Ashton Meadows Phase 2 Traffic Impact Study

Township of Clearview

February 25, 2022

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Executive Summary

The proposed residential site is located approximately on the southeast corner of Margaret Street and County Road 42 in the Town of Stayner, which resides within the County of Simcoe. Traffic operations were assessed for existing conditions (2021), and future background and future total conditions for both 2026 and 2041 horizon years.

Synchro 11 traffic software was used to analyze intersections within the study area. The existing traffic volumes were determined through a series of turning movement counts conducted by AECOM at key intersections within the study area. The background traffic volumes for the future horizon years were estimated through consultation with municipal staff, as well as a review of other traffic impact studies for relevant nearby developments. The overall growth rate in background traffic volumes was estimated at a conservative 3% per year, which conforms to the Stayner TMP estimates.

The proposed Phase 2 development comprises 221 residential units out of a total of 445 units, including Phase 1. Site Traffic volumes were derived utilizing the ITE Trip Generation Handbook 10th Edition, and the subject development is expected to produce 171 additional trips in the AM peak hour and 219 additional trips in the PM peak hour.

The analysis demonstrated that traffic associated with Phase 2 of Ashton Meadows developments in combination with future developments surrounding the subject site, as well as infrastructure changes within Stayner (i.e., Margaret Street Extension) can be accommodated by the existing road network. All intersection movements were found to display good operations under the 2026 and 2041 traffic conditions with the highest V/C ratio of 0.4 and delays of up to 24 seconds.

A signal warrant analysis was performed for the study area intersections, namely Margaret Street & County Road 42, and Margaret Street & Warrington Road. It was determined that traffic volumes in both the 2026 and 2041 horizon years did not warrant a traffic signal at either location; however, Stayer Area TMP recommends a traffic signal at the intersection of Margaret Street & Warrington Road, as per the requirements of Transport Canada for an at grade intersection separation of less than 60 meters from railway line crossing.

The overall conclusion is that the existing road network capacity can support the proposed development under both the interim and ultimate conditions. The results of this analysis showed that no traffic operational issues are anticipated up to and including the 2041 horizon year. Required intersection improvements include provision for turning lanes at the intersection of County Road 42 & Margaret Street before the Ashton Meadows Phase 2 development buildout.

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1. Introduction

1.1 Purpose & Background

AECOM Canada on behalf of the Cortel Group was retained to undertake an update to the Traffic Impact Study (TIS) for the proposed new Phase 2 Ashton Meadows residential development located in the Town of Stayner. The initial study (Phase 1) was undertaken by AECOM in May 2020 (This study builds on the previously completed Phase I work). The purpose of this study was to:

- Assess the existing traffic conditions in the vicinity of the subject site;
- Forecast future traffic volumes associated with the residential Phase 2;
- Assess the future operations at intersections in the vicinity of the subject site and proposed site entrances;
- Conduct a signal warrant for the intersections of Margaret Street & County Road 42 and Margaret Street & Warrington Road; and
- Identify operational and safety concerns, and any required mitigation measures, where appropriate.

The following Traffic Impact Study was prepared in compliance with County of Simcoe Traffic Impact Study Guidelines and adheres to the applicable methodology, findings and recommendations associated with the proposed Phase 2 Ashton Meadows.

1.2 Study Area

The subject site is bounded by Margaret Street to the north and Lot 32 to the south and is horizontally centred between the Concession 2 boundaries, with Airport Road (County Road 42) and the Barrie Collingwood CP Rail Track/Warrington Road bounding the site on the west and east sides respectively. The approximate site boundaries and site boundary networks are illustrated in **Figure 1-1**.

Figure 1-1: Study Area and Subject Development

The following boundary Intersections were assessed under existing, future background and future total conditions:

- Warrington Road & Sideroad 21&22 Nottawasaga
- Warrington Road & Superior Street
- Huron Street & Superior Street
- Margaret Street & Clarence Street
- Margaret Street and County Road 42

The existing land uses to the north and east of the subject site are residential and to the south of the site are beyond the current Urban Boundary. The lands to the west of the site are vacant and according to the Official Plan (OP) of the Township of Clearview are designated for industrial land uses. The proposed site is currently vacant and will develop with phase 2 of Ashton Meadows development. The Traffic Impact Study for Phase 1 has already been approved by the Town.

2. Development Proposal

The applicant ultimately proposes to build a total of 445 single-family detached residential dwelling units (Phases 1 and 2 combined). Development Phasing has been split into two basic development stages. The Phase 1 development of the western portion of the site (approximately 35-acre site (14.2 ha)) had been approved and consists of 224 units as shown in **Figure 2-1**. It should be noted that referenced lands have been Draft Plan approved (June 2017). The proposed Phase 2 development of the eastern portion of the site includes 63.60 acres of residential housing consisting of 221 single-family detached dwellings. The first development stage (Phase 1) consists of 224 of the 445 detached residential dwelling units currently awaiting construction.

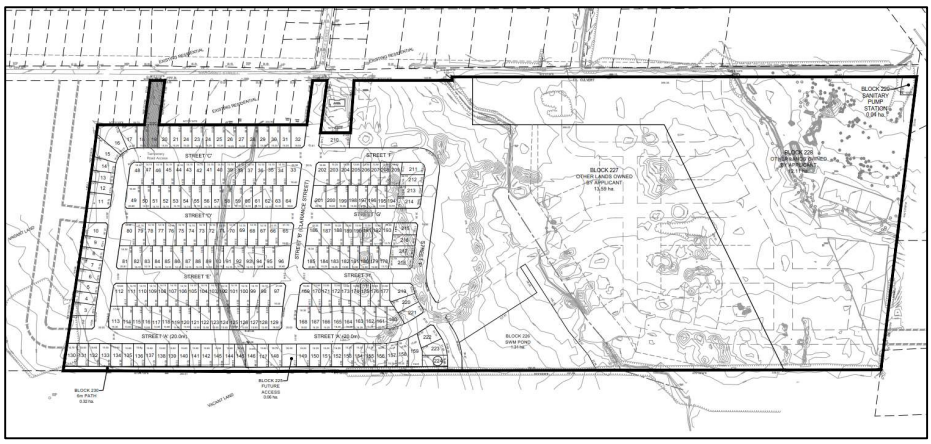


Figure 2-1: Phase 1 Site Plan

The second development stage (Phase 2) consisting of the remaining 221 detached dwellings is shown in **Figure 2-2**. Trips generation is discussed further in **Section 5.**

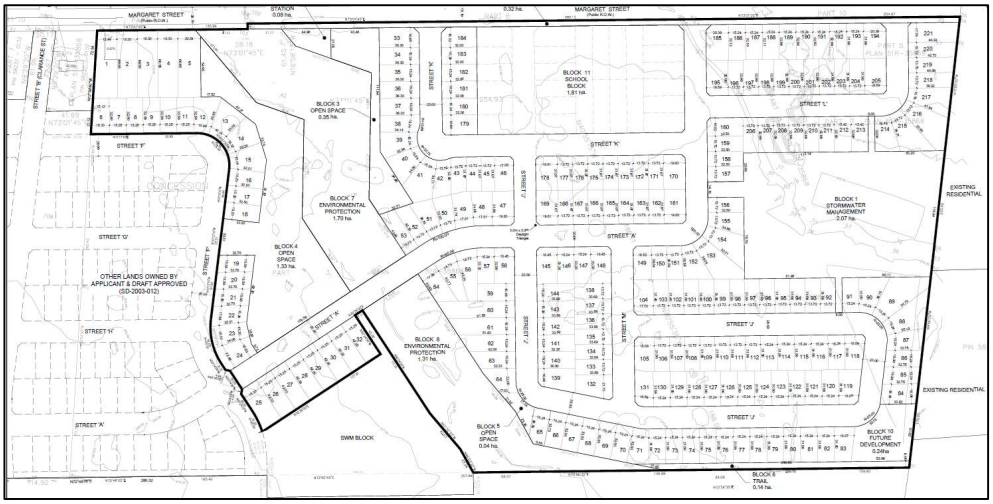


Figure 2-2: Phase 2 Site Plan

The completion of these development phases will be market-driven, but a full-build-out of the site is expected within a five-year time horizon (2026). For the Phase 1 development, access to the abutting street system is proposed through a full move unsignalized intersection on Margaret Street to connect with existing Clarence Street. For the Phase 2 development, access to the site will be provided via three unsignalized intersections (Street K, Street A and Street L) on Margaret Street as illustrated in **Figure 2-2**.

3. Existing Traffic Conditions

3.1 Existing Road Network

The road network and existing intersection configurations for the key intersections in the study area are described below.

- **Airport Road (County Road 42)** is a north-south oriented two-lane arterial road (under the jurisdiction of the County of Simcoe), connecting communities along the shore of the Georgian Bay (Wasaga Beach and Collingwood) in the north part of the County of Simcoe to the Village of Stayner, Village of Creemore, and Orangeville in the south. In the vicinity of the site, the road has a posted speed of 80 km/h south of Margaret Street, and 50 km/h north of Margaret Street. The signalized intersection of Airport Road and Main Street (Highway 26/Country Road 91) is the closest major intersection servicing the study area and the site.

- **Margaret Street** is a two-lane east-west collector road under the Township of Clearview jurisdiction extending along the north side of the site. Margaret Street terminates at Airport Road in the vicinity of the site (just north-west of the site entrance) forming a T-intersection (unsignalized, the Margaret Street approach is stop-controlled). This road is closed further east (two blocks east of the Airport/Margaret intersection). It has a posted speed of 40 km/hr. Margaret Street is proposed to be extended to provide a connection with Warrington Road.

- **Clarence Street** is a north-south local street connecting Margaret Street and Christopher Street just on the west side of the subject site. It creates a T-intersection, approaching Margaret Street (unsignalized, the approach is stop-controlled).

- **Warrington Road** is a diagonal north-south two-lane arterial road connecting 21/22 Sideroad Nottawasaga in the south to Superior Street in the north. Currently, Margaret Street terminates just west of Warrington Road. It should be noted that the Stayner and Area Transportation Master Plan calls for Margaret Street extension to Warrington Road. Warrington Road has a posted speed of 60 km/hr.

The existing lane configuration at the study area intersections within the boundary road network is shown in **Figure 3-1.** The future lane configurations to be utilized for operational analysis for the interim and ultimate horizon years are shown in **Figure 3-2** and **Figure 3-3**, respectively.

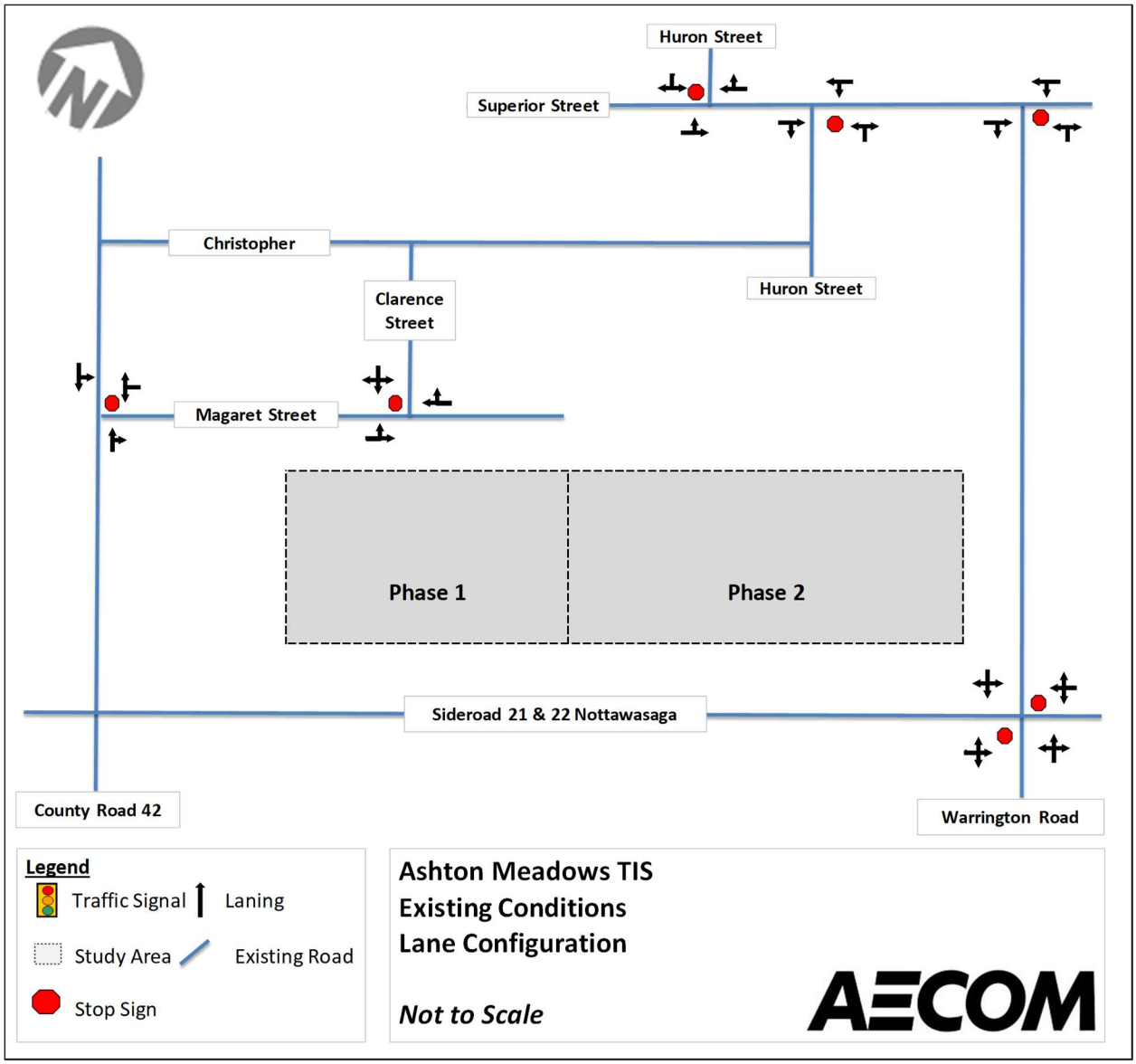


Figure 3-1: Existing Conditions Lane Configurations

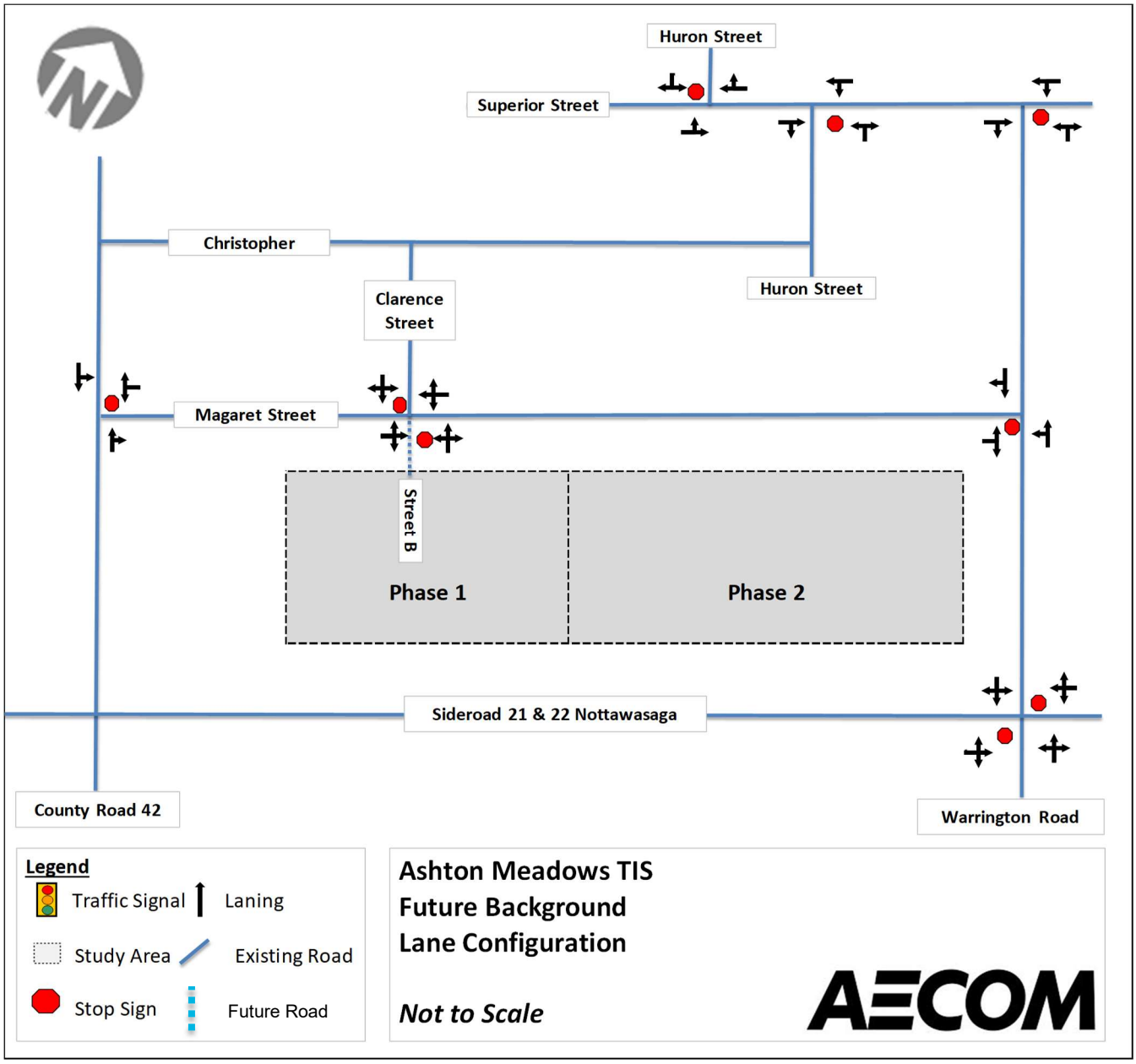


Figure 3-2: Future Background Conditions Lane Configurations

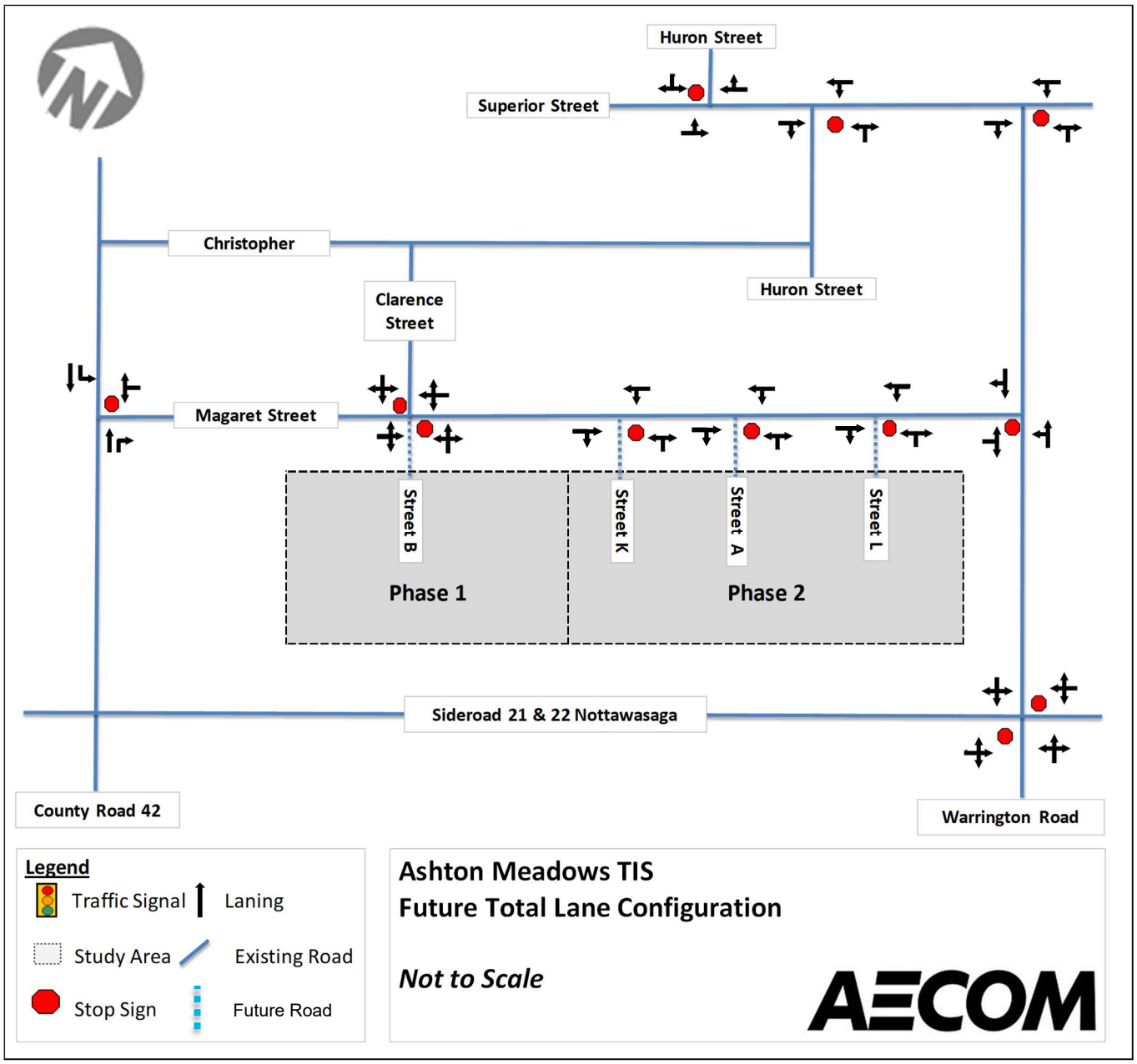


Figure 3-3: Future Total Conditions Lane Configurations

3.2 Existing Traffic Volumes

Traffic data via turning movement counts were collected by Ontario Traffic Inc. on behalf of AECOM Canada Ltd. The data was collected for the five pertinent intersections within the study area during AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods. Updated counts were collected on Feb 7th, 2019 for four intersections with the remaining intersection utilizing the original Aug 28th, 2008 count, where traffic volumes were grown to the common horizon year and balanced against the more recent 2019 counts. The respective AM and PM Peak Hours are summarized in **Table 3-1**. Turning movement count data can be found in **Appendix B**.

Table 3-1: Turning Movement Count Dates and Peak Hours

Intersections	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	Survey Date	Peak Hour	Survey Date	Peak Hour
County Road 42 & Margaret Street	Feb 7th, 2019	7:45 AM - 8:45 AM	Feb 7th, 2019	4:00 PM - 5:00 PM
Superior Street & Huron Street	Feb 7th, 2019	7:45 AM - 8:45 AM	Feb 7th, 2019	4:15 PM - 5:15 PM
Superior Street & Warrington Road	Feb 7th, 2019	7:45 AM - 8:45 AM	Feb 7th, 2019	4:15 PM - 5:15 PM
Warrington Road & Sideroad 21-22 N	Feb 7th, 2019	7:30 AM - 8:30 AM	Feb 7th, 2019	4:30 PM - 5:30 PM
Margaret Street & Clarence Street	Aug 28th, 2008	7:00 AM – 8:00 AM	Aug 28th, 2008	4:00 PM – 5:00 PM

3.3 Existing Traffic Operations

The existing traffic conditions were analyzed based on the traffic volumes presented in **Figure 3-4** and **Figure 3-5.** The analysis is based on the existing lane configurations displayed above in **Figure 3-1**. It should be noted that volumes may differ slightly from raw data as volume balancing was performed before assessing the existing conditions.

Intersection operations were assessed using Synchro 11 software, which is based on the methodology outlined in the *Highway Capacity Manual (HCM)*, 2000 (Transportation Research Board). The unsignalized intersections were analyzed using HCM 2000 TWSC (Two-Way Stop Control).

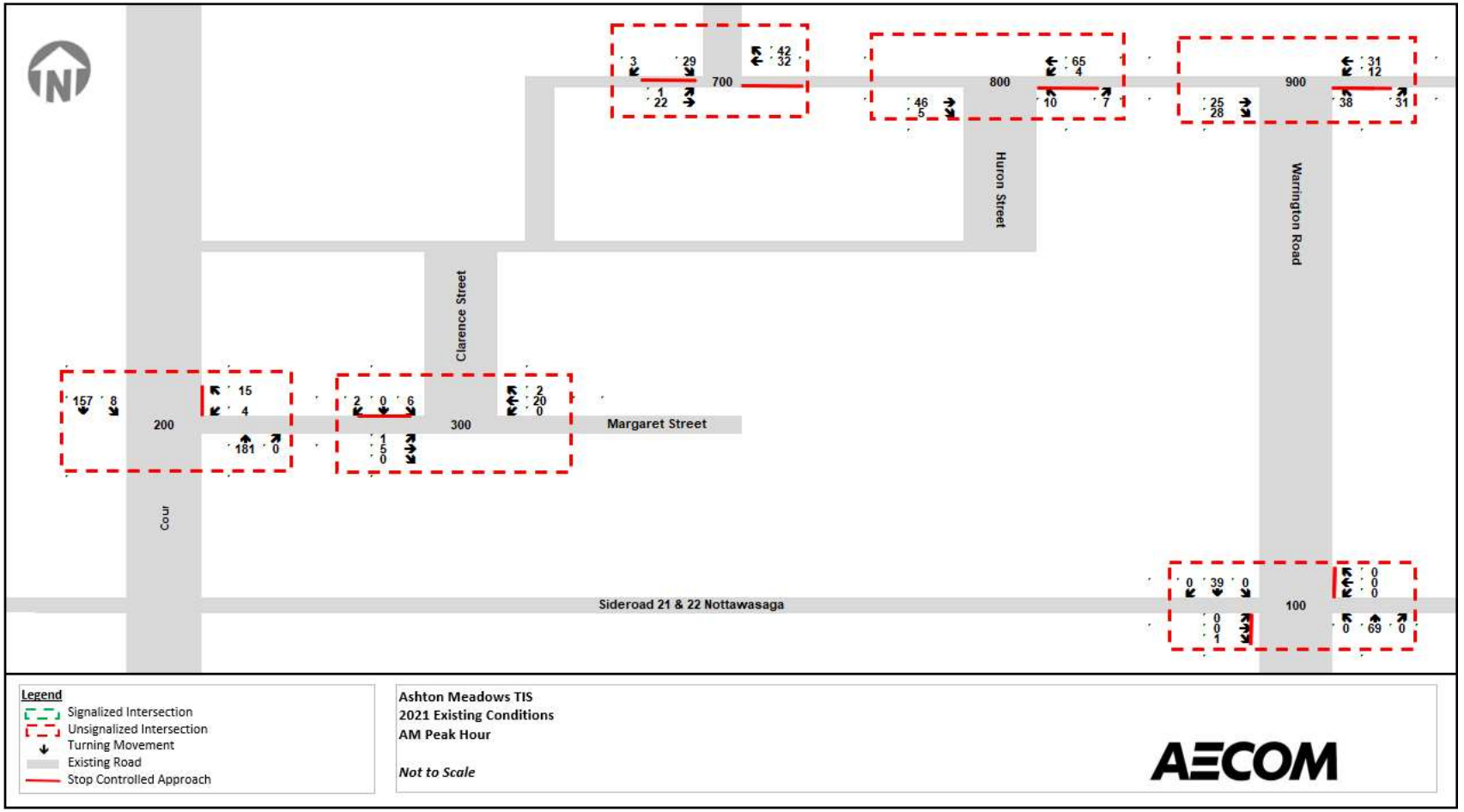


Figure 3-4: 2021 Existing Traffic Volumes– AM Peak

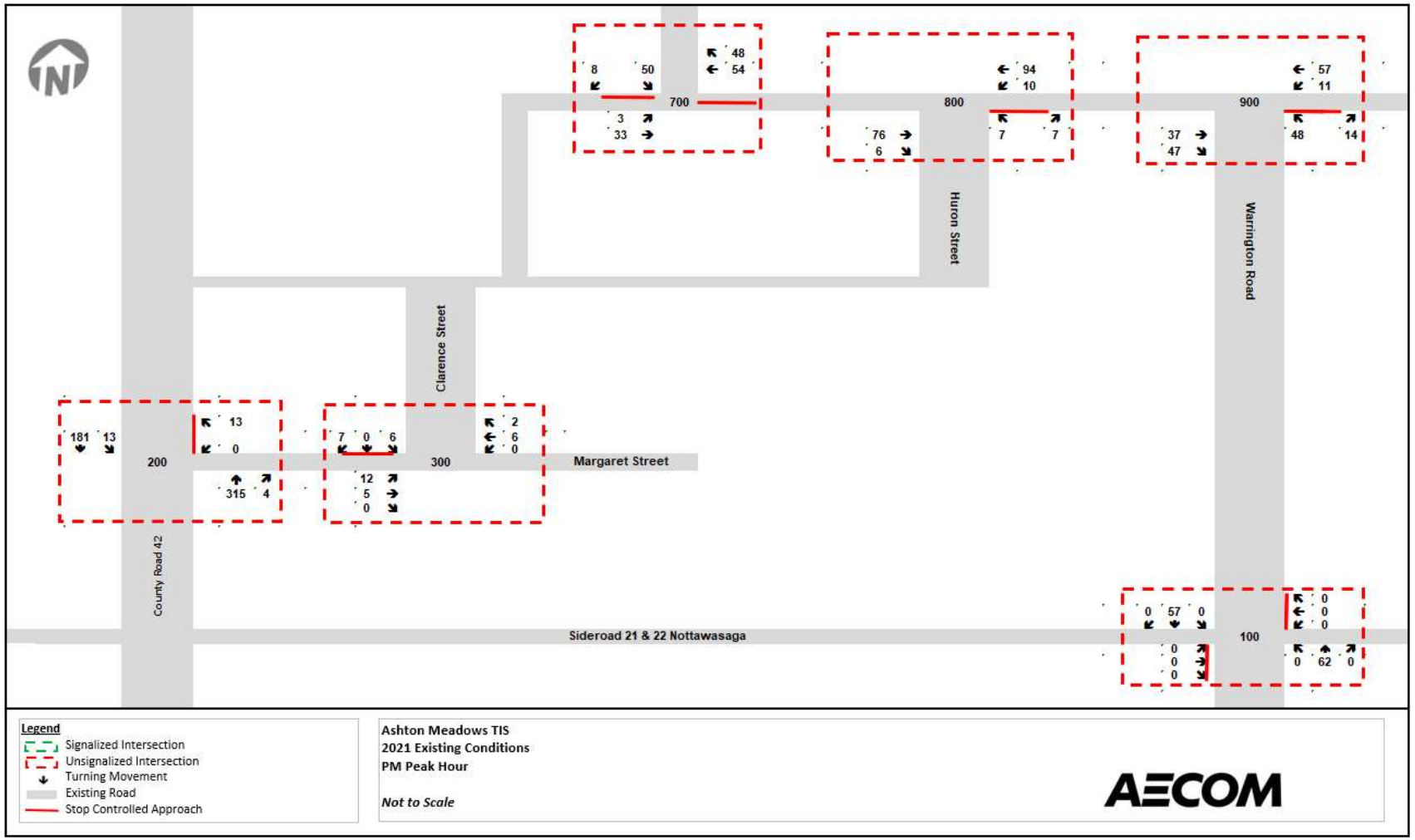


Figure 3-5: 2021 Existing Traffic Volumes – PM Peak

Table 3-2 summarizes the overall traffic operations using measures of effectiveness such as Level of Service (LOS), volume-to-capacity ratio (V/C), control delay (seconds), and 95th percentile queue lengths (metres) for each intersection under existing traffic conditions using HCM 2000 methodology. LOS is a qualifying measure of traffic operations at an intersection, which relates the delay per vehicle for a 15-minute analysis period. The V/C ratio is a measure of the proportion of the calculated intersection capacity that is utilized by the modelled traffic volumes. Detailed Level of Service definitions related to intersection operations are contained in **Appendix C**. Detailed Synchro outputs for the existing traffic conditions are contained in **Appendix D**. Critical movements are highlighted and defined as movements where the V/C ratio exceeds 0.85, or LOS is 'E' or worse.

Table 3-2: 2021 Existing Traffic HCM Report Summary

Intersection	Movement	Adjacent Intersection Distance	AM Peak Hour				PM Peak Hour			
			V/C	Delay (s)	LOS	95th Percentile Queue	V/C	Delay (s)	LOS	95th Percentile Queue
100: Sideroad 21 & 22 Nottawasaga & Warrington Road (Unsignalized)	EBLTR	2000	0	9.2	A	0.0	0	0	A	0.0
	WBLTR	400	0	0	A	0.0	0	0	A	0.0
	NBLTR	500	0	0	-	0.0	0	0	-	0.0
	SBLTR	415	0	0	-	0.0	0	0	-	0.0
200: County Road 42 & Margaret Street (Unsignalized)	WBLR	500	0.03	9.7	A	0.6	0.02	10.3	B	0.5
	NBTR	450	0.12	0	-	0	0.19	0	-	0
	SBTL	150	0.01	0.4	A	0.4	0.01	0.6	A	0.3
300: Margaret Street & Clarence Street (Unsignalized)	EBTL	500	0	1.2	A	0.0	0.01	5.3	A	0.2
	WBTL	150	0.01	0	-	0.0	0.01	0	-	0.0
	SBLR	170	0.01	8.6	A	0.2	0.01	8.6	A	0.4
700: Superior Street & Huron Street N (Unsignalized)	EBTL	-	0	0.3	A	0.0	0	0.6	A	0.0
	WBTR	150	0.04	0	-	0.0	0.06	0	-	0.0
	SBLR	100	0.03	9	A	0.9	0.07	9.4	A	1.8
800: Huron Street S & Superior Street (Unsignalized)	EBTR	-	0.03	0	-	0.0	0.05	0	-	0.0
	WBTL	40	0	0.4	A	0.1	0.01	0.8	A	0.2
	NBLR	100	0.02	9	A	0.5	0.02	9.3	A	0.5
900: Warrington Road & Superior Street (Unsignalized)	EBTR	40	0.03	0	-	0.0	0.05	0	-	0.0
	WBTL	20	0.01	2.1	A	0.2	0.01	1.3	A	0.2
	NBLR	100	0.08	9.1	A	2.1	0.07	9.5	A	2.0

Existing Operations Summary - 2021

As shown in the summary above, the analysis indicates that there are no operational issues at any of the intersections under existing conditions. Each intersection movement displays residual capacity available and maintains LOS A. There are no critical movements at any of the intersections within the study area. The 95th percentile traffic queues do not exceed 2.1 meters and the maximum delay is not greater than 10.3 seconds.

4. Future Background Conditions

4.1 Background Growth

Ambient future background growth is expected along arterial roads within the neighbourhood as per the Stayner and Area Transportation Master Plan (TMP). To assess the operations along the roads in the study area, traffic growth rates of 5% per year to 2016 and 3% per year thereafter have been assumed. It has also been assumed that the Margaret Street extension will be completed by the interim horizon year (2026). As mentioned within the Stayner and Area TMP the extension is a short-term improvement that will be executed regardless of Ashton Meadows development completion timeframes. Contrastingly, it is assumed that intersection level improvements for County Road 42 and Margaret Street are to be implemented exclusively with the completion of Phase 2.

Figure 4-1: Stayner TMP Margaret Street Extension

Finally, the 2041 future background volumes are assumed to comprise traffic associated with surrounding developments. Future background traffic volumes typically comprise the following components:

- Growth in traffic due to developments in the immediate area, unrelated to the subject site.
- Growth in traffic trips on the boundary road network.

The ambient traffic growth within the study area was assumed to comprise traffic associated with the surrounding development. The resultant growth rate translates to 3% per annum along arterial roads, which conforms to the expected growth rate as per the Stayner TMP.

4.2 Future Background Traffic Volumes

Future background traffic volumes were projected to the Interim five-year horizon and the ultimate 20-year horizon of 2026 and 2041, respectively. Traffic data from 2019 counts were grown to the year 2021 and beyond with an annual compounded growth rate of 3% to depict the existing and future traffic conditions, whereas information on the relevant future background developments was provided by the Township of Clearview. Significant residential and non-residential development areas are displayed below in **Figure 4-2**.

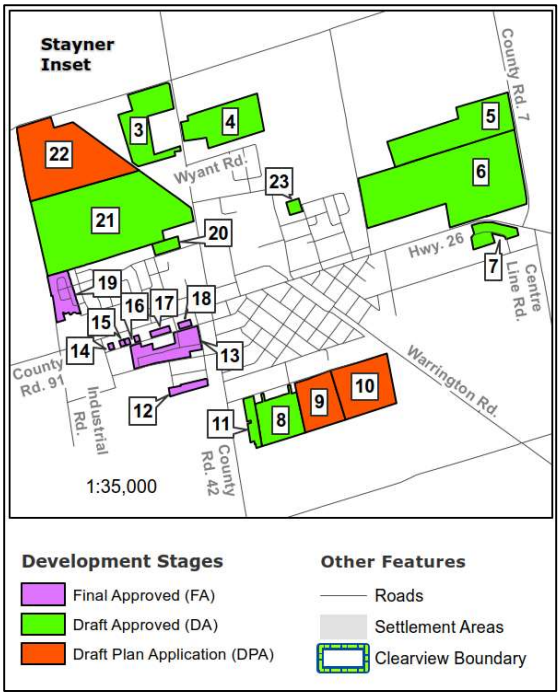


Figure 4-2: Township of Clearview - Future Developments

Using supporting documents and resources including Bridle Park TIS, Clearview Park TIS and the Stayner and Area Transportation Master Plan, future developments' timelines and their magnitude were developed. It should be noted that information presented in **Figure 4-2** was provided as a public resource of general information by the Corporation of the Township of Clearview. The following assumptions were made regarding the future background forecasts:

- As final approved developments are currently under construction, it is presumed that all developments under this designation will be fully built by the 2026 interim horizon year.
- Draft approved developments that are within the immediate area are assumed to be at full build-out by 2026 including phase 1 of Ashton Meadows. The immediate area has been defined to include all development south of Main Street. As per the background transportation impact studies including Bridle Park TIS and Clearview Park TIS, both developments previously predicted full buildouts around the 2019 horizon year. With no current construction identified assuming a full build-out for the interim year was deemed overly conservative. Traffic associated with the remaining draft approved developments was included for the 2041 ultimate horizon year.
- Developments that are currently undergoing the draft plan approval process are assumed to be at full buildout by 2041.

The breakdown of residential uses (single-family detached vs townhomes) was obtained from available traffic impact studies prepared in support of these developments. For example, the Clearview Garden Estates TIS provided the following breakdown of proposed residential uses:

Table 4-1: Clearview Garden Estates Residential Uses (Source: Clearview Garden Estates TIS)

Type	Blocks	Size	ITELUC	Description
Semi-Detached Houses	16 & 17	67 units	210	Single-Family Detached Housing
Townhouses	16 & 17	58 units	230	Residential Condominium/Townhouse
Street Townhouses	4 - 9	30 units	230	Residential Condominium/Townhouse
Townhouses/Apartments	Block 2	155 units	220	Apartments
Apartments	Block 1	176 units	220	Apartments
Long Term Care Facility	Block 11	244 units	255	Continuing Care Retirement Community
Total		730 units		

Trip generation for the subject development was determined based on the methodology outlined in the ITE Trip Generation Manual, 10th Edition. Site traffic volumes were generated separately for single-family detached houses, low-rise multifamily housing, and mid-rise multifamily housing. As discussed within **Section 4.2** trips associated with various future background developments have been calculated relating to the assumed future build-out year. Below within **Table 4-2**, **Table 4-3** and **Table 4-4** are the related background traffic trips generated by the future developments surrounding the subject site. The distribution of background trips generated is discussed below within **Section 5.2**.

Table 4-2: Immediate Future Background Trip Generation Summary – Year 2026

Description	ITE Code	Residents	Generated Trips		Distribution of Generated Trips			
			AM Peak	PM Peak	AM In	AM Out	PM In	PM Out
Single-Family Detached Housing	210	224	166	222	41	124	140	82
Single-Family Detached Housing	210	69	51	68	13	38	43	25
Multifamily Housing (Mid-Rise)	221	36	13	16	3	10	10	6
**ITE Trip Generation Manual, 10th Edition*			**230**	**306**	**58**	**172**	**192**	**114**

Table 4-3: Arterial Future Background Trip Generation Summary – Year 2026

Description	ITE Code	Residents	Generated Trips		Distribution of Generated Trips			
			AM Peak	PM Peak	AM In	AM Out	PM In	PM Out
Multifamily Housing (Low-Rise)	220	258	119	144	27	91	91	53
**ITE Trip Generation Manual, 10th Edition*			**119**	**144**	**27**	**91**	**91**	**53**

Table 4-4: Arterial Future Background Trip Generation Summary – Year 2041

Description	ITE Code	Residents	Generated Trips		Distribution of Generated Trips			
			AM Peak	PM Peak	AM In	AM Out	PM In	PM Out
Multifamily Housing (Low-Rise)	220	2023	931	1133	214	717	714	419
**ITE Trip Generation Manual, 10th Edition*			**931**	**1133**	**214**	**717**	**714**	**419**

The background traffic conditions were analyzed based on the traffic volumes presented in **Figure 4-3** through **Figure 4-6.** The analysis was based on the corresponding lane configurations displayed above in **Figure 3-2** without the proposed development and not including turning lanes at the intersection of Margaret Street and County Road 42.

The most traffic growth is expected along County Road 42 and Highway 26 due to future approved or planned developments within the Town. Traffic volumes on County Road 42 are expected to grow at the rate of about 3% per year.

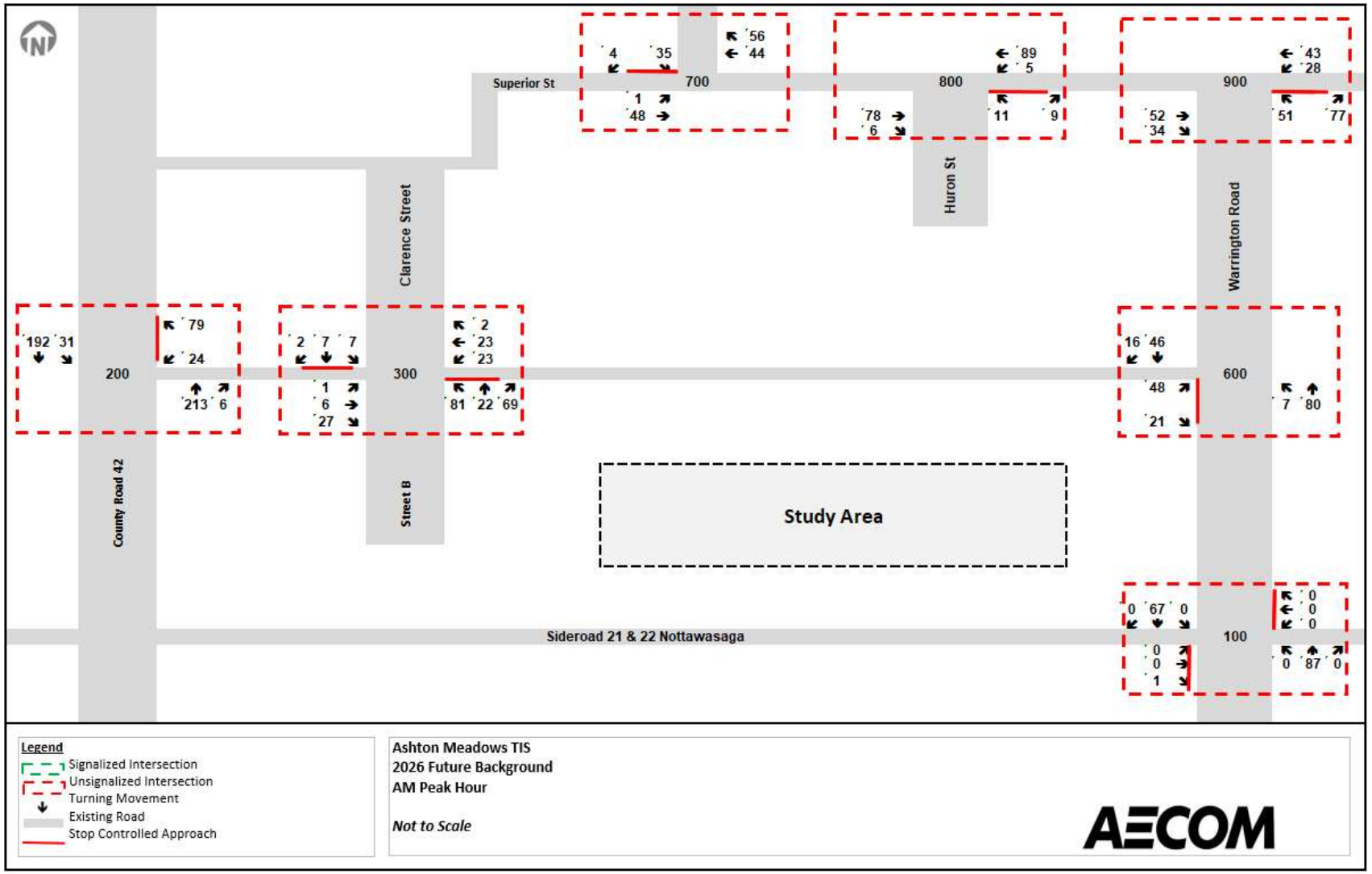


Figure 4-3: Future Background Traffic 2026 – AM Peak

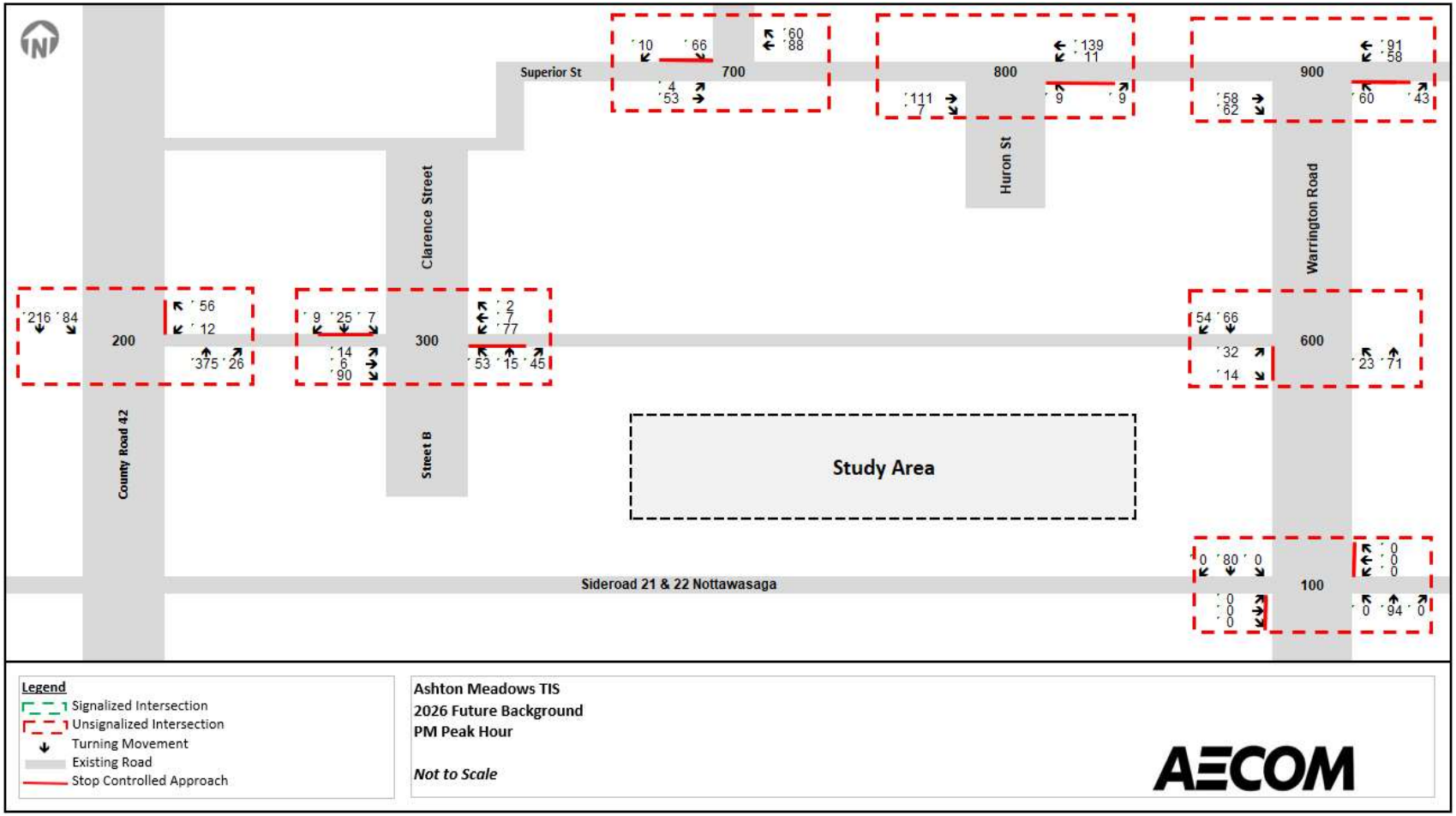


Figure 4-4: Future Background Traffic 2026– PM Peak

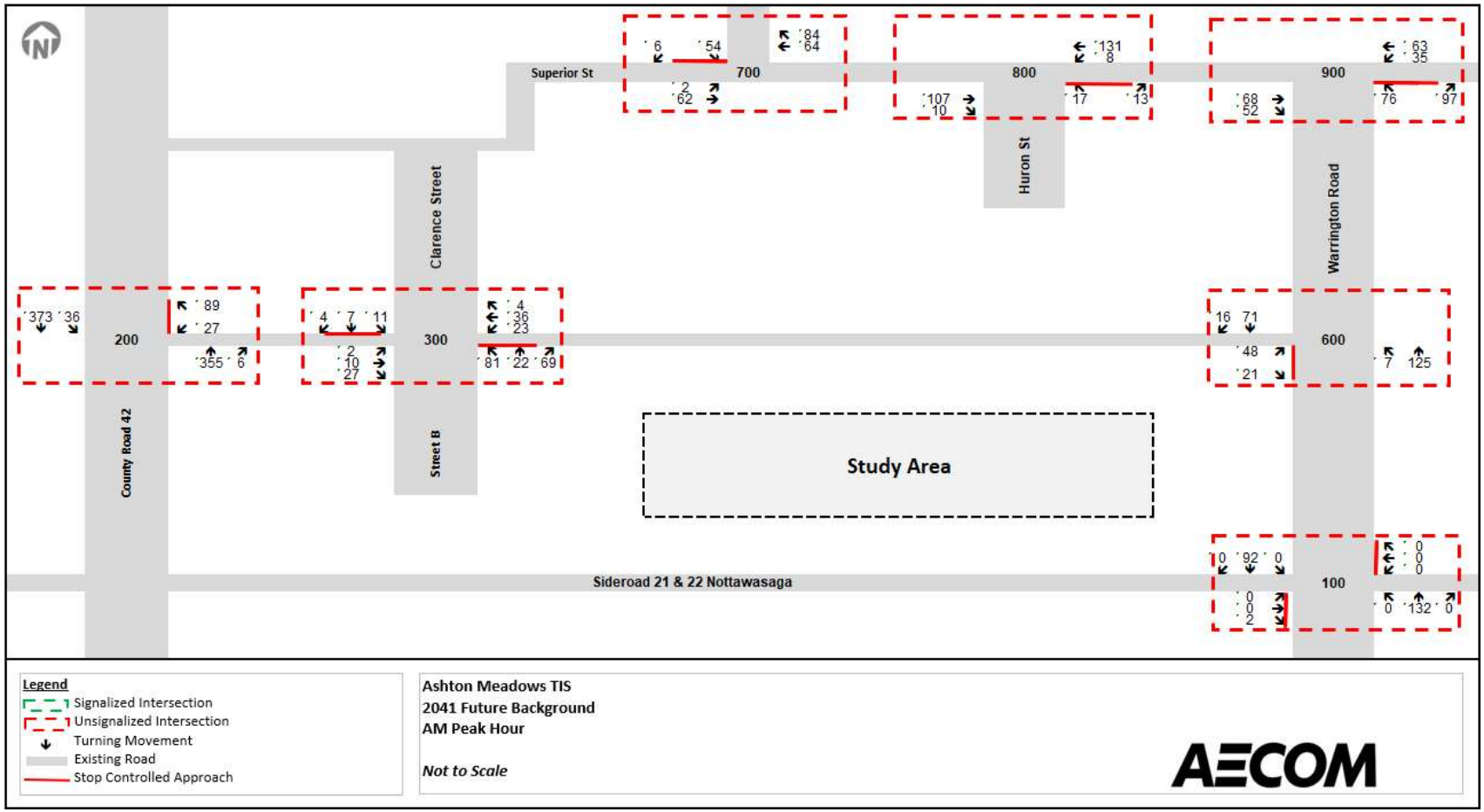


Figure 4-5: Future Background Traffic 2041 – AM Peak

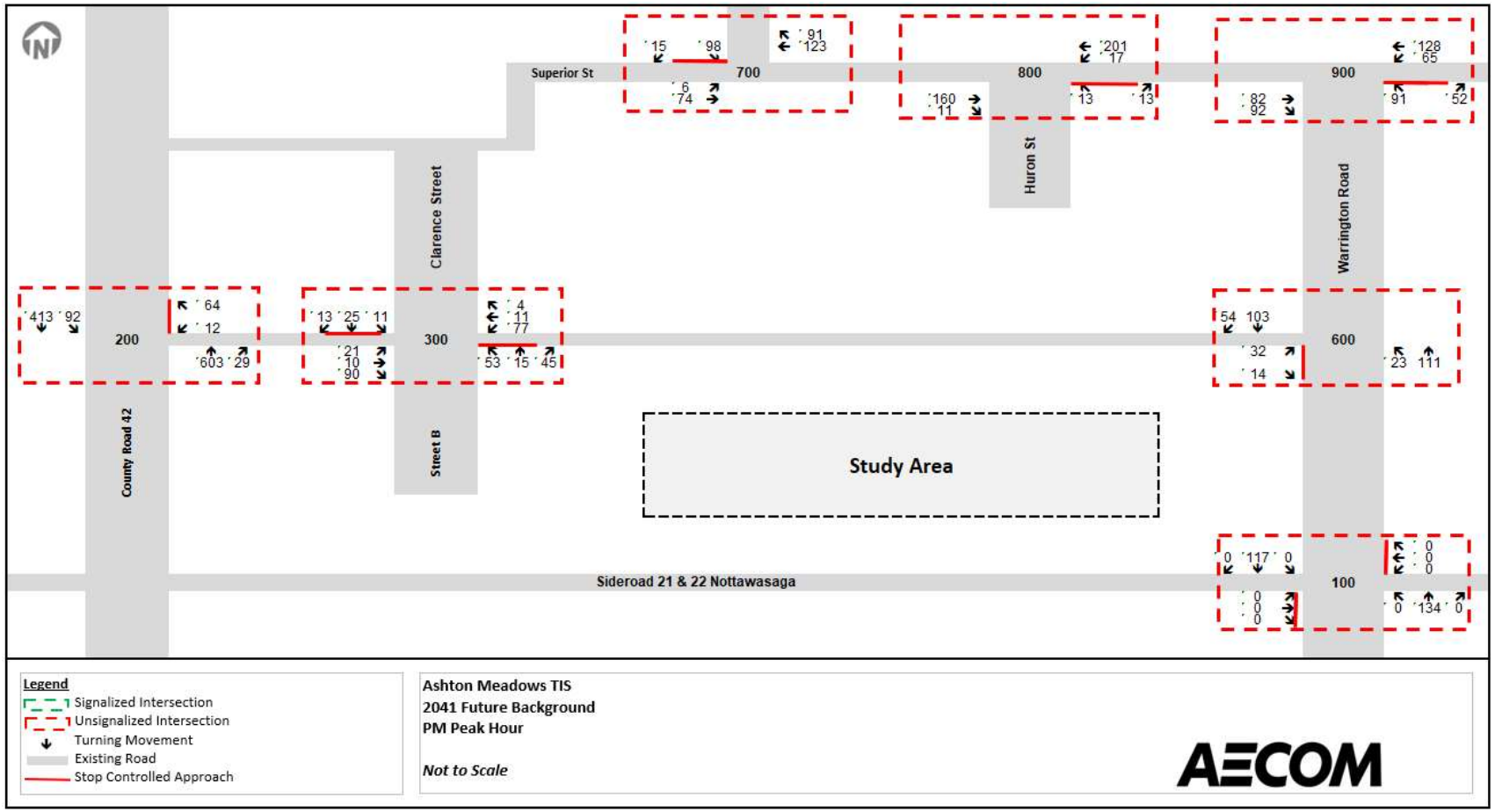


Figure 4-6: Future Background Traffic 2041– PM Peak

4.3 Future Background Traffic Assessment

The future background traffic operations were analyzed for all horizon years. The results of this analysis are summarized in **Table 4-5** and **Table 4-6**. Detailed Synchro outputs can be found in **Appendix E**.

Table 4-5: Future Background Traffic Operations - Year 2026

Intersection	Movement	Adjacent Intersection Distance	AM Peak Hour				PM Peak Hour			
			V/C	Delay (s)	LOS	95th Percentile Queue	V/C	Delay (s)	LOS	95th Percentile Queue
100: Sideroad 21 & 22 Nottawasaga & Warrington Road (Unsignalized)	EBLTR	2000	0	8.6	A	0.0	0	0	A	0.0
	WBLTR	400	0	0	A	0.0	0	0	A	0.0
	NBLTR	500	0	0	-	0.0	0	0	-	0.0
	SBLTR	415	0	0	-	0.0	0	0	-	0.0
200: County Road 42 & Margaret Street (Unsignalized)	WBLR	500	0.16	11	B	4.5	0.14	12.8	B	3.8
	NBTR	450	0.14	0	-	0	0.26	0	-	0
	SBTL	150	0.03	1.3	A	0.6	0.08	2.9	A	2.1
300: Margaret Street & Clarence Street/Street B (Unsignalized)	EBTLR	500	0	0.2	A	0.0	0.01	1	A	0.2
	WBTLR	150	0.02	3.6	A	0.4	0.06	6.8	A	1.4
	SBLTR	170	0.2	10	A	6.1	0.17	11	B	4.9
	NBLTR	75	0.02	9.9	A	0.6	0.07	11.2	B	1.8
600: Margaret Street & Warrington Road (Unsignalized)	EBLR	850	0.09	9.5	A	2.2	0.06	9.8	A	1.6
	SBTR	475	0.01	0.7	A	0.1	0.02	1.9	A	0.4
	NBTL	500	0.04	0	-	0	0.08	0	-	0
700: Superior Street & Huron Street N (Unsignalized)	EBTL	-	0	0.1	A	0.0	0	0.5	A	0.1
	WBTR	150	0.06	0	-	0.0	0.09	0	-	0.0
	SBLR	100	0.05	9.3	A	1.2	0.1	10	A	2.7
800: Superior Street & Huron Street S (Unsignalized)	EBTR	-	0.05	0	-	0.0	0.08	0	-	0.0
	WBTL	40	0	0.4	A	0.1	0.01	0.6	A	0.2
	NBLR	100	0.03	9.3	A	0.6	0.03	9.7	A	0.6
900: Warrington Road & Superior Street (Unsignalized)	EBTR	40	0.06	0	-	0.0	0.08	0	-	0.0
	WBTL	20	0.02	3	A	0.5	0.04	3.2	A	1.1
	NBLR	100	0.15	9.7	A	4.4	0.15	10.7	B	4.2

Future Background Operations Summary - 2026

The 2026 future background conditions for study area intersections were found to be acceptable with intersections operating overall at LOS A or better with small incremental changes in delay. The new Margaret Street / Warrington Road unsignalized intersection operates well at LOS A. The longest 95th percentile queue included within the entire network remains acceptable displaying only 6 metres. The longest vehicular delay amongst all intersections is 12.8 seconds

Table 4-6: Future Background Traffic Operations - Year 2041

Intersection	Movement	Adjacent Intersection Distance	AM Peak Hour				PM Peak Hour			
			V/C	Delay (s)	LOS	95th Percentile Queue	V/C	Delay (s)	LOS	95th Percentile Queue
100: Sideroad 21 & 22 Nottawasaga & Warrington Road (Unsignalized)	EBLTR	2000	0	8.6	A	0.1	0	0	A	0.0
	WBLTR	400	0	0	A	0	0	0	A	0.0
	NBLTR	500	0	0	-	0	0	0	-	0.0
	SBLTR	415	0	0	-	0	0	0	-	0.0
200: County Road 42 & Margaret Street (Unsignalized)	WBLR	500	0.24	14	B	7.5	0.24	18.5	C	7.3
	NBTR	450	0.23	0	-	0	0.4	0	-	0
	SBTL	150	0.03	1	A	0.8	0.11	2.9	A	2.9
300: Margaret Street & Clarence Street/Street B (Unsignalized)	EBTLR	500	0	0.4	A	0	0.01	1.4	A	0.3
	WBTLR	150	0.02	2.8	A	0.4	0.06	6.4	A	1.4
	SBLTR	170	0.03	10	B	0.8	0.09	11.3	B	2.2
	NBLTR	75	0.21	10.1	B	6.3	0.18	11.3	B	5.1
600: Margaret Street & Warrington Road (Unsignalized)	EBLR	850	0.09	9.9	A	2.5	0.07	10.3	B	1.8
	SBTR	475	0.06	0	A	0	0.1	0	A	0
	NBTL	500	0.01	0.5	-	0.1	0.02	1.4	-	1.4
700: Superior Street & Huron Street N (Unsignalized)	EBTL	-	0	0.2	A	0	0.01	0.7	A	0.1
	WBTR	150	0.09	0	-	0	0.14	0	-	0.0
	SBLR	100	0.08	9.8	A	2.1	0.17	11	B	4.9
700: Superior Street & Huron Street S (Unsignalized)	EBTR	-	0.07	0	-	0	0.11	0	-	0.0
	WBTL	40	0.01	0.5	A	0.1	0.01	0.7	A	0.3
	NBLR	100	0.04	9.8	A	1	0.04	10.5	B	1.0
900: Warrington Road & Superior Street (Unsignalized)	EBTR	40	0.08	0	-	0	0.11	0	-	0.0
	WBTL	20	0.03	2.8	A	0.6	0.05	2.9	A	1.3
	NBLR	100	0.23	10.6	B	6.9	0.24	12.3	B	7.4

Future Background Operations Summary - 2041

The 2041 future background conditions for study area intersections were found to be acceptable with intersections operating overall at LOS D or better. The longest 95th percentile queue included within the entire network remains acceptable displaying 7.5 metres. The longest vehicular delay for all intersections is 18.5 seconds during the PM peak hour at the intersection of County Road 42 and Margaret Street on the westbound movement. Negligible changes in both 95th percentile queues and delays occur as all immediate background developments were assumed to have met full build-out by 2026. Additions of arterial background developments increase volumes along County Road 42, thereby increasing NB and SB v/c ratios and WB delays compared to the 2026 future background conditions.

5. Site Traffic

5.1 Trip Generation

Trip generation for the subject development was determined based on the methodology outlined in the ITE Trip Generation Manual, 10th Edition. Ashton Meadows Phase 2 site plan comprises 221 single-family detached houses. As displayed below in **Table 5-1**, the site traffic is expected to generate 171 vehicle trips (43 inbound and 128 outbound) in the weekday AM peak hour and 219 trips (138 inbound and 81 outbound) during the weekday PM peak hour.

Table 5-1: Phase 2 Site Generated Trips Summary

Description/ITE Code	No. of units	Calculation Method	Trip Generation Rates & Distributions						Generated Trips		Distribution of Generated Trips			
			AM	PM	AM In	AM Out	PM In	PM Out	AM Peak	PM Peak	AM In	AM Out	PM In	PM Out
Single-Family Detached Housing (210)	221	Fitted Curve Equation	T = 0.71X + 4.80	T = X^0.96 * e^0.20	25%	75%	63%	37%	171	218	43	128	137	80
		Average Rate	0.74	0.99					164	219	41	123	138	81
ITE Trip Generation Manual, 10th Edition								***Maximum:***	**171**	**219**	**43**	**128**	**138**	**81**

5.2 Trip Distribution

The inbound and outbound residential trip distribution was based on the findings of the Transportation Tomorrow Survey (TTS) 2016 data, specifically the destination of home-work-related trips. The AM outbound and PM inbound distribution was derived from the TTS data. The overall distribution from the TTS Survey data is conjunctively summarized in **Figure 5-1** and **Table 5-2.** The general distribution was then used to assign site-related traffic volumes onto the road network.

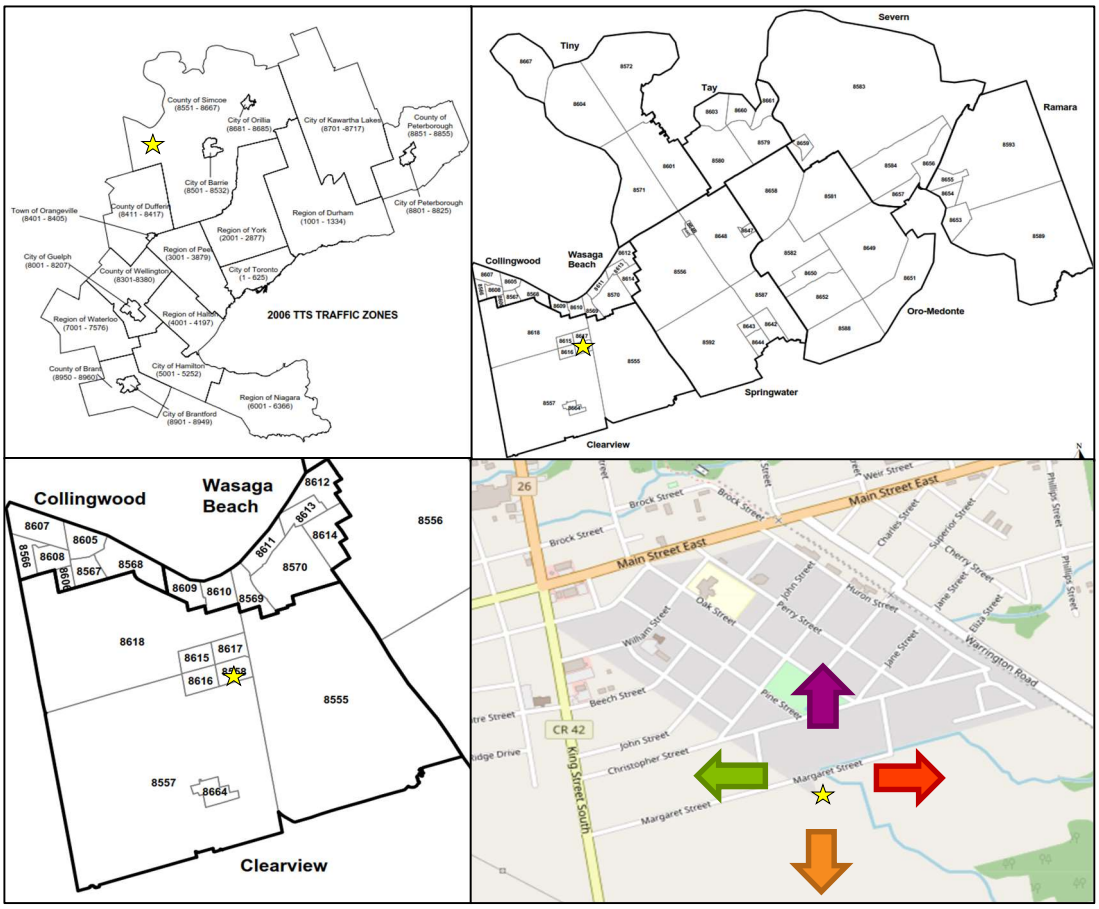


Figure 5-1: 2016 Transportation Tomorrow Survey Trip Distribution Map

In general, immediate future background volumes utilized the existing residential neighbourhood for through travel to Main Street, whereas traffic associated with developments north of Main Street only projected into the study area via County Road 42. Therefore, traffic associated with developments north of the study area within **Table 4-3** and **Table 4-4** were factored by southbound general distribution of 11% seen below.

Table 5-2: Overall Transportation Tomorrow Survey Distribution Table

York	1%		Essa	8%		8555	96	14%		North	28%
Barrie	16%		Collingwood	8%		8616	134	19%		South	11%
Dufferin	2%		Wasaga Beach	3%		8617	122	18%		East	26%
External	7%		Clearview	56%		8558	37	5%		West	29%
Simcoe	74%								★	Internal	5%

Figure 5-2 outlines the exact trip percentage breakdown, whereas **Figure 5-3** and **Figure 5-4** Illustrate the site traffic volumes for the subject development for the AM and PM peak hours for all horizon years.

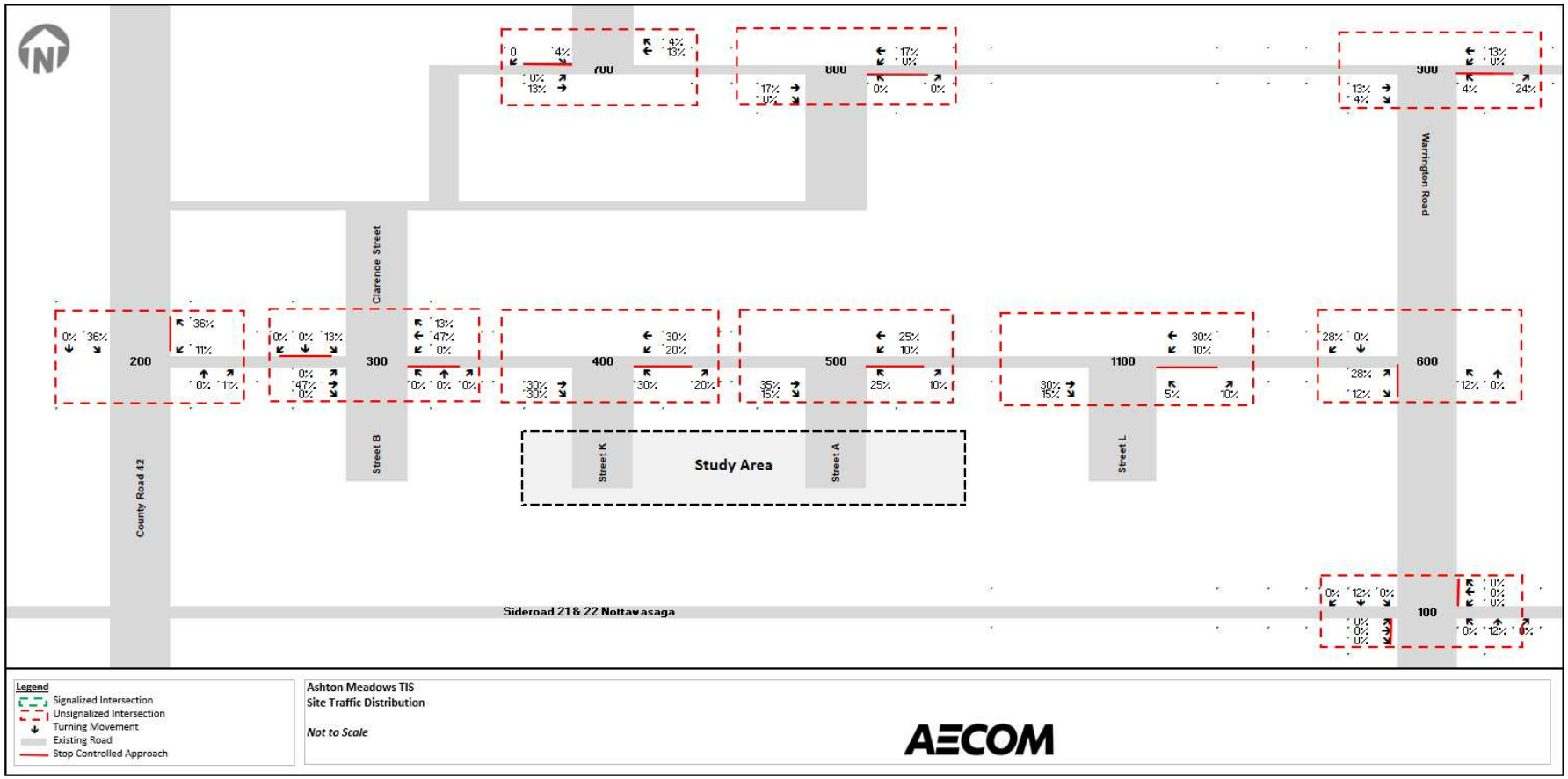


Figure 5-2: Site Traffic Distribution

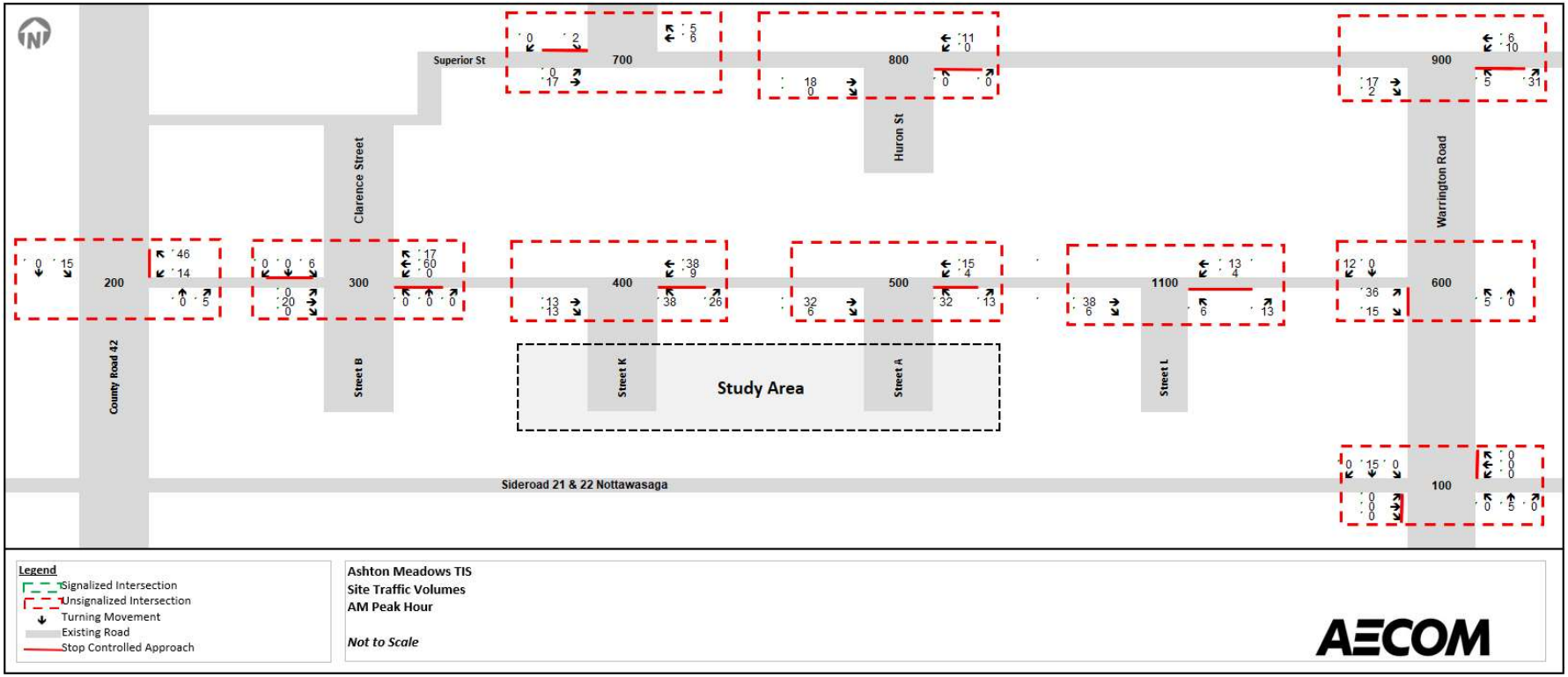


Figure 5-3: Site Traffic AM Peak Hour

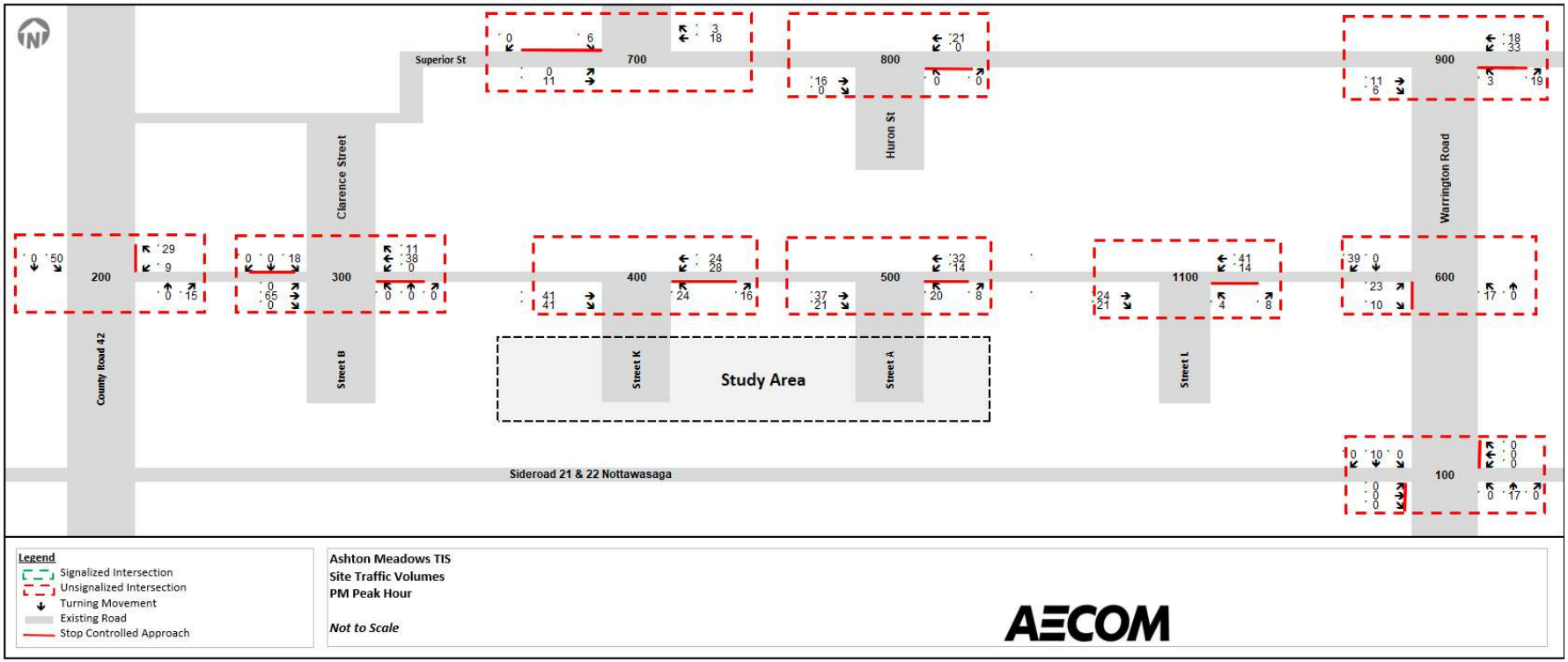


Figure 5-4: Site Traffic PM Peak Hour

6. Future Total Traffic Assessment

6.1 Future Total Traffic Volumes

As previously mentioned, future intersection improvements to Margaret Street and County Road 42 have been proposed in combination with the Ashton Meadows development. As displayed in **Figure 6-1,** SBL and NBR storage lanes of 100 meters are to be added to County Road 42 to allow for both continued free flow along CR 42 and improved access to Margaret Street for residents.

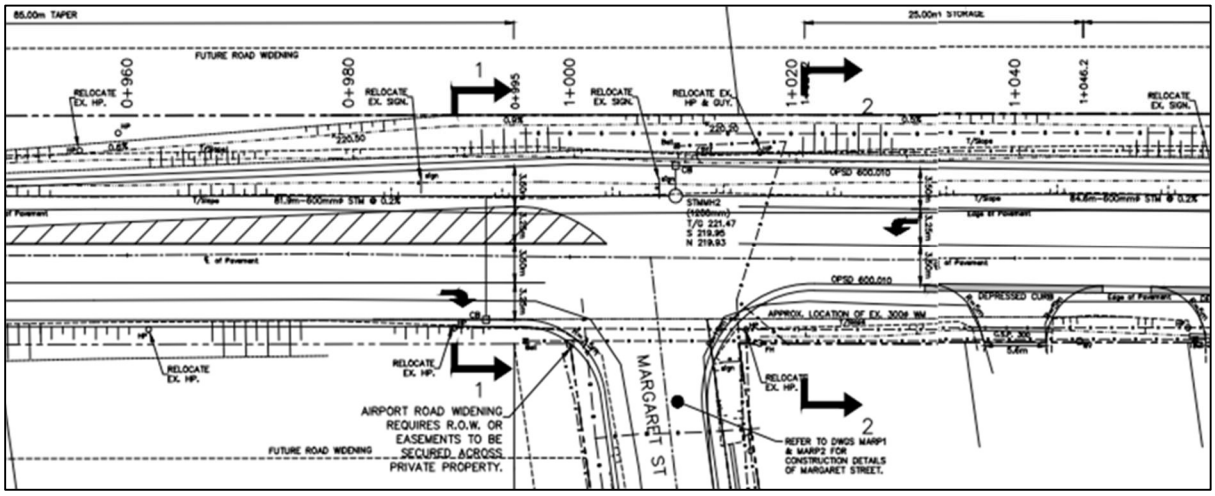


Figure 6-1: County Road 42 and Margaret Street Intersection Improvements

The future total traffic volumes are based on the sum of the future background traffic volumes and the future distributed site traffic. The future total traffic volumes during the respective AM peak hour and PM peak hour for all horizon years are illustrated in **Figure 6-2** through **Figure 6-5**.

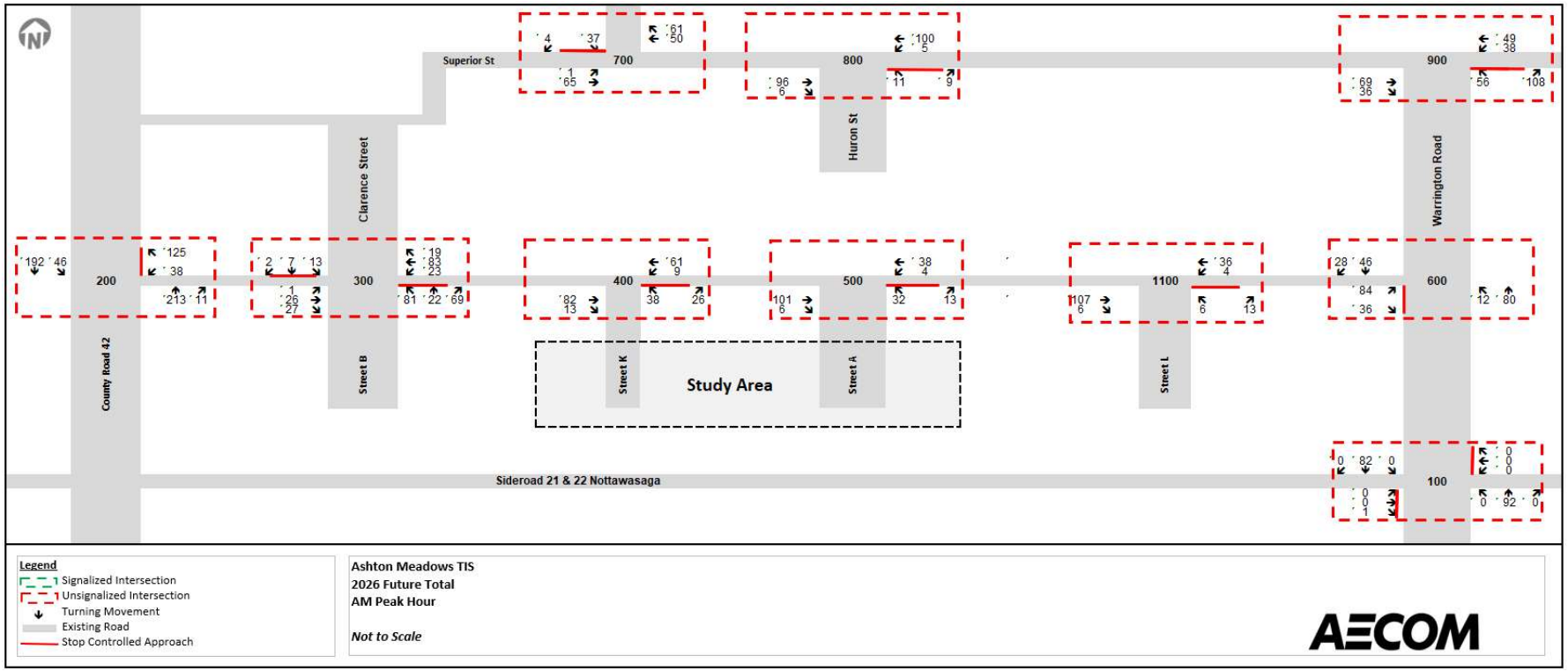


Figure 6-2: Future Total Traffic 2026 AM Peak

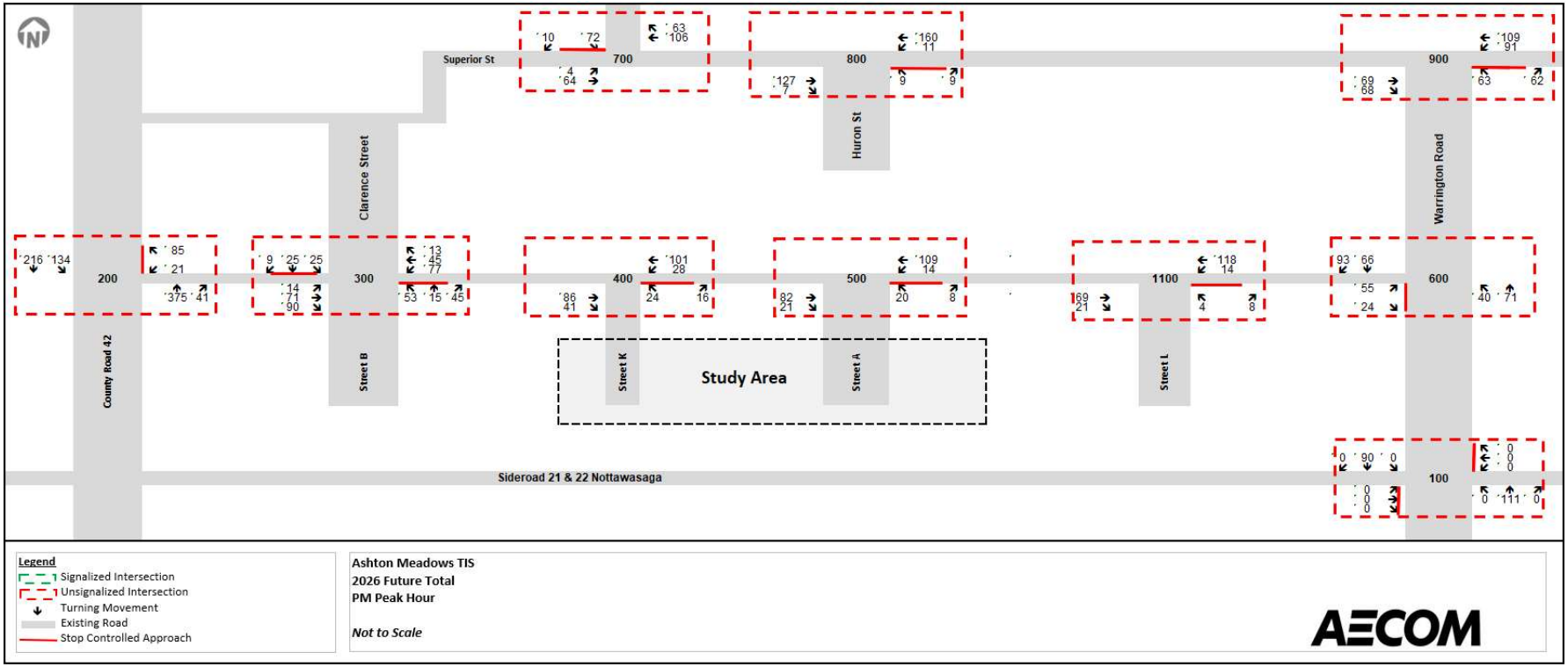


Figure 6-3: Future Total Traffic 2026 PM Peak

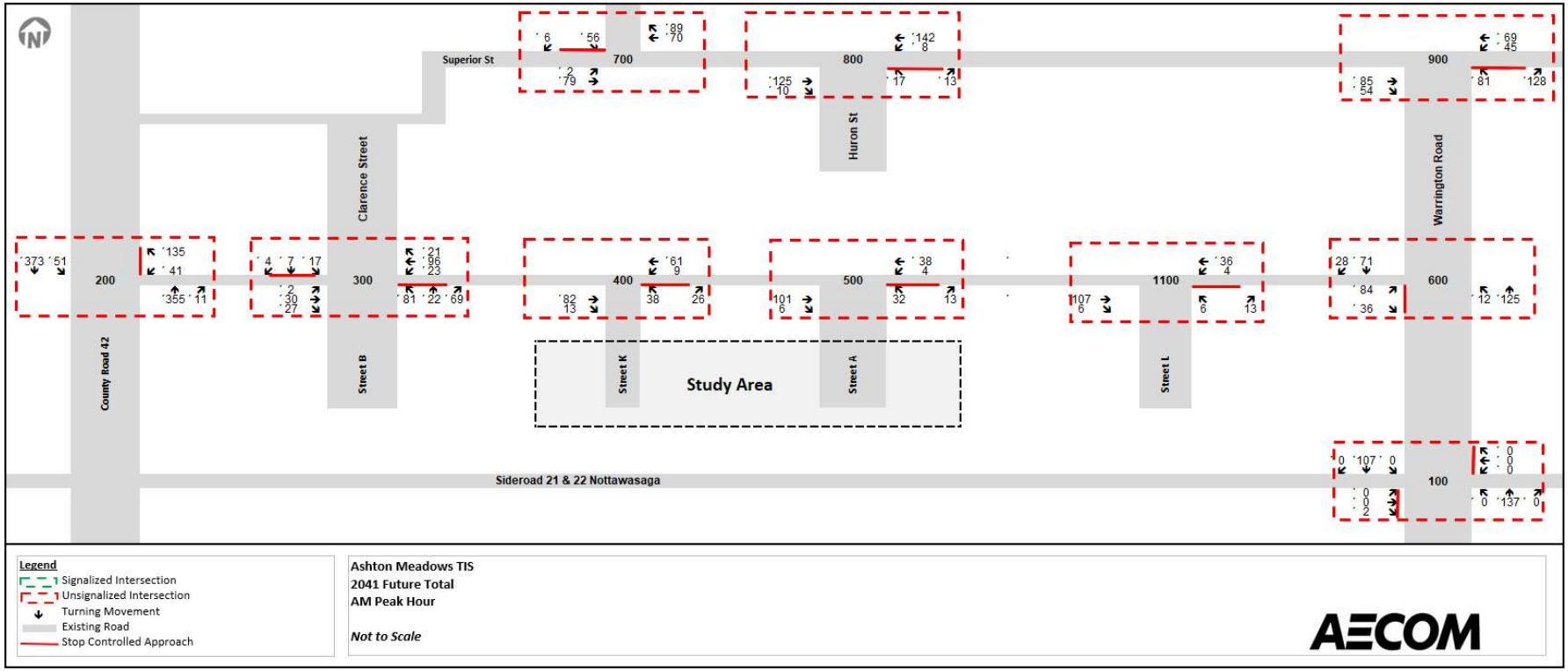


Figure 6-4: Future Total Traffic 2041 AM Peak

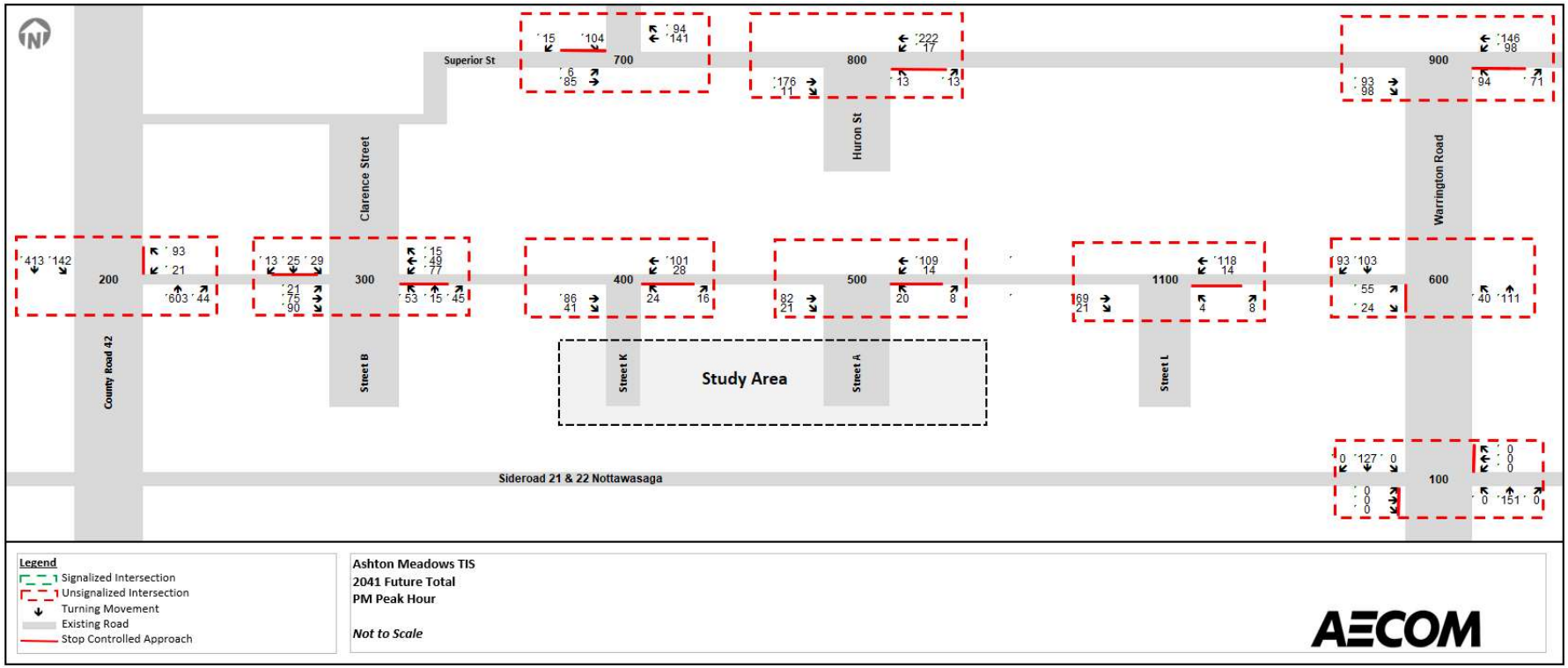


Figure 6-5: Future Total Traffic 2041 PM Peak

6.2 Future Total Traffic Assessment

The future total traffic volumes displayed above in **Figure 6-2** through **Figure 6-5** are used to assess the intersection operations for each horizon year. The results of these analyses are summarized in **Table 6-1** and **Table 6-2.** Detailed Synchro outputs can be found in **Appendix F**.

Table 6-1: Future Total Traffic Operations - Year 2026

Intersection	Movement	Adjacent Intersection Distance	AM Peak Hour				PM Peak Hour			
			V/C	Delay (s)	LOS	95th Percentile Queue	V/C	Delay (s)	LOS	95th Percentile Queue
100: Sideroad 21 & 22 Nottawasaga & Warrington Road (Unsignalized)	EBLTR	2000	0	8.7	A	0.0	0	0	A	0.0
	WBLTR	400	0	0	A	0.0	0	0	A	0.0
	NBLTR	500	0	0	-	0.0	0	0	-	0.0
	SBLTR	415	0	0	-	0.0	0	0	-	0.0
200: County Road 42 & Margaret Street (Unsignalized)	WBLR	500	0.25	11.9	B	8	0.23	14.5	B	7.2
	NBT	450	0.14	0	-	0	0.24	0	-	0
	NBR	100	0.01	0	-	0	0.03	0	-	0
	SBT	150	0.12	0	-	0	0.14	0	-	0
	SBL	100	0.04	7.8	A	0.9	0.13	8.7	A	8.7
300: Margaret Street & Clarence Street/Street B (Unsignalized)	EBTLR	500	0	0.1	A	0.0	0.01	0.7	A	0.2
	WBTLR	180	0.02	1.5	A	0.4	0.06	4.6	A	1.5
	SBLTR	170	0.04	10.8	B	0.9	0.12	13	B	3.4
	NBLTR	75	0.23	10.7	B	7	0.2	12.3	B	5.9
400: Margaret Street & Street K (Unsignalized)	EBTR	165	0.06	0	-	0	0.08	0	-	0
	WBTL	155	0.01	1	A	0.2	0.02	0.7	A	0.5
	NBLR	-	0.08	9.6	A	2.1	0.06	10	A	1.4
500: Margaret Street & Street A (Unsignalized)	EBTR	125	0.07	0	-	0	0.07	0	-	0
	WBTL	165	0	0.7	A	0.1	0.01	0.9	A	0.2
	NBLR	-	0.06	9.5	A	1.5	0.04	9.8	A	1
500: Margaret Street & Street L (Unsignalized)	EBTR	90	0.07	0	-	0	0.06	0	-	0
	WBTL	125	0	0.7	A	0.1	0.01	0.9	A	0.2
	NBLR	-	0.02	9.1	A	0.6	0.01	9.1	A	0.4
600: Margaret Street & Warrington Road (Unsignalized)	EBLR	90	0.15	10	A	4.3	0.12	10.5	B	3.1
	SBTR	475	0.05	0	A	0	0.1	0	A	0
	NBTL	500	0.01	1	-	0.2	0.03	2.9	-	0.8
800: Huron Street N & Superior Street (Unsignalized)	EBTL	-	0	0.1	A	0.0	0	0.4	A	0.1
	WBTR	150	0.07	0	-	0.0	0.11	0	-	0.0
	SBLR	100	0.05	9.5	A	1.3	0.12	10.3	B	3.1
800: Huron Street S & Superior Street (Unsignalized)	EBTR	-	0.07	0	-	0.0	0.09	0	-	0.0
	WBTL	40	0	0.4	A	0.1	0.01	0.6	A	0.2
	NBLR	100	0.03	9.4	A	9.4	0.03	9.9	A	0.7
900: Warrington Road & Superior Street (Unsignalized)	EBTR	40	0.07	0	-	0.0	0.09	0	-	0.0
	WBTL	20	0.03	3.4	A	0.7	0.07	3.8	A	1.8
	NBLR	100	0.2	10.2	B	6.1	0.2	11.5	B	5.8

Future Total Operations Summary - 2026

The 2026 future total conditions for study area intersections were found to be acceptable with intersections operating overall at LOS A or LOS B with no critical movements. The longest 95th percentile queue within the entire network remains acceptable displaying 9.4 metres. The longest vehicular delay amongst all intersections is 14.5 seconds. The resultant highest v/c ratios for both Margaret Street/Clarence Street and Margaret Street/CR 42 intersections are 0.23 and 0.25, respectively. This is due to the overall increase in both site traffic and background traffic along Margaret Street; however, adequate reserve capacity remains at all study area intersections within the road network to accommodate traffic growth beyond the 2026 horizon year.

Table 6-2: Future Total Traffic Operations - Year 2041

Intersection	Movement	Adjacent Intersection Distance	AM Peak Hour				PM Peak Hour			
			V/C	Delay (s)	LOS	Synchro Percentile Queue	V/C	Delay (s)	LOS	95th Percentile Queue
100: Sideroad 21 & 22 Nottawasaga & Warrington Road (Unsignalized)	EBLTR	2000	0	8.9	A	0.1	0	0	A	0.0
	WBLTR	400	0	0	A	0	0	0	A	0.0
	NBLTR	500	0	0	-	0	0	0	-	0.0
	SBLTR	415	0	0	-	0	0	0	-	0.0
200: County Road 42 & Margaret Street (Unsignalized)	WBLR	500	0.38	16.2	C	13.8	0.4	24.1	C	14.8
	NBT	450	0.23	0	-	0	0.39	0	-	0
	NBR	100	0.01	0	-	0	0.03	0	-	0
	SBT	150	0.24	0	A	0	0.26	0	A	0
	SBL	100	0.05	8.3	-	1.2	0.17	9.9	-	5
300: Margaret Street & Clarence Street/Street B (Unsignalized)	EBTLR	500	0	0.2	A	0	0.02	0.9	A	0.4
	WBTLR	180	0.02	1.3	A	0.4	0.06	4.5	A	1.5
	SBLTR	170	0.05	11	B	1.2	0.14	13.3	B	4.0
	NBLTR	75	0.23	10.9	B	7.2	0.21	12.7	B	6.2
400: Margaret Street & Street K (Unsignalized)	EBTR	325	0.06	0	-	0	0.08	0	-	0
	WBTL	180	0.01	1	A	0.2	0.02	1.7	A	0.5
	NBLR	90	0.08	9.6	A	2.1	0.06	10	A	1.4
500: Margaret Street & Street A (Unsignalized)	EBTR	180	0.07	0	-	0	0.07	0	-	0
	WBTL	325	0	0.7	A	0.1	0.01	0.9	A	0.2
	NBLR	90	0.06	9.5	A	9.5	0.04	9.8	A	1
1100: Margaret Street & Street L (Unsignalized)	EBTR	90	0.07	0	-	0	0.06	0	-	0
	WBTL	125	0	0.7	A	0.1	0.01	0.9	A	0.2
	NBLR	-	0.02	9.1	A	0.6	0.01	9.1	A	0.4
600: Margaret Street & Warrington Road (Unsignalized)	EBLR	325	0.17	10.5	B	4.7	0.13	11.1	B	3.5
	SBTR	475	0.06	0	A	0	0.13	0	A	0.8
	NBTL	500	0.01	0.7	-	0.2	0.03	2.2	-	0
800: Huron Street N & Superior Street (Unsignalized)	EBTL	-	0	0.2	A	0	0.01	0.6	A	0.1
	WBTR	150	0.1	0	-	0	0.15	0	-	0.0
	SBLR	100	0.09	10	B	2.3	0.19	11.4	B	5.4
800: Huron Street S & Superior Street (Unsignalized)	EBTR	-	0.09	0	-	0	0.12	0	-	0.0
	WBTL	40	0.01	0.5	A	0.2	0.01	0.6	A	0.3
	NBLR	100	0.04	9.9	A	1.1	0.04	10.7	B	1.1
900: Warrington Road & Superior Street (Unsignalized)	EBTR	40	0.09	0	-	0	0.12	0	-	0.0
	WBTL	20	0.03	3.2	A	0.9	0.08	3.6	A	2.0
	NBLR	100	0.28	11.2	B	9.2	0.3	13.7	B	10.2

Future Total Operations Summary - 2041

The 2041 future total conditions for study area intersections were found to be acceptable with intersections continuing operating overall at LOS A or LOS B with no critical movements. The longest 95th percentile queue at the study area intersection was found to be 14.8 metres. The longest vehicular delay amongst all intersections is 24.1 seconds for the westbound movement at the intersection of County Road 42 and Margaret Street with increased v/c ratios of 0.38 in the AM Peak Hour and 0.4 in the PM peak hour. This increase can be attributed to traffic growth along County Road 42 as a result of surrounding background developments. Given that all study area intersections were found to operate at LOS A or B in the ultimate 2041 horizon year, adequate reserve capacity is still available at these intersections to accommodate traffic growth beyond the 2041 ultimate horizon year.

7. Improvements and Mitigation Measures

Minimal traffic improvements and mitigation measures are necessary due to acceptable operations at the study area intersections.

7.1 Signal Warrants

A signal warrant analysis was performed for two key intersections within the study area. The methodology is outlined in Justification 7 – Projected Volumes, from the Ontario Traffic Manual (OTM) Book 12 – Traffic Signals. The assessment was based on specific criteria including minimum vehicular volumes on all approaches and traffic volumes delayed to cross both major and minor streets. The following intersections were analyzed to identify the need for traffic signals.

- Margaret Street and Warrington Future Total 2041
- Margaret Street and County Road 42 Future Total 2041

The signal warrant analysis outputs for the two key unsignalized intersections are provided in **Appendix G.** It was determined that 2041 traffic volumes at the Margaret Street and County Road 42 intersection did not warrant traffic signals. However, the Stayner and Area TMP recommended a traffic signal at this intersection since the separation of the existing railway line relative to this new intersection would be less than 60 meters, and therefore, Transport Canada requires a warning system including gates, at the railway crossing, plus signalization of the intersection. This improvement is anticipated to be implemented by the Township of Clearview once Margaret Street is extended to Warrington Road forming the three-legged intersection.

7.2 Turning Lanes at County Road 42/Margaret Street

As previously mentioned, turning lanes are proposed at the intersection of Margaret Street and County Road 42 as part of the Ashton Meadows development implementation. Southbound left turn lane and Northbound right turn lane with storage lengths of 100 meters are to be added to County Road 42 before the full buildout of the Ashton Meadows Phase 2 development to allow for both continued free flow along CR 42 and improved access to Margaret Street for the local residents.

8. Transit and Active Transportation

8.1 Stayner Transit Services

Existing public transit provided by the Township of Clearview consists of a single loop bus route servicing each stop once an hour operating from 6:30 AM to 8:30 PM Monday through Saturday, and 8:30 AM to 5:30 PM on Sunday. Currently, the transit route enters the study area southbound along Huron Street at Superior Street. Transit rerouting is suggested incorporating both the new developments along Margaret Street as well as the Margaret Street Extension. Below in **Figure 8-1** is the existing transit route along with a recommendation for possible rerouting.

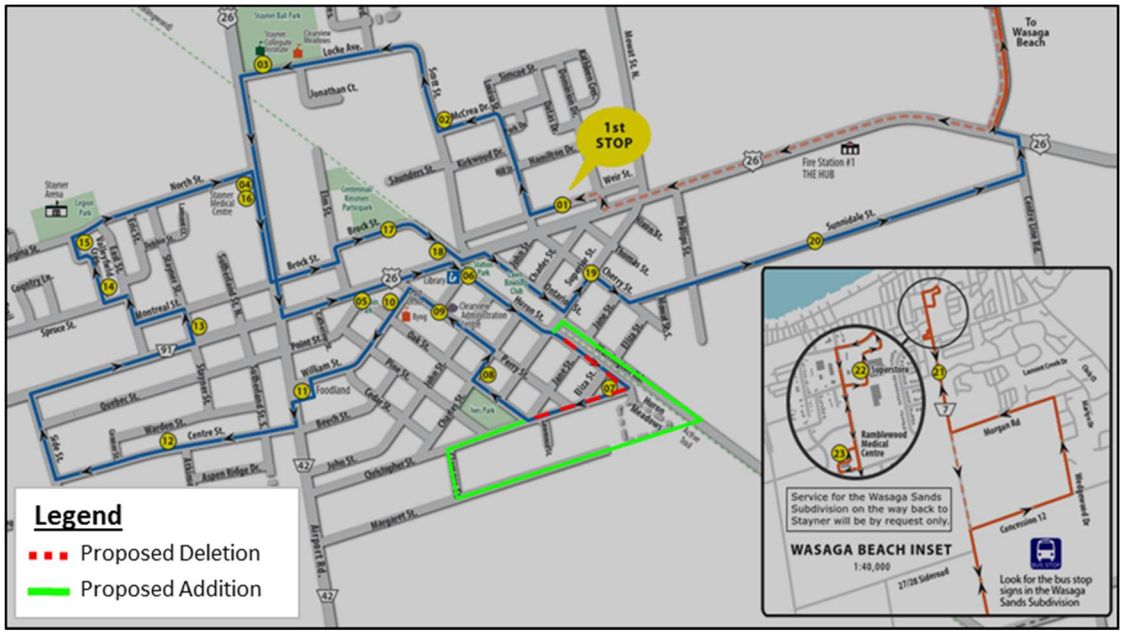


Figure 8-1: Transit Services

8.2 Stayner Active Transportation (Trails and Sidewalks)

The Clearview Transportation Plan identified existing and potential trails and trail connections. Within the immediate study area, a potential trail is identified south of Margaret Street. No other trails are identified in the immediate vicinity of the site in the Transportation Plan. It should be noted that a paved and unpaved trail system is proposed in Phases 1A and 1B of Ashton Meadows. The trail system connectivity to Phase 2 will be further explored during the site plan approval process.

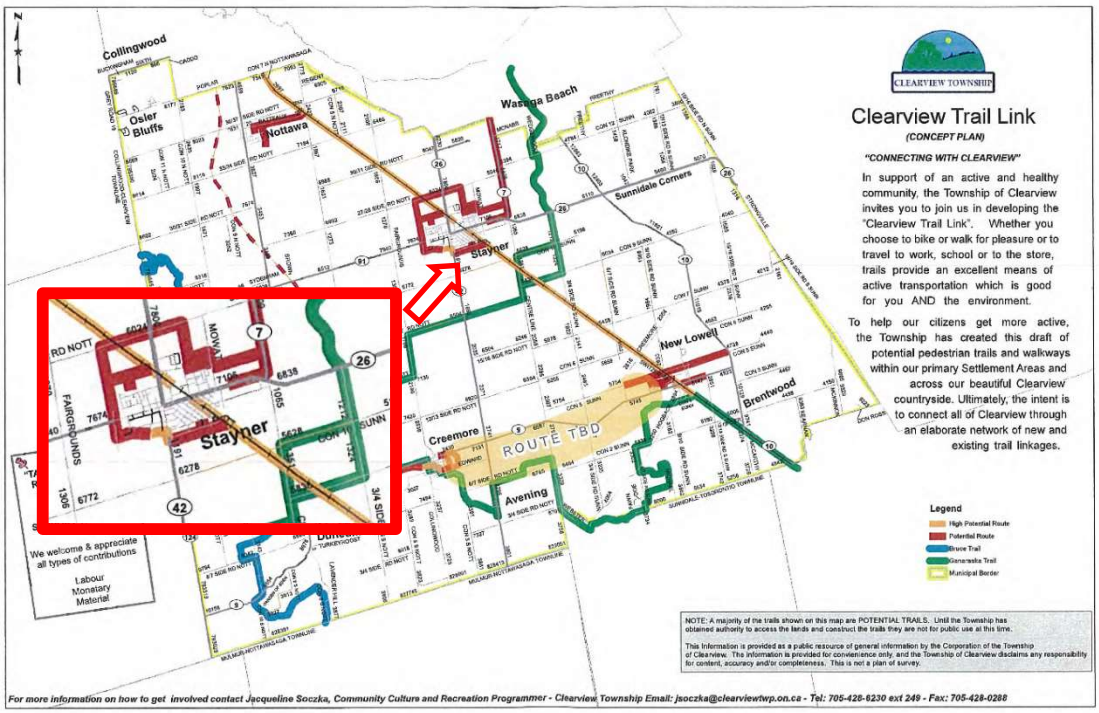


Figure 8-2: Clearview Trails System (Source: Clearview Transportation Plan)

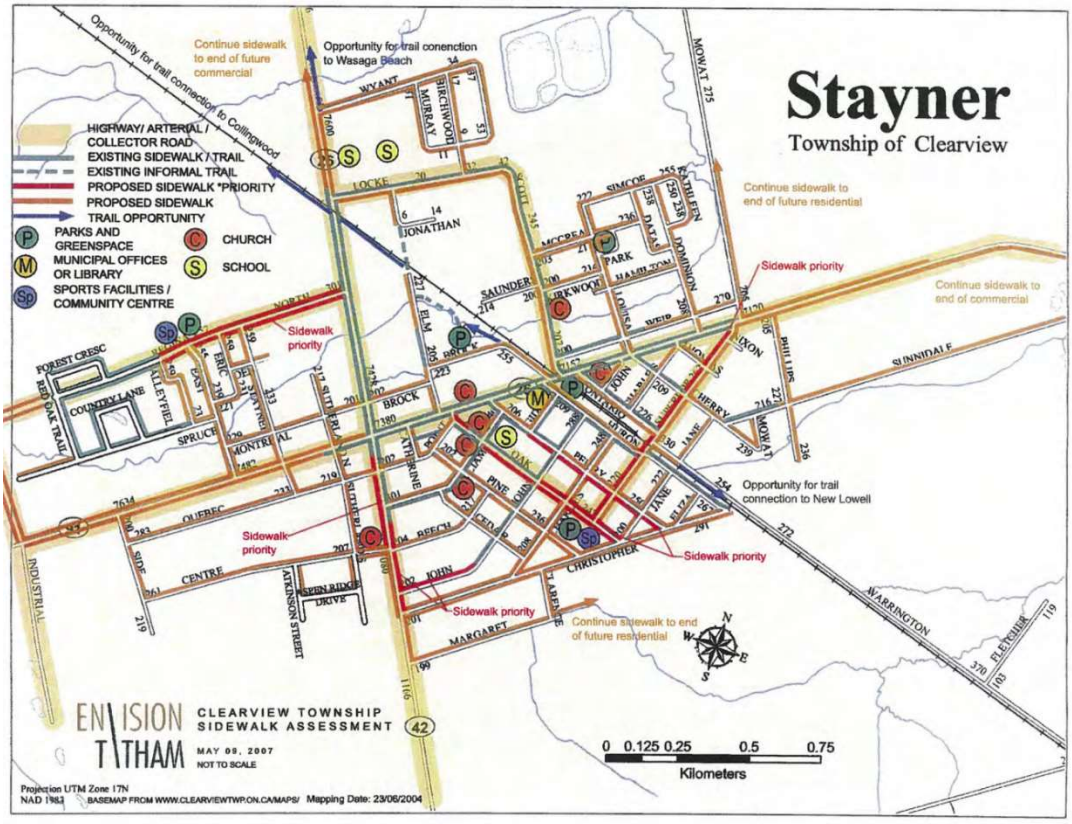


Figure 8-3: Existing and Future Pedestrian System (Source: Clearview Transportation Plan)

Based on the Clearview Transportation Plan, a sidewalk on the north side of Margaret Street is proposed, which is expected to be extended easterly toward Warrington Road with the development. All streets within the subject site (Phase 2) have the right of way width of 20 metres, with a pavement width of 8.5 metres (4.25-metre lanes) as per the Township's urban cross-section design guidelines. Sidewalks are to be implemented on one side of the street (1.5-m wide) in accordance with the design standards. Connections to the existing network (Margaret Street) will be provided via Street K, Street A and Street L, which in turn provides a connection to County Road 42. It should be noted that Margaret Street will be urbanized with a sidewalk also provided on the south side for

better connectivity. Additional details on the trail and pedestrian sidewalk systems are typically provided at the site plan stage.

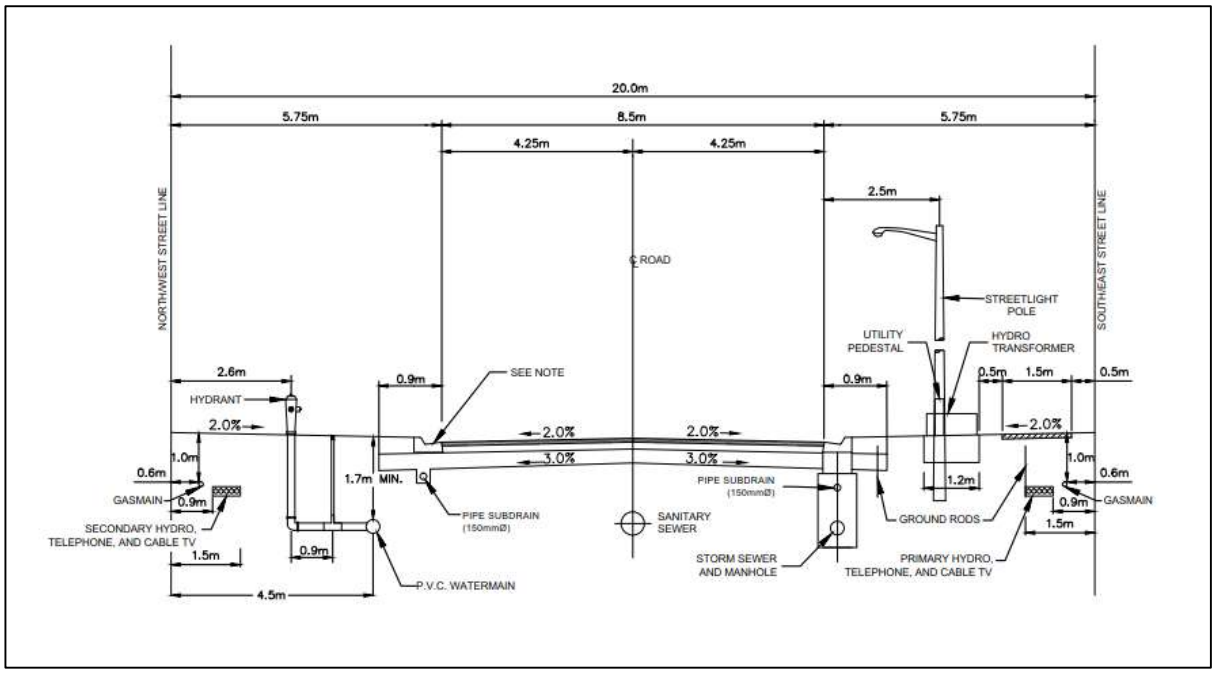


Figure 8-4: Township of Clearview Standard 8.5m Road with 20m R.O.W. – Urban Cross-Section

9. Conclusions

The proposed Phase 2 development comprises 224 residential units of a total of 445 units, including Phase 1. As part of the operational assessment and anticipated impacts associated with the proposed development, the following traffic scenarios were assessed:

- Existing Conditions (Year 2021);
- Future Background Conditions (Year 2026 & Year 2041); and
- Future Total Conditions (Year 2026 & Year 2041).

The study area covers six existing unsignalized intersections, three proposed site entrances and one new intersection, as part of a planned Margaret Street extension to Warrington Road.

Future background growth within the surrounding study area is expected to increase traffic volumes along the study area intersections by 3% per year, which coincides with the Stayner Transportation Master Plan growth rate for arterial roads. Immediate future background volumes along Margaret Street include traffic volumes associated with Phase 1 Ashton Meadows and 1191 County Road 42 developments.

Site Traffic volumes were derived utilizing the ITE Trip Generation Handbook 10th Edition, land use code 210 – Single-Family Detached Housing. The subject development is expected to produce 171 additional trips in the AM peak hour and 219 additional trips in the PM peak hour.

The analysis demonstrated that traffic associated with Phase 2 of Ashton Meadows in combination with future developments surrounding the subject site, as well as infrastructure changes within Stayner (i.e., Margaret Street Extension) can be accommodated by the existing road network.

Although no critical moves were observed in any of the scenarios, certain movements were noted to have increased volume-to-capacity ratios. The westbound approach at the Margaret Street and County Road 42 intersection is the main egress point for an existing residential community and the future Ashton Meadows site. The future total V/C ratio for the westbound movement increases by 0.17 between the future background and

future total traffic conditions, with the 2041 future total V/C ratio of 0.40, which is still well within the capacity. Increased vehicular delays can be anticipated to traffic on this approach (24.1 seconds in 2041 future total conditions). Margaret Street extension to Warrington Road will provide additional opportunity for local traffic, acting as a desirable second access/egress.

All intersection movements were found to display good traffic operations under the 2026 and 2041 traffic conditions with the highest V/C ratio of 0.4 and the longest delay of 24.1 seconds.

Finally, a signal warrant analysis was performed for the key study area intersections. Margaret Street as the primary collector road for the Ashton Meadows developments was analyzed for the need for traffic signals at both County Road 42 and Warrington Road. It was determined that traffic volumes in the 2041 horizon year did not warrant a traffic signal at either location; however, Stayer Area TMP recommends a traffic signal at the intersection of Margaret Street and Warrington Road as per the requirements of Transport Canada for an at-grade intersection separation of less than 60 meters from railway line crossing.

The overall conclusion is that the existing road network capacity can support the proposed development under both the interim and ultimate conditions. Intersection improvements include the addition of northbound right and southbound left-turn lanes at the intersection of Margaret Street and County Road 42 with a storage length of 100 meters. These intersection improvements are expected to be implemented before the full buildout of the Ashton Meadows development.

Appendix A
Draft Site Plan

OWNER'S CERTIFICATE

I, THE UNDERSIGNED, BEING THE REGISTERED OWNER OF THE SUBJECT LANDS, HEREBY AUTHORIZE INNOVATIVE PLANNING SOLUTIONS, TO PREPARE THIS DRAFT PLAN OF SUBDIVISION AND TO SUBMIT SAME TO THE COUNTY OF SIMCOE FOR APPROVAL.

DATE

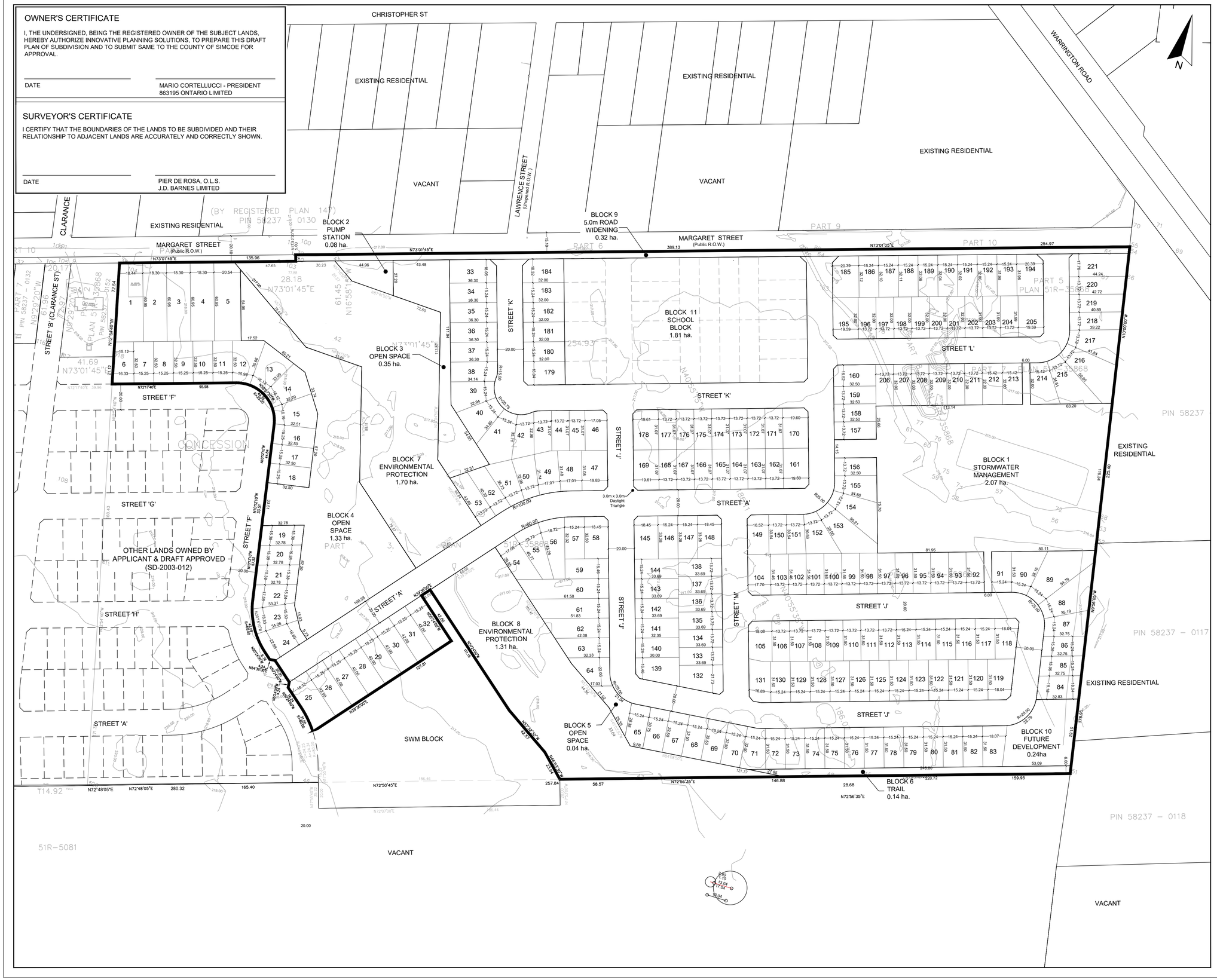
MARIO CORTELLUCCI - PRESIDENT
863195 ONTARIO LIMITED

SURVEYOR'S CERTIFICATE

I CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

DATE

PIER DE ROSA, O.L.S.
J.D. BARNES LIMITED



KEY MAP

Scale 1:20,000

DRAFT PLAN OF SUBDIVISION

PART OF LOT 23, CONCESSION 2
FORMERLY IN THE
TOWNSHIP OF NOTTAWASAGA
NOW IN THE
TOWNSHIP OF CLEARVIEW
COUNTY OF SIMCOE

Scale 1:1,250

0 25 50 75 100 125 150m

LEGEND

SUBJECT SITE

LAND USE SCHEDULE

	Lot No. / Blk. No.	Units	ha	AREA ac	%
RESIDENTIAL SINGLE LOTS (13.72m)	42-46, 50-53, 92-111, 131-139, 149-160, 162-168, 171-177, 196-204, 206-211, 215-221	86	4.20	10.38	16.31
RESIDENTIAL SINGLE LOTS (15.24m)	6-41, 47-49, 54-91, 112-130, 140-148, 161, 169-170, 178-195, 205, 212-214	130	8.54	21.10	33.18
RESIDENTIAL SINGLE LOTS (18.30m)	1 - 5	5	0.58	1.43	2.25
STORMWATER MANAGEMENT	Blk. 1		2.07	5.12	8.04
PUMP STATION	Blk. 2		0.08	0.20	0.32
OPEN SPACE	Blk. 3 - 5		1.72	4.25	6.68
TRAIL	Blk. 6		0.14	0.34	0.54
ENVIRONMENTAL PROTECTION	Blk. 7 - 8		3.01	7.44	11.70
ROAD WIDENING	Blk. 9		0.32	0.79	1.24
FUTURE DEVELOPMENT	Blk. 10		0.24	0.59	0.93
SCHOOL	Blk. 11		1.81	4.47	7.03
ROADS	Street 'A', Street 'J' - 'M'		3.03	7.49	11.78
TOTAL		**221**	**25.74**	**63.60**	**100.00**

ADDITIONAL INFORMATION REQUIRED UNDER **SECTION 51(17)** OF THE PLANNING ACT

a) SHOWN ON PLAN	b) SHOWN ON PLAN	c) SHOWN ON PLAN	d) SEE LAND USE SCHEDULE
e) SHOWN ON PLAN	f) SHOWN ON PLAN	f1) NONE	
g) SHOWN ON PLAN	h) MUNICIPAL WATER	i) SAND	
j) SHOWN ON PLAN	k) ALL MUNICIPAL SERVICES	l) NONE	

SCHEDULE OF REVISIONS

No.	Date	Description	By
9	June 18, 2021	Add school block;	A.S
8	Mar. 2, 2021	Add school block;	**A.S**
7	Feb. 17, 2021	Remove school block; Adjust lot lines;	A.S
6	Feb. 9, 2021	Finalize draft plan;	A.S
5	Jan. 19, 2021	Revise lots along Street 'A', 'L' and 'J'	A.S

IPS INNOVATIVE PLANNING SOLUTIONS
PLANNERS • PROJECT MANAGERS • LAND DEVELOPERS
647 WELHAM RD., UNIT 9A, BARRIE, ONTARIO, L4N 0B7
tel: 705 • 812 • 3281 fax: 705 • 812 • 3438 e: info@ipsconsultinginc.com www.ipsconsultinginc.com

Date:	October 11, 2018	Drawn By:	AM
File:	08-221	Reviewed By:	CS

Appendix B
Traffic Data

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

Municipality: Stayner
Site #: 1902400002
Intersection: Superior St & Huron St
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: Superior St runs W/E

North Leg Total:	74			
North Entering:	31			
North Peds:	0			
Peds Cross:	⋈			
Heavys	0	0	0	0
Trucks	0	1	2	3
Cars	3	4	21	28
Totals	3	5	23	
Heavys	0			
Trucks	2			
Cars	41			
Totals	43			
East Leg Total:	118			
East Entering:	68			
East Peds:	1			
Peds Cross:	⧖			

Huron St

Heavys	Trucks	Cars	Totals
0	1	33	34

Cars	Trucks	Heavys	Totals
31	2	0	33
30	1	0	31
4	0	0	4
65	3	0	

Superior St

N
W E
S

Heavys	Trucks	Cars	Totals
0	0	1	1
0	2	17	19
0	0	0	0
0	2	18	

Superior St

Cars	Trucks	Heavys	Totals
45	5	0	50

Huron St

Peds Cross:	⧖			
West Peds:	6			
West Entering:	20			
West Leg Total:	54			
Cars	8			
Trucks	1			
Heavys	0			
Totals	9			
Cars	0	9	7	16
Trucks	0	0	1	1
Heavys	0	0	0	0
Totals	0	9	8	
Peds Cross:	⋈			
South Peds:	6			
South Entering:	17			
South Leg Total:	26			

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

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

One Hour Peak
From: 16:15:00
To: 17:15:00

Municipality: Stayner
Site #: 1902400002
Intersection: Superior St & Huron St
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: Superior St runs W/E

North Leg Total: 112
North Entering: 55
North Peds: 0
Peds Cross: ⋈

Heavys	0	0	0	0
Trucks	0	0	0	0
Cars	8	6	41	55
Totals	8	6	41	

Heavys	0
Trucks	1
Cars	56
Totals	57

East Leg Total: 178
East Entering: 99
East Peds: 0
Peds Cross: ⧖

Huron St

Heavys	Trucks	Cars	Totals
0	0	51	51

	Cars	Trucks	Heavys	Totals
	47	1	0	48
	42	0	0	42
	9	0	0	9
	98	1	0	

Superior St

N
W E
S

Heavys	Trucks	Cars	Totals
0	0	3	3
0	0	31	31
0	0	0	0
0	0	34	

Superior St

Cars	Trucks	Heavys	Totals
78	1	0	79

Huron St

Peds Cross: ⧖
West Peds: 4
West Entering: 34
West Leg Total: 85

Cars	15
Trucks	0
Heavys	0
Totals	15

Cars	1	6	6	13
Trucks	0	0	1	1
Heavys	0	0	0	0
Totals	1	6	7	

Peds Cross: ⋈
South Peds: 3
South Entering: 14
South Leg Total: 29

Comments

Ontario Traffic Inc.

Total Count Diagram

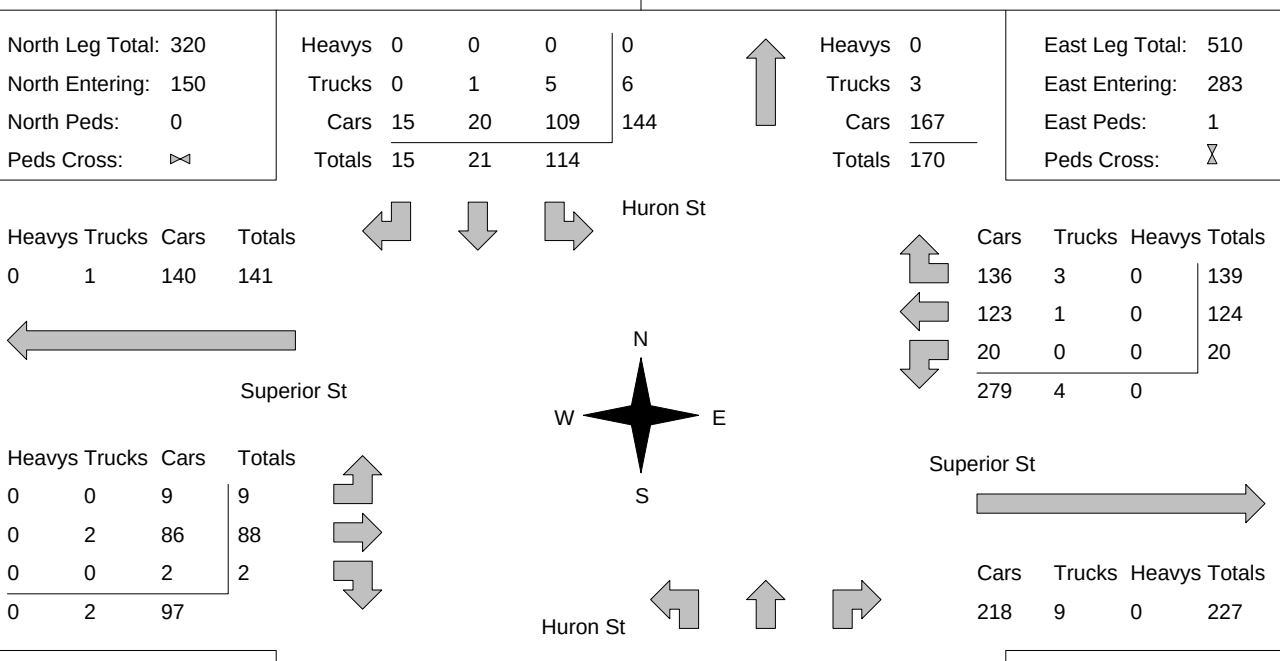
Municipality: Stayner
Site #: 1902400002
Intersection: Superior St & Huron St
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: Superior St runs W/E



Comments

Ontario Traffic Inc.
Traffic Count Summary

Intersection: Superior St & Huron St | **Count Date:** 7-Feb-19 | **Municipality:** Stayner

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	North/South Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	15	2	2	19	0	29
9:00:00	27	5	2	34	0	49
16:00:00	0	0	0	0	0	0
17:00:00	38	8	6	52	0	62
18:00:00	34	6	5	45	0	59
Totals:	114	21	15	150	0	199

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	4	6	10	0
9:00:00	0	7	8	15	6
16:00:00	0	0	0	0	0
17:00:00	0	4	6	10	4
18:00:00	2	7	5	14	1
Totals:	2	22	25	49	11

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	East/West Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	3	18	29	50	0	63
9:00:00	2	34	29	65	1	84
16:00:00	0	0	0	0	0	0
17:00:00	9	43	39	91	0	127
18:00:00	6	29	42	77	0	108
Totals:	20	124	139	283	1	382

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	13	0	13	0
9:00:00	2	16	1	19	6
16:00:00	0	0	0	0	0
17:00:00	3	33	0	36	5
18:00:00	4	26	1	31	1
Totals:	9	88	2	99	12

Calculated Values for Traffic Crossing Major Street

Hours Ending:	7:00	8:00	9:00	16:00	17:00	17:00	18:00	18:00
Crossing Values:	0	19	41	0	51	51	44	44

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400002**

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	3	3	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	9	6	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	12	3	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	14	2	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	18	4	3	1	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	25	7	3	0	4	2	2	0	1	1	0	0	0	0	0	0	0	0	0	0
8:45:00	33	8	5	2	4	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0
9:00:00	39	6	6	1	4	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0
9:01:10	39	0	6	0	4	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0
16:00:00	39	0	6	0	4	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0
16:15:00	44	5	8	2	6	2	5	2	1	0	0	0	0	0	0	0	0	0	0	0
16:30:00	55	11	11	3	6	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0
16:45:00	65	10	12	1	9	3	5	0	1	0	0	0	0	0	0	0	0	0	0	0
17:00:00	75	10	14	2	10	1	5	0	1	0	0	0	0	0	0	0	0	0	0	0
17:15:00	85	10	14	0	14	4	5	0	1	0	0	0	0	0	0	0	0	0	0	0
17:30:00	94	9	14	0	14	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0
17:45:00	105	11	18	4	14	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0
18:00:00	109	4	20	2	15	1	5	0	1	0	0	0	0	0	0	0	0	0	0	0
18:15:00	109	0	20	0	15	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0
18:17:22	109	0	20	0	15	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400002**

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	4	4	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	9	5	12	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	1	1	12	3	18	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	3	2	18	6	28	10	0	0	0	0	1	1	0	0	0	0	0	0	0	0
8:15:00	3	0	25	7	33	5	0	0	1	1	1	0	0	0	0	0	0	0	1	1
8:30:00	4	1	36	11	43	10	0	0	1	0	1	0	0	0	0	0	0	0	1	0
8:45:00	5	1	42	6	49	6	0	0	1	0	2	1	0	0	0	0	0	0	1	0
9:00:00	5	0	51	9	56	7	0	0	1	0	2	0	0	0	0	0	0	0	1	0
9:01:10	5	0	51	0	56	0	0	0	1	0	2	0	0	0	0	0	0	0	1	0
16:00:00	5	0	51	0	56	0	0	0	1	0	2	0	0	0	0	0	0	0	1	0
16:15:00	6	1	61	10	63	7	0	0	1	0	2	0	0	0	0	0	0	0	1	0
16:30:00	9	3	69	8	72	9	0	0	1	0	3	1	0	0	0	0	0	0	1	0
16:45:00	11	2	84	15	81	9	0	0	1	0	3	0	0	0	0	0	0	0	1	0
17:00:00	14	3	94	10	94	13	0	0	1	0	3	0	0	0	0	0	0	0	1	0
17:15:00	15	1	103	9	110	16	0	0	1	0	3	0	0	0	0	0	0	0	1	0
17:30:00	18	3	111	8	119	9	0	0	1	0	3	0	0	0	0	0	0	0	1	0
17:45:00	20	2	121	10	128	9	0	0	1	0	3	0	0	0	0	0	0	0	1	0
18:00:00	20	0	123	2	136	8	0	0	1	0	3	0	0	0	0	0	0	0	1	0
18:15:00	20	0	123	0	136	0	0	0	1	0	3	0	0	0	0	0	0	0	1	0
18:17:22	20	0	123	0	136	0	0	0	1	0	3	0	0	0	0	0	0	0	1	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400002**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	1	1	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	4	3	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	6	2	8	2	0	0	0	0	0	0	0	0	0	0	0	0	5	5
8:30:00	0	0	8	2	9	1	0	0	0	0	1	1	0	0	0	0	0	0	6	1
8:45:00	0	0	10	2	11	2	0	0	0	0	1	0	0	0	0	0	0	0	6	0
9:00:00	0	0	11	1	13	2	0	0	0	0	1	0	0	0	0	0	0	0	6	0
9:01:10	0	0	11	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0
16:00:00	0	0	11	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	6	0
16:15:00	0	0	11	0	14	1	0	0	0	0	1	0	0	0	0	0	0	0	8	2
16:30:00	0	0	12	1	16	2	0	0	0	0	2	1	0	0	0	0	0	0	10	2
16:45:00	0	0	14	2	18	2	0	0	0	0	2	0	0	0	0	0	0	0	10	0
17:00:00	0	0	15	1	18	0	0	0	0	0	2	0	0	0	0	0	0	0	10	0
17:15:00	1	1	17	2	20	2	0	0	0	0	2	0	0	0	0	0	0	0	11	1
17:30:00	2	1	18	1	21	1	0	0	0	0	2	0	0	0	0	0	0	0	11	0
17:45:00	2	0	20	2	22	1	0	0	0	0	2	0	0	0	0	0	0	0	11	0
18:00:00	2	0	22	2	23	1	0	0	0	0	2	0	0	0	0	0	0	0	11	0
18:15:00	2	0	22	0	23	0	0	0	0	0	2	0	0	0	0	0	0	0	11	0
18:17:22	2	0	22	0	23	0	0	0	0	0	2	0	0	0	0	0	0	0	11	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400002**

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	12	5	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
8:15:00	1	1	14	2	0	0	0	0	2	1	0	0	0	0	0	0	0	0	5	5
8:30:00	1	0	17	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	6	1
8:45:00	1	0	24	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0
9:00:00	2	1	27	3	1	1	0	0	2	0	0	0	0	0	0	0	0	0	6	0
9:01:10	2	0	27	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0
16:00:00	2	0	27	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0
16:15:00	2	0	34	7	1	0	0	0	2	0	0	0	0	0	0	0	0	0	8	2
16:30:00	2	0	45	11	1	0	0	0	2	0	0	0	0	0	0	0	0	0	10	2
16:45:00	2	0	52	7	1	0	0	0	2	0	0	0	0	0	0	0	0	0	10	0
17:00:00	5	3	60	8	1	0	0	0	2	0	0	0	0	0	0	0	0	0	11	1
17:15:00	5	0	65	5	1	0	0	0	2	0	0	0	0	0	0	0	0	0	12	1
17:30:00	8	3	70	5	2	1	0	0	2	0	0	0	0	0	0	0	0	0	12	0
17:45:00	8	0	79	9	2	0	0	0	2	0	0	0	0	0	0	0	0	0	12	0
18:00:00	9	1	86	7	2	0	0	0	2	0	0	0	0	0	0	0	0	0	12	0
18:15:00	9	0	86	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	12	0
18:17:22	9	0	86	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	12	0

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

Municipality: Stayner
Site #: 1902400001
Intersection: CR 42 & Margaret St
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: CR 42 runs N/S

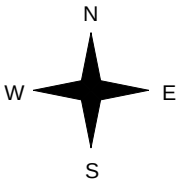
North Leg Total: 341
North Entering: 156
North Peds: 0
Peds Cross: ⋈

Heavys	0	0	0
Trucks	4	0	4
Cars	144	8	152
Totals	148	8	

Heavys	0
Trucks	12
Cars	173
Totals	185

East Leg Total: 24
East Entering: 16
East Peds: 0
Peds Cross: ⋈

Cars	Trucks	Heavys	Totals
13	1	0	14
2	0	0	2
15	1	0	



Cars	Trucks	Heavys	Totals
8	0	0	8

Cars	146
Trucks	4
Heavys	0
Totals	150

Cars	160	0	160
Trucks	11	0	11
Heavys	0	0	0
Totals	171	0	

Peds Cross: ⋈
South Peds: 0
South Entering: 171
South Leg Total: 321

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

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

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

Municipality: Stayner
Site #: 1902400001
Intersection: CR 42 & Margaret St
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: CR 42 runs N/S

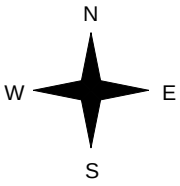
North Leg Total: 492
North Entering: 183
North Peds: 1
Peds Cross: ⋈

Heavys	0	0	0
Trucks	12	2	14
Cars	159	10	169
Totals	171	12	

Heavys	0
Trucks	7
Cars	302
Totals	309

East Leg Total: 28
East Entering: 12
East Peds: 0
Peds Cross: ⋈

Cars	Trucks	Heavys	Totals
11	1	0	12
0	0	0	0
11	1	0	



Margaret St

Cars	Trucks	Heavys	Totals
14	2	0	16

Cars	159		
Trucks	12		
Heavys	0		
Totals	171		

Cars	291	4	295
Trucks	6	0	6
Heavys	0	0	0
Totals	297	4	

Peds Cross: ⋈
South Peds: 0
South Entering: 301
South Leg Total: 472

Comments

Ontario Traffic Inc.

Total Count Diagram

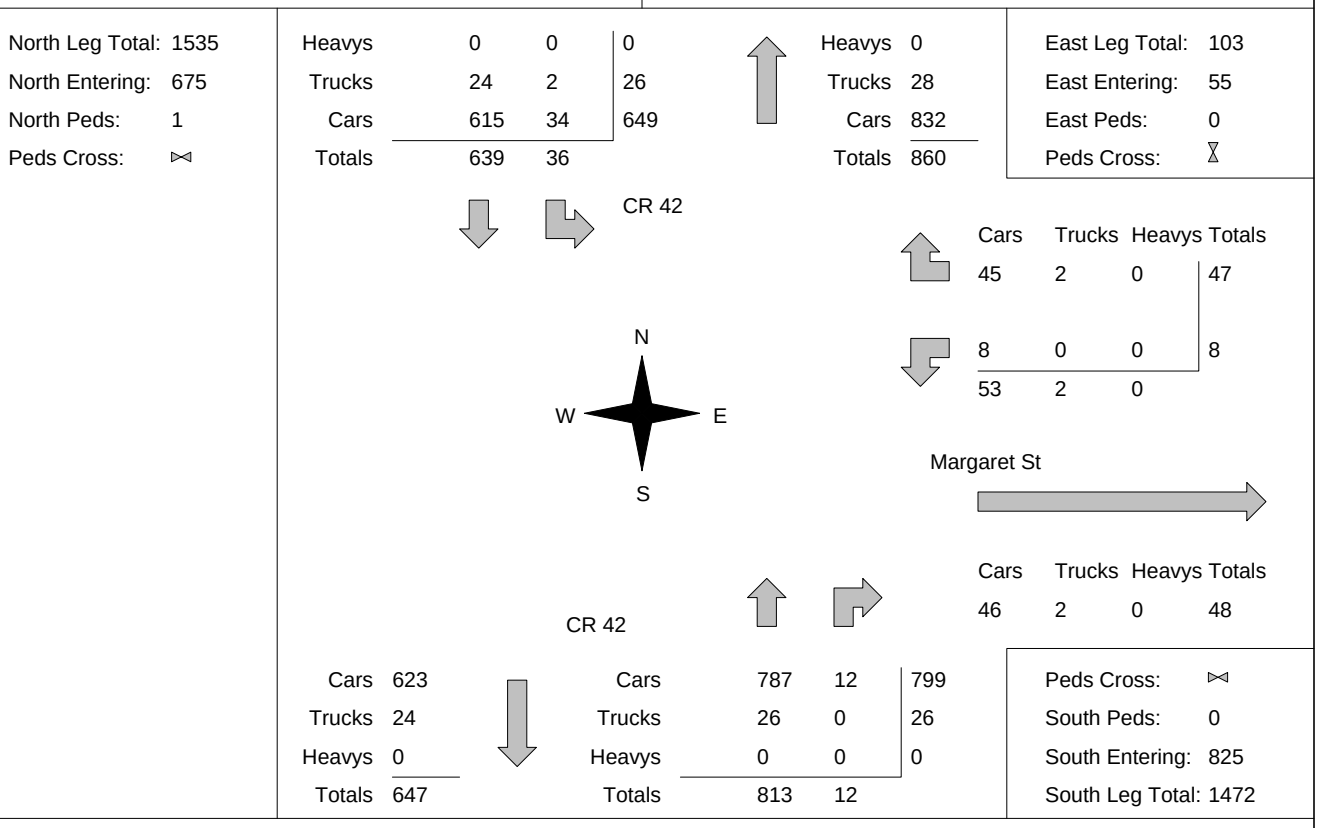
Municipality: Stayner
Site #: 1902400001
Intersection: CR 42 & Margaret St
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: CR 42 runs N/S



Comments

Ontario Traffic Inc.
Traffic Count Summary

Intersection: CR 42 & Margaret St | **Count Date:** 7-Feb-19 | **Municipality:** Stayner

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	North/South Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	6	161	0	167	0	294
9:00:00	5	150	0	155	0	316
16:00:00	0	0	0	0	0	0
17:00:00	12	171	0	183	1	484
18:00:00	13	157	0	170	0	406
Totals:	36	639	0	675	1	1500

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	124	3	127	0
9:00:00	0	160	1	161	0
16:00:00	0	0	0	0	0
17:00:00	0	297	4	301	0
18:00:00	0	232	4	236	0
	0	813	12	825	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	East/West Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	3	0	16	19	0	19
9:00:00	3	0	12	15	0	15
16:00:00	0	0	0	0	0	0
17:00:00	0	0	12	12	0	12
18:00:00	2	0	7	9	0	9
Totals:	8	0	47	55	0	55

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	0	0	0	0
9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0
18:00:00	0	0	0	0	0
	0	0	0	0	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	0:00	0:00	7:00	8:00	9:00	16:00	17:00	18:00
Crossing Values:	0	0	0	3	3	0	1	2

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400001**

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	34	34	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:30:00	2	0	72	38	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
7:45:00	2	0	119	47	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0
8:00:00	6	4	156	37	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0
8:15:00	8	2	186	30	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
8:30:00	9	1	224	38	0	0	0	0	7	2	0	0	0	0	0	0	0	0	0	0
8:45:00	10	1	263	39	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0
9:00:00	11	1	303	40	0	0	0	0	8	1	0	0	0	0	0	0	0	0	0	0
9:02:13	11	0	303	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
16:00:00	11	0	303	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0
16:15:00	14	3	340	37	0	0	1	1	10	2	0	0	0	0	0	0	0	0	0	0
16:30:00	19	5	376	36	0	0	1	0	12	2	0	0	0	0	0	0	0	0	1	1
16:45:00	20	1	418	42	0	0	2	1	17	5	0	0	0	0	0	0	0	0	1	0
17:00:00	21	1	462	44	0	0	2	0	20	3	0	0	0	0	0	0	0	0	1	0
17:15:00	25	4	511	49	0	0	2	0	23	3	0	0	0	0	0	0	0	0	1	0
17:30:00	33	8	559	48	0	0	2	0	24	1	0	0	0	0	0	0	0	0	1	0
17:45:00	34	1	589	30	0	0	2	0	24	0	0	0	0	0	0	0	0	0	1	0
18:00:00	34	0	615	26	0	0	2	0	24	0	0	0	0	0	0	0	0	0	1	0
18:15:00	34	0	615	0	0	0	2	0	24	0	0	0	0	0	0	0	0	0	1	0
18:17:10	34	0	615	0	0	0	2	0	24	0	0	0	0	0	0	0	0	0	1	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400001**

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	2	2	0	0	8	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	3	1	0	0	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	3	0	0	0	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	4	1	0	0	22	6	0	0	0	0	1	1	0	0	0	0	0	0	0	0
8:30:00	5	1	0	0	24	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:45:00	5	0	0	0	25	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:00:00	6	1	0	0	27	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9:02:13	6	0	0	0	27	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
16:00:00	6	0	0	0	27	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
16:15:00	6	0	0	0	30	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0
16:30:00	6	0	0	0	35	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0
16:45:00	6	0	0	0	38	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0
17:00:00	6	0	0	0	38	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0
17:15:00	6	0	0	0	41	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0
17:30:00	7	1	0	0	42	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
17:45:00	8	1	0	0	44	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0
18:00:00	8	0	0	0	45	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
18:15:00	8	0	0	0	45	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
18:17:10	8	0	0	0	45	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400001**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	48	27	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	83	35	3	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	119	36	3	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	158	39	3	0	0	0	9	4	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	192	34	3	0	0	0	11	2	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	243	51	3	0	0	0	13	2	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	267	24	4	1	0	0	17	4	0	0	0	0	0	0	0	0	0	0
9:02:13	0	0	267	0	4	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	267	0	4	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	344	77	5	1	0	0	21	4	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	425	81	5	0	0	0	22	1	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	496	71	7	2	0	0	23	1	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	558	62	8	1	0	0	23	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	606	48	9	1	0	0	24	1	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	653	47	9	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	728	75	12	3	0	0	25	1	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	787	59	12	0	0	0	26	1	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	787	0	12	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0
18:17:10	0	0	787	0	12	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400001**

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:02:13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:17:10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period	One Hour Peak
From: 7:00:00	**From:** 7:45:00
To: 9:00:00	**To:** 8:45:00

Municipality: Stayner
Site #: 1902400003
Intersection: Superior St & Warrington Rd
TFR File #: 1
Count date: 7-Feb-19

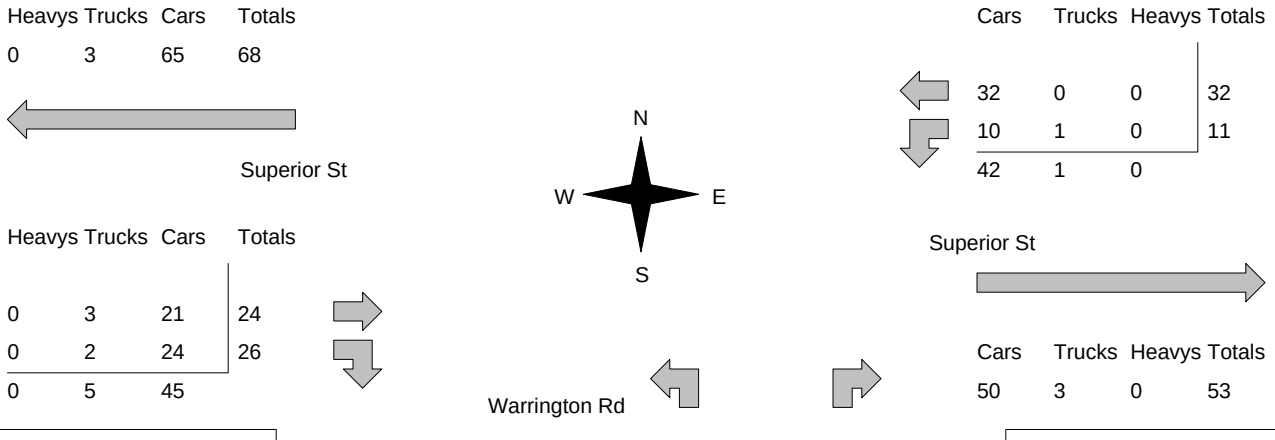
Weather conditions:

Person(s) who counted:

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

Major Road: Superior St runs W/E

East Leg Total: 96
East Entering: 43
East Peds: 0
Peds Cross: ⧖



Peds Cross: ⧖
West Peds: 3
West Entering: 50
West Leg Total: 118

Cars 34
Trucks 3
Heavys 0
Totals 37

Cars 33 29 62
Trucks 3 0 3
Heavys 0 0 0
Totals 36 29

Peds Cross: ⋈
South Peds: 5
South Entering: 65
South Leg Total: 102

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

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

One Hour Peak
From: 16:15:00
To: 17:15:00

Municipality: Stayner
Site #: 1902400003
Intersection: Superior St & Warrington Rd
TFR File #: 1
Count date: 7-Feb-19

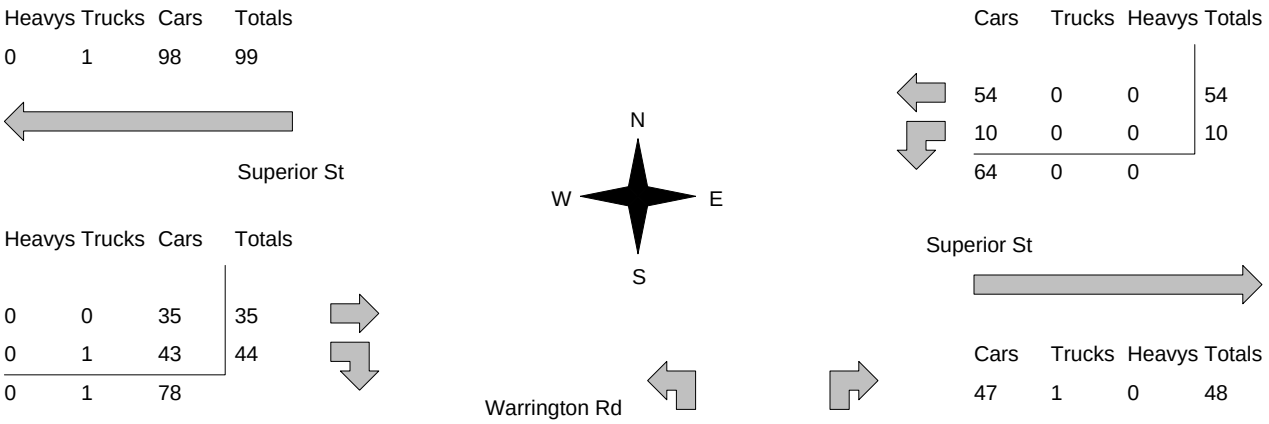
Weather conditions:

Person(s) who counted:

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

Major Road: Superior St runs W/E

East Leg Total: 112
East Entering: 64
East Peds: 0
Peds Cross:



Peds Cross:
West Peds: 2
West Entering: 79
West Leg Total: 178

Cars 53
Trucks 1
Heavys 0
Totals 54

Cars 44 12 56
Trucks 1 1 2
Heavys 0 0 0
Totals 45 13

Peds Cross:
South Peds: 0
South Entering: 58
South Leg Total: 112

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Stayner
Site #: 1902400003
Intersection: Superior St & Warrington Rd
TFR File #: 1
Count date: 7-Feb-19

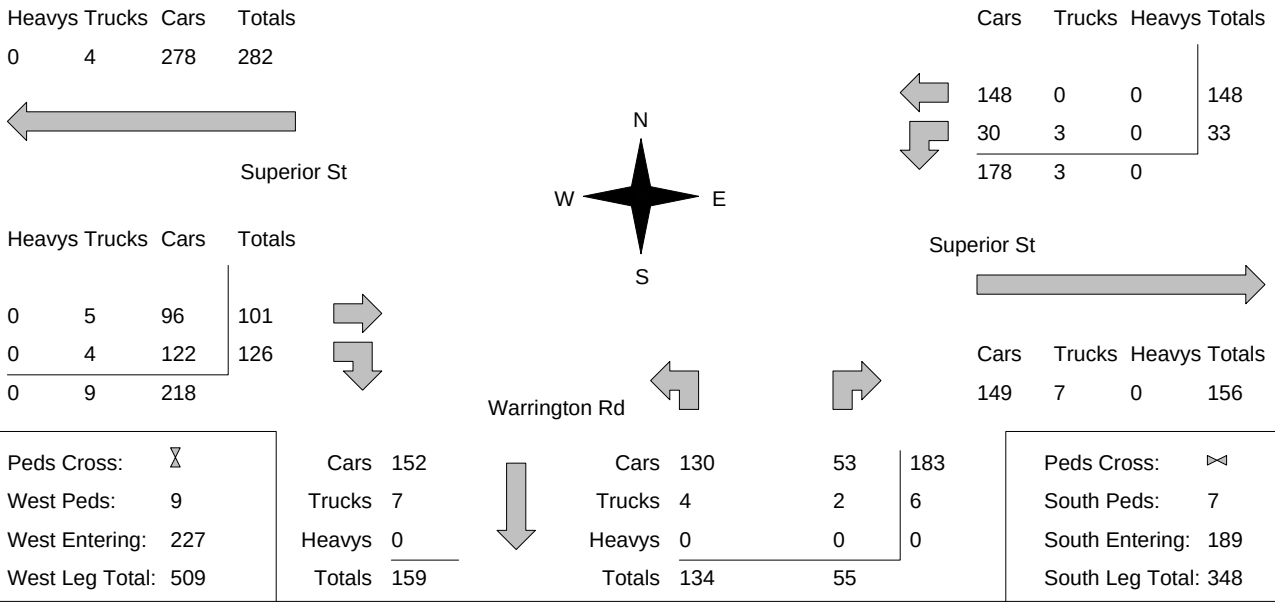
Weather conditions:

Person(s) who counted:

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

Major Road: Superior St runs W/E

East Leg Total: 337
East Entering: 181
East Peds: 1
Peds Cross: ⧖



Peds Cross: ⧖
West Peds: 9
West Entering: 227
West Leg Total: 509

Cars 152
Trucks 7
Heavys 0
Totals 159

Cars 130 53 183
Trucks 4 2 6
Heavys 0 0 0
Totals 134 55

Peds Cross: ⋈
South Peds: 7
South Entering: 189
South Leg Total: 348

Comments

Ontario Traffic Inc.
Traffic Count Summary

Intersection: Superior St & Warrington Rd | **Count Date:** 7-Feb-19 | **Municipality:** Stayner

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	North/South Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	0	0	0	0	0	35
9:00:00	0	0	0	0	0	57
16:00:00	0	0	0	0	0	0
17:00:00	0	0	0	0	0	57
18:00:00	0	0	0	0	0	40
Totals:	0	0	0	0	0	189

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	24	0	11	35	5
9:00:00	34	0	23	57	0
16:00:00	0	0	0	0	0
17:00:00	43	0	14	57	1
18:00:00	33	0	7	40	1
Totals:	134	0	55	189	7

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	East/West Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	8	26	0	34	0	68
9:00:00	8	31	0	39	0	90
16:00:00	0	0	0	0	0	0
17:00:00	10	47	0	57	0	134
18:00:00	7	44	0	51	1	116
Totals:	33	148	0	181	1	408

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	14	20	34	3
9:00:00	0	25	26	51	2
16:00:00	0	0	0	0	0
17:00:00	0	33	44	77	2
18:00:00	0	29	36	65	2
Totals:	0	101	126	227	9

Calculated Values for Traffic Crossing Major Street

Hours Ending:	0:00	0:00	7:00	8:00	9:00	16:00	17:00	18:00
Crossing Values:	0	0	0	27	36	0	45	36

Ontario Traffic Inc.

Count Date: 7-Feb-19 Site #: 1902400003

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:01:40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:17:21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400003**

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	5	5	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	3	3	11	6	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	3	0	17	6	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	6	3	26	9	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	6	0	29	3	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	8	2	42	13	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	13	5	49	7	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	13	0	57	8	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
9:01:40	13	0	57	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	13	0	57	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	14	1	67	10	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	16	2	77	10	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	19	3	93	16	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	23	4	104	11	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	24	1	121	17	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	27	3	133	12	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	29	2	144	11	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	1
18:00:00	30	1	148	4	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0
18:15:00	30	0	148	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0
18:17:21	30	0	148	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400003**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	4	4	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	10	6	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	14	4	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	23	9	0	0	11	8	1	1	0	0	0	0	0	0	0	0	0	0	5	5
8:15:00	32	9	0	0	23	12	2	1	0	0	0	0	0	0	0	0	0	0	5	0
8:30:00	41	9	0	0	27	4	2	0	0	0	0	0	0	0	0	0	0	0	5	0
8:45:00	47	6	0	0	32	5	3	1	0	0	0	0	0	0	0	0	0	0	5	0
9:00:00	55	8	0	0	34	2	3	0	0	0	0	0	0	0	0	0	0	0	5	0
9:01:40	55	0	0	0	34	0	3	0	0	0	0	0	0	0	0	0	0	0	5	0
16:00:00	55	0	0	0	34	0	3	0	0	0	0	0	0	0	0	0	0	0	5	0
16:15:00	62	7	0	0	37	3	3	0	0	0	1	1	0	0	0	0	0	0	6	1
16:30:00	72	10	0	0	40	3	4	1	0	0	1	0	0	0	0	0	0	0	6	0
16:45:00	82	10	0	0	42	2	4	0	0	0	1	0	0	0	0	0	0	0	6	0
17:00:00	97	15	0	0	47	5	4	0	0	0	1	0	0	0	0	0	0	0	6	0
17:15:00	106	9	0	0	49	2	4	0	0	0	2	1	0	0	0	0	0	0	6	0
17:30:00	114	8	0	0	53	4	4	0	0	0	2	0	0	0	0	0	0	0	6	0
17:45:00	124	10	0	0	53	0	4	0	0	0	2	0	0	0	0	0	0	0	7	1
18:00:00	130	6	0	0	53	0	4	0	0	0	2	0	0	0	0	0	0	0	7	0
18:15:00	130	0	0	0	53	0	4	0	0	0	2	0	0	0	0	0	0	0	7	0
18:17:21	130	0	0	0	53	0	4	0	0	0	2	0	0	0	0	0	0	0	7	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400003**

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	3	3	4	4	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	6	3	11	7	0	0	1	0	0	0	0	0	0	0	0	0	2	2
7:45:00	0	0	8	2	15	4	0	0	1	0	0	0	0	0	0	0	0	0	2	0
8:00:00	0	0	12	4	20	5	0	0	2	1	0	0	0	0	0	0	0	0	3	1
8:15:00	0	0	15	3	25	5	0	0	3	1	1	1	0	0	0	0	0	0	3	0
8:30:00	0	0	18	3	33	8	0	0	4	1	1	0	0	0	0	0	0	0	4	1
8:45:00	0	0	29	11	39	6	0	0	4	0	2	1	0	0	0	0	0	0	5	1
9:00:00	0	0	35	6	44	5	0	0	4	0	2	0	0	0	0	0	0	0	5	0
9:01:40	0	0	35	0	44	0	0	0	4	0	2	0	0	0	0	0	0	0	5	0
16:00:00	0	0	35	0	44	0	0	0	4	0	2	0	0	0	0	0	0	0	5	0
16:15:00	0	0	41	6	51	7	0	0	5	1	3	1	0	0	0	0	0	0	6	1
16:30:00	0	0	53	12	63	12	0	0	5	0	4	1	0	0	0	0	0	0	6	0
16:45:00	0	0	58	5	77	14	0	0	5	0	4	0	0	0	0	0	0	0	6	0
17:00:00	0	0	67	9	86	9	0	0	5	0	4	0	0	0	0	0	0	0	7	1
17:15:00	0	0	76	9	94	8	0	0	5	0	4	0	0	0	0	0	0	0	8	1
17:30:00	0	0	84	8	101	7	0	0	5	0	4	0	0	0	0	0	0	0	9	1
17:45:00	0	0	91	7	115	14	0	0	5	0	4	0	0	0	0	0	0	0	9	0
18:00:00	0	0	96	5	122	7	0	0	5	0	4	0	0	0	0	0	0	0	9	0
18:15:00	0	0	96	0	122	0	0	0	5	0	4	0	0	0	0	0	0	0	9	0
18:17:21	0	0	96	0	122	0	0	0	5	0	4	0	0	0	0	0	0	0	9	0

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:30:00
To: 8:30:00

Municipality: Stayner
Site #: 1902400004
Intersection: Warrington Rd & Sideroad 21-22 N
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: Warrington Rd runs N/S

North Leg Total:	51			
North Entering:	16			
North Peds:	0			
Peds Cross:	⋈			
Heavys	0	0	0	0
Trucks	0	2	0	2
Cars	0	14	0	14
Totals	0	16	0	
Heavys	0			
Trucks	2			
Cars	33			
Totals	35			
East Leg Total:	0			
East Entering:	0			
East Peds:	0			
Peds Cross:	⧖			

Warrington Rd

Heavys	Trucks	Cars	Totals
0	0	0	0

Sideroad 21-22 Nottawasaga

Cars	Trucks	Heavys	Totals
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	

N
W E
S

Heavys	Trucks	Cars	Totals
0	0	0	0
0	0	0	0
0	0	1	1
0	0	1	

Sideroad 21-22 Nottawasaga

Cars	Trucks	Heavys	Totals
0	0	0	0

Warrington Rd

Peds Cross:	⧖		
West Peds:	0		
West Entering:	1		
West Leg Total:	1		
Cars	15		
Trucks	2		
Heavys	0		
Totals	17		
Cars	0	33	0	33
Trucks	0	2	0	2
Heavys	0	0	0	0
Totals	0	35	0	
Peds Cross:	⋈			
South Peds:	0			
South Entering:	35			
South Leg Total:	52			

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

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

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

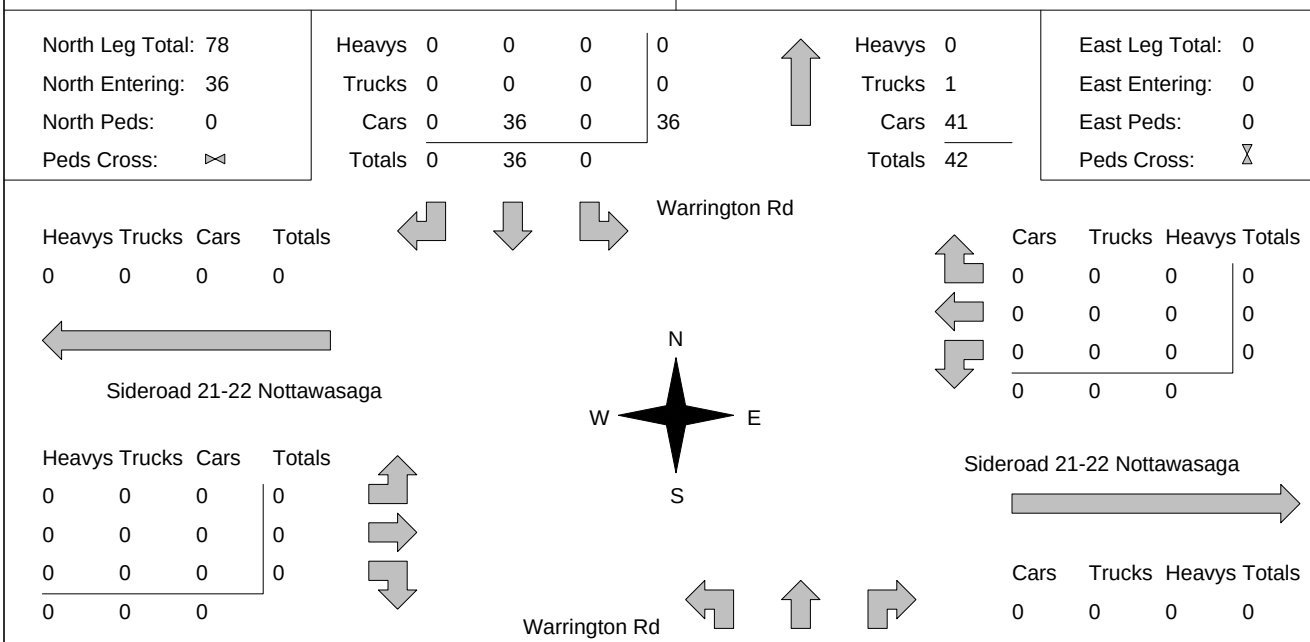
Municipality: Stayner
Site #: 1902400004
Intersection: Warrington Rd & Sideroad 21-22 N
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: Warrington Rd runs N/S



Comments

Ontario Traffic Inc.

Total Count Diagram

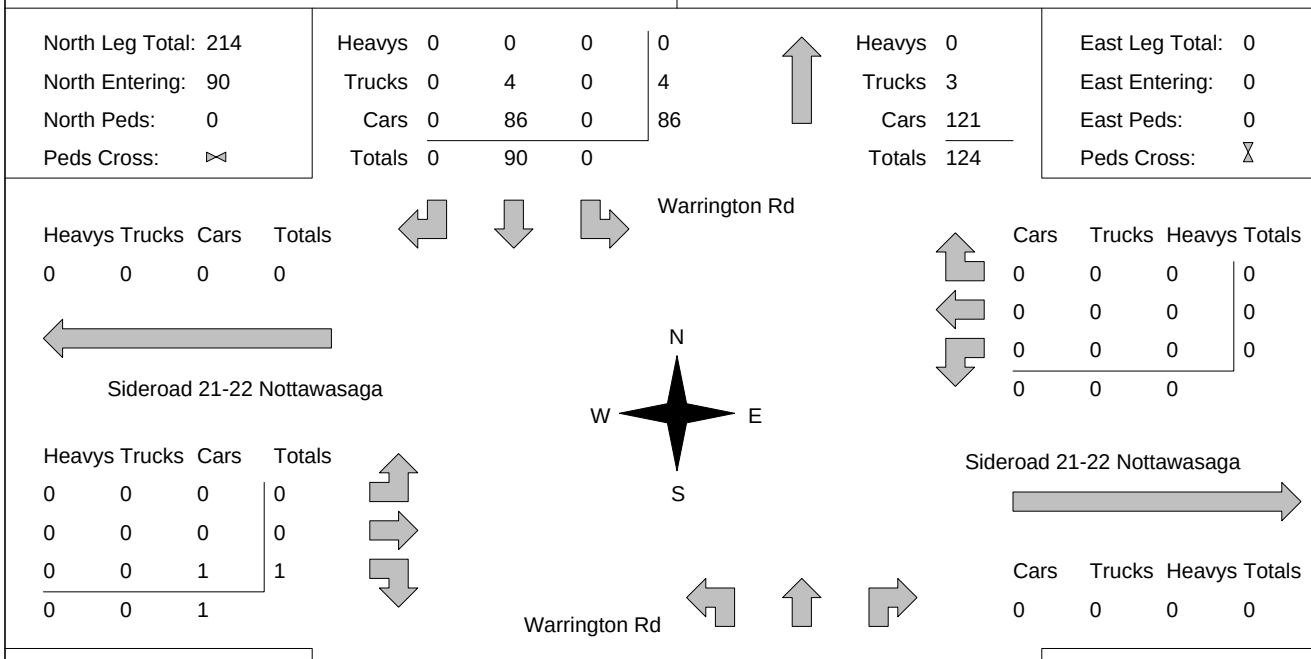
Municipality: Stayner
Site #: 1902400004
Intersection: Warrington Rd & Sideroad 21-22 N
TFR File #: 1
Count date: 7-Feb-19

Weather conditions:

Person(s) who counted:

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

Major Road: Warrington Rd runs N/S



Comments

Ontario Traffic Inc.
Traffic Count Summary

Intersection: Warrington Rd & Sideroad 21-22 N | **Count Date:** 7-Feb-19 | **Municipality:** Stayner

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	North/South Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	0	18	0	18	0	36
9:00:00	0	20	0	20	0	52
16:00:00	0	0	0	0	0	0
17:00:00	0	26	0	26	0	64
18:00:00	0	26	0	26	0	62
Totals:	0	90	0	90	0	214

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	18	0	18	0
9:00:00	0	32	0	32	0
16:00:00	0	0	0	0	0
17:00:00	0	38	0	38	0
18:00:00	0	36	0	36	0
Totals:	0	124	0	124	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds	East/West Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	0	0	0	0	0	1
9:00:00	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0
Totals:	0	0	0	0	0	1

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys: Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	0	0	1	1	0
9:00:00	0	0	0	0	0
16:00:00	0	0	0	0	0
17:00:00	0	0	0	0	0
18:00:00	0	0	0	0	0
Totals:	0	0	1	1	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	7:00	8:00	9:00	16:00	17:00	17:00	18:00	18:00
Crossing Values:	0	0	0	0	38	0	0	36

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400004**

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	2	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	11	9	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	15	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	16	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	21	5	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	25	4	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	30	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	34	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
9:02:23	0	0	34	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	34	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	36	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	41	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	55	14	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	60	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	68	8	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	77	9	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	82	5	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	86	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	86	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:16:18	0	0	86	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400004**

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:02:23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:16:18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400004**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	13	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	16	3	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	28	12	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	40	12	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	44	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	48	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
9:02:23	0	0	48	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	48	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	55	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	62	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	73	11	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	86	13	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	99	13	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	103	4	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	109	6	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	121	12	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	121	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
18:16:18	0	0	121	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 7-Feb-19 **Site #: 1902400004**

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:02:23	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:16:18	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

Municipality: Stayner
Site #: 0828900001
Intersection: Airport Rd & Margaret St
TFR File #: 1
Count date: 28-Aug-08

Weather conditions:

Person(s) who counted:

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

Major Road: Airport Rd runs N/S

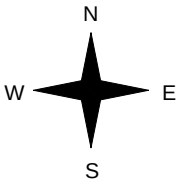
North Leg Total: 275
North Entering: 135
North Peds: 0
Peds Cross: ⋈

Heavys	0	0	0
Trucks	8	1	9
Cars	114	12	126
Totals	122	13	

Heavys	0
Trucks	12
Cars	128
Totals	140

East Leg Total: 28
East Entering: 15
East Peds: 0
Peds Cross: ⋈

Cars	Trucks	Heavys	Totals
10	1	0	11
4	0	0	4
14	1	0	



Cars	Trucks	Heavys	Totals
12	1	0	13

Cars	118
Trucks	8
Heavys	0
Totals	126

Cars	118	0	118
Trucks	11	0	11
Heavys	0	0	0
Totals	129	0	

Peds Cross: ⋈
South Peds: 1
South Entering: 129
South Leg Total: 255

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

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

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

Municipality: Stayner
Site #: 0828900001
Intersection: Airport Rd & Margaret St
TFR File #: 1
Count date: 28-Aug-08

Weather conditions:

Person(s) who counted:

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

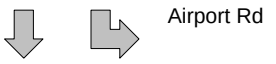
Major Road: Airport Rd runs N/S

North Leg Total: 488
North Entering: 231
North Peds: 0
Peds Cross: ⋈

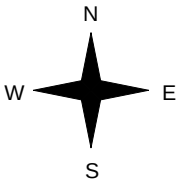
Heavys	0	0	0
Trucks	10	0	10
Cars	209	12	221
Totals	219	12	

Heavys	0
Trucks	10
Cars	247
Totals	257

East Leg Total: 24
East Entering: 7
East Peds: 0
Peds Cross: ⋈



Cars	Trucks	Heavys	Totals
3	0	0	3
4	0	0	4
7	0	0	



Cars	Trucks	Heavys	Totals
16	1	0	17

Cars	213		
Trucks	10		
Heavys	0		
Totals	223		

Cars	244	4	248
Trucks	10	1	11
Heavys	0	0	0
Totals	254	5	

Peds Cross: ⋈
South Peds: 0
South Entering: 259
South Leg Total: 482

Comments

Ontario Traffic Inc

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:00:00
To: 8:00:00

Municipality: Stayner
Site #: 0828900002
Intersection: Margaret St & Clarence St
TFR File #: 1
Count date: 28-Aug-08

Weather conditions:

Person(s) who counted:

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

Major Road: Margaret St runs W/E

North Leg Total: 11
North Entering: 8
North Peds: 0
Peds Cross:

Heavys	0	0	0
Trucks	0	0	0
Cars	2	6	8
Totals	2	6	

Heavys	0
Trucks	0
Cars	3
Totals	3

East Leg Total: 41
East Entering: 21
East Peds: 0
Peds Cross:

Clarence St

Heavys	Trucks	Cars	Totals
0	3	18	21

Cars	Trucks	Heavys	Totals
2	0	0	2
16	3	0	19
18	3	0	

Margaret St

N
W E
S

Heavys	Trucks	Cars	Totals
0	0	1	1
0	1	13	14
0	1	14	

Margaret St

Cars	Trucks	Heavys	Totals
19	1	0	20

Peds Cross:
West Peds: 0
West Entering: 15
West Leg Total: 36

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

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

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

Municipality: Stayner
Site #: 0828900002
Intersection: Margaret St & Clarence St
TFR File #: 1
Count date: 28-Aug-08

Weather conditions:

Person(s) who counted:

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

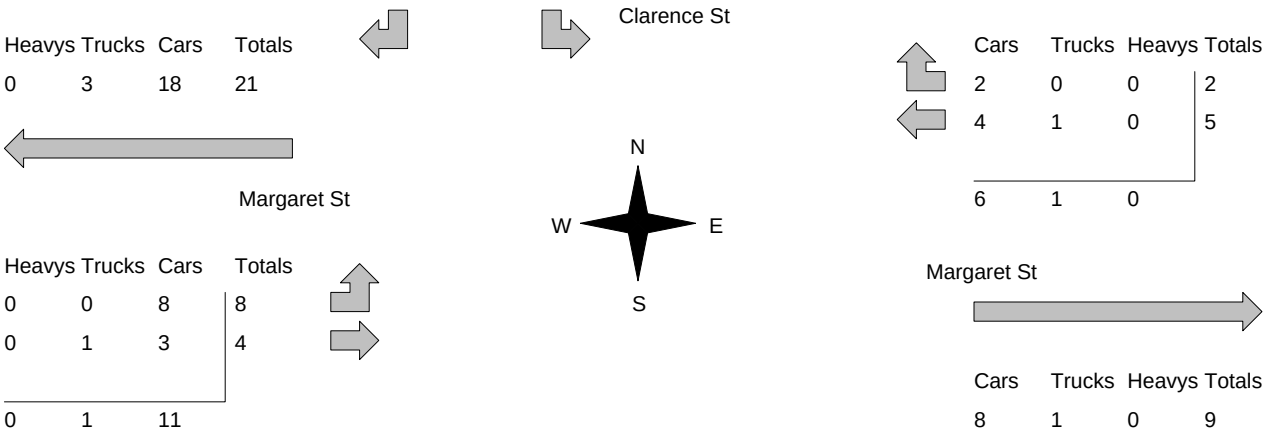
Major Road: Margaret St runs W/E

North Leg Total: 31
North Entering: 21
North Peds: 1
Peds Cross:

Heavys	0	0	0
Trucks	2	0	2
Cars	14	5	19
Totals	16	5	

Heavys	0
Trucks	0
Cars	10
Totals	10

East Leg Total: 16
East Entering: 7
East Peds: 1
Peds Cross:



Peds Cross:
West Peds: 0
West Entering: 12
West Leg Total: 33

Comments

County of Simcoe

Transportation & Engineering

Annual Average Daily Traffic Summary (A.A.D.T.)

Updated Nov 2007

Road# - Section #	Distance	Link Description	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
		CR 22										
029-01	4.1				2,400			3,200			2,900	
		Flos Road 4										
029-02	6.8				2,500			3,500			3,300	
		CR 92										
029-03	7.8				1,900			2,800			3,000	
		Conc 4/ Tiny										
		CR 27										
030-01	2.2		4,600			8,200			7,200			6,300
		Barrie Limits										
		10th Conc / Nottawasaga										
032-01	2.7				2,400			4,100			2,700	
		CR 34										
		Grey Cty Rd 19										
034-01	1.6				2,200			2,100			2,400	
		CR 32 / Sixth St										
034-02	2.0							2,300			2,700	
		Blue Mountain Road										
034-03	2.7							1,900			1,900	
		Highway 26										
		CR 3										
039-01	4.2					2,900			4,750			4,400
		4th Conc (Killarney Beach Rd)										
039-02	5.6					2,100			4,200			4,300
		CR 21										
		Barrie North Limits										
040-01	1.3		6,200		6,100			4,900			4,900	
		7th Conc / George Lane										
040-02	4.3		3,900		4,900			5,300			4,000	
		CR 28										
040-03	4.6		3,100		2,900			3,500			3,200	
		CR 90										
		Simcoe / Dufferin Boundary										
042-01	5.5				3,900			5,100			4,000	
		CR 9										
042-02	8.5				4,200			5,500			4,900	
		Stayner South Limits										
		Hwy 26										
043-01	2.8				1,600			1,900			2,200	
		Wilson Drive										
043-02	4.5				1,100			1,200			1,200	
		CR 28										

Appendix C
Level of Service Definitions

AECOM

LEVEL OF SERVICE
FOR
UNSIGNALIZED INTERSECTIONS
(TWO-WAY STOP-CONTROLLED / ALL-WAY STOP-CONTROLLED / ROUNDABOUT)
(Highway Capacity Manual, 2010)

The assessment of operations for unsignalized intersections is based on the methodology in the Highway Capacity Manual, 2010.

For an unsignalized two-way stop-controlled (TWSC), all-way stop-controlled (AWSC) or a roundabout intersection, the Level of Service for the intersection is determined by the computed or measured control delay.

Control Delay (s/veh)	**LOS by Volume-to-Capacity Ratio**	
	V/C ≤ 1.0	**V/C > 1.0**
≤ 10.0	A	F
> 10.0 and ≤ 15.0	B	F
> 15.0 and ≤ 25.0	C	F
> 25.0 and ≤ 35.0	D	F
> 35.0 and ≤ 50.0	E	F
> 50.0	F	F

AECOM

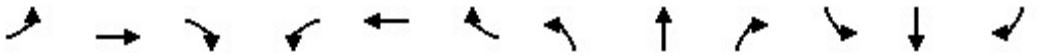
LEVEL OF SERVICE
FOR
UNSIGNALIZED INTERSECTIONS
(TWO-WAY STOP-CONTROLLED / ALL-WAY STOP-CONTROLLED / ROUNDABOUT)
(Highway Capacity Manual, 2010)

The assessment of operations for unsignalized intersections is based on the methodology in the Highway Capacity Manual, 2010.

For an unsignalized two-way stop-controlled (TWSC), all-way stop-controlled (AWSC) or a roundabout intersection, the Level of Service for the intersection is determined by the computed or measured control delay.

Control Delay (s/veh)	**LOS by Volume-to-Capacity Ratio**	
	V/C ≤ 1.0	**V/C > 1.0**
≤ 10.0	A	F
> 10.0 and ≤ 15.0	B	F
> 15.0 and ≤ 25.0	C	F
> 25.0 and ≤ 35.0	D	F
> 35.0 and ≤ 50.0	E	F
> 50.0	F	F

Appendix D
Existing Conditions Synchro Reports



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	0	0	0	0	69	0	0	39	0
Future Volume (Veh/h)	1	0	0	0	0	0	0	69	0	0	39	0
Sign Control		Stop			Stop			Free			Free	
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)	1	0	0	0	0	0	0	75	0	0	42	0
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	117	117	42	117	117	75	42			75		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	117	117	42	117	117	75	42			75		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	859	773	1029	859	773	986	1567			1524		

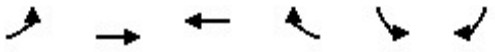
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1	0	75	42
Volume Left	1	0	0	0
Volume Right	0	0	0	0
cSH	859	1700	1567	1524
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	9.2	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	9.2	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	13.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	15	181	0	8	157
Future Volume (Veh/h)	4	15	181	0	8	157
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)	4	16	197	0	9	171
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	386	197			197	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	386	197			197	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			99	
cM capacity (veh/h)	613	844			1376	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	20	197	180
Volume Left	4	0	9
Volume Right	16	0	0
cSH	785	1700	1376
Volume to Capacity	0.03	0.12	0.01
Queue Length 95th (m)	0.6	0.0	0.2
Control Delay (s)	9.7	0.0	0.4
Lane LOS	A		A
Approach Delay (s)	9.7	0.0	0.4
Approach LOS	A		

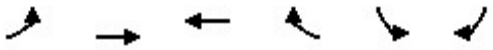
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	5	20	2	6	2
Future Volume (Veh/h)	1	5	20	2	6	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)	1	5	22	2	7	2
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	24				30	23
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	24				30	23
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)	1591				984	1054

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	6	24	9
Volume Left	1	0	7
Volume Right	0	2	2
cSH	1591	1700	998
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (m)	0.0	0.0	0.2
Control Delay (s)	1.2	0.0	8.6
Lane LOS	A		A
Approach Delay (s)	1.2	0.0	8.6
Approach LOS			A

Intersection Summary			
Average Delay		2.2	
Intersection Capacity Utilization		13.3%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	22	32	42	29	3
Future Volume (Veh/h)	1	22	32	42	29	3
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)	1	24	35	46	32	3
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	81				84	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	81				84	58
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				97	100
cM capacity (veh/h)	1517				917	1008

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	25	81	35
Volume Left	1	0	32
Volume Right	0	46	3
cSH	1517	1700	924
Volume to Capacity	0.00	0.05	0.04
Queue Length 95th (m)	0.0	0.0	0.9
Control Delay (s)	0.3	0.0	9.0
Lane LOS	A		A
Approach Delay (s)	0.3	0.0	9.0
Approach LOS			A

Intersection Summary			
Average Delay		2.3	
Intersection Capacity Utilization		14.3%	ICU Level of Service
Analysis Period (min)		15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	46	5	4	65	10	7
Future Volume (Veh/h)	46	5	4	65	10	7
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)	50	5	4	71	11	8
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			55		132	52
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			55		132	52
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	99
cM capacity (veh/h)			1550		860	1015

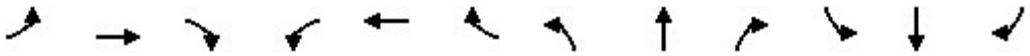
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	55	75	19
Volume Left	0	4	11
Volume Right	5	0	8
cSH	1700	1550	919
Volume to Capacity	0.03	0.00	0.02
Queue Length 95th (m)	0.0	0.1	0.5
Control Delay (s)	0.0	0.4	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	9.0
Approach LOS			A

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	16.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	25	28	12	31	38	31
Future Volume (Veh/h)	25	28	12	31	38	31
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)	27	30	13	34	41	34
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			57		102	42
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			57		102	42
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		95	97
cM capacity (veh/h)			1547		889	1029

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	57	47	75
Volume Left	0	13	41
Volume Right	30	0	34
cSH	1700	1547	947
Volume to Capacity	0.03	0.01	0.08
Queue Length 95th (m)	0.0	0.2	2.1
Control Delay (s)	0.0	2.1	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	2.1	9.1
Approach LOS			A

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	19.6%	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	0	0	0	0	0	0	62	0	0	57	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	62	0	0	57	0
Sign Control		Stop			Stop			Free			Free	
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	0	0	0	0	0	0	67	0	0	62	0
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	129	129	62	129	129	67	62			67		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	129	129	62	129	129	67	62			67		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	844	762	1003	844	762	997	1541			1535		

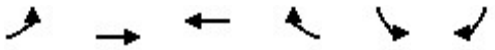
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	0	67	62
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1541	1535
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	6.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	13	315	4	13	181
Future Volume (Veh/h)	0	13	315	4	13	181
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	14	342	4	14	197
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	569	344			346	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	569	344			346	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	98			99	
cM capacity (veh/h)	478	699			1213	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	14	346	211
Volume Left	0	0	14
Volume Right	14	4	0
cSH	699	1700	1213
Volume to Capacity	0.02	0.20	0.01
Queue Length 95th (m)	0.5	0.0	0.3
Control Delay (s)	10.3	0.0	0.6
Lane LOS	B		A
Approach Delay (s)	10.3	0.0	0.6
Approach LOS	B		

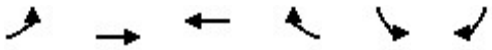
Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	5	6	2	6	7
Future Volume (Veh/h)	12	5	6	2	6	7
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)	13	5	7	2	7	8
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	9				39	8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	9				39	8
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)	1611				965	1074

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	18	9	15
Volume Left	13	0	7
Volume Right	0	2	8
cSH	1611	1700	1020
Volume to Capacity	0.01	0.01	0.01
Queue Length 95th (m)	0.2	0.0	0.4
Control Delay (s)	5.3	0.0	8.6
Lane LOS	A		A
Approach Delay (s)	5.3	0.0	8.6
Approach LOS			A

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	33	54	48	50	8
Future Volume (Veh/h)	3	33	54	48	50	8
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)	3	36	59	52	54	9
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	111				127	85
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	111				127	85
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				94	99
cM capacity (veh/h)	1479				866	974

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	39	111	63
Volume Left	3	0	54
Volume Right	0	52	9
cSH	1479	1700	880
Volume to Capacity	0.00	0.07	0.07
Queue Length 95th (m)	0.0	0.0	1.8
Control Delay (s)	0.6	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	0.6	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	15.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	76	6	10	94	7	7
Future Volume (Veh/h)	76	6	10	94	7	7
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)	83	7	11	102	8	8
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			90		210	86
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			90		210	86
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)			1505		772	972

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	90	113	16
Volume Left	0	11	8
Volume Right	7	0	8
cSH	1700	1505	861
Volume to Capacity	0.05	0.01	0.02
Queue Length 95th (m)	0.0	0.2	0.5
Control Delay (s)	0.0	0.8	9.3
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	9.3
Approach LOS			A

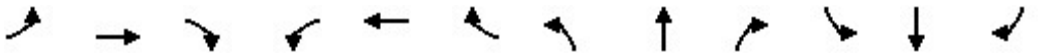
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	37	47	11	57	48	14
Future Volume (Veh/h)	37	47	11	57	48	14
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)	40	51	12	62	52	15
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			91		152	66
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			91		152	66
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		94	98
cM capacity (veh/h)			1504		834	998

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	91	74	67
Volume Left	0	12	52
Volume Right	51	0	15
cSH	1700	1504	866
Volume to Capacity	0.05	0.01	0.08
Queue Length 95th (m)	0.0	0.2	2.0
Control Delay (s)	0.0	1.3	9.5
Lane LOS		A	A
Approach Delay (s)	0.0	1.3	9.5
Approach LOS			A

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	20.5%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix E
Future Background Conditions Synchro Reports



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	0	0	0	0	87	0	0	67	0
Future Volume (Veh/h)	0	0	1	0	0	0	0	87	0	0	67	0
Sign Control		Stop			Stop			Free			Free	
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	0	1	0	0	0	0	95	0	0	73	0
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	168	168	73	169	168	95	73			95		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	168	168	73	169	168	95	73			95		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	796	725	989	794	725	962	1527			1499		

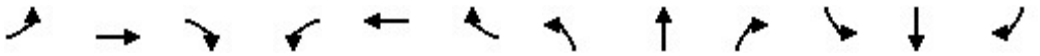
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1	0	95	73
Volume Left	0	0	0	0
Volume Right	1	0	0	0
cSH	989	1700	1527	1499
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	8.6	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	8.6	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	14.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	24	79	213	6	31	192
Future Volume (Veh/h)	24	79	213	6	31	192
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)	26	86	232	7	34	209
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	512	236			239	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	512	236			239	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	89			97	
cM capacity (veh/h)	508	804			1328	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	112	239	243
Volume Left	26	0	34
Volume Right	86	7	0
cSH	708	1700	1328
Volume to Capacity	0.16	0.14	0.03
Queue Length 95th (m)	4.5	0.0	0.6
Control Delay (s)	11.0	0.0	1.3
Lane LOS	B		A
Approach Delay (s)	11.0	0.0	1.3
Approach LOS	B		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	39.6%	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)	1	6	27	23	23	2	81	22	69	7	7	2
Future Volume (Veh/h)	1	6	27	23	23	2	81	22	69	7	7	2
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)	1	7	29	25	25	2	88	24	75	8	8	2
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	27			36			106	100	22	186	114	26
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	27			36			106	100	22	186	114	26
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			98			90	97	93	99	99	100
cM capacity (veh/h)	1587			1575			855	777	1056	693	763	1050

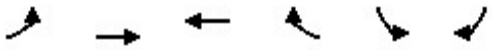
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	37	52	187	18
Volume Left	1	25	88	8
Volume Right	29	2	75	2
cSH	1587	1575	913	752
Volume to Capacity	0.00	0.02	0.20	0.02
Queue Length 95th (m)	0.0	0.4	6.1	0.6
Control Delay (s)	0.2	3.6	10.0	9.9
Lane LOS	A	A	A	A
Approach Delay (s)	0.2	3.6	10.0	9.9
Approach LOS			A	A

Intersection Summary				
Average Delay	7.6			
Intersection Capacity Utilization	28.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	48	21	7	80	46	16
Future Volume (Veh/h)	48	21	7	80	46	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	23	8	87	50	17
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	162	58	67			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	162	58	67			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	98	99			
cM capacity (veh/h)	825	1007	1535			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	75	95	67
Volume Left	52	8	0
Volume Right	23	0	17
cSH	874	1535	1700
Volume to Capacity	0.09	0.01	0.04
Queue Length 95th (m)	2.2	0.1	0.0
Control Delay (s)	9.5	0.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.5	0.7	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	48	44	56	35	4
Future Volume (Veh/h)	1	48	44	56	35	4
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)	1	52	48	61	38	4
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	109				132	78
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	109				132	78
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				96	100
cM capacity (veh/h)	1481				861	982

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	53	109	42
Volume Left	1	0	38
Volume Right	0	61	4
cSH	1481	1700	871
Volume to Capacity	0.00	0.06	0.05
Queue Length 95th (m)	0.0	0.0	1.2
Control Delay (s)	0.1	0.0	9.3
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.3
Approach LOS			A

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	78	6	5	89	11	9
Future Volume (Veh/h)	78	6	5	89	11	9
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)	85	7	5	97	12	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			92		196	88
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			92		196	88
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	99
cM capacity (veh/h)			1503		791	970

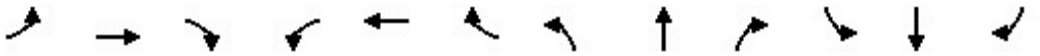
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	92	102	22
Volume Left	0	5	12
Volume Right	7	0	10
cSH	1700	1503	863
Volume to Capacity	0.05	0.00	0.03
Queue Length 95th (m)	0.0	0.1	0.6
Control Delay (s)	0.0	0.4	9.3
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	9.3
Approach LOS			A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	18.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	52	34	28	43	51	77
Future Volume (Veh/h)	52	34	28	43	51	77
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)	57	37	30	47	55	84
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			94		182	76
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			94		182	76
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		93	91
cM capacity (veh/h)			1500		791	986

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	94	77	139
Volume Left	0	30	55
Volume Right	37	0	84
cSH	1700	1500	898
Volume to Capacity	0.06	0.02	0.15
Queue Length 95th (m)	0.0	0.5	4.4
Control Delay (s)	0.0	3.0	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	3.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	24.7%	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	0	0	0	0	0	0	94	0	0	80	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	94	0	0	80	0
Sign Control		Stop			Stop			Free			Free	
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	0	0	0	0	0	0	102	0	0	87	0
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	189	189	87	189	189	102	87			102		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	189	189	87	189	189	102	87			102		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	771	706	971	771	706	953	1509			1490		

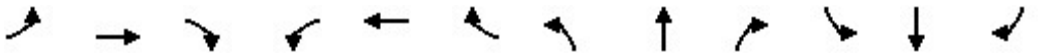
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	0	102	87
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1509	1490
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	8.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	56	375	26	84	216
Future Volume (Veh/h)	12	56	375	26	84	216
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	61	408	28	91	235
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	839	422			436	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	839	422			436	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	90			92	
cM capacity (veh/h)	309	632			1124	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	74	436	326
Volume Left	13	0	91
Volume Right	61	28	0
cSH	534	1700	1124
Volume to Capacity	0.14	0.26	0.08
Queue Length 95th (m)	3.8	0.0	2.1
Control Delay (s)	12.8	0.0	2.9
Lane LOS	B		A
Approach Delay (s)	12.8	0.0	2.9
Approach LOS	B		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	51.4%	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)	14	6	90	77	7	2	53	15	45	7	25	9
Future Volume (Veh/h)	14	6	90	77	7	2	53	15	45	7	25	9
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)	15	7	98	84	8	2	58	16	49	8	27	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	10			105			286	264	56	320	312	9
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	10			105			286	264	56	320	312	9
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			94			90	97	95	99	95	99
cM capacity (veh/h)	1610			1486			604	599	1011	561	564	1073

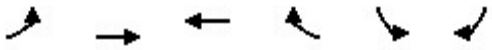
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	120	94	123	45
Volume Left	15	84	58	8
Volume Right	98	2	49	10
cSH	1610	1486	718	629
Volume to Capacity	0.01	0.06	0.17	0.07
Queue Length 95th (m)	0.2	1.4	4.9	1.8
Control Delay (s)	1.0	6.8	11.0	11.2
Lane LOS	A	A	B	B
Approach Delay (s)	1.0	6.8	11.0	11.2
Approach LOS			B	B

Intersection Summary				
Average Delay	6.9			
Intersection Capacity Utilization	31.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	32	14	23	71	66	54
Future Volume (Veh/h)	32	14	23	71	66	54
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	15	25	77	72	59
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	228	102	131			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	228	102	131			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	98	98			
cM capacity (veh/h)	747	954	1454			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	50	102	131
Volume Left	35	25	0
Volume Right	15	0	59
cSH	799	1454	1700
Volume to Capacity	0.06	0.02	0.08
Queue Length 95th (m)	1.6	0.4	0.0
Control Delay (s)	9.8	1.9	0.0
Lane LOS	A	A	
Approach Delay (s)	9.8	1.9	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	21.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	53	88	60	66	10
Future Volume (Veh/h)	4	53	88	60	66	10
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	58	96	65	72	11
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	161				194	128
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	161				194	128
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				91	99
cM capacity (veh/h)	1418				792	921

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	62	161	83
Volume Left	4	0	72
Volume Right	0	65	11
cSH	1418	1700	807
Volume to Capacity	0.00	0.09	0.10
Queue Length 95th (m)	0.1	0.0	2.7
Control Delay (s)	0.5	0.0	10.0
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	10.0
Approach LOS			A

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	111	7	11	139	9	9
Future Volume (Veh/h)	111	7	11	139	9	9
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)	121	8	12	151	10	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			129		300	125
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			129		300	125
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)			1457		686	926

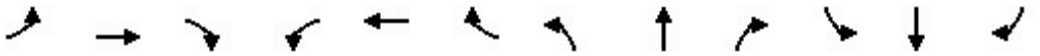
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	129	163	20
Volume Left	0	12	10
Volume Right	8	0	10
cSH	1700	1457	788
Volume to Capacity	0.08	0.01	0.03
Queue Length 95th (m)	0.0	0.2	0.6
Control Delay (s)	0.0	0.6	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	0.6	9.7
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	58	62	58	91	60	43
Future Volume (Veh/h)	58	62	58	91	60	43
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)	63	67	63	99	65	47
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			130		322	96
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			130		322	96
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		90	95
cM capacity (veh/h)			1455		643	960

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	130	162	112
Volume Left	0	63	65
Volume Right	67	0	47
cSH	1700	1455	746
Volume to Capacity	0.08	0.04	0.15
Queue Length 95th (m)	0.0	1.1	4.2
Control Delay (s)	0.0	3.2	10.7
Lane LOS		A	B
Approach Delay (s)	0.0	3.2	10.7
Approach LOS			B

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	27.3%	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	0	2	0	0	0	0	132	0	0	92	0
Future Volume (Veh/h)	0	0	2	0	0	0	0	132	0	0	92	0
Sign Control		Stop			Stop			Free			Free	
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	0	2	0	0	0	0	143	0	0	100	0
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	243	243	100	245	243	143	100			143		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	243	243	100	245	243	143	100			143		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	711	659	956	707	659	905	1493			1440		

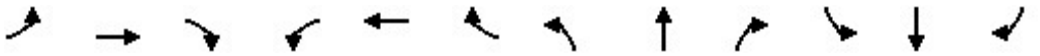
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	0	143	100
Volume Left	0	0	0	0
Volume Right	2	0	0	0
cSH	956	1700	1493	1440
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.1	0.0	0.0	0.0
Control Delay (s)	8.8	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	8.8	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	16.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	89	355	6	36	373
Future Volume (Veh/h)	27	89	355	6	36	373
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)	29	97	386	7	39	405
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	872	390			393	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	872	390			393	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	85			97	
cM capacity (veh/h)	310	659			1166	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	126	393	444
Volume Left	29	0	39
Volume Right	97	7	0
cSH	523	1700	1166
Volume to Capacity	0.24	0.23	0.03
Queue Length 95th (m)	7.5	0.0	0.8
Control Delay (s)	14.0	0.0	1.0
Lane LOS	B		A
Approach Delay (s)	14.0	0.0	1.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	57.6%	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)	2	10	27	23	36	4	81	22	69	11	7	4
Future Volume (Veh/h)	2	10	27	23	36	4	81	22	69	11	7	4
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)	2	11	29	25	39	4	88	24	75	12	8	4
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	43			40			128	122	26	208	135	41
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	43			40			128	122	26	208	135	41
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			98			89	97	93	98	99	100
cM capacity (veh/h)	1566			1570			823	755	1050	671	743	1030

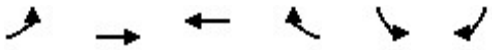
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	42	68	187	24
Volume Left	2	25	88	12
Volume Right	29	4	75	4
cSH	1566	1570	890	737
Volume to Capacity	0.00	0.02	0.21	0.03
Queue Length 95th (m)	0.0	0.4	6.3	0.8
Control Delay (s)	0.4	2.8	10.1	10.0
Lane LOS	A	A	B	B
Approach Delay (s)	0.4	2.8	10.1	10.0
Approach LOS			B	B

Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	28.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	48	21	7	125	71	16
Future Volume (Veh/h)	48	21	7	125	71	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	23	8	136	77	17
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	238	86	94			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	238	86	94			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	98	99			
cM capacity (veh/h)	747	973	1500			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	75	144	94
Volume Left	52	8	0
Volume Right	23	0	17
cSH	804	1500	1700
Volume to Capacity	0.09	0.01	0.06
Queue Length 95th (m)	2.5	0.1	0.0
Control Delay (s)	9.9	0.5	0.0
Lane LOS	A	A	
Approach Delay (s)	9.9	0.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.6		
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)	2	62	64	84	54	6
Future Volume (Veh/h)	2	62	64	84	54	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)	2	67	70	91	59	7
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	161				186	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	161				186	116
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				93	99
cM capacity (veh/h)	1418				802	937

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	69	161	66
Volume Left	2	0	59
Volume Right	0	91	7
cSH	1418	1700	814
Volume to Capacity	0.00	0.09	0.08
Queue Length 95th (m)	0.0	0.0	2.1
Control Delay (s)	0.2	0.0	9.8
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	9.8
Approach LOS			A

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	18.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	107	10	8	131	17	13
Future Volume (Veh/h)	107	10	8	131	17	13
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)	116	11	9	142	18	14
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			127		282	122
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			127		282	122
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		97	98
cM capacity (veh/h)			1459		704	930

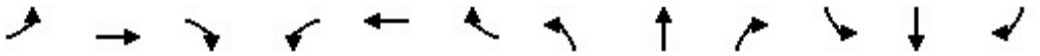
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	127	151	32
Volume Left	0	9	18
Volume Right	11	0	14
cSH	1700	1459	788
Volume to Capacity	0.07	0.01	0.04
Queue Length 95th (m)	0.0	0.1	1.0
Control Delay (s)	0.0	0.5	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	9.8
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	68	52	35	63	76	97
Future Volume (Veh/h)	68	52	35	63	76	97
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)	74	57	38	68	83	105
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			131		246	102
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			131		246	102
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		89	89
cM capacity (veh/h)			1454		723	953

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	131	106	188
Volume Left	0	38	83
Volume Right	57	0	105
cSH	1700	1454	835
Volume to Capacity	0.08	0.03	0.23
Queue Length 95th (m)	0.0	0.6	6.9
Control Delay (s)	0.0	2.8	10.6
Lane LOS		A	B
Approach Delay (s)	0.0	2.8	10.6
Approach LOS			B

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	28.7%	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	0	0	0	0	0	0	134	0	0	117	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	134	0	0	117	0
Sign Control		Stop			Stop			Free			Free	
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	0	0	0	0	0	0	146	0	0	127	0
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	273	273	127	273	273	146	127			146		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	273	273	127	273	273	146	127			146		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	679	634	923	679	634	901	1459			1436		

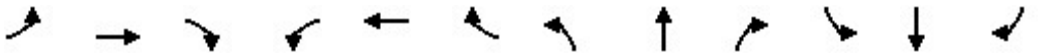
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	0	146	127
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1459	1436
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	10.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	12	64	603	29	92	413
Future Volume (Veh/h)	12	64	603	29	92	413
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	70	655	32	100	449
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	1320	671			687	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1320	671			687	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	85			89	
cM capacity (veh/h)	154	456			907	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	83	687	549
Volume Left	13	0	100
Volume Right	70	32	0
cSH	349	1700	907
Volume to Capacity	0.24	0.40	0.11
Queue Length 95th (m)	7.3	0.0	3.0
Control Delay (s)	18.5	0.0	2.9
Lane LOS	C		A
Approach Delay (s)	18.5	0.0	2.9
Approach LOS	C		

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	10	90	77	11	4	53	15	45	11	25	13
Future Volume (Veh/h)	21	10	90	77	11	4	53	15	45	11	25	13
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)	23	11	98	84	12	4	58	16	49	12	27	14
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	16			109			316	290	60	345	337	14
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	16			109			316	290	60	345	337	14
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			94			90	97	95	98	95	99
cM capacity (veh/h)	1602			1481			573	577	1005	537	543	1066

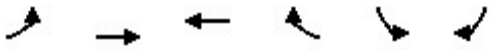
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	132	100	123	53
Volume Left	23	84	58	12
Volume Right	98	4	49	14
cSH	1602	1481	692	622
Volume to Capacity	0.01	0.06	0.18	0.09
Queue Length 95th (m)	0.3	1.4	5.1	2.2
Control Delay (s)	1.4	6.4	11.3	11.3
Lane LOS	A	A	B	B
Approach Delay (s)	1.4	6.4	11.3	11.3
Approach LOS			B	B

Intersection Summary				
Average Delay	6.9			
Intersection Capacity Utilization	30.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	32	14	23	111	103	54
Future Volume (Veh/h)	32	14	23	111	103	54
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	15	25	121	112	59
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	312	142	171			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	312	142	171			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	98	98			
cM capacity (veh/h)	668	906	1406			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	50	146	171
Volume Left	35	25	0
Volume Right	15	0	59
cSH	725	1406	1700
Volume to Capacity	0.07	0.02	0.10
Queue Length 95th (m)	1.8	0.4	0.0
Control Delay (s)	10.3	1.4	0.0
Lane LOS	B	A	
Approach Delay (s)	10.3	1.4	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	74	123	91	98	15
Future Volume (Veh/h)	6	74	123	91	98	15
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)	7	80	134	99	107	16
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	233				278	184
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	233				278	184
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				85	98
cM capacity (veh/h)	1335				709	859

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	87	233	123
Volume Left	7	0	107
Volume Right	0	99	16
cSH	1335	1700	725
Volume to Capacity	0.01	0.14	0.17
Queue Length 95th (m)	0.1	0.0	4.9
Control Delay (s)	0.7	0.0	11.0
Lane LOS	A		B
Approach Delay (s)	0.7	0.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	25.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	160	11	17	201	13	13
Future Volume (Veh/h)	160	11	17	201	13	13
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)	174	12	18	218	14	14
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			186		434	180
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			186		434	180
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	98
cM capacity (veh/h)			1388		572	863

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	186	236	28
Volume Left	0	18	14
Volume Right	12	0	14
cSH	1700	1388	688
Volume to Capacity	0.11	0.01	0.04
Queue Length 95th (m)	0.0	0.3	1.0
Control Delay (s)	0.0	0.7	10.5
Lane LOS		A	B
Approach Delay (s)	0.0	0.7	10.5
Approach LOS			B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	82	92	65	128	91	52
Future Volume (Veh/h)	82	92	65	128	91	52
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)	89	100	71	139	99	57
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			189		420	139
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			189		420	139
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		82	94
cM capacity (veh/h)			1385		560	909

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	189	210	156
Volume Left	0	71	99
Volume Right	100	0	57
cSH	1700	1385	651
Volume to Capacity	0.11	0.05	0.24
Queue Length 95th (m)	0.0	1.3	7.4
Control Delay (s)	0.0	2.9	12.3
Lane LOS		A	B
Approach Delay (s)	0.0	2.9	12.3
Approach LOS			B

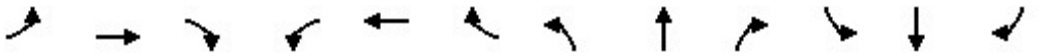
Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix F
Future Total Conditions Synchro Reports

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	107	6	4	36	6	13
Future Volume (Veh/h)	107	6	4	36	6	13
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)	116	7	4	39	7	14
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			123		166	120
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			123		166	120
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	98
cM capacity (veh/h)			1464		822	932

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	123	43	21
Volume Left	0	4	7
Volume Right	7	0	14
cSH	1700	1464	892
Volume to Capacity	0.07	0.00	0.02
Queue Length 95th (m)	0.0	0.1	0.6
Control Delay (s)	0.0	0.7	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	0.7	9.1
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	16.0%	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	0	1	0	0	0	0	92	0	0	82	0
Future Volume (Veh/h)	0	0	1	0	0	0	0	92	0	0	82	0
Sign Control		Stop			Stop			Free			Free	
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	0	1	0	0	0	0	100	0	0	89	0
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	189	189	89	190	189	100	89			100		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	189	189	89	190	189	100	89			100		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	771	706	969	769	706	956	1506			1493		

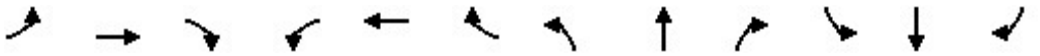
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	1	0	100	89
Volume Left	0	0	0	0
Volume Right	1	0	0	0
cSH	969	1700	1506	1493
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	8.7	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	8.7	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	14.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	38	125	213	11	46	192
Future Volume (Veh/h)	38	125	213	11	46	192
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)	41	136	232	12	50	209
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	541	232			244	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	541	232			244	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	83			96	
cM capacity (veh/h)	483	807			1322	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	177	232	12	50	209
Volume Left	41	0	0	50	0
Volume Right	136	0	12	0	0
cSH	699	1700	1700	1322	1700
Volume to Capacity	0.25	0.14	0.01	0.04	0.12
Queue Length 95th (m)	8.0	0.0	0.0	0.9	0.0
Control Delay (s)	11.9	0.0	0.0	7.8	0.0
Lane LOS	B			A	
Approach Delay (s)	11.9	0.0		1.5	
Approach LOS	B				

Intersection Summary			
Average Delay	3.7		
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)	1	26	27	23	83	19	81	22	69	13	7	2
Future Volume (Veh/h)	1	26	27	23	83	19	81	22	69	13	7	2
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)	1	28	29	25	90	21	88	24	75	14	8	2
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	111			57			201	206	42	282	210	100
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	111			57			201	206	42	282	210	100
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			98			88	96	93	98	99	100
cM capacity (veh/h)	1479			1547			739	679	1028	597	676	955

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	58	136	187	24
Volume Left	1	25	88	14
Volume Right	29	21	75	2
cSH	1479	1547	823	642
Volume to Capacity	0.00	0.02	0.23	0.04
Queue Length 95th (m)	0.0	0.4	7.0	0.9
Control Delay (s)	0.1	1.5	10.7	10.8
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	1.5	10.7	10.8
Approach LOS			B	B

Intersection Summary				
Average Delay	6.1			
Intersection Capacity Utilization	31.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	82	13	9	61	38	26
Future Volume (Veh/h)	82	13	9	61	38	26
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)	89	14	10	66	41	28
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			103		182	96
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			103		182	96
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		95	97
cM capacity (veh/h)			1489		802	960

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	103	76	69
Volume Left	0	10	41
Volume Right	14	0	28
cSH	1700	1489	860
Volume to Capacity	0.06	0.01	0.08
Queue Length 95th (m)	0.0	0.2	2.1
Control Delay (s)	0.0	1.0	9.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.0	9.6
Approach LOS			A

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	20.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	101	6	4	38	32	13
Future Volume (Veh/h)	101	6	4	38	32	13
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)	110	7	4	41	35	14
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			117		162	114
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			117		162	114
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		96	99
cM capacity (veh/h)			1471		826	939

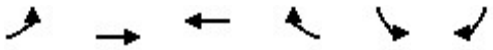
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	117	45	49
Volume Left	0	4	35
Volume Right	7	0	14
cSH	1700	1471	855
Volume to Capacity	0.07	0.00	0.06
Queue Length 95th (m)	0.0	0.1	1.5
Control Delay (s)	0.0	0.7	9.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.7	9.5
Approach LOS			A

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	36	12	80	46	28
Future Volume (Veh/h)	84	36	12	80	46	28
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)	91	39	13	87	50	30
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	178	65	80			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	178	65	80			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	96	99			
cM capacity (veh/h)	805	999	1518			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	130	100	80
Volume Left	91	13	0
Volume Right	39	0	30
cSH	855	1518	1700
Volume to Capacity	0.15	0.01	0.05
Queue Length 95th (m)	4.3	0.2	0.0
Control Delay (s)	10.0	1.0	0.0
Lane LOS	A	A	
Approach Delay (s)	10.0	1.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	65	50	61	37	4
Future Volume (Veh/h)	1	65	50	61	37	4
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)	1	71	54	66	40	4
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	120				160	87
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	120				160	87
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				95	100
cM capacity (veh/h)	1468				830	971

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	72	120	44
Volume Left	1	0	40
Volume Right	0	66	4
cSH	1468	1700	842
Volume to Capacity	0.00	0.07	0.05
Queue Length 95th (m)	0.0	0.0	1.3
Control Delay (s)	0.1	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	16.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	96	6	5	100	11	9
Future Volume (Veh/h)	96	6	5	100	11	9
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)	104	7	5	109	12	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			111		226	108
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			111		226	108
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	99
cM capacity (veh/h)			1479		759	946

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	111	114	22
Volume Left	0	5	12
Volume Right	7	0	10
cSH	1700	1479	834
Volume to Capacity	0.07	0.00	0.03
Queue Length 95th (m)	0.0	0.1	0.6
Control Delay (s)	0.0	0.4	9.4
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	9.4
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	69	36	38	49	56	108
Future Volume (Veh/h)	69	36	38	49	56	108
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)	75	39	41	53	61	117
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			114		230	94
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			114		230	94
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		92	88
cM capacity (veh/h)			1475		738	962

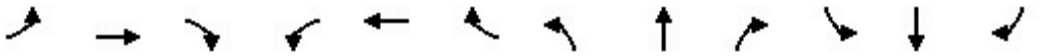
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	114	94	178
Volume Left	0	41	61
Volume Right	39	0	117
cSH	1700	1475	871
Volume to Capacity	0.07	0.03	0.20
Queue Length 95th (m)	0.0	0.7	6.1
Control Delay (s)	0.0	3.4	10.2
Lane LOS		A	B
Approach Delay (s)	0.0	3.4	10.2
Approach LOS			B

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	27.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	69	21	14	118	4	8
Future Volume (Veh/h)	69	21	14	118	4	8
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)	75	23	15	128	4	9
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			98		244	86
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			98		244	86
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)			1495		736	972

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	98	143	13
Volume Left	0	15	4
Volume Right	23	0	9
cSH	1700	1495	885
Volume to Capacity	0.06	0.01	0.01
Queue Length 95th (m)	0.0	0.2	0.4
Control Delay (s)	0.0	0.9	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	9.1
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	23.7%	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	0	0	0	0	0	0	111	0	0	90	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	111	0	0	90	0
Sign Control		Stop			Stop			Free			Free	
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	0	0	0	0	0	0	121	0	0	98	0
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	219	219	98	219	219	121	98			121		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	219	219	98	219	219	121	98			121		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	737	679	958	737	679	930	1495			1467		

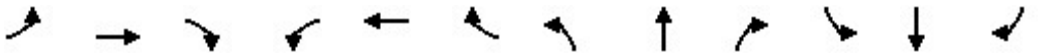
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	0	121	98
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1495	1467
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	9.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	85	375	41	134	216
Future Volume (Veh/h)	21	85	375	41	134	216
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	92	408	45	146	235
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	935	408			453	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	935	408			453	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	86			87	
cM capacity (veh/h)	256	643			1108	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	115	408	45	146	235
Volume Left	23	0	0	146	0
Volume Right	92	0	45	0	0
cSH	494	1700	1700	1108	1700
Volume to Capacity	0.23	0.24	0.03	0.13	0.14
Queue Length 95th (m)	7.2	0.0	0.0	3.6	0.0
Control Delay (s)	14.5	0.0	0.0	8.7	0.0
Lane LOS	B			A	
Approach Delay (s)	14.5	0.0		3.4	
Approach LOS	B				

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	43.6%	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)	14	71	90	77	45	13	53	15	45	25	25	9
Future Volume (Veh/h)	14	71	90	77	45	13	53	15	45	25	25	9
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)	15	77	98	84	49	14	58	16	49	27	27	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	63			175			404	387	126	437	429	56
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	63			175			404	387	126	437	429	56
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			94			88	97	95	94	94	99
cM capacity (veh/h)	1540			1401			501	510	924	464	483	1011

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	190	147	123	64
Volume Left	15	84	58	27
Volume Right	98	14	49	10
cSH	1540	1401	614	516
Volume to Capacity	0.01	0.06	0.20	0.12
Queue Length 95th (m)	0.2	1.5	5.9	3.4
Control Delay (s)	0.7	4.6	12.3	13.0
Lane LOS	A	A	B	B
Approach Delay (s)	0.7	4.6	12.3	13.0
Approach LOS			B	B

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	36.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	86	41	28	101	24	16
Future Volume (Veh/h)	86	41	28	101	24	16
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)	93	45	30	110	26	17
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			139		286	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			139		286	116
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		96	98
cM capacity (veh/h)			1443		689	935

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	138	140	43
Volume Left	0	30	26
Volume Right	45	0	17
cSH	1700	1443	769
Volume to Capacity	0.08	0.02	0.06
Queue Length 95th (m)	0.0	0.5	1.4
Control Delay (s)	0.0	1.7	10.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.7	10.0
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	27.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	82	21	14	109	20	8
Future Volume (Veh/h)	82	21	14	109	20	8
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)	89	23	15	118	22	9
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			112		248	100
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			112		248	100
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		97	99
cM capacity (veh/h)			1478		732	955

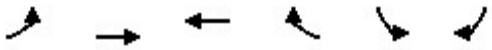
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	112	133	31
Volume Left	0	15	22
Volume Right	23	0	9
cSH	1700	1478	786
Volume to Capacity	0.07	0.01	0.04
Queue Length 95th (m)	0.0	0.2	1.0
Control Delay (s)	0.0	0.9	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	9.8
Approach LOS			A

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	23.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	55	24	40	71	66	93
Future Volume (Veh/h)	55	24	40	71	66	93
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	26	43	77	72	101
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	286	122	173			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	286	122	173			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	97	97			
cM capacity (veh/h)	683	929	1404			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	86	120	173
Volume Left	60	43	0
Volume Right	26	0	101
cSH	743	1404	1700
Volume to Capacity	0.12	0.03	0.10
Queue Length 95th (m)	3.1	0.8	0.0
Control Delay (s)	10.5	2.9	0.0
Lane LOS	B	A	
Approach Delay (s)	10.5	2.9	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	64	106	63	72	10
Future Volume (Veh/h)	4	64	106	63	72	10
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	70	115	68	78	11
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	183				227	149
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	183				227	149
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				90	99
cM capacity (veh/h)	1392				759	898

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	74	183	89
Volume Left	4	0	78
Volume Right	0	68	11
cSH	1392	1700	774
Volume to Capacity	0.00	0.11	0.12
Queue Length 95th (m)	0.1	0.0	3.1
Control Delay (s)	0.4	0.0	10.3
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	20.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	127	7	11	160	9	9
Future Volume (Veh/h)	127	7	11	160	9	9
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)	138	8	12	174	10	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			146		340	142
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			146		340	142
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)			1436		650	906

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	146	186	20
Volume Left	0	12	10
Volume Right	8	0	10
cSH	1700	1436	757
Volume to Capacity	0.09	0.01	0.03
Queue Length 95th (m)	0.0	0.2	0.7
Control Delay (s)	0.0	0.6	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.6	9.9
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	27.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	69	68	91	109	63	62
Future Volume (Veh/h)	69	68	91	109	63	62
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)	75	74	99	118	68	67
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			149		428	112
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			149		428	112
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		87	93
cM capacity (veh/h)			1432		543	941

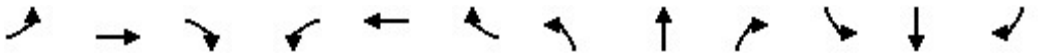
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	149	217	135
Volume Left	0	99	68
Volume Right	74	0	67
cSH	1700	1432	688
Volume to Capacity	0.09	0.07	0.20
Queue Length 95th (m)	0.0	1.8	5.8
Control Delay (s)	0.0	3.8	11.5
Lane LOS		A	B
Approach Delay (s)	0.0	3.8	11.5
Approach LOS			B

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	107	6	4	36	6	13
Future Volume (Veh/h)	107	6	4	36	6	13
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)	116	7	4	39	7	14
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			123		166	120
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			123		166	120
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	98
cM capacity (veh/h)			1464		822	932

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	123	43	21
Volume Left	0	4	7
Volume Right	7	0	14
cSH	1700	1464	892
Volume to Capacity	0.07	0.00	0.02
Queue Length 95th (m)	0.0	0.1	0.6
Control Delay (s)	0.0	0.7	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	0.7	9.1
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	16.0%	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	0	2	0	0	0	0	137	0	0	107	0
Future Volume (Veh/h)	0	0	2	0	0	0	0	137	0	0	107	0
Sign Control		Stop			Stop			Free			Free	
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	0	2	0	0	0	0	149	0	0	116	0
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	265	265	116	267	265	149	116			149		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	265	265	116	267	265	149	116			149		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	688	640	936	684	640	898	1473			1432		

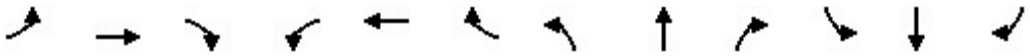
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	0	149	116
Volume Left	0	0	0	0
Volume Right	2	0	0	0
cSH	936	1700	1473	1432
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.1	0.0	0.0	0.0
Control Delay (s)	8.9	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	8.9	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	17.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	41	135	355	11	51	373
Future Volume (Veh/h)	41	135	355	11	51	373
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)	45	147	386	12	55	405
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	901	386			398	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	901	386			398	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	85	78			95	
cM capacity (veh/h)	294	662			1161	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	192	386	12	55	405
Volume Left	45	0	0	55	0
Volume Right	147	0	12	0	0
cSH	512	1700	1700	1161	1700
Volume to Capacity	0.38	0.23	0.01	0.05	0.24
Queue Length 95th (m)	13.8	0.0	0.0	1.2	0.0
Control Delay (s)	16.2	0.0	0.0	8.3	0.0
Lane LOS	C			A	
Approach Delay (s)	16.2	0.0		1.0	
Approach LOS	C				

Intersection Summary			
Average Delay	3.4		
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												
Traffic Volume (veh/h)	2	30	27	23	96	21	81	22	69	17	7	4
Future Volume (Veh/h)	2	30	27	23	96	21	81	22	69	17	7	4
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)	2	33	29	25	104	23	88	24	75	18	8	4
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	127			62			225	228	48	304	232	116
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	127			62			225	228	48	304	232	116
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			98			88	96	93	97	99	100
cM capacity (veh/h)	1459			1541			711	659	1022	576	657	937

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	64	152	187	30
Volume Left	2	25	88	18
Volume Right	29	23	75	4
cSH	1459	1541	801	629
Volume to Capacity	0.00	0.02	0.23	0.05
Queue Length 95th (m)	0.0	0.4	7.2	1.2
Control Delay (s)	0.2	1.3	10.9	11.0
Lane LOS	A	A	B	B
Approach Delay (s)	0.2	1.3	10.9	11.0
Approach LOS			B	B

Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	31.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	82	13	9	61	38	26
Future Volume (Veh/h)	82	13	9	61	38	26
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)	89	14	10	66	41	28
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			103		182	96
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			103		182	96
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		95	97
cM capacity (veh/h)			1489		802	960

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	103	76	69
Volume Left	0	10	41
Volume Right	14	0	28
cSH	1700	1489	860
Volume to Capacity	0.06	0.01	0.08
Queue Length 95th (m)	0.0	0.2	2.1
Control Delay (s)	0.0	1.0	9.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.0	9.6
Approach LOS			A

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	20.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	101	6	4	38	32	13
Future Volume (Veh/h)	101	6	4	38	32	13
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)	110	7	4	41	35	14
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			117		162	114
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			117		162	114
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		96	99
cM capacity (veh/h)			1471		826	939

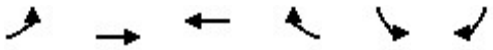
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	117	45	49
Volume Left	0	4	35
Volume Right	7	0	14
cSH	1700	1471	855
Volume to Capacity	0.07	0.00	0.06
Queue Length 95th (m)	0.0	0.1	1.5
Control Delay (s)	0.0	0.7	9.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.7	9.5
Approach LOS			A

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	36	12	125	71	28
Future Volume (Veh/h)	84	36	12	125	71	28
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)	91	39	13	136	77	30
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	254	92	107			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	254	92	107			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	96	99			
cM capacity (veh/h)	728	965	1484			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	130	149	107
Volume Left	91	13	0
Volume Right	39	0	30
cSH	786	1484	1700
Volume to Capacity	0.17	0.01	0.06
Queue Length 95th (m)	4.7	0.2	0.0
Control Delay (s)	10.5	0.7	0.0
Lane LOS	B	A	
Approach Delay (s)	10.5	0.7	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.8		
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)	2	79	70	89	56	6
Future Volume (Veh/h)	2	79	70	89	56	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)	2	86	76	97	61	7
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	173				214	124
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	173				214	124
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				92	99
cM capacity (veh/h)	1404				773	926

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	88	173	68
Volume Left	2	0	61
Volume Right	0	97	7
cSH	1404	1700	786
Volume to Capacity	0.00	0.10	0.09
Queue Length 95th (m)	0.0	0.0	2.3
Control Delay (s)	0.2	0.0	10.0
Lane LOS	A		B
Approach Delay (s)	0.2	0.0	10.0
Approach LOS			B

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	125	10	8	142	17	13
Future Volume (Veh/h)	125	10	8	142	17	13
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)	136	11	9	154	18	14
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			147		314	142
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			147		314	142
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		97	98
cM capacity (veh/h)			1435		675	906

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	147	163	32
Volume Left	0	9	18
Volume Right	11	0	14
cSH	1700	1435	760
Volume to Capacity	0.09	0.01	0.04
Queue Length 95th (m)	0.0	0.2	1.1
Control Delay (s)	0.0	0.5	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	9.9
Approach LOS			A

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	85	54	45	69	81	128
Future Volume (Veh/h)	85	54	45	69	81	128
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)	92	59	49	75	88	139
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			151		294	122
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			151		294	122
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		87	85
cM capacity (veh/h)			1430		673	930

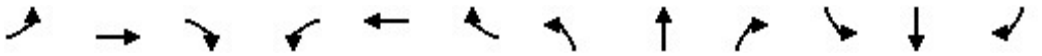
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	151	124	227
Volume Left	0	49	88
Volume Right	59	0	139
cSH	1700	1430	810
Volume to Capacity	0.09	0.03	0.28
Queue Length 95th (m)	0.0	0.9	9.2
Control Delay (s)	0.0	3.2	11.2
Lane LOS		A	B
Approach Delay (s)	0.0	3.2	11.2
Approach LOS			B

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	69	21	14	118	4	8
Future Volume (Veh/h)	69	21	14	118	4	8
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)	75	23	15	128	4	9
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			98		244	86
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			98		244	86
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)			1495		736	972

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	98	143	13
Volume Left	0	15	4
Volume Right	23	0	9
cSH	1700	1495	885
Volume to Capacity	0.06	0.01	0.01
Queue Length 95th (m)	0.0	0.2	0.4
Control Delay (s)	0.0	0.9	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	9.1
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	23.7%	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	0	0	0	0	0	0	151	0	0	127	0
Future Volume (Veh/h)	0	0	0	0	0	0	0	151	0	0	127	0
Sign Control		Stop			Stop			Free			Free	
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	0	0	0	0	0	0	164	0	0	138	0
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	302	302	138	302	302	164	138			164		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	302	302	138	302	302	164	138			164		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	650	611	910	650	611	881	1446			1414		

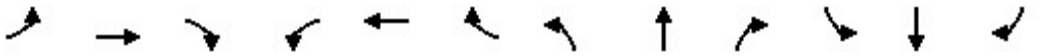
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	0	164	138
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1446	1414
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS	A	A		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	11.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	93	603	44	142	413
Future Volume (Veh/h)	21	93	603	44	142	413
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	101	655	48	154	449
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	1412	655			703	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1412	655			703	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	82	78			83	
cM capacity (veh/h)	126	466			895	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	124	655	48	154	449
Volume Left	23	0	0	154	0
Volume Right	101	0	48	0	0
cSH	310	1700	1700	895	1700
Volume to Capacity	0.40	0.39	0.03	0.17	0.26
Queue Length 95th (m)	14.8	0.0	0.0	5.0	0.0
Control Delay (s)	24.1	0.0	0.0	9.9	0.0
Lane LOS	C			A	
Approach Delay (s)	24.1	0.0		2.5	
Approach LOS	C				

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	56.5%	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)	21	75	90	77	49	15	53	15	45	29	25	13
Future Volume (Veh/h)	21	75	90	77	49	15	53	15	45	29	25	13
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)	23	82	98	84	53	16	58	16	49	32	27	14
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	69			180			434	414	131	463	455	61
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	69			180			434	414	131	463	455	61
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			94			88	97	95	93	94	99
cM capacity (veh/h)	1532			1396			474	489	919	443	464	1004

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	203	153	123	73
Volume Left	23	84	58	32
Volume Right	98	16	49	14
cSH	1532	1396	590	506
Volume to Capacity	0.02	0.06	0.21	0.14
Queue Length 95th (m)	0.4	1.5	6.2	4.0
Control Delay (s)	0.9	4.5	12.7	13.3
Lane LOS	A	A	B	B
Approach Delay (s)	0.9	4.5	12.7	13.3
Approach LOS			B	B

Intersection Summary				
Average Delay	6.2			
Intersection Capacity Utilization	36.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	86	41	28	101	24	16
Future Volume (Veh/h)	86	41	28	101	24	16
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)	93	45	30	110	26	17
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			139		286	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			139		286	116
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		96	98
cM capacity (veh/h)			1443		689	935

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	138	140	43
Volume Left	0	30	26
Volume Right	45	0	17
cSH	1700	1443	769
Volume to Capacity	0.08	0.02	0.06
Queue Length 95th (m)	0.0	0.5	1.4
Control Delay (s)	0.0	1.7	10.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.7	10.0
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	27.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	82	21	14	109	20	8
Future Volume (Veh/h)	82	21	14	109	20	8
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)	89	23	15	118	22	9
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			112		248	100
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			112		248	100
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		97	99
cM capacity (veh/h)			1478		732	955

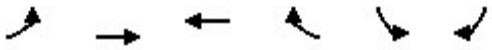
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	112	133	31
Volume Left	0	15	22
Volume Right	23	0	9
cSH	1700	1478	786
Volume to Capacity	0.07	0.01	0.04
Queue Length 95th (m)	0.0	0.2	1.0
Control Delay (s)	0.0	0.9	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	9.8
Approach LOS			A

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	23.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	55	24	40	111	103	93
Future Volume (Veh/h)	55	24	40	111	103	93
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	26	43	121	112	101
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	370	162	213			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	370	162	213			
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	97	97			
cM capacity (veh/h)	611	882	1357			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	86	164	213
Volume Left	60	43	0
Volume Right	26	0	101
cSH	673	1357	1700
Volume to Capacity	0.13	0.03	0.13
Queue Length 95th (m)	3.5	0.8	0.0
Control Delay (s)	11.1	2.2	0.0
Lane LOS	B	A	
Approach Delay (s)	11.1	2.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	85	141	94	104	15
Future Volume (Veh/h)	6	85	141	94	104	15
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)	7	92	153	102	113	16
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	255				310	204
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	255				310	204
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				83	98
cM capacity (veh/h)	1310				679	837

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	99	255	129
Volume Left	7	0	113
Volume Right	0	102	16
cSH	1310	1700	695
Volume to Capacity	0.01	0.15	0.19
Queue Length 95th (m)	0.1	0.0	5.4
Control Delay (s)	0.6	0.0	11.4
Lane LOS	A		B
Approach Delay (s)	0.6	0.0	11.4
Approach LOS			B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	26.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	176	11	17	222	13	13
Future Volume (Veh/h)	176	11	17	222	13	13
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)	191	12	18	241	14	14
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			203		474	197
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			203		474	197
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		97	98
cM capacity (veh/h)			1369		542	844

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	203	259	28
Volume Left	0	18	14
Volume Right	12	0	14
cSH	1700	1369	660
Volume to Capacity	0.12	0.01	0.04
Queue Length 95th (m)	0.0	0.3	1.1
Control Delay (s)	0.0	0.6	10.7
Lane LOS		A	B
Approach Delay (s)	0.0	0.6	10.7
Approach LOS			B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	93	98	98	146	94	71
Future Volume (Veh/h)	93	98	98	146	94	71
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)	101	107	107	159	102	77
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			208		528	154
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			208		528	154
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		78	91
cM capacity (veh/h)			1363		471	891

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	208	266	179
Volume Left	0	107	102
Volume Right	107	0	77
cSH	1700	1363	591
Volume to Capacity	0.12	0.08	0.30
Queue Length 95th (m)	0.0	2.0	10.2
Control Delay (s)	0.0	3.6	13.7
Lane LOS		A	B
Approach Delay (s)	0.0	3.6	13.7
Approach LOS			B

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix G
Signal Warrant Analysis

Signal Warrant Calculation

AECOM

MAJOR STREET: County Road 42

MINOR STREET: Margaret Street

COMMENT Future Total Conditions 2041

NUMBER OF APPROACH LANES: 1 [X] 2 [ ]

TEE INTERSECTION CONFIGURATION YES [x] NO [ ]

FLOW CONDITIONS: FREE FLOW (RURAL) [ ] RESTRICTED FLOW (URBAN) [X]

VOLUME	AM	PM	FACTOR *	
1A - All	568	793	n/a	571
1B - Minor	176	114	50%	73
2A - Major	790	1,202	50%	498
2B - Crossi	41	21	50%	16

* This factor relates average of the "peak eight hours" to the average of the "am and pm peak hours"

OVERALL WARRANT

150% SATISFIED:	YES [ ]	NO [X]	Warrant for new intersection with forecast traffic
120% SATISFIED:	YES [ ]	NO [X]	Warrant for existing intersection with forecast traffic
100% SATISFIED:	YES [ ]	NO [X]	Warrant for existing intersection with existing traffic *
COMBO 80% SATISFIED:	YES [ ]	NO [X]	Warrant for existing intersection with existing traffic
80% SATISFIED:	YES [ ]	NO [X]	

* Consider full underground provisions if 100% for forecast traffic

WARRANT 1 - MINIMUM VEHICULAR VOLUME

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
ALL APPROACHES	480	720	600	900	571
	% FULFILLED				79%

150% SATISFIED:	YES [ ]	NO [X]
120% SATISFIED:	YES [ ]	NO [X]
100% SATISFIED:	YES [ ]	NO [X]
80% SATISFIED:	YES [ ]	NO [X]

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
MINOR STREET APPROACHES	180	255	180	255	73
	% FULFILLED				28%

WARRANT 2 - DELAY TO CROSS TRAFFIC

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
MAJOR STREET APPROACHES	480	720	600	900	498
	% FULFILLED				69%

150% SATISFIED:	YES [ ]	NO [X]
120% SATISFIED:	YES [ ]	NO [X]
100% SATISFIED:	YES [ ]	NO [X]
80% SATISFIED:	YES [ ]	NO [X]

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
TRAFFIC CROSSING MAJOR STREET	50	75	50	75	16
	% FULFILLED				21%

1A - MINIMUM VEHICULAR VOLUME: Total vehicle volume on all approaches for average day

1B - MINIMUM VEHICULAR VOLUME: Total vehicle volume on minor streets

2A - DELAY TO CROSS TRAFFIC: Total vehicle volume on major street for average day

2B - DELAY TO CROSS TRAFFIC: Total vehicle and pedestrian volume crossing major street; comprising: (1) lefts from both minor streets, (2) heaviest through from minor street, (3) 50% of heavier left turn from major street when following criteria met: (a) left turn volume >120 and (b) left turn volume plus opposing volume > 720, (4) pedestrians crossing the major street.

Signal Warrant Calculation

AECOM

MAJOR STREET:	Warrington Road
MINOR STREET:	Margaret Street
COMMENT	Future Total Conditions 2041
NUMBER OF APPROACH LANES:	1 [X] 2 [ ]
TEE INTERSECTION CONFIGURATION	YES [x] NO [ ]
FLOW CONDITIONS:	FREE FLOW (RURAL) [ ] RESTRICTED FLOW (URBAN) [X]

VOLUME	AM	PM	FACTOR *	
1A - All	356	426	n/a	196
1B - Minor	120	79	50%	50
2A - Major	236	347	50%	146
2B - Crossi	84	55	50%	35

* This factor relates average of the "peak eight hours" to the average of the "am and pm peak hours"

OVERALL WARRANT

150% SATISFIED:	YES [ ]	NO [X]	Warrant for new intersection with forecast traffic
120% SATISFIED:	YES [ ]	NO [X]	Warrant for existing intersection with forecast traffic
100% SATISFIED:	YES [ ]	NO [X]	Warrant for existing intersection with existing traffic *
COMBO 80% SATISFIED:	YES [ ]	NO [X]	Warrant for existing intersection with existing traffic
80% SATISFIED:	YES [ ]	NO [X]	

* Consider full underground provisions if 100% for forecast traffic

WARRANT 1 - MINIMUM VEHICULAR VOLUME

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
ALL APPROACHES	480	720	600	900	196
	% FULFILLED				27%

150% SATISFIED:	YES [ ]	NO [X]
120% SATISFIED:	YES [ ]	NO [X]
100% SATISFIED:	YES [ ]	NO [X]
80% SATISFIED:	YES [ ]	NO [X]

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
MINOR STREET APPROACHES	180	255	180	255	50
	% FULFILLED				20%

WARRANT 2 - DELAY TO CROSS TRAFFIC

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
MAJOR STREET APPROACHES	480	720	600	900	146
	% FULFILLED				20%

150% SATISFIED:	YES [ ]	NO [X]
120% SATISFIED:	YES [ ]	NO [X]
100% SATISFIED:	YES [ ]	NO [X]
80% SATISFIED:	YES [ ]	NO [X]

APPROACH LANES	1		2 OR MORE		AVERAGE HOUR PERIOD
FLOW CONDITION	FREE FLOW	REST. FLOW	FREE FLOW	REST. FLOW	
		X			
TRAFFIC CROSSING MAJOR STREET	50	75	50	75	35
	% FULFILLED				46%

1A - MINIMUM VEHICULAR VOLUME: Total vehicle volume on all approaches for average day

1B - MINIMUM VEHICULAR VOLUME: Total vehicle volume on minor streets

2A - DELAY TO CROSS TRAFFIC: Total vehicle volume on major street for average day

2B - DELAY TO CROSS TRAFFIC: Total vehicle and pedestrian volume crossing major street; comprising: (1) lefts from both minor streets, (2) heaviest through from minor street, (3) 50% of heavier left turn from major street when following criteria met: (a) left turn volume >120 and (b) left turn volume plus opposing volume > 720, (4) pedestrians crossing the major street.