1345 Baseline Road Transportation Impact Assessment

Transportation Impact Assessment Report

Report Date: 30th June, 2022

Prepared for:
Scouts Canada

Prepared by:

Stantec Consulting Ltd.

Certification

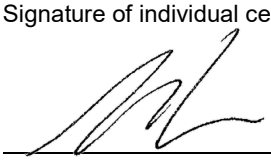
1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;

2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;

3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and

4. I am either a licensed[1] or registered[1] professional in good standing, whose field of expertise is either transportation engineering or transportation planning.

Signature of individual certifier that s/he meets the above four criteria.



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1 License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works

Table of Contents

List of Tables

List of Figures

List of Appendices

1.0 SCREENING

1.1 SUMMARY OF DEVELOPMENT

Municipal Address	1345 Baseline Road
Description of Location	North-east corner of the Baseline Road at Clyde Avenue intersection. The site is bound by Baseline Road to the south, existing commercial to the west, and an existing government property to the north and east.
Land Use Classification	Residential, Commercial
Development Size (units)	1,014 units
Development Size (ft^2)	Commercial: 8,971 ft^2 GFA
Number of Accesses and Locations	2 full movements accesses off the Private Road (shared with Walmart) and one Proposed Right-In / Right-Out access to Baseline Road
Phase of Development	2 Phases, however, as they are close together assessment will be of one phase
Buildout Year	2029

If available, please attach a sketch of the development or site plan to this form.

1.2 TRIP GENERATION TRIGGER

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Land Use Type	Minimum Development Size	Triggered
Single-family homes	40 units	✗
Townhomes or apartments	90 units	✓
Office	3,500 m^2	✗
Industrial	5,000 m^2	✗
Fast-food restaurant or coffee shop	100 m^2	✗
Destination retail	1,000 m^2	✗
Gas station or convenience market	75 m^2	✗

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.*

If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.

1.3 LOCATION TRIGGERS

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks?	✓	
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone? *	✓	

**DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).*

If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.

1.4 SAFETY TRIGGERS

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		✗
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		✗
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?	✓	
Is the proposed driveway within auxiliary lanes of an intersection?		✗
Does the proposed driveway make use of an existing median break that serves an existing site?		✗
Is there a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		✗
Does the development include a drive-thru facility?		✗

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

1.5 SUMMARY

	Yes	No
Does the development satisfy the Trip Generation Trigger?	✓	
Does the development satisfy the Location Trigger?	✓	
Does the development satisfy the Safety Trigger?	✓	

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).

2.0 SCOPING

2.1 EXISTING AND PLANNED CONDITIONS

2.1.1 Proposed Development

Scouts Canada is preparing a development application for a Zoning By-Law Amendment of a proposed development in the Central Park neighborhood of Ottawa, Ontario. The proposed development is located at 1345 Baseline Road, situated in the north-east quadrant of the Baseline Road at Clyde Avenue intersection. The site is bound by Baseline Road to the south, existing commercial to the west, and a federal government property to the north and east.

Figure 1 illustrates the location of the subject development. The subject site is currently zoned as Arterial Mainstreet (AM) Zone; the purpose of the AM Zone, according to the City of Ottawa Official Plan, is to:

- *"Accommodate a broad range of uses including retail, service commercial, offices, residential and institutional uses in mixed-use buildings or side by side in separate buildings in areas designated Arterial Mainstreet* in the Official Plan; and
- *Impose development standards that will promote intensification while ensuring that they are compatible with the surrounding uses."*

The proposed site plan includes a new right-in / right-out access to Baseline Road as well as two more accesses off the existing Private Access 1, shared with the adjacent Walmart property. A total of 748 vehicle parking spaces and 752 bicycle parking spaces will be provided as part of the proposed development.

The proposed site will be constructed in two phases, however, as the phases are expected to be built within two years of each other, for the purposes of transportation analysis, only one phase will be assumed. Build-out and occupancy of the entire site is anticipated to occur in 2029.

Table 1 outlines the proposed land uses assumed for the analysis which were obtained from both the *Institute of Transportation (ITE) Trip Generation Manual 11th Edition* as well as the City of Ottawa's *Trans Trip Generation Manual*

Figure 2 illustrates the proposed site plan.

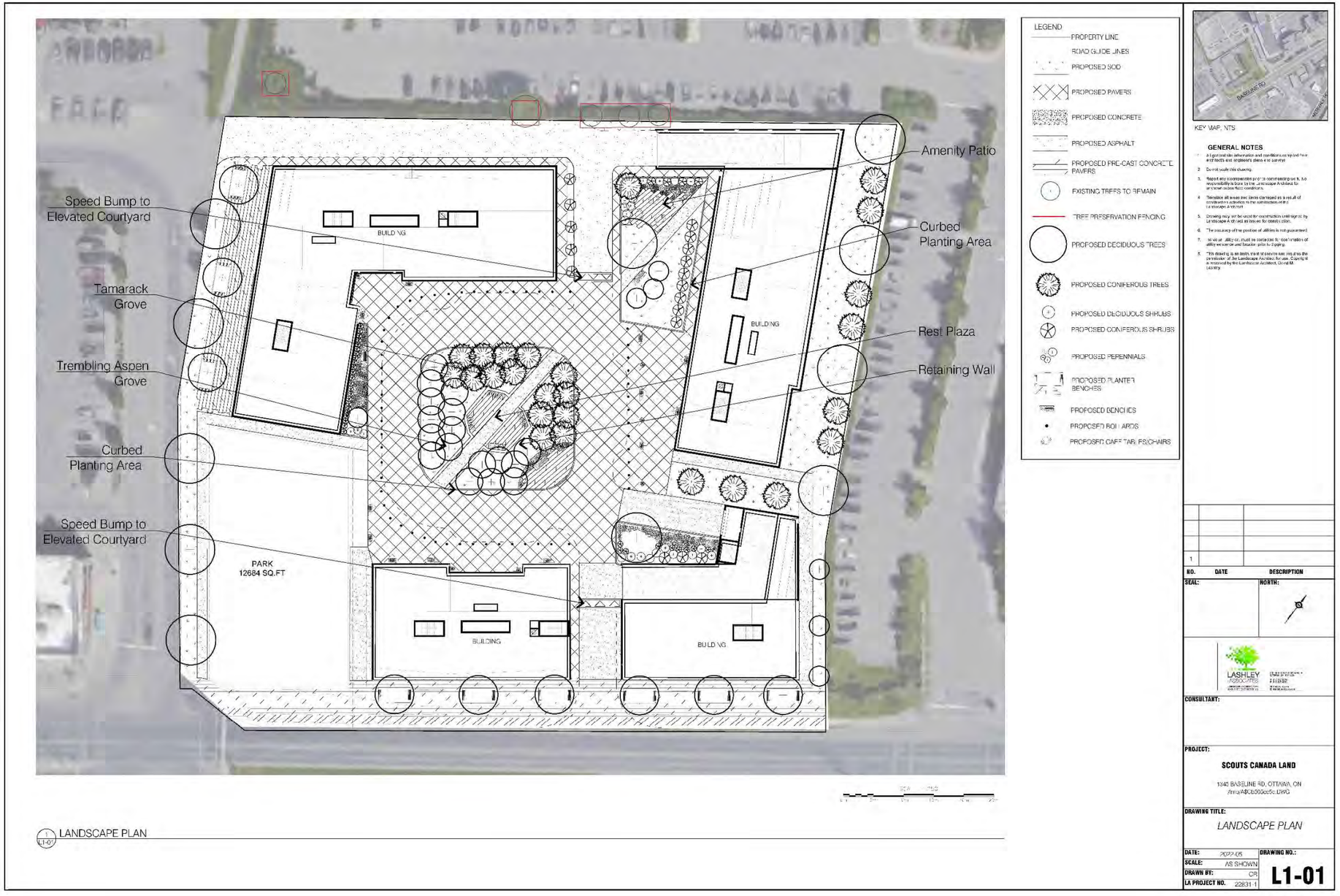
Figure 1 - Site Location

Table 1 - Proposed Land Uses / Land Use Codes

Land Use	Size	Land Use Code (LUC)
LUC 222	1,014 units	Multifamily Housing (High-Rise)
LUC 822	8,971 ft^2 GFA	Strip Retail Plaza[1]

Note: 1. Land Use Code may change as the development proceeds and more information becomes available on the specific proposed land uses.

Figure 2 - Site Plan



L1-01 LANDSCAPE PLAN

2.1.2 Existing Conditions

2.1.2.1 Roads and Traffic Control

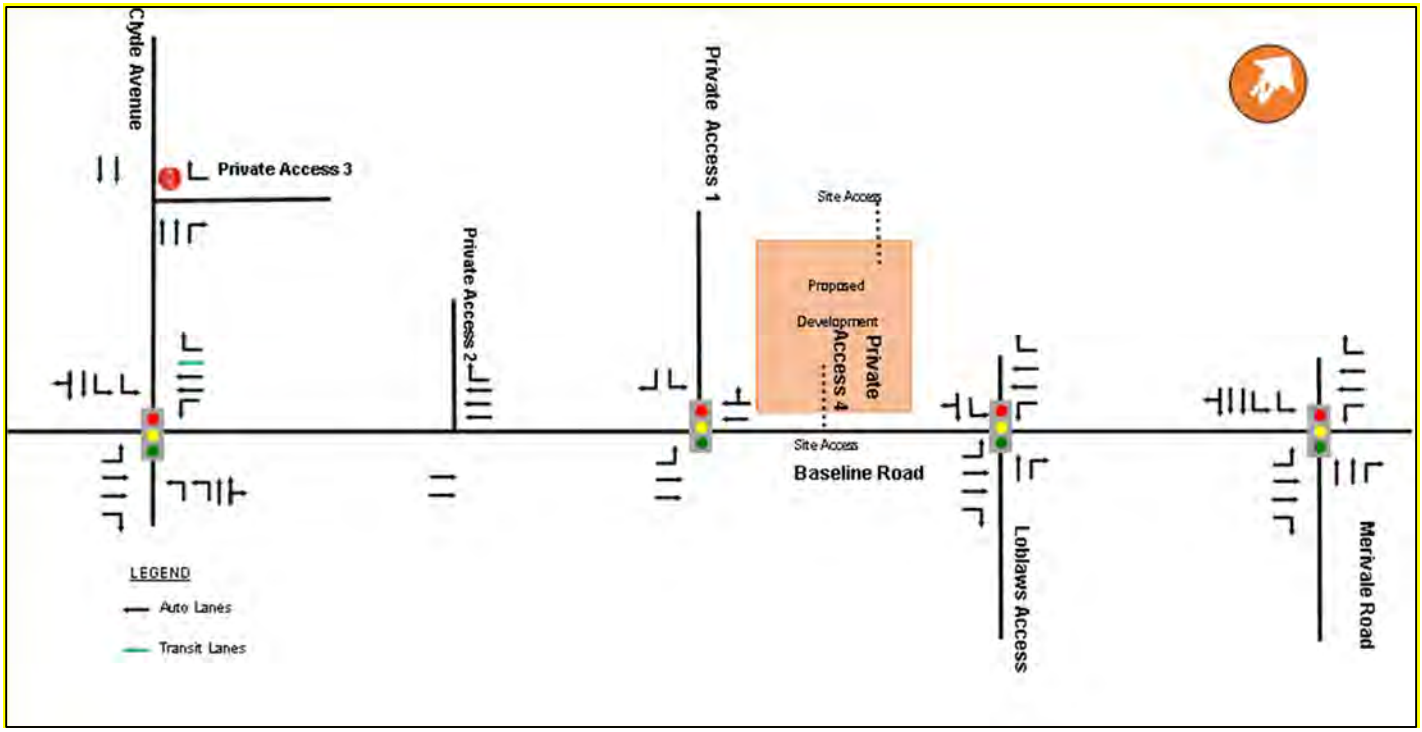
The roadways under consideration in the study area are described as follows:

Baseline Road	Across the frontage of the subject site, Baseline Road is a municipal five-lane divided arterial roadway. The posted speed limit along Baseline Road across the frontage of the subject site is 60 km/h. Sidewalks are provided along both sides of the road and an on-street bicycle lane is provided in the westbound direction. As outlined in the City's Official Plan, Baseline Road is designated as an Arterial Mainstreet across the frontage of the subject site. Per the City of Ottawa's Ultimate Cycling Network, Baseline Road is also designated as a Spine Cycling Route and a Cross-Town Bikeway. The existing driveways of Baseline Road include; Baseline at right-in private access (appx 100m east of Clyde) (Private Access 2) that provides access to the existing residential and commercial buildings in the west and access to commercial area in the east, and Baseline at Walmart signals (appx 270m east of Clyde) (Private Access 1) that provides access to existing commercial building in the west and office in the east and Baseline at Loblaws signal (approximately 420m east of Clyde
Clyde Avenue	Within the vicinity of the subject site, Clyde Avenue is a municipal four-lane divided arterial roadway. The posted speed limit along Clyde Avenue within the vicinity of the subject site is 60 km/h. Sidewalks are provided along both sides of Clyde Avenue. Per the City of Ottawa's Ultimate Cycling Network, Clyde Avenue is designated as a Spine Cycling Route. The intersection with Baseline Road is signalized and currently includes dual southbound and northbound left turn lanes, auxiliary eastbound and westbound left turn lanes, and channelized eastbound and westbound right turn lanes. Clyde at the existing access off Baseline at right-in / right-out private access (appx 90m north of Baseline) (Private Access 3) that provides access to the existing residential and commercial building in the south and commercial access in the east.
Merivale Road	Within the vicinity of the subject site, Merivale Road is a municipal four-lane divided arterial roadway. The posted speed limit along Merivale Road within the vicinity of the subject site is 60 km/h. Sidewalks are provided along both sides of Merivale Road. Per the City of Ottawa's Ultimate Cycling Network, Merivale Road is designated as a Spine Cycling Route. The intersection with Baseline Road is signalized and currently includes dual southbound left turn lanes, auxiliary eastbound and westbound left turn lanes, an auxiliary right turn lane in the northbound direction, and channelized southbound and westbound right turn lanes.

There are numerous commercial driveways along both Baseline Road and Clyde Avenue within 200m of the proposed access to Baseline Road.

Figure 3 illustrates the existing lane configuration and traffic control.

Figure 3 - Existing Lane Configuration and Traffic Control

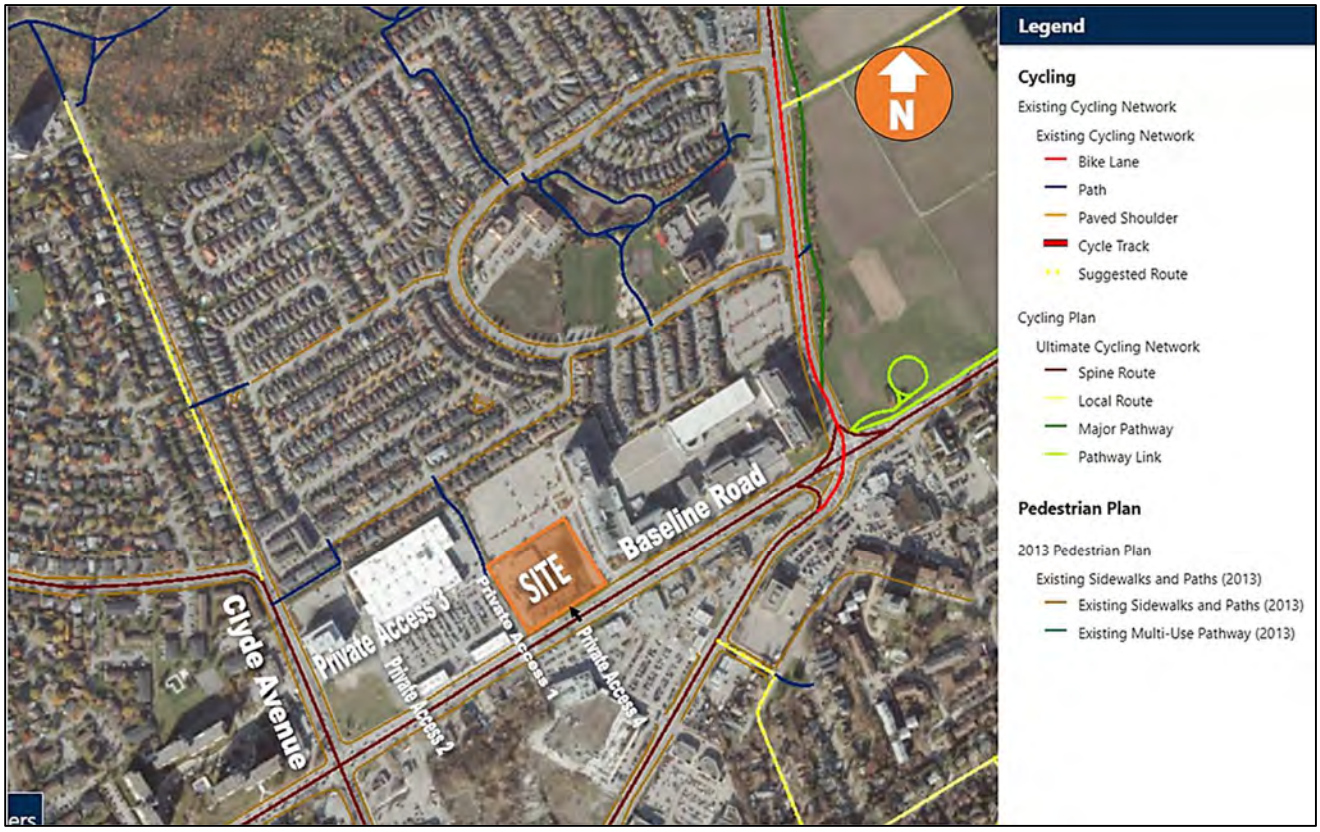


2.1.2.2 Walking and Cycling

Within the vicinity of the subject site, sidewalks are provided along both sides of Baseline Road and Clyde Avenue. Across the frontage of the subject site, a curbside on-street bicycle lane develops along Baseline Road in the westbound direction. There is currently no cycling facility in the eastbound direction along Baseline Road, nor in either direction along Clyde Avenue. Both Baseline Road and Clyde Avenue are designated as 'spine' cycling routes in the City of Ottawa's Ultimate Cycling Network.

Figure 4 illustrates the existing and planned active modes facilities in the vicinity of the subject site.

Figure 4 - Existing and Planned Active Modes Facilities



Source: geoOttawa, accessed March 2022

2.1.2.3 Transit

Transit service is currently provided in the immediate vicinity of the proposed development via the following routes:

Route 50 — Route 50 is a Local Route that runs between Tunney's Pasture Station and Lincoln Fields Station. It does not run during the AM peak and PM peak hours.

Route 81 — Route 81 is a Local Route that runs between Tunney's Pasture Station and Clyde Avenue. It runs with 30-minute headways during the weekdays and 30 to 60-minute headways on weekends.

Route 88 — Route 88 is a Frequent Route that runs between Hurdman Station and Terry Fox Station. It runs with 15 minute headways during the AM peak and 12 minute intervals during the PM peak.

There are transit stops located at the intersection of Baseline Road and Clyde Avenue that are serviced by all three transit routes.

Figure 5 illustrates nearby transit routes and bus stop locations.

Figure 5 - Study Area Transit Routes and Stops

(Source: OC Transpo System Map, accessed January 27th, 2021)

2.1.2.4 Traffic Management Measures

No traffic management measures are currently provided in the vicinity of the subject site.

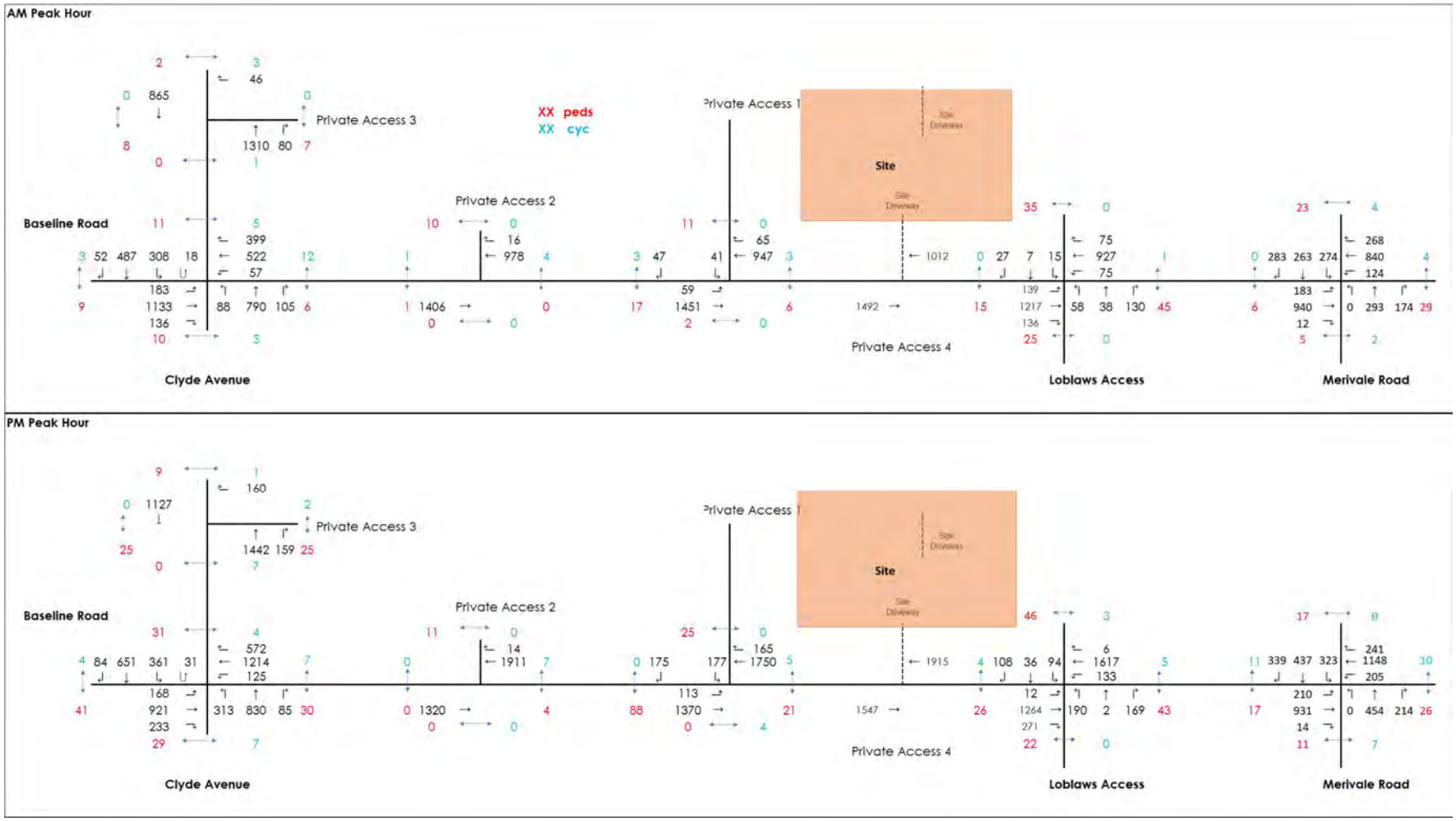
2.1.2.5 Traffic Volumes

Traffic volumes at the majority of the study area intersections were collected in the summer of 2019, with the exception of the Baseline Road at Loblaws Access which was collected in 2016. A growth rate of 2% was applied, which was used in the previously approved 1357 Baseline TIA (Stantec 2020). This annual growth rate was applied to the traffic counts to represent the 2022 existing traffic volumes.

Figure 6 illustrates the 2022 traffic volumes at the four study area intersections.

Appendix A contains the traffic data and is provided for reference.

Figure 6 - 2022 Existing Traffic Volumes



2.1.2.6 Collision History

Collision data was provided by the City of Ottawa for the period 2016-2020 in the vicinity of the subject site. The data was reviewed to determine if any intersections or road segments exhibited an identifiable collision pattern during the five (5) year period.

Overall, there were a total 281 reported collisions between 2016 and 2020. It was found that 220 collisions (78%) resulted in property damage only, suggesting that they occurred at low speeds, thereby circumventing bodily harm. The analysis also found that 61 collisions (22%) resulted in non-fatal injuries and there were no fatal collisions. The collision statistics are shown in **Table 2** below.

At the intersection of Baseline Road at Clyde Avenue, a total of 128 collisions were reported, which accounts for 46% of the total collisions in the identified intersections and segments. Of these 128 collisions, the vast majority of them were rear end collisions 77 (60%). These rear end collisions were analyzed further to determine if there are any significant patterns, which can be seen in **Table 3** below. It was found that 34% of the rear end collisions occurred between vehicles traveling in the northbound direction, 31% in the westbound direction, and 26% in the eastbound direction. Further analysis of the rear end collision at this intersection found that 54 collisions (70%) occurred on a dry surface and 13 collisions (17%) occurred on a wet surface.

At the intersection of Baseline Road at Merivale Road, a total of 107 collisions were reported, which accounts for 38% of the total collisions in the identified intersections and segments. Of these 107 collisions, the vast majority of them were rear end collisions 66 (62%). These rear end collisions were analyzed further to determine if there are any significant patterns, which can be seen in **Table 4** below. It was found that 44% of the rear end collisions occurred between vehicles traveling in the eastbound direction, 26%% in the northbound direction, and 22% in the westbound direction. Further analysis of the rear end collision at this intersection found that 41 collisions (62%) occurred on a dry surface and 10 collisions (15%) occurred on a wet surface.

Appendix A contains the collision data and is provided for reference.

Table 2 - Collision Summary

		Baseline Road at Clyde Avenue	Baseline Road at Private Access 3	Baseline Road at Private Access 1	Baseline Road at Loblaws Access	Baseline Road at Merivale
Classification	Property Damage Only	106	1	15	12	86
	Non-Fatal Injury	22	--	13	5	21
	Fatal	--	--	--	--	--
Collision Type	Rear End	77	--	11	7	66
	Angle / Turning	24	1	8	10	14
	Sideswipe	20	--	2	--	22
	Single Motor Vehicle	4	--	7	--	4
	Other	3	--	--	--	1
Environmental condition	Clear	103	1	22	14	78
	Rain	10	--	2	2	11
	Snow	11	--	4	1	13
	Freezing Rain	3	--	--	--	2
	Fog, mist, smoke, dust	1	--	--	--	--
	Drifting snow	--	--	--	--	2
	Strong wind	--	--	--	--	1

Table 3 - Baseline at Clyde Avenue Rear-End Collisions

Baseline Road at Clyde Avenue Rear End Collisions		
Direction of Travel	North	26
	South	7
	East	20
	West	24
Pavement Condition	Dry	54
	Wet	13
	Loose Snow	1
	Slush	2
	Ice	2
	Packed Snow	5

Table 4 - Baseline at Merivale Road Rear-End Collisions

Baseline Road at Merivale Road Rear End Collisions		
Direction of Travel	North	26
	South	15
	East	44
	West	22
Pavement Condition	Dry	41
	Wet	10
	Loose Snow	4
	Slush	4
	Ice	5
	Packed Snow	2

2.1.3 Planned Conditions

2.1.3.1 Road Network Modifications

Two transportation improvement projects are scheduled to occur within the vicinity of the subject development, as outlined in the City of Ottawa's Transportation Master Plan and summarized in **Table 5** below.

Table 5 - City of Ottawa Transportation Master Plan Projects

Project	Description	TMP Phase
Baseline / Heron / Walkley / St. Laurent	At-grade Bus Rapid Transit connecting Baseline Station to Heron Station At-grade Bus Rapid Transit connecting Bayshore Station to St. Laurent Station	Affordable Network (2031)[1] Network Concept (i.e., beyond 2031)
Merivale Road	Peak period bus lanes (peak direction only) and transit signal priority between Carling Avenue and Baseline Road (achieve by reallocating existing traffic lanes) Road widening to provide exclusive bus lanes and transit priority between Baseline Road and Slack Road The bus lanes on Merivale Road have been abandoned	Affordable Network 2031 Network Concept 2031

Notes: 1. As indicated by the City, it is assumed that the Baseline BRT across the frontage of the subject site will be built by the build-out year of the site (i.e., by 2029)

2.1.3.2 Future Background Developments

There are several developments scheduled to occur within the vicinity of the subject site, as illustrated in

Figure 7 and described in **Table 6**.

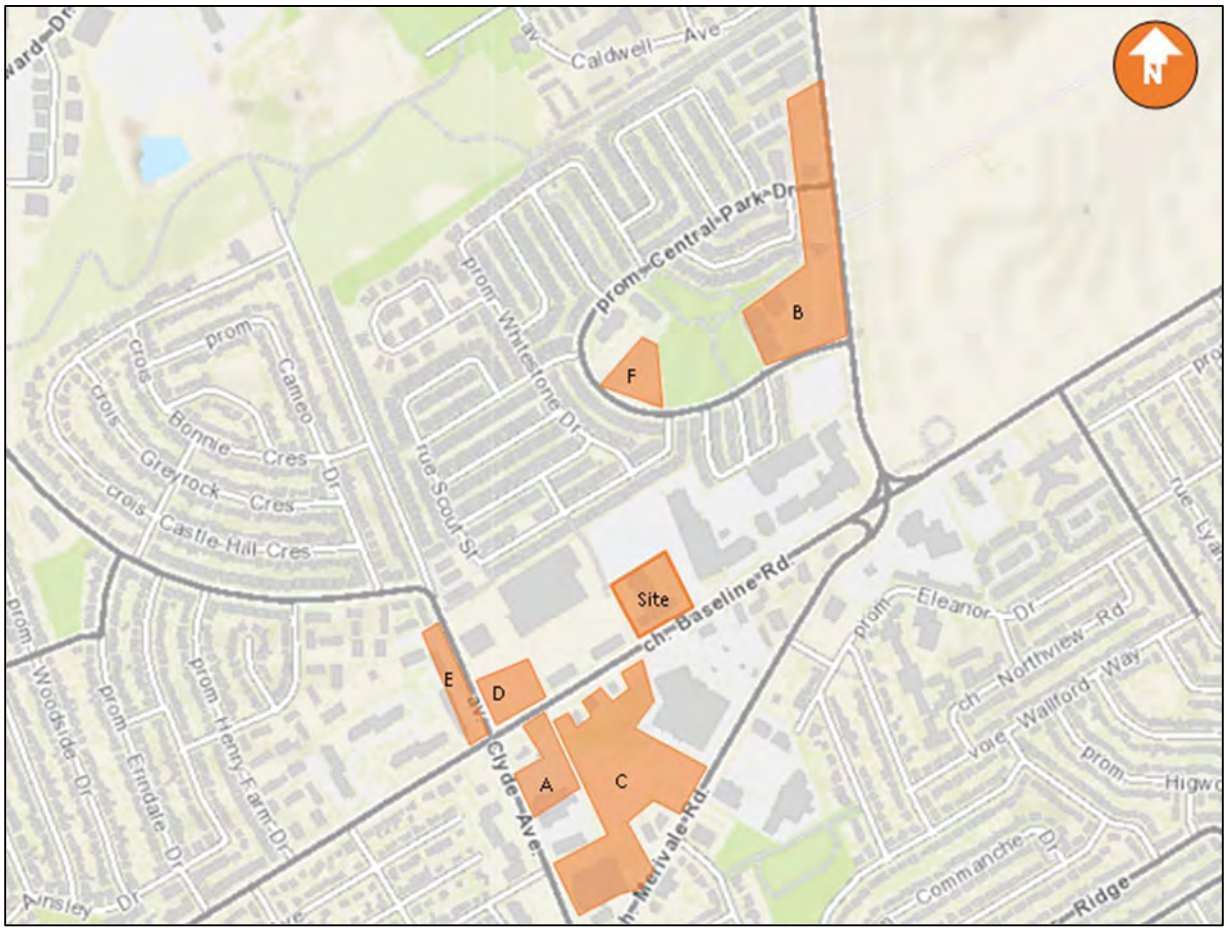
Table 6 - Background Developments

Key Plan Reference	Development	Location	Description	Build-Out Horizon
A	1375 Clyde Avenue	Southeast quadrant of the Baseline Road at Clyde Avenue intersection	Self-storage facility, restaurant and expansion of existing retail building	2020[1]
B	300 Central Park	West of Merivale Road, between Central Park Drive and Caldwell Avenue	740 high-rise apartment units, 180,000 ft^2 of retail, and 48,000 ft^2 of office	No definitive timeline outlined in the TIA. Assumed to be by 2022 for the subject TIA
C	1500 Merivale Road	Southeast quadrant of the Baseline Road at Clyde Avenue intersection	1,967 dwellings and approximately 12,150ft^2 GFA of ground-floor retail.	2038
D	1357 Baseline Road	Northeast corner of the Baseline Road at Clyde Avenue intersection	228 retirement units, 174 apartment units and 5,900ft^2 GFA of commercial space	2022
E	1356 Clyde	Northwest quadrant of the Baseline Road at Clyde Avenue intersection	2 high-rise apartment buildings with 458 units, 32,776ft2 of office space, and 18,740ft2 of ground floor retail.	Phase 1- 2022[2] Phase 2- 2026

F	130 Central Park Drive	East of the intersections Cedar Park Street and Staten Way with Central Park Rod	Addition of 2 towers, 8 & 10 storeys high with 344 retirement apartment units.	2021[3]

Notes: 1. Per the TIA on the City's Development Applications website, the build-out year for this development was planned for 2020, however, it should be noted that it is not yet constructed. As such, it is assumed that it will be constructed for the first horizon of the subject study (i.e., by 2027).
2. Per the TIA, the build-out oh Phase 1 of this development was planned for 2022, however, it is not yet constructed. It was assumed that Phase 1 and Phase 2 will be built by the site build-out of the subject development (i.e., by 2027)
3. **TIA assumed buildout by 2021, however, it is currently not built at the time this TIA was prepared, therefore, it was assumed it will be built by the buildout of the subject horizon (i.e., 2029)**

Figure 7 - Background Developments



2.2 STUDY AREA AND TIME PERIODS

2.2.1 Study Area

The proposed study area is limited to the following intersections:

1. Baseline Road at Clyde Avenue;
2. Baseline Road at Private Access 2 (appx. 100m east of Clyde Avenue);
3. Baseline Road at Private Access 1 (Walmart Access);
4. Baseline Road at Loblaws Access;
5. Clyde Avenue at Private Access 3 (appx. 100m north of Baseline Road);
6. Baseline Road at Proposed Private Access 4.
7. Baseline Road at Merivale Road

2.2.2 Time Periods

The proposed scope of the transportation assessment includes the following analysis time periods:

- Weekday AM peak hour of roadway; and
- Weekday PM peak hour of roadway.

2.2.3 Horizon Years

The scope of the transportation assessment proposes the following horizon years:

- 2022 existing conditions;
- 2029 future background conditions;
- 2029 total future conditions (full site build-out); and
- 2034 total future conditions (5 years beyond build-out).

2.3 EXEMPTIONS REVIEW

Table 7 summarizes the Exemptions Review table from the City of Ottawa's *2017 Transportation Impact Assessment Guidelines*. As the subject application is for Zoning By-Law Amendment only, Modules 4.1 – 4.4 are exempt from the TIA process.

Table 7 - Exemptions Review

Module	Element	Exemption Considerations	Exempted?
Design Review Component			
4.1 Development Design	4.1.2 Circulation and Access	Only required for site plans	Yes
	4.1.3 New Street Networks	Only required for plans of subdivision	Yes
4.2 Parking	4.2.1 Parking Supply	Only required for site plans	Yes
	4.2.2 Spillover Parking	Only required for site plans where parking supply is 15% below unconstrained demand	Yes
Network Impact Component			
4.5 Transportation Demand Management	All Elements	Not required for site plans expected to have fewer than 60 employees and/or students on location at any given time	No
4.6 Neighborhood Traffic Management	4.6.1 Adjacent Neighborhoods	Only required when the development relies on local or collector streets for access and total volumes exceed ATM capacity thresholds	Yes
4.8 Network Concept		Only required when proposed development generates more than 200 person-trips during the peak hour in excess of the equivalent volume permitted by established zoning	Yes
4.9 Intersection Design	All Elements	Not required if site generation trigger is not met.	No

3.0 FORECASTING

3.1 DEVELOPMENT GENERATED TRAVEL DEMAND

3.1.1 Trip Generation and Mode Shares

The *Institute of Transportation (ITE) Trip Generation Manual* (11th edition) was used to forecast the auto trip generation for the proposed commercial land use and the *TRANS Trip Generation Residential Trip Rates Study Report* was used to forecast auto trip generation for the residential land use. Land use codes 822– Strip Retail Plaza (ITE) and 222 – High-Rise Apartments (TRANS) were thought to be the most representative of the proposed land uses. **Table 8** outlines the assumed land uses and the trip generation rates for each land use.

As per the City of Ottawa's *2017 TIA Guidelines,* the auto trip generation rates of the apartment land use were converted to person trips using the auto mode shares outlined in Table 3.13 in the *TRANS Trip Generation Residential Trip Rates Study Report*. The auto trip generation rates of the commercial land use were converted to person trips using a conversion factor of 1.28. **Table 9** outlines development-generated person trips for each land use.

Table 8 - Land Uses and Trip Generation Rates

LUC	Land Use	Size	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Rate	In	Out	Total
222	Multifamily Housing (High-Rise)	1014 units	31%	69%	0.80	58%	42%	0.90
822	Strip Retail Plaza	8,971 ft^2 GFA	60%	40%	2.36	50%	50%	6.59

Table 9 - Person Trips Generated by Land Use

LUC	Land Use	Trip Conversion	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
222	Multifamily Housing (High-Rise)	Person Trips (Peak Period	251	560	811	530	383	913
		Person Trips (Peak Hour) 0.50 for AM & 0.44 for PM	126	280	406	233	169	402
822	Strip Retail Plaza	Auto Trips	13	8	21	30	30	59
		Person Trip Factor	1.28					
		Person Trips	17	10	27	38	38	76
Total Development		**Total Person Trips**	**143**	**290**	**433**	**271**	**207**	**478**

To reflect local travel characteristics, the person trips were assigned to the four primary modal shares (i.e., auto, passenger, transit, and active moves). The subject site is located within the Baseline Road Bus Rapid Transit Corridor, which, per direction from the City of Ottawa, is planned to be opened by 2029 (for the purposes of this study only). The modal shares for the proposed development were taken from the recently approved *1357 Baseline Road Transportation Impact Assessment* (Stantec, 2020), which outlined the future modal shares for this area once the Baseline Road BRT is constructed.

Table 10 outlines the anticipated trip generation potential of the proposed development by travel mode based on assumed mode share targets for the 2029 horizon year.

Table 10 – Future Trips Generated by Travel Mode

LUC	Land Use	Trip Conversion		Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
222	Multifamily Housing (High-Rise)	Auto	30%	38	84	122	70	51	121
		Passenger	15%	19	42	61	35	25	60
		Transit	40%	50	112	162	93	68	161
		Cycling	5%	6	14	20	12	8	20
		Walking	10%	13	28	41	23	17	40
822	Strip Retail Plaza	Auto	30%	5	3	8	11	11	23
		Passenger	15%	4	2	4	6	6	11
		Transit	40%	7	4	11	15	15	30
		Cycling	5%	1	1	1	2	2	4
		Walking	10%	2	1	3	4	4	8
Total		**Auto Trips**		**43**	**87**	**130**	**81**	**62**	**144**
		Passenger		**22**	**44**	**65**	**41**	**31**	**71**
		Transit		**57**	**116**	**173**	**108**	**83**	**191**
		Cycling		**7**	**15**	**21**	**14**	**10**	**24**
		Walking		**15**	**29**	**44**	**27**	**21**	**48**

3.1.2 Internal Capture and Pass-By

When predicting trips that are associated with different land use types, the interaction between those land use types must be accounted for by applying the principals of internal capture adjustments. Internal capture trips are trips which are shared between two or more uses on the same site. A portion of the generated trips for each individual land use is therefore drawn from the adjacent land uses. Internal capture adjustments were made to account for vehicles that visit more than one land use within the subject development. Since these trips are contained within the subject site, accounting for each trip separately on the roadway network would result in “double-counting”. For this reason, land uses that may have associated internal capture trips between one another ultimately had their net new trips adjusted consistent with typical industry standards. In the subject development, the land use that is subject to internal capture reductions is the retail component.

In addition, a portion of the auto trips generated by the proposed retail land use will be ‘pass-by’ in nature. Pass-by trips are considered intermediate stops between an origin and a destination. They are site trips that are drawn from existing traffic volumes on the road network that are “passing-by” the site. While the total number of trips generated by a given development remains the same, the turning movements at study area intersections and site accesses require adjustments to reflect pass-by traffic. The rate of pass-by traffic is based on the specific land use which was obtained from the *ITE Trip Generation Manual*. A pass-by rate of 34% was used for the retail land use.

The number of trips the retail component is anticipated to generate is considered negligible as compared to the traffic volumes along Baseline Road and as compared to the residential component of the subject development. The retail component is projected to generate 6 vehicle trips during the AM peak hour and 19 vehicle trips during the PM peak hour. As such, internal capture and pass-by reductions were not applied.

Table 11 outlines the pass-by, internal capture, and net new trips anticipated for the proposed development.

Table 11: Future Pass-by and Internal Capture Trips

LUC	Land Use	Trip Conversion			Weekday AM Peak Hour			Weekday PM Peak Hour		
					In	Out	Total	In	Out	Total
822	Strip Retail Plaza	Auto Trips			5	3	8	11	11	23
		Internal Capture	AM	PM						
		Inbound	13%	9%	-1	-1	-2	-1	-3	-4
		Outbound	18%	25%						
		Net New Auto Trips			4	2	6	10	8	19
822 – Strip Retail Plaza		Auto Trips			4	2	6	10	8	19
		Pass-By		34%				3	3	6
		Net Auto Trips			4	2	6	7	5	13
Net New Auto Trips										
		222 – Multi Unit (High Rise)			38	84	122	70	51	121
		822 – Strip Retail Plaza			4	2	6	7	5	13
Total Development										
		Net New Auto Trips			**42**	**86**	**128**	**77**	**56**	**134**

3.1.3 Trip Distribution

Table 12 provides a summary of the estimated distribution for the traffic generated by the proposed development. Distribution was based on relative flow and statistics from the TRANS Committee's 2011 Origin-Destination (O-D) Survey for the Merivale District and presented for the AM and PM peak periods.

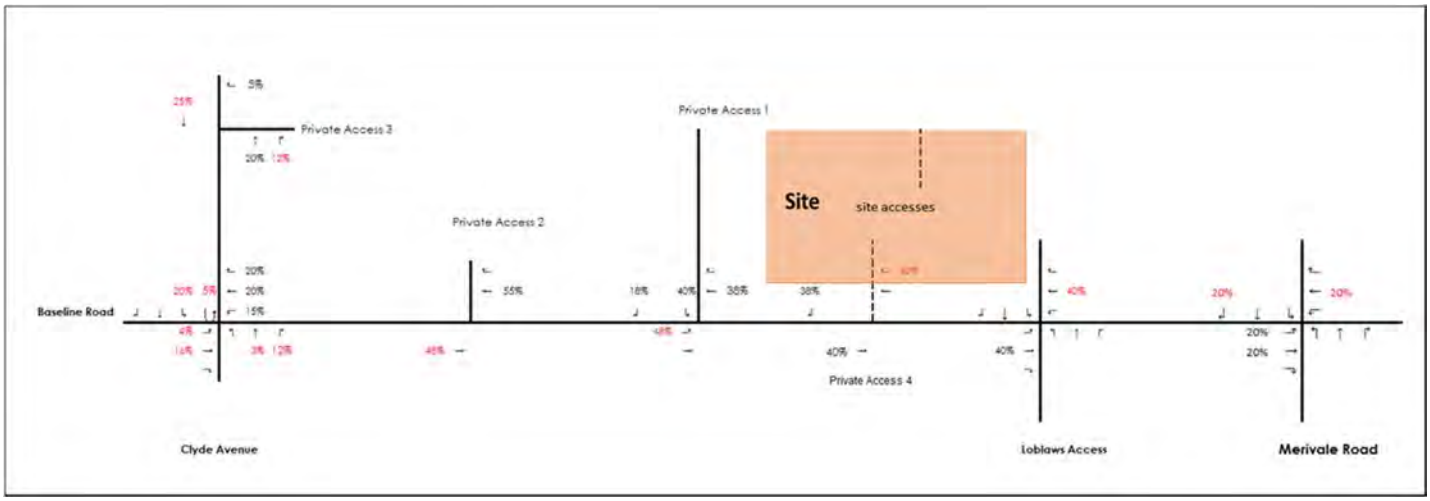
The distribution of traffic to / from the proposed development was developed using the relative traffic flows and volumes at the study area inlets / outlets.

Table 12 - Traffic Distribution Assumptions

Direction (to/from)	Distribution
Clyde Avenue North	25%
Clyde Avenue South	15%
Baseline West	20%
Baseline East	20%
Merivale North	10%
Merivale South	10%

Figure 8 illustrates the site traffic distribution for the proposed development

Figure 8 – Trip Distribution



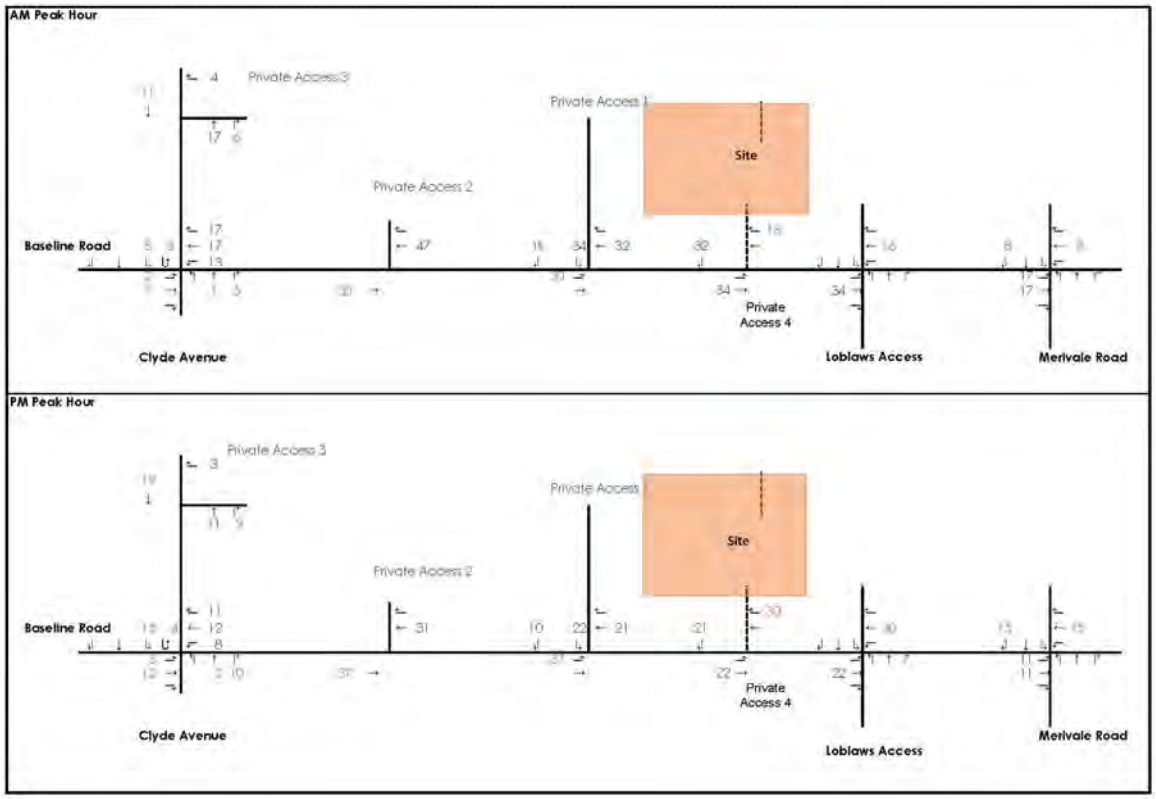
3.1.4 Trip Assignment

Site generated trips were assigned to the study area road network based on the trip distribution assumptions outlined in

Table 12 above. **Figure 9** outlines the site assignment assumptions. It should be noted that the red values represent the inbound trips, and the black values represent the outbound trips.

Figure 9 illustrates the site generated trips for the proposed site during the AM and PM peak hours.

Figure 9 - Site Generated Traffic Volumes



3.2 BACKGROUND NETWORK TRAVEL DEMAND

3.2.1 Transportation Network Plans

As outlined in **Table 5** in **section 2.1.3.1**, the only road infrastructure project that is included in the TMP within the vicinity of the subject site is the Baseline Road Bus Rapid Transit (BRT), however, the timeline for the BRT project is not confirmed at this time. As per direction from the City of Ottawa, it is assumed that this BRT will be constructed by the 2027 horizon year for the purposes of this study only.

3.2.2 Background Growth

The City of Ottawa provided **Figure 10** below, which outlines the average annual growth rates based on trend lines. As illustrated in **Figure 10**, the average annual growth in the vicinity of the subject site is 2%. To be conservative, a 2% annual background growth rate was used in the subject analysis until the BRT is opened, which is assumed to be by 2029.

As outlined in the *Baseline Road Bus Rapid Transit Planning and Environmental Assessment Study* (July 2017), the BRT is anticipated to reduce the traffic volumes on Baseline Road by approximately 10% when comparing 2010 volumes to 2031 projected volumes. Considering that the BRT will be constructed by 2029, this 10% reduction in traffic equates to roughly 2.5% reduction per annum between 2029 and 2031. Therefore, there will be a 10% reduction in traffic between 2029 and the ultimate horizon year of this development (2034). The ultimate horizon year for this development (2034) is three years after the *Ottawa's Transportation Master Plan's* 2031 Network Concept, therefore, it is assumed that between 2031 and 2034, the 10% reduction will have stabilized after the completion of the BRT.

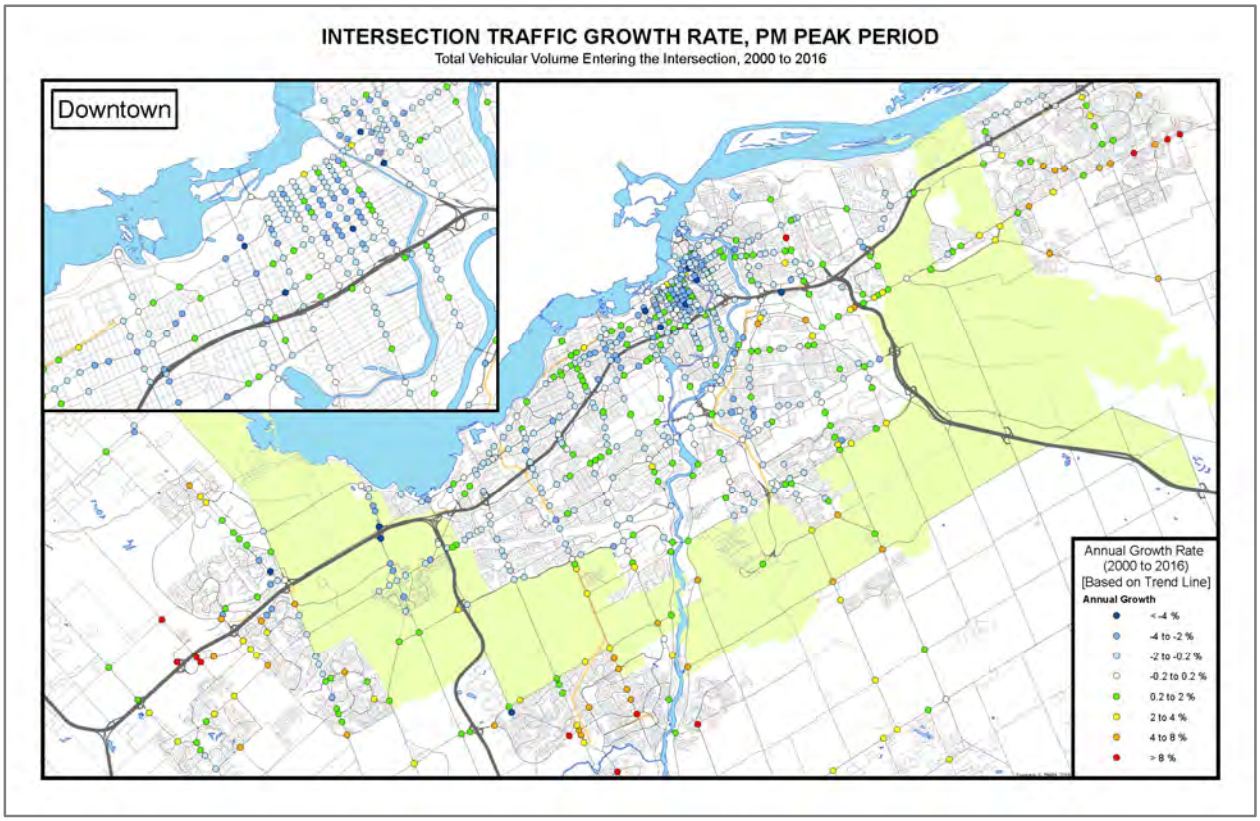
Based on the above, a 2% growth rate was used in the subject analysis between 2022 and 2029 (i.e. until the Baseline BRT is constructed). A -2.5% reduction was used to account for the shift in modal share from automobile to transit in 2029.

As part of the Step 1 and 2 of the 1357 Baseline Road TIA (Stantec,2020) Report, the City of Ottawa agreed that the future volumes on Baseline Road should be capped at approximately 1,600 – 1,900 vehicles per hour (vph) per direction, which is not consistent with the existing capacity of the two-lane section of Baseline Road. Using the above growth projections, the 2034 ultimate volumes along Baseline Road are anticipated to be in accordance with the 1,600 – 1,900 vph capacity once the BRT is operational.

3.2.3 Other Developments

In addition to the background growth rate outlined in **Section 3.2.2** above, there are five background developments that are assumed to be built by the 2034 ultimate horizon, per **Table 6**. The site trips were obtained from their respective traffic studies and explicitly added to the transportation network as background traffic.

Figure 10 – Annual Growth Rates



3.3 DEMAND RATIONALIZATION

Per the approved 1357 Baseline Road TIA (Stantec, 2020), the City indicated that the capacity of Baseline Road, once the BRT is operational, is in the range of 1,600 – 1,900 vph per direction. Recognizing that the future traffic volumes in the study area are projected to be high along Baseline Road, it is feasible to assume some demand rationalization is inevitable. The following subsections outline the potential ways in which motorists could change their behaviors, which would in turn help to reduce traffic volumes on Baseline Road during peak hours, thus assisting with rationalizing the demands.

3.3.1 Reduction in Auto Modal Share with the Completion of the Baseline BRT Project

The Baseline BRT project is assumed to be completed by 2027. It was assumed that 10% of motorists will choose to use the transit by the 2029 horizon, which will reduce traffic volumes by 10%.

3.3.2 Peak Spreading

In light of the projected future congestion in the area, motorists may begin to alter their travel times to travel outside the peak period, thereby reducing demand on the network during the peak hour and subsequently increasing demand on the network just before and just after the peak hour, which is referred to as peak spreading. This is often realized with flexible work schedules, a now common arrangement borne of the COVID-19 pandemic. It was assumed that 10% of motorists will change their travel times to travel outside of the peak hour to reduce their commute.

3.3.3 Telecommuting

As a high-level observation, it is also noted that a significant proportion of the existing land uses in the vicinity of the proposed development are Information Technology (IT) based companies. As such, it is also expected that a portion of the employees would elect to “work-from-home” or telecommute to eliminate all travel during the peak hours. It was assumed that 5% of employee in the area will choose to work from home.

A sensitivity analysis was carried out in **Section 4.9.2.2**, it was determined that peak hour traffic in the study area would need to be reduced by 25% in order to meet the capacity criteria.

It should be noted that a Monitoring Plan has been prepared as part of the subject TIA. This Monitoring Plan recommends what should be monitored in the future, once the Baseline Road BRT is in place, in order to determine whether or not the suggested 25% reduction on future traffic volumes is reasonable. **Appendix C** contains the Monitoring Plan.

4.0 STRATEGY

4.1 DEVELOPMENT DESIGN

4.1.1 Design for Sustainable Modes

Bicycle facilities: A total of 752 bicycle parking spaces are provided for the proposed development. 228 spaces are provided underground on parking level P1, 262 spaces are provided on parking level P2, and another 262 spaces are provided on parking level P3.

Pedestrian facilities: Pedestrian connections are included on the site plan which will connect the proposed buildings to the existing sidewalks along Baseline Road.

Parking areas: A total of 748 vehicle parking spaces are provided for the proposed development. 218 spaces are provided underground on parking level P1, 265 spaces are provided on parking level P2, and another 265 spaces are provided on parking level P3.

Transit facilities: Transit stops for OC Transpo routes 50, 81, and 88 are currently serviced by stops located at the vicinity of the development along Baseline Road. There are sidewalks along both sides of Baseline Road as well as pedestrian crosswalks at the intersections for pedestrians to access these transit stops.

4.1.2 Circulation and Access

Two site accesses (Site Driveway) are proposed at the site, one Site Driveway is located approximately 20 m north of Baseline Road along the Private Access 4 and the other Site Driveway is located at the north end of the site along along the Private Access 4. The Site Driveways connect the developments ground level and underground parking to Private Access 4. The Site Driveways will be full movements access with no turning restrictions and will be stop controlled along the access's approach. It should be noted that Private Access 4 intersection at Baseline Road is a Right-In (RI) only access. **Figure 3** shows a schematic of the study area's access as well as private and public roadways.

Within the vicinity of the subject site, pedestrian access is facilitated through the existing sidewalks along Baseline Road. Sidewalk connections are proposed between at all sides of the development. Boulevards are proposed at the southern side of the building and will connect to sidewalks along Baseline Road.

4.1.3 New Street Networks

Not applicable; exempted during screening and scoping.

4.2 PARKING

4.2.1 Parking Supply

Vehicle Parking – As per Schedule 1A of the city's zoning by-law No. 2008-250, the development is located in Area B (Outer Urban / Inner Suburban). However, Area X (Inner Urban) rates apply due to the proximity of the development to the future Bus Rapid Transit (BRT) stations as identified in Schedule 2A. Based on Sections 101 and 102, the minimum vehicle parking space requirement is 0.5 per rooming unit for the high-rise apartments, and 1.25 vehicle parking spaces per 100 m^2 for the retail component. No off-street parking spaces are required for the first 12 residential units. The minimum requirement for visitor parking spaces is 0.1 vehicle parking space per unit.

Based on the proposed land uses, a minimum of 507 vehicle parking spaces are required for the residential component, 11 vehicle parking spaces are required for the retail component, and 60 vehicle parking spaces are required for the visitors.

Within area B, the maximum total provided spaces shall not exceed 1775 spaces, of which the maximum allowed visitor's parking spaces is 60.

The proposed site plan indicates there will be a total of 748 parking spaces provided. The proposed parking spaces fall within the City of Ottawa minimum and maximum allowed ranges as summarized in

Table 12.

Table 13 – Summary of Development Parking Spaces

#	Land Use	Min. Requirement (# of Spaces)	Max. Requirement (#of Spaces)	Provided
1	Retail	11	1775	748
2	Residential	507		
3	Visitors	60		
4	Accessible	6	-	
	Total	584	1775	748

Bicycle Parking – As per City of Ottawa Zoning By-law 2008-250 (Section 111), the minimum bicycle parking rate of 0.25 bicycle parking space per residential unit and 1 bicycle parking space per 250 m^2 of retail (gross floor area) are required.

Based on the proposed land uses, a minimum of 254 bicycle spaces are required for the residential component and 4 bicycle spaces are required for the retail component. The proposed site plan indicates there will be a total of 752 bicycle spaces provided. The provided bicycle parking spaces meets the minimum requirements.

4.2.2 Spillover Parking

Not applicable; exempted during screening and scoping.

4.3 BOUNDARY STREET DESIGN

4.3.1 Design Concept

The subject development is located in an area that will experience a substantial amount of change over the next few years in terms of the transportation environment. The Baseline Road BRT is scheduled to be implemented by 2027 (not confirmed, for the purposes of this study only), which will have a large impact on the transportation network in the surrounding area. Two separate MMLOS analyses were completed; one for the existing conditions (i.e. before the Baseline Road BRT) and one for the ultimate conditions (i.e. after the Baseline Road BRT).

Appendix D contains the detailed MMLOS analysis and is provided for reference.

4.3.1.1 Existing Conditions (i.e. before the Baseline Road BRT)

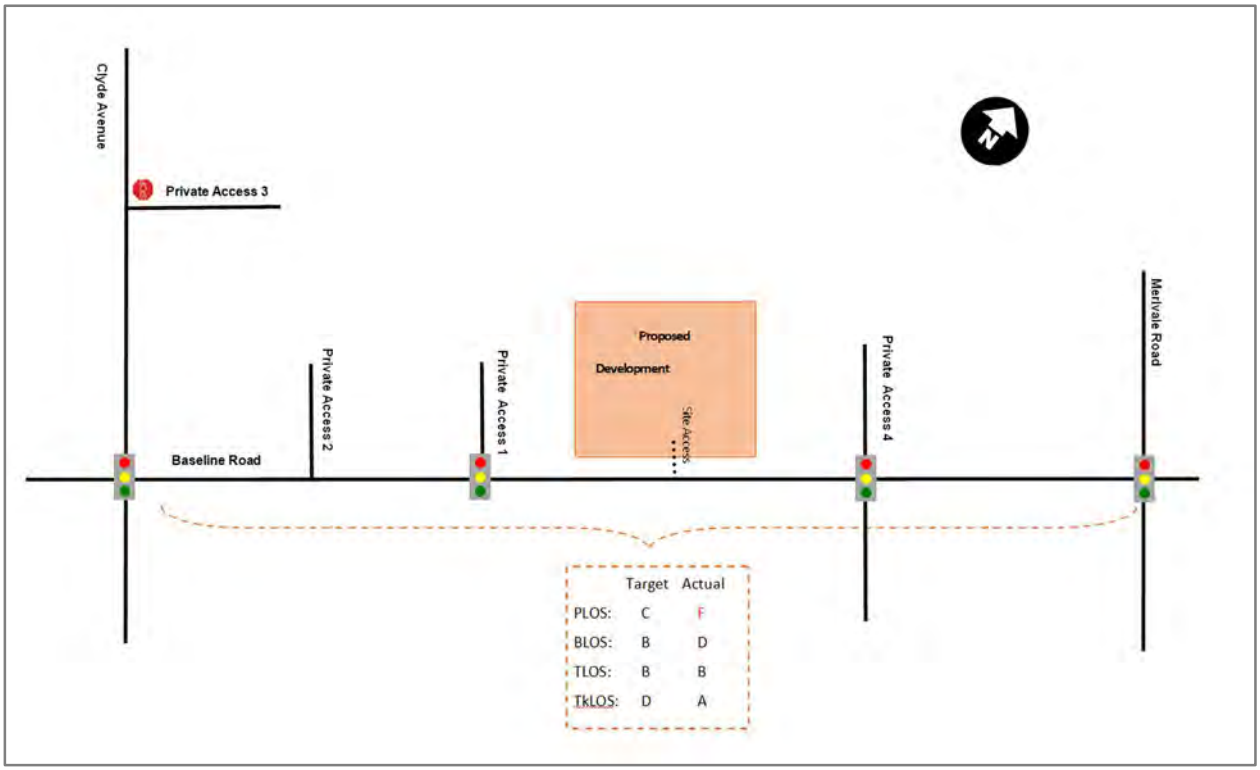
As outlined in the City of Ottawa's *Official Plan* Schedule B, Baseline Road falls within the 'General Urban Area' designation. In addition, the following information was found:

- Baseline Road is classified as Arterial Roadway;
- Baseline Road is classified as Cycling Spine Routes;
- Baseline Road is classified as a Cross-Town Bikeway;
- Baseline Road is classified as a Transit Corridor; and
- Baseline Road is classified as a Full Loads truck route.

Based on the aforementioned information, the Pedestrian Level of Service (PLOS) target for Baseline Road is C. The Bicycle Level of Service (BLOS) target is B for Baseline Road. The Transit Level of Service (TLOS) target is B for Baseline Road. The Truck Level of Service (TkLOS) target is D for Baseline Road.

Figure 11 illustrates the MMLOS targets and results for Baseline Road under existing conditions.

Figure 11 – Existing Conditions – MMLOS Targets and Results



Baseline Road

The PLOS target of C along Baseline Road, across the frontage of the subject development, is not currently being met due to the width of the existing sidewalk, lack of boulevards, volume of traffic, and posted speed limit. To improve the PLOS and meet the target of C, the sidewalk width would need to be increased to 2.0m, a 2.0m boulevard would need to be implemented, and the posted speed limit would need to be reduced to 50 km/h. As Baseline Road is an arterial roadway, reducing the posted speed limit is likely not a viable option. The ultimate design for the Baseline Road BRT includes modifications to the pedestrian facilities, which will be further explored in the MMLOS analysis for the ultimate conditions.

The BLOS target of B along Baseline Road, across the frontage of the subject development, is not currently being met due to the number of vehicle lanes, as well as the posted speed limit. Due to the number of lanes along Baseline Road, the only feasible option to achieve the BLOS target would be to implement a physically separated cycling facility (i.e. cycle track). The ultimate design for the Baseline Road BRT includes cycle tracks along Baseline Road, which will be further explored in the MMLOS analysis for the ultimate conditions.

The TLOS target of B along Baseline Road, across the frontage of the subject development, is currently being met due to the limited parking / driveway friction along the corridor.

The TkLOS target of D along Baseline Road, across the frontage of the subject development, is currently being met due to the number and width of the travel lanes.

4.3.1.2 Ultimate Conditions (i.e. after the Baseline Road BRT)

By the year 2027, the city is expecting to implement the BRT corridor upgrades with dedicated transitway ROW and transit priority measures along Baseline Road. In terms of the MMLOS targets, both roadway segments will fall under the 'within 600m of a rapid transit station' Policy Area once the Baseline BRT is implemented and the proposed transit station at the Baseline Road at Clyde Avenue intersection is built.

The Pedestrian Level of Service (PLOS) target for both Baseline Road will be A. The Bicycle Level of Service (BLOS) target will be A for Baseline Road. The Transit Level of Service (TLOS) target will be A for Baseline Road. The Truck Level of Service (TkLOS) targets will remain unchanged at D for Baseline Road.

Figure 12 illustrates the MMLOS targets and results for the roadway segment under ultimate conditions.

Baseline Road

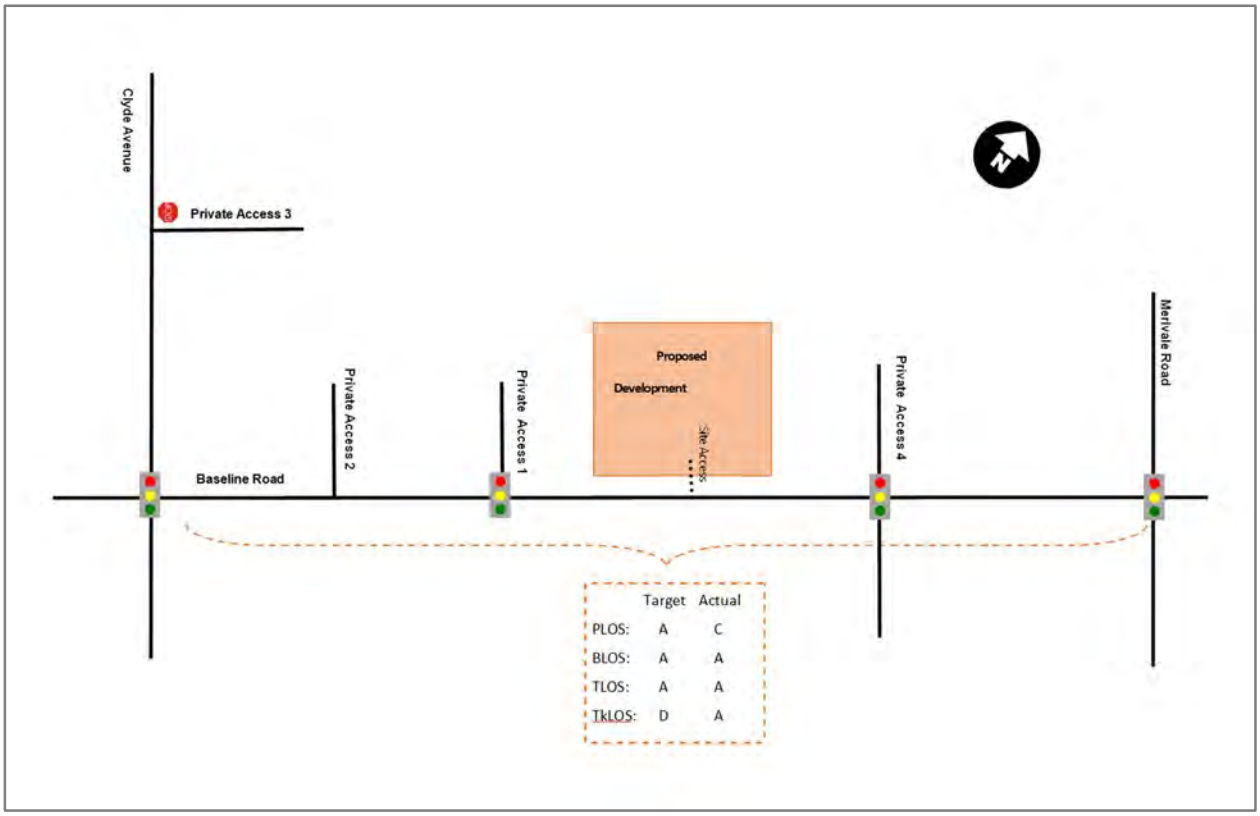
The Baseline Road BRT design includes a boulevard and cycle track separating the sidewalk and the vehicle travel lanes. This improves the PLOS in the ultimate conditions, however, with the implementation of the BRT corridor, the PLOS target will increase to an A. Despite the increased width between the pedestrians and vehicles, the PLOS target of A is not anticipated to be met in the ultimate conditions. Reducing the speed limit to 30 km/h or reducing the traffic volumes to less than 3000 AADT would allow the PLOS target of A to be met, however, as Baseline Road is an arterial road, these are not feasible solutions.

With the implementation of the BRT corridor, the BLOS target will increase to an A along Baseline Road. The Baseline Road BRT design includes separated cycling facilities along both sides of Baseline Road, which will allow the BLOS target of A to be met in the ultimate conditions.

With the rapid transit corridor in place, the TLOS target along Baseline Road will increase to an A, which is anticipated to be met in the ultimate conditions.

The TkLOS target of D along Baseline Road, across the frontage of the subject development, is anticipated to continue to be met due to the number and width of the travel lanes.

Figure 12 – Ultimate Conditions – MMLOS Targets and Results



4.4 ACCESS INTERSECTIONS DESIGN

4.4.1 Location and Design of Access

The two parking garage accesses for the subject site will be located approximately 20 m and 100 m north of Baseline Road along Private Access 4 and will not have any turning restrictions. The garage entrances will facilitate both ingress and egress and will be approximately 6.5m wide with a variable grade of approximately 6% - 16%.

4.4.2 Intersection Control

The site access is a low-volume driveway located on a Private Shared Access (Private Access 4) and is anticipated to be a One Way Stop Control (OWSC) access.

4.4.3 Intersection Design

Section 4.9.2 contains the detailed intersection and MMLOS analyses under all horizons.

4.5 TRANSPORTATION DEMAND MANAGEMENT

4.5.1 Context for TDM

The site consists of multifamily housing (high-rise) units and strip retail plaza and the two phases are expected to be completed by the year 2029. As outlined in **Section 3.1.1**, the modal shares for the proposed development were taken from the recently approved *1357 Baseline Road Transportation Impact Assessment* (Stantec, 2020). After the implementation of the BRT corridor improvements along Baseline Road, the auto modal share is expected to decrease to 30%, while the transit modal share is expected to increase to 40%. The proposed transit modal share was discussed and confirmed with City of Ottawa staff during the preparation of the Step 3 – Forecasting Report. It is anticipated that the Baseline BRT service will operate with a 5-6 minute headway during the AM peak, and a 7-8 minute headway during the PM peak, which is supportive of the proposed transit modal share assumptions.

To support the future bicycle modal share of 5%, the development is planned to provide a total of 752 bicycle parking spaces. To support the future walking modal share of 10%, the development is planned to include ample sidewalk connections from the proposed building to the existing pedestrian network along Baseline Road.

Based on the anticipated modal share targets after the implementation of the Baseline Road BRT corridor improvements, the proposed development is projected to generate 128 and 134 auto trips during the AM and PM peak hours, respectively. It is anticipated that the arterial road network can accommodate the auto generated trips adequately.

4.5.2 Need and Opportunity

In order to support the transit and active modal share targets outlined in **Table 10**, cycling and transit modes will need to be supported. This includes the provision of bicycle parking as well as ensuring convenient pedestrian connections are provided to sidewalk facilities leading to bus stop locations. These aforementioned facilities have been included on the site plan to support active modes.

4.5.3 TDM Program

4.5.3.1 Opening Day TDM Measures

The City of Ottawa TDM Checklists were used to determine what TDM measures could be implemented based on the available information. Based on the checklists, the following TDM measures have been incorporated into the site plan:

- Locate building close to the street, and do not locate parking areas between the street and building entrances;
- Locate building entrances in order to minimize walking distances to sidewalks and transit stops;
- Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort;
- Provide convenient, safe, attractive, and direct access to stations or major stops along regular and rapid transit routes within the vicinity of the proposed development;

- Provide safe, direct, and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major entrances, providing walkways from public streets to major building entrances;
- Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas;
- Make sidewalks and open space easily accessible through features such as gradual grade transition and depressed curbs at street corners;
- Include adequately spaced inter-block cycling and pedestrian connections to facilitate travel by active transportation;
- Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible
- Provide the number of bicycle parking spaces as per the City of Ottawa By-Law;
- Ensure that bicycle parking spaces and access aisles meet minimum dimensions;
- Where more than 50 bicycle parking spaces are provided, locate at least 25% of spaces within the building;
- Provide a designated area for carpool drivers without using fire lanes or other no-stopping zones;
- Do not provide more parking than permitted by zoning, nor less than required by zoning; and
- Provide cyclists with the option of using the elevators to access the underground bicycle parking instead of relying on the vehicle parking ramps.

The TDM checklists are contained in **Appendix E.**

4.5.3.2 TDM Measures Monitoring and Corrective Actions

Post the implementation of the above TDM measures listed in **Section 4.5.3.1**, it is important to quantify TDM measure effectiveness to ensure that the development's modal shares are aligned with the City's policy for the general area. Monitoring will allow the developer to introduce corrective measures if the modal shares do not meet the anticipated targets, which reflect:

- 30% auto modal share;
- 15% passenger modal share;
- 40% transit modal share; and
- 15% modal share for active modes of transportation (walking and cycling).

Monitoring the effectiveness of TDM measures on the retail component of the proposed development is not recommended due to:

- The difficulty of collecting user data for small size retail shops;

- The low number of person trips generated by the retail component (27 and 76 in the AM and PM peak hours, respectively); and
- The ability of the retail component users to perform multi-purpose trips to the surrounding retail developments (Walmart, restaurants, etc.), while using the general shared parking spaces provided for retail developments nearby.

Therefore, it is recommended that the effectiveness of TDM measures are monitored for the residential component of the proposed development (i.e. the multi-unit high-rise apartments units).

It is noted that the adopted modal shares for the proposed development assume that the Baseline Road BRT corridor is in place, and it is assumed that a significant period of that time will be used to get the development to reach significant occupancy. Therefore, it is anticipated that additional corrective TDM measures are not required prior to the implementation and operation of BRT service along Baseline Road. The following timelines and monitoring processes are recommended:

1. As residents move in, data regarding vehicle ownership and the number of parking spaces utilized for bicycles and vehicles can be collected to establish baseline modal shares for the development's residents. In addition, a transportation survey could be conducted to establish travel modes used by trip type and time of day.
2. In order to allow residents to be familiar with the new Baseline BRT service, it is recommended that modal share surveys and data collection efforts are undertaken approximately three months after the start of revenue service for the new BRT Corridor.

   It is recommended that a minimum of 60 households be surveyed in order to obtain data with an appropriate level of statistical confidence. Survey questions should identify all transportation modes used for travel by time of day and by trip purpose.
3. If the survey results indicate that modal share targets are not being achieved, it is recommended that one or more of the following improvements be implemented:
   a. Increase awareness of the importance of active transportation, particularly for senior residents. This can be achieved by:
      i. Providing building reception staff with training on OC Transpo routes, service, and facilitating Presto fare card support;
      ii. Promoting OC Transpo senior fare transit programs, including *No-charge Sundays and Wednesdays*;
      iii. Facilitate information sessions on OC Transpo services in collaboration with OC Transpo staff;
      iv. Raising awareness on the importance of active transportation through targeted campaigns, distributional materials (info packages), and posters.

b. Provide a designated pick-up/drop-off space for carpool services, taxis, and ride hailing services. The space could be allocated as part of the residential drop off areas located at the north of the proposed development.

c. Provide shuttle service for senior residents to major destinations such as nearby major shopping malls or parks. The shuttle service can be provided at a low frequency to gauge residents' use and can be enhanced to a fixed schedule once or twice per week or as per the residents' engagement. Pricing and fees for using the service should be relatively low to encourage higher residents' use and reduce their reliance on personal vehicles.

d. For the residential units and parking spaces that are leased or rented, increasing the parking costs while implementing one of the Transit TDM corrective actions above is anticipated to provide improved modal shares. The parking costs could be also increased while implementing designated bikeshare locations near a major entrance that provides adequate lighting and, preferably, a shelter. Alternatively, the developer could offer subsidized cycling courses.

e. Provide real-time transit service information displays at lobby areas to encourage and promote transit use.

The above measures are anticipated to also increase walking and cycling modal shares.

It is recommended that the operator implements one or two of the above measures at a time if the City modal share targets are not met, followed by waiting for a period of time for residents to familiarize with the newly implemented measures (three months), then performing periodic surveys to gauge the effectiveness of the newly added TDM measures. The periodic surveys can be implemented based on a six-months time frame, if the development does not meet the City's targets with significant margins. A one-year time frame can be implemented if the development modal shares do not meet the City Targets but are close (i.e. within 15% of the City's modal share targets.)

It is important to note that it is difficult to select improvements prior to quantifying the effectiveness of the implemented TDM measures. Therefore, the developer should assess the survey results first prior to selecting one or more of the corrective TDM measures identified above. Generally, the proponent can begin with implementation of the least costly measures, monitor the effectiveness using surveys as indicated above, then reassess to determine if additional measures are needed. If the first set of TDM improvements does not result in meeting the modal share targets, follow-up periodic surveys can be performed on a 6-month to 1-year basis depending on how far off the development's modal shares are from the City's targets, as described earlier. If the development is close to achieving the City targets (i.e. within 15% of the City targets, it is recommended that these periodic surveys be spaced out towards a 1-year period to minimize survey fatigue.)

The proponent may widen the timeframe between periodic surveys or stop performing the surveys once the City modal share targets are met for both transit and auto modal shares, 40% and 45%, respectively.

4.6 NEIGHBOURHOOD TRAFFIC MANAGEMENT

Not applicable; exempted during screening and scoping.

4.7 TRANSIT

4.7.1 Route Capacity

An assumed transit modal share of 40% was adopted for all land uses contained within the proposed development prior to the implementation of the 2027 BRT corridor upgrades along Baseline Road. The 2027 interim forecasted transit trips for the proposed development are 173 and 191 total transit trips during the AM and PM peak hours, respectively.

There are three OC Transpo transit routes within approximately 250m walking distance of the proposed site but route 50 does not run in the AM and PM peak periods. The two transit routes that run in the peak hours in the vicinity of the subject development, are OC Transpo routes 81 and 88.

Based on the OC Transpo schedule, there are approximately 8 buses that depart from the subject site during the AM peak hour and 12 buses that arrive to the subject site during the PM peak hour. Standard buses in OC Transpo's vehicle fleet have seated capacities of 40 to 70 seats depending on the transit bus manufacturer, which is equivalent to a capacity of 320 - 560 passengers during the AM peak hour and 480 - 840 passengers during the PM peak hour.

As such, the forecasted transit trips for the proposed development account for 31% - 54% of the overall system capacity during the AM peak hour and 22% - 40% of the overall system capacity during the PM peak hour.

Overall, the impact of the development on the transit network is thought to be minimal and can be accommodated.

4.7.2 Transit Priority

Currently, localized transit priority measures are implemented at the intersection of Baseline Road at Clyde Avenue and consist of bus queue jumps along the eastbound and westbound approaches of the intersection. It is planned that the east-west transit service will run at a dedicated BRT Transitway with TSP measures implemented at intersections during the 2029 horizon year. Based on direction from the City of Ottawa, it is anticipated that TSP operations will be implemented along Baseline Road at signalized intersections. Therefore, a Bus TSP phasing with the ability to truncate conflicting phases and extend parallel phases that can run with the BRT was assumed at the intersections of Baseline Road with Clyde Avenue and Private Access 1. The method of TSP detection and anticipated operations are not known at this time and could affect the Measures of Effectiveness (MOEs) at the intersection (i.e. delays and queues for transit and general traffic). For the purpose of the ultimate conditions' assessment, it has been assumed that the TSP can truncate conflicting phases left turn phases by 4 to 6 seconds and extend parallel non-conflicting phases (eastbound and westbound through movements) by the same time during the AM peak hour. During the PM peak hour, it was assumed that the TSP is capable of truncating conflicting left turns by up to two seconds and is able to extend parallel phases by two seconds at the intersection of Baseline Road / Clyde Avenue. At the intersection of Baseline Road / Private Access 1, the TSP was assumed to be capable of truncating the westbound left turn phase by up to 8 seconds while the same duration was assumed to be used as parallel phases' extension when transit is detected prior to the end of the east-west phases green time.

It should be noted that for TSP phase extension operations, typically transit vehicles are detected in advance of the approach's stop bar. Upon bus detection, the controller decides whether to extend the parallel phase, if already

operating, based on the travel time needed to reach and clear the intersection or decides to terminate the parallel phase early then operates all upcoming conflicting phases at specified minimum splits in order to serve buses as early as possible. Factors influencing the controller's decision to extend or truncate include the travel time and travel time reliability from the point of detection (i.e. slack time) as well as the method of TSP activation (loop detection versus wireless).

4.8 REVIEW OF NETWORK CONCEPT

The current zoning permits a total GFA of appx 167,379ft^2. As there are numerous land uses permitted under the existing zoning, it was assumed that the worst-case scenario in terms of traffic generation would be to construct an office of this size. This would result in appx 325 and 308 person trips during the AM and PM peak hours, respectively.

The proposed concept plan is reflection of the maximum allowable GFA of the proposed zoning. Therefore, the person trips associated with the proposed zoning is outlined in Table 9, which outlines there are 433 and 478 projected person trips during the AM and PM peak hours, respectively.

As such, the proposed zoning is not anticipated to generate more than 200 peak hour person-trips over the existing zoning, and thus, **Section 4.8** is exempt from the subject TIA.

4.9 INTERSECTION DESIGN

4.9.1 Intersection Control

The existing intersection control will be maintained as the default control for all study area intersections the assessments. Any intersection improvements triggered through the intersection level of service analysis will be highlighted and adopted accordingly. The existing signal timing plan for the intersections of Baseline Road with Clyde Avenue, Private Access 1, Loblaws Access and Merivale were obtained from the City of Ottawa.

4.9.2 Intersection Design

An assessment of the study area intersections was undertaken to determine the operational characteristics of the study area intersections under the horizons identified in the Screening and Scoping report. Intersection operational analysis was facilitated by Synchro 11.0™ software package and the MMLOS analysis was completed for the signalized intersection for all modes and compared against the City of Ottawa's MMLOS targets. The Highway Capacity Manual (HCM) 6th edition analysis method in Synchro was used to assess the study intersections. It should be noted that this method has some limitations which were addressed as follows:

- Unsignalized Movement Delays (Channelized Right turns with yield control): The HCM method does not report on unsignalized movements delays. Rather these movements were analyzed and reported on using Synchro's percentile method as a mean to approximate delays and queues experienced by right turning traffic. This limitation impacts the 2029 and 2034 horizon year vehicular LOS assessments.

- RTOR: HCM's implementation of right turns on red is conservative and assumes no vehicles performing RTOR. RTOR influence on signal operations was incorporated using the equations provided by Trafficware's white paper on HCM 6th edition implementation in Synchro[2].

- Synchro does not report on the intersection volume-to-capacity ratio using HCM 6th edition method. Therefore, intersection volume-to-capacity is not reported for the overall intersection operations. For the MMLOS purpose, the maximum movement's volume-to-capacity at the intersection was used to assess the intersections performance.

4.9.3 High Collision Locations

As per Section 2.1.2.6, rear end collisions were the most common accidents occurred at the intersections of Baseline Road at Clyde Avenue and Baseline Road at Merivale Road, with 77 and 66 collisions, respectively, in between the years 2016 – 2020.

The vertical geometry in the area, along with the high speeds / aggressive driving on Baseline Road could be the main causes of the collisions.

There is an existing yellow flashing light and signage installed to give drivers advance notice to come to a stop at the intersection. Another option would be the installation of speed camera to help reduce speeding along Baseline Road in the area.

[2] http://www.trafficware.com/uploads/2/2/2/5/22256874/hcm6th_working_white_paper_synchro_-_march2018.pdf

4.9.3.1 2022 Existing Conditions

Figure 6 illustrates 2022 existing AM and PM peak hour traffic volumes at the study area intersections.

Intersection Capacity Analysis

Table 14 summarizes the results of the Synchro analysis under 2022 existing intersection operations.

Baseline Road at Clyde Avenue

The intersection of Baseline Road at Clyde Avenue is currently operating at or above capacity with several individual movements operating at LOS F during the AM and PM peak hours. No improvements are recommended as this intersection is expected to be upgraded to favor east-west BRT transit once the BRT upgrades are implemented along Baseline Road by 2027. Furthermore, implementing intersection treatments to address vehicular operations is expected to negatively impact the multi-modal traffic operations for other modes (transit, cycling, and pedestrian).

Baseline Road at Private Access 1

The southbound movement at the intersection of Baseline Road at Private Access 1 is currently operating with more than 50s of delay during both the AM and PM peak hours.

Baseline Road at Loblaws Access

The intersection of Baseline Road at Loblaws Access currently operates with several individual movements operating at LOS E during both the AM and PM peak hours. Of particular note are the westbound left turn movement (PM peak hour) and the northbound shared left turn and through movement (AM and PM peak hours).

Baseline Road at Merivale Road

The intersection of Baseline Road at Merivale Road currently operates at or above theoretical capacity and delays over two minutes in several directions during the PM peak hour.

Clyde Avenue at Private Access 3

The Clyde Avenue at Private Access 3 intersection is currently operating acceptably.

Appendix F contains detailed intersection performance worksheets.

Table 14 - 2022 Existing Intersection Operations

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Delay (s)	Queue 95th (m)
Clyde Avenue at Private Access 3	Stop Sign	WB	Right	C (D)	0.14 (0.56)	16.7 (29.4)	1.4 (6.7)
		NB	Through	-	-	-	-
			Right	-	-	-	-
		SB	Through	-	-	-	-
Baseline Road at Clyde Avenue	Traffic Signals	EB	Left	F (F)	1.24 (1.14)	201.6 (166.5)	#97.1 (#88.5)
			Through	F (F)	1.01 (1.05)	66.0 (86.9)	#208 (#164.2)
			Right	A (A)	-	5.1 (5.1)	12.6 (40.5)
		WB	Left	E (F)	0.79 (0.86)	71.8 (87.8)	26.2 (#63.1)
			Through	D (F)	0.55 (1.42)	35.6 (239.5)	70.6 (#246.3)
			Right	C (C)	-	22.6 (22.6)	90.9 (#188.3)
		NB	Left	E (E)	0.66 (0.91)	61.3 (76.8)	18.4 (#63.3)
			Through / Right	F (F)	1.05 (1.07)	99 (104.2)	#162.9 (#168.1)
		SB	Left	F (F)	1.20 (1.01)	171.9 (101.3)	#98 (#116.9)
			Through / Right	D (E)	0.55 (0.86)	35.1 (56.1)	77.4 (#118.8)
Baseline Road at Private Access 1	Traffic Signals	EB	Left	A (D)	0.15 (0.83)	4.2 (54.3)	10 (#39.4)
			Through	A (A)	0.58 (0.60)	4.3 (7.6)	145.3 (130.5)
		WB	Through / Right	A (C)	0.44 (0.95)	7.0 (27.6)	111.8 (#343.2)
		SB	Left	E (E)	0.38 (0.81)	55.2 (56)	16.3 (56.2)
			Right	D (D)	0.11 (0.71)	52.6 (53.2)	8.8 (26.4)
Baseline Road at Loblaws Access	Traffic Signals	EB	Left	A (D)	0.34 (0.11)	5.6 (40.3)	14.1 (4.5)
			Through	A (B)	0.51 (0.64)	0.5 (14.8)	73.3 (116.2)
			Right	-	-	0.0 (0.0)	8.9 (25.2)
		WB	Left	A (E)	0.22 (0.71)	8.1 (56.5)	m20.5 (#71.2)
			Through	A (C)	0.44 (0.82)	8.3 (20.9)	m130.1 (186.3)
			Right	A (A)	0.0 (0.0)	0.0 (8.0)	0.0 (0.0)
		NB	Left /Through	E (E)	0.50 (0.77)	55.2 (65.5)	36.8 (#81.7)
			Right	A (A)	0.0 (0.0)	0.0 (0.0)	30.7 (44)
		SB	Left	A (D)	0.0 (0.20)	0.0 (38.1)	1 (36.8)
			Through/ Right	D (D)	0.22 (0.39)	49.6 (40.3)	10.2 (43.9)
Baseline at Merivale	Traffic Signals	EB	Left	F (F)	0.89 (1.22)	81.3 (197.2)	#81.1 (#120.5)
			Through	D (E)	0.93 (0.98)	51.5 (70.3)	#167.7 (#178.3)
			Right	-	-	-	m0.0 (0.0)
		WB	Left	E (F)	0.83(1.00)	68.7 (120.4)	47.7 (#108.3)
			Through	E (F)	0.93 (1.13)	55.9 (117.2)	#137.7 (#236.4)
			Right	-	-	-	46.8 (49.5)
		NB	Through	D (D)	0.40 (0.58)	39.4 (47.8)	44.3 (76.1)
			Right	D (D)	0.53 (0.61)	44.6 (52.5)	16.6 (18.8)
		SB	Left	F (F)	0.97 (1.14)	96.4 (156.3)	#59.8 (#83.5)
			Through	C (C)	0.22 (0.36)	24.5 (29.9)	31.4 (58.2)
			Right	-	-	-	16.1 (37.3)

Notes:
1. Table format: AM (PM)
2. v/c – represents the anticipated volume divided by the predicted capacity
3. * Estimated using Synchro's Percentile Method
4. # for v/c <1, queue requires multiple cycles to be cleared

Multi-Modal Level of Service Analysis – Signalized Intersections

Intersection		PLOS	BLOS	TLOS	TkLOS	VLOS
Baseline at Clyde	Existing	F	F	F	B	F
	Target	C	B	D	D	D
Baseline @ Private Access 1	Existing	F	F	E	B	E
	Target	C	B	D	D	D
Baseline @ Loblaws	Existing	F	F	E	C	D
	Target	C	B	D	D	D
Baseline @ Merivale	Existing	F	F	E	B	F
	Target	C	B	D	D	D

The MMLOS targets at intersections are determined by taking the most stringent of the MMLOS targets for each individual road segment. As such, based on **Section 4.3.1**, the PLOS target is currently C, the BLOS target is currently B, the TLOS target is currently D, and the TkLOS target is currently D. The Vehicle Level of Service (VLOS) target is currently D. The aforementioned targets apply to both study area signalized intersections.

The Pedestrian Level of Service (PLOS) at the four intersections along Baseline Road are currently not meeting the desired target of C. Based on the MMLOS guidelines, intersection PLOS is largely influenced by the number of lanes pedestrians cross at the intersection. Due to the nature of arterial roads, reducing the number of lanes at the intersection is not a feasible option. Incorporating pedestrian refuge areas by means of wide medians (i.e. > 2.4m) along with operational measures such as prohibition of RTOR are not expected to highly improve the PLOS.

The Bicycle Level of Service (BLOS) at the four intersections along Baseline Road are currently not meeting the desired target of B. Based on the MMLOS guidelines, intersection BLOS is influenced by the availability of dedicated cycling amenities, number of lanes cyclists must cross to negotiate a turn at intersections, and roadway operating speeds. As the Baseline Road BRT plans include cycling infrastructure (i.e. cycle tracks), it is not recommended to implement any improvements as an interim mitigation measure.

The Transit Level of Service (TLOS) at the four intersections along Baseline Road are currently not meeting the desired target of D. Based on the MMLOS guidelines, intersection TLOS is governed by the delay at the intersection and the buses are highly impacted by traffic operations. It is not recommended to implement any improvements as an interim mitigation measure as Baseline Road's corridor within the vicinity of the study area is expected to be upgraded to include a dedicated east-west BRT corridor.

The Truck Level of Service (TkLOS) at all four intersections along Baseline Road are currently meeting the target of D.

The Vehicular Level of Service (VLOS) at all four intersections along Baseline Road are currently not meeting the target of D. Improving the intersection can be performed by adding additional roadway capacity through increasing the number

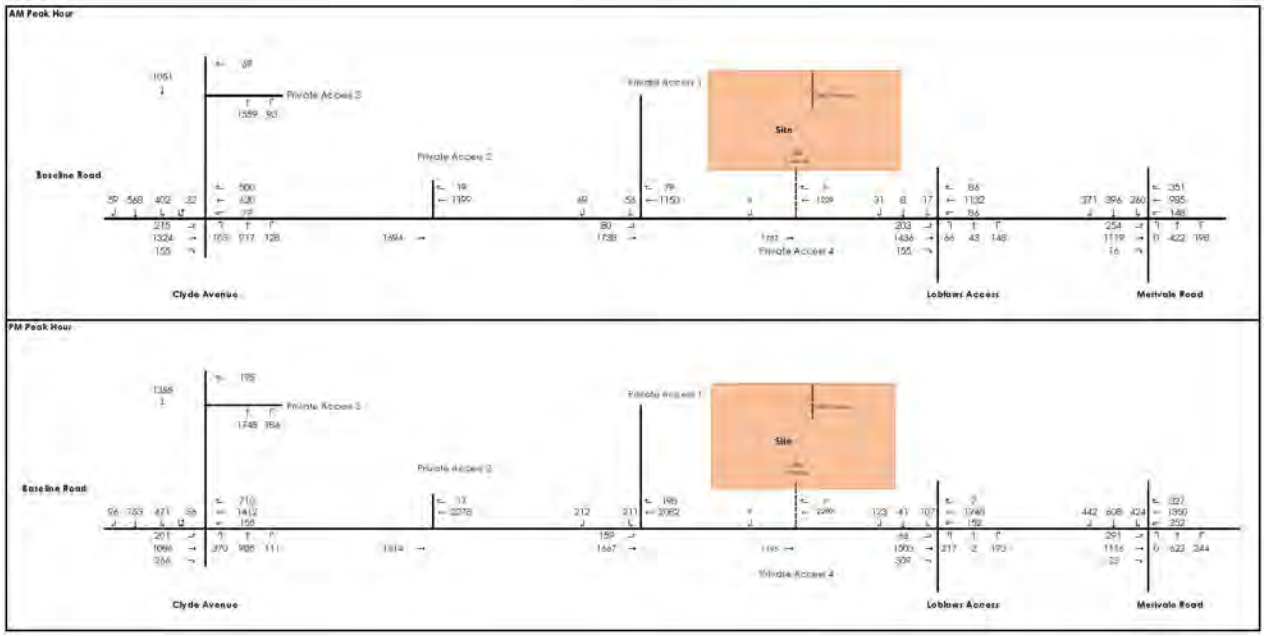
of lanes; however, this treatment may not be feasible due to cost, ROW restrictions, and adverse impacts on MMLOS performance for other modes.

Appendix D contains the detailed MMLOS analysis and is provided for reference.

4.9.3.2 2029 Future Background Conditions

Figure 13 illustrates the 2029 future background AM and PM peak hour traffic volumes at the study area intersections.

Figure 13 – 2022 Future Background Traffic Volumes



Intersection Capacity Analysis

The Synchro analysis results indicated that the four signalized intersections along Baseline Road are expected to operate at or above capacity with multiple movements operating at LOS F during the AM and PM peak hours. As per Section 3.3, there are some potential ways in which motorists could change their behaviors, which would in turn help to reduce traffic volumes on Baseline Road during peak hours, thus assisting with rationalizing the demands.

A sensitivity analysis was carried out and it was determined that peak hour traffic in the study area would need to be reduced by 25% in order to meet the capacity criteria.

Figure 14 illustrates the 2029 future background AM and PM peak hour traffic volumes (Rationalized) at the study area intersections.

Table 16 summarizes summarizes the results of the Synchro analysis for the 2029 future background horizon (Rationalized).

Table 15 summarizes the results of the Synchro analysis for the 2029 future background horizon.

The Synchro analysis results indicated that the four signalized intersections along Baseline Road are expected to operate at or above capacity with multiple movements operating at LOS F during the AM and PM peak hours. As per Section 3.3, there are some potential ways in which motorists could change their behaviors, which would in turn help to reduce traffic volumes on Baseline Road during peak hours, thus assisting with rationalizing the demands.

A sensitivity analysis was carried out and it was determined that peak hour traffic in the study area would need to be reduced by 25% in order to meet the capacity criteria.

Figure 14 illustrates the 2029 future background AM and PM peak hour traffic volumes (Rationalized) at the study area intersections.

Table 16 summarizes summarizes the results of the Synchro analysis for the 2029 future background horizon (Rationalized).

Table 15 - 2029 Future Background Conditions Intersection Operations

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Delay (s)	Queue 95th (m)
Clyde Avenue at Private Access 3	Stop Sign	WB	Right	C (F)	0.26 (0.88)	21.8 (72.7)	2.8 (13.7)
		NB	Through	-	-	-	-
			Right	-	-	-	-
		SB	Through	-	-	-	-
Baseline Road at Clyde Avenue	Traffic Signals	EB	Left	F (F)	1.46 (1.36)	289.4 (249.4)	#116.1 (#107.9)
			Through	F (F)	1.37 (1.24)	213.1 (161)	#272.2 (#208.8)
			Right	A (A)	-	5.1 (5.1)	17.7 (51.1)
		WB	Left	E (F)	0.80 (1.06)	71.3 (142.9)	34.2 (#81.1)
			Through	D (F)	0.73 (1.66)	43.3 (342.5)	90.6 (#298.8)
			Right	C (C)	-	22.6 (22.6)	#145.2 (#269.2)
		NB	Left	E (F)	0.68 (1.07)	60.4 (119.2)	20.4 (#79.8)
			Through / Right	F (F)	1.23 (1.28)	164.5 (186.8)	#203.8 (#217.6)
		SB	Left	F (F)	1.13 (1.32)	137.9 (213.9)	#126.0 (#149)
			Through / Right	C (F)	0.59 (0.97)	34.0 (83.8)	89.8 (#150.9)
Baseline Road at Private Access 1	Traffic Signals	EB	Left	B (F)	0.29 (0.95)	10.1 (92.6)	12.9 (#67)
			Through	A (B)	0.70 (0.75)	6.1 (11.7)	213.1 (193.3)
		WB	Through / Right	B (F)	0.55 (1.24)	18.1 (134.5)	151.6 (#439.8)
		SB	Left	E (D)	0.46 (0.83)	55.2 (55)	20.6 (66.7)
			Right	D (D)	0.31 (0.78)	53.5 (2.9)	10.5 (38.7)
Baseline Road at Loblaws Access	Traffic Signals	EB	Left	B (F)	0.63 (1.22)	10.9 (219.8)	33.7 (#38.8)
			Through	A (B)	0.61 (0.76)	0.6 (17.3)	104.7 (159.6)
			Right	-	-	0.0 (0.0)	11.6 (31.9)
		WB	Left	B (F)	0.35 (1.16)	13.2 (176.9)	m24.8 (#80.6)
			Through	B (D)	0.56 (0.99)	11.8 (38.5)	m145.3 (#310)
			Right	A (A)	0.1 (0.01)	0.1 (8.1)	m12.7 (0.1)
		NB	Left /Through	D (F)	0.53 (0.98)	54.3 (106.9)	41.2 (#107.8)
			Right	A (F)	0.68 (1.25)	0.0 (0.0)	36.7 (59.6)
		SB	Left	D (D)	0.09 (0.24)	47.0 (38.6)	9.8 (44.3)
			Through/ Right	D (D)	0.22 (0.45)	47.9 (41.2)	10.8 (54.7)
Baseline at Merivale	Traffic Signals	EB	Left	F (F)	1.19 (1.69)	169.7 (392)	#123.7 (#174.5)
			Through	F (F)	1.13 (1.18)	111.0 (136.8)	#217.3 (#236.5)
			Right	-	-	-	m0.0 (0.0)
		WB	Left	E (F)	0.86 (1.23)	73.9 (195.9)	#59.4 (#139.5)
			Through	F (F)	1.09 (1.33)	96.8 (201.2)	#177.1 (#298.8)
			Right	-	-	-	70.2 (80.2)
		NB	Through	D (E)	0.59 (0.79)	43.8 (55.4)	63.6 (107.9)
			Right	D (E)	0.62 (0.69)	48.8 (56.5)	17.6 (28.1)
		SB	Left	F (F)	1.28 (1.49)	200.5 (300.8)	#84.7 (#116.8)
			Through	C (C)	0.34 (0.50)	26.7 (32.5)	47.0 (83.7)
			Right	-	-	-	30.6 (73.9)

Notes:
1. Table format: AM (PM)
2. v/c – represents the anticipated volume divided by the predicted capacity
3. * Estimated using Synchro's Percentile Method
4. # for v/c <1, queue requires multiple cycles to be cleared

Figure 14 – 2022 Future Background Traffic Volumes (Rationalized)

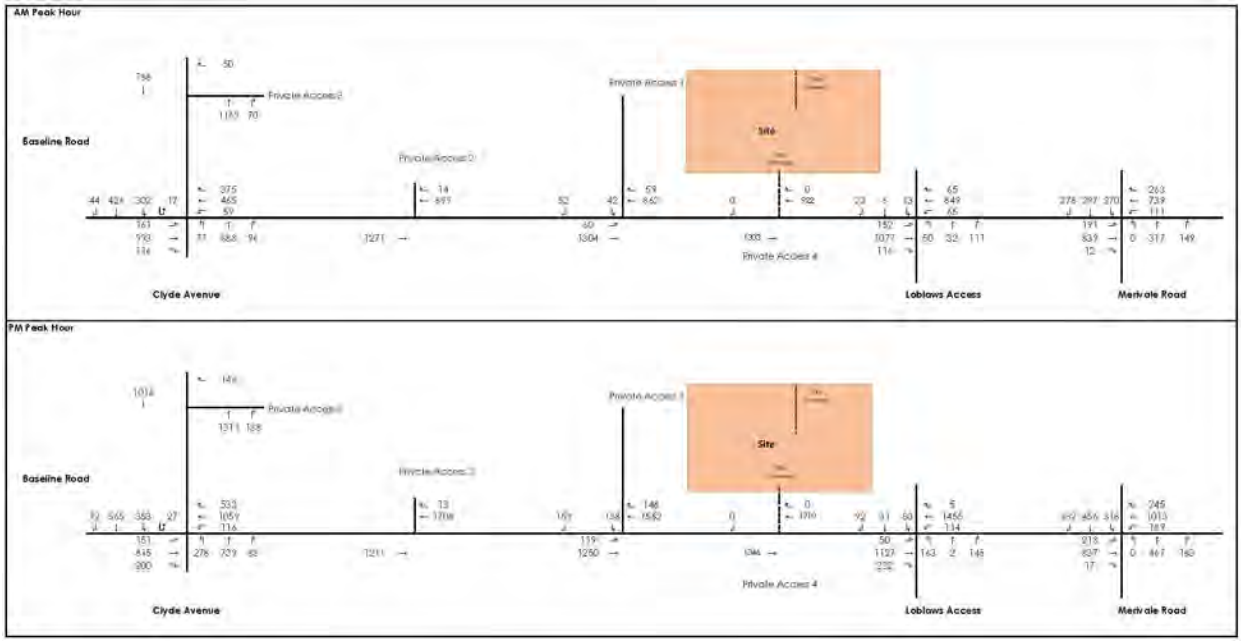


Table 16 - 2029 Future Background Conditions Intersection Operations (Rationalized)

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Delay (s)	Queue 95th (m)
Clyde Avenue at Private Access 3	Stop Sign	WB	Right	C (C)	0.14 (0.46)	15.4 (23.2)	1.6 (5.3)
		NB	Through	-	-	-	-
			Right	-	-	-	-
		SB	Through	-	-	-	-
Baseline Road at Clyde Avenue	Traffic Signals	EB	Left	F (F)	1.09 (1.02)	150.4 (130.5)	#84.5 (#78.6)
			Through	E (E)	0.97 (0.92)	58.6 (55.4)	#183.6 (#135.2)
			Right	A (A)	-	5.1 (5.1)	8.5 (30.3)
		WB	Left	E (F)	0.79 (0.84)	71.1 (83.6)	26.9 (#57.2)
			Through	D (F)	0.54 (1.24)	37.7 (160.6)	65.8 (#204.7)
			Right	C (C)	-	22.6 (22.6)	66.2 (#161.1)
		NB	Left	E (E)	0.64 (0.85)	61.4 (68.4)	16.5 (#52.8)
			Through / Right	E (E)	0.93 (0.96)	67.2 (74.8)	#131.8 (#142.5)
		SB	Left	E (F)	0.87 (0.99)	69.7 (95.2)	#95.7 (#113.6)
			Through / Right	C (E)	0.43 (0.73)	30.5 (44.4)	63.6 (93.7)
Baseline Road at Private Access 1	Traffic Signals	EB	Left	A (C)	0.14 (0.69)	4 (31.7)	10.2 (#43.5)
			Through	A (A)	0.52 (0.54)	4 (6.3)	119.5 (111.4)
		WB	Through / Right	A (B)	0.41 (0.84)	6.9 (19.4)	98 (#288.8)
		SB	Left	D (E)	0.36 (0.79)	54.4 (56.8)	16.6 (50.5)
			Right	D (E)	0.24 (0.74)	53.2 (55.6)	9.3 (21.2)
Baseline Road at Loblaws Access	Traffic Signals	EB	Left	A (D)	0.36 (0.32)	4.9 (35.4)	14.4 (19.3)
			Through	A (B)	0.44 (0.55)	0.4 (11.9)	56.4 (97)
			Right	-	-	0.0 (0.0)	7 (19.6)
		WB	Left	A (C)	0.18 (0.48)	6.9 (30.7)	m19.7 (41.7)
			Through	A (B)	0.39 (0.71)	7.4 (15.4)	122.1 (150)
			Right	A (A)	0.1 (0.01)	5.4 (7)	m7.7 (0.0)
		NB	Left /Through	E (E)	0.47 (0.70)	55.8 (59.8)	33.3 (#65.1)
			Right	A (A)	0.62 (0.89)	0.0 (0.0)	24 (32.4)
		SB	Left	D (D)	0.08 (0.20)	49.9 (40.2)	8.3 (32.5)
			Through/ Right	D (D)	0.23 (0.37)	51 (42.2)	9.8 (35.2)
Baseline at Merivale	Traffic Signals	EB	Left	F (F)	0.90 (1.26)	83 (215.1)	#86 (#126.9)
			Through	D (D)	0.82 (0.88)	41.6 (54.4)	#140.8 (#144)
			Right	-	-	-	m0.0 (0.0)
		WB	Left	E (F)	0.82 (0.92)	65.5 (98.7)	43.1 (#97.1)
			Through	D (E)	0.86 (1.00)	47.7 (72.6)	108.7 (#194.1)
			Right	-	-	-	40.7 (50.8)
		NB	Through	D (D)	0.42 (0.59)	39 (48.2)	47.6 (78.3)
			Right	D (D)	0.44 (0.52)	41.4 (49.2)	15.6 (17.5)
		SB	Left	F (F)	0.96 (1.12)	93.1 (149.6)	#58.7 (#81.9)
			Through	C (C)	0.24 (0.37)	24.3 (30.2)	35.4 (60.9)
			Right	-	-	-	15.7 (33.9)

Notes:
1. Table format: AM (PM)
2. v/c – represents the anticipated volume divided by the predicted capacity
3. * Estimated using Synchro's Percentile Method
4. # for v/c <1, queue requires multiple cycles to be cleared

Baseline Road at Clyde Avenue

The intersection of Baseline Road at Clyde Avenue is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.

Baseline Road at Private Access 1

The southbound movement at the intersection of Baseline Road at Private Access 1 is expected to continue to operate with more than 50s of delay during both the AM and PM peak hours.

Baseline Road at Loblaws Access

The northbound movement at the intersection of Baseline Road at Loblaws Access is expected to operate with more than 50s of delay during both the AM and PM peak hours.

Baseline Road at Merivale Road

The intersection of Baseline Road at Merivale Road is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.

Clyde Avenue at Private Access 3

The Clyde Avenue at Private Access 3 intersection is expected to continue to operate acceptably.

Appendix F contains detailed intersection performance worksheets.

Multi-Modal Level of Service Analysis (MMLOS)– Signalized Intersections

By 2029, the Baseline Road BRT upgrades will be implemented, and as such, the study area signalized intersections will be considered ‘within 600m of a rapid transit station’ Policy Area due to the proposed transit stop at the Baseline Road at Clyde Avenue intersection. The multi-modal level of service (MMLOS) targets at intersections are determined by taking the most stringent of the MMLOS targets for each individual roadway segment. As such, for the signalized intersections, the Pedestrian Level of Service (PLOS) target is A, Bicycle Level of Service (BLOS) target is A, Transit Level of Service (TLOS) target is A, Truck Level of Service (TkLOS) target is D, and Vehicular Level of Service (VLOS) target is E.

The Pedestrian Level of Service (PLOS) at all four intersections along Baseline Road are projected to operate with a PLOS of F, which does not meet the desired target of A. Based on the MMLOS guidelines, intersection PLOS is largely influenced by the number of lanes pedestrians cross. Due to the nature of arterial roads, reducing the number of lanes at the intersection is not a feasible option. Incorporating other improvements such as pedestrian leading intervals or reducing the corner radii are not expected to highly improve the PLOS to the desired targets and will have minimal impacts to the PLOS.

The ultimate geometry for the intersections along Baseline Road includes cycle tracks and cross-rides. Based on this configuration, the Bicycle Level of Service (BLOS) is expected to operate with a BLOS of A, which meets the desired target.

The Transit Level of Service (TLOS) at all four intersections along Baseline Road are projected not meeting the desired target of A. Based on the MMLOS guidelines, intersection TLOS is governed by the delay at the intersection.

The Truck Level of Service (TkLOS) at all four intersections along Baseline Road are projected to meet the desired target of D.

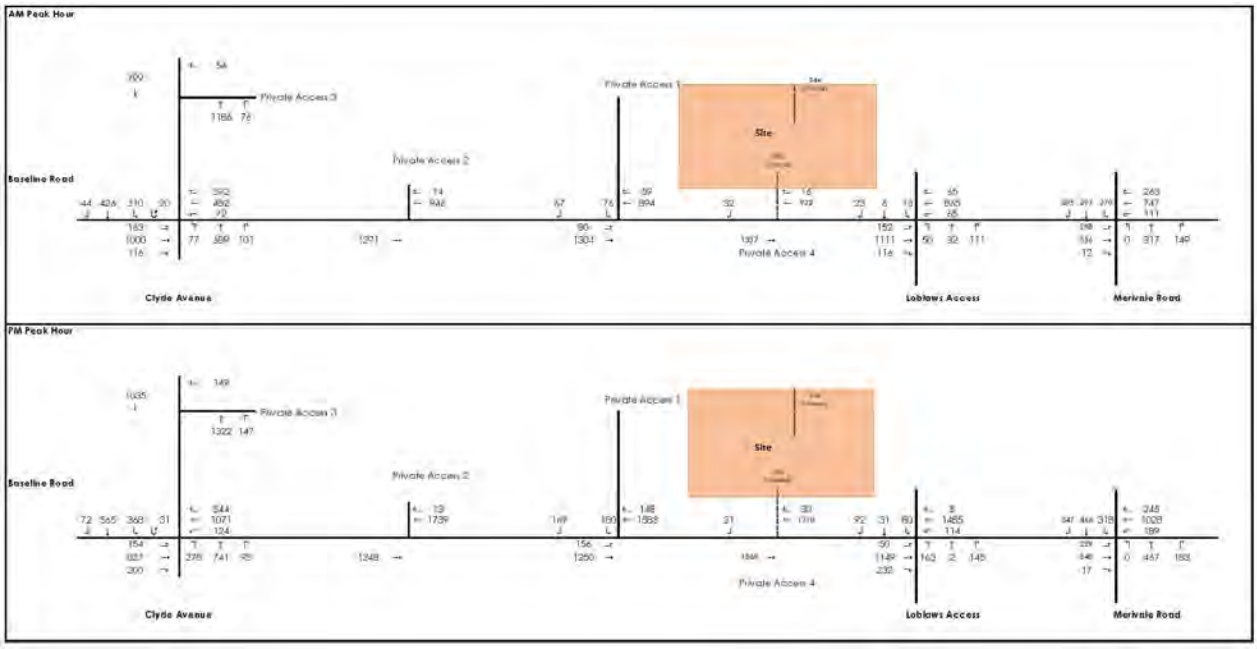
The Vehicular Level of Service (VLOS) at all four intersections along Baseline Road are projected not meeting the desired target of E. Increasing the number of lanes at this intersection would increase capacity and thus improve the VLOS, however, it would be to the detriment of the other modes of transportation and is therefore not recommended.

Appendix D contains the detailed MMLOS analysis and is provided for reference.

4.9.3.3 2029 Total Future Conditions

Figure 15 illustrates 2029 total future AM and PM peak hour traffic volumes (rationalized) at the study area intersections.

Figure 15 – 2022 Total Future Traffic Volumes (Rationalized)



Intersection Capacity Analysis

Table 17 summarizes the results of the Synchro analysis for the 2029 total future horizon. (Rationalized)

Table 17 – 2029 Total Future Intersection Operations (Rationalized)

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Delay (s)	Queue 95th (m)
Clyde Avenue at Private Access 3	Stop Sign	WB	Right	C (C)	0.15 (0.47)	15.6 (23.8)	1.7 (5.5)
		NB	Through	-	-	-	-
			Right	-	-	-	-
		SB	Through	-	-	-	-
Baseline Road at Clyde Avenue	Traffic Signals	EB	Left	F (F)	1.10 (1.04)	154.3 (135.7)	#85.4 (#80)
			Through	F (E)	1.00 (0.95)	70 (60.4)	#185.5 (#138.7)
			Right	A (A)	-	5.1 (5.1)	8.5 (30.3)
		WB	Left	E (F)	0.79 (0.85)	68.8 (86.6)	31.6 (#62.6)
			Through	D (F)	0.56 (1.26)	38.5 (166.5)	68.5 (#208.1)
			Right	C (C)	-	22.6 (22.6)	75.5 (#170.1)
		NB	Left	E (E)	0.64 (0.86)	61.4 (68.5)	16.5 (#53)
			Through / Right	E (E)	0.93 (0.98)	68.2 (78.2)	#133.9 (#145.7)
		SB	Left	E (F)	0.87 (1.03)	70.8 (106.8)	#99 (#119)
			Through / Right	C (D)	0.43 (0.73)	30.2 (44.3)	63.6 (93.7)
Baseline Road at Private Access 1	Traffic Signals	EB	Left	A (E)	0.22 (0.87)	6.5 (58.1)	12.9 (#65.3)
			Through	A (A)	0.53 (0.55)	4.2 (7)	119.7 (111.4)
		WB	Through / Right	B (C)	0.42 (0.89)	15.4 (25.1)	102.8 (#294.3)
		SB	Left	E (E)	0.61 (0.81)	57.5 (56)	26.3 (56.9)
			Right	D (D)	0.28 (0.68)	53 (52.1)	10.4 (24)
Baseline Road at Loblaws Access	Traffic Signals	EB	Left	A (D)	0.37 (0.34)	5.2 (37.4)	14.4 (21.9)
			Through	A (B)	0.46 (0.56)	0.4 (12)	59.3 (99.9)
			Right	-	-	0.0 (0.0)	7.1 (19.9)
		WB	Left	A (C)	0.19 (0.49)	7 (32.1)	m19.8 (44.2)
			Through	A (B)	0.4 (0.73)	7.5 (15.8)	124.1 (156.1)
			Right	A (A)	0.07 (0.01)	5.4 (7)	m7.7 (0.0)
		NB	Left /Through	E (E)	0.48 (0.70)	55.7 (59.8)	33.5 (#64.7)
			Right	A (A)	0.62 (0.89)	0.0 (0.0)	25.5 (33.5)
		SB	Left	D (D)	0.08 (0.20)	49.8 (40.2)	8.3 (35.7)
			Through/ Right	D (D)	0.22 (0.37)	50.9 (42.2)	9.8 (35.2)
Baseline at Merivale	Traffic Signals	EB	Left	F (F)	0.97 (1.33)	101.6 (239.9)	#96.2 (#33.2)
			Through	D (E)	0.84 (0.89)	42.1 (55.6)	#145.3 (#148.8)
			Right	-	-	-	m0.0 (0.0)
		WB	Left	E (F)	0.82 (0.92)	65.5 (98.7)	43.1 (#97.1)
			Through	D (F)	0.86 (1.01)	48.1 (76.5)	110.3 (#198.8)
			Right	-	-	-	41 (50.6)
		NB	Through	D (D)	0.42 (0.59)	39.3 (48.3)	47.6 (78.5)
			Right	D (D)	0.44 (0.52)	41.7 (49.2)	15.6 (17.5)
		SB	Left	F (F)	0.96 (1.12)	93.1 (149.6)	#58.7 (#81.9)
			Through	C (C)	0.25 (0.37)	24.4 (30.2)	35.4 (60.9)
			Right	-	-	-	16.1 (39.2)

Notes:
1. Table format: AM (PM)
2. v/c – represents the anticipated volume divided by the predicted capacity
3. * Estimated using Synchro's Percentile Method
4. # for v/c <1, queue requires multiple cycles to be cleared

Baseline Road at Clyde Avenue

Consistent with the previous horizons, the intersection of Baseline Road at Clyde Avenue is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.

Baseline Road at Private Access 1

Consistent with the previous horizons, the southbound movement at the intersection of Baseline Road at Private Access 1 is expected to continue to operate with more than 50s of delay during both the AM and PM peak hours.

Baseline Road at Loblaws Access

Consistent with the previous horizons, the northbound movement at the intersection of Baseline Road at Loblaws Access is expected to operate with more than 50s of delay during both the AM and PM peak hours.

Baseline Road at Merivale Road

Consistent with the previous horizons, the intersection of Baseline Road at Merivale Road is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.

Clyde Avenue at Private Access 3

The Clyde Avenue at Private Access 3 intersection is expected to continue to operate acceptably.

Appendix F contains detailed intersection performance worksheets.

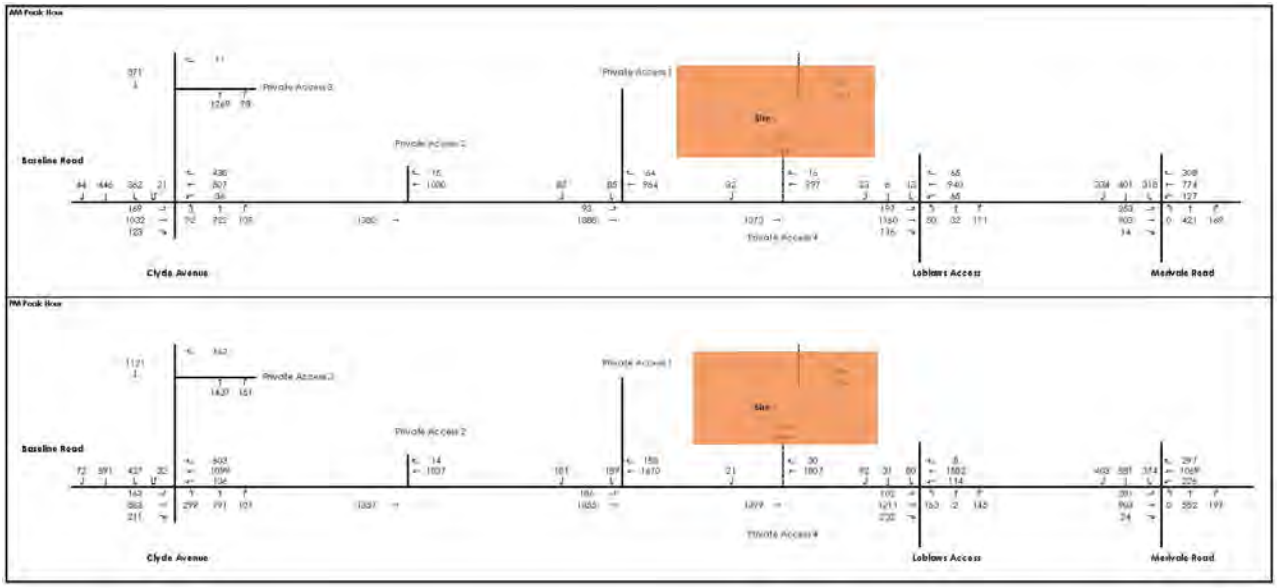
Multi-Modal Level of Service Analysis – Signalized Intersections

The intersection operating conditions remain similar to 2029 background conditions; therefore, the intersection MMLOS discussion in **Section 4.9.2.2** applies to the 2029 total future analysis.

4.9.3.4 2034 Ultimate Conditions

Figure 16 illustrates 2034 ultimate AM and PM peak hour traffic volumes at the study area intersections.

Figure 16 - 2034 Total Future Traffic Volumes (Rationalized)



Intersection Capacity Analysis

Table 18 summarizes the results of the Synchro analysis for the 2034 ultimate horizon. (Rationalized)

Table 18 – 2034 Ultimate Intersection Operations (Rationalized)

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Delay (s)	Queue 95th (m)
Clyde Avenue at Private Access 3	Stop Sign	WB	Right	C (C)	0.21 (0.56)	17.3 (29.6)	2.3 (6.8)
		NB	Through	-	-	-	-
			Right	-	-	-	-
		SB	Through	-	-	-	-
Baseline Road at Clyde Avenue	Traffic Signals	EB	Left	F (F)	1.14 (1.10)	168.6 (154.3)	#89.4 (#85.4)
			Through	E (E)	1.09 (0.99)	95.2 (68.6)	#194.3 (#148.5)
			Right	A (A)	-	5.1 (5.1)	10.2 (33.7)
		WB	Left	E (F)	0.81 (0.94)	73.9 (105.4)	#38.3 (#69.9)
			Through	D (F)	0.59 (1.29)	39.4 (180.5)	72.1 (#215.5)
			Right	C (C)	-	22.6 (22.6)	#105.6 (#205.2)
		NB	Left	E (E)	0.66 (0.87)	60.8 (71.1)	18.8 (#59.1)
			Through / Right	E (F)	0.98 (1.05)	78.5 (100)	#145 (#163.8)
		SB	Left	F (F)	1.02 (1.20)	101.9 (163.6)	#114.3 (#135.7)
			Through / Right	C (D)	0.45 (0.77)	30.9 (47.6)	67.4 (98.3)
Baseline Road at Private Access 1	Traffic Signals	EB	Left	A (F)	0.27 (1.06)	7.6 (122.1)	14.5 (#82.8)
			Through	A (A)	0.56 (0.60)	4.5 (8)	133.6 (128.1)
		WB	Through / Right	B (D)	0.46 (0.97)	16.3 (37.4)	114.4 (#320.5)
		SB	Left	E (E)	0.67 (0.82)	59 (55.4)	28.8 (59.7)
			Right	D (D)	0.41 (0.70)	54.4 (52.2)	11.4 (28)
Baseline Road at Loblaws Access	Traffic Signals	EB	Left	A (E)	0.50 (0.80)	6.4 (78.5)	18.6 (#44.7)
			Through	A (B)	0.48 (0.56)	0.4 (12.5)	63.4 (108.9)
			Right	-	-	0.0 (0.0)	7.3(20.7)
		WB	Left	A (D)	0.20 (0.49)	7.7 (36.4)	m20.5 (#54.2)
			Through	A (B)	0.44 (0.73)	8.4 (17.3)	135.7 (177.1)
			Right	A (A)	0.07 (0.01)	5.8 (7)	m9.2 (0.0)
		NB	Left /Through	E (E)	0.48 (0.70)	55.7 (59.8)	33.5 (#64.7)
			Right	A (A)	0.62 (0.89)	0.0 (0.0)	26 (35.7)
		SB	Left	D (D)	0.08 (0.20)	49.8 (40.2)	8.3 (32.6)
			Through/ Right	D (D)	0.22 (0.37)	50.9 (42.2)	9.8 (37.2)
Baseline at Merivale	Traffic Signals	EB	Left	F (F)	1.18 (1.63)	168.2 (367.2)	#123.9 (#167.6)
			Through	D (E)	0.90 (0.95)	48.3 (64)	#158.2 (#169.4)
			Right	-	-	-	m0.0 (0.0)
		WB	Left	E (F)	0.84 (1.10)	69.3 (150.1)	48.5 (#122)
			Through	D (F)	0.88 (1.05)	49.6 (88.6)	115.3 (#211.6)
			Right	-	-	-	50 (69)
		NB	Through	D (D)	0.57 (0.74)	42.4 (53)	63.4 (100)
			Right	D (D)	0.51 (0.56)	44 (50.6)	16.5 (18)
		SB	Left	F (F)	1.13 (1.32)	143.2 (226.9)	#72.6 (#100.5)
			Through	C (C)	0.34 (0.48)	25.9 (32.1)	47.6 79.3)
			Right	-	-	-	18.5 (58.6)

Notes:
1. Table format: AM (PM)
2. v/c – represents the anticipated volume divided by the predicted capacity
3. * Estimated using Synchro's Percentile Method
4. # for v/c <1, queue requires multiple cycles to be cleared

Baseline Road at Clyde Avenue

Consistent with the previous horizons, the intersection of Baseline Road at Clyde Avenue is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.

Baseline Road at Private Access 1

Consistent with the previous horizons, the southbound movement at the intersection of Baseline Road at Private Access 1 is expected to continue to operate with more than 50s of delay during both the AM and PM peak hours.

Baseline Road at Loblaws Access

Consistent with the previous horizons, the northbound movement at the intersection of Baseline Road at Loblaws Access is expected to operate with more than 50s of delay during both the AM and PM peak hours.

Baseline Road at Merivale Road

Consistent with the previous horizons, the intersection of Baseline Road at Merivale Road is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.

Clyde Avenue at Private Access 3

The Clyde Avenue at Private Access 3 intersection is expected to continue to operate acceptably.

Appendix F contains detailed intersection performance worksheets.

Multi-Modal Level of Service Analysis – Signalized Intersections

The intersection operating conditions remain similar to 2029 background conditions; therefore, the intersection MMLOS discussion in **Section 4.9.2.2** applies to the 2034 ultimate analysis.

5.0 CONCLUSION

The subject Transportation Impact Assessment (TIA) was prepared in support of a Site Plan application for a proposed development located in the Civic Hospital / Central Park neighborhood of Ottawa, Ontario. The proposed development is located at 1345 Baseline Road at the north-east quadrant of the Baseline Road at Clyde Avenue intersection.

The proposed development includes 1014 apartment units, and approximately 8,971 ft^2 GFA of retail space. The development includes 748 vehicle parking spaces and 752 bicycle parking spaces. The proposed site plan includes a new right-in / right-out access to Baseline Road as well as two more accesses off the existing Private Access 1, shared with the adjacent Walmart property.

2022 Existing

- The intersection of Baseline Road at Clyde Avenue is currently operating at or above capacity with several individual movements operating at a LOD F during both the AM and PM peak hours. No improvements are recommended as this intersection is expected to be upgraded to favor east-east BRT transit once the BRT upgrades are implemented along Baseline Road by 2027.
- The southbound movement at the intersection of Baseline Road at Private Access 1 is currently operating with more than 50s of delay during both the AM and PM peak hours.
- The intersection of Baseline Road at Loblaws Access currently operates with several individual movements operating at LOS E during both the AM and PM peak hours. Of particular note are the westbound left turn movement (PM peak hour) and the northbound shared left turn and through movement (AM and PM peak hours).
- The intersection of Baseline Road at Merivale Road currently operates at or above theoretical capacity and delays over two minutes in several directions during the PM peak hour.
- The Clyde Avenue at Private Access 3 intersection is currently operating acceptably.

2029 Future Background

- The Synchro analysis results indicated that the four intersections along Baseline Road are expected to operate at or above capacity with multiple movements operating at LOS F during the AM and PM peak hours. As per Section 3.3, there are some potential ways in which motorists could change their behaviors, which would in turn help to reduce traffic volumes on Baseline Road during peak hours, thus assisting with rationalizing the demands. The potential ways include reduction in auto modal share with the completion of the Baseline BRT project, peak spreading and telecommuting.
- A sensitivity analysis was carried out and it was determined that peak hour traffic in the study area would need to be reduced by 25% in order to meet the capacity criteria.
- With the 25% reduction in traffic volumes:

- The intersection of Baseline Road at Clyde Avenue is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.
- The southbound movement at the intersection of Baseline Road at Private Access 1 is expected to continue to operate with more than 50s of delay during both the AM and PM peak hours.
- The northbound movement at the intersection of Baseline Road at Loblaws Access is expected to operate with more than 50s of delay during both the AM and PM peak hours.
- The intersection of Baseline Road at Merivale Road is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.
- The Clyde Avenue at Private Access 3 intersection is expected to continue to operate acceptably.

2029 Total Future (Rationalized)

- Consistent with the previous horizons, the southbound movement at the intersection of Baseline Road at Private Access 1 is expected to continue to operate with more than 50s of delay during both the AM and PM peak hours.
- Consistent with the previous horizons, the northbound movement at the intersection of Baseline Road at Loblaws Access is expected to operate with more than 50s of delay during both the AM and PM peak hours.
- Consistent with the previous horizons, the intersection of Baseline Road at Merivale Road is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.
- The Clyde Avenue at Private Access 3 intersection is expected to continue to operate acceptably.

2034 Ultimate (Rationalized)

- Consistent with the previous horizons, the intersection of Baseline Road at Clyde Avenue is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.
- Consistent with the previous horizons, the southbound movement at the intersection of Baseline Road at Private Access 1 is expected to continue to operate with more than 50s of delay during both the AM and PM peak hours.
- Consistent with the previous horizons, the northbound movement at the intersection of Baseline Road at Loblaws Access is expected to operate with more than 50s of delay during both the AM and PM peak hours.

- Consistent with the previous horizons, the intersection of Baseline Road at Merivale Road is expected to operate at or above theoretical capacity with some individual movements operating at LOS F during both the AM and PM peak hours. As the intersection is constrained geometrically, no recommendation is recommended at this time.

- The Clyde Avenue at Private Access 3 intersection is expected to continue to operate acceptably.

The Multi-Modal Level of Service (MMLOS) assessment for existing roadway segments (i.e. prior to the Baseline Road BRT) found that:

- Baseline Road, across the frontage of the subject development, do not currently meet the Pedestrian and Bicycle Level of Service targets, while they do meet the Transit and Truck Level of Service targets. To improve the PLOS, the sidewalk widths would need to be increased to 2.0m, a 2.0m boulevard would need to be implemented, and the posted speed limit would need to be reduced to 50 km/h. To improve the BLOS, a physically separated bicycle facility (i.e. cycle track) would need to be implemented. As the Baseline Road BRT will be implemented by 2027, it is not recommended to mitigate these deficiencies as an interim condition.

The Multi-Modal Level of Service (MMLOS) assessment for ultimate roadway segments (i.e. with the Baseline Road BRT) found that:

- Implementing the Baseline Road BRT increases the PLOS target to an A along Baseline Road, which is not anticipated to be met in the ultimate conditions. Reducing the speed limit to 30 km/h or reducing the traffic volumes to less than 3000 AADT would allow the PLOS target of A to be met, however, as Baseline Road is an arterial road, these are not feasible solutions.

- The proposed cycle tracks along Baseline Road will allow the BLOS target on Baseline Road to be met in the ultimate conditions.

- The TLOS and TkLOS targets are anticipated to continue to be met along Baseline Road under the ultimate conditions.

The MMLOS assessment for existing signalized intersections (i.e. prior to the Baseline Road BRT) found that:

- The four intersections along Baseline Road currently do not meet the PLOS, BLOS, TLOS, and VLOS targets, while they do meet the TkLOS target. Measures that would improve the MMLOS include reducing the number of vehicle lanes, reducing the posted speed limit, reducing the volume of cars, and implementing higher order cycling facilities. As this intersection is scheduled to undergo geometric changes as a result of the Baseline Road BRT, no interim mitigation measures are recommended.

The MMLOS assessment for ultimate signalized intersections (i.e. with the Baseline Road BRT) found that:

- The four intersections along Baseline Road are not projected to meet the PLOS, TLOS, and VLOS targets while they are projected to meet the BLOS and TkLOS targets. Despite the future geometry at these intersections, based on the crossing distance for pedestrians, it is anticipated at the PLOS target will not be met. Reducing the number of vehicle lanes would improve the PLOS, however, as Baseline Road and Clyde Avenue are both arterial roadways, this is not a feasible option. While the future geometry at this intersection

includes median BRT, the transit delays in the northbound and southbound directions result in a TLOS that is below target. Introducing features such as queue jump lanes would improve the TLOS, however, there may be ROW limitations. Adding additional vehicle lanes at this intersection would improve the VLOS, however, it would be to the detriment of the other modes of transportation and is therefore not recommended.

Based on the transportation evaluation presented in this transportation study, the proposed development at 1345 Baseline Road can be supported and should be permitted to proceed from a transportation perspective.

APPENDICES

Appendix A TRAFFIC AND COLLISION DATA

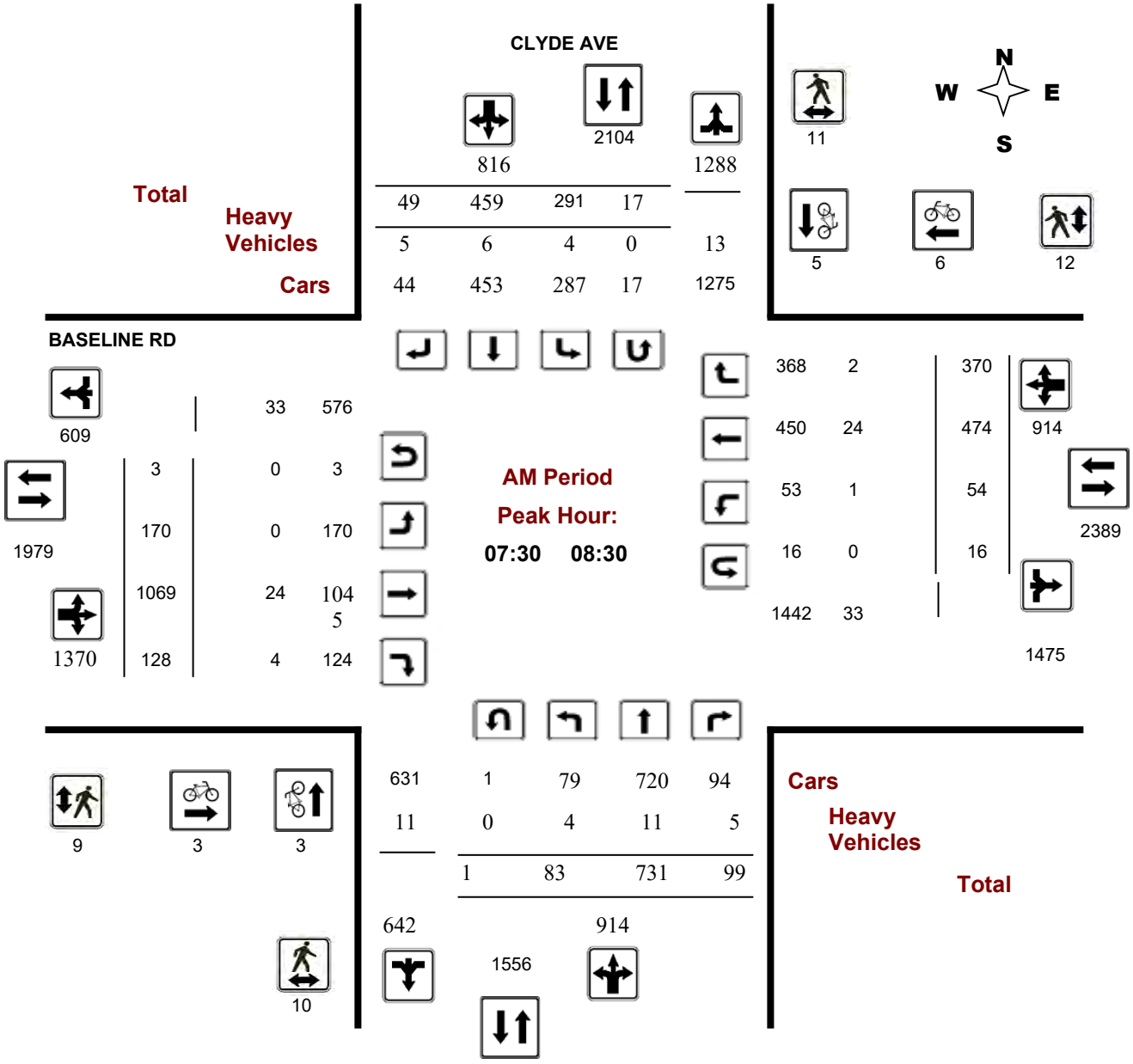
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38720

Start Time: 07:00 **Device:** Miovision



Comments

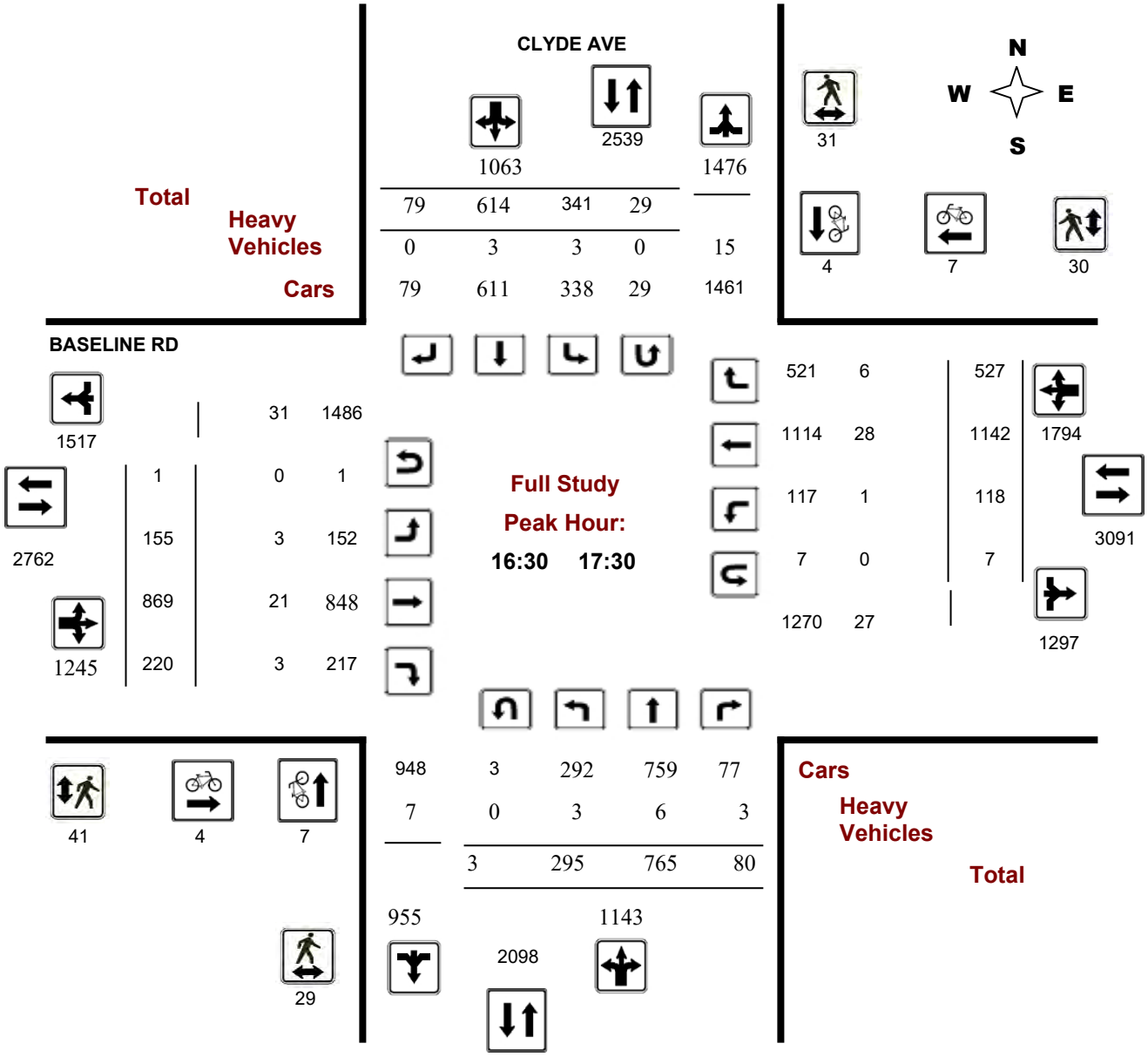
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38720

Start Time: 07:00 **Device:** Miovision



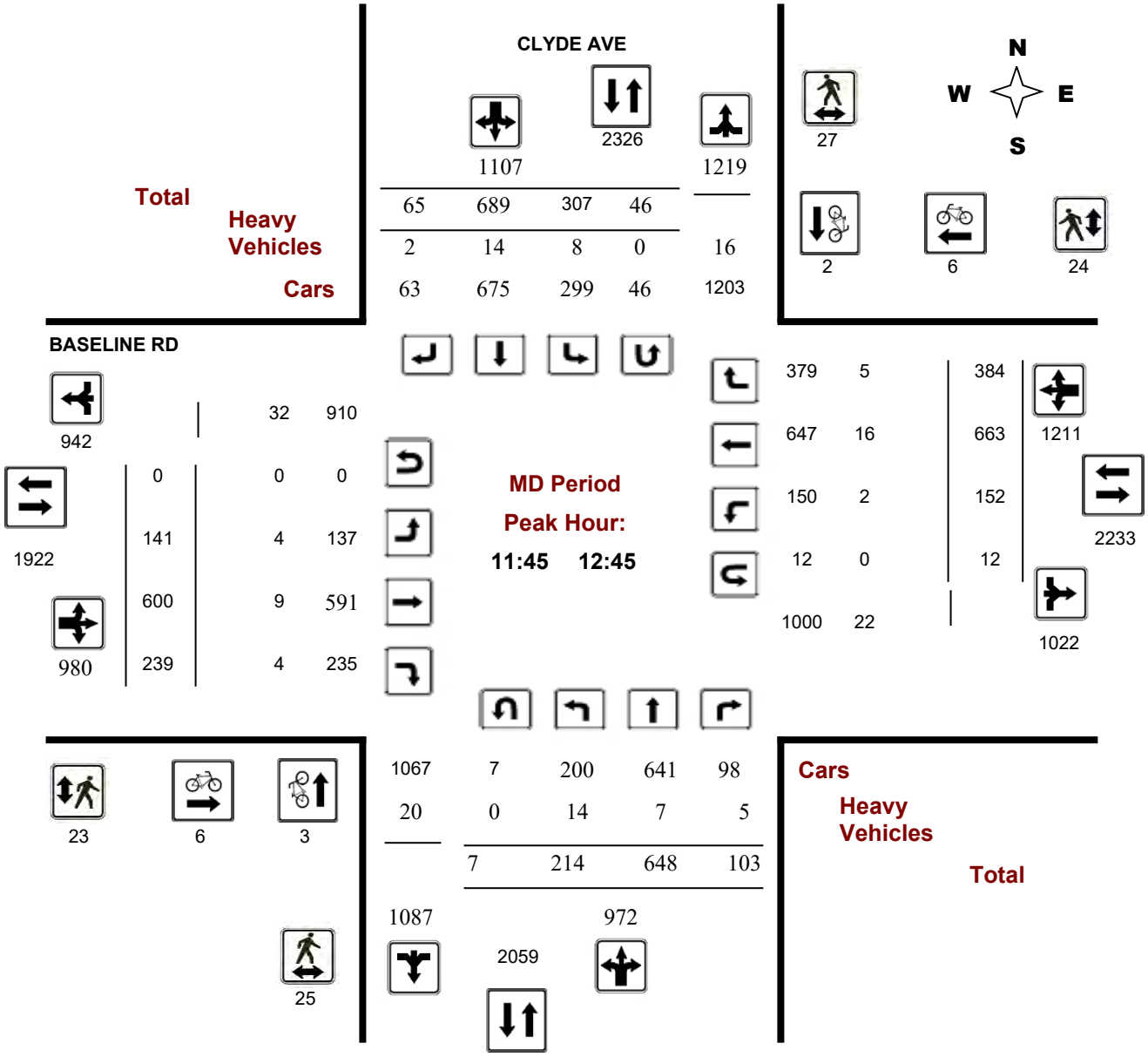
Comments

Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019
Start Time: 07:00
WO No: 38720
Device: Miovision



Comments

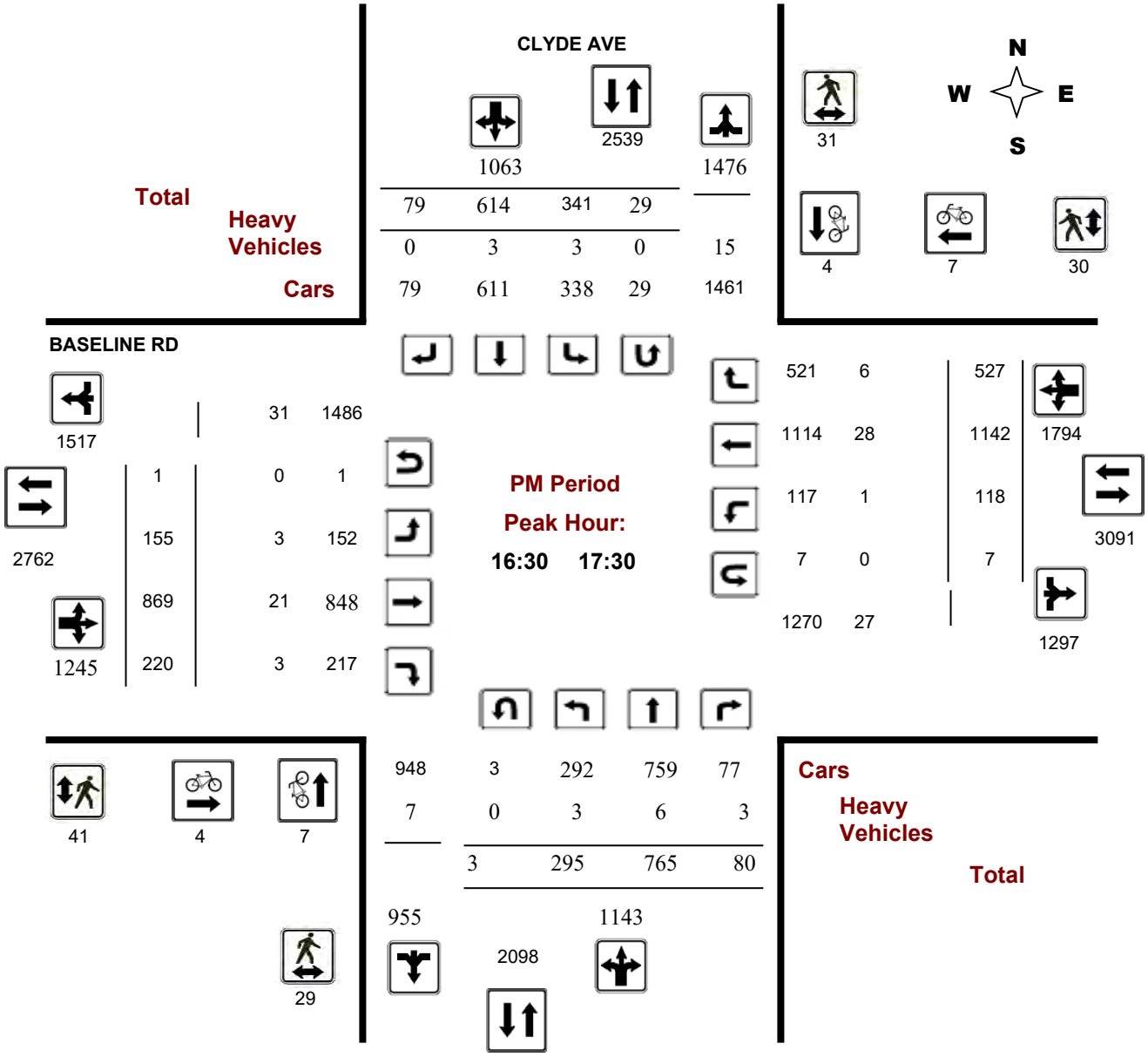
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38720

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

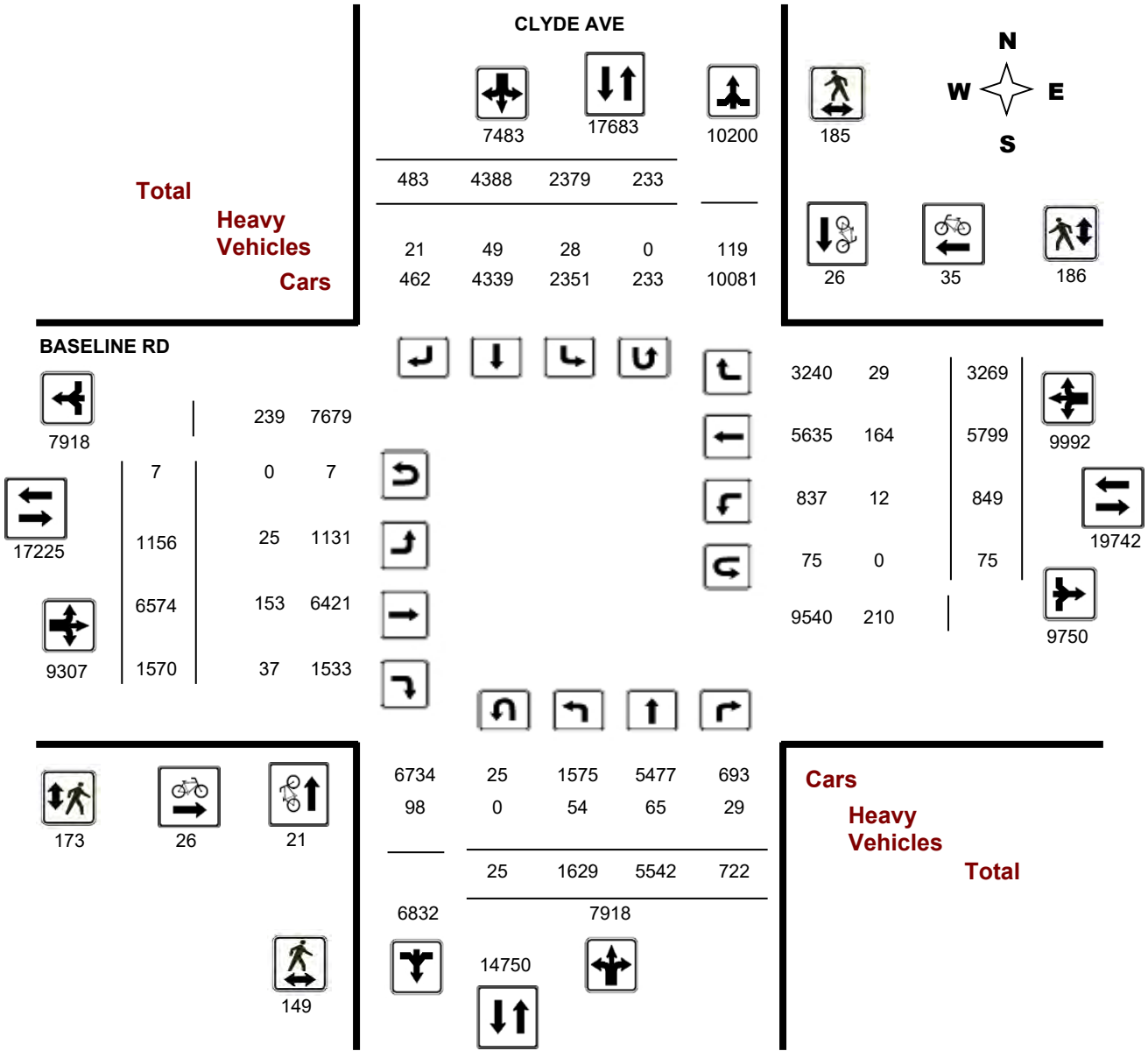
Turning Movement Count - Full Study Diagram

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019

WO#: 38720

Device: Miovision



Comments

Transportation Services - Traffic Services

Work Order 38720

Turning Movement Count - Full Study Summary Report

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 25 Southbound: 233

Eastbound: 7 Westbound: 75

AADT Factor .90

Full Study

	CLYDE AVE									BASELINE RD									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	63	626	80	**769**	248	447	19	**714**	**1483**	151	989	100	**1240**	43	420	349	**812**	**2052**	**3535**
08:00 09:00	107	711	105	**923**	296	499	56	**851**	**1774**	179	988	157	**1324**	69	423	305	**797**	**2121**	**3895**
09:00 10:00	140	634	80	**854**	260	538	48	**846**	**1700**	118	710	220	**1048**	72	445	317	**834**	**1882**	**3582**
11:30 12:30	204	653	111	**968**	303	666	66	**1035**	**2003**	123	624	223	**970**	141	644	396	**1181**	**2151**	**4154**
12:30 13:30	266	680	111	**1057**	340	622	68	**1030**	**2087**	141	557	242	**940**	142	584	319	**1045**	**1985**	**4072**
15:00 16:00	250	747	82	**1079**	262	500	71	**833**	**1912**	149	915	214	**1278**	131	982	549	**1662**	**2940**	**4852**
16:00 17:00	313	750	79	**1142**	325	558	77	**960**	**2102**	157	949	199	**1305**	113	1162	521	**1796**	**3101**	**5203**
17:00 18:00	286	741	74	**1101**	345	558	78	**981**	**2082**	138	842	215	**1195**	138	1139	513	**1790**	**2985**	**5067**
Sub Total	1629	5542	722	**7893**	2379	4388	483	**7250**	**15143**	1156	6574	1570	**9300**	849	5799	3269	**9917**	**19217**	**34360**
U Turns				**25**				**233**	**258**				**7**				**75**	**82**	**340**
Total	1629	5542	722	**7918**	2379	4388	483	**7483**	**15401**	1156	6574	1570	**9307**	849	5799	3269	**9992**	**19299**	**34700**
EQ 12Hr	2264	7703	1004	**11006**	3307	6099	671	**10401**	**21407**	1607	9138	2182	**12937**	1180	8061	4544	**13889**	**26826**	**48233**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													**1.39**						
AVG 12Hr	2038	6933	903	**9905**	2976	5489	604	**9361**	**19266**	1446	8224	1964	**11643**	1062	7255	4090	**12500**	**24143**	**43409**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													**.90**						
AVG 24Hr	2670	9082	1183	**12976**	3899	7191	792	**12263**	**25239**	1894	10774	2573	**15252**	1391	9503	5357	**16375**	**31627**	**56866**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.													**1.31**						

Comments:

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

W.O. 38720

Turning Movement Count - 15 Minute Summary Report

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 25 Southbound: 233

Eastbound: 7 Westbound: 75

		CLYDE AVE									BASELINE RD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	11	93	12	**116**	57	92	3	**156**	**272**	23	195	20	**239**	8	74	59	**142**	**381**	**653**
07:15	07:30	13	142	24	**179**	54	122	1	**179**	**358**	42	257	26	**325**	10	100	77	**189**	**514**	**872**
07:30	07:45	25	197	22	**244**	70	135	5	**215**	**459**	37	239	27	**303**	16	127	103	**248**	**551**	**1010**
07:45	08:00	14	194	22	**230**	67	98	10	**181**	**411**	49	298	27	**375**	9	119	110	**246**	**621**	**1032**
08:00	08:15	24	149	21	**195**	86	114	16	**217**	**412**	40	247	36	**323**	17	150	94	**266**	**589**	**1001**
08:15	08:30	20	191	34	**245**	68	112	18	**203**	**448**	44	285	38	**369**	12	78	63	**154**	**523**	**971**
08:30	08:45	42	170	19	**231**	67	124	10	**206**	**437**	51	229	37	**317**	14	104	76	**197**	**514**	**951**
08:45	09:00	21	201	31	**253**	75	149	12	**239**	**492**	44	227	46	**318**	26	91	72	**190**	**508**	**1000**
09:00	09:15	37	183	27	**248**	80	140	10	**239**	**487**	31	193	60	**284**	15	89	74	**181**	**465**	**952**
09:15	09:30	30	168	24	**224**	51	112	14	**185**	**409**	27	205	54	**286**	18	100	58	**180**	**466**	**875**
09:30	09:45	27	148	18	**193**	58	134	9	**205**	**398**	24	169	56	**249**	16	103	93	**216**	**465**	**863**
09:45	10:00	46	135	11	**192**	71	152	15	**247**	**439**	36	143	50	**229**	23	153	92	**271**	**500**	**939**
11:30	11:45	55	181	28	**264**	75	153	19	**254**	**518**	27	172	46	**245**	21	124	91	**238**	**483**	**1001**
11:45	12:00	47	155	21	**224**	85	186	12	**294**	**518**	34	152	57	**243**	37	187	92	**319**	**562**	**1080**
12:00	12:15	51	171	34	**258**	65	155	19	**250**	**508**	35	161	58	**254**	46	149	109	**307**	**561**	**1069**
12:15	12:30	51	146	28	**227**	78	172	16	**279**	**506**	27	139	62	**228**	37	184	104	**330**	**558**	**1064**
12:30	12:45	65	176	20	**263**	79	176	18	**284**	**547**	45	148	62	**255**	32	143	79	**255**	**510**	**1057**
12:45	13:00	62	165	30	**257**	93	156	25	**284**	**541**	29	150	63	**242**	35	148	91	**277**	**519**	**1060**
13:00	13:15	59	184	31	**275**	80	136	8	**233**	**508**	37	133	67	**237**	44	133	65	**244**	**481**	**989**
13:15	13:30	80	155	30	**265**	88	154	17	**269**	**534**	30	126	50	**206**	31	160	84	**275**	**481**	**1015**
15:00	15:15	66	191	25	**284**	61	133	16	**216**	**500**	43	203	45	**291**	30	221	133	**386**	**677**	**1177**
15:15	15:30	68	183	25	**278**	60	136	21	**227**	**505**	32	213	58	**303**	32	258	143	**434**	**737**	**1242**
15:30	15:45	54	183	20	**259**	66	126	14	**212**	**471**	36	287	65	**389**	36	250	124	**411**	**800**	**1271**
15:45	16:00	62	190	12	**266**	75	105	20	**207**	**473**	38	212	46	**296**	33	253	149	**438**	**734**	**1207**
16:00	16:15	91	170	19	**280**	80	122	22	**231**	**511**	40	244	37	**321**	36	287	130	**455**	**776**	**1287**
16:15	16:30	71	179	20	**270**	79	129	18	**236**	**506**	36	245	43	**324**	31	301	138	**473**	**797**	**1303**
16:30	16:45	72	200	14	**286**	74	150	23	**251**	**537**	40	231	66	**338**	26	277	130	**438**	**776**	**1313**
16:45	17:00	79	201	26	**307**	92	157	14	**268**	**575**	41	229	53	**323**	20	297	123	**441**	**764**	**1339**
17:00	17:15	73	165	24	**263**	95	163	16	**283**	**546**	36	186	46	**268**	40	280	135	**455**	**723**	**1269**
17:15	17:30	71	199	16	**287**	80	144	26	**261**	**548**	38	223	55	**316**	32	288	139	**460**	**776**	**1324**
17:30	17:45	69	193	19	**282**	87	129	18	**240**	**522**	33	232	56	**321**	34	297	112	**443**	**764**	**1286**
17:45	18:00	73	184	15	**273**	83	122	18	**232**	**505**	31	201	58	**290**	32	274	127	**433**	**723**	**1228**
TOTAL:		1629	5542	722	**7918**	2379	4388	483	**7483**	**15401**	1156	6574	1570	**9307**	849	5799	3269	**9992**	**19299**	**34700**

Note: U-Turns are included in Totals.

Comment:

Transportation Services - Traffic Services

Turning Movement Count - Cyclist Volume Report

Work Order
38720

BASELINE RD @ CLYDE AVE

Count Date: Wednesday, August 21, 2019

Start Time: 07:00

	CLYDE AVE			BASELINE RD			
Time Period	Northbound	Southbound	**Street Total**	Eastbound	Westbound	**Street Total**	**Grand Total**
07:00 08:00	2	3	**5**	5	5	**10**	**15**
08:00 09:00	3	4	**7**	0	3	**3**	**10**
09:00 10:00	0	1	**1**	1	1	**2**	**3**
11:30 12:30	3	2	**5**	6	6	**12**	**17**
12:30 13:30	2	8	**10**	4	8	**12**	**22**
15:00 16:00	1	3	**4**	4	0	**4**	**8**
16:00 17:00	6	3	**9**	3	5	**8**	**17**
17:00 18:00	4	2	**6**	3	7	**10**	**16**
Total	21	26	**47**	26	35	**61**	**108**

Comment:

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

W.O. 38720

Turning Movement Count - Heavy Vehicle Report

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019

		CLYDE AVE									BASELINE RD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	08:00	3	17	4	**24**	2	7	2	**11**	**35**	1	24	4	**29**	0	24	2	**26**	**55**	**90**
08:00	09:00	9	9	2	**20**	3	5	5	**13**	**33**	2	20	7	**29**	5	21	1	**27**	**56**	**89**
09:00	10:00	10	11	4	**25**	1	5	4	**10**	**35**	3	20	10	**33**	1	16	1	**18**	**51**	**86**
11:30	12:30	11	7	4	**22**	8	14	2	**24**	**46**	4	13	4	**21**	2	18	5	**25**	**46**	**92**
12:30	13:30	10	5	4	**19**	6	7	5	**18**	**37**	5	15	3	**23**	3	21	3	**27**	**50**	**87**
15:00	16:00	5	6	4	**15**	2	5	1	**8**	**23**	4	24	3	**31**	0	18	9	**27**	**58**	**81**
16:00	17:00	2	5	3	**10**	5	2	1	**8**	**18**	2	22	5	**29**	0	21	3	**24**	**53**	**71**
17:00	18:00	4	5	4	**13**	1	4	1	**6**	**19**	4	15	1	**20**	1	25	5	**31**	**51**	**70**
Sub Total		54	65	29	**148**	28	49	21	**98**	**246**	25	153	37	**215**	12	164	29	**205**	**420**	**666**
U-Turns (Heavy Vehicles)					**0**				**0**	**0**				**0**				**0**	**0**	**0**
Total		54	65	29	**0**	28	49	21	**98**	**246**	25	153	37	**215**	12	164	29	**205**	**420**	**666**

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

Work Order
38720

Turning Movement Count - Pedestrian Volume Report

BASELINE RD @ CLYDE AVE

Count Date: Wednesday, August 21, 2019 **Start Time:** 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	3	**4**	3	4	**7**	**11**
07:15 07:30	4	6	**10**	3	6	**9**	**19**
07:30 07:45	2	2	**4**	4	3	**7**	**11**
07:45 08:00	3	5	**8**	2	4	**6**	**14**
07:00 08:00	10	16	**26**	12	17	**29**	**55**
08:00 08:15	0	1	**1**	1	1	**2**	**3**
08:15 08:30	5	3	**8**	2	4	**6**	**14**
08:30 08:45	1	3	**4**	3	1	**4**	**8**
08:45 09:00	3	4	**7**	2	4	**6**	**13**
08:00 09:00	9	11	**20**	8	10	**18**	**38**
09:00 09:15	0	4	**4**	4	5	**9**	**13**
09:15 09:30	3	2	**5**	2	5	**7**	**12**
09:30 09:45	8	3	**11**	2	11	**13**	**24**
09:45 10:00	4	8	**12**	9	11	**20**	**32**
09:00 10:00	15	17	**32**	17	32	**49**	**81**
11:30 11:45	2	6	**8**	2	5	**7**	**15**
11:45 12:00	2	8	**10**	3	7	**10**	**20**
12:00 12:15	4	7	**11**	4	6	**10**	**21**
12:15 12:30	10	10	**20**	8	5	**13**	**33**
11:30 12:30	18	31	**49**	17	23	**40**	**89**
12:30 12:45	9	2	**11**	8	6	**14**	**25**
12:45 13:00	4	1	**5**	6	5	**11**	**16**
13:00 13:15	1	5	**6**	6	4	**10**	**16**
13:15 13:30	2	9	**11**	4	2	**6**	**17**
12:30 13:30	16	17	**33**	24	17	**41**	**74**
15:00 15:15	9	9	**18**	4	8	**12**	**30**
15:15 15:30	5	8	**13**	5	6	**11**	**24**
15:30 15:45	7	18	**25**	10	9	**19**	**44**
15:45 16:00	5	5	**10**	9	10	**19**	**29**
15:00 16:00	26	40	**66**	28	33	**61**	**127**
16:00 16:15	5	9	**14**	10	6	**16**	**30**
16:15 16:30	1	4	**5**	3	2	**5**	**10**
16:30 16:45	10	4	**14**	10	7	**17**	**31**
16:45 17:00	4	5	**9**	9	5	**14**	**23**
16:00 17:00	20	22	**42**	32	20	**52**	**94**
17:00 17:15	7	12	**19**	14	8	**22**	**41**
17:15 17:30	8	10	**18**	8	10	**18**	**36**
17:30 17:45	7	5	**12**	5	10	**15**	**27**
17:45 18:00	13	4	**17**	8	6	**14**	**31**
17:00 18:00	35	31	**66**	35	34	**69**	**135**
Total	149	185	**334**	173	186	**359**	**693**

Comment:

Transportation Services - Traffic Services

Work Order
38720

Turning Movement Count - 15 Min U-Turn Total Report

BASELINE RD @ CLYDE AVE

Survey Date: Wednesday, August 21, 2019

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	4	1	1	6
07:15	07:30	0	2	0	2	4
07:30	07:45	0	5	0	2	7
07:45	08:00	0	6	1	8	15
08:00	08:15	1	1	0	5	7
08:15	08:30	0	5	2	1	8
08:30	08:45	0	5	0	3	8
08:45	09:00	0	3	1	1	5
09:00	09:15	1	9	0	3	13
09:15	09:30	2	8	0	4	14
09:30	09:45	0	4	0	4	8
09:45	10:00	0	9	0	3	12
11:30	11:45	0	7	0	2	9
11:45	12:00	1	11	0	3	15
12:00	12:15	2	11	0	3	16
12:15	12:30	2	13	0	5	20
12:30	12:45	2	11	0	1	14
12:45	13:00	0	10	0	3	13
13:00	13:15	1	9	0	2	12
13:15	13:30	0	10	0	0	10
15:00	15:15	2	6	0	2	10
15:15	15:30	2	10	0	1	13
15:30	15:45	2	6	1	1	10
15:45	16:00	2	7	0	3	12
16:00	16:15	0	7	0	2	9
16:15	16:30	0	10	0	3	13
16:30	16:45	0	4	1	5	10
16:45	17:00	1	5	0	1	7
17:00	17:15	1	9	0	0	10
17:15	17:30	1	11	0	1	13
17:30	17:45	1	6	0	0	7
17:45	18:00	1	9	0	0	10
Total		25	233	7	75	340

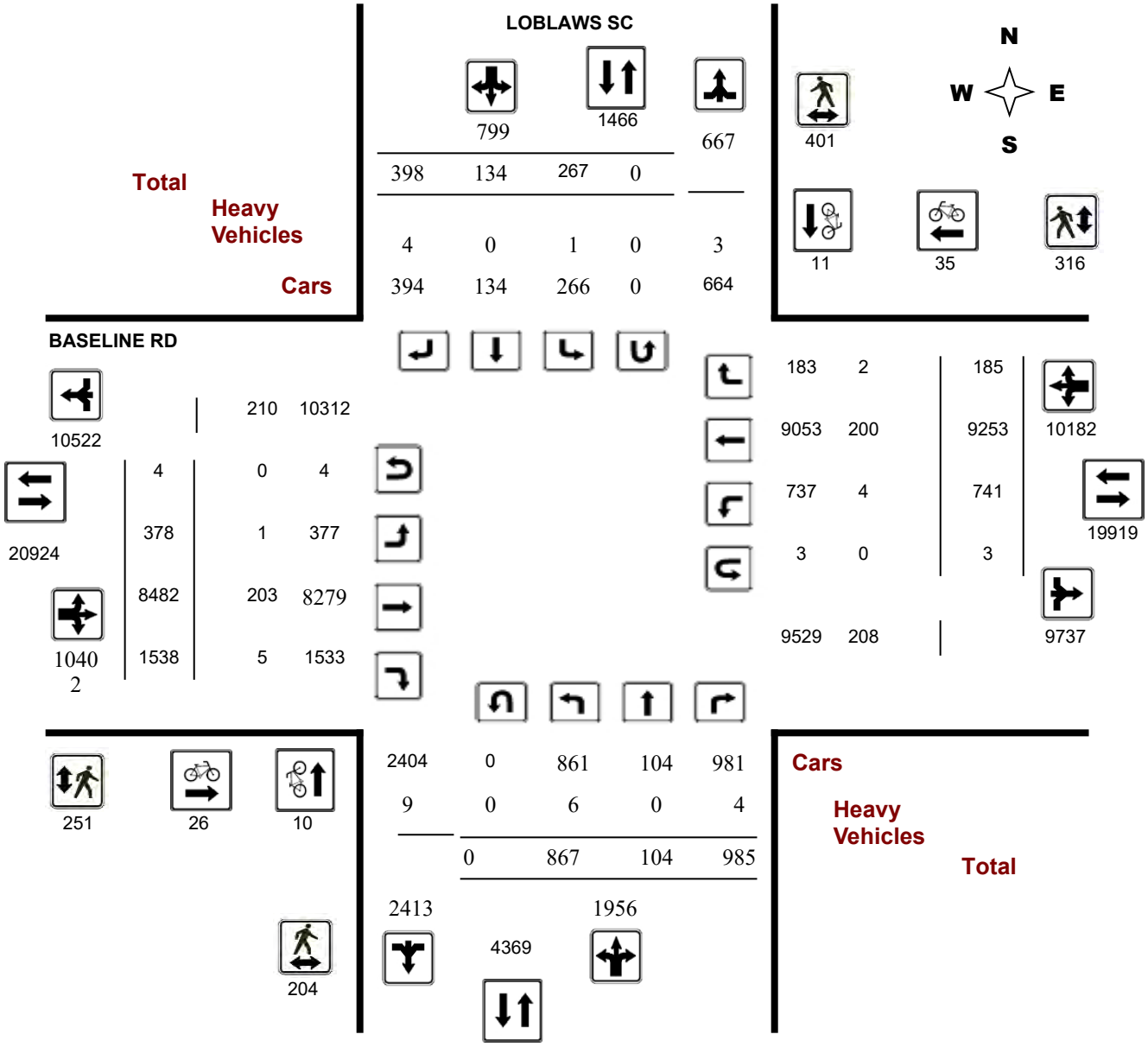
Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016
Start Time: 07:00
WO No: 40243
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

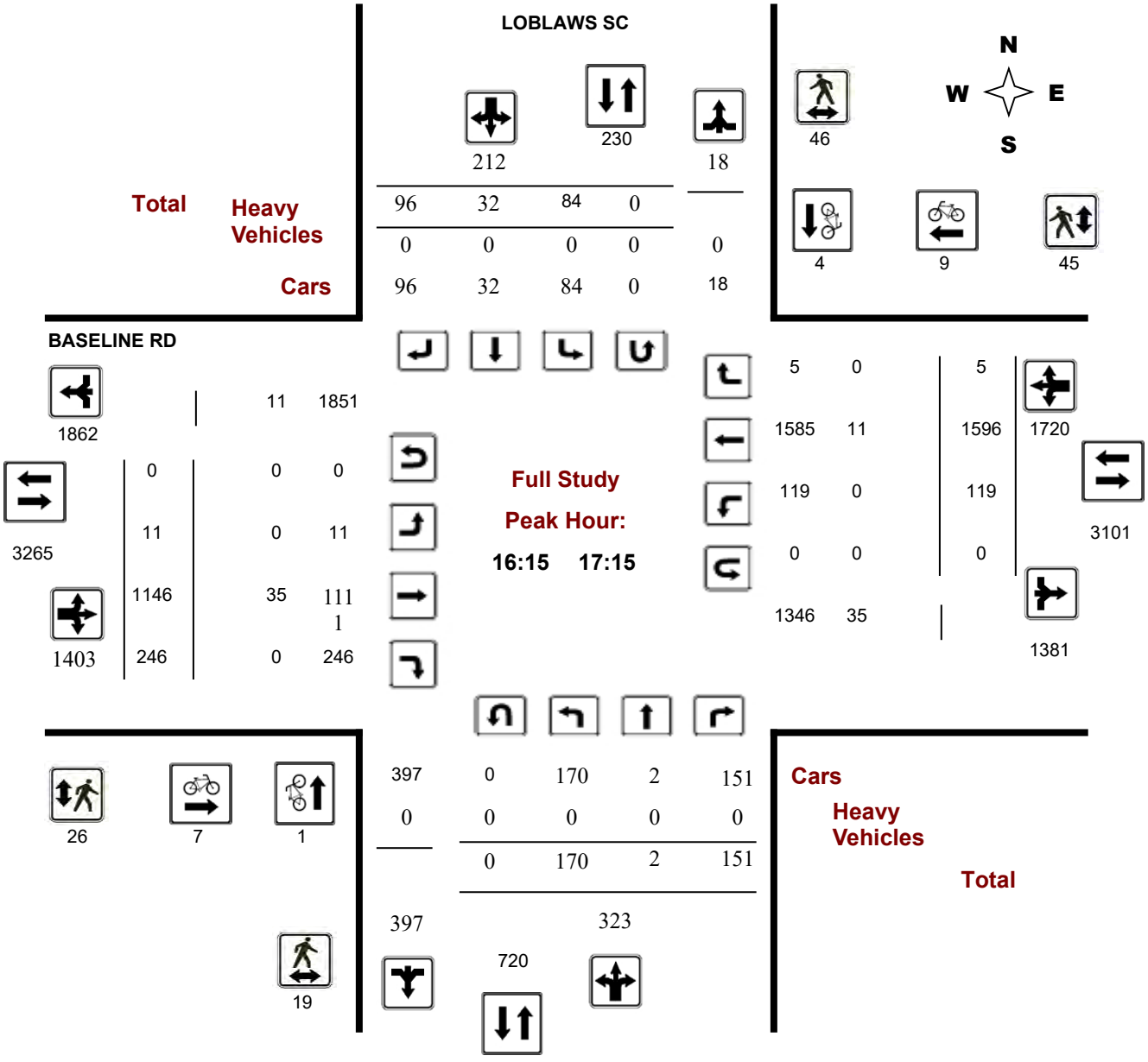
Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



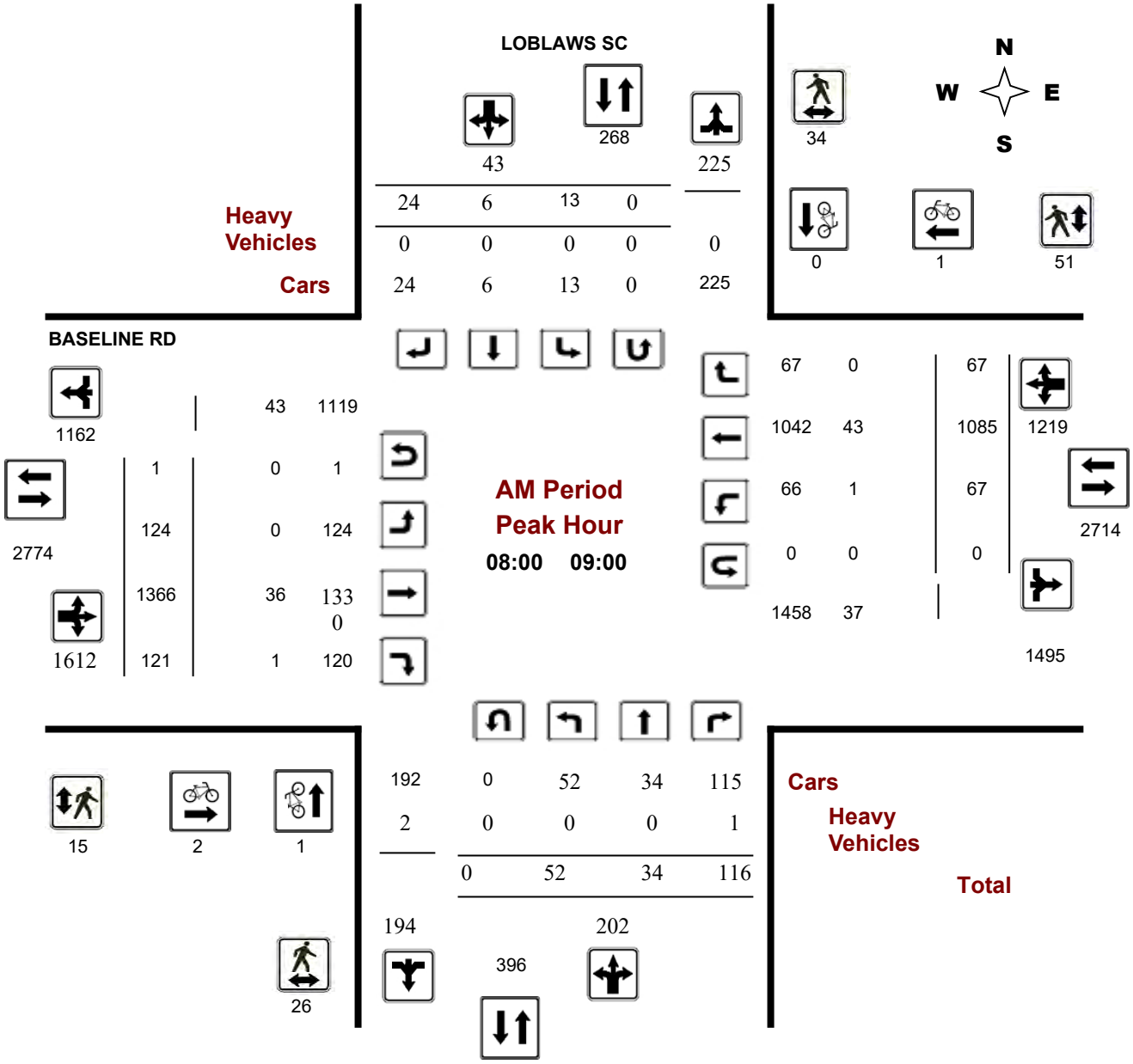
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision



Comments

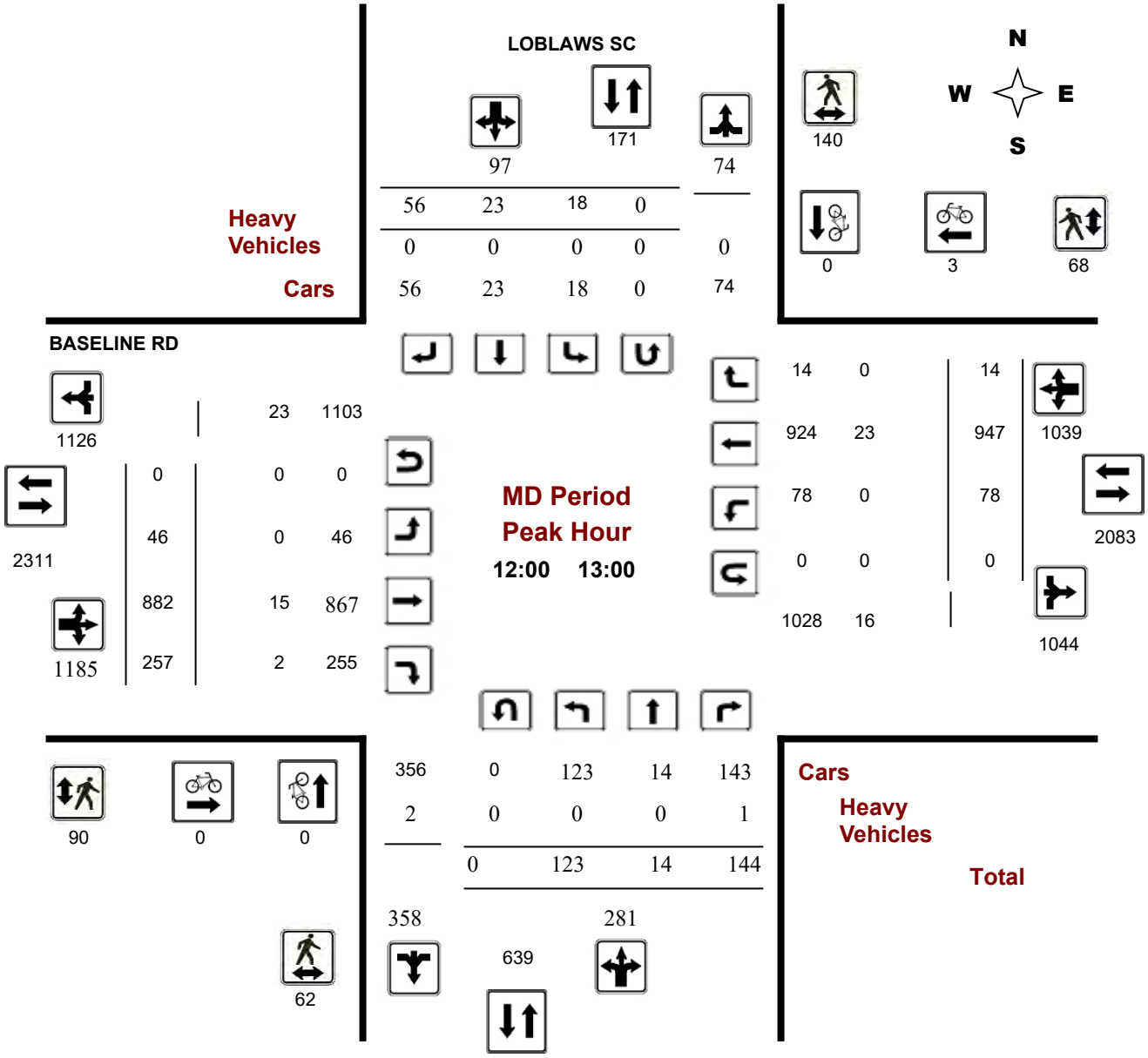
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision



Comments

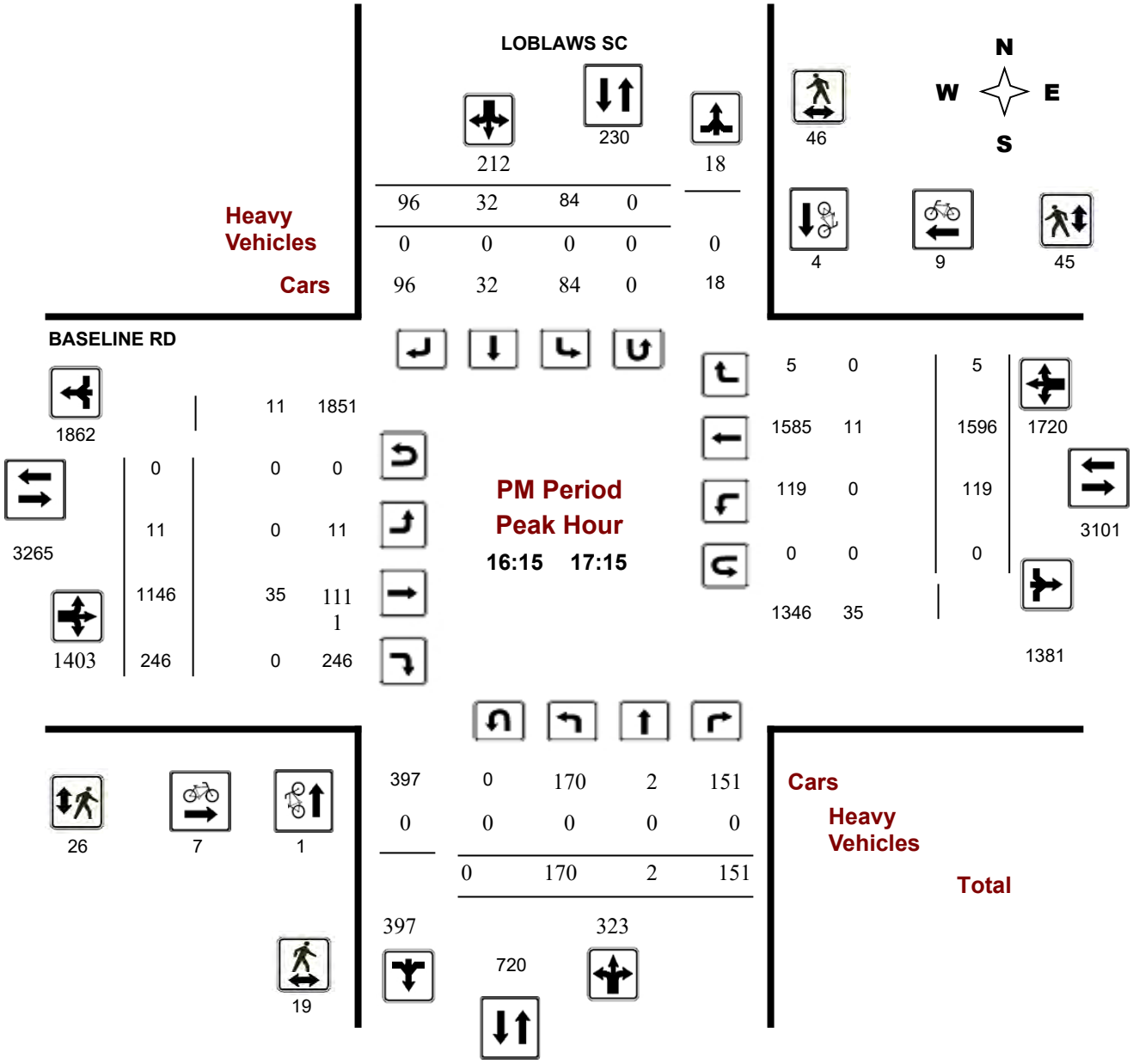
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, October 26, 2016

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 4 Westbound: 3

AADT Factor

.90

	LOBLAWS SC									BASELINE RD									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	45	21	78	**144**	9	3	15	**27**	**171**	87	1219	76	**1382**	47	865	47	**959**	**2341**	**2512**
08:00 09:00	52	34	116	**202**	13	6	24	**43**	**245**	124	1366	121	**1611**	67	1085	67	**1219**	**2830**	**3075**
09:00 10:00	62	14	80	**156**	10	7	16	**33**	**189**	52	979	174	**1205**	92	831	30	**953**	**2158**	**2347**
11:30 12:30	123	6	126	**255**	23	32	57	**112**	**367**	25	842	228	**1095**	102	962	6	**1070**	**2165**	**2532**
12:30 13:30	127	23	156	**306**	14	7	34	**55**	**361**	47	910	233	**1190**	69	908	16	**993**	**2183**	**2544**
15:00 16:00	139	3	128	**270**	64	19	65	**148**	**418**	20	974	232	**1226**	110	1497	7	**1614**	**2840**	**3258**
16:00 17:00	160	2	140	**302**	86	34	101	**221**	**523**	10	1151	240	**1401**	129	1595	4	**1728**	**3129**	**3652**
17:00 18:00	159	1	161	**321**	48	26	86	**160**	**481**	13	1041	234	**1288**	125	1510	8	**1643**	**2931**	**3412**
Sub Total	867	104	985	**1956**	267	134	398	**799**	**2755**	378	8482	1538	**10398**	741	9253	185	**10179**	**20577**	**23332**
U Turns	0			**0**	0			**0**	**0**	**4**			**4**	3			**3**	**7**	**7**
Total	867	104	985	**1956**	267	134	398	**799**	**2755**	382	8482	1538	**10402**	744	9253	185	**10182**	**20584**	**23339**
EQ 12Hr	1205	145	1369	**2719**	371	186	553	**1110**	**3829**	531	11790	2138	**14459**	1034	12862	257	**14153**	**28612**	**32441**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	1084	130	1232	**2446**	334	167	498	**999**	**3445**	478	10611	1924	**13013**	931	11576	231	**12738**	**25751**	**29196**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	1420	170	1614	**3204**	438	219	652	**1309**	**4513**	626	13900	2520	**17046**	1220	15165	303	**16688**	**33734**	**38247**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute Increments

		LOBLAWS SC									BASELINE RD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15		1	12			1	2		**24**		258	15			157	9		**464**	**488**
07:15	07:30		4	24			1	2		**45**		277	19			191	13		**538**	**583**
07:30	07:45		8	20			0	8		**48**		374	18			259	11		**695**	**743**
07:45	08:00		8	22			1	3		**54**		310	24			258	14		**644**	**698**
08:00	08:15		7	26			2	9		**56**		368	24			297	21		**757**	**813**
08:15	08:30		11	26			3	5		**58**		341	24			269	13		**692**	**750**
08:30	08:45		9	35			0	6		**74**		353	30			286	18		**736**	**810**
08:45	09:00		7	29			1	4		**57**		304	43			233	15		**646**	**703**
09:00	09:15		6	16			1	3		**42**		319	34			212	17		**619**	**661**
09:15	09:30		3	18			1	6		**46**		267	49			194	9		**561**	**607**
09:30	09:45		3	28			3	3		**57**		215	45			228	4		**537**	**594**
09:45	10:00		2	18			2	4		**44**		178	46			197	0		**443**	**487**
11:30	11:45		1	31			1	9		**82**		203	45			243	0		**519**	**601**
11:45	12:00		1	25			12	12		**85**		215	58			235	3		**542**	**627**
12:00	12:15		0	33			12	22		**107**		194	64			231	3		**533**	**640**
12:15	12:30		4	37			7	14		**93**		230	61			253	0		**572**	**665**
12:30	12:45		8	33			2	13		**88**		205	59			229	6		**528**	**616**
12:45	13:00		2	41			2	7		**90**		253	73			234	5		**591**	**681**
13:00	13:15		6	42			2	10		**98**		211	56			208	2		**505**	**603**
13:15	13:30		7	40			1	4		**85**		241	45			237	3		**560**	**645**
15:00	15:15		0	27			4	12		**90**		223	62			362	2		**682**	**772**
15:15	15:30		1	35			5	11		**102**		266	60			364	3		**724**	**826**
15:30	15:45		0	23			6	25		**106**		233	53			402	2		**721**	**827**
15:45	16:00		2	43			4	17		**120**		252	57			369	0		**715**	**835**
16:00	16:15		0	29			10	34		**128**		269	54			386	1		**749**	**877**
16:15	16:30		1	34			7	23		**121**		323	59			407	1		**814**	**935**
16:30	16:45		1	39			8	27		**146**		278	60			389	1		**765**	**911**
16:45	17:00		0	38			9	17		**128**		281	67			413	1		**801**	**929**
17:00	17:15		0	40			8	29		**140**		264	60			387	2		**743**	**883**
17:15	17:30		1	33			7	22		**109**		283	60			394	3		**780**	**889**
17:30	17:45		0	42			8	23		**129**		243	57			382	2		**722**	**851**
17:45	18:00		0	46			3	12		**103**		251	57			347	1		**686**	**789**
Total:		0	104	985	0	0	134	398	0	**2755**	0	8482	1538	0	0	9253	185	0	**2755**	**23,339**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		LOBLAWS SC			BASELINE RD			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	**0**	0	0	**0**	**0**
07:15	07:30	1	0	**1**	1	0	**1**	**2**
07:30	07:45	0	0	**0**	0	2	**2**	**2**
07:45	08:00	0	0	**0**	1	1	**2**	**2**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
08:15	08:30	1	0	**1**	1	0	**1**	**2**
08:30	08:45	0	0	**0**	0	0	**0**	**0**
08:45	09:00	0	0	**0**	1	1	**2**	**2**
09:00	09:15	2	0	**2**	0	1	**1**	**3**
09:15	09:30	1	0	**1**	1	0	**1**	**2**
09:30	09:45	0	1	**1**	0	4	**4**	**5**
09:45	10:00	0	0	**0**	2	0	**2**	**2**
11:30	11:45	0	0	**0**	0	1	**1**	**1**
11:45	12:00	0	0	**0**	1	0	**1**	**1**
12:00	12:15	0	0	**0**	0	0	**0**	**0**
12:15	12:30	0	0	**0**	0	0	**0**	**0**
12:30	12:45	0	0	**0**	0	0	**0**	**0**
12:45	13:00	0	0	**0**	0	3	**3**	**3**
13:00	13:15	1	0	**1**	3	0	**3**	**4**
13:15	13:30	0	1	**1**	1	2	**3**	**4**
15:00	15:15	0	0	**0**	0	0	**0**	**0**
15:15	15:30	0	0	**0**	0	0	**0**	**0**
15:30	15:45	0	4	**4**	0	4	**4**	**8**
15:45	16:00	0	0	**0**	0	1	**1**	**1**
16:00	16:15	0	1	**1**	2	0	**2**	**3**
16:15	16:30	1	3	**4**	3	1	**4**	**8**
16:30	16:45	0	1	**1**	2	1	**3**	**4**
16:45	17:00	0	0	**0**	2	3	**5**	**5**
17:00	17:15	0	0	**0**	0	4	**4**	**4**
17:15	17:30	1	0	**1**	3	2	**5**	**6**
17:30	17:45	0	0	**0**	1	2	**3**	**3**
17:45	18:00	2	0	**2**	1	2	**3**	**5**
Total		10	11	**21**	26	35	**61**	**82**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	LOBLAWS SC			BASELINE RD			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	**Total**	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	**Total**	**Grand Total**
07:00 07:15	2	3	**5**	3	1	**4**	**9**
07:15 07:30	2	3	**5**	3	7	**10**	**15**
07:30 07:45	3	3	**6**	2	12	**14**	**20**
07:45 08:00	2	11	**13**	2	10	**12**	**25**
08:00 08:15	6	5	**11**	2	14	**16**	**27**
08:15 08:30	2	8	**10**	1	11	**12**	**22**
08:30 08:45	9	10	**19**	4	10	**14**	**33**
08:45 09:00	9	11	**20**	8	16	**24**	**44**
09:00 09:15	7	6	**13**	5	13	**18**	**31**
09:15 09:30	4	11	**15**	3	6	**9**	**24**
09:30 09:45	7	3	**10**	2	4	**6**	**16**
09:45 10:00	2	14	**16**	8	4	**12**	**28**
11:30 11:45	5	10	**15**	11	7	**18**	**33**
11:45 12:00	8	23	**31**	16	10	**26**	**57**
12:00 12:15	8	26	**34**	28	12	**40**	**74**
12:15 12:30	17	39	**56**	23	16	**39**	**95**
12:30 12:45	14	41	**55**	25	17	**42**	**97**
12:45 13:00	23	34	**57**	14	23	**37**	**94**
13:00 13:15	10	27	**37**	17	10	**27**	**64**
13:15 13:30	8	15	**23**	9	11	**20**	**43**
15:00 15:15	3	9	**12**	4	5	**9**	**21**
15:15 15:30	9	7	**16**	4	3	**7**	**23**
15:30 15:45	4	5	**9**	4	9	**13**	**22**
15:45 16:00	6	6	**12**	4	10	**14**	**26**
16:00 16:15	5	6	**11**	8	11	**19**	**30**
16:15 16:30	8	9	**17**	4	17	**21**	**38**
16:30 16:45	6	11	**17**	8	13	**21**	**38**
16:45 17:00	3	13	**16**	6	8	**14**	**30**
17:00 17:15	2	13	**15**	8	7	**15**	**30**
17:15 17:30	7	6	**13**	2	7	**9**	**22**
17:30 17:45	3	5	**8**	8	7	**15**	**23**
17:45 18:00	0	8	**8**	5	5	**10**	**18**
Total	204	401	**605**	251	316	**567**	**1172**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		LOBLAWS SC									BASELINE RD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	1	0	0		0	0	0		**1**	0	4	0		0	7	0		**11**	**12**
07:15	07:30	0	0	0		0	0	0		**0**	0	5	0		0	5	0		**10**	**10**
07:30	07:45	0	0	0		0	0	1		**1**	0	6	0		1	13	2		**22**	**23**
07:45	08:00	1	0	0		0	0	0		**1**	0	4	0		1	5	0		**10**	**11**
08:00	08:15	0	0	0		0	0	0		**0**	0	6	1		0	10	0		**17**	**17**
08:15	08:30	0	0	1		0	0	0		**1**	0	9	0		0	13	0		**22**	**23**
08:30	08:45	0	0	0		0	0	0		**0**	0	14	0		0	11	0		**25**	**25**
08:45	09:00	0	0	0		0	0	0		**0**	0	7	0		1	9	0		**17**	**17**
09:00	09:15	0	0	0		0	0	1		**1**	0	11	1		1	6	0		**19**	**20**
09:15	09:30	2	0	0		0	0	0		**2**	0	8	0		0	8	0		**16**	**18**
09:30	09:45	0	0	0		0	0	0		**0**	0	1	0		0	3	0		**4**	**4**
09:45	10:00	0	0	0		0	0	0		**0**	0	5	1		0	8	0		**14**	**14**
11:30	11:45	0	0	1		0	0	0		**1**	0	1	0		0	3	0		**4**	**5**
11:45	12:00	0	0	0		0	0	0		**0**	0	8	0		0	7	0		**15**	**15**
12:00	12:15	0	0	1		0	0	0		**1**	0	5	1		0	8	0		**14**	**15**
12:15	12:30	0	0	0		0	0	0		**0**	0	3	1		0	4	0		**8**	**8**
12:30	12:45	0	0	0		0	0	0		**0**	0	1	0		0	6	0		**7**	**7**
12:45	13:00	0	0	0		0	0	0		**0**	0	6	0		0	5	0		**11**	**11**
13:00	13:15	2	0	0		0	0	0		**2**	0	7	0		0	3	0		**10**	**12**
13:15	13:30	0	0	0		0	0	1		**1**	0	5	0		0	7	0		**12**	**13**
15:00	15:15	0	0	0		0	0	0		**0**	0	11	0		0	6	0		**17**	**17**
15:15	15:30	0	0	0		0	0	0		**0**	0	9	0		0	9	0		**18**	**18**
15:30	15:45	0	0	0		0	0	0		**0**	0	2	0		0	6	0		**8**	**8**
15:45	16:00	0	0	1		0	0	0		**1**	0	10	0		0	6	0		**16**	**17**
16:00	16:15	0	0	0		1	0	0		**1**	0	4	0		0	7	0		**11**	**12**
16:15	16:30	0	0	0		0	0	0		**0**	0	14	0		0	1	0		**15**	**15**
16:30	16:45	0	0	0		0	0	0		**0**	0	8	0		0	6	0		**14**	**14**
16:45	17:00	0	0	0		0	0	0		**0**	0	7	0		0	2	0		**9**	**9**
17:00	17:15	0	0	0		0	0	0		**0**	0	6	0		0	2	0		**8**	**8**
17:15	17:30	0	0	0		0	0	0		**0**	0	2	0		0	5	0		**7**	**7**
17:30	17:45	0	0	0		0	0	1		**1**	1	8	0		0	3	0		**12**	**13**
17:45	18:00	0	0	0		0	0	0		**0**	0	6	0		0	6	0		**12**	**12**
Total:	None	6	0	4	**0**	1	0	4	**0**	**15**	1	203	5	**0**	4	200	2	**0**	**415**	**430**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ LOBLAWS SC

Survey Date: Wednesday, October 26, 2016 **WO No:** 40243

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		LOBLAWS SC		BASELINE RD		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	**0**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	1	0	**1**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	0	0	0	**0**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	2	0	**2**
09:45	10:00	0	0	0	0	**0**
11:30	11:45	0	0	0	1	**1**
11:45	12:00	0	0	0	0	**0**
12:00	12:15	0	0	0	0	**0**
12:15	12:30	0	0	0	0	**0**
12:30	12:45	0	0	0	0	**0**
12:45	13:00	0	0	0	0	**0**
13:00	13:15	0	0	0	0	**0**
13:15	13:30	0	0	1	0	**1**
15:00	15:15	0	0	0	0	**0**
15:15	15:30	0	0	0	0	**0**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	0	0	2	**2**
16:00	16:15	0	0	0	0	**0**
16:15	16:30	0	0	0	0	**0**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	0	0	0	0	**0**
17:00	17:15	0	0	0	0	**0**
17:15	17:30	0	0	0	0	**0**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		0	0	4	3	**7**

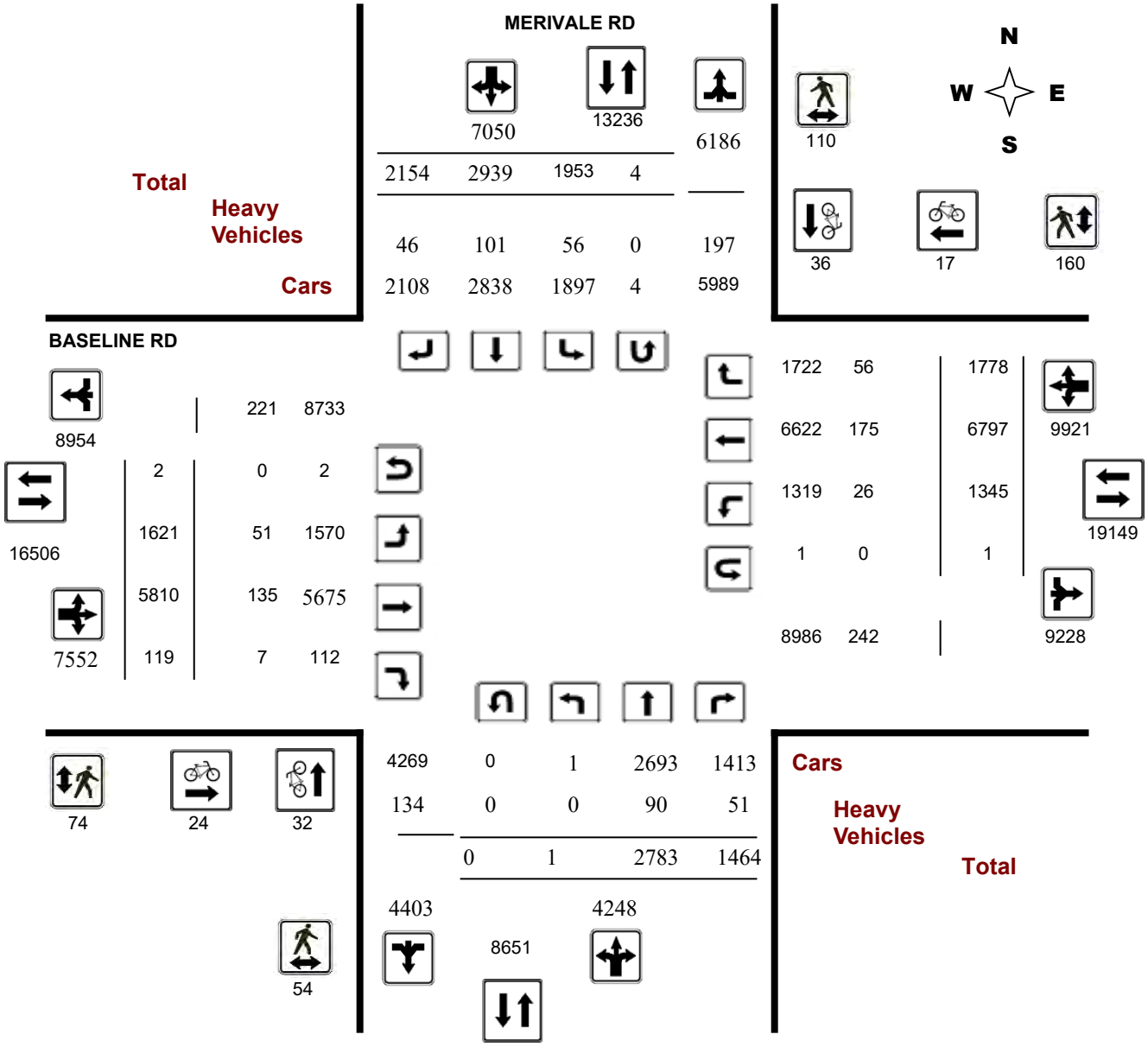
Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022
Start Time: 07:00
WO No: 40259
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

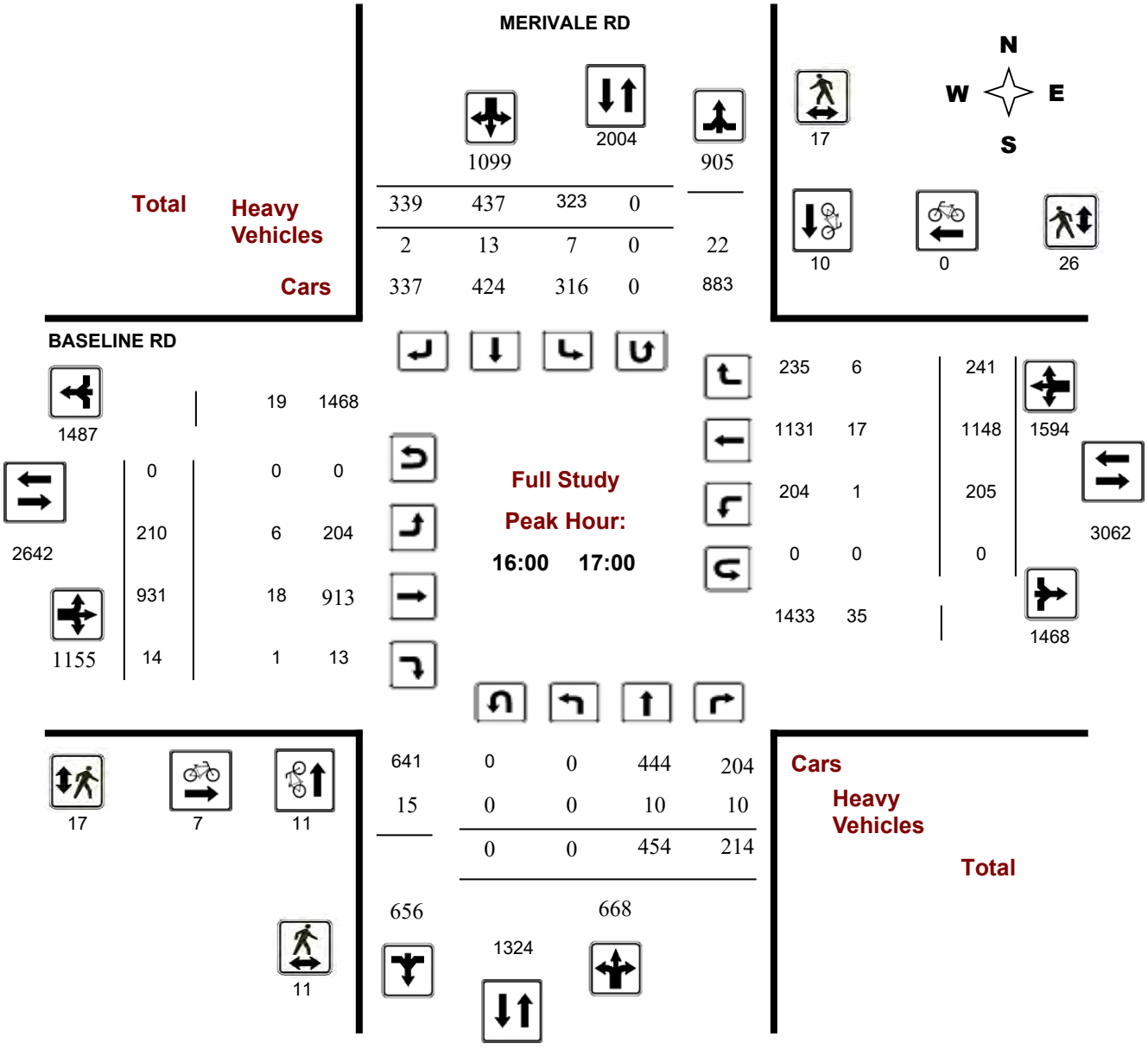
Turning Movement Count - Study Results

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



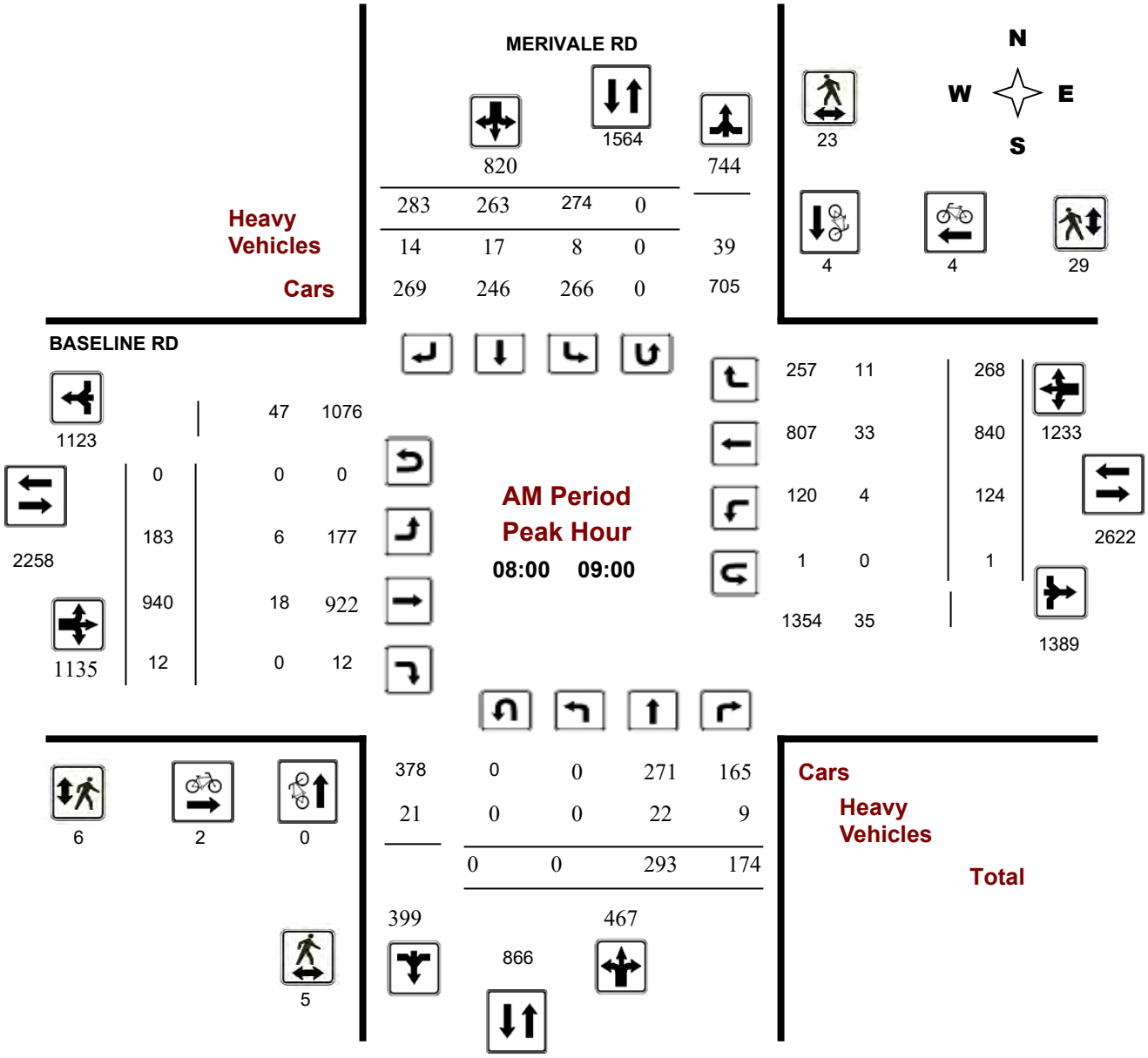
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision



Comments

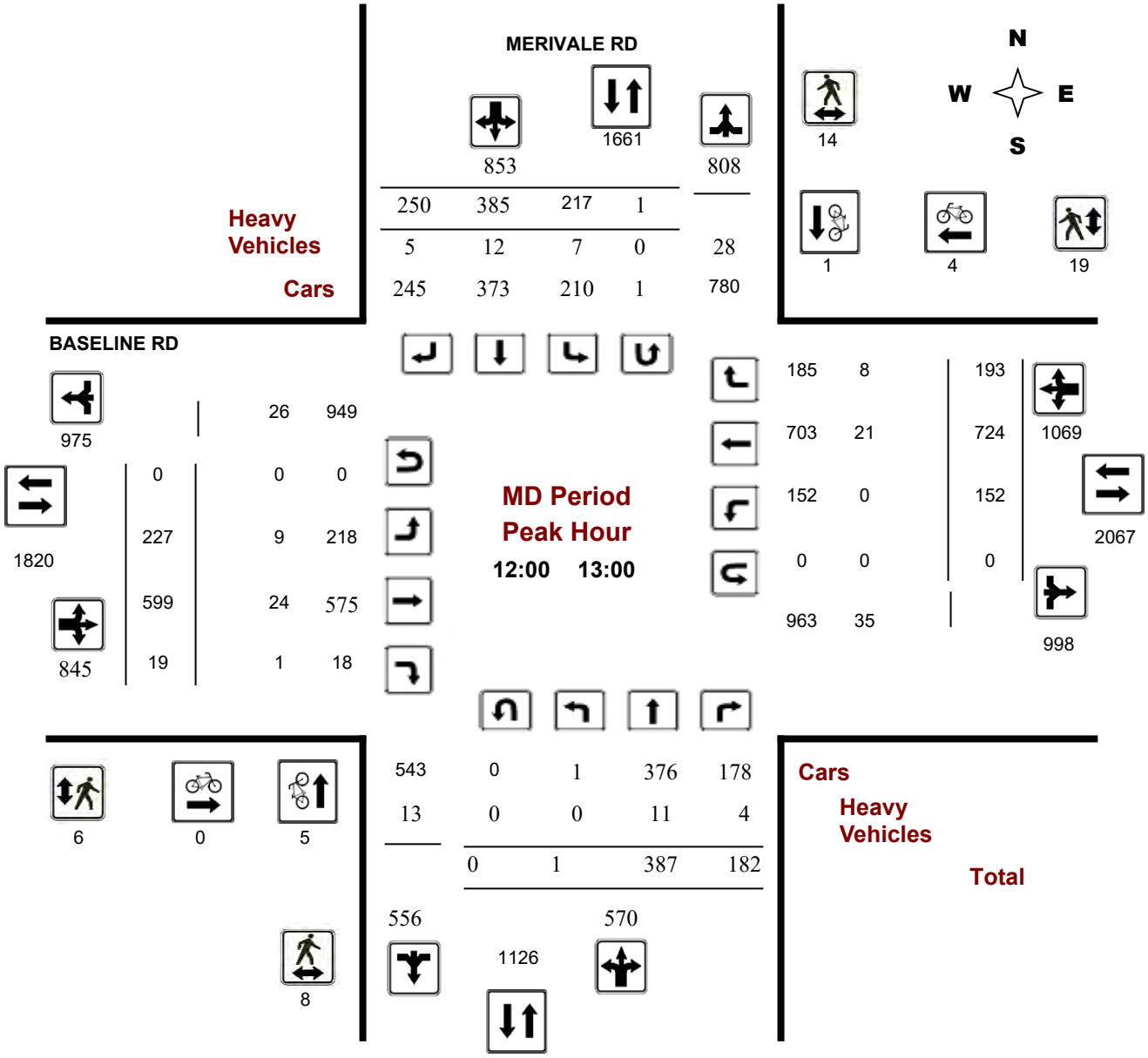
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision



Comments

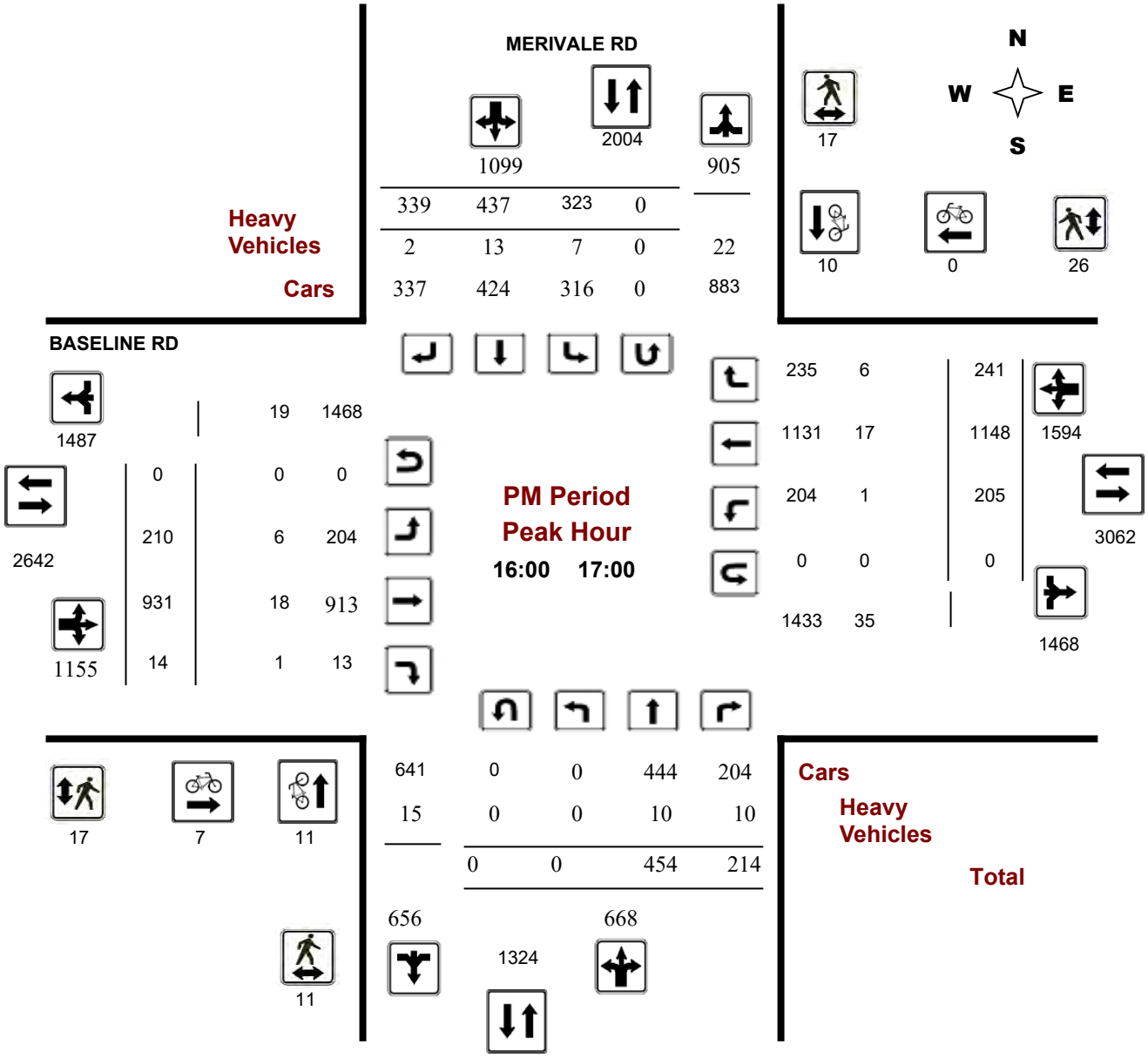
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, May 10, 2022

Total Observed U-Turns

Northbound: 0 Southbound: 4

Eastbound: 2 Westbound: 1

AADT Factor

.90

	MERIVALE RD								BASELINE RD									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	0	203	120	**323**	185	265	190	**640**	**963**	117	591	8	**716**	79	597	201	**877**	**1593**	**2556**
08:00 09:00	0	293	174	**467**	274	263	283	**820**	**1287**	183	940	12	**1135**	124	840	268	**1232**	**2367**	**3654**
09:00 10:00	0	292	138	**430**	221	336	240	**797**	**1227**	187	597	12	**796**	158	733	218	**1109**	**1905**	**3132**
11:30 12:30	0	304	161	**465**	214	398	235	**847**	**1312**	229	542	15	**786**	161	726	186	**1073**	**1859**	**3171**
12:30 13:30	1	384	194	**579**	207	364	237	**808**	**1387**	228	612	20	**860**	152	711	191	**1054**	**1914**	**3301**
15:00 16:00	0	405	220	**625**	235	428	298	**961**	**1586**	210	751	18	**979**	237	1060	262	**1559**	**2538**	**4124**
16:00 17:00	0	454	214	**668**	323	437	339	**1099**	**1767**	210	931	14	**1155**	205	1148	241	**1594**	**2749**	**4516**
17:00 18:00	0	448	243	**691**	294	448	332	**1074**	**1765**	257	846	20	**1123**	229	982	211	**1422**	**2545**	**4310**
Sub Total	1	2783	1464	**4248**	1953	2939	2154	**7046**	**11294**	1621	5810	119	**7550**	1345	6797	1778	**9920**	**17470**	**28764**
U Turns	0			**0**	4			**4**	**4**	**2**			**2**	1			**1**	**3**	**7**
Total	1	2783	1464	**4248**	1957	2939	2154	**7050**	**11298**	1623	5810	119	**7552**	1346	6797	1778	**9921**	**17473**	**28771**
EQ 12Hr	1	3868	2035	**5904**	2720	4085	2994	**9799**	**15703**	2256	8076	165	**10497**	1871	9448	2471	**13790**	**24287**	**39990**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	1	3481	1832	**5314**	2448	3676	2695	**8819**	**14133**	2030	7268	148	**9446**	1684	8503	2224	**12411**	**21857**	**35990**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	1	4560	2400	**6961**	3207	4816	3530	**11553**	**18514**	2659	9521	194	**12374**	2206	11139	2913	**16258**	**28632**	**47146**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision

Full Study Cyclist Volume

Time Period		MERIVALE RD			BASELINE RD			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	1	**1**	0	1	**1**	**2**
07:15	07:30	1	3	**4**	4	1	**5**	**9**
07:30	07:45	0	1	**1**	2	2	**4**	**5**
07:45	08:00	1	0	**1**	0	0	**0**	**1**
08:00	08:15	0	3	**3**	0	1	**1**	**4**
08:15	08:30	0	1	**1**	1	0	**1**	**2**
08:30	08:45	0	0	**0**	1	1	**2**	**2**
08:45	09:00	0	0	**0**	0	2	**2**	**2**
09:00	09:15	0	1	**1**	1	0	**1**	**2**
09:15	09:30	0	2	**2**	0	0	**0**	**2**
09:30	09:45	0	0	**0**	0	0	**0**	**0**
09:45	10:00	0	0	**0**	0	0	**0**	**0**
11:30	11:45	2	0	**2**	1	0	**1**	**3**
11:45	12:00	0	2	**2**	1	1	**2**	**4**
12:00	12:15	2	0	**2**	0	1	**1**	**3**
12:15	12:30	1	1	**2**	0	0	**0**	**2**
12:30	12:45	1	0	**1**	0	2	**2**	**3**
12:45	13:00	1	0	**1**	0	1	**1**	**2**
13:00	13:15	0	2	**2**	0	0	**0**	**2**
13:15	13:30	0	0	**0**	0	0	**0**	**0**
15:00	15:15	2	0	**2**	1	0	**1**	**3**
15:15	15:30	1	3	**4**	0	0	**0**	**4**
15:30	15:45	3	1	**4**	2	0	**2**	**6**
15:45	16:00	1	0	**1**	0	0	**0**	**1**
16:00	16:15	1	0	**1**	1	0	**1**	**2**
16:15	16:30	2	3	**5**	1	0	**1**	**6**
16:30	16:45	5	7	**12**	3	0	**3**	**15**
16:45	17:00	3	0	**3**	2	0	**2**	**5**
17:00	17:15	1	0	**1**	1	1	**2**	**3**
17:15	17:30	2	1	**3**	1	1	**2**	**5**
17:30	17:45	0	2	**2**	1	0	**1**	**3**
17:45	18:00	2	2	**4**	0	2	**2**	**6**
Total		32	36	**68**	24	17	**41**	**109**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision

Full Study Pedestrian Volume

	MERIVALE RD			BASELINE RD			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	**Total**	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	**Total**	**Grand Total**
07:00 07:15	0	1	**1**	0	3	**3**	**4**
07:15 07:30	2	3	**5**	1	5	**6**	**11**
07:30 07:45	0	5	**5**	0	11	**11**	**16**
07:45 08:00	0	1	**1**	1	2	**3**	**4**
08:00 08:15	2	4	**6**	2	4	**6**	**12**
08:15 08:30	0	6	**6**	0	11	**11**	**17**
08:30 08:45	2	5	**7**	4	7	**11**	**18**
08:45 09:00	1	8	**9**	0	7	**7**	**16**
09:00 09:15	1	3	**4**	8	4	**12**	**16**
09:15 09:30	2	2	**4**	1	3	**4**	**8**
09:30 09:45	1	1	**2**	4	5	**9**	**11**
09:45 10:00	0	1	**1**	1	5	**6**	**7**
11:30 11:45	1	0	**1**	2	1	**3**	**4**
11:45 12:00	1	5	**6**	2	5	**7**	**13**
12:00 12:15	2	5	**7**	1	9	**10**	**17**
12:15 12:30	3	2	**5**	3	3	**6**	**11**
12:30 12:45	1	1	**2**	0	2	**2**	**4**
12:45 13:00	2	6	**8**	2	5	**7**	**15**
13:00 13:15	0	6	**6**	1	4	**5**	**11**
13:15 13:30	1	2	**3**	1	5	**6**	**9**
15:00 15:15	7	3	**10**	4	4	**8**	**18**
15:15 15:30	3	4	**7**	1	6	**7**	**14**
15:30 15:45	2	5	**7**	4	1	**5**	**12**
15:45 16:00	1	4	**5**	2	3	**5**	**10**
16:00 16:15	3	7	**10**	4	8	**12**	**22**
16:15 16:30	0	1	**1**	1	3	**4**	**5**
16:30 16:45	4	2	**6**	6	6	**12**	**18**
16:45 17:00	4	7	**11**	6	9	**15**	**26**
17:00 17:15	4	3	**7**	4	5	**9**	**16**
17:15 17:30	1	2	**3**	3	4	**7**	**10**
17:30 17:45	2	3	**5**	2	6	**8**	**13**
17:45 18:00	1	2	**3**	3	4	**7**	**10**
Total	54	110	**164**	74	160	**234**	**398**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision

Full Study Heavy Vehicles

		MERIVALE RD									BASELINE RD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	6	4		0	2	1		**13**	1	2	1		1	7	2		**14**	**27**
07:15	07:30	0	5	3		1	1	2		**12**	2	4	0		1	7	4		**18**	**30**
07:30	07:45	0	2	3		1	4	0		**10**	2	4	0		4	4	3		**17**	**27**
07:45	08:00	0	2	2		2	1	2		**9**	0	1	1		2	6	1		**11**	**20**
08:00	08:15	0	3	2		3	9	5		**22**	2	6	0		1	6	2		**17**	**39**
08:15	08:30	0	6	4		3	4	3		**20**	2	6	0		1	4	3		**16**	**36**
08:30	08:45	0	8	2		0	2	3		**15**	1	2	0		0	13	3		**19**	**34**
08:45	09:00	0	5	1		2	2	3		**13**	1	4	0		2	10	3		**20**	**33**
09:00	09:15	0	2	6		2	4	2		**16**	1	4	0		1	5	2		**13**	**29**
09:15	09:30	0	2	0		2	5	2		**11**	1	7	0		1	8	1		**18**	**29**
09:30	09:45	0	2	0		4	6	1		**13**	1	10	0		1	5	2		**19**	**32**
09:45	10:00	0	5	1		3	1	1		**11**	0	4	0		1	2	2		**9**	**20**
11:30	11:45	0	1	1		1	3	0		**6**	4	3	1		1	7	4		**20**	**26**
11:45	12:00	0	5	0		1	3	3		**12**	0	1	0		2	6	0		**9**	**21**
12:00	12:15	0	3	2		3	4	2		**14**	3	5	1		0	2	1		**12**	**26**
12:15	12:30	0	4	1		2	3	3		**13**	3	3	0		0	6	0		**12**	**25**
12:30	12:45	0	1	1		1	2	0		**5**	3	4	0		0	7	5		**19**	**24**
12:45	13:00	0	3	0		1	3	0		**7**	0	12	0		0	6	2		**20**	**27**
13:00	13:15	0	1	1		1	5	5		**13**	7	5	0		0	5	3		**20**	**33**
13:15	13:30	0	3	3		2	5	1		**14**	1	1	0		1	4	0		**7**	**21**
15:00	15:15	0	0	0		3	4	2		**9**	0	3	1		1	3	3		**11**	**20**
15:15	15:30	0	4	1		1	1	1		**8**	4	3	0		1	5	1		**14**	**22**
15:30	15:45	0	2	1		2	2	0		**7**	2	4	0		1	4	0		**11**	**18**
15:45	16:00	0	1	1		2	5	1		**10**	1	4	1		0	12	0		**18**	**28**
16:00	16:15	0	2	3		2	2	0		**9**	3	6	0		1	6	1		**17**	**26**
16:15	16:30	0	3	1		3	3	2		**12**	0	6	1		0	5	1		**13**	**25**
16:30	16:45	0	2	3		1	5	0		**11**	1	4	0		0	2	2		**9**	**20**
16:45	17:00	0	3	3		1	3	0		**10**	2	2	0		0	4	2		**10**	**20**
17:00	17:15	0	2	0		1	3	1		**7**	1	5	0		0	5	0		**11**	**18**
17:15	17:30	0	0	0		1	1	0		**2**	0	5	0		1	4	0		**10**	**12**
17:30	17:45	0	1	1		1	2	0		**5**	1	2	0		1	2	3		**9**	**14**
17:45	18:00	0	1	0		3	1	0		**5**	1	3	0		0	3	0		**7**	**12**
Total:	None	0	90	51	**0**	56	101	46	**0**	**344**	51	135	7	**0**	26	175	56	**0**	**450**	**794**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BASELINE RD @ MERIVALE RD

Survey Date: Tuesday, May 10, 2022 **WO No:** 40259

Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		MERIVALE RD Northbound U-Turn Total	MERIVALE RD Southbound U-Turn Total	BASELINE RD Eastbound U-Turn Total	BASELINE RD Westbound U-Turn Total	Total
07:00	07:15	0	1	0	0	**1**
07:15	07:30	0	0	0	0	**0**
07:30	07:45	0	0	0	0	**0**
07:45	08:00	0	0	0	0	**0**
08:00	08:15	0	0	0	1	**1**
08:15	08:30	0	0	0	0	**0**
08:30	08:45	0	0	0	0	**0**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	1	0	0	**1**
09:15	09:30	0	0	0	0	**0**
09:30	09:45	0	0	0	0	**0**
09:45	10:00	0	0	0	0	**0**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	0	0	0	0	**0**
12:00	12:15	0	1	0	0	**1**
12:15	12:30	0	0	0	0	**0**
12:30	12:45	0	0	0	0	**0**
12:45	13:00	0	0	0	0	**0**
13:00	13:15	0	0	1	0	**1**
13:15	13:30	0	0	0	0	**0**
15:00	15:15	0	0	1	0	**1**
15:15	15:30	0	0	0	0	**0**
15:30	15:45	0	0	0	0	**0**
15:45	16:00	0	1	0	0	**1**
16:00	16:15	0	0	0	0	**0**
16:15	16:30	0	0	0	0	**0**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	0	0	0	0	**0**
17:00	17:15	0	0	0	0	**0**
17:15	17:30	0	0	0	0	**0**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		0	4	2	1	**7**

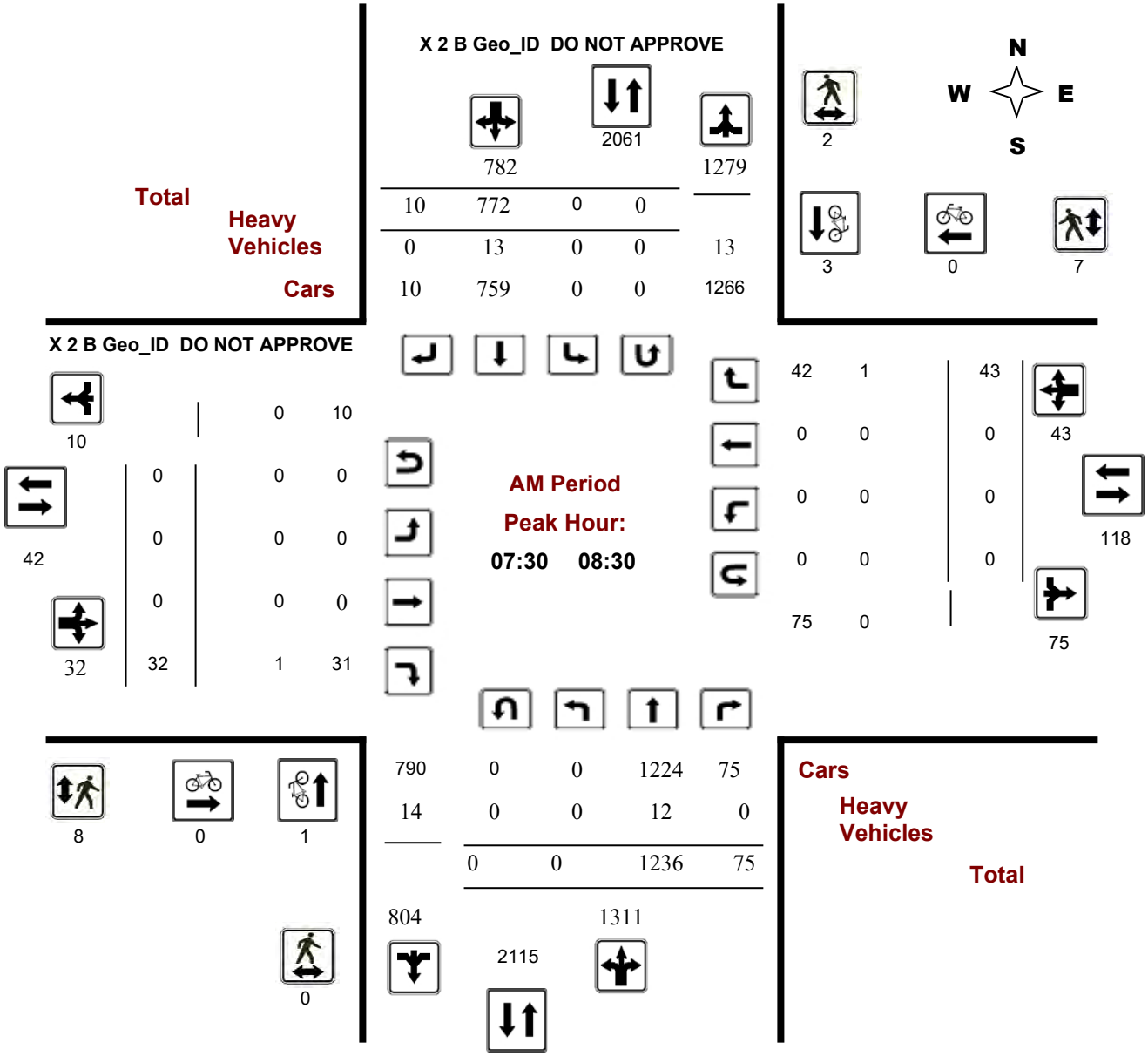
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38718

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

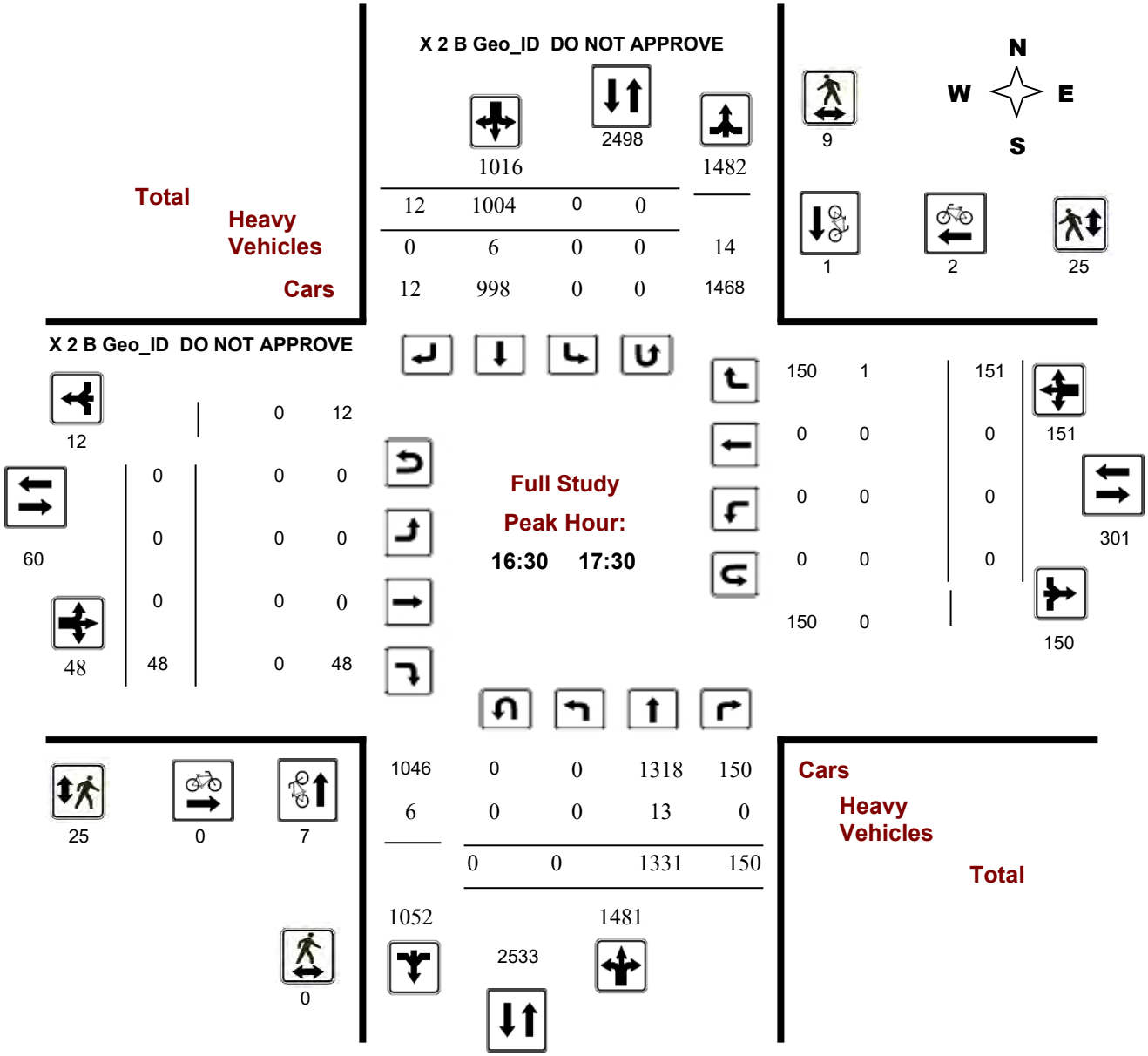
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38718

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

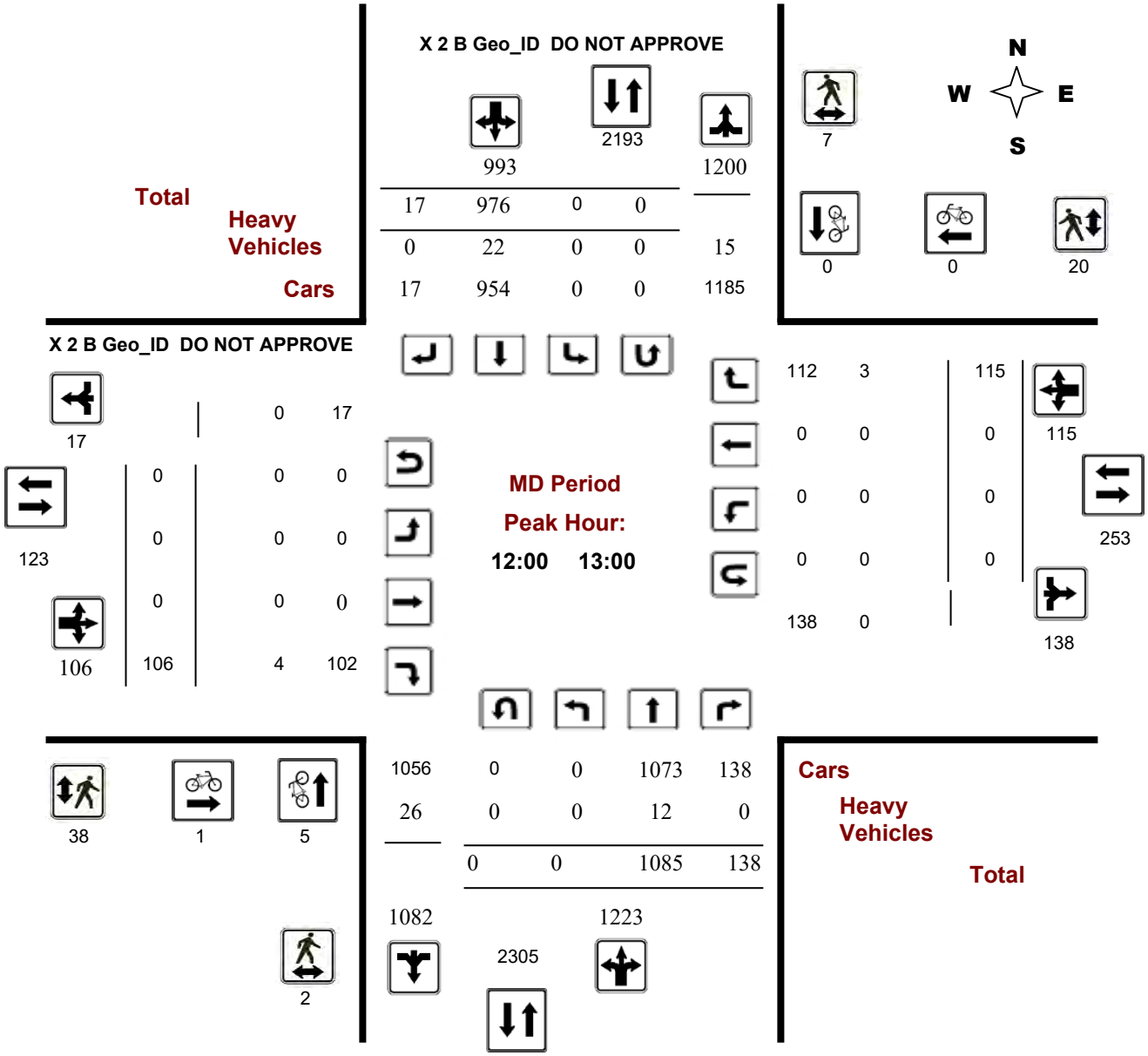
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38718

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

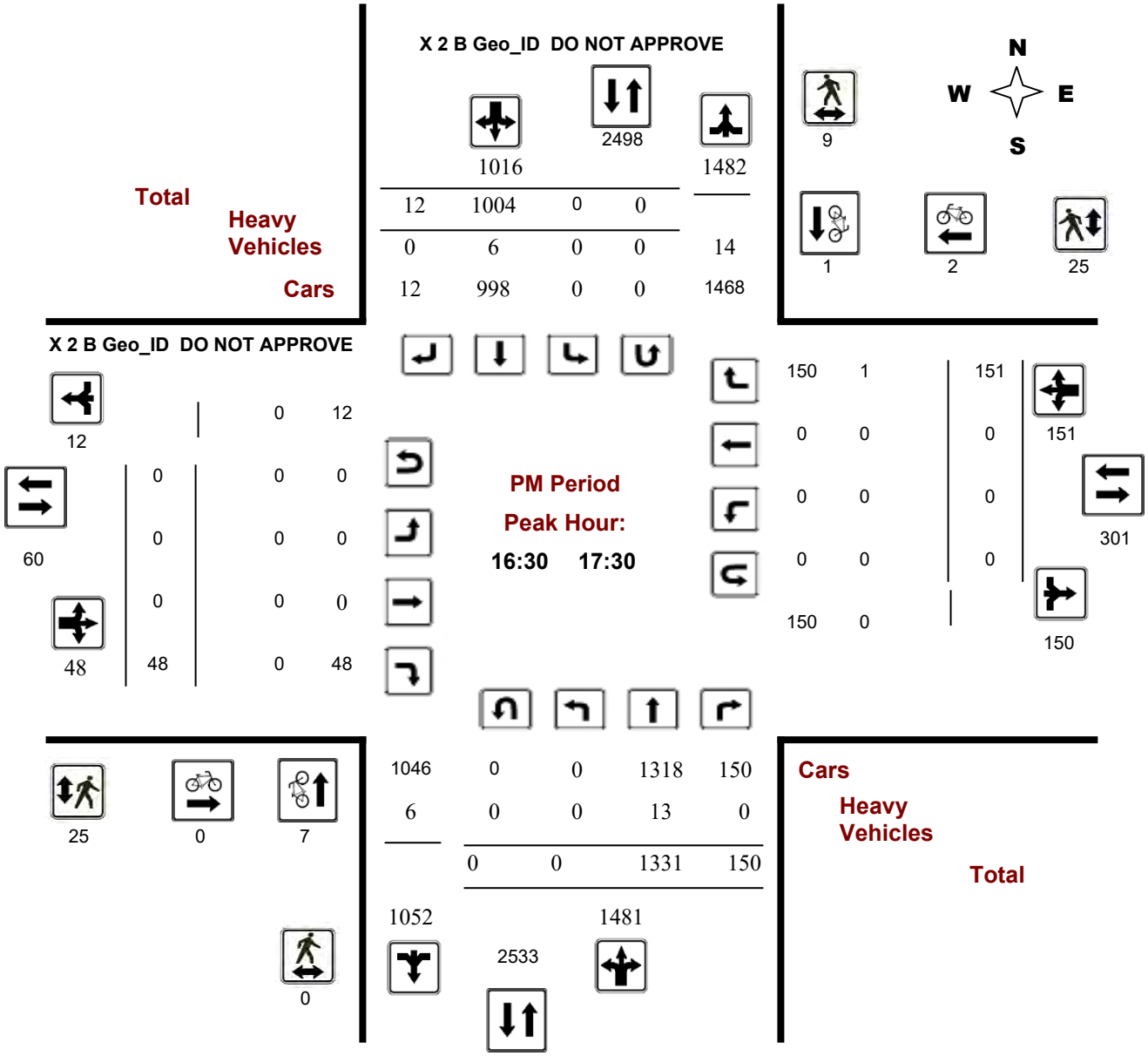
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38718

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

Transportation Services - Traffic Services

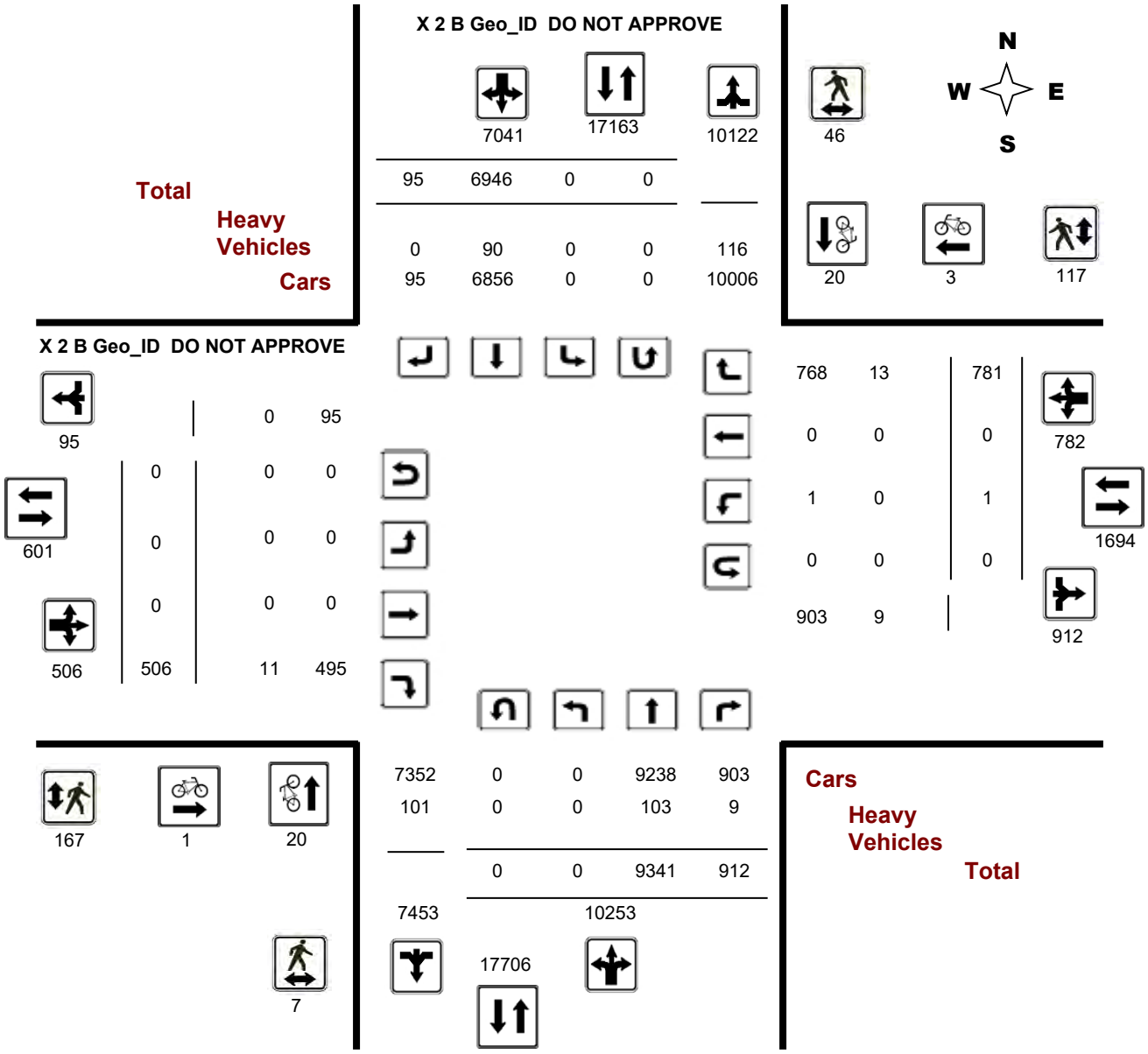
Turning Movement Count - Full Study Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

WO#: 38718

Device: Miovision



Comments ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

Transportation Services - Traffic Services

Work Order 38718

Turning Movement Count - Full Study Summary Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

AADT Factor .90

Full Study

	X 2 B Geo_ID DO NOT APPROVE									X 2 B Geo_ID DO NOT APPROVE									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	0	1080	66	**1146**	0	705	7	**712**	**1858**	0	0	17	**17**	0	0	43	**43**	**60**	**1918**
08:00 09:00	0	1164	69	**1233**	0	809	11	**820**	**2053**	0	0	49	**49**	0	0	36	**36**	**85**	**2138**
09:00 10:00	0	1014	104	**1118**	0	814	12	**826**	**1944**	0	0	47	**47**	0	0	50	**50**	**97**	**2041**
11:30 12:30	0	1069	144	**1213**	0	988	18	**1006**	**2219**	0	0	94	**94**	0	0	109	**109**	**203**	**2422**
12:30 13:30	0	1051	135	**1186**	0	956	18	**974**	**2160**	0	0	109	**109**	1	0	122	**123**	**232**	**2392**
15:00 16:00	0	1356	122	**1478**	0	792	9	**801**	**2279**	0	0	60	**60**	0	0	149	**149**	**209**	**2488**
16:00 17:00	0	1340	132	**1472**	0	933	6	**939**	**2411**	0	0	66	**66**	0	0	135	**135**	**201**	**2612**
17:00 18:00	0	1267	140	**1407**	0	949	14	**963**	**2370**	0	0	64	**64**	0	0	137	**137**	**201**	**2571**
Sub Total	0	9341	912	**10253**	0	6946	95	**7041**	**17294**	0	0	506	**506**	1	0	781	**782**	**1288**	**18582**
U Turns				**0**				**0**	**0**				**0**				**0**	**0**	**0**
Total	0	9341	912	**10253**	0	6946	95	**7041**	**17294**	0	0	506	**506**	1	0	781	**782**	**1288**	**18582**
EQ 12Hr	0	12984	1268	**14252**	0	9655	132	**9787**	**24039**	0	0	703	**703**	1	0	1086	**1087**	**1790**	**25829**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													**1.39**						
AVG 12Hr	0	11686	1141	**12827**	0	8689	119	**8808**	**21635**	0	0	633	**633**	1	0	977	**978**	**1611**	**23246**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													**.90**						
AVG 24Hr	0	15308	1495	**16803**	0	11383	156	**11539**	**28342**	0	0	829	**829**	2	0	1280	**1282**	**2111**	**30453**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.													**1.31**						

Comments: ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

W.O. 38718

Turning Movement Count - 15 Minute Summary Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

		X 2 B Geo_ID DO NOT APPROVE									X 2 B Geo_ID DO NOT APPROVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	178	15	**193**	0	136	0	**136**	**329**	0	0	3	**3**	0	0	6	**6**	**9**	**338**
07:15	07:30	0	235	13	**248**	0	194	1	**195**	**443**	0	0	4	**4**	0	0	10	**10**	**14**	**457**
07:30	07:45	0	346	16	**362**	0	187	1	**188**	**550**	0	0	7	**7**	0	0	21	**21**	**28**	**578**
07:45	08:00	0	321	22	**343**	0	188	5	**193**	**536**	0	0	3	**3**	0	0	6	**6**	**9**	**545**
08:00	08:15	0	305	15	**320**	0	199	3	**202**	**522**	0	0	8	**8**	0	0	5	**5**	**13**	**535**
08:15	08:30	0	264	22	**286**	0	198	1	**199**	**485**	0	0	14	**14**	0	0	11	**11**	**25**	**510**
08:30	08:45	0	313	15	**328**	0	174	4	**178**	**506**	0	0	13	**13**	0	0	7	**7**	**20**	**526**
08:45	09:00	0	282	17	**299**	0	238	3	**241**	**540**	0	0	14	**14**	0	0	13	**13**	**27**	**567**
09:00	09:15	0	279	35	**314**	0	210	2	**212**	**526**	0	0	14	**14**	0	0	7	**7**	**21**	**547**
09:15	09:30	0	221	20	**241**	0	183	2	**185**	**426**	0	0	7	**7**	0	0	14	**14**	**21**	**447**
09:30	09:45	0	248	22	**270**	0	190	3	**193**	**463**	0	0	11	**11**	0	0	13	**13**	**24**	**487**
09:45	10:00	0	266	27	**293**	0	231	5	**236**	**529**	0	0	15	**15**	0	0	16	**16**	**31**	**560**
11:30	11:45	0	248	41	**289**	0	247	3	**250**	**539**	0	0	26	**26**	0	0	22	**22**	**48**	**587**
11:45	12:00	0	274	33	**307**	0	263	7	**270**	**577**	0	0	26	**26**	0	0	32	**32**	**58**	**635**
12:00	12:15	0	281	32	**313**	0	214	4	**218**	**531**	0	0	21	**21**	0	0	29	**29**	**50**	**581**
12:15	12:30	0	266	38	**304**	0	264	4	**268**	**572**	0	0	21	**21**	0	0	26	**26**	**47**	**619**
12:30	12:45	0	253	41	**294**	0	247	5	**252**	**546**	0	0	27	**27**	0	0	26	**26**	**53**	**599**
12:45	13:00	0	285	27	**312**	0	251	4	**255**	**567**	0	0	37	**37**	0	0	34	**34**	**71**	**638**
13:00	13:15	0	248	33	**281**	0	214	7	**221**	**502**	0	0	25	**25**	1	0	29	**30**	**55**	**557**
13:15	13:30	0	265	34	**299**	0	244	2	**246**	**545**	0	0	20	**20**	0	0	33	**33**	**53**	**598**
15:00	15:15	0	325	34	**359**	0	208	5	**213**	**572**	0	0	16	**16**	0	0	45	**45**	**61**	**633**
15:15	15:30	0	347	29	**376**	0	210	3	**213**	**589**	0	0	15	**15**	0	0	38	**38**	**53**	**642**
15:30	15:45	0	319	35	**354**	0	187	0	**187**	**541**	0	0	12	**12**	0	0	28	**28**	**40**	**581**
15:45	16:00	0	365	24	**389**	0	187	1	**188**	**577**	0	0	17	**17**	0	0	38	**38**	**55**	**632**
16:00	16:15	0	322	26	**348**	0	212	2	**214**	**562**	0	0	27	**27**	0	0	32	**32**	**59**	**621**
16:15	16:30	0	345	23	**368**	0	228	0	**228**	**596**	0	0	14	**14**	0	0	28	**28**	**42**	**638**
16:30	16:45	0	349	37	**386**	0	235	2	**237**	**623**	0	0	10	**10**	0	0	37	**37**	**47**	**670**
16:45	17:00	0	324	46	**370**	0	258	2	**260**	**630**	0	0	15	**15**	0	0	38	**38**	**53**	**683**
17:00	17:15	0	317	36	**353**	0	255	3	**258**	**611**	0	0	6	**6**	0	0	35	**35**	**41**	**652**
17:15	17:30	0	341	31	**372**	0	256	5	**261**	**633**	0	0	17	**17**	0	0	41	**41**	**58**	**691**
17:30	17:45	0	310	31	**341**	0	220	4	**224**	**565**	0	0	20	**20**	0	0	33	**33**	**53**	**618**
17:45	18:00	0	299	42	**341**	0	218	2	**220**	**561**	0	0	21	**21**	0	0	28	**28**	**49**	**610**
TOTAL:		0	9341	912	**10253**	0	6946	95	**7041**	**17294**	0	0	506	**506**	1	0	781	**782**	**1288**	**18582**

Note: U-Turns are included in Totals.

Comment: **ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS**

Transportation Services - Traffic Services

Turning Movement Count - Cyclist Volume Report

Work Order
38718

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Count Date: Wednesday, August 21, 2019 **Start Time:** 07:00

	X 2 B Geo_ID DO NOT APPROVE			X 2 B Geo_ID DO NOT APPROVE			
Time Period	Northbound	Southbound	**Street Total**	Eastbound	Westbound	**Street Total**	**Grand Total**
07:00 08:00	1	3	**4**	0	0	**0**	**4**
08:00 09:00	1	5	**6**	0	0	**0**	**6**
09:00 10:00	0	1	**1**	0	0	**0**	**1**
11:30 12:30	3	0	**3**	0	1	**1**	**4**
12:30 13:30	2	5	**7**	1	0	**1**	**8**
15:00 16:00	4	5	**9**	0	0	**0**	**9**
16:00 17:00	6	0	**6**	0	1	**1**	**7**
17:00 18:00	3	1	**4**	0	1	**1**	**5**
Total	20	20	**40**	1	3	**4**	**44**

Comment: ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

W.O. 38718

Turning Movement Count - Heavy Vehicle Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

		X 2 B Geo_ID DO NOT APPROVE									X 2 B Geo_ID DO NOT APPROVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	**N TOT**	LT	ST	RT	**S TOT**	**STR TOT**	LT	ST	RT	**E TOT**	LT	ST	RT	**W TOT**	**STR TOT**	**Grand Total**
07:00	08:00	0	20	0	**20**	0	10	0	**10**	**30**	0	0	1	**1**	0	0	0	**0**	**1**	**31**
08:00	09:00	0	12	0	**12**	0	12	0	**12**	**24**	0	0	1	**1**	0	0	1	**1**	**2**	**26**
09:00	10:00	0	13	0	**13**	0	9	0	**9**	**22**	0	0	0	**0**	0	0	3	**3**	**3**	**25**
11:30	12:30	0	13	2	**15**	0	22	0	**22**	**37**	0	0	3	**3**	0	0	3	**3**	**6**	**43**
12:30	13:30	0	12	1	**13**	0	16	0	**16**	**29**	0	0	3	**3**	0	0	1	**1**	**4**	**33**
15:00	16:00	0	15	3	**18**	0	7	0	**7**	**25**	0	0	3	**3**	0	0	4	**4**	**7**	**32**
16:00	17:00	0	8	1	**9**	0	8	0	**8**	**17**	0	0	0	**0**	0	0	1	**1**	**1**	**18**
17:00	18:00	0	10	2	**12**	0	6	0	**6**	**18**	0	0	0	**0**	0	0	0	**0**	**0**	**18**
Sub Total		0	103	9	**112**	0	90	0	**90**	**202**	0	0	11	**11**	0	0	13	**13**	**24**	**226**
U-Turns (Heavy Vehicles)					**0**				**0**	**0**				**0**				**0**	**0**	**0**
Total		0	103	9	**0**	0	90	0	**90**	**202**	0	0	11	**11**	0	0	13	**13**	**24**	**226**

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

Work Order
38718

Turning Movement Count - 15 Min U-Turn Total Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	0	0	0

Transportation Services - Traffic Services

Work Order
38718

Turning Movement Count - Pedestrian Volume Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Count Date: Wednesday, August 21, 2019 **Start Time:** 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	1	1	2	2	4	5
07:15 07:30	2	0	2	5	4	9	11
07:30 07:45	0	0	0	1	0	1	1
07:45 08:00	0	0	0	3	3	6	6
07:00 08:00	2	1	3	11	9	20	23
08:00 08:15	0	0	0	0	2	2	2
08:15 08:30	0	2	2	4	2	6	8
08:30 08:45	0	0	0	1	1	2	2
08:45 09:00	0	1	1	4	2	6	7
08:00 09:00	0	3	3	9	7	16	19
09:00 09:15	0	0	0	0	6	6	6
09:15 09:30	0	3	3	1	3	4	7
09:30 09:45	0	0	0	0	3	3	3
09:45 10:00	0	1	1	0	9	9	10
09:00 10:00	0	4	4	1	21	22	26
11:30 11:45	0	0	0	5	1	6	6
11:45 12:00	1	0	1	4	1	5	6
12:00 12:15	0	2	2	5	3	8	10
12:15 12:30	0	1	1	12	5	17	18
11:30 12:30	1	3	4	26	10	36	40
12:30 12:45	1	2	3	6	6	12	15
12:45 13:00	1	2	3	15	6	21	24
13:00 13:15	2	0	2	1	1	2	4
13:15 13:30	0	5	5	3	1	4	9
12:30 13:30	4	9	13	25	14	39	52
15:00 15:15	0	3	3	10	5	15	18
15:15 15:30	0	3	3	10	2	12	15
15:30 15:45	0	1	1	8	6	14	15
15:45 16:00	0	2	2	6	4	10	12
15:00 16:00	0	9	9	34	17	51	60
16:00 16:15	0	4	4	9	5	14	18
16:15 16:30	0	3	3	4	1	5	8
16:30 16:45	0	0	0	6	4	10	10
16:45 17:00	0	3	3	8	6	14	17
16:00 17:00	0	10	10	27	16	43	53
17:00 17:15	0	4	4	4	7	11	15
17:15 17:30	0	2	2	7	8	15	17
17:30 17:45	0	1	1	10	7	17	18
17:45 18:00	0	0	0	13	1	14	14
17:00 18:00	0	7	7	34	23	57	64
Total	7	46	53	167	117	284	337

Comment: ACTUAL LOC : CLYDE AVE 90M NORTH OF BASELINE RD PRIV ACCESS

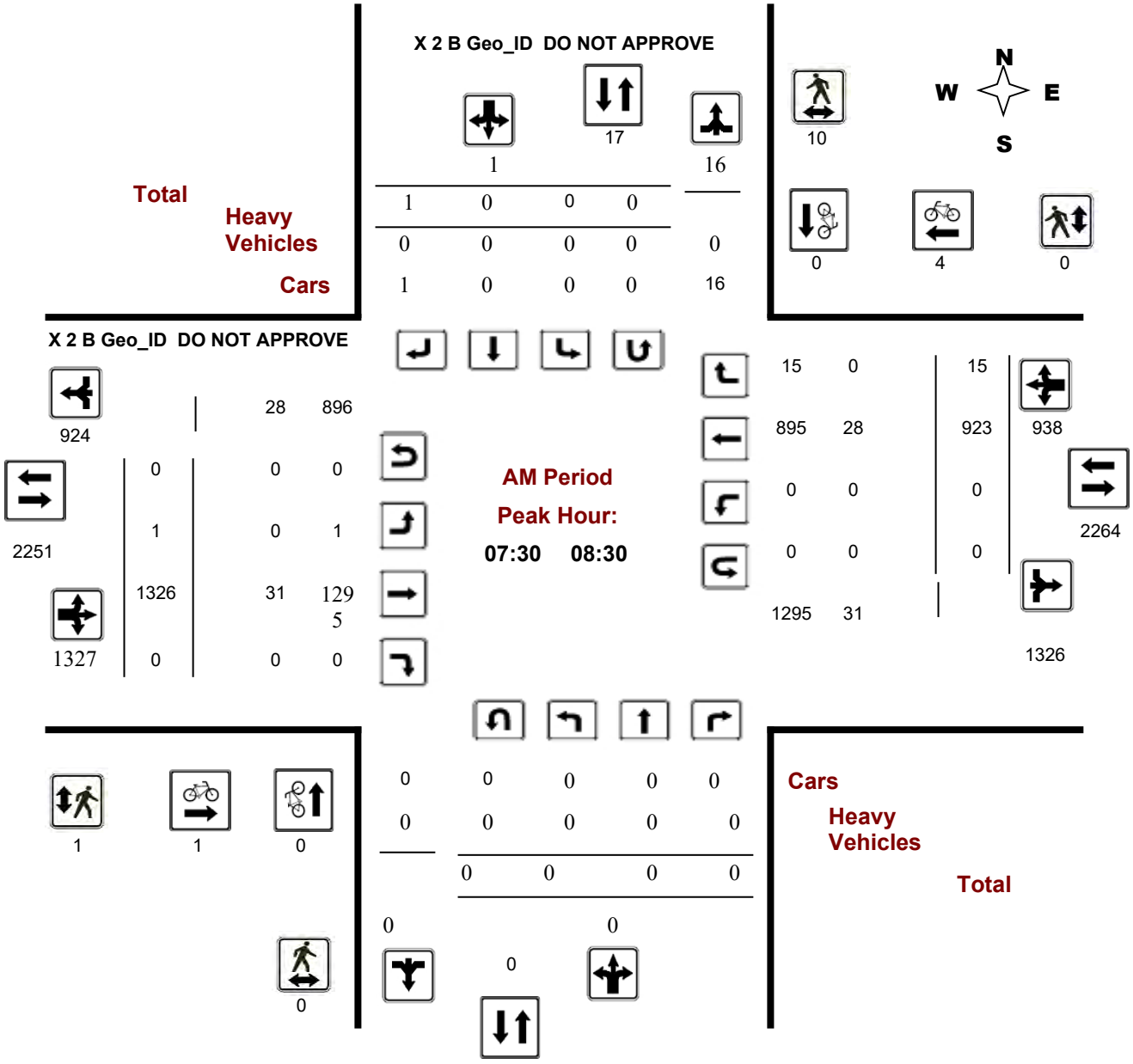
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38719

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

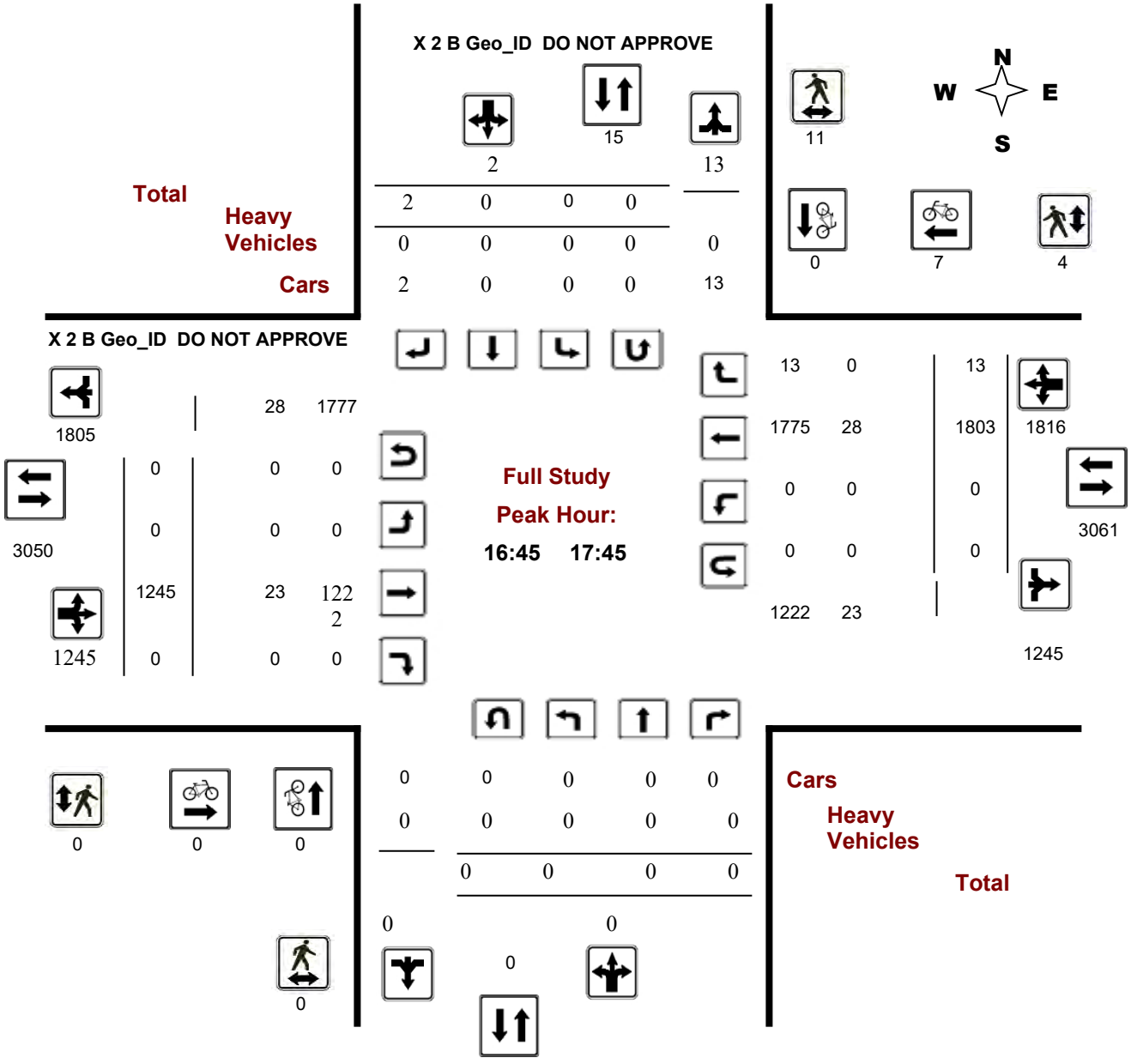
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38719

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

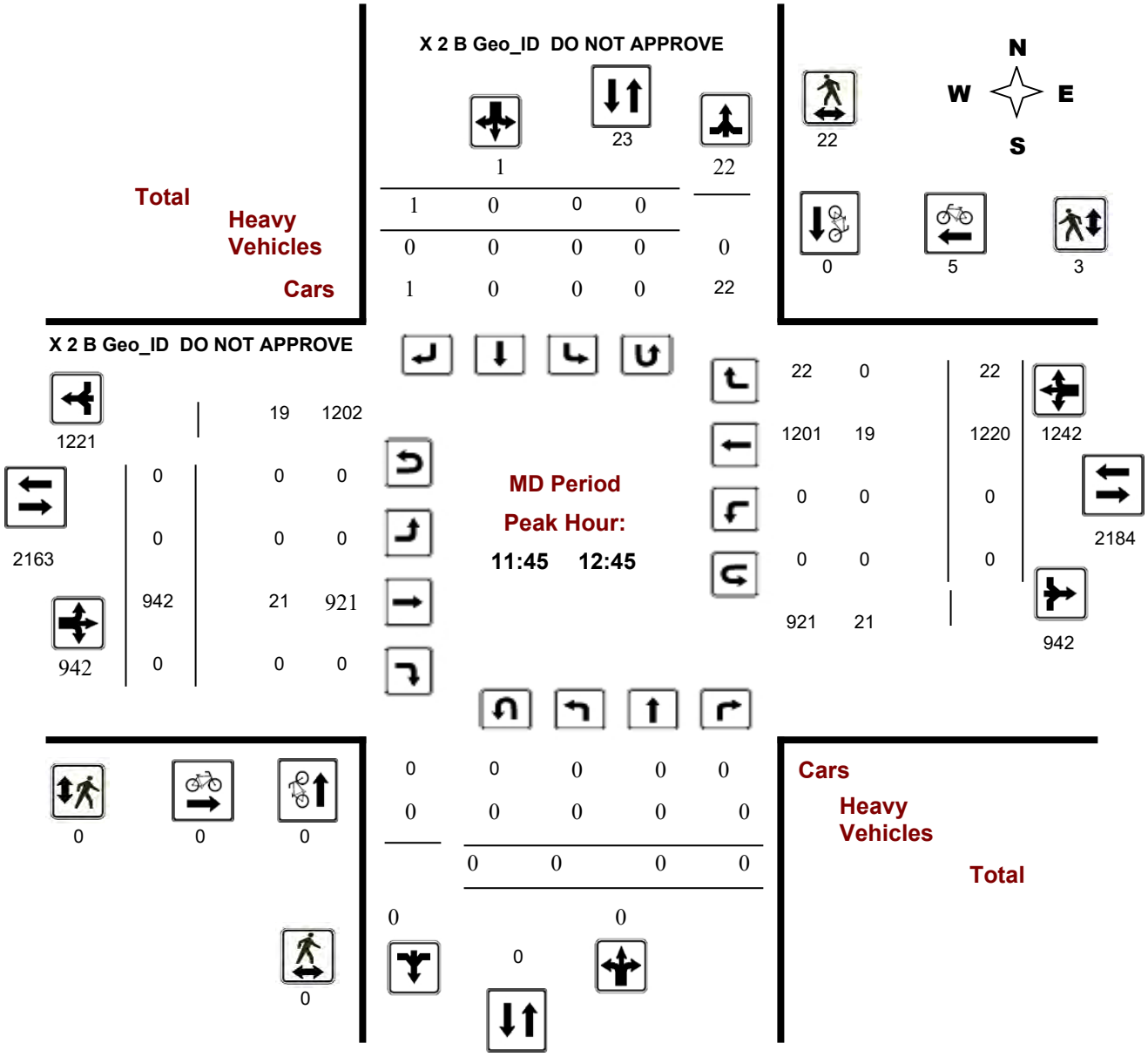
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38719

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

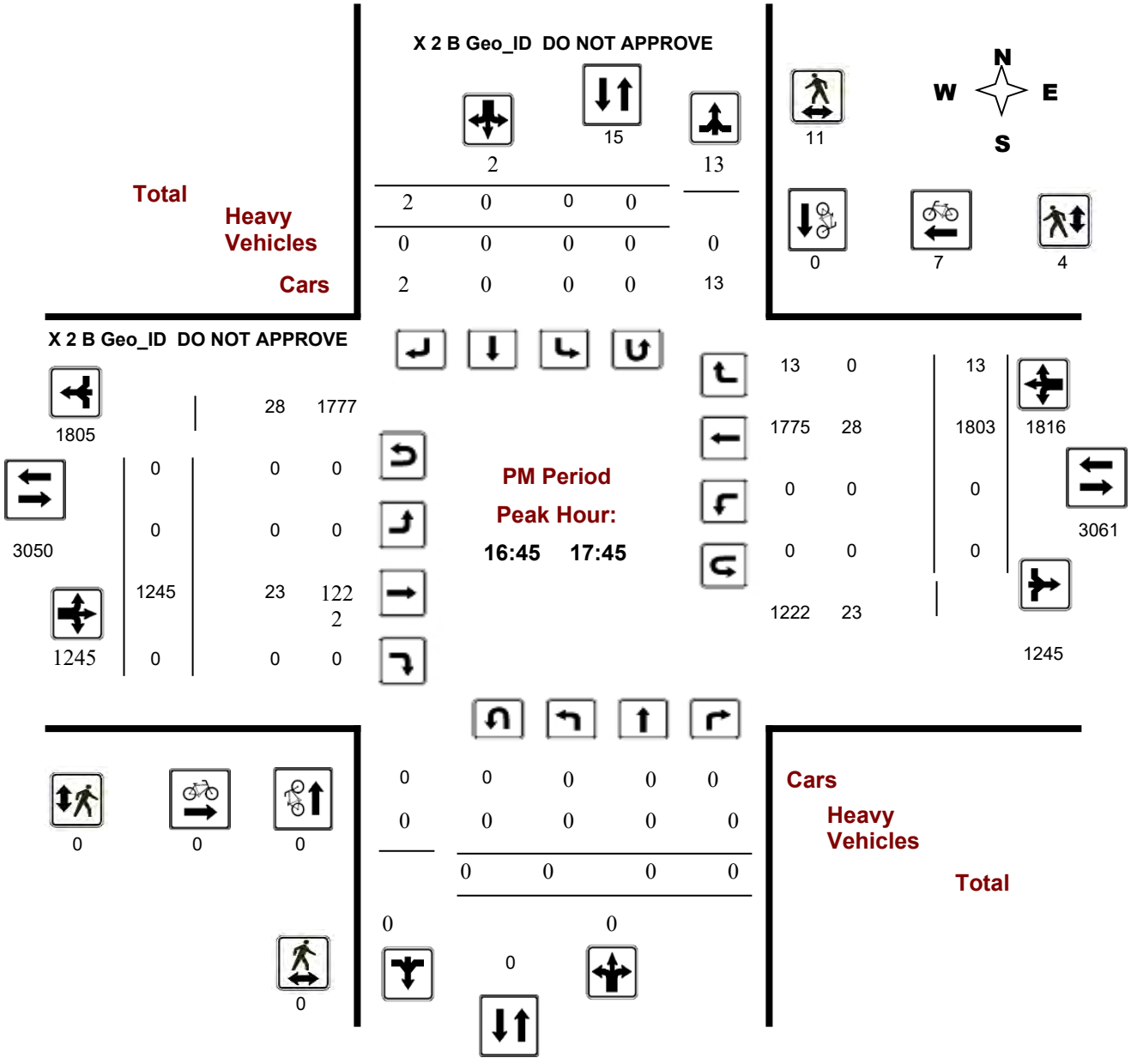
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38719

Start Time: 07:00 **Device:** Miovision



Comments ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

Transportation Services - Traffic Services

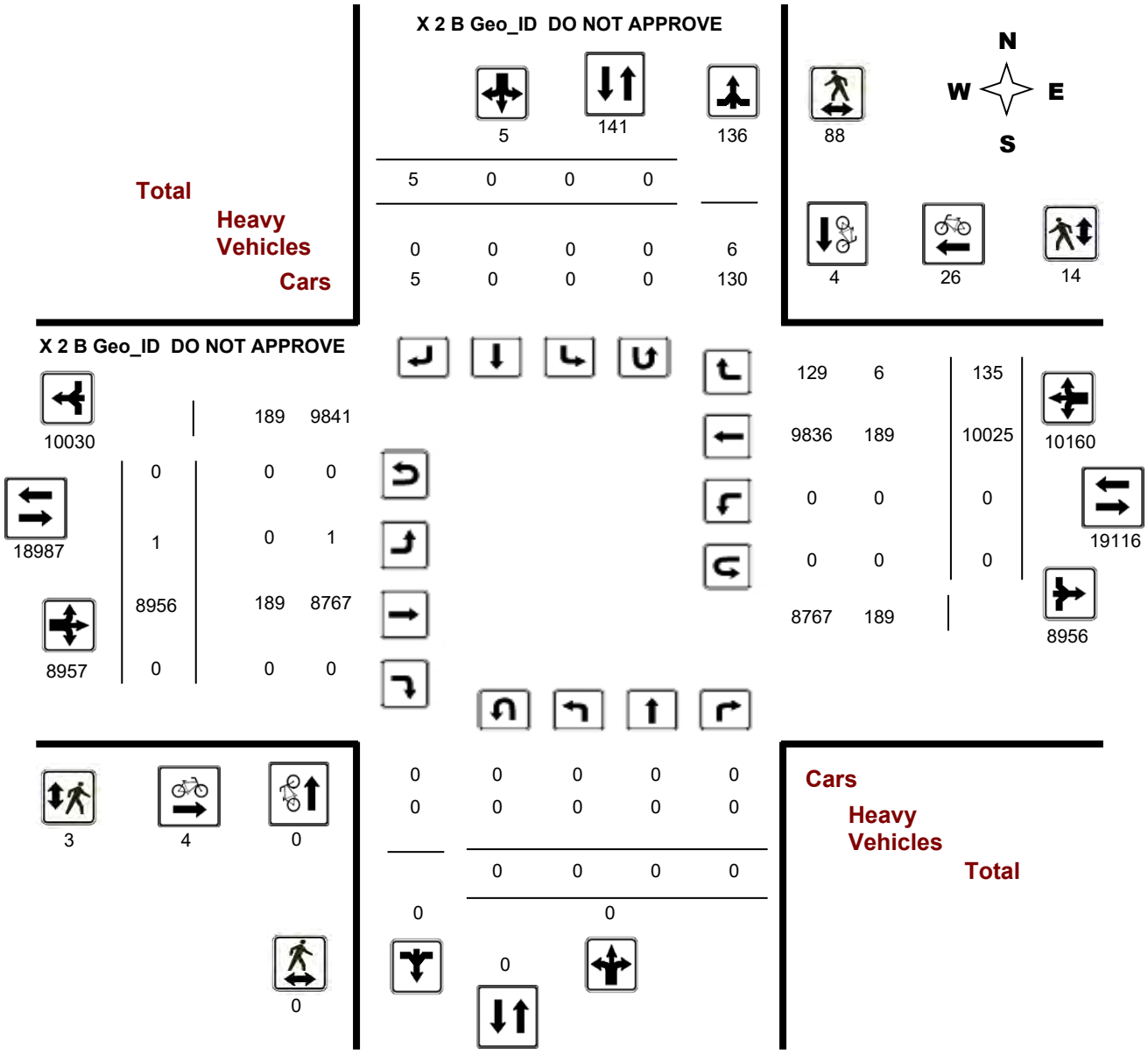
Turning Movement Count - Full Study Diagram

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

WO#: 38719

Device: Miovision



Comments ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

Transportation Services - Traffic Services

Work Order
38719

Turning Movement Count - Full Study Summary Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 0

AADT Factor
.90

Full Study

	X 2 B Geo_ID DO NOT APPROVE									X 2 B Geo_ID DO NOT APPROVE									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1160	0	**1160**	0	837	11	**848**	**2008**	**2008**
08:00 09:00	0	0	0	**0**	0	0	1	**1**	**1**	1	1265	0	**1266**	0	825	17	**842**	**2108**	**2109**
09:00 10:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1000	0	**1000**	0	887	22	**909**	**1909**	**1909**
11:30 12:30	0	0	0	**0**	0	0	1	**1**	**1**	0	947	0	**947**	0	1178	27	**1205**	**2152**	**2153**
12:30 13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	961	0	**961**	0	1073	16	**1089**	**2050**	**2050**
15:00 16:00	0	0	0	**0**	0	0	1	**1**	**1**	0	1187	0	**1187**	0	1666	12	**1678**	**2865**	**2866**
16:00 17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1226	0	**1226**	0	1814	17	**1831**	**3057**	**3057**
17:00 18:00	0	0	0	**0**	0	0	2	**2**	**2**	0	1210	0	**1210**	0	1745	13	**1758**	**2968**	**2970**
Sub Total	0	0	0	**0**	0	0	5	**5**	**5**	1	8956	0	**8957**	0	10025	135	**10160**	**19117**	**19122**
U Turns				**0**				**0**	**0**				**0**				**0**	**0**	**0**
Total	0	0	0	**0**	0	0	5	**5**	**5**	1	8956	0	**8957**	0	10025	135	**10160**	**19117**	**19122**
EQ 12Hr	0	0	0	**0**	0	0	7	**7**	**7**	1	12449	0	**12450**	0	13935	188	**14122**	**26572**	**26579**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													**1.39**						
AVG 12Hr	0	0	0	**0**	0	0	6	**6**	**6**	1	11204	0	**11205**	0	12541	169	**12710**	**23915**	**23921**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													**.90**						
AVG 24Hr	0	0	0	**0**	0	0	8	**8**	**8**	2	14677	0	**14679**	0	16429	221	**16650**	**31329**	**31337**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.													**1.31**						

Comments: ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

W.O. 38719

Turning Movement Count - 15 Minute Summary Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

		X 2 B Geo_ID DO NOT APPROVE									X 2 B Geo_ID DO NOT APPROVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	**0**	0	0	0	**0**	**0**	0	228	0	**228**	0	152	3	**155**	**383**	**383**
07:15	07:30	0	0	0	**0**	0	0	0	**0**	**0**	0	289	0	**289**	0	188	0	**188**	**477**	**477**
07:30	07:45	0	0	0	**0**	0	0	0	**0**	**0**	0	296	0	**296**	0	260	2	**262**	**558**	**558**
07:45	08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	347	0	**347**	0	237	6	**243**	**590**	**590**
08:00	08:15	0	0	0	**0**	0	0	1	**1**	**1**	0	331	0	**331**	0	287	1	**288**	**619**	**620**
08:15	08:30	0	0	0	**0**	0	0	0	**0**	**0**	1	352	0	**353**	0	139	6	**145**	**498**	**498**
08:30	08:45	0	0	0	**0**	0	0	0	**0**	**0**	0	280	0	**280**	0	213	4	**217**	**497**	**497**
08:45	09:00	0	0	0	**0**	0	0	0	**0**	**0**	0	302	0	**302**	0	186	6	**192**	**494**	**494**
09:00	09:15	0	0	0	**0**	0	0	0	**0**	**0**	0	317	0	**317**	0	186	5	**191**	**508**	**508**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	241	0	**241**	0	177	12	**189**	**430**	**430**
09:30	09:45	0	0	0	**0**	0	0	0	**0**	**0**	0	221	0	**221**	0	240	2	**242**	**463**	**463**
09:45	10:00	0	0	0	**0**	0	0	0	**0**	**0**	0	221	0	**221**	0	284	3	**287**	**508**	**508**
11:30	11:45	0	0	0	**0**	0	0	0	**0**	**0**	0	243	0	**243**	0	225	7	**232**	**475**	**475**
11:45	12:00	0	0	0	**0**	0	0	1	**1**	**1**	0	236	0	**236**	0	333	5	**338**	**574**	**575**
12:00	12:15	0	0	0	**0**	0	0	0	**0**	**0**	0	237	0	**237**	0	304	7	**311**	**548**	**548**
12:15	12:30	0	0	0	**0**	0	0	0	**0**	**0**	0	231	0	**231**	0	316	8	**324**	**555**	**555**
12:30	12:45	0	0	0	**0**	0	0	0	**0**	**0**	0	238	0	**238**	0	267	2	**269**	**507**	**507**
12:45	13:00	0	0	0	**0**	0	0	0	**0**	**0**	0	261	0	**261**	0	277	4	**281**	**542**	**542**
13:00	13:15	0	0	0	**0**	0	0	0	**0**	**0**	0	229	0	**229**	0	243	4	**247**	**476**	**476**
13:15	13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	233	0	**233**	0	286	6	**292**	**525**	**525**
15:00	15:15	0	0	0	**0**	0	0	1	**1**	**1**	0	284	0	**284**	0	373	3	**376**	**660**	**661**
15:15	15:30	0	0	0	**0**	0	0	0	**0**	**0**	0	280	0	**280**	0	439	4	**443**	**723**	**723**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	348	0	**348**	0	419	3	**422**	**770**	**770**
15:45	16:00	0	0	0	**0**	0	0	0	**0**	**0**	0	275	0	**275**	0	435	2	**437**	**712**	**712**
16:00	16:15	0	0	0	**0**	0	0	0	**0**	**0**	0	314	0	**314**	0	434	5	**439**	**753**	**753**
16:15	16:30	0	0	0	**0**	0	0	0	**0**	**0**	0	318	0	**318**	0	476	4	**480**	**798**	**798**
16:30	16:45	0	0	0	**0**	0	0	0	**0**	**0**	0	287	0	**287**	0	438	3	**441**	**728**	**728**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	307	0	**307**	0	466	5	**471**	**778**	**778**
17:00	17:15	0	0	0	**0**	0	0	0	**0**	**0**	0	293	0	**293**	0	458	4	**462**	**755**	**755**
17:15	17:30	0	0	0	**0**	0	0	1	**1**	**1**	0	310	0	**310**	0	449	3	**452**	**762**	**763**
17:30	17:45	0	0	0	**0**	0	0	1	**1**	**1**	0	335	0	**335**	0	430	1	**431**	**766**	**767**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	272	0	**272**	0	408	5	**413**	**685**	**685**
TOTAL:		0	0	0	**0**	0	0	5	**5**	**5**	1	8956	0	**8957**	0	10025	135	**10160**	**19117**	**19122**

Note: U-Turns are included in Totals.

Comment: **ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE**

Transportation Services - Traffic Services

Turning Movement Count - Cyclist Volume Report

Work Order
38719

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Count Date: Wednesday, August 21, 2019 **Start Time:** 07:00

	X 2 B Geo_ID DO NOT APPROVE			X 2 B Geo_ID DO NOT APPROVE			
Time Period	Northbound	Southbound	**Street Total**	Eastbound	Westbound	**Street Total**	**Grand Total**
07:00 08:00	0	1	**1**	2	3	**5**	**6**
08:00 09:00	0	0	**0**	0	1	**1**	**1**
09:00 10:00	0	0	**0**	0	3	**3**	**3**
11:30 12:30	0	0	**0**	0	3	**3**	**3**
12:30 13:30	0	1	**1**	0	3	**3**	**4**
15:00 16:00	0	1	**1**	2	1	**3**	**4**
16:00 17:00	0	1	**1**	0	5	**5**	**6**
17:00 18:00	0	0	**0**	0	7	**7**	**7**
Total	0	4	**4**	4	26	**30**	**34**

Comment: ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

W.O. 38719

Turning Movement Count - Heavy Vehicle Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

		X 2 B Geo_ID DO NOT APPROVE									X 2 B Geo_ID DO NOT APPROVE									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	**N TOT**	LT	ST	RT	**S TOT**	**STR TOT**	LT	ST	RT	**E TOT**	LT	ST	RT	**W TOT**	**STR TOT**	**Grand Total**
07:00	08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	27	0	**27**	0	27	0	**27**	**54**	**54**
08:00	09:00	0	0	0	**0**	0	0	0	**0**	**0**	0	25	0	**25**	0	28	0	**28**	**53**	**53**
09:00	10:00	0	0	0	**0**	0	0	0	**0**	**0**	0	20	0	**20**	0	14	2	**16**	**36**	**36**
11:30	12:30	0	0	0	**0**	0	0	0	**0**	**0**	0	21	0	**21**	0	20	1	**21**	**42**	**42**
12:30	13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	23	0	**23**	0	28	1	**29**	**52**	**52**
15:00	16:00	0	0	0	**0**	0	0	0	**0**	**0**	0	28	0	**28**	0	25	1	**26**	**54**	**54**
16:00	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	25	0	**25**	0	20	1	**21**	**46**	**46**
17:00	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	20	0	**20**	0	27	0	**27**	**47**	**47**
Sub Total		0	0	0	**0**	0	0	0	**0**	**0**	0	189	0	**189**	0	189	6	**195**	**384**	**384**
U-Turns (Heavy Vehicles)					**0**				**0**	**0**				**0**				**0**	**0**	**0**
Total		0	0	0	**0**	0	0	0	**0**	**0**	0	189	0	**189**	0	189	6	**195**	**384**	**384**

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

Work Order
38719

Turning Movement Count - 15 Min U-Turn Total Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Survey Date: Wednesday, August 21, 2019

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	0	0	0

Transportation Services - Traffic Services

Work Order
38719

Turning Movement Count - Pedestrian Volume Report

X 2 B Geo_ID DO NOT APPROVE @ X 2 B Geo_ID DO NOT APPROVE

Count Date: Wednesday, August 21, 2019 **Start Time:** 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	**0**	0	0	**0**	**0**
07:15 07:30	0	1	**1**	0	0	**0**	**1**
07:30 07:45	0	1	**1**	0	0	**0**	**1**
07:45 08:00	0	3	**3**	0	0	**0**	**3**
07:00 08:00	0	5	**5**	0	0	**0**	**5**
08:00 08:15	0	2	**2**	1	0	**1**	**3**
08:15 08:30	0	4	**4**	0	0	**0**	**4**
08:30 08:45	0	2	**2**	0	0	**0**	**2**
08:45 09:00	0	3	**3**	2	0	**2**	**5**
08:00 09:00	0	11	**11**	3	0	**3**	**14**
09:00 09:15	0	3	**3**	0	1	**1**	**4**
09:15 09:30	0	1	**1**	0	0	**0**	**1**
09:30 09:45	0	3	**3**	0	1	**1**	**4**
09:45 10:00	0	0	**0**	0	2	**2**	**2**
09:00 10:00	0	7	**7**	0	4	**4**	**11**
11:30 11:45	0	1	**1**	0	0	**0**	**1**
11:45 12:00	0	7	**7**	0	1	**1**	**8**
12:00 12:15	0	7	**7**	0	1	**1**	**8**
12:15 12:30	0	8	**8**	0	1	**1**	**9**
11:30 12:30	0	23	**23**	0	3	**3**	**26**
12:30 12:45	0	0	**0**	0	0	**0**	**0**
12:45 13:00	0	2	**2**	0	0	**0**	**2**
13:00 13:15	0	3	**3**	0	0	**0**	**3**
13:15 13:30	0	3	**3**	0	2	**2**	**5**
12:30 13:30	0	8	**8**	0	2	**2**	**10**
15:00 15:15	0	3	**3**	0	0	**0**	**3**
15:15 15:30	0	7	**7**	0	0	**0**	**7**
15:30 15:45	0	2	**2**	0	0	**0**	**2**
15:45 16:00	0	1	**1**	0	0	**0**	**1**
15:00 16:00	0	13	**13**	0	0	**0**	**13**
16:00 16:15	0	2	**2**	0	1	**1**	**3**
16:15 16:30	0	2	**2**	0	0	**0**	**2**
16:30 16:45	0	3	**3**	0	0	**0**	**3**
16:45 17:00	0	2	**2**	0	1	**1**	**3**
16:00 17:00	0	9	**9**	0	2	**2**	**11**
17:00 17:15	0	4	**4**	0	2	**2**	**6**
17:15 17:30	0	1	**1**	0	1	**1**	**2**
17:30 17:45	0	4	**4**	0	0	**0**	**4**
17:45 18:00	0	3	**3**	0	0	**0**	**3**
17:00 18:00	0	12	**12**	0	3	**3**	**15**
Total	0	88	**88**	3	14	**17**	**105**

Comment: ACTUAL LOC :BASELINE RD 115M EAST OF CLYDE AVE

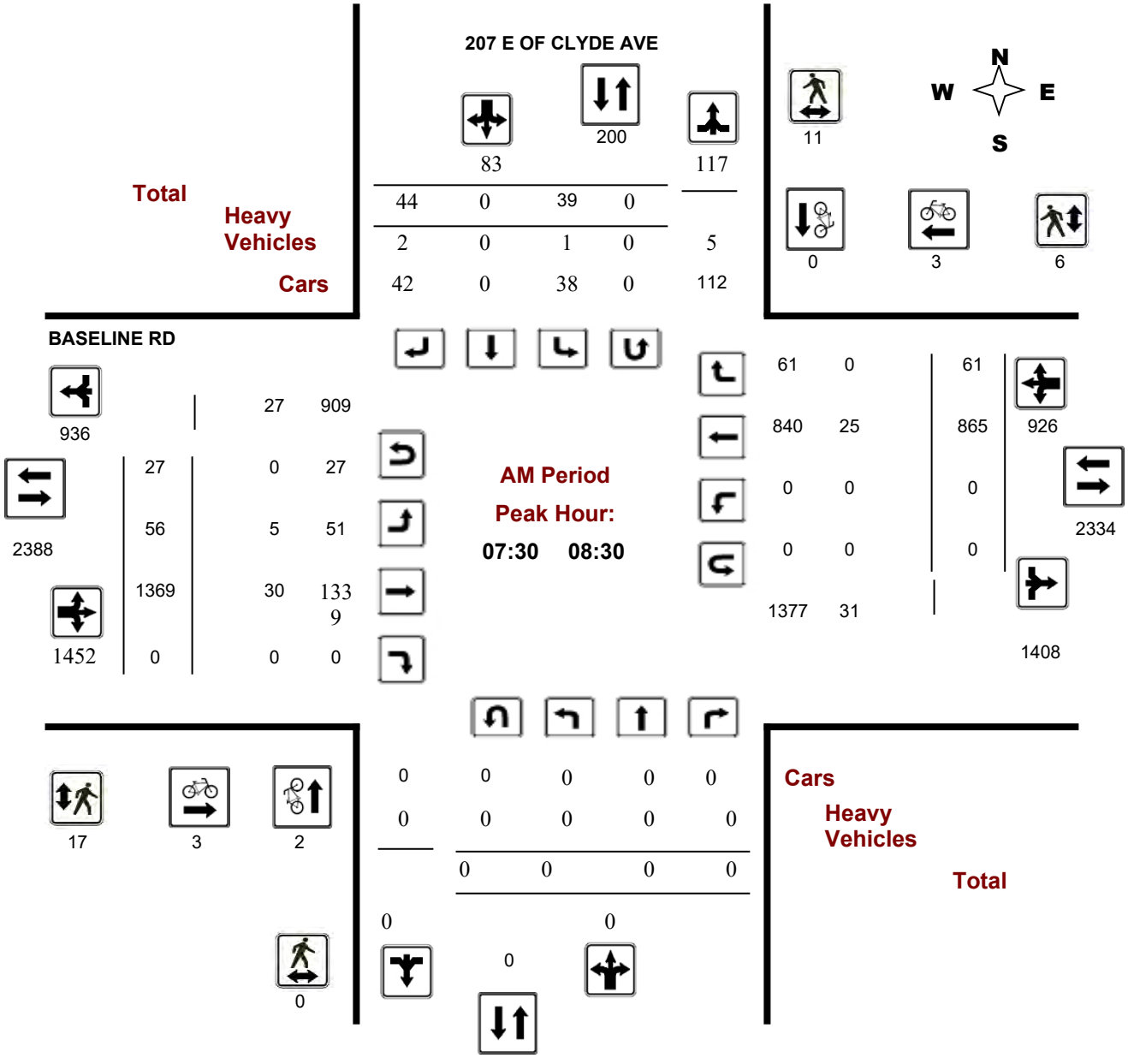
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38721

Start Time: 07:00 **Device:** Miovision



Comments

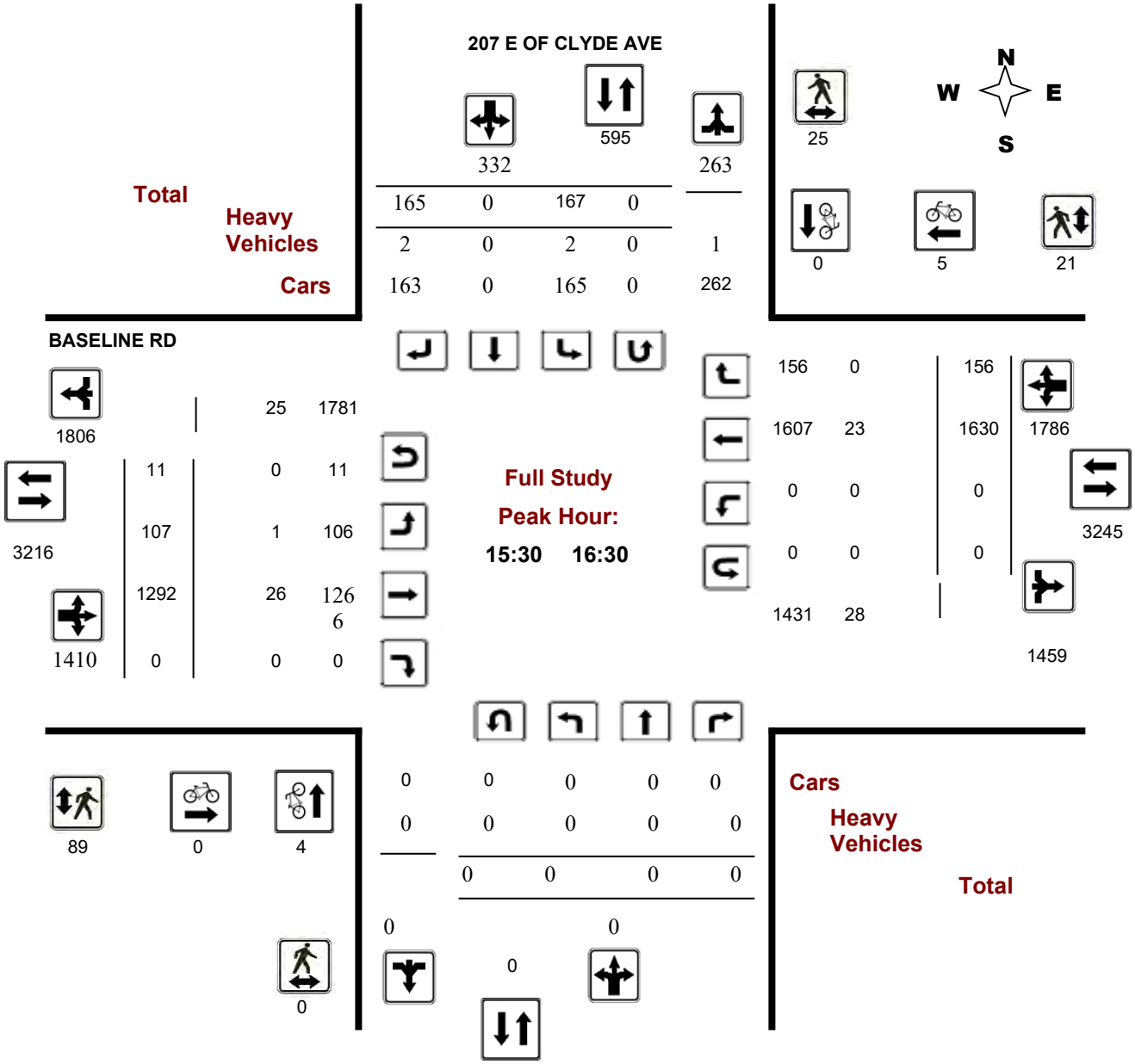
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38721

Start Time: 07:00 **Device:** Miovision



Comments

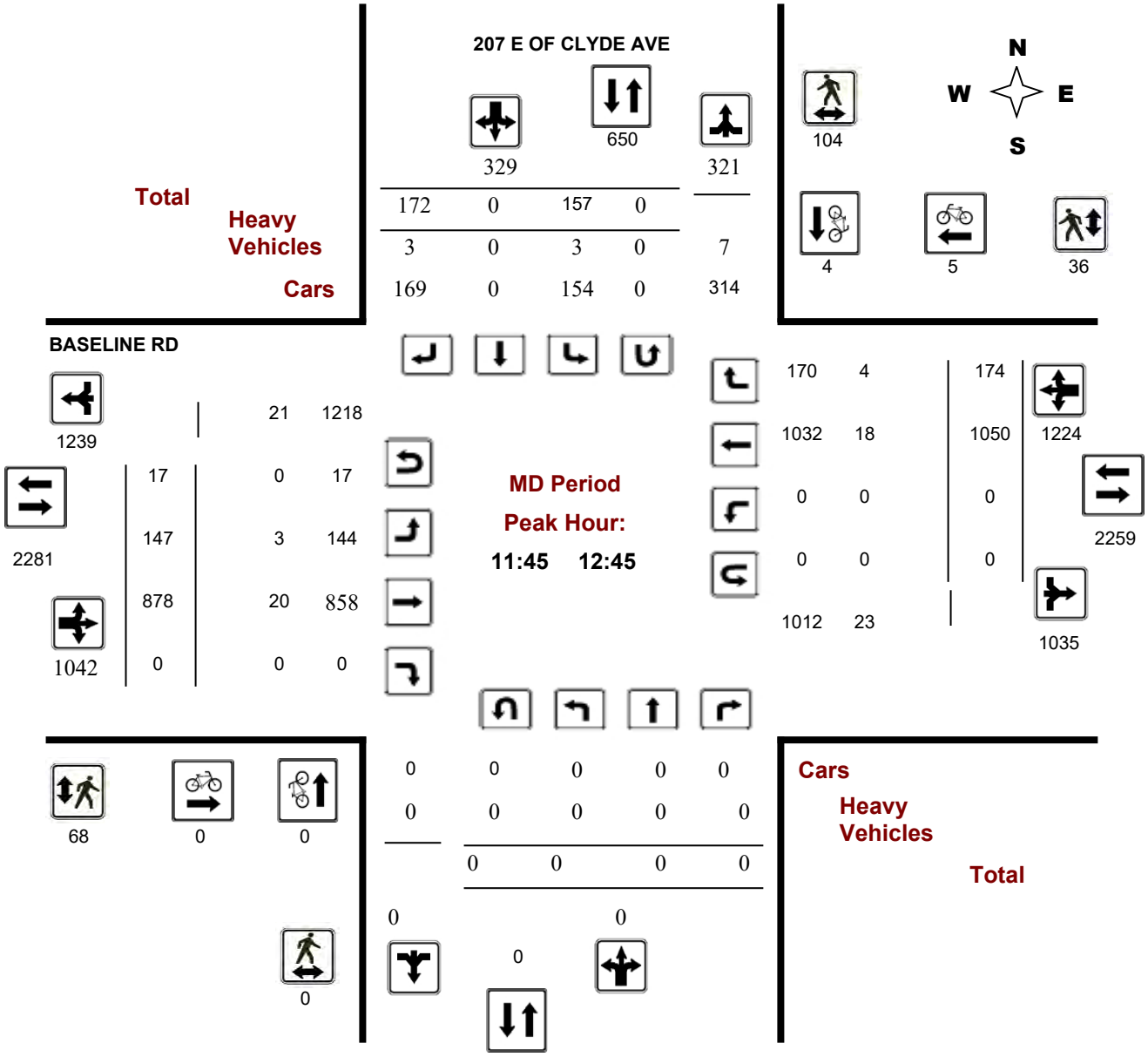
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38721

Start Time: 07:00 **Device:** Miovision



Comments

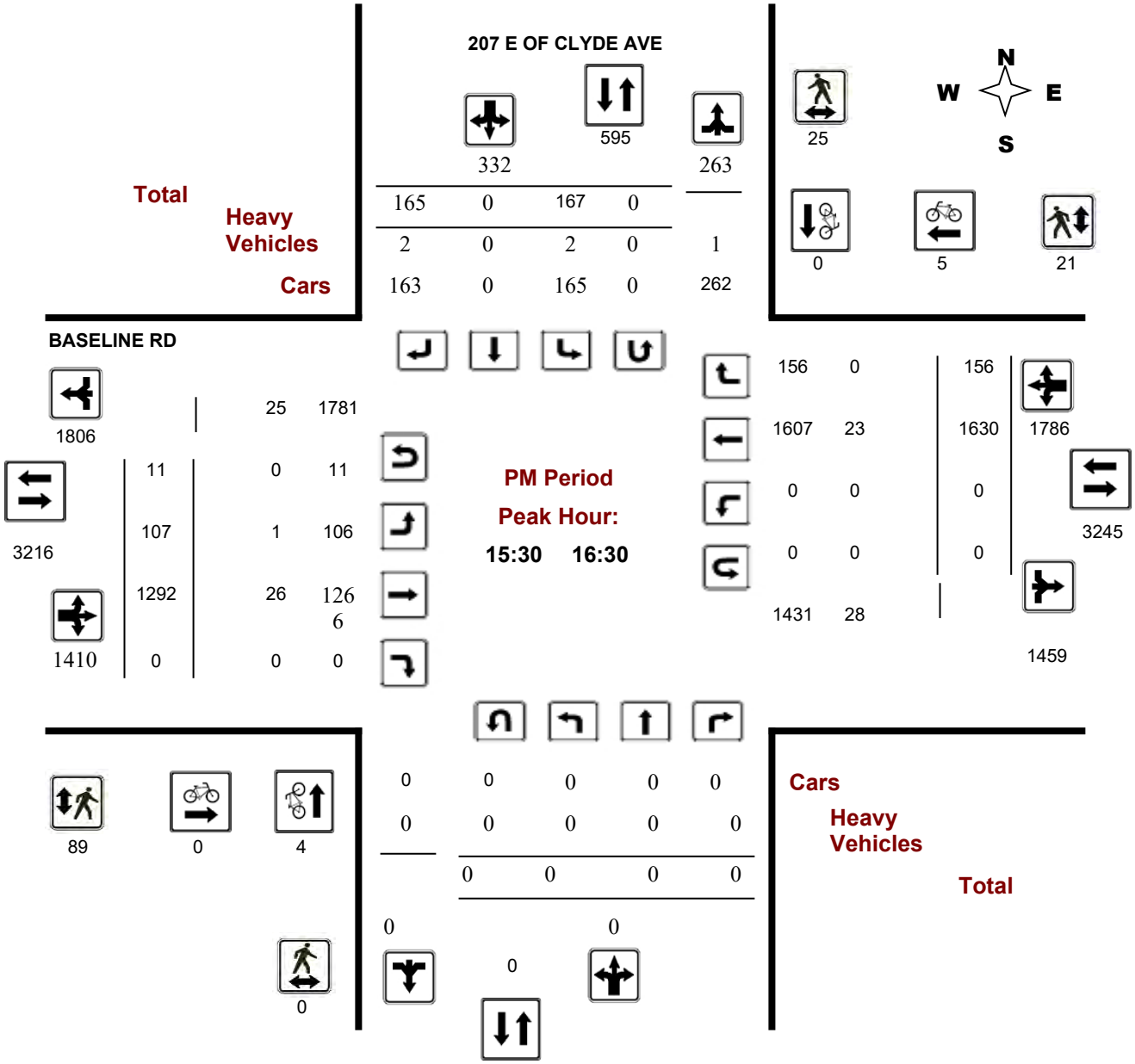
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019 **WO No:** 38721

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

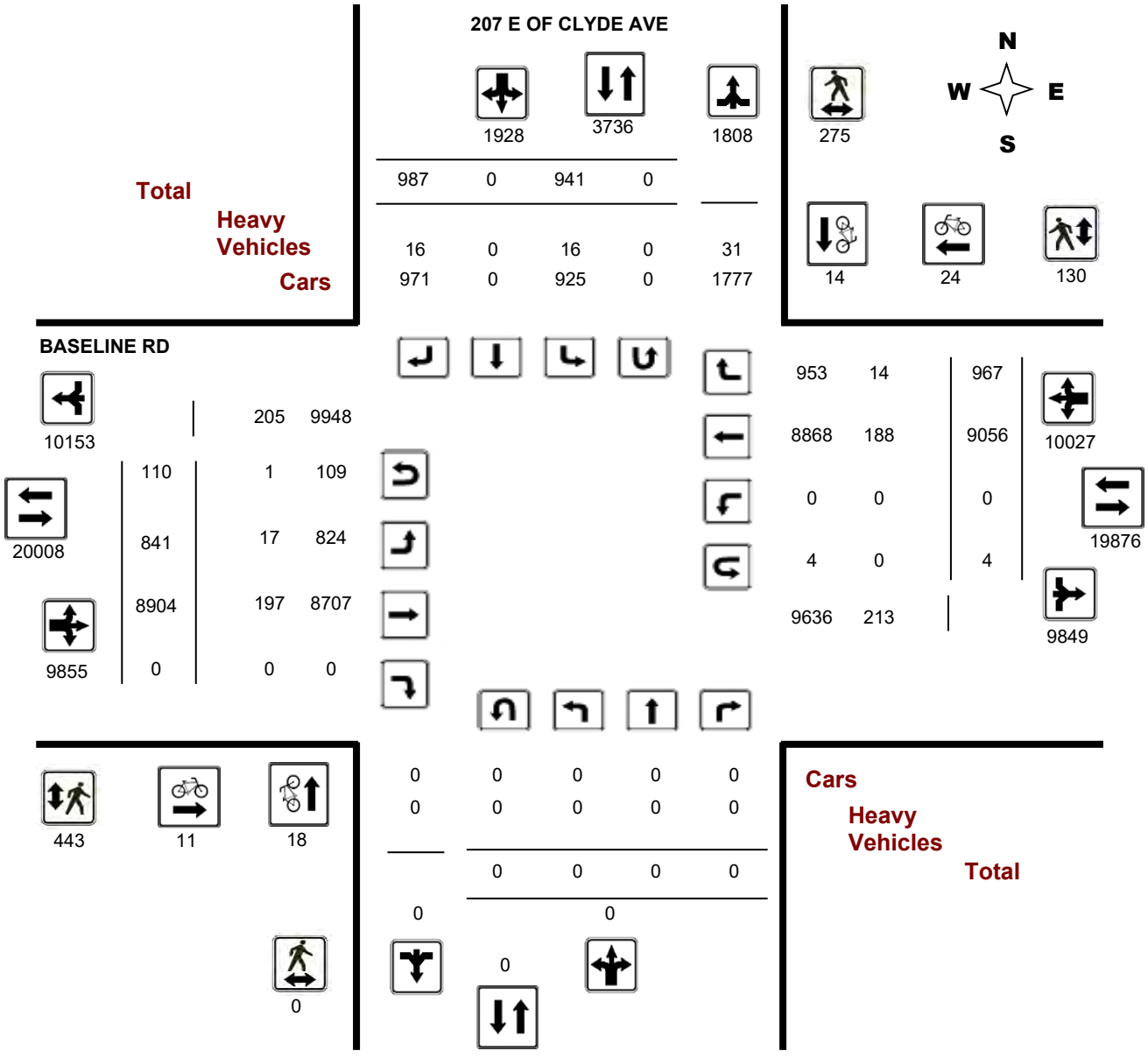
Turning Movement Count - Full Study Diagram

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019

WO#: 38721

Device: Miovision



Comments

Transportation Services - Traffic Services

Work Order 38721

Turning Movement Count - Full Study Summary Report

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 110 Westbound: 4

AADT Factor .90

Full Study

	207 E OF CLYDE AVE									BASELINE RD									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	0	0	0	**0**	28	0	28	**56**	**56**	49	1236	0	**1285**	0	801	55	**856**	**2141**	**2197**
08:00 09:00	0	0	0	**0**	44	0	49	**93**	**93**	67	1314	0	**1381**	0	766	72	**838**	**2219**	**2312**
09:00 10:00	0	0	0	**0**	62	0	63	**125**	**125**	74	1005	0	**1079**	0	822	86	**908**	**1987**	**2112**
11:30 12:30	0	0	0	**0**	157	0	158	**315**	**315**	143	894	0	**1037**	0	1042	170	**1212**	**2249**	**2564**
12:30 13:30	0	0	0	**0**	160	0	182	**342**	**342**	163	893	0	**1056**	0	880	136	**1016**	**2072**	**2414**
15:00 16:00	0	0	0	**0**	158	0	162	**320**	**320**	134	1173	0	**1307**	0	1519	145	**1664**	**2971**	**3291**
16:00 17:00	0	0	0	**0**	170	0	179	**349**	**349**	100	1246	0	**1346**	0	1648	154	**1802**	**3148**	**3497**
17:00 18:00	0	0	0	**0**	162	0	166	**328**	**328**	111	1143	0	**1254**	0	1578	149	**1727**	**2981**	**3309**
Sub Total	0	0	0	**0**	941	0	987	**1928**	**1928**	841	8904	0	**9745**	0	9056	967	**10023**	**19768**	**21696**
U Turns				**0**				**0**	**0**				**110**				**4**	**114**	**114**
Total	0	0	0	**0**	941	0	987	**1928**	**1928**	841	8904	0	**9855**	0	9056	967	**10027**	**19882**	**21810**
EQ 12Hr	0	0	0	**0**	1308	0	1372	**2680**	**2680**	1169	12377	0	**13698**	0	12588	1344	**13938**	**27636**	**30316**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.													**1.39**						
AVG 12Hr	0	0	0	**0**	1177	0	1235	**2412**	**2412**	1052	11139	0	**12329**	0	11329	1210	**12544**	**24873**	**27285**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.													**.90**						
AVG 24Hr	0	0	0	**0**	1542	0	1618	**3160**	**3160**	1378	14592	0	**16150**	0	14841	1585	**16432**	**32582**	**35742**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.													**1.31**						

Comments:

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

W.O. 38721

Turning Movement Count - 15 Minute Summary Report

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 110 Westbound: 4

207 E OF CLYDE AVE **BASELINE RD**

		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	**0**	3	0	2	**5**	**5**	8	279	0	**291**	0	144	10	**154**	**445**	**450**
07:15	07:30	0	0	0	**0**	8	0	6	**14**	**14**	12	295	0	**312**	0	188	19	**207**	**519**	**533**
07:30	07:45	0	0	0	**0**	9	0	12	**21**	**21**	16	304	0	**328**	0	232	10	**242**	**570**	**591**
07:45	08:00	0	0	0	**0**	8	0	8	**16**	**16**	13	358	0	**376**	0	237	16	**253**	**629**	**645**
08:00	08:15	0	0	0	**0**	13	0	12	**25**	**25**	12	355	0	**376**	0	254	22	**276**	**652**	**677**
08:15	08:30	0	0	0	**0**	9	0	12	**21**	**21**	15	352	0	**372**	0	142	13	**155**	**527**	**548**
08:30	08:45	0	0	0	**0**	13	0	9	**22**	**22**	22	306	0	**334**	0	186	20	**206**	**540**	**562**
08:45	09:00	0	0	0	**0**	9	0	16	**25**	**25**	18	301	0	**324**	0	184	17	**201**	**525**	**550**
09:00	09:15	0	0	0	**0**	17	0	12	**29**	**29**	17	299	0	**317**	0	167	20	**187**	**504**	**533**
09:15	09:30	0	0	0	**0**	17	0	19	**36**	**36**	17	234	0	**254**	0	182	22	**204**	**458**	**494**
09:30	09:45	0	0	0	**0**	11	0	15	**26**	**26**	17	252	0	**270**	0	226	19	**246**	**516**	**542**
09:45	10:00	0	0	0	**0**	17	0	17	**34**	**34**	23	220	0	**248**	0	247	25	**272**	**520**	**554**
11:30	11:45	0	0	0	**0**	40	0	26	**66**	**66**	32	237	0	**271**	0	214	34	**250**	**521**	**587**
11:45	12:00	0	0	0	**0**	36	0	44	**80**	**80**	35	237	0	**277**	0	279	43	**322**	**599**	**679**
12:00	12:15	0	0	0	**0**	37	0	47	**84**	**84**	40	204	0	**248**	0	269	46	**315**	**563**	**647**
12:15	12:30	0	0	0	**0**	44	0	41	**85**	**85**	36	216	0	**255**	0	280	47	**327**	**582**	**667**
12:30	12:45	0	0	0	**0**	40	0	40	**80**	**80**	36	221	0	**262**	0	222	38	**260**	**522**	**602**
12:45	13:00	0	0	0	**0**	44	0	53	**97**	**97**	37	252	0	**290**	0	217	37	**254**	**544**	**641**
13:00	13:15	0	0	0	**0**	37	0	49	**86**	**86**	55	204	0	**262**	0	195	30	**225**	**487**	**573**
13:15	13:30	0	0	0	**0**	39	0	40	**79**	**79**	35	216	0	**253**	0	246	31	**277**	**530**	**609**
15:00	15:15	0	0	0	**0**	44	0	33	**77**	**77**	34	239	0	**275**	0	340	34	**374**	**649**	**726**
15:15	15:30	0	0	0	**0**	36	0	44	**80**	**80**	35	286	0	**324**	0	396	39	**435**	**759**	**839**
15:30	15:45	0	0	0	**0**	42	0	50	**92**	**92**	39	358	0	**399**	0	373	31	**404**	**803**	**895**
15:45	16:00	0	0	0	**0**	36	0	35	**71**	**71**	26	290	0	**321**	0	410	41	**451**	**772**	**843**
16:00	16:15	0	0	0	**0**	49	0	39	**88**	**88**	18	316	0	**336**	0	410	41	**451**	**787**	**875**
16:15	16:30	0	0	0	**0**	40	0	41	**81**	**81**	24	328	0	**354**	0	437	43	**480**	**834**	**915**
16:30	16:45	0	0	0	**0**	40	0	63	**103**	**103**	29	291	0	**322**	0	388	33	**422**	**744**	**847**
16:45	17:00	0	0	0	**0**	41	0	36	**77**	**77**	29	311	0	**344**	0	413	37	**450**	**794**	**871**
17:00	17:15	0	0	0	**0**	40	0	44	**84**	**84**	27	277	0	**307**	0	403	34	**437**	**744**	**828**
17:15	17:30	0	0	0	**0**	38	0	45	**83**	**83**	22	290	0	**315**	0	405	31	**436**	**751**	**834**
17:30	17:45	0	0	0	**0**	45	0	37	**82**	**82**	38	312	0	**350**	0	384	35	**419**	**769**	**851**
17:45	18:00	0	0	0	**0**	39	0	40	**79**	**79**	24	264	0	**288**	0	386	49	**435**	**723**	**802**
TOTAL:		0	0	0	**0**	941	0	987	**1928**	**1928**	841	8904	0	**9855**	0	9056	967	**10027**	**19882**	**21810**

Note: U-Turns are included in Totals.

Comment:

Transportation Services - Traffic Services

Turning Movement Count - Cyclist Volume Report

Work Order
38721

BASELINE RD @ 207 E OF CLYDE AVE

Count Date: Wednesday, August 21, 2019 **Start Time:** 07:00

	207 E OF CLYDE AVE			BASELINE RD			
Time Period	Northbound	Southbound	**Street Total**	Eastbound	Westbound	**Street Total**	**Grand Total**
07:00 08:00	2	1	**3**	3	3	**6**	**9**
08:00 09:00	0	1	**1**	2	0	**2**	**3**
09:00 10:00	3	2	**5**	1	2	**3**	**8**
11:30 12:30	1	3	**4**	1	5	**6**	**10**
12:30 13:30	1	3	**4**	3	1	**4**	**8**
15:00 16:00	7	2	**9**	1	2	**3**	**12**
16:00 17:00	2	2	**4**	0	5	**5**	**9**
17:00 18:00	2	0	**2**	0	6	**6**	**8**
Total	18	14	**32**	11	24	**35**	**67**

Comment:

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

W.O. 38721

Turning Movement Count - Heavy Vehicle Report

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019

		207 E OF CLYDE AVE									BASELINE RD									
		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	**N TOT**	LT	ST	RT	**S TOT**	**STR TOT**	LT	ST	RT	**E TOT**	LT	ST	RT	**W TOT**	**STR TOT**	**Grand Total**
07:00	08:00	0	0	0	**0**	1	0	1	**2**	**2**	3	28	0	**31**	0	25	1	**26**	**57**	**59**
08:00	09:00	0	0	0	**0**	0	0	4	**4**	**4**	2	26	0	**28**	0	25	2	**27**	**55**	**59**
09:00	10:00	0	0	0	**0**	2	0	0	**2**	**2**	2	23	0	**25**	0	17	3	**20**	**45**	**47**
11:30	12:30	0	0	0	**0**	3	0	2	**5**	**5**	4	20	0	**24**	0	22	4	**26**	**50**	**55**
12:30	13:30	0	0	0	**0**	2	0	4	**6**	**6**	2	22	0	**24**	0	25	0	**25**	**49**	**55**
15:00	16:00	0	0	0	**0**	2	0	2	**4**	**4**	1	29	0	**31**	0	25	2	**27**	**58**	**62**
16:00	17:00	0	0	0	**0**	3	0	1	**4**	**4**	2	30	0	**32**	0	24	2	**26**	**58**	**62**
17:00	18:00	0	0	0	**0**	3	0	2	**5**	**5**	1	19	0	**20**	0	25	0	**25**	**45**	**50**
Sub Total		0	0	0	**0**	16	0	16	**32**	**32**	17	197	0	**215**	0	188	14	**202**	**417**	**449**
U-Turns (Heavy Vehicles)					**0**				**0**	**0**				**1**				**0**	**1**	**1**
Total		0	0	0	**0**	16	0	16	**32**	**32**	17	197	0	**216**	0	188	14	**202**	**418**	**450**

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.

Transportation Services - Traffic Services

Work Order
38721

Turning Movement Count - Pedestrian Volume Report

BASELINE RD @ 207 E OF CLYDE AVE

Count Date: Wednesday, August 21, 2019 **Start Time:** 07:00

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	**0**	7	2	**9**	**9**
07:15 07:30	0	2	**2**	6	1	**7**	**9**
07:30 07:45	0	3	**3**	2	2	**4**	**7**
07:45 08:00	0	3	**3**	4	1	**5**	**8**
07:00 08:00	0	8	**8**	19	6	**25**	**33**
08:00 08:15	0	2	**2**	3	1	**4**	**6**
08:15 08:30	0	3	**3**	8	2	**10**	**13**
08:30 08:45	0	5	**5**	10	2	**12**	**17**
08:45 09:00	0	4	**4**	8	4	**12**	**16**
08:00 09:00	0	14	**14**	29	9	**38**	**52**
09:00 09:15	0	6	**6**	7	0	**7**	**13**
09:15 09:30	0	6	**6**	4	3	**7**	**13**
09:30 09:45	0	2	**2**	10	2	**12**	**14**
09:45 10:00	0	1	**1**	11	0	**11**	**12**
09:00 10:00	0	15	**15**	32	5	**37**	**52**
11:30 11:45	0	9	**9**	16	4	**20**	**29**
11:45 12:00	0	18	**18**	18	7	**25**	**43**
12:00 12:15	0	32	**32**	17	3	**20**	**52**
12:15 12:30	0	30	**30**	16	8	**24**	**54**
11:30 12:30	0	89	**89**	67	22	**89**	**178**
12:30 12:45	0	24	**24**	17	18	**35**	**59**
12:45 13:00	0	17	**17**	12	8	**20**	**37**
13:00 13:15	0	16	**16**	7	3	**10**	**26**
13:15 13:30	0	18	**18**	23	3	**26**	**44**
12:30 13:30	0	75	**75**	59	32	**91**	**166**
15:00 15:15	0	9	**9**	22	3	**25**	**34**
15:15 15:30	0	9	**9**	16	5	**21**	**30**
15:30 15:45	0	6	**6**	19	1	**20**	**26**
15:45 16:00	0	6	**6**	27	8	**35**	**41**
15:00 16:00	0	30	**30**	84	17	**101**	**131**
16:00 16:15	0	7	**7**	20	6	**26**	**33**
16:15 16:30	0	6	**6**	23	6	**29**	**35**
16:30 16:45	0	4	**4**	20	3	**23**	**27**
16:45 17:00	0	12	**12**	22	7	**29**	**41**
16:00 17:00	0	29	**29**	85	22	**107**	**136**
17:00 17:15	0	4	**4**	17	1	**18**	**22**
17:15 17:30	0	4	**4**	16	6	**22**	**26**
17:30 17:45	0	5	**5**	21	6	**27**	**32**
17:45 18:00	0	2	**2**	14	4	**18**	**20**
17:00 18:00	0	15	**15**	68	17	**85**	**100**
Total	0	275	**275**	443	130	**573**	**848**

Comment:

Transportation Services - Traffic Services

Work Order
38721

Turning Movement Count - 15 Min U-Turn Total Report

BASELINE RD @ 207 E OF CLYDE AVE

Survey Date: Wednesday, August 21, 2019

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	4	0	4
07:15	07:30	0	0	5	0	5
07:30	07:45	0	0	8	0	8
07:45	08:00	0	0	5	0	5
08:00	08:15	0	0	9	0	9
08:15	08:30	0	0	5	0	5
08:30	08:45	0	0	6	0	6
08:45	09:00	0	0	5	0	5
09:00	09:15	0	0	1	0	1
09:15	09:30	0	0	3	0	3
09:30	09:45	0	0	1	1	2
09:45	10:00	0	0	5	0	5
11:30	11:45	0	0	2	2	4
11:45	12:00	0	0	5	0	5
12:00	12:15	0	0	4	0	4
12:15	12:30	0	0	3	0	3
12:30	12:45	0	0	5	0	5
12:45	13:00	0	0	1	0	1
13:00	13:15	0	0	3	0	3
13:15	13:30	0	0	2	0	2
15:00	15:15	0	0	2	0	2
15:15	15:30	0	0	3	0	3
15:30	15:45	0	0	2	0	2
15:45	16:00	0	0	5	0	5
16:00	16:15	0	0	2	0	2
16:15	16:30	0	0	2	0	2
16:30	16:45	0	0	2	1	3
16:45	17:00	0	0	4	0	4
17:00	17:15	0	0	3	0	3
17:15	17:30	0	0	3	0	3
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	110	4	114

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ 207 E OF CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 28

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Feb-12, Fri,21:20	Snow	Turning movement	P.D. only	Slush	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Mar-26, Sat,14:34	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Mar-31, Thu,18:09	Rain	Rear end	P.D. only	Wet	East	Stopped	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Jun-15, Wed,09:59	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jul-21, Thu,15:23	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Municipal transit bus	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Aug-15, Mon,15:58	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Sep-29, Thu,08:30	Clear	SMV other	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Pedestrian	1
2016-Oct-14, Fri,18:40	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Oct-21, Fri,15:03	Rain	SMV other	Non-fatal injury	Wet	East	Going ahead	Delivery van	Pedestrian	1
2017-Jul-04, Tue,17:29	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
2017-Sep-30, Sat,11:10	Clear	Turning movement	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ 207 E OF CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 28

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Oct-02, Mon,10:35	Clear	SMV other	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Pedestrian	1
2017-Nov-28, Tue,17:13	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
					West	Stopped	Passenger van	Other motor vehicle	
2017-Nov-30, Thu,17:58	Snow	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-23, Sat,12:20	Snow	Turning movement	P.D. only	Loose snow	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Passenger van	Other motor vehicle	
2018-Jan-30, Tue,15:20	Clear	SMV other	Non-fatal injury	Dry	West	Unknown	Automobile, station wagon	Pedestrian	1
2018-May-24, Thu,18:47	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Jul-13, Fri,18:18	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Dec-10, Mon,18:02	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Feb-05, Tue,18:48	Clear	Rear end	P.D. only	Wet	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Aug-20, Tue,06:53	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Aug-30, Fri,07:55	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Changing lanes	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ 207 E OF CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 28

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Sep-19, Thu,16:38	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Nov-07, Thu,12:15	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Passenger van	Other motor vehicle	
2019-Nov-12, Tue,12:15	Clear	SMV other	Non-fatal injury	Wet	South	Turning left	Passenger van	Pedestrian	1
2020-Feb-05, Wed,17:35	Clear	Sideswipe	P.D. only	Wet	East	Unknown	Unknown	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2020-Feb-19, Wed,10:06	Clear	SMV other	Non-fatal injury	Wet	South	Turning left	Passenger van	Pedestrian	1
2020-Dec-20, Sun,11:31	Snow	SMV other	Non-fatal injury	Slush	West	Turning right	Pick-up truck	Pedestrian	1

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-09, Sat,09:45	Rain	Rear end	P.D. only	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Pick-up truck	Other motor vehicle	
2016-Jan-16, Sat,22:50	Snow	Turning movement	P.D. only	Loose snow	North	Going ahead	Passenger van	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Mar-26, Sat,20:29	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Passenger van	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Passenger van	Other motor vehicle	
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Mar-26, Sat,21:04	Clear	Rear end	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Mar-29, Tue,12:53	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Apr-10, Sun,10:40	Clear	Rear end	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Pick-up truck	Other motor vehicle	
2016-Apr-13, Wed,17:19	Clear	Sideswipe	P.D. only	Dry	West	Overtaking	Pick-up truck	Other motor vehicle	0
					West	Stopped	Tow truck	Other motor vehicle	
2016-Apr-25, Mon,17:13	Clear	Rear end	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-May-07, Sat,14:45	Clear	Turning movement	P.D. only	Dry	East	Turning right	Pick-up truck	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2016-May-25, Wed,19:33	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jun-30, Thu,15:45	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jun-30, Thu,17:02	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jul-28, Thu,14:05	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Aug-24, Wed,15:30	Clear	Sideswipe	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Sep-03, Sat,11:50	Clear	Rear end	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Sep-30, Fri,08:20	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2016-Oct-11, Tue,13:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Oct-14, Fri,17:30	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Passenger van	Other motor vehicle	
2016-Oct-19, Wed,16:55	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Oct-26, Wed,20:00	Clear	Rear end	P.D. only	Dry	North	Turning right	Police vehicle	Other motor vehicle	0
					North	Turning right	Police vehicle	Other motor vehicle	
2016-Nov-09, Wed,17:55	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Nov-28, Mon,17:17	Clear	SMV other	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Concrete guide rail	0
2016-Nov-30, Wed,16:22	Rain	Sideswipe	P.D. only	Wet	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2016-Dec-10, Sat,11:35	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2016-Dec-11, Sun,16:05	Snow	Rear end	Non-fatal injury	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Dec-20, Tue,19:35	Clear	Angle	P.D. only	Slush	South	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Feb-10, Fri,08:51	Clear	Rear end	P.D. only	Ice	North	Slowing or stopping	Automobile, station wagon	Skidding/sliding	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Feb-11, Sat,14:30	Clear	Rear end	P.D. only	Packed snow	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Feb-13, Mon,20:44	Clear	Rear end	Non-fatal injury	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Municipal transit bus	Other motor vehicle	
2017-Feb-16, Thu,07:00	Snow	Sideswipe	P.D. only	Packed snow	West	Changing lanes	Passenger van	Skidding/sliding	0
					West	Slowing or stopping	Pick-up truck	Other motor vehicle	
2017-Feb-16, Thu,08:30	Snow	Rear end	P.D. only	Ice	West	Slowing or stopping	Pick-up truck	Skidding/sliding	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Feb-16, Thu,08:45	Clear	Rear end	P.D. only	Slush	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Feb-16, Thu,16:49	Clear	Rear end	Non-fatal injury	Packed snow	West	Slowing or stopping	Passenger van	Skidding/sliding	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Feb-24, Fri,12:07	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-May-05, Fri,09:22	Rain	Angle	P.D. only	Wet	East	Slowing or stopping	Pick-up truck	Skidding/sliding	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-May-22, Mon,14:46	Rain	Rear end	P.D. only	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-May-30, Tue,12:01	Clear	Turning movement	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Pick-up truck	Other motor vehicle	
2017-May-30, Tue,23:52	Clear	SMV other	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Curb	0
2017-Jul-11, Tue,15:20	Rain	Sideswipe	P.D. only	Wet	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Jul-20, Thu,12:40	Clear	Rear end	P.D. only	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Aug-14, Mon,20:00	Clear	Angle	P.D. only	Dry	West	Merging	Automobile, station wagon	Other motor vehicle	0
					South	Making "U" turn	Automobile, station wagon	Other motor vehicle	
2017-Aug-24, Thu,14:02	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Sep-14, Thu,14:22	Clear	Angle	Non-fatal injury	Dry	West	Turning right	Passenger van	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
2017-Sep-18, Mon,08:55	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Sep-21, Thu,13:45	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-24, Sun,14:04	Clear	Rear end	P.D. only	Dry	East	Merging	Unknown	Other motor vehicle	0
					East	Going ahead	Municipal transit bus	Other motor vehicle	
2017-Nov-08, Wed,23:06	Clear	Turning movement	P.D. only	Dry	South	Going ahead	Unknown	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Nov-17, Fri,13:00	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Unknown	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Dec-06, Wed,16:29	Clear	Rear end	P.D. only	Dry	East	Changing lanes	Passenger van	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Dec-10, Sun,01:28	Snow	Sideswipe	P.D. only	Slush	West	Going ahead	Automobile, station wagon	Skidding/sliding	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Dec-11, Mon,15:06	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-11, Mon,17:19	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-23, Sat,22:24	Snow	Turning movement	Non-fatal injury	Packed snow	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Dec-27, Wed,13:20	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Jan-18, Thu,19:44	Clear	Sideswipe	Non-fatal injury	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Feb-01, Thu,11:08	Clear	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Mar-01, Thu,13:45	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Police vehicle	Other motor vehicle	
2018-Mar-21, Wed,16:21	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	School bus	Other motor vehicle	
2018-Mar-25, Sun,12:25	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Apr-03, Tue,22:01	Freezing Rain	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Apr-16, Mon,09:47	Freezing Rain	Sideswipe	P.D. only	Wet	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-May-13, Sun,11:17	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-May-15, Tue,12:25	Clear	Rear end	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Jun-11, Mon,09:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Motorcycle	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jun-25, Mon,16:11	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-11, Wed,21:31	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Jul-21, Sat,17:59	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Aug-03, Fri,15:43	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Aug-31, Fri,12:20	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Sep-28, Fri,13:54	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Oct-29, Mon,11:03	Clear	Sideswipe	P.D. only	Wet	East	Changing lanes	Passenger van	Other motor vehicle	0
					East	Overtaking	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Nov-01, Thu,08:05	Rain	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-05, Mon,14:36	Rain	Rear end	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-09, Fri,12:47	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-17, Sat,14:35	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Nov-22, Thu,19:11	Snow	Rear end	P.D. only	Slush	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Dec-12, Wed,15:28	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-17, Thu,11:00	Clear	Rear end	P.D. only	Packed snow	South	Slowing or stopping	Passenger van	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jan-20, Sun,20:05	Snow	Rear end	P.D. only	Packed snow	West	Unknown	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-07, Thu,21:05	Freezing Rain	Rear end	Non-fatal injury	Wet	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Feb-11, Mon,07:06	Clear	Other	Non-fatal injury	Dry	South	Reversing	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Feb-15, Fri,21:27	Clear	Angle	P.D. only	Loose snow	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Feb-22, Fri,13:14	Clear	Rear end	P.D. only	Dry	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Mar-03, Sun,14:35	Clear	Rear end	Non-fatal injury	Dry	South	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-May-21, Tue,01:18	Clear	SMV other	P.D. only	Dry	West	Turning right	Motorcycle	Skidding/sliding	0
2019-May-22, Wed,07:30	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Jun-02, Sun,13:10	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jun-19, Wed,17:30	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Jul-04, Thu,14:41	Clear	Angle	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jul-10, Wed,08:30	Clear	Sideswipe	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Truck - closed	Other motor vehicle	
2019-Jul-26, Fri,14:31	Clear	Angle	P.D. only	Dry	West	Turning right	Truck - open	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Aug-01, Thu,00:29	Clear	Other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Pole (utility, power)	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Aug-16, Fri,07:50	Clear	Turning movement	P.D. only	Dry	West	Turning right	Unknown	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Aug-28, Wed,16:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Aug-29, Thu,18:15	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Sep-01, Sun,14:10	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2019-Sep-04, Wed,15:34	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Sep-23, Mon,16:00	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Sep-25, Wed,15:52	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-25, Fri,19:21	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Nov-11, Mon,20:14	Snow	Angle	P.D. only	Loose snow	West	Turning right	Unknown	Other motor vehicle	0
					South	Making "U" turn	Automobile, station wagon	Other motor vehicle	
2019-Nov-14, Thu,14:50	Clear	Sideswipe	P.D. only	Wet	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Nov-27, Wed,16:30	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2019-Dec-17, Tue,13:20	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Feb-04, Tue,14:20	Snow	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Feb-08, Sat,11:35	Clear	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Feb-08, Sat,16:29	Clear	Rear end	P.D. only	Packed snow	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Feb-21, Fri,19:55	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Passenger van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Mar-02, Mon,06:36	Clear	Sideswipe	P.D. only	Slush	West	Unknown	Unknown	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2020-Mar-10, Tue,19:15	Clear	Angle	Non-fatal injury	Wet	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-May-03, Sun,18:07	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-May-29, Fri,16:00	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Passenger van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Jun-10, Wed,04:22	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Passenger van	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jun-25, Thu,15:24	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Jul-26, Sun,13:50	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Aug-04, Tue,10:15	Rain	Rear end	P.D. only	Wet	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Pick-up truck	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Aug-12, Wed,22:42	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2020-Aug-15, Sat,15:11	Clear	Angle	P.D. only	Dry	South	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Aug-20, Thu,10:18	Clear	Angle	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2020-Aug-21, Fri,18:36	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Municipal transit bus	Other motor vehicle	0
					West	Turning right	Pick-up truck	Other motor vehicle	
2020-Aug-31, Mon,08:06	Clear	Rear end	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Nov-08, Sun,17:51	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2020-Nov-10, Tue,13:10	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Nov-25, Wed,11:15	Snow	Rear end	P.D. only	Loose snow	East	Turning left	Pick-up truck	Other motor vehicle	0
					East	Turning left	Pick-up truck	Other motor vehicle	
2020-Nov-26, Thu,13:00	Clear	Sideswipe	P.D. only	Wet	South	Changing lanes	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Nov-26, Thu,15:37	Rain	Rear end	P.D. only	Wet	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2020-Nov-26, Thu,20:37	Fog, mist, smoke, dust	SMV other	Non-fatal injury	Wet	East	Turning right	Passenger van	Pedestrian	1

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ CLYDE AVE

Traffic Control: Traffic signal **Total Collisions:** 128

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Dec-07, Mon,17:55	Clear	Other	P.D. only	Dry	East	Reversing	Delivery van	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	

Location: BASELINE RD @ LOBLAWS SC

Traffic Control: Traffic signal **Total Collisions:** 17

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-12, Tue,06:45	Clear	Turning movement	P.D. only	Dry	West	Turning left	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Oct-06, Thu,18:17	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	
2017-Mar-09, Thu,14:51	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Mar-26, Sun,14:50	Clear	Rear end	Non-fatal injury	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Apr-15, Sat,15:14	Rain	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jan-20, Sat,12:15	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-May-01, Tue,17:50	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jun-29, Fri,14:10	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Bicycle	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Cyclist	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ LOBLAWS SC

Traffic Control: Traffic signal **Total Collisions:** 17

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Sep-14, Fri,15:28	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Unknown	Other motor vehicle	
2018-Nov-19, Mon,15:40	Clear	Turning movement	P.D. only	Wet	East	Turning left	Truck - closed	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jan-13, Sun,20:00	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jul-05, Fri,16:48	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-07, Sat,11:49	Clear	Turning movement	P.D. only	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-14, Sat,11:10	Rain	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-24, Tue,11:59	Clear	Rear end	Non-fatal injury	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-06, Mon,12:30	Snow	Turning movement	P.D. only	Slush	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jul-19, Sun,11:29	Clear	Turning movement	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: CLYDE AVE btwn MAITLAND AVE & BASELINE RD – Private Access (East Side of Clyde Ave)

Traffic Control: No control **Total Collisions:** 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Nov-26, Tue,19:05	Clear	Angle	P.D. only	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-04, Mon,16:41	Clear	Rear end	P.D. only	Ice	West	Slowing or stopping	Passenger van	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2016-Feb-13, Sat,16:52	Strong wind	Rear end	P.D. only	Ice	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Feb-17, Wed,16:49	Snow	Rear end	P.D. only	Packed snow	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2016-Mar-06, Sun,09:14	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2016-Mar-08, Tue,16:25	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Apr-01, Fri,18:17	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Turning right	Pick-up truck	Other motor vehicle	
2016-Apr-20, Wed,16:41	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Apr-21, Thu,13:00	Clear	Rear end	Non-fatal injury	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					North	Slowing or stopping	Pick-up truck	Other motor vehicle	
2016-Jul-09, Sat,10:06	Rain	Rear end	P.D. only	Wet	South	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Slowing or stopping	Passenger van	Other motor vehicle	
2016-Jul-22, Fri,16:39	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jul-27, Wed,16:55	Clear	Rear end	P.D. only	Dry	West	Going ahead	Unknown	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Aug-05, Fri,11:36	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	
2016-Sep-07, Wed,10:03	Rain	Other	P.D. only	Wet	South	Reversing	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2016-Sep-19, Mon,13:43	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Oct-26, Wed,09:16	Clear	Angle	P.D. only	Dry	North	Going ahead	Passenger van	Other motor vehicle	0
					East	Going ahead	Delivery van	Other motor vehicle	
2016-Nov-10, Thu,20:50	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Dec-02, Fri,14:58	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Dec-09, Fri,09:35	Clear	Rear end	P.D. only	Ice	South	Slowing or stopping	Delivery van	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Dec-13, Tue,23:19	Clear	Turning movement	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Jan-04, Wed,17:00	Freezing Rain	Rear end	P.D. only	Ice	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Feb-06, Mon,11:19	Clear	Rear end	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Feb-09, Thu,12:12	Clear	Rear end	P.D. only	Dry	West	Going ahead	Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Feb-12, Sun,12:49	Snow	Rear end	P.D. only	Loose snow	East	Slowing or stopping	Automobile, station wagon	Skidding/sliding	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2017-Mar-09, Thu,17:30	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Apr-19, Wed,11:13	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-May-02, Tue,17:38	Clear	Rear end	P.D. only	Dry	West	Going ahead	Passenger van	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2017-May-13, Sat,13:54	Rain	Rear end	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2017-May-25, Thu,18:30	Rain	Rear end	Non-fatal injury	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Unknown	Other motor vehicle	
2017-Jun-07, Wed,09:11	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2017-Jun-11, Sun,15:00	Clear	Sideswipe	P.D. only	Dry	South	Turning left	Passenger van	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Jun-19, Mon,16:30	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jun-29, Thu,18:09	Rain	Rear end	P.D. only	Wet	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jul-23, Sun,13:07	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jul-29, Sat,12:00	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-09, Sat,17:57	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Passenger van	Other motor vehicle	
2017-Sep-18, Mon,16:30	Clear	Rear end	P.D. only	Dry	East	Turning left	Unknown	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Sep-22, Fri,12:34	Clear	Turning movement	P.D. only	Dry	North	Turning left	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-25, Mon,10:00	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					South	Stopped	Passenger van	Other motor vehicle	
2017-Sep-29, Fri,14:21	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Truck - tractor	Other motor vehicle	
2017-Oct-06, Fri,19:49	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Oct-11, Wed,12:17	Clear	SMV other	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Curb	0
2017-Oct-24, Tue,08:43	Rain	Rear end	P.D. only	Wet	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Oct-25, Wed,21:33	Clear	Rear end	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Oct-28, Sat,15:47	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Unknown	Other motor vehicle	0
					West	Stopped	Unknown	Other motor vehicle	
2017-Nov-22, Wed,17:37	Clear	Rear end	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Nov-24, Fri,07:27	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Dec-01, Fri,16:57	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Dec-12, Tue,13:00	Snow	Rear end	Non-fatal injury	Slush	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2017-Dec-13, Wed,18:26	Snow	Sideswipe	P.D. only	Slush	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Pick-up truck	Other motor vehicle	
2017-Dec-30, Sat,23:43	Drifting Snow	Rear end	Non-fatal injury	Ice	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jan-16, Tue,08:12	Snow	Rear end	P.D. only	Slush	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Slowing or stopping	Delivery van	Other motor vehicle	
2018-Mar-06, Tue,17:45	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Mar-29, Thu,15:05	Rain	Rear end	Non-fatal injury	Wet	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-May-12, Sat,12:30	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-May-30, Wed,11:09	Clear	Sideswipe	Non-fatal injury	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Jul-17, Tue,16:53	Clear	Turning movement	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Aug-14, Tue,23:36	Clear	SMV other	P.D. only	Dry	West	Unknown	Passenger van	Curb	0

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Aug-18, Sat,05:38	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Aug-26, Sun,20:07	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Sep-10, Mon,17:24	Rain	Rear end	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Passenger van	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Sep-19, Wed,18:58	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Oct-25, Thu,16:20	Clear	Sideswipe	P.D. only	Dry	North	Turning right	Unknown	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Nov-13, Tue,08:07	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2018-Nov-22, Thu,15:56	Clear	Rear end	Non-fatal injury	Dry	South	Turning left	Delivery van	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Turning left	Passenger van	Other motor vehicle	
2018-Dec-11, Tue,09:43	Snow	Rear end	P.D. only	Loose snow	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2018-Dec-14, Fri,16:40	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Dec-21, Fri,18:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Jan-03, Thu,07:00	Clear	Sideswipe	P.D. only	Slush	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Feb-11, Mon,15:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-15, Fri,13:25	Clear	Angle	P.D. only	Wet	North	Going ahead	Unknown	Other motor vehicle	0
					West	Going ahead	Passenger van	Other motor vehicle	
2019-Apr-05, Fri,17:44	Clear	Rear end	P.D. only	Dry	South	Turning right	Unknown	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2019-Apr-07, Sun,10:17	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Apr-26, Fri,17:45	Clear	Rear end	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-06, Thu,17:55	Clear	Sideswipe	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jul-04, Thu,12:00	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jul-11, Thu,17:30	Rain	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2019-Jul-13, Sat,15:30	Clear	Rear end	P.D. only	Dry	East	Going ahead	Passenger van	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jul-23, Tue,18:00	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Aug-15, Thu,13:14	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Aug-29, Thu,13:30	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2019-Oct-10, Thu,14:44	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-15, Tue,20:24	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Unknown	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Nov-01, Fri,16:45	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Nov-18, Mon,10:28	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Dec-19, Thu,08:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2019-Dec-30, Mon,10:55	Freezing Rain	SMV other	P.D. only	Ice	East	Slowing or stopping	Automobile, station wagon	Pole (utility, power)	0
2020-Jan-01, Wed,16:00	Snow	Rear end	P.D. only	Loose snow	North	Turning right	Unknown	Other motor vehicle	0
					North	Turning right	Delivery van	Other motor vehicle	
2020-Jan-16, Thu,19:17	Drifting Snow	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Jan-17, Fri,08:30	Clear	Rear end	P.D. only	Ice	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2020-Jan-18, Sat,16:15	Snow	Rear end	P.D. only	Slush	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Feb-07, Fri,08:35	Snow	Rear end	P.D. only	Loose snow	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2020-Feb-07, Fri,21:00	Snow	Rear end	P.D. only	Packed snow	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Feb-21, Fri,15:23	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Feb-27, Thu,13:49	Snow	Rear end	P.D. only	Slush	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Feb-29, Sat,16:03	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Mar-19, Thu,14:36	Clear	Angle	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Aug-07, Fri,15:31	Clear	Angle	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Aug-13, Thu,06:30	Clear	Sideswipe	P.D. only	Dry	West	Unknown	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2020-Aug-24, Mon,07:34	Clear	SMV other	Non-fatal injury	Wet	East	Slowing or stopping	Motorcycle	Skidding/sliding	0
2020-Oct-02, Fri,18:30	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Pick-up truck	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
2020-Oct-04, Sun,18:40	Clear	Angle	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Pick-up truck	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2016 **To:** December 31, 2020

Location: BASELINE RD @ MERIVALE RD

Traffic Control: Traffic signal **Total Collisions:** 107

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Oct-06, Tue,17:41	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2020-Oct-14, Wed,20:19	Rain	Rear end	P.D. only	Wet	North	Turning right	Unknown	Other motor vehicle	0
					North	Turning right	Pick-up truck	Other motor vehicle	
2020-Oct-28, Wed,18:32	Clear	Angle	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Pick-up truck	Other motor vehicle	
2020-Nov-20, Fri,00:43	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Pick-up truck	Other motor vehicle	
2020-Nov-22, Sun,19:15	Snow	Turning movement	P.D. only	Loose snow	North	Going ahead	Passenger van	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2020-Nov-23, Mon,08:55	Snow	Sideswipe	P.D. only	Ice	East	Going ahead	Truck and trailer	Other motor vehicle	0
					East	Turning left	Pick-up truck	Other motor vehicle	

Appendix B CORRESPONDANCE

Wong, Patrick

To: Gervais, Josiane
Subject: RE: Forecasting Report - 1345 Baseline - TPM Comments

---

From: Gervais, Josiane <josiane.gervais@ottawa.ca>
Sent: Wednesday, June 22, 2022 11:47 AM
To: Wong, Patrick <Patrick.Wong@stantec.com>
Cc: Sentongo, Constance <Constance.Sentongo@stantec.com>; Renon, Angelo <Angelo.Renon@stantec.com>; Clodd, Aaron <Aaron.Clodd@colliers.com>
Subject: Forecasting Report - 1345 Baseline - TPM Comments

Hello Patrick,

Please find comments below regarding the Forecasting Report for 1345 Baseline.

Transportation Engineering Services

- At the time of Site Plan application, the proposed transportation designs for the ROW in the future should be coordinated with the Baseline BRT detailed design.

Traffic Signal Operations

- Road Network Modifications: The Merivale Road bus lanes have been abandoned.
- Collision History: As part of the Strategy report, provide rational and possible mitigators for the overabundance of rear end collisions.
- Trip Distribution:
    - The Trip Distribution table does not match the diagram.
    - Text states: “red values represent outbound trips, and the black values represent the inbound trips” but it appears to be the opposite. Please confirm.
- Demand Rationalization:
    - What methods will be used to cap capacity at 1,900 vph? There are concerns with queuing and intersection blockages along the corridor.
    - A 17% reduction in peak hour traffic through peak spreading and telecommuting may be unattainable. If peak spreading and telecommuting continue to occur then off-peak analysis may be necessary. Alternatively, a sensitivity analysis may be undertaken and/or provide potential mitigation measure(s).
- Future Volumes: Many figure references produce errors in text. Please fix.

Development Review – Transportation

- Verify trips forecasted within Table 9. Conversion errors are present between Peak Period and Peak Hour trips. See attached TRANS Trip Calculator worksheet to assist in forecast volume generation. Ensure updated volumes are corrected throughout the following steps of the analysis.
- Correct error in trip distributions in Figure 9, the PM Peak Hour wb-th movement at Loblaws access should be 30 vehicles, not 15.
- As indicated to Stantec via email (to: Lauren O’Grady, March 15 2022), the timeline for the BRT project is not confirmed. The 2027 horizon year is to be assumed for the purposes of this study only. This should be made clear in Section 3.2.1.
- Correct errors for the wb-th at Private Access #4 in Figures 12, 14 & 15.

- The forecast traffic volumes (non-rationalized) are to be assessed in Step 4 of the TIA report. A sensitivity analysis should be undertaken, as required.
- Please note that I strongly encourage the submission of the draft Strategy report for staff review and comment prior to submission of the application. If you choose to omit this step, all documents required for Step 5 (TIA report, drawings, and/or monitoring plan, as required), need to be included to deem an application complete. All costs and delays resulting from the choice to omit Step 4 for staff review before proceeding to Step 5 are the responsibility of the applicant.

If the above comments can be incorporated within the next submission, please proceed to Step 4: Strategy. Please submit an electronic copy of the Strategy Report and digital files of ICA outputs for circulation.

Regards,

Josiane Gervais, P.Eng.
Project Manager, Infrastructure Approvals | GPRJ Approbation des demandes d'infrastructure
Development Review Branch | Dir Examen des projets d'aménagement
City of Ottawa | Ville d'Ottawa
Tel |Tél. : 613-580- 2424 ext. | poste 21765
web | Site Web : www.ottawa.ca

Please note that I am currently working from home. E-mail is the preferred method to communicate with me. Thank you for your patience and understanding.
Veuillez noter que je travaille de la maison en ce moment. Veuillez communiquer avec moi par courriel. Merci de votre patience et compréhension.

From: Wong, Patrick <Patrick.Wong@stantec.com>
Sent: June 01, 2022 12:02 PM
To: Gervais, Josiane <josiane.gervais@ottawa.ca>
Cc: Sentongo, Constance <Constance.Sentongo@stantec.com>; Renon, Angelo <Angelo.Renon@stantec.com>; Clodd, Aaron <Aaron.Clodd@colliers.com>
Subject: RE: Scoping Report - 1345 Baseline - TPM Comments

Hi Josiane,

Please find attached the Step 3 Forecasting report for 1345 Baseline for your review and approval.

Should you have any questions or concerns, please let us know.

Regards,

Patrick Wong, P.Eng., PTOE
Associate, Transportation Engineer
Direct: 780-917-7488
Patrick.Wong@stantec.com

Stantec
400-10220 103 Avenue NW
Edmonton AB T5J 0K4

From: Gervais, Josiane <josiane.gervais@ottawa.ca>
Sent: Friday, April 1, 2022 9:46 AM
To: O'Grady, Lauren <Lauren.OGrady@stantec.com>
Subject: Scoping Report - 1345 Baseline - TPM Comments

Hi Lauren,

Please find comments below regarding the Scoping report for 1345 Baseline.

- Screening Form, Safety Trigger: Proposed access on Baseline is within 150 of existing traffic signal.
- Element 2.1.2 - Existing Conditions, Provide additional details on existing driveways, indicating the land use associated with the driveways.
- Please see attached plan for BRT design, note that the Baseline BRT design **is still subject to change**.
- Note a development application at 130 Central Park was recently approved.
- Include Baseline and Merivale within the study area intersections, as the intersection is within the 1km radius from the site.

An update to the *TRANS Trip Generation Manual* has been completed (October 2020). This manual is to be utilized for this TIA. A copy of this document can be provided upon request.

Please address the above comments within the next submission and proceed to Step 3: Forecasting.
If you have any questions, please do not hesitate to contact me via e-mail.

Regards,

Josiane Gervais, P.Eng.
Project Manager, Infrastructure Approvals | GPRJ Approbation des demandes d'infrastructure
Development Review Branch | Dir Examen des projets d'aménagement
City of Ottawa | Ville d'Ottawa
Tel |Tél. : 613-580- 2424 ext. | poste 21765
web | Site Web : www.ottawa.ca

Please note that I am currently working from home. E-mail is the preferred method to communicate with me. Thank you for your patience and understanding.
Veuillez noter que je travaille de la maison en ce moment. Veuillez communiquer avec moi par courriel. Merci de votre patience et compréhension.

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Appendix C MONITORING PLAN

APPENDIX C: MONITORING PLAN

I. INTRODUCTION

A Transportation Impact Assessment has been prepared to support a development application at 1345 Baseline Road in the City of Ottawa. The site is located at the northeast quadrant of the Baseline Road at Clyde Avenue intersection. The proposed site includes 1014 apartment units, and approximately 8,971 ft^2 of retail space.

In the Demand Rationalization section, some potential ways in which motorists could change their behaviors, which would in turn help to reduce traffic volumes on Baseline Road during peak hours in order to keep the capacity of Baseline Road in the range of 1,600 – 1,900 once the BRT is operational.

As such, the subject Monitoring Plan addresses the following two items:

- Monitoring of future traffic volumes; and
- Monitoring of future intersection operations.

II. MONITORING PROGRAM

II.1 MONITORING OF FUTURE TRAFFIC VOLUMES

II.1.1 Rationale

The suggested 25% reduction in traffic volumes was based on the following three potential ways:

1) Reduction in Auto Modal Share with the Completion of the Baseline BRT Project (10%);
2) Peak Spreading (10%); and
3) Telecommuting (5%)

It is recommended to monitor the future traffic volumes at the intersections of Baseline Road at Clyde Avenue and Baseline Road at Merivale Road once the BRT is implemented and fully operational.

II.1.2 Monitoring Activities

Traffic volumes will be collected at both subject intersections once the BRT is fully operational. This will determine whether or not the volumes have decreased as a result of the BRT. It is recommended to wait a period of time (i.e. several months) after the BRT opens to conduct these traffic counts as it may take some time for traffic patterns to adjust to the new facility.

It is recommended to collect traffic counts at both intersections (Baseline Road at Clyde Avenue and Baseline Road at Merivale Road) over the course of two days to account for any potential fluctuations in traffic. In addition, it is recommended to conduct these traffic counts between Tuesday and Thursday to avoid potential traffic fluctuations that may occur on Mondays or Fridays. It is also recommended to ensure the BRT is operating at full capacity during the count collection days.

These counts should be collected over the span of 8 hours (7AM – 10AM, 11:30AM – 1:30PM, and 3PM – 6PM), which corresponds to typical City of Ottawa turning movement counts.

II.1.3 Evaluation

This part of the monitoring plan will feed into evaluating the future intersection operations. As such, there's no specific evaluation as part of the collection of future traffic volumes.

II.1.4 Outcome

A memo will be prepared documenting the future traffic volumes at the intersection of Baseline Road at Clyde Avenue and Baseline Road at Merivale Road once the Baseline Road Bus Rapid Transit is fully operational.

II.2 MONITORING OF FUTURE INTERSECTION OPERATIONS

II.2.1 Rationale

As the Baseline Road BRT will alter the traffic volumes and traffic patterns in the vicinity of the subject site, it is recommended to analyze the future intersection operations once the BRT is implemented. The intersection operations will include metrics such as volume to capacity ratios (v/c), delay, and 95th percentile queues.

The intersections of particular interest include the following:

- Baseline Road at Clyde Avenue; and
- Baseline Road at Merivale Road.

Table 1 outlines the existing intersection operations at the above noted intersections.

Table 1 - 2019 Existing Intersection Operations

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Delay (s)	Queue 95th (m)
Baseline Road at Clyde Avenue	Traffic Signals	EB	Left	F (F)	1.24 (1.14)	201.6 (166.5)	#97.1 (#88.5)
			Through	F (F)	1.01 (1.05)	66.0 (86.9)	#208 (#164.2)
			Right	A (A)	-	5.1 (5.1)	12.6 (40.5)
		WB	Left	E (F)	0.79 (0.86)	71.8 (87.8)	26.2 (#63.1)
			Through	D (F)	0.55 (1.42)	35.6 (239.5)	70.6 (#246.3)
			Right	C (C)	-	22.6 (22.6)	90.9 (#188.3)
		NB	Left	E (E)	0.66 (0.91)	61.3 (76.8)	18.4 (#63.3)
			Through / Right	F (F)	1.05 (1.07)	99 (104.2)	#162.9 (#168.1)
		SB	Left	F (F)	1.20 (1.01)	171.9 (101.3)	#98 (#116.9)
			Through / Right	D (E)	0.55 (0.86)	35.1 (56.1)	77.4 (#118.8)
Baseline at Merivale	Traffic Signals	EB	Left	F (F)	0.89 (1.22)	81.3 (197.2)	#81.1 (#120.5)
			Through	D (E)	0.93 (0.98)	51.5 (70.3)	#167.7 (#178.3)
			Right	-	-	-	m0.0 (0.0)
		WB	Left	E (F)	0.83(1.00)	68.7 (120.4)	47.7 (#108.3)
			Through	E (F)	0.93 (1.13)	55.9 (117.2)	#137.7 (#236.4)
			Right	-	-	-	46.8 (49.5)
		NB	Through	D (D)	0.40 (0.58)	39.4 (47.8)	44.3 (76.1)
			Right	D (D)	0.53 (0.61)	44.6 (52.5)	16.6 (18.8)
		SB	Left	F (F)	0.97 (1.14)	96.4 (156.3)	#59.8 (#83.5)
			Through	C (C)	0.22 (0.36)	24.5 (29.9)	31.4 (58.2)
			Right	-	-	-	16.1 (37.3)

Notes:
1. Table format: AM (PM)
2. v/c – represents the anticipated volume divided by the predicted capacity
3. * Estimated using Synchro's Percentile Method
4. # for v/c <1, queue requires multiple cycles to be cleared

The Baseline Road BRT will increase the transit capacity along Baseline Road, thus likely reducing the number of vehicles.

II.2.2 Monitoring Activities

Traffic volumes will be collected at both subject intersections once the BRT is fully operational. This will determine whether or not the volumes have decreased as a result of the BRT. It is recommended to wait a period of time (i.e. several months) after the BRT opens to conduct these traffic counts as it may take some time for traffic patterns to adjust to the new facility.

It is recommended to collect traffic counts at both intersections over the course of two days to account for any potential fluctuations in traffic. It is recommended to conduct these traffic counts between Tuesday and Thursday to avoid potential traffic fluctuations that may occur on Mondays or Fridays. It is also recommended to ensure the BRT is operating at full capacity during the count collection days.

These counts should be collected over the span of 8 hours (7AM – 10AM, 11:30AM – 1:30PM, and 3PM – 6PM), which corresponds to typical City of Ottawa turning movement counts.

II.2.3 Evaluation

The future traffic volumes will be used to assess both subject intersections using Synchro software during

the AM and PM weekday peak hours. The following metrics will be applied:

- Volume to capacity ratios (v/c);
- Delays; and
- 95th percentile queues.

II.2.4 Outcome

A memo will be prepared documenting the results of the future intersection analysis at the intersections of Merivale Road and Clyde Avenue with Baseline Road.

Appendix D MULTI-MODAL LEVEL OF SERVICE ASSESSMENTS

Multi-Modal Level of Service - Segments Form

Consultant	**STANTEC**	**Project**	**1345 Baseline Road**
Scenario	**2022 Existing**	**Date**	**2022/06//20**
Comments			

SEGMENTS		LOS	Baseline Road Across Frontage		
Pedestrian	Sidewalk Width Boulevard Width	**F**	1.8 m < 0.5 m		
	Avg Daily Curb Lane Traffic Volume		> 3000		
	Operating Speed On-Street Parking		> 60 km/h no		
	Exposure to Traffic PLoS		**F**	-	-
	Level of Service		**F**	-	-
Bicycle	Type of Cycling Facility	**D**	Curbside Bike Lane		
	Number of Travel Lanes		≥ 3 each direction		
	Operating Speed		>50 to 70 km/h		
	# of Lanes & Operating Speed LoS		**D**	-	-
	Bike Lane (+ Parking Lane) Width		≥1.5 to <1.8 m		
	Bike Lane Width LoS		**B**	-	-
	Bike Lane Blockages		Rare		
	Blockage LoS		**A**	-	-
	Level of Service		**D**	-	-
Transit	Facility Type	**B**	Bus lane		
	Friction or Ratio Transit:Posted Speed		Cf ≤ 60		
	Level of Service		**B**	-	-
Truck	Truck Lane Width	**A**	≤ 3.5 m		
	Travel Lanes per Direction		> 1		
	Level of Service		**A**	-	-

Multi-Modal Level of Service - Intersections Form

Consultant	**STANTEC**	**Project**	**1345 Baseline Road**
Scenario	**2022 Existing**	**Date**	**2022/06//20**
Comments			

INTERSECTIONS		Baseline & Clyde				Baseline & Private Access 1				Baseline & Loblaws				Baseline & Merivale			
Crossing Side		NORTH	SOUTH	EAST	WEST	NORTH		EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Pedestrian	Lanes	7	7	8	8	4		4	6	3	4	6	6	7	5	7	6
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
	Conflicting Left Turns	Protected	Protected	Protected	Protected	Protected/ Permissive		Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	Protected	No left turn / Prohib.	Protected	Protected
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control		No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed		RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed
	Ped Signal Leading Interval?	No	No	No	No	No		No	No	No	No	No	No	No	No	No	No
	Right Turn Channel	Conv'tl without Receiving Lane	No Channel	Conv'tl without Receiving Lane	Smart Channel	No Channel		No Channel	No Channel	No Channel	Conv'tl without Receiving Lane	No Channel	Conv'tl without Receiving Lane	Conventional with Receiving Lane	No Channel	Conv'tl without Receiving Lane	No Channel
	Corner Radius	10-15m	10-15m	15-25m	15-25m	10-15m		10-15m	10-15m	10-15m	10-15m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings		Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
	PETSI Score	**16**	**12**	**-2**	**0**	**53**		**58**	**28**	**70**	**57**	**18**	**22**	**11**	**43**	**14**	**26**
	Ped. Exposure to Traffic LoS	**F**	**F**	**F**	**F**	**D**	-	**D**	**F**	**C**	**D**	**F**	**F**	**F**	**E**	**F**	**F**
	Cycle Length	120	120	120	120	120		120	120	120	120	120	120	120	120	120	120
	Effective Walk Time	7	7	7	7	7		7	7	7	7	7	7	7	7	7	7
	Average Pedestrian Delay	**53**	**53**	**53**	**53**	**53**		**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**
	Pedestrian Delay LoS	**E**	**E**	**E**	**E**	**E**	-	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**
	Level of Service	**F**	**F**	**F**	**F**	**E**	-	**E**	**F**	**E**	**E**	**F**	**F**	**F**	**E**	**F**	**F**
		F				**F**				**F**				**F**			
Approach From		NORTH	SOUTH	EAST	WEST	NORTH	0	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Pocket Bike Lane	Pocket Bike Lane
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>			> 50 m Introduced right turn lane	≤ 50 m Introduced right turn lane	≤ 50 m		Not Applicable						> 50 m Introduced right turn lane	> 50 m Introduced right turn lane	> 50 m Introduced right turn lane	> 50 m Introduced right turn lane
	Dedicated Right Turning Speed			≤ 25 km/h	≤ 25 km/h	≤ 25 km/h		Not Applicable						≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h
	Cyclist Through Movement			**D**	**B**	**D**	-	**Not Applicable**						**D**	**D**	**D**	**D**
	Separated or Mixed Traffic	**Mixed Traffic**	**Mixed Traffic**	**Separated**	**Separated**	**Mixed Traffic**	-	**Separated**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Separated**	**Separated**	**Separated**	**Separated**
	Left Turn Approach	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	No lane crossed			One lane crossed	One lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed
	Operating Speed	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h			≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h
	Left Turning Cyclist	**F**	**F**	**F**	**F**	**C**	-	-	**F**	**F**	**C**	**F**	**F**	**F**	**F**	**F**	**F**
	Level of Service	**F**	**F**	**F**	**F**	**D**	-	-	**F**	**F**	**C**	**F**	**F**	**F**	**F**	**F**	**F**
		F				**F**				**F**				**F**			
Transit	Average Signal Delay	> 40 sec	> 40 sec	> 40 sec	≤ 40 sec	0 sec		≤ 30 sec	≤ 40 sec	≤ 30 sec	≤ 40 sec	≤ 20 sec	≤ 20 sec	≤ 30 sec	≤ 40 sec	≤ 10 sec	≤ 10 sec
	Level of Service	**F**	**F**	**F**	**E**	**A**	-	**D**	**E**	**D**	**E**	**C**	**C**	**D**	**E**	**B**	**B**
		F				**E**				**E**				**E**			
Truck	Effective Corner Radius	10 - 15 m	10 - 15 m	> 15 m	> 15 m	10 - 15 m		10 - 15 m		10 - 15 m	10 - 15 m	> 15 m	> 15 m	10 - 15 m	10 - 15 m	> 15 m	10 - 15 m
	Number of Receiving Lanes on Departure from Intersection	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2		≥ 2		≥ 2	≥ 2	1	1	≥ 2	≥ 2	≥ 2	≥ 2
	Level of Service	**B**	**B**	**A**	**A**	**B**	-	**B**	-	**B**	**B**	**C**	**C**	**B**	**B**	**A**	**B**
		B				**B**				**C**				**B**			
Auto	Volume to Capacity Ratio	> 1.00				0.91 - 1.00				0.81 - 0.90				> 1.00			
	Level of Service	**F**				**E**				**D**				**F**			

Multi-Modal Level of Service - Segments Form

Consultant	**STANTEC**	**Project**	**1345 Baseline Road**
Scenario	**2029 Horizon**	**Date**	**2022/06//20**
Comments			

SEGMENTS		LOS	Baseline Road Across Frontage		
Pedestrian	Sidewalk Width Boulevard Width	**C**	≥ 2 m > 2 m		
	Avg Daily Curb Lane Traffic Volume		> 3000		
	Operating Speed On-Street Parking		> 50 to 60 km/h no		
	Exposure to Traffic PLoS		**C**	-	-
	Level of Service		**C**	-	-
Bicycle	Type of Cycling Facility	**A**	Physically Separated		
	Number of Travel Lanes		~~≥ 3 each direction~~		
	Operating Speed		~~>50 to 70 km/h~~		
	# of Lanes & Operating Speed LoS		**~~A~~**	-	-
	Bike Lane (+ Parking Lane) Width		~~≥1.5 to <1.8 m~~		
	Bike Lane Width LoS		**~~B~~**	-	-
	Bike Lane Blockages		~~Rare~~		
	Blockage LoS		**~~A~~**	-	-
	Level of Service		**A**	-	-
Transit	Facility Type	**A**	Segregated ROW		
	Friction or Ratio Transit:Posted Speed		~~Cf ≤ 60~~		
	Level of Service		**A**	-	-
Truck	Truck Lane Width	**A**	≤ 3.5 m		
	Travel Lanes per Direction		> 1		
	Level of Service		**A**	-	-
Auto	**Level of Service**	**Not Applicable**			

Multi-Modal Level of Service - Intersections Form

Consultant	**STANTEC**	**Project**	**1345 Baseline Road**
Scenario	**2029 Horizon**	**Date**	**2022/06//20**
Comments			

INTERSECTIONS		Baseline & Clyde				Baseline & Private Access 1				Baseline & Loblaws				Baseline & Merivale			
Crossing Side		NORTH	SOUTH	EAST	WEST	NORTH		EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Pedestrian	Lanes	7	7	8	8	4		4	6	3	4	6	6	7	5	7	6
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m
	Conflicting Left Turns	Protected	Protected	Protected	Protected	Protected/ Permissive		Permissive	No left turn / Prohib.	Permissive	Permissive	Permissive	Permissive	Protected	No left turn / Prohib.	Protected	Protected
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control		No right turn	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited		RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited	RTOR prohibited
	Ped Signal Leading Interval?	No	No	No	No	No		No	No	No	No	No	No	No	No	No	No
	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel		No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel
	Corner Radius	10-15m	10-15m	15-25m	15-25m	10-15m		10-15m	10-15m	10-15m	10-15m	15-25m	15-25m	15-25m	15-25m	15-25m	15-25m
	Crosswalk Type	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings		Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings	Std transverse markings
	PETSI Score	**15**	**15**	**-3**	**-3**	**56**		**61**	**31**	**73**	**56**	**21**	**21**	**13**	**46**	**13**	**29**
	Ped. Exposure to Traffic LoS	**F**	**F**	**F**	**F**	**D**	-	**C**	**E**	**C**	**D**	**F**	**F**	**F**	**D**	**F**	**F**
	Cycle Length	120	120	120	120	120		120	120	120	120	120	120	120	120	120	120
	Effective Walk Time	7	7	7	7	7		7	7	7	7	7	7	7	7	7	7
	Average Pedestrian Delay	**53**	**53**	**53**	**53**	**53**		**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**	**53**
	Pedestrian Delay LoS	**E**	**E**	**E**	**E**	**E**	-	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**
	Level of Service	**F**	**F**	**F**	**F**	**E**	-	**E**	**E**	**E**	**E**	**F**	**F**	**F**	**E**	**F**	**F**
		F				**E**				**F**				**F**			
Approach From		NORTH	SOUTH	EAST	WEST	NORTH	0	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Bicycle	Bicycle Lane Arrangement on Approach	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Curb Bike Lane, Cycletrack or MUP	Mixed Traffic		Curb Bike Lane, Cycletrack or MUP	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Pocket Bike Lane	Pocket Bike Lane
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>	Not Applicable	Not Applicable	Not Applicable	Not Applicable	≤ 50 m		Not Applicable						> 50 m Introduced right turn lane	> 50 m Introduced right turn lane	> 50 m Introduced right turn lane	> 50 m Introduced right turn lane
	Dedicated Right Turning Speed			≤ 25 km/h	≤ 25 km/h	≤ 25 km/h		Not Applicable						≤ 25 km/h	≤ 25 km/h	≤ 25 km/h	≤ 25 km/h
	Cyclist Through Movement	**Not Applicable**	**Not Applicable**	**Not Applicable**	**Not Applicable**	**D**	-	**Not Applicable**						**D**	**D**	**D**	**D**
	Separated or Mixed Traffic	**Separated**	**Separated**	**Separated**	**Separated**	**Mixed Traffic**	-	**Separated**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Separated**	**Separated**	**Separated**	**Separated**
	Left Turn Approach									One lane crossed	No lane crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed	≥ 2 lanes crossed
	Operating Speed					≥ 60 km/h			≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h	≥ 60 km/h
	Left Turning Cyclist	-	-	-	-	-	-	-	-	**F**	**C**	**F**	**F**	**F**	**F**	**F**	**F**
	Level of Service	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**F**	**C**	**F**	**F**	**F**	**F**	**F**	**F**
		-				**-**				**F**				**F**			
Transit	Average Signal Delay	> 40 sec	> 40 sec	> 40 sec	≤ 40 sec	0 sec		≤ 30 sec	≤ 40 sec	≤ 30 sec	≤ 40 sec	≤ 20 sec	≤ 20 sec	≤ 20 sec	≤ 30 sec	≤ 10 sec	≤ 10 sec
	Level of Service	**F**	**F**	**F**	**E**	**A**	-	**D**	**E**	**D**	**E**	**C**	**C**	**C**	**D**	**B**	**B**
		F				**E**				**E**				**D**			
Truck	Effective Corner Radius	10 - 15 m	10 - 15 m	> 15 m	> 15 m	10 - 15 m		10 - 15 m		10 - 15 m	10 - 15 m	> 15 m	> 15 m	< 10 m	< 10 m	10 - 15 m	10 - 15 m
	Number of Receiving Lanes on Departure from Intersection	≥ 2	≥ 2	≥ 2	≥ 2	≥ 2		≥ 2		≥ 2	≥ 2	1	1	≥ 2	≥ 2	≥ 2	≥ 2
	Level of Service	**B**	**B**	**A**	**A**	**B**	-	**B**	-	**B**	**B**	**C**	**C**	**D**	**D**	**B**	**B**
		B				**B**				**C**				**D**			
Auto	Volume to Capacity Ratio	> 1.00				0.91 - 1.00				0.81 - 0.90				> 1.00			
	Level of Service	**F**				**E**				**D**				**F**			

Appendix E TRANSPORTATION DEMAND MANAGEMENT

TDM-Supportive Development Design and Infrastructure Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	☑
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☑
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☑
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☑
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	☑

	TDM-supportive design & infrastructure measures: *Non-residential developments*		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	☑
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☐
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☐
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☐

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	☑
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	☑
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	☐
BETTER	2.1.5	Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	☐
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☑
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	☐
	2.3	**Shower & change facilities**	
BASIC	2.3.1	Provide shower and change facilities for the use of active commuters	☐
BETTER	2.3.2	In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	☐
	2.4	**Bicycle repair station**	
BETTER	2.4.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐

	TDM-supportive design & infrastructure measures: *Non-residential developments*		Check if completed & add descriptions, explanations or plan/drawing references
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☑
	4.2	**Carpool parking**	
BASIC	4.2.1	Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	☐
BETTER	4.2.2	At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces *(see Zoning By-law Section 94)*	☐
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☑
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☐
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa)	☐
	7.	**OTHER**	
	7.1	**On-site amenities to minimize off-site trips**	
BETTER	7.1.1	Provide on-site amenities to minimize mid-day or mid-commute errands	☐

TDM Measures Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

★ — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		1. TDM PROGRAM MANAGEMENT	
		1.1 Program coordinator	
BASIC	★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☐
		1.2 Travel surveys	
BETTER		1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
		2. WALKING AND CYCLING	
		2.1 Information on walking/cycling routes & destinations	
BASIC		2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances	☐
		2.2 Bicycle skills training	
		Commuter travel	
BETTER	★	2.2.1 Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
		2.3 Valet bike parking	
		Visitor travel	
BETTER		2.3.1 Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		3. TRANSIT	
		3.1 Transit information	
BASIC	3.1.1	Display relevant transit schedules and route maps at entrances	☐
BASIC	3.1.2	Provide online links to OC Transpo and STO information	☐
BETTER	3.1.3	Provide real-time arrival information display at entrances	☐
		3.2 Transit fare incentives	
		Commuter travel	
BETTER	3.2.1	Offer preloaded PRESTO cards to encourage commuters to use transit	☐
BETTER ★	3.2.2	Subsidize or reimburse monthly transit pass purchases by employees	☐
		Visitor travel	
BETTER	3.2.3	Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	☐
		3.3 Enhanced public transit service	
		Commuter travel	
BETTER	3.3.1	Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	☐
		Visitor travel	
BETTER	3.3.2	Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	☐
		3.4 Private transit service	
		Commuter travel	
BETTER	3.4.1	Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	☐
		Visitor travel	
BETTER	3.4.2	Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	☐

			TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		4.	**RIDESHARING**	
		4.1	**Ridematching service**	
			Commuter travel	
BASIC	★	4.1.1	Provide a dedicated ridematching portal at OttawaRideMatch.com	☐
		4.2	**Carpool parking price incentives**	
			Commuter travel	
BETTER		4.2.1	Provide discounts on parking costs for registered carpools	☐
		4.3	**Vanpool service**	
			Commuter travel	
BETTER		4.3.1	Provide a vanpooling service for long-distance commuters	☐
		5.	**CARSHARING & BIKESHARING**	
		5.1	**Bikeshare stations & memberships**	
BETTER		5.1.1	Contract with provider to install on-site bikeshare station for use by commuters and visitors	☐
			Commuter travel	
BETTER		5.1.2	Provide employees with bikeshare memberships for local business travel	☐
		5.2	**Carshare vehicles & memberships**	
			Commuter travel	
BETTER		5.2.1	Contract with provider to install on-site carshare vehicles and promote their use by tenants	☐
BETTER		5.2.2	Provide employees with carshare memberships for local business travel	☐
		6.	**PARKING**	
		6.1	**Priced parking**	
			Commuter travel	
BASIC	★	6.1.1	Charge for long-term parking (daily, weekly, monthly)	☐
BASIC		6.1.2	Unbundle parking cost from lease rates at multi-tenant sites	☐
			Visitor travel	
BETTER		6.1.3	Charge for short-term parking (hourly)	☐

			TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		7.	**TDM MARKETING & COMMUNICATIONS**	
		7.1	**Multimodal travel information**	
			Commuter travel	
BASIC	★	7.1.1	Provide a multimodal travel option information package to new/relocating employees and students	☐
			Visitor travel	
BETTER	★	7.1.2	Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)	☐
		7.2	**Personalized trip planning**	
			Commuter travel	
BETTER	★	7.2.1	Offer personalized trip planning to new/relocating employees	☐
		7.3	**Promotions**	
			Commuter travel	
BETTER		7.3.1	Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes	☐
		8.	**OTHER INCENTIVES & AMENITIES**	
		8.1	**Emergency ride home**	
			Commuter travel	
BETTER	★	8.1.1	Provide emergency ride home service to non-driving commuters	☐
		8.2	**Alternative work arrangements**	
			Commuter travel	
BASIC	★	8.2.1	Encourage flexible work hours	☐
BETTER		8.2.2	Encourage compressed workweeks	☐
BETTER	★	8.2.3	Encourage telework	☐
		8.3	**Local business travel options**	
			Commuter travel	
BASIC	★	8.3.1	Provide local business travel options that minimize the need for employees to bring a personal car to work	☐
		8.4	**Commuter incentives**	
			Commuter travel	
BETTER		8.4.1	Offer employees a taxable, mode-neutral commuting allowance	☐
		8.5	**On-site amenities**	
			Commuter travel	
BETTER		8.5.1	Provide on-site amenities/services to minimize mid-day or mid-commute errands	☐

TDM-Supportive Development Design and Infrastructure Checklist:
Residential Developments (multi-family or condominium)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	☑
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☑
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☑
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☑
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	☑

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	☑
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	☑
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☐
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☐
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☐

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	☑ complies with ZBL; bicycle storage lockers at grade
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	☑
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	☐
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☑ bicycle parking provided at grade in locker room
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	☐
	2.3	**Bicycle repair station**	
BETTER	2.3.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☑
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses *(see Zoning By-law Section 94)*	☐
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☑
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☐
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	☐

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

★ — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

		TDM measures: *Residential developments*	Check if proposed & add descriptions
	1.	**TDM PROGRAM MANAGEMENT**	
	1.1	**Program coordinator**	
BASIC ★	1.1.1	Designate an internal coordinator, or contract with an external coordinator	☐
	1.2	**Travel surveys**	
BETTER	1.2.1	Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☑ Refer to Section 4.5.3 for applicability
	2.	**WALKING AND CYCLING**	
	2.1	**Information on walking/cycling routes & destinations**	
BASIC	2.1.1	Display local area maps with walking/cycling access routes and key destinations at major entrances *(multi-family, condominium)*	☐
	2.2	**Bicycle skills training**	
BETTER	2.2.1	Offer on-site cycling courses for residents, or subsidize off-site courses	☐

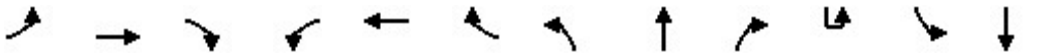
			TDM measures: *Residential developments*	Check if proposed & add descriptions
		3.	**TRANSIT**	
		3.1	**Transit information**	
BASIC		3.1.1	Display relevant transit schedules and route maps at entrances *(multi-family, condominium)*	☐
BETTER		3.1.2	Provide real-time arrival information display at entrances *(multi-family, condominium)*	☑ Refer to Section 4.5.3 for applicability
		3.2	**Transit fare incentives**	
BASIC	★	3.2.1	Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	☐
BETTER		3.2.2	Offer at least one year of free monthly transit passes on residence purchase/move-in	☐
		3.3	**Enhanced public transit service**	
BETTER	★	3.3.1	Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels *(subdivision)*	☐
		3.4	**Private transit service**	
BETTER		3.4.1	Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	☑ Refer to Section 4.5.3 for applicability
		4.	**CARSHARING & BIKESHARING**	
		4.1	**Bikeshare stations & memberships**	
BETTER		4.1.1	Contract with provider to install on-site bikeshare station (*multi-family)*	☐
BETTER		4.1.2	Provide residents with bikeshare memberships, either free or subsidized *(multi-family)*	☐
		4.2	**Carshare vehicles & memberships**	
BETTER		4.2.1	Contract with provider to install on-site carshare vehicles and promote their use by residents	☑ Refer to Section 4.5.3 for applicability
BETTER		4.2.2	Provide residents with carshare memberships, either free or subsidized	☐
		5.	**PARKING**	
		5.1	**Priced parking**	
BASIC	★	5.1.1	Unbundle parking cost from purchase price *(condominium)*	☑ Refer to Section 4.5.3 for applicability
BASIC	★	5.1.2	Unbundle parking cost from monthly rent *(multi-family)*	☐

			TDM measures: *Residential developments*	Check if proposed & add descriptions
		6.	**TDM MARKETING & COMMUNICATIONS**	
		6.1	**Multimodal travel information**	
BASIC	★	6.1.1	Provide a multimodal travel option information package to new residents	☐
		6.2	**Personalized trip planning**	
BETTER	★	6.2.1	Offer personalized trip planning to new residents	☐

Appendix F INTERSECTION PERFORMANCE WORKSHEETS

Appendix F Intersection Performance Worksheets
June 30, 2022

2022 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	183	1133	136	57	522	399	88	790	105	18	308	487
Future Volume (veh/h)	183	1133	136	57	522	399	88	790	105	18	308	487
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	203	1259	0	63	580	0	98	878	108		342	541
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	1245		80	1057		148	836	103		286	991
Arrive On Green	0.10	0.37	0.00	0.05	0.32	0.00	0.05	0.28	0.28		0.09	0.32
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3030	373		3300	3134
Grp Volume(v), veh/h	203	1259	0	63	580	0	98	492	494		342	292
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1706		1650	1697
Q Serve(g_s), s	11.5	44.4	0.0	4.4	17.4	0.0	3.6	33.1	33.1		10.4	17.1
Cycle Q Clear(g_c), s	11.5	44.4	0.0	4.4	17.4	0.0	3.6	33.1	33.1		10.4	17.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22		1.00	
Lane Grp Cap(c), veh/h	164	1245		80	1057		148	468	471		286	537
V/C Ratio(X)	1.24	1.01		0.78	0.55		0.66	1.05	1.05		1.20	0.54
Avail Cap(c_a), veh/h	164	1245		162	1057		277	468	471		286	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	37.8	0.0	56.5	33.5	0.0	56.3	43.4	43.5		54.8	33.9
Incr Delay (d2), s/veh	147.4	28.2	0.0	15.3	2.0	0.0	5.0	55.5	55.4		117.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	19.0	32.4	0.0	4.2	12.3	0.0	2.9	30.4	30.5		15.1	12.4
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	201.6	66.0	5.1	71.8	35.6	22.6	61.3	99.0	98.9		171.9	35.0
LnGrp LOS	F	F	A	E	D	C	E	F	F		F	D
Approach Vol, veh/h		1613	A		1086	A		1084				933
Approach Delay, s/veh		77.4			32.4			95.5				85.2
Approach LOS		E			C			F				F

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	50.8	17.0	40.0	18.0	45.0	12.2	44.8
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	38.6	10.4	* 33	11.5	38.6	10.4	* 33
Max Q Clear Time (g_c+I1), s	6.4	46.4	12.4	35.1	13.5	19.4	5.6	19.2
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	8.2	0.2	6.8

Intersection Summary	
HCM 6th Ctrl Delay	72.7
HCM 6th LOS	E

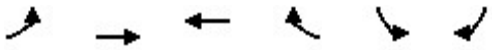
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	52
Future Volume (veh/h)	52
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	50
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	91
Arrive On Green	0.32
Sat Flow, veh/h	289
Grp Volume(v), veh/h	299
Grp Sat Flow(s),veh/h/ln	1726
Q Serve(g_s), s	17.2
Cycle Q Clear(g_c), s	17.2
Prop In Lane	0.17
Lane Grp Cap(c), veh/h	546
V/C Ratio(X)	0.55
Avail Cap(c_a), veh/h	546
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	33.9
Incr Delay (d2), s/veh	1.2
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	12.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	35.1
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



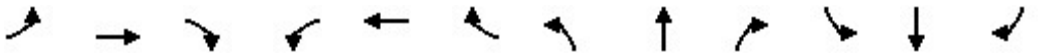
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	1451	947	65	41	47
Future Volume (veh/h)	59	1451	947	65	41	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	66	1612	1052	68	46	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	432	2790	2380	154	120	107
Arrive On Green	0.04	0.83	0.74	0.74	0.07	0.07
Sat Flow, veh/h	1688	3455	3298	207	1688	1502
Grp Volume(v), veh/h	66	1612	552	568	46	12
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1733	1688	1502
Q Serve(g_s), s	1.0	18.9	15.1	15.1	3.1	0.9
Cycle Q Clear(g_c), s	1.0	18.9	15.1	15.1	3.1	0.9
Prop In Lane	1.00			0.12	1.00	1.00
Lane Grp Cap(c), veh/h	432	2790	1248	1285	120	107
V/C Ratio(X)	0.15	0.58	0.44	0.44	0.38	0.11
Avail Cap(c_a), veh/h	496	2790	1248	1285	450	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.89	0.89	1.00	1.00
Uniform Delay (d), s/veh	4.0	3.4	6.0	6.0	53.2	52.2
Incr Delay (d2), s/veh	0.2	0.9	1.0	1.0	2.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	11.0	10.0	10.2	2.7	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.2	4.3	7.0	6.9	55.2	52.6
LnGrp LOS	A	A	A	A	E	D
Approach Vol, veh/h		1678	1120		58	
Approach Delay, s/veh		4.3	7.0		54.7	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.2		14.8	10.4	94.8
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		20.9		5.1	3.0	17.1
Green Ext Time (p_c), s		45.5		0.2	0.1	26.3

Intersection Summary	
HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	1220	133	68	928	0	58	36	127	0	7	26
Future Volume (veh/h)	139	1220	133	68	928	0	58	36	127	0	7	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	154	1356	0	76	1031	0	64	40	0	0	8	29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	2671		341	2358	1052	128	62		60	36	131
Arrive On Green	0.09	1.00	0.00	0.70	0.70	0.00	0.11	0.11	0.00	0.00	0.11	0.11
Sat Flow, veh/h	1688	3367	1502	402	3367	1502	737	574	1502	1367	336	1217
Grp Volume(v), veh/h	154	1356	0	76	1031	0	104	0	0	0	0	37
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	402	1683	1502	1311	0	1502	1367	0	1553
Q Serve(g_s), s	3.0	0.0	0.0	8.4	15.9	0.0	7.1	0.0	0.0	0.0	0.0	2.6
Cycle Q Clear(g_c), s	3.0	0.0	0.0	8.4	15.9	0.0	9.7	0.0	0.0	0.0	0.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	0.62		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	447	2671		341	2358	1052	189	0		60	0	167
V/C Ratio(X)	0.34	0.51		0.22	0.44	0.00	0.55	0.00		0.00	0.00	0.22
Avail Cap(c_a), veh/h	572	2671		341	2358	1052	450	0		297	0	436
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	5.3	0.0	0.0	6.6	7.8	0.0	52.7	0.0	0.0	0.0	0.0	49.0
Incr Delay (d2), s/veh	0.3	0.5	0.0	1.5	0.6	0.0	2.5	0.0	0.0	0.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	0.3	0.0	1.7	10.6	0.0	6.1	0.0	0.0	0.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.6	0.5	0.0	8.1	8.3	0.0	55.2	0.0	0.0	0.0	0.0	49.6
LnGrp LOS	A	A		A	A	A	E	A		A	A	D
Approach Vol, veh/h		1510	A		1107			104	A		37	
Approach Delay, s/veh		1.0			8.3			55.2			49.6	
Approach LOS		A			A			E			D	

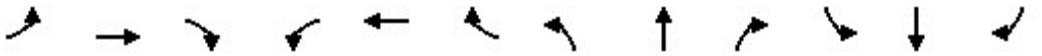
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		100.8		19.2	11.1	89.7		19.2				
Change Period (Y+Rc), s		* 5.6		* 6.3	* 5.7	* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 74		* 34	* 14	* 54		* 34				
Max Q Clear Time (g_c+I1), s		2.0		4.6	5.0	17.9		11.7				
Green Ext Time (p_c), s		46.3		0.4	0.4	23.8		1.3				

Intersection Summary		
HCM 6th Ctrl Delay	6.7	
HCM 6th LOS	A	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	940	12	124	840	268	0	293	174	274	263	283
Future Volume (veh/h)	183	940	12	124	840	268	0	293	174	274	263	283
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	203	1044	0	138	933	0	0	326	193	304	292	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	228	1126		165	1000		0	823	367	314	1328	
Arrive On Green	0.14	0.33	0.00	0.10	0.30	0.00	0.00	0.24	0.24	0.10	0.39	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	203	1044	0	138	933	0	0	326	193	304	292	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	14.2	35.9	0.0	9.6	32.3	0.0	0.0	9.7	13.4	11.1	6.9	0.0
Cycle Q Clear(g_c), s	14.2	35.9	0.0	9.6	32.3	0.0	0.0	9.7	13.4	11.1	6.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	1126		165	1000		0	823	367	314	1328	
V/C Ratio(X)	0.89	0.93		0.83	0.93		0.00	0.40	0.53	0.97	0.22	
Avail Cap(c_a), veh/h	238	1126		238	1007		0	823	367	314	1328	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.0	38.5	0.0	53.2	41.0	0.0	0.0	37.9	39.3	54.1	24.1	0.0
Incr Delay (d2), s/veh	30.3	13.0	0.0	15.5	14.9	0.0	0.0	1.4	5.3	42.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.9	24.5	0.0	8.7	22.8	0.0	0.0	7.9	9.7	10.9	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.3	51.5	0.0	68.7	55.9	0.0	0.0	39.4	44.6	96.4	24.5	0.0
LnGrp LOS	F	D		E	E		A	D	D	F	C	
Approach Vol, veh/h		1247	A		1071	A		519			596	A
Approach Delay, s/veh		56.4			57.5			41.3			61.1	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	18.0	35.9	18.9	47.2		53.9	23.3	42.7				
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1				
Max Green Setting (Gmax), s	11.5	* 28	* 17	* 36		* 46	* 17	* 36				
Max Q Clear Time (g_c+I1), s	13.1	15.4	11.6	37.9		8.9	16.2	34.3				
Green Ext Time (p_c), s	0.0	4.5	0.2	0.0		5.3	0.1	1.3				

Intersection Summary	
HCM 6th Ctrl Delay	55.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

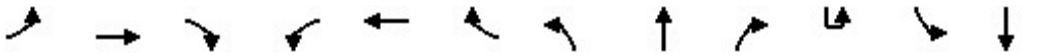
Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	46	1310	80	0	865
Future Vol, veh/h	0	46	1310	80	0	865
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	51	1456	89	0	961

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	737	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	361	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	358	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	358	-
HCM Lane V/C Ratio	-	0.143	-
HCM Control Delay (s)	-	16.7	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	168	921	233	125	1214	572	313	830	85	31	361	651
Future Volume (veh/h)	168	921	233	125	1214	572	313	830	85	31	361	651
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	187	1023	0	139	1349	0	348	922	85		401	723
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	971		162	948		384	864	80		396	841
Arrive On Green	0.10	0.29	0.00	0.10	0.29	0.00	0.12	0.28	0.28		0.12	0.28
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3132	289		3300	3049
Grp Volume(v), veh/h	187	1023	0	139	1349	0	348	499	508		401	402
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1724		1650	1697
Q Serve(g_s), s	11.5	34.6	0.0	9.7	34.6	0.0	12.9	33.1	33.1		14.4	27.0
Cycle Q Clear(g_c), s	11.5	34.6	0.0	9.7	34.6	0.0	12.9	33.1	33.1		14.4	27.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17		1.00	
Lane Grp Cap(c), veh/h	164	971		162	948		384	468	476		396	468
V/C Ratio(X)	1.14	1.05		0.86	1.42		0.91	1.07	1.07		1.01	0.86
Avail Cap(c_a), veh/h	164	971		162	948		384	468	476		396	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	42.7	0.0	53.5	42.7	0.0	52.1	43.4	43.5		52.8	41.2
Incr Delay (d2), s/veh	112.2	44.2	0.0	34.4	196.8	0.0	24.7	60.7	60.4		48.5	14.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	16.4	29.6	0.0	9.8	61.5	0.0	11.0	31.5	31.9		14.0	20.2
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	166.5	86.9	5.1	87.8	239.5	22.6	76.8	104.2	103.8		101.3	56.0
LnGrp LOS	F	F	A	F	F	C	E	F	F		F	E
Approach Vol, veh/h		1469	A		2124	A		1355				1209
Approach Delay, s/veh		82.6			164.6			97.0				71.1
Approach LOS		F			F			F				E

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	41.0	21.0	40.0	18.0	41.0	21.0	40.0
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	11.7	36.6	16.4	35.1	13.5	36.6	14.9	29.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	111.8
HCM 6th LOS	F

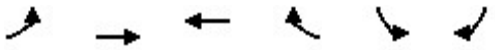
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	84
Future Volume (veh/h)	84
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	85
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	99
Arrive On Green	0.28
Sat Flow, veh/h	358
Grp Volume(v), veh/h	406
Grp Sat Flow(s),veh/h/ln	1711
Q Serve(g_s), s	27.0
Cycle Q Clear(g_c), s	27.0
Prop In Lane	0.21
Lane Grp Cap(c), veh/h	472
V/C Ratio(X)	0.86
Avail Cap(c_a), veh/h	472
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	41.3
Incr Delay (d2), s/veh	14.8
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	20.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	56.1
LnGrp LOS	E
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



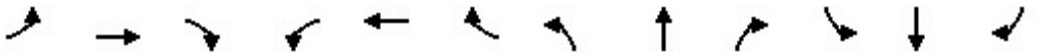
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	113	1370	1750	165	177	175
Future Volume (veh/h)	113	1370	1750	165	177	175
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	126	1522	1944	179	197	154
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	153	2543	2053	186	244	217
Arrive On Green	0.05	0.76	0.66	0.66	0.14	0.14
Sat Flow, veh/h	1688	3455	3208	283	1688	1502
Grp Volume(v), veh/h	126	1522	1034	1089	197	154
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1719	1688	1502
Q Serve(g_s), s	3.6	24.2	65.4	70.9	13.6	11.7
Cycle Q Clear(g_c), s	3.6	24.2	65.4	70.9	13.6	11.7
Prop In Lane	1.00			0.16	1.00	1.00
Lane Grp Cap(c), veh/h	153	2543	1108	1131	244	217
V/C Ratio(X)	0.82	0.60	0.93	0.96	0.81	0.71
Avail Cap(c_a), veh/h	199	2543	1108	1131	450	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.54	0.54	1.00	1.00
Uniform Delay (d), s/veh	35.4	6.5	18.2	19.1	49.7	48.9
Incr Delay (d2), s/veh	18.9	1.0	9.4	12.6	6.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	14.6	35.8	40.2	10.7	14.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.3	7.6	27.6	31.7	56.0	53.2
LnGrp LOS	D	A	C	C	E	D
Approach Vol, veh/h		1648	2123		351	
Approach Delay, s/veh		11.2	29.7		54.7	
Approach LOS		B	C		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.5		23.5	11.7	84.8
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		26.2		15.6	5.6	72.9
Green Ext Time (p_c), s		39.9		1.8	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1261	274	133	1621	1	188	0	166	90	35	106
Future Volume (veh/h)	12	1261	274	133	1621	1	188	0	166	90	35	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	13	1401	0	148	1801	1	209	0	0	100	39	118
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	2186		209	2186	975	272	0		491	101	304
Arrive On Green	0.65	0.65	0.00	0.65	0.65	0.65	0.26	0.00	0.00	0.26	0.26	0.26
Sat Flow, veh/h	261	3367	1502	385	3367	1502	837	0	1502	1418	388	1173
Grp Volume(v), veh/h	13	1401	0	148	1801	1	209	0	0	100	0	157
Grp Sat Flow(s),veh/h/ln	261	1683	1502	385	1683	1502	837	0	1502	1418	0	1561
Q Serve(g_s), s	5.1	32.5	0.0	48.8	52.5	0.0	21.9	0.0	0.0	0.0	0.0	10.8
Cycle Q Clear(g_c), s	57.6	32.5	0.0	81.3	52.5	0.0	32.7	0.0	0.0	6.1	0.0	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.75
Lane Grp Cap(c), veh/h	120	2186		209	2186	975	272	0		491	0	405
V/C Ratio(X)	0.11	0.64		0.71	0.82	0.00	0.77	0.00		0.20	0.00	0.39
Avail Cap(c_a), veh/h	120	2186		209	2186	975	272	0		491	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.9	13.7	0.0	38.1	17.2	8.0	53.1	0.0	0.0	37.9	0.0	39.7
Incr Delay (d2), s/veh	1.3	1.1	0.0	18.3	3.7	0.0	12.4	0.0	0.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	18.8	0.0	9.9	30.4	0.0	12.9	0.0	0.0	5.0	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	14.8	0.0	56.5	20.9	8.0	65.5	0.0	0.0	38.1	0.0	40.3
LnGrp LOS	D	B		E	C	A	E	A		D	A	D
Approach Vol, veh/h		1414	A		1950			209	A		257	
Approach Delay, s/veh		15.0			23.6			65.5			39.4	
Approach LOS		B			C			E			D	

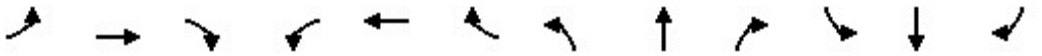
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		90.0		40.0		90.0		40.0				
Change Period (Y+Rc), s		* 5.6		* 6.3		* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 84		* 34		* 84		* 34				
Max Q Clear Time (g_c+I1), s		59.6		12.8		83.3		34.7				
Green Ext Time (p_c), s		21.1		2.8		1.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	23.8	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	931	14	205	1148	241	0	454	214	323	437	339
Future Volume (veh/h)	210	931	14	205	1148	241	0	454	214	323	437	339
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	233	1034	0	228	1276	0	0	504	238	359	486	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	192	1056		228	1128		0	875	390	316	1356	
Arrive On Green	0.11	0.31	0.00	0.14	0.34	0.00	0.00	0.26	0.26	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	233	1034	0	228	1276	0	0	504	238	359	486	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	15.9	42.6	0.0	18.9	46.9	0.0	0.0	18.2	19.5	13.5	14.1	0.0
Cycle Q Clear(g_c), s	15.9	42.6	0.0	18.9	46.9	0.0	0.0	18.2	19.5	13.5	14.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1056		228	1128		0	875	390	316	1356	
V/C Ratio(X)	1.22	0.98		1.00	1.13		0.00	0.58	0.61	1.14	0.36	
Avail Cap(c_a), veh/h	192	1056		228	1128		0	875	390	316	1356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	47.6	0.0	60.5	46.6	0.0	0.0	45.1	45.6	63.2	29.2	0.0
Incr Delay (d2), s/veh	135.1	22.7	0.0	59.8	70.6	0.0	0.0	2.8	6.9	93.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	22.2	29.8	0.0	18.0	44.3	0.0	0.0	13.2	13.2	15.9	10.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	197.2	70.3	0.0	120.4	117.2	0.0	0.0	47.8	52.5	156.3	29.9	0.0
LnGrp LOS	F	E		F	F		A	D	D	F	C	
Approach Vol, veh/h		1267	A		1504	A		742			845	A
Approach Delay, s/veh		93.7			117.7			49.3			83.6	
Approach LOS		F			F			D			F	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	20.0	43.0	26.0	51.0		63.0	23.0	54.0
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1
Max Green Setting (Gmax), s	13.5	* 36	* 19	* 44		* 56	* 16	* 47
Max Q Clear Time (g_c+I1), s	15.5	21.5	20.9	44.6		16.1	17.9	48.9
Green Ext Time (p_c), s	0.0	7.2	0.0	0.0		9.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	92.4
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.7

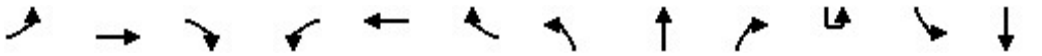
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	160	1442	159	0	1127
Future Vol, veh/h	0	160	1442	159	0	1127
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	178	1602	177	0	1252

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	810	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	323	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	320	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.4	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	320	-
HCM Lane V/C Ratio	-	0.556	-
HCM Control Delay (s)	-	29.4	-
HCM Lane LOS	-	D	-
HCM 95th %tile Q(veh)	-	3.2	-

2029 Future Background Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	215	1324	155	79	620	500	103	917	128	22	402	568
Future Volume (veh/h)	215	1324	155	79	620	500	103	917	128	22	402	568
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	239	1471	0	88	689	0	114	1019	133		447	631
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	1074		110	948		169	829	108		396	1075
Arrive On Green	0.10	0.32	0.00	0.07	0.29	0.00	0.05	0.28	0.28		0.12	0.34
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3006	392		3300	3136
Grp Volume(v), veh/h	239	1471	0	88	689	0	114	575	577		447	341
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1702		1650	1697
Q Serve(g_s), s	11.5	38.3	0.0	6.2	22.7	0.0	4.2	33.1	33.1		14.4	19.8
Cycle Q Clear(g_c), s	11.5	38.3	0.0	6.2	22.7	0.0	4.2	33.1	33.1		14.4	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23		1.00	
Lane Grp Cap(c), veh/h	164	1074		110	948		169	468	469		396	582
V/C Ratio(X)	1.45	1.37		0.80	0.73		0.67	1.23	1.23		1.13	0.59
Avail Cap(c_a), veh/h	164	1074		162	948		384	468	469		396	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	40.9	0.0	55.3	38.4	0.0	55.8	43.4	43.5		52.8	32.4
Incr Delay (d2), s/veh	235.2	172.3	0.0	15.9	4.9	0.0	4.6	120.3	121.0		85.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	25.4	63.3	0.0	5.8	15.6	0.0	3.4	44.1	44.4		17.3	14.0
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	289.4	213.1	5.1	71.3	43.3	22.6	60.4	163.7	164.5		137.9	33.9
LnGrp LOS	F	F	A	E	D	C	E	F	F		F	C
Approach Vol, veh/h		1882	A		1333	A		1266				1136
Approach Delay, s/veh		203.8			36.5			154.7				74.9
Approach LOS		F			D			F				E

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	44.7	21.0	40.0	18.0	41.0	13.0	48.0
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	8.2	40.3	16.4	35.1	13.5	24.7	6.2	21.9
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	6.0	0.3	6.6

Intersection Summary	
HCM 6th Ctrl Delay	127.0
HCM 6th LOS	F

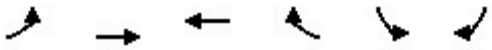
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	59
Future Volume (veh/h)	59
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	58
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	99
Arrive On Green	0.34
Sat Flow, veh/h	288
Grp Volume(v), veh/h	348
Grp Sat Flow(s),veh/h/ln	1727
Q Serve(g_s), s	19.9
Cycle Q Clear(g_c), s	19.9
Prop In Lane	0.17
Lane Grp Cap(c), veh/h	592
V/C Ratio(X)	0.59
Avail Cap(c_a), veh/h	592
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	32.4
Incr Delay (d2), s/veh	1.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	14.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	34.0
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



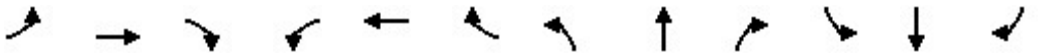
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	1738	1150	79	56	69
Future Volume (veh/h)	80	1738	1150	79	56	69
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	89	1931	1278	84	62	37
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	307	2760	2341	154	135	121
Arrive On Green	0.04	0.82	0.49	0.49	0.08	0.08
Sat Flow, veh/h	1688	3455	3294	210	1688	1502
Grp Volume(v), veh/h	89	1931	670	692	62	37
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1733	1688	1502
Q Serve(g_s), s	1.4	29.1	33.3	33.4	4.2	2.8
Cycle Q Clear(g_c), s	1.4	29.1	33.3	33.4	4.2	2.8
Prop In Lane	1.00			0.12	1.00	1.00
Lane Grp Cap(c), veh/h	307	2760	1229	1265	135	121
V/C Ratio(X)	0.29	0.70	0.55	0.55	0.46	0.31
Avail Cap(c_a), veh/h	367	2760	1229	1265	450	400
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.74	0.74	1.00	1.00
Uniform Delay (d), s/veh	9.6	4.6	16.8	16.8	52.7	52.0
Incr Delay (d2), s/veh	0.5	1.5	1.3	1.3	2.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	16.0	20.5	21.1	3.6	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.1	6.1	18.1	18.1	55.1	53.5
LnGrp LOS	B	A	B	B	E	D
Approach Vol, veh/h		2020	1362		99	
Approach Delay, s/veh		6.3	18.1		54.5	
Approach LOS		A	B		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.2		15.8	10.7	93.4
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		31.1		6.2	3.4	35.4
Green Ext Time (p_c), s		42.1		0.5	0.1	21.1

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1436	155	86	1132	86	66	43	148	17	8	31
Future Volume (veh/h)	203	1436	155	86	1132	86	66	43	148	17	8	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	226	1596	0	96	1258	96	73	48	0	19	9	34
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	2615		272	2236	997	138	71		207	40	152
Arrive On Green	0.13	1.00	0.00	0.66	0.66	0.66	0.12	0.12	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1688	3367	1502	319	3367	1502	723	572	1502	1357	325	1226
Grp Volume(v), veh/h	226	1596	0	96	1258	96	121	0	0	19	0	43
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	319	1683	1502	1295	0	1502	1357	0	1551
Q Serve(g_s), s	5.2	0.0	0.0	17.3	24.0	2.8	8.4	0.0	0.0	0.0	0.0	3.0
Cycle Q Clear(g_c), s	5.2	0.0	0.0	17.3	24.0	2.8	11.4	0.0	0.0	1.8	0.0	3.0
Prop In Lane	1.00		1.00	1.00		1.00	0.60		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	356	2615		272	2236	997	209	0		207	0	193
V/C Ratio(X)	0.63	0.61		0.35	0.56	0.10	0.58	0.00		0.09	0.00	0.22
Avail Cap(c_a), veh/h	448	2615		272	2236	997	444	0		419	0	436
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.7	0.0	0.0	9.7	10.8	7.2	51.8	0.0	0.0	46.8	0.0	47.3
Incr Delay (d2), s/veh	1.1	0.6	0.0	3.6	1.0	0.2	2.5	0.0	0.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.4	0.0	2.9	15.2	1.9	7.1	0.0	0.0	1.0	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9	0.6	0.0	13.2	11.8	7.4	54.3	0.0	0.0	47.0	0.0	47.9
LnGrp LOS	B	A		B	B	A	D	A		D	A	D
Approach Vol, veh/h		1822	A		1450			121	A		62	
Approach Delay, s/veh		1.9			11.6			54.3			47.6	
Approach LOS		A			B			D			D	

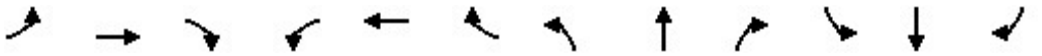
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		98.8		21.2	13.5	85.3		21.2				
Change Period (Y+Rc), s		* 5.6		* 6.3	* 5.7	* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 74		* 34	* 14	* 54		* 34				
Max Q Clear Time (g_c+I1), s		2.0		5.0	7.2	26.0		13.4				
Green Ext Time (p_c), s		55.9		0.6	0.6	23.6		1.5				

Intersection Summary												
HCM 6th Ctrl Delay			8.6									
HCM 6th LOS			A									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	1119	16	148	985	351	0	422	198	360	396	371
Future Volume (veh/h)	254	1119	16	148	985	351	0	422	198	360	396	371
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	282	1243	0	164	1094	0	0	469	220	400	440	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	238	1099		191	1007		0	797	355	314	1302	
Arrive On Green	0.14	0.33	0.00	0.11	0.30	0.00	0.00	0.24	0.24	0.10	0.39	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	282	1243	0	164	1094	0	0	469	220	400	440	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	16.9	39.2	0.0	11.5	35.9	0.0	0.0	14.8	15.7	11.5	11.1	0.0
Cycle Q Clear(g_c), s	16.9	39.2	0.0	11.5	35.9	0.0	0.0	14.8	15.7	11.5	11.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	1099		191	1007		0	797	355	314	1302	
V/C Ratio(X)	1.19	1.13		0.86	1.09		0.00	0.59	0.62	1.27	0.34	
Avail Cap(c_a), veh/h	238	1099		238	1007		0	797	355	314	1302	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.5	40.4	0.0	52.2	42.1	0.0	0.0	40.6	41.0	54.2	26.0	0.0
Incr Delay (d2), s/veh	118.2	70.5	0.0	21.7	54.7	0.0	0.0	3.2	7.9	146.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	23.4	39.5	0.0	10.3	32.9	0.0	0.0	11.2	11.2	18.3	8.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	169.7	111.0	0.0	73.9	96.8	0.0	0.0	43.8	48.8	200.5	26.7	0.0
LnGrp LOS	F	F		E	F		A	D	D	F	C	
Approach Vol, veh/h		1525	A		1258	A		689			840	A
Approach Delay, s/veh		121.8			93.8			45.4			109.4	
Approach LOS		F			F			D			F	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	18.0	35.0	20.7	46.3		53.0	24.0	43.0
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1
Max Green Setting (Gmax), s	11.5	* 28	* 17	* 36		* 46	* 17	* 36
Max Q Clear Time (g_c+I1), s	13.5	17.7	13.5	41.2		13.1	18.9	37.9
Green Ext Time (p_c), s	0.0	5.3	0.2	0.0		8.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	99.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

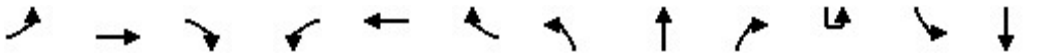
Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	69	1559	93	0	1051
Future Vol, veh/h	0	69	1559	93	0	1051
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	77	1732	103	0	1168

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	875	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	292	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	290	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	290	-
HCM Lane V/C Ratio	-	0.264	-
HCM Control Delay (s)	-	21.8	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	201	1086	266	155	1412	710	370	985	111	36	471	753
Future Volume (veh/h)	201	1086	266	155	1412	710	370	985	111	36	471	753
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	223	1207	0	172	1569	0	411	1094	114		523	837
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	971		162	948		384	853	89		396	840
Arrive On Green	0.10	0.29	0.00	0.10	0.29	0.00	0.12	0.28	0.28		0.12	0.28
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3092	322		3300	3047
Grp Volume(v), veh/h	223	1207	0	172	1569	0	411	600	608		523	466
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1717		1650	1697
Q Serve(g_s), s	11.5	34.6	0.0	11.5	34.6	0.0	14.4	33.1	33.1		14.4	32.9
Cycle Q Clear(g_c), s	11.5	34.6	0.0	11.5	34.6	0.0	14.4	33.1	33.1		14.4	32.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19		1.00	
Lane Grp Cap(c), veh/h	164	971		162	948		384	468	474		396	468
V/C Ratio(X)	1.36	1.24		1.06	1.66		1.07	1.28	1.28		1.32	1.00
Avail Cap(c_a), veh/h	164	971		162	948		384	468	474		396	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	42.7	0.0	54.3	42.7	0.0	52.8	43.4	43.5		52.8	43.4
Incr Delay (d2), s/veh	195.1	118.3	0.0	88.7	299.8	0.0	66.4	142.3	143.3		161.1	40.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	22.5	45.6	0.0	14.4	84.0	0.0	15.1	48.8	49.6		24.0	27.4
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	249.4	161.0	5.1	142.9	342.5	22.6	119.2	185.7	186.8		213.9	83.8
LnGrp LOS	F	F	A	F	F	C	F	F	F		F	F
Approach Vol, veh/h		1726	A		2530	A		1619				1459
Approach Delay, s/veh		145.7			229.2			169.2				130.4
Approach LOS		F			F			F				F

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	41.0	21.0	40.0	18.0	41.0	21.0	40.0
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	13.5	36.6	16.4	35.1	13.5	36.6	16.4	34.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	176.6
HCM 6th LOS	F

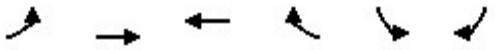
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	96
Future Volume (veh/h)	96
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	99
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	99
Arrive On Green	0.28
Sat Flow, veh/h	360
Grp Volume(v), veh/h	470
Grp Sat Flow(s),veh/h/ln	1711
Q Serve(g_s), s	32.9
Cycle Q Clear(g_c), s	32.9
Prop In Lane	0.21
Lane Grp Cap(c), veh/h	472
V/C Ratio(X)	1.00
Avail Cap(c_a), veh/h	472
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	43.4
Incr Delay (d2), s/veh	40.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	27.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	83.7
LnGrp LOS	F
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



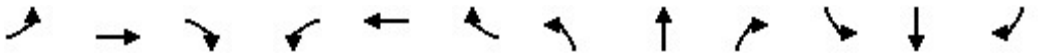
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	159	1667	2082	198	211	212
Future Volume (veh/h)	159	1667	2082	198	211	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	177	1852	2313	216	234	196
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	187	2464	1891	174	284	252
Arrive On Green	0.08	0.73	0.61	0.61	0.17	0.17
Sat Flow, veh/h	1688	3455	3204	286	1688	1502
Grp Volume(v), veh/h	177	1852	1232	1297	234	196
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1718	1688	1502
Q Serve(g_s), s	8.2	39.3	72.8	72.8	16.1	15.0
Cycle Q Clear(g_c), s	8.2	39.3	72.8	72.8	16.1	15.0
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	187	2464	1022	1043	284	252
V/C Ratio(X)	0.95	0.75	1.21	1.24	0.83	0.78
Avail Cap(c_a), veh/h	187	2464	1022	1043	450	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.14	0.14	1.00	1.00
Uniform Delay (d), s/veh	41.5	9.6	23.6	23.6	48.2	47.8
Incr Delay (d2), s/veh	51.1	2.2	94.1	110.9	6.8	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.9	22.5	72.3	81.5	12.3	18.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	92.6	11.7	117.7	134.5	55.0	52.9
LnGrp LOS	F	B	F	F	E	D
Approach Vol, veh/h		2029	2529		430	
Approach Delay, s/veh		18.8	126.3		54.0	
Approach LOS		B	F		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		93.6		26.4	15.0	78.6
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		41.3		18.1	10.2	74.8
Green Ext Time (p_c), s		32.5		2.1	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		76.4
HCM 6th LOS		E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

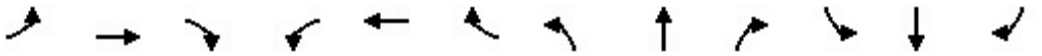


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1503	309	152	1940	7	217	2	193	107	41	123
Future Volume (veh/h)	66	1503	309	152	1940	7	217	2	193	107	41	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	73	1670	0	169	2156	8	241	2	0	119	46	137
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	2186		146	2186	975	247	2		493	102	303
Arrive On Green	0.65	0.65	0.00	0.65	0.65	0.65	0.26	0.26	0.00	0.26	0.26	0.26
Sat Flow, veh/h	183	3367	1502	297	3367	1502	741	6	1502	1415	393	1169
Grp Volume(v), veh/h	73	1670	0	169	2156	8	243	0	0	119	0	183
Grp Sat Flow(s),veh/h/ln	183	1683	1502	297	1683	1502	747	0	1502	1415	0	1562
Q Serve(g_s), s	3.2	44.9	0.0	39.5	81.2	0.2	20.9	0.0	0.0	0.0	0.0	12.8
Cycle Q Clear(g_c), s	84.4	44.9	0.0	84.4	81.2	0.2	33.7	0.0	0.0	7.3	0.0	12.8
Prop In Lane	1.00		1.00	1.00		1.00	0.99		1.00	1.00		0.75
Lane Grp Cap(c), veh/h	60	2186		146	2186	975	249	0		493	0	405
V/C Ratio(X)	1.22	0.76		1.16	0.99	0.01	0.98	0.00		0.24	0.00	0.45
Avail Cap(c_a), veh/h	60	2186		146	2186	975	249	0		493	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	64.9	15.9	0.0	52.8	22.2	8.0	56.7	0.0	0.0	38.4	0.0	40.4
Incr Delay (d2), s/veh	155.0	1.4	0.0	124.1	16.3	0.0	50.3	0.0	0.0	0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.2	24.0	0.0	16.9	48.4	0.2	17.7	0.0	0.0	6.0	0.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	219.8	17.3	0.0	176.9	38.5	8.1	106.9	0.0	0.0	38.6	0.0	41.2
LnGrp LOS	F	B		F	D	A	F	A		D	A	D
Approach Vol, veh/h		1743	A		2333			243	A		302	
Approach Delay, s/veh		25.7			48.5			106.9			40.2	
Approach LOS		C			D			F			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		90.0		40.0		90.0		40.0				
Change Period (Y+Rc), s		* 5.6		* 6.3		* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 84		* 34		* 84		* 34				
Max Q Clear Time (g_c+I1), s		86.4		14.8		86.4		35.7				
Green Ext Time (p_c), s		0.0		3.2		0.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	42.4	
HCM 6th LOS	D	

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	1116	23	252	1350	327	0	622	244	424	608	442
Future Volume (veh/h)	291	1116	23	252	1350	327	0	622	244	424	608	442
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	323	1240	0	280	1500	0	0	691	271	471	676	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	192	1056		228	1128		0	875	390	316	1356	
Arrive On Green	0.11	0.31	0.00	0.14	0.34	0.00	0.00	0.26	0.26	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	323	1240	0	280	1500	0	0	691	271	471	676	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	15.9	43.9	0.0	18.9	46.9	0.0	0.0	26.8	22.8	13.5	21.0	0.0
Cycle Q Clear(g_c), s	15.9	43.9	0.0	18.9	46.9	0.0	0.0	26.8	22.8	13.5	21.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1056		228	1128		0	875	390	316	1356	
V/C Ratio(X)	1.69	1.17		1.23	1.33		0.00	0.79	0.69	1.49	0.50	
Avail Cap(c_a), veh/h	192	1056		228	1128		0	875	390	316	1356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	48.0	0.0	60.5	46.6	0.0	0.0	48.2	46.8	63.2	31.2	0.0
Incr Delay (d2), s/veh	330.0	88.7	0.0	135.4	154.7	0.0	0.0	7.2	9.8	237.5	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	38.9	46.1	0.0	26.0	66.0	0.0	0.0	18.6	15.3	26.1	14.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	392.0	136.8	0.0	195.9	201.2	0.0	0.0	55.4	56.5	300.8	32.5	0.0
LnGrp LOS	F	F		F	F		A	E	E	F	C	
Approach Vol, veh/h		1563	A		1780	A		962			1147	A
Approach Delay, s/veh		189.5			200.4			55.7			142.7	
Approach LOS		F			F			E			F	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	20.0	43.0	26.0	51.0		63.0	23.0	54.0
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1
Max Green Setting (Gmax), s	13.5	* 36	* 19	* 44		* 56	* 16	* 47
Max Q Clear Time (g_c+I1), s	15.5	28.8	20.9	45.9		23.0	17.9	48.9
Green Ext Time (p_c), s	0.0	5.4	0.0	0.0		13.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	159.6
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	195	1748	184	0	1355
Future Vol, veh/h	0	195	1748	184	0	1355
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	217	1942	204	0	1506

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	980	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	249	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	247	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	72.7	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	247	-
HCM Lane V/C Ratio	-	0.877	-
HCM Control Delay (s)	-	72.7	-
HCM Lane LOS	-	F	-
HCM 95th %tile Q(veh)	-	7.3	-

2029 Future Background Conditions – Rationalized

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	215	1324	155	79	620	500	103	917	128	22	402	568
Future Volume (veh/h)	215	1324	155	79	620	500	103	917	128	22	402	568
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	179	1103	0	66	517	0	86	764	100		335	473
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	1142		84	963		135	823	108		387	1095
Arrive On Green	0.10	0.34	0.00	0.05	0.29	0.00	0.04	0.27	0.27		0.12	0.35
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3005	393		3300	3140
Grp Volume(v), veh/h	179	1103	0	66	517	0	86	431	433		335	255
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1701		1650	1697
Q Serve(g_s), s	11.5	38.6	0.0	4.6	15.8	0.0	3.2	29.7	29.7		12.0	13.8
Cycle Q Clear(g_c), s	11.5	38.6	0.0	4.6	15.8	0.0	3.2	29.7	29.7		12.0	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.23		1.00	
Lane Grp Cap(c), veh/h	164	1142		84	963		135	465	466		387	592
V/C Ratio(X)	1.09	0.97		0.79	0.54		0.64	0.93	0.93		0.87	0.43
Avail Cap(c_a), veh/h	164	1142		162	963		384	468	469		396	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	39.0	0.0	56.4	35.6	0.0	56.5	42.4	42.4		52.0	29.9
Incr Delay (d2), s/veh	96.2	19.6	0.0	14.8	2.1	0.0	4.9	24.8	24.8		17.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	15.1	27.2	0.0	4.3	11.4	0.0	2.6	22.9	23.0		10.3	10.3
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	150.4	58.6	5.1	71.1	37.7	22.6	61.4	67.2	67.2		69.7	30.4
LnGrp LOS	F	E	A	E	D	C	E	E	E		E	C
Approach Vol, veh/h		1411	A		1000	A		950				851
Approach Delay, s/veh		65.4			33.6			66.7				45.9
Approach LOS		E			C			E				D

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	47.1	20.7	39.8	18.0	41.6	11.7	48.8
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	6.6	40.6	14.0	31.7	13.5	17.8	5.2	15.9
Green Ext Time (p_c), s	0.1	0.0	0.1	1.1	0.0	6.8	0.2	6.8

Intersection Summary	
HCM 6th Ctrl Delay	54.2
HCM 6th LOS	D

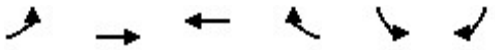
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	59
Future Volume (veh/h)	59
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	43
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	99
Arrive On Green	0.35
Sat Flow, veh/h	284
Grp Volume(v), veh/h	261
Grp Sat Flow(s),veh/h/ln	1727
Q Serve(g_s), s	13.9
Cycle Q Clear(g_c), s	13.9
Prop In Lane	0.16
Lane Grp Cap(c), veh/h	602
V/C Ratio(X)	0.43
Avail Cap(c_a), veh/h	602
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	30.0
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	10.6
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	30.5
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



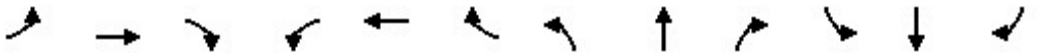
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	1738	1150	79	56	69
Future Volume (veh/h)	80	1738	1150	79	56	69
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	67	1448	958	63	47	28
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	467	2772	2360	155	129	115
Arrive On Green	0.04	0.82	0.74	0.74	0.08	0.08
Sat Flow, veh/h	1688	3455	3294	211	1688	1502
Grp Volume(v), veh/h	67	1448	503	518	47	28
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1732	1688	1502
Q Serve(g_s), s	1.0	16.0	13.5	13.5	3.2	2.1
Cycle Q Clear(g_c), s	1.0	16.0	13.5	13.5	3.2	2.1
Prop In Lane	1.00			0.12	1.00	1.00
Lane Grp Cap(c), veh/h	467	2772	1239	1276	129	115
V/C Ratio(X)	0.14	0.52	0.41	0.41	0.36	0.24
Avail Cap(c_a), veh/h	531	2772	1239	1276	450	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	1.00	1.00
Uniform Delay (d), s/veh	3.9	3.3	6.0	6.0	52.6	52.1
Incr Delay (d2), s/veh	0.1	0.7	0.9	0.9	1.7	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	9.7	9.2	9.4	2.7	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.0	4.0	6.9	6.8	54.4	53.2
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h		1515	1021		75	
Approach Delay, s/veh		4.0	6.8		53.9	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.6		15.4	10.5	94.2
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		18.0		5.2	3.0	15.5
Green Ext Time (p_c), s		43.0		0.3	0.1	24.0

Intersection Summary	
HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1436	155	86	1132	86	66	43	148	17	8	31
Future Volume (veh/h)	203	1436	155	86	1132	86	66	43	148	17	8	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	169	1197	0	72	943	72	55	36	0	14	7	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	2714		393	2395	1068	117	58		179	31	116
Arrive On Green	0.09	1.00	0.00	0.71	0.71	0.71	0.09	0.09	0.00	0.09	0.09	0.09
Sat Flow, veh/h	1688	3367	1502	468	3367	1502	723	615	1502	1372	329	1223
Grp Volume(v), veh/h	169	1197	0	72	943	72	91	0	0	14	0	33
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	468	1683	1502	1337	0	1502	1372	0	1552
Q Serve(g_s), s	3.2	0.0	0.0	6.3	13.5	1.7	6.0	0.0	0.0	0.0	0.0	2.4
Cycle Q Clear(g_c), s	3.2	0.0	0.0	6.3	13.5	1.7	8.3	0.0	0.0	1.3	0.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	0.60		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	473	2714		393	2395	1068	175	0		179	0	147
V/C Ratio(X)	0.36	0.44		0.18	0.39	0.07	0.52	0.00		0.08	0.00	0.22
Avail Cap(c_a), veh/h	594	2714		393	2395	1068	456	0		434	0	436
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.6	0.0	0.0	5.9	6.9	5.2	53.4	0.0	0.0	49.8	0.0	50.2
Incr Delay (d2), s/veh	0.4	0.4	0.0	1.0	0.5	0.1	2.4	0.0	0.0	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.3	0.0	1.4	9.3	1.2	5.4	0.0	0.0	0.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.9	0.4	0.0	6.9	7.4	5.4	55.8	0.0	0.0	49.9	0.0	51.0
LnGrp LOS	A	A		A	A	A	E	A		D	A	D
Approach Vol, veh/h		1366	A		1087			91	A		47	
Approach Delay, s/veh		1.0			7.3			55.8			50.7	
Approach LOS		A			A			E			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		102.3		17.7	11.4	91.0		17.7				
Change Period (Y+Rc), s		* 5.6		* 6.3	* 5.7	* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 74		* 34	* 14	* 54		* 34				
Max Q Clear Time (g_c+I1), s		2.0		4.4	5.2	15.5		10.3				
Green Ext Time (p_c), s		39.0		0.4	0.5	22.9		1.1				

Intersection Summary		
HCM 6th Ctrl Delay	6.4	
HCM 6th LOS	A	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	1119	16	148	985	351	0	422	198	360	396	371
Future Volume (veh/h)	254	1119	16	148	985	351	0	422	198	360	396	371
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	212	932	0	123	821	0	0	352	165	300	330	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	237	1132		150	959		0	847	378	314	1352	
Arrive On Green	0.14	0.34	0.00	0.09	0.28	0.00	0.00	0.25	0.25	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	212	932	0	123	821	0	0	352	165	300	330	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	14.8	30.5	0.0	8.6	27.7	0.0	0.0	10.5	11.1	10.9	7.8	0.0
Cycle Q Clear(g_c), s	14.8	30.5	0.0	8.6	27.7	0.0	0.0	10.5	11.1	10.9	7.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	1132		150	959		0	847	378	314	1352	
V/C Ratio(X)	0.90	0.82		0.82	0.86		0.00	0.42	0.44	0.96	0.24	
Avail Cap(c_a), veh/h	238	1132		238	1007		0	847	378	314	1352	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.7	36.5	0.0	53.7	40.6	0.0	0.0	37.5	37.8	54.0	23.8	0.0
Incr Delay (d2), s/veh	32.3	5.0	0.0	11.7	7.1	0.0	0.0	1.5	3.6	39.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.5	20.2	0.0	7.7	19.0	0.0	0.0	8.4	8.3	10.6	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	41.6	0.0	65.5	47.7	0.0	0.0	39.0	41.4	93.1	24.3	0.0
LnGrp LOS	F	D		E	D		A	D	D	F	C	
Approach Vol, veh/h		1144	A		944	A		517			630	A
Approach Delay, s/veh		49.3			50.0			39.8			57.0	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	18.0	36.8	17.8	47.5		54.8	23.9	41.3
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1
Max Green Setting (Gmax), s	11.5	* 28	* 17	* 36		* 46	* 17	* 36
Max Q Clear Time (g_c+I1), s	12.9	13.1	10.6	32.5		9.8	16.8	29.7
Green Ext Time (p_c), s	0.0	5.1	0.2	2.8		6.0	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	49.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

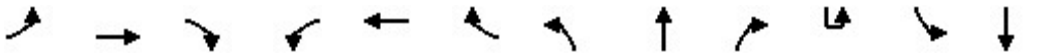
Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	69	1559	93	0	1051
Future Vol, veh/h	0	69	1559	93	0	1051
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	58	1299	78	0	876

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	659	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	406	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	403	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	403	-
HCM Lane V/C Ratio	-	0.143	-
HCM Control Delay (s)	-	15.4	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	201	1086	266	155	1412	710	370	985	111	36	471	753
Future Volume (veh/h)	201	1086	266	155	1412	710	370	985	111	36	471	753
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	168	905	0	129	1177	0	308	821	85		392	628
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	987		153	948		361	853	88		396	863
Arrive On Green	0.10	0.29	0.00	0.09	0.29	0.00	0.11	0.28	0.28		0.12	0.28
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3094	320		3300	3049
Grp Volume(v), veh/h	168	905	0	129	1177	0	308	450	456		392	349
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1717		1650	1697
Q Serve(g_s), s	11.5	31.2	0.0	9.0	34.6	0.0	11.4	31.4	31.4		14.2	22.3
Cycle Q Clear(g_c), s	11.5	31.2	0.0	9.0	34.6	0.0	11.4	31.4	31.4		14.2	22.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19		1.00	
Lane Grp Cap(c), veh/h	164	987		153	948		361	468	474		396	480
V/C Ratio(X)	1.02	0.92		0.84	1.24		0.85	0.96	0.96		0.99	0.73
Avail Cap(c_a), veh/h	164	987		162	948		384	468	474		396	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	41.0	0.0	53.7	42.7	0.0	52.3	42.8	42.8		52.7	38.8
Incr Delay (d2), s/veh	76.3	14.4	0.0	29.9	117.9	0.0	16.2	31.9	31.8		42.4	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	13.6	22.1	0.0	9.1	44.5	0.0	9.5	24.9	25.2		13.4	16.1
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	130.5	55.4	5.1	83.6	160.6	22.6	68.4	74.8	74.6		95.2	44.3
LnGrp LOS	F	E	A	F	F	C	E	E	E		F	D
Approach Vol, veh/h		1295	A		1898	A		1214				1094
Approach Delay, s/veh		56.5			112.3			73.1				62.6
Approach LOS		E			F			E				E

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	41.6	21.0	40.0	18.0	41.0	20.1	40.9
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	11.0	33.2	16.2	33.4	13.5	36.6	13.4	24.4
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.2	5.5

Intersection Summary	
HCM 6th Ctrl Delay	80.6
HCM 6th LOS	F

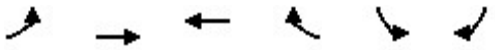
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	96
Future Volume (veh/h)	96
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	74
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	101
Arrive On Green	0.28
Sat Flow, veh/h	359
Grp Volume(v), veh/h	353
Grp Sat Flow(s),veh/h/ln	1711
Q Serve(g_s), s	22.4
Cycle Q Clear(g_c), s	22.4
Prop In Lane	0.21
Lane Grp Cap(c), veh/h	484
V/C Ratio(X)	0.73
Avail Cap(c_a), veh/h	484
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	38.9
Incr Delay (d2), s/veh	5.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	16.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	44.4
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



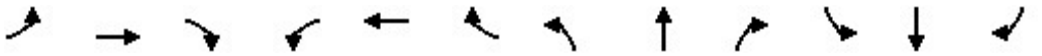
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	159	1667	2082	198	211	212
Future Volume (veh/h)	159	1667	2082	198	211	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	132	1389	1735	162	176	147
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	191	2587	2109	194	222	198
Arrive On Green	0.04	0.77	0.68	0.68	0.13	0.13
Sat Flow, veh/h	1688	3455	3203	287	1688	1502
Grp Volume(v), veh/h	132	1389	926	971	176	147
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1718	1688	1502
Q Serve(g_s), s	2.7	19.5	47.3	50.4	12.1	11.3
Cycle Q Clear(g_c), s	2.7	19.5	47.3	50.4	12.1	11.3
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	191	2587	1140	1163	222	198
V/C Ratio(X)	0.69	0.54	0.81	0.83	0.79	0.74
Avail Cap(c_a), veh/h	248	2587	1140	1163	450	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.68	0.68	1.00	1.00
Uniform Delay (d), s/veh	26.3	5.5	13.9	14.4	50.5	50.2
Incr Delay (d2), s/veh	5.5	0.8	4.4	5.0	6.3	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	12.1	26.4	28.6	9.8	14.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.7	6.3	18.3	19.4	56.8	55.6
LnGrp LOS	C	A	B	B	E	E
Approach Vol, veh/h		1521	1897		323	
Approach Delay, s/veh		8.5	18.8		56.2	
Approach LOS		A	B		E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		98.0		22.0	10.9	87.1
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		21.5		14.1	4.7	52.4
Green Ext Time (p_c), s		39.3		1.7	0.2	8.6

Intersection Summary	
HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1503	309	152	1940	7	217	2	193	107	41	123
Future Volume (veh/h)	66	1503	309	152	1940	7	217	2	193	107	41	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	55	1252	0	127	1617	6	181	2	0	89	34	102
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	2263		268	2263	1009	258	2		448	92	277
Arrive On Green	0.67	0.67	0.00	0.67	0.67	0.67	0.24	0.24	0.00	0.24	0.24	0.24
Sat Flow, veh/h	311	3367	1502	444	3367	1502	860	10	1502	1415	390	1171
Grp Volume(v), veh/h	55	1252	0	127	1617	6	183	0	0	89	0	136
Grp Sat Flow(s),veh/h/ln	311	1683	1502	444	1683	1502	869	0	1502	1415	0	1561
Q Serve(g_s), s	17.6	25.2	0.0	27.2	39.4	0.2	18.5	0.0	0.0	0.0	0.0	9.5
Cycle Q Clear(g_c), s	57.0	25.2	0.0	52.4	39.4	0.2	28.0	0.0	0.0	5.5	0.0	9.5
Prop In Lane	1.00		1.00	1.00		1.00	0.99		1.00	1.00		0.75
Lane Grp Cap(c), veh/h	170	2263		268	2263	1009	260	0		448	0	369
V/C Ratio(X)	0.32	0.55		0.47	0.71	0.01	0.70	0.00		0.20	0.00	0.37
Avail Cap(c_a), veh/h	170	2263		268	2263	1009	289	0		481	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	11.1	0.0	24.8	13.4	7.0	53.3	0.0	0.0	40.0	0.0	41.5
Incr Delay (d2), s/veh	3.9	0.8	0.0	5.9	2.0	0.0	6.6	0.0	0.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	15.2	0.0	6.3	23.3	0.1	11.0	0.0	0.0	4.5	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	11.9	0.0	30.7	15.4	7.0	59.8	0.0	0.0	40.2	0.0	42.2
LnGrp LOS	D	B		C	B	A	E	A		D	A	D
Approach Vol, veh/h		1307	A		1750			183	A		225	
Approach Delay, s/veh		12.9			16.5			59.8			41.4	
Approach LOS		B			B			E			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		93.0		37.0		93.0		37.0				
Change Period (Y+Rc), s		* 5.6		* 6.3		* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 84		* 34		* 84		* 34				
Max Q Clear Time (g_c+I1), s		59.0		11.5		54.4		30.0				
Green Ext Time (p_c), s		20.6		2.4		27.5		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		19.0
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	1116	23	252	1350	327	0	622	244	424	608	442
Future Volume (veh/h)	291	1116	23	252	1350	327	0	622	244	424	608	442
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	242	930	0	210	1125	0	0	518	203	353	507	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	192	1056		228	1128		0	875	390	316	1356	
Arrive On Green	0.11	0.31	0.00	0.14	0.34	0.00	0.00	0.26	0.26	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	242	930	0	210	1125	0	0	518	203	353	507	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	15.9	36.7	0.0	17.2	46.7	0.0	0.0	18.8	16.2	13.5	14.8	0.0
Cycle Q Clear(g_c), s	15.9	36.7	0.0	17.2	46.7	0.0	0.0	18.8	16.2	13.5	14.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1056		228	1128		0	875	390	316	1356	
V/C Ratio(X)	1.26	0.88		0.92	1.00		0.00	0.59	0.52	1.12	0.37	
Avail Cap(c_a), veh/h	192	1056		228	1128		0	875	390	316	1356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	45.6	0.0	59.8	46.5	0.0	0.0	45.3	44.3	63.2	29.4	0.0
Incr Delay (d2), s/veh	153.1	8.8	0.0	38.8	26.2	0.0	0.0	2.9	4.9	86.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	23.7	24.3	0.0	15.4	32.8	0.0	0.0	13.5	11.2	15.4	10.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	215.1	54.4	0.0	98.7	72.6	0.0	0.0	48.2	49.2	149.6	30.2	0.0
LnGrp LOS	F	D		F	E		A	D	D	F	C	
Approach Vol, veh/h		1172	A		1335	A		721			860	A
Approach Delay, s/veh		87.6			76.7			48.5			79.2	
Approach LOS		F			E			D			E	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	20.0	43.0	26.0	51.0		63.0	23.0	54.0
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1
Max Green Setting (Gmax), s	13.5	* 36	* 19	* 44		* 56	* 16	* 47
Max Q Clear Time (g_c+I1), s	15.5	20.8	19.2	38.7		16.8	17.9	48.7
Green Ext Time (p_c), s	0.0	7.4	0.0	4.1		10.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	75.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	195	1748	184	0	1355
Future Vol, veh/h	0	195	1748	184	0	1355
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	163	1457	153	0	1129

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	738	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	360	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	357	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	357	-
HCM Lane V/C Ratio	-	0.455	-
HCM Control Delay (s)	-	23.2	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	2.3	-

2029 Total Future Conditions - Rationalized

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	163	1000	116	72	482	392	77	689	101	20	310	426
Future Volume (veh/h)	163	1000	116	72	482	392	77	689	101	20	310	426
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	181	1111	0	80	536	0	86	766	103		344	473
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	1100		101	955		135	821	110		394	1108
Arrive On Green	0.10	0.33	0.00	0.06	0.29	0.00	0.04	0.27	0.27		0.12	0.35
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	2994	402		3300	3154
Grp Volume(v), veh/h	181	1111	0	80	536	0	86	434	435		344	254
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1699		1650	1697
Q Serve(g_s), s	11.5	39.2	0.0	5.6	16.6	0.0	3.2	29.9	30.0		12.3	13.7
Cycle Q Clear(g_c), s	11.5	39.2	0.0	5.6	16.6	0.0	3.2	29.9	30.0		12.3	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24		1.00	
Lane Grp Cap(c), veh/h	164	1100		101	955		135	465	466		394	596
V/C Ratio(X)	1.10	1.01		0.79	0.56		0.64	0.93	0.93		0.87	0.43
Avail Cap(c_a), veh/h	164	1100		162	955		384	468	469		396	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	40.4	0.0	55.7	36.1	0.0	56.5	42.5	42.5		51.9	29.7
Incr Delay (d2), s/veh	100.1	29.6	0.0	13.1	2.4	0.0	4.9	25.7	25.8		18.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	15.4	29.4	0.0	5.2	11.9	0.0	2.6	23.2	23.2		10.6	10.3
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	154.3	70.0	5.1	68.8	38.5	22.6	61.4	68.2	68.2		70.8	30.2
LnGrp LOS	F	F	A	E	D	C	E	E	E		E	C
Approach Vol, veh/h		1421	A		1052	A		955				858
Approach Delay, s/veh		74.9			34.2			67.6				46.5
Approach LOS		E			C			E				D

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	45.6	20.9	39.8	18.0	41.3	11.7	49.0
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	7.6	41.2	14.3	32.0	13.5	18.6	5.2	15.8
Green Ext Time (p_c), s	0.1	0.0	0.0	0.9	0.0	6.8	0.2	6.8

Intersection Summary	
HCM 6th Ctrl Delay	57.6
HCM 6th LOS	E

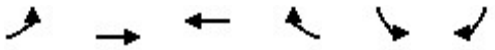
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	44
Future Volume (veh/h)	44
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	41
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	96
Arrive On Green	0.35
Sat Flow, veh/h	272
Grp Volume(v), veh/h	260
Grp Sat Flow(s),veh/h/ln	1730
Q Serve(g_s), s	13.8
Cycle Q Clear(g_c), s	13.8
Prop In Lane	0.16
Lane Grp Cap(c), veh/h	608
V/C Ratio(X)	0.43
Avail Cap(c_a), veh/h	608
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	29.7
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	10.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	30.2
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



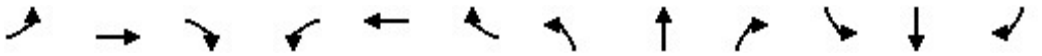
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	1304	894	59	76	67
Future Volume (veh/h)	80	1304	894	59	76	67
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	89	1449	993	62	84	34
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	410	2755	2344	146	138	123
Arrive On Green	0.04	0.82	0.49	0.49	0.08	0.08
Sat Flow, veh/h	1688	3455	3305	201	1688	1502
Grp Volume(v), veh/h	89	1449	520	535	84	34
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1734	1688	1502
Q Serve(g_s), s	1.4	16.5	23.9	23.9	5.8	2.6
Cycle Q Clear(g_c), s	1.4	16.5	23.9	23.9	5.8	2.6
Prop In Lane	1.00			0.12	1.00	1.00
Lane Grp Cap(c), veh/h	410	2755	1227	1264	138	123
V/C Ratio(X)	0.22	0.53	0.42	0.42	0.61	0.28
Avail Cap(c_a), veh/h	470	2755	1227	1264	450	400
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	1.00	1.00
Uniform Delay (d), s/veh	6.3	3.5	14.4	14.4	53.2	51.8
Incr Delay (d2), s/veh	0.3	0.7	1.0	0.9	4.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	10.1	16.0	16.4	5.0	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.5	4.2	15.4	15.4	57.5	53.0
LnGrp LOS	A	A	B	B	E	D
Approach Vol, veh/h		1538	1055		118	
Approach Delay, s/veh		4.3	15.4		56.2	
Approach LOS		A	B		E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.0		16.0	10.7	93.3
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		18.5		7.8	3.4	25.9
Green Ext Time (p_c), s		42.7		0.6	0.1	21.4

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	1111	116	65	865	65	50	32	111	13	6	23
Future Volume (veh/h)	152	1111	116	65	865	65	50	32	111	13	6	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	169	1234	0	72	961	72	56	36	0	14	7	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	464	2711		381	2395	1068	118	58		180	31	117
Arrive On Green	0.06	1.00	0.00	0.71	0.71	0.71	0.10	0.10	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1688	3367	1502	451	3367	1502	729	606	1502	1372	329	1223
Grp Volume(v), veh/h	169	1234	0	72	961	72	92	0	0	14	0	33
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	451	1683	1502	1335	0	1502	1372	0	1552
Q Serve(g_s), s	3.1	0.0	0.0	6.6	13.8	1.7	6.1	0.0	0.0	0.0	0.0	2.4
Cycle Q Clear(g_c), s	3.1	0.0	0.0	6.6	13.8	1.7	8.5	0.0	0.0	1.3	0.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	0.61		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	464	2711		381	2395	1068	176	0		180	0	148
V/C Ratio(X)	0.36	0.46		0.19	0.40	0.07	0.52	0.00		0.08	0.00	0.22
Avail Cap(c_a), veh/h	587	2711		381	2395	1068	455	0		434	0	436
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.8	0.0	0.0	5.9	7.0	5.2	53.3	0.0	0.0	49.6	0.0	50.1
Incr Delay (d2), s/veh	0.4	0.4	0.0	1.1	0.5	0.1	2.4	0.0	0.0	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.3	0.0	1.5	9.5	1.2	5.4	0.0	0.0	0.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.2	0.4	0.0	7.0	7.5	5.4	55.7	0.0	0.0	49.8	0.0	50.9
LnGrp LOS	A	A		A	A	A	E	A		D	A	D
Approach Vol, veh/h		1403	A		1105			92	A		47	
Approach Delay, s/veh		1.0			7.3			55.7			50.6	
Approach LOS		A			A			E			D	

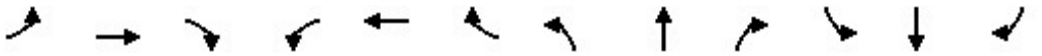
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		102.2		17.8	11.2	91.0		17.8				
Change Period (Y+Rc), s		* 5.6		* 6.3	* 5.7	* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 74		* 34	* 14	* 54		* 34				
Max Q Clear Time (g_c+I1), s		2.0		4.4	5.1	15.8		10.5				
Green Ext Time (p_c), s		40.7		0.4	0.5	23.3		1.1				

Intersection Summary												
HCM 6th Ctrl Delay			6.4									
HCM 6th LOS			A									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	856	12	111	747	263	0	317	149	270	297	286
Future Volume (veh/h)	208	856	12	111	747	263	0	317	149	270	297	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	231	951	0	123	830	0	0	352	166	300	330	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	238	1139		150	964		0	840	375	314	1345	
Arrive On Green	0.14	0.34	0.00	0.09	0.29	0.00	0.00	0.25	0.25	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	231	951	0	123	830	0	0	352	166	300	330	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	16.4	31.3	0.0	8.6	28.0	0.0	0.0	10.5	11.2	10.9	7.8	0.0
Cycle Q Clear(g_c), s	16.4	31.3	0.0	8.6	28.0	0.0	0.0	10.5	11.2	10.9	7.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	1139		150	964		0	840	375	314	1345	
V/C Ratio(X)	0.97	0.84		0.82	0.86		0.00	0.42	0.44	0.96	0.25	
Avail Cap(c_a), veh/h	238	1139		238	1007		0	840	375	314	1345	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.3	36.6	0.0	53.7	40.6	0.0	0.0	37.7	38.0	54.0	24.0	0.0
Incr Delay (d2), s/veh	50.3	5.5	0.0	11.7	7.5	0.0	0.0	1.5	3.8	39.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.9	20.7	0.0	7.7	19.2	0.0	0.0	8.4	8.3	10.6	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.6	42.1	0.0	65.5	48.1	0.0	0.0	39.3	41.7	93.1	24.4	0.0
LnGrp LOS	F	D		E	D		A	D	D	F	C	
Approach Vol, veh/h		1182	A		953	A		518			630	A
Approach Delay, s/veh		53.8			50.3			40.1			57.1	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	18.0	36.6	17.8	47.7		54.6	24.0	41.4				
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1				
Max Green Setting (Gmax), s	11.5	* 28	* 17	* 36		* 46	* 17	* 36				
Max Q Clear Time (g_c+I1), s	12.9	13.2	10.6	33.3		9.8	18.4	30.0				
Green Ext Time (p_c), s	0.0	5.1	0.2	2.2		6.0	0.0	4.3				

Intersection Summary			
HCM 6th Ctrl Delay		51.2	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	54	1186	76	0	799
Future Vol, veh/h	0	54	1186	76	0	799
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	60	1318	84	0	888

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	668	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	401	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	398	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	398	-
HCM Lane V/C Ratio	-	0.151	-
HCM Control Delay (s)	-	15.6	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.5	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	154	827	200	124	1071	544	278	741	93	31	368	565
Future Volume (veh/h)	154	827	200	124	1071	544	278	741	93	31	368	565
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	171	919	0	138	1190	0	309	823	94		409	628
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	971		162	948		362	844	96		396	865
Arrive On Green	0.10	0.29	0.00	0.10	0.29	0.00	0.11	0.28	0.28		0.12	0.28
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3058	349		3300	3059
Grp Volume(v), veh/h	171	919	0	138	1190	0	309	457	460		409	348
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1711		1650	1697
Q Serve(g_s), s	11.5	32.1	0.0	9.7	34.6	0.0	11.4	32.0	32.0		14.4	22.2
Cycle Q Clear(g_c), s	11.5	32.1	0.0	9.7	34.6	0.0	11.4	32.0	32.0		14.4	22.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20		1.00	
Lane Grp Cap(c), veh/h	164	971		162	948		362	468	472		396	480
V/C Ratio(X)	1.04	0.95		0.85	1.26		0.85	0.98	0.98		1.03	0.73
Avail Cap(c_a), veh/h	164	971		162	948		384	468	472		396	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	41.8	0.0	53.4	42.7	0.0	52.2	43.0	43.1		52.8	38.8
Incr Delay (d2), s/veh	81.4	18.6	0.0	33.2	123.8	0.0	16.3	35.2	35.0		54.0	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	14.0	23.2	0.0	9.7	45.8	0.0	9.5	25.8	25.9		14.5	16.0
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	135.7	60.4	5.1	86.6	166.5	22.6	68.5	78.2	78.1		106.8	44.2
LnGrp LOS	F	E	A	F	F	C	E	E	E		F	D
Approach Vol, veh/h		1312	A		1932	A		1226				1109
Approach Delay, s/veh		60.8			115.8			75.7				67.3
Approach LOS		E			F			E				E

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	41.0	21.0	40.0	18.0	41.0	20.2	40.8
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	11.7	34.1	16.4	34.0	13.5	36.6	13.4	24.3
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	0.2	5.5

Intersection Summary	
HCM 6th Ctrl Delay	84.4
HCM 6th LOS	F

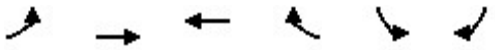
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	72
Future Volume (veh/h)	72
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	72
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	99
Arrive On Green	0.28
Sat Flow, veh/h	350
Grp Volume(v), veh/h	352
Grp Sat Flow(s),veh/h/ln	1713
Q Serve(g_s), s	22.3
Cycle Q Clear(g_c), s	22.3
Prop In Lane	0.20
Lane Grp Cap(c), veh/h	484
V/C Ratio(X)	0.73
Avail Cap(c_a), veh/h	484
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	38.9
Incr Delay (d2), s/veh	5.4
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	16.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	44.3
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



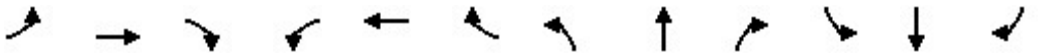
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	156	1250	1583	148	180	169
Future Volume (veh/h)	156	1250	1583	148	180	169
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	173	1389	1759	160	200	148
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	200	2538	2013	180	246	219
Arrive On Green	0.06	0.75	0.64	0.64	0.15	0.15
Sat Flow, veh/h	1688	3455	3211	280	1688	1502
Grp Volume(v), veh/h	173	1389	936	983	200	148
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1719	1688	1502
Q Serve(g_s), s	5.0	20.7	53.4	57.0	13.8	11.2
Cycle Q Clear(g_c), s	5.0	20.7	53.4	57.0	13.8	11.2
Prop In Lane	1.00			0.16	1.00	1.00
Lane Grp Cap(c), veh/h	200	2538	1085	1108	246	219
V/C Ratio(X)	0.87	0.55	0.86	0.89	0.81	0.67
Avail Cap(c_a), veh/h	226	2538	1085	1108	450	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.66	0.66	1.00	1.00
Uniform Delay (d), s/veh	32.4	6.2	17.1	17.7	49.6	48.5
Incr Delay (d2), s/veh	25.8	0.9	6.2	7.4	6.3	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.1	12.9	30.1	32.7	10.8	14.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.1	7.0	23.3	25.1	56.0	52.1
LnGrp LOS	E	A	C	C	E	D
Approach Vol, veh/h		1562	1919		348	
Approach Delay, s/veh		12.7	24.2		54.3	
Approach LOS		B	C		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.3		23.7	13.1	83.2
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		22.7		15.8	7.0	59.0
Green Ext Time (p_c), s		38.7		1.7	0.1	2.2

Intersection Summary						
HCM 6th Ctrl Delay			22.2			
HCM 6th LOS			C			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1149	232	114	1485	5	163	2	145	80	31	92
Future Volume (veh/h)	50	1149	232	114	1485	5	163	2	145	80	31	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	56	1277	0	127	1650	6	181	2	0	89	34	102
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	2263		260	2263	1009	258	2		448	92	277
Arrive On Green	0.67	0.67	0.00	0.67	0.67	0.67	0.24	0.24	0.00	0.24	0.24	0.24
Sat Flow, veh/h	301	3367	1502	433	3367	1502	860	10	1502	1415	390	1171
Grp Volume(v), veh/h	56	1277	0	127	1650	6	183	0	0	89	0	136
Grp Sat Flow(s),veh/h/ln	301	1683	1502	433	1683	1502	869	0	1502	1415	0	1561
Q Serve(g_s), s	19.1	26.0	0.0	28.5	41.0	0.2	18.5	0.0	0.0	0.0	0.0	9.5
Cycle Q Clear(g_c), s	60.1	26.0	0.0	54.5	41.0	0.2	28.0	0.0	0.0	5.5	0.0	9.5
Prop In Lane	1.00		1.00	1.00		1.00	0.99		1.00	1.00		0.75
Lane Grp Cap(c), veh/h	163	2263		260	2263	1009	260	0		448	0	369
V/C Ratio(X)	0.34	0.56		0.49	0.73	0.01	0.70	0.00		0.20	0.00	0.37
Avail Cap(c_a), veh/h	163	2263		260	2263	1009	289	0		481	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.0	11.2	0.0	25.6	13.7	7.0	53.3	0.0	0.0	40.0	0.0	41.5
Incr Delay (d2), s/veh	4.4	0.8	0.0	6.4	2.1	0.0	6.6	0.0	0.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	15.6	0.0	6.5	24.1	0.1	11.0	0.0	0.0	4.5	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	12.0	0.0	32.1	15.8	7.0	59.8	0.0	0.0	40.2	0.0	42.2
LnGrp LOS	D	B		C	B	A	E	A		D	A	D
Approach Vol, veh/h		1333	A		1783			183	A		225	
Approach Delay, s/veh		13.1			16.9			59.8			41.4	
Approach LOS		B			B			E			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		93.0		37.0		93.0		37.0				
Change Period (Y+Rc), s		* 5.6		* 6.3		* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 84		* 34		* 84		* 34				
Max Q Clear Time (g_c+I1), s		62.1		11.5		56.5		30.0				
Green Ext Time (p_c), s		18.7		2.4		25.9		0.7				

Intersection Summary		
HCM 6th Ctrl Delay	19.3	
HCM 6th LOS	B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	848	17	189	1028	245	0	467	183	318	456	347
Future Volume (veh/h)	229	848	17	189	1028	245	0	467	183	318	456	347
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	254	942	0	210	1142	0	0	519	203	353	507	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	192	1056		228	1128		0	875	390	316	1356	
Arrive On Green	0.11	0.31	0.00	0.14	0.34	0.00	0.00	0.26	0.26	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	254	942	0	210	1142	0	0	519	203	353	507	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	15.9	37.3	0.0	17.2	46.9	0.0	0.0	18.9	16.2	13.5	14.8	0.0
Cycle Q Clear(g_c), s	15.9	37.3	0.0	17.2	46.9	0.0	0.0	18.9	16.2	13.5	14.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1056		228	1128		0	875	390	316	1356	
V/C Ratio(X)	1.33	0.89		0.92	1.01		0.00	0.59	0.52	1.12	0.37	
Avail Cap(c_a), veh/h	192	1056		228	1128		0	875	390	316	1356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	45.8	0.0	59.8	46.6	0.0	0.0	45.3	44.3	63.2	29.4	0.0
Incr Delay (d2), s/veh	177.9	9.8	0.0	38.8	29.9	0.0	0.0	2.9	4.9	86.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	25.9	24.8	0.0	15.4	33.8	0.0	0.0	13.5	11.2	15.4	10.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	239.9	55.6	0.0	98.7	76.5	0.0	0.0	48.3	49.2	149.6	30.2	0.0
LnGrp LOS	F	E		F	F		A	D	D	F	C	
Approach Vol, veh/h		1196	A		1352	A		722			860	A
Approach Delay, s/veh		94.7			79.9			48.5			79.2	
Approach LOS		F			E			D			E	

Timer - Assigned Phs	1	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	20.0	43.0	26.0	51.0		63.0	23.0	54.0
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1
Max Green Setting (Gmax), s	13.5	* 36	* 19	* 44		* 56	* 16	* 47
Max Q Clear Time (g_c+I1), s	15.5	20.9	19.2	39.3		16.8	17.9	48.9
Green Ext Time (p_c), s	0.0	7.4	0.0	3.7		10.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	78.6
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	149	1322	147	0	1035
Future Vol, veh/h	0	149	1322	147	0	1035
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	166	1469	163	0	1150

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	744	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	357	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	354	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	354	-
HCM Lane V/C Ratio	-	0.468	-
HCM Control Delay (s)	-	23.8	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	2.4	-

2034 Ultimate Conditions – Rationalized

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	169	1032	123	86	507	438	92	722	109	21	362	446
Future Volume (veh/h)	169	1032	123	86	507	438	92	722	109	21	362	446
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	188	1147	0	96	563	0	102	802	112		402	496
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	1056		119	948		155	821	115		396	1100
Arrive On Green	0.10	0.31	0.00	0.07	0.29	0.00	0.05	0.28	0.28		0.12	0.35
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	2978	416		3300	3168
Grp Volume(v), veh/h	188	1147	0	96	563	0	102	457	457		402	265
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1697		1650	1697
Q Serve(g_s), s	11.5	37.7	0.0	6.7	17.7	0.0	3.8	32.0	32.0		14.4	14.5
Cycle Q Clear(g_c), s	11.5	37.7	0.0	6.7	17.7	0.0	3.8	32.0	32.0		14.4	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25		1.00	
Lane Grp Cap(c), veh/h	164	1056		119	948		155	468	468		396	589
V/C Ratio(X)	1.14	1.09		0.81	0.59		0.66	0.98	0.98		1.02	0.45
Avail Cap(c_a), veh/h	164	1056		162	948		384	468	468		396	589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	41.2	0.0	55.0	36.7	0.0	56.1	43.1	43.1		52.8	30.3
Incr Delay (d2), s/veh	114.3	54.0	0.0	19.0	2.7	0.0	4.7	35.4	35.4		49.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	16.5	34.2	0.0	6.5	12.5	0.0	3.0	25.8	25.8		14.1	10.8
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	168.6	95.2	5.1	73.9	39.4	22.6	60.8	78.5	78.5		101.9	30.8
LnGrp LOS	F	F	A	E	D	C	E	E	E		F	C
Approach Vol, veh/h		1472	A		1146	A		1016				939
Approach Delay, s/veh		96.2			35.2			76.7				61.3
Approach LOS		F			D			E				E

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	44.1	21.0	40.0	18.0	41.0	12.4	48.6
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	8.7	39.7	16.4	34.0	13.5	19.7	5.8	16.6
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	6.8	0.3	6.9

Intersection Summary	
HCM 6th Ctrl Delay	69.4
HCM 6th LOS	E

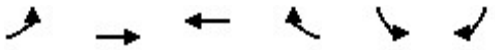
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	44
Future Volume (veh/h)	44
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	41
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	91
Arrive On Green	0.35
Sat Flow, veh/h	261
Grp Volume(v), veh/h	272
Grp Sat Flow(s),veh/h/ln	1732
Q Serve(g_s), s	14.6
Cycle Q Clear(g_c), s	14.6
Prop In Lane	0.15
Lane Grp Cap(c), veh/h	602
V/C Ratio(X)	0.45
Avail Cap(c_a), veh/h	602
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	30.3
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	11.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	30.9
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



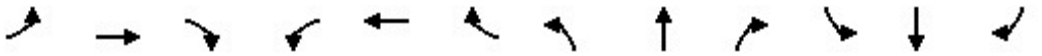
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	93	1388	964	64	85	82
Future Volume (veh/h)	93	1388	964	64	85	82
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	103	1542	1071	67	94	51
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	379	2752	2338	146	140	124
Arrive On Green	0.04	0.82	0.49	0.49	0.08	0.08
Sat Flow, veh/h	1688	3455	3305	201	1688	1502
Grp Volume(v), veh/h	103	1542	560	578	94	51
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1734	1688	1502
Q Serve(g_s), s	1.7	18.5	26.4	26.4	6.5	3.9
Cycle Q Clear(g_c), s	1.7	18.5	26.4	26.4	6.5	3.9
Prop In Lane	1.00			0.12	1.00	1.00
Lane Grp Cap(c), veh/h	379	2752	1224	1261	140	124
V/C Ratio(X)	0.27	0.56	0.46	0.46	0.67	0.41
Avail Cap(c_a), veh/h	437	2752	1224	1261	450	400
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.88	0.88	1.00	1.00
Uniform Delay (d), s/veh	7.2	3.7	15.2	15.2	53.5	52.3
Incr Delay (d2), s/veh	0.4	0.8	1.1	1.1	5.5	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	11.1	17.3	17.7	5.7	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	4.5	16.3	16.2	59.0	54.4
LnGrp LOS	A	A	B	B	E	D
Approach Vol, veh/h		1645	1138		145	
Approach Delay, s/veh		4.7	16.2		57.4	
Approach LOS		A	B		E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		103.9		16.1	10.8	93.0
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		20.5		8.5	3.7	28.4
Green Ext Time (p_c), s		44.0		0.7	0.2	22.0

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	1160	116	65	940	65	50	32	111	13	6	23
Future Volume (veh/h)	197	1160	116	65	940	65	50	32	111	13	6	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	219	1289	0	72	1044	72	56	36	0	14	7	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	442	2711		360	2360	1053	118	58		180	31	117
Arrive On Green	0.08	1.00	0.00	0.70	0.70	0.70	0.10	0.10	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1688	3367	1502	428	3367	1502	729	606	1502	1372	329	1223
Grp Volume(v), veh/h	219	1289	0	72	1044	72	92	0	0	14	0	33
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	428	1683	1502	1335	0	1502	1372	0	1552
Q Serve(g_s), s	4.2	0.0	0.0	7.2	16.1	1.8	6.1	0.0	0.0	0.0	0.0	2.4
Cycle Q Clear(g_c), s	4.2	0.0	0.0	7.2	16.1	1.8	8.5	0.0	0.0	1.3	0.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	0.61		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	442	2711		360	2360	1053	176	0		180	0	148
V/C Ratio(X)	0.50	0.48		0.20	0.44	0.07	0.52	0.00		0.08	0.00	0.22
Avail Cap(c_a), veh/h	547	2711		360	2360	1053	455	0		434	0	436
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.8	0.0	0.0	6.4	7.8	5.6	53.3	0.0	0.0	49.6	0.0	50.1
Incr Delay (d2), s/veh	0.6	0.4	0.0	1.2	0.6	0.1	2.4	0.0	0.0	0.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.3	0.0	1.5	10.8	1.2	5.4	0.0	0.0	0.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.4	0.0	7.7	8.4	5.8	55.7	0.0	0.0	49.8	0.0	50.9
LnGrp LOS	A	A		A	A	A	E	A		D	A	D
Approach Vol, veh/h		1508	A		1188			92	A		47	
Approach Delay, s/veh		1.3			8.2			55.7			50.6	
Approach LOS		A			A			E			D	

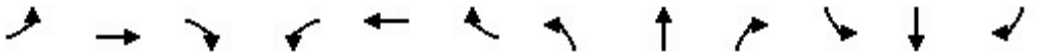
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		102.2		17.8	12.5	89.7		17.8				
Change Period (Y+Rc), s		* 5.6		* 6.3	* 5.7	* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 74		* 34	* 14	* 54		* 34				
Max Q Clear Time (g_c+I1), s		2.0		4.4	6.2	18.1		10.5				
Green Ext Time (p_c), s		43.3		0.4	0.6	24.2		1.1				

Intersection Summary		
HCM 6th Ctrl Delay	6.8	
HCM 6th LOS	A	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	903	14	127	774	308	0	421	169	318	401	334
Future Volume (veh/h)	253	903	14	127	774	308	0	421	169	318	401	334
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	281	1003	0	141	860	0	0	468	188	353	446	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	238	1115		168	976		0	828	369	314	1333	
Arrive On Green	0.14	0.33	0.00	0.10	0.29	0.00	0.00	0.25	0.25	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	281	1003	0	141	860	0	0	468	188	353	446	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	16.9	34.1	0.0	9.8	29.2	0.0	0.0	14.6	13.0	11.5	11.1	0.0
Cycle Q Clear(g_c), s	16.9	34.1	0.0	9.8	29.2	0.0	0.0	14.6	13.0	11.5	11.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	1115		168	976		0	828	369	314	1333	
V/C Ratio(X)	1.18	0.90		0.84	0.88		0.00	0.57	0.51	1.13	0.33	
Avail Cap(c_a), veh/h	238	1115		238	1007		0	828	369	314	1333	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.5	38.2	0.0	53.1	40.6	0.0	0.0	39.6	39.0	54.2	25.2	0.0
Incr Delay (d2), s/veh	116.6	10.0	0.0	16.3	9.0	0.0	0.0	2.8	5.0	89.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	23.2	23.0	0.0	8.9	20.1	0.0	0.0	11.0	9.4	14.3	8.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	168.2	48.3	0.0	69.3	49.6	0.0	0.0	42.4	44.0	143.2	25.9	0.0
LnGrp LOS	F	D		E	D		A	D	D	F	C	
Approach Vol, veh/h		1284	A		1001	A		656			799	A
Approach Delay, s/veh		74.5			52.4			42.9			77.7	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	18.0	36.1	19.1	46.8		54.1	24.0	41.9				
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1				
Max Green Setting (Gmax), s	11.5	* 28	* 17	* 36		* 46	* 17	* 36				
Max Q Clear Time (g_c+I1), s	13.5	16.6	11.8	36.1		13.1	18.9	31.2				
Green Ext Time (p_c), s	0.0	5.6	0.2	0.0		8.2	0.0	3.6				

Intersection Summary			
HCM 6th Ctrl Delay		63.7	
HCM 6th LOS		E	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	71	1269	78	0	871
Future Vol, veh/h	0	71	1269	78	0	871
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	79	1410	87	0	968

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	714	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	374	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	371	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	371	-
HCM Lane V/C Ratio	-	0.213	-
HCM Control Delay (s)	-	17.3	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.8	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	163	863	211	136	1099	603	299	791	107	32	427	591
Future Volume (veh/h)	163	863	211	136	1099	603	299	791	107	32	427	591
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1800	1772	1758	1772	1730	1786	1730	1786	1730		1786	1786
Adj Flow Rate, veh/h	181	959	0	151	1221	0	332	879	110		474	657
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		0.90	0.90
Percent Heavy Veh, %	0	2	3	2	5	1	5	1	5		1	1
Cap, veh/h	164	971		162	948		380	834	104		396	851
Arrive On Green	0.10	0.29	0.00	0.10	0.29	0.00	0.12	0.28	0.28		0.12	0.28
Sat Flow, veh/h	1714	3367	1490	1688	3287	1514	3196	3023	378		3300	3076
Grp Volume(v), veh/h	181	959	0	151	1221	0	332	493	496		474	362
Grp Sat Flow(s),veh/h/ln	1714	1683	1490	1688	1643	1514	1598	1697	1705		1650	1697
Q Serve(g_s), s	11.5	34.0	0.0	10.7	34.6	0.0	12.3	33.1	33.1		14.4	23.5
Cycle Q Clear(g_c), s	11.5	34.0	0.0	10.7	34.6	0.0	12.3	33.1	33.1		14.4	23.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22		1.00	
Lane Grp Cap(c), veh/h	164	971		162	948		380	468	470		396	470
V/C Ratio(X)	1.10	0.99		0.93	1.29		0.87	1.05	1.05		1.20	0.77
Avail Cap(c_a), veh/h	164	971		162	948		384	468	470		396	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	54.2	42.5	0.0	53.9	42.7	0.0	52.0	43.4	43.5		52.8	39.9
Incr Delay (d2), s/veh	100.1	26.1	0.0	51.5	137.8	0.0	19.2	56.6	56.5		110.8	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	15.4	25.4	0.0	11.4	48.8	0.0	10.2	30.6	30.7		19.6	17.1
Unsig. Movement Delay, s/veh			5.10			22.60						
LnGrp Delay(d),s/veh	154.3	68.6	5.1	105.4	180.5	22.6	71.1	100.0	100.0		163.6	47.6
LnGrp LOS	F	E	A	F	F	C	E	F	F		F	D
Approach Vol, veh/h		1374	A		2042	A		1321				1203
Approach Delay, s/veh		69.1			123.1			92.7				93.3
Approach LOS		E			F			F				F

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	41.0	21.0	40.0	18.0	41.0	20.9	40.1
Change Period (Y+Rc), s	6.5	6.4	6.6	* 6.9	6.5	6.4	6.6	* 6.9
Max Green Setting (Gmax), s	11.5	34.6	14.4	* 33	11.5	34.6	14.4	* 33
Max Q Clear Time (g_c+I1), s	12.7	36.0	16.4	35.1	13.5	36.6	14.3	25.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9

Intersection Summary	
HCM 6th Ctrl Delay	97.8
HCM 6th LOS	F

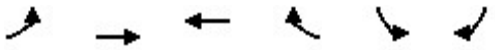
Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR] is included in calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	72
Future Volume (veh/h)	72
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1660
Adj Flow Rate, veh/h	72
Peak Hour Factor	0.90
Percent Heavy Veh, %	10
Cap, veh/h	93
Arrive On Green	0.28
Sat Flow, veh/h	337
Grp Volume(v), veh/h	367
Grp Sat Flow(s),veh/h/ln	1716
Q Serve(g_s), s	23.6
Cycle Q Clear(g_c), s	23.6
Prop In Lane	0.20
Lane Grp Cap(c), veh/h	475
V/C Ratio(X)	0.77
Avail Cap(c_a), veh/h	475
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	39.9
Incr Delay (d2), s/veh	7.7
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	17.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	47.6
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



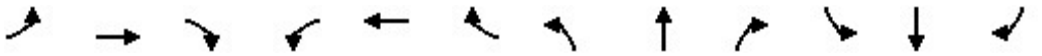
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	186	1355	1670	158	189	181
Future Volume (veh/h)	186	1355	1670	158	189	181
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1786	1772	1772
Adj Flow Rate, veh/h	207	1506	1856	172	210	161
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	1	2	2
Cap, veh/h	196	2517	1941	177	257	229
Arrive On Green	0.08	0.75	0.62	0.62	0.15	0.15
Sat Flow, veh/h	1688	3455	3206	284	1688	1502
Grp Volume(v), veh/h	207	1506	988	1040	210	161
Grp Sat Flow(s),veh/h/ln	1688	1683	1683	1718	1688	1502
Q Serve(g_s), s	9.0	24.5	64.4	69.5	14.5	12.2
Cycle Q Clear(g_c), s	9.0	24.5	64.4	69.5	14.5	12.2
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	196	2517	1048	1070	257	229
V/C Ratio(X)	1.06	0.60	0.94	0.97	0.82	0.70
Avail Cap(c_a), veh/h	196	2517	1048	1070	450	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.60	0.60	1.00	1.00
Uniform Delay (d), s/veh	41.7	6.9	20.7	21.7	49.2	48.3
Incr Delay (d2), s/veh	80.4	1.1	11.7	15.7	6.2	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.2	14.9	36.8	41.2	11.3	15.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	122.1	8.0	32.4	37.4	55.4	52.2
LnGrp LOS	F	A	C	D	E	D
Approach Vol, veh/h		1713	2028		371	
Approach Delay, s/veh		21.8	34.9		54.0	
Approach LOS		C	C		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		95.5		24.5	15.0	80.5
Change Period (Y+Rc), s		* 5.8		* 6.2	6.0	* 5.8
Max Green Setting (Gmax), s		* 76		* 32	9.0	* 61
Max Q Clear Time (g_c+I1), s		26.5		16.5	11.0	71.5
Green Ext Time (p_c), s		39.4		1.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1211	232	114	1582	5	163	2	145	80	31	92
Future Volume (veh/h)	102	1211	232	114	1582	5	163	2	145	80	31	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	113	1346	0	127	1758	6	181	2	0	89	34	102
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	2263		240	2263	1009	258	2		448	92	277
Arrive On Green	0.67	0.67	0.00	0.67	0.67	0.67	0.24	0.24	0.00	0.24	0.24	0.24
Sat Flow, veh/h	271	3367	1502	406	3367	1502	860	10	1502	1415	390	1171
Grp Volume(v), veh/h	113	1346	0	127	1758	6	183	0	0	89	0	136
Grp Sat Flow(s),veh/h/ln	271	1683	1502	406	1683	1502	869	0	1502	1415	0	1561
Q Serve(g_s), s	40.8	28.4	0.0	32.4	46.6	0.2	18.5	0.0	0.0	0.0	0.0	9.5
Cycle Q Clear(g_c), s	87.4	28.4	0.0	60.7	46.6	0.2	28.0	0.0	0.0	5.5	0.0	9.5
Prop In Lane	1.00		1.00	1.00		1.00	0.99		1.00	1.00		0.75
Lane Grp Cap(c), veh/h	141	2263		240	2263	1009	260	0		448	0	369
V/C Ratio(X)	0.80	0.59		0.53	0.78	0.01	0.70	0.00		0.20	0.00	0.37
Avail Cap(c_a), veh/h	141	2263		240	2263	1009	289	0		481	0	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.6	11.6	0.0	28.2	14.6	7.0	53.3	0.0	0.0	40.0	0.0	41.5
Incr Delay (d2), s/veh	28.9	0.8	0.0	8.2	2.7	0.0	6.6	0.0	0.0	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.2	16.6	0.0	7.0	27.1	0.1	11.0	0.0	0.0	4.5	0.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.5	12.5	0.0	36.4	17.3	7.0	59.8	0.0	0.0	40.2	0.0	42.2
LnGrp LOS	E	B		D	B	A	E	A		D	A	D
Approach Vol, veh/h		1459	A		1891			183	A		225	
Approach Delay, s/veh		17.6			18.6			59.8			41.4	
Approach LOS		B			B			E			D	

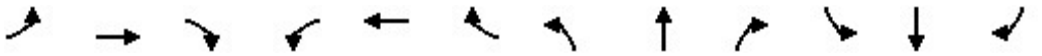
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		93.0		37.0		93.0		37.0				
Change Period (Y+Rc), s		* 5.6		* 6.3		* 5.6		* 6.3				
Max Green Setting (Gmax), s		* 84		* 34		* 84		* 34				
Max Q Clear Time (g_c+I1), s		89.4		11.5		62.7		30.0				
Green Ext Time (p_c), s		0.0		2.4		20.7		0.7				

Intersection Summary		
HCM 6th Ctrl Delay	21.6	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	903	24	226	1069	297	0	582	197	374	581	403
Future Volume (veh/h)	281	903	24	226	1069	297	0	582	197	374	581	403
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1772	1772	0	1772	1772	1772	1772	1772
Adj Flow Rate, veh/h	312	1003	0	251	1188	0	0	647	219	416	646	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Cap, veh/h	192	1056		228	1128		0	875	390	316	1356	
Arrive On Green	0.11	0.31	0.00	0.14	0.34	0.00	0.00	0.26	0.26	0.10	0.40	0.00
Sat Flow, veh/h	1688	3367	1502	1688	3367	1502	0	3455	1502	3274	3367	1502
Grp Volume(v), veh/h	312	1003	0	251	1188	0	0	647	219	416	646	0
Grp Sat Flow(s),veh/h/ln	1688	1683	1502	1688	1683	1502	0	1683	1502	1637	1683	1502
Q Serve(g_s), s	15.9	40.8	0.0	18.9	46.9	0.0	0.0	24.6	17.7	13.5	19.9	0.0
Cycle Q Clear(g_c), s	15.9	40.8	0.0	18.9	46.9	0.0	0.0	24.6	17.7	13.5	19.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1056		228	1128		0	875	390	316	1356	
V/C Ratio(X)	1.63	0.95		1.10	1.05		0.00	0.74	0.56	1.32	0.48	
Avail Cap(c_a), veh/h	192	1056		228	1128		0	875	390	316	1356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	47.0	0.0	60.5	46.6	0.0	0.0	47.5	44.9	63.2	30.9	0.0
Incr Delay (d2), s/veh	305.1	17.0	0.0	89.5	42.0	0.0	0.0	5.6	5.7	163.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	36.8	27.9	0.0	21.2	37.0	0.0	0.0	17.2	12.1	20.9	13.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	367.2	64.0	0.0	150.1	88.6	0.0	0.0	53.0	50.6	226.9	32.1	0.0
LnGrp LOS	F	E		F	F		A	D	D	F	C	
Approach Vol, veh/h		1315	A		1439	A		866			1062	A
Approach Delay, s/veh		135.9			99.3			52.4			108.4	
Approach LOS		F			F			D			F	

Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	20.0	43.0	26.0	51.0		63.0	23.0	54.0				
Change Period (Y+Rc), s	6.5	* 6.6	* 7.1	* 7.1		* 6.6	* 7.1	* 7.1				
Max Green Setting (Gmax), s	13.5	* 36	* 19	* 44		* 56	* 16	* 47				
Max Q Clear Time (g_c+I1), s	15.5	26.6	20.9	42.8		21.9	17.9	48.9				
Green Ext Time (p_c), s	0.0	6.2	0.0	1.0		12.6	0.0	0.0				

Intersection Summary			
HCM 6th Ctrl Delay		103.0	
HCM 6th LOS		F	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	162	1437	151	0	1121
Future Vol, veh/h	0	162	1437	151	0	1121
Conflicting Peds, #/hr	0	9	0	9	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	45	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	1	1	2	1
Mvmt Flow	0	180	1597	168	0	1246

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	808	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	324	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	321	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	321	-
HCM Lane V/C Ratio	-	0.561	-
HCM Control Delay (s)	-	29.6	-
HCM Lane LOS	-	D	-
HCM 95th %tile Q(veh)	-	3.2	-