96.8	0.2	0.0	-	-	0.2	90.7	9.1	0.0	-	-	42.9	28.6	28.6	0.0	-	-	78.4	0.0	21.6	0.0	-	-	-
Total %	1.3	43.2	0.1	0.0	-	44.6	0.1	43.0	4.3	0.0	-	47.4	0.1	0.1	0.1	0.0	-	0.2	6.1	0.0	1.7	0.0	-	7.8	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Cars & Light Goods	37	1238	3	0	-	1278	2	1237	109	0	-	1348	3	1	2	0	-	6	157	0	47	0	-	204	2836
% Cars & Light Goods	94.9	96.2	100.0	-	-	96.2	66.7	96.6	84.5	-	-	95.5	100.0	50.0	100.0	-	-	85.7	86.3	-	94.0	-	-	87.9	95.2
Buses	1	6	0	0	-	7	0	9	15	0	-	24	0	0	0	0	-	0	19	0	0	0	-	19	50
% Buses	2.6	0.5	0.0	-	-	0.5	0.0	0.7	11.6	-	-	1.7	0.0	0.0	0.0	-	-	0.0	10.4	-	0.0	-	-	8.2	1.7
Single-Unit Trucks	1	38	0	0	-	39	1	33	4	0	-	38	0	1	0	0	-	1	6	0	3	0	-	9	87
% Single-Unit Trucks	2.6	3.0	0.0	-	-	2.9	33.3	2.6	3.1	-	-	2.7	0.0	50.0	0.0	-	-	14.3	3.3	-	6.0	-	-	3.9	2.9
Articulated Trucks	0	5	0	0	-	5	0	1	1	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	7
% Articulated Trucks	0.0	0.4	0.0	-	-	0.4	0.0	0.1	0.8	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	128	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & East Mill Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & East Mill Street
Site Code: 210662
Start Date: 02/08/2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	East Mill Street Eastbound						East Mill Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
8:00 AM	0	41	0	0	0	41	0	26	2	0	0	28	0	0	0	0	0	0	7	0	3	0	0	10	79
8:15 AM	2	57	0	0	0	59	1	30	4	0	0	35	0	1	0	0	0	1	7	0	1	0	11	8	103
8:30 AM	0	72	1	0	0	73	0	33	7	0	0	40	1	1	0	0	0	2	22	0	3	0	23	25	140
8:45 AM	2	67	0	0	0	69	0	73	9	0	0	82	0	0	0	0	0	0	8	0	4	0	8	12	163
Total	4	237	1	0	0	242	1	162	22	0	0	185	1	2	0	0	0	3	44	0	11	0	42	55	485
Approach %	1.7	97.9	0.4	0.0	-	-	0.5	87.6	11.9	0.0	-	-	33.3	66.7	0.0	0.0	-	-	80.0	0.0	20.0	0.0	-	-	-
Total %	0.8	48.9	0.2	0.0	-	49.9	0.2	33.4	4.5	0.0	-	38.1	0.2	0.4	0.0	0.0	-	0.6	9.1	0.0	2.3	0.0	-	11.3	-
PHF	0.500	0.823	0.250	0.000	-	0.829	0.250	0.555	0.611	0.000	-	0.564	0.250	0.500	0.000	0.000	-	0.375	0.500	0.000	0.688	0.000	-	0.550	0.744
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Cars & Light Goods	4	226	1	0	-	231	0	158	12	0	-	170	1	1	0	0	-	2	34	0	9	0	-	43	446
% Cars & Light Goods	100.0	95.4	100.0	-	-	95.5	0.0	97.5	54.5	-	-	91.9	100.0	50.0	-	-	-	66.7	77.3	-	81.8	-	-	78.2	92.0
Buses	0	4	0	0	-	4	0	0	8	0	-	8	0	0	0	0	-	0	9	0	0	0	-	9	21
% Buses	0.0	1.7	0.0	-	-	1.7	0.0	0.0	36.4	-	-	4.3	0.0	0.0	-	-	-	0.0	20.5	-	0.0	-	-	16.4	4.3
Single-Unit Trucks	0	6	0	0	-	6	1	4	2	0	-	7	0	1	0	0	-	1	1	0	2	0	-	3	17
% Single-Unit Trucks	0.0	2.5	0.0	-	-	2.5	100.0	2.5	9.1	-	-	3.8	0.0	50.0	-	-	-	33.3	2.3	-	18.2	-	-	5.5	3.5
Articulated Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.4	0.0	-	-	0.4	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	42	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
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Count Name: Irvine Street & East Mill Street
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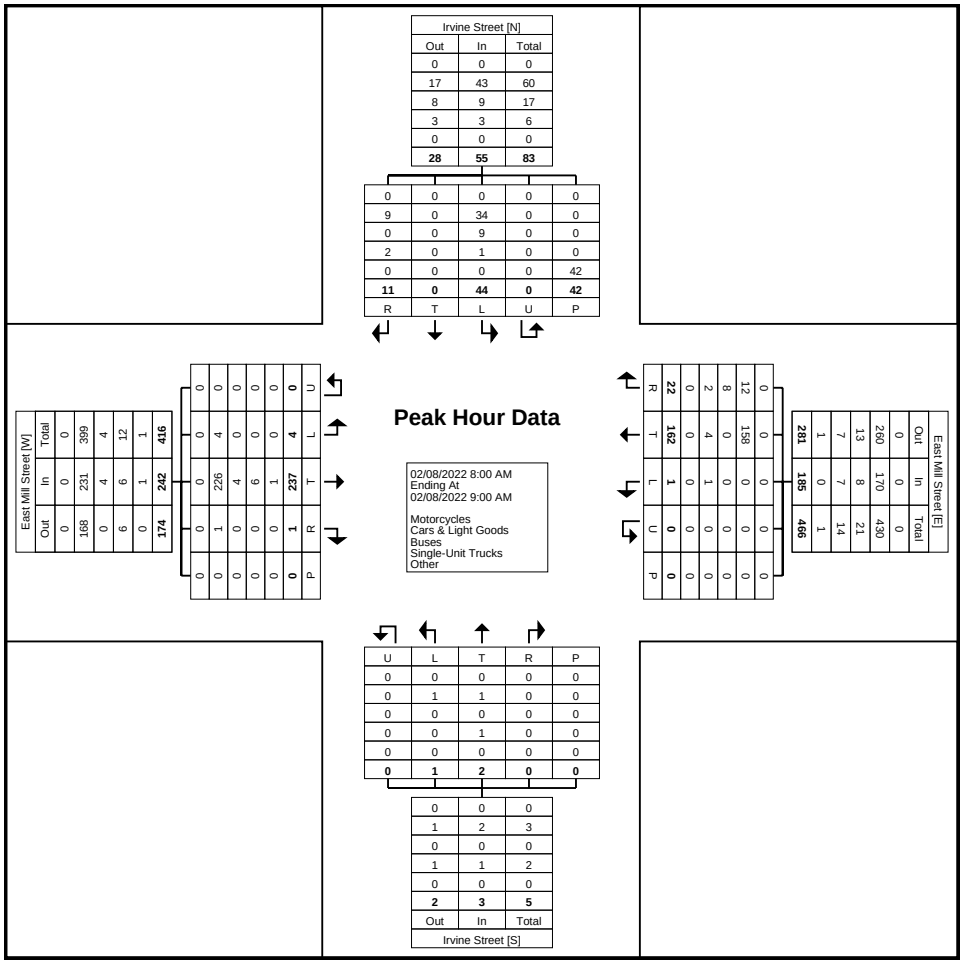
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & East Mill Street
Site Code: 210662
Start Date: 02/08/2022

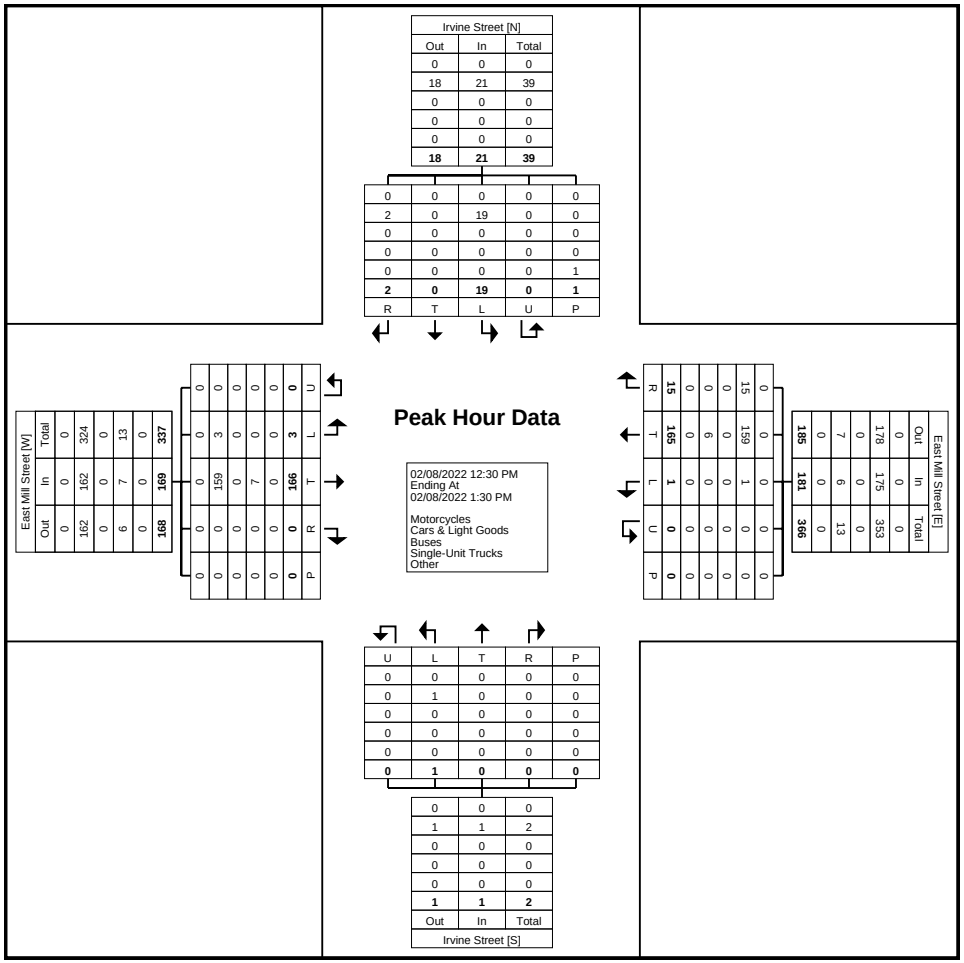
Turning Movement Peak Hour Data (12:30 PM)

Start Time	East Mill Street Eastbound						East Mill Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
12:30 PM	2	42	0	0	0	44	1	41	3	0	0	45	0	0	0	0	0	0	5	0	1	0	1	6	95
12:45 PM	1	54	0	0	0	55	0	34	5	0	0	39	0	0	0	0	0	0	7	0	0	0	0	7	101
1:00 PM	0	29	0	0	0	29	0	42	4	0	0	46	0	0	0	0	0	0	3	0	1	0	0	4	79
1:15 PM	0	41	0	0	0	41	0	48	3	0	0	51	1	0	0	0	0	1	4	0	0	0	0	4	97
Total	3	166	0	0	0	169	1	165	15	0	0	181	1	0	0	0	0	1	19	0	2	0	1	21	372
Approach %	1.8	98.2	0.0	0.0	-	-	0.6	91.2	8.3	0.0	-	-	100.0	0.0	0.0	0.0	-	-	90.5	0.0	9.5	0.0	-	-	-
Total %	0.8	44.6	0.0	0.0	-	45.4	0.3	44.4	4.0	0.0	-	48.7	0.3	0.0	0.0	0.0	-	0.3	5.1	0.0	0.5	0.0	-	5.6	-
PHF	0.375	0.769	0.000	0.000	-	0.768	0.250	0.859	0.750	0.000	-	0.887	0.250	0.000	0.000	0.000	-	0.250	0.679	0.000	0.500	0.000	-	0.750	0.921
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Cars & Light Goods	3	159	0	0	-	162	1	159	15	0	-	175	1	0	0	0	-	1	19	0	2	0	-	21	359
% Cars & Light Goods	100.0	95.8	-	-	-	95.9	100.0	96.4	100.0	-	-	96.7	100.0	-	-	-	-	100.0	100.0	-	100.0	-	-	100.0	96.5
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	7	0	0	-	7	0	6	0	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	13
% Single-Unit Trucks	0.0	4.2	-	-	-	4.1	0.0	3.6	0.0	-	-	3.3	0.0	-	-	-	-	0.0	0.0	-	0.0	-	-	0.0	3.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & East Mill Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (12:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & East Mill Street
Site Code: 210662
Start Date: 02/08/2022

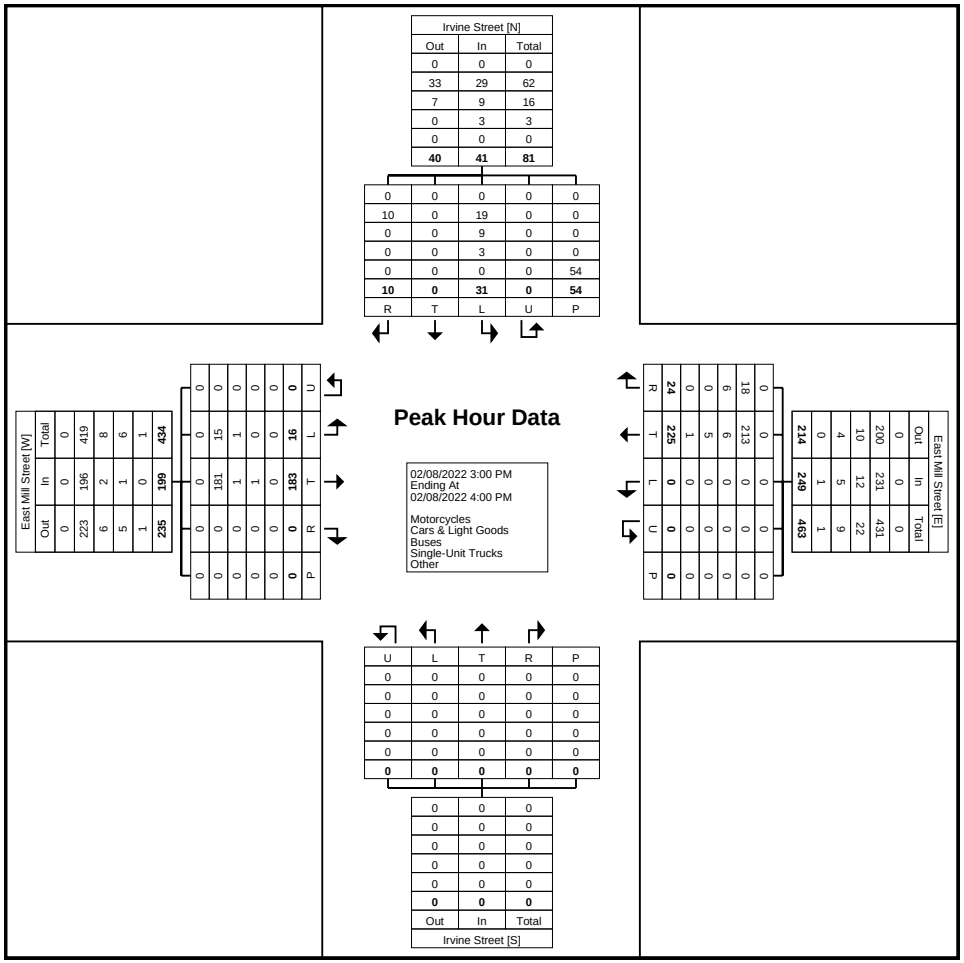
Turning Movement Peak Hour Data (3:00 PM)

Start Time	East Mill Street Eastbound						East Mill Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
3:00 PM	1	66	0	0	0	67	0	41	2	0	0	43	0	0	0	0	0	0	13	0	3	0	2	16	126
3:15 PM	3	44	0	0	0	47	0	85	10	0	0	95	0	0	0	0	0	0	9	0	1	0	35	10	152
3:30 PM	9	38	0	0	0	47	0	51	8	0	0	59	0	0	0	0	0	0	4	0	5	0	16	9	115
3:45 PM	3	35	0	0	0	38	0	48	4	0	0	52	0	0	0	0	0	0	5	0	1	0	1	6	96
Total	16	183	0	0	0	199	0	225	24	0	0	249	0	0	0	0	0	0	31	0	10	0	54	41	489
Approach %	8.0	92.0	0.0	0.0	-	-	0.0	90.4	9.6	0.0	-	-	0.0	0.0	0.0	0.0	-	-	75.6	0.0	24.4	0.0	-	-	-
Total %	3.3	37.4	0.0	0.0	-	40.7	0.0	46.0	4.9	0.0	-	50.9	0.0	0.0	0.0	0.0	-	0.0	6.3	0.0	2.0	0.0	-	8.4	-
PHF	0.444	0.693	0.000	0.000	-	0.743	0.000	0.662	0.600	0.000	-	0.655	0.000	0.000	0.000	0.000	-	0.000	0.596	0.000	0.500	0.000	-	0.641	0.804
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	-	0.0	-	-	0.0	0.0
Cars & Light Goods	15	181	0	0	-	196	0	213	18	0	-	231	0	0	0	0	-	0	19	0	10	0	-	29	456
% Cars & Light Goods	93.8	98.9	-	-	-	98.5	-	94.7	75.0	-	-	92.8	-	-	-	-	-	-	61.3	-	100.0	-	-	70.7	93.3
Buses	1	1	0	0	-	2	0	6	6	0	-	12	0	0	0	0	-	0	9	0	0	0	-	9	23
% Buses	6.3	0.5	-	-	-	1.0	-	2.7	25.0	-	-	4.8	-	-	-	-	-	-	29.0	-	0.0	-	-	22.0	4.7
Single-Unit Trucks	0	1	0	0	-	1	0	5	0	0	-	5	0	0	0	0	-	0	3	0	0	0	-	3	9
% Single-Unit Trucks	0.0	0.5	-	-	-	0.5	-	2.2	0.0	-	-	2.0	-	-	-	-	-	-	9.7	-	0.0	-	-	7.3	1.8
Articulated Trucks	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.0	-	-	-	0.0	-	0.4	0.0	-	-	0.4	-	-	-	-	-	-	0.0	-	0.0	-	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	54	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & East Mill Street
Site Code: 210662
Start Date: 02/08/2022



Turning Movement Peak Hour Data Plot (3:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Woolwich Street
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Data

Start Time	Woolwich Street Eastbound						Woolwich Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	0	4	0	0	0	4	0	17	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	21
6:15 AM	0	8	0	0	0	8	0	24	0	0	0	24	0	0	2	0	0	2	0	0	0	0	0	0	34
6:30 AM	1	9	0	0	1	10	0	16	1	0	0	17	0	0	1	0	0	1	0	0	0	0	0	0	28
6:45 AM	0	14	2	0	3	16	2	17	1	0	0	20	0	0	2	0	0	2	0	1	1	0	0	2	40
Hourly Total	1	35	2	0	4	38	2	74	2	0	0	78	0	0	5	0	0	5	0	1	1	0	0	2	123
7:00 AM	0	18	0	0	1	18	2	24	0	0	0	26	0	0	5	0	0	5	0	0	1	0	0	1	50
7:15 AM	0	15	0	0	0	15	2	27	0	0	0	29	0	0	7	0	0	7	1	0	2	0	0	3	54
7:30 AM	0	21	0	0	0	21	1	38	0	0	0	39	0	0	1	0	0	1	0	1	0	0	0	1	62
7:45 AM	0	40	1	0	0	41	10	34	1	0	0	45	1	2	7	0	0	10	0	1	1	0	0	2	98
Hourly Total	0	94	1	0	1	95	15	123	1	0	0	139	1	2	20	0	0	23	1	2	4	0	0	7	264
8:00 AM	0	31	0	0	0	31	2	47	0	0	0	49	2	1	5	0	1	8	0	0	0	0	0	0	88
8:15 AM	1	23	2	0	0	26	4	34	1	0	0	39	1	1	5	0	0	7	1	0	1	0	0	2	74
8:30 AM	2	25	2	0	0	29	3	47	1	0	0	51	6	0	7	0	0	13	1	0	2	0	0	3	96
8:45 AM	2	33	7	0	1	42	1	34	1	0	0	36	9	0	2	0	0	11	0	1	0	0	0	1	90
Hourly Total	5	112	11	0	1	128	10	162	3	0	0	175	18	2	19	0	1	39	2	1	3	0	0	6	348
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	0	24	0	0	0	24	2	23	1	0	0	26	0	0	4	0	0	4	1	1	1	0	0	3	57
12:15 PM	2	22	1	0	0	25	3	16	0	0	0	19	1	0	1	0	0	2	0	0	1	0	0	1	47
12:30 PM	1	27	0	0	0	28	3	20	0	0	0	23	2	2	6	0	0	10	2	0	0	0	0	2	63
12:45 PM	1	15	1	0	0	17	4	19	0	0	0	23	1	0	4	0	0	5	0	0	2	0	0	2	47
Hourly Total	4	88	2	0	0	94	12	78	1	0	0	91	4	2	15	0	0	21	3	1	4	0	0	8	214
1:00 PM	2	21	0	0	0	23	5	16	0	0	0	21	2	0	7	0	0	9	0	0	1	0	0	1	54
1:15 PM	0	23	0	0	0	23	5	22	1	0	0	28	2	0	0	0	0	2	1	0	0	0	0	1	54
1:30 PM	3	17	1	0	0	21	3	14	1	0	0	18	1	1	7	0	0	9	0	1	0	0	0	1	49
1:45 PM	0	20	0	0	0	20	1	18	1	0	0	20	1	0	3	0	0	4	0	0	1	0	0	1	45
Hourly Total	5	81	1	0	0	87	14	70	3	0	0	87	6	1	17	0	0	24	1	1	2	0	0	4	202
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	27	2	0	0	29	7	42	1	0	0	50	2	0	4	0	0	6	0	1	2	0	0	3	88
3:15 PM	0	44	6	0	0	50	2	30	0	0	0	32	5	0	8	0	0	13	1	0	1	0	0	2	97
3:30 PM	1	39	5	0	0	45	5	34	2	0	0	41	3	2	6	0	0	11	1	1	3	0	0	5	102
3:45 PM	1	38	2	0	1	41	7	32	0	0	0	39	2	2	6	0	1	10	0	1	1	0	0	2	92
Hourly Total	2	148	15	0	1	165	21	138	3	0	0	162	12	4	24	0	1	40	2	3	7	0	0	12	379
4:00 PM	1	41	2	0	0	44	8	32	1	0	0	41	1	2	9	1	0	13	1	0	1	0	0	2	100
4:15 PM	0	33	3	0	0	36	7	34	1	0	0	42	3	1	5	0	0	9	1	1	0	0	0	2	89
4:30 PM	0	47	1	0	0	48	6	38	0	0	0	44	2	0	7	0	0	9	0	0	0	0	0	0	101

4:45 PM	0	48	0	0	0	48	10	31	0	0	0	41	3	0	0	0	0	3	0	1	0	0	0	1	93
Hourly Total	1	169	6	0	0	176	31	135	2	0	0	168	9	3	21	1	0	34	2	2	1	0	0	5	383
5:00 PM	1	41	1	0	0	43	11	36	0	0	0	47	1	0	9	0	0	10	2	0	0	0	0	2	102
5:15 PM	0	31	1	0	0	32	13	41	0	0	0	54	0	1	4	0	0	5	0	0	1	0	0	1	92
5:30 PM	1	35	0	0	0	36	7	27	0	0	0	34	1	1	4	0	0	6	1	0	1	0	0	2	78
5:45 PM	1	43	1	0	0	45	4	21	0	0	0	25	2	0	6	0	0	8	1	0	0	0	0	1	79
Hourly Total	3	150	3	0	0	156	35	125	0	0	0	160	4	2	23	0	0	29	4	0	2	0	0	6	351
Grand Total	21	877	41	0	7	939	140	905	15	0	0	1060	54	16	144	1	2	215	15	11	24	0	0	50	2264
Approach %	2.2	93.4	4.4	0.0	-	-	13.2	85.4	1.4	0.0	-	-	25.1	7.4	67.0	0.5	-	-	30.0	22.0	48.0	0.0	-	-	-
Total %	0.9	38.7	1.8	0.0	-	41.5	6.2	40.0	0.7	0.0	-	46.8	2.4	0.7	6.4	0.0	-	9.5	0.7	0.5	1.1	0.0	-	2.2	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	20	835	34	0	-	889	134	858	14	0	-	1006	41	13	136	1	-	191	14	9	22	0	-	45	2131
% Cars & Light Goods	95.2	95.2	82.9	-	-	94.7	95.7	94.8	93.3	-	-	94.9	75.9	81.3	94.4	100.0	-	88.8	93.3	81.8	91.7	-	-	90.0	94.1
Buses	1	13	5	0	-	19	2	10	1	0	-	13	11	3	6	0	-	20	1	2	1	0	-	4	56
% Buses	4.8	1.5	12.2	-	-	2.0	1.4	1.1	6.7	-	-	1.2	20.4	18.8	4.2	0.0	-	9.3	6.7	18.2	4.2	-	-	8.0	2.5
Single-Unit Trucks	0	22	1	0	-	23	3	36	0	0	-	39	2	0	1	0	-	3	0	0	0	0	-	0	65
% Single-Unit Trucks	0.0	2.5	2.4	-	-	2.4	2.1	4.0	0.0	-	-	3.7	3.7	0.0	0.7	0.0	-	1.4	0.0	0.0	0.0	-	-	0.0	2.9
Articulated Trucks	0	7	1	0	-	8	1	1	0	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	11
% Articulated Trucks	0.0	0.8	2.4	-	-	0.9	0.7	0.1	0.0	-	-	0.2	0.0	0.0	0.7	0.0	-	0.5	0.0	0.0	0.0	-	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	4.2	-	-	2.0	0.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	14.3	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	85.7	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
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Count Name: Irvine Street & Woolwich Street
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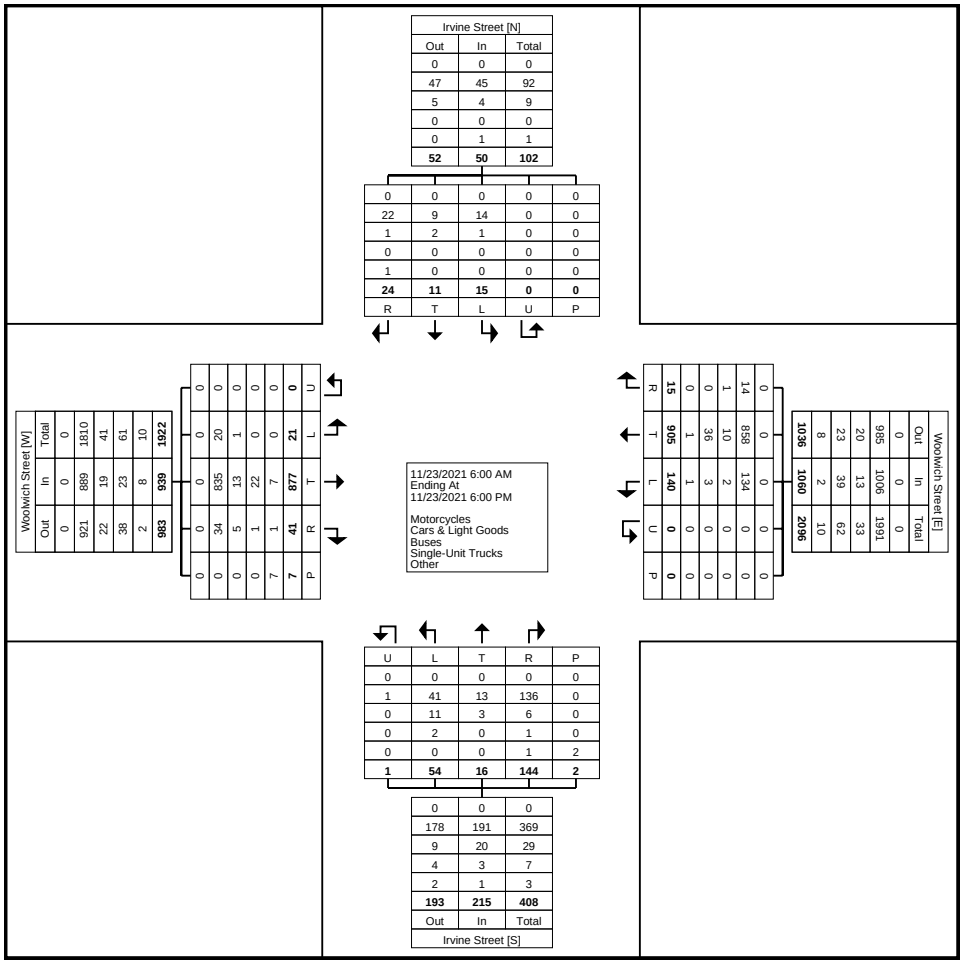
Start Date: 11/23/2021
Page No: 3



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Woolwich Street
Site Code: 210662
Start Date: 11/23/2021

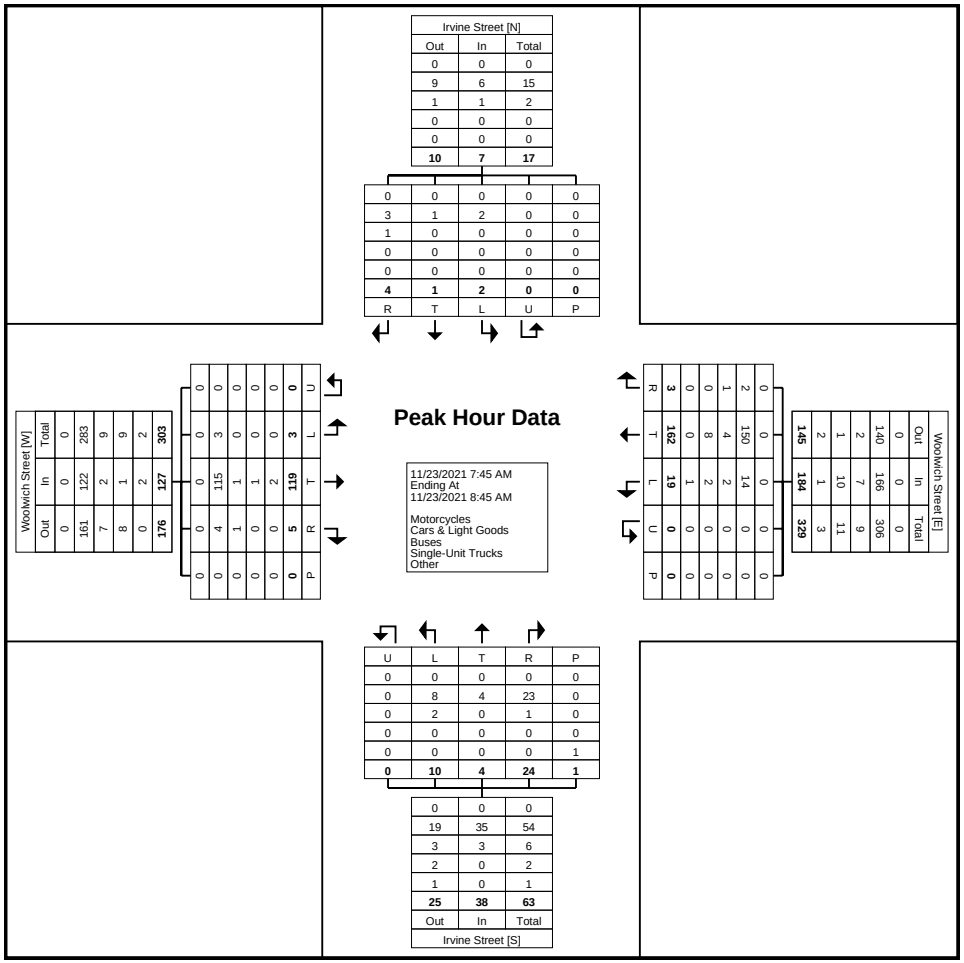
Turning Movement Peak Hour Data (7:45 AM)

Start Time	Woolwich Street Eastbound						Woolwich Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
7:45 AM	0	40	1	0	0	41	10	34	1	0	0	45	1	2	7	0	0	10	0	1	1	0	0	2	98
8:00 AM	0	31	0	0	0	31	2	47	0	0	0	49	2	1	5	0	1	8	0	0	0	0	0	0	88
8:15 AM	1	23	2	0	0	26	4	34	1	0	0	39	1	1	5	0	0	7	1	0	1	0	0	2	74
8:30 AM	2	25	2	0	0	29	3	47	1	0	0	51	6	0	7	0	0	13	1	0	2	0	0	3	96
Total	3	119	5	0	0	127	19	162	3	0	0	184	10	4	24	0	1	38	2	1	4	0	0	7	356
Approach %	2.4	93.7	3.9	0.0	-	-	10.3	88.0	1.6	0.0	-	-	26.3	10.5	63.2	0.0	-	-	28.6	14.3	57.1	0.0	-	-	-
Total %	0.8	33.4	1.4	0.0	-	35.7	5.3	45.5	0.8	0.0	-	51.7	2.8	1.1	6.7	0.0	-	10.7	0.6	0.3	1.1	0.0	-	2.0	-
PHF	0.375	0.744	0.625	0.000	-	0.774	0.475	0.862	0.750	0.000	-	0.902	0.417	0.500	0.857	0.000	-	0.731	0.500	0.250	0.500	0.000	-	0.583	0.908
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	3	115	4	0	-	122	14	150	2	0	-	166	8	4	23	0	-	35	2	1	3	0	-	6	329
% Cars & Light Goods	100.0	96.6	80.0	-	-	96.1	73.7	92.6	66.7	-	-	90.2	80.0	100.0	95.8	-	-	92.1	100.0	100.0	75.0	-	-	85.7	92.4
Buses	0	1	1	0	-	2	2	4	1	0	-	7	2	0	1	0	-	3	0	0	1	0	-	1	13
% Buses	0.0	0.8	20.0	-	-	1.6	10.5	2.5	33.3	-	-	3.8	20.0	0.0	4.2	-	-	7.9	0.0	0.0	25.0	-	-	14.3	3.7
Single-Unit Trucks	0	1	0	0	-	1	2	8	0	0	-	10	0	0	0	0	-	0	0	0	0	0	-	0	11
% Single-Unit Trucks	0.0	0.8	0.0	-	-	0.8	10.5	4.9	0.0	-	-	5.4	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	3.1
Articulated Trucks	0	2	0	0	-	2	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	0.0	1.7	0.0	-	-	1.6	5.3	0.0	0.0	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Woolwich Street
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (7:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Woolwich Street
Site Code: 210662
Start Date: 11/23/2021

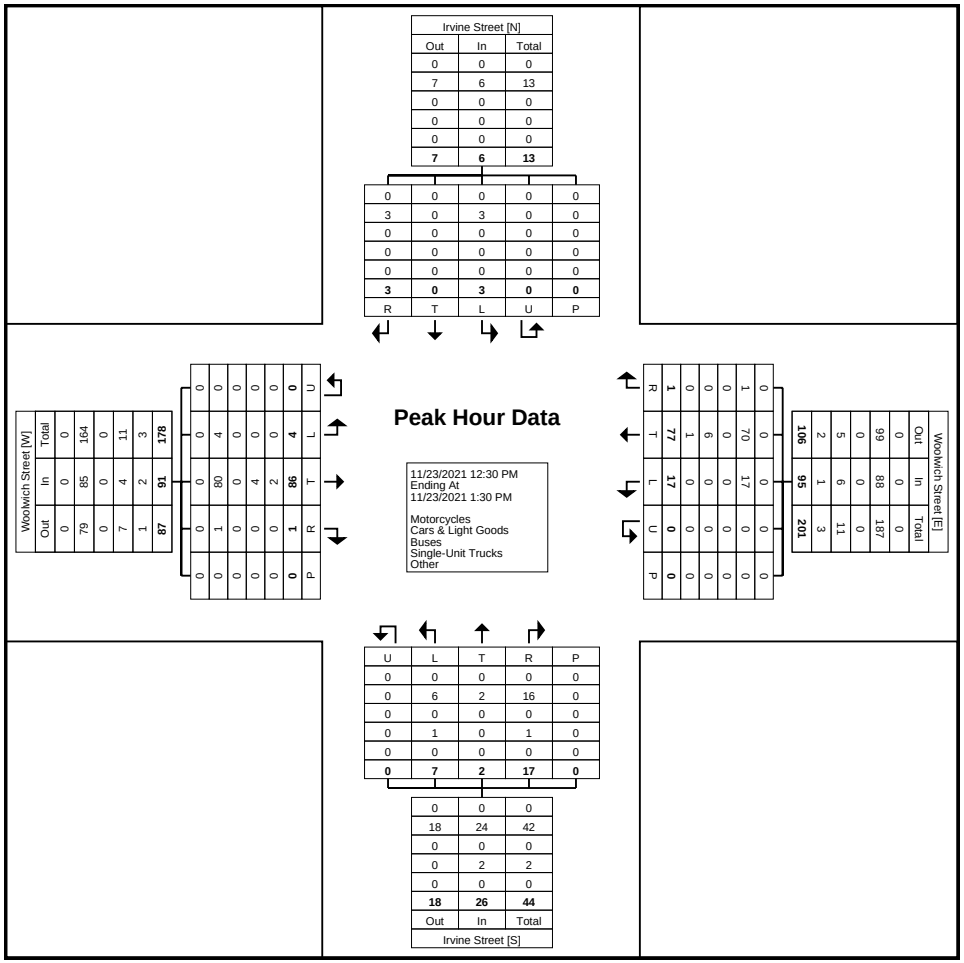
Turning Movement Peak Hour Data (12:30 PM)

Start Time	Woolwich Street Eastbound						Woolwich Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
12:30 PM	1	27	0	0	0	28	3	20	0	0	0	23	2	2	6	0	0	10	2	0	0	0	0	2	63
12:45 PM	1	15	1	0	0	17	4	19	0	0	0	23	1	0	4	0	0	5	0	0	2	0	0	2	47
1:00 PM	2	21	0	0	0	23	5	16	0	0	0	21	2	0	7	0	0	9	0	0	1	0	0	1	54
1:15 PM	0	23	0	0	0	23	5	22	1	0	0	28	2	0	0	0	0	2	1	0	0	0	0	1	54
Total	4	86	1	0	0	91	17	77	1	0	0	95	7	2	17	0	0	26	3	0	3	0	0	6	218
Approach %	4.4	94.5	1.1	0.0	-	-	17.9	81.1	1.1	0.0	-	-	26.9	7.7	65.4	0.0	-	-	50.0	0.0	50.0	0.0	-	-	-
Total %	1.8	39.4	0.5	0.0	-	41.7	7.8	35.3	0.5	0.0	-	43.6	3.2	0.9	7.8	0.0	-	11.9	1.4	0.0	1.4	0.0	-	2.8	-
PHF	0.500	0.796	0.250	0.000	-	0.813	0.850	0.875	0.250	0.000	-	0.848	0.875	0.250	0.607	0.000	-	0.650	0.375	0.000	0.375	0.000	-	0.750	0.865
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Cars & Light Goods	4	80	1	0	-	85	17	70	1	0	-	88	6	2	16	0	-	24	3	0	3	0	-	6	203
% Cars & Light Goods	100.0	93.0	100.0	-	-	93.4	100.0	90.9	100.0	-	-	92.6	85.7	100.0	94.1	-	-	92.3	100.0	-	100.0	-	-	100.0	93.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Single-Unit Trucks	0	4	0	0	-	4	0	6	0	0	-	6	1	0	1	0	-	2	0	0	0	0	-	0	12
% Single-Unit Trucks	0.0	4.7	0.0	-	-	4.4	0.0	7.8	0.0	-	-	6.3	14.3	0.0	5.9	-	-	7.7	0.0	-	0.0	-	-	0.0	5.5
Articulated Trucks	0	2	0	0	-	2	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	0.0	2.3	0.0	-	-	2.2	0.0	1.3	0.0	-	-	1.1	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	1.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Woolwich Street
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (12:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Woolwich Street
Site Code: 210662
Start Date: 11/23/2021

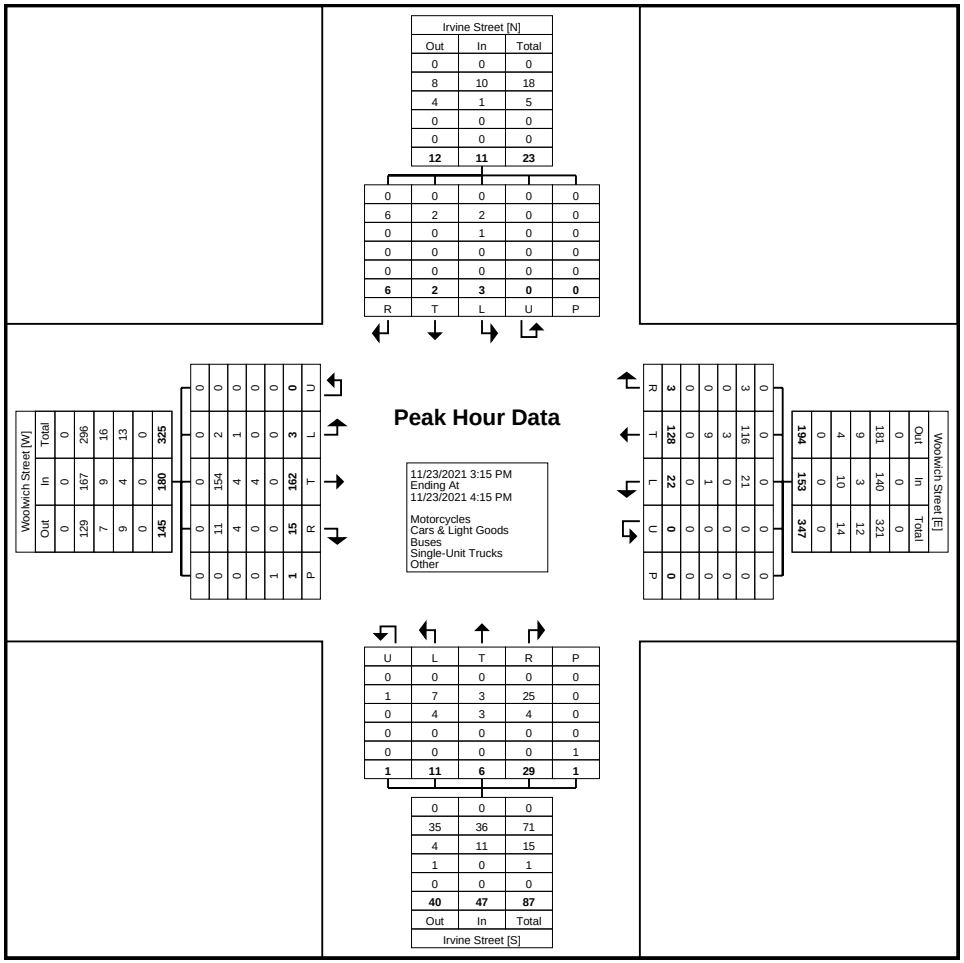
Turning Movement Peak Hour Data (3:15 PM)

Start Time	Woolwich Street Eastbound						Woolwich Street Westbound						Irvine Street Northbound						Irvine Street Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
3:15 PM	0	44	6	0	0	50	2	30	0	0	0	32	5	0	8	0	0	13	1	0	1	0	0	2	97
3:30 PM	1	39	5	0	0	45	5	34	2	0	0	41	3	2	6	0	0	11	1	1	3	0	0	5	102
3:45 PM	1	38	2	0	1	41	7	32	0	0	0	39	2	2	6	0	1	10	0	1	1	0	0	2	92
4:00 PM	1	41	2	0	0	44	8	32	1	0	0	41	1	2	9	1	0	13	1	0	1	0	0	2	100
Total	3	162	15	0	1	180	22	128	3	0	0	153	11	6	29	1	1	47	3	2	6	0	0	11	391
Approach %	1.7	90.0	8.3	0.0	-	-	14.4	83.7	2.0	0.0	-	-	23.4	12.8	61.7	2.1	-	-	27.3	18.2	54.5	0.0	-	-	-
Total %	0.8	41.4	3.8	0.0	-	46.0	5.6	32.7	0.8	0.0	-	39.1	2.8	1.5	7.4	0.3	-	12.0	0.8	0.5	1.5	0.0	-	2.8	-
PHF	0.750	0.920	0.625	0.000	-	0.900	0.688	0.941	0.375	0.000	-	0.933	0.550	0.750	0.806	0.250	-	0.904	0.750	0.500	0.500	0.000	-	0.550	0.958
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	2	154	11	0	-	167	21	116	3	0	-	140	7	3	25	1	-	36	2	2	6	0	-	10	353
% Cars & Light Goods	66.7	95.1	73.3	-	-	92.8	95.5	90.6	100.0	-	-	91.5	63.6	50.0	86.2	100.0	-	76.6	66.7	100.0	100.0	-	-	90.9	90.3
Buses	1	4	4	0	-	9	0	3	0	0	-	3	4	3	4	0	-	11	1	0	0	0	-	1	24
% Buses	33.3	2.5	26.7	-	-	5.0	0.0	2.3	0.0	-	-	2.0	36.4	50.0	13.8	0.0	-	23.4	33.3	0.0	0.0	-	-	9.1	6.1
Single-Unit Trucks	0	4	0	0	-	4	1	9	0	0	-	10	0	0	0	0	-	0	0	0	0	0	-	0	14
% Single-Unit Trucks	0.0	2.5	0.0	-	-	2.2	4.5	7.0	0.0	-	-	6.5	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	3.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Irvine Street & Woolwich Street
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (3:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Woolwich Street & Milford Cres
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Data

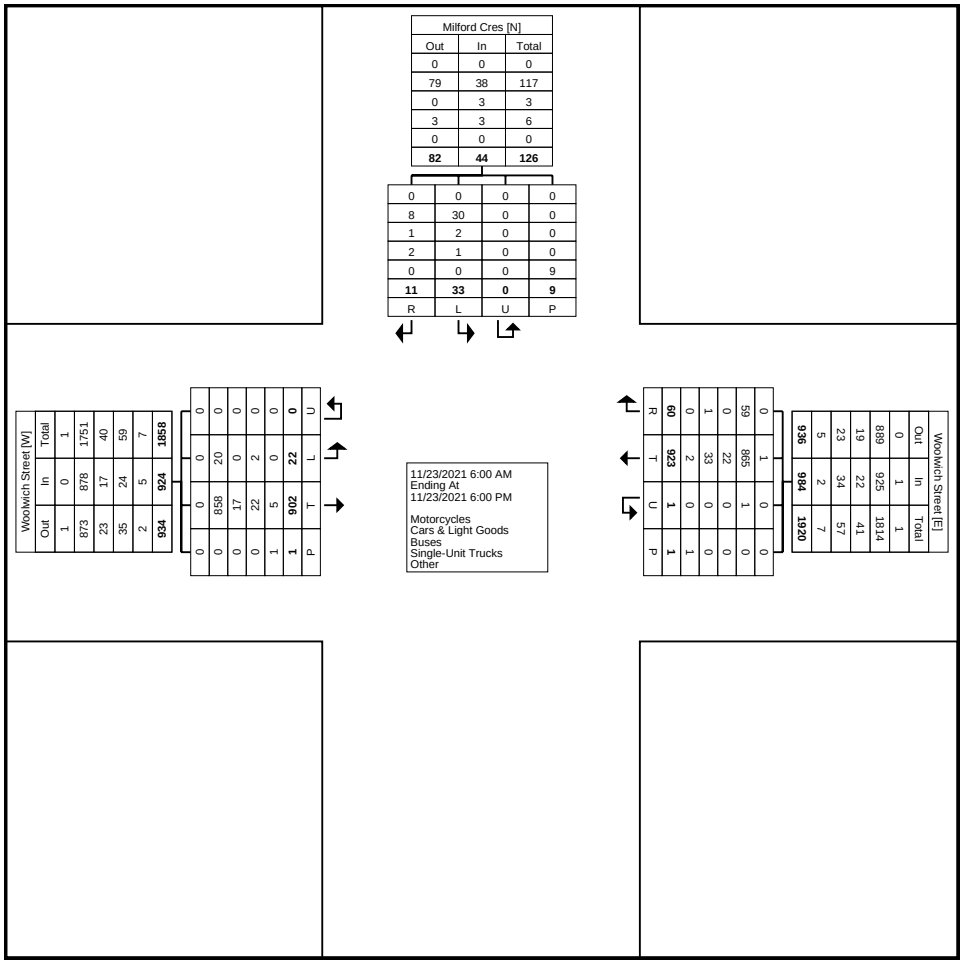
Start Time	Woolwich Street Eastbound					Woolwich Street Westbound					Milford Cres Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
6:00 AM	0	4	0	0	4	19	0	0	0	19	0	0	0	0	0	23
6:15 AM	0	8	0	0	8	24	0	0	0	24	0	1	0	3	1	33
6:30 AM	0	8	0	0	8	15	1	0	0	16	2	0	0	0	2	26
6:45 AM	0	15	0	0	15	17	0	0	0	17	1	0	0	0	1	33
Hourly Total	0	35	0	0	35	75	1	0	0	76	3	1	0	3	4	115
7:00 AM	0	19	0	0	19	25	0	0	0	25	0	0	0	0	0	44
7:15 AM	0	11	0	0	11	28	0	0	0	28	2	0	0	0	2	41
7:30 AM	0	21	0	0	21	36	0	0	0	36	0	0	0	0	0	57
7:45 AM	1	38	0	0	39	37	1	0	0	38	2	1	0	0	3	80
Hourly Total	1	89	0	0	90	126	1	0	0	127	4	1	0	0	5	222
8:00 AM	0	31	0	0	31	48	0	0	0	48	0	2	0	1	2	81
8:15 AM	0	24	0	0	24	34	2	0	0	36	2	1	0	0	3	63
8:30 AM	4	28	0	0	32	49	6	0	0	55	2	1	0	0	3	90
8:45 AM	1	40	0	0	41	30	13	0	0	43	1	0	0	1	1	85
Hourly Total	5	123	0	0	128	161	21	0	0	182	5	4	0	2	9	319
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	2	24	0	0	26	23	1	0	0	24	0	0	0	0	0	50
12:15 PM	1	23	0	0	24	18	0	0	0	18	2	0	0	0	2	44
12:30 PM	0	28	0	0	28	22	0	0	1	22	0	0	0	1	0	50
12:45 PM	2	17	0	0	19	22	0	0	0	22	0	0	0	0	0	41
Hourly Total	5	92	0	0	97	85	1	0	1	86	2	0	0	1	2	185
1:00 PM	0	23	0	0	23	17	1	0	0	18	0	1	0	0	1	42
1:15 PM	0	22	0	0	22	23	1	0	0	24	0	1	0	0	1	47
1:30 PM	0	20	0	0	20	14	1	0	0	15	1	0	0	0	1	36
1:45 PM	1	19	0	1	20	20	0	0	0	20	1	0	0	0	1	41
Hourly Total	1	84	0	1	85	74	3	0	0	77	2	2	0	0	4	166
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	3	27	0	0	30	36	9	0	0	45	2	1	0	0	3	78
3:15 PM	1	50	0	0	51	32	6	0	0	38	1	0	0	1	1	90
3:30 PM	0	42	0	0	42	38	2	0	0	40	2	2	0	0	4	86
3:45 PM	1	39	0	0	40	33	3	1	0	37	1	0	0	1	1	78
Hourly Total	5	158	0	0	163	139	20	1	0	160	6	3	0	2	9	332
4:00 PM	2	41	0	0	43	32	1	0	0	33	3	0	0	0	3	79
4:15 PM	0	35	0	0	35	37	1	0	0	38	2	0	0	0	2	75
4:30 PM	0	47	0	0	47	38	2	0	0	40	0	0	0	0	0	87
4:45 PM	0	46	0	0	46	33	0	0	0	33	2	0	0	1	2	81

Hourly Total	2	169	0	0	171	140	4	0	0	144	7	0	0	1	7	322
5:00 PM	0	41	0	0	41	36	2	0	0	38	2	0	0	0	2	81
5:15 PM	1	31	0	0	32	40	2	0	0	42	0	0	0	0	0	74
5:30 PM	1	37	0	0	38	26	3	0	0	29	0	0	0	0	0	67
5:45 PM	1	43	0	0	44	21	2	0	0	23	2	0	0	0	2	69
Hourly Total	3	152	0	0	155	123	9	0	0	132	4	0	0	0	4	291
Grand Total	22	902	0	1	924	923	60	1	1	984	33	11	0	9	44	1952
Approach %	2.4	97.6	0.0	-	-	93.8	6.1	0.1	-	-	75.0	25.0	0.0	-	-	-
Total %	1.1	46.2	0.0	-	47.3	47.3	3.1	0.1	-	50.4	1.7	0.6	0.0	-	2.3	-
Motorcycles	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	1
% Motorcycles	0.0	0.0	-	-	0.0	0.1	0.0	0.0	-	0.1	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	20	858	0	-	878	865	59	1	-	925	30	8	0	-	38	1841
% Cars & Light Goods	90.9	95.1	-	-	95.0	93.7	98.3	100.0	-	94.0	90.9	72.7	-	-	86.4	94.3
Buses	0	17	0	-	17	22	0	0	-	22	2	1	0	-	3	42
% Buses	0.0	1.9	-	-	1.8	2.4	0.0	0.0	-	2.2	6.1	9.1	-	-	6.8	2.2
Single-Unit Trucks	2	22	0	-	24	33	1	0	-	34	1	2	0	-	3	61
% Single-Unit Trucks	9.1	2.4	-	-	2.6	3.6	1.7	0.0	-	3.5	3.0	18.2	-	-	6.8	3.1
Articulated Trucks	0	5	0	-	5	1	0	0	-	1	0	0	0	-	0	6
% Articulated Trucks	0.0	0.6	-	-	0.5	0.1	0.0	0.0	-	0.1	0.0	0.0	-	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	1	0	0	-	1	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	-	-	0.0	0.1	0.0	0.0	-	0.1	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	1	-	-	-	-	1	-	-	-	-	9	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Woolwich Street & Milford Cres
Site Code: 210662
Start Date: 11/23/2021



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Woolwich Street & Milford Cres
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Woolwich Street Eastbound					Woolwich Street Westbound					Milford Cres Southbound					
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
8:00 AM	0	31	0	0	31	48	0	0	0	48	0	2	0	1	2	81
8:15 AM	0	24	0	0	24	34	2	0	0	36	2	1	0	0	3	63
8:30 AM	4	28	0	0	32	49	6	0	0	55	2	1	0	0	3	90
8:45 AM	1	40	0	0	41	30	13	0	0	43	1	0	0	1	1	85
Total	5	123	0	0	128	161	21	0	0	182	5	4	0	2	9	319
Approach %	3.9	96.1	0.0	-	-	88.5	11.5	0.0	-	-	55.6	44.4	0.0	-	-	-
Total %	1.6	38.6	0.0	-	40.1	50.5	6.6	0.0	-	57.1	1.6	1.3	0.0	-	2.8	-
PHF	0.313	0.769	0.000	-	0.780	0.821	0.404	0.000	-	0.827	0.625	0.500	0.000	-	0.750	0.886
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	5	113	0	-	118	145	20	0	-	165	5	3	0	-	8	291
% Cars & Light Goods	100.0	91.9	-	-	92.2	90.1	95.2	-	-	90.7	100.0	75.0	-	-	88.9	91.2
Buses	0	7	0	-	7	9	0	0	-	9	0	1	0	-	1	17
% Buses	0.0	5.7	-	-	5.5	5.6	0.0	-	-	4.9	0.0	25.0	-	-	11.1	5.3
Single-Unit Trucks	0	2	0	-	2	7	1	0	-	8	0	0	0	-	0	10
% Single-Unit Trucks	0.0	1.6	-	-	1.6	4.3	4.8	-	-	4.4	0.0	0.0	-	-	0.0	3.1
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	0.0	0.8	-	-	0.8	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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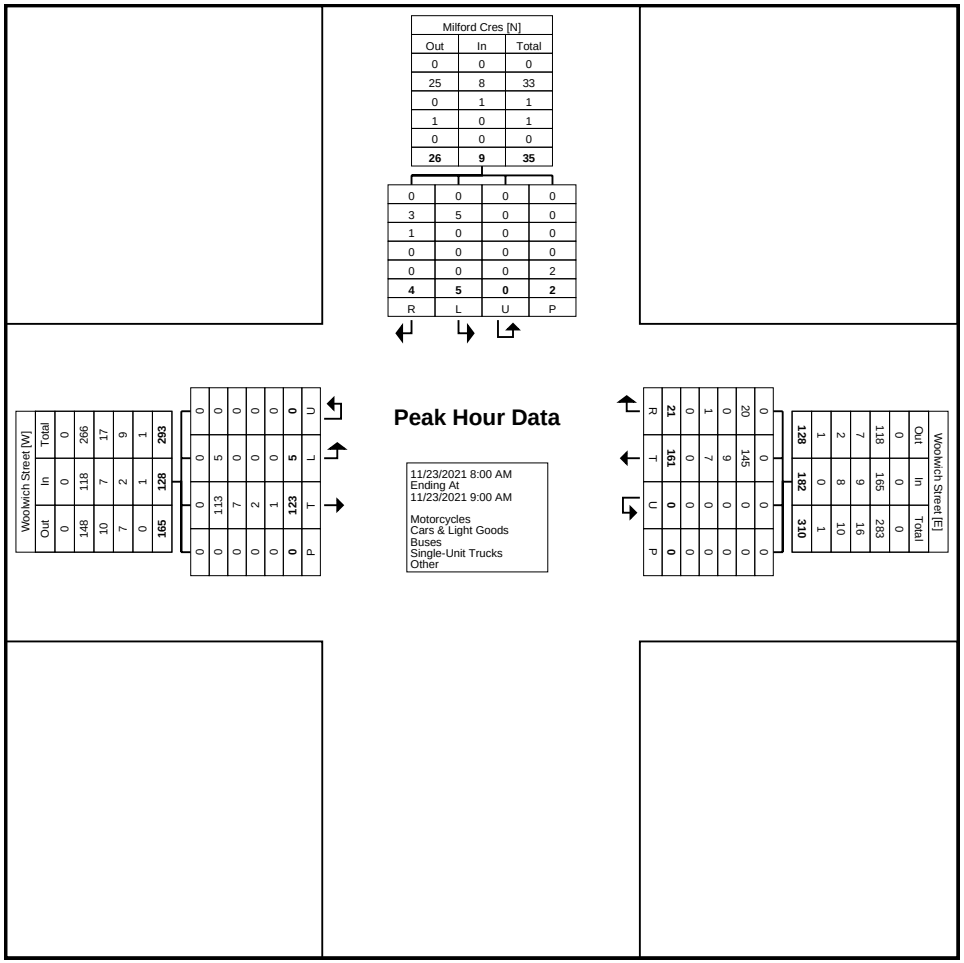
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Woolwich Street & Milford Cres
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Woolwich Street Eastbound					Woolwich Street Westbound					Milford Cres Southbound					
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
12:00 PM	2	24	0	0	26	23	1	0	0	24	0	0	0	0	0	50
12:15 PM	1	23	0	0	24	18	0	0	0	18	2	0	0	0	2	44
12:30 PM	0	28	0	0	28	22	0	0	1	22	0	0	0	1	0	50
12:45 PM	2	17	0	0	19	22	0	0	0	22	0	0	0	0	0	41
Total	5	92	0	0	97	85	1	0	1	86	2	0	0	1	2	185
Approach %	5.2	94.8	0.0	-	-	98.8	1.2	0.0	-	-	100.0	0.0	0.0	-	-	-
Total %	2.7	49.7	0.0	-	52.4	45.9	0.5	0.0	-	46.5	1.1	0.0	0.0	-	1.1	-
PHF	0.625	0.821	0.000	-	0.866	0.924	0.250	0.000	-	0.896	0.250	0.000	0.000	-	0.250	0.925
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	0.0	0.0
Cars & Light Goods	5	86	0	-	91	81	1	0	-	82	1	0	0	-	1	174
% Cars & Light Goods	100.0	93.5	-	-	93.8	95.3	100.0	-	-	95.3	50.0	-	-	-	50.0	94.1
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	0.0	0.0
Single-Unit Trucks	0	5	0	-	5	4	0	0	-	4	1	0	0	-	1	10
% Single-Unit Trucks	0.0	5.4	-	-	5.2	4.7	0.0	-	-	4.7	50.0	-	-	-	50.0	5.4
Articulated Trucks	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Articulated Trucks	0.0	1.1	-	-	1.0	0.0	0.0	-	-	0.0	0.0	-	-	-	0.0	0.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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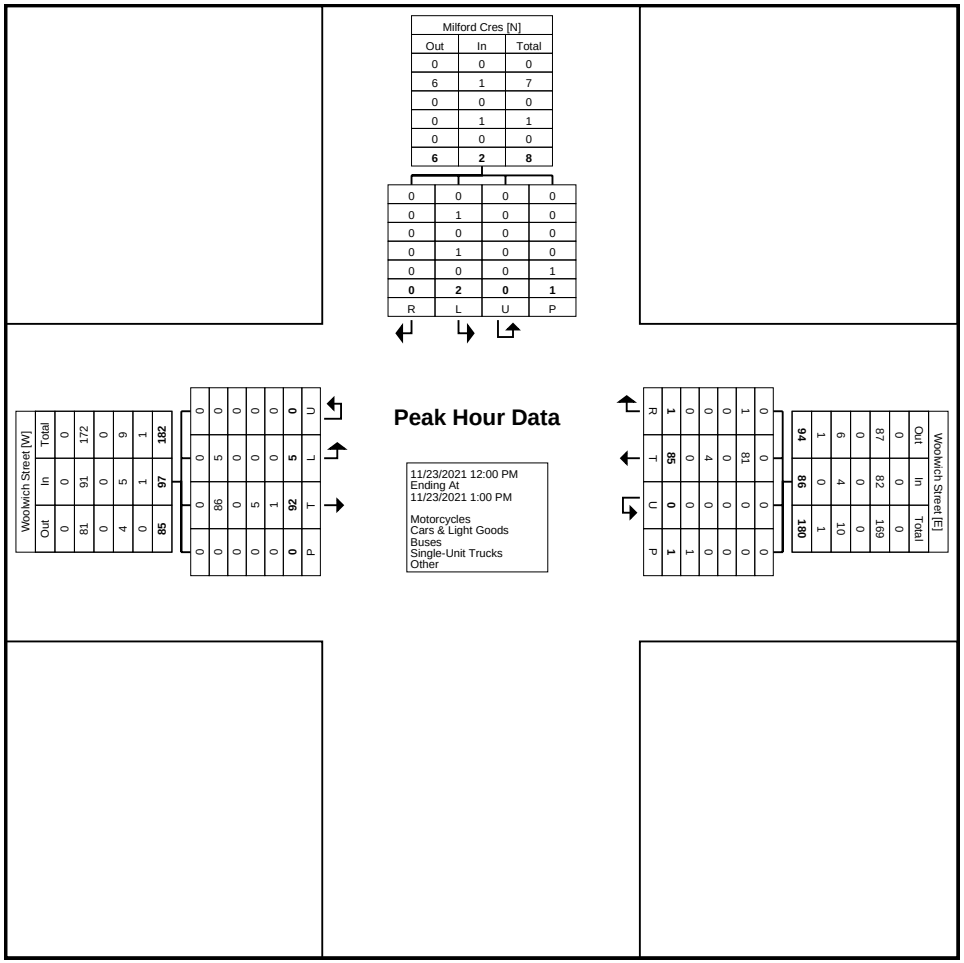
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (12:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@ptsl.com

Count Name: Woolwich Street & Milford Cres
Site Code: 210662
Start Date: 11/23/2021

Turning Movement Peak Hour Data (3:15 PM)

Start Time	Woolwich Street Eastbound					Woolwich Street Westbound					Milford Cres Southbound					
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
3:15 PM	1	50	0	0	51	32	6	0	0	38	1	0	0	1	1	90
3:30 PM	0	42	0	0	42	38	2	0	0	40	2	2	0	0	4	86
3:45 PM	1	39	0	0	40	33	3	1	0	37	1	0	0	1	1	78
4:00 PM	2	41	0	0	43	32	1	0	0	33	3	0	0	0	3	79
Total	4	172	0	0	176	135	12	1	0	148	7	2	0	2	9	333
Approach %	2.3	97.7	0.0	-	-	91.2	8.1	0.7	-	-	77.8	22.2	0.0	-	-	-
Total %	1.2	51.7	0.0	-	52.9	40.5	3.6	0.3	-	44.4	2.1	0.6	0.0	-	2.7	-
PHF	0.500	0.860	0.000	-	0.863	0.888	0.500	0.250	-	0.925	0.583	0.250	0.000	-	0.563	0.925
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	4	160	0	-	164	119	12	1	-	132	6	2	0	-	8	304
% Cars & Light Goods	100.0	93.0	-	-	93.2	88.1	100.0	100.0	-	89.2	85.7	100.0	-	-	88.9	91.3
Buses	0	8	0	-	8	7	0	0	-	7	1	0	0	-	1	16
% Buses	0.0	4.7	-	-	4.5	5.2	0.0	0.0	-	4.7	14.3	0.0	-	-	11.1	4.8
Single-Unit Trucks	0	4	0	-	4	9	0	0	-	9	0	0	0	-	0	13
% Single-Unit Trucks	0.0	2.3	-	-	2.3	6.7	0.0	0.0	-	6.1	0.0	0.0	-	-	0.0	3.9
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

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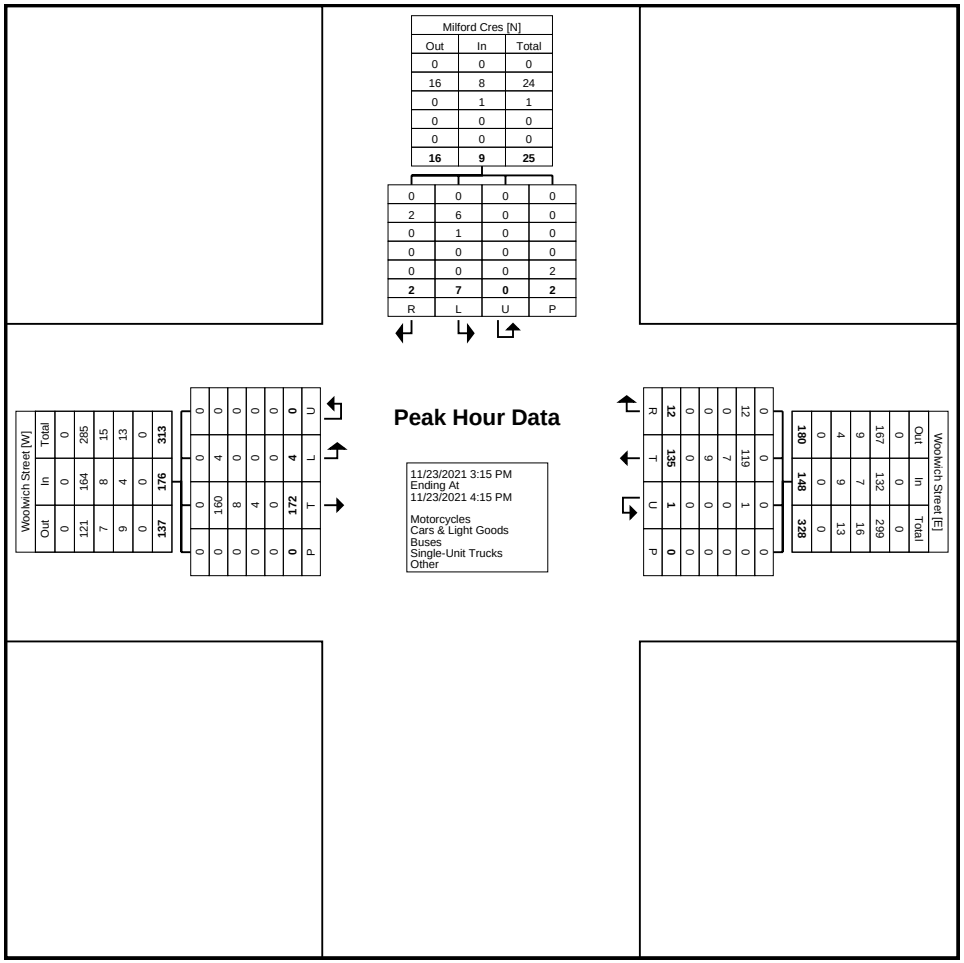
Start Date: 11/23/2021



Turning Movement Peak Hour Data Plot (3:15 PM)

Appendix C

Base Year Operation Synchro Reports

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	161	212	28	7	5
Future Volume (vph)	7	161	212	28	7	5
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		0.948	
Flt Protected		0.998			0.970	
Satd. Flow (prot)	0	1861	1796	0	1747	0
Flt Permitted		0.998			0.970	
Satd. Flow (perm)	0	1861	1796	0	1747	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	8	175	230	30	8	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	183	260	0	13	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	161	212	28	7	5
Future Volume (Veh/h)	7	161	212	28	7	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	175	230	30	8	5
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	262				438	247
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	262				438	247
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1312				575	795

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	183	260	13
Volume Left	8	0	8
Volume Right	0	30	5
cSH	1312	1700	644
Volume to Capacity	0.01	0.15	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s)	0.4	0.0	10.7
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	10.7
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	157	7	25	220	4	15	6	35	3	1	5
Future Volume (vph)	4	157	7	25	220	4	15	6	35	3	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.998			0.916			0.925	
Flt Protected		0.999			0.995			0.987			0.984	
Satd. Flow (prot)	0	1835	0	0	1857	0	0	1718	0	0	1729	0
Flt Permitted		0.999			0.995			0.987			0.984	
Satd. Flow (perm)	0	1835	0	0	1857	0	0	1718	0	0	1729	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			450.4			484.2	
Travel Time (s)		13.7			48.8			32.4			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	4	171	8	27	239	4	16	7	38	3	1	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	270	0	0	61	0	0	9	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	157	7	25	220	4	15	6	35	3	1	5
Future Volume (Veh/h)	4	157	7	25	220	4	15	6	35	3	1	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	171	8	27	239	4	16	7	38	3	1	5
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	243			180			484	481	176	520	483	241
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	243			180			484	481	176	520	483	241
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			97	99	96	99	100	99
cM capacity (veh/h)	1335			1314			483	476	872	436	474	803

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	183	270	61	9
Volume Left	4	27	16	3
Volume Right	8	4	38	5
cSH	1335	1314	667	592
Volume to Capacity	0.00	0.02	0.09	0.02
Queue Length 95th (m)	0.1	0.5	2.3	0.4
Control Delay (s)	0.2	0.9	10.9	11.2
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	0.9	10.9	11.2
Approach LOS			B	B

Intersection Summary					
Average Delay	2.0				
Intersection Capacity Utilization	35.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	17	18	10	39	28	5
Future Volume (vph)	17	18	10	39	28	5
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	0.929				0.981	
Flt Protected	0.977			0.990		
Satd. Flow (prot)	1553	0	0	1837	1800	0
Flt Permitted	0.977			0.990		
Satd. Flow (perm)	1553	0	0	1837	1800	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	450.4	
Travel Time (s)	11.7			20.9	32.4	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	18	20	11	42	30	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	53	35	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	18	10	39	28	5
Future Volume (Veh/h)	17	18	10	39	28	5
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)	18	20	11	42	30	5
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	100	36	38			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	100	36	38			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	98	98	99			
cM capacity (veh/h)	896	983	1581			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	38	53	35
Volume Left	18	11	0
Volume Right	20	0	5
cSH	940	1581	1700
Volume to Capacity	0.04	0.01	0.02
Queue Length 95th (m)	1.0	0.2	0.0
Control Delay (s)	9.0	1.6	0.0
Lane LOS	A	A	
Approach Delay (s)	9.0	1.6	0.0
Approach LOS	A		

Intersection Summary					
Average Delay		3.4			
Intersection Capacity Utilization		19.3%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	1	1	14	0	4	0	15	0	0	0
Future Volume (vph)	0	20	1	1	14	0	4	0	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994						0.892				
Flt Protected					0.997			0.990				
Satd. Flow (prot)	0	1566	0	0	1732	0	0	1565	0	0	1900	0
Flt Permitted					0.997			0.990				
Satd. Flow (perm)	0	1566	0	0	1732	0	0	1565	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	22	1	1	15	0	4	0	16	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	16	0	0	20	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	20	1	1	14	0	4	0	15	0	0	0
Future Volume (Veh/h)	0	20	1	1	14	0	4	0	15	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	22	1	1	15	0	4	0	16	0	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	17			27			46	46	28	58	46	19
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	17			27			46	46	28	58	46	19
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	100
cM capacity (veh/h)	1611			1595			952	845	1024	922	845	1061

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	23	16	20	0
Volume Left	0	1	4	0
Volume Right	1	0	16	0
cSH	1611	1595	1009	1700
Volume to Capacity	0.00	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.5	0.0
Control Delay (s)	0.0	0.5	8.6	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.5	8.6	0.0
Approach LOS			A	A

Intersection Summary					
Average Delay	3.1				
Intersection Capacity Utilization	15.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	8	3	4	14	0	7	0	13	0	0	0
Future Volume (vph)	0	8	3	4	14	0	7	0	13	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966						0.914				
Flt Protected					0.990			0.982				
Satd. Flow (prot)	0	1412	0	0	1647	0	0	920	0	0	1900	0
Flt Permitted					0.990			0.982				
Satd. Flow (perm)	0	1412	0	0	1647	0	0	920	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	9	3	4	15	0	8	0	14	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	19	0	0	22	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	3	4	14	0	7	0	13	0	0	0
Future Volume (Veh/h)	0	8	3	4	14	0	7	0	13	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	9	3	4	15	0	8	0	14	0	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	20			21			44	48	24	56	49	21
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	20			21			44	48	24	56	49	21
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	100	100	100
cM capacity (veh/h)	1603			1596			816	836	820	913	834	1057

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	12	19	22	0
Volume Left	0	4	8	0
Volume Right	3	0	14	0
cSH	1603	1596	819	1700
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.1	0.6	0.0
Control Delay (s)	0.0	1.5	9.5	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.5	9.5	0.0
Approach LOS			A	A

Intersection Summary					
Average Delay	4.5				
Intersection Capacity Utilization	17.2%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	30	121	89	46	136	79
Future Volume (vph)	30	121	89	46	136	79
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	0.892		0.954			
Flt Protected	0.990					0.969
Satd. Flow (prot)	1539	0	1743	0	0	1703
Flt Permitted	0.990					0.969
Satd. Flow (perm)	1539	0	1743	0	0	1703
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				4	4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	8%	3%	6%	7%	10%
Adj. Flow (vph)	33	132	97	50	148	86
Shared Lane Traffic (%)						
Lane Group Flow (vph)	165	0	147	0	0	234
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	121	89	46	136	79
Future Volume (Veh/h)	30	121	89	46	136	79
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)	33	132	97	50	148	86
Pedestrians	4					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	508	126			151	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	508	126			151	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	93	85			89	
cM capacity (veh/h)	451	905			1395	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	165	147	234
Volume Left	33	0	148
Volume Right	132	50	0
cSH	753	1700	1395
Volume to Capacity	0.22	0.09	0.11
Queue Length 95th (m)	6.3	0.0	2.7
Control Delay (s)	11.1	0.0	5.3
Lane LOS	B		A
Approach Delay (s)	11.1	0.0	5.3
Approach LOS	B		

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	8	64	7	4	118	26	5	29	9	37	60	12
Future Volume (vph)	8	64	7	4	118	26	5	29	9	37	60	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.976			0.971			0.985	
Flt Protected		0.995			0.999			0.995			0.983	
Satd. Flow (prot)	0	1723	0	0	1780	0	0	1411	0	0	1621	0
Flt Permitted		0.995			0.999			0.995			0.983	
Satd. Flow (perm)	0	1723	0	0	1780	0	0	1411	0	0	1621	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	57		1	1		57	4		50	50		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	6%	20%	33%	3%	5%	50%	32%	14%	4%	22%	0%
Adj. Flow (vph)	9	70	8	4	128	28	5	32	10	40	65	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	160	0	0	47	0	0	118	0
Sign Control		Stop			Stop			Stop			Stop	

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	64	7	4	118	26	5	29	9	37	60	12
Future Volume (vph)	8	64	7	4	118	26	5	29	9	37	60	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	70	8	4	128	28	5	32	10	40	65	13

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	87	160	47	118
Volume Left (vph)	9	4	5	40
Volume Right (vph)	8	28	10	13
Hadj (s)	0.11	-0.03	0.41	0.23
Departure Headway (s)	4.6	4.4	5.0	4.8
Degree Utilization, x	0.11	0.20	0.07	0.16
Capacity (veh/h)	745	778	670	708
Control Delay (s)	8.2	8.5	8.4	8.7
Approach Delay (s)	8.2	8.5	8.4	8.7
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.5		
Level of Service	A		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	310	1	1	212	29	1	3	0	58	0	14
Future Volume (vph)	5	310	1	1	212	29	1	3	0	58	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.984						0.974	
Flt Protected		0.999						0.988			0.961	
Satd. Flow (prot)	0	1826	0	0	1806	0	0	1877	0	0	1778	0
Flt Permitted		0.999						0.988			0.961	
Satd. Flow (perm)	0	1826	0	0	1806	0	0	1877	0	0	1778	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)	42					42						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	5	337	1	1	230	32	1	3	0	63	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	343	0	0	263	0	0	4	0	0	78	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	310	1	1	212	29	1	3	0	58	0	14
Future Volume (Veh/h)	5	310	1	1	212	29	1	3	0	58	0	14
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	337	1	1	230	32	1	3	0	63	0	15
Pedestrians											42	
Lane Width (m)											3.6	
Walking Speed (m/s)											1.2	
Percent Blockage											4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	304			338			610	654	338	639	638	288
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	304			338			610	654	338	639	638	288
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	100	83	100	98
cM capacity (veh/h)	1224			1232			389	374	709	364	381	729

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	343	263	4	78
Volume Left	5	1	1	63
Volume Right	1	32	0	15
cSH	1224	1232	377	403
Volume to Capacity	0.00	0.00	0.01	0.19
Queue Length 95th (m)	0.1	0.0	0.2	5.4
Control Delay (s)	0.2	0.0	14.6	16.1
Lane LOS	A	A	B	C
Approach Delay (s)	0.2	0.0	14.6	16.1
Approach LOS			B	C

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	37.3%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	185	144	13	7	2
Future Volume (vph)	4	185	144	13	7	2
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			0.989		0.973	
Flt Protected		0.999			0.962	
Satd. Flow (prot)	0	1862	1805	0	1778	0
Flt Permitted		0.999			0.962	
Satd. Flow (perm)	0	1862	1805	0	1778	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	4	201	157	14	8	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	205	171	0	10	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	22.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	185	144	13	7	2
Future Volume (Veh/h)	4	185	144	13	7	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	201	157	14	8	2
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	173				375	166
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	173				375	166
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1414				627	882

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	205	171	10
Volume Left	4	0	8
Volume Right	0	14	2
cSH	1414	1700	666
Volume to Capacity	0.00	0.10	0.02
Queue Length 95th (m)	0.1	0.0	0.3
Control Delay (s)	0.2	0.0	10.5
Lane LOS	A		B
Approach Delay (s)	0.2	0.0	10.5
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	22.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	173	16	24	139	3	12	6	31	3	2	6
Future Volume (vph)	3	173	16	24	139	3	12	6	31	3	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989			0.998			0.915			0.921	
Flt Protected		0.999			0.993			0.988			0.988	
Satd. Flow (prot)	0	1828	0	0	1840	0	0	1718	0	0	1729	0
Flt Permitted		0.999			0.993			0.988			0.988	
Satd. Flow (perm)	0	1828	0	0	1840	0	0	1718	0	0	1729	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			450.4			484.2	
Travel Time (s)		13.7			48.8			32.4			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	188	17	26	151	3	13	7	34	3	2	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	208	0	0	180	0	0	54	0	0	12	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	173	16	24	139	3	12	6	31	3	2	6
Future Volume (Veh/h)	3	173	16	24	139	3	12	6	31	3	2	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	188	17	26	151	3	13	7	34	3	2	7
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	154			206			416	410	198	444	416	152
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	154			206			416	410	198	444	416	152
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			98	99	96	99	100	99
cM capacity (veh/h)	1439			1285			535	522	848	492	518	899

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	208	180	54	12
Volume Left	3	26	13	3
Volume Right	17	3	34	7
cSH	1439	1285	694	676
Volume to Capacity	0.00	0.02	0.08	0.02
Queue Length 95th (m)	0.0	0.5	1.9	0.4
Control Delay (s)	0.1	1.3	10.6	10.4
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	1.3	10.6	10.4
Approach LOS			B	B

Intersection Summary					
Average Delay		2.1			
Intersection Capacity Utilization		32.4%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	10	10	39	23	19
Future Volume (vph)	10	10	10	39	23	19
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	0.932				0.938	
Flt Protected	0.976			0.990		
Satd. Flow (prot)	1564	0	0	1837	1600	0
Flt Permitted	0.976			0.990		
Satd. Flow (perm)	1564	0	0	1837	1600	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	450.4	
Travel Time (s)	11.7			20.9	32.4	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	11	11	11	42	25	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	53	46	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	10	10	39	23	19
Future Volume (Veh/h)	10	10	10	39	23	19
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)	11	11	11	42	25	21
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	102	38	49			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	102	38	49			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	99	99	99			
cM capacity (veh/h)	892	979	1567			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	22	53	46
Volume Left	11	11	0
Volume Right	11	0	21
cSH	934	1567	1700
Volume to Capacity	0.02	0.01	0.03
Queue Length 95th (m)	0.5	0.2	0.0
Control Delay (s)	8.9	1.6	0.0
Lane LOS	A	A	
Approach Delay (s)	8.9	1.6	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	13	6	8	21	0	1	0	7	0	0	0
Future Volume (vph)	0	13	6	8	21	0	1	0	7	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.955						0.880				
Flt Protected					0.986			0.994				
Satd. Flow (prot)	0	1254	0	0	1748	0	0	1539	0	0	1900	0
Flt Permitted					0.986			0.994				
Satd. Flow (perm)	0	1254	0	0	1748	0	0	1539	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	14	7	9	23	0	1	0	8	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	32	0	0	9	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	13	6	8	21	0	1	0	7	0	0	0
Future Volume (Veh/h)	0	13	6	8	21	0	1	0	7	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	7	9	23	0	1	0	8	0	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	25			25			64	64	22	70	68	27
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	25			25			64	64	22	70	68	27
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	100	100	100
cM capacity (veh/h)	1600			1597			922	821	1030	911	818	1051

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	21	32	9	0
Volume Left	0	9	1	0
Volume Right	7	0	8	0
cSH	1600	1597	1017	1700
Volume to Capacity	0.00	0.01	0.01	0.00
Queue Length 95th (m)	0.0	0.1	0.2	0.0
Control Delay (s)	0.0	2.1	8.6	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	2.1	8.6	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		2.3		
Intersection Capacity Utilization		19.1%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	14	10	7	15	0	9	0	5	0	0	0
Future Volume (vph)	0	14	10	7	15	0	9	0	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.943						0.955				
Flt Protected					0.984			0.968				
Satd. Flow (prot)	0	1456	0	0	1669	0	0	1013	0	0	1900	0
Flt Permitted					0.984			0.968				
Satd. Flow (perm)	0	1456	0	0	1669	0	0	1013	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	15	11	8	16	0	10	0	5	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	24	0	0	15	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	14	10	7	15	0	9	0	5	0	0	0
Future Volume (Veh/h)	0	14	10	7	15	0	9	0	5	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	15	11	8	16	0	10	0	5	0	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	21			35			62	66	34	66	72	22
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			35			62	66	34	66	72	22
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1601			1577			790	814	809	907	809	1056

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	26	24	15	0
Volume Left	0	8	10	0
Volume Right	11	0	5	0
cSH	1601	1577	796	1700
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (m)	0.0	0.1	0.4	0.0
Control Delay (s)	0.0	2.5	9.6	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	2.5	9.6	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	19.2%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	39	126	78	20	150	111
Future Volume (vph)	39	126	78	20	150	111
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	0.897		0.972			
Flt Protected	0.988					0.972
Satd. Flow (prot)	1635	0	1828	0	0	1808
Flt Permitted	0.988					0.972
Satd. Flow (perm)	1635	0	1828	0	0	1808
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	5%	3%	1%
Adj. Flow (vph)	42	137	85	22	163	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	179	0	107	0	0	284
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	39	126	78	20	150	111
Future Volume (Veh/h)	39	126	78	20	150	111
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)	42	137	85	22	163	121
Pedestrians	5					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	548	101			112	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	548	101			112	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	86			89	
cM capacity (veh/h)	439	948			1465	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	179	107	284
Volume Left	42	0	163
Volume Right	137	22	0
cSH	745	1700	1465
Volume to Capacity	0.24	0.06	0.11
Queue Length 95th (m)	7.1	0.0	2.8
Control Delay (s)	11.4	0.0	4.9
Lane LOS	B		A
Approach Delay (s)	11.4	0.0	4.9
Approach LOS	B		

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	118	6	3	97	31	1	31	12	34	34	11
Future Volume (vph)	9	118	6	3	97	31	1	31	12	34	34	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.968			0.963			0.981	
Flt Protected		0.997			0.999			0.999			0.979	
Satd. Flow (prot)	0	1818	0	0	1811	0	0	1591	0	0	1574	0
Flt Permitted		0.997			0.999			0.999			0.979	
Satd. Flow (perm)	0	1818	0	0	1811	0	0	1591	0	0	1574	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	1		15	15		1			22	22		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	17%	0%	2%	0%	0%	21%	0%	6%	31%	0%
Adj. Flow (vph)	10	128	7	3	105	34	1	34	13	37	37	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	0	0	142	0	0	48	0	0	86	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	29.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	9	118	6	3	97	31	1	31	12	34	34	11
Future Volume (vph)	9	118	6	3	97	31	1	31	12	34	34	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	128	7	3	105	34	1	34	13	37	37	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	145	142	48	86
Volume Left (vph)	10	3	1	37
Volume Right (vph)	7	34	13	12
Hadj (s)	0.04	-0.11	0.09	0.27
Departure Headway (s)	4.4	4.3	4.8	4.9
Degree Utilization, x	0.18	0.17	0.06	0.12
Capacity (veh/h)	781	798	703	686
Control Delay (s)	8.4	8.2	8.1	8.5
Approach Delay (s)	8.4	8.2	8.1	8.5
Approach LOS	A	A	A	A

Intersection Summary					
Delay	8.3				
Level of Service	A				
Intersection Capacity Utilization	29.7%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	196	0	0	241	26	0	0	0	33	0	11
Future Volume (vph)	17	196	0	0	241	26	0	0	0	33	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.987						0.966	
Flt Protected		0.996									0.964	
Satd. Flow (prot)	0	1866	0	0	1754	0	0	1900	0	0	1369	0
Flt Permitted		0.996									0.964	
Satd. Flow (perm)	0	1866	0	0	1754	0	0	1900	0	0	1369	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)			54	54								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	1%	0%	0%	5%	25%	0%	0%	0%	39%	0%	0%
Adj. Flow (vph)	18	213	0	0	262	28	0	0	0	36	0	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	231	0	0	290	0	0	0	0	0	48	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		

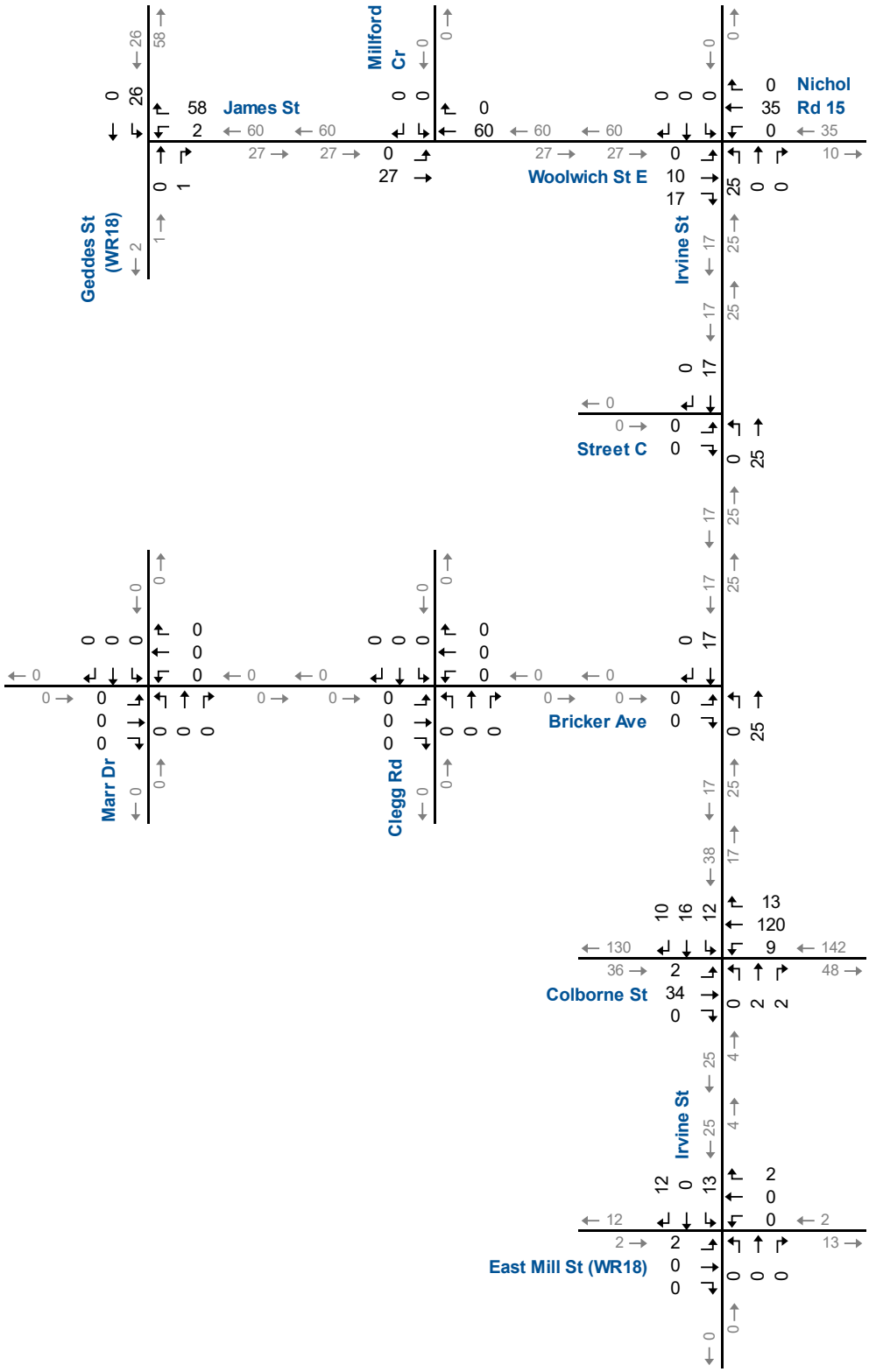
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	196	0	0	241	26	0	0	0	33	0	11
Future Volume (Veh/h)	17	196	0	0	241	26	0	0	0	33	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	213	0	0	262	28	0	0	0	36	0	12
Pedestrians								54				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								5				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	290			267			591	593	267	525	579	276
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	290			267			591	593	267	525	579	276
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.5	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.9	4.0	3.3
p0 queue free %	99			100			100	100	100	91	100	98
cM capacity (veh/h)	1249			1250			378	396	742	391	404	768

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	231	290	0	48
Volume Left	18	0	0	36
Volume Right	0	28	0	12
cSH	1249	1250	1700	446
Volume to Capacity	0.01	0.00	0.00	0.11
Queue Length 95th (m)	0.3	0.0	0.0	2.7
Control Delay (s)	0.7	0.0	0.0	14.0
Lane LOS	A		A	B
Approach Delay (s)	0.7	0.0	0.0	14.0
Approach LOS			A	B

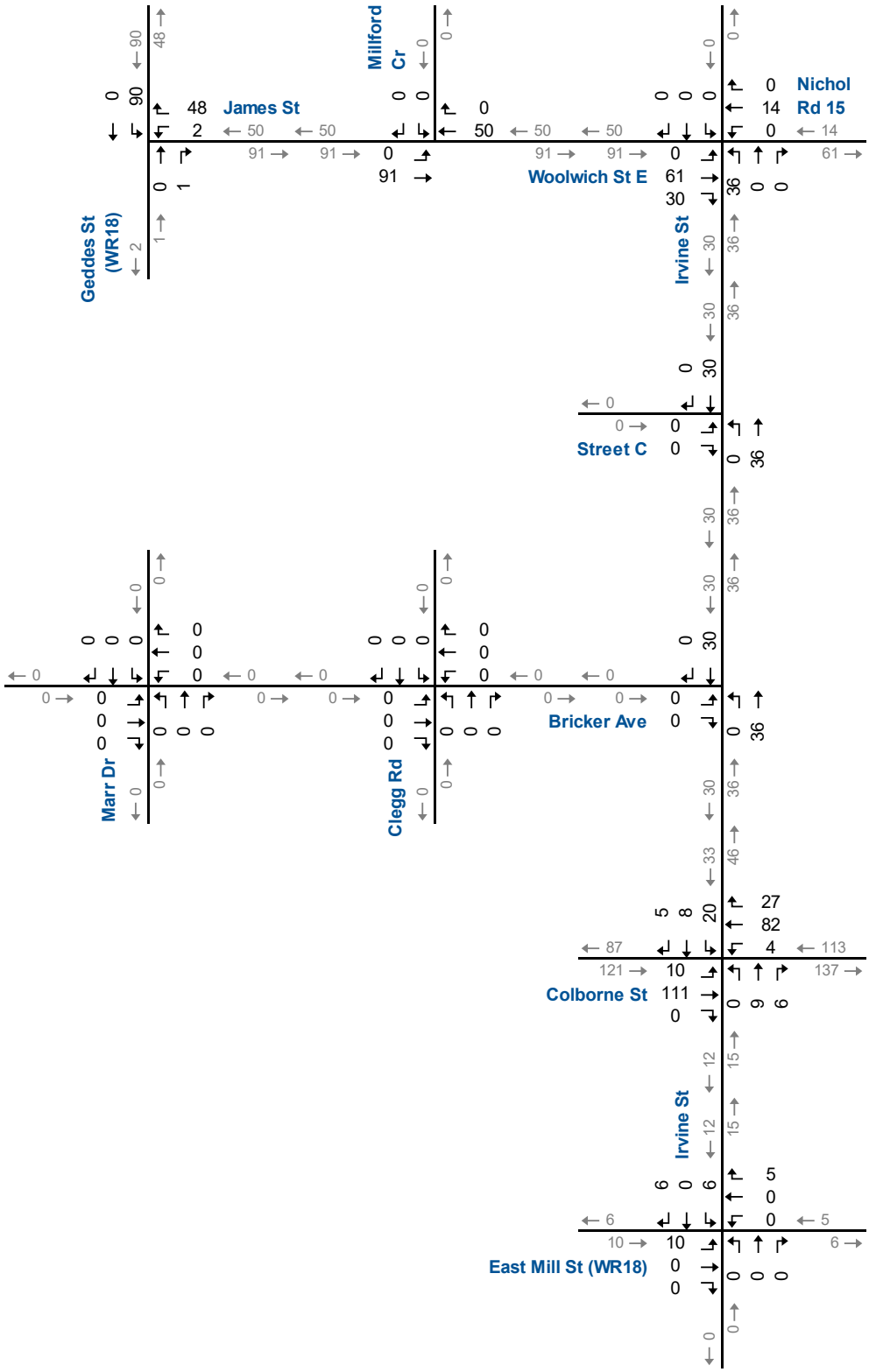
Intersection Summary					
Average Delay		1.5			
Intersection Capacity Utilization		34.4%	ICU Level of Service		A
Analysis Period (min)		15			

Appendix D

Background Developments Traffic Volumes



Background Developments Traffic Volumes AM Peak Hour



Background Developments Traffic Volumes PM Peak Hour

Cachet Elora, Centre Wellington TIS
210662

Figure A2

Appendix E1

2026 Background Operation Synchro Reports

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	8	205	294	31	8	6
Future Volume (vph)	8	205	294	31	8	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			0.987		0.941	
Flt Protected		0.998			0.973	
Satd. Flow (prot)	0	1860	1802	0	1740	0
Flt Permitted		0.998			0.973	
Satd. Flow (perm)	0	1860	1802	0	1740	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	9	223	320	34	9	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	232	354	0	16	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	205	294	31	8	6
Future Volume (Veh/h)	8	205	294	31	8	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	223	320	34	9	7
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	356				580	339
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	356				580	339
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1212				476	707

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	232	354	16
Volume Left	9	0	9
Volume Right	0	34	7
cSH	1212	1700	555
Volume to Capacity	0.01	0.21	0.03
Queue Length 95th (m)	0.2	0.0	0.7
Control Delay (s)	0.4	0.0	11.7
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	11.7
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	183	25	28	278	4	42	7	39	3	1	6
Future Volume (vph)	4	183	25	28	278	4	42	7	39	3	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984			0.998			0.941			0.914	
Flt Protected		0.999			0.996			0.977			0.987	
Satd. Flow (prot)	0	1820	0	0	1862	0	0	1747	0	0	1714	0
Flt Permitted		0.999			0.996			0.977			0.987	
Satd. Flow (perm)	0	1820	0	0	1862	0	0	1747	0	0	1714	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			450.4			484.2	
Travel Time (s)		13.7			48.8			32.4			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	4	199	27	30	302	4	46	8	42	3	1	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	230	0	0	336	0	0	96	0	0	11	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	183	25	28	278	4	42	7	39	3	1	6
Future Volume (Veh/h)	4	183	25	28	278	4	42	7	39	3	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	199	27	30	302	4	46	8	42	3	1	7
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	306			227			593	588	214	630	599	304
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	306			227			593	588	214	630	599	304
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			89	98	95	99	100	99
cM capacity (veh/h)	1266			1262			406	413	831	363	406	740

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	230	336	96	11
Volume Left	4	30	46	3
Volume Right	27	4	42	7
cSH	1266	1262	524	545
Volume to Capacity	0.00	0.02	0.18	0.02
Queue Length 95th (m)	0.1	0.6	5.0	0.5
Control Delay (s)	0.2	0.9	13.4	11.7
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	0.9	13.4	11.7
Approach LOS			B	B

Intersection Summary					
Average Delay		2.6			
Intersection Capacity Utilization		45.2%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	19	20	11	68	48	6
Future Volume (vph)	19	20	11	68	48	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	0.931				0.984	
Flt Protected	0.976			0.993		
Satd. Flow (prot)	1559	0	0	1839	1816	0
Flt Permitted	0.976			0.993		
Satd. Flow (perm)	1559	0	0	1839	1816	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	450.4	
Travel Time (s)	11.7			20.9	32.4	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	21	22	12	74	52	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	86	59	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	20	11	68	48	6
Future Volume (Veh/h)	19	20	11	68	48	6
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)	21	22	12	74	52	7
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	156	58	62			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	156	58	62			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	97	98	99			
cM capacity (veh/h)	831	954	1550			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	43	86	59
Volume Left	21	12	0
Volume Right	22	0	7
cSH	890	1550	1700
Volume to Capacity	0.05	0.01	0.03
Queue Length 95th (m)	1.2	0.2	0.0
Control Delay (s)	9.3	1.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	1.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	20.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	22	1	1	15	0	4	0	17	0	0	0
Future Volume (vph)	0	22	1	1	15	0	4	0	17	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995						0.890				
Flt Protected					0.997			0.991				
Satd. Flow (prot)	0	1571	0	0	1731	0	0	1561	0	0	1900	0
Flt Permitted					0.997			0.991				
Satd. Flow (perm)	0	1571	0	0	1731	0	0	1561	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	24	1	1	16	0	4	0	18	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	17	0	0	22	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	22	1	1	15	0	4	0	17	0	0	0
Future Volume (Veh/h)	0	22	1	1	15	0	4	0	17	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	24	1	1	16	0	4	0	18	0	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	18			29			48	48	30	64	49	20
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	18			29			48	48	30	64	49	20
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	100
cM capacity (veh/h)	1609			1592			948	842	1021	913	842	1060

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	25	17	22	0
Volume Left	0	1	4	0
Volume Right	1	0	18	0
cSH	1609	1592	1007	1700
Volume to Capacity	0.00	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.5	0.0
Control Delay (s)	0.0	0.4	8.7	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.4	8.7	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	15.2%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	9	3	4	15	0	8	0	14	0	0	0
Future Volume (vph)	0	9	3	4	15	0	8	0	14	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.969						0.916				
Flt Protected					0.990			0.982				
Satd. Flow (prot)	0	1408	0	0	1644	0	0	924	0	0	1900	0
Flt Permitted					0.990			0.982				
Satd. Flow (perm)	0	1408	0	0	1644	0	0	924	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	10	3	4	16	0	9	0	15	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	20	0	0	24	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	9	3	4	15	0	8	0	14	0	0	0
Future Volume (Veh/h)	0	9	3	4	15	0	8	0	14	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	10	3	4	16	0	9	0	15	0	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	21			22			46	50	24	60	51	22
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	21			22			46	50	24	60	51	22
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	100	100	100
cM capacity (veh/h)	1601			1595			814	834	819	907	832	1056

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	20	24	0
Volume Left	0	4	9	0
Volume Right	3	0	15	0
cSH	1601	1595	817	1700
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.1	0.7	0.0
Control Delay (s)	0.0	1.5	9.5	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.5	9.5	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	4.5			
Intersection Capacity Utilization	17.2%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	35	192	98	52	176	87
Future Volume (vph)	35	192	98	52	176	87
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	0.886		0.953			
Flt Protected	0.992					0.968
Satd. Flow (prot)	1535	0	1740	0	0	1703
Flt Permitted	0.992					0.968
Satd. Flow (perm)	1535	0	1740	0	0	1703
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				4	4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	8%	3%	6%	7%	10%
Adj. Flow (vph)	38	209	107	57	191	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	247	0	164	0	0	286
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	35	192	98	52	176	87
Future Volume (Veh/h)	35	192	98	52	176	87
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)	38	209	107	57	191	95
Pedestrians	4					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	616	140			168	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	616	140			168	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	90	77			86	
cM capacity (veh/h)	375	890			1375	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	247	164	286
Volume Left	38	0	191
Volume Right	209	57	0
cSH	734	1700	1375
Volume to Capacity	0.34	0.10	0.14
Queue Length 95th (m)	11.3	0.0	3.7
Control Delay (s)	12.4	0.0	5.8
Lane LOS	B		A
Approach Delay (s)	12.4	0.0	5.8
Approach LOS	B		

Intersection Summary			
Average Delay	6.7		
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	105	8	13	250	42	6	34	12	53	82	23
Future Volume (vph)	11	105	8	13	250	42	6	34	12	53	82	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.981			0.969			0.980	
Flt Protected		0.996			0.998			0.994			0.983	
Satd. Flow (prot)	0	1738	0	0	1779	0	0	1407	0	0	1624	0
Flt Permitted		0.996			0.998			0.994			0.983	
Satd. Flow (perm)	0	1738	0	0	1779	0	0	1407	0	0	1624	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	57		1	1		57	4		50	50		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	6%	20%	33%	3%	5%	50%	32%	14%	4%	22%	0%
Adj. Flow (vph)	12	114	9	14	272	46	7	37	13	58	89	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	135	0	0	332	0	0	57	0	0	172	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	11	105	8	13	250	42	6	34	12	53	82	23
Future Volume (vph)	11	105	8	13	250	42	6	34	12	53	82	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	114	9	14	272	46	7	37	13	58	89	25

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	135	332	57	172
Volume Left (vph)	12	14	7	58
Volume Right (vph)	9	46	13	25
Hadj (s)	0.11	0.00	0.40	0.20
Departure Headway (s)	5.1	4.7	5.8	5.4
Degree Utilization, x	0.19	0.44	0.09	0.26
Capacity (veh/h)	655	725	561	617
Control Delay (s)	9.3	11.4	9.3	10.2
Approach Delay (s)	9.3	11.4	9.3	10.2
Approach LOS	A	B	A	B

Intersection Summary			
Delay	10.5		
Level of Service	B		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	342	1	1	234	34	1	3	0	77	0	27
Future Volume (vph)	8	342	1	1	234	34	1	3	0	77	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.983						0.965	
Flt Protected		0.999						0.988			0.964	
Satd. Flow (prot)	0	1827	0	0	1805	0	0	1877	0	0	1767	0
Flt Permitted		0.999						0.988			0.964	
Satd. Flow (perm)	0	1827	0	0	1805	0	0	1877	0	0	1767	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)	42					42						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	9	372	1	1	254	37	1	3	0	84	0	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	382	0	0	292	0	0	4	0	0	113	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	342	1	1	234	34	1	3	0	77	0	27
Future Volume (Veh/h)	8	342	1	1	234	34	1	3	0	77	0	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	372	1	1	254	37	1	3	0	84	0	29
Pedestrians											42	
Lane Width (m)											3.6	
Walking Speed (m/s)											1.2	
Percent Blockage											4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	333			373			694	726	372	708	708	314
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	333			373			694	726	372	708	708	314
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	99	100	74	100	96
cM capacity (veh/h)	1194			1197			334	339	678	326	347	705

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	382	292	4	113
Volume Left	9	1	1	84
Volume Right	1	37	0	29
cSH	1194	1197	337	378
Volume to Capacity	0.01	0.00	0.01	0.30
Queue Length 95th (m)	0.2	0.0	0.3	9.4
Control Delay (s)	0.3	0.0	15.8	18.5
Lane LOS	A	A	C	C
Approach Delay (s)	0.3	0.0	15.8	18.5
Approach LOS			C	C

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	43.1%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	295	209	14	8	2
Future Volume (vph)	4	295	209	14	8	2
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			0.992		0.975	
Flt Protected		0.999			0.961	
Satd. Flow (prot)	0	1861	1811	0	1780	0
Flt Permitted		0.999			0.961	
Satd. Flow (perm)	0	1861	1811	0	1780	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	4	321	227	15	9	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	325	242	0	11	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	295	209	14	8	2
Future Volume (Veh/h)	4	295	209	14	8	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	321	227	15	9	2
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	244				566	236
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	244				566	236
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1332				487	806

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	325	242	11
Volume Left	4	0	9
Volume Right	0	15	2
cSH	1332	1700	525
Volume to Capacity	0.00	0.14	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s)	0.1	0.0	12.0
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.0
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	28.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	252	49	26	167	3	49	7	34	3	2	7
Future Volume (vph)	3	252	49	26	167	3	49	7	34	3	2	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.978			0.998			0.949			0.917	
Flt Protected					0.993			0.974			0.989	
Satd. Flow (prot)	0	1813	0	0	1844	0	0	1756	0	0	1723	0
Flt Permitted					0.993			0.974			0.989	
Satd. Flow (perm)	0	1813	0	0	1844	0	0	1756	0	0	1723	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			450.4			484.2	
Travel Time (s)		13.7			48.8			32.4			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	274	53	28	182	3	53	8	37	3	2	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	330	0	0	213	0	0	98	0	0	13	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	252	49	26	167	3	49	7	34	3	2	7
Future Volume (Veh/h)	3	252	49	26	167	3	49	7	34	3	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	274	53	28	182	3	53	8	37	3	2	8
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	185			328			556	548	302	587	574	184
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	185			328			556	548	302	587	574	184
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			88	98	95	99	100	99
cM capacity (veh/h)	1402			1156			430	434	742	389	420	864

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	330	213	98	13
Volume Left	3	28	53	3
Volume Right	53	3	37	8
cSH	1402	1156	511	598
Volume to Capacity	0.00	0.02	0.19	0.02
Queue Length 95th (m)	0.0	0.6	5.3	0.5
Control Delay (s)	0.1	1.3	13.7	11.1
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	1.3	13.7	11.1
Approach LOS			B	B

Intersection Summary					
Average Delay		2.7			
Intersection Capacity Utilization		43.4%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	11	11	79	55	21
Future Volume (vph)	11	11	11	79	55	21
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	0.932				0.963	
Flt Protected	0.976			0.994		
Satd. Flow (prot)	1564	0	0	1840	1711	0
Flt Permitted	0.976			0.994		
Satd. Flow (perm)	1564	0	0	1840	1711	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	450.4	
Travel Time (s)	11.7			20.9	32.4	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	12	12	12	86	60	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	0	98	83	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	21.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	11	11	79	55	21
Future Volume (Veh/h)	11	11	11	79	55	21
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)	12	12	12	86	60	23
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	184	74	86			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	184	74	86			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	99	99	99			
cM capacity (veh/h)	801	934	1519			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	98	83
Volume Left	12	12	0
Volume Right	12	0	23
cSH	863	1519	1700
Volume to Capacity	0.03	0.01	0.05
Queue Length 95th (m)	0.7	0.2	0.0
Control Delay (s)	9.3	1.0	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	1.0	0.0
Approach LOS	A		

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	21.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	14	7	9	23	0	1	0	8	0	0	0
Future Volume (vph)	0	14	7	9	23	0	1	0	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.953						0.878				
Flt Protected					0.986			0.995				
Satd. Flow (prot)	0	1241	0	0	1749	0	0	1535	0	0	1900	0
Flt Permitted					0.986			0.995				
Satd. Flow (perm)	0	1241	0	0	1749	0	0	1535	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	15	8	10	25	0	1	0	9	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	35	0	0	10	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	14	7	9	23	0	1	0	8	0	0	0
Future Volume (Veh/h)	0	14	7	9	23	0	1	0	8	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	15	8	10	25	0	1	0	9	0	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	27			27			70	70	24	76	74	29
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	27			27			70	70	24	76	74	29
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	100	100	100
cM capacity (veh/h)	1597			1595			914	815	1028	900	811	1048

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	23	35	10	0
Volume Left	0	10	1	0
Volume Right	8	0	9	0
cSH	1597	1595	1016	1700
Volume to Capacity	0.00	0.01	0.01	0.00
Queue Length 95th (m)	0.0	0.1	0.2	0.0
Control Delay (s)	0.0	2.1	8.6	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	2.1	8.6	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		2.3		
Intersection Capacity Utilization		19.3%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	15	11	8	17	0	10	0	6	0	0	0
Future Volume (vph)	0	15	11	8	17	0	10	0	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.942						0.947				
Flt Protected					0.984			0.970				
Satd. Flow (prot)	0	1457	0	0	1669	0	0	994	0	0	1900	0
Flt Permitted					0.984			0.970				
Satd. Flow (perm)	0	1457	0	0	1669	0	0	994	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	16	12	9	18	0	11	0	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	0	0	27	0	0	18	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	20.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	15	11	8	17	0	10	0	6	0	0	0
Future Volume (Veh/h)	0	15	11	8	17	0	10	0	6	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	16	12	9	18	0	11	0	7	0	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	23			37			68	72	35	74	78	24
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			37			68	72	35	74	78	24
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1599			1575			783	808	807	894	802	1053

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	28	27	18	0
Volume Left	0	9	11	0
Volume Right	12	0	7	0
cSH	1599	1575	792	1700
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (m)	0.0	0.1	0.5	0.0
Control Delay (s)	0.0	2.5	9.7	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	2.5	9.7	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		3.3		
Intersection Capacity Utilization		20.0%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	45	187	86	23	256	123
Future Volume (vph)	45	187	86	23	256	123
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	0.891		0.971			
Flt Protected	0.990					0.967
Satd. Flow (prot)	1627	0	1826	0	0	1795
Flt Permitted	0.990					0.967
Satd. Flow (perm)	1627	0	1826	0	0	1795
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	5%	3%	1%
Adj. Flow (vph)	49	203	93	25	278	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	252	0	118	0	0	412
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	45	187	86	23	256	123
Future Volume (Veh/h)	45	187	86	23	256	123
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)	49	203	93	25	278	134
Pedestrians	5					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	800	110			123	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	800	110			123	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	83	78			81	
cM capacity (veh/h)	284	936			1452	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	252	118	412
Volume Left	49	0	278
Volume Right	203	25	0
cSH	647	1700	1452
Volume to Capacity	0.39	0.07	0.19
Queue Length 95th (m)	14.0	0.0	5.4
Control Delay (s)	14.1	0.0	6.0
Lane LOS	B		A
Approach Delay (s)	14.1	0.0	6.0
Approach LOS	B		

Intersection Summary			
Average Delay	7.7		
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	20	241	7	7	189	61	1	43	19	58	46	17
Future Volume (vph)	20	241	7	7	189	61	1	43	19	58	46	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.968			0.959			0.981	
Flt Protected		0.996			0.999			0.999			0.977	
Satd. Flow (prot)	0	1827	0	0	1811	0	0	1592	0	0	1587	0
Flt Permitted		0.996			0.999			0.999			0.977	
Satd. Flow (perm)	0	1827	0	0	1811	0	0	1592	0	0	1587	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	1		15	15		1			22	22		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	17%	0%	2%	0%	0%	21%	0%	6%	31%	0%
Adj. Flow (vph)	22	262	8	8	205	66	1	47	21	63	50	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	292	0	0	279	0	0	69	0	0	131	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	20	241	7	7	189	61	1	43	19	58	46	17
Future Volume (vph)	20	241	7	7	189	61	1	43	19	58	46	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	262	8	8	205	66	1	47	21	63	50	18

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	292	279	69	131
Volume Left (vph)	22	8	1	63
Volume Right (vph)	8	66	21	18
Hadj (s)	0.05	-0.11	0.06	0.26
Departure Headway (s)	4.9	4.8	5.6	5.7
Degree Utilization, x	0.40	0.37	0.11	0.21
Capacity (veh/h)	697	717	557	570
Control Delay (s)	11.1	10.5	9.3	10.2
Approach Delay (s)	11.1	10.5	9.3	10.2
Approach LOS	B	B	A	B

Intersection Summary				
Delay	10.6			
Level of Service	B			
Intersection Capacity Utilization	42.6%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	216	0	0	266	34	0	0	0	42	0	18
Future Volume (vph)	29	216	0	0	266	34	0	0	0	42	0	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.985						0.959	
Flt Protected		0.994									0.966	
Satd. Flow (prot)	0	1859	0	0	1745	0	0	1900	0	0	1384	0
Flt Permitted		0.994									0.966	
Satd. Flow (perm)	0	1859	0	0	1745	0	0	1900	0	0	1384	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)			54	54								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	1%	0%	0%	5%	25%	0%	0%	0%	39%	0%	0%
Adj. Flow (vph)	32	235	0	0	289	37	0	0	0	46	0	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	267	0	0	326	0	0	0	0	0	66	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	216	0	0	266	34	0	0	0	42	0	18
Future Volume (Veh/h)	29	216	0	0	266	34	0	0	0	42	0	18
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	235	0	0	289	37	0	0	0	46	0	20
Pedestrians								54				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								5				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	326			289			680	679	289	606	660	308
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	326			289			680	679	289	606	660	308
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.5	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.9	4.0	3.3
p0 queue free %	97			100			100	100	100	86	100	97
cM capacity (veh/h)	1211			1227			323	350	721	340	358	737

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	267	326	0	66
Volume Left	32	0	0	46
Volume Right	0	37	0	20
cSH	1211	1227	1700	407
Volume to Capacity	0.03	0.00	0.00	0.16
Queue Length 95th (m)	0.6	0.0	0.0	4.4
Control Delay (s)	1.2	0.0	0.0	15.6
Lane LOS	A		A	C
Approach Delay (s)	1.2	0.0	0.0	15.6
Approach LOS			A	C

Intersection Summary				
Average Delay		2.0		
Intersection Capacity Utilization		42.8%	ICU Level of Service	A
Analysis Period (min)		15		

Appendix E2

2031 Background Operation Synchro Reports

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	9	223	318	34	9	6
Future Volume (vph)	9	223	318	34	9	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			0.987		0.944	
Flt Protected		0.998			0.971	
Satd. Flow (prot)	0	1860	1801	0	1742	0
Flt Permitted		0.998			0.971	
Satd. Flow (perm)	0	1860	1801	0	1742	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	10	242	346	37	10	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	252	383	0	17	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	223	318	34	9	6
Future Volume (Veh/h)	9	223	318	34	9	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	242	346	37	10	7
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	385				628	366
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	385				628	366
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1183				445	682

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	252	383	17
Volume Left	10	0	10
Volume Right	0	37	7
cSH	1183	1700	519
Volume to Capacity	0.01	0.23	0.03
Queue Length 95th (m)	0.2	0.0	0.8
Control Delay (s)	0.4	0.0	12.2
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	12.2
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	201	26	30	303	5	43	7	43	4	1	6
Future Volume (vph)	5	201	26	30	303	5	43	7	43	4	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.985			0.998			0.938			0.921	
Flt Protected		0.999			0.996			0.977			0.984	
Satd. Flow (prot)	0	1822	0	0	1862	0	0	1741	0	0	1722	0
Flt Permitted		0.999			0.996			0.977			0.984	
Satd. Flow (perm)	0	1822	0	0	1862	0	0	1741	0	0	1722	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			450.4			484.2	
Travel Time (s)		13.7			48.8			32.4			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	5	218	28	33	329	5	47	8	47	4	1	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	251	0	0	367	0	0	102	0	0	12	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	201	26	30	303	5	43	7	43	4	1	6
Future Volume (Veh/h)	5	201	26	30	303	5	43	7	43	4	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	218	28	33	329	5	47	8	47	4	1	7
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	334			247			648	643	233	690	654	332
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	334			247			648	643	233	690	654	332
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			87	98	94	99	100	99
cM capacity (veh/h)	1237			1240			372	382	810	327	376	715

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	251	367	102	12
Volume Left	5	33	47	4
Volume Right	28	5	47	7
cSH	1237	1240	497	486
Volume to Capacity	0.00	0.03	0.21	0.02
Queue Length 95th (m)	0.1	0.6	5.8	0.6
Control Delay (s)	0.2	1.0	14.1	12.6
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	1.0	14.1	12.6
Approach LOS			B	B

Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	46.4%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	21	22	12	73	51	6
Future Volume (vph)	21	22	12	73	51	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	0.931				0.985	
Flt Protected	0.976			0.993		
Satd. Flow (prot)	1559	0	0	1839	1820	0
Flt Permitted	0.976			0.993		
Satd. Flow (perm)	1559	0	0	1839	1820	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	450.4	
Travel Time (s)	11.7			20.9	32.4	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	23	24	13	79	55	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	47	0	0	92	62	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	21.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	22	12	73	51	6
Future Volume (Veh/h)	21	22	12	73	51	6
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)	23	24	13	79	55	7
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	166	62	65			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	166	62	65			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	97	97	99			
cM capacity (veh/h)	820	950	1546			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	47	92	62
Volume Left	23	13	0
Volume Right	24	0	7
cSH	881	1546	1700
Volume to Capacity	0.05	0.01	0.04
Queue Length 95th (m)	1.3	0.2	0.0
Control Delay (s)	9.3	1.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	1.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	21.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	24	1	1	17	0	5	0	18	0	0	0
Future Volume (vph)	0	24	1	1	17	0	5	0	18	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995						0.892				
Flt Protected					0.997			0.990				
Satd. Flow (prot)	0	1574	0	0	1730	0	0	1565	0	0	1900	0
Flt Permitted					0.997			0.990				
Satd. Flow (perm)	0	1574	0	0	1730	0	0	1565	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	26	1	1	18	0	5	0	20	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	19	0	0	25	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	24	1	1	17	0	5	0	18	0	0	0
Future Volume (Veh/h)	0	24	1	1	17	0	5	0	18	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	26	1	1	18	0	5	0	20	0	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	20			31			52	52	32	70	53	22
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	20			31			52	52	32	70	53	22
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	100	100	100
cM capacity (veh/h)	1607			1589			942	838	1018	903	837	1057

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	27	19	25	0
Volume Left	0	1	5	0
Volume Right	1	0	20	0
cSH	1607	1589	1002	1700
Volume to Capacity	0.00	0.00	0.02	0.00
Queue Length 95th (m)	0.0	0.0	0.6	0.0
Control Delay (s)	0.0	0.4	8.7	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.4	8.7	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		3.2		
Intersection Capacity Utilization		15.2%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	10	4	5	17	0	9	0	16	0	0	0
Future Volume (vph)	0	10	4	5	17	0	9	0	16	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.964						0.915				
Flt Protected					0.989			0.982				
Satd. Flow (prot)	0	1416	0	0	1647	0	0	922	0	0	1900	0
Flt Permitted					0.989			0.982				
Satd. Flow (perm)	0	1416	0	0	1647	0	0	922	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	11	4	5	18	0	10	0	17	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	23	0	0	27	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	10	4	5	17	0	9	0	16	0	0	0
Future Volume (Veh/h)	0	10	4	5	17	0	9	0	16	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	11	4	5	18	0	10	0	17	0	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	23			24			51	55	26	67	57	24
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			24			51	55	26	67	57	24
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	100	100	100
cM capacity (veh/h)	1599			1592			806	828	817	895	826	1053

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	15	23	27	0
Volume Left	0	5	10	0
Volume Right	4	0	17	0
cSH	1599	1592	813	1700
Volume to Capacity	0.00	0.00	0.03	0.00
Queue Length 95th (m)	0.0	0.1	0.8	0.0
Control Delay (s)	0.0	1.6	9.6	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.6	9.6	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	4.5			
Intersection Capacity Utilization	17.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	39	205	108	57	192	96
Future Volume (vph)	39	205	108	57	192	96
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	0.886		0.953			
Flt Protected	0.992					0.968
Satd. Flow (prot)	1535	0	1740	0	0	1703
Flt Permitted	0.992					0.968
Satd. Flow (perm)	1535	0	1740	0	0	1703
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				4	4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	8%	3%	6%	7%	10%
Adj. Flow (vph)	42	223	117	62	209	104
Shared Lane Traffic (%)						
Lane Group Flow (vph)	265	0	179	0	0	313
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	39	205	108	57	192	96
Future Volume (Veh/h)	39	205	108	57	192	96
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)	42	223	117	62	209	104
Pedestrians	4					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	674	152			183	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	674	152			183	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	88	75			85	
cM capacity (veh/h)	340	876			1358	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	265	179	313
Volume Left	42	0	209
Volume Right	223	62	0
cSH	701	1700	1358
Volume to Capacity	0.38	0.11	0.15
Queue Length 95th (m)	13.4	0.0	4.1
Control Delay (s)	13.2	0.0	5.9
Lane LOS	B		A
Approach Delay (s)	13.2	0.0	5.9
Approach LOS	B		

Intersection Summary			
Average Delay	7.1		
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	112	9	14	264	45	6	37	13	57	89	25
Future Volume (vph)	12	112	9	14	264	45	6	37	13	57	89	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.981			0.969			0.980	
Flt Protected		0.996			0.998			0.994			0.984	
Satd. Flow (prot)	0	1737	0	0	1779	0	0	1408	0	0	1624	0
Flt Permitted		0.996			0.998			0.994			0.984	
Satd. Flow (perm)	0	1737	0	0	1779	0	0	1408	0	0	1624	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	57		1	1		57	4		50	50		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	6%	20%	33%	3%	5%	50%	32%	14%	4%	22%	0%
Adj. Flow (vph)	13	122	10	15	287	49	7	40	14	62	97	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	0	0	351	0	0	61	0	0	186	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	12	112	9	14	264	45	6	37	13	57	89	25
Future Volume (vph)	12	112	9	14	264	45	6	37	13	57	89	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	122	10	15	287	49	7	40	14	62	97	27

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	145	351	61	186
Volume Left (vph)	13	15	7	62
Volume Right (vph)	10	49	14	27
Hadj (s)	0.11	0.00	0.39	0.20
Departure Headway (s)	5.2	4.8	5.9	5.5
Degree Utilization, x	0.21	0.47	0.10	0.28
Capacity (veh/h)	640	713	536	605
Control Delay (s)	9.6	12.1	9.6	10.6
Approach Delay (s)	9.6	12.1	9.6	10.6
Approach LOS	A	B	A	B

Intersection Summary			
Delay	11.0		
Level of Service	B		
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	378	1	1	258	37	1	4	0	84	0	29
Future Volume (vph)	8	378	1	1	258	37	1	4	0	84	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.983						0.965	
Flt Protected		0.999						0.990			0.964	
Satd. Flow (prot)	0	1827	0	0	1805	0	0	1881	0	0	1767	0
Flt Permitted		0.999						0.990			0.964	
Satd. Flow (perm)	0	1827	0	0	1805	0	0	1881	0	0	1767	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)	42					42						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	9	411	1	1	280	40	1	4	0	91	0	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	421	0	0	321	0	0	5	0	0	123	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	378	1	1	258	37	1	4	0	84	0	29
Future Volume (Veh/h)	8	378	1	1	258	37	1	4	0	84	0	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	411	1	1	280	40	1	4	0	91	0	32
Pedestrians											42	
Lane Width (m)											3.6	
Walking Speed (m/s)											1.2	
Percent Blockage											4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	362			412			764	794	412	776	774	342
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	362			412			764	794	412	776	774	342
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	99	100	69	100	95
cM capacity (veh/h)	1165			1158			298	309	645	293	317	680

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	421	321	5	123
Volume Left	9	1	1	91
Volume Right	1	40	0	32
cSH	1165	1158	307	344
Volume to Capacity	0.01	0.00	0.02	0.36
Queue Length 95th (m)	0.2	0.0	0.4	12.0
Control Delay (s)	0.3	0.0	16.9	21.2
Lane LOS	A	A	C	C
Approach Delay (s)	0.3	0.0	16.9	21.2
Approach LOS			C	C

Intersection Summary					
Average Delay	3.2				
Intersection Capacity Utilization	45.6%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	317	226	16	9	2
Future Volume (vph)	5	317	226	16	9	2
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			0.991		0.977	
Flt Protected		0.999			0.960	
Satd. Flow (prot)	0	1861	1809	0	1782	0
Flt Permitted		0.999			0.960	
Satd. Flow (perm)	0	1861	1809	0	1782	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	5	345	246	17	10	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	350	263	0	12	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	317	226	16	9	2
Future Volume (Veh/h)	5	317	226	16	9	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	345	246	17	10	2
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	265				612	256
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	265				612	256
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1309				458	786

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	350	263	12
Volume Left	5	0	10
Volume Right	0	17	2
cSH	1309	1700	492
Volume to Capacity	0.00	0.15	0.02
Queue Length 95th (m)	0.1	0.0	0.6
Control Delay (s)	0.1	0.0	12.5
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.5
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	272	50	29	183	4	51	7	38	4	2	7
Future Volume (vph)	4	272	50	29	183	4	51	7	38	4	2	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.998			0.947			0.923	
Flt Protected		0.999			0.993			0.974			0.986	
Satd. Flow (prot)	0	1813	0	0	1843	0	0	1753	0	0	1729	0
Flt Permitted		0.999			0.993			0.974			0.986	
Satd. Flow (perm)	0	1813	0	0	1843	0	0	1753	0	0	1729	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			450.4			484.2	
Travel Time (s)		13.7			48.8			32.4			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	4	296	54	32	199	4	55	8	41	4	2	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	354	0	0	235	0	0	104	0	0	14	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	50	29	183	4	51	7	38	4	2	7
Future Volume (Veh/h)	4	272	50	29	183	4	51	7	38	4	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	296	54	32	199	4	55	8	41	4	2	8
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	203			351			606	599	324	641	624	201
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	203			351			606	599	324	641	624	201
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			86	98	94	99	99	99
cM capacity (veh/h)	1381			1133			396	405	721	354	392	845

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	354	235	104	14
Volume Left	4	32	55	4
Volume Right	54	4	41	8
cSH	1381	1133	483	541
Volume to Capacity	0.00	0.03	0.22	0.03
Queue Length 95th (m)	0.1	0.7	6.2	0.6
Control Delay (s)	0.1	1.4	14.5	11.8
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	1.4	14.5	11.8
Approach LOS			B	B

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	44.6%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	12	12	12	84	58	23
Future Volume (vph)	12	12	12	84	58	23
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	0.932				0.962	
Flt Protected	0.976			0.994		
Satd. Flow (prot)	1564	0	0	1840	1707	0
Flt Permitted	0.976			0.994		
Satd. Flow (perm)	1564	0	0	1840	1707	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	450.4	
Travel Time (s)	11.7			20.9	32.4	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	13	13	13	91	63	25
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	0	0	104	88	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	21.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	12	12	84	58	23
Future Volume (Veh/h)	12	12	12	84	58	23
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)	13	13	13	91	63	25
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	196	78	91			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	196	78	91			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	98	99	99			
cM capacity (veh/h)	789	929	1513			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	26	104	88
Volume Left	13	13	0
Volume Right	13	0	25
cSH	853	1513	1700
Volume to Capacity	0.03	0.01	0.05
Queue Length 95th (m)	0.7	0.2	0.0
Control Delay (s)	9.4	1.0	0.0
Lane LOS	A	A	
Approach Delay (s)	9.4	1.0	0.0
Approach LOS	A		

Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	21.8%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	16	7	10	26	0	1	0	9	0	0	0
Future Volume (vph)	0	16	7	10	26	0	1	0	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.957						0.877				
Flt Protected					0.986			0.995				
Satd. Flow (prot)	0	1267	0	0	1748	0	0	1533	0	0	1900	0
Flt Permitted					0.986			0.995				
Satd. Flow (perm)	0	1267	0	0	1748	0	0	1533	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	17	8	11	28	0	1	0	10	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	39	0	0	11	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	16	7	10	26	0	1	0	9	0	0	0
Future Volume (Veh/h)	0	16	7	10	26	0	1	0	9	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	8	11	28	0	1	0	10	0	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	30			29			77	77	26	84	81	32
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	30			29			77	77	26	84	81	32
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	100	100	100
cM capacity (veh/h)	1593			1592			904	807	1026	888	803	1044

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	25	39	11	0
Volume Left	0	11	1	0
Volume Right	8	0	10	0
cSH	1593	1592	1013	1700
Volume to Capacity	0.00	0.01	0.01	0.00
Queue Length 95th (m)	0.0	0.2	0.3	0.0
Control Delay (s)	0.0	2.1	8.6	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	2.1	8.6	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	19.5%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	12	9	18	0	11	0	6	0	0	0
Future Volume (vph)	0	17	12	9	18	0	11	0	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.943						0.950				
Flt Protected					0.984			0.969				
Satd. Flow (prot)	0	1454	0	0	1669	0	0	1001	0	0	1900	0
Flt Permitted					0.984			0.969				
Satd. Flow (perm)	0	1454	0	0	1669	0	0	1001	0	0	1900	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	18	13	10	20	0	12	0	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	30	0	0	19	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	17	12	9	18	0	11	0	6	0	0	0
Future Volume (Veh/h)	0	17	12	9	18	0	11	0	6	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	18	13	10	20	0	12	0	7	0	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	25			40			74	78	38	80	85	26
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	25			40			74	78	38	80	85	26
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			99			98	100	99	100	100	100
cM capacity (veh/h)	1596			1571			775	801	804	885	794	1050

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	31	30	19	0
Volume Left	0	10	12	0
Volume Right	13	0	7	0
cSH	1596	1571	785	1700
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (m)	0.0	0.1	0.6	0.0
Control Delay (s)	0.0	2.5	9.7	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	2.5	9.7	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay		3.2		
Intersection Capacity Utilization		20.2%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	50	202	95	25	273	135
Future Volume (vph)	50	202	95	25	273	135
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	0.892		0.972			
Flt Protected	0.990					0.968
Satd. Flow (prot)	1629	0	1828	0	0	1797
Flt Permitted	0.990					0.968
Satd. Flow (perm)	1629	0	1828	0	0	1797
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	5%	3%	1%
Adj. Flow (vph)	54	220	103	27	297	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	274	0	130	0	0	444
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	50	202	95	25	273	135
Future Volume (Veh/h)	50	202	95	25	273	135
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)	54	220	103	27	297	147
Pedestrians	5					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	862	122			135	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	862	122			135	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	79	76			79	
cM capacity (veh/h)	256	923			1437	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	274	130	444
Volume Left	54	0	297
Volume Right	220	27	0
cSH	610	1700	1437
Volume to Capacity	0.45	0.08	0.21
Queue Length 95th (m)	17.6	0.0	5.9
Control Delay (s)	15.6	0.0	6.1
Lane LOS	C		A
Approach Delay (s)	15.6	0.0	6.1
Approach LOS	C		

Intersection Summary			
Average Delay	8.2		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	255	7	8	200	65	1	47	21	61	49	18
Future Volume (vph)	21	255	7	8	200	65	1	47	21	61	49	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.968			0.959			0.981	
Flt Protected		0.996			0.998			0.999			0.977	
Satd. Flow (prot)	0	1827	0	0	1809	0	0	1593	0	0	1588	0
Flt Permitted		0.996			0.998			0.999			0.977	
Satd. Flow (perm)	0	1827	0	0	1809	0	0	1593	0	0	1588	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	1		15	15		1			22	22		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	17%	0%	2%	0%	0%	21%	0%	6%	31%	0%
Adj. Flow (vph)	23	277	8	9	217	71	1	51	23	66	53	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	308	0	0	297	0	0	75	0	0	139	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	21	255	7	8	200	65	1	47	21	61	49	18
Future Volume (vph)	21	255	7	8	200	65	1	47	21	61	49	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	277	8	9	217	71	1	51	23	66	53	20

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	308	297	75	139
Volume Left (vph)	23	9	1	66
Volume Right (vph)	8	71	23	20
Hadj (s)	0.05	-0.11	0.06	0.26
Departure Headway (s)	5.0	4.9	5.8	5.8
Degree Utilization, x	0.43	0.40	0.12	0.22
Capacity (veh/h)	684	705	540	557
Control Delay (s)	11.7	11.1	9.5	10.5
Approach Delay (s)	11.7	11.1	9.5	10.5
Approach LOS	B	B	A	B

Intersection Summary					
Delay	11.1				
Level of Service	B				
Intersection Capacity Utilization	43.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	239	0	0	294	37	0	0	0	46	0	19
Future Volume (vph)	31	239	0	0	294	37	0	0	0	46	0	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.985						0.960	
Flt Protected		0.994									0.966	
Satd. Flow (prot)	0	1859	0	0	1745	0	0	1900	0	0	1382	0
Flt Permitted		0.994									0.966	
Satd. Flow (perm)	0	1859	0	0	1745	0	0	1900	0	0	1382	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)			54	54								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	1%	0%	0%	5%	25%	0%	0%	0%	39%	0%	0%
Adj. Flow (vph)	34	260	0	0	320	40	0	0	0	50	0	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	294	0	0	360	0	0	0	0	0	71	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	239	0	0	294	37	0	0	0	46	0	19
Future Volume (Veh/h)	31	239	0	0	294	37	0	0	0	46	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	260	0	0	320	40	0	0	0	50	0	21
Pedestrians								54				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								5				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	360			314			743	742	314	668	722	340
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	360			314			743	742	314	668	722	340
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.5	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.9	4.0	3.3
p0 queue free %	97			100			100	100	100	84	100	97
cM capacity (veh/h)	1177			1201			292	321	698	308	330	707

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	294	360	0	71
Volume Left	34	0	0	50
Volume Right	0	40	0	21
cSH	1177	1201	1700	370
Volume to Capacity	0.03	0.00	0.00	0.19
Queue Length 95th (m)	0.7	0.0	0.0	5.3
Control Delay (s)	1.2	0.0	0.0	17.0
Lane LOS	A		A	C
Approach Delay (s)	1.2	0.0	0.0	17.0
Approach LOS			A	C

Intersection Summary					
Average Delay	2.2				
Intersection Capacity Utilization	45.7%	ICU Level of Service		A	
Analysis Period (min)	15				

Appendix F1

2026 Total Operation Synchro Reports

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	8	216	325	31	8	6
Future Volume (vph)	8	216	325	31	8	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			0.988		0.941	
Flt Protected		0.998			0.973	
Satd. Flow (prot)	0	1860	1803	0	1740	0
Flt Permitted		0.998			0.973	
Satd. Flow (perm)	0	1860	1803	0	1740	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	9	235	353	34	9	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	244	387	0	16	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	216	325	31	8	6
Future Volume (Veh/h)	8	216	325	31	8	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	235	353	34	9	7
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	389				625	372
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	389				625	372
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1179				448	677

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	244	387	16
Volume Left	9	0	9
Volume Right	0	34	7
cSH	1179	1700	526
Volume to Capacity	0.01	0.23	0.03
Queue Length 95th (m)	0.2	0.0	0.7
Control Delay (s)	0.4	0.0	12.1
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	12.1
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	183	36	36	278	4	73	7	57	3	1	6
Future Volume (vph)	4	183	36	36	278	4	73	7	57	3	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.978			0.998			0.944			0.914	
Flt Protected		0.999			0.994			0.974			0.987	
Satd. Flow (prot)	0	1812	0	0	1851	0	0	1747	0	0	1714	0
Flt Permitted		0.999			0.994			0.974			0.987	
Satd. Flow (perm)	0	1812	0	0	1851	0	0	1747	0	0	1714	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			206.4			484.2	
Travel Time (s)		13.7			48.8			14.9			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	4	199	39	39	302	4	79	8	62	3	1	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	242	0	0	345	0	0	149	0	0	11	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	183	36	36	278	4	73	7	57	3	1	6
Future Volume (Veh/h)	4	183	36	36	278	4	73	7	57	3	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	199	39	39	302	4	79	8	62	3	1	7
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	306			239			617	612	220	674	629	304
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	306			239			617	612	220	674	629	304
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			80	98	92	99	100	99
cM capacity (veh/h)	1266			1249			389	397	825	329	388	740

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	242	345	149	11
Volume Left	4	39	79	3
Volume Right	39	4	62	7
cSH	1266	1249	500	520
Volume to Capacity	0.00	0.03	0.30	0.02
Queue Length 95th (m)	0.1	0.7	9.4	0.5
Control Delay (s)	0.2	1.2	15.2	12.1
Lane LOS	A	A	C	B
Approach Delay (s)	0.2	1.2	15.2	12.1
Approach LOS			C	B

Intersection Summary					
Average Delay		3.8			
Intersection Capacity Utilization		52.7%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	46	65	25	80	84	16
Future Volume (vph)	46	65	25	80	84	16
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	0.921				0.979	
Flt Protected	0.980			0.988		
Satd. Flow (prot)	1527	0	0	1835	1790	0
Flt Permitted	0.980			0.988		
Satd. Flow (perm)	1527	0	0	1835	1790	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	244.0	
Travel Time (s)	11.7			20.9	17.6	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	50	71	27	87	91	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	121	0	0	114	108	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	46	65	25	80	84	16
Future Volume (Veh/h)	46	65	25	80	84	16
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)	50	71	27	87	91	17
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	244	102	111			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	244	102	111			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	93	92	98			
cM capacity (veh/h)	734	901	1488			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	121	114	108
Volume Left	50	27	0
Volume Right	71	0	17
cSH	823	1488	1700
Volume to Capacity	0.15	0.02	0.06
Queue Length 95th (m)	3.9	0.4	0.0
Control Delay (s)	10.1	1.9	0.0
Lane LOS	B	A	
Approach Delay (s)	10.1	1.9	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	55	1	1	26	13	4	0	17	39	0	0
Future Volume (vph)	0	55	1	1	26	13	4	0	17	39	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.956			0.890				
Flt Protected					0.999			0.991			0.950	
Satd. Flow (prot)	0	1602	0	0	1704	0	0	1561	0	0	1805	0
Flt Permitted					0.999			0.991			0.950	
Satd. Flow (perm)	0	1602	0	0	1704	0	0	1561	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	60	1	1	28	14	4	0	18	42	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	43	0	0	22	0	0	42	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	20.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	55	1	1	26	13	4	0	17	39	0	0
Future Volume (Veh/h)	0	55	1	1	26	13	4	0	17	39	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	60	1	1	28	14	4	0	18	42	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	44			65			104	110	66	118	104	39
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	44			65			104	110	66	118	104	39
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	95	100	100
cM capacity (veh/h)	1575			1545			873	779	975	840	785	1035

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	61	43	22	42
Volume Left	0	1	4	42
Volume Right	1	14	18	0
cSH	1575	1545	955	840
Volume to Capacity	0.00	0.00	0.02	0.05
Queue Length 95th (m)	0.0	0.0	0.5	1.2
Control Delay (s)	0.0	0.2	8.9	9.5
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.2	8.9	9.5
Approach LOS			A	A

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	20.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	9	3	4	15	11	8	0	14	33	0	0
Future Volume (vph)	0	9	3	4	15	11	8	0	14	33	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.969			0.949			0.916				
Flt Protected					0.994			0.982			0.950	
Satd. Flow (prot)	0	1408	0	0	1644	0	0	924	0	0	1805	0
Flt Permitted					0.994			0.982			0.950	
Satd. Flow (perm)	0	1408	0	0	1644	0	0	924	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	10	3	4	16	12	9	0	15	36	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	32	0	0	24	0	0	36	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	9	3	4	15	11	8	0	14	33	0	0
Future Volume (Veh/h)	0	9	3	4	15	11	8	0	14	33	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	10	3	4	16	12	9	0	15	36	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	33			22			52	62	24	66	57	28
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	33			22			52	62	24	66	57	28
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	96	100	100
cM capacity (veh/h)	1585			1595			806	821	819	899	826	1048

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	13	32	24	36
Volume Left	0	4	9	36
Volume Right	3	12	15	0
cSH	1585	1595	814	899
Volume to Capacity	0.00	0.00	0.03	0.04
Queue Length 95th (m)	0.0	0.1	0.7	0.9
Control Delay (s)	0.0	0.9	9.6	9.2
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.9	9.6	9.2
Approach LOS			A	A

Intersection Summary					
Average Delay		5.6			
Intersection Capacity Utilization		17.7%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	45	213	98	56	183	87
Future Volume (vph)	45	213	98	56	183	87
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	0.889		0.951			
Flt Protected	0.991					0.967
Satd. Flow (prot)	1537	0	1736	0	0	1702
Flt Permitted	0.991					0.967
Satd. Flow (perm)	1537	0	1736	0	0	1702
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				4	4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	8%	3%	6%	7%	10%
Adj. Flow (vph)	49	232	107	61	199	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	168	0	0	294
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	45	213	98	56	183	87
Future Volume (Veh/h)	45	213	98	56	183	87
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)	49	232	107	61	199	95
Pedestrians	4					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	634	142			172	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	634	142			172	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	86	74			85	
cM capacity (veh/h)	363	888			1371	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	281	168	294
Volume Left	49	0	199
Volume Right	232	61	0
cSH	709	1700	1371
Volume to Capacity	0.40	0.10	0.15
Queue Length 95th (m)	14.5	0.0	3.9
Control Delay (s)	13.4	0.0	5.9
Lane LOS	B		A
Approach Delay (s)	13.4	0.0	5.9
Approach LOS	B		

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	105	8	13	250	47	6	52	12	64	139	36
Future Volume (vph)	14	105	8	13	250	47	6	52	12	64	139	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.980			0.977			0.980	
Flt Protected		0.995			0.998			0.995			0.987	
Satd. Flow (prot)	0	1733	0	0	1777	0	0	1414	0	0	1614	0
Flt Permitted		0.995			0.998			0.995			0.987	
Satd. Flow (perm)	0	1733	0	0	1777	0	0	1414	0	0	1614	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	57		1	1		57	4		50	50		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	6%	20%	33%	3%	5%	50%	32%	14%	4%	22%	0%
Adj. Flow (vph)	15	114	9	14	272	51	7	57	13	70	151	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	337	0	0	77	0	0	260	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	14	105	8	13	250	47	6	52	12	64	139	36
Future Volume (vph)	14	105	8	13	250	47	6	52	12	64	139	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	114	9	14	272	51	7	57	13	70	151	39

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	138	337	77	260
Volume Left (vph)	15	14	7	70
Volume Right (vph)	9	51	13	39
Hadj (s)	0.12	-0.01	0.44	0.20
Departure Headway (s)	5.5	5.1	6.1	5.5
Degree Utilization, x	0.21	0.48	0.13	0.40
Capacity (veh/h)	594	667	517	607
Control Delay (s)	10.0	12.7	10.0	12.1
Approach Delay (s)	10.0	12.7	10.0	12.1
Approach LOS	B	B	B	B

Intersection Summary					
Delay	11.8				
Level of Service	B				
Intersection Capacity Utilization	45.7%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	342	1	1	234	42	1	3	0	112	0	49
Future Volume (vph)	18	342	1	1	234	42	1	3	0	112	0	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.979						0.959	
Flt Protected		0.997						0.988			0.966	
Satd. Flow (prot)	0	1825	0	0	1799	0	0	1877	0	0	1760	0
Flt Permitted		0.997						0.988			0.966	
Satd. Flow (perm)	0	1825	0	0	1799	0	0	1877	0	0	1760	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)	42					42						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	20	372	1	1	254	46	1	3	0	122	0	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	393	0	0	301	0	0	4	0	0	175	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

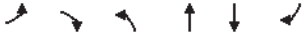
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	342	1	1	234	42	1	3	0	112	0	49
Future Volume (Veh/h)	18	342	1	1	234	42	1	3	0	112	0	49
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	372	1	1	254	46	1	3	0	122	0	53
Pedestrians											42	
Lane Width (m)											3.6	
Walking Speed (m/s)											1.2	
Percent Blockage											4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	342			373			744	756	372	735	734	319
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	342			373			744	756	372	735	734	319
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			100	99	100	61	100	92
cM capacity (veh/h)	1185			1197			295	322	678	311	332	701

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	393	301	4	175
Volume Left	20	1	1	122
Volume Right	1	46	0	53
cSH	1185	1197	315	374
Volume to Capacity	0.02	0.00	0.01	0.47
Queue Length 95th (m)	0.4	0.0	0.3	18.3
Control Delay (s)	0.6	0.0	16.6	22.8
Lane LOS	A	A	C	C
Approach Delay (s)	0.6	0.0	16.6	22.8
Approach LOS			C	C

Intersection Summary					
Average Delay	4.9				
Intersection Capacity Utilization	53.9%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	36	12	114	63	9
Future Volume (vph)	22	36	12	114	63	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.916				0.983	
Flt Protected	0.981			0.995		
Satd. Flow (prot)	1707	0	0	1857	1836	0
Flt Permitted	0.981			0.995		
Satd. Flow (perm)	1707	0	0	1857	1836	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	230.9			244.0	206.4	
Travel Time (s)	16.6			17.6	14.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Adj. Flow (vph)	24	39	13	124	68	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	63	0	0	137	78	0
Sign Control	Stop			Free	Free	

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



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	36	12	114	63	9
Future Volume (Veh/h)	22	36	12	114	63	9
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)	24	39	13	124	68	10
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	223	73	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	223	73	78			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	96	99			
cM capacity (veh/h)	763	995	1533			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	63	137	78
Volume Left	24	13	0
Volume Right	39	0	10
cSH	892	1533	1700
Volume to Capacity	0.07	0.01	0.05
Queue Length 95th (m)	1.7	0.2	0.0
Control Delay (s)	9.3	0.8	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	0.8	0.0
Approach LOS	A		

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	23.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	336	232	14	8	2
Future Volume (vph)	4	336	232	14	8	2
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			0.992		0.975	
Flt Protected		0.999			0.961	
Satd. Flow (prot)	0	1861	1811	0	1780	0
Flt Permitted		0.999			0.961	
Satd. Flow (perm)	0	1861	1811	0	1780	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	4	365	252	15	9	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	369	267	0	11	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	336	232	14	8	2
Future Volume (Veh/h)	4	336	232	14	8	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	365	252	15	9	2
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	269				634	262
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	269				634	262
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1304				444	781

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	369	267	11
Volume Left	4	0	9
Volume Right	0	15	2
cSH	1304	1700	482
Volume to Capacity	0.00	0.16	0.02
Queue Length 95th (m)	0.1	0.0	0.5
Control Delay (s)	0.1	0.0	12.6
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.6
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	252	89	44	167	3	72	7	47	3	2	7
Future Volume (vph)	3	252	89	44	167	3	72	7	47	3	2	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.998			0.950			0.917	
Flt Protected					0.990			0.972			0.989	
Satd. Flow (prot)	0	1794	0	0	1817	0	0	1754	0	0	1723	0
Flt Permitted					0.990			0.972			0.989	
Satd. Flow (perm)	0	1794	0	0	1817	0	0	1754	0	0	1723	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			202.8			484.2	
Travel Time (s)		13.7			48.8			14.6			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	274	97	48	182	3	78	8	51	3	2	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	374	0	0	233	0	0	137	0	0	13	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	252	89	44	167	3	72	7	47	3	2	7
Future Volume (Veh/h)	3	252	89	44	167	3	72	7	47	3	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	274	97	48	182	3	78	8	51	3	2	8
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	185			372			618	610	324	663	658	184
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	185			372			618	610	324	663	658	184
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			80	98	93	99	99	99
cM capacity (veh/h)	1402			1113			385	393	722	333	369	864

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	374	233	137	13
Volume Left	3	48	78	3
Volume Right	97	3	51	8
cSH	1402	1113	466	549
Volume to Capacity	0.00	0.04	0.29	0.02
Queue Length 95th (m)	0.0	1.0	9.2	0.6
Control Delay (s)	0.1	2.0	15.9	11.7
Lane LOS	A	A	C	B
Approach Delay (s)	0.1	2.0	15.9	11.7
Approach LOS			C	B

Intersection Summary				
Average Delay		3.7		
Intersection Capacity Utilization		54.2%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	31	38	57	117	77	53
Future Volume (vph)	31	38	57	117	77	53
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	0.926				0.945	
Flt Protected	0.978			0.984		
Satd. Flow (prot)	1543	0	0	1833	1629	0
Flt Permitted	0.978			0.984		
Satd. Flow (perm)	1543	0	0	1833	1629	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	247.6	
Travel Time (s)	11.7			20.9	17.8	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	34	41	62	127	84	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	0	0	189	142	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	38	57	117	77	53
Future Volume (Veh/h)	31	38	57	117	77	53
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)	34	41	62	127	84	58
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	367	116	145			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	367	116	145			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	94	95	96			
cM capacity (veh/h)	608	885	1446			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	75	189	142
Volume Left	34	62	0
Volume Right	41	0	58
cSH	734	1446	1700
Volume to Capacity	0.10	0.04	0.08
Queue Length 95th (m)	2.6	1.0	0.0
Control Delay (s)	10.5	2.7	0.0
Lane LOS	B	A	
Approach Delay (s)	10.5	2.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	0	35	7	9	58	43	1	0	8	26	0	0
Future Volume (vph)	0	35	7	9	58	43	1	0	8	26	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.977			0.947			0.878				
Flt Protected					0.996			0.995			0.950	
Satd. Flow (prot)	0	1412	0	0	1703	0	0	1535	0	0	1805	0
Flt Permitted					0.996			0.995			0.950	
Satd. Flow (perm)	0	1412	0	0	1703	0	0	1535	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	38	8	10	63	47	1	0	9	28	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	120	0	0	10	0	0	28	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (veh/h)	0	35	7	9	58	43	1	0	8	26	0	0
Future Volume (Veh/h)	0	35	7	9	58	43	1	0	8	26	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	38	8	10	63	47	1	0	9	28	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	112			50			154	178	47	160	158	90
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	112			50			154	178	47	160	158	90
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	96	100	100
cM capacity (veh/h)	1488			1564			806	711	998	793	729	969

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	46	120	10	28
Volume Left	0	10	1	28
Volume Right	8	47	9	0
cSH	1488	1564	975	793
Volume to Capacity	0.00	0.01	0.01	0.04
Queue Length 95th (m)	0.0	0.1	0.2	0.8
Control Delay (s)	0.0	0.7	8.7	9.7
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.7	8.7	9.7
Approach LOS			A	A

Intersection Summary				
Average Delay		2.1		
Intersection Capacity Utilization		28.1%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	15	11	8	17	35	10	0	6	21	0	0
Future Volume (vph)	0	15	11	8	17	35	10	0	6	21	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.942			0.921			0.947				
Flt Protected					0.993			0.970			0.950	
Satd. Flow (prot)	0	1457	0	0	1655	0	0	994	0	0	1805	0
Flt Permitted					0.993			0.970			0.950	
Satd. Flow (perm)	0	1457	0	0	1655	0	0	994	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	16	12	9	18	38	11	0	7	23	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	0	0	65	0	0	18	0	0	23	0
Sign Control		Free			Free			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	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	15	11	8	17	35	10	0	6	21	0	0
Future Volume (Veh/h)	0	15	11	8	17	35	10	0	6	21	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	16	12	9	18	38	11	0	7	23	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	61			37			87	110	35	93	97	43
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	61			37			87	110	35	93	97	43
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	97	100	100
cM capacity (veh/h)	1549			1575			760	770	807	869	783	1028

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	28	65	18	23
Volume Left	0	9	11	23
Volume Right	12	38	7	0
cSH	1549	1575	777	869
Volume to Capacity	0.00	0.01	0.02	0.03
Queue Length 95th (m)	0.0	0.1	0.5	0.6
Control Delay (s)	0.0	1.0	9.7	9.3
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.0	9.7	9.3
Approach LOS			A	A

Intersection Summary					
Average Delay		3.4			
Intersection Capacity Utilization		22.2%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	55	200	86	34	286	123
Future Volume (vph)	55	200	86	34	286	123
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	0.894		0.962			
Flt Protected	0.989					0.966
Satd. Flow (prot)	1631	0	1802	0	0	1792
Flt Permitted	0.989					0.966
Satd. Flow (perm)	1631	0	1802	0	0	1792
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	5%	3%	1%
Adj. Flow (vph)	60	217	93	37	311	134
Shared Lane Traffic (%)						
Lane Group Flow (vph)	277	0	130	0	0	445
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	55	200	86	34	286	123
Future Volume (Veh/h)	55	200	86	34	286	123
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)	60	217	93	37	311	134
Pedestrians	5					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	872	116			135	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	872	116			135	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	76	77			78	
cM capacity (veh/h)	249	929			1437	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	277	130	445
Volume Left	60	0	311
Volume Right	217	37	0
cSH	584	1700	1437
Volume to Capacity	0.47	0.08	0.22
Queue Length 95th (m)	19.3	0.0	6.3
Control Delay (s)	16.6	0.0	6.3
Lane LOS	C		A
Approach Delay (s)	16.6	0.0	6.3
Approach LOS	C		

Intersection Summary			
Average Delay	8.7		
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	35	241	7	7	189	76	1	97	19	69	77	24
Future Volume (vph)	35	241	7	7	189	76	1	97	19	69	77	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.962			0.978			0.981	
Flt Protected		0.994			0.999						0.980	
Satd. Flow (prot)	0	1826	0	0	1801	0	0	1583	0	0	1568	0
Flt Permitted		0.994			0.999						0.980	
Satd. Flow (perm)	0	1826	0	0	1801	0	0	1583	0	0	1568	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	1		15	15		1			22	22		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	17%	0%	2%	0%	0%	21%	0%	6%	31%	0%
Adj. Flow (vph)	38	262	8	8	205	83	1	105	21	75	84	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	308	0	0	296	0	0	127	0	0	185	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	35	241	7	7	189	76	1	97	19	69	77	24
Future Volume (vph)	35	241	7	7	189	76	1	97	19	69	77	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	262	8	8	205	83	1	105	21	75	84	26

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	308	296	127	185
Volume Left (vph)	38	8	1	75
Volume Right (vph)	8	83	21	26
Hadj (s)	0.06	-0.14	0.20	0.28
Departure Headway (s)	5.4	5.2	6.1	6.1
Degree Utilization, x	0.46	0.43	0.22	0.31
Capacity (veh/h)	625	643	512	533
Control Delay (s)	13.0	12.2	10.8	11.8
Approach Delay (s)	13.0	12.2	10.8	11.8
Approach LOS	B	B	B	B

Intersection Summary				
Delay		12.2		
Level of Service		B		
Intersection Capacity Utilization		53.4%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	216	0	0	266	64	0	0	0	57	0	34
Future Volume (vph)	53	216	0	0	266	64	0	0	0	57	0	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.974						0.950	
Flt Protected		0.990									0.970	
Satd. Flow (prot)	0	1844	0	0	1699	0	0	1900	0	0	1407	0
Flt Permitted		0.990									0.970	
Satd. Flow (perm)	0	1844	0	0	1699	0	0	1900	0	0	1407	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)			54	54								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	1%	0%	0%	5%	25%	0%	0%	0%	39%	0%	0%
Adj. Flow (vph)	58	235	0	0	289	70	0	0	0	62	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	0	359	0	0	0	0	0	99	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	216	0	0	266	64	0	0	0	57	0	34
Future Volume (Veh/h)	53	216	0	0	266	64	0	0	0	57	0	34
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	58	235	0	0	289	70	0	0	0	62	0	37
Pedestrians								54				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								5				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	359			289			766	764	289	675	729	324
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	359			289			766	764	289	675	729	324
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.5	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.9	4.0	3.3
p0 queue free %	95			100			100	100	100	79	100	95
cM capacity (veh/h)	1178			1227			271	305	721	300	320	722

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	293	359	0	99
Volume Left	58	0	0	62
Volume Right	0	70	0	37
cSH	1178	1227	1700	383
Volume to Capacity	0.05	0.00	0.00	0.26
Queue Length 95th (m)	1.2	0.0	0.0	7.7
Control Delay (s)	2.0	0.0	0.0	17.6
Lane LOS	A		A	C
Approach Delay (s)	2.0	0.0	0.0	17.6
Approach LOS			A	C

Intersection Summary				
Average Delay		3.1		
Intersection Capacity Utilization		47.4%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	22	38	110	108	27
Future Volume (vph)	16	22	38	110	108	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.921				0.973	
Flt Protected	0.980			0.987		
Satd. Flow (prot)	1715	0	0	1848	1820	0
Flt Permitted	0.980			0.987		
Satd. Flow (perm)	1715	0	0	1848	1820	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	256.6			247.6	202.8	
Travel Time (s)	18.5			17.8	14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Adj. Flow (vph)	17	24	41	120	117	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	0	161	146	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	22	38	110	108	27
Future Volume (Veh/h)	16	22	38	110	108	27
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)	17	24	41	120	117	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	334	132	146			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	334	132	146			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	97	97			
cM capacity (veh/h)	647	923	1448			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	41	161	146
Volume Left	17	41	0
Volume Right	24	0	29
cSH	784	1448	1700
Volume to Capacity	0.05	0.03	0.09
Queue Length 95th (m)	1.3	0.7	0.0
Control Delay (s)	9.8	2.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.8	2.1	0.0
Approach LOS	A		

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	28.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Appendix F2

2031 Total Operation Synchro Reports

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	9	234	349	34	9	6
Future Volume (vph)	9	234	349	34	9	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			0.988		0.944	
Flt Protected		0.998			0.971	
Satd. Flow (prot)	0	1860	1803	0	1742	0
Flt Permitted		0.998			0.971	
Satd. Flow (perm)	0	1860	1803	0	1742	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	10	254	379	37	10	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	264	416	0	17	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	234	349	34	9	6
Future Volume (Veh/h)	9	234	349	34	9	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	254	379	37	10	7
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	418				674	400
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	418				674	400
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	99
cM capacity (veh/h)	1150				419	654

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	264	416	17
Volume Left	10	0	10
Volume Right	0	37	7
cSH	1150	1700	492
Volume to Capacity	0.01	0.24	0.03
Queue Length 95th (m)	0.2	0.0	0.8
Control Delay (s)	0.4	0.0	12.6
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	12.6
Approach LOS			B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	201	37	38	303	5	74	7	61	4	1	6
Future Volume (vph)	5	201	37	38	303	5	74	7	61	4	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.998			0.942			0.921	
Flt Protected		0.999			0.995			0.975			0.984	
Satd. Flow (prot)	0	1813	0	0	1854	0	0	1745	0	0	1722	0
Flt Permitted		0.999			0.995			0.975			0.984	
Satd. Flow (perm)	0	1813	0	0	1854	0	0	1745	0	0	1722	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			206.4			484.2	
Travel Time (s)		13.7			48.8			14.9			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	5	218	40	41	329	5	80	8	66	4	1	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	263	0	0	375	0	0	154	0	0	12	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	201	37	38	303	5	74	7	61	4	1	6
Future Volume (Veh/h)	5	201	37	38	303	5	74	7	61	4	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	218	40	41	329	5	80	8	66	4	1	7
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	334			259			670	665	239	732	682	332
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	334			259			670	665	239	732	682	332
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			78	98	92	99	100	99
cM capacity (veh/h)	1237			1227			358	369	804	298	360	715

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	263	375	154	12
Volume Left	5	41	80	4
Volume Right	40	5	66	7
cSH	1237	1227	471	461
Volume to Capacity	0.00	0.03	0.33	0.03
Queue Length 95th (m)	0.1	0.8	10.7	0.6
Control Delay (s)	0.2	1.2	16.3	13.0
Lane LOS	A	A	C	B
Approach Delay (s)	0.2	1.2	16.3	13.0
Approach LOS			C	B

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	54.0%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	48	67	26	85	87	16
Future Volume (vph)	48	67	26	85	87	16
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	0.921				0.980	
Flt Protected	0.980			0.988		
Satd. Flow (prot)	1528	0	0	1835	1794	0
Flt Permitted	0.980			0.988		
Satd. Flow (perm)	1528	0	0	1835	1794	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	244.0	
Travel Time (s)	11.7			20.9	17.6	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	52	73	28	92	95	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	125	0	0	120	112	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	48	67	26	85	87	16
Future Volume (Veh/h)	48	67	26	85	87	16
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)	52	73	28	92	95	17
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	254	106	115			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	254	106	115			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	93	92	98			
cM capacity (veh/h)	723	896	1483			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	125	120	112
Volume Left	52	28	0
Volume Right	73	0	17
cSH	815	1483	1700
Volume to Capacity	0.15	0.02	0.07
Queue Length 95th (m)	4.1	0.4	0.0
Control Delay (s)	10.2	1.9	0.0
Lane LOS	B	A	
Approach Delay (s)	10.2	1.9	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	57	1	1	28	13	5	0	18	39	0	0
Future Volume (vph)	0	57	1	1	28	13	5	0	18	39	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.958			0.892				
Flt Protected					0.999			0.990			0.950	
Satd. Flow (prot)	0	1603	0	0	1705	0	0	1565	0	0	1805	0
Flt Permitted					0.999			0.990			0.950	
Satd. Flow (perm)	0	1603	0	0	1705	0	0	1565	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	62	1	1	30	14	5	0	20	42	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	45	0	0	25	0	0	42	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	57	1	1	28	13	5	0	18	39	0	0
Future Volume (Veh/h)	0	57	1	1	28	13	5	0	18	39	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	62	1	1	30	14	5	0	20	42	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	46			67			108	114	68	124	108	41
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	46			67			108	114	68	124	108	41
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	95	100	100
cM capacity (veh/h)	1572			1542			868	775	973	831	781	1032

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	63	45	25	42
Volume Left	0	1	5	42
Volume Right	1	14	20	0
cSH	1572	1542	950	831
Volume to Capacity	0.00	0.00	0.03	0.05
Queue Length 95th (m)	0.0	0.0	0.6	1.2
Control Delay (s)	0.0	0.2	8.9	9.6
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.2	8.9	9.6
Approach LOS			A	A

Intersection Summary				
Average Delay		3.6		
Intersection Capacity Utilization		19.2%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	10	4	5	17	11	9	0	16	33	0	0
Future Volume (vph)	0	10	4	5	17	11	9	0	16	33	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.964			0.954			0.915				
Flt Protected					0.993			0.982			0.950	
Satd. Flow (prot)	0	1416	0	0	1647	0	0	922	0	0	1805	0
Flt Permitted					0.993			0.982			0.950	
Satd. Flow (perm)	0	1416	0	0	1647	0	0	922	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	11	4	5	18	12	10	0	17	36	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	35	0	0	27	0	0	36	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	18.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	10	4	5	17	11	9	0	16	33	0	0
Future Volume (Veh/h)	0	10	4	5	17	11	9	0	16	33	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	11	4	5	18	12	10	0	17	36	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	35			24			57	67	26	73	63	30
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	35			24			57	67	26	73	63	30
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			100			99	100	98	96	100	100
cM capacity (veh/h)	1583			1592			798	815	817	887	819	1045

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	15	35	27	36
Volume Left	0	5	10	36
Volume Right	4	12	17	0
cSH	1583	1592	810	887
Volume to Capacity	0.00	0.00	0.03	0.04
Queue Length 95th (m)	0.0	0.1	0.8	1.0
Control Delay (s)	0.0	1.1	9.6	9.2
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.1	9.6	9.2
Approach LOS			A	A

Intersection Summary				
Average Delay		5.6		
Intersection Capacity Utilization		18.6%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	49	226	108	61	199	96
Future Volume (vph)	49	226	108	61	199	96
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	0.889		0.951			
Flt Protected	0.991					0.967
Satd. Flow (prot)	1537	0	1736	0	0	1702
Flt Permitted	0.991					0.967
Satd. Flow (perm)	1537	0	1736	0	0	1702
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				4	4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	13%	8%	3%	6%	7%	10%
Adj. Flow (vph)	53	246	117	66	216	104
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	183	0	0	320
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	49	226	108	61	199	96
Future Volume (Veh/h)	49	226	108	61	199	96
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)	53	246	117	66	216	104
Pedestrians	4					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	690	154			187	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	690	154			187	
tC, single (s)	6.5	6.3			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	84	72			84	
cM capacity (veh/h)	331	873			1353	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	299	183	320
Volume Left	53	0	216
Volume Right	246	66	0
cSH	677	1700	1353
Volume to Capacity	0.44	0.11	0.16
Queue Length 95th (m)	17.2	0.0	4.3
Control Delay (s)	14.5	0.0	6.0
Lane LOS	B		A
Approach Delay (s)	14.5	0.0	6.0
Approach LOS	B		

Intersection Summary			
Average Delay	7.8		
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	112	9	14	264	50	6	55	13	68	146	38
Future Volume (vph)	15	112	9	14	264	50	6	55	13	68	146	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.980			0.977			0.980	
Flt Protected		0.995			0.998			0.996			0.987	
Satd. Flow (prot)	0	1733	0	0	1777	0	0	1417	0	0	1614	0
Flt Permitted		0.995			0.998			0.996			0.987	
Satd. Flow (perm)	0	1733	0	0	1777	0	0	1417	0	0	1614	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	57		1	1		57	4		50	50		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	17%	6%	20%	33%	3%	5%	50%	32%	14%	4%	22%	0%
Adj. Flow (vph)	16	122	10	15	287	54	7	60	14	74	159	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	148	0	0	356	0	0	81	0	0	274	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	15	112	9	14	264	50	6	55	13	68	146	38
Future Volume (vph)	15	112	9	14	264	50	6	55	13	68	146	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	122	10	15	287	54	7	60	14	74	159	41

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	148	356	81	274
Volume Left (vph)	16	15	7	74
Volume Right (vph)	10	54	14	41
Hadj (s)	0.12	0.00	0.43	0.20
Departure Headway (s)	5.7	5.2	6.2	5.6
Degree Utilization, x	0.23	0.52	0.14	0.43
Capacity (veh/h)	580	655	502	595
Control Delay (s)	10.4	13.6	10.3	12.8
Approach Delay (s)	10.4	13.6	10.3	12.8
Approach LOS	B	B	B	B

Intersection Summary					
Delay	12.5				
Level of Service	B				
Intersection Capacity Utilization	47.5%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	378	1	1	258	45	1	4	0	119	0	51
Future Volume (vph)	18	378	1	1	258	45	1	4	0	119	0	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.980						0.960	
Flt Protected		0.998						0.990			0.966	
Satd. Flow (prot)	0	1827	0	0	1801	0	0	1881	0	0	1762	0
Flt Permitted		0.998						0.990			0.966	
Satd. Flow (perm)	0	1827	0	0	1801	0	0	1881	0	0	1762	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)	42					42						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	20	411	1	1	280	49	1	4	0	129	0	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	432	0	0	330	0	0	5	0	0	184	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		

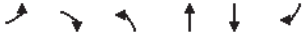
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	378	1	1	258	45	1	4	0	119	0	51
Future Volume (Veh/h)	18	378	1	1	258	45	1	4	0	119	0	51
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	411	1	1	280	49	1	4	0	129	0	55
Pedestrians											42	
Lane Width (m)											3.6	
Walking Speed (m/s)											1.2	
Percent Blockage											4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	371			412			813	824	412	802	800	346
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	371			412			813	824	412	802	800	346
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			100			100	99	100	54	100	92
cM capacity (veh/h)	1157			1158			264	294	645	279	303	677

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	432	330	5	184
Volume Left	20	1	1	129
Volume Right	1	49	0	55
cSH	1157	1158	287	339
Volume to Capacity	0.02	0.00	0.02	0.54
Queue Length 95th (m)	0.4	0.0	0.4	23.4
Control Delay (s)	0.6	0.0	17.7	27.6
Lane LOS	A	A	C	D
Approach Delay (s)	0.6	0.0	17.7	27.6
Approach LOS			C	D

Intersection Summary					
Average Delay	5.7				
Intersection Capacity Utilization	56.4%	ICU Level of Service		B	
Analysis Period (min)	15				

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	36	12	120	67	9
Future Volume (vph)	22	36	12	120	67	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.916				0.984	
Flt Protected	0.981			0.995		
Satd. Flow (prot)	1707	0	0	1857	1837	0
Flt Permitted	0.981			0.995		
Satd. Flow (perm)	1707	0	0	1857	1837	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	230.9			244.0	206.4	
Travel Time (s)	16.6			17.6	14.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Adj. Flow (vph)	24	39	13	130	73	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	63	0	0	143	83	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	36	12	120	67	9
Future Volume (Veh/h)	22	36	12	120	67	9
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)	24	39	13	130	73	10
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	234	78	83			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	234	78	83			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	96	99			
cM capacity (veh/h)	752	988	1527			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	63	143	83
Volume Left	24	13	0
Volume Right	39	0	10
cSH	883	1527	1700
Volume to Capacity	0.07	0.01	0.05
Queue Length 95th (m)	1.7	0.2	0.0
Control Delay (s)	9.4	0.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.4	0.7	0.0
Approach LOS	A		

Intersection Summary				
Average Delay	2.4			
Intersection Capacity Utilization	23.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	358	249	16	9	2
Future Volume (vph)	5	358	249	16	9	2
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			0.992		0.977	
Flt Protected		0.999			0.960	
Satd. Flow (prot)	0	1861	1811	0	1782	0
Flt Permitted		0.999			0.960	
Satd. Flow (perm)	0	1861	1811	0	1782	0
Link Speed (k/h)		40	40		50	
Link Distance (m)		407.4	152.7		138.9	
Travel Time (s)		36.7	13.7		10.0	
Confl. Peds. (#/hr)	2			2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	5%	0%	0%
Adj. Flow (vph)	5	389	271	17	10	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	394	288	0	12	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	358	249	16	9	2
Future Volume (Veh/h)	5	358	249	16	9	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	389	271	17	10	2
Pedestrians					2	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	290				680	282
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	290				680	282
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1281				417	761

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	394	288	12
Volume Left	5	0	10
Volume Right	0	17	2
cSH	1281	1700	451
Volume to Capacity	0.00	0.17	0.03
Queue Length 95th (m)	0.1	0.0	0.6
Control Delay (s)	0.1	0.0	13.2
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	13.2
Approach LOS			B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	272	91	47	183	4	74	7	51	4	2	7
Future Volume (vph)	4	272	91	47	183	4	74	7	51	4	2	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.967			0.998			0.948			0.923	
Flt Protected		0.999			0.990			0.973			0.986	
Satd. Flow (prot)	0	1796	0	0	1819	0	0	1753	0	0	1729	0
Flt Permitted		0.999			0.990			0.973			0.986	
Satd. Flow (perm)	0	1796	0	0	1819	0	0	1753	0	0	1729	0
Link Speed (k/h)		40			40			50			50	
Link Distance (m)		152.7			542.4			202.8			484.2	
Travel Time (s)		13.7			48.8			14.6			34.9	
Confl. Peds. (#/hr)			1	1								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	4	296	99	51	199	4	80	8	55	4	2	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	399	0	0	254	0	0	143	0	0	14	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	91	47	183	4	74	7	51	4	2	7
Future Volume (Veh/h)	4	272	91	47	183	4	74	7	51	4	2	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	296	99	51	199	4	80	8	55	4	2	8
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	203			396			666	660	346	716	707	201
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	203			396			666	660	346	716	707	201
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			78	98	92	99	99	99
cM capacity (veh/h)	1381			1090			356	367	701	303	344	845

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	399	254	143	14
Volume Left	4	51	80	4
Volume Right	99	4	55	8
cSH	1381	1090	440	492
Volume to Capacity	0.00	0.05	0.33	0.03
Queue Length 95th (m)	0.1	1.1	10.6	0.7
Control Delay (s)	0.1	2.1	17.1	12.5
Lane LOS	A	A	C	B
Approach Delay (s)	0.1	2.1	17.1	12.5
Approach LOS			C	B

Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	56.0%	ICU Level of Service		B
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	32	39	58	122	80	55
Future Volume (vph)	32	39	58	122	80	55
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	0.926				0.945	
Flt Protected	0.978			0.984		
Satd. Flow (prot)	1544	0	0	1832	1629	0
Flt Permitted	0.978			0.984		
Satd. Flow (perm)	1544	0	0	1832	1629	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	162.4			289.9	247.6	
Travel Time (s)	11.7			20.9	17.8	
Confl. Peds. (#/hr)			3			3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	21%	0%	3%	0%	25%
Adj. Flow (vph)	35	42	63	133	87	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	0	196	147	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	32	39	58	122	80	55
Future Volume (Veh/h)	32	39	58	122	80	55
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)	35	42	63	133	87	60
Pedestrians	3					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	379	120	150			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	379	120	150			
tC, single (s)	6.4	6.4	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.5	2.2			
p0 queue free %	94	95	96			
cM capacity (veh/h)	598	881	1440			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	77	196	147
Volume Left	35	63	0
Volume Right	42	0	60
cSH	725	1440	1700
Volume to Capacity	0.11	0.04	0.09
Queue Length 95th (m)	2.7	1.0	0.0
Control Delay (s)	10.6	2.7	0.0
Lane LOS	B	A	
Approach Delay (s)	10.6	2.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	0	37	7	10	61	43	1	0	9	26	0	0
Future Volume (vph)	0	37	7	10	61	43	1	0	9	26	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.977			0.949			0.877				
Flt Protected					0.996			0.995			0.950	
Satd. Flow (prot)	0	1419	0	0	1705	0	0	1533	0	0	1805	0
Flt Permitted					0.996			0.995			0.950	
Satd. Flow (perm)	0	1419	0	0	1705	0	0	1533	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		88.4			162.4			207.7			36.3	
Travel Time (s)		6.4			11.7			15.0			2.6	
Confl. Peds. (#/hr)	2		4	4		2	2		1	1		2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	17%	100%	0%	10%	0%	0%	0%	9%	0%	0%	0%
Adj. Flow (vph)	0	40	8	11	66	47	1	0	10	28	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	124	0	0	11	0	0	28	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (veh/h)	0	37	7	10	61	43	1	0	9	26	0	0
Future Volume (Veh/h)	0	37	7	10	61	43	1	0	9	26	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	40	8	11	66	47	1	0	10	28	0	0
Pedestrians		2			1			4			2	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	115			52			162	185	49	168	166	94
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115			52			162	185	49	168	166	94
tC, single (s)	4.1			4.1			7.1	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	96	100	100
cM capacity (veh/h)	1484			1562			797	704	996	783	722	966

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	48	124	11	28
Volume Left	0	11	1	28
Volume Right	8	47	10	0
cSH	1484	1562	974	783
Volume to Capacity	0.00	0.01	0.01	0.04
Queue Length 95th (m)	0.0	0.2	0.3	0.8
Control Delay (s)	0.0	0.7	8.7	9.8
Lane LOS		A	A	A
Approach Delay (s)	0.0	0.7	8.7	9.8
Approach LOS			A	A

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	28.3%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	17	12	9	18	35	11	0	6	21	0	0
Future Volume (vph)	0	17	12	9	18	35	11	0	6	21	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.943			0.925			0.950				
Flt Protected					0.993			0.969			0.950	
Satd. Flow (prot)	0	1454	0	0	1657	0	0	1001	0	0	1805	0
Flt Permitted					0.993			0.969			0.950	
Satd. Flow (perm)	0	1454	0	0	1657	0	0	1001	0	0	1805	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		123.8			88.4			134.2			45.0	
Travel Time (s)		8.9			6.4			9.7			3.2	
Confl. Peds. (#/hr)	5		9	9		5	1		4	4		1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	40%	0%	0%	18%	0%	60%	0%	100%	0%	0%	0%
Adj. Flow (vph)	0	18	13	10	20	38	12	0	7	23	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	68	0	0	19	0	0	23	0
Sign Control		Free			Free			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	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	17	12	9	18	35	11	0	6	21	0	0
Future Volume (Veh/h)	0	17	12	9	18	35	11	0	6	21	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	18	13	10	20	38	12	0	7	23	0	0
Pedestrians		1			4			9			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	63			40			94	116	38	100	104	45
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	63			40			94	116	38	100	104	45
tC, single (s)	4.1			4.1			7.7	6.5	7.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.0	4.0	4.2	3.5	4.0	3.3
p0 queue free %	100			99			98	100	99	97	100	100
cM capacity (veh/h)	1546			1571			752	764	804	861	776	1025

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	31	68	19	23
Volume Left	0	10	12	23
Volume Right	13	38	7	0
cSH	1546	1571	770	861
Volume to Capacity	0.00	0.01	0.02	0.03
Queue Length 95th (m)	0.0	0.1	0.6	0.6
Control Delay (s)	0.0	1.1	9.8	9.3
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.1	9.8	9.3
Approach LOS			A	A

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	22.2%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	60	215	95	36	303	135
Future Volume (vph)	60	215	95	36	303	135
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	0.894		0.963			
Flt Protected	0.989					0.967
Satd. Flow (prot)	1631	0	1805	0	0	1795
Flt Permitted	0.989					0.967
Satd. Flow (perm)	1631	0	1805	0	0	1795
Link Speed (k/h)	50		50			50
Link Distance (m)	111.8		38.3			111.4
Travel Time (s)	8.0		2.8			8.0
Confl. Peds. (#/hr)				5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	0%	5%	3%	1%
Adj. Flow (vph)	65	234	103	39	329	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	142	0	0	476
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	60	215	95	36	303	135
Future Volume (Veh/h)	60	215	95	36	303	135
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)	65	234	103	39	329	147
Pedestrians	5					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	932	128			147	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	932	128			147	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	71	74			77	
cM capacity (veh/h)	225	916			1423	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	299	142	476
Volume Left	65	0	329
Volume Right	234	39	0
cSH	550	1700	1423
Volume to Capacity	0.54	0.08	0.23
Queue Length 95th (m)	24.6	0.0	6.8
Control Delay (s)	19.1	0.0	6.4
Lane LOS	C		A
Approach Delay (s)	19.1	0.0	6.4
Approach LOS	C		

Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	36	255	7	8	200	80	1	101	21	72	80	25
Future Volume (vph)	36	255	7	8	200	80	1	101	21	72	80	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.962			0.977			0.981	
Flt Protected		0.994			0.999						0.980	
Satd. Flow (prot)	0	1828	0	0	1801	0	0	1583	0	0	1568	0
Flt Permitted		0.994			0.999						0.980	
Satd. Flow (perm)	0	1828	0	0	1801	0	0	1583	0	0	1568	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		414.9			458.6			427.7			377.6	
Travel Time (s)		29.9			33.0			30.8			27.2	
Confl. Peds. (#/hr)	1		15	15		1			22	22		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	17%	0%	2%	0%	0%	21%	0%	6%	31%	0%
Adj. Flow (vph)	39	277	8	9	217	87	1	110	23	78	87	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	324	0	0	313	0	0	134	0	0	192	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	36	255	7	8	200	80	1	101	21	72	80	25
Future Volume (vph)	36	255	7	8	200	80	1	101	21	72	80	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	39	277	8	9	217	87	1	110	23	78	87	27

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	324	313	134	192
Volume Left (vph)	39	9	1	78
Volume Right (vph)	8	87	23	27
Hadj (s)	0.06	-0.14	0.19	0.28
Departure Headway (s)	5.5	5.4	6.3	6.2
Degree Utilization, x	0.50	0.47	0.23	0.33
Capacity (veh/h)	612	629	497	519
Control Delay (s)	13.9	13.0	11.2	12.3
Approach Delay (s)	13.9	13.0	11.2	12.3
Approach LOS	B	B	B	B

Intersection Summary				
Delay	12.9			
Level of Service	B			
Intersection Capacity Utilization	61.4%	ICU Level of Service	B	
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	239	0	0	294	67	0	0	0	61	0	35
Future Volume (vph)	55	239	0	0	294	67	0	0	0	61	0	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.975						0.951	
Flt Protected		0.991									0.969	
Satd. Flow (prot)	0	1847	0	0	1704	0	0	1900	0	0	1404	0
Flt Permitted		0.991									0.969	
Satd. Flow (perm)	0	1847	0	0	1704	0	0	1900	0	0	1404	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		497.2			520.7			62.2			427.7	
Travel Time (s)		35.8			37.5			4.5			30.8	
Confl. Peds. (#/hr)			54	54								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	1%	0%	0%	5%	25%	0%	0%	0%	39%	0%	0%
Adj. Flow (vph)	60	260	0	0	320	73	0	0	0	66	0	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	320	0	0	393	0	0	0	0	0	104	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	239	0	0	294	67	0	0	0	61	0	35
Future Volume (Veh/h)	55	239	0	0	294	67	0	0	0	61	0	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	60	260	0	0	320	73	0	0	0	66	0	38
Pedestrians								54				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								5				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	393			314			828	827	314	736	790	356
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	393			314			828	827	314	736	790	356
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.5	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.9	4.0	3.3
p0 queue free %	95			100			100	100	100	76	100	95
cM capacity (veh/h)	1144			1201			245	280	698	271	294	692

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	320	393	0	104
Volume Left	60	0	0	66
Volume Right	0	73	0	38
cSH	1144	1201	1700	348
Volume to Capacity	0.05	0.00	0.00	0.30
Queue Length 95th (m)	1.3	0.0	0.0	9.3
Control Delay (s)	2.0	0.0	0.0	19.7
Lane LOS	A		A	C
Approach Delay (s)	2.0	0.0	0.0	19.7
Approach LOS			A	C

Intersection Summary					
Average Delay		3.3			
Intersection Capacity Utilization		50.7%	ICU Level of Service		A
Analysis Period (min)		15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	22	38	116	113	27
Future Volume (vph)	16	22	38	116	113	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.921				0.974	
Flt Protected	0.980			0.988		
Satd. Flow (prot)	1715	0	0	1849	1821	0
Flt Permitted	0.980			0.988		
Satd. Flow (perm)	1715	0	0	1849	1821	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	256.6			247.6	202.8	
Travel Time (s)	18.5			17.8	14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Adj. Flow (vph)	17	24	41	126	123	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	0	167	152	0
Sign Control	Stop			Free	Free	

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

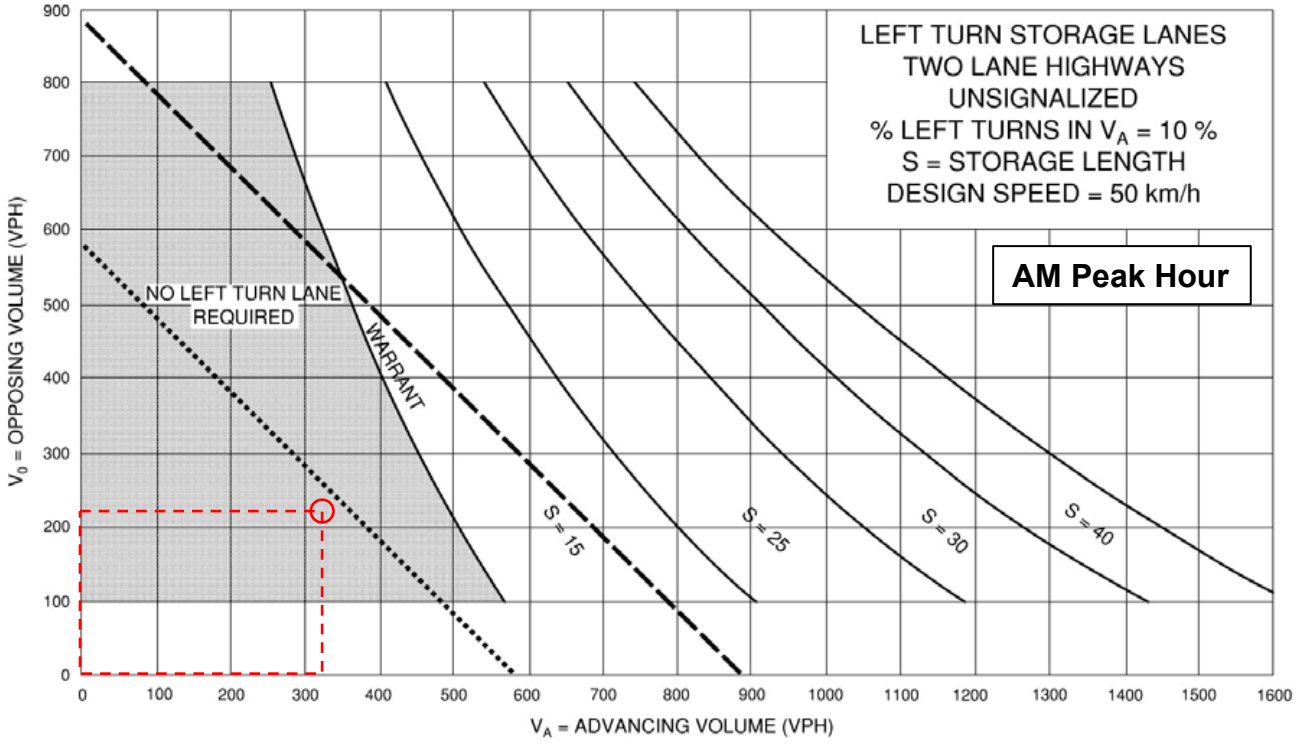
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	22	38	116	113	27
Future Volume (Veh/h)	16	22	38	116	113	27
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	24	41	126	123	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	346	138	152			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	346	138	152			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	97	97			
cM capacity (veh/h)	637	916	1441			

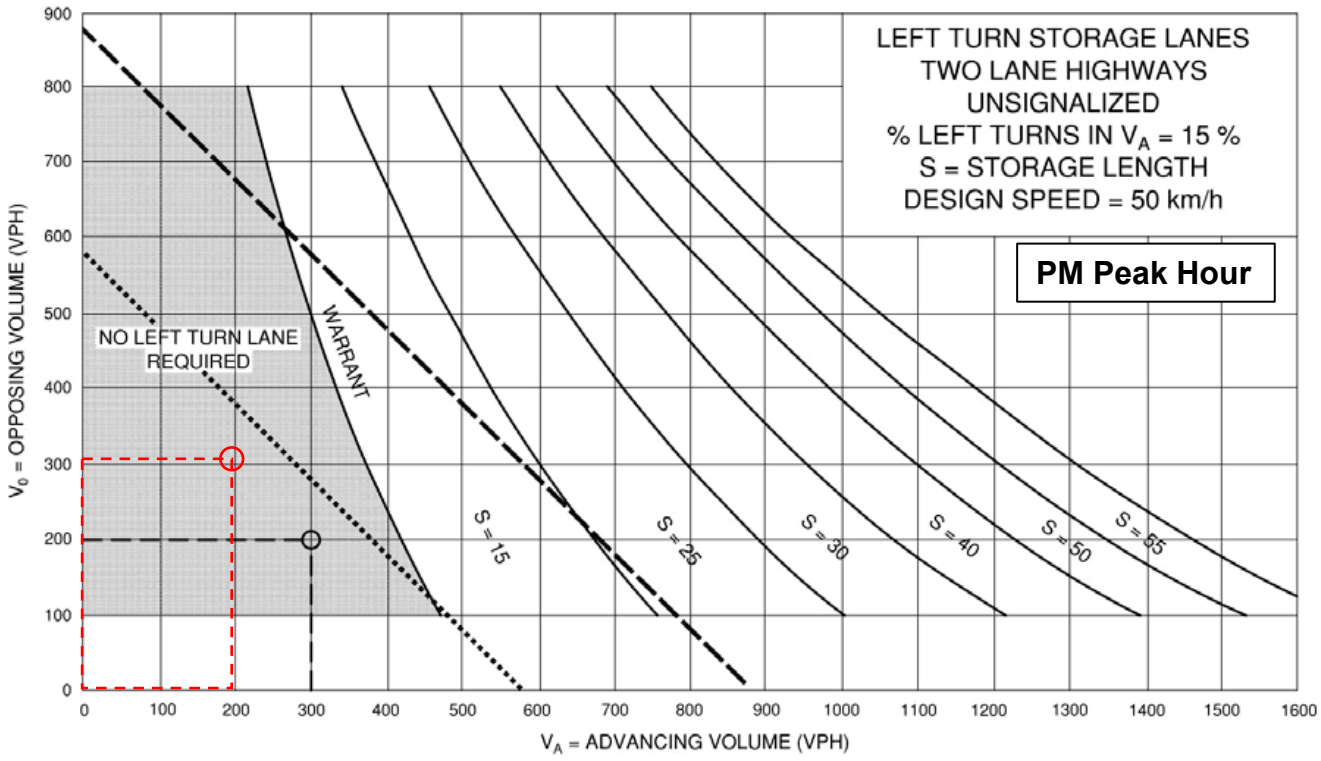
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	41	167	152
Volume Left	17	41	0
Volume Right	24	0	29
cSH	775	1441	1700
Volume to Capacity	0.05	0.03	0.09
Queue Length 95th (m)	1.3	0.7	0.0
Control Delay (s)	9.9	2.0	0.0
Lane LOS	A	A	
Approach Delay (s)	9.9	2.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		

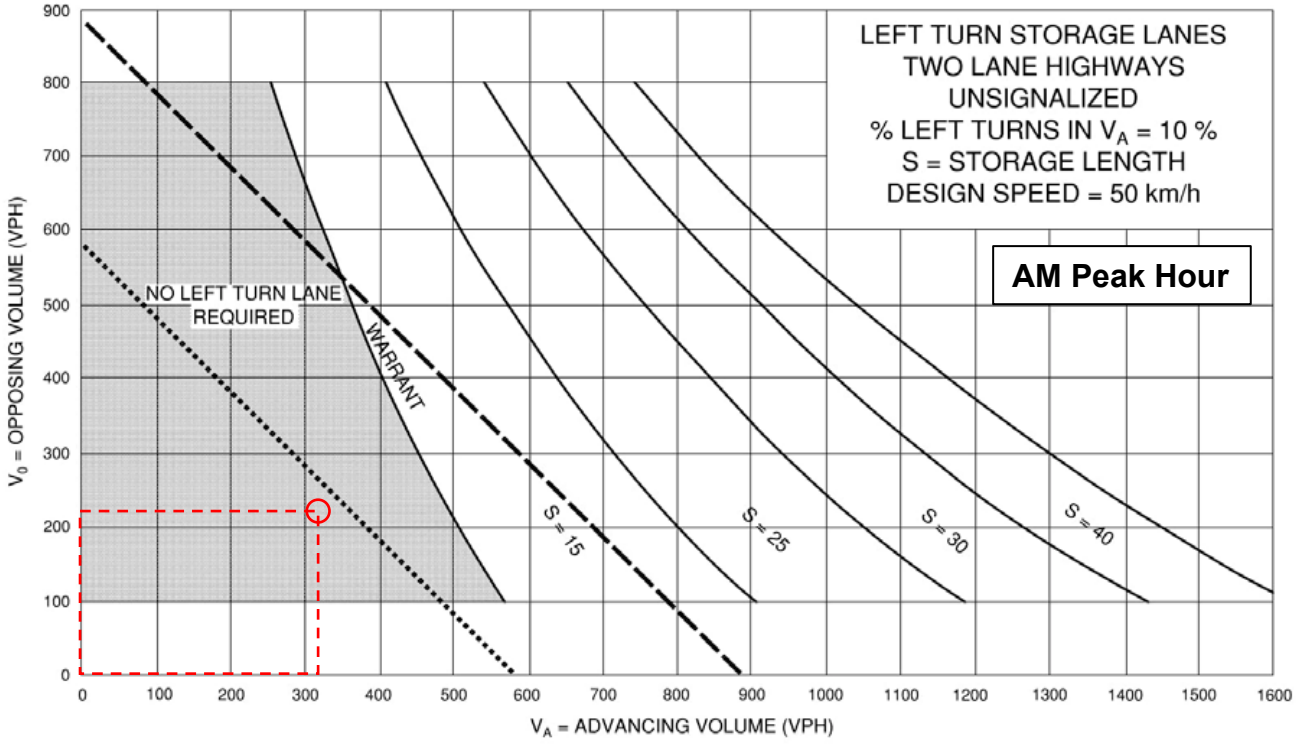
Appendix G

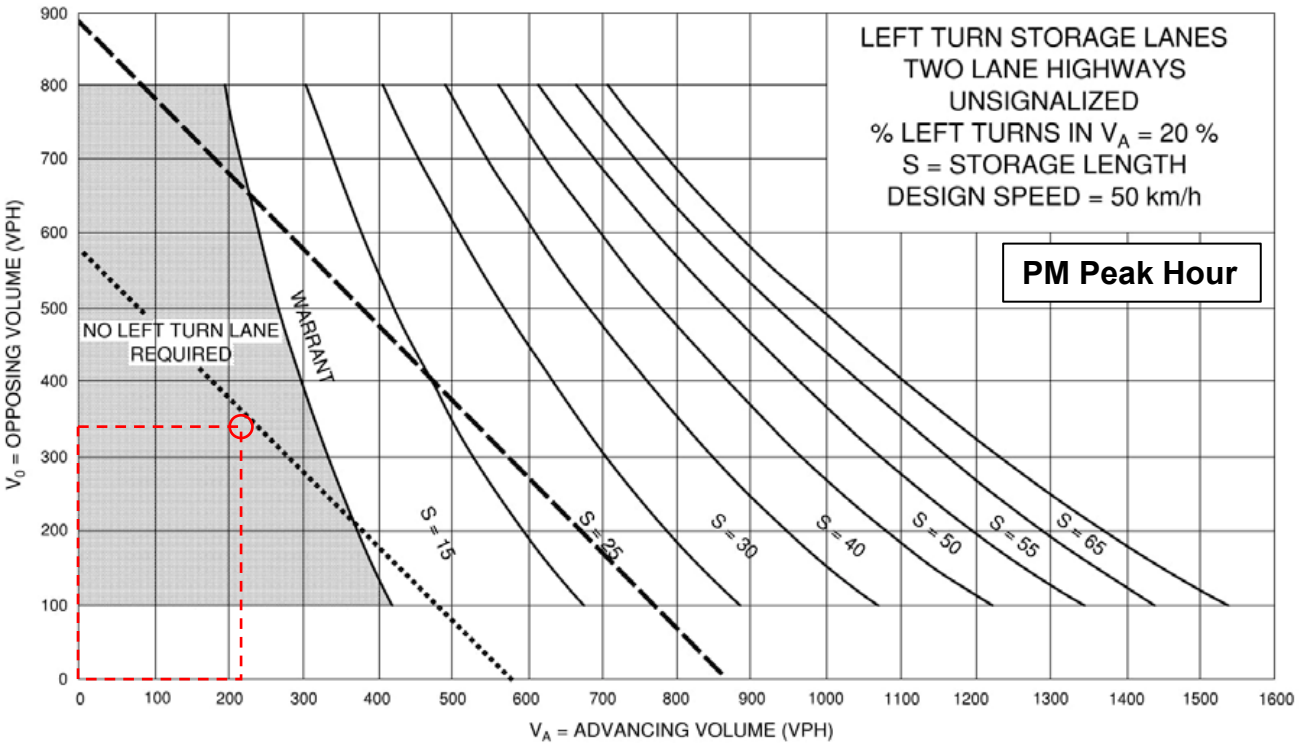
Left-Turn Lane Warrant Nomographs





Westbound Left-Turn Lane
Woolwich St/Nichol Rd 15 & Irvine St
2026 Background





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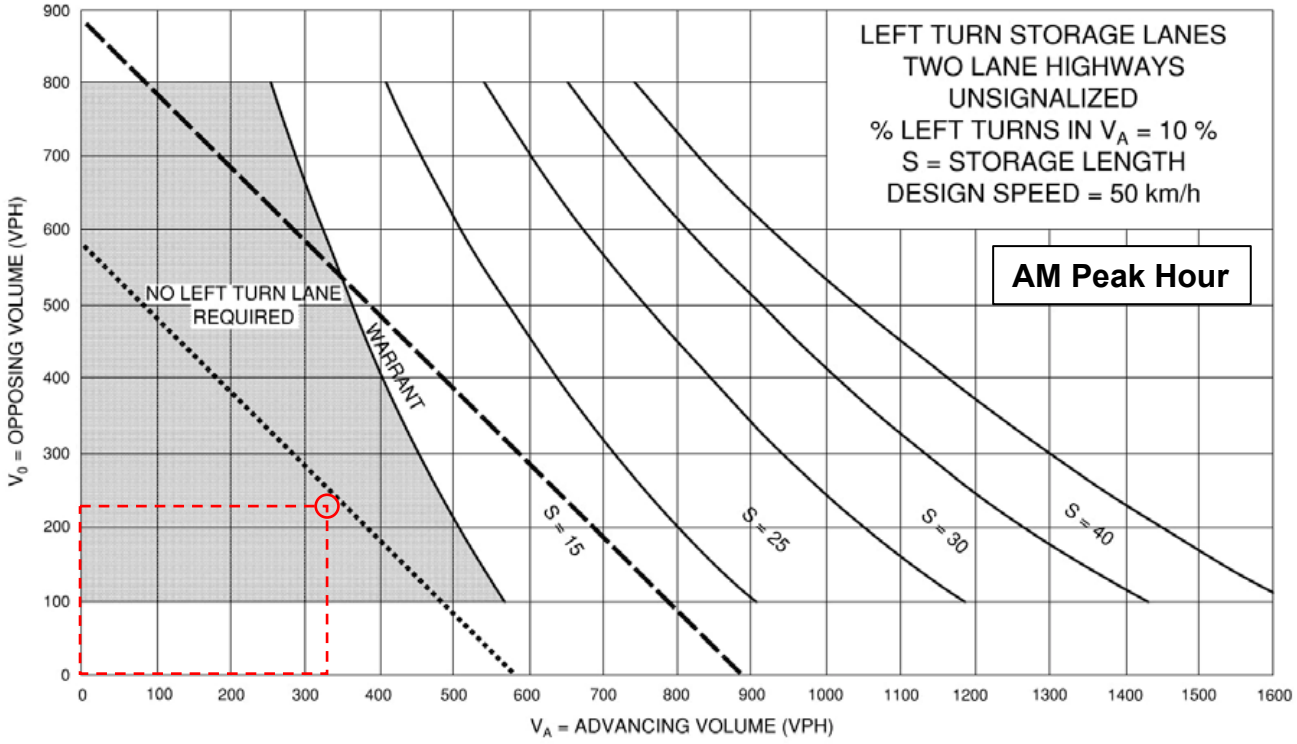
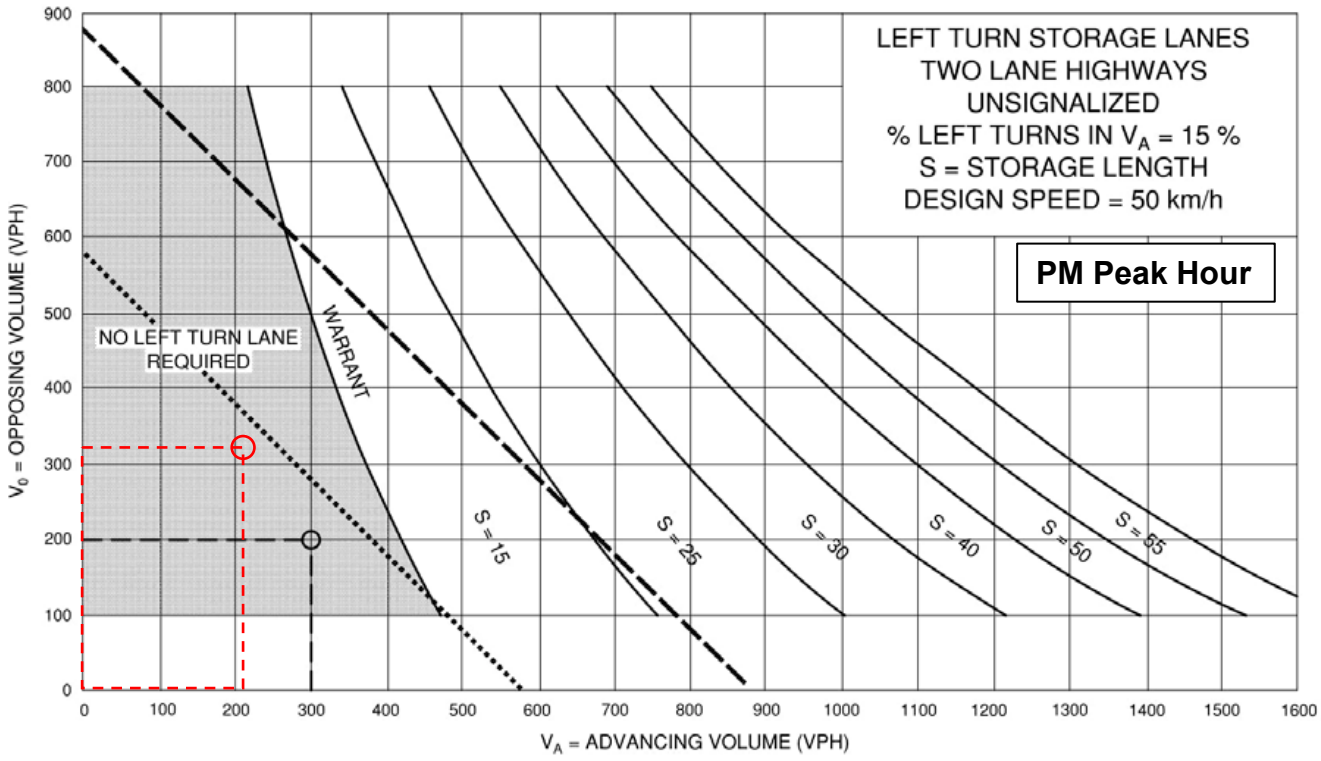
Westbound Left-Turn Lane
Woolwich St/Nichol Rd 15 & Irvine St
2026 Total





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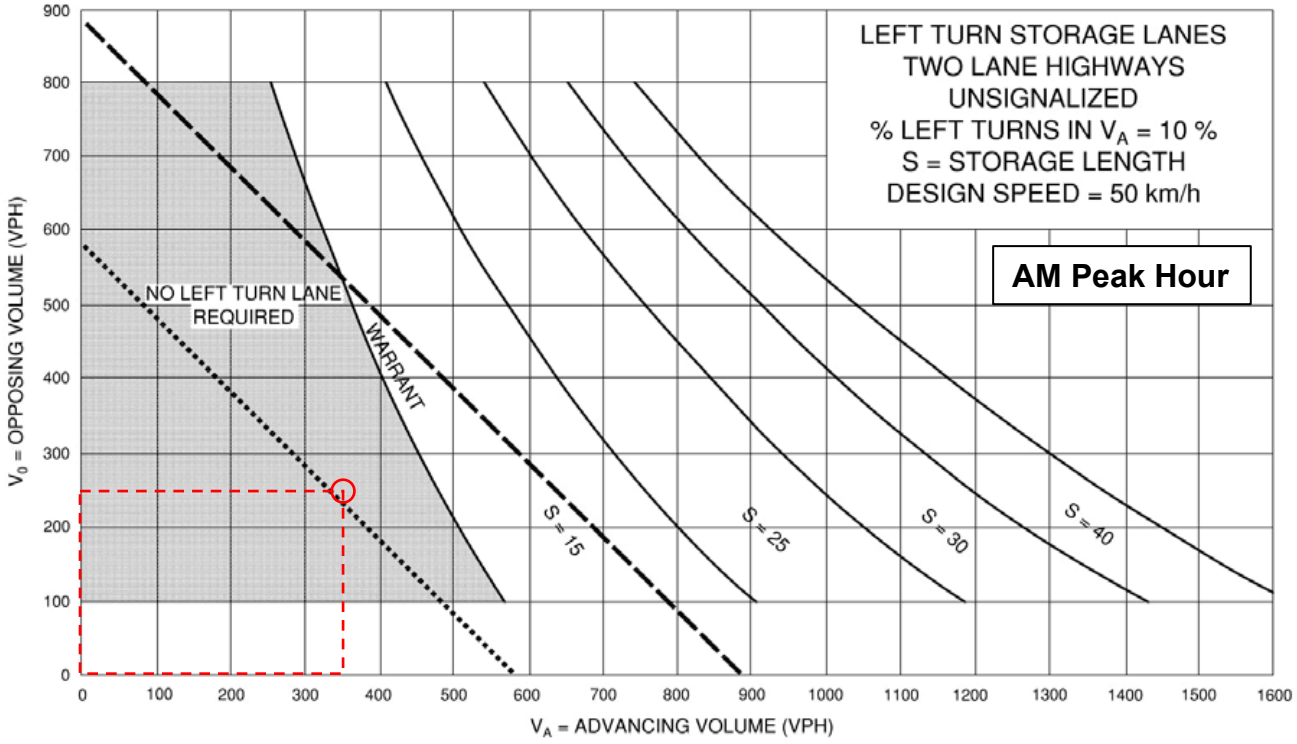
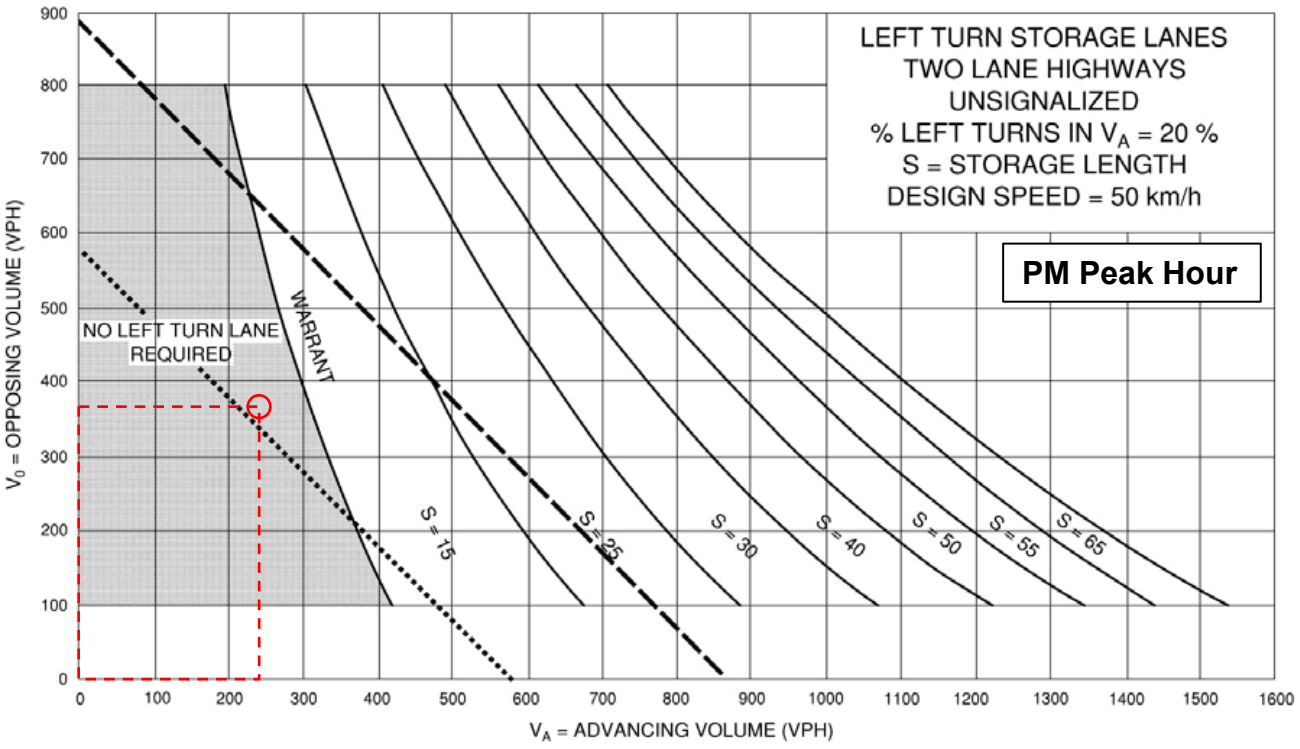
Westbound Left-Turn Lane
Woolwich St/Nichol Rd 15 & Irvine St
2031 Background





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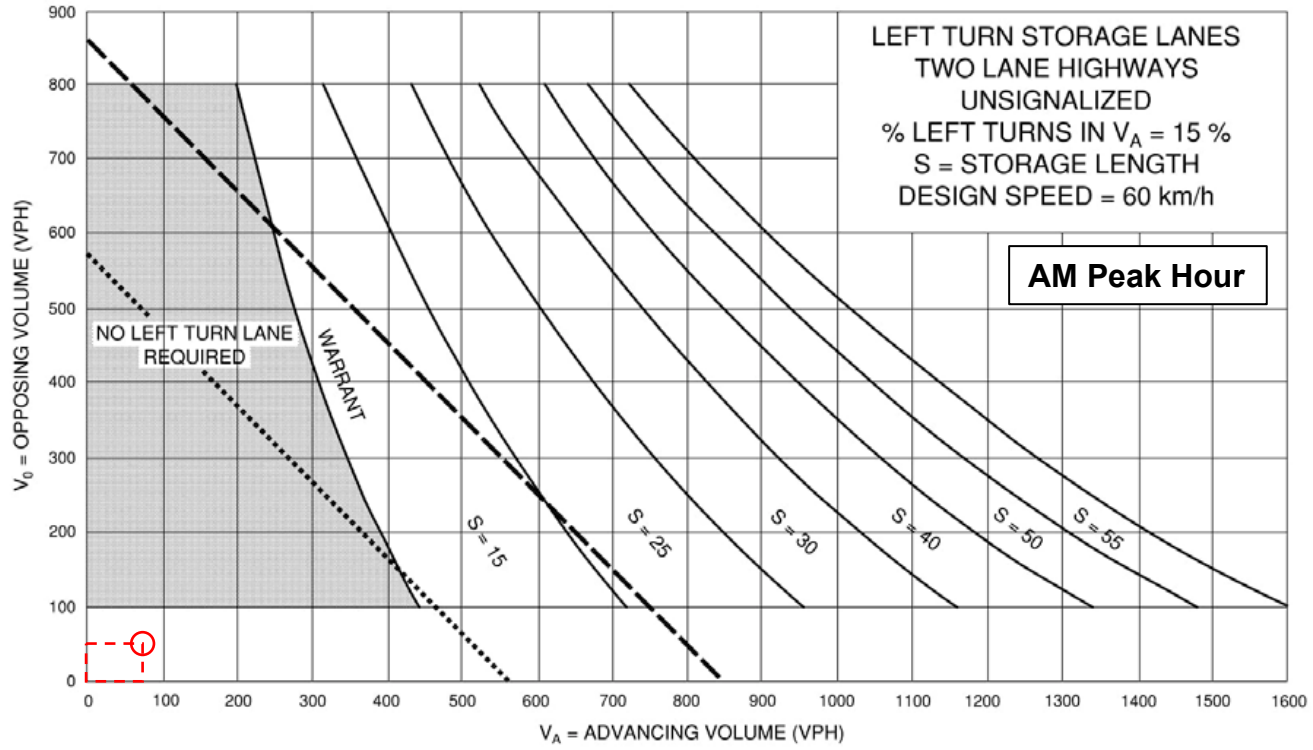
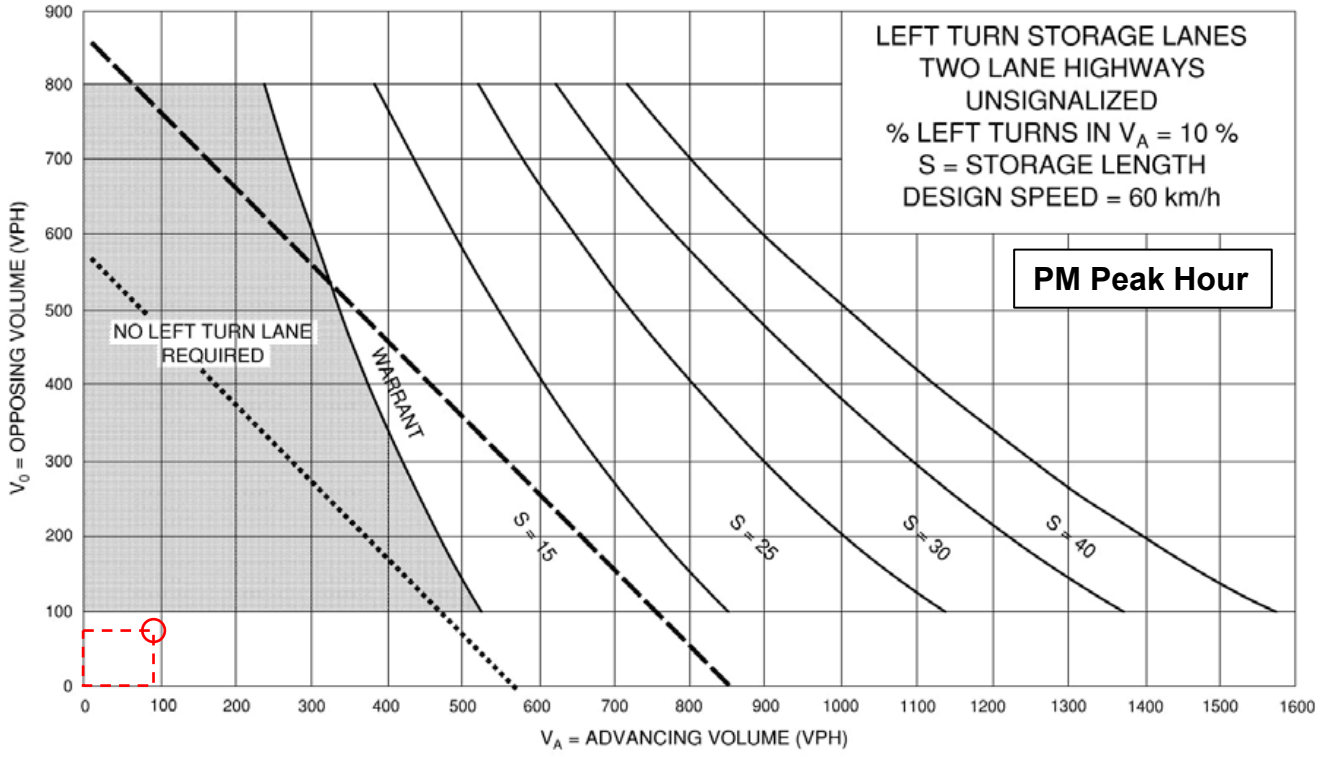
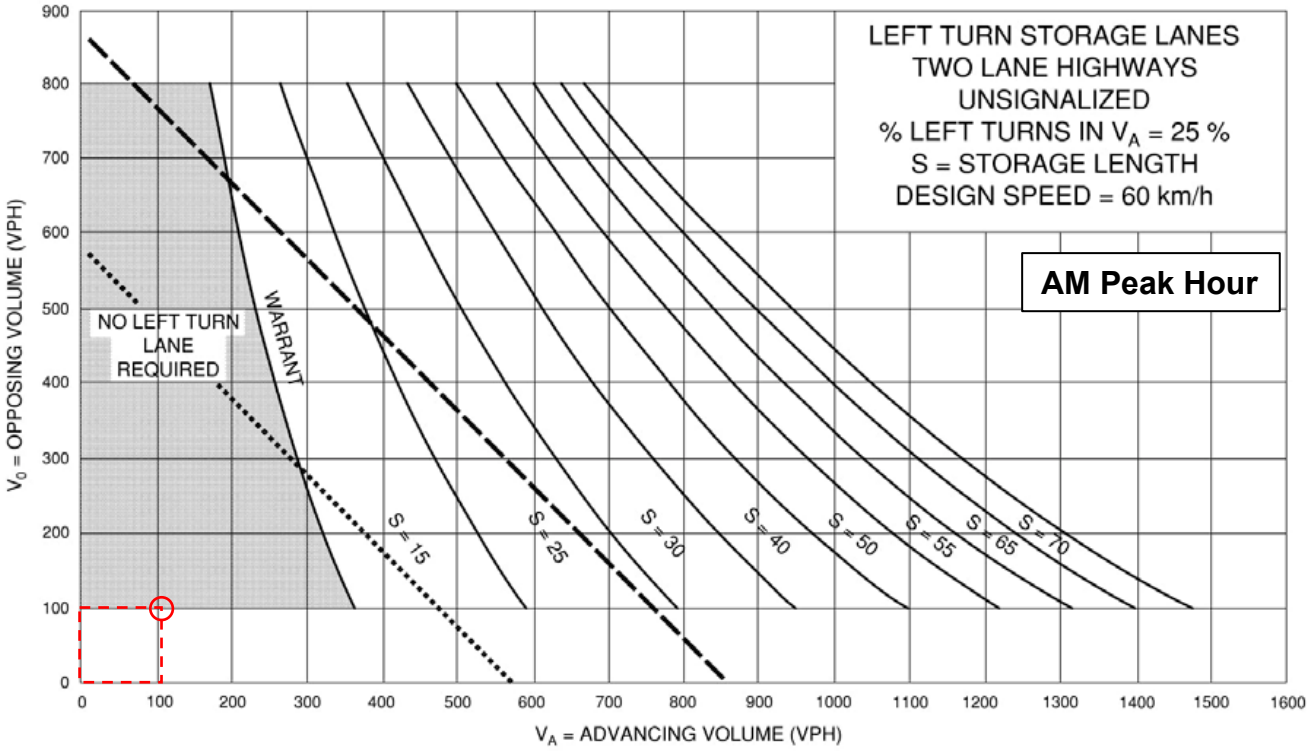
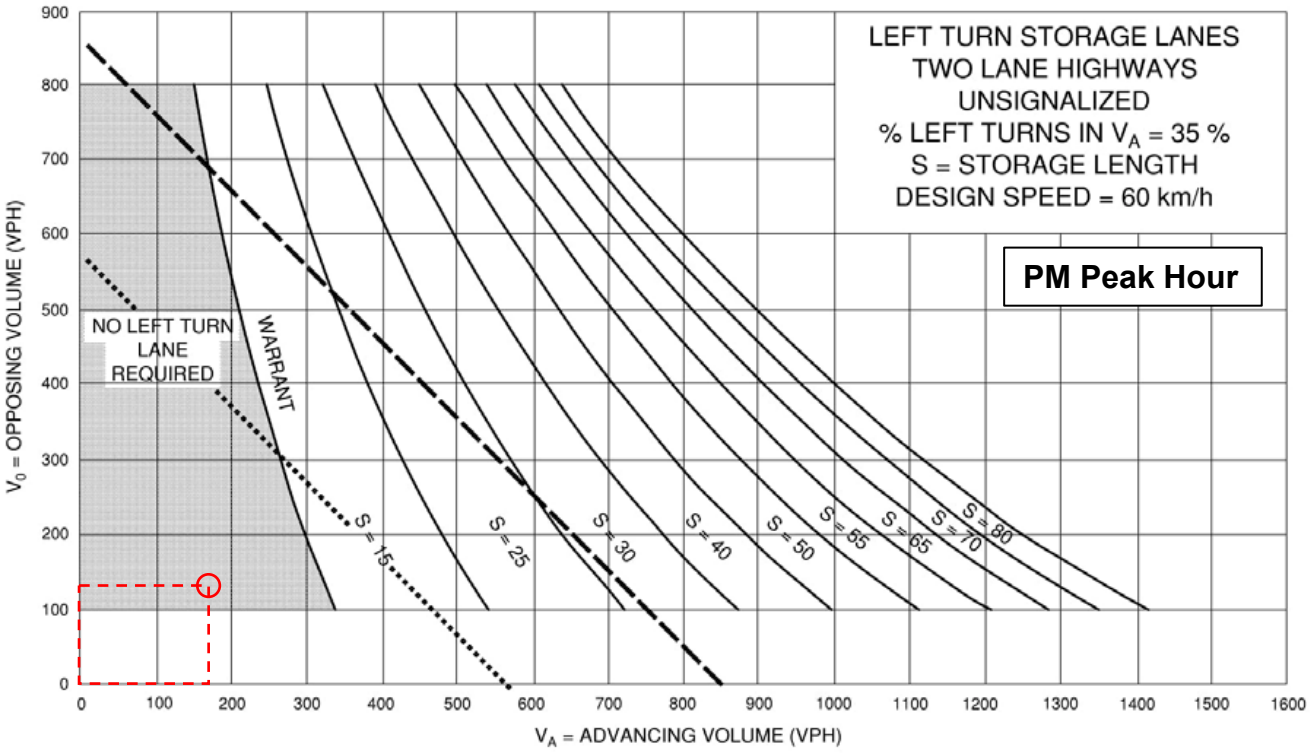
Westbound Left-Turn Lane
Woolwich St/Nichol Rd 15 & Irvine St
2031 Total





Northbound Left-Turn Lane
Irvine St & Bricker Ave
2026 Background





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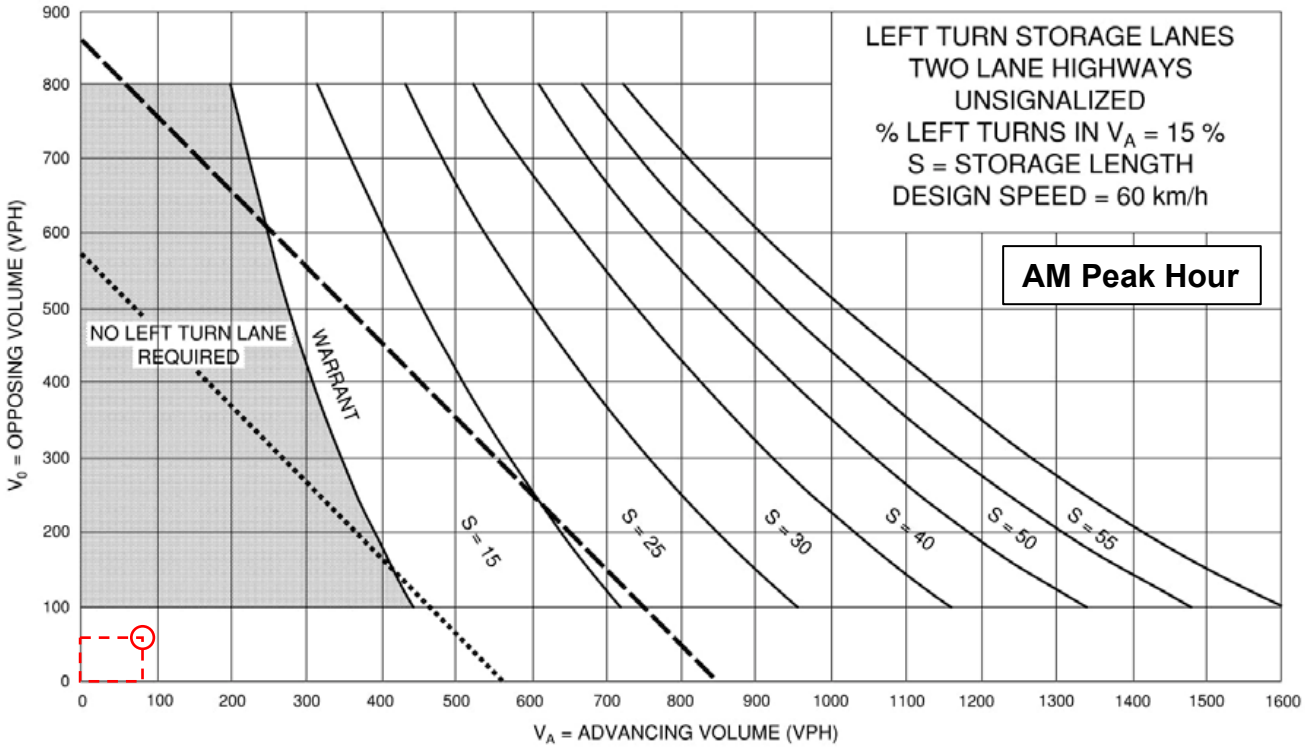
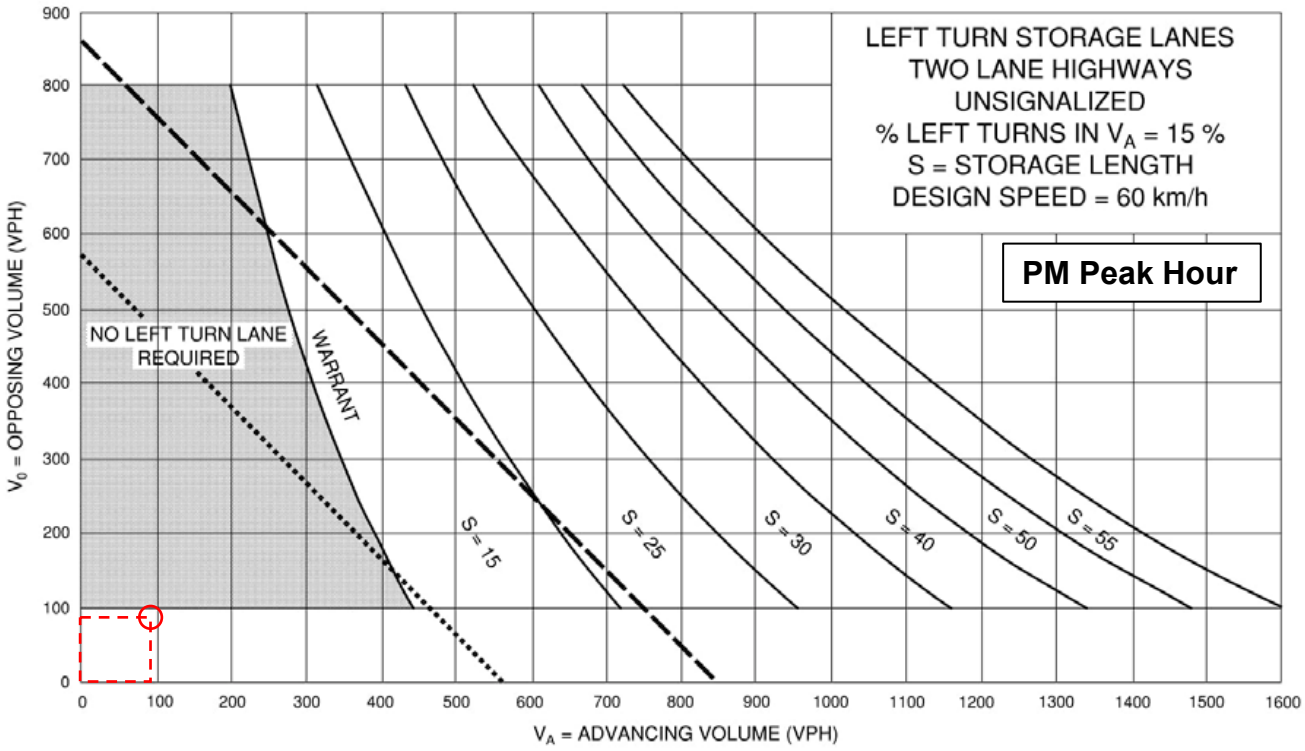
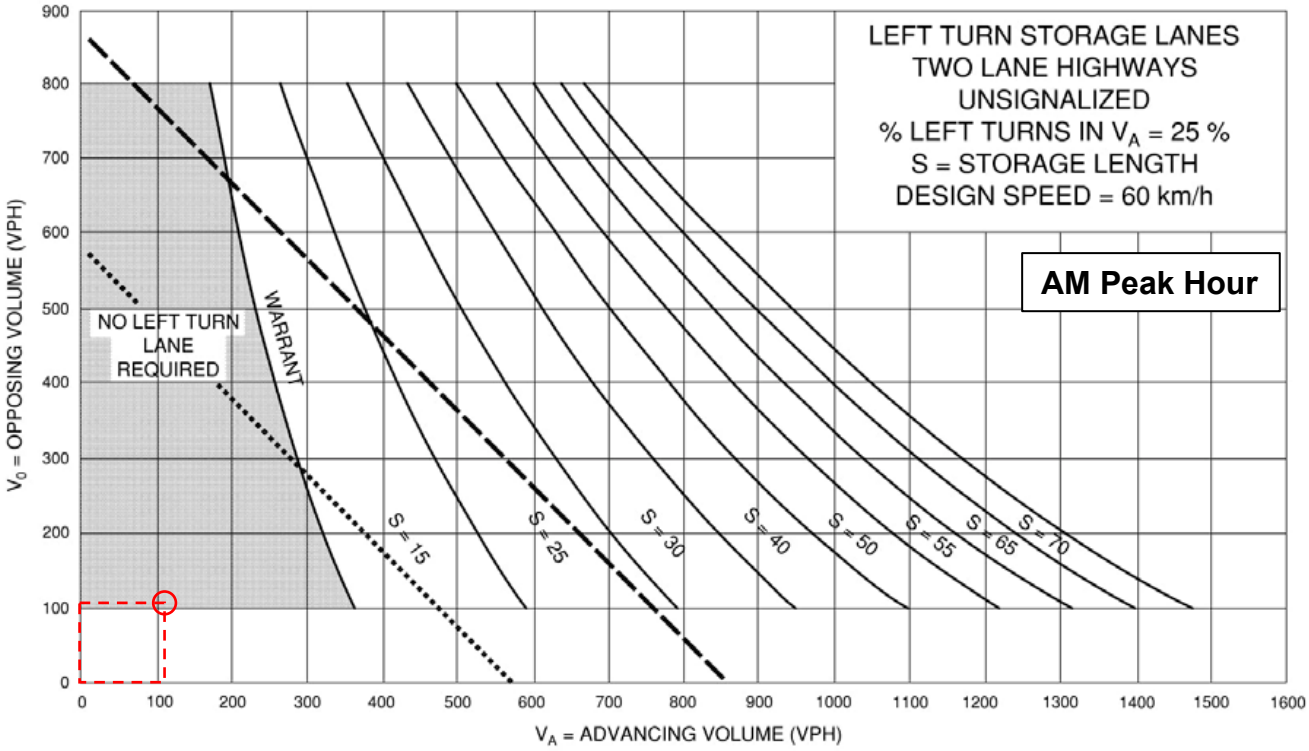
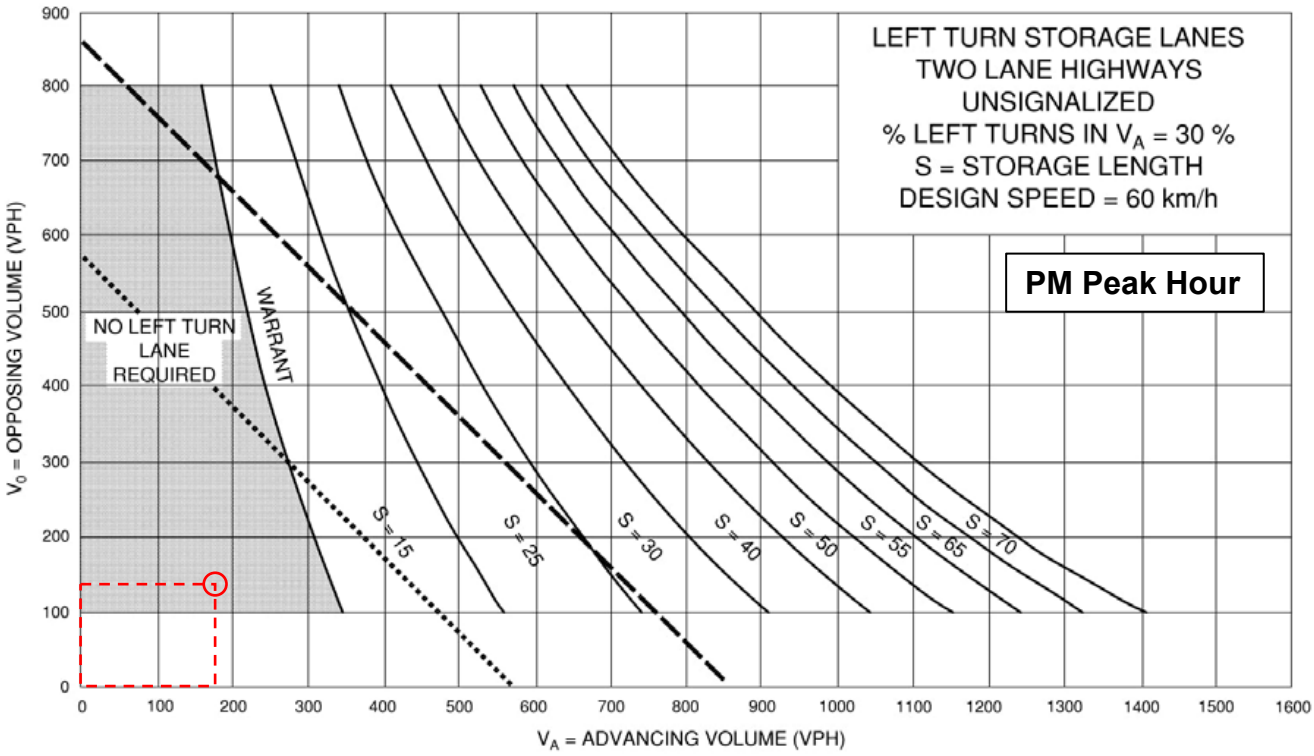
Northbound Left-Turn Lane
Irvine St & Bricker Ave
2026 Total



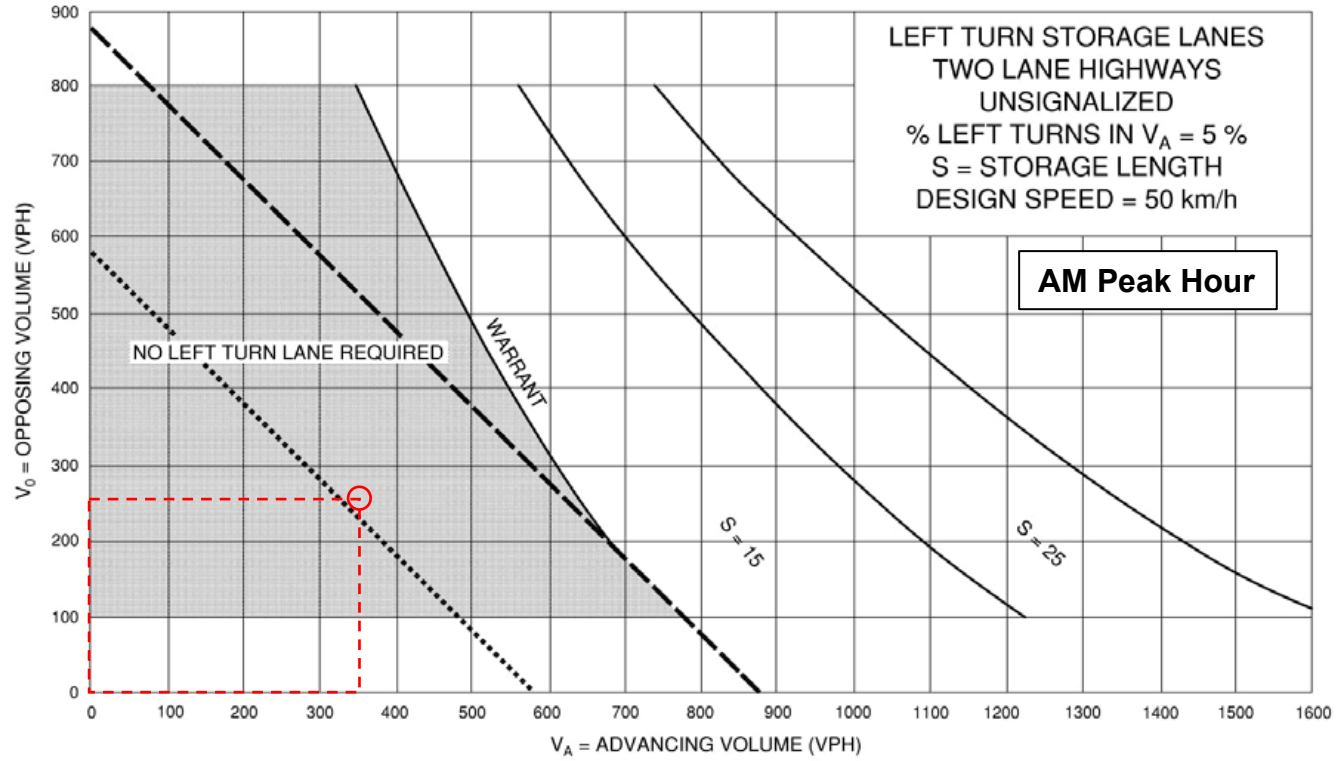


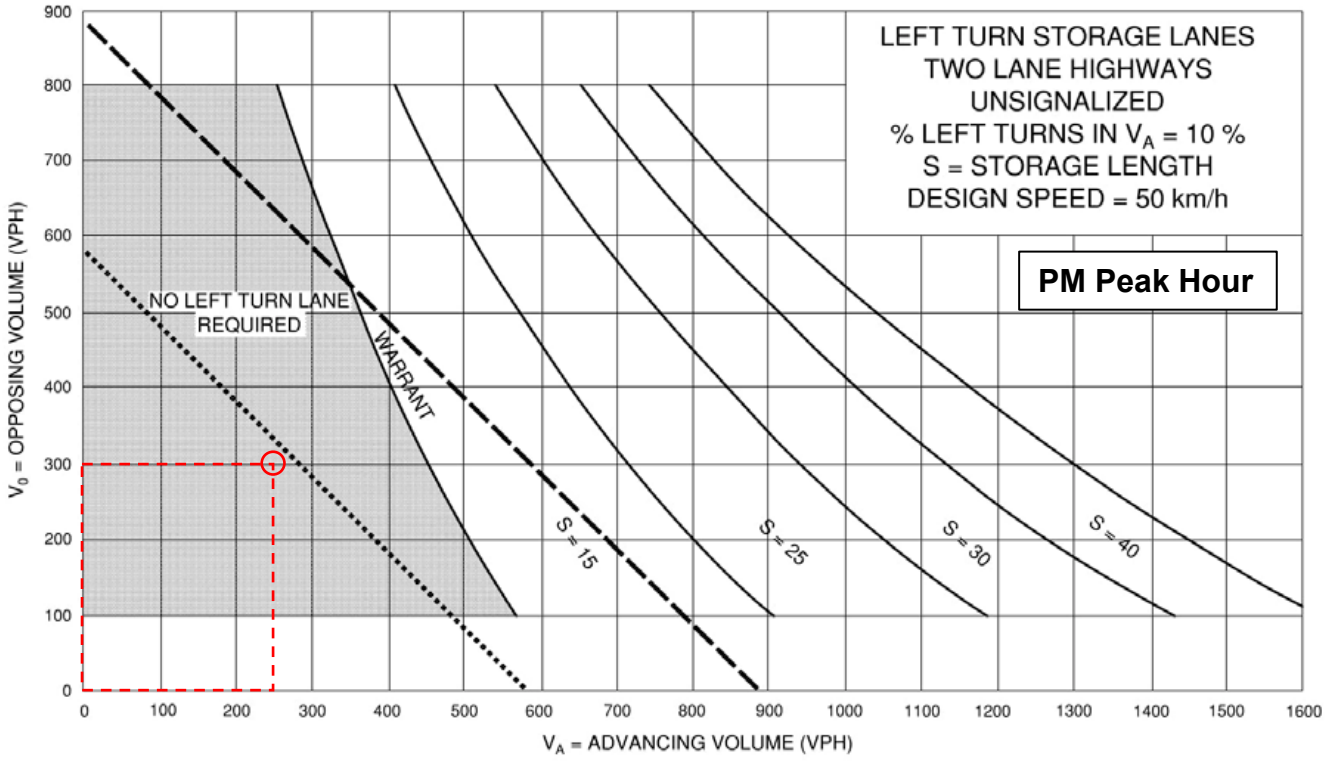
Northbound Left-Turn Lane
Irvine St & Bricker Ave
2031 Background





Northbound Left-Turn Lane
Irvine St & Bricker Ave
2031 Total





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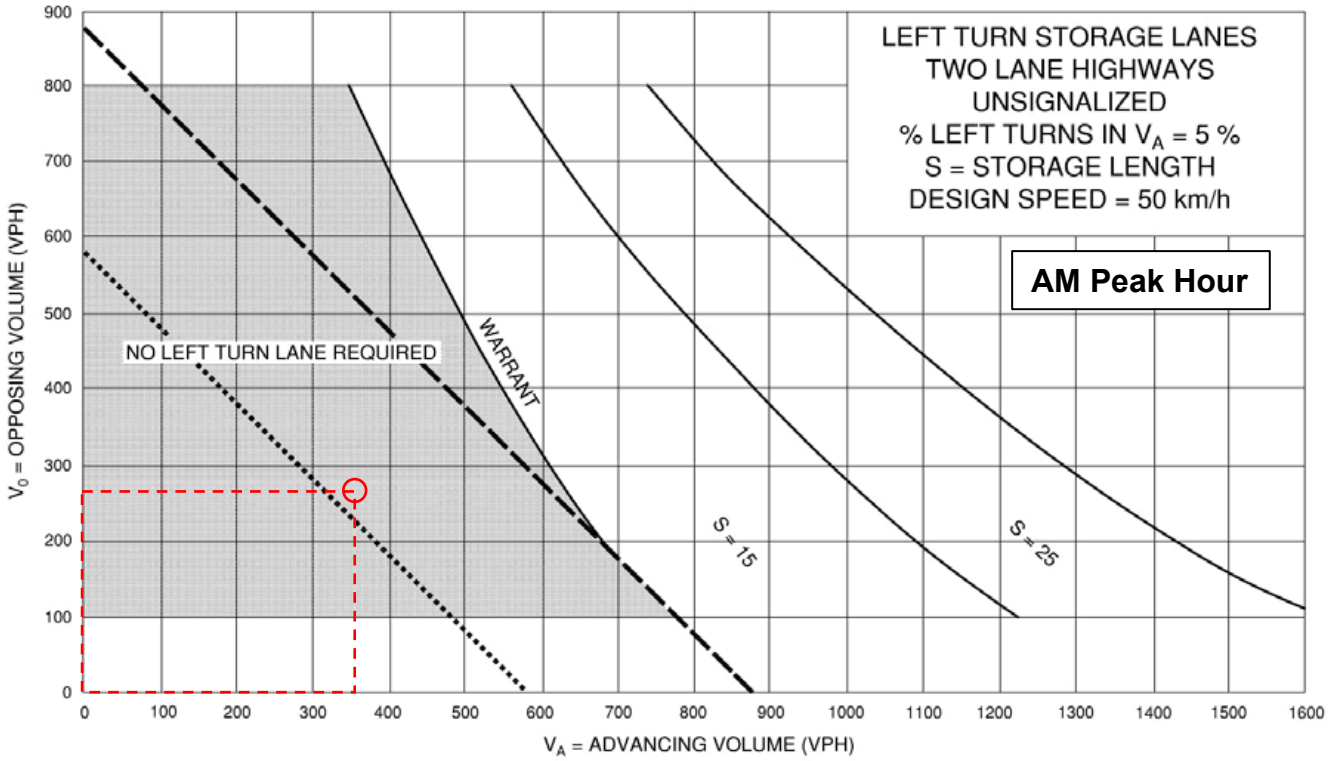
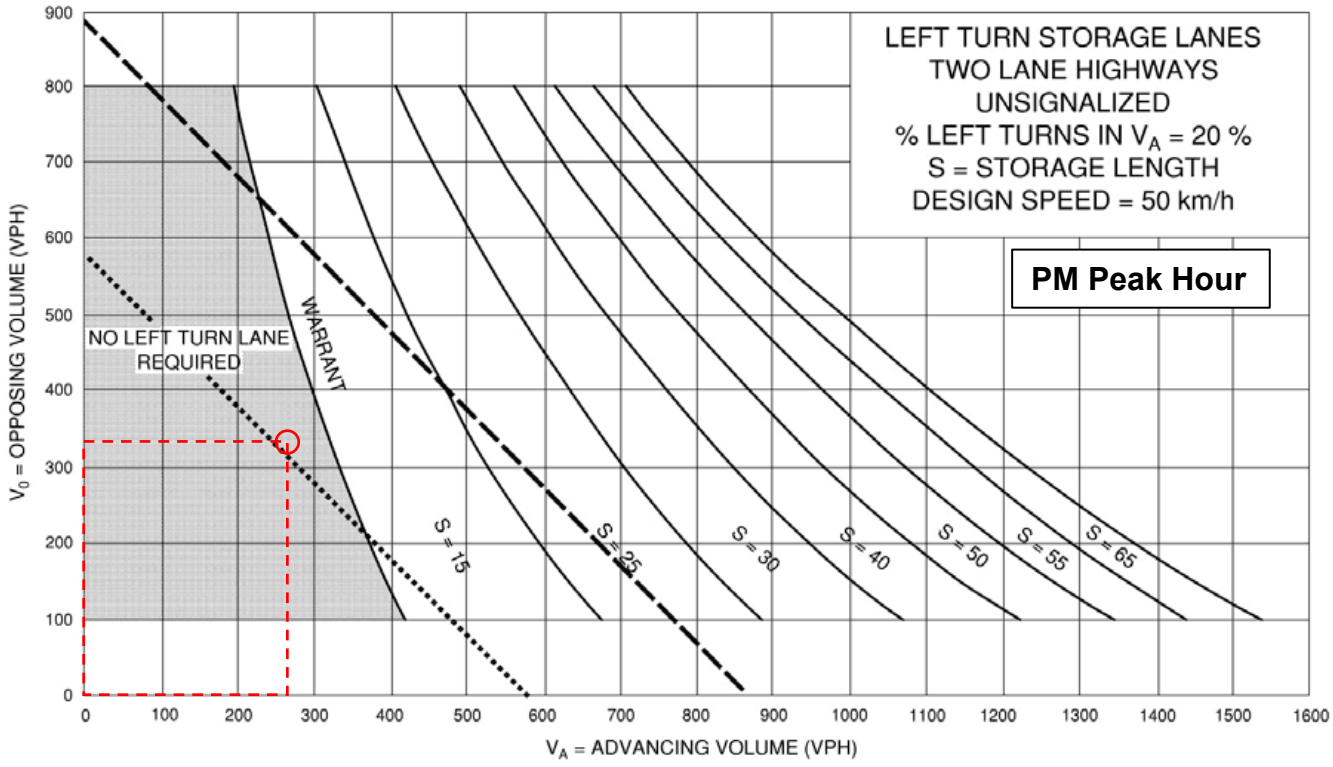
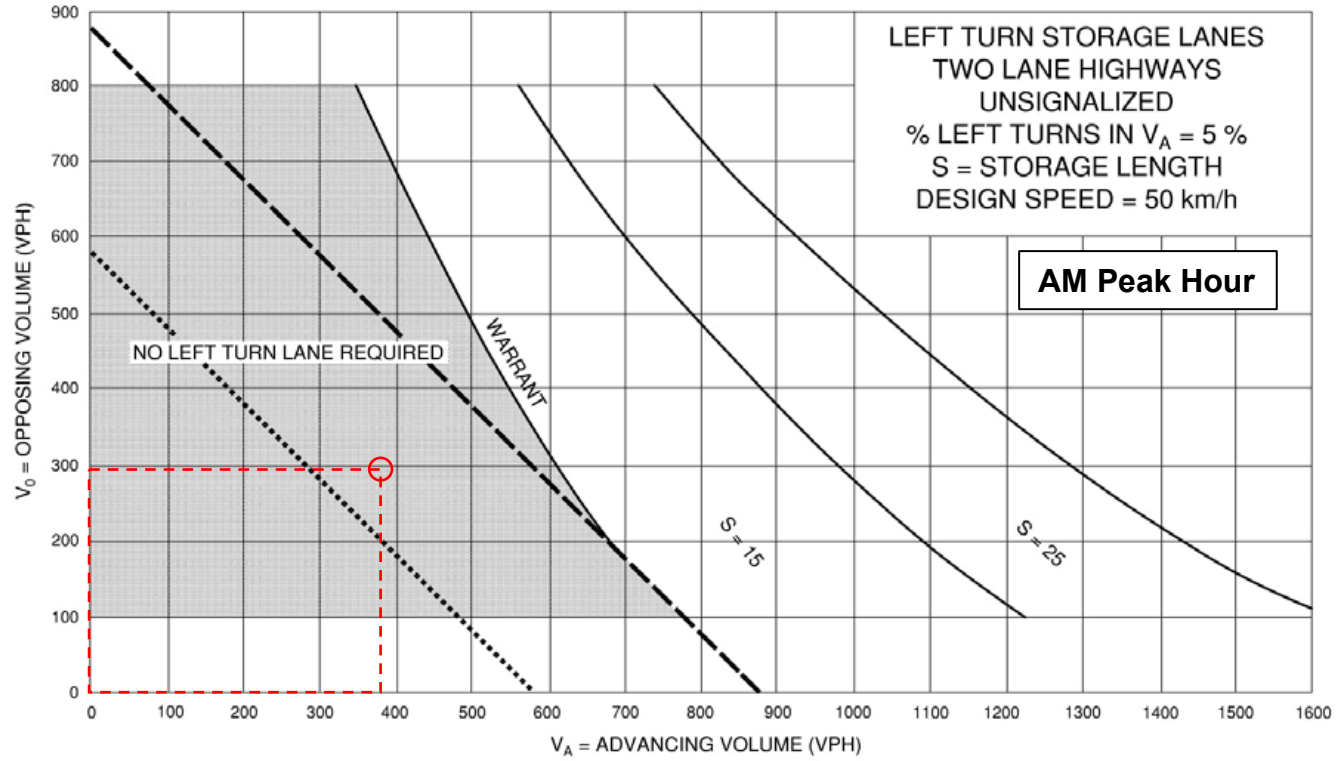
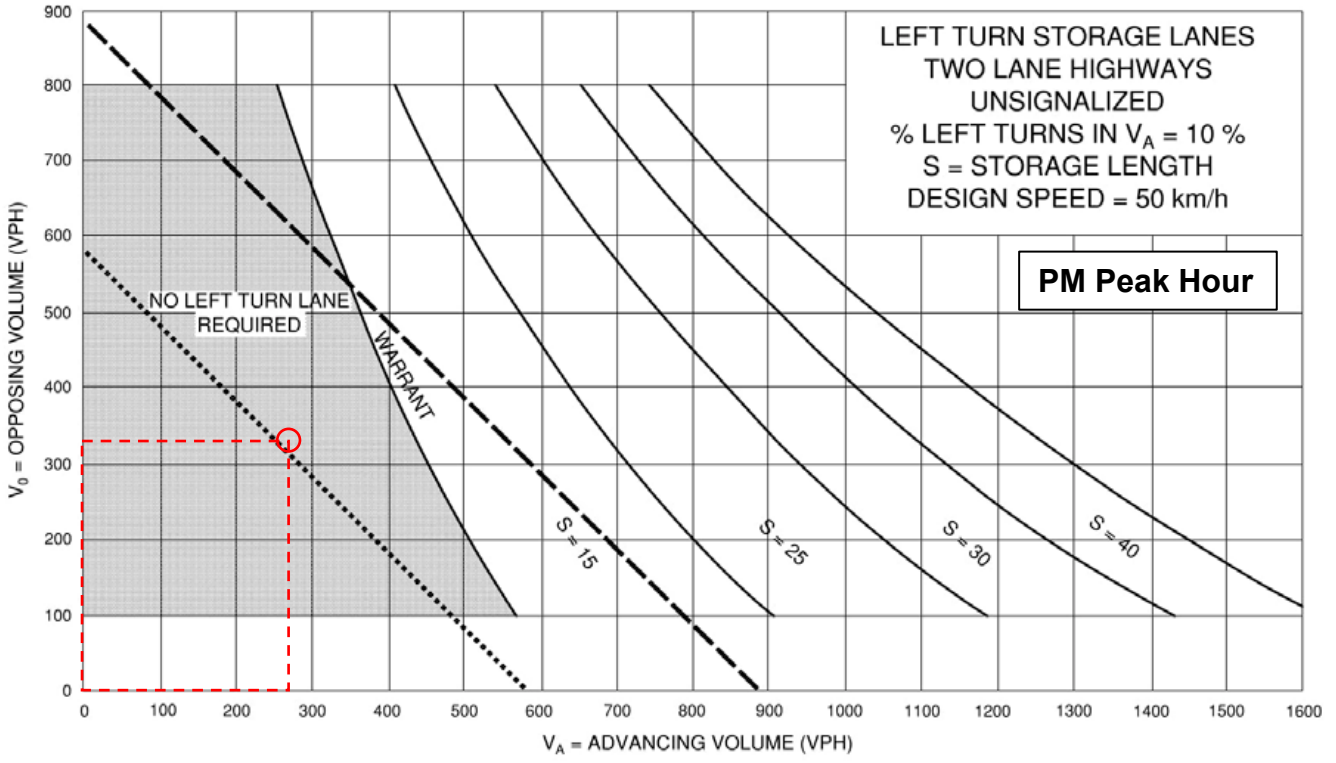
Eastbound Left-Turn Lane
East Mill St (WR 18) & Colborne St
2026 Background





Eastbound Left-Turn Lane
East Mill St (WR 18) & Colborne St
2026 Total





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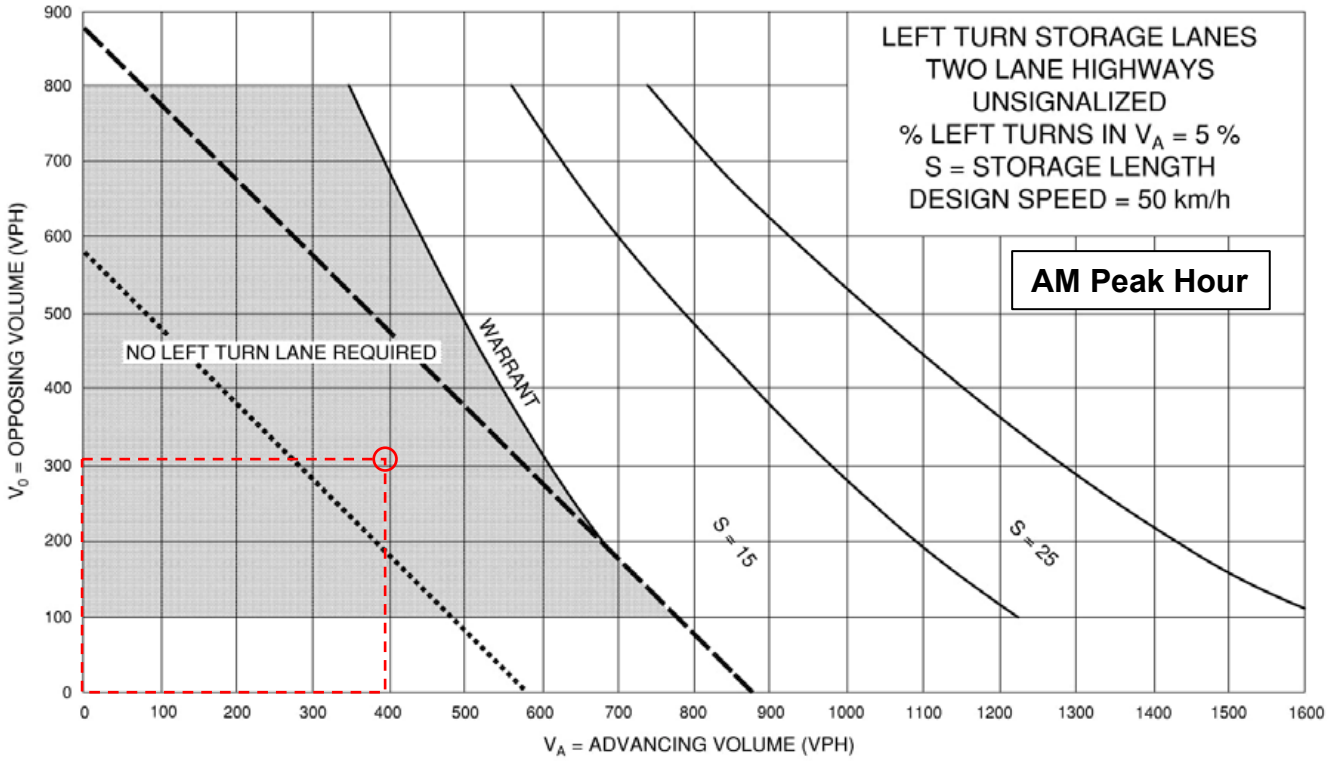
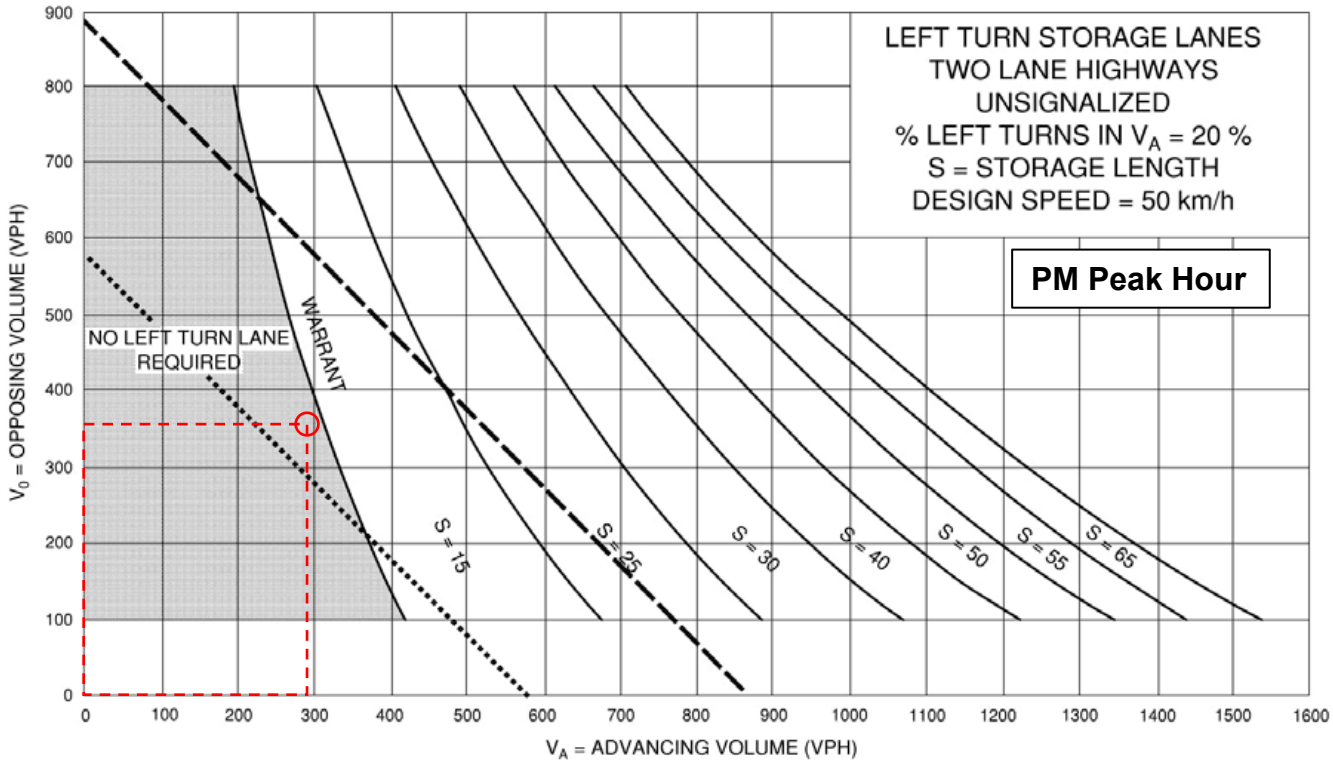
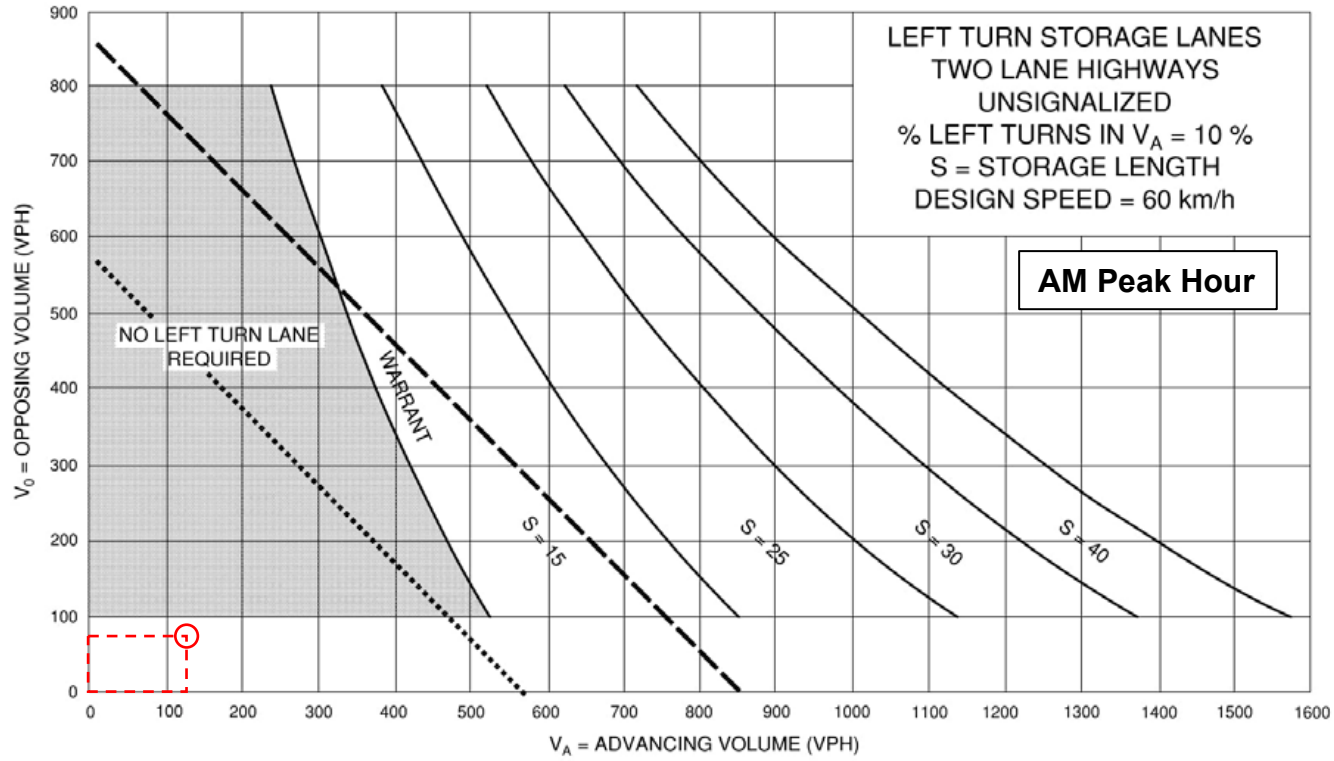
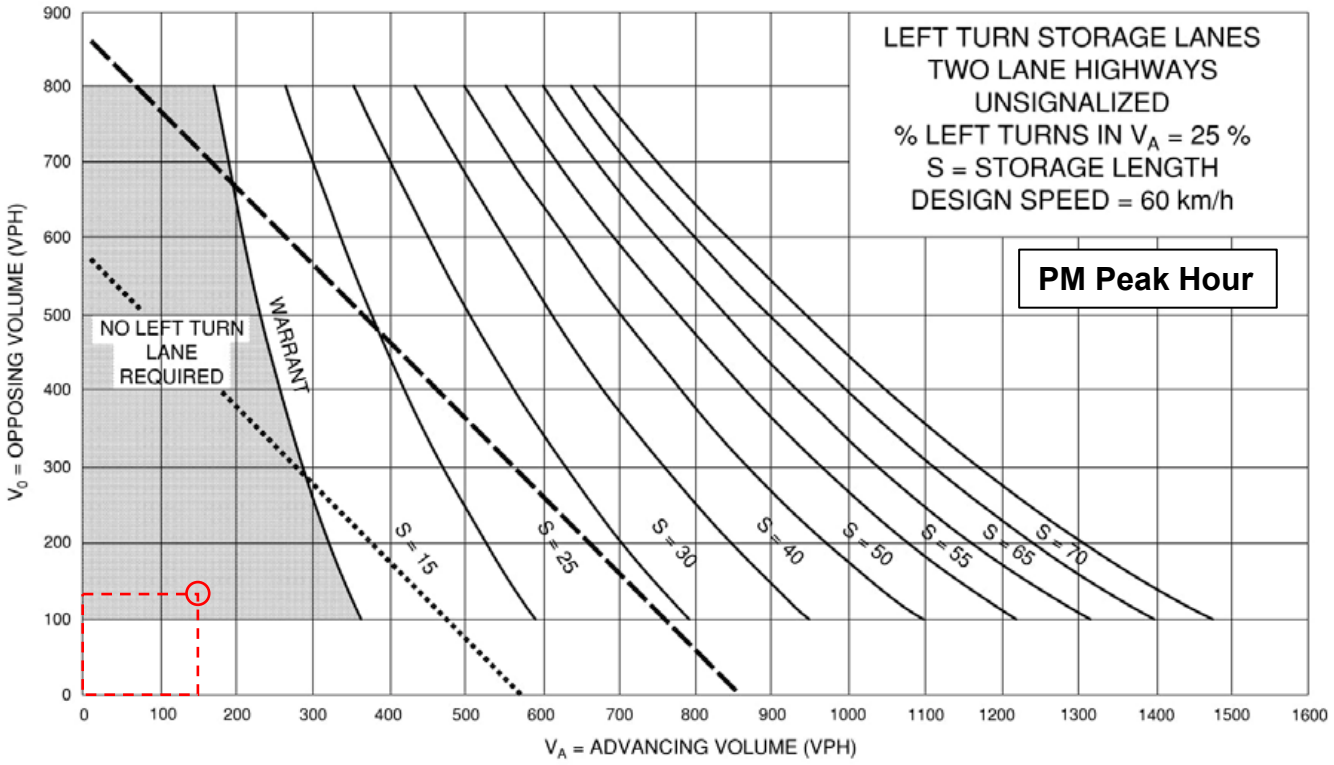
Eastbound Left-Turn Lane
East Mill St (WR 18) & Colborne St
2031 Background



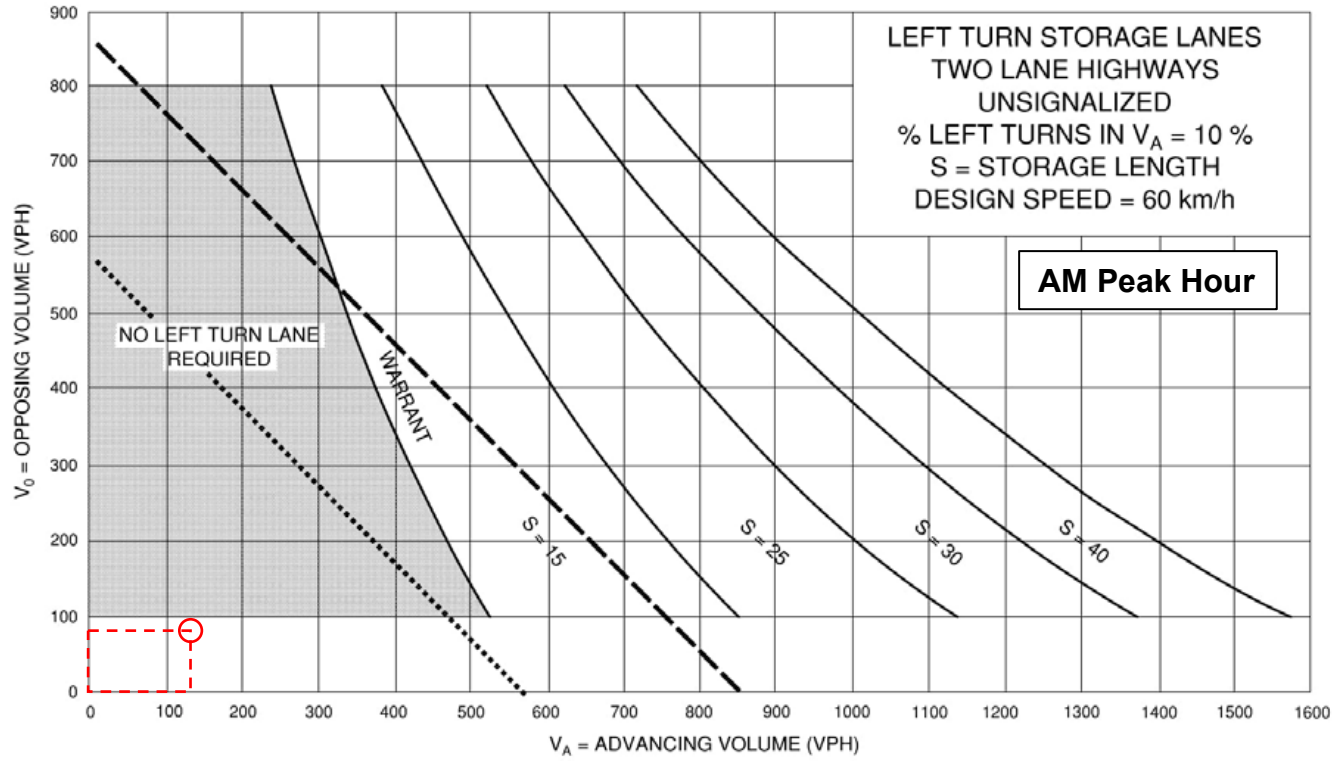


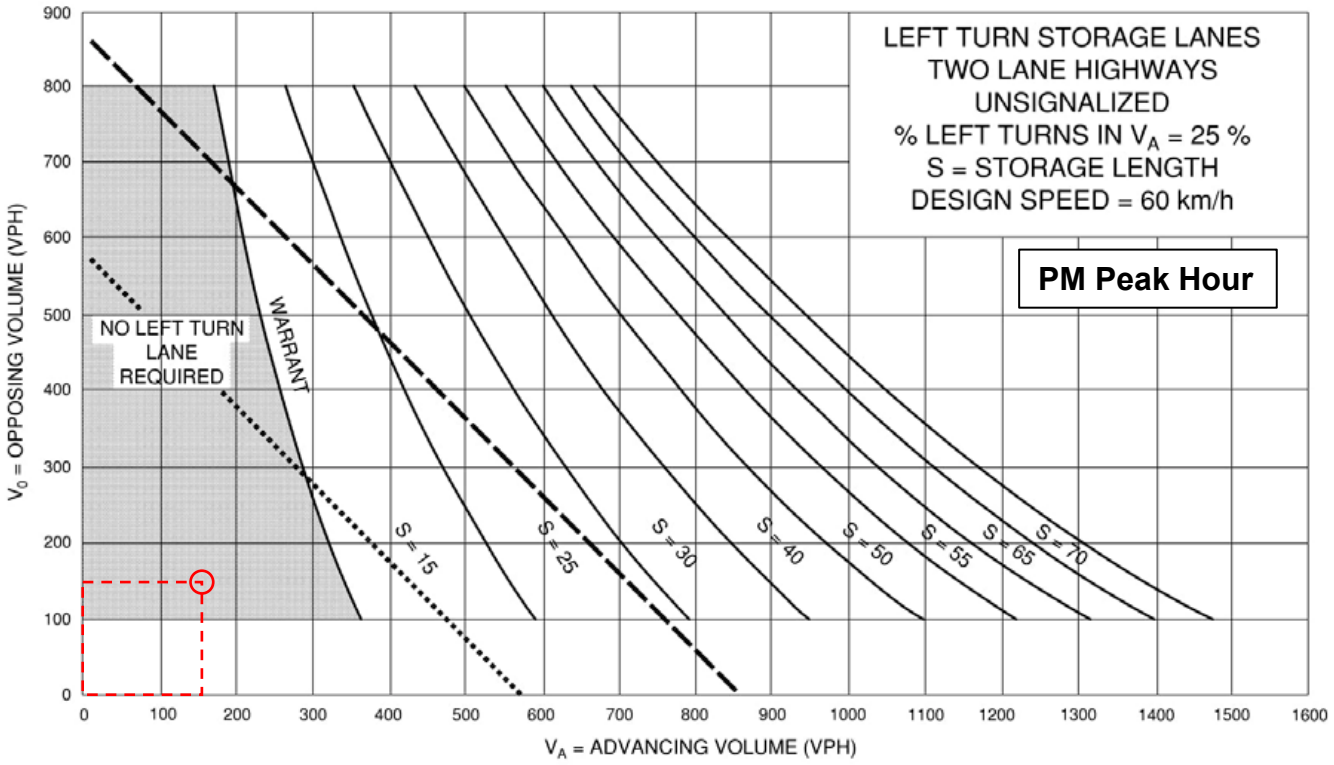
Eastbound Left-Turn Lane
East Mill St (WR 18) & Colborne St
2031 Total





Northbound Left-Turn Lane
Irvine Street & Street C
2026 Total





Northbound Left-Turn Lane
Irvine Street & Street C
2031 Total