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MEMO

VIA EMAIL todd@versacos.com

To:	**Todd Wyett** **Latson South, LLC**
From:	**Jacob Swanson, PE** **Fleis & VandenBrink**
Date:	**May 31, 2023**
Re:	**Latson Farm PUD** **Genoa Township, Michigan** **Traffic Impact Study**

1 INTRODUCTION

This report presents the results of a Traffic Impact Study (TIS) for the proposed Latson Farm Planned Unit Development (PUD) in Genoa Township, Michigan. The project site is located on undeveloped property generally in the southwest quadrant of the Latson Road & Beck Road intersection, as shown on the attached **Figure 1**. The proposed project includes the construction of approximately 212-Acres of property for a mixed-use PUD project. At this time, the land uses are still unknown and would potentially include various land uses, such as: warehousing, industrial, research & development, commercial, office, multi-family housing, senior housing, and single-family homes. Site access is currently proposed via three (3) full access driveways to Latson Road, one (1) full access driveway to Crooked Lake Road, and 1-2 full access driveways to Beck Road.

The scope of this study was developed based on Fleis & VandenBrink's (F&V) knowledge of the study area, understanding of the development program, accepted traffic engineering practice and information published by the Institute of Transportation Engineers (ITE). In addition, the Livingston County Road Commission (LCRC) and Genoa Township also provided input regarding the scope of work for this study. The study analyses were completed using Synchro/SimTraffic (Version 11). Sources of data for this study include F&V subconsultant Quality Counts, LLC (QC), LCRC, ITE, MDOT, and information provided by the client. All background information is attached for reference.

2 BACKGROUND

2.1 EXISTING ROAD NETWORK

Vehicle transportation for the proposed development is provided via Latson Road; with regional transportation being provided via I-96, located just north of the project site. The lane use and traffic control at the study intersections are shown on the attached **Figure 2** and the study roadways are further described below. For the purposes of this study, all minor streets and driveways are assumed to have an operating speed of 25 miles per hour (mph), unless otherwise noted.

I-96 runs in the east and west directions, approximately ½-mile north of the project site. I-96 has an Average Annual Daily Traffic (AADT) volume of approximately 56,000 vehicles per day (SEMCOG 2018) and is under the jurisdiction of MDOT. The study section of roadway has a posted speed limit of 70 mph; however, for analysis purposes, the speed limit for the exit/entrance ramps was assumed to be 25 mph. The roadway is a median divided interstate and has a typical six-lane cross-section, with three (3) lanes in each direction. At the intersection of Latson Road & EB I-96 exit-ramp, the ramp approach provides dual (2) left-turn lanes and a single right-turn lane. At the intersection of Latson Road & WB I-96 exit-ramp, the ramp approach provides a single left-turn lane and dual (2) right-turn lanes.

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Grand River Avenue (I-96 BL) generally runs in the northwest and southeast directions, approximately 1-mile north of the project site. Grand River Avenue is under the jurisdiction of MDOT and has a posted speed limit of 50 mph. The study section of Grand River has a national functional classification of *Principal Arterial* and has an AADT volume of approximately 30,500 vehicles per day (SEMCOG 2021). The roadway has a typical five-lane cross-section, with two lanes in each direction and a center two-way left-turn lane (TWLTL). Additionally, Grand River widens at the intersection with Latson Road to provide dual (2) left-turn lanes and exclusive right-turn lanes in both directions.

Latson Road runs in the north and south directions, adjacent to the project site. The study section of Latson Road has an unposted speed limit of 55 mph and is under the jurisdiction of LCRC. Latson Road has a national functional classification of *Minor Arterial* and an AADT volume of approximately 9,400 vehicles per day (SEMCOG 2018) south of I-96. The study section north of Cloverbend Road has a typical five-lane cross-section, with two (2) lanes in each direction and a center TWLTL. South of Cloverbend Road, the roadway narrows to provide a typical two-lane cross-section, with one (1) lane in each direction, widening at the Crooked Lake Road intersection to provide exclusive left-turn lanes in both directions.

Beck Road runs in the east and west directions, adjacent to the north side of the project limits, east of Latson Road. Beck Road is under the jurisdiction of LCRC and has an unposted speed limit of 55 mph. The national functional classification of Beck Road through the study area is *Local Road.* The roadway is paved for approximately 500-ft both east and west of Latson Road; however, beyond the paved area Beck Road is a gravel road. Exclusive left-turn lanes are provided on both intersection approaches to Latson Road.

Sweet Road runs in the east and west directions on the east side of Latson Road, opposite the proposed development. Sweet Road is under the jurisdiction of LCRC and has an unposted speed limit of 55 mph. The national functional classification of Beck Road through the study area is *Local Road.* The roadway is paved for approximately 100-ft east of Latson Road; however, beyond this area Sweet Road is a gravel road.

Crooked Lake Road runs in the east and west directions, south of the proposed development. Crooked Lake Road has an AADT volume of approximately 2,400 vehicles per day (SEMCOG 2019). Crooked Lake Road is under the jurisdiction of LCRC and has an unposted speed limit of 55 mph. The national functional classification of Crooked Lake Road through the study area is *Local Road.* The roadway is paved for approximately 200-ft both east and west of Latson Road; however, beyond the paved area Crooked Lake Road is a gravel road. Exclusive left-turn lanes are provided on both intersection approaches to Latson Road.

Chilson Road generally runs in the northwest and southeast directions, southwest of the proposed development. Chilson Road is under the jurisdiction of LCRC and has a posted speed limit of 55 mph. The study section of Chilson Road is a typical two-lane cross-section, with one (1) lane in each direction. Chilson Road has an AADT volume of approximately 2,800 vehicles per day (SEMCOG 2021) and a national functional classification of Chilson Road through the study area is *Minor Arterial.*

2.2 EXISTING TRAFFIC VOLUMES

F&V subconsultant QC collected existing Turning Movement Count (TMC) data on Tuesday May 2, 2023, during the AM (7:00 AM-9:00 AM) and PM (3:00 PM-6:00 PM) peak periods at the following study intersections:

- Latson Road & Grand River Avenue
- Latson Road & EB I-96 Ramps
- Latson Road & Sweet Road
- Crooked Lake Road & Chilson Road
- Latson Road & WB I-96 Ramps
- Latson Road & Beck Road
- Latson Road & Crooked Lake Road

The *Three Fires Elementary School* has an 8:40AM start time and a 3:40PM end time. Therefore, intersection turning movement counts were collected at the study intersections during these time periods, in order to include the potential peaking characteristics of the school.

During collection of the turning movement counts, Peak Hour Factors (PHFs), pedestrian and bike volumes, and commercial truck percentages were recorded and used in the traffic analysis. Through volumes were carried through the roadway network and balanced at the proposed site driveway locations. At locations where access is provided between study intersections, “dummy” intersections were used to account for sink and source volumes, and through volumes were carried along the main study roadways. Therefore, the traffic

volumes used in the analysis and shown on the attached traffic volume figures may not match the raw traffic volumes shown in the data collection. The weekday AM and PM peak hours for the adjacent roadway network were observed to generally occur between 8:00 AM to 9:00 AM and 4:30 PM to 5:30 PM, respectively. F&V collected an inventory of existing lane use and traffic controls, as shown on the attached **Figure 2**. Additionally, F&V obtained the current traffic signal timing information from MDOT and LCRC. The existing 2023 peak hour traffic volumes used in the analysis are shown on the attached **Figure 3**. All applicable background data referenced in this memorandum is attached.

3 EXISTING CONDITIONS (2023)

Existing peak hour vehicle delays and Levels of Service (LOS) were calculated at the study intersection using Synchro/SimTraffic (Version 11) traffic analysis software. This analysis was based on the existing lane use and traffic control shown on the attached **Figure 2**, the existing peak hour traffic volumes shown on the attached **Figure 3**, and the methodologies presented in the *Highway Capacity Manual, 6th Edition* (HCM6).

Descriptions of LOS "A" through "F" as defined in the HCM6, are attached. Typically, LOS D is considered acceptable, with LOS A representing minimal delay and LOS F indicating failing conditions. The existing conditions results are attached and summarized in **Table 1**.

The results of the existing conditions analysis indicates that all approaches and movements at the study intersections are currently operating acceptably, at LOS D or better during both the AM and PM peak periods, with the exception of the following. Review of the SimTraffic network simulations at all of the remaining study intersections indicates acceptable traffic operations throughout the study roadway network during both the AM and PM peak hours.

Latson Road & Grand River Avenue

- During the AM peak hour: The northbound right-turn movement and the westbound left-turn movement are currently operating at LOS F and LOS E, respectively.
- During the PM peak hour: The westbound right-turn movement is currently operating at LOS F. Additionally, the westbound and the southbound left-turn movements are currently operating at LOS E.

  Review of SimTraffic network simulations indicates long vehicle queues for many of the study intersection approaches and movements. These queues were observed to generally take multiple cycle lengths in order to be serviced and were typically present throughout the peak hours.

Table 1: Existing Intersection Operations

Intersection		Control	Approach	Existing Conditions			
				AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Latson Road & Grand River Avenue	Signalized	EBL	44.1	D	45.0	D
			EBT	30.0	C	34.7	C
			EBR	22.0	C	24.7	C
			WBL	57.8	E	69.2	E
			WBT	26.9	C	34.6	C
			WBR	14.1	B	98.6	F
			NBL	45.2	D	53.1	D
			NBT	38.7	D	40.4	D
			NBR	80.9	F	28.0	C
			SBL	41.8	D	78.9	E
			SBT	30.4	C	38.4	D
			SBR	25.9	C	25.5	C
			Overall	**38.6**	**D**	**51.2**	**D**

Intersection		Control	Approach	Existing Conditions			
				AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS
2	Latson Road & WB I-96 Ramps	Signalized	WBL	33.1	C	26.8	C
			WBR	38.2	D	33.8	C
			NBL	1.0	A	6.4	A
			NBT	0.2	A	0.4	A
			SBT	7.2	A	17.1	B
			SBR	7.9	A	20.0	B
			Overall	**7.6**	**A**	**15.3**	**B**
3	Latson Road & EB I-96 Ramps	Signalized	EBL	33.8	C	33.5	C
			EBR	29.5	C	30.4	C
			NBT	5.1	A	5.4	A
			NBR	4.8	A	4.7	A
			SBL	2.2	A	2.3	A
			SBT	0.1	A	0.2	A
			Overall	**13.7**	**B**	**11.7**	**B**
4	Latson Road & Beck Road	Stop (Minor)	EBL	11.5	B	13.4	B
			EBTR	0.0*	A	9.1	A
			WBL	0.0*	A	0.0*	A
			WBTR	9.4	A	9.8	A
			NBL	0.0*	A	0.0*	A
			SBL	8.3	A	8.3	A
5	Latson Road & Sweet Road	Stop (Minor)	WB	12.0	B	19.8	C
			NB	Free			
			SBL	8.2	A	8.4	A
6	Latson Road & Crooked Lake Road	Stop (All-Way)	EBL	10.0	A	11.6	B
			EBTR	9.4	A	10.9	B
			WBL	9.9	A	12.5	B
			WBTR	9.8	A	12.5	B
			NBL	8.7	A	9.7	A
			NBTR	14.8	B	26.3	D
			SBL	9.7	A	11.3	B
			SBTR	10.7	B	25.1	D
			Overall	**12.3**	**B**	**21.3**	**C**
7	Crooked Lake Road & Chilson Road	Stop (Minor)	EB	10.5	B	11.3	B
			WB	10.2	B	11.1	B
			NBL	7.4	A	7.6	A
			SBL	7.6	A	7.5	A

** Indicates no vehicle volume present*

3.1 Background Growth

Southeast Michigan Council of Governments (SEMCOG), the multi-jurisdictional agency responsible for the transportation planning in Southeast Michigan, maintains the regional transportation planning models and provides information regarding projected growth rates along roadways throughout their jurisdiction. The SEMCOG traffic volume forecast models were utilized to calculate background growth rates on the adjacent study sections of Latson Road for use in this analysis; indicating the following growth rates, compounded annually, from 2020 to 2050. This information was used to determine the applicable growth rate to project the existing 2023 traffic volumes to the build-out year of 2043. The growth rates for the study corridors provided by the SEMCOG forecast models are summarized in **Table 2**.

Table 2: SEMCOG Growth Rates

Road	Limits	Growth Rate
Latson Road	Chilson Road to Crooked Lake Road	0.72%
Latson Road	Crooked Lake Road to I-96	0.68%

Therefore, a conservative growth rate of 0.72% was utilized for the study roadway network, resulting in an approximately 15% growth rate on Latson Road over the 20-year buildout. It is expected that a high percentage of the growth on Latson Road will be generated by the proposed development. However, in order to provide a more conservative evaluation, the full growth rate was applied to the study intersections.

In addition to the background traffic growth, it is important to account for traffic that will be generated by developments within the vicinity of the study area that are currently under construction or will be within the buildout year. At the time of this study, the following background development was identified:

- St. Joseph Mercy Health Center Expansion

The site-generated trips were obtained for the background development from the Traffic Impact Study (TIS) completed; the TIS excerpts are attached for reference. The background development trips were added to the existing traffic volumes, after applying a conservative annual growth rate of **0.72%** to forecast the background 2043 traffic volumes ***without the proposed development***, as shown on the attached **Figure 4**.

4 Background Conditions (2043 No Build)

Background peak hour vehicle delays and LOS ***without the proposed development*** were calculated at the study intersections based on the existing lane use and traffic control shown on the attached **Figure 2**, the background peak hour traffic volumes shown on the attached **Figure 4**, and the methodologies presented in the HCM6. The results of the background conditions analysis are attached and summarized in **Table 2**.

Table 3: Background Intersection Operations

Intersection		Control	Approach	Existing Conditions				Background Conditions				Difference			
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Latson Road & Grand River Avenue	Signal	EBL	44.1	D	45.0	D	44.3	D	47.0	D	0.2	-	2.0	-
			EBT	30.0	C	34.7	C	35.9	D	41.6	D	5.9	C→D	6.9	C→D
			EBR	22.0	C	24.7	C	23.6	C	26.8	C	1.6	-	2.1	-
			WBL	57.8	E	69.2	E	90.6	F	127.0	F	32.8	E→F	57.8	E→F
			WBT	26.9	C	34.6	C	30.7	C	55.9	E	3.8	-	21.3	C→E
			WBR	14.1	B	98.6	F	14.7	B	210.0	F	0.6	-	111.4	-
			NBL	45.2	D	53.1	D	44.5	D	66.9	E	-0.7	-	13.8	D→E
			NBT	38.7	D	40.4	D	40.2	D	42.5	D	1.5	-	2.1	-
			NBR	80.9	F	28.0	C	163.9	F	29.3	C	83.0	-	1.3	-
			SBL	41.8	D	78.9	E	43.9	D	127.0	F	2.1	-	48.1	E→F
			SBT	30.4	C	38.4	D	30.2	C	39.7	D	-0.2	-	1.3	-
			SBR	25.9	C	25.5	C	25.3	C	24.5	C	-0.6	-	-1.0	-
			Overall	**38.6**	**D**	**51.2**	**D**	**51.2**	**D**	**81.1**	**F**	**12.6**	**-**	**29.9**	**D→F**
2	Latson Road & WB I-96 Ramps	Signal	WBL	33.1	C	26.8	C	32.2	C	25.3	C	-0.9	-	-1.5	-
			WBR	38.2	D	33.8	C	37.6	D	34.6	C	-0.6	-	0.8	-
			NBL	1.0	A	6.4	A	1.6	A	10.5	B	0.6	-	4.1	A→B
			NBT	0.2	A	0.4	A	0.3	A	0.6	A	0.1	-	0.2	-
			SBT	7.2	A	17.1	B	7.9	A	19.1	B	0.7	-	2.0	-
			SBR	7.9	A	20.0	B	9.0	A	23.7	C	1.1	-	3.7	B→C
			Overall	**7.6**	**A**	**15.3**	**B**	**7.9**	**A**	**16.8**	**B**	**0.3**	**-**	**1.5**	**-**

	Intersection	Control	Approach	Existing Conditions				Background Conditions				Difference			
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
3	Latson Road & EB I-96 Ramps	Signal	EBL	33.8	C	33.5	C	32.7	C	32.5	C	-1.1	-	-1.0	-
			EBR	29.5	C	30.4	C	27.5	C	28.9	C	-2.0	-	-1.5	-
			NBT	5.1	A	5.4	A	6.1	A	6.4	A	1.0	-	1.0	-
			NBR	4.8	A	4.7	A	5.7	A	5.4	A	0.9	-	0.7	-
			SBL	2.2	A	2.3	A	4.0	A	4.2	A	1.8	-	1.9	-
			SBT	0.1	A	0.2	A	0.1	A	0.3	A	0.0	-	0.1	-
			Overall	**13.7**	**B**	**11.7**	**B**	**14.3**	**B**	**12.1**	**B**	**0.6**	**-**	**0.4**	**-**
4	Latson Road & Beck Road	Stop (Minor)	EBL	11.5	B	13.4	B	12.6	B	14.7	B	1.1	-	1.3	-
			EBTR	0.0*	A	9.1	A	0.0*	A	9.3	B	0.0*	-	0.2	A→B
			WBL	0.0*	A	0.0*	A	0.0*	A	0.0*	A	0.0*	-	0.0*	-
			WBTR	9.4	A	9.8	A	9.7	A	10.1	B	0.3	-	0.3	A→B
			NBL	0.0*	A	0.0*	A	0.0*	A	0.0*	A	0.0*	-	0.0*	-
			SBL	8.3	A	8.3	A	8.5	A	8.6	A	0.2	-	0.3	-
5	Latson Road & Sweet Road	Stop (Minor)	WB	12.0	B	19.8	C	13.0	B	24.0	C	1.0	-	4.2	-
			NB	Free				Free				N/A			
			SBL	8.2	A	8.4	A	8.3	A	8.6	A	0.1	-	0.2	-
6	Latson Road & Crooked Lake Road	Stop (All-Way)	EBL	10.0	A	11.6	B	10.5	B	12.5	B	0.5	A→B	0.9	-
			EBTR	9.4	A	10.9	B	9.9	A	11.9	B	0.5	-	1.0	-
			WBL	9.9	A	12.5	B	10.4	B	13.9	B	0.5	A→B	1.4	-
			WBTR	9.8	A	12.5	B	10.6	B	14.6	B	0.8	A→B	2.1	-
			NBL	8.7	A	9.7	A	8.9	A	10.2	B	0.2	-	0.5	A→B
			NBTR	14.8	B	26.3	D	19.8	C	53.6	F	5.0	B→C	27.3	D→F
			SBL	9.7	A	11.3	B	10.2	B	12.6	B	0.5	A→B	1.3	-
			SBTR	10.7	B	25.1	D	11.9	B	50.1	F	1.2	-	25.0	D→F
			Overall	**12.3**	**B**	**21.3**	**C**	**15.2**	**C**	**39.5**	**E**	**2.9**	**B→C**	**18.2**	**C→E**
7	Crooked Lake Road & Chilson Road	Stop (Minor)	EB	10.5	B	11.3	B	10.8	B	11.9	B	0.3	-	0.6	-
			WB	10.2	B	11.1	B	10.5	B	11.7	B	0.3	-	0.6	-
			NBL	7.4	A	7.6	A	7.4	A	7.6	A	0.0	-	0.0	-
			SBL	7.6	A	7.5	A	7.6	A	7.6	A	0.0	-	0.1	-

** Indicates no vehicle volume present*

The results of the background conditions analysis indicates that all approaches and movements at the study intersections are expected to continue operating in a manner similar to the existing conditions analysis, with the following exceptions:

Latson Road & Grand River Avenue

- <u>During the AM peak hour:</u> The westbound left-turn movement is expected to operate at LOS F.
- <u>During the PM peak hour:</u> The westbound and southbound left-turn movements are expected to operate at LOS F. Additionally, the westbound through movement and the northbound left-turn movement are expected to operate at LOS E.

Review of SimTraffic microsimulations indicates long vehicle queues for the majority of the study intersection approaches and movements, with further increased queue lengths compared to existing conditions. These queues were observed to take multiple cycle lengths in order to be serviced and were typically present throughout the peak hours.

Latson Road & Crooked Lake Road

- During the PM peak hour: The northbound shared through/right movement and southbound shared through/right movement are expected to operate at LOS F.

Review of SimTraffic network simulations indicates acceptable operations throughout the remaining study roadway network, similar to the existing conditions analysis, with moderate increases in vehicle queueing for all approaches and movements.

5 SITE TRIP GENERATION

The number of AM and PM peak hour vehicle trips that would be generated by the proposed development was forecast based on data published by ITE in the *Trip Generation Manual, 11th Edition* and the ITE *Trip Generation Handbook, 3rd Edition*. The proposed development includes Industrial/High-Tech facilities and residential units on the west side of Latson Road and gas station with commercial buildings on the east side of Latson Road. There are no specific plans yet determined for the site; therefore, several assumptions were made in the trip generation analysis regarding the conceptual site plan and projected land uses. The site trip generation forecast was reviewed and approved by LCRC prior to use in this analysis and is summarized in **Table 4**.

Table 4: Trip Generation Summary

Land Use	ITE Code	Amount	Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
					In	Out	Total	In	Out	Total
Industrial Park	130	1,500,000	SF	3,839	413	97	510	112	398	510
Single-Family Detached	210	60	DU	631	12	35	47	38	23	61
Multi-Family Housing (Low-Rise)	220	452	DU	2,973	39	124	163	135	80	215
Medical-Dental Office Building	720	18,000	SF	665	40	11	51	21	49	70
Shopping Plaza (40-150k SF) - *NE Parcel*	821	51,000	SF	3,444	55	33	88	130	135	265
Pass-By	40%			*689*	*17*	*17*	*34*	*53*	*53*	*106*
New Trips				2,755	*38*	*16*	*54*	*77*	*82*	*159*
Strip Retail Plaza (<40k SF) - *East Parcel*	822	38,500	SF	1,854	55	36	91	102	101	203
Pass-By	40%			*371*	*18*	*18*	*36*	*40*	*40*	*80*
New Trips				1,483	*37*	*18*	*55*	*62*	*61*	*123*
Coffee Shop with Drive-Through	937	1,500	SF	800	66	63	129	29	29	58
Pass-By	50% AM, 55% PM			*420*	*33*	*33*	*66*	*16*	*16*	*32*
New Trips				380	*33*	*30*	*63*	*13*	*13*	*26*
Gas Station with Convenience Market	945	8	VFP	2,116	64	64	128	74	73	147
Pass-By	60% AM, 56% PM			*1,227*	*38*	*38*	*76*	*41*	*41*	*82*
New Trips				889	*26*	*26*	*52*	*33*	*32*	*65*
Total Trips				16,322	744	463	1,207	641	888	1,529
Total Pass-By				*2,707*	*106*	*106*	*212*	*150*	*150*	*300*
Total New Trips				**13,615**	**638**	**357**	**995**	**491**	**738**	**1,229**

As is typical of commercial developments, a portion of the trips generated are from vehicles that are already on the adjacent roadways and will pass the site on the way from an origin to their ultimate destination. Therefore, not all traffic at the site driveways is necessarily new traffic added to the street system. This percentage of the trips generated by the development are considered "pass-by" trips, which are already present within the adjacent street system. These trips are therefore reduced from the total external trips generated by a study site. The pass-by trips for this site were applied to Latson Road and were considered as either pass-by or diverted link, depending on the proposed site access location.

The percentage of pass-by trips used in this analysis was determined based on the rates published by ITE in the *Trip Generation Manual, 11th Edition.* However, ITE does not provide pass-by data for LUC 822: Strip Retail Plaza; therefore, the pass-by data for LUC 821: Shopping Plaza was utilized for this analysis. Additionally, ITE does not provide pass-by data for LUC 937: Coffee Shop with Drive-Through; therefore, the pass-by data for LUC 934: Fast-Food Restaurant with Drive-Through was utilized for this analysis.

6 SITE TRIP DISTRIBUTION

The vehicular trips that would be generated by the proposed development were assigned to the study roadway network based on the proposed site access plan and driveway configurations, the existing peak hour traffic patterns in the adjacent roadway network, and the methodologies published by ITE. The ITE trip distribution methodology assumes that new trips are home-to-work based, entering the network to access the development, then leave the development to return to their direction of origin, whereas pass-by trips will enter and exit the development, then continue in their original direction of travel. The site trip distributions utilized in this analysis are summarized in **Table 5**.

Table 5: New Site Trip Distribution

To/From	Via	Commercial		Commercial Pass-By		Residential		Industrial	
		AM	PM	AM	PM	AM	PM	AM	PM
North	Latson Road	12%	7%	59% (NB)	45% (NB)	5%	7%	12%	13%
South	Latson Road	4%	4%	41% (SB)	55% (SB)	3%	4%	4%	4%
East	Grand River Avenue	8%	17%			15%	17%	8%	11%
	I-96	26%	33%			41%	33%	26%	27%
	Crooked Lake Road	1%	2%			2%	2%	1%	2%
West	Grand River Avenue	8%	10%			8%	10%	8%	10%
	I-96	41%	27%			26%	27%	41%	33%
Total		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The vehicular traffic volumes shown in **Table 4** were distributed to the study network according to the distribution shown in **Table 5**. The site-generated trips shown on the attached **Figure 5** were added to the background peak hour traffic volumes shown on the attached **Figure 4**, in order to calculate the future peak hour traffic volumes with the addition of the proposed development. Future peak hour traffic volumes are shown on the attached **Figure 6**.

7 FUTURE CONDITIONS (2024 BUILDOUT)

Future peak hour vehicle delays and LOS ***with the proposed development*** were calculated based on the future lane use and traffic control shown on the attached **Figure 2**, the proposed site access plan, the future traffic volumes shown on the attached **Figure 6**, and the methodologies presented in the HCM6. The results of the future conditions analysis are attached and summarized in **Table 6.**

Table 6: Future Intersection Operations

Intersection		Control	Approach	Background Conditions				Future Conditions				Difference			
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Latson Road & Grand River Avenue	Signal	EBL	44.3	D	47.0	D	44.3	D	47.0	D	0.0	-	0.0	-
			EBT	35.9	D	41.6	D	35.9	D	42.6	D	0.0	-	1.0	-
			EBR	23.6	C	26.8	C	24.5	C	29.6	C	0.9	-	2.8	-
			WBL	90.6	F	127.0	F	181.1	F	195.7	F	90.5	-	68.7	-
			WBT	30.7	C	55.9	E	30.7	C	58.6	E	0.0	-	2.7	-
			WBR	14.7	B	210.0	F	14.7	B	215.3	F	0.0	-	5.3	-
			NBL	44.5	D	66.9	E	43.8	D	130.1	F	-0.7	-	63.2	E→F
			NBT	40.2	D	42.5	D	42.1	D	49.7	D	1.9	-	7.2	-
			NBR	163.9	F	29.3	C	221.0	F	37.5	C	57.1	-	8.2	-
			SBL	43.9	D	127.0	F	43.9	D	127.0	F	0.0	-	0.0	-
			SBT	30.2	C	39.7	D	33.1	C	41.6	D	2.9	-	1.9	-
			SBR	25.3	C	24.5	C	26.3	C	24.2	C	1.0	-	-0.3	-
			Overall	**51.2**	**D**	**81.1**	**F**	**65.2**	**E**	**93.1**	**F**	**14.0**	**D→E**	**12.0**	**-**

Intersection		Control	Approach	Background Conditions				Future Conditions				Difference			
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
2	Latson Road & WB I-96 Ramps	Signal	WBL	32.2	C	25.3	C	36.9	D	29.4	C	4.7	C→D	4.1	-
			WBR	37.6	D	34.6	C	31.4	D	33.6	C	-6.2	-	-1.0	-
			NBL	1.6	A	10.5	B	18.7	B	367.4	F	17.1	A→B	356.9	B→F
			NBT	0.3	A	0.6	A	0.5	A	1.0	A	0.2	-	0.4	-
			SBT	7.9	A	19.1	B	16.5	B	20.8	C	8.6	A→B	1.7	B→C
			SBR	9.0	A	23.7	C	16.4	B	23.4	C	7.4	A→B	-0.3	-
			Overall	**7.9**	**A**	**16.8**	**B**	**13.7**	**B**	**50.1**	**D**	**5.8**	**A→B**	**33.3**	**B→D**
3	Latson Road & EB I-96 Ramps	Signal	EBL	32.7	C	32.5	C	25.5	C	29.1	C	-7.2	-	-3.4	-
			EBR	27.5	C	28.9	C	42.1	D	36.1	D	14.6	C→D	7.2	C→D
			NBT	6.1	A	6.4	A	9.8	A	9.5	A	3.7	-	3.1	-
			NBR	5.7	A	5.4	A	9.5	A	8.3	A	3.8	-	2.9	-
			SBL	4.0	A	4.2	A	29.7	C	105.9	F	25.7	A→C	101.7	A→F
			SBT	0.1	A	0.3	A	0.5	A	0.6	A	0.4	-	0.3	-
			Overall	**14.3**	**B**	**12.1**	**B**	**17.4**	**B**	**20.9**	**C**	**3.1**	**-**	**8.8**	**B→C**
4	Latson Road & Beck Road	Stop (Minor)	EBL	12.6	B	14.7	B	64.4	F	588.4	F	51.8	B→F	573.7	B→F
			EBTR	0.0*	A	9.3	B	0.0*	A	10.0	B	0.0*	-	0.7	-
			WBL	0.0*	A	0.0*	A	42.3	E	811.3	F	0.0*	A→E	811.3	A→F
			WBTR	9.7	A	10.1	B	13.5	B	21.3	C	3.8	A→B	11.2	B→C
			NBL	0.0*	A	0.0*	A	0.0*	A	0.0*	A	0.0*	-	0.0*	-
			SBL	8.5	A	8.6	A	10.5	B	13.9	B	2.0	A→B	5.3	A→B
5	Latson Road & Sweet Road / Site Drive #2	Stop (Minor)	EB	N/A				29.5	D	414.1	F	N/A			
			WB	15.6	C	15.4	C	17.9	C	43.1	E	2.3	-	27.7	C→E
			NBL	Free				8.6	A	9.8	A	N/A			
			SBL	9.0	A	8.7	A	8.9	A	9.2	A	-0.1	-	0.5	-
6	Latson Road & Crooked Lake Road	Stop (All-Way)	EBL	10.5	B	12.5	B	10.7	B	12.8	B	0.2	-	0.3	-
			EBTR	9.9	A	11.9	B	10.2	B	12.2	B	0.3	A→B	0.3	-
			WBL	10.4	B	13.9	B	10.6	B	14.2	B	0.2	-	0.3	-
			WBTR	10.6	B	14.6	B	11.1	B	15.4	C	0.5	-	0.8	B→C
			NBL	8.9	A	10.2	B	9.0	A	10.5	B	0.1	-	0.3	-
			NBTR	19.8	C	53.6	F	23.7	C	64.1	F	3.9	-	10.5	-
			SBL	10.2	B	12.6	B	10.5	B	13.3	B	0.3	-	0.7	-
			SBTR	11.9	B	50.1	F	12.5	B	70.7	F	0.6	-	20.6	-
			Overall	**15.2**	**C**	**39.5**	**E**	**17.2**	**C**	**49.9**	**E**	**2.0**	**-**	**10.4**	**-**
7	Crooked Lake Road & Chilson Road	Stop (Minor)	EB	10.8	B	11.9	B	10.8	B	11.9	B	0.0	-	0.0	-
			WB	10.5	B	11.7	B	10.5	B	11.7	B	0.0	-	0.0	-
			NBL	7.4	A	7.6	A	7.4	A	7.6	A	0.0	-	0.0	-
			SBL	7.6	A	7.6	A	7.6	A	7.6	A	0.0	-	0.0	-
8	Latson Road & Site Drive #1	Stop (Minor)	EB	N/A				33.5	D	624.7	F	N/A			
			WB					13.3	B	20.9	C				
			NBL					8.7	A	8.4	A				
			SBL					9.6	A	10.2	B				
9	Latson Road & Site Drive #3	Stop (Minor)	EB	N/A				27.5	D	106.1	F	N/A			
			NBL					8.2	A	9.7	A				
			SB					Free							

Intersection		Control	Approach	Background Conditions				Future Conditions				Difference			
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
10	Latson Road & Site Drive #4	Stop (Minor)	EBL	N/A				0.0*	A	0.0*	A	N/A			
			WB					Free							
			SB					8.8	A	9.0	A				

** Indicates no vehicle volume present*

The results of the future conditions analysis indicate that all study intersection approaches and movements will continue to operate in a manner similar to background conditions, with the following exceptions:

Latson Road & Grand River Avenue

- During the PM peak hour: The northbound left-turn movement is expected to operate at LOS F.

The trips generated by the proposed development that will travel through this intersection are expected to account for less than 5% of the total entering intersection traffic volume. Therefore, any impact from the proposed development at this intersection is expected to be negligible as compared to daily fluctuations in traffic volumes and any changes will be unperceivable to the roadway users.

Latson Road & WB I-96 Ramp

- During the PM peak hour: The northbound left-turn movement is expected to operate at LOS F.

Review of SimTraffic network simulations indicates that long vehicle queues were observed in the northbound left-turn lane. These queues are the result of a large volume (~330 vehicles) of traffic making a northbound left turn and insufficient gaps within the southbound through traffic to allow for the existing permissive left-turn movement. These queues were present throughout the peak hour and were observed to exceed the available left-turn storage area, with vehicle queues extending through the study roadway network and blocking other study intersections; therefore, the SimTraffic queueing summary may present misleading projections.

Latson Road & EB I-96 Ramp

- During the PM peak hour: The southbound left-turn movement is expected to operate at LOS F.

Review of SimTraffic microsimulations indicates that long vehicle queues were observed in the southbound left-turn lane. These queues are the result of a large volume (~280 vehicles) of traffic making a southbound left turn and insufficient gaps within the northbound through traffic to allow for the existing permissive left-turn movement. These queues were present throughout the peak hour and were observed to exceed the available left-turn storage area, with vehicle queues extending through the study roadway network and blocking other study intersections; therefore, the SimTraffic queueing summary may present misleading projections.

Latson Road & Beck Road

- During the AM peak hour: The eastbound left-turn movement is expected to operate at LOS F and the westbound left-turn movements is expected to operate at LOS E.
- During the PM peak hour: The eastbound and westbound left-turn movements are expected to operate at LOS F.

Review of SimTraffic network simulations indicates generally acceptable operations during the AM peak hour; however, long vehicle queues were observed during the PM peak hour and were present throughout the peak period. These vehicle queues are the result of insufficient gaps within the through traffic along Latson Road, in addition to conflicting ingress and egress left-turn movements.

Latson Road & Sweet Road / Site Drive #2

- During the PM peak hour: The eastbound approach is expected to operate at LOS F and the westbound approach is expected to operate at LOS E.

The long vehicle queues at the other study intersections were observed to extend throughout the network and cause back-ups and blocked traffic along Latson Road; therefore, the attached SimTraffic summary report may present misleading queueing projections.

Latson Road & Site Drive #1

- During the PM peak hour: The eastbound approach is expected to operate at LOS F.

Review of SimTraffic network simulations indicates generally acceptable operations during the AM peak hour; however, long vehicle queues were observed during the PM peak hour and were present throughout the peak period. These vehicle queues are the result of insufficient gaps within the through traffic along Latson Road, in addition to conflicting ingress and egress left-turn movements.

Latson Road & Site Drive #3

- During the PM peak hour: The eastbound approach is expected to operate at LOS F.

The long vehicle queues at the other study intersections were observed to extend throughout the network and cause back-ups and blocked traffic along Latson Road; therefore, the attached SimTraffic summary report may present misleading queueing projections.

8 Access Management

8.1 Latson Road Geometry

The roadway geometry for Latson Road adjacent to the site was reviewed for safety and operations. The geometry options include the following:

- **Five Lanes**: Four Lanes + center left-turn lane.
- **Narrow Median:** Direct Left-turns at intersections.
- **Wide Median:** Indirect Left-turns.

Key findings of this analysis include:

- The projected traffic volumes associated with this development does not require a wide boulevard section and median U-turns to accommodate the traffic operations.
- A narrow median would have the same operations at the site driveway intersections; however, residential driveways and other parcels along the corridor will be impacted by a median. Bi-directional median openings are not recommended.
- A wide boulevard section would require indirect left-turns. The railroad tracks are too close to the north site driveway to accommodate a median U-turn.
- A center left-turn lane will work well through this section of Latson Road. A center left-turn lane can be a potential concern if there is a high density of commercial driveways along the corridor. If future development is proposed to the east of the site, further evaluation of Latson Road should be considered at that time.
- Maintenance and snow removal of a median section on the corridor is more difficult and costly as compared to a five-lane roadway.

8.2 Site Drive #2 / Sweet Road

The proposed Site Drive #2 is offset from the existing Sweet Road intersection. The operations and safety of this was reviewed and in general, it is preferable to align the existing and proposed access points; however, due to site limitations, alignment is not feasible. Therefore, the operations and safety of the offset was considered. Key findings of this review are summarized below:

- The volume of traffic on Sweet Road is relatively low.
- The ingress left-turn volumes are *not* conflicting.
- The egress left-turn volumes will have conflicting movements; however, the volume of egress left-turns on Sweet Road is very low. Therefore, the chances of this conflict occurring are minimal.

Overall, the proposed intersection and the offset with Sweet Road is expected to operate acceptably. As the development progresses, additional improvements at this intersection may be considered to mitigate operational delay and the intersection offset, including: signalization or a roundabout.

8.3 Auxiliary Turn Lane Evaluation

The proposed site driveways were evaluated for left- and right-turn treatments, based on the future traffic volumes shown on the attached **Figure 6**. LCRC does not maintain a warrant for right-turn lanes or tapers; therefore, the MDOT warrant was utilized for this analysis. The results of the auxiliary turn lane analysis are summarized in **Table 7** and the LCRC/MDOT warranting charts are attached.

Table 7. Desirable Driveway Spacing Summary

Site Driveway Intersection	Right-Turn Treatment	Left-Turn Treatment
NB Latson Road & Site Drive #1	**No Treatment**	**N/A**
SB Latson Road & Site Drive #1	**Right-Turn Lane**	**N/A**
Latson Road & Site Drive #2	**Right-Turn Lane**	**No Treatment**
Latson Road & Site Drive #3	**Right-Turn Lane**	**No Treatment**
Crooked Lake Road & Site Drive #4	**No Treatment**	**No Treatment**

The deceleration turn lanes and tapers should be constructed in accordance with LCRC standards and specifications.

9 Future Improvements

In order to improve traffic operations to a LOS D or better for all intersection approaches and movements under future conditions, mitigation measures were investigated. These mitigation measures included signal timing adjustments, geometric improvements, and traffic control modifications. The proposed improvements and their impact to intersection operations are summarized below.

Several of the mitigation measures recommended for the signalized intersections throughout the network included an increase in cycle length and optimization of the offsets. Therefore, the entire network (excluding Grand River Avenue) was evaluated to determine the optimum cycle length and corresponding offsets. The resulting analysis indicated a 90-second cycle length and updated offsets would provide the best operations for the network as a whole; therefore, this mitigation measure was applied to all signalized intersections (excluding Grand River Avenue).

Latson Road & Grand River Avenue

Geometric improvements were investigated at the Latson Road & Grand River Avenue intersection. However, each of the four (4) approaches at this intersection already has dual left-turn lanes and dedicated right turn lanes. Additionally, there is not sufficient right-of-way to implement additional construction-related capacity-improvement mitigation measures. The existing operational deficiencies at this intersection require a regional analysis of the Grand River Avenue, which is outside the scope of this study. MDOT should consider improvements along the Grand River Avenue corridor in order to increase capacity and provide better operations for this regional route.

However, without a regional analysis, the following improvements should be considered to aid in mitigating existing delays during both the AM and PM peak hours:

- Optimize signal phase splits.

Latson Road & I-96 (EB and WB Ramps)

The increased cycle length at the I-96 Ramps provided some reduction in the delay for the Latson Road left-turn movements; however additional mitigation is recommended through traffic control modifications.

- Upgrade to a fully actuated traffic signal.
- Provide permissive/protected left-turn phasing for the northbound approach at WB I-96.
- Provide permissive/protected left-turn phasing for the southbound approach at EB I-96.

9.1 SIGNAL WARRANT EVALUATION

A signal warrant analysis was performed at the study intersections of Latson Road & Beck Road, Latson Road & Site Drive #1, and Latson Road & Crooked Lake Road. The *Michigan Manual on Uniform traffic Control Devices (MMUTCD)* documents eight warrants by which traffic signal control may or should be considered. Warrant 1 (8-Hour Vehicular Volume), Warrant 2 (4-Hour Vehicular Volume), and Warrant 3 (Peak-Hour) were evaluated for each of the study intersections, based on the future traffic volumes. F&V only collected 4-hours (7-9AM and 4-6PM) of turning movement counts (TMCs); therefore, Warrant 1 A&B were only evaluated based on the available traffic volume data. The results of the signal warrant analyses are discussed below and summarized in **Table 8**; the signal warrant charts are attached for reference.

Table 8: Signal Warrant Analysis Summary

Intersection	Signal Warrants		
Latson Road & Beck Road	**Warrant 1: Eight Hour**		NO
	Condition A	*Hours Met*	2
		Warrant Met	NO
	Condition B	*Hours Met*	4
		Warrant Met	NO
	Warrant 2: Four-Hour	*Hours Met*	4
		Warrant Met	YES
	Warrant 3: Peak-Hour	*Hours Met*	4
		Warrant Met	YES
Latson Road & Site Drive #1	**Warrant 1: Eight Hour**		NO
	Condition A	*Hours Met*	2
		Warrant Met	NO
	Condition B	*Hours Met*	4
		Warrant Met	NO
	Warrant 2: Four-Hour	*Hours Met*	2
		Warrant Met	NO
	Warrant 3: Peak-Hour	*Hours Met*	2
		Warrant Met	YES
Latson Road & Crooked Lake Road	**Warrant 1: Eight Hour**		NO
	Condition A	*Hours Met*	2
		Warrant Met	NO
	Condition B	*Hours Met*	3
		Warrant Met	NO
	Warrant 2: Four-Hour	*Hours Met*	2
		Warrant Met	NO
	Warrant 3: Peak-Hour	*Hours Met*	2
		Warrant Met	YES

Latson Road & Beck Road

- The results of the signal warrant analysis indicates that the study intersection of Latson Road & Beck Road is expected to meet Warrant 2 (Four-Hour) and Warrant 3 (Peak-Hour).
- A traffic signal is **RECOMMENDED** at this intersection.

Latson Road & Crooked Lake Road

- The results of the signal warrant analysis indicates that the study intersection of Latson Road & Crooked Lake Road is expected to meet Warrant 3 (Peak-Hour).
- The majority of the increased delays at this intersection is due to high volume of background traffic growth, and not site generated traffic.
- Therefore, it is recommended to continue monitoring this intersection as the proposed development progresses, to determine if/when a traffic signal would be recommended.

Latson Road & Site Drive #1

- The results of the signal warrant analysis indicates that the study intersection of Latson Road & Site Drive #1 is expected to meet Warrant 3 (Peak-Hour).
- A traffic signal is **RECOMMENDED** at this intersection.
- Exclusive left-turn lanes are recommended on both the eastbound and westbound approaches.

9.2 Potential Railroad Conflict Evaluation (Beck Road and Site Drive #1)

The existing Beck Road intersection is located approximately 340 feet north of the railroad tracks, with an effective northbound queue length of 240 feet. Additionally, the proposed Site Drive #1 is located approximately 340 feet south of the railroad tracks, with an effective southbound queue length of 240 feet. The identified mitigation measures included traffic signal recommendations at both intersections; therefore, this intersection was further evaluated to ensure that operations will not impact the railroad tracks. The results of the analysis are summarized below in **Table 9**.

Table 9: Queue Length Summary (Future IMP)

Intersection	Approach	AM Peak		PM Peak		Available Queue Length (ft)	Exceeds Queue Length
		Average Queue (ft)	95% Queue (ft)	Average Queue (ft)	95% Queue (ft)		
Latson Road & Beck Road	NBL	0	0	0	0	240	**No**
	NBT	21	59	108	212	240	**No**
	NBTR	30	79	124	235	240	**No**
Latson Road & Site Drive #1	SBL	30	68	49	94	240	**No**
	SBT	25	68	41	91	240	**No**
	SBR	19	49	10	34	240	**No**

Key findings from this evaluation:

- The existing Beck Road location has adequate distance from the influence area of the railroad tracks to accommodate the projected northbound queue lengths on Latson Road.
- The proposed Site Drive #1 location has adequate distance from the influence area of the railroad tracks to accommodate the projected southbound queue lengths on Latson Road.
- The recommended improvements include signalization. This signal should include communication and pre-emption with the railroad crossing operations.

9.3 RECOMMENDATIONS SUMMARY

The results of the future conditions with improvements investigation indicates that the following mitigation measures are recommended:

Intersections and Recommended Mitigation Measures	Existing	Background	Future
1. Latson Road & Grand River Avenue			
Optimize the signal timings during both peak periods	✓		
2. Latson Road & WB I-96 Ramps			
Upgrade to a fully actuated traffic signal			✓
Provide permissive/protected northbound left-turn phasing			✓
3. Latson Road & EB I-96 Ramps			
Upgrade to a fully actuated traffic signal			✓
Provide permissive/protected southbound left-turn phasing			✓
4. Latson Road & Beck Road			
Install a fully actuated traffic signal with permissive/protected southbound left-turn phasing			✓
5. Latson Road & Sweet Road / Site Drive #2			
Provide exclusive left-turn and right-turn egress lanes			✓
Construct a southbound right-turn lane along Latson Road at Site Drive #2			✓
6. Latson Road & Crooked Lake Road			
Install a fully actuated traffic signal *(It is recommended to continue monitoring this intersection as the proposed development progresses, to determine if/when a traffic signal would be recommended)*		✓	
7. Latson Road & Site Drive #1			
Upgrade to a fully actuated traffic signal			✓
Provide exclusive left-turn and right-turn egress lanes (both approaches)			✓
Construct a southbound right-turn lane along Latson Road at Site Drive #1			✓
9. Latson Road & Site Drive #3			
Provide exclusive left-turn and right-turn egress lanes			✓
Construct a southbound right-turn lane along Latson Road at Site Drive #3			✓
Corridor Wide Recommendation			
Increase network cycle length to 90-seconds for all signals along Latson Road (Excluding Grand River Avenue)			✓

Table 10: Future Intersection Operations with Improvements

Intersection		Control	Approach	Future Conditions				Future (w/ IMP)				Difference			
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
1	Latson Road & Grand River Avenue	Signal	EBL	44.3	D	47.0	D	44.3	D	62.1	E	0.0	-	15.1	D→E
			EBT	35.9	D	42.6	D	49.6	D	64.2	E	13.7	-	21.6	D→E
			EBR	24.5	C	29.6	C	29.9	C	31.0	C	5.4	-	1.4	-
			WBL	181.1	F	195.7	F	50.8	D	91.3	F	-130.3	F→D	-104.4	-
			WBT	30.7	C	58.6	E	31.8	C	50.1	D	1.1	-	-8.5	E→D
			WBR	14.7	B	215.3	F	16.0	B	162.6	F	1.3	-	-52.7	-
			NBL	43.8	D	130.1	F	43.5	D	62.5	E	-0.3	-	-67.6	F→E
			NBT	42.1	D	49.7	D	33.3	C	65.4	E	-8.8	D→C	15.7	D→E
			NBR	221.0	F	37.5	C	93.2	F	31.9	C	-127.8	-	-5.6	-
			SBL	43.9	D	127.0	F	52.2	D	64.8	E	8.3	-	-62.2	F→E
			SBT	33.1	C	41.6	D	31.1	C	50.0	D	-2.0	-	8.4	-
			SBR	26.3	C	24.2	C	24.8	C	26.9	C	-1.5	-	2.7	-
			Overall	**65.2**	**E**	**93.1**	**F**	**45.0**	**D**	**71.6**	**E**	**-20.2**	**E→D**	**-21.5**	**F→E**
2	Latson Road & WB I-96 Ramps	Signal	WBL	36.9	D	29.4	C	44.1	D	40.7	D	7.2	-	11.3	C→D
			WBR	31.4	D	33.6	C	35.9	D	54.0	D	4.5	-	20.4	C→D
			NBL	18.7	B	367.4	F	6.3	A	15.4	B	-12.4	B→A	-352.0	F→B
			NBT	0.5	A	1.0	A	0.4	A	0.6	A	-0.1	-	-0.4	-
			SBT	16.5	B	20.8	C	0.6	A	5.4	A	-15.9	B→A	-15.4	C→A
			SBR	16.4	B	23.4	C	1.1	A	8.9	A	-15.3	B→A	-14.5	C→A
			Overall	**13.7**	**B**	**50.1**	**D**	**7.2**	**A**	**14.5**	**B**	-6.5	B→A	-35.6	**D→B**
3	Latson Road & EB I-96 Ramps	Signal	EBL	25.5	C	29.1	C	29.8	C	35.9	D	4.3	-	6.8	C→D
			EBR	42.1	D	36.1	D	53.9	D	52.2	D	11.8	-	16.1	-
			NBT	9.8	A	9.5	A	9.4	A	4.3	A	-0.4	-	-5.2	-
			NBR	9.5	A	8.3	A	9.5	A	3.8	A	0.0	-	-4.5	-
			SBL	29.7	C	105.9	F	11.7	B	10.4	B	-18.0	C→B	-95.5	F→B
			SBT	0.5	A	0.6	A	0.4	A	0.4	A	-0.1	-	-0.2	-
			Overall	**17.4**	**B**	**20.9**	**C**	**17.6**	**B**	**12.7**	**B**	**0.2**	**-**	**-8.2**	**C→B**
4	Latson Road & Beck Road	Stop (Minor) Signal [IMP]	EBL	64.4	F	588.4	F	42.7	D	42.6	D	-21.7	F→D	-545.8	F→D
			EBTR	0.0*	A	10.0	B	0.0*	A	29.3	C	0.0*	-	19.3	B→C
			WBL	42.3	E	811.3	F	32.9	D	31.8	C	-2.7	E→D	-779.5	F→C
			WBTR	13.5	B	21.3	C	39.6	A	40.5	D	-12.9	B→A	19.2	C→D
			NBL	0.0*	A	0.0*	A	0.6	A	2.9	A	0.0*	-	0.0*	-
			[NBT]	Free				0.6	A	2.8	A	N/A			
			SBL	10.5	B	13.9	B	1.1	A	7.4	A	-9.6	B→A	-6.5	B→A
			[SBT]	Free				0.9	A	0.9	A	N/A			
			[Overall]	**N/A**				**6.2**	**A**	**7.1**	**A**	**N/A**			
5	Latson Road & Sweet Road / Site Drive #2	Stop (Minor)	EBL	29.5	D	414.1	F	27.8	D	387.7	F	-1.7	-	-26.4	-
			EBR	29.5	D	414.1	F	10.7	B	15.2	C	-18.8	D→B	-398.9	F→C
			WB	17.9	C	43.1	E	17.9	C	43.1	E	0.0	-	0.0	-
			NBL	8.6	A	9.8	A	8.6	A	9.8	A	0.0	-	0.0	-
			SBL	8.9	A	9.2	A	8.9	A	9.2	A	0.0	-	0.0	-

Intersection		Control	Approach	Future Conditions				Future (w/ IMP)				Difference			
				AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS
6	Latson Road & Crooked Lake Road	Stop (All-Way) Signal [IMP]	EBL	10.7	B	12.8	B	13.4	B	17.5	B	2.7	-	4.7	-
			EBTR	10.2	B	12.2	B	11.2	B	13.5	B	1.0	-	1.3	-
			WBL	10.6	B	14.2	B	11.5	B	15.1	B	0.9	-	0.9	-
			WBTR	11.1	B	15.4	C	13.2	B	17.6	B	2.1	-	2.2	C→B
			NBL	9.0	A	10.5	B	7.4	A	10.2	B	-1.6	-	-0.3	-
			NBTR	23.7	C	64.1	F	8.6	A	7.8	A	-15.1	C→A	-56.3	F→A
			SBL	10.5	B	13.3	B	12.0	B	12.6	B	1.5	-	-0.7	-
			SBTR	12.5	B	70.7	F	6.6	A	7.8	A	-5.9	B→A	-62.9	F→A
			Overall	**17.2**	**C**	**49.9**	**E**	**9.4**	**A**	**10.3**	**B**	**-7.8**	**C→A**	**-39.6**	**E→B**
8	Latson Road & Site Drive #1	Stop (Minor) Signal [IMP]	EBL	33.5	D	624.7	F	42.9	D	37.4	D	9.4	-	-587.3	F→D
			EBTR	33.5	D	624.7	F	37.7	D	23.4	C	4.2	-	-601.3	F→C
			WBL	13.3	B	20.9	C	38.1	D	24.2	C	24.8	B→D	3.3	-
			WBTR	13.3	B	20.9	C	39.9	D	25.7	C	26.6	B→D	4.8	-
			NBL	8.7	A	8.4	A	2.5	A	8.2	A	-6.2	-	-0.2	-
			[NBTR]	Free				3.3	A	11.8	B	N/A			
			SBL	9.6	A	10.2	B	0.7	A	3.5	A	-8.9	-	-6.7	B→A
			[SBT]	Free				0.2	A	0.6	A	N/A			
			[SBR]	N/A				0.4	A	0.1	A	N/A			
			[Overall]	**N/A**				**4.2**	**A**	**10.6**	**B**	**N/A**			
9	Latson Road & Site Drive #3	Stop (Minor)	EBL	27.5	D	106.1	F	24.8	C	74.4	F	-2.7	D→C	-31.7	-
			EBR	27.5	D	106.1	F	10.0	B	13.1	B	-17.5	D→B	-93.0	F→B
			NBL	8.2	A	9.7	A	8.2	A	9.7	A	0.0	-	0.0	-
			SB	Free				Free				Free			

** Indicates no vehicle volume present*

The results of the future improvements analysis, with the implementation of the recommended mitigation measures, indicates that all approaches and movements at the study intersection are expected to improve to LOS D or better during both peak periods, with the following exceptions. Review of SimTraffic network simulations indicates acceptable operations, with improved delays and reduced vehicle queues throughout the remaining study roadway network during both peak periods.

Latson Road & Grand River Avenue

- During the AM peak hour: The northbound right-turn movement is expected to continuing operating at LOS F.
- During the PM peak hour: The westbound left- and right-turn movements are expected to continuing operating at LOS F. Additionally, the eastbound, westbound, and southbound left-turn and the eastbound and westbound through movements are expected to operate at LOS E.

Although the intersection is still expected to operate with poor/failing movements, the future improvements conditions are expected to operate better than background conditions without the proposed development. Additionally, the trips generated are expected to increase the intersection volume by 5% or less; therefore, the impact is expected to be negligible, as compared to daily fluctuations in traffic volumes.

Latson Road & Sweet Road / Site Drive #2

- During the PM peak hour: The eastbound left-turn movement is expected to still operate at LOS F and the westbound approach is expected to continue operating at LOS E.

Although the Synchro intersection LOS analysis indicates poor operations for the stop-controlled minor street approaches, review of SimTraffic network simulations indicates acceptable operations. The reported 95th percentile vehicle queue length was approximately 150-feet (~6 vehicles) for the eastbound left-turn movement, which is not significant based on the volume of egress traffic (~110 vehicles). The egress vehicles were observed to find adequate gaps within the stream of through traffic along Latson Road, due to increased gaps within the traffic flow associated with the traffic signal at Site Drive #1.

Therefore, no further improvements are recommended, as vehicles were observed to be processed, without experiencing long delays or excessive vehicle queues. Additionally, motorists have the ability to redistribute themselves to the proposed traffic signal at Site Drive #1, should they begin to experience long delays or queues at this driveway.

Latson Road & Site Drive #3

- During the PM peak hour: The eastbound approach is expected to operate at LOS F.

Although the Synchro intersection LOS analysis indicates poor operations for the eastbound approach, review of SimTraffic network simulations indicates acceptable operations. The reported 95th percentile vehicle queue length was approximately 90-feet (3-4 vehicles) for the eastbound left-turn movement, which is not significant. The egress vehicles were observed to find adequate gaps within the stream of through traffic along Latson Road, without experiencing long delays or excessive vehicle queues. Therefore, no further improvements are recommended at this time. Additionally, motorists have the ability to redistribute themselves to the proposed traffic signal at Site Drive #1, should they begin to experience long delays or queues at this driveway.

10 CONCLUSIONS

The conclusions of this TIS are as follows:

10.1 OPERATIONAL ANALYSIS SUMMARY

The existing AM and PM peak hour vehicle delays and Levels of Service (LOS) were calculated at the study intersections using Synchro (Version 11) traffic analysis software. The results of the analyses were based on the existing and proposed lane use, traffic control shown, and traffic volumes shown on the attached figures, and the methodologies presented in the *Highway Capacity Manual, 6th Edition* (HCM6).

Existing (2023) Conditions

All of the study intersection approaches and movements are currently operating acceptably, at a LOS D or better, during both the AM and PM peak hours, with the exception of the following:

- Latson Road & Grand River Avenue

Background (2043) Conditions

In addition to delays currently experienced at the intersections noted in the existing conditions, the background 2043 conditions analysis indicates that the following additional study intersections are expected to experience operations at LOS E or F:

- Latson Road & Grand River Avenue
- Latson Road & Crooked Lake Road

Future (2043) Conditions

In addition to delays currently experienced at the intersections noted in the existing conditions and the background 2039 conditions analysis, the following additional study intersections are expected to experience operations at LOS E or F with the addition of the proposed development:

- Latson Road & Grand River Avenue
- Latson Road & WB I-96 Ramps
- Latson Road & EB I-96 Ramps
- Latson Road & Beck Road
- Latson Road & Sweet Road / Site Drive #2
- Latson Road & Site Drive #1
- Latson Road & Site Drive #3

Potential Railroad Conflict Evaluation (Beck Road and Site Drive #1)

- The existing Beck Road and proposed Site Drive #1 intersections are located approximately 340 feet from the railroad tracks, with effective queue lengths of approximately 240 feet. Improvements at these intersections are recommended, including the installation of a traffic signal. The results of the analysis indicates that the study intersections have adequate distance from the influence area of the railroad tracks to accommodate the projected vehicle queue lengths on Latson Road.

10.2 Access Management

Latson Road Geometry

- The projected traffic volumes associated with this development does not require a wide boulevard section and median U-turns to accommodate the traffic operations. Additionally, a wide boulevard section would require indirect left-turns. The railroad tracks are too close to the north site driveway to accommodate a median U-turn.
- A narrow median would have the same operations at the site driveway intersections; however, residential driveways and other parcels along the corridor will be impacted by a median. Bi-directional median openings are not recommended.
- A center two-way left-turn lane (TWLTL) will work well through this section of Latson Road. A center TWLTL can be a potential concern if there is a high density of commercial driveways along the corridor. If future development is proposed to the east of the site, further evaluation of Latson Road should be considered at that time.

Site Drive #2 / Sweet Road

- The proposed Site Drive #2 is offset from the existing Sweet Road intersection. The operations and safety of this was reviewed and in general, it is preferable to align the existing and proposed access points; however, due to site limitations, alignment is not feasible. Key findings of this review are summarized below:
    - The volume of traffic on Sweet Road is relatively low.
    - The ingress left-turn volumes are *not* conflicting.
    - The egress left-turn volumes will have conflicting movements; however, the volume of egress left-turns on Sweet Road is very low. Therefore, the chances of this conflict occurring are minimal.

Overall, the proposed intersection and the offset with Sweet Road is expected to operate acceptably. As the development progresses, additional improvements at this intersection may be considered to mitigate operational delay and the intersection offset, including: signalization or a roundabout.

Auxiliary Turn Lane Analysis

LCRC does not maintain auxiliary right-turn lane or taper warrants; therefore, MDOT warrant charts were utilized. The results of the analysis indicate the following:

Site Driveway Intersection	Right-Turn Treatment	Left-Turn Treatment
NB Latson Road & Site Drive #1	**No Treatment**	**N/A**
SB Latson Road & Site Drive #1	**RT Lane**	**N/A**
Latson Road & Site Drive #2	**RT Lane**	**No Treatment**
Latson Road & Site Drive #3	**RT Lane**	**No Treatment**
Crooked Lake Road & Site Drive #4	**No Treatment**	**No Treatment**

The deceleration turn lanes and tapers should be constructed in accordance with LCRC standards and specifications.

11 RECOMMENDATIONS

The recommendations of this TIS are summarized below.

Intersections and Recommended Mitigation Measures	Existing 2023	Background 2043	Future 2043
1. Latson Road & Grand River Avenue			
Optimize the signal timings during both peak periods	✓		
2. Latson Road & WB I-96 Ramps			
Upgrade to a fully actuated traffic signal			✓
Provide permissive/protected northbound left-turn phasing			✓
3. Latson Road & EB I-96 Ramps			
Upgrade to a fully actuated traffic signal			✓
Provide permissive/protected southbound left-turn phasing			✓
4. Latson Road & Beck Road			
Install a fully actuated traffic signal with permissive/protected southbound left-turn phasing			✓
5. Latson Road & Sweet Road / Site Drive #2			
Provide exclusive left-turn and right-turn egress lanes (eastbound approach)			✓
Construct a southbound right-turn lane along Latson Road at Site Drive #2			✓
6. Latson Road & Crooked Lake Road			
Install a fully actuated traffic signal *(It is recommended to continue monitoring this intersection as the proposed development progresses, to determine if/when a traffic signal would be recommended)*		✓	
7. Latson Road & Site Drive #1			
Upgrade to a fully actuated traffic signal			✓
Provide exclusive left-turn and right-turn egress lanes (both approaches)			✓
Construct a southbound right-turn lane along Latson Road at Site Drive #1			✓
9. Latson Road & Site Drive #3			
Provide exclusive left-turn and right-turn egress lanes			✓
Construct a southbound right-turn lane along Latson Road at Site Drive #3			✓
Corridor Wide Recommendation			
Increase network cycle length to 90-seconds for all signals along Latson Road (Excluding Grand River Avenue)			✓

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleis & VandenBrink.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Michigan.

Digitally signed by Jacob Swanson
Date: 2023.05.31 13:57:33 -04'00'

Attached:

Figures 1 – 6
Traffic Volume Data
SEMCOG Data
Signal Timing Permit
Synchro / SimTraffic Results
Auxiliary Turn Lane Warrant
Signal Warrants

FIGURE 1
SITE LOCATION MAP

VERSA DEVELOPMENT TIS - GENOA TWP, MI

LEGEND

SITE — SITE LOCATION

NORTH

SCALE: NOT TO SCALE

F&V

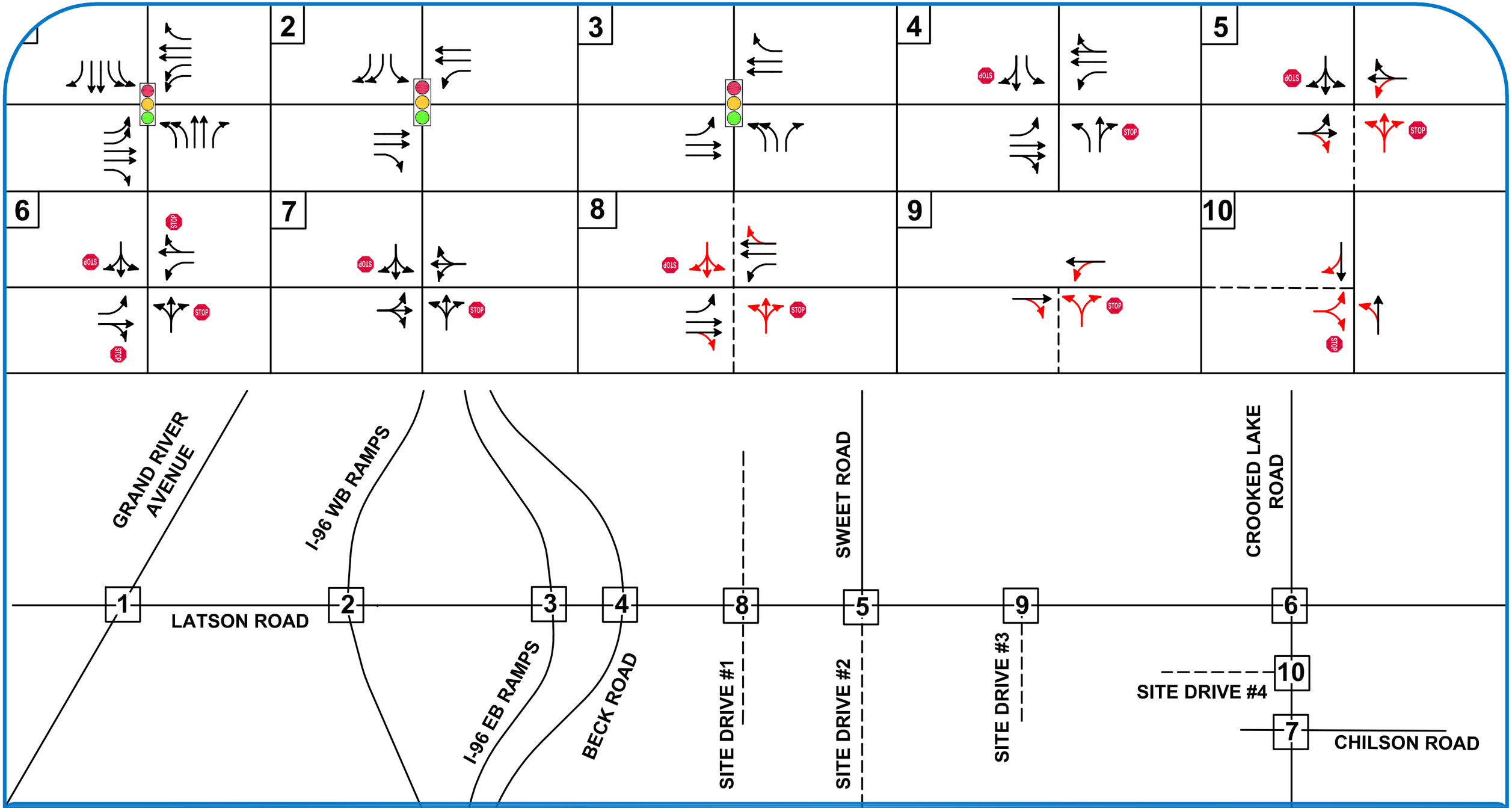


FIGURE 2
LANE USE AND TRAFFIC CONTROL

VERSA DEVELOPMENT TIS - GENOA TWP, MI

LEGEND

- ROADS
- PROPOSED ROADS
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION
- EXISTING LANE USE
- PROPOSED LANE USE

F&V

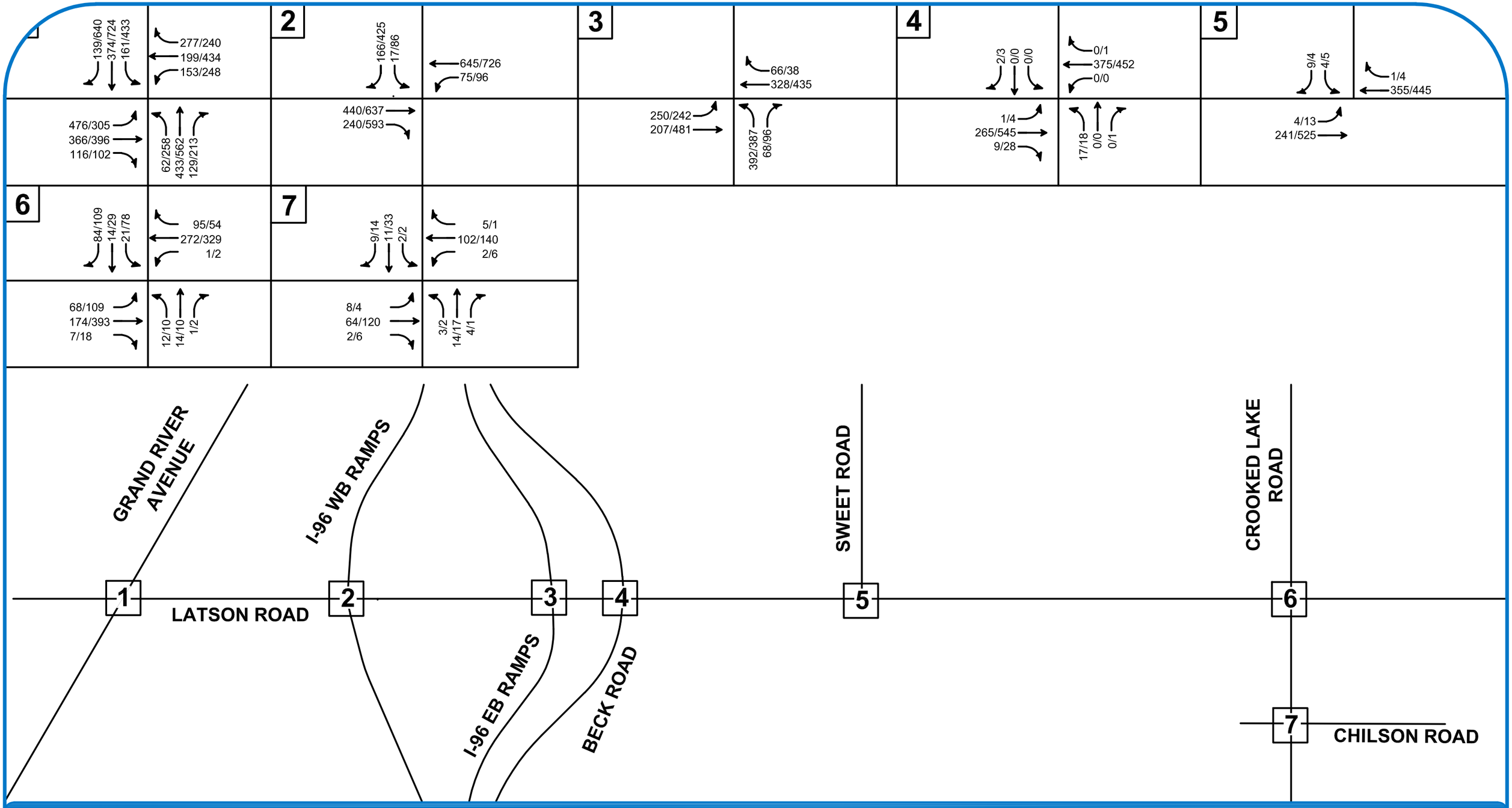


FIGURE 3
EXISTING TRAFFIC VOLUMES

VERSA DEVELOPMENT TIS - GENOA TWP, MI

LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)

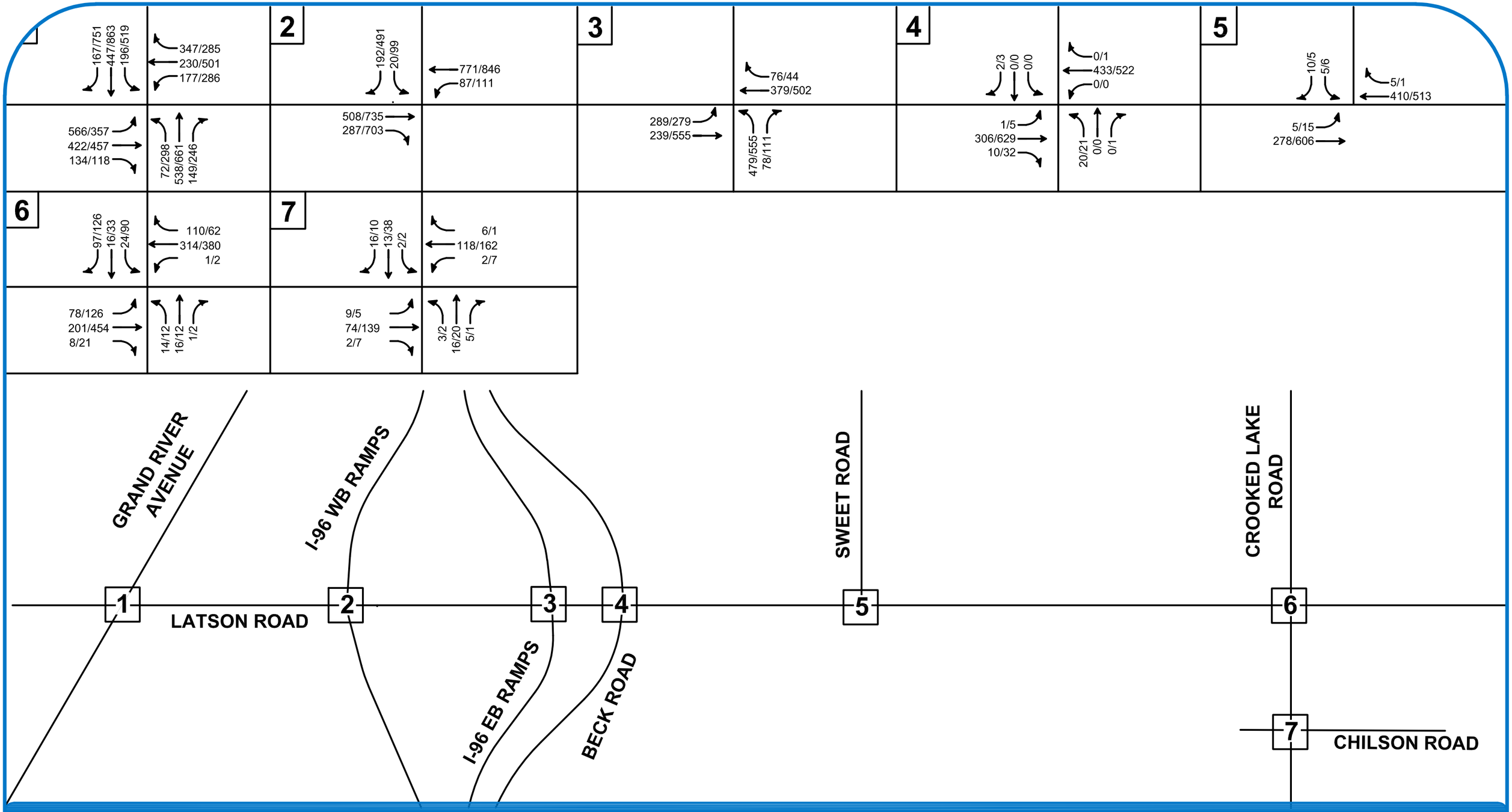


FIGURE 4
BACKGROUND TRAFFIC VOLUMES

VERSA DEVELOPMENT TIS - GENOA TWP, MI

LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)

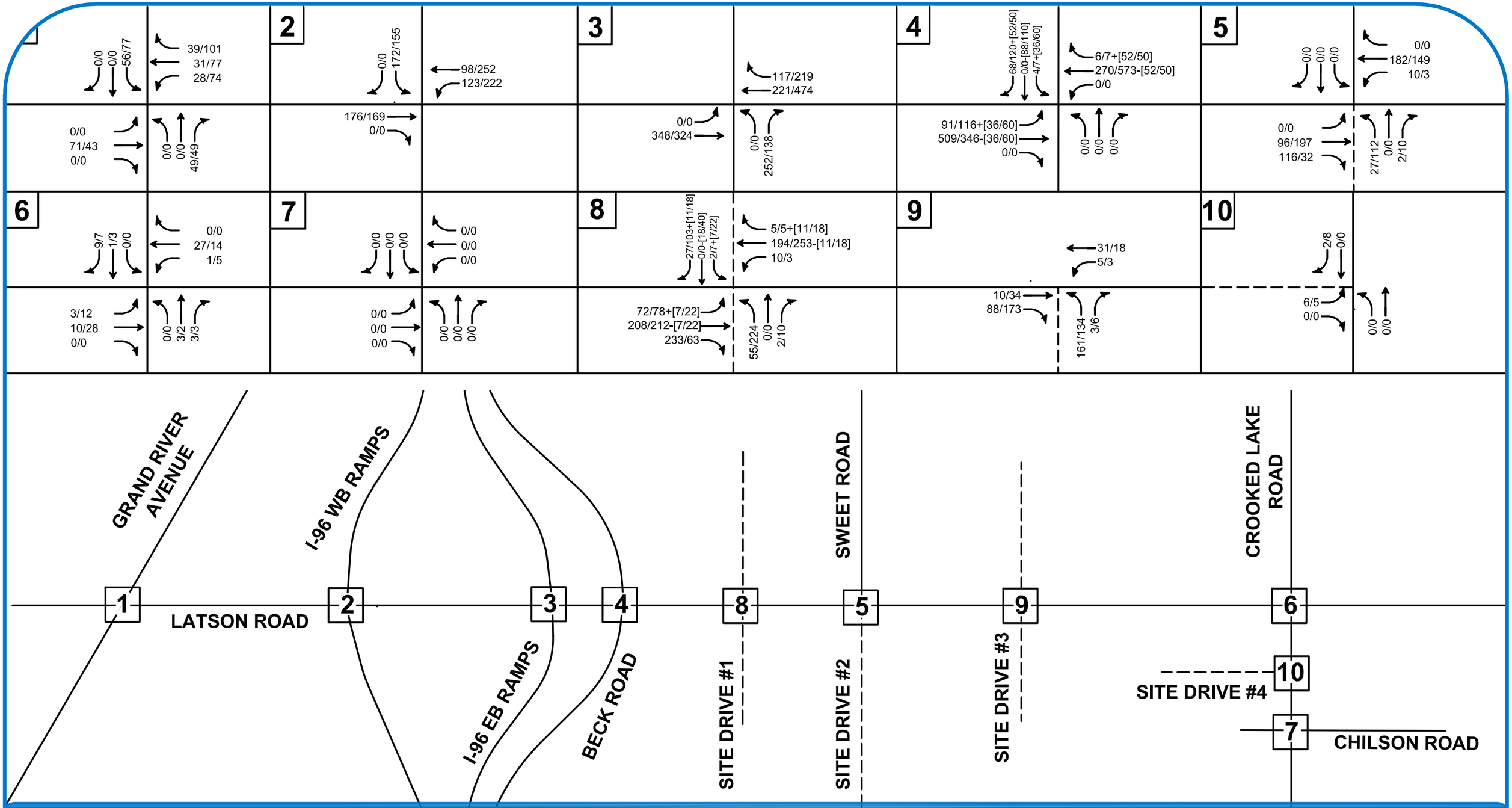


FIGURE 5
SITE-GENERATED TRAFFIC VOLUMES

VERSA DEVELOPMENT TIS - GENOA TWP, MI

LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)

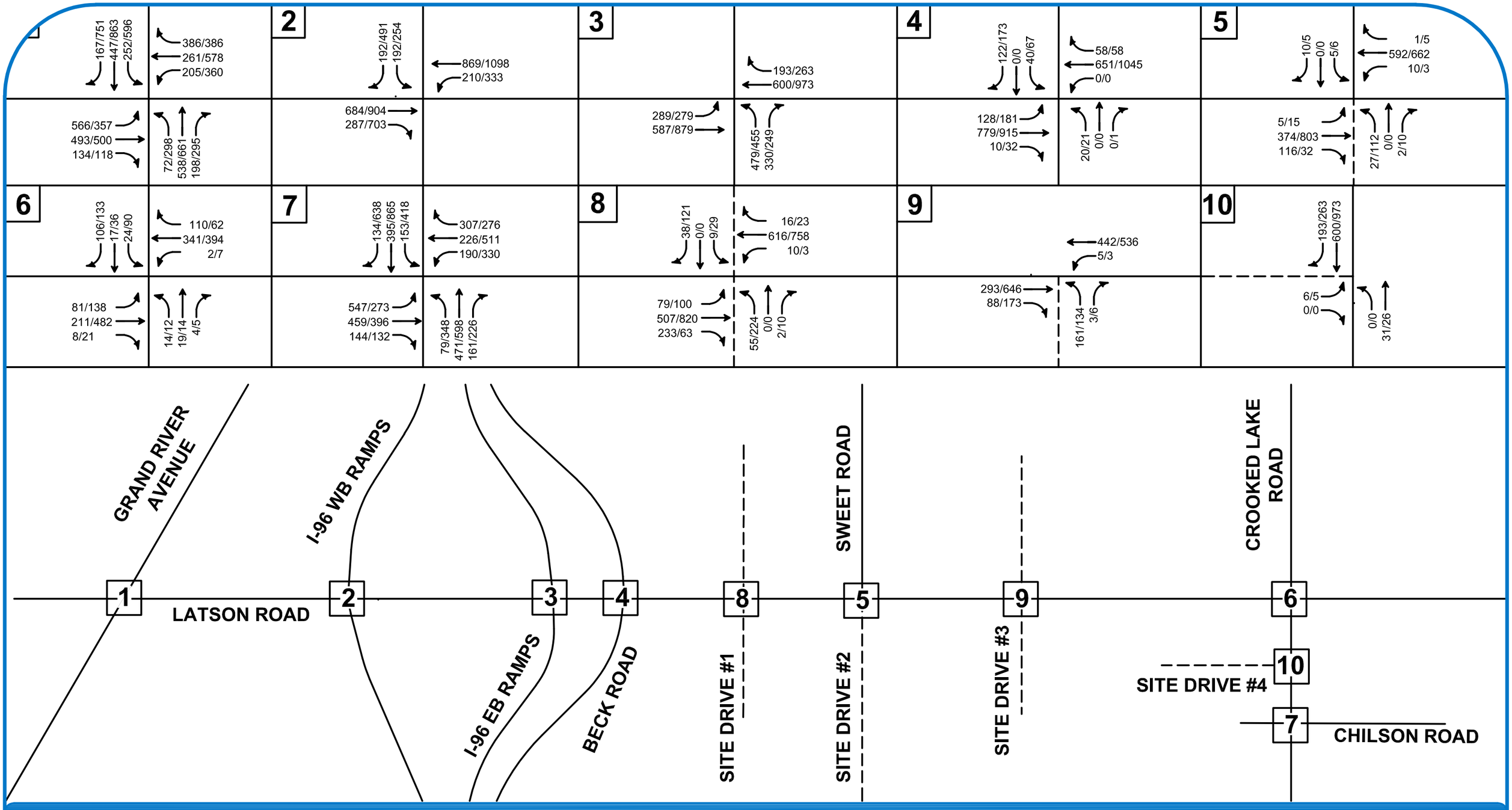


FIGURE 6
FUTURE TRAFFIC VOLUMES

VERSA DEVELOPMENT TIS - GENOA TWP, MI

LEGEND

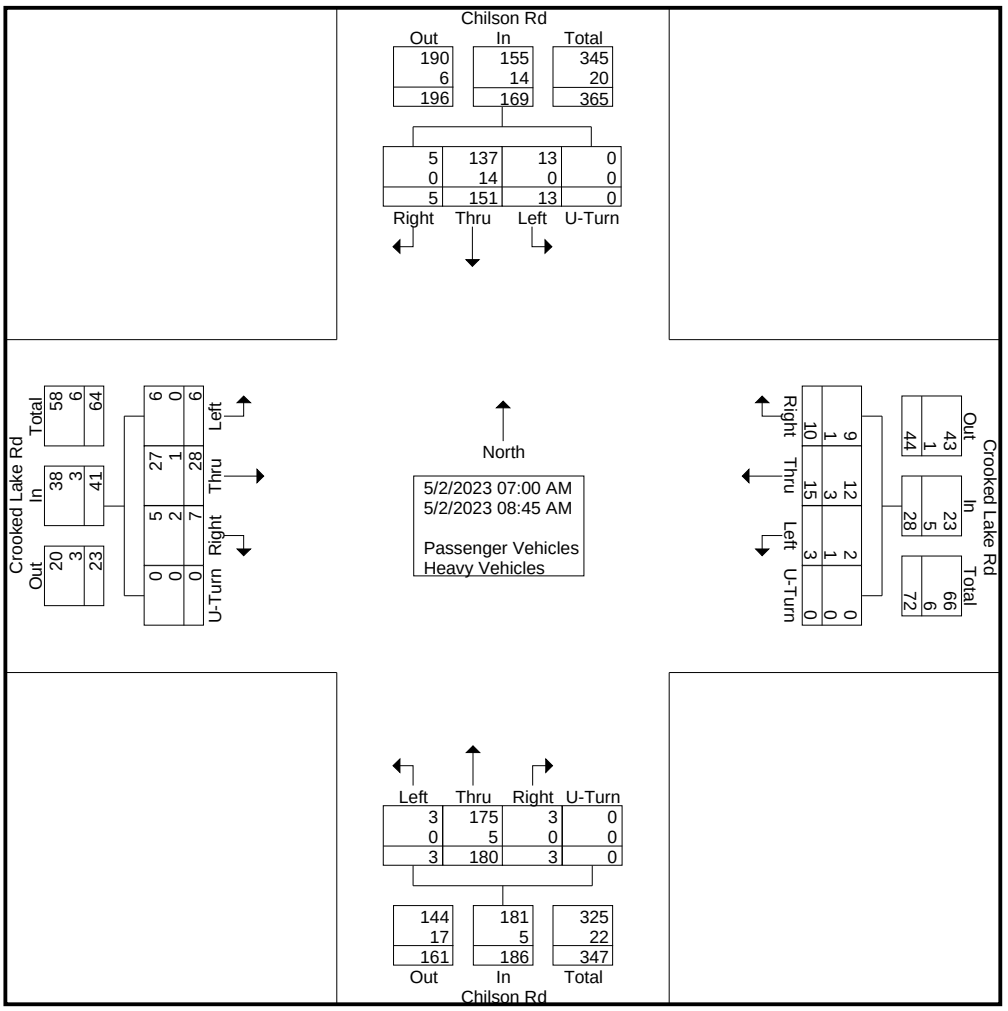
- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)

Quality Counts

File Name : 16184801 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184801
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

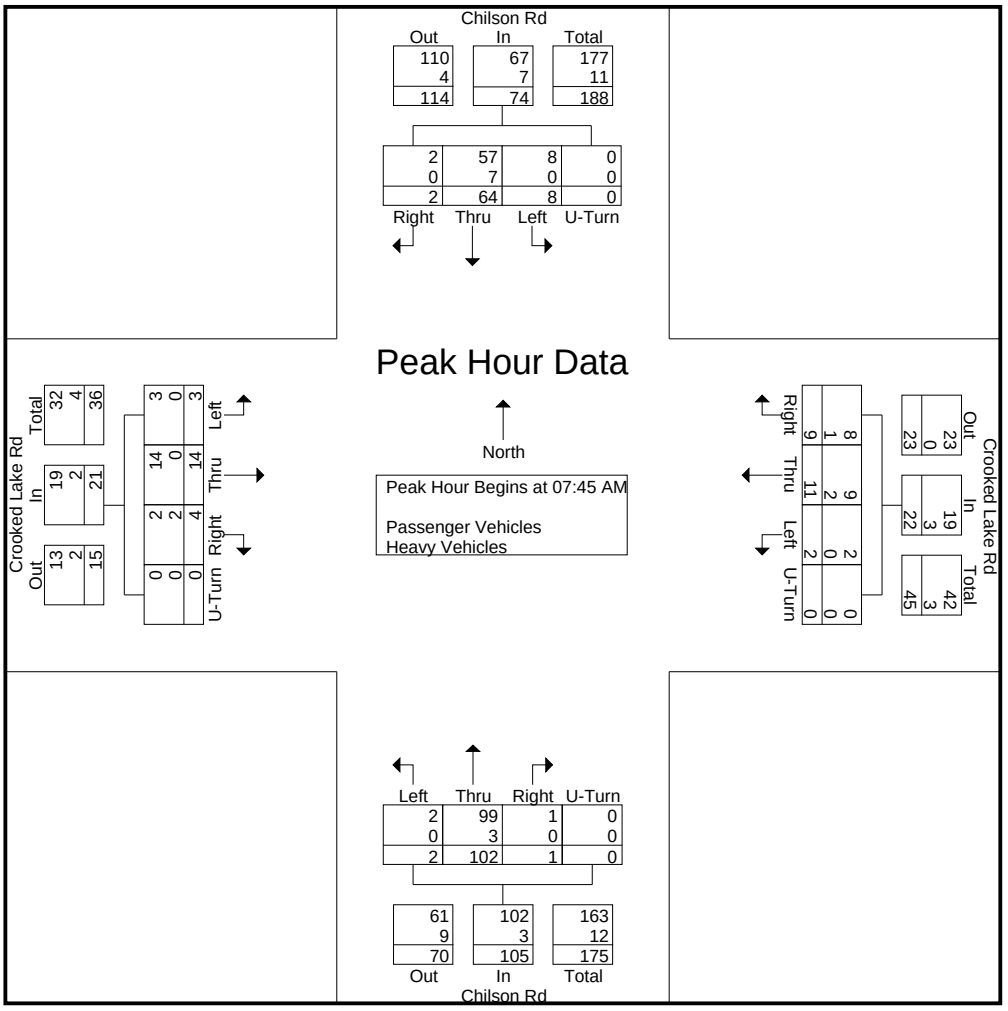
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	1	2	1	0	4	0	0	0	0	0	0	16	1	0	17	2	24	1	0	27	48
07:15 AM	0	3	0	0	3	1	0	0	0	1	0	15	0	0	15	1	23	0	0	24	43
07:30 AM	1	6	0	0	7	0	2	0	0	2	0	19	1	0	20	1	25	0	0	26	55
07:45 AM	1	1	4	0	6	1	3	1	0	5	0	31	0	0	31	0	21	1	0	22	64
Total	3	12	5	0	20	2	5	1	0	8	0	81	2	0	83	4	93	2	0	99	210
08:00 AM	1	4	0	0	5	1	2	1	0	4	0	16	1	0	17	0	9	0	0	9	35
08:15 AM	1	2	0	0	3	0	3	3	0	6	0	29	0	0	29	4	13	0	0	17	55
08:30 AM	0	7	0	0	7	0	3	4	0	7	2	26	0	0	28	4	21	1	0	26	68
08:45 AM	1	3	2	0	6	0	2	1	0	3	1	28	0	0	29	1	15	2	0	18	56
Total	3	16	2	0	21	1	10	9	0	20	3	99	1	0	103	9	58	3	0	70	214
Grand Total	6	28	7	0	41	3	15	10	0	28	3	180	3	0	186	13	151	5	0	169	424
Apprch %	14.6	68.3	17.1	0		10.7	53.6	35.7	0		1.6	96.8	1.6	0		7.7	89.3	3	0		
Total %	1.4	6.6	1.7	0	9.7	0.7	3.5	2.4	0	6.6	0.7	42.5	0.7	0	43.9	3.1	35.6	1.2	0	39.9	
Passenger Vehicles	6	27	5	0	38	2	12	9	0	23	3	175	3	0	181	13	137	5	0	155	397
% Passenger Vehicles	100	96.4	71.4	0	92.7	66.7	80	90	0	82.1	100	97.2	100	0	97.3	100	90.7	100	0	91.7	93.6
Heavy Vehicles	0	1	2	0	3	1	3	1	0	5	0	5	0	0	5	0	14	0	0	14	27
% Heavy Vehicles	0	3.6	28.6	0	7.3	33.3	20	10	0	17.9	0	2.8	0	0	2.7	0	9.3	0	0	8.3	6.4



Quality Counts

File Name : 16184801 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184801
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	**1**	1	**4**	0	6	**1**	**3**	1	0	5	0	**31**	0	0	**31**	0	**21**	**1**	0	22	64
08:00 AM	1	4	0	0	5	1	2	1	0	4	0	16	**1**	0	17	0	9	0	0	9	35
08:15 AM	1	2	0	0	3	0	3	3	0	6	0	29	0	0	29	**4**	13	0	0	17	55
08:30 AM	0	**7**	0	0	**7**	0	3	**4**	0	**7**	**2**	26	0	0	28	4	21	1	0	**26**	**68**
Total Volume	3	14	4	0	21	2	11	9	0	22	2	102	1	0	105	8	64	2	0	74	222
% App. Total	14.3	66.7	19	0		9.1	50	40.9	0		1.9	97.1	1	0		10.8	86.5	2.7	0		
PHF	.750	.500	.250	.000	.750	.500	.917	.563	.000	.786	.250	.823	.250	.000	.847	.500	.762	.500	.000	.712	.816
Passenger Vehicles	3	14	2	0	19	2	9	8	0	19	2	99	1	0	102	8	57	2	0	67	207
% Passenger Vehicles	100	100	50.0	0	90.5	100	81.8	88.9	0	86.4	100	97.1	100	0	97.1	100	89.1	100	0	90.5	93.2
Heavy Vehicles	0	0	2	0	2	0	2	1	0	3	0	3	0	0	3	0	7	0	0	7	15
% Heavy Vehicles	0	0	50.0	0	9.5	0	18.2	11.1	0	13.6	0	2.9	0	0	2.9	0	10.9	0	0	9.5	6.8

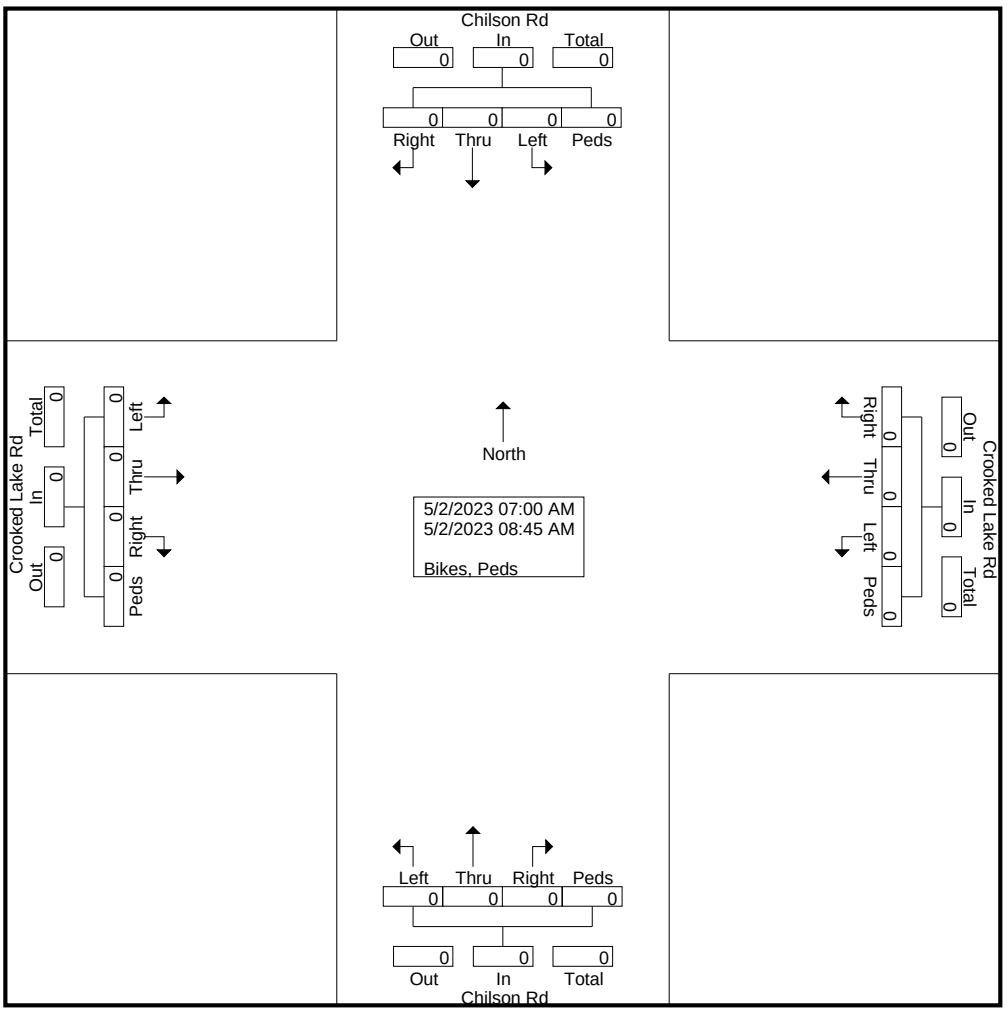


Quality Counts

File Name : 16184801 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184801
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

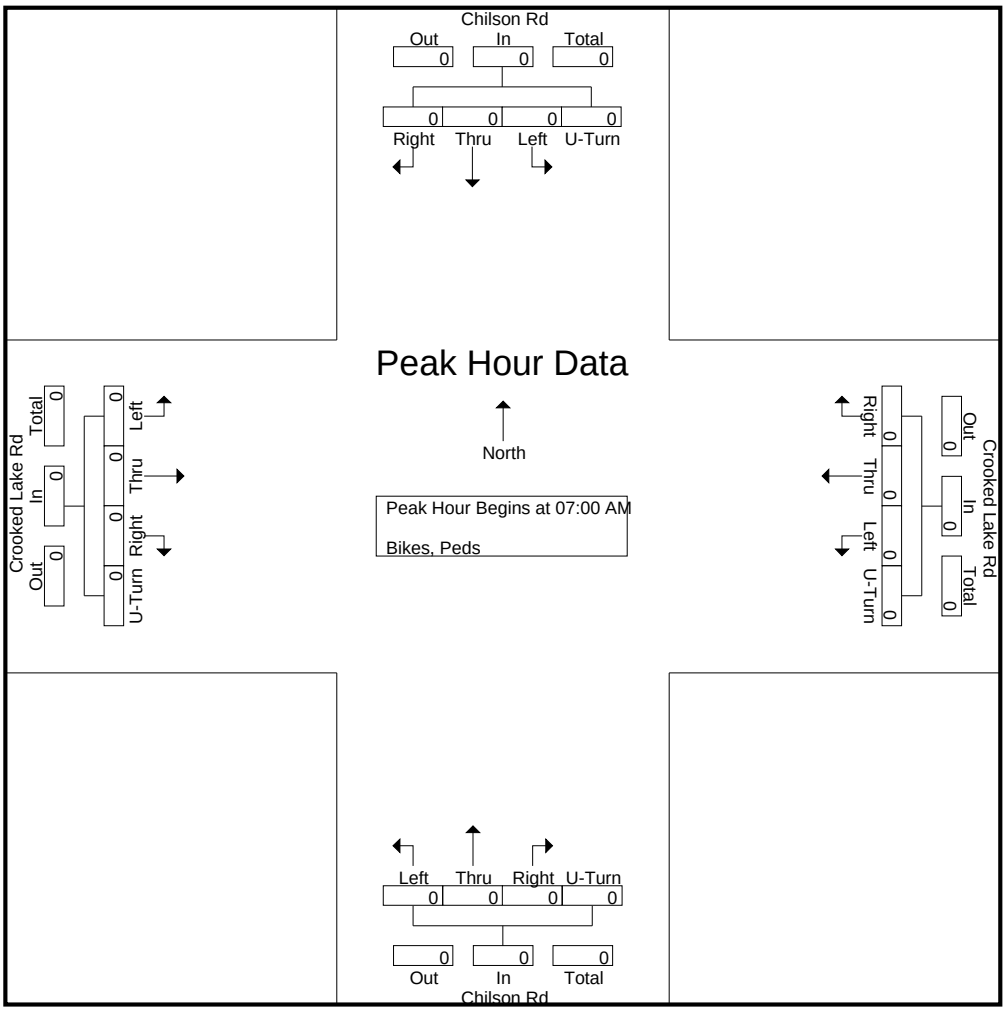
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184801 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184801
Start Date : 5/2/2023

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

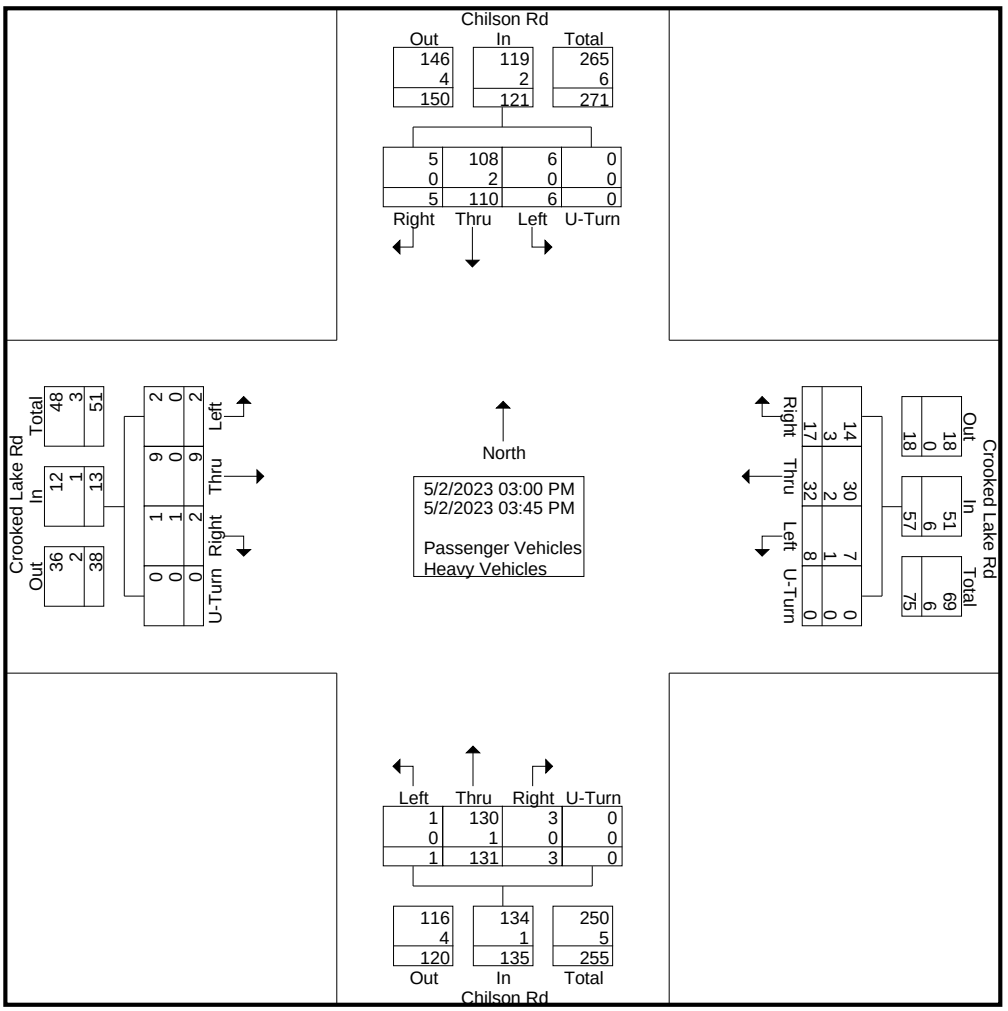


Quality Counts

File Name : 16184802 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184802
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

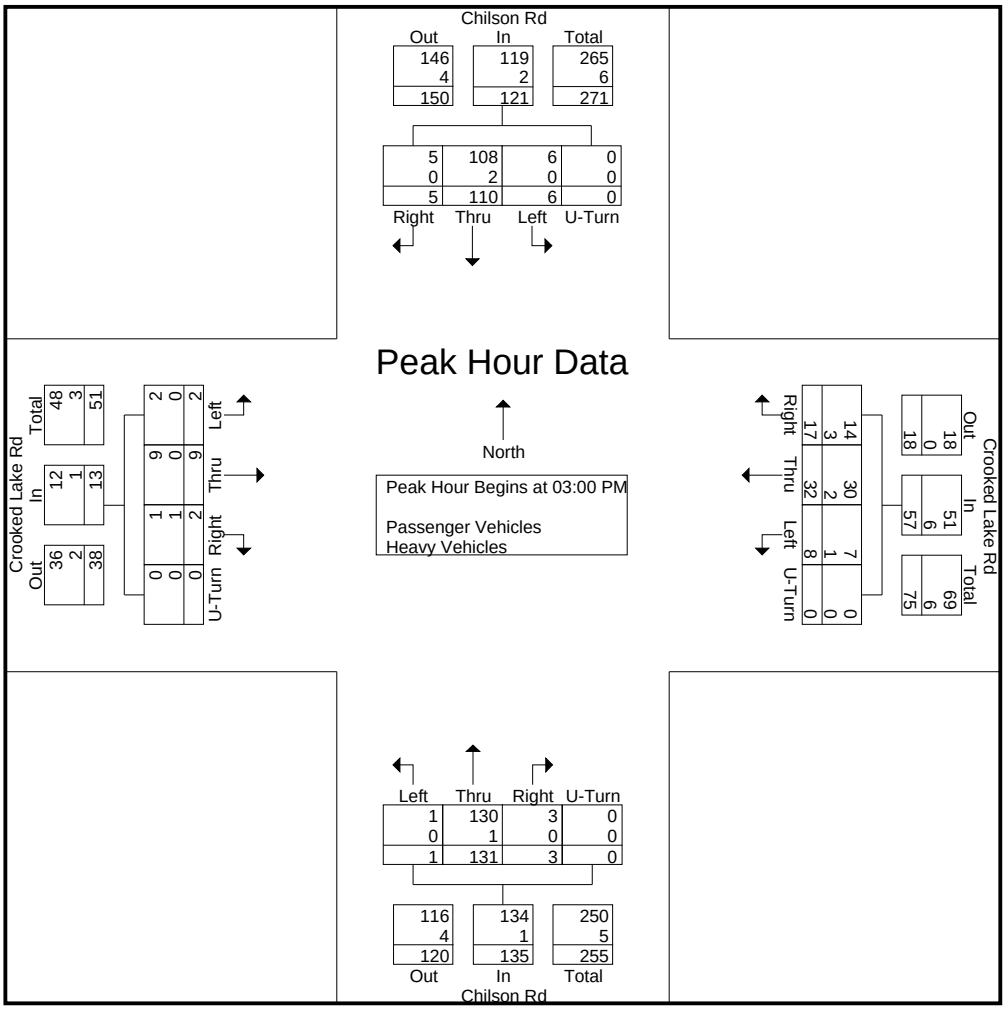
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	2	1	0	0	3	0	4	3	0	7	0	32	0	0	32	2	25	2	0	29	71
03:15 PM	0	1	0	0	1	2	4	3	0	9	0	28	2	0	30	2	29	0	0	31	71
03:30 PM	0	3	2	0	5	3	6	1	0	10	0	24	0	0	24	2	29	1	0	32	71
03:45 PM	0	4	0	0	4	3	18	10	0	31	1	47	1	0	49	0	27	2	0	29	113
Total	2	9	2	0	13	8	32	17	0	57	1	131	3	0	135	6	110	5	0	121	326
Grand Total	2	9	2	0	13	8	32	17	0	57	1	131	3	0	135	6	110	5	0	121	326
Apprch %	15.4	69.2	15.4	0		14	56.1	29.8	0		0.7	97	2.2	0		5	90.9	4.1	0		
Total %	0.6	2.8	0.6	0	4	2.5	9.8	5.2	0	17.5	0.3	40.2	0.9	0	41.4	1.8	33.7	1.5	0	37.1	
Passenger Vehicles	2	9	1	0	12	7	30	14	0	51	1	130	3	0	134	6	108	5	0	119	316
% Passenger Vehicles	100	100	50	0	92.3	87.5	93.8	82.4	0	89.5	100	99.2	100	0	99.3	100	98.2	100	0	98.3	96.9
Heavy Vehicles	0	0	1	0	1	1	2	3	0	6	0	1	0	0	1	0	2	0	0	2	10
% Heavy Vehicles	0	0	50	0	7.7	12.5	6.2	17.6	0	10.5	0	0.8	0	0	0.7	0	1.8	0	0	1.7	3.1



Quality Counts

File Name : 16184802 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184802
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	**2**	1	0	0	3	0	4	3	0	7	0	32	0	0	32	**2**	25	**2**	0	29	71
03:15 PM	0	1	0	0	1	2	4	3	0	9	0	28	**2**	0	30	2	**29**	0	0	31	71
03:30 PM	0	3	**2**	0	**5**	**3**	6	1	0	10	0	24	0	0	24	2	29	1	0	**32**	71
03:45 PM	0	**4**	0	0	4	3	**18**	**10**	0	**31**	**1**	**47**	1	0	**49**	0	27	2	0	29	**113**
Total Volume	2	9	2	0	13	8	32	17	0	57	1	131	3	0	135	6	110	5	0	121	326
% App. Total	15.4	69.2	15.4	0		14	56.1	29.8	0		0.7	97	2.2	0		5	90.9	4.1	0		
PHF	.250	.563	.250	.000	.650	.667	.444	.425	.000	.460	.250	.697	.375	.000	.689	.750	.948	.625	.000	.945	.721
Passenger Vehicles	2	9	1	0	12	7	30	14	0	51	1	130	3	0	134	6	108	5	0	119	316
% Passenger Vehicles	100	100	50.0	0	92.3	87.5	93.8	82.4	0	89.5	100	99.2	100	0	99.3	100	98.2	100	0	98.3	96.9
Heavy Vehicles	0	0	1	0	1	1	2	3	0	6	0	1	0	0	1	0	2	0	0	2	10
% Heavy Vehicles	0	0	50.0	0	7.7	12.5	6.3	17.6	0	10.5	0	0.8	0	0	0.7	0	1.8	0	0	1.7	3.1

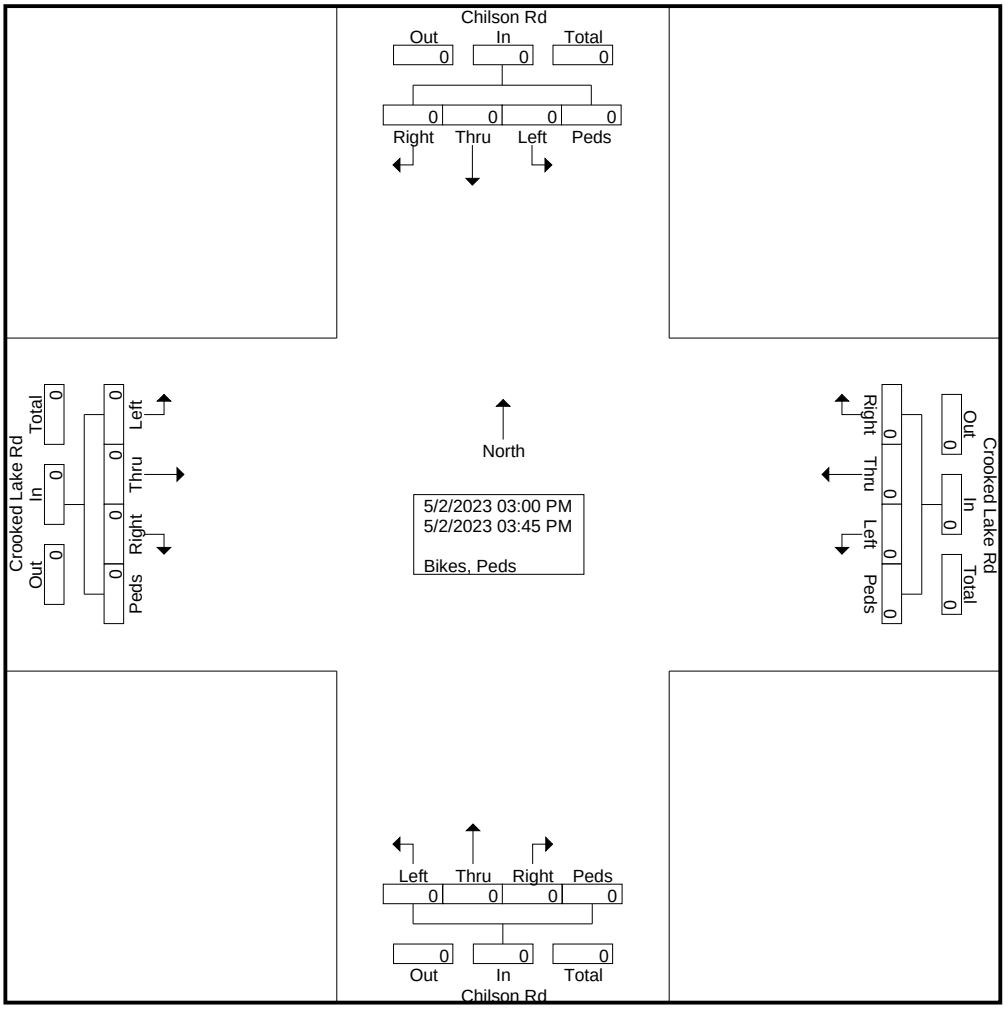


Quality Counts

File Name : 16184802 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184802
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

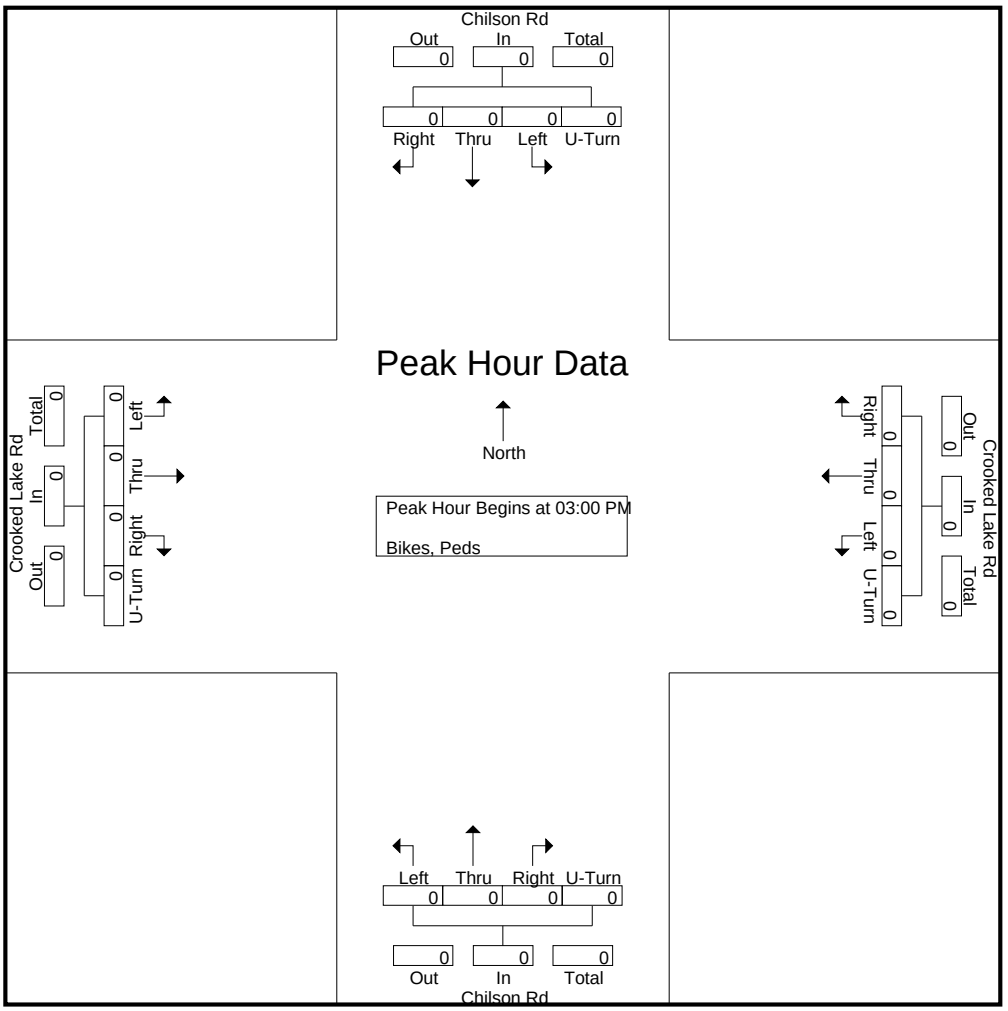
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184802 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184802
Start Date : 5/2/2023

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

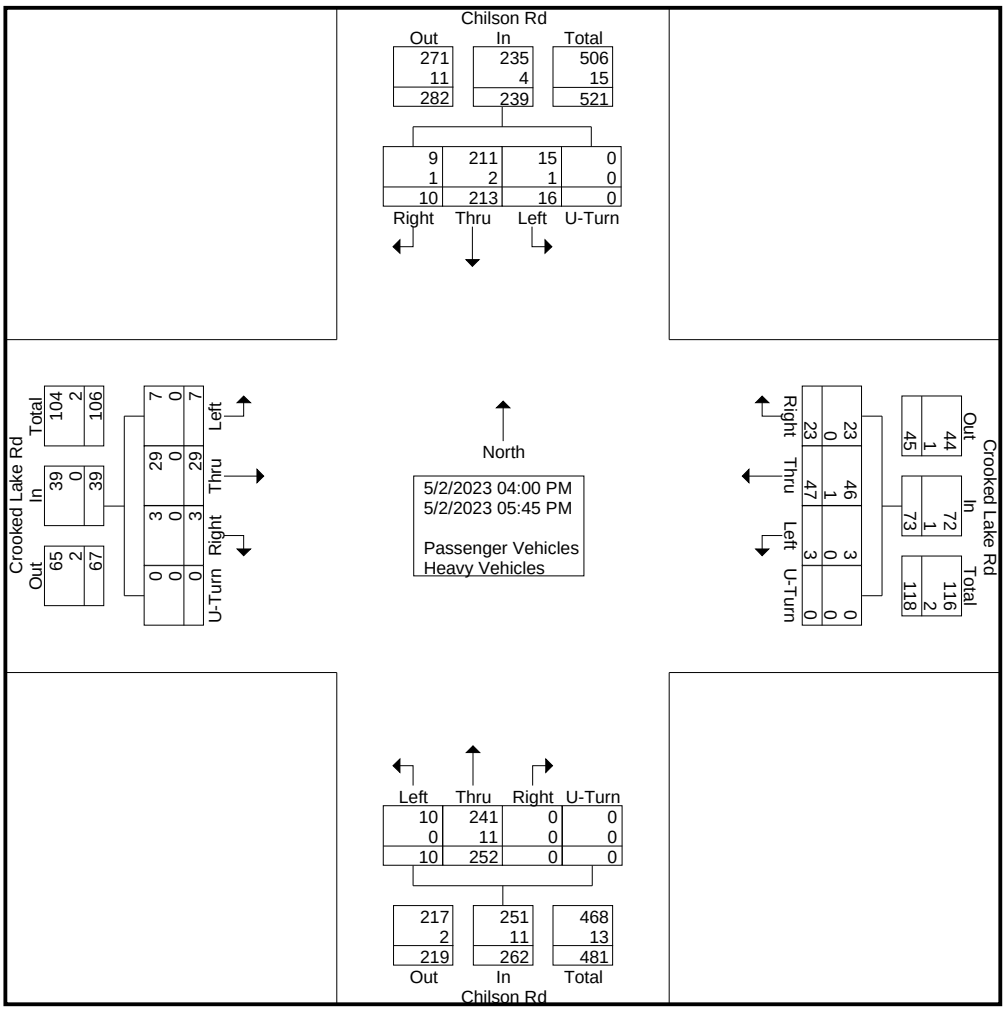


Quality Counts

File Name : 16184803 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184803
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

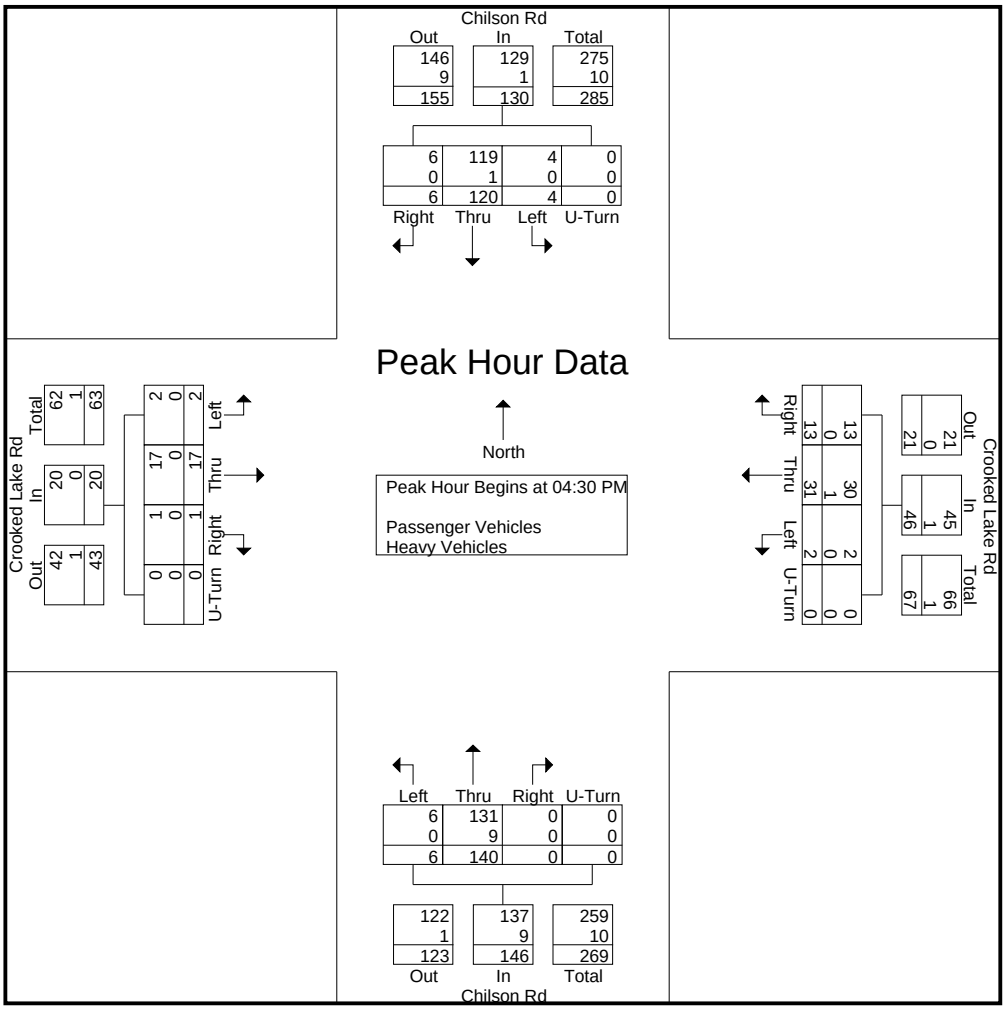
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
04:00 PM	1	2	0	0	3	0	3	4	0	7	3	24	0	0	27	3	26	2	0	31	68
04:15 PM	1	6	1	0	8	0	2	1	0	3	1	36	0	0	37	4	32	1	0	37	85
04:30 PM	1	5	0	0	6	2	7	4	0	13	1	42	0	0	43	1	35	2	0	38	100
04:45 PM	0	2	0	0	2	0	6	2	0	8	3	30	0	0	33	0	26	1	0	27	70
Total	3	15	1	0	19	2	18	11	0	31	8	132	0	0	140	8	119	6	0	133	323
05:00 PM	0	5	1	0	6	0	11	1	0	12	1	31	0	0	32	2	30	2	0	34	84
05:15 PM	1	5	0	0	6	0	7	6	0	13	1	37	0	0	38	1	29	1	0	31	88
05:30 PM	1	1	1	0	3	1	6	3	0	10	0	26	0	0	26	2	18	1	0	21	60
05:45 PM	2	3	0	0	5	0	5	2	0	7	0	26	0	0	26	3	17	0	0	20	58
Total	4	14	2	0	20	1	29	12	0	42	2	120	0	0	122	8	94	4	0	106	290
Grand Total	7	29	3	0	39	3	47	23	0	73	10	252	0	0	262	16	213	10	0	239	613
Apprch %	17.9	74.4	7.7	0		4.1	64.4	31.5	0		3.8	96.2	0	0		6.7	89.1	4.2	0		
Total %	1.1	4.7	0.5	0	6.4	0.5	7.7	3.8	0	11.9	1.6	41.1	0	0	42.7	2.6	34.7	1.6	0	39	
Passenger Vehicles	7	29	3	0	39	3	46	23	0	72	10	241	0	0	251	15	211	9	0	235	597
% Passenger Vehicles	100	100	100	0	100	100	97.9	100	0	98.6	100	95.6	0	0	95.8	93.8	99.1	90	0	98.3	97.4
Heavy Vehicles	0	0	0	0	0	0	1	0	0	1	0	11	0	0	11	1	2	1	0	4	16
% Heavy Vehicles	0	0	0	0	0	0	2.1	0	0	1.4	0	4.4	0	0	4.2	6.2	0.9	10	0	1.7	2.6



Quality Counts

File Name : 16184803 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184803
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**1**	**5**	0	0	**6**	**2**	7	4	0	**13**	1	**42**	0	0	**43**	1	**35**	**2**	0	**38**	**100**
04:45 PM	0	2	0	0	2	0	6	2	0	8	**3**	30	0	0	33	0	26	1	0	27	70
05:00 PM	0	5	**1**	0	6	0	**11**	1	0	12	1	31	0	0	32	**2**	30	2	0	34	84
05:15 PM	1	5	0	0	6	0	7	**6**	0	13	1	37	0	0	38	1	29	1	0	31	88
Total Volume	2	17	1	0	20	2	31	13	0	46	6	140	0	0	146	4	120	6	0	130	342
% App. Total	10	85	5	0		4.3	67.4	28.3	0		4.1	95.9	0	0		3.1	92.3	4.6	0		
PHF	.500	.850	.250	.000	.833	.250	.705	.542	.000	.885	.500	.833	.000	.000	.849	.500	.857	.750	.000	.855	.855
Passenger Vehicles	2	17	1	0	20	2	30	13	0	45	6	131	0	0	137	4	119	6	0	129	331
% Passenger Vehicles	100	100	100	0	100	100	96.8	100	0	97.8	100	93.6	0	0	93.8	100	99.2	100	0	99.2	96.8
Heavy Vehicles	0	0	0	0	0	0	1	0	0	1	0	9	0	0	9	0	1	0	0	1	11
% Heavy Vehicles	0	0	0	0	0	0	3.2	0	0	2.2	0	6.4	0	0	6.2	0	0.8	0	0	0.8	3.2

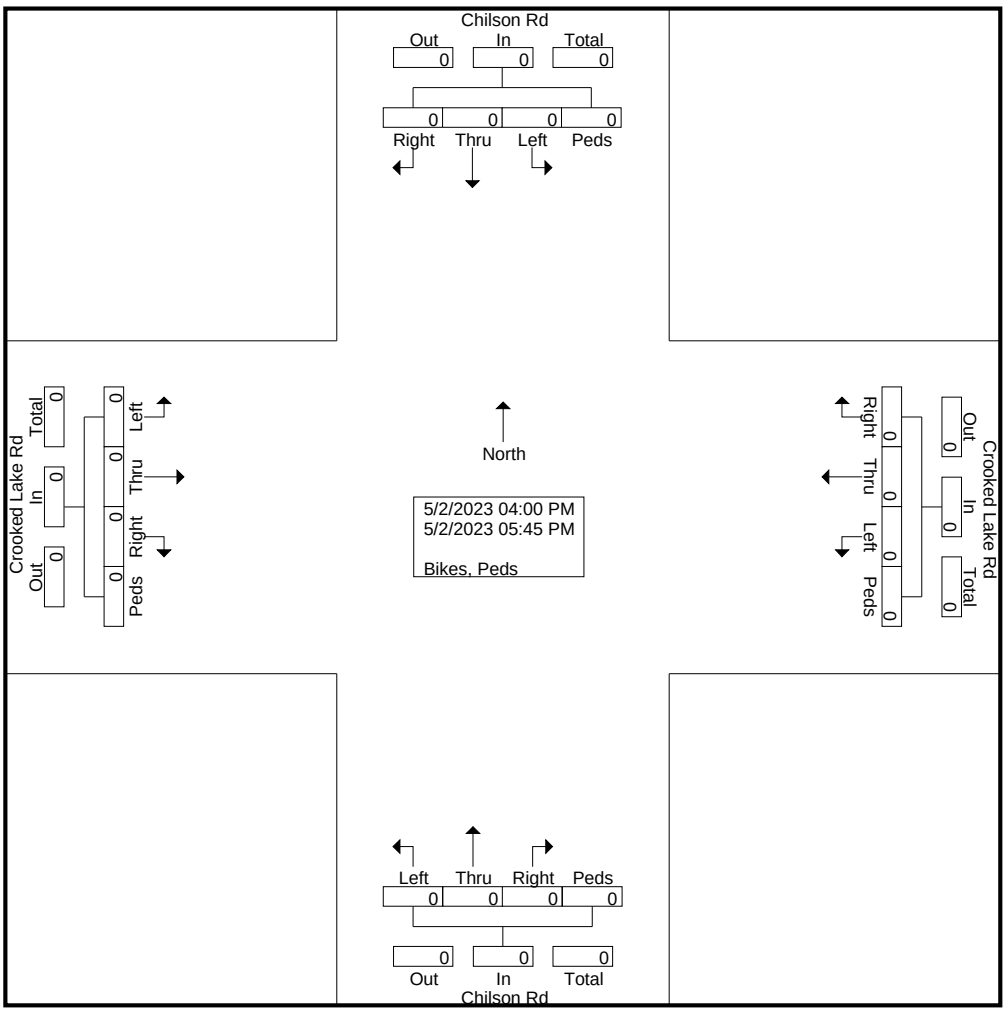


Quality Counts

File Name : 16184803 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184803
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

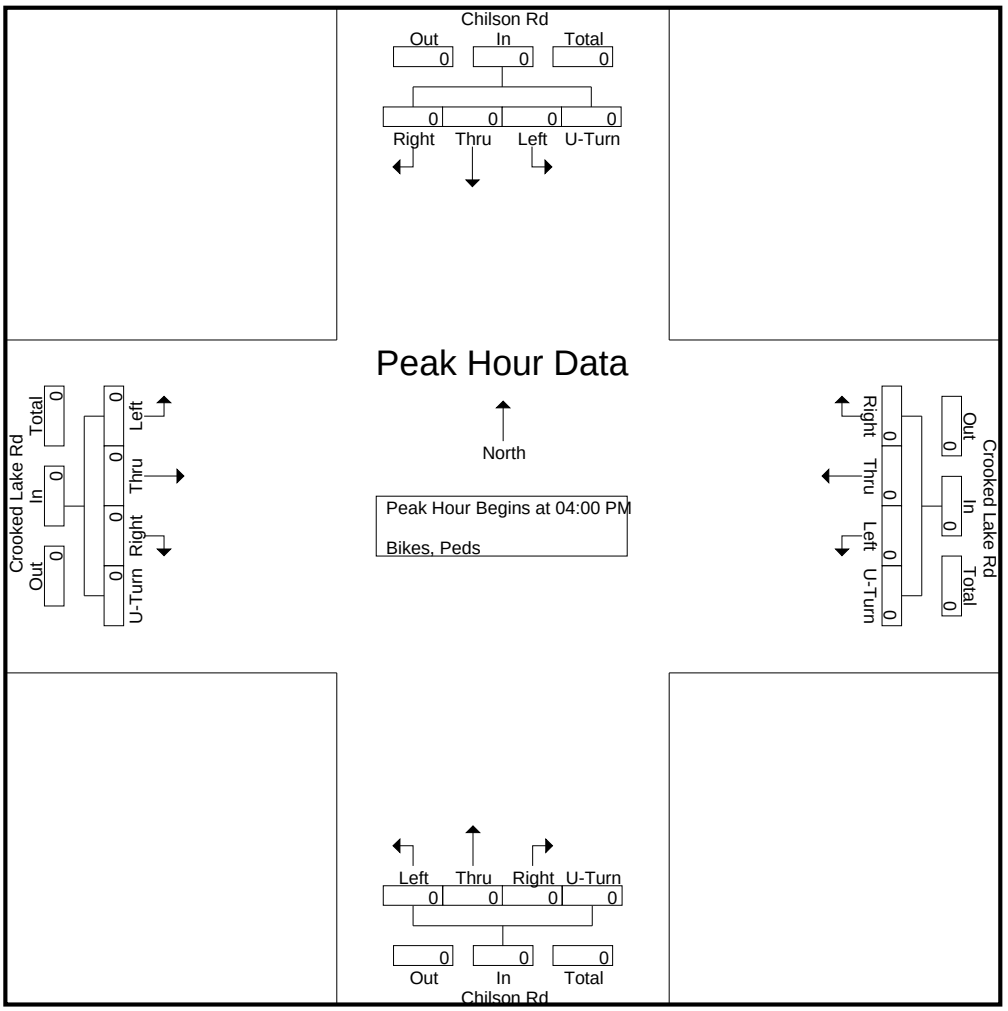
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184803 - Chilson Rd -- Crooked Lake Rd
Site Code : 16184803
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Chilson Rd Northbound					Chilson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

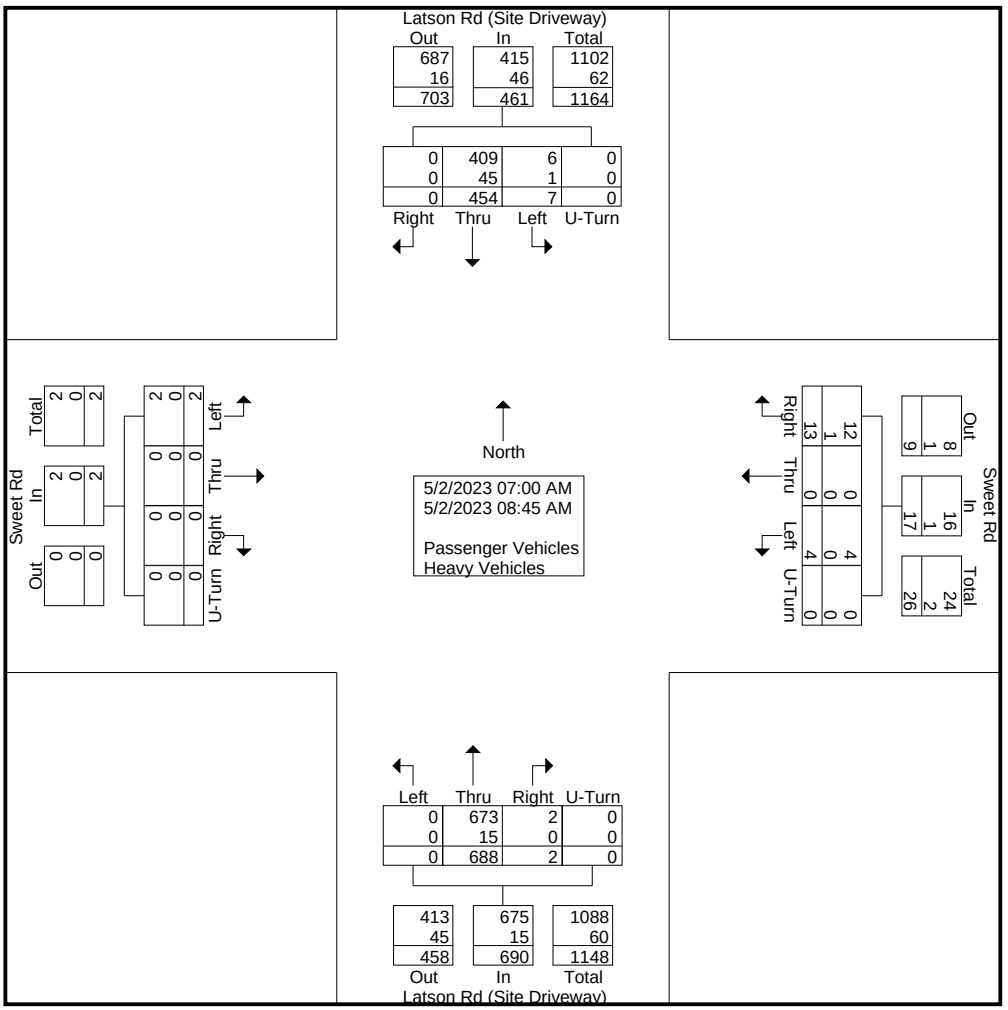


Quality Counts

File Name : 16184804 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184804
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

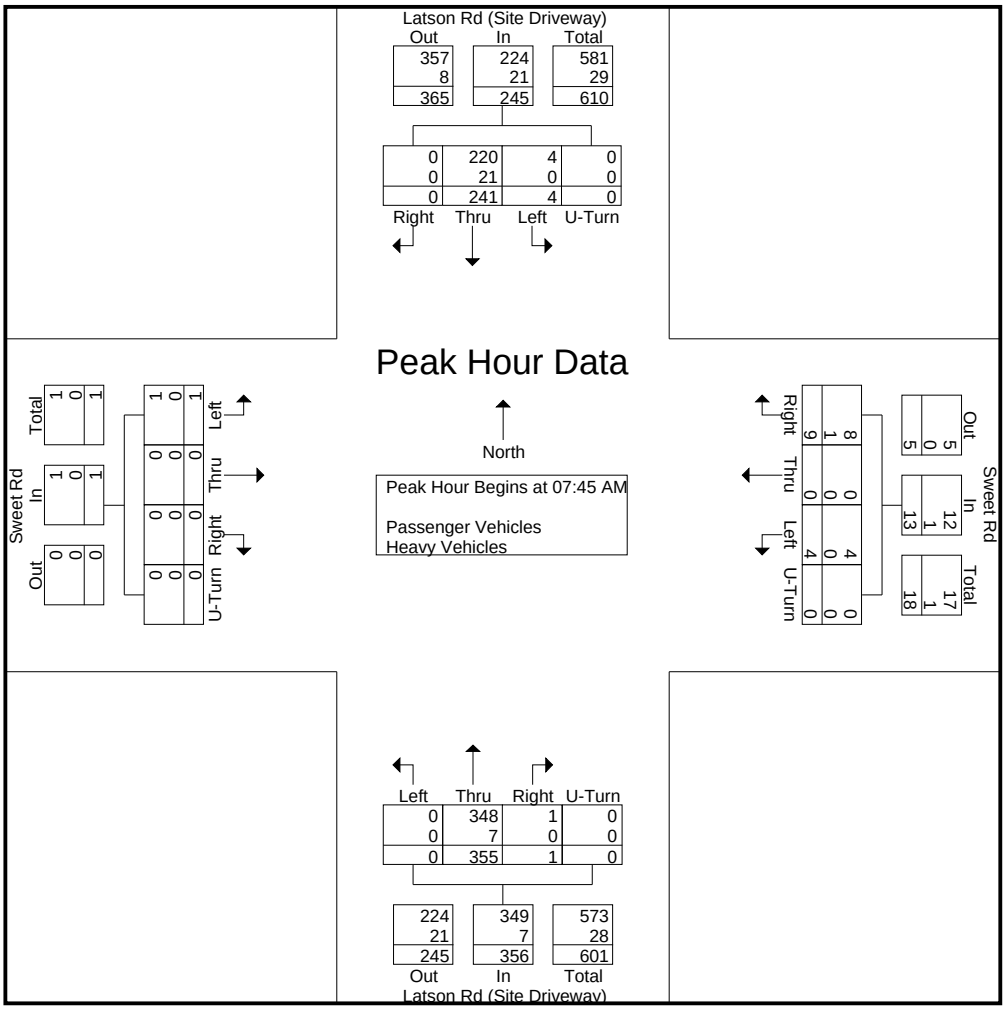
	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	79	0	0	79	0	37	0	0	37	116
07:15 AM	0	0	0	0	0	0	0	1	0	1	0	87	0	0	87	0	55	0	0	55	143
07:30 AM	0	0	0	0	0	0	0	2	0	2	0	80	0	0	80	0	63	0	0	63	145
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	89	0	0	89	1	61	0	0	62	152
Total	0	0	0	0	0	1	0	3	0	4	0	335	0	0	335	1	216	0	0	217	556
08:00 AM	0	0	0	0	0	2	0	2	0	4	0	86	1	0	87	1	51	0	0	52	143
08:15 AM	1	0	0	0	1	0	0	4	0	4	0	88	0	0	88	0	68	0	0	68	161
08:30 AM	0	0	0	0	0	1	0	3	0	4	0	92	0	0	92	2	61	0	0	63	159
08:45 AM	1	0	0	0	1	0	0	1	0	1	0	87	1	0	88	3	58	0	0	61	151
Total	2	0	0	0	2	3	0	10	0	13	0	353	2	0	355	6	238	0	0	244	614
Grand Total	2	0	0	0	2	4	0	13	0	17	0	688	2	0	690	7	454	0	0	461	1170
Apprch %	100	0	0	0		23.5	0	76.5	0		0	99.7	0.3	0		1.5	98.5	0	0		
Total %	0.2	0	0	0	0.2	0.3	0	1.1	0	1.5	0	58.8	0.2	0	59	0.6	38.8	0	0	39.4	
Passenger Vehicles	2	0	0	0	2	4	0	12	0	16	0	673	2	0	675	6	409	0	0	415	1108
% Passenger Vehicles	100	0	0	0	100	100	0	92.3	0	94.1	0	97.8	100	0	97.8	85.7	90.1	0	0	90	94.7
Heavy Vehicles	0	0	0	0	0	0	0	1	0	1	0	15	0	0	15	1	45	0	0	46	62
% Heavy Vehicles	0	0	0	0	0	0	0	7.7	0	5.9	0	2.2	0	0	2.2	14.3	9.9	0	0	10	5.3



Quality Counts

File Name : 16184804 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184804
Start Date : 5/2/2023
Page No : 2

	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	89	0	0	89	1	61	0	0	62	152
08:00 AM	0	0	0	0	0	**2**	0	2	0	**4**	0	86	**1**	0	87	1	51	0	0	52	143
08:15 AM	**1**	0	0	0	**1**	0	0	**4**	0	4	0	88	0	0	88	0	**68**	0	0	**68**	**161**
08:30 AM	0	0	0	0	0	1	0	3	0	4	0	**92**	0	0	**92**	**2**	61	0	0	63	159
Total Volume	1	0	0	0	1	4	0	9	0	13	0	355	1	0	356	4	241	0	0	245	615
% App. Total	100	0	0	0		30.8	0	69.2	0		0	99.7	0.3	0		1.6	98.4	0	0		
PHF	.250	.000	.000	.000	.250	.500	.000	.563	.000	.813	.000	.965	.250	.000	.967	.500	.886	.000	.000	.901	.955
Passenger Vehicles	1	0	0	0	1	4	0	8	0	12	0	348	1	0	349	4	220	0	0	224	586
% Passenger Vehicles	100	0	0	0	100	100	0	88.9	0	92.3	0	98.0	100	0	98.0	100	91.3	0	0	91.4	95.3
Heavy Vehicles	0	0	0	0	0	0	0	1	0	1	0	7	0	0	7	0	21	0	0	21	29
% Heavy Vehicles	0	0	0	0	0	0	0	11.1	0	7.7	0	2.0	0	0	2.0	0	8.7	0	0	8.6	4.7

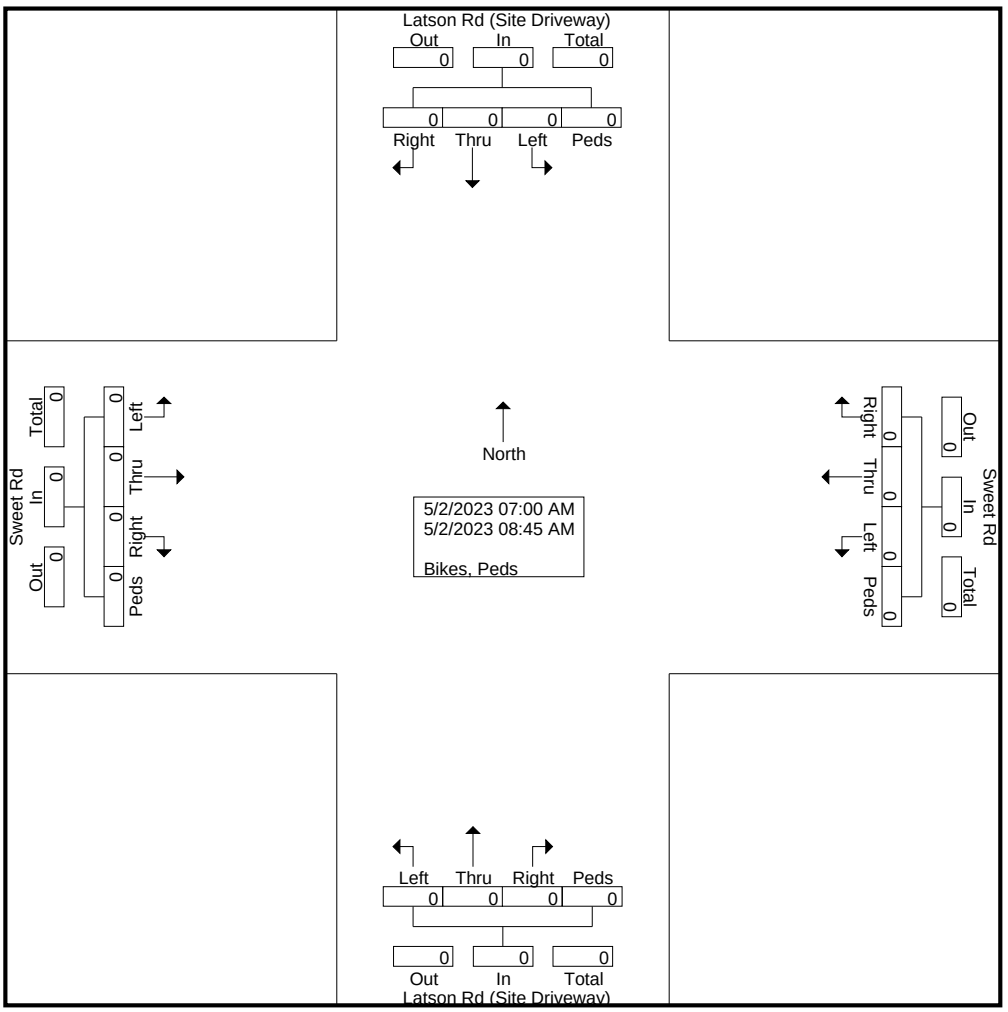


Quality Counts

File Name : 16184804 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184804
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

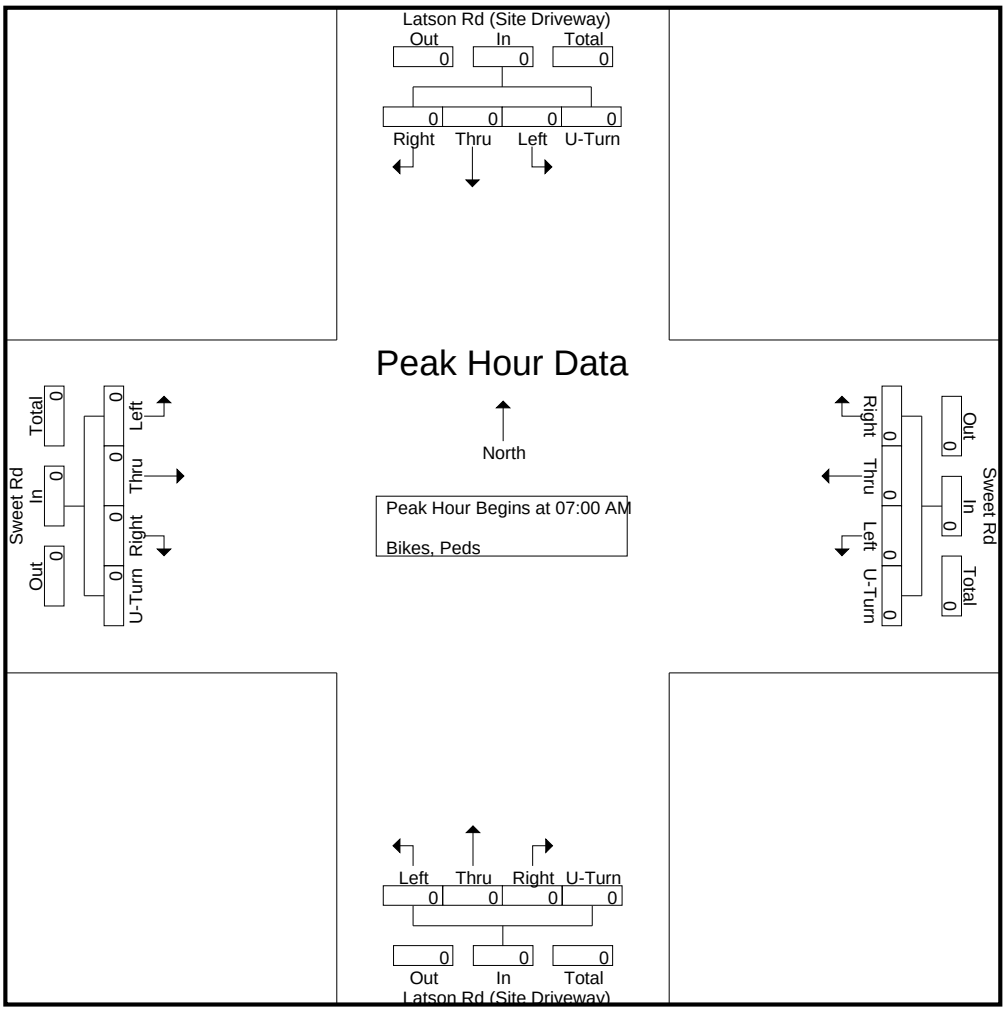
	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184804 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184804
Start Date : 5/2/2023
Page No : 2

	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

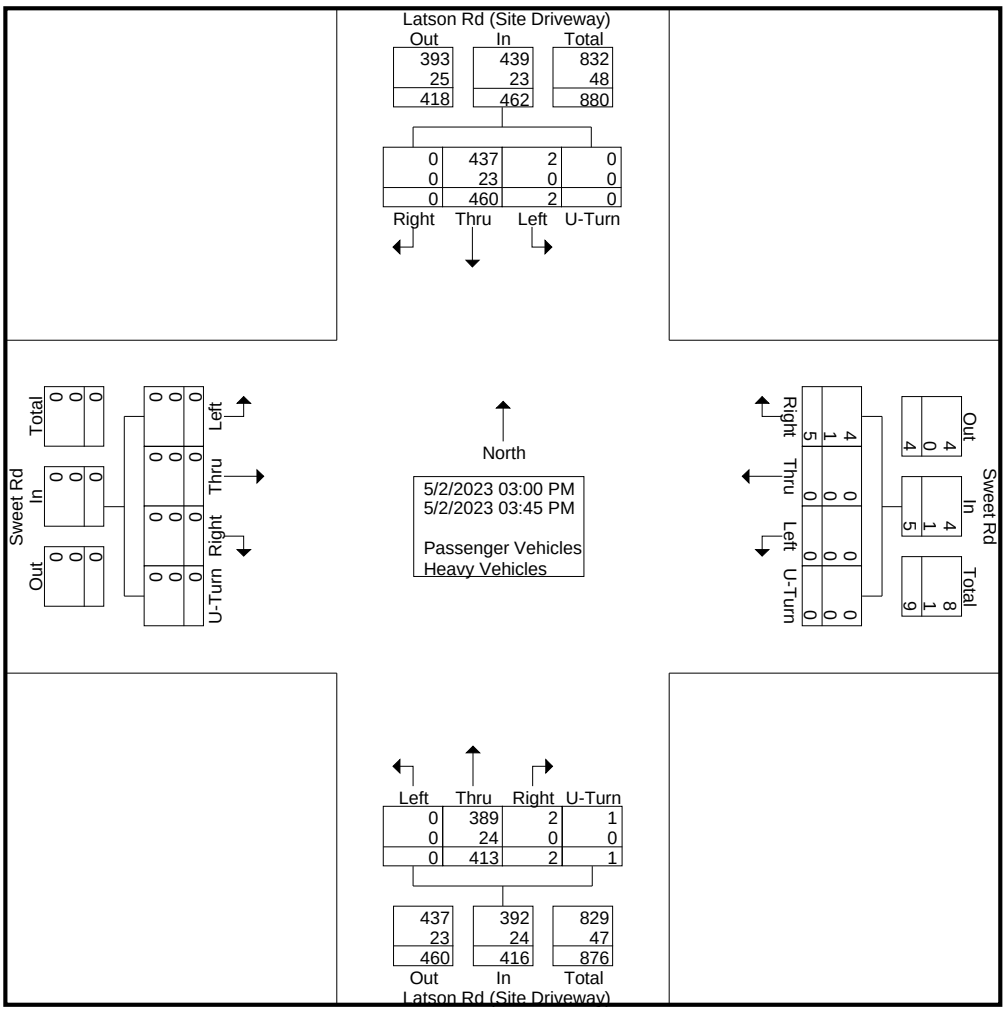


Quality Counts

File Name : 16184805 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184805
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

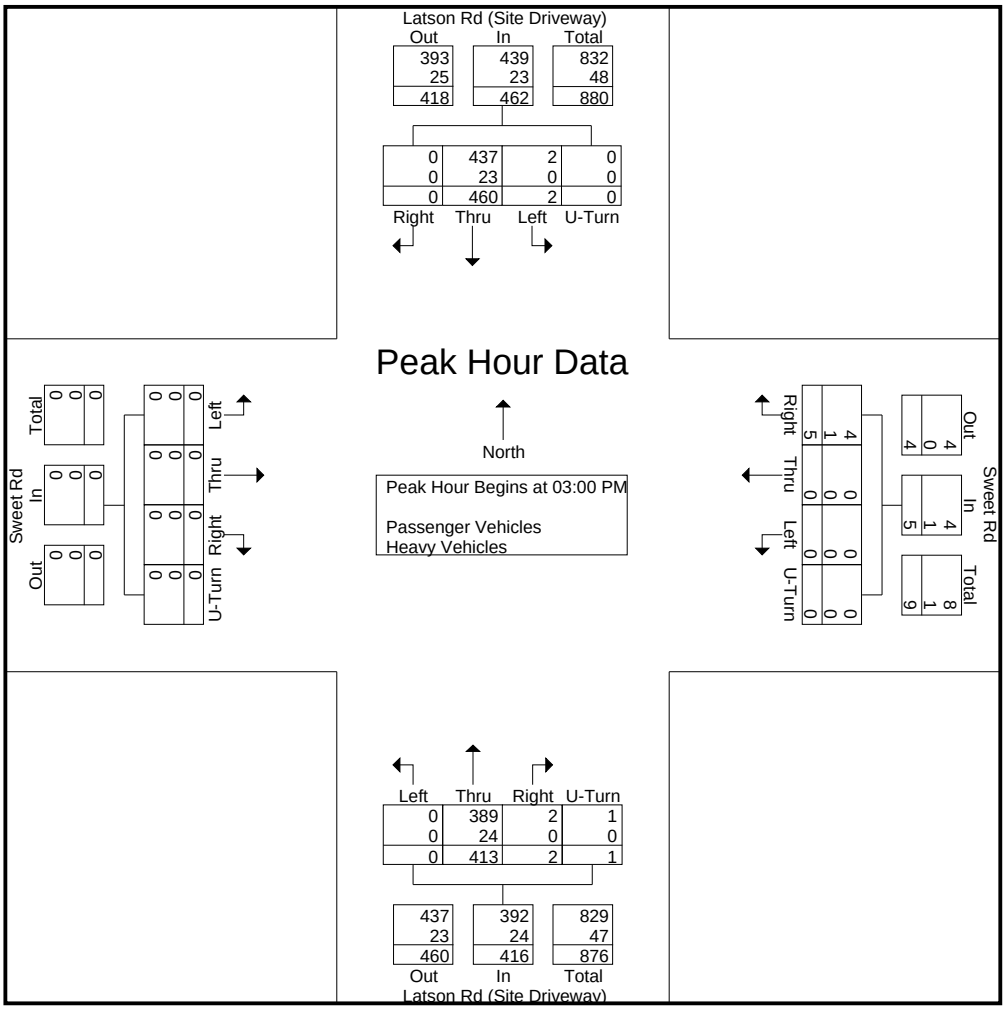
	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	2	0	2	0	84	0	0	84	0	120	0	0	120	206
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	79	0	1	80	1	115	0	0	116	196
03:30 PM	0	0	0	0	0	0	0	2	0	2	0	97	0	0	97	1	100	0	0	101	200
03:45 PM	0	0	0	0	0	0	0	1	0	1	0	153	2	0	155	0	125	0	0	125	281
Total	0	0	0	0	0	0	0	5	0	5	0	413	2	1	416	2	460	0	0	462	883
Grand Total	0	0	0	0	0	0	0	5	0	5	0	413	2	1	416	2	460	0	0	462	883
Apprch %	0	0	0	0		0	0	100	0		0	99.3	0.5	0.2		0.4	99.6	0	0		
Total %	0	0	0	0	0	0	0	0.6	0	0.6	0	46.8	0.2	0.1	47.1	0.2	52.1	0	0	52.3	
Passenger Vehicles	0	0	0	0	0	0	0	4	0	4	0	389	2	1	392	2	437	0	0	439	835
% Passenger Vehicles	0	0	0	0	0	0	0	80	0	80	0	94.2	100	100	94.2	100	95	0	0	95	94.6
Heavy Vehicles	0	0	0	0	0	0	0	1	0	1	0	24	0	0	24	0	23	0	0	23	48
% Heavy Vehicles	0	0	0	0	0	0	0	20	0	20	0	5.8	0	0	5.8	0	5	0	0	5	5.4



Quality Counts

File Name : 16184805 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184805
Start Date : 5/2/2023
Page No : 2

	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	**2**	0	**2**	0	84	0	0	84	0	120	0	0	120	206
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	79	0	**1**	80	**1**	115	0	0	116	196
03:30 PM	0	0	0	0	0	0	0	2	0	2	0	97	0	0	97	1	100	0	0	101	200
03:45 PM	0	0	0	0	0	0	0	1	0	1	0	**153**	**2**	0	**155**	0	**125**	0	0	**125**	**281**
Total Volume	0	0	0	0	0	0	0	5	0	5	0	413	2	1	416	2	460	0	0	462	883
% App. Total	0	0	0	0		0	0	100	0		0	99.3	0.5	0.2		0.4	99.6	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.625	.000	.625	.000	.675	.250	.250	.671	.500	.920	.000	.000	.924	.786
Passenger Vehicles	0	0	0	0	0	0	0	4	0	4	0	389	2	1	392	2	437	0	0	439	835
% Passenger Vehicles	0	0	0	0	0	0	0	80.0	0	80.0	0	94.2	100	100	94.2	100	95.0	0	0	95.0	94.6
Heavy Vehicles	0	0	0	0	0	0	0	1	0	1	0	24	0	0	24	0	23	0	0	23	48
% Heavy Vehicles	0	0	0	0	0	0	0	20.0	0	20.0	0	5.8	0	0	5.8	0	5.0	0	0	5.0	5.4

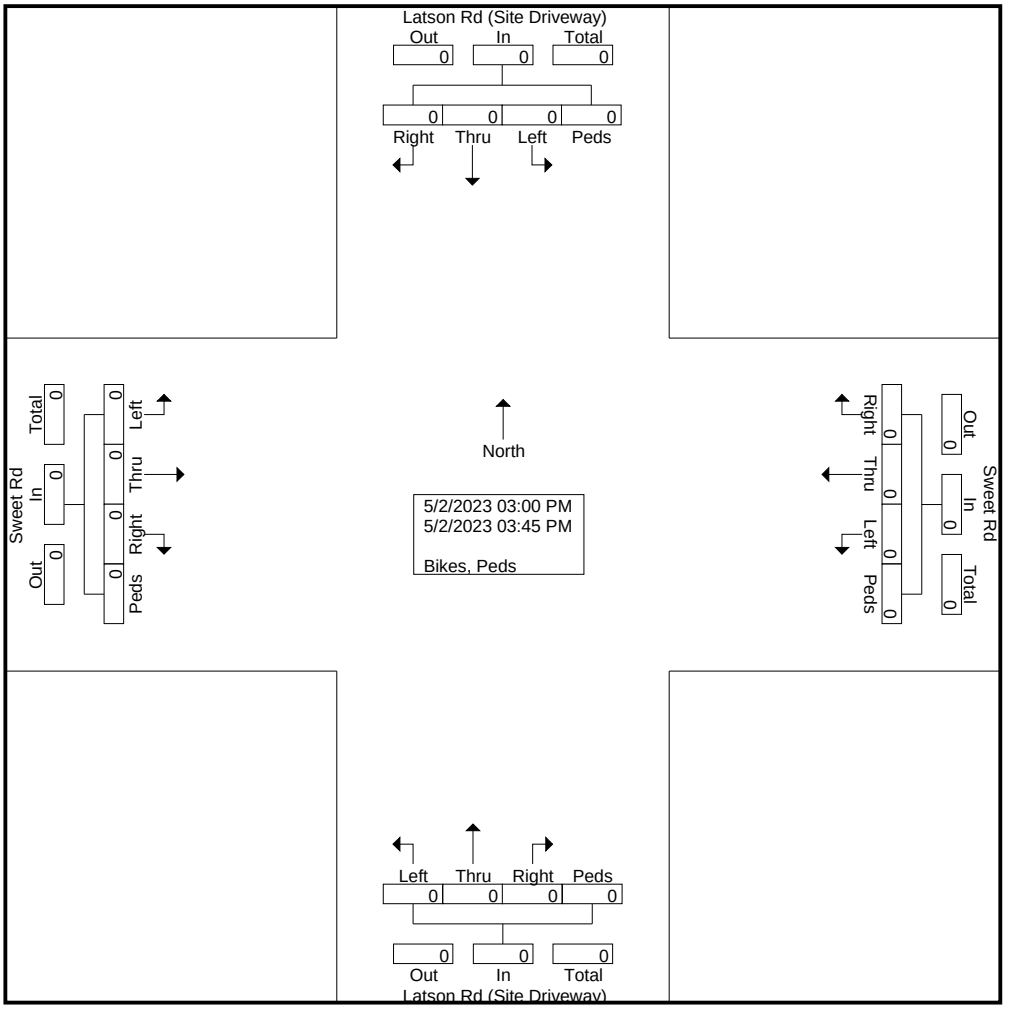


Quality Counts

File Name : 16184805 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184805
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

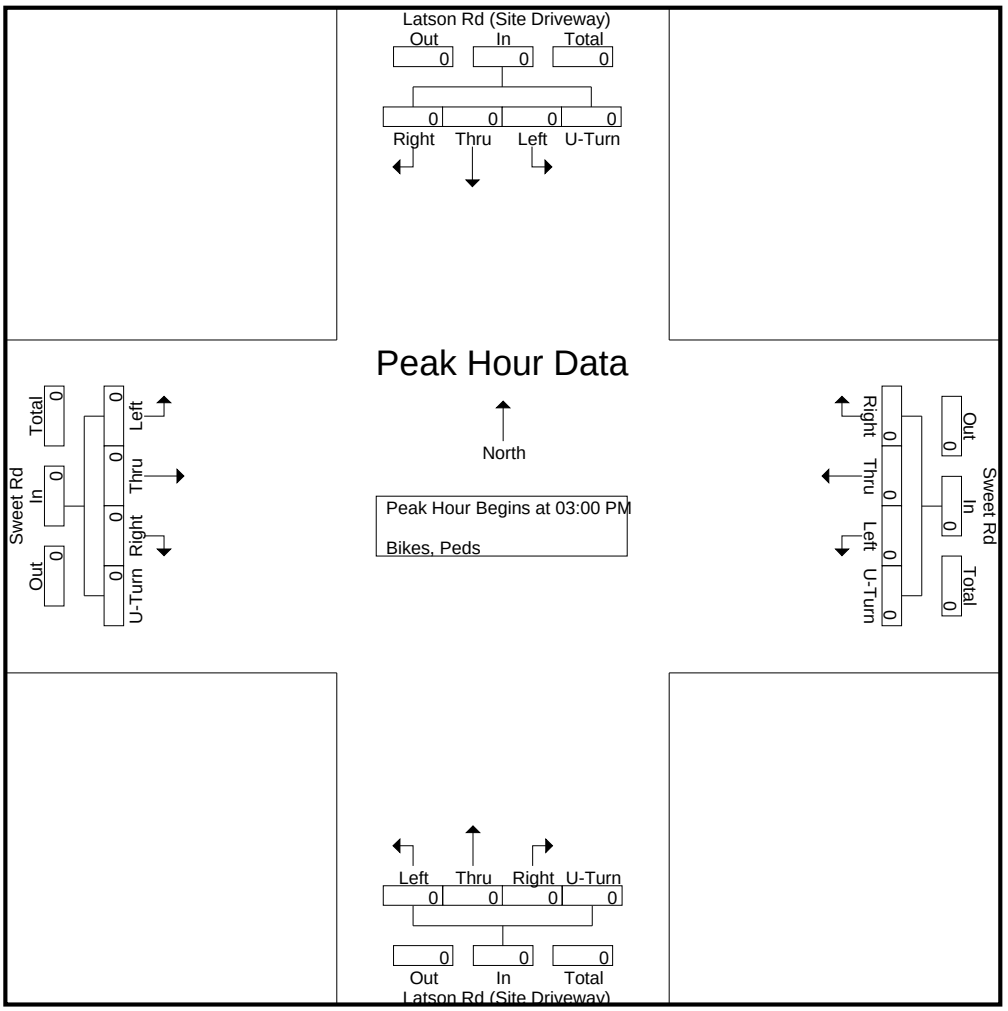
	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184805 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184805
Start Date : 5/2/2023
Page No : 2

	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

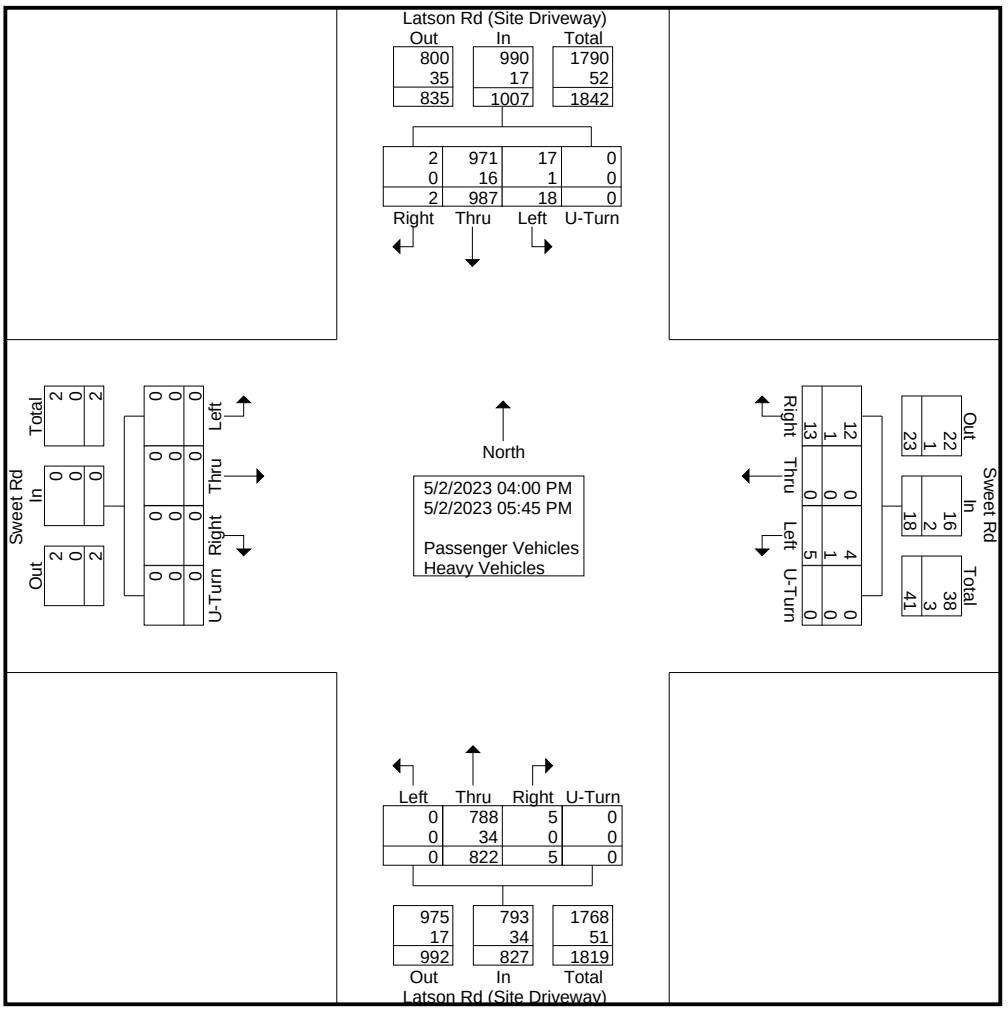


Quality Counts

File Name : 16184806 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184806
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

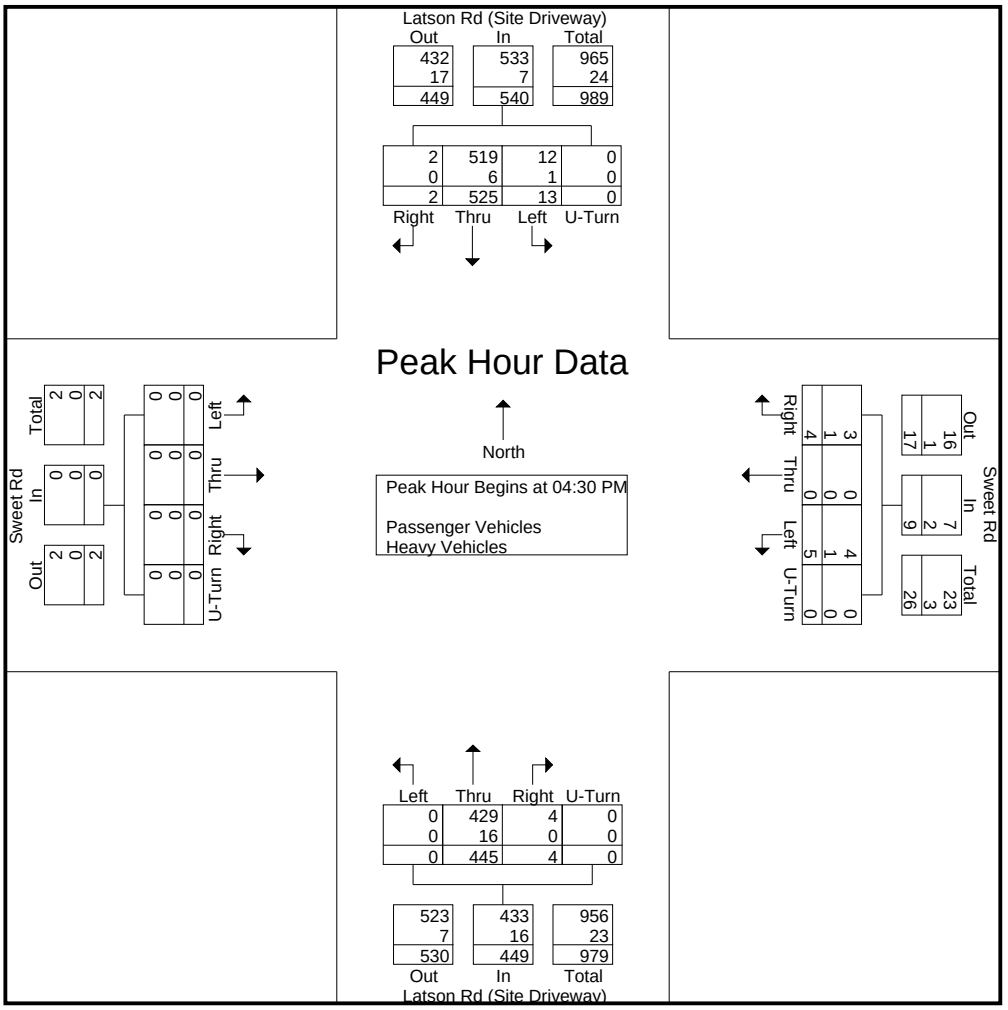
	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	1	0	106	0	0	106	1	113	0	0	114	221
04:15 PM	0	0	0	0	0	0	0	1	0	1	0	107	1	0	108	1	116	0	0	117	226
04:30 PM	0	0	0	0	0	2	0	0	0	2	0	121	3	0	124	2	129	1	0	132	258
04:45 PM	0	0	0	0	0	1	0	1	0	2	0	111	1	0	112	2	136	0	0	138	252
Total	0	0	0	0	0	3	0	3	0	6	0	445	5	0	450	6	494	1	0	501	957
05:00 PM	0	0	0	0	0	2	0	1	0	3	0	98	0	0	98	5	126	0	0	131	232
05:15 PM	0	0	0	0	0	0	0	2	0	2	0	115	0	0	115	4	134	1	0	139	256
05:30 PM	0	0	0	0	0	0	0	5	0	5	0	96	0	0	96	0	114	0	0	114	215
05:45 PM	0	0	0	0	0	0	0	2	0	2	0	68	0	0	68	3	119	0	0	122	192
Total	0	0	0	0	0	2	0	10	0	12	0	377	0	0	377	12	493	1	0	506	895
Grand Total	0	0	0	0	0	5	0	13	0	18	0	822	5	0	827	18	987	2	0	1007	1852
Apprch %	0	0	0	0		27.8	0	72.2	0		0	99.4	0.6	0		1.8	98	0.2	0		
Total %	0	0	0	0	0	0.3	0	0.7	0	1	0	44.4	0.3	0	44.7	1	53.3	0.1	0	54.4	
Passenger Vehicles	0	0	0	0	0	4	0	12	0	16	0	788	5	0	793	17	971	2	0	990	1799
% Passenger Vehicles	0	0	0	0	0	80	0	92.3	0	88.9	0	95.9	100	0	95.9	94.4	98.4	100	0	98.3	97.1
Heavy Vehicles	0	0	0	0	0	1	0	1	0	2	0	34	0	0	34	1	16	0	0	17	53
% Heavy Vehicles	0	0	0	0	0	20	0	7.7	0	11.1	0	4.1	0	0	4.1	5.6	1.6	0	0	1.7	2.9



Quality Counts

File Name : 16184806 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184806
Start Date : 5/2/2023
Page No : 2

	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	**2**	0	0	0	2	0	**121**	**3**	0	**124**	2	129	**1**	0	132	**258**
04:45 PM	0	0	0	0	0	1	0	1	0	2	0	111	1	0	112	2	**136**	0	0	138	252
05:00 PM	0	0	0	0	0	2	0	1	0	**3**	0	98	0	0	98	**5**	126	0	0	131	232
05:15 PM	0	0	0	0	0	0	0	**2**	0	2	0	115	0	0	115	4	134	1	0	**139**	256
Total Volume	0	0	0	0	0	5	0	4	0	9	0	445	4	0	449	13	525	2	0	540	998
% App. Total	0	0	0	0		55.6	0	44.4	0		0	99.1	0.9	0		2.4	97.2	0.4	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.500	.000	.750	.000	.919	.333	.000	.905	.650	.965	.500	.000	.971	.967
Passenger Vehicles	0	0	0	0	0	4	0	3	0	7	0	429	4	0	433	12	519	2	0	533	973
% Passenger Vehicles	0	0	0	0	0	80.0	0	75.0	0	77.8	0	96.4	100	0	96.4	92.3	98.9	100	0	98.7	97.5
Heavy Vehicles	0	0	0	0	0	1	0	1	0	2	0	16	0	0	16	1	6	0	0	7	25
% Heavy Vehicles	0	0	0	0	0	20.0	0	25.0	0	22.2	0	3.6	0	0	3.6	7.7	1.1	0	0	1.3	2.5

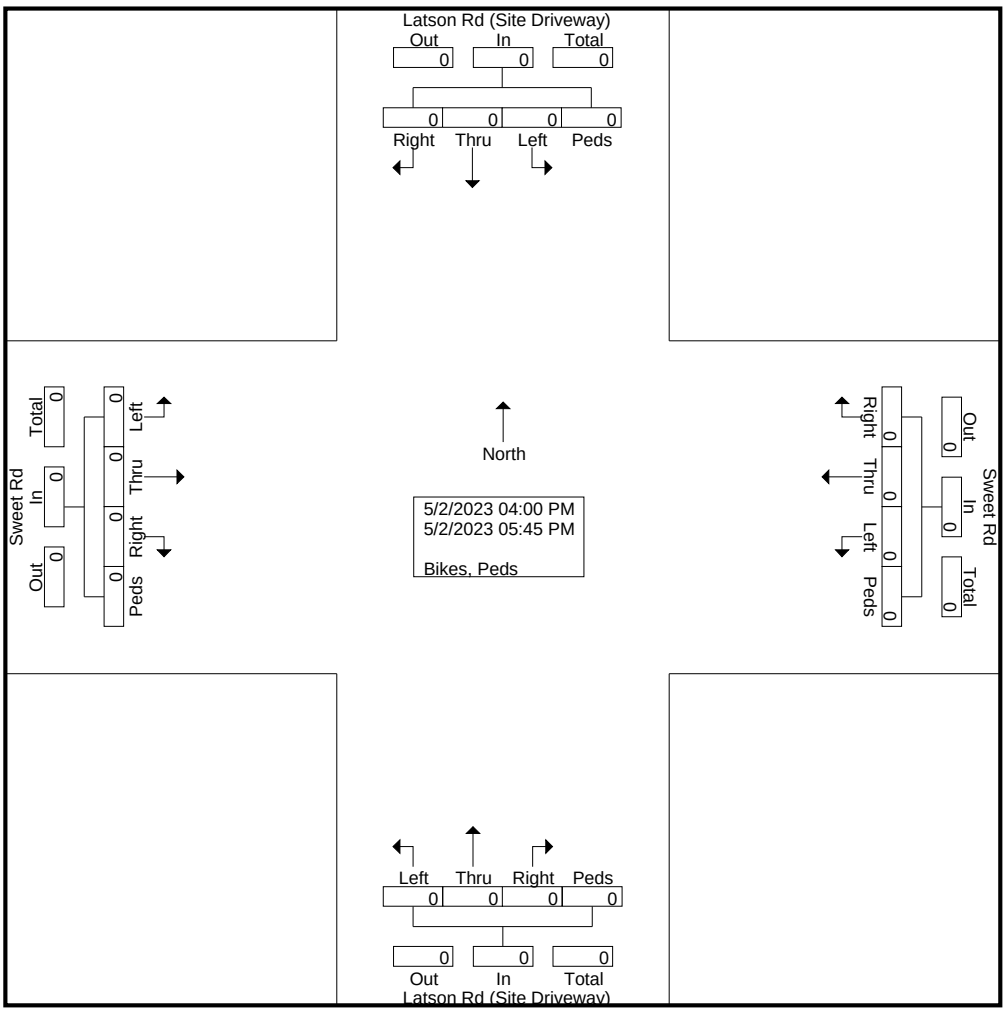


Quality Counts

File Name : 16184806 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184806
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

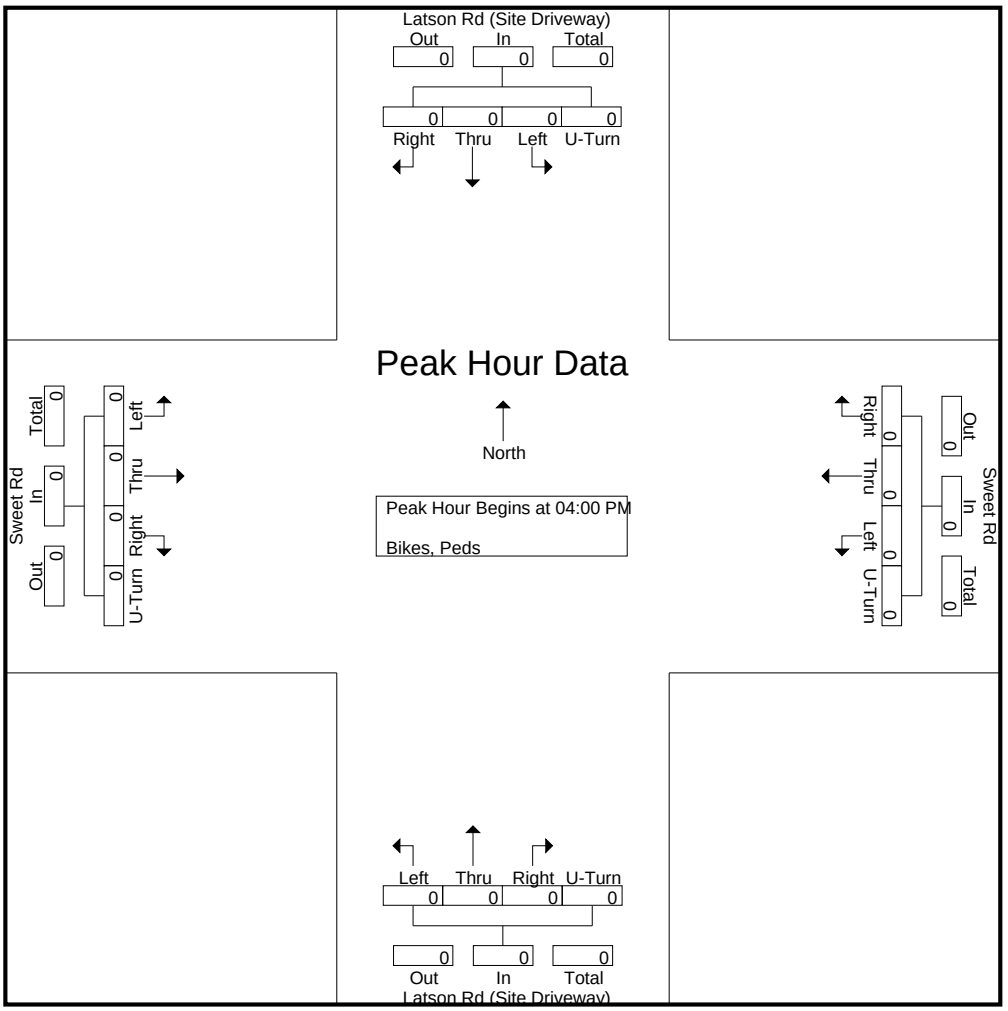
	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184806 - Latson Rd (Site Driveway) -- Sweet Rd
Site Code : 16184806
Start Date : 5/2/2023
Page No : 2

	Sweet Rd Eastbound					Sweet Rd Westbound					Latson Rd (Site Driveway) Northbound					Latson Rd (Site Driveway) Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

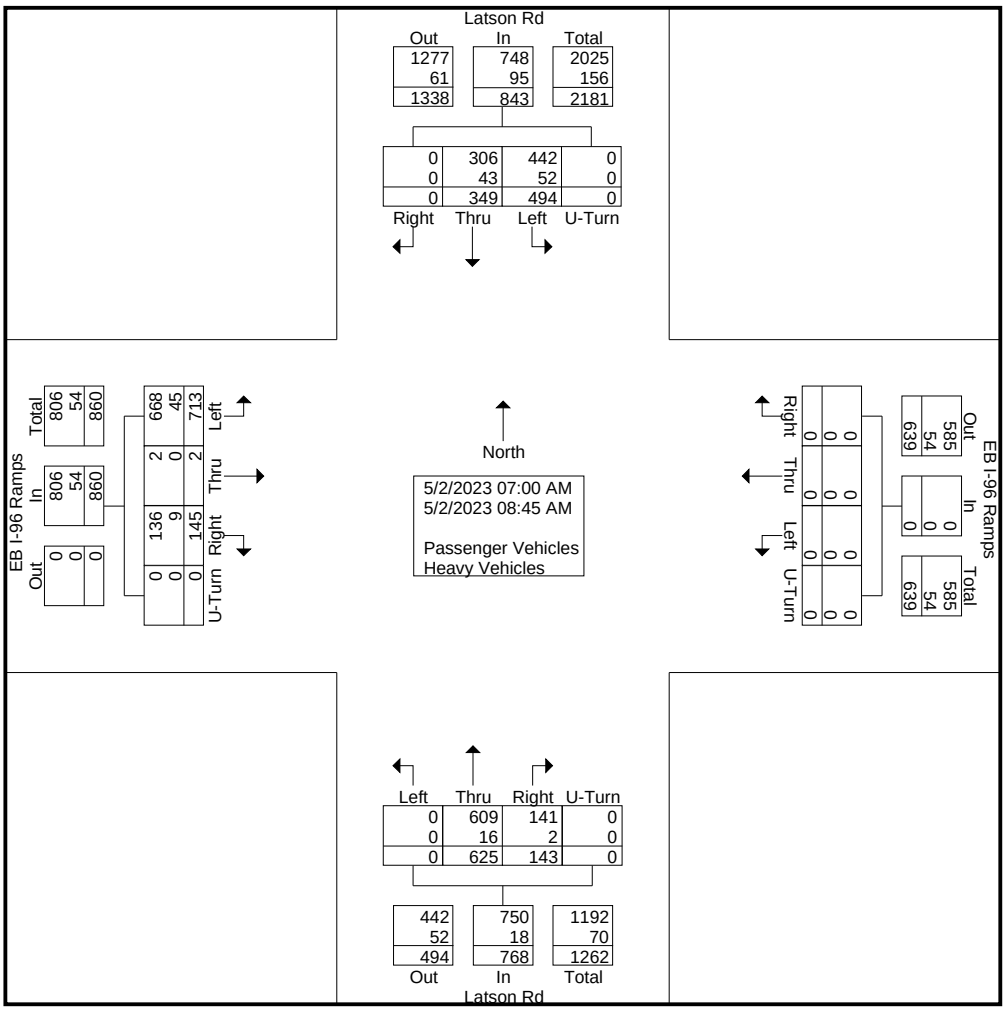


Quality Counts

File Name : 16184807 - Latson Rd -- EB I-96 Ramps
Site Code : 16184807
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

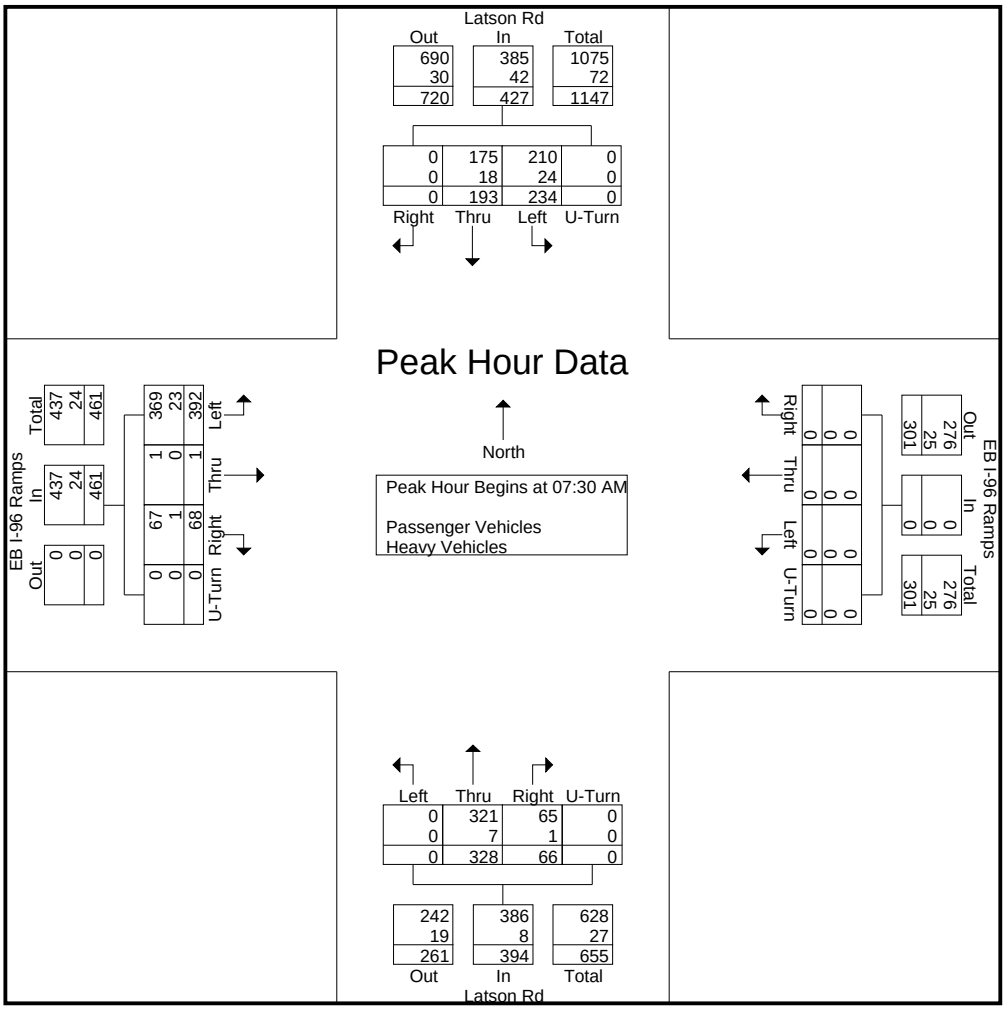
	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	67	0	19	0	86	0	0	0	0	0	0	59	26	0	85	73	25	0	0	98	269
07:15 AM	76	1	25	0	102	0	0	0	0	0	0	73	22	0	95	57	31	0	0	88	285
07:30 AM	93	0	24	0	117	0	0	0	0	0	0	71	22	0	93	53	42	0	0	95	305
07:45 AM	122	0	9	0	131	0	0	0	0	0	0	93	7	0	100	51	54	0	0	105	336
Total	358	1	77	0	436	0	0	0	0	0	0	296	77	0	373	234	152	0	0	386	1195
08:00 AM	100	1	13	0	114	0	0	0	0	0	0	78	17	0	95	63	42	0	0	105	314
08:15 AM	77	0	22	0	99	0	0	0	0	0	0	86	20	0	106	67	55	0	0	122	327
08:30 AM	73	0	14	0	87	0	0	0	0	0	0	80	15	0	95	63	51	0	0	114	296
08:45 AM	105	0	19	0	124	0	0	0	0	0	0	85	14	0	99	67	49	0	0	116	339
Total	355	1	68	0	424	0	0	0	0	0	0	329	66	0	395	260	197	0	0	457	1276
Grand Total	713	2	145	0	860	0	0	0	0	0	0	625	143	0	768	494	349	0	0	843	2471
Apprch %	82.9	0.2	16.9	0		0	0	0	0		0	81.4	18.6	0		58.6	41.4	0	0		
Total %	28.9	0.1	5.9	0	34.8	0	0	0	0	0	0	25.3	5.8	0	31.1	20	14.1	0	0	34.1	
Passenger Vehicles	668	2	136	0	806	0	0	0	0	0	0	609	141	0	750	442	306	0	0	748	2304
% Passenger Vehicles	93.7	100	93.8	0	93.7	0	0	0	0	0	0	97.4	98.6	0	97.7	89.5	87.7	0	0	88.7	93.2
Heavy Vehicles	45	0	9	0	54	0	0	0	0	0	0	16	2	0	18	52	43	0	0	95	167
% Heavy Vehicles	6.3	0	6.2	0	6.3	0	0	0	0	0	0	2.6	1.4	0	2.3	10.5	12.3	0	0	11.3	6.8



Quality Counts

File Name : 16184807 - Latson Rd -- EB I-96 Ramps
Site Code : 16184807
Start Date : 5/2/2023
Page No : 2

	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	93	0	**24**	0	117	0	0	0	0	0	0	71	**22**	0	93	53	42	0	0	95	305
07:45 AM	**122**	0	9	0	**131**	0	0	0	0	0	0	**93**	7	0	100	51	54	0	0	105	**336**
08:00 AM	100	**1**	13	0	114	0	0	0	0	0	0	78	17	0	95	63	42	0	0	105	314
08:15 AM	77	0	22	0	99	0	0	0	0	0	0	86	20	0	**106**	**67**	**55**	0	0	**122**	327
Total Volume	392	1	68	0	461	0	0	0	0	0	0	328	66	0	394	234	193	0	0	427	1282
% App. Total	85	0.2	14.8	0		0	0	0	0		0	83.2	16.8	0		54.8	45.2	0	0		
PHF	.803	.250	.708	.000	.880	.000	.000	.000	.000	.000	.000	.882	.750	.000	.929	.873	.877	.000	.000	.875	.954
Passenger Vehicles	369	1	67	0	437	0	0	0	0	0	0	321	65	0	386	210	175	0	0	385	1208
% Passenger Vehicles	94.1	100	98.5	0	94.8	0	0	0	0	0	0	97.9	98.5	0	98.0	89.7	90.7	0	0	90.2	94.2
Heavy Vehicles	23	0	1	0	24	0	0	0	0	0	0	7	1	0	8	24	18	0	0	42	74
% Heavy Vehicles	5.9	0	1.5	0	5.2	0	0	0	0	0	0	2.1	1.5	0	2.0	10.3	9.3	0	0	9.8	5.8

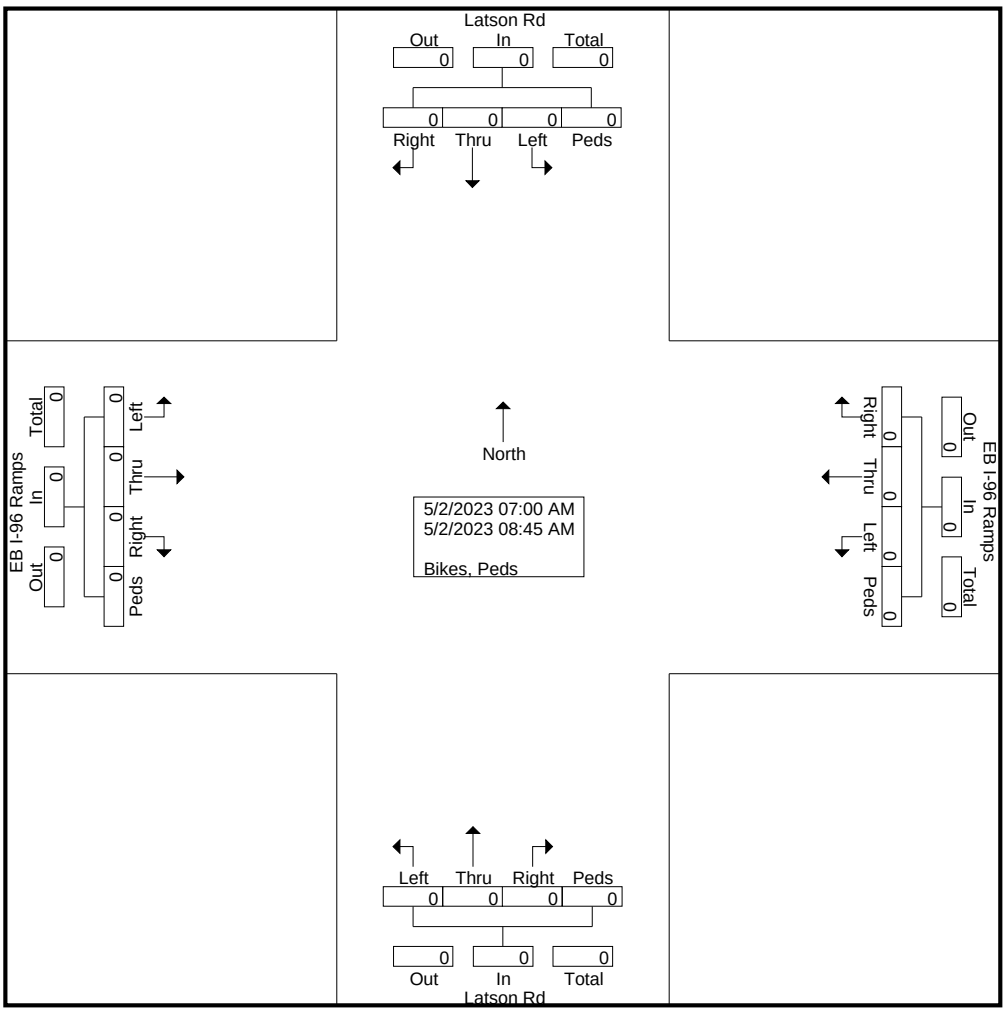


Quality Counts

File Name : 16184807 - Latson Rd -- EB I-96 Ramps
Site Code : 16184807
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

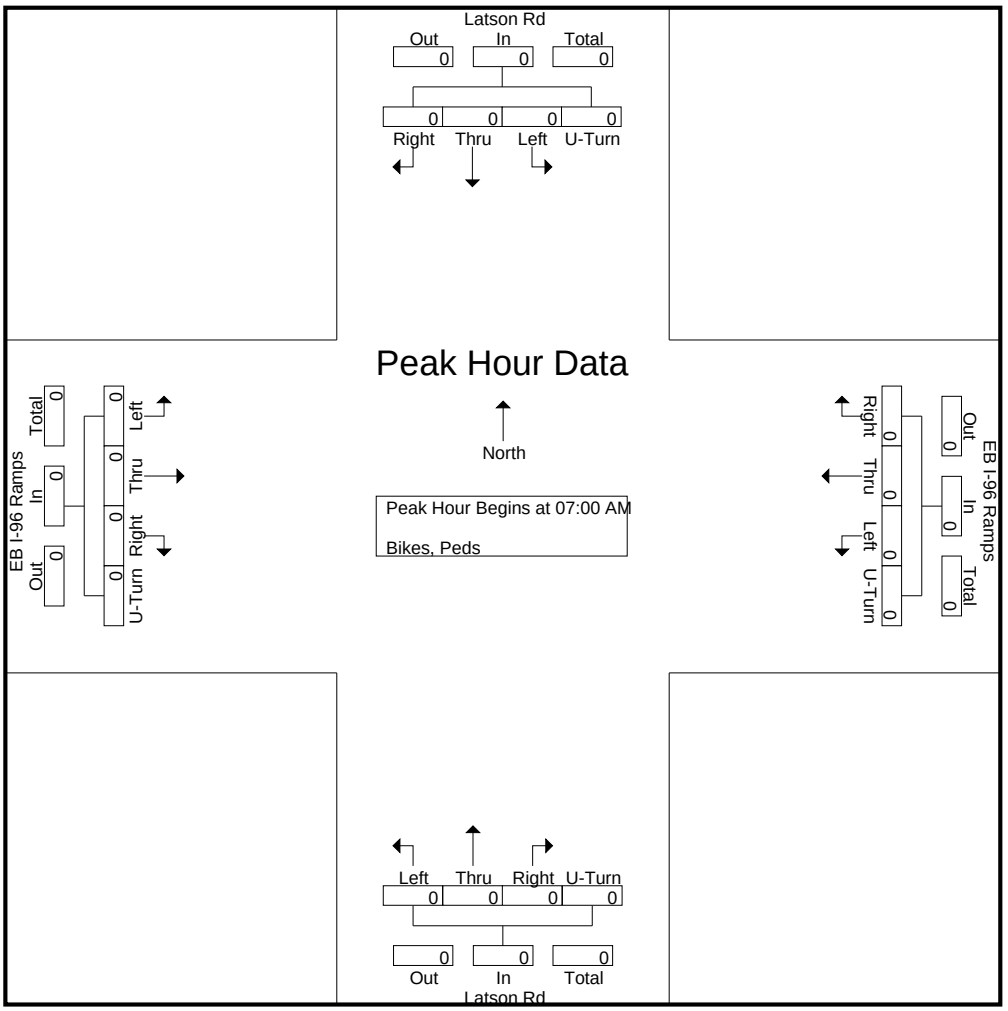
	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184807 - Latson Rd -- EB I-96 Ramps
Site Code : 16184807
Start Date : 5/2/2023
Page No : 2

	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

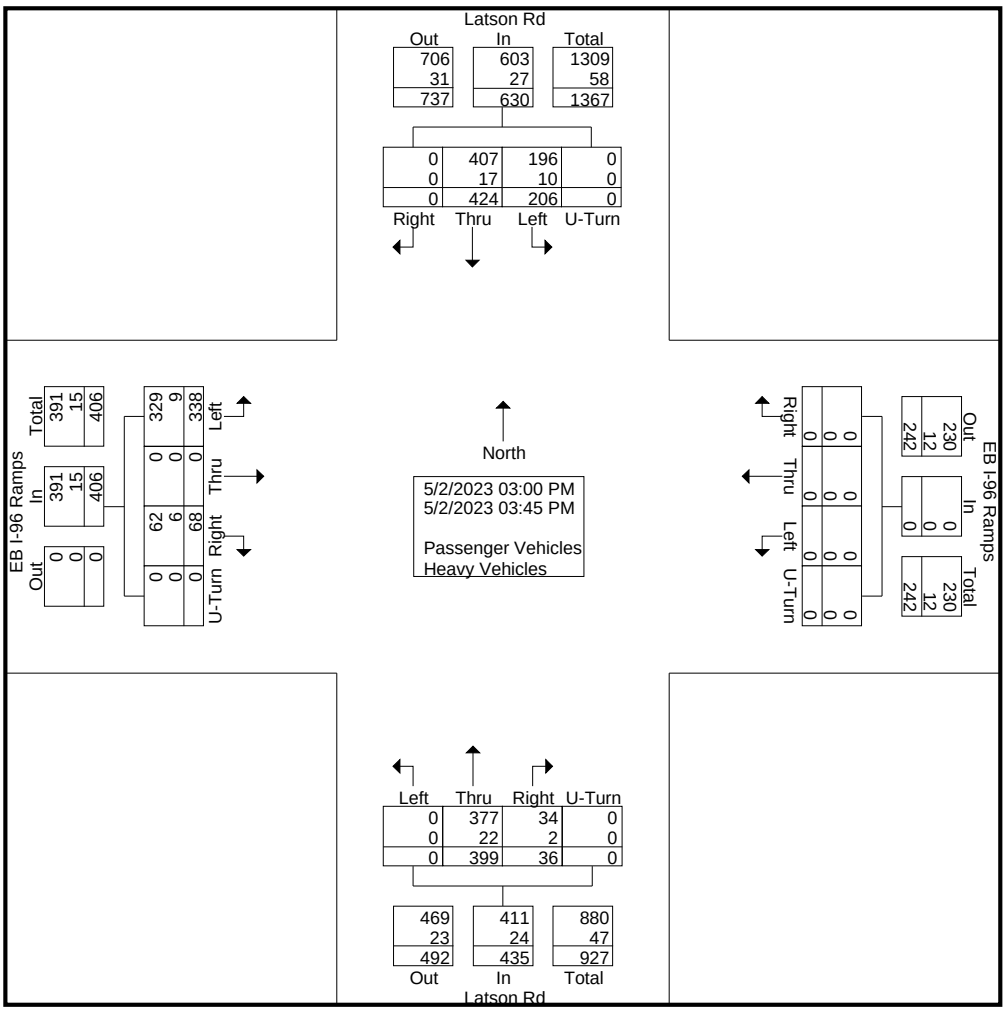


Quality Counts

File Name : 16184808 - Latson Rd -- EB I-96 Ramps
Site Code : 16184808
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

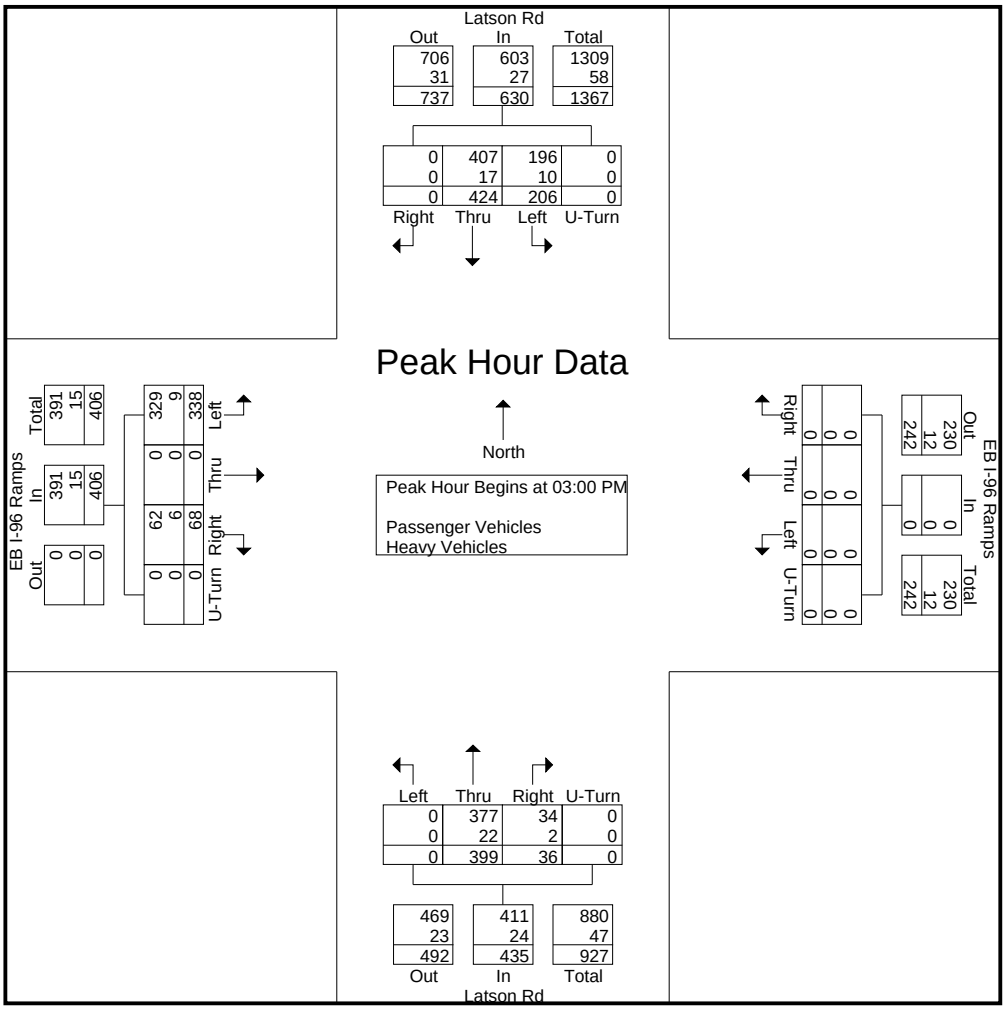
	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	87	0	18	0	105	0	0	0	0	0	0	82	11	0	93	53	108	0	0	161	359
03:15 PM	75	0	12	0	87	0	0	0	0	0	0	74	7	0	81	46	95	0	0	141	309
03:30 PM	93	0	16	0	109	0	0	0	0	0	0	98	6	0	104	57	99	0	0	156	369
03:45 PM	83	0	22	0	105	0	0	0	0	0	0	145	12	0	157	50	122	0	0	172	434
Total	338	0	68	0	406	0	0	0	0	0	0	399	36	0	435	206	424	0	0	630	1471
Grand Total	338	0	68	0	406	0	0	0	0	0	0	399	36	0	435	206	424	0	0	630	1471
Apprch %	83.3	0	16.7	0		0	0	0	0		0	91.7	8.3	0		32.7	67.3	0	0		
Total %	23	0	4.6	0	27.6	0	0	0	0	0	0	27.1	2.4	0	29.6	14	28.8	0	0	42.8	
Passenger Vehicles	329	0	62	0	391	0	0	0	0	0	0	377	34	0	411	196	407	0	0	603	1405
% Passenger Vehicles	97.3	0	91.2	0	96.3	0	0	0	0	0	0	94.5	94.4	0	94.5	95.1	96	0	0	95.7	95.5
Heavy Vehicles	9	0	6	0	15	0	0	0	0	0	0	22	2	0	24	10	17	0	0	27	66
% Heavy Vehicles	2.7	0	8.8	0	3.7	0	0	0	0	0	0	5.5	5.6	0	5.5	4.9	4	0	0	4.3	4.5



Quality Counts

File Name : 16184808 - Latson Rd -- EB I-96 Ramps
Site Code : 16184808
Start Date : 5/2/2023
Page No : 2

	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	87	0	18	0	105	0	0	0	0	0	0	82	11	0	93	53	108	0	0	161	359
03:15 PM	75	0	12	0	87	0	0	0	0	0	0	74	7	0	81	46	95	0	0	141	309
03:30 PM	**93**	0	16	0	**109**	0	0	0	0	0	0	98	6	0	104	**57**	99	0	0	156	369
03:45 PM	83	0	**22**	0	105	0	0	0	0	0	0	**145**	**12**	0	**157**	50	**122**	0	0	**172**	**434**
Total Volume	338	0	68	0	406	0	0	0	0	0	0	399	36	0	435	206	424	0	0	630	1471
% App. Total	83.3	0	16.7	0		0	0	0	0		0	91.7	8.3	0		32.7	67.3	0	0		
PHF	.909	.000	.773	.000	.931	.000	.000	.000	.000	.000	.000	.688	.750	.000	.693	.904	.869	.000	.000	.916	.847
Passenger Vehicles	329	0	62	0	391	0	0	0	0	0	0	377	34	0	411	196	407	0	0	603	1405
% Passenger Vehicles	97.3	0	91.2	0	96.3	0	0	0	0	0	0	94.5	94.4	0	94.5	95.1	96.0	0	0	95.7	95.5
Heavy Vehicles	9	0	6	0	15	0	0	0	0	0	0	22	2	0	24	10	17	0	0	27	66
% Heavy Vehicles	2.7	0	8.8	0	3.7	0	0	0	0	0	0	5.5	5.6	0	5.5	4.9	4.0	0	0	4.3	4.5

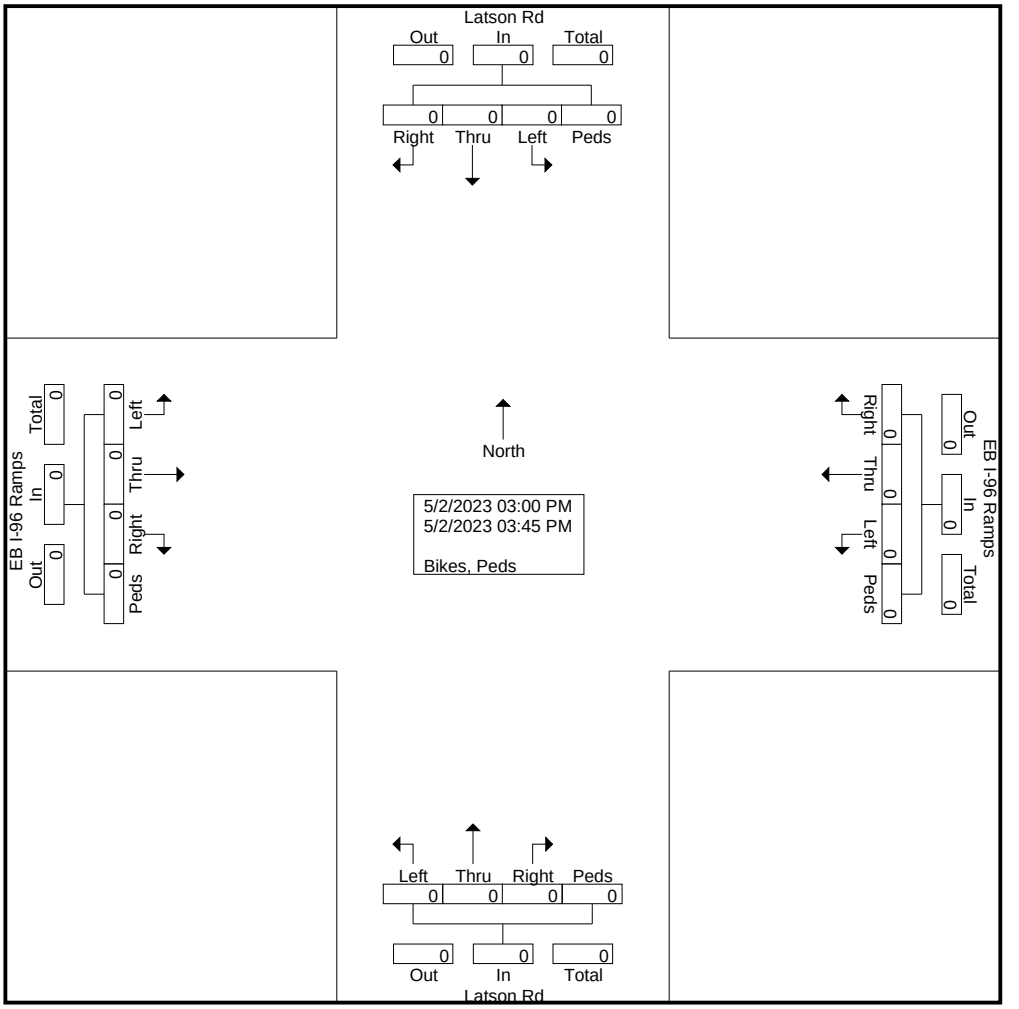


Quality Counts

File Name : 16184808 - Latson Rd -- EB I-96 Ramps
Site Code : 16184808
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

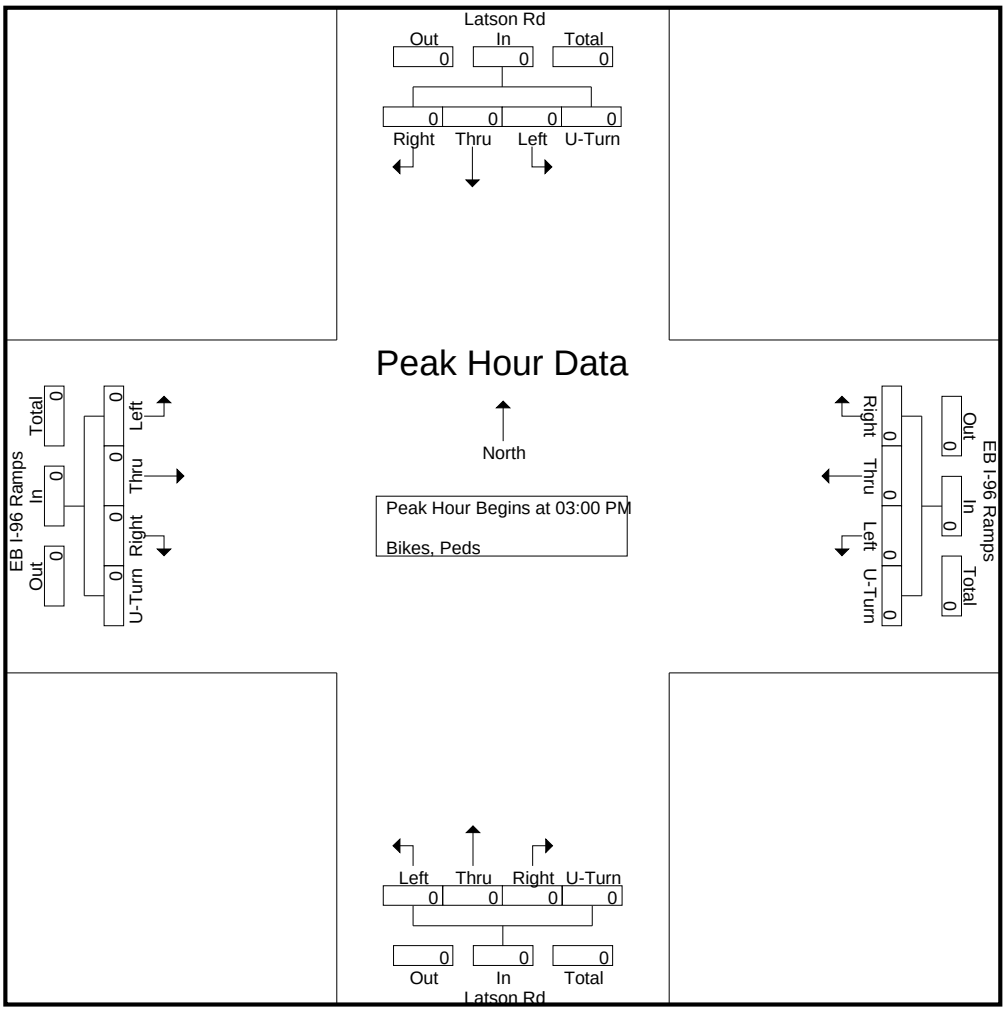
	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184808 - Latson Rd -- EB I-96 Ramps
Site Code : 16184808
Start Date : 5/2/2023
Page No : 2

	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

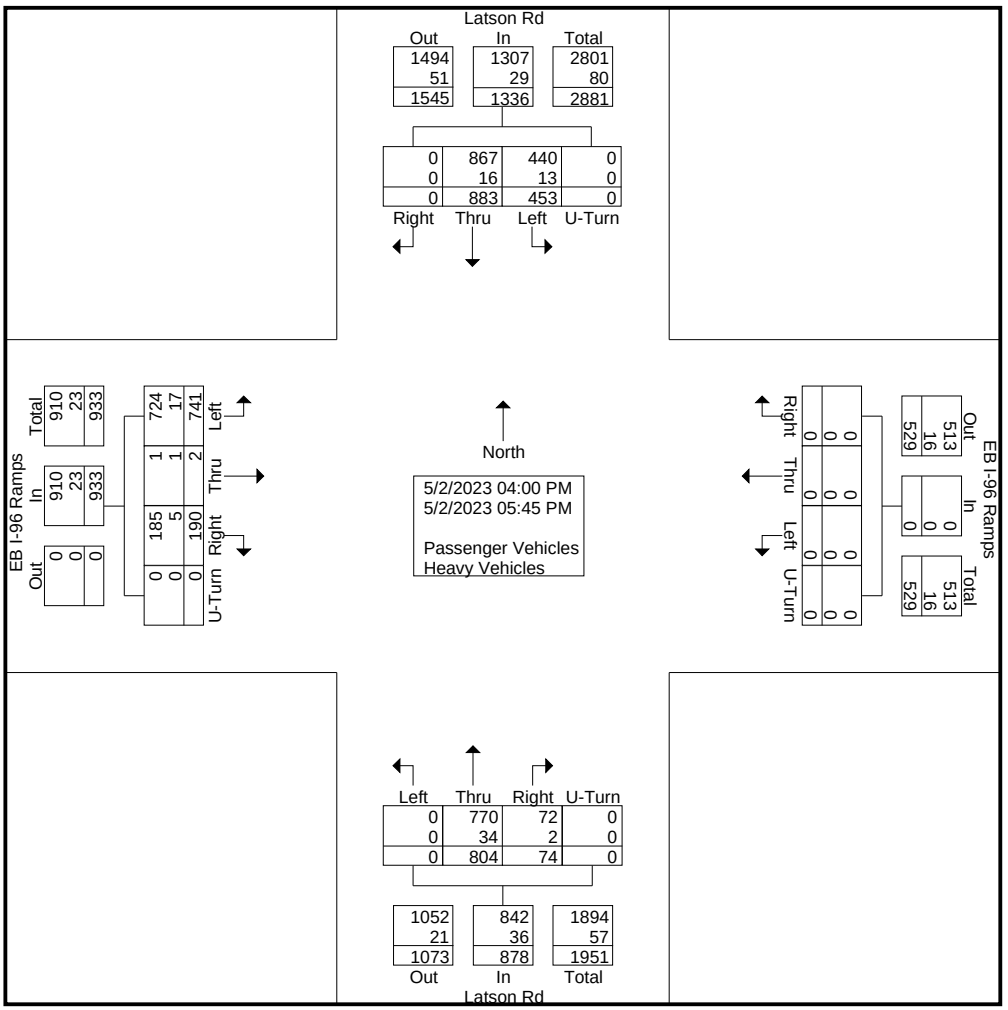


Quality Counts

File Name : 16184809 - Latson Rd -- EB I-96 Ramps
Site Code : 16184809
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

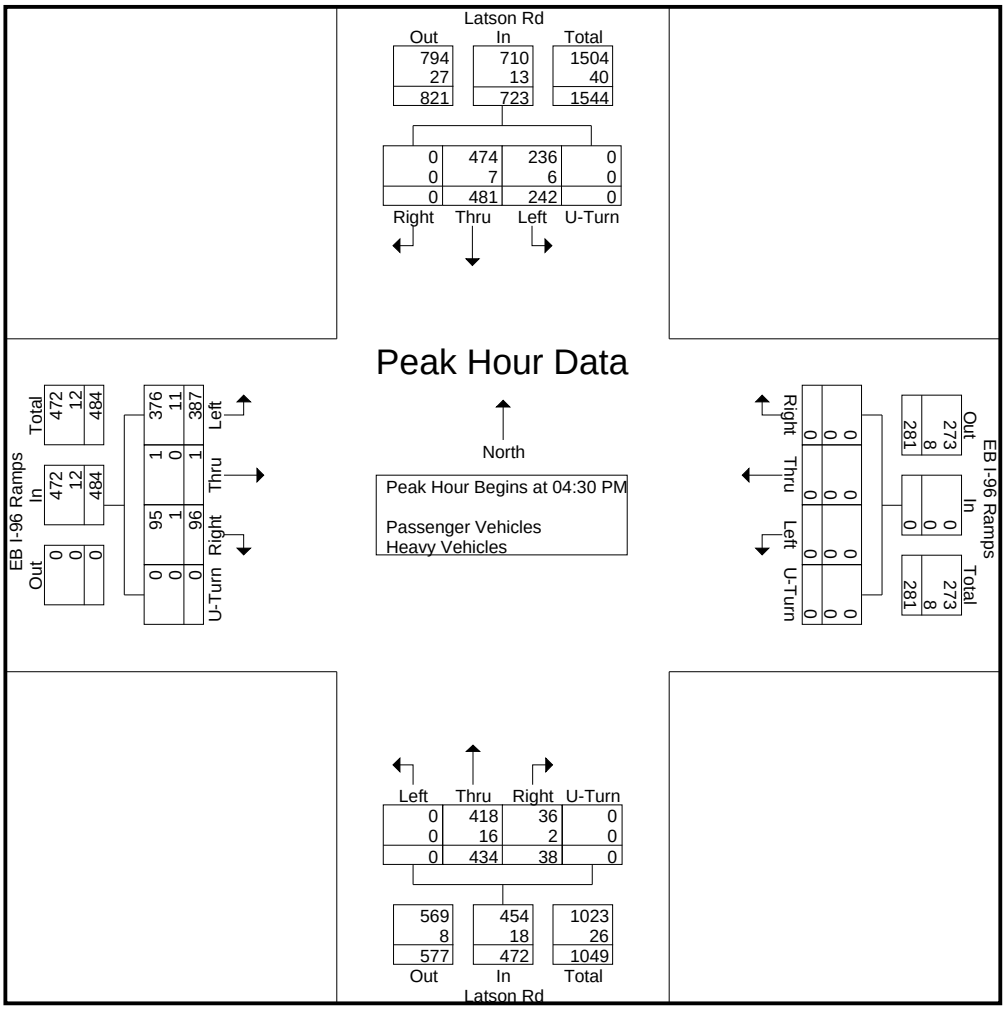
	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
04:00 PM	82	1	19	0	102	0	0	0	0	0	0	102	11	0	113	65	94	0	0	159	374
04:15 PM	89	0	20	0	109	0	0	0	0	0	0	105	9	0	114	55	103	0	0	158	381
04:30 PM	114	0	29	0	143	0	0	0	0	0	0	111	15	0	126	64	115	0	0	179	448
04:45 PM	97	0	16	0	113	0	0	0	0	0	0	111	7	0	118	81	122	0	0	203	434
Total	382	1	84	0	467	0	0	0	0	0	0	429	42	0	471	265	434	0	0	699	1637
05:00 PM	78	0	30	0	108	0	0	0	0	0	0	103	9	0	112	54	120	0	0	174	394
05:15 PM	98	1	21	0	120	0	0	0	0	0	0	109	7	0	116	43	124	0	0	167	403
05:30 PM	99	0	28	0	127	0	0	0	0	0	0	94	13	0	107	49	96	0	0	145	379
05:45 PM	84	0	27	0	111	0	0	0	0	0	0	69	3	0	72	42	109	0	0	151	334
Total	359	1	106	0	466	0	0	0	0	0	0	375	32	0	407	188	449	0	0	637	1510
Grand Total	741	2	190	0	933	0	0	0	0	0	0	804	74	0	878	453	883	0	0	1336	3147
Apprch %	79.4	0.2	20.4	0		0	0	0	0		0	91.6	8.4	0		33.9	66.1	0	0		
Total %	23.5	0.1	6	0	29.6	0	0	0	0	0	0	25.5	2.4	0	27.9	14.4	28.1	0	0	42.5	
Passenger Vehicles	724	1	185	0	910	0	0	0	0	0	0	770	72	0	842	440	867	0	0	1307	3059
% Passenger Vehicles	97.7	50	97.4	0	97.5	0	0	0	0	0	0	95.8	97.3	0	95.9	97.1	98.2	0	0	97.8	97.2
Heavy Vehicles	17	1	5	0	23	0	0	0	0	0	0	34	2	0	36	13	16	0	0	29	88
% Heavy Vehicles	2.3	50	2.6	0	2.5	0	0	0	0	0	0	4.2	2.7	0	4.1	2.9	1.8	0	0	2.2	2.8



Quality Counts

File Name : 16184809 - Latson Rd -- EB I-96 Ramps
Site Code : 16184809
Start Date : 5/2/2023
Page No : 2

	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**114**	0	29	0	**143**	0	0	0	0	0	0	**111**	**15**	0	**126**	64	115	0	0	179	**448**
04:45 PM	97	0	16	0	113	0	0	0	0	0	0	111	7	0	118	**81**	122	0	0	**203**	434
05:00 PM	78	0	**30**	0	108	0	0	0	0	0	0	103	9	0	112	54	120	0	0	174	394
05:15 PM	98	**1**	21	0	120	0	0	0	0	0	0	109	7	0	116	43	**124**	0	0	167	403
Total Volume	387	1	96	0	484	0	0	0	0	0	0	434	38	0	472	242	481	0	0	723	1679
% App. Total	80	0.2	19.8	0		0	0	0	0		0	91.9	8.1	0		33.5	66.5	0	0		
PHF	.849	.250	.800	.000	.846	.000	.000	.000	.000	.000	.000	.977	.633	.000	.937	.747	.970	.000	.000	.890	.937
Passenger Vehicles	376	1	95	0	472	0	0	0	0	0	0	418	36	0	454	236	474	0	0	710	1636
% Passenger Vehicles	97.2	100	99.0	0	97.5	0	0	0	0	0	0	96.3	94.7	0	96.2	97.5	98.5	0	0	98.2	97.4
Heavy Vehicles	11	0	1	0	12	0	0	0	0	0	0	16	2	0	18	6	7	0	0	13	43
% Heavy Vehicles	2.8	0	1.0	0	2.5	0	0	0	0	0	0	3.7	5.3	0	3.8	2.5	1.5	0	0	1.8	2.6

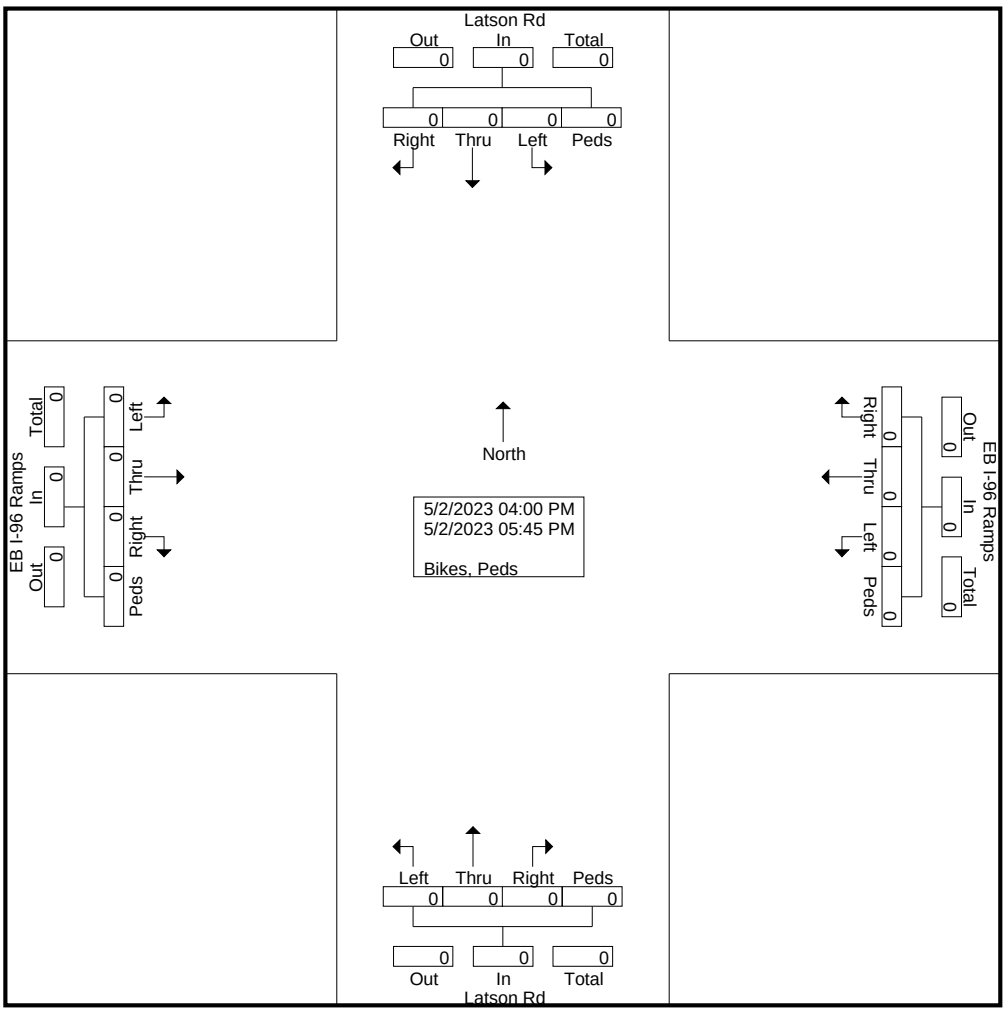


Quality Counts

File Name : 16184809 - Latson Rd -- EB I-96 Ramps
Site Code : 16184809
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

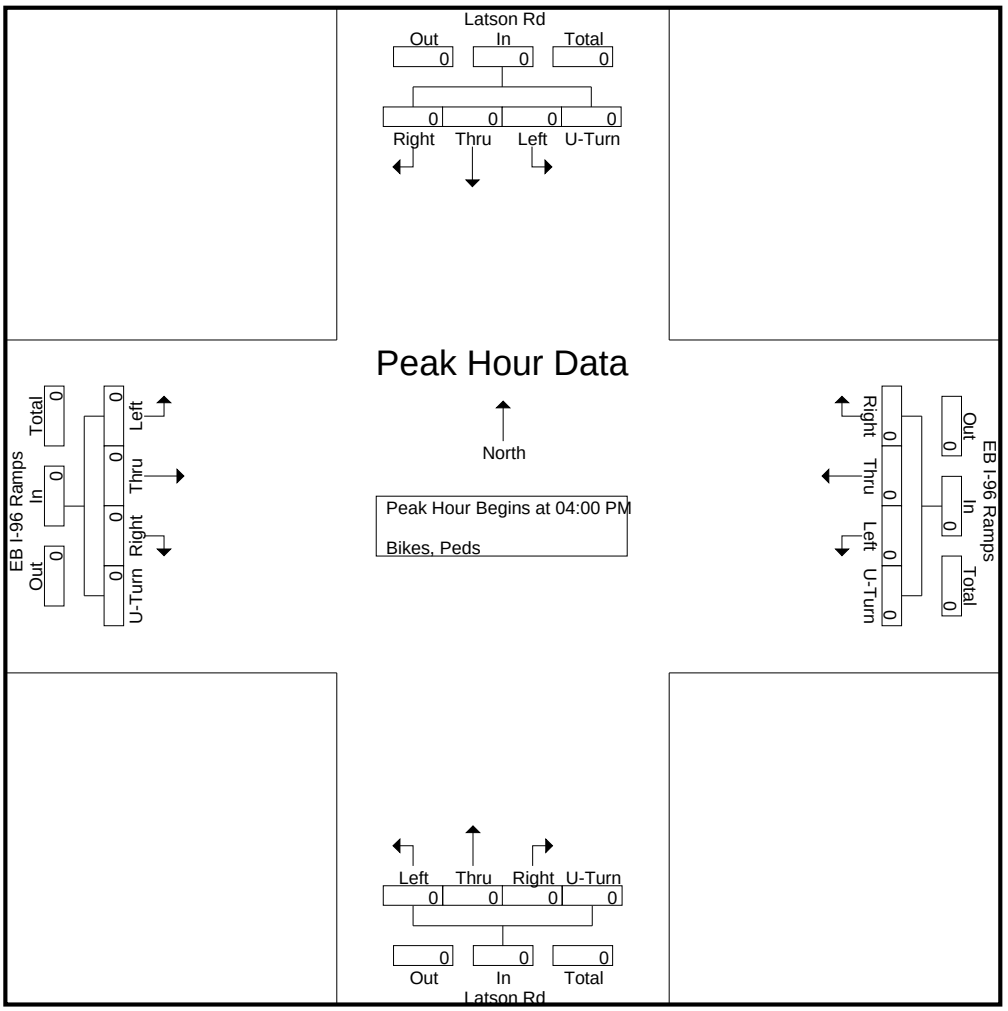
	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184809 - Latson Rd -- EB I-96 Ramps
Site Code : 16184809
Start Date : 5/2/2023
Page No : 2

	EB I-96 Ramps Eastbound					EB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

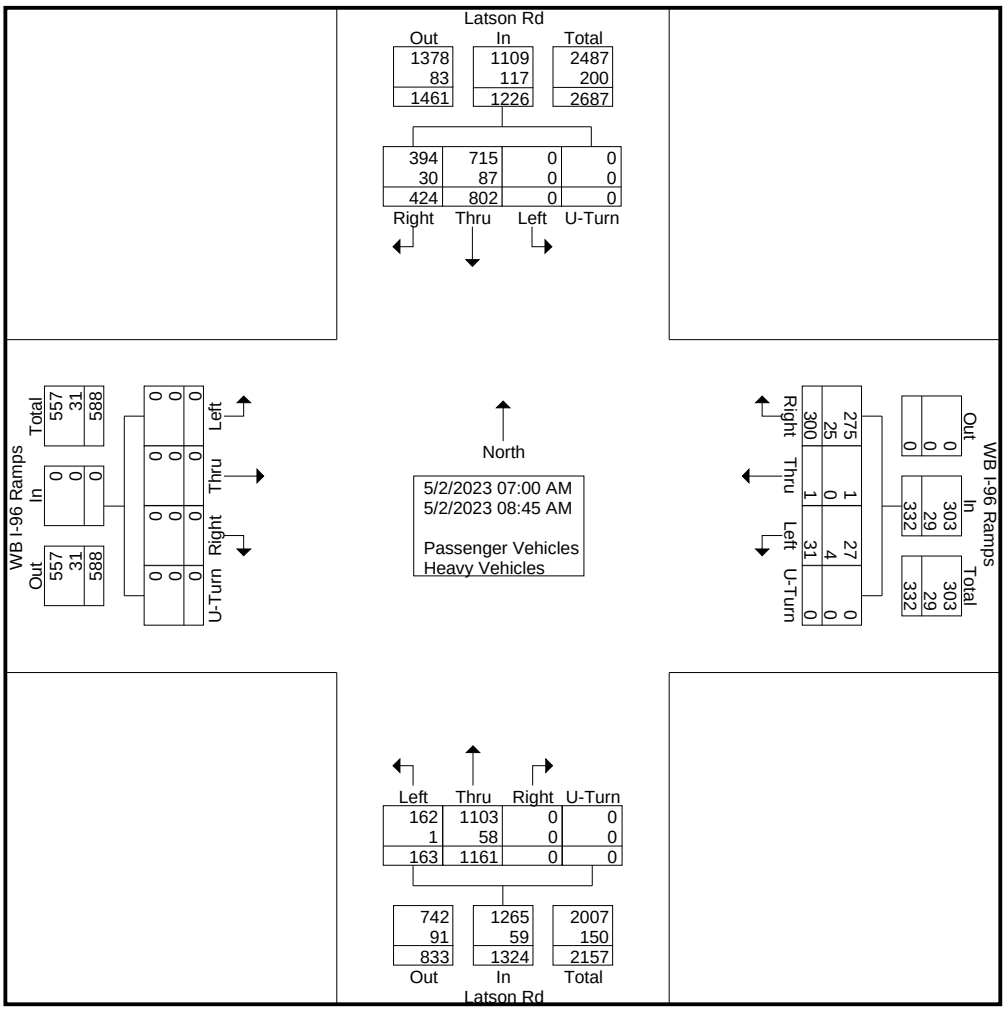


Quality Counts

File Name : 16184810 - Latson Rd -- WB I-96 Ramps
Site Code : 16184810
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

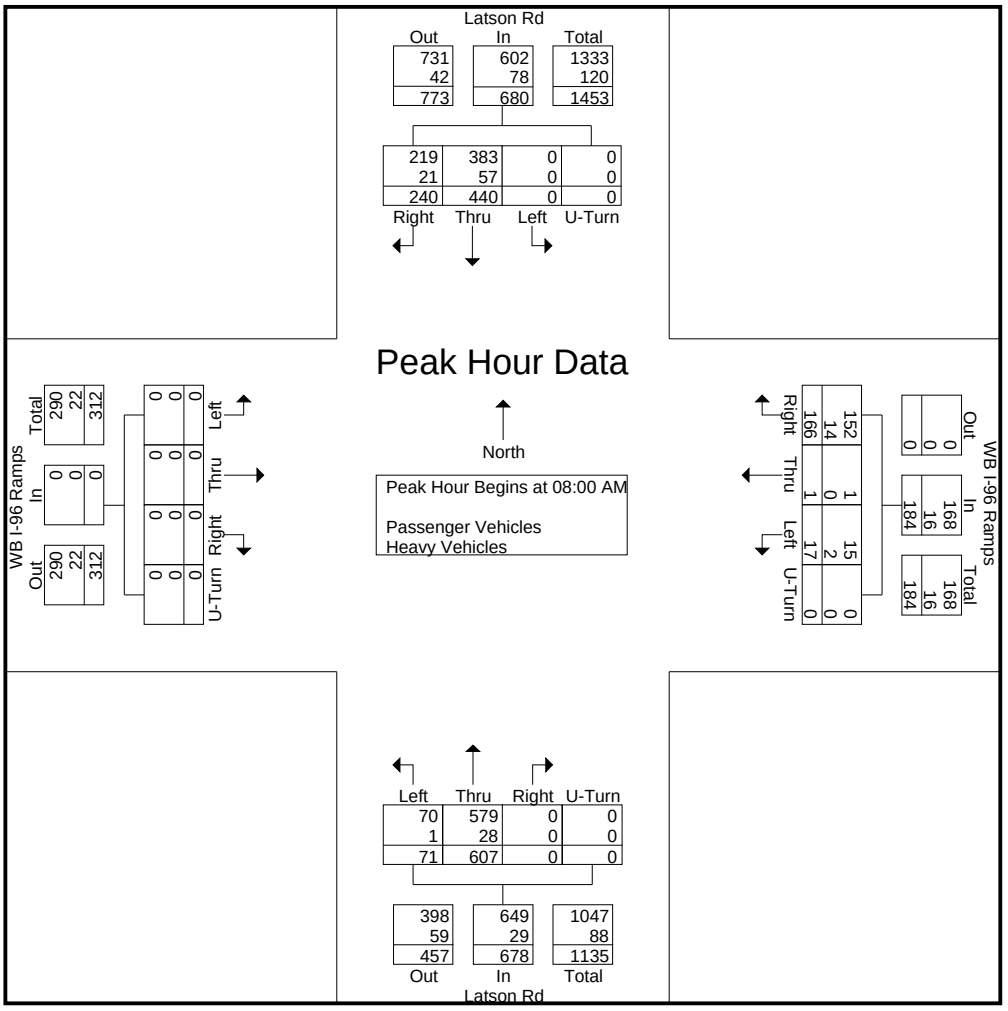
	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	3	0	13	0	16	21	104	0	0	125	0	87	52	0	139	280
07:15 AM	0	0	0	0	0	2	0	31	0	33	22	124	0	0	146	0	90	45	0	135	314
07:30 AM	0	0	0	0	0	4	0	44	0	48	28	122	0	0	150	0	88	42	0	130	328
07:45 AM	0	0	0	0	0	5	0	46	0	51	21	204	0	0	225	0	97	45	0	142	418
Total	0	0	0	0	0	14	0	134	0	148	92	554	0	0	646	0	362	184	0	546	1340
08:00 AM	0	0	0	0	0	2	0	38	0	40	14	160	0	0	174	0	107	44	0	151	365
08:15 AM	0	0	0	0	0	9	1	38	0	48	17	148	0	0	165	0	108	44	0	152	365
08:30 AM	0	0	0	0	0	3	0	42	0	45	20	127	0	0	147	0	115	77	0	192	384
08:45 AM	0	0	0	0	0	3	0	48	0	51	20	172	0	0	192	0	110	75	0	185	428
Total	0	0	0	0	0	17	1	166	0	184	71	607	0	0	678	0	440	240	0	680	1542
Grand Total	0	0	0	0	0	31	1	300	0	332	163	1161	0	0	1324	0	802	424	0	1226	2882
Apprch %	0	0	0	0		9.3	0.3	90.4	0		12.3	87.7	0	0		0	65.4	34.6	0		
Total %	0	0	0	0	0	1.1	0	10.4	0	11.5	5.7	40.3	0	0	45.9	0	27.8	14.7	0	42.5	
Passenger Vehicles	0	0	0	0	0	27	1	275	0	303	162	1103	0	0	1265	0	715	394	0	1109	2677
% Passenger Vehicles	0	0	0	0	0	87.1	100	91.7	0	91.3	99.4	95	0	0	95.5	0	89.2	92.9	0	90.5	92.9
Heavy Vehicles	0	0	0	0	0	4	0	25	0	29	1	58	0	0	59	0	87	30	0	117	205
% Heavy Vehicles	0	0	0	0	0	12.9	0	8.3	0	8.7	0.6	5	0	0	4.5	0	10.8	7.1	0	9.5	7.1



Quality Counts

File Name : 16184810 - Latson Rd -- WB I-96 Ramps
Site Code : 16184810
Start Date : 5/2/2023
Page No : 2

	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	2	0	38	0	40	14	160	0	0	174	0	107	44	0	151	365
08:15 AM	0	0	0	0	0	**9**	**1**	38	0	48	17	148	0	0	165	0	108	44	0	152	365
08:30 AM	0	0	0	0	0	3	0	42	0	45	**20**	127	0	0	147	0	**115**	**77**	0	**192**	384
08:45 AM	0	0	0	0	0	3	0	**48**	0	**51**	20	**172**	0	0	**192**	0	110	75	0	185	**428**
Total Volume	0	0	0	0	0	17	1	166	0	184	71	607	0	0	678	0	440	240	0	680	1542
% App. Total	0	0	0	0		9.2	0.5	90.2	0		10.5	89.5	0	0		0	64.7	35.3	0		
PHF	.000	.000	.000	.000	.000	.472	.250	.865	.000	.902	.888	.882	.000	.000	.883	.000	.957	.779	.000	.885	.901
Passenger Vehicles	0	0	0	0	0	15	1	152	0	168	70	579	0	0	649	0	383	219	0	602	1419
% Passenger Vehicles	0	0	0	0	0	88.2	100	91.6	0	91.3	98.6	95.4	0	0	95.7	0	87.0	91.3	0	88.5	92.0
Heavy Vehicles	0	0	0	0	0	2	0	14	0	16	1	28	0	0	29	0	57	21	0	78	123
% Heavy Vehicles	0	0	0	0	0	11.8	0	8.4	0	8.7	1.4	4.6	0	0	4.3	0	13.0	8.8	0	11.5	8.0

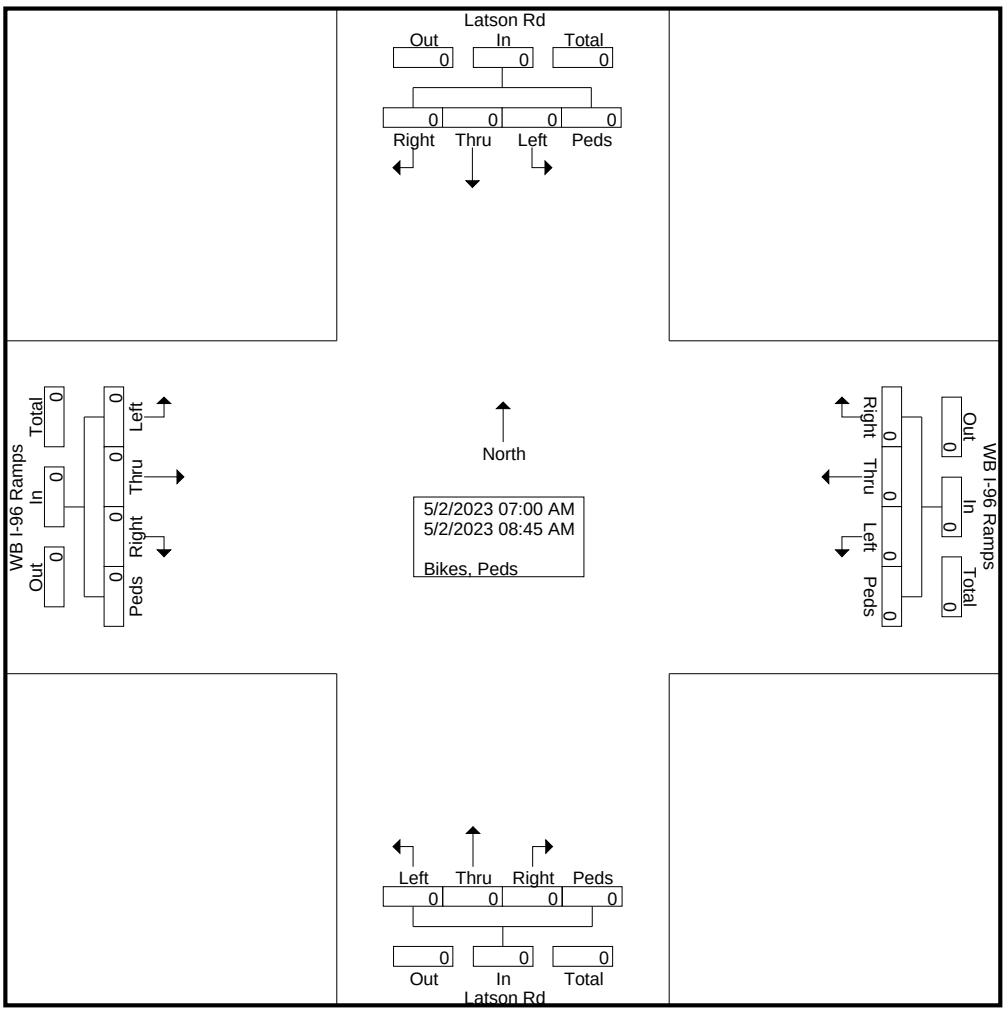


Quality Counts

File Name : 16184810 - Latson Rd -- WB I-96 Ramps
Site Code : 16184810
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

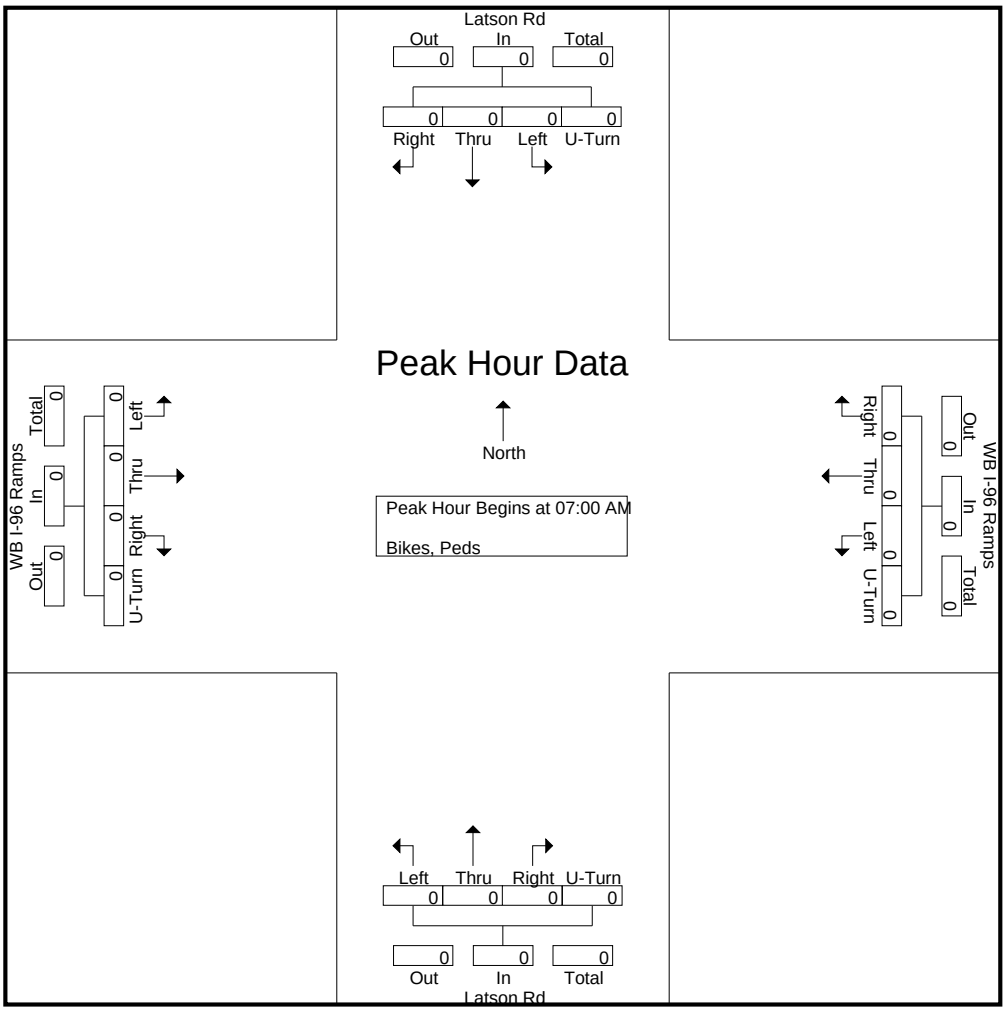
	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184810 - Latson Rd -- WB I-96 Ramps
Site Code : 16184810
Start Date : 5/2/2023
Page No : 2

	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

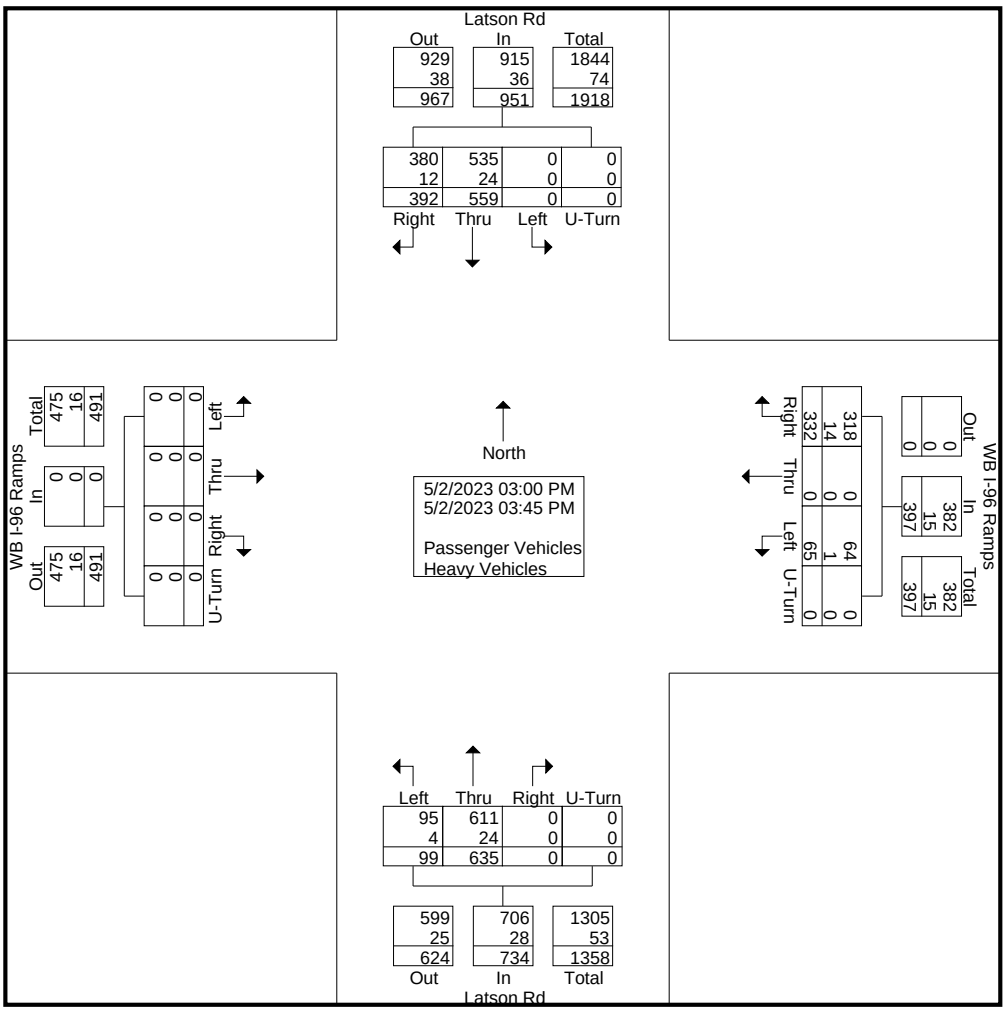


Quality Counts

File Name : 16184811 - Latson Rd -- WB I-96 Ramps
Site Code : 16184811
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

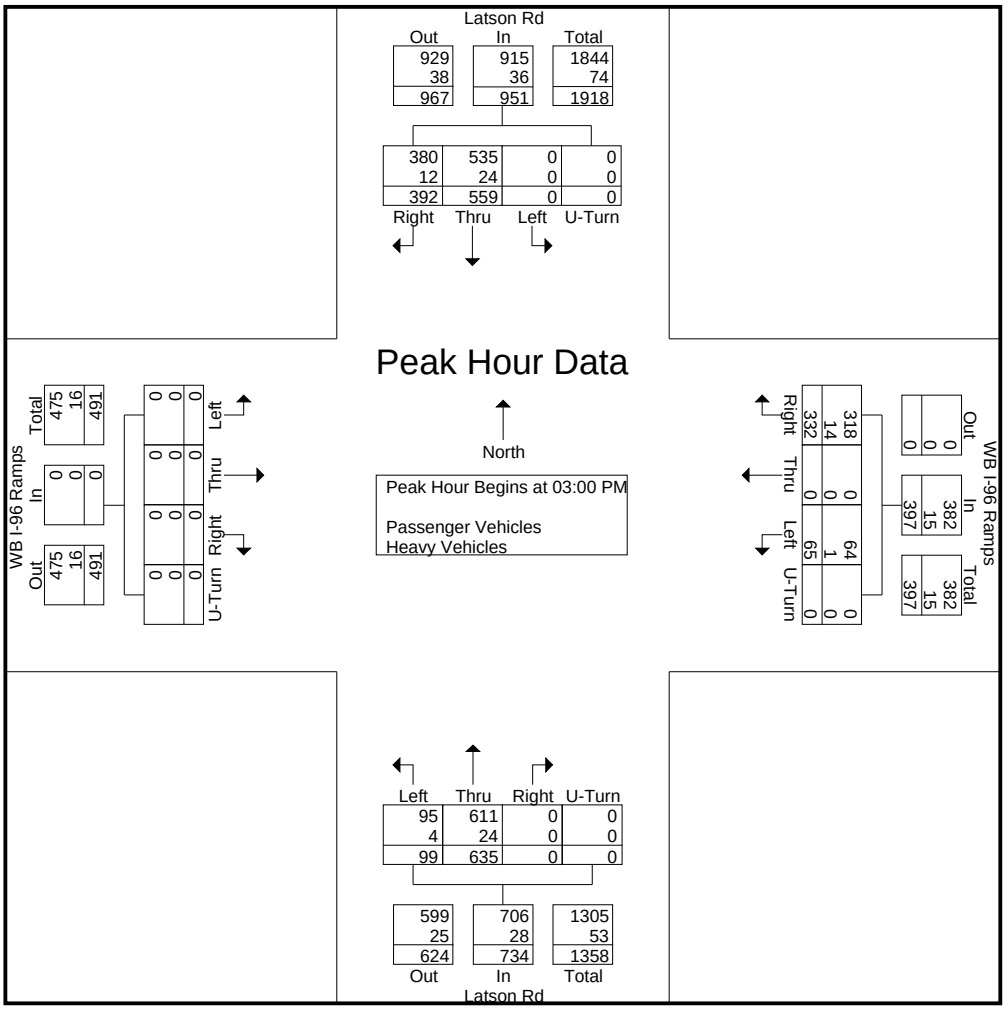
	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	0	0	0	0	0	17	0	66	0	83	14	152	0	0	166	0	139	90	0	229	478
03:15 PM	0	0	0	0	0	10	0	84	0	94	17	134	0	0	151	0	134	88	0	222	467
03:30 PM	0	0	0	0	0	13	0	92	0	105	24	158	0	0	182	0	137	116	0	253	540
03:45 PM	0	0	0	0	0	25	0	90	0	115	44	191	0	0	235	0	149	98	0	247	597
Total	0	0	0	0	0	65	0	332	0	397	99	635	0	0	734	0	559	392	0	951	2082
Grand Total	0	0	0	0	0	65	0	332	0	397	99	635	0	0	734	0	559	392	0	951	2082
Apprch %	0	0	0	0		16.4	0	83.6	0		13.5	86.5	0	0		0	58.8	41.2	0		
Total %	0	0	0	0	0	3.1	0	15.9	0	19.1	4.8	30.5	0	0	35.3	0	26.8	18.8	0	45.7	
Passenger Vehicles	0	0	0	0	0	64	0	318	0	382	95	611	0	0	706	0	535	380	0	915	2003
% Passenger Vehicles	0	0	0	0	0	98.5	0	95.8	0	96.2	96	96.2	0	0	96.2	0	95.7	96.9	0	96.2	96.2
Heavy Vehicles	0	0	0	0	0	1	0	14	0	15	4	24	0	0	28	0	24	12	0	36	79
% Heavy Vehicles	0	0	0	0	0	1.5	0	4.2	0	3.8	4	3.8	0	0	3.8	0	4.3	3.1	0	3.8	3.8



Quality Counts

File Name : 16184811 - Latson Rd -- WB I-96 Ramps
Site Code : 16184811
Start Date : 5/2/2023
Page No : 2

	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	17	0	66	0	83	14	152	0	0	166	0	139	90	0	229	478
03:15 PM	0	0	0	0	0	10	0	84	0	94	17	134	0	0	151	0	134	88	0	222	467
03:30 PM	0	0	0	0	0	13	0	**92**	0	105	24	158	0	0	182	0	137	**116**	0	**253**	540
03:45 PM	0	0	0	0	0	**25**	0	90	0	**115**	**44**	**191**	0	0	**235**	0	**149**	98	0	247	**597**
Total Volume	0	0	0	0	0	65	0	332	0	397	99	635	0	0	734	0	559	392	0	951	2082
% App. Total	0	0	0	0		16.4	0	83.6	0		13.5	86.5	0	0		0	58.8	41.2	0		
PHF	.000	.000	.000	.000	.000	.650	.000	.902	.000	.863	.563	.831	.000	.000	.781	.000	.938	.845	.000	.940	.872
Passenger Vehicles	0	0	0	0	0	64	0	318	0	382	95	611	0	0	706	0	535	380	0	915	2003
% Passenger Vehicles	0	0	0	0	0	98.5	0	95.8	0	96.2	96.0	96.2	0	0	96.2	0	95.7	96.9	0	96.2	96.2
Heavy Vehicles	0	0	0	0	0	1	0	14	0	15	4	24	0	0	28	0	24	12	0	36	79
% Heavy Vehicles	0	0	0	0	0	1.5	0	4.2	0	3.8	4.0	3.8	0	0	3.8	0	4.3	3.1	0	3.8	3.8

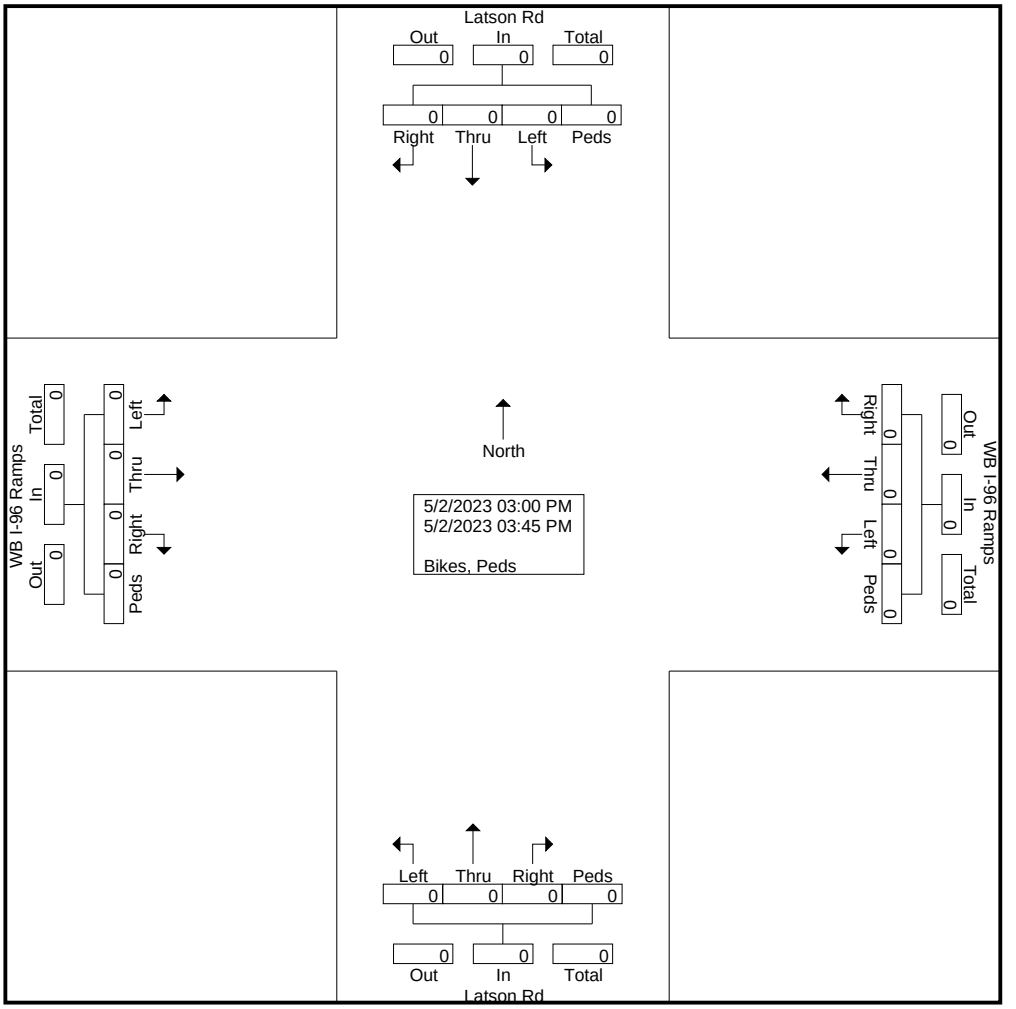


Quality Counts

File Name : 16184811 - Latson Rd -- WB I-96 Ramps
Site Code : 16184811
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

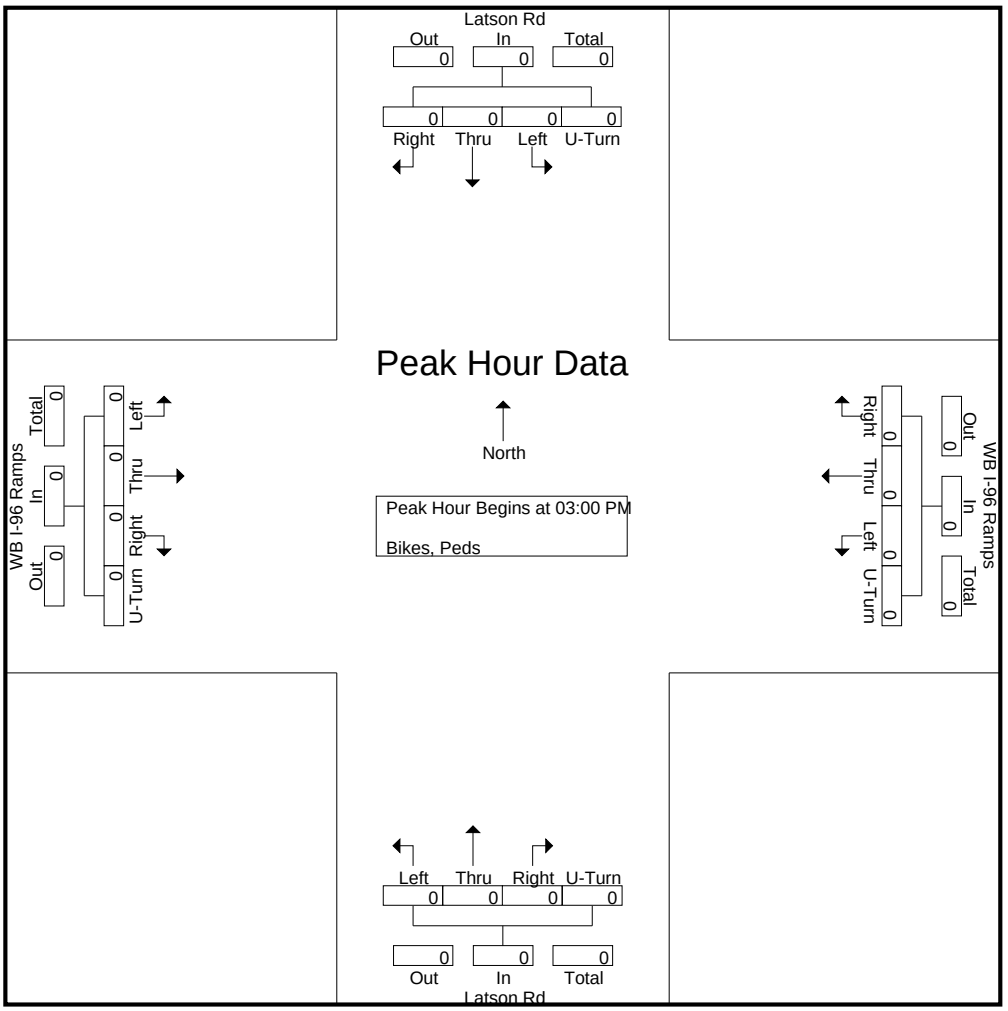
	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184811 - Latson Rd -- WB I-96 Ramps
Site Code : 16184811
Start Date : 5/2/2023
Page No : 2

	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

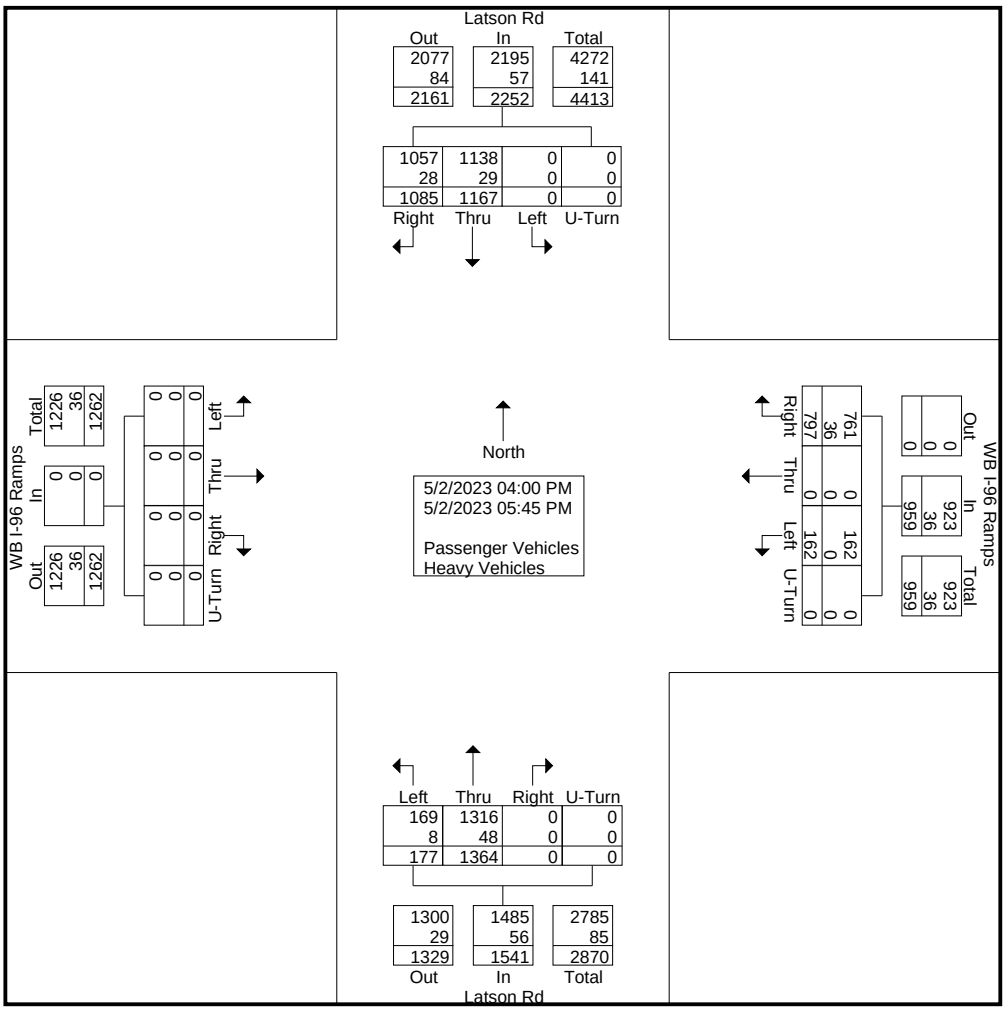


Quality Counts

File Name : 16184812 - Latson Rd -- WB I-96 Ramps
Site Code : 16184812
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

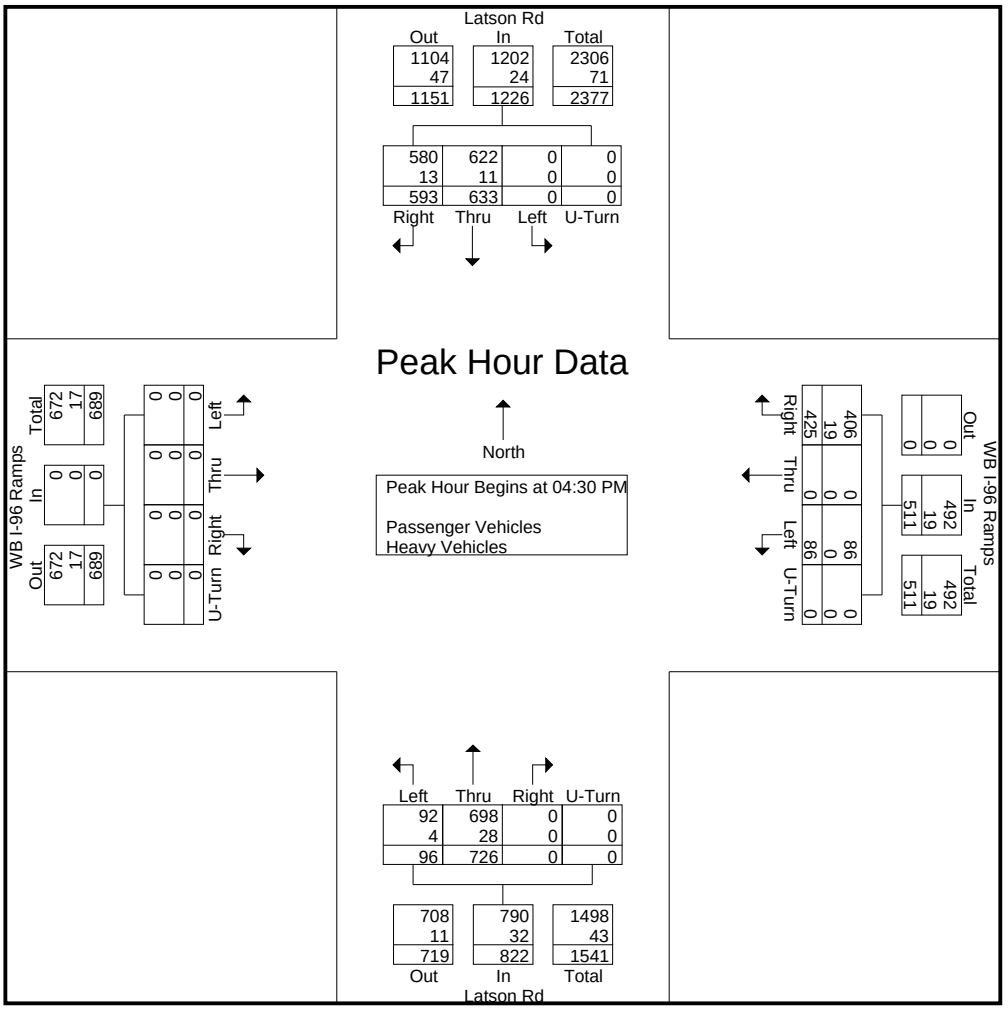
	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
04:00 PM	0	0	0	0	0	14	0	85	0	99	23	148	0	0	171	0	148	141	0	289	559
04:15 PM	0	0	0	0	0	17	0	99	0	116	32	166	0	0	198	0	138	136	0	274	588
04:30 PM	0	0	0	0	0	17	0	102	0	119	20	186	0	0	206	0	168	144	0	312	637
04:45 PM	0	0	0	0	0	25	0	116	0	141	33	195	0	0	228	0	176	138	0	314	683
Total	0	0	0	0	0	73	0	402	0	475	108	695	0	0	803	0	630	559	0	1189	2467
05:00 PM	0	0	0	0	0	17	0	105	0	122	18	157	0	0	175	0	150	181	0	331	628
05:15 PM	0	0	0	0	0	27	0	102	0	129	25	188	0	0	213	0	139	130	0	269	611
05:30 PM	0	0	0	0	0	24	0	102	0	126	17	174	0	0	191	0	126	125	0	251	568
05:45 PM	0	0	0	0	0	21	0	86	0	107	9	150	0	0	159	0	122	90	0	212	478
Total	0	0	0	0	0	89	0	395	0	484	69	669	0	0	738	0	537	526	0	1063	2285
Grand Total	0	0	0	0	0	162	0	797	0	959	177	1364	0	0	1541	0	1167	1085	0	2252	4752
Apprch %	0	0	0	0		16.9	0	83.1	0		11.5	88.5	0	0		0	51.8	48.2	0		
Total %	0	0	0	0	0	3.4	0	16.8	0	20.2	3.7	28.7	0	0	32.4	0	24.6	22.8	0	47.4	
Passenger Vehicles	0	0	0	0	0	162	0	761	0	923	169	1316	0	0	1485	0	1138	1057	0	2195	4603
% Passenger Vehicles	0	0	0	0	0	100	0	95.5	0	96.2	95.5	96.5	0	0	96.4	0	97.5	97.4	0	97.5	96.9
Heavy Vehicles	0	0	0	0	0	0	0	36	0	36	8	48	0	0	56	0	29	28	0	57	149
% Heavy Vehicles	0	0	0	0	0	0	0	4.5	0	3.8	4.5	3.5	0	0	3.6	0	2.5	2.6	0	2.5	3.1



Quality Counts

File Name : 16184812 - Latson Rd -- WB I-96 Ramps
Site Code : 16184812
Start Date : 5/2/2023
Page No : 2

	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	17	0	102	0	119	20	186	0	0	206	0	168	144	0	312	637
04:45 PM	0	0	0	0	0	25	0	**116**	0	**141**	**33**	**195**	0	0	**228**	0	**176**	138	0	314	**683**
05:00 PM	0	0	0	0	0	17	0	105	0	122	18	157	0	0	175	0	150	**181**	0	**331**	628
05:15 PM	0	0	0	0	0	**27**	0	102	0	129	25	188	0	0	213	0	139	130	0	269	611
Total Volume	0	0	0	0	0	86	0	425	0	511	96	726	0	0	822	0	633	593	0	1226	2559
% App. Total	0	0	0	0		16.8	0	83.2	0		11.7	88.3	0	0		0	51.6	48.4	0		
PHF	.000	.000	.000	.000	.000	.796	.000	.916	.000	.906	.727	.931	.000	.000	.901	.000	.899	.819	.000	.926	.937
Passenger Vehicles	0	0	0	0	0	86	0	406	0	492	92	698	0	0	790	0	622	580	0	1202	2484
% Passenger Vehicles	0	0	0	0	0	100	0	95.5	0	96.3	95.8	96.1	0	0	96.1	0	98.3	97.8	0	98.0	97.1
Heavy Vehicles	0	0	0	0	0	0	0	19	0	19	4	28	0	0	32	0	11	13	0	24	75
% Heavy Vehicles	0	0	0	0	0	0	0	4.5	0	3.7	4.2	3.9	0	0	3.9	0	1.7	2.2	0	2.0	2.9

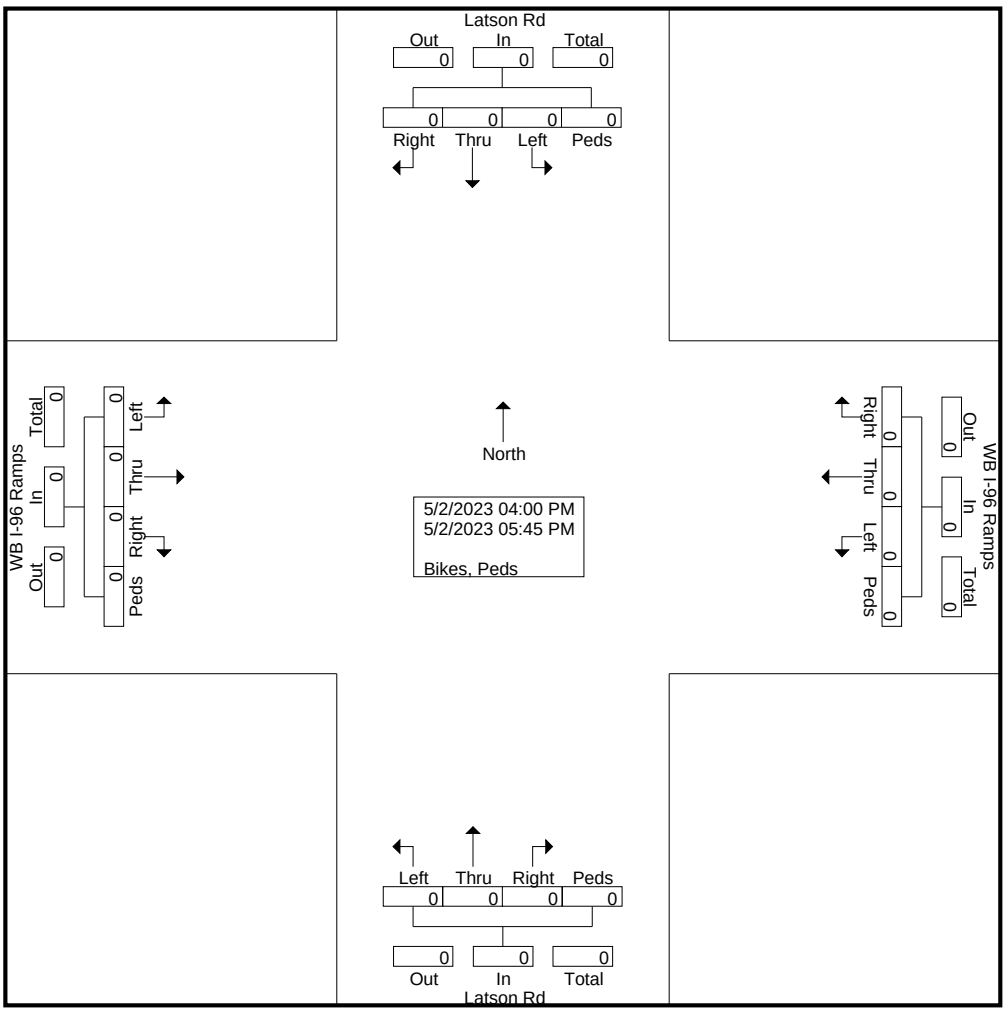


Quality Counts

File Name : 16184812 - Latson Rd -- WB I-96 Ramps
Site Code : 16184812
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

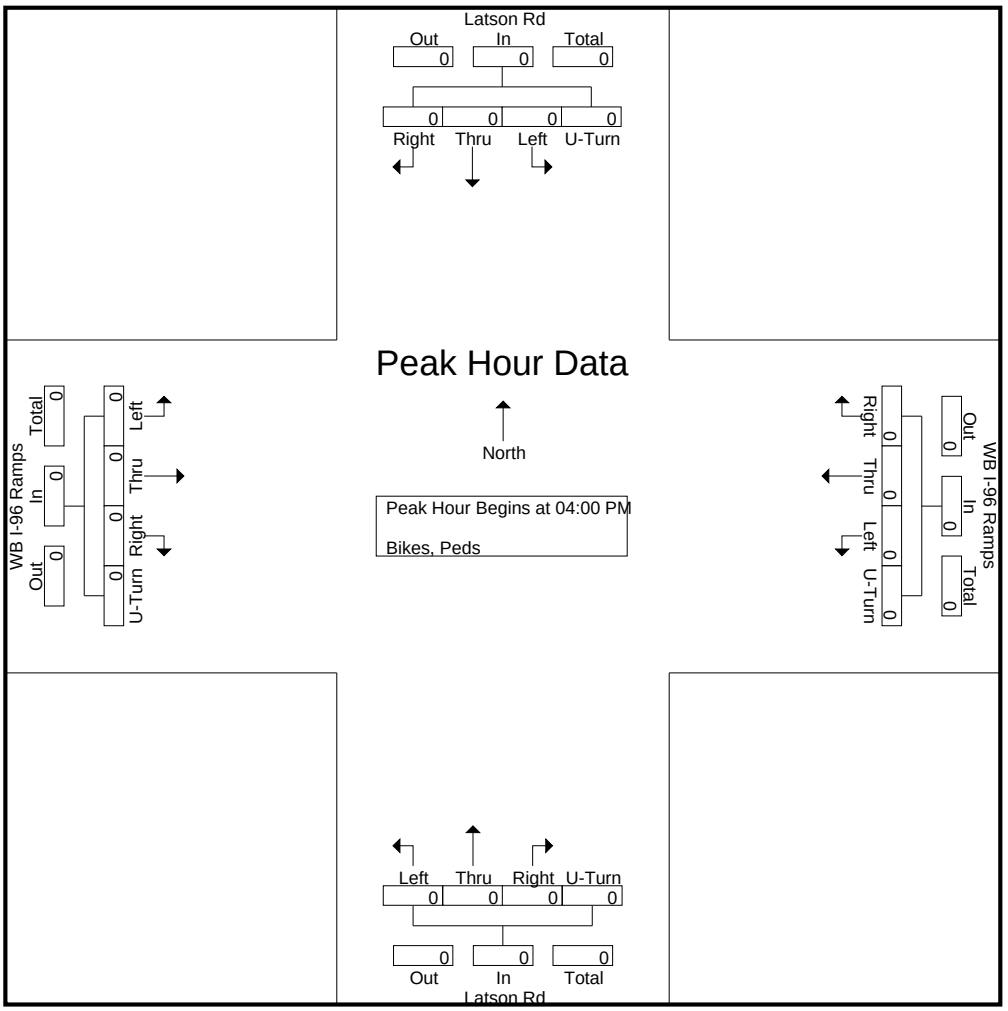
	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184812 - Latson Rd -- WB I-96 Ramps
Site Code : 16184812
Start Date : 5/2/2023
Page No : 2

	WB I-96 Ramps Eastbound					WB I-96 Ramps Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

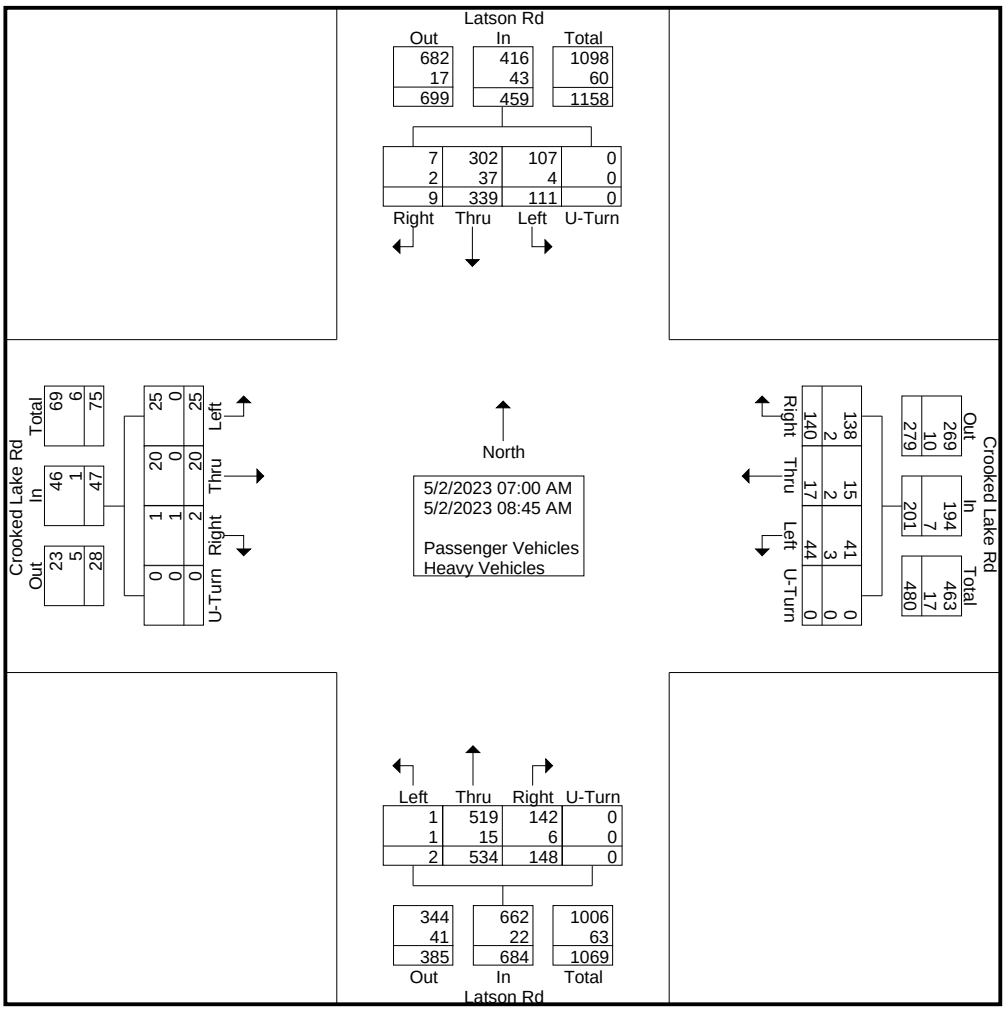


Quality Counts

File Name : 16184813 - Latson Rd -- Crooked Lake Rd
Site Code : 16184813
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

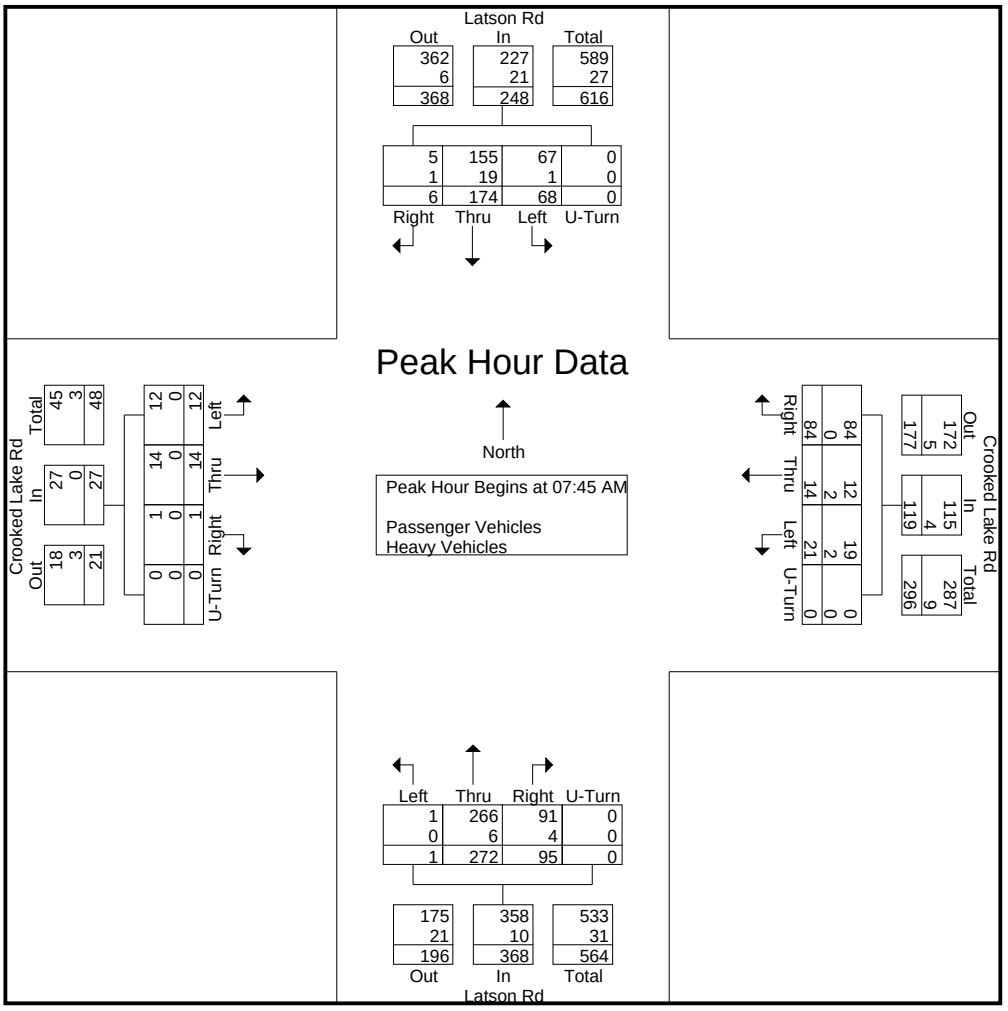
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	2	3	0	0	5	2	0	14	0	16	0	64	7	0	71	7	32	0	0	39	131
07:15 AM	3	0	0	0	3	6	0	19	0	25	1	65	12	0	78	13	38	0	0	51	157
07:30 AM	7	1	0	0	8	4	1	9	0	14	0	59	20	0	79	9	53	1	0	63	164
07:45 AM	0	2	0	0	2	3	2	15	0	20	1	77	22	0	100	13	47	2	0	62	184
Total	12	6	0	0	18	15	3	57	0	75	2	265	61	0	328	42	170	3	0	215	636
08:00 AM	2	3	0	0	5	6	3	25	0	34	0	58	22	0	80	17	37	1	0	55	174
08:15 AM	7	2	1	0	10	7	3	19	0	29	0	74	23	0	97	18	45	3	0	66	202
08:30 AM	3	7	0	0	10	5	6	25	0	36	0	63	28	0	91	20	45	0	0	65	202
08:45 AM	1	2	1	0	4	11	2	14	0	27	0	74	14	0	88	14	42	2	0	58	177
Total	13	14	2	0	29	29	14	83	0	126	0	269	87	0	356	69	169	6	0	244	755
Grand Total	25	20	2	0	47	44	17	140	0	201	2	534	148	0	684	111	339	9	0	459	1391
Apprch %	53.2	42.6	4.3	0		21.9	8.5	69.7	0		0.3	78.1	21.6	0		24.2	73.9	2	0		
Total %	1.8	1.4	0.1	0	3.4	3.2	1.2	10.1	0	14.5	0.1	38.4	10.6	0	49.2	8	24.4	0.6	0	33	
Passenger Vehicles	25	20	1	0	46	41	15	138	0	194	1	519	142	0	662	107	302	7	0	416	1318
% Passenger Vehicles	100	100	50	0	97.9	93.2	88.2	98.6	0	96.5	50	97.2	95.9	0	96.8	96.4	89.1	77.8	0	90.6	94.8
Heavy Vehicles	0	0	1	0	1	3	2	2	0	7	1	15	6	0	22	4	37	2	0	43	73
% Heavy Vehicles	0	0	50	0	2.1	6.8	11.8	1.4	0	3.5	50	2.8	4.1	0	3.2	3.6	10.9	22.2	0	9.4	5.2



Quality Counts

File Name : 16184813 - Latson Rd -- Crooked Lake Rd
Site Code : 16184813
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	2	0	0	2	3	2	15	0	20	**1**	**77**	22	0	**100**	13	**47**	2	0	62	184
08:00 AM	2	3	0	0	5	6	3	**25**	0	34	0	58	22	0	80	17	37	1	0	55	174
08:15 AM	**7**	2	**1**	0	**10**	**7**	3	19	0	29	0	74	23	0	97	18	45	**3**	0	**66**	**202**
08:30 AM	3	**7**	0	0	10	5	**6**	25	0	**36**	0	63	**28**	0	91	**20**	45	0	0	65	202
Total Volume	12	14	1	0	27	21	14	84	0	119	1	272	95	0	368	68	174	6	0	248	762
% App. Total	44.4	51.9	3.7	0		17.6	11.8	70.6	0		0.3	73.9	25.8	0		27.4	70.2	2.4	0		
PHF	.429	.500	.250	.000	.675	.750	.583	.840	.000	.826	.250	.883	.848	.000	.920	.850	.926	.500	.000	.939	.943
Passenger Vehicles	12	14	1	0	27	19	12	84	0	115	1	266	91	0	358	67	155	5	0	227	727
% Passenger Vehicles	100	100	100	0	100	90.5	85.7	100	0	96.6	100	97.8	95.8	0	97.3	98.5	89.1	83.3	0	91.5	95.4
Heavy Vehicles	0	0	0	0	0	2	2	0	0	4	0	6	4	0	10	1	19	1	0	21	35
% Heavy Vehicles	0	0	0	0	0	9.5	14.3	0	0	3.4	0	2.2	4.2	0	2.7	1.5	10.9	16.7	0	8.5	4.6

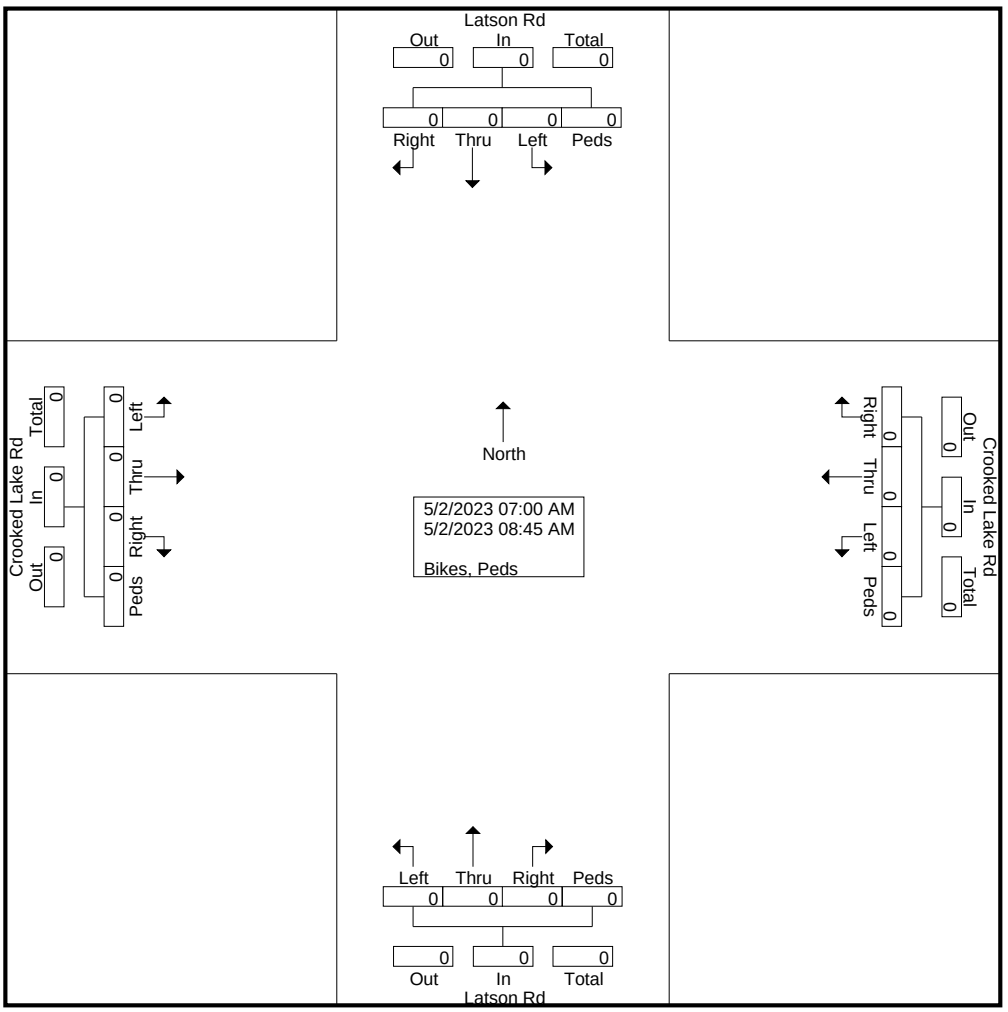


Quality Counts

File Name : 16184813 - Latson Rd -- Crooked Lake Rd
Site Code : 16184813
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

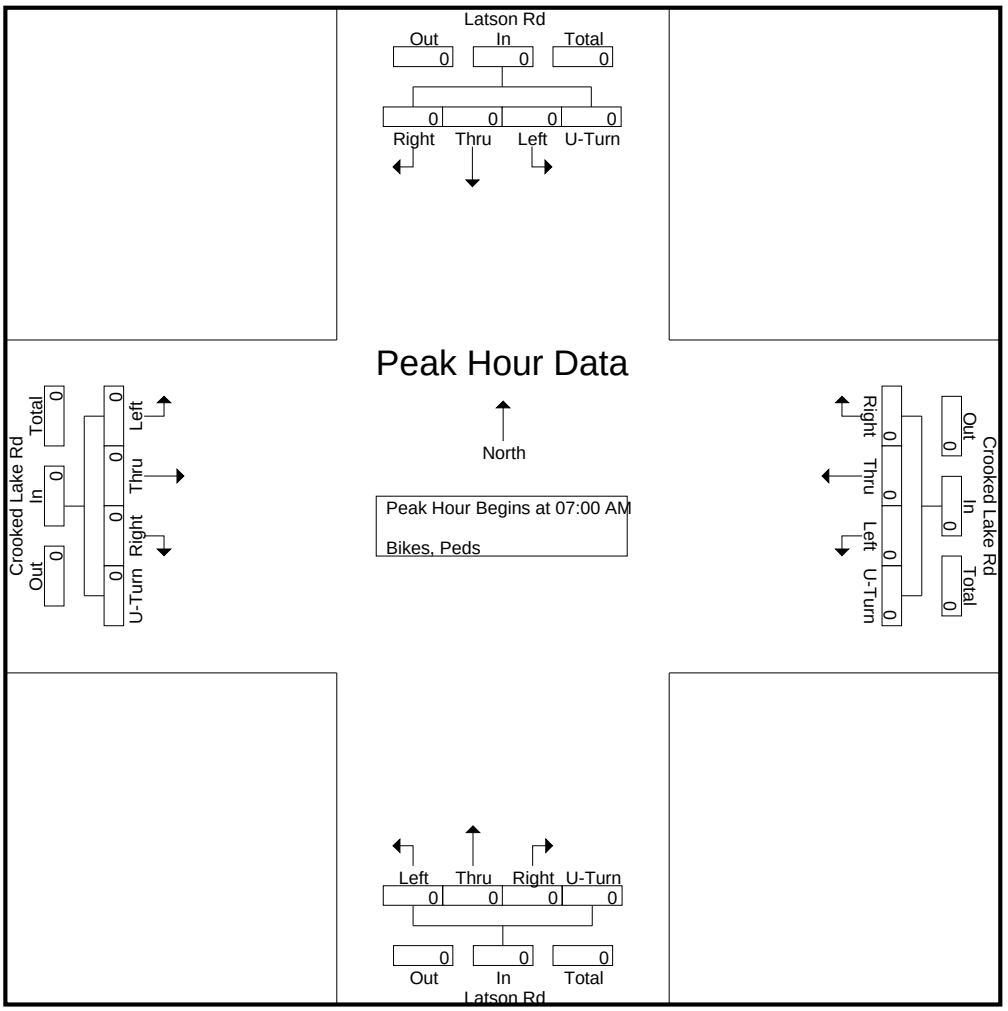
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184813 - Latson Rd -- Crooked Lake Rd
Site Code : 16184813
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

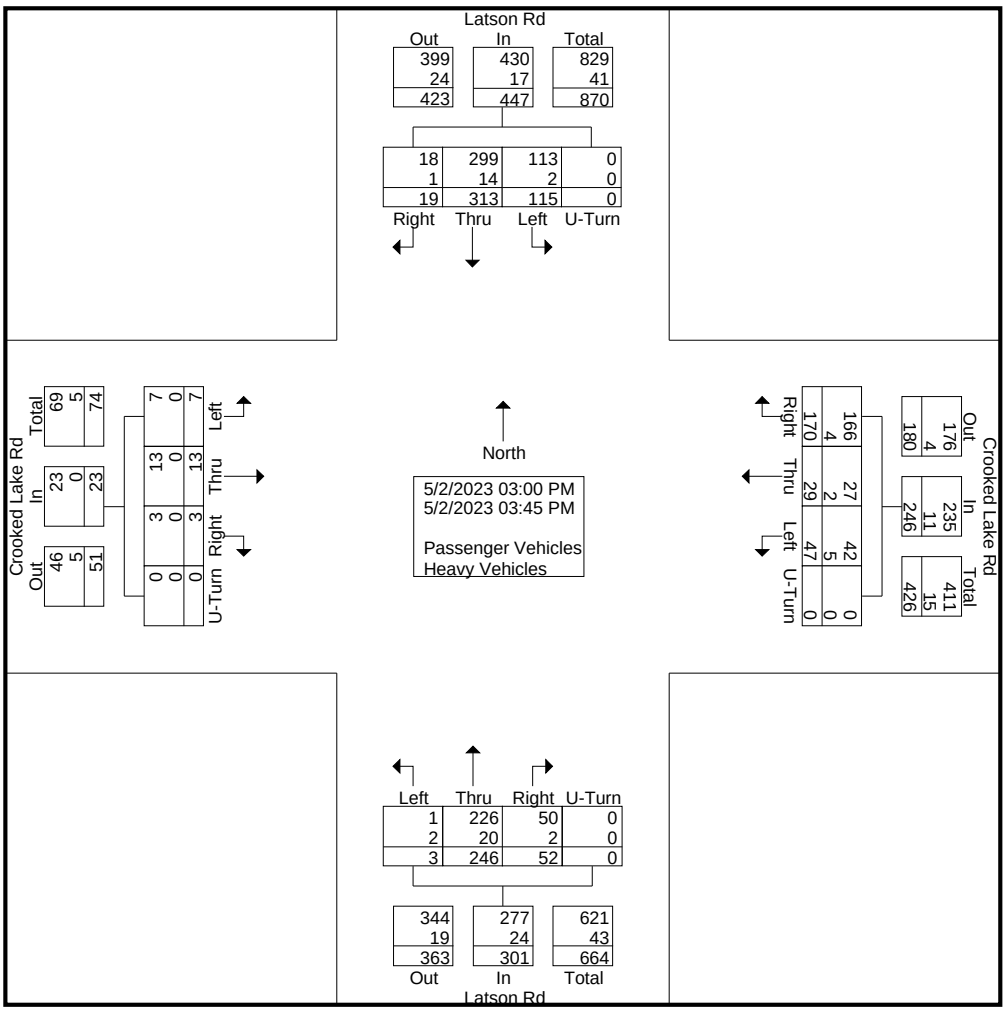


Quality Counts

File Name : 16184814 - Latson Rd -- Crooked Lake Rd
Site Code : 16184814
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

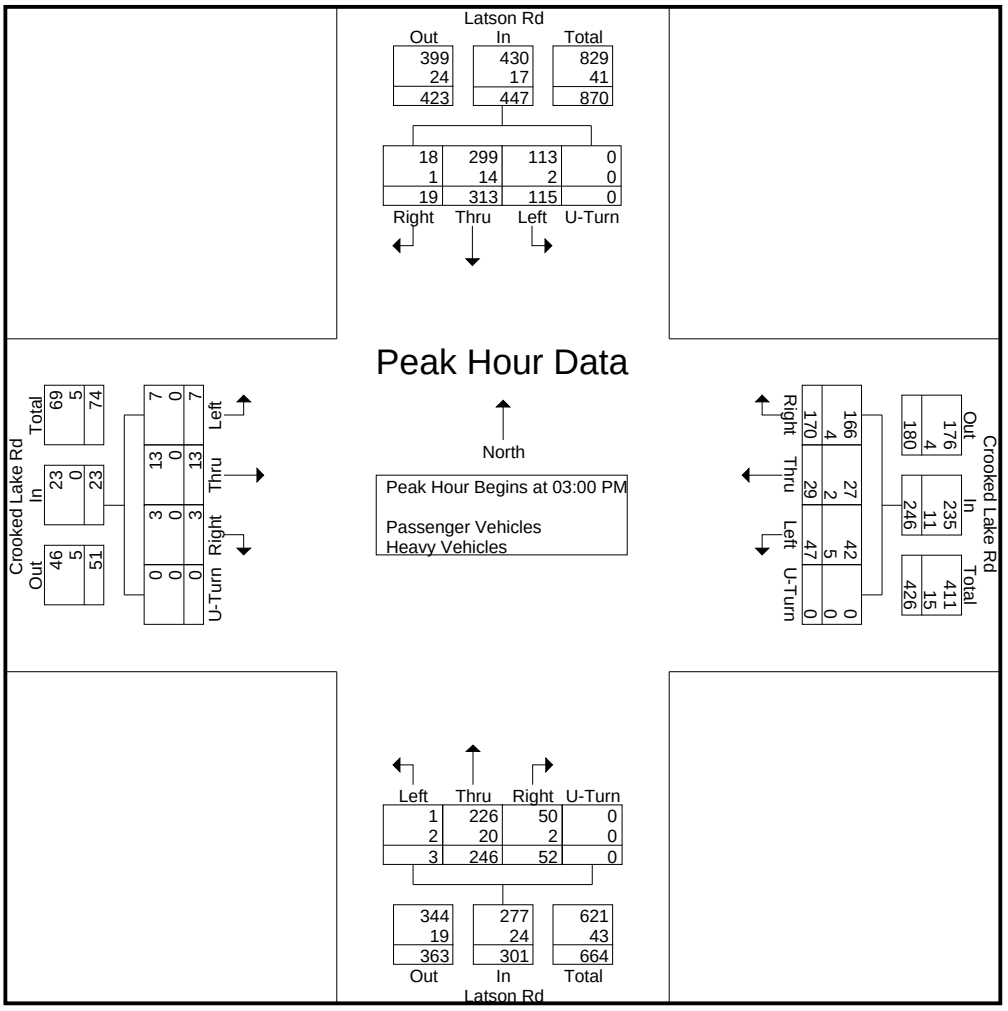
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	1	3	1	0	5	9	6	16	0	31	0	69	18	0	87	30	85	3	0	118	241
03:15 PM	0	3	0	0	3	5	4	25	0	34	1	58	10	0	69	33	68	3	0	104	210
03:30 PM	2	4	2	0	8	16	3	43	0	62	1	61	13	0	75	29	67	3	0	99	244
03:45 PM	4	3	0	0	7	17	16	86	0	119	1	58	11	0	70	23	93	10	0	126	322
Total	7	13	3	0	23	47	29	170	0	246	3	246	52	0	301	115	313	19	0	447	1017
Grand Total	7	13	3	0	23	47	29	170	0	246	3	246	52	0	301	115	313	19	0	447	1017
Apprch %	30.4	56.5	13	0		19.1	11.8	69.1	0		1	81.7	17.3	0		25.7	70	4.3	0		
Total %	0.7	1.3	0.3	0	2.3	4.6	2.9	16.7	0	24.2	0.3	24.2	5.1	0	29.6	11.3	30.8	1.9	0	44	
Passenger Vehicles	7	13	3	0	23	42	27	166	0	235	1	226	50	0	277	113	299	18	0	430	965
% Passenger Vehicles	100	100	100	0	100	89.4	93.1	97.6	0	95.5	33.3	91.9	96.2	0	92	98.3	95.5	94.7	0	96.2	94.9
Heavy Vehicles	0	0	0	0	0	5	2	4	0	11	2	20	2	0	24	2	14	1	0	17	52
% Heavy Vehicles	0	0	0	0	0	10.6	6.9	2.4	0	4.5	66.7	8.1	3.8	0	8	1.7	4.5	5.3	0	3.8	5.1



Quality Counts

File Name : 16184814 - Latson Rd -- Crooked Lake Rd
Site Code : 16184814
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	1	3	1	0	5	9	6	16	0	31	0	**69**	**18**	0	**87**	30	85	3	0	118	241
03:15 PM	0	3	0	0	3	5	4	25	0	34	**1**	58	10	0	69	**33**	68	3	0	104	210
03:30 PM	2	**4**	**2**	0	**8**	16	3	43	0	62	1	61	13	0	75	29	67	3	0	99	244
03:45 PM	**4**	3	0	0	7	**17**	**16**	**86**	0	**119**	1	58	11	0	70	23	**93**	**10**	0	**126**	**322**
Total Volume	7	13	3	0	23	47	29	170	0	246	3	246	52	0	301	115	313	19	0	447	1017
% App. Total	30.4	56.5	13	0		19.1	11.8	69.1	0		1	81.7	17.3	0		25.7	70	4.3	0		
PHF	.438	.813	.375	.000	.719	.691	.453	.494	.000	.517	.750	.891	.722	.000	.865	.871	.841	.475	.000	.887	.790
Passenger Vehicles	7	13	3	0	23	42	27	166	0	235	1	226	50	0	277	113	299	18	0	430	965
% Passenger Vehicles	100	100	100	0	100	89.4	93.1	97.6	0	95.5	33.3	91.9	96.2	0	92.0	98.3	95.5	94.7	0	96.2	94.9
Heavy Vehicles	0	0	0	0	0	5	2	4	0	11	2	20	2	0	24	2	14	1	0	17	52
% Heavy Vehicles	0	0	0	0	0	10.6	6.9	2.4	0	4.5	66.7	8.1	3.8	0	8.0	1.7	4.5	5.3	0	3.8	5.1

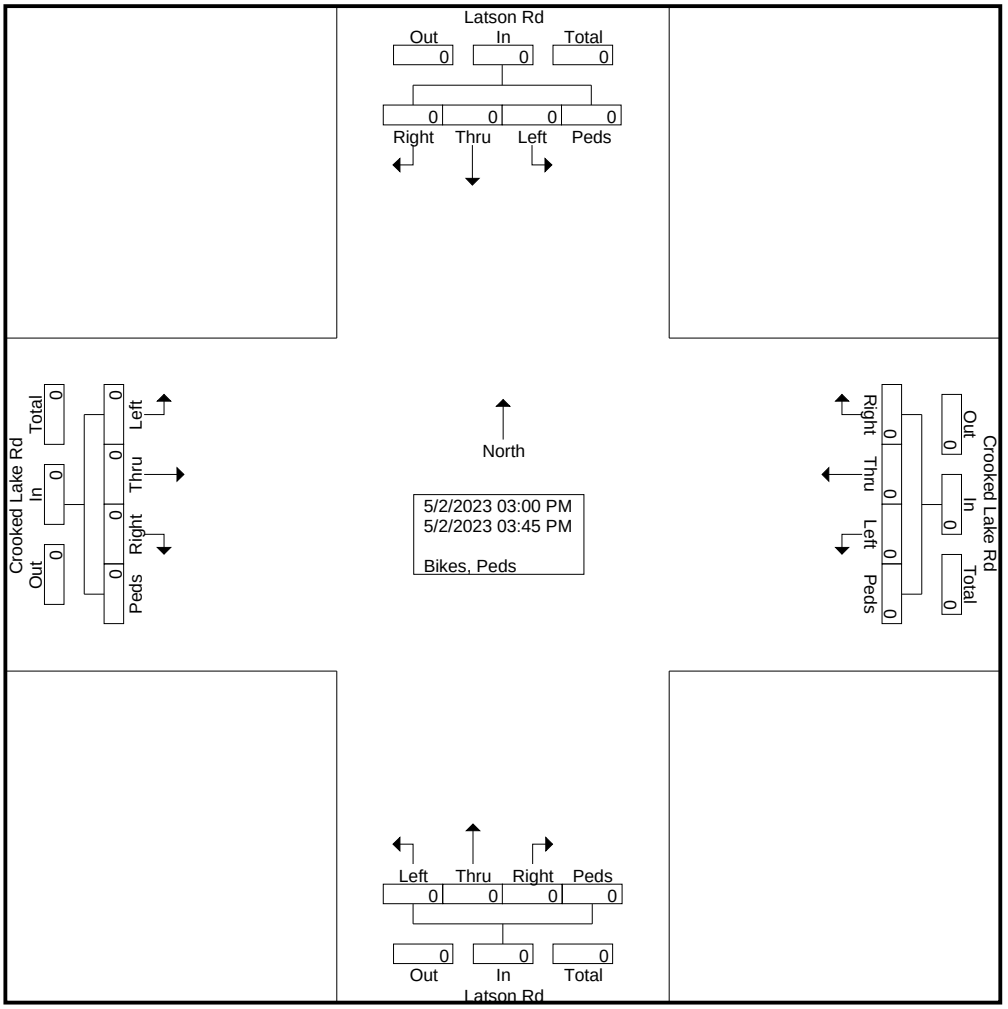


Quality Counts

File Name : 16184814 - Latson Rd -- Crooked Lake Rd
Site Code : 16184814
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

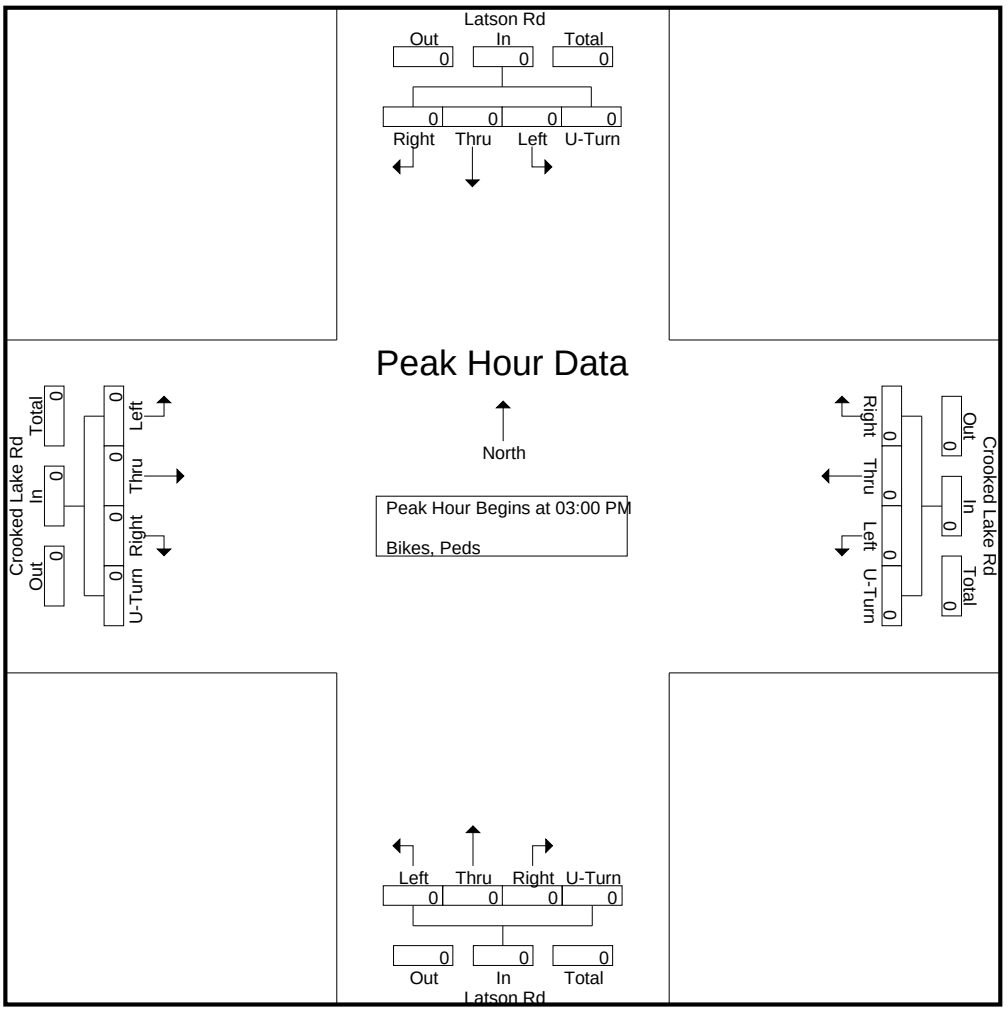
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184814 - Latson Rd -- Crooked Lake Rd
Site Code : 16184814
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

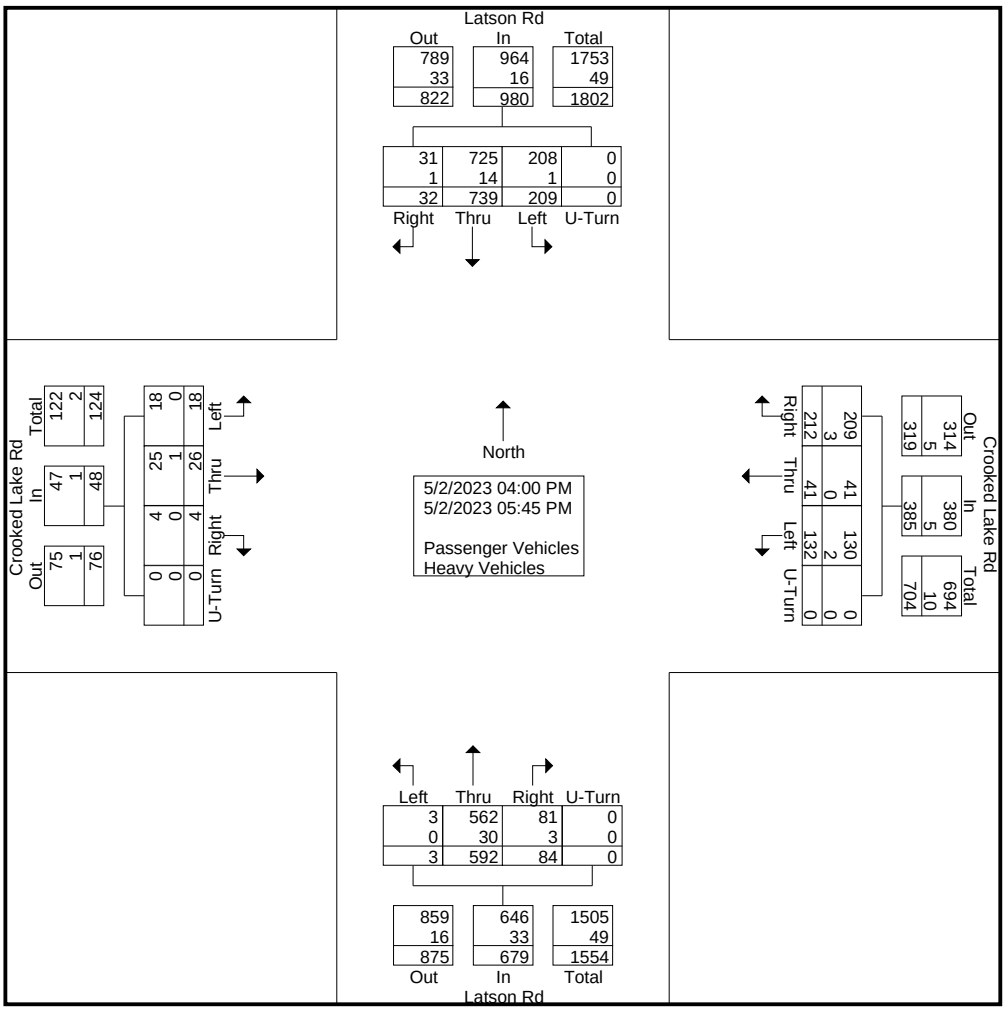


Quality Counts

File Name : 16184815 - Latson Rd -- Crooked Lake Rd
Site Code : 16184815
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

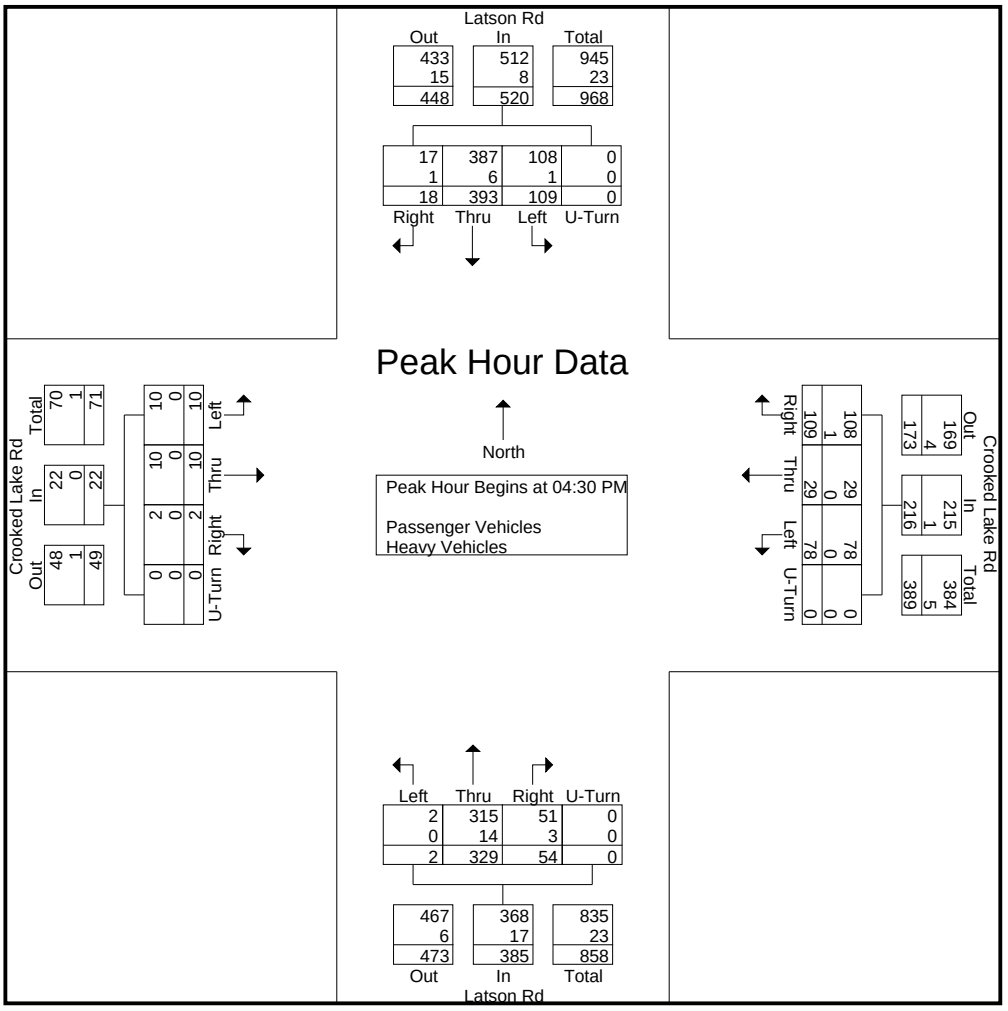
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
04:00 PM	1	3	1	0	5	14	4	31	0	49	0	72	6	0	78	18	94	2	0	114	246
04:15 PM	5	5	1	0	11	12	0	27	0	39	1	75	7	0	83	21	92	2	0	115	248
04:30 PM	3	2	0	0	5	17	6	28	0	51	1	92	16	0	109	20	111	5	0	136	301
04:45 PM	0	4	0	0	4	14	3	29	0	46	0	80	13	0	93	29	91	6	0	126	269
Total	9	14	2	0	25	57	13	115	0	185	2	319	42	0	363	88	388	15	0	491	1064
05:00 PM	4	3	2	0	9	24	9	21	0	54	1	78	14	0	93	32	83	5	0	120	276
05:15 PM	3	1	0	0	4	23	11	31	0	65	0	79	11	0	90	28	108	2	0	138	297
05:30 PM	2	2	0	0	4	17	3	26	0	46	0	65	8	0	73	33	73	6	0	112	235
05:45 PM	0	6	0	0	6	11	5	19	0	35	0	51	9	0	60	28	87	4	0	119	220
Total	9	12	2	0	23	75	28	97	0	200	1	273	42	0	316	121	351	17	0	489	1028
Grand Total	18	26	4	0	48	132	41	212	0	385	3	592	84	0	679	209	739	32	0	980	2092
Apprch %	37.5	54.2	8.3	0		34.3	10.6	55.1	0		0.4	87.2	12.4	0		21.3	75.4	3.3	0		
Total %	0.9	1.2	0.2	0	2.3	6.3	2	10.1	0	18.4	0.1	28.3	4	0	32.5	10	35.3	1.5	0	46.8	
Passenger Vehicles	18	25	4	0	47	130	41	209	0	380	3	562	81	0	646	208	725	31	0	964	2037
% Passenger Vehicles	100	96.2	100	0	97.9	98.5	100	98.6	0	98.7	100	94.9	96.4	0	95.1	99.5	98.1	96.9	0	98.4	97.4
Heavy Vehicles	0	1	0	0	1	2	0	3	0	5	0	30	3	0	33	1	14	1	0	16	55
% Heavy Vehicles	0	3.8	0	0	2.1	1.5	0	1.4	0	1.3	0	5.1	3.6	0	4.9	0.5	1.9	3.1	0	1.6	2.6



Quality Counts

File Name : 16184815 - Latson Rd -- Crooked Lake Rd
Site Code : 16184815
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	3	2	0	0	5	17	6	28	0	51	**1**	**92**	**16**	0	**109**	20	**111**	5	0	136	**301**
04:45 PM	0	**4**	0	0	4	14	3	29	0	46	0	80	13	0	93	29	91	**6**	0	126	269
05:00 PM	**4**	3	**2**	0	**9**	**24**	9	21	0	54	1	78	14	0	93	**32**	83	5	0	120	276
05:15 PM	3	1	0	0	4	23	**11**	**31**	0	**65**	0	79	11	0	90	28	108	2	0	**138**	297
Total Volume	10	10	2	0	22	78	29	109	0	216	2	329	54	0	385	109	393	18	0	520	1143
% App. Total	45.5	45.5	9.1	0		36.1	13.4	50.5	0		0.5	85.5	14	0		21	75.6	3.5	0		
PHF	.625	.625	.250	.000	.611	.813	.659	.879	.000	.831	.500	.894	.844	.000	.883	.852	.885	.750	.000	.942	.949
Passenger Vehicles	10	10	2	0	22	78	29	108	0	215	2	315	51	0	368	108	387	17	0	512	1117
% Passenger Vehicles	100	100	100	0	100	100	100	99.1	0	99.5	100	95.7	94.4	0	95.6	99.1	98.5	94.4	0	98.5	97.7
Heavy Vehicles	0	0	0	0	0	0	0	1	0	1	0	14	3	0	17	1	6	1	0	8	26
% Heavy Vehicles	0	0	0	0	0	0	0	0.9	0	0.5	0	4.3	5.6	0	4.4	0.9	1.5	5.6	0	1.5	2.3

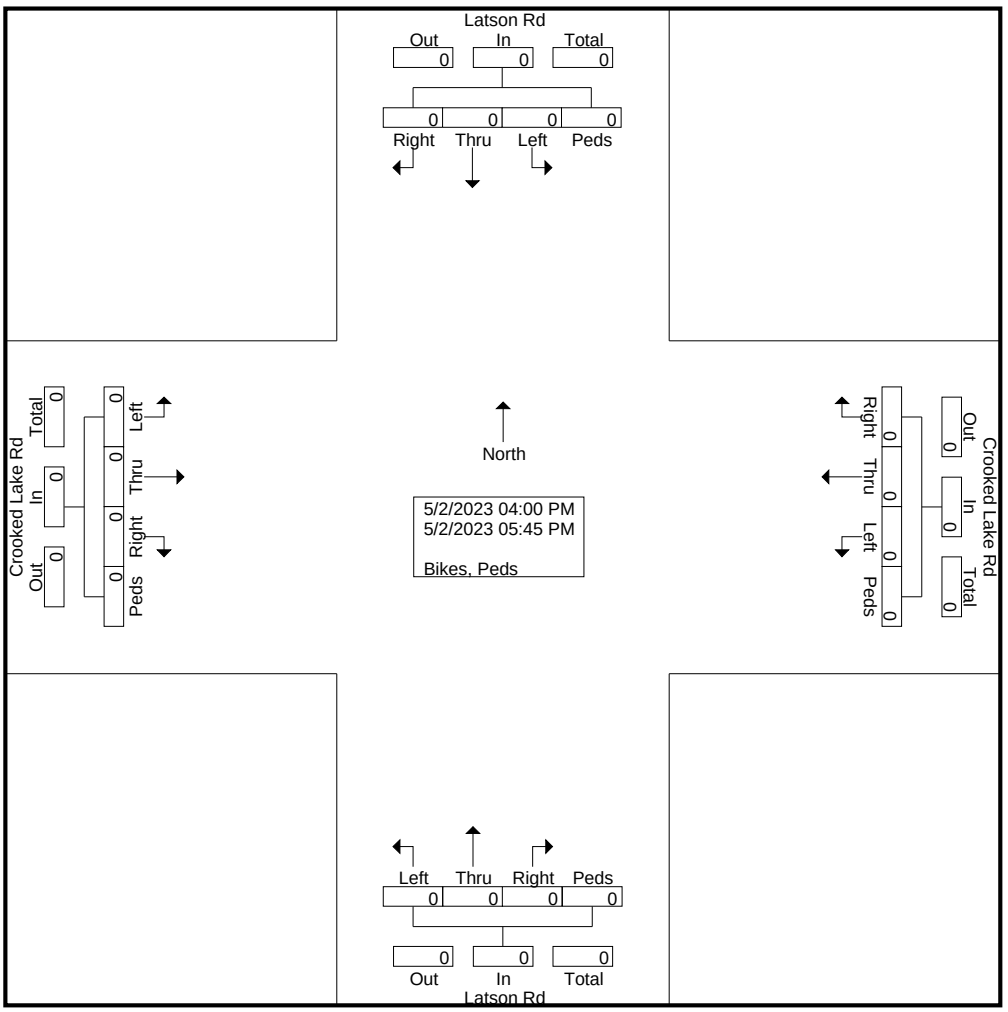


Quality Counts

File Name : 16184815 - Latson Rd -- Crooked Lake Rd
Site Code : 16184815
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

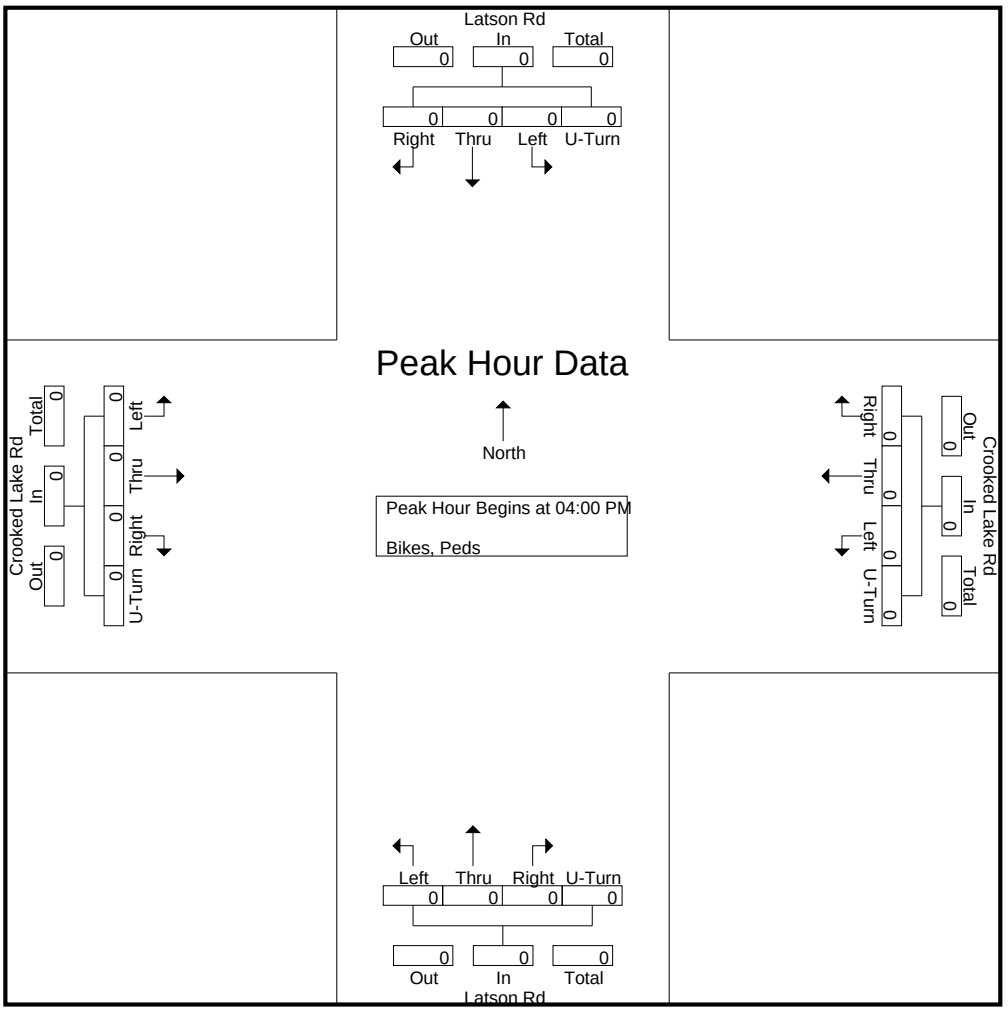
	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184815 - Latson Rd -- Crooked Lake Rd
Site Code : 16184815
Start Date : 5/2/2023
Page No : 2

	Crooked Lake Rd Eastbound					Crooked Lake Rd Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

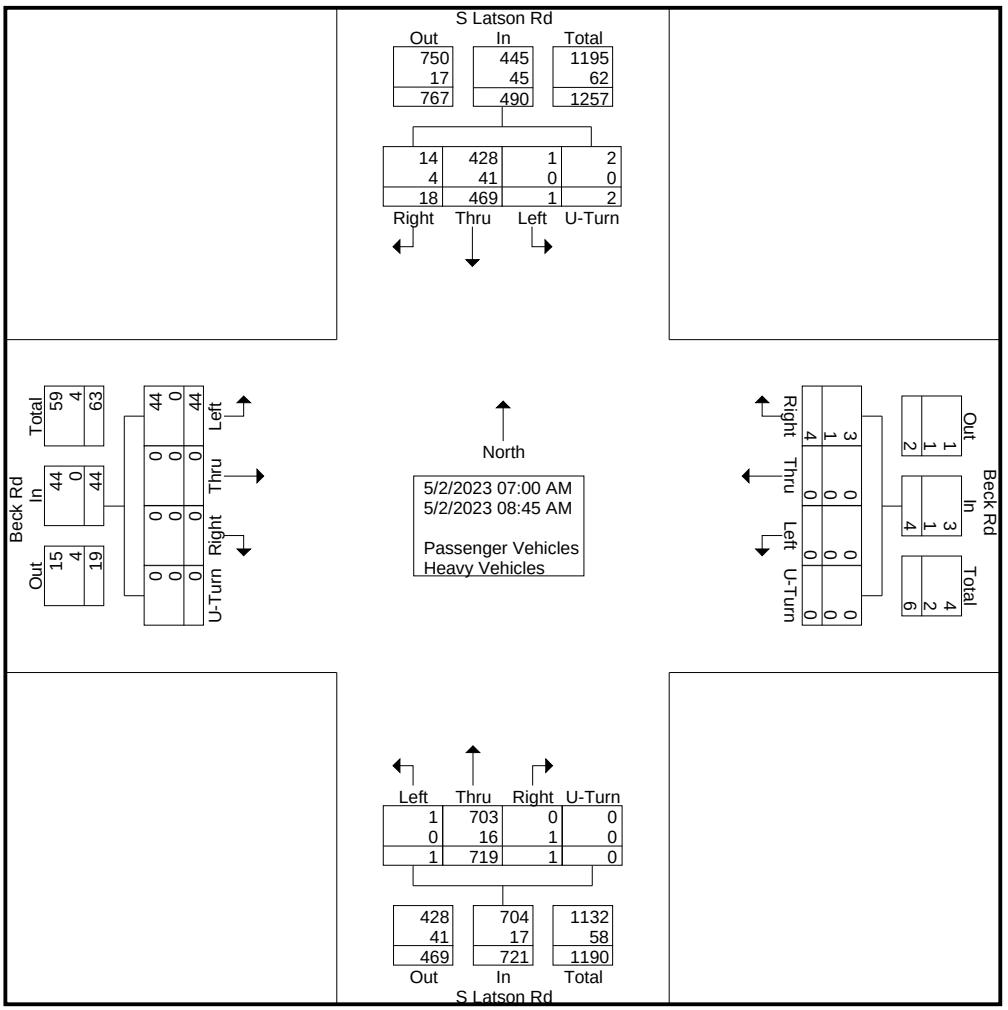


Quality Counts

File Name : 16184816 - S Latson Rd -- Beck Rd
Site Code : 16184816
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

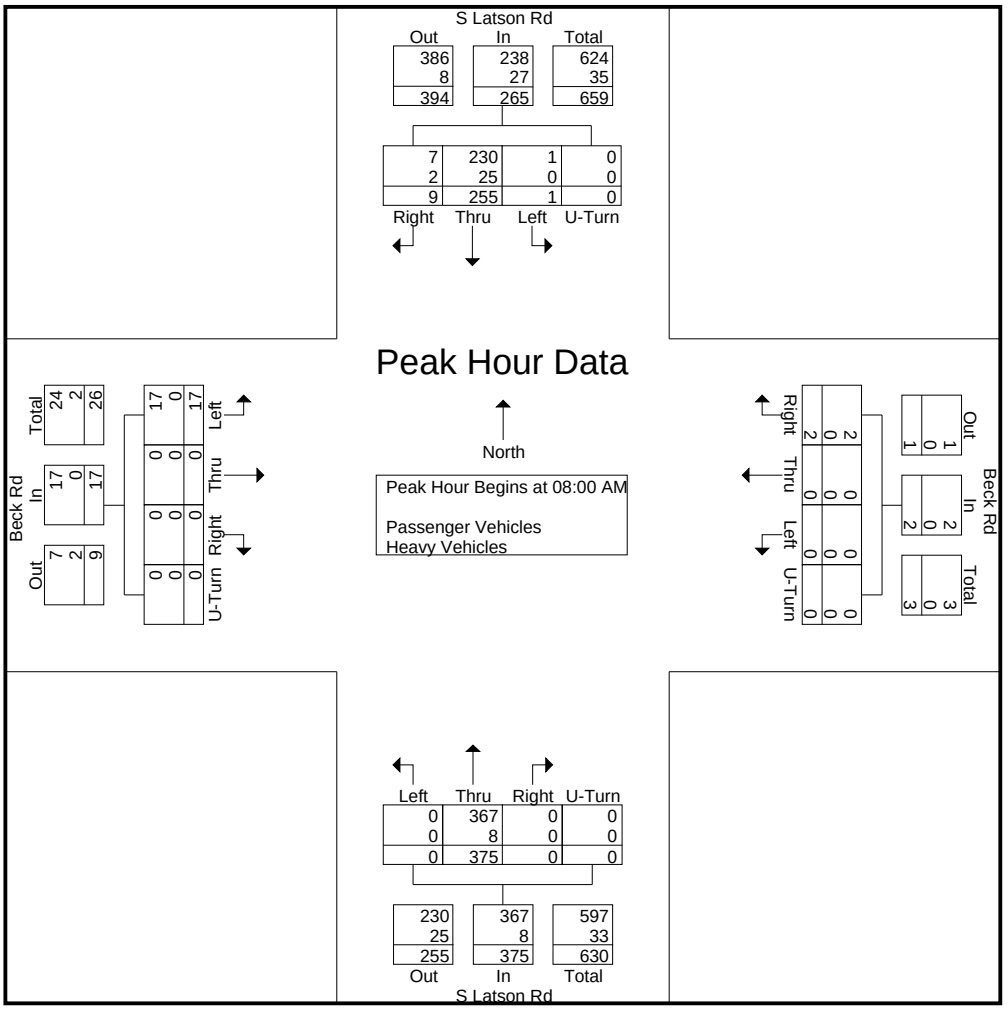
	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	4	0	0	0	4	0	0	1	0	1	0	86	0	0	86	0	37	3	1	41	132
07:15 AM	6	0	0	0	6	0	0	0	0	0	1	85	0	0	86	0	53	3	0	56	148
07:30 AM	10	0	0	0	10	0	0	0	0	0	0	85	0	0	85	0	65	3	1	69	164
07:45 AM	7	0	0	0	7	0	0	1	0	1	0	88	1	0	89	0	59	0	0	59	156
Total	27	0	0	0	27	0	0	2	0	2	1	344	1	0	346	0	214	9	2	225	600
08:00 AM	4	0	0	0	4	0	0	0	0	0	0	85	0	0	85	0	55	2	0	57	146
08:15 AM	3	0	0	0	3	0	0	1	0	1	0	100	0	0	100	0	75	0	0	75	179
08:30 AM	3	0	0	0	3	0	0	0	0	0	0	99	0	0	99	1	64	4	0	69	171
08:45 AM	7	0	0	0	7	0	0	1	0	1	0	91	0	0	91	0	61	3	0	64	163
Total	17	0	0	0	17	0	0	2	0	2	0	375	0	0	375	1	255	9	0	265	659
Grand Total	44	0	0	0	44	0	0	4	0	4	1	719	1	0	721	1	469	18	2	490	1259
Apprch %	100	0	0	0		0	0	100	0		0.1	99.7	0.1	0		0.2	95.7	3.7	0.4		
Total %	3.5	0	0	0	3.5	0	0	0.3	0	0.3	0.1	57.1	0.1	0	57.3	0.1	37.3	1.4	0.2	38.9	
Passenger Vehicles	44	0	0	0	44	0	0	3	0	3	1	703	0	0	704	1	428	14	2	445	1196
% Passenger Vehicles	100	0	0	0	100	0	0	75	0	75	100	97.8	0	0	97.6	100	91.3	77.8	100	90.8	95
Heavy Vehicles	0	0	0	0	0	0	0	1	0	1	0	16	1	0	17	0	41	4	0	45	63
% Heavy Vehicles	0	0	0	0	0	0	0	25	0	25	0	2.2	100	0	2.4	0	8.7	22.2	0	9.2	5



Quality Counts

File Name : 16184816 - S Latson Rd -- Beck Rd
Site Code : 16184816
Start Date : 5/2/2023
Page No : 2

	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	4	0	0	0	4	0	0	0	0	0	0	85	0	0	85	0	55	2	0	57	146
08:15 AM	3	0	0	0	3	0	0	**1**	0	**1**	0	**100**	0	0	**100**	0	**75**	0	0	**75**	**179**
08:30 AM	3	0	0	0	3	0	0	0	0	0	0	99	0	0	99	**1**	64	**4**	0	69	171
08:45 AM	**7**	0	0	0	**7**	0	0	1	0	1	0	91	0	0	91	0	61	3	0	64	163
Total Volume	17	0	0	0	17	0	0	2	0	2	0	375	0	0	375	1	255	9	0	265	659
% App. Total	100	0	0	0		0	0	100	0		0	100	0	0		0.4	96.2	3.4	0		
PHF	.607	.000	.000	.000	.607	.000	.000	.500	.000	.500	.000	.938	.000	.000	.938	.250	.850	.563	.000	.883	.920
Passenger Vehicles	17	0	0	0	17	0	0	2	0	2	0	367	0	0	367	1	230	7	0	238	624
% Passenger Vehicles	100	0	0	0	100	0	0	100	0	100	0	97.9	0	0	97.9	100	90.2	77.8	0	89.8	94.7
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	25	2	0	27	35
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	2.1	0	0	2.1	0	9.8	22.2	0	10.2	5.3

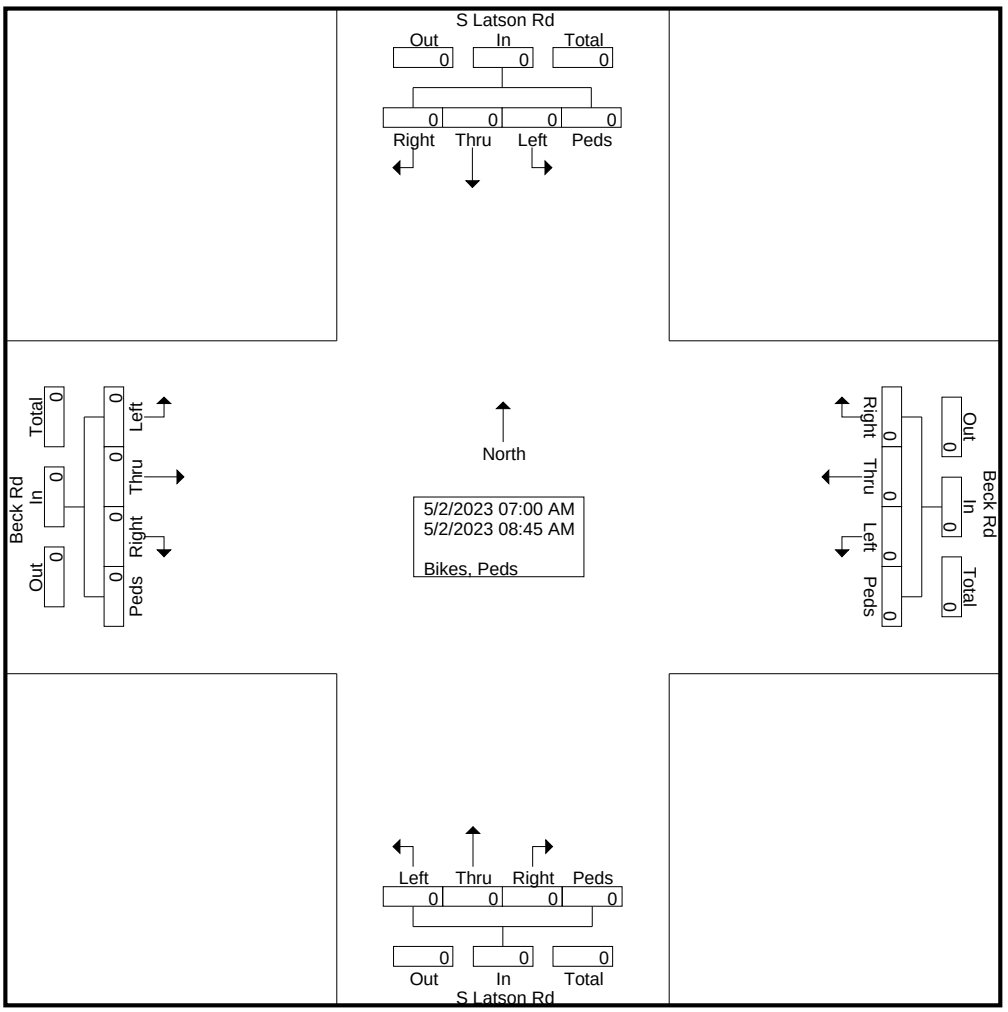


Quality Counts

File Name : 16184816 - S Latson Rd -- Beck Rd
Site Code : 16184816
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

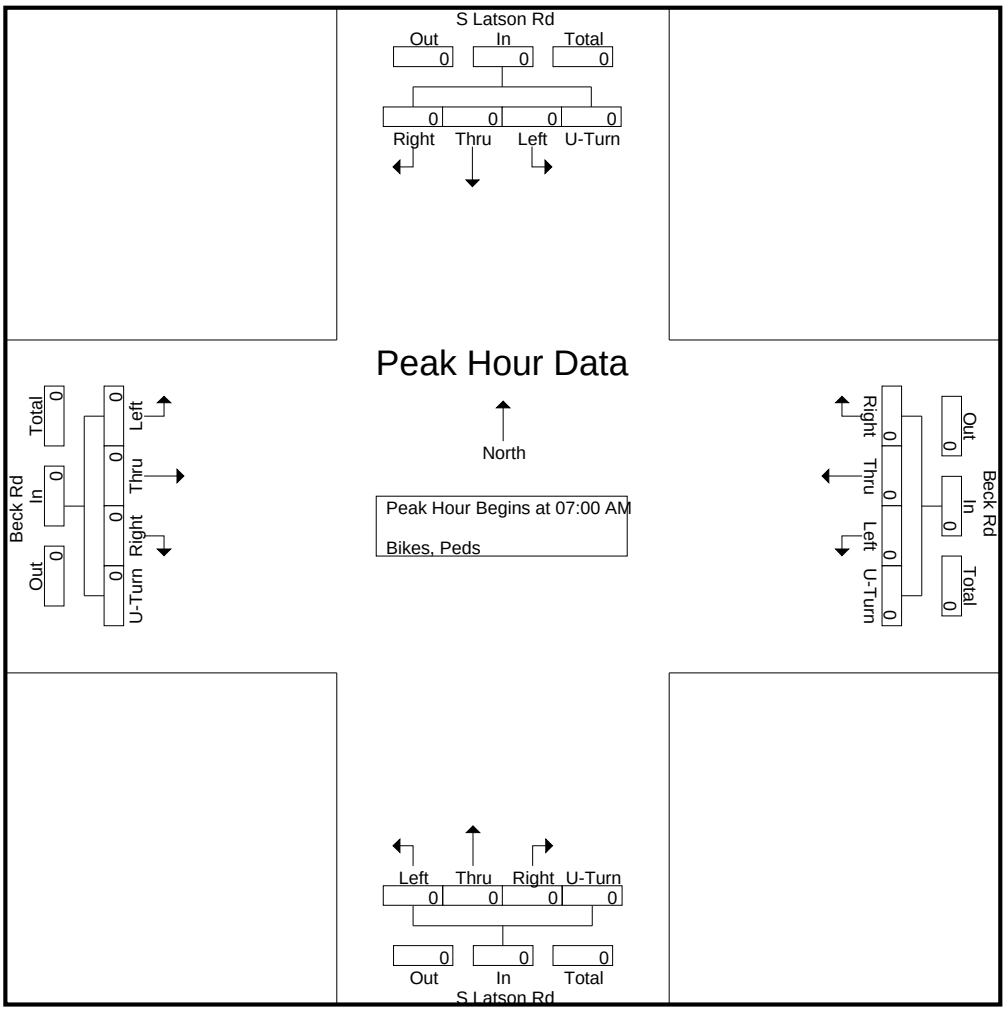
	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184816 - S Latson Rd -- Beck Rd
Site Code : 16184816
Start Date : 5/2/2023
Page No : 2

	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

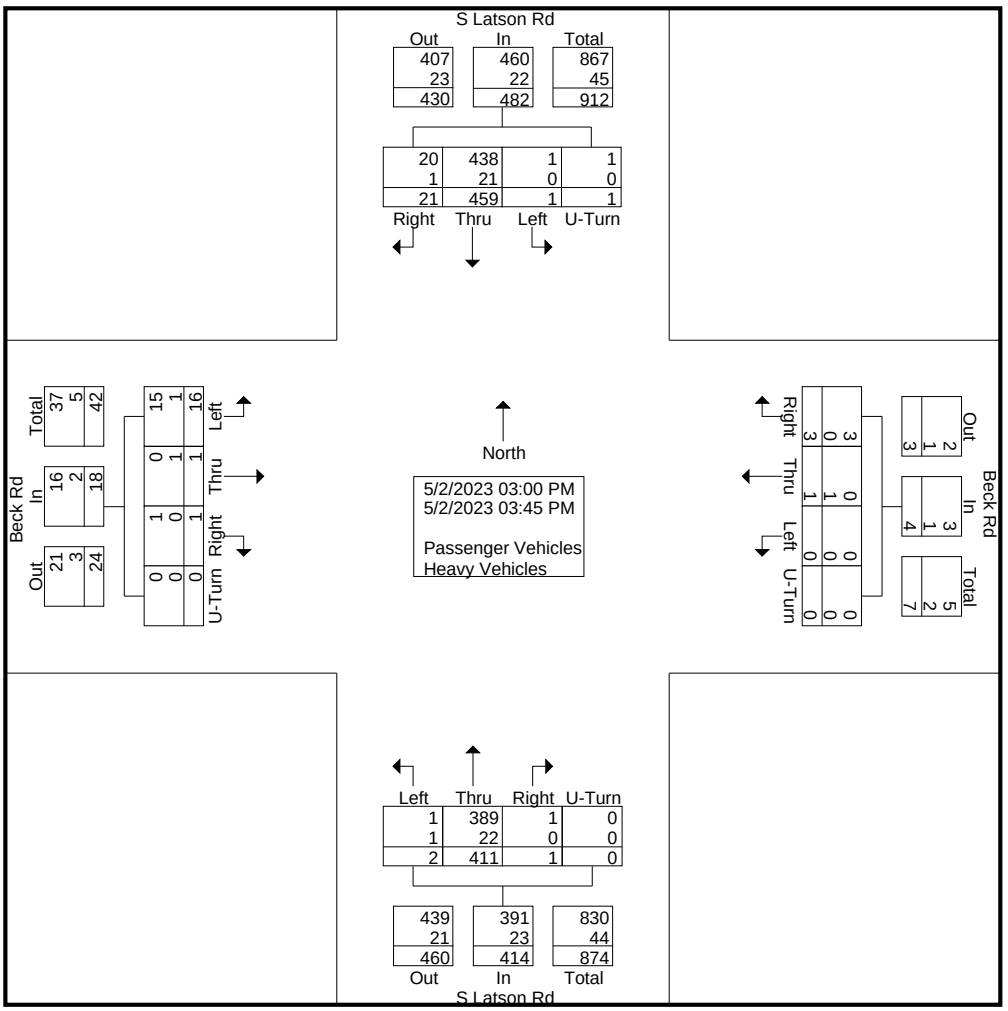


Quality Counts

File Name : 16184817 - S Latson Rd -- Beck Rd
Site Code : 16184817
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

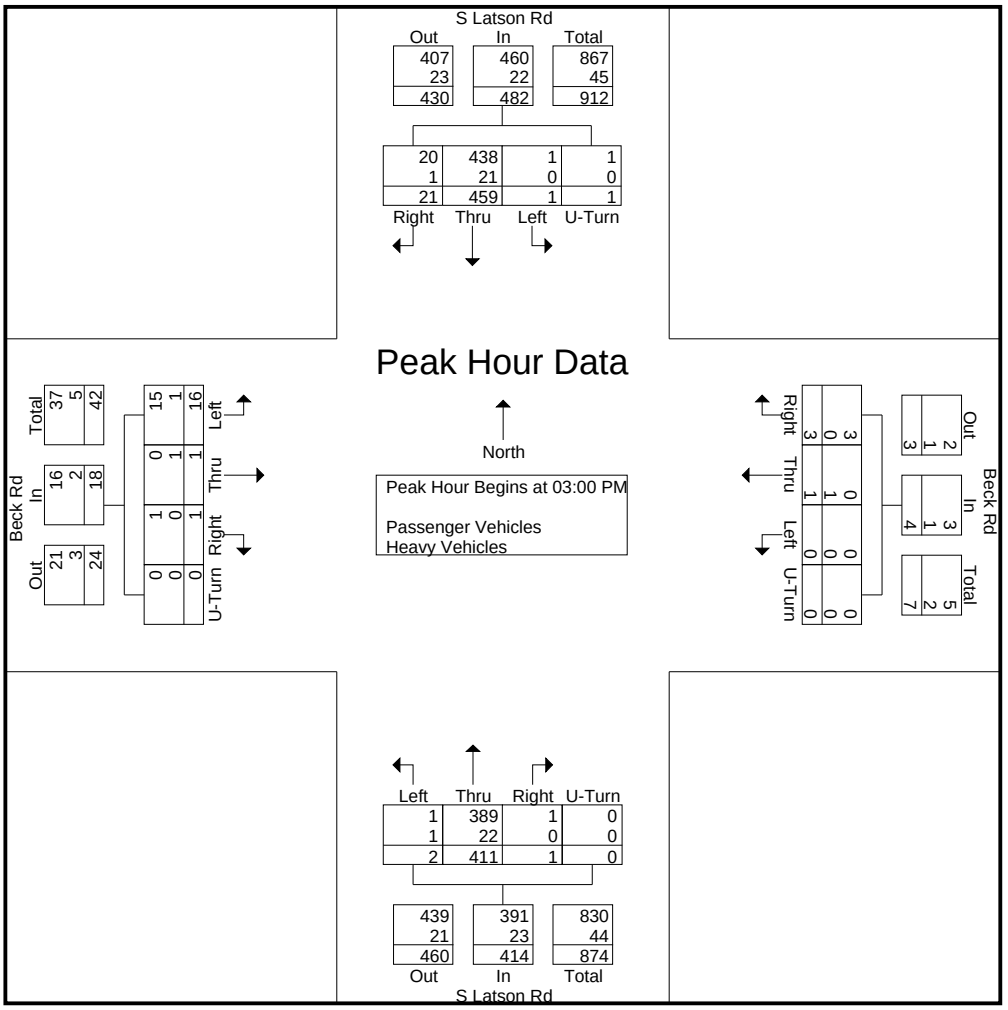
	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	3	1	0	0	4	0	1	1	0	2	0	84	0	0	84	0	119	4	0	123	213
03:15 PM	6	0	1	0	7	0	0	1	0	1	0	78	1	0	79	1	115	1	0	117	204
03:30 PM	5	0	0	0	5	0	0	1	0	1	1	99	0	0	100	0	102	8	0	110	216
03:45 PM	2	0	0	0	2	0	0	0	0	0	1	150	0	0	151	0	123	8	1	132	285
Total	16	1	1	0	18	0	1	3	0	4	2	411	1	0	414	1	459	21	1	482	918
Grand Total	16	1	1	0	18	0	1	3	0	4	2	411	1	0	414	1	459	21	1	482	918
Apprch %	88.9	5.6	5.6	0		0	25	75	0		0.5	99.3	0.2	0		0.2	95.2	4.4	0.2		
Total %	1.7	0.1	0.1	0	2	0	0.1	0.3	0	0.4	0.2	44.8	0.1	0	45.1	0.1	50	2.3	0.1	52.5	
Passenger Vehicles	15	0	1	0	16	0	0	3	0	3	1	389	1	0	391	1	438	20	1	460	870
% Passenger Vehicles	93.8	0	100	0	88.9	0	0	100	0	75	50	94.6	100	0	94.4	100	95.4	95.2	100	95.4	94.8
Heavy Vehicles	1	1	0	0	2	0	1	0	0	1	1	22	0	0	23	0	21	1	0	22	48
% Heavy Vehicles	6.2	100	0	0	11.1	0	100	0	0	25	50	5.4	0	0	5.6	0	4.6	4.8	0	4.6	5.2



Quality Counts

File Name : 16184817 - S Latson Rd -- Beck Rd
Site Code : 16184817
Start Date : 5/2/2023
Page No : 2

	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	3	**1**	0	0	4	0	**1**	**1**	0	**2**	0	84	0	0	84	0	119	4	0	123	213
03:15 PM	**6**	0	**1**	0	**7**	0	0	1	0	1	0	78	**1**	0	79	**1**	115	1	0	117	204
03:30 PM	5	0	0	0	5	0	0	1	0	1	**1**	99	0	0	100	0	102	**8**	0	110	216
03:45 PM	2	0	0	0	2	0	0	0	0	0	1	**150**	0	0	**151**	0	**123**	8	**1**	**132**	**285**
Total Volume	16	1	1	0	18	0	1	3	0	4	2	411	1	0	414	1	459	21	1	482	918
% App. Total	88.9	5.6	5.6	0		0	25	75	0		0.5	99.3	0.2	0		0.2	95.2	4.4	0.2		
PHF	.667	.250	.250	.000	.643	.000	.250	.750	.000	.500	.500	.685	.250	.000	.685	.250	.933	.656	.250	.913	.805
Passenger Vehicles	15	0	1	0	16	0	0	3	0	3	1	389	1	0	391	1	438	20	1	460	870
% Passenger Vehicles	93.8	0	100	0	88.9	0	0	100	0	75.0	50.0	94.6	100	0	94.4	100	95.4	95.2	100	95.4	94.8
Heavy Vehicles	1	1	0	0	2	0	1	0	0	1	1	22	0	0	23	0	21	1	0	22	48
% Heavy Vehicles	6.3	100	0	0	11.1	0	100	0	0	25.0	50.0	5.4	0	0	5.6	0	4.6	4.8	0	4.6	5.2

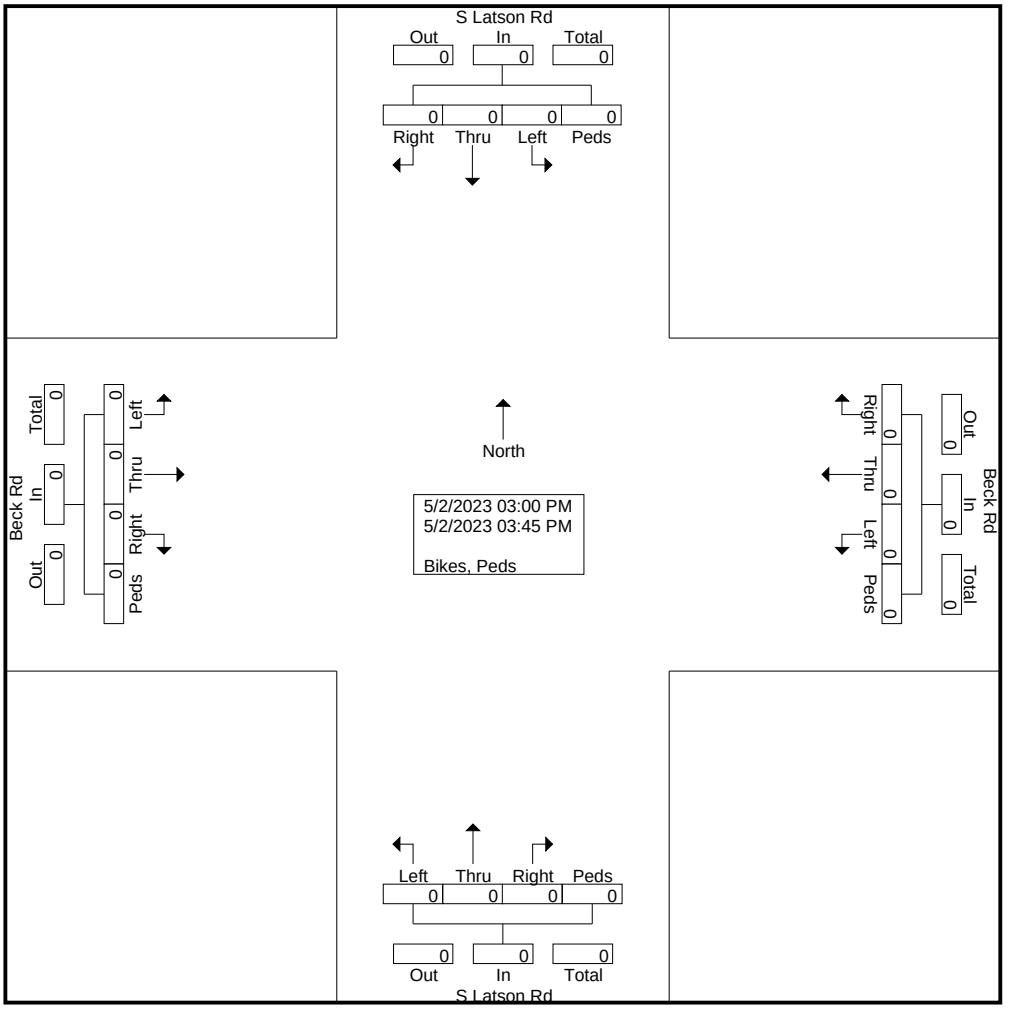


Quality Counts

File Name : 16184817 - S Latson Rd -- Beck Rd
Site Code : 16184817
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

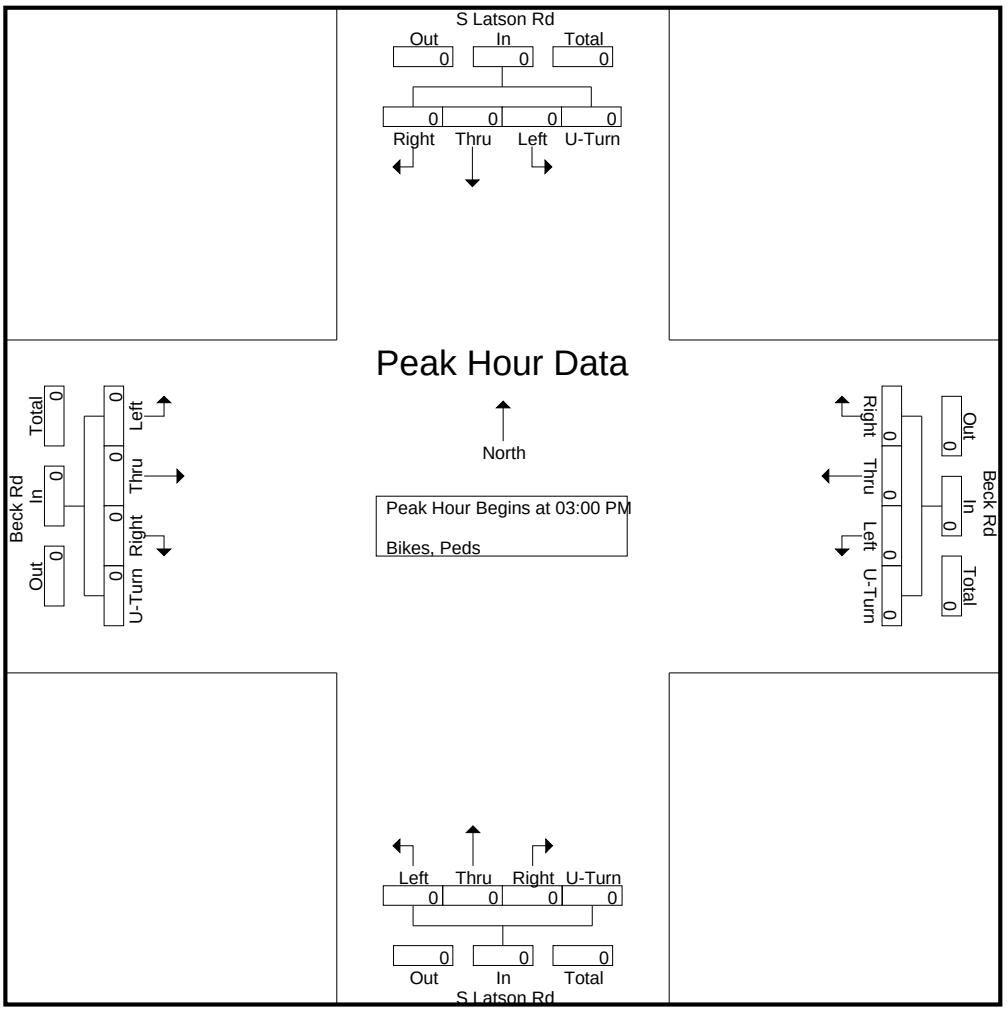
	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184817 - S Latson Rd -- Beck Rd
Site Code : 16184817
Start Date : 5/2/2023
Page No : 2

	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

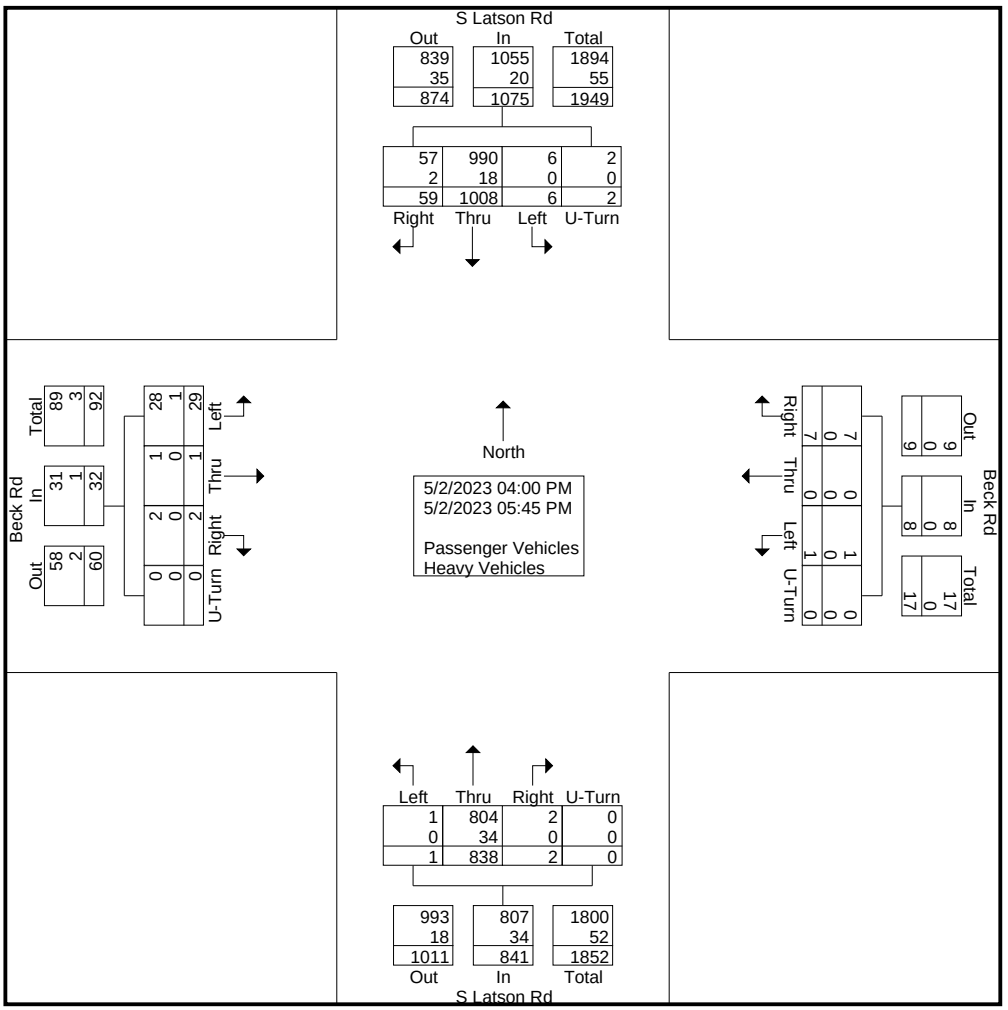


Quality Counts

File Name : 16184818 - S Latson Rd -- Beck Rd
Site Code : 16184818
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

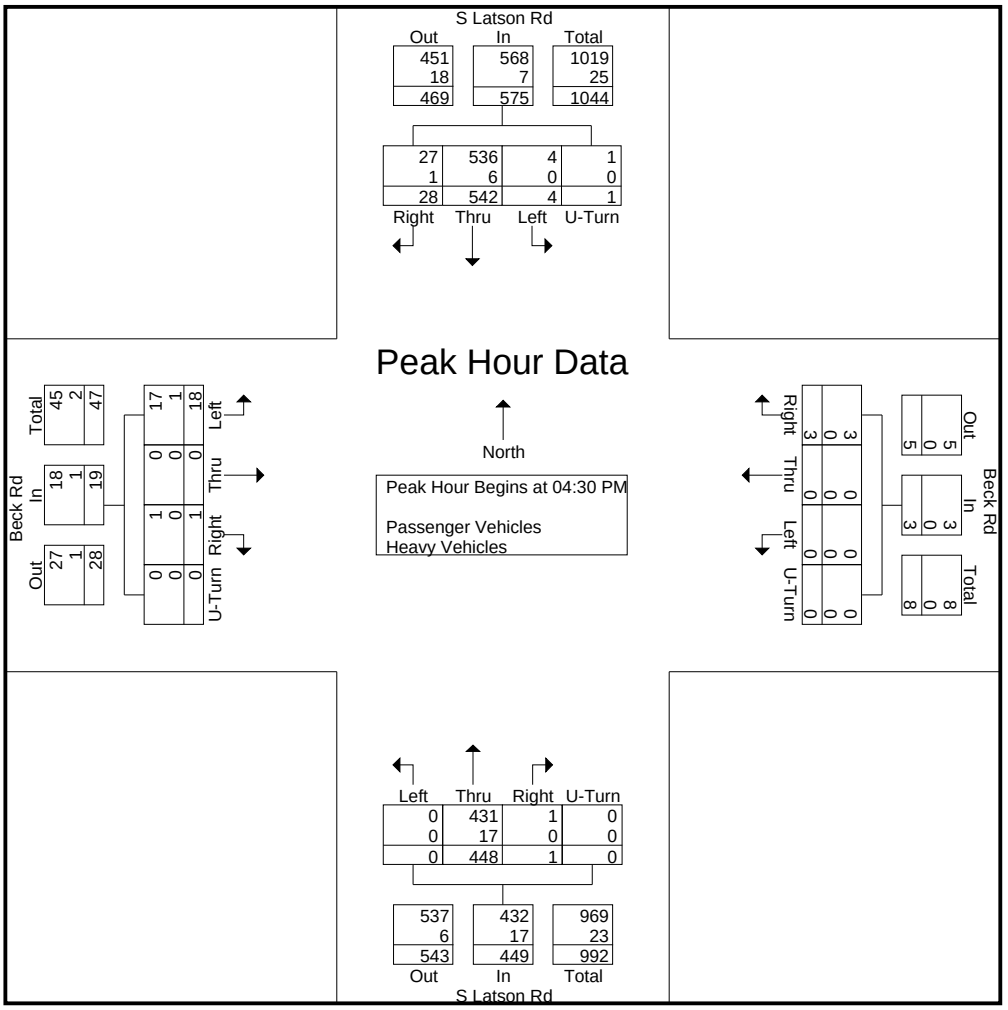
	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
04:00 PM	1	1	0	0	2	1	0	1	0	2	0	100	0	0	100	0	117	6	1	124	228
04:15 PM	5	0	0	0	5	0	0	1	0	1	0	116	0	0	116	1	117	6	0	124	246
04:30 PM	5	0	0	0	5	0	0	1	0	1	0	113	0	0	113	1	135	9	0	145	264
04:45 PM	3	0	0	0	3	0	0	1	0	1	0	120	0	0	120	1	133	4	1	139	263
Total	14	1	0	0	15	1	0	4	0	5	0	449	0	0	449	3	502	25	2	532	1001
05:00 PM	8	0	0	0	8	0	0	1	0	1	0	97	0	0	97	2	133	8	0	143	249
05:15 PM	2	0	1	0	3	0	0	0	0	0	0	118	1	0	119	0	141	7	0	148	270
05:30 PM	2	0	0	0	2	0	0	2	0	2	1	102	0	0	103	1	113	13	0	127	234
05:45 PM	3	0	1	0	4	0	0	0	0	0	0	72	1	0	73	0	119	6	0	125	202
Total	15	0	2	0	17	0	0	3	0	3	1	389	2	0	392	3	506	34	0	543	955
Grand Total	29	1	2	0	32	1	0	7	0	8	1	838	2	0	841	6	1008	59	2	1075	1956
Apprch %	90.6	3.1	6.2	0		12.5	0	87.5	0		0.1	99.6	0.2	0		0.6	93.8	5.5	0.2		
Total %	1.5	0.1	0.1	0	1.6	0.1	0	0.4	0	0.4	0.1	42.8	0.1	0	43	0.3	51.5	3	0.1	55	
Passenger Vehicles	28	1	2	0	31	1	0	7	0	8	1	804	2	0	807	6	990	57	2	1055	1901
% Passenger Vehicles	96.6	100	100	0	96.9	100	0	100	0	100	100	95.9	100	0	96	100	98.2	96.6	100	98.1	97.2
Heavy Vehicles	1	0	0	0	1	0	0	0	0	0	0	34	0	0	34	0	18	2	0	20	55
% Heavy Vehicles	3.4	0	0	0	3.1	0	0	0	0	0	0	4.1	0	0	4	0	1.8	3.4	0	1.9	2.8



Quality Counts

File Name : 16184818 - S Latson Rd -- Beck Rd
Site Code : 16184818
Start Date : 5/2/2023
Page No : 2

	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	5	0	0	0	5	0	0	**1**	0	**1**	0	113	0	0	113	1	135	**9**	0	145	264
04:45 PM	3	0	0	0	3	0	0	1	0	1	0	**120**	0	0	**120**	1	133	4	**1**	139	263
05:00 PM	**8**	0	0	0	**8**	0	0	1	0	1	0	97	0	0	97	**2**	133	8	0	143	249
05:15 PM	2	0	**1**	0	3	0	0	0	0	0	0	118	**1**	0	119	0	**141**	7	0	**148**	**270**
Total Volume	18	0	1	0	19	0	0	3	0	3	0	448	1	0	449	4	542	28	1	575	1046
% App. Total	94.7	0	5.3	0		0	0	100	0		0	99.8	0.2	0		0.7	94.3	4.9	0.2		
PHF	.563	.000	.250	.000	.594	.000	.000	.750	.000	.750	.000	.933	.250	.000	.935	.500	.961	.778	.250	.971	.969
Passenger Vehicles	17	0	1	0	18	0	0	3	0	3	0	431	1	0	432	4	536	27	1	568	1021
% Passenger Vehicles	94.4	0	100	0	94.7	0	0	100	0	100	0	96.2	100	0	96.2	100	98.9	96.4	100	98.8	97.6
Heavy Vehicles	1	0	0	0	1	0	0	0	0	0	0	17	0	0	17	0	6	1	0	7	25
% Heavy Vehicles	5.6	0	0	0	5.3	0	0	0	0	0	0	3.8	0	0	3.8	0	1.1	3.6	0	1.2	2.4

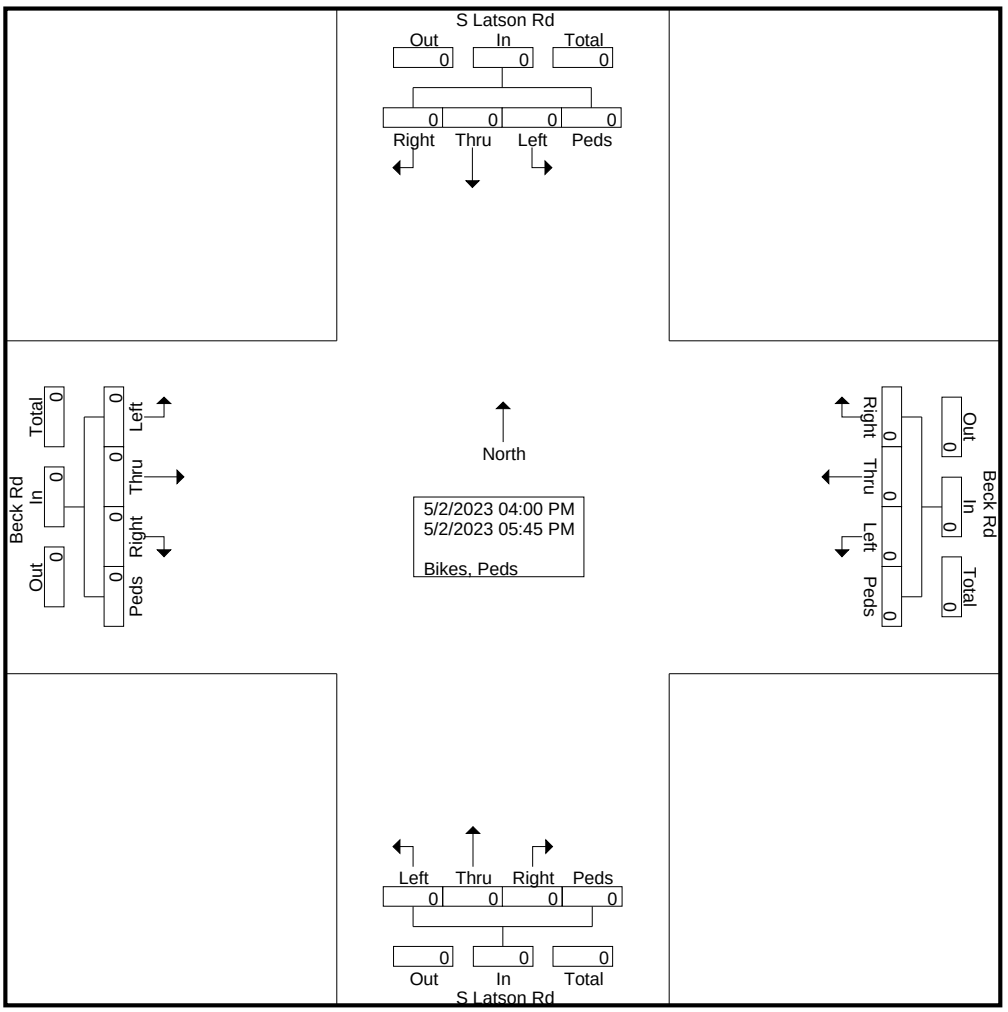


Quality Counts

File Name : 16184818 - S Latson Rd -- Beck Rd
Site Code : 16184818
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

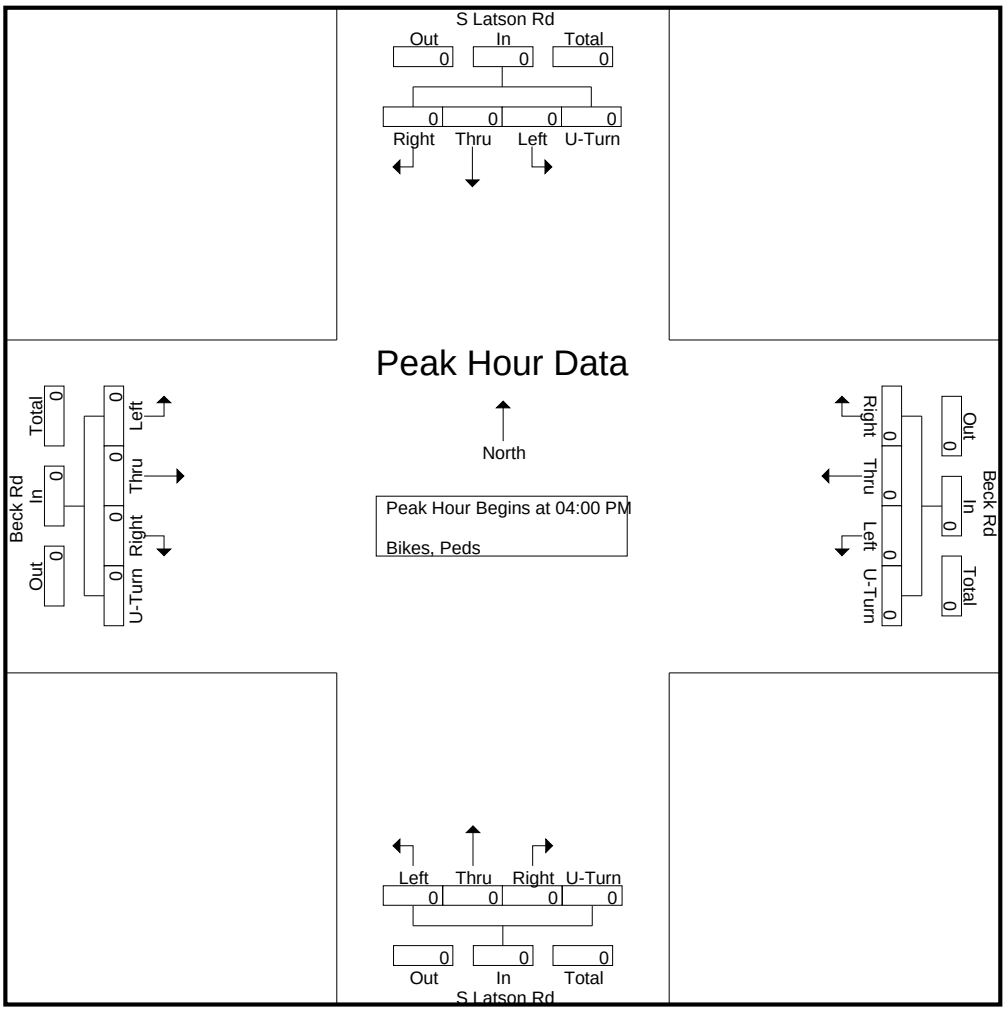
	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					



Quality Counts

File Name : 16184818 - S Latson Rd -- Beck Rd
Site Code : 16184818
Start Date : 5/2/2023
Page No : 2

	Beck Rd Eastbound					Beck Rd Westbound					S Latson Rd Northbound					S Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

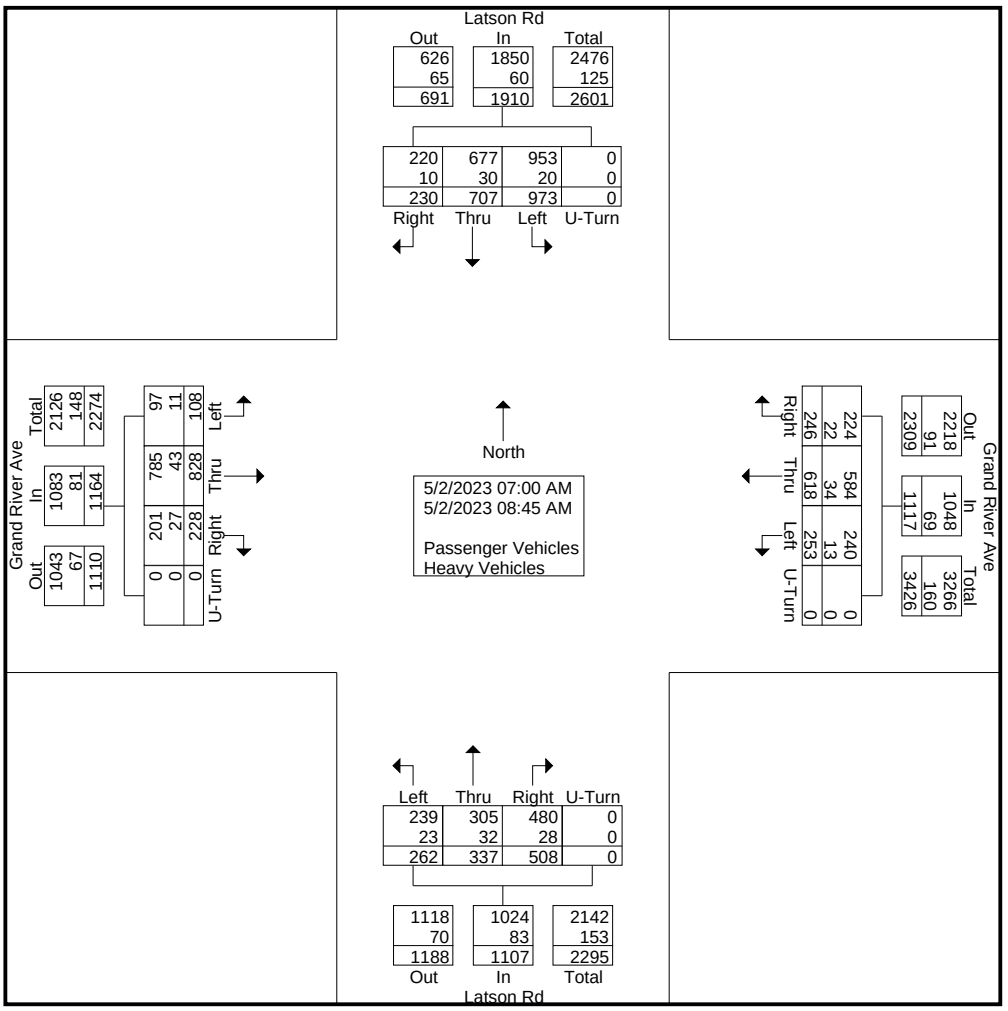


Quality Counts

File Name : 16184819 - Latson Rd -- Grand River Ave
Site Code : 16184819
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

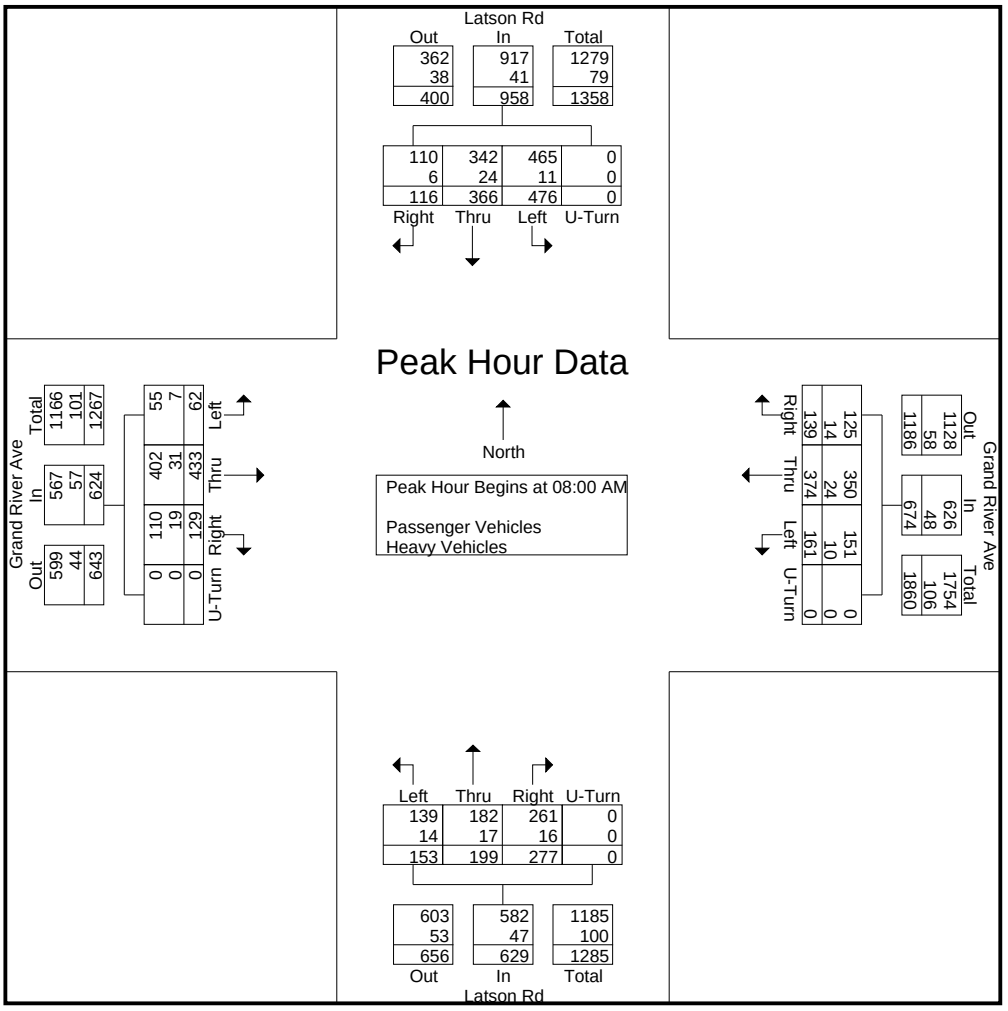
	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	12	85	26	0	123	21	35	20	0	76	18	26	35	0	79	117	91	23	0	231	509
07:15 AM	15	92	21	0	128	18	52	20	0	90	16	35	48	0	99	121	82	30	0	233	550
07:30 AM	10	109	25	0	144	23	64	39	0	126	30	29	69	0	128	136	78	28	0	242	640
07:45 AM	9	109	27	0	145	30	93	28	0	151	45	48	79	0	172	123	90	33	0	246	714
Total	46	395	99	0	540	92	244	107	0	443	109	138	231	0	478	497	341	114	0	952	2413
08:00 AM	14	85	33	0	132	26	75	29	0	130	36	46	80	0	162	130	75	24	0	229	653
08:15 AM	14	112	33	0	159	43	88	32	0	163	40	48	61	0	149	116	104	25	0	245	716
08:30 AM	17	117	29	0	163	49	110	36	0	195	40	48	50	0	138	119	105	37	0	261	757
08:45 AM	17	119	34	0	170	43	101	42	0	186	37	57	86	0	180	111	82	30	0	223	759
Total	62	433	129	0	624	161	374	139	0	674	153	199	277	0	629	476	366	116	0	958	2885
Grand Total	108	828	228	0	1164	253	618	246	0	1117	262	337	508	0	1107	973	707	230	0	1910	5298
Apprch %	9.3	71.1	19.6	0		22.6	55.3	22	0		23.7	30.4	45.9	0		50.9	37	12	0		
Total %	2	15.6	4.3	0	22	4.8	11.7	4.6	0	21.1	4.9	6.4	9.6	0	20.9	18.4	13.3	4.3	0	36.1	
Passenger Vehicles	97	785	201	0	1083	240	584	224	0	1048	239	305	480	0	1024	953	677	220	0	1850	5005
% Passenger Vehicles	89.8	94.8	88.2	0	93	94.9	94.5	91.1	0	93.8	91.2	90.5	94.5	0	92.5	97.9	95.8	95.7	0	96.9	94.5
Heavy Vehicles	11	43	27	0	81	13	34	22	0	69	23	32	28	0	83	20	30	10	0	60	293
% Heavy Vehicles	10.2	5.2	11.8	0	7	5.1	5.5	8.9	0	6.2	8.8	9.5	5.5	0	7.5	2.1	4.2	4.3	0	3.1	5.5



Quality Counts

File Name : 16184819 - Latson Rd -- Grand River Ave
Site Code : 16184819
Start Date : 5/2/2023
Page No : 2

	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	14	85	33	0	132	26	75	29	0	130	36	46	80	0	162	**130**	75	24	0	229	653
08:15 AM	14	112	33	0	159	43	88	32	0	163	**40**	48	61	0	149	116	104	25	0	245	716
08:30 AM	**17**	117	29	0	163	**49**	**110**	36	0	**195**	40	48	50	0	138	119	**105**	**37**	0	**261**	757
08:45 AM	17	**119**	**34**	0	**170**	43	101	**42**	0	186	37	**57**	**86**	0	**180**	111	82	30	0	223	**759**
Total Volume	62	433	129	0	624	161	374	139	0	674	153	199	277	0	629	476	366	116	0	958	2885
% App. Total	9.9	69.4	20.7	0		23.9	55.5	20.6	0		24.3	31.6	44	0		49.7	38.2	12.1	0		
PHF	.912	.910	.949	.000	.918	.821	.850	.827	.000	.864	.956	.873	.805	.000	.874	.915	.871	.784	.000	.918	.950
Passenger Vehicles	55	402	110	0	567	151	350	125	0	626	139	182	261	0	582	465	342	110	0	917	2692
% Passenger Vehicles	88.7	92.8	85.3	0	90.9	93.8	93.6	89.9	0	92.9	90.8	91.5	94.2	0	92.5	97.7	93.4	94.8	0	95.7	93.3
Heavy Vehicles	7	31	19	0	57	10	24	14	0	48	14	17	16	0	47	11	24	6	0	41	193
% Heavy Vehicles	11.3	7.2	14.7	0	9.1	6.2	6.4	10.1	0	7.1	9.2	8.5	5.8	0	7.5	2.3	6.6	5.2	0	4.3	6.7

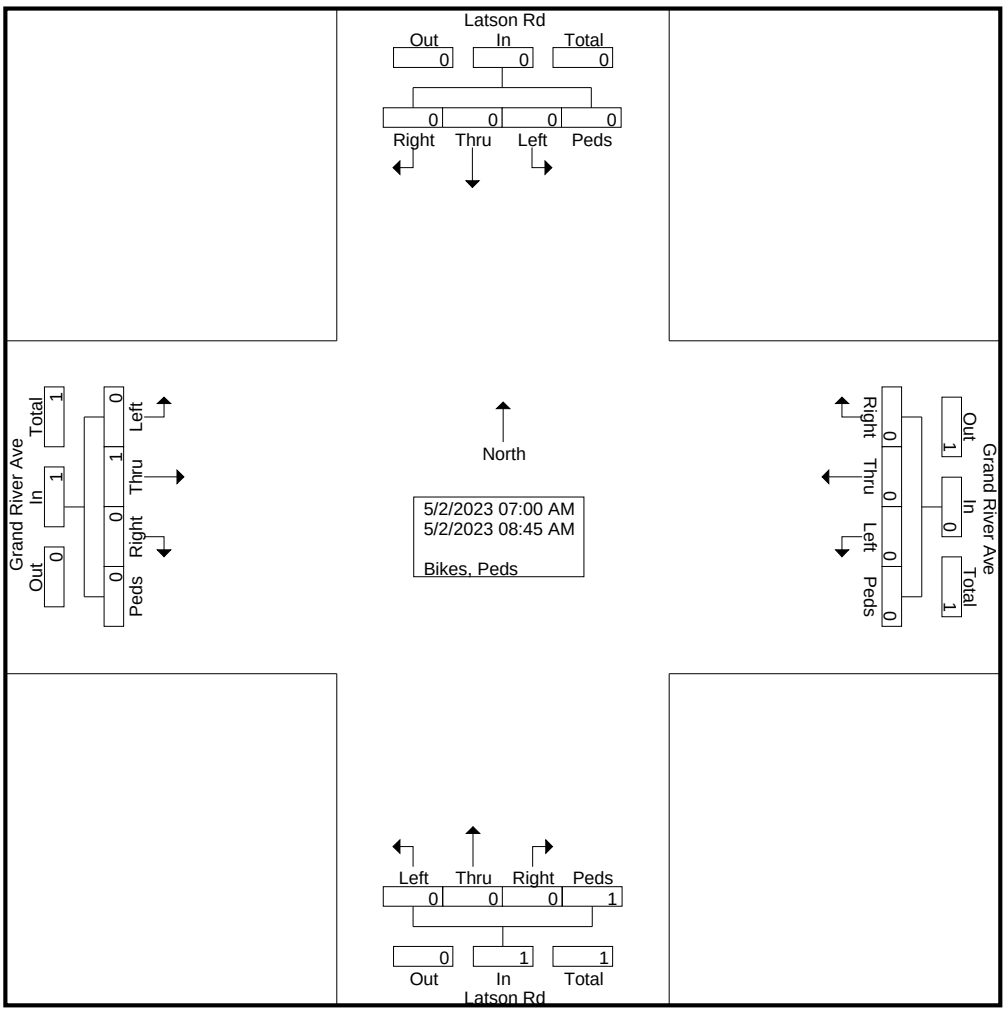


Quality Counts

File Name : 16184819 - Latson Rd -- Grand River Ave
Site Code : 16184819
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

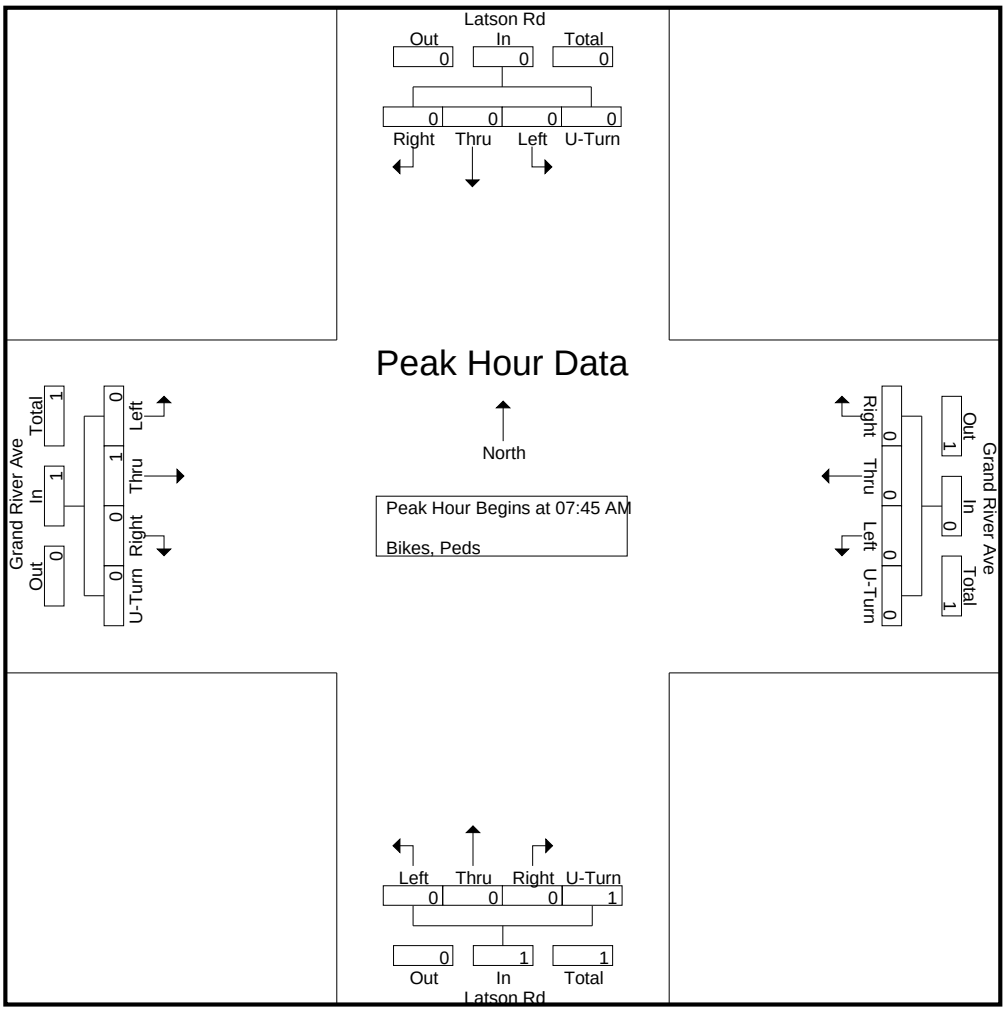
	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Grand Total	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
Apprch %	0	100	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
Total %	0	50	0	0	50	0	0	0	0	0	0	0	0	50	50	0	0	0	0	0	



Quality Counts

File Name : 16184819 - Latson Rd -- Grand River Ave
Site Code : 16184819
Start Date : 5/2/2023

	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
% App. Total	0	100	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.500

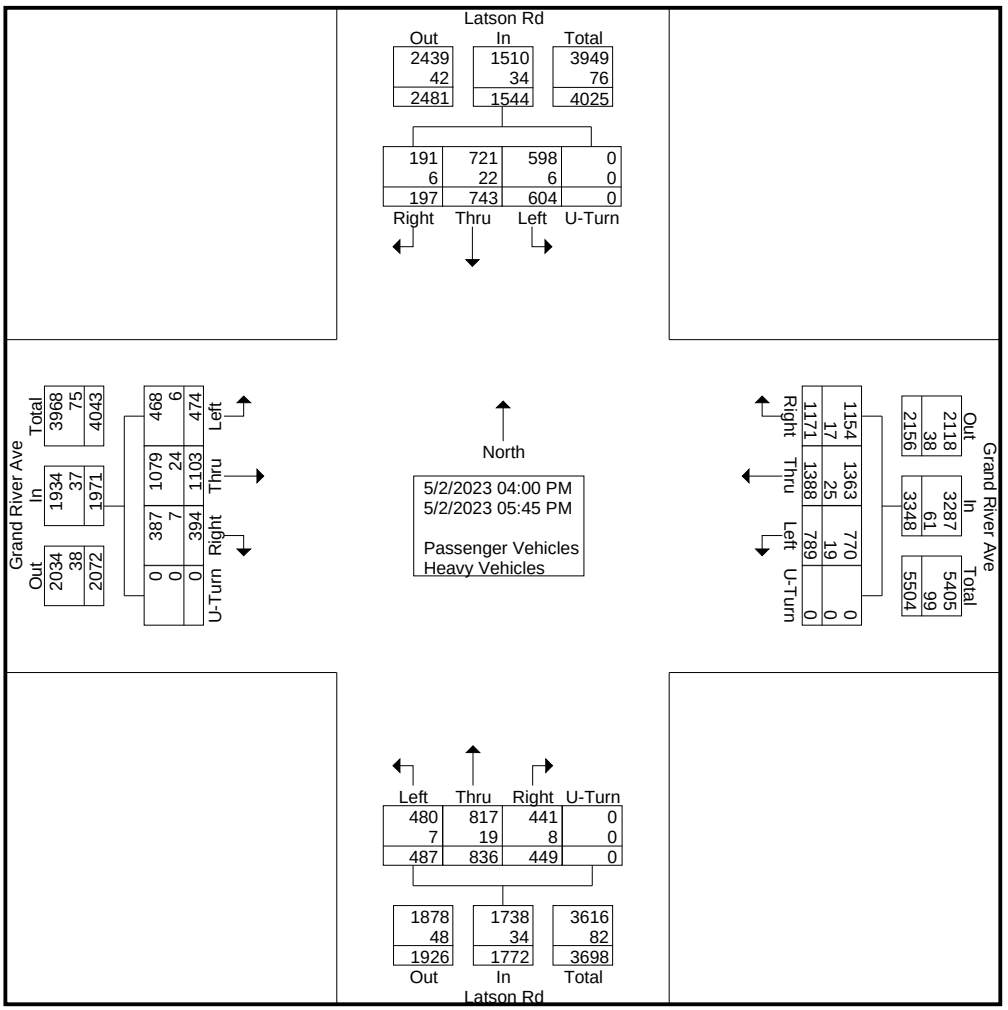


Quality Counts

File Name : 16184821 - Latson Rd -- Grand River Ave
Site Code : 16184821
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
04:00 PM	69	171	48	0	288	95	169	116	0	380	57	104	54	0	215	70	102	23	0	195	1078
04:15 PM	48	131	54	0	233	83	176	149	0	408	65	100	61	0	226	64	77	21	0	162	1029
04:30 PM	65	145	48	0	258	114	193	154	0	461	60	107	59	0	226	75	96	21	0	192	1137
04:45 PM	60	133	69	0	262	102	174	164	0	440	67	119	63	0	249	76	100	24	0	200	1151
Total	242	580	219	0	1041	394	712	583	0	1689	249	430	237	0	916	285	375	89	0	749	4395
05:00 PM	72	148	57	0	277	121	173	158	0	452	62	108	55	0	225	84	107	24	0	215	1169
05:15 PM	61	136	39	0	236	96	184	164	0	444	59	100	63	0	222	70	93	33	0	196	1098
05:30 PM	54	116	34	0	204	96	156	138	0	390	63	113	44	0	220	73	86	30	0	189	1003
05:45 PM	45	123	45	0	213	82	163	128	0	373	54	85	50	0	189	92	82	21	0	195	970
Total	232	523	175	0	930	395	676	588	0	1659	238	406	212	0	856	319	368	108	0	795	4240
Grand Total	474	1103	394	0	1971	789	1388	1171	0	3348	487	836	449	0	1772	604	743	197	0	1544	8635
Apprch %	24	56	20	0		23.6	41.5	35	0		27.5	47.2	25.3	0		39.1	48.1	12.8	0		
Total %	5.5	12.8	4.6	0	22.8	9.1	16.1	13.6	0	38.8	5.6	9.7	5.2	0	20.5	7	8.6	2.3	0	17.9	
Passenger Vehicles	468	1079	387	0	1934	770	1363	1154	0	3287	480	817	441	0	1738	598	721	191	0	1510	8469
% Passenger Vehicles	98.7	97.8	98.2	0	98.1	97.6	98.2	98.5	0	98.2	98.6	97.7	98.2	0	98.1	99	97	97	0	97.8	98.1
Heavy Vehicles	6	24	7	0	37	19	25	17	0	61	7	19	8	0	34	6	22	6	0	34	166
% Heavy Vehicles	1.3	2.2	1.8	0	1.9	2.4	1.8	1.5	0	1.8	1.4	2.3	1.8	0	1.9	1	3	3	0	2.2	1.9

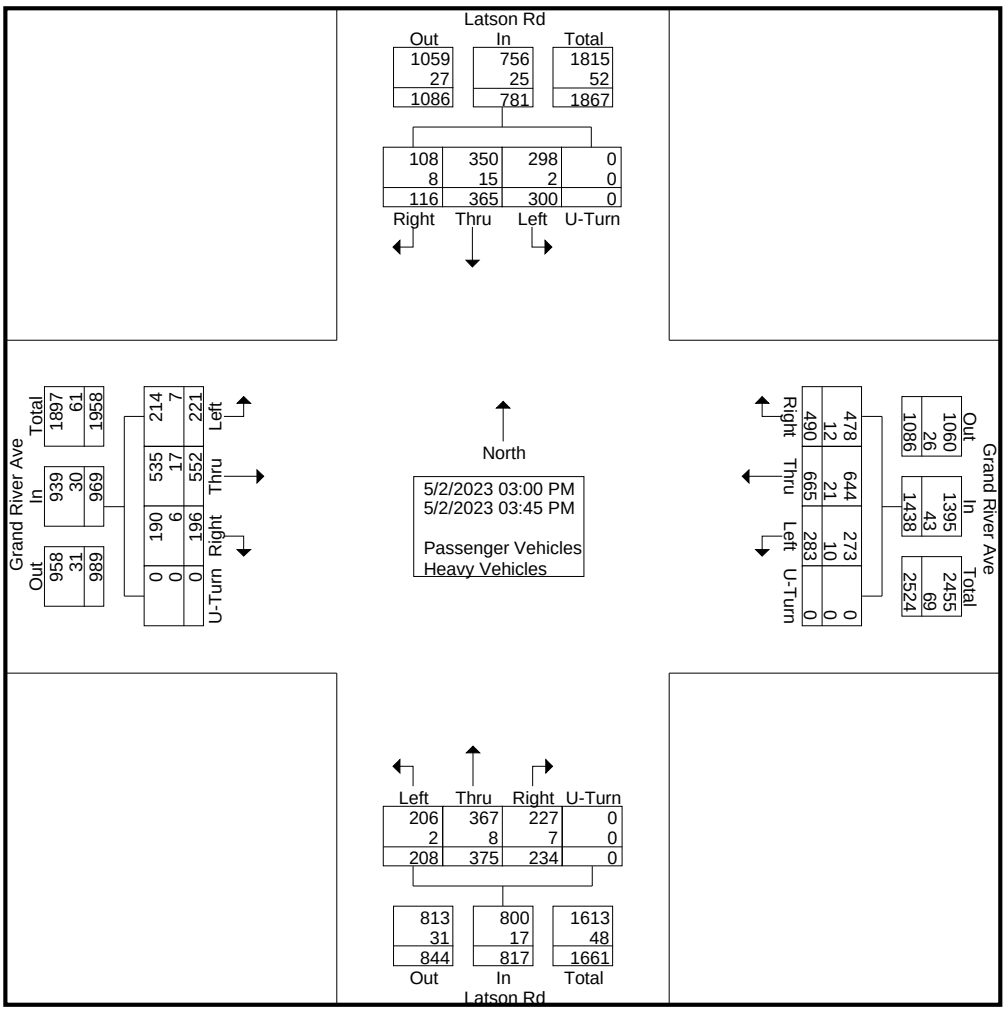


Quality Counts

File Name : 16184820 - Latson Rd -- Grand River Ave
Site Code : 16184820
Start Date : 5/2/2023
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

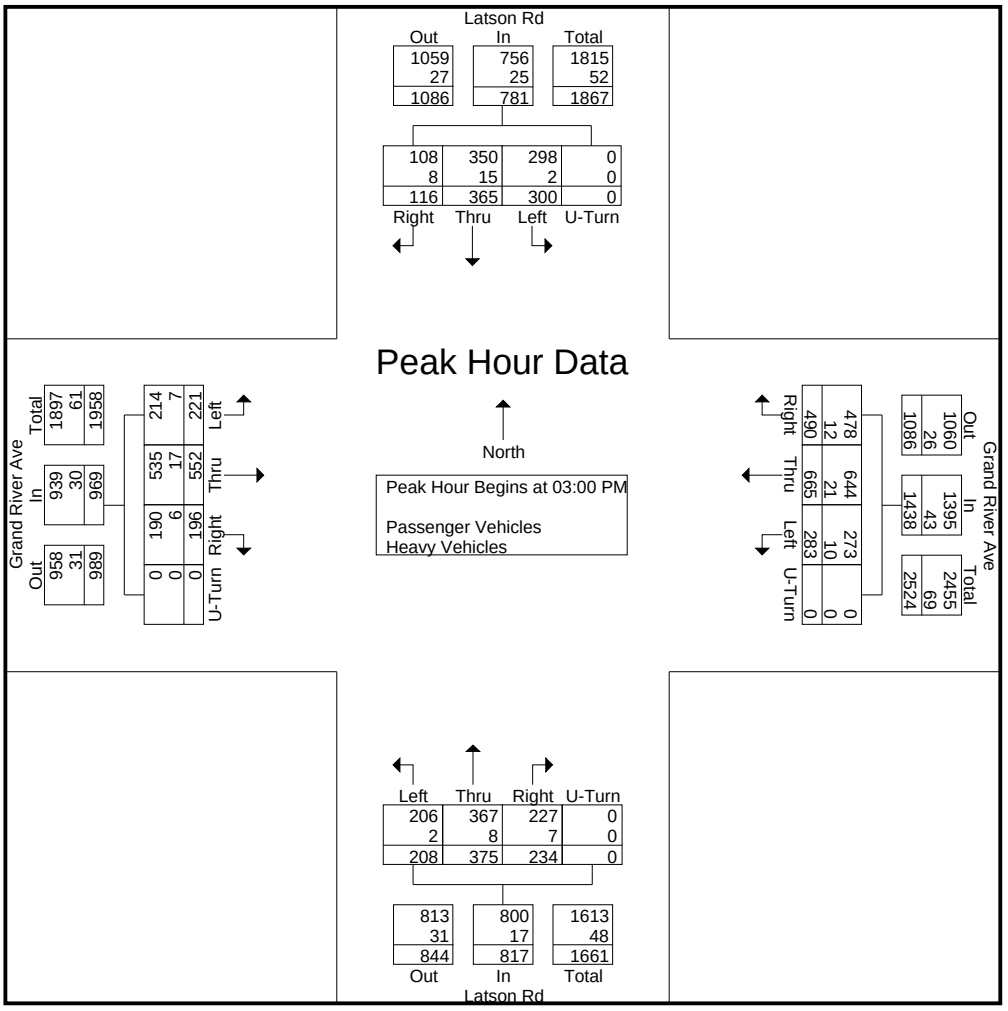
	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	58	126	44	0	228	63	143	103	0	309	49	80	58	0	187	68	93	39	0	200	924
03:15 PM	51	138	51	0	240	63	172	133	0	368	51	87	56	0	194	59	84	28	0	171	973
03:30 PM	65	136	44	0	245	73	171	134	0	378	46	97	53	0	196	89	90	21	0	200	1019
03:45 PM	47	152	57	0	256	84	179	120	0	383	62	111	67	0	240	84	98	28	0	210	1089
Total	221	552	196	0	969	283	665	490	0	1438	208	375	234	0	817	300	365	116	0	781	4005
Grand Total	221	552	196	0	969	283	665	490	0	1438	208	375	234	0	817	300	365	116	0	781	4005
Apprch %	22.8	57	20.2	0		19.7	46.2	34.1	0		25.5	45.9	28.6	0		38.4	46.7	14.9	0		
Total %	5.5	13.8	4.9	0	24.2	7.1	16.6	12.2	0	35.9	5.2	9.4	5.8	0	20.4	7.5	9.1	2.9	0	19.5	
Passenger Vehicles	214	535	190	0	939	273	644	478	0	1395	206	367	227	0	800	298	350	108	0	756	3890
% Passenger Vehicles	96.8	96.9	96.9	0	96.9	96.5	96.8	97.6	0	97	99	97.9	97	0	97.9	99.3	95.9	93.1	0	96.8	97.1
Heavy Vehicles	7	17	6	0	30	10	21	12	0	43	2	8	7	0	17	2	15	8	0	25	115
% Heavy Vehicles	3.2	3.1	3.1	0	3.1	3.5	3.2	2.4	0	3	1	2.1	3	0	2.1	0.7	4.1	6.9	0	3.2	2.9



Quality Counts

File Name : 16184820 - Latson Rd -- Grand River Ave
Site Code : 16184820
Start Date : 5/2/2023
Page No : 2

	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	58	126	44	0	228	63	143	103	0	309	49	80	58	0	187	68	93	**39**	0	200	924
03:15 PM	51	138	51	0	240	63	172	133	0	368	51	87	56	0	194	59	84	28	0	171	973
03:30 PM	**65**	136	44	0	245	73	171	**134**	0	378	46	97	53	0	196	**89**	90	21	0	200	1019
03:45 PM	47	**152**	**57**	0	**256**	**84**	**179**	120	0	**383**	**62**	**111**	**67**	0	**240**	84	**98**	28	0	**210**	**1089**
Total Volume	221	552	196	0	969	283	665	490	0	1438	208	375	234	0	817	300	365	116	0	781	4005
% App. Total	22.8	57	20.2	0		19.7	46.2	34.1	0		25.5	45.9	28.6	0		38.4	46.7	14.9	0		
PHF	.850	.908	.860	.000	.946	.842	.929	.914	.000	.939	.839	.845	.873	.000	.851	.843	.931	.744	.000	.930	.919
Passenger Vehicles	214	535	190	0	939	273	644	478	0	1395	206	367	227	0	800	298	350	108	0	756	3890
% Passenger Vehicles	96.8	96.9	96.9	0	96.9	96.5	96.8	97.6	0	97.0	99.0	97.9	97.0	0	97.9	99.3	95.9	93.1	0	96.8	97.1
Heavy Vehicles	7	17	6	0	30	10	21	12	0	43	2	8	7	0	17	2	15	8	0	25	115
% Heavy Vehicles	3.2	3.1	3.1	0	3.1	3.5	3.2	2.4	0	3.0	1.0	2.1	3.0	0	2.1	0.7	4.1	6.9	0	3.2	2.9

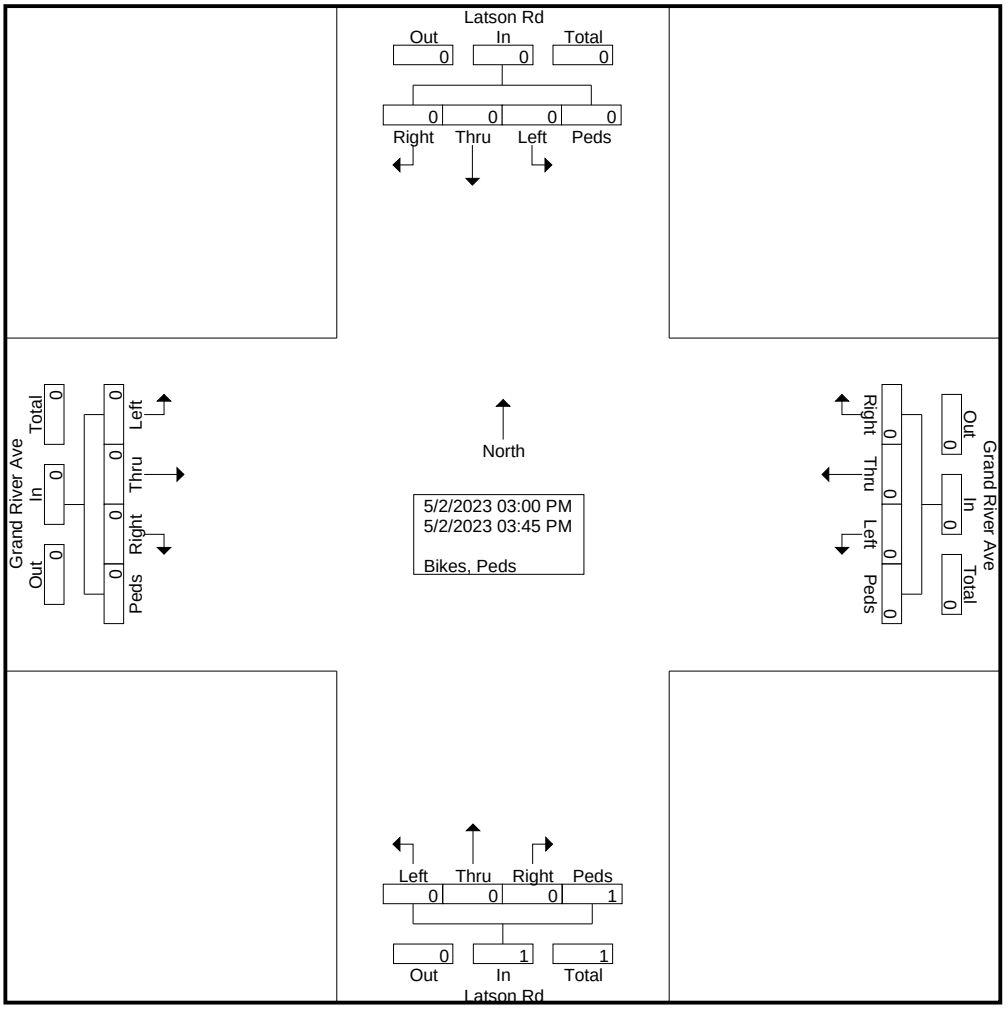


Quality Counts

File Name : 16184820 - Latson Rd -- Grand River Ave
Site Code : 16184820
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

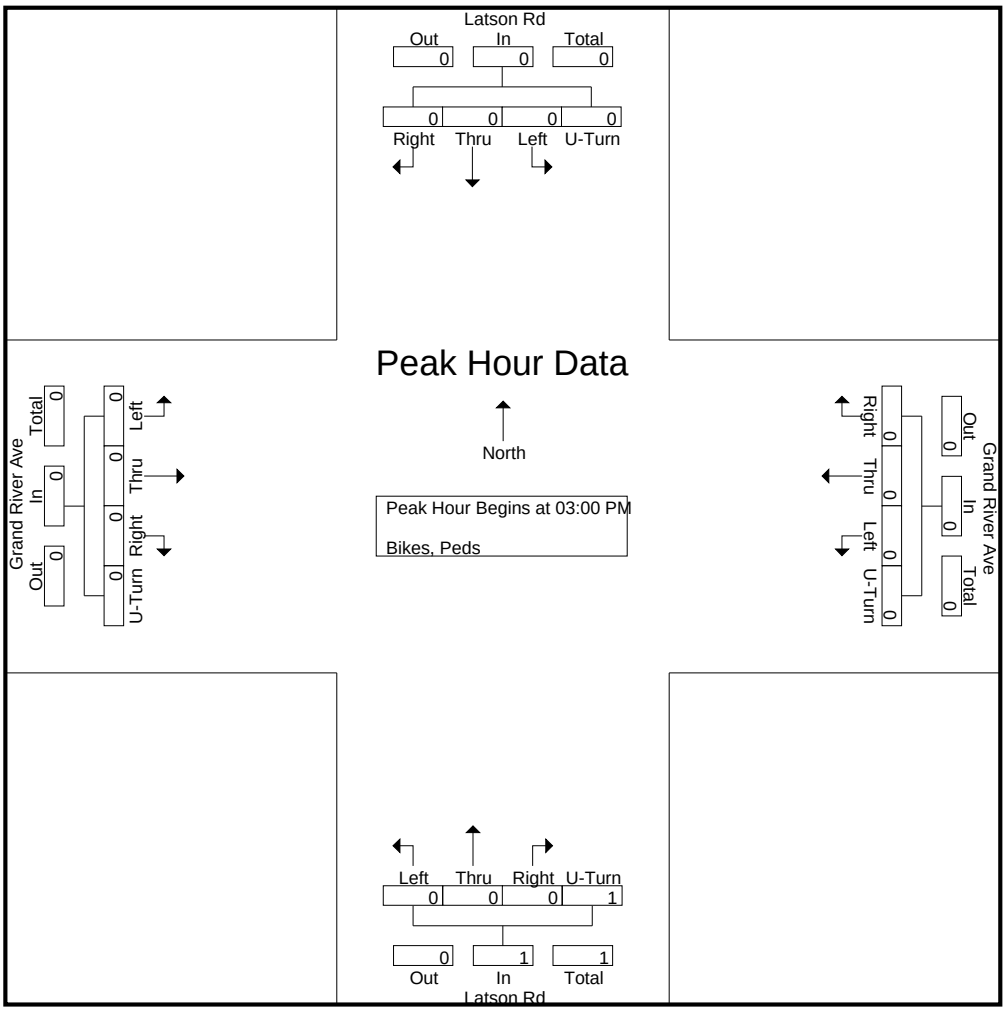
	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Apprch %	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	



Quality Counts

File Name : 16184820 - Latson Rd -- Grand River Ave
Site Code : 16184820
Start Date : 5/2/2023
Page No : 2

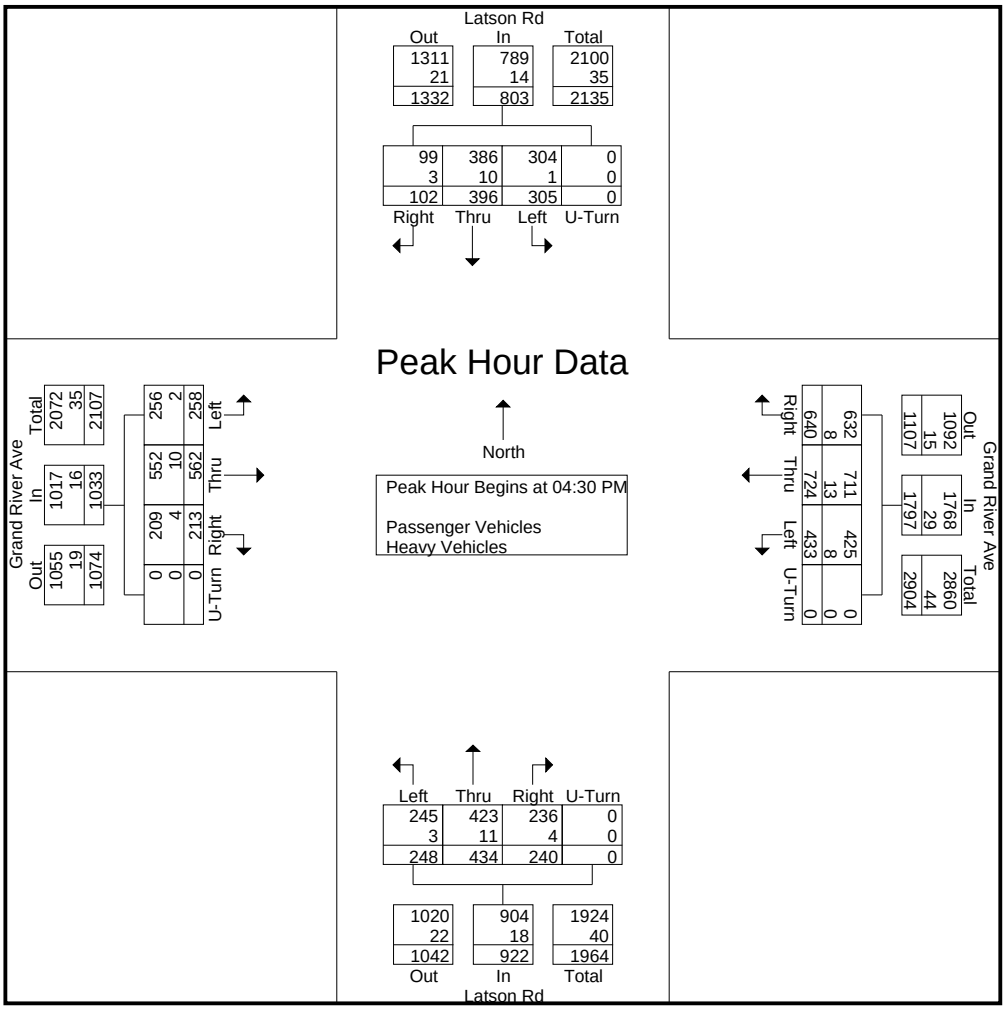
	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 03:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250



Quality Counts

File Name : 16184821 - Latson Rd -- Grand River Ave
Site Code : 16184821
Start Date : 5/2/2023
Page No : 2

	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	65	145	48	0	258	114	**193**	154	0	**461**	60	107	59	0	226	75	96	21	0	192	1137
04:45 PM	60	133	**69**	0	262	102	174	**164**	0	440	**67**	**119**	**63**	0	**249**	76	100	24	0	200	1151
05:00 PM	**72**	**148**	57	0	**277**	**121**	173	158	0	452	62	108	55	0	225	**84**	**107**	24	0	**215**	**1169**
05:15 PM	61	136	39	0	236	96	184	164	0	444	59	100	63	0	222	70	93	**33**	0	196	1098
Total Volume	258	562	213	0	1033	433	724	640	0	1797	248	434	240	0	922	305	396	102	0	803	4555
% App. Total	25	54.4	20.6	0		24.1	40.3	35.6	0		26.9	47.1	26	0		38	49.3	12.7	0		
PHF	.896	.949	.772	.000	.932	.895	.938	.976	.000	.975	.925	.912	.952	.000	.926	.908	.925	.773	.000	.934	.974
Passenger Vehicles	256	552	209	0	1017	425	711	632	0	1768	245	423	236	0	904	304	386	99	0	789	4478
% Passenger Vehicles	99.2	98.2	98.1	0	98.5	98.2	98.2	98.8	0	98.4	98.8	97.5	98.3	0	98.0	99.7	97.5	97.1	0	98.3	98.3
Heavy Vehicles	2	10	4	0	16	8	13	8	0	29	3	11	4	0	18	1	10	3	0	14	77
% Heavy Vehicles	0.8	1.8	1.9	0	1.5	1.8	1.8	1.3	0	1.6	1.2	2.5	1.7	0	2.0	0.3	2.5	2.9	0	1.7	1.7

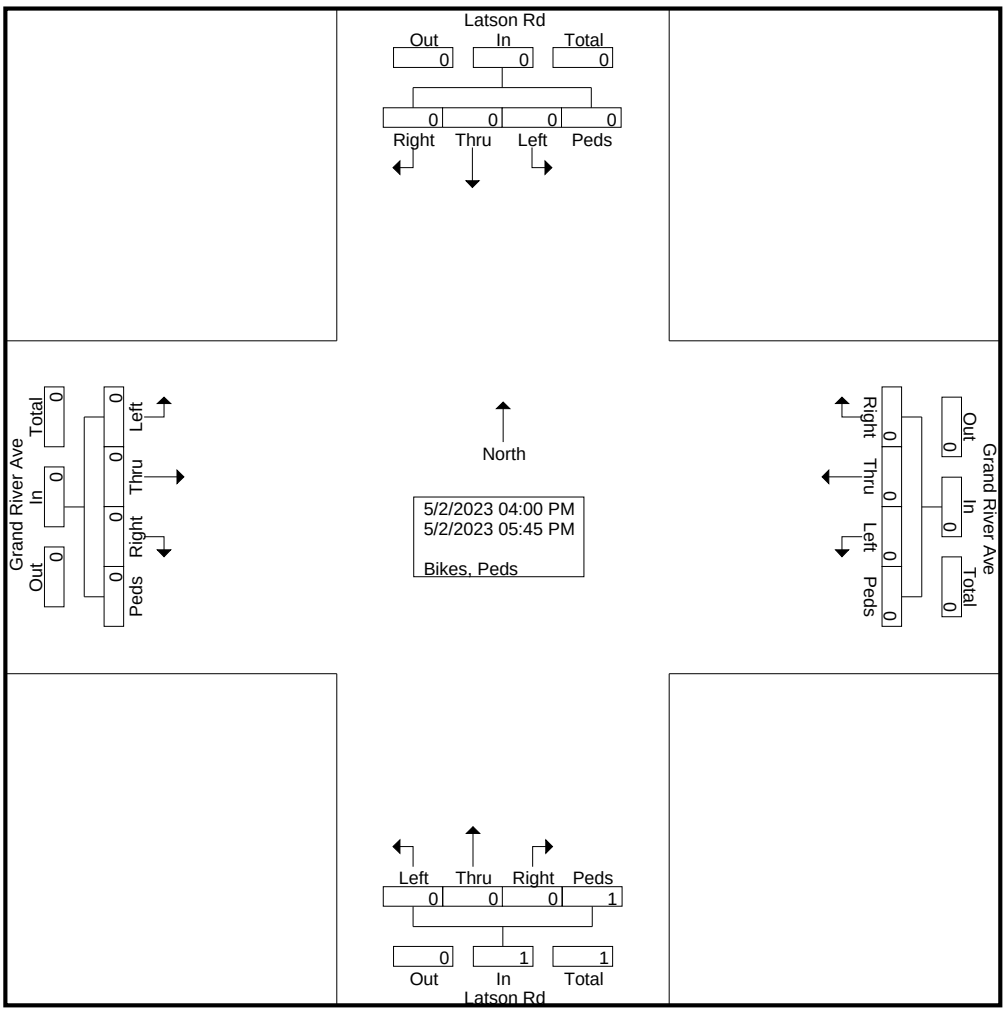


Quality Counts

File Name : 16184821 - Latson Rd -- Grand River Ave
Site Code : 16184821
Start Date : 5/2/2023
Page No : 1

Groups Printed- Bikes, Peds

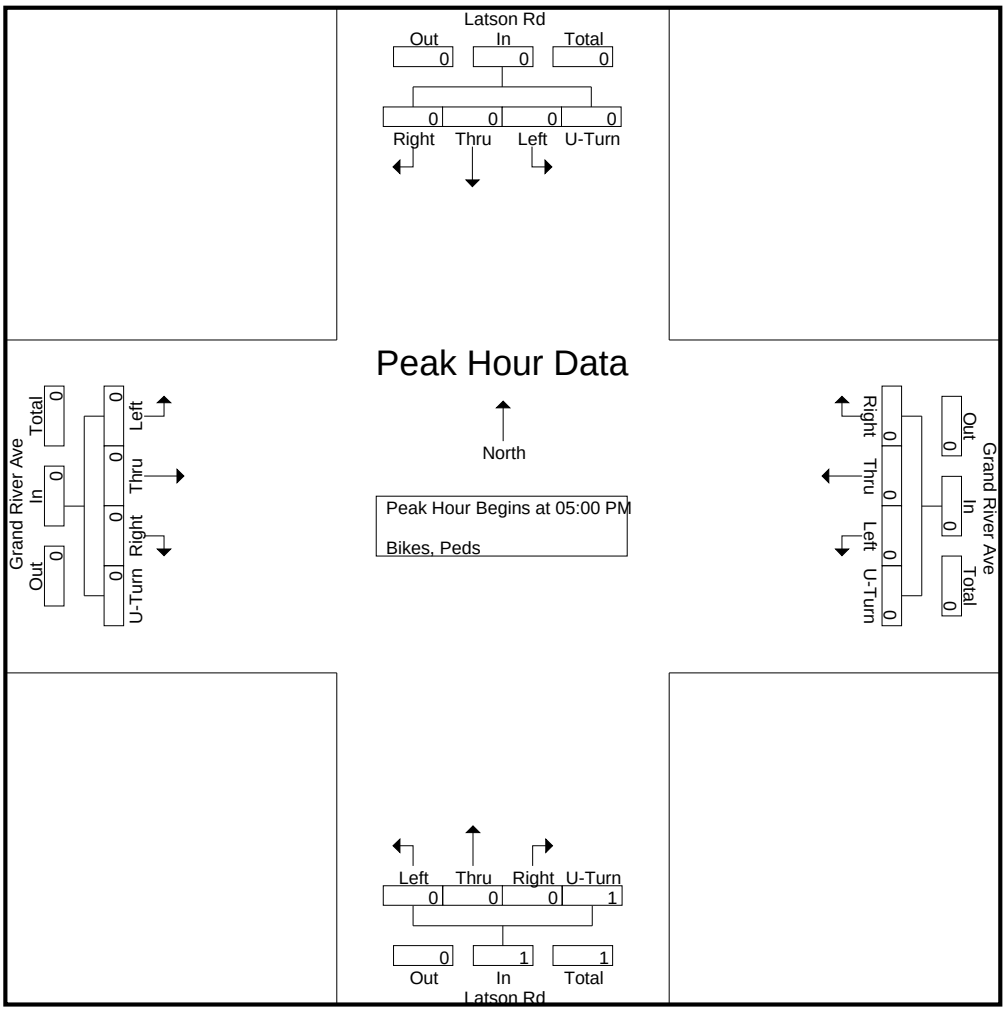
	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
Apprch %	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	



Quality Counts

File Name : 16184821 - Latson Rd -- Grand River Ave
Site Code : 16184821
Start Date : 5/2/2023
Page No : 2

	Grand River Ave Eastbound					Grand River Ave Westbound					Latson Rd Northbound					Latson Rd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.250



Michigan Department of Transportation

Transportation Data Management System

Volume Count Report

LOCATION INFO	
Location ID	47-8219_EB
Type	SPOT
Fnct'l Class	1
Located On	I-96
Direction	EB
County	Livingston
Community	Genoa Twp - Livingston
MPO ID	36594
HPMS ID	1_1_93_041
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Tue 5/2/2023
End Date	Wed 5/3/2023
Start Time	12:00:00 AM
End Time	12:00:00 AM
Direction	EB
Notes	
Station	HPR#4919 EE27836
Study	
Speed Limit	
Description	
Sensor Type	ATR Class
Source	CombineVolumeCountsIncremental
Latitude,Longitude	

INTERVAL:60-MIN	
Time	Hourly Count
0:00-1:00	186
1:00-2:00	152
2:00-3:00	167
3:00-4:00	299
4:00-5:00	820
5:00-6:00	1,898
6:00-7:00	3,278
7:00-8:00	3,330
8:00-9:00	3,029
9:00-10:00	2,384
10:00-11:00	2,269
11:00-12:00	2,097
12:00-13:00	2,258
13:00-14:00	2,168
14:00-15:00	2,483
15:00-16:00	2,651
16:00-17:00	2,817
17:00-18:00	2,732
18:00-19:00	1,930
19:00-20:00	1,381
20:00-21:00	1,089
21:00-22:00	879
22:00-23:00	583
23:00-24:00	416
Total	41,296
AM Peak	07:00-08:00 3,330
PM Peak	16:00-17:00 2,817

Michigan Department of Transportation

Transportation Data Management System

Volume Count Report

LOCATION INFO	
Location ID	47-8219_WB
Type	SPOT
Fnct'l Class	1
Located On	I-96
Direction	WB
County	Livingston
Community	Genoa Twp - Livingston
MPO ID	36595
HPMS ID	1_1_93_041
Agency	MDOT

COUNT DATA INFO	
Count Status	Accepted
Holiday	No
Start Date	Tue 5/2/2023
End Date	Wed 5/3/2023
Start Time	12:00:00 AM
End Time	12:00:00 AM
Direction	WB
Notes	
Station	HPR#4919 EE27836
Study	
Speed Limit	
Description	
Sensor Type	ATR Class
Source	CombineVolumeCountsIncremental
Latitude,Longitude	

INTERVAL:60-MIN	
Time	Hourly Count
0:00-1:00	288
1:00-2:00	200
2:00-3:00	182
3:00-4:00	235
4:00-5:00	309
5:00-6:00	564
6:00-7:00	1,241
7:00-8:00	2,074
8:00-9:00	2,110
9:00-10:00	1,818
10:00-11:00	1,832
11:00-12:00	1,958
12:00-13:00	2,096
13:00-14:00	2,127
14:00-15:00	2,614
15:00-16:00	3,128
16:00-17:00	3,476
17:00-18:00	3,381
18:00-19:00	2,539
19:00-20:00	1,615
20:00-21:00	1,311
21:00-22:00	962
22:00-23:00	697
23:00-24:00	488
Total	37,245
AM Peak	08:00-09:00 2,110
PM Peak	16:00-17:00 3,476

Crash and Road Data

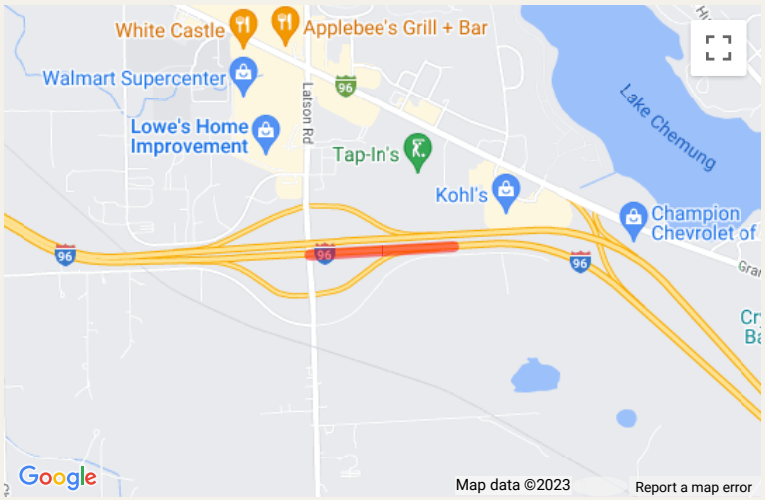
Road Segment Report

E I 96, (PR Number 935105)

From:	Latson Rd S 15.532 BMP
To:	Nixon/E I 96 Ramp 15.985 EMP
Jurisdiction:	State
FALINK ID:	5409
Community:	Genoa Township
County:	Livingston
Functional Class:	1 - Interstate Freeway
Direction:	1 Way
Length:	0.453 miles
Number of Lanes:	2
Posted Speed:	70 (source: TCO)
Route Classification:	Not a route
Annual Crash Average 2017-2021:	5
Traffic Volume (2016)*:	26,000 (Observed AADT)
Pavement Type (2021):	Concrete
Pavement Rating (2021):	Fair
Short Range (TIP) Projects:	No TIP projects for this segment.
Long Range (RTP) Projects:	No long-range projects for this segment.

* AADT values are derived from **Traffic Counts**

Street View



Crash and Road Data

Road Segment Report

W I 96, (PR Number 935207)

From:	Latson/W I 96 Ramp 15.213 BMP
To:	Latson Rd S 15.544 EMP
Jurisdiction:	State
FALINK ID:	5457
Community:	Genoa Township
County:	Livingston
Functional Class:	1 - Interstate Freeway
Direction:	1 Way
Length:	0.331 miles
Number of Lanes:	3
Posted Speed:	70 (source: COG)
Route Classification:	Not a route
Annual Crash Average 2017-2021:	4
Traffic Volume (2018)*:	30,000 (Interpolated AADT)
Pavement Type (2021):	Concrete
Pavement Rating (2021):	Fair
Short Range (TIP) Projects:	No TIP projects for this segment.
Long Range (RTP) Projects:	No long-range projects for this segment.

* AADT values are derived from **Traffic Counts**

Street View

Crash and Road Data

Road Segment Report

Grand River Rd E, (PR Number 932910)

From:	Latson Rd S 15.692 BMP
To:	Grand River/E I 96 Ramp 16.572 EMP
Jurisdiction:	State
FALINK ID:	5218
Community:	Genoa Township
County:	Livingston
Functional Class:	3 - Other Principal Arterial
Direction:	2 Way
Length:	0.880 miles
Number of Lanes:	5
Posted Speed:	55 (source: TCO)
Route Classification:	Not a route
Annual Crash Average 2017-2021:	23
Traffic Volume (2021)*:	30,500 (Observed AADT)
Pavement Type (2021):	Asphalt
Pavement Rating (2021):	Fair
Short Range (TIP) Projects:	No TIP projects for this segment.
Long Range (RTP) Projects:	No long-range projects for this segment.

* AADT values are derived from **Traffic Counts**

Street View

Crash and Road Data

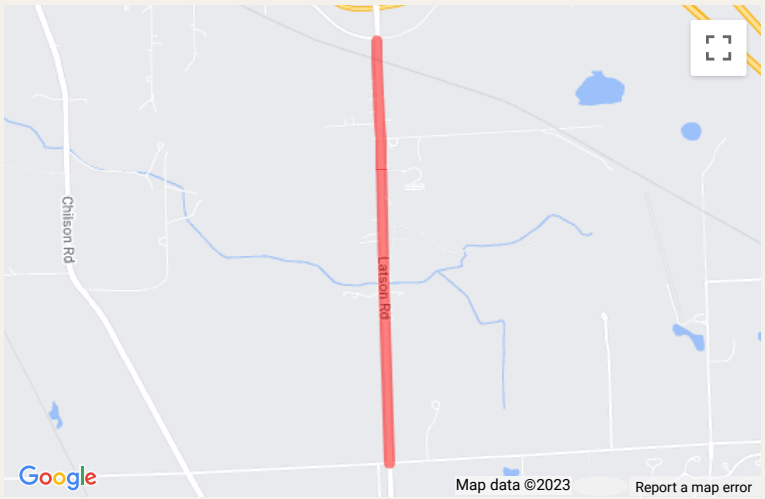
Road Segment Report

Latson Rd S, (PR Number 940302)

From:	Crooked Lake Rd 1.041 BMP
To:	Latson Rd S 2.356 EMP
Jurisdiction:	County
FALINK ID:	5582
Community:	Genoa Township
County:	Livingston
Functional Class:	4 - Minor Arterial
Direction:	1 Way
Length:	1.315 miles
Number of Lanes:	2
Posted Speed:	0 (source:)
Route Classification:	Not a route
Annual Crash Average 2017-2021:	8
Traffic Volume (2021)*:	9,400 (Observed AADT)
Pavement Type (2021):	Asphalt
Pavement Rating (2021):	Fair
Short Range (TIP) Projects:	No TIP projects for this segment.
Long Range (RTP) Projects:	No long-range projects for this segment.

* AADT values are derived from **Traffic Counts**

Street View



Crash and Road Data

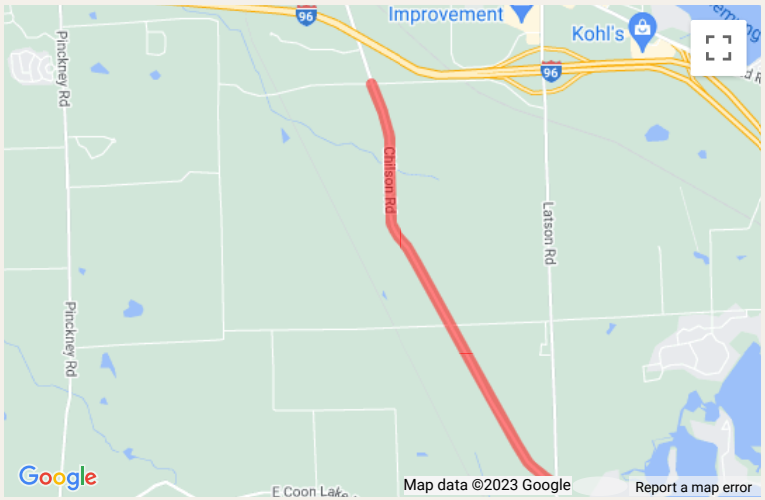
Road Segment Report

Chilson Rd, (PR Number 933603)

From:	Latson Rd S 0.307 BMP
To:	Chilson Rd 3.140 EMP
Jurisdiction:	County
FALINK ID:	5305
Community:	Genoa Township
County:	Livingston
Functional Class:	5 - Major Collector
Direction:	1 Way
Length:	2.833 miles
Number of Lanes:	2
Posted Speed:	55 (source: TCO)
Route Classification:	Not a route
Annual Crash Average 2017-2021:	11
Traffic Volume (2021)*:	2,800 (Observed AADT)
Pavement Type (2021):	Asphalt
Pavement Rating (2021):	Good
Short Range (TIP) Projects:	No TIP projects for this segment.
Long Range (RTP) Projects:	No long-range projects for this segment.

* AADT values are derived from **Traffic Counts**

Street View



Crash and Road Data

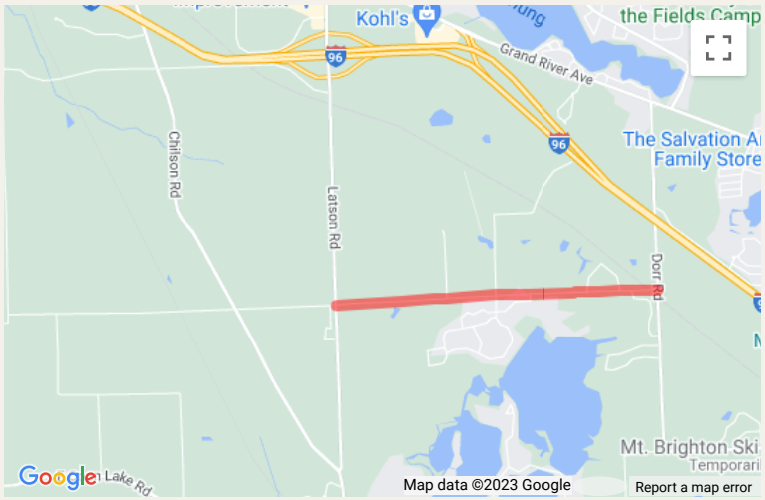
Road Segment Report

Crooked Lake Rd, (PR Number 940406)

From:	Latson Rd S 2.050 BMP
To:	Dorr Rd 4.067 EMP
Jurisdiction:	County
FALINK ID:	5590
Community:	Genoa Township
County:	Livingston
Functional Class:	6 - Minor Collector
Direction:	1 Way
Length:	2.017 miles
Number of Lanes:	2
Posted Speed:	0 (source:)
Route Classification:	Not a route
Annual Crash Average 2017-2021:	4
Traffic Volume (2019)*:	2,400 (Observed AADT)
Pavement Type (2021):	Asphalt
Pavement Rating (2021):	Poor
Short Range (TIP) Projects:	No TIP projects for this segment.
Long Range (RTP) Projects:	No long-range projects for this segment.

* AADT values are derived from **Traffic Counts**

Street View



TRAFFIC SIGNAL TIMING PERMIT

	PHASE	1	2	3	4	5	6	7	8			
APPROACH		EB Left	NB & SB	NB Left	EB	WB Left	EB	SB Left	NB			
MINIMUM GREEN		5	10	5	7	5	10	5	11			
PASSAGE		3	0.0	5	3.0	3	0	5	8			
MAXIMUM NO. 1		30	50	30	40	30	40	30	20			
MAXIMUM NO. 2		7	0	7	0	7	20	7	15			
YELLOW CHANGE		5.1	4.7	4.7	3.5	5.1	5.1	4.7	4.7			
RED CLEARANCE		2.5	1.5	2.4	3.2	2.5	2.5	2.4	2.4			
WALK		0	7	0	0	0	10	0	11			
PEDESTRIAN CLEARANCE		0	23	0	0	0	30	0	33			
EXTENDED PED. CLEARANCE		0	0	0	0	0	0	0	0			
REST IN WALK		0	0	0	0	0	0	0	0			
INITIALIZATION		1	4	1	1	1	4	1	1			
NON-ACT RESPONSE		0	0	0	0	0	0	0	0			
VEHICLE RECALL		0	3	0	0	0	3	0	0			
PEDESTRIAN RECALL		0	2	0	0	0	0	0	0			
NON-LOCK MEMORY		0	0	0	0	0	0	0	0			
DUAL ENTRY		0	0	0	0	0	0	0	1			
	CYCLE									O1	O2	O3
DIAL 1 SPLIT 1	80	15	48	17	32	15	38	17	20	8		
DIAL 2 SPLIT 1	90	14	28	28	20	14	28	28	20	7		
DIAL 3 SPLIT 1	90	20	29	16	25	20	29	16	25	16		
DIAL 4 SPLIT 1	180	23	120	17	20	23	120	17	20	16		
DIAL SPLIT												
DIAL SPLIT												
	MODE	0	1	0	0	0	1	0	0			

PHASE

1 EB BL-96 (Grand River Avenue) Left

2 LATSON ROAD

3 NB Latson Road Left

4 I-96 EASTBOUND EXIT RAMP

5 WB BL-96 (Grand River Avenue) Left

6 EB (Grand River Avenue) Thru

7 SB Latson Road Left

8 NB Latson Road Thru

D1/S1/O1: Normal
D2/S1/O1: AM Peak (07:00 - 09:00) Monday - Friday
D3/S1/O1: PM Peak (14:00 - 19:00) Monday - Friday
D4/S1/O1: Special Event (19:00 - 00:01) - Eastbound Favored
Max 2: Night Dial (00:01 - 04:00) Monday - THursday

The Disappearing Legend Case Sign facing EACH direction is illuminated when the OPPOSING LEFT-TURN PHASE is operational.

OVERLAPS

Overlap Phase	*Load Bays*	*Phases Overlapped*	T.G. (s)	Y (s)	R (s)	-G/Y	+GRN
A = EB BL-96 (Grand River) RTGA		3	0	4.7	2.4		
B = NB Latson Road RTGA		5	0	5.1	2.5		
C = WB BL-96 (Grand River) RTGA		7	0	4.7	2.4		
D = SB Latson Road RTGA		1	0	5.1	2.5		

TIMING INSTALLED 01/29/14

REMARKS

10/17/2022 - Changed to all red conflict flash.

03/07/19 - Run Max 2 instead of night flash (Due to Dual Lefts)

03/16/18 - Revised ped times per field measurements.

16-Load-Switch, Mod 50, Base-Mounted, Epac Type Controller.

The Minimum Green Times and Passage Times have been revised in relation to Phases # 4 and # 8.

PREPARED BY: HHH DATE: 01/27/14

FLASH HOURS: DAILY ☐ NONE ☒

to

NIGHT FLASH:

FY = None FR = None

CONFLICT FLASH:

FY = LATSON ROAD FR = I-96 EB EXIT RAMP

CONTROLLER TYPE:
☒ EPAC
☐ Other:

PRE-EMPT ☐
COUNTDOWN PEDS ☒

LOCATION:
I-96 EB EXIT RAMP AT LATSON ROAD
CITY/TWP: GENOA TOWNSHIP
COUNTY : LIVINGSTON

MILE POINT	CONTROL SECTION-SPOT #
6.81	47065-01-107

Job # (If Applicable):

CLEAR PAGE 1

CLEAR ALL

Page 3 included only if Pre-Empt Checked

ADVANCED TIMING PARAMETERS FORM

SYSTEM INFORMATION

Controller Type:
- [X] EPAC
- [ ] Other:

System Type:
- [ ] Closed Loop
  - [ ] Stand By
  - [ ] Group 1
  - [ ] Group 2
  - Address:
- [ ] TBC
- [X] TBC/GPS
- [ ] None
- [ ] Other:

If TBC, Synch by:
- [X] TOD
- [ ] Event

Interconnect Type:
- [ ] Hardwire
- [ ] Fiber-Optic
- [ ] Radio
- [ ] Phone Drop
- [ ] None
- [X] Other: GPS CLOCK

If Phone Drop, Phone # 517-548-1512

Controller Status:
- [ ] Master
- [ ] Slave
- [ ] Isolated
- [X] TBC

If Slave, Master Location: BL-96 (G.R.) at Byron

Master Spot # : 47061-01-011

LEFT-TURN PHASING

Phase # / Description	*Permissive-Protected* Lead	*Permissive-Protected* Lag	*Protected-Only* Split	*Protected-Only* Lead	*Protected-Only* Lag
Phase # 1 / EB BL-96 (Grand River) Lefts	☐	☐	☐	☐	☐
Phase # 3 / NB Latson Road Lefts	☐	☐	☐	☐	☐
Phase # 5 / WB BL-96 (Grand River) Lefts	☐	☐	☐	☐	☐
Phase # 7 / SB Latson Road Lefts	☐	☐	☐	☐	☐

RING AND BARRIER STRUCTURE

	B1				B2				B3				B4			
R1	1	2			3	4										
R2	5	6			7	8										
R3																
R4																

VEHICULAR AND PEDESTRIAN DETECTION

Approach	Left		Thru		Right	Call Delay (s)	Loop	Video	Other	Push-Button Crossing Locations
I-96 EB EXIT RAMP	☒		☐		☒	10	☐	☐	☒	Crossing S leg of Latson Road
WB BL-96 (Grand River)	☐		☐		☐	10	☐	☐	☐	Crossing N leg of Latson Road
NB Latson Road	☐		☐		☐	10	☐	☐	☐	Crossing E leg of Grand River
SB Latson Road	☐		☐		☐	10	☐	☐	☐	Crossing W leg of Grand River
	☐		☐		☐		☐	☐	☐	
	☐		☐		☐		☐	☐	☐	

(Vehicular Detection: Movements and Call Delay (s); Type. Pedestrian Detection.)

DISAPPEARING LEGEND CASE SIGNS

"NO TURN ON RED" facing ALL directions.

The Disappearing Legend Case Sign facing EACH direction is illuminated when the OPPOSING LEFT-TURN PHASE is operational.

ADDITIONAL DIAL SPLIT DATA

		PHASE	1	2	3	4	5	6	7	8	O1	O2	O3
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											

COORDINATION DATA

Operation Mode	1
Coordination Mode	0
Maximum Mode	0
Correction Mode	3
Offset Mode	0
Force Mode	0
Max Dwell	0
Yield Period	0

REMARKS:

THIS SUBJECT INTERSECTION IS INCORPORATED WITHIN A CLOSED-LOOP SYSTEM AND IS EQUIPPED WITH RADIO INTERCONNECT.

THE MASTER CONTROLLER IS LOCATED AT THE SUBJECT INTERSECTION OF BL-96 (GRAND RIVER AVENUE) AT BYRON ROAD (47061-01-011).

Equipped with CONVENTIONAL loops in ALL approach lanes EXCEPT the BL-96 (Grand River Avenue) THRU approach lanes. The Correction Mode has been revised.

ADDITIONAL OVERLAP DATA

Overlap Phase	*Load Bays*	*Phases Overlapped*	T.G. (s)	Y (s)	R (s)	-G/Y	+GRN
=							
=							
=							
=							

PREPARED BY: HHH DATE: 01/27/14

☒ MDOT ☐ County ☐ City ☐ Consultant

LOCATION: I-96 EB EXIT RAMP AT LATSON ROAD

CONTROL SECTION-SPOT # 47065-01-107

CLEAR PAGE 2

TRAFFIC SIGNAL TIMING PERMIT

	PHASE	1	2	3	4	5	6	7	8			
APPROACH		EB Left	WB	NB Left	SB	WB Left	EB	SB Left	NB			
MINIMUM GREEN		5	10	5	11	5	10	5	11			
PASSAGE		3.0	0.0	5.0	8.0	3.0	0.0	5.0	8.0			
MAXIMUM NO. 1		30	40	30	20	30	40	30	20			
MAXIMUM NO. 2		7	20	7	15	7	20	7	15			
YELLOW CHANGE		5.1	5.1	4.7	4.7	5.1	5.1	4.7	4.7			
RED CLEARANCE		2.5	2.5	2.4	2.4	2.5	2.5	2.4	2.4			
WALK		0	10	0	11	0	10	0	11			
PEDESTRIAN CLEARANCE		0	30	0	33	0	30	0	33			
EXTENDED PED. CLEARANCE		0	0	0	0	0	0	0	0			
REST IN WALK		0	0	0	0	0	0	0	0			
INITIALIZATION		1	4	1	1	1	4	1	1			
NON-ACT RESPONSE		0	0	0	0	0	0	0	0			
VEHICLE RECALL		0	3	0	0	0	3	0	0			
PEDESTRIAN RECALL		0	0	0	0	0	0	0	0			
NON-LOCK MEMORY		0	0	0	0	0	0	0	0			
DUAL ENTRY		0	0	0	1	0	0	0	1			
	CYCLE									O1	O2	O3
DIAL 1 SPLIT 1	90	15	38	17	20	15	38	17	20	4		
DIAL 2 SPLIT 1	90	14	28	28	20	14	28	28	20	7		
DIAL 3 SPLIT 1	90	20	29	16	25	20	29	16	25	16		
DIAL 4 SPLIT 1	180	23	120	17	20	23	120	17	20	16		
DIAL SPLIT												
DIAL SPLIT												
	MODE	0	1	0	0	0	1	0	0			

PHASE

1 EB BL-96 (Grand River Avenue) Left

2 WB BL-96 (Grand River Avenue)Thru

3 NB Latson Road Left

4 SB Latson Road Thru

5 WB BL-96 (Grand River Avenue) Left

6 EB (Grand River Avenue) Thru

7 SB Latson Road Left

8 NB Latson Road Thru

D1/S1/O1: Normal
D2/S1/O1: AM Peak (07:00 - 09:00) Monday - Friday
D3/S1/O1: PM Peak (14:00 - 19:00) Monday - Friday
D4/S1/O1: Special Event (19:00 - 00:01) - Eastbound Favored
Max 2: Night Dial (00:01 - 04:00) Monday - THursday

The Disappearing Legend Case Sign facing EACH direction is illuminated when the OPPOSING LEFT-TURN PHASE is operational.

OVERLAPS

Overlap Phase	*Load Bays*	*Phases Overlapped*	T.G. (s)	Y (s)	R (s)	-G/Y	+GRN
A = EB BL-96 (Grand River) RTGA		3	0.0	4.7	2.4		
B = NB Latson Road RTGA		5	0.0	5.1	2.5		
C = WB BL-96 (Grand River) RTGA		7	0.0	4.7	2.4		
D = SB Latson Road RTGA		1	0.0	5.1	2.5		

TIMING INSTALLED 04/04/19

REMARKS

10/17/2022 - Changed to all red conflict flash.

03/07/19 - Run Max 2 instead of night flash (Due to Dual Lefts)

03/16/18 - Revised ped times per field measurements.

16-Load-Switch, Mod 50, Base-Mounted, Epac Type Controller.

The Minimum Green Times and Passage Times have been revised in relation to Phases # 4 and # 8.

PREPARED BY: HHH DATE: 01/27/14

FLASH HOURS: DAILY ☐ NONE ☒ to

NIGHT FLASH:
FY = None FR = None

CONFLICT FLASH:
FY = LATSON ROAD FR = All Phases

CONTROLLER TYPE:
☒ EPAC
☐ Other:

PRE-EMPT ☐
COUNTDOWN PEDS ☒

LOCATION:
I-96 EB EXIT RAMP AT LATSON ROAD
CITY/TWP: Genoa Township
COUNTY : Livingston

MILE POINT	CONTROL SECTION-SPOT #
3.17	47065-01-107

Job # (If Applicable):

CLEAR PAGE 1

CLEAR ALL

Page 3 included only if Pre-Empt Checked

ADVANCED TIMING PARAMETERS FORM

SYSTEM INFORMATION

Controller Type:
- ☒ EPAC
- ☐ Other:

System Type:
- ☒ Closed Loop
  - ☐ Stand By
  - ☐ Group 1
  - ☐ Group 2
  - Address:
- ☐ TBC
- ☒ TBC/GPS
- ☐ None
- ☐ Other:

If TBC, Synch by:
- ☒ TOD
- ☐ Event

Interconnect Type:
- ☐ Hardwire
- ☐ Fiber-Optic
- ☒ Radio
- ☐ Phone Drop
- ☐ None
- ☒ Other: GPS CLOCK

If Phone Drop, Phone # 517-548-1512

Controller Status:
- ☐ Master
- ☒ Slave
- ☐ Isolated
- ☒ TBC

If Slave, Master Location: BL-96 (G.R.) at Byron

Master Spot # : 47061-01-011

LEFT-TURN PHASING

Phase # / Description	*Permissive-Protected* Lead	*Permissive-Protected* Lag	*Protected-Only* Split	*Protected-Only* Lead	*Protected-Only* Lag
Phase # 1 / EB BL-96 (Grand River) Lefts	☐	☐	☐	☒	☐
Phase # 3 / NB Latson Road Lefts	☐	☐	☐	☒	☐
Phase # 5 / WB BL-96 (Grand River) Lefts	☐	☐	☐	☒	☐
Phase # 7 / SB Latson Road Lefts	☐	☐	☐	☒	☐

RING AND BARRIER STRUCTURE

	B1				B2				B3				B4			
R1	1	2			3	4										
R2	5	6			7	8										
R3																
R4																

VEHICULAR AND PEDESTRIAN DETECTION

Approach	*Vehicular Detection* Movements and Call Delay (s) Left		Thru		Right		Type Loop	Video	Other	*Pedestrian Detection* Push-Button Crossing Locations
EB BL-96 (Grand River)	☒		☐		☒	10	☒	☐	☒	Crossing S leg of Latson Road
WB BL-96 (Grand River)	☒		☐		☒	10	☒	☐	☐	Crossing N leg of Latson Road
NB Latson Road	☒		☒		☒	10	☒	☐	☐	Crossing E leg of Grand River
SB Latson Road	☒		☒		☒	10	☒	☐	☐	Crossing W leg of Grand River
	☐		☐		☐		☐	☐	☐	
	☐		☐		☐		☐	☐	☐	

DISAPPEARING LEGEND CASE SIGNS

"NO TURN ON RED" facing ALL directions.

The Disappearing Legend Case Sign facing EACH direction is illuminated when the OPPOSING LEFT-TURN PHASE is operational.

ADDITIONAL DIAL SPLIT DATA

		PHASE	1	2	3	4	5	6	7	8	O1	O2	O3
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											

COORDINATION DATA

Operation Mode	1
Coordination Mode	2
Maximum Mode	0
Correction Mode	2
Offset Mode	0
Force Mode	0
Max Dwell	0
Yield Period	0

REMARKS:

THIS SUBJECT INTERSECTION IS INCORPORATED WITHIN A CLOSED-LOOP SYSTEM AND IS EQUIPPED WITH RADIO INTERCONNECT.

THE MASTER CONTROLLER IS LOCATED AT THE SUBJECT INTERSECTION OF BL-96 (GRAND RIVER AVENUE) AT BYRON ROAD (47061-01-011).

Equipped with CONVENTIONAL loops in ALL approach lanes EXCEPT the BL-96 (Grand River Avenue) THRU approach lanes. The Correction Mode has been revised.

ADDITIONAL OVERLAP DATA

Overlap Phase	*Load Bays*	*Phases Overlapped*	T.G. (s)	Y (s)	R (s)	-G/Y	+GRN
=							
=							
=							
=							

PREPARED BY: HHH DATE: 01/27/14

☒ MDOT ☐ County ☐ City ☐ Consultant

LOCATION: I-96 EB EXIT RAMP AT LATSON ROAD

CONTROL SECTION-SPOT # 47065-01-107

CLEAR PAGE 2

PREEMPTION INFORMATION FORM

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
SEL Ped Cl		Vehicle	Track																	☐ Locking	
SEL Yellow			Dwell																	☐ Non-Locking	
SEL Red Cl			Cycle																		
TRACK Green			Exit																		
TRACK Ped Cl		Ped	Track																	Delay (s)	
TRACK Yellow			Dwell																	Extend (s)	
TRACK Red CL			Cycle																	Duration (s)	
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Max Call (s)	
RET Ped Cl			Track																	Lockout (s)	
RET Yellow			Dwell																	Link PE #	
RET Red Cl			Cycle																		

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
SEL Ped Cl		Vehicle	Track																	☐ Locking	
SEL Yellow			Dwell																	☐ Non-Locking	
SEL Red Cl			Cycle																		
TRACK Green			Exit																		
TRACK Ped Cl		Ped	Track																	Delay (s)	
TRACK Yellow			Dwell																	Extend (s)	
TRACK Red CL			Cycle																	Duration (s)	
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Max Call (s)	
RET Ped Cl			Track																	Lockout (s)	
RET Yellow			Dwell																	Link PE #	
RET Red Cl			Cycle																		

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
SEL Ped Cl		Vehicle	Track																	☐ Locking	
SEL Yellow			Dwell																	☐ Non-Locking	
SEL Red Cl			Cycle																		
TRACK Green			Exit																		
TRACK Ped Cl		Ped	Track																	Delay (s)	
TRACK Yellow			Dwell																	Extend (s)	
TRACK Red CL			Cycle																	Duration (s)	
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Max Call (s)	
RET Ped Cl			Track																	Lockout (s)	
RET Yellow			Dwell																	Link PE #	
RET Red Cl			Cycle																		

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
SEL Ped Cl		Vehicle	Track																	☐ Locking	
SEL Yellow			Dwell																	☐ Non-Locking	
SEL Red Cl			Cycle																		
TRACK Green			Exit																		
TRACK Ped Cl		Ped	Track																	Delay (s)	
TRACK Yellow			Dwell																	Extend (s)	
TRACK Red CL			Cycle																	Duration (s)	
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Max Call (s)	
RET Ped Cl			Track																	Lockout (s)	
RET Yellow			Dwell																	Link PE #	
RET Red Cl			Cycle																		

Preempt System Data

Ring	1	2	3	4	
MIN GRN/WLK (s)					
Priority	PE/FL	PE1/2	PE2/3	PE3/4	PE4/5	PE5/6
Status						

REMARKS :

PREPARED BY: HHH DATE: 01/27/14

LOCATION:

I-96 EB EXIT RAMP AT LATSON ROAD

CONTROL SECTION-SPOT #

47065-01-107

CLEAR PAGE 3

TRAFFIC SIGNAL TIMING PERMIT

	PHASE	1	2	3	4	5	6	7	8			
APPROACH		EB Left	WB	NB Left	SB	WB Left	EB	SB Left	NB			
MINIMUM GREEN		5	10	5	11	5	10	5	11			
PASSAGE		3.0	0.0	5.0	8.0	3.0	0.0	5.0	8.0			
MAXIMUM NO. 1		30	40	30	20	30	40	30	20			
MAXIMUM NO. 2		7	20	7	15	7	20	7	15			
YELLOW CHANGE		5.1	5.1	4.7	4.7	5.1	5.1	4.7	4.7			
RED CLEARANCE		2.5	2.5	2.4	2.4	2.5	2.5	2.4	2.4			
WALK		0	10	0	11	0	10	0	11			
PEDESTRIAN CLEARANCE		0	30	0	33	0	30	0	33			
EXTENDED PED. CLEARANCE		0	0	0	0	0	0	0	0			
REST IN WALK		0	0	0	0	0	0	0	0			
INITIALIZATION		1	4	1	1	1	4	1	1			
NON-ACT RESPONSE		0	0	0	0	0	0	0	0			
VEHICLE RECALL		0	3	0	0	0	3	0	0			
PEDESTRIAN RECALL		0	0	0	0	0	0	0	0			
NON-LOCK MEMORY		0	0	0	0	0	0	0	0			
DUAL ENTRY		0	0	0	1	0	0	0	1			
	CYCLE									O1	O2	O3
DIAL 1 SPLIT 1	90	15	38	17	20	15	38	17	20	4		
DIAL 2 SPLIT 1	90	14	28	28	20	14	28	28	20	7		
DIAL 3 SPLIT 1	90	20	29	16	25	20	29	16	25	16		
DIAL 4 SPLIT 1	180	23	120	17	20	23	120	17	20	16		
DIAL SPLIT												
DIAL SPLIT												
	MODE	0	1	0	0	0	1	0	0			

PHASE

1 EB BL-96 (Grand River Avenue) Left

2 WB BL-96 (Grand River Avenue)Thru

3 NB Latson Road Left

4 SB Latson Road Thru

5 WB BL-96 (Grand River Avenue) Left

6 EB (Grand River Avenue) Thru

7 SB Latson Road Left

8 NB Latson Road Thru

D1/S1/O1: Normal
D2/S1/O1: AM Peak (07:00 - 09:00) Monday - Friday
D3/S1/O1: PM Peak (14:00 - 19:00) Monday - Friday
D4/S1/O1: Special Event (19:00 - 00:01) - Eastbound Favored
Max 2: Night Dial (00:01 - 04:00) Monday - THursday

The Disappearing Legend Case Sign facing EACH direction is illuminated when the OPPOSING LEFT-TURN PHASE is operational.

OVERLAPS

Overlap Phase	*Load Bays*	*Phases Overlapped*	T.G. (s)	Y (s)	R (s)	-G/Y	+GRN
A = EB BL-96 (Grand River) RTGA		3	0.0	4.7	2.4		
B = NB Latson Road RTGA		5	0.0	5.1	2.5		
C = WB BL-96 (Grand River) RTGA		7	0.0	4.7	2.4		
D = SB Latson Road RTGA		1	0.0	5.1	2.5		

TIMING INSTALLED 04/04/19

REMARKS

10/17/2022 - Changed to all red conflict flash.

03/07/19 - Run Max 2 instead of night flash (Due to Dual Lefts)

03/16/18 - Revised ped times per field measurements.

16-Load-Switch, Mod 50, Base-Mounted, Epac Type Controller.

The Minimum Green Times and Passage Times have been revised in relation to Phases # 4 and # 8.

PREPARED BY: HHH DATE: 01/27/14

FLASH HOURS: DAILY ☐ NONE ☒ to

NIGHT FLASH:
FY = None FR = None

CONFLICT FLASH:
FY = LATSON ROAD FR = All Phases

CONTROLLER TYPE:
☒ EPAC
☐ Other:

PRE-EMPT ☐
COUNTDOWN PEDS ☒

LOCATION:
I-96 EB EXIT RAMP AT LATSON ROAD
CITY/TWP: Genoa Township
COUNTY : Livingston

MILE POINT	CONTROL SECTION-SPOT #
3.17	47065-01-107

Job # (If Applicable):

CLEAR PAGE 1

CLEAR ALL

Page 3 included only if Pre-Empt Checked

ADVANCED TIMING PARAMETERS FORM

SYSTEM INFORMATION

Controller Type:
- [x] EPAC
- [ ] Other:

System Type:
- [x] Closed Loop
  - [ ] Stand By
  - [ ] Group 1
  - [ ] Group 2
  - Address:
- [ ] TBC
- [x] TBC/GPS
- [ ] None
- [ ] Other:

If TBC, Synch by:
- [x] TOD
- [ ] Event

Interconnect Type:
- [ ] Hardwire
- [ ] Fiber-Optic
- [x] Radio
- [ ] Phone Drop
- [ ] None
- [x] Other: GPS CLOCK

If Phone Drop, Phone # 517-548-1512

Controller Status:
- [ ] Master
- [x] Slave
- [ ] Isolated
- [x] TBC

If Slave, Master Location: BL-96 (G.R.) at Byron

Master Spot # : 47061-01-011

LEFT-TURN PHASING

Phase # / Description	*Permissive-Protected* Lead	*Permissive-Protected* Lag	*Protected-Only* Split	*Protected-Only* Lead	*Protected-Only* Lag
Phase # 1 / EB BL-96 (Grand River) Lefts	☐	☐	☐	☒	☐
Phase # 3 / NB Latson Road Lefts	☐	☐	☐	☒	☐
Phase # 5 / WB BL-96 (Grand River) Lefts	☐	☐	☐	☒	☐
Phase # 7 / SB Latson Road Lefts	☐	☐	☐	☒	☐

RING AND BARRIER STRUCTURE

	B1				B2				B3				B4			
R1	1	2			3	4										
R2	5	6			7	8										
R3																
R4																

VEHICULAR AND PEDESTRIAN DETECTION

Approach	Left	Thru	Right	Right Call Delay (s)	Loop	Video	Other	Pedestrian Detection: Push-Button Crossing Locations
EB BL-96 (Grand River)	☒	☐	☒	10	☒	☐	☒	Crossing S leg of Latson Road
WB BL-96 (Grand River)	☒	☐	☒	10	☒	☐	☐	Crossing N leg of Latson Road
NB Latson Road	☒	☒	☒	10	☒	☐	☐	Crossing E leg of Grand River
SB Latson Road	☒	☒	☒	10	☒	☐	☐	Crossing W leg of Grand River
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	

DISAPPEARING LEGEND CASE SIGNS

"NO TURN ON RED" facing ALL directions.

The Disappearing Legend Case Sign facing EACH direction is illuminated when the OPPOSING LEFT-TURN PHASE is operational.

ADDITIONAL DIAL SPLIT DATA

		PHASE	1	2	3	4	5	6	7	8	O1	O2	O3
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											
DIAL	SPLIT	CYCLE											

COORDINATION DATA

Operation Mode	1
Coordination Mode	2
Maximum Mode	0
Correction Mode	2
Offset Mode	0
Force Mode	0
Max Dwell	0
Yield Period	0

REMARKS:

THIS SUBJECT INTERSECTION IS INCORPORATED WITHIN A CLOSED-LOOP SYSTEM AND IS EQUIPPED WITH RADIO INTERCONNECT.

THE MASTER CONTROLLER IS LOCATED AT THE SUBJECT INTERSECTION OF BL-96 (GRAND RIVER AVENUE) AT BYRON ROAD (47061-01-011).

Equipped with CONVENTIONAL loops in ALL approach lanes EXCEPT the BL-96 (Grand River Avenue) THRU approach lanes. The Correction Mode has been revised.

ADDITIONAL OVERLAP DATA

Overlap Phase	*Load Bays*	*Phases Overlapped*	T.G. (s)	Y (s)	R (s)	-G/Y	+GRN
=							
=							
=							
=							

PREPARED BY: HHH DATE: 01/27/14

☒ MDOT ☐ County ☐ City ☐ Consultant

LOCATION: I-96 EB EXIT RAMP AT LATSON ROAD

CONTROL SECTION-SPOT # 47065-01-107

CLEAR PAGE 2

PREEMPTION INFORMATION FORM

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SEL Ped Cl		Vehicle	Track																
SEL Yellow			Dwell																
SEL Red Cl			Cycle																
TRACK Green			Exit																
TRACK Ped Cl		Ped	Track																
TRACK Yellow			Dwell																
TRACK Red CL			Cycle																
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
RET Ped Cl			Track																
RET Yellow			Dwell																
RET Red Cl			Cycle																

☐ Locking

☐ Non-Locking

Delay (s)	
Extend (s)	
Duration (s)	
Max Call (s)	
Lockout (s)	
Link PE #	

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SEL Ped Cl		Vehicle	Track																
SEL Yellow			Dwell																
SEL Red Cl			Cycle																
TRACK Green			Exit																
TRACK Ped Cl		Ped	Track																
TRACK Yellow			Dwell																
TRACK Red CL			Cycle																
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
RET Ped Cl			Track																
RET Yellow			Dwell																
RET Red Cl			Cycle																

☐ Locking

☐ Non-Locking

Delay (s)	
Extend (s)	
Duration (s)	
Max Call (s)	
Lockout (s)	
Link PE #	

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SEL Ped Cl		Vehicle	Track																
SEL Yellow			Dwell																
SEL Red Cl			Cycle																
TRACK Green			Exit																
TRACK Ped Cl		Ped	Track																
TRACK Yellow			Dwell																
TRACK Red CL			Cycle																
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
RET Ped Cl			Track																
RET Yellow			Dwell																
RET Red Cl			Cycle																

☐ Locking

☐ Non-Locking

Delay (s)	
Extend (s)	
Duration (s)	
Max Call (s)	
Lockout (s)	
Link PE #	

Preemption Description:

Preempt # =	Time (s)	Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SEL Ped Cl		Vehicle	Track																
SEL Yellow			Dwell																
SEL Red Cl			Cycle																
TRACK Green			Exit																
TRACK Ped Cl		Ped	Track																
TRACK Yellow			Dwell																
TRACK Red CL			Cycle																
DWELL Green		Overlap Vehicle	Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
RET Ped Cl			Track																
RET Yellow			Dwell																
RET Red Cl			Cycle																

☐ Locking

☐ Non-Locking

Delay (s)	
Extend (s)	
Duration (s)	
Max Call (s)	
Lockout (s)	
Link PE #	

Preempt System Data

Ring	1	2	3	4	
MIN GRN/WLK (s)					
Priority	PE/FL	PE1/2	PE2/3	PE3/4	PE4/5	PE5/6
Status						

REMARKS :

PREPARED BY: HHH DATE: 01/27/14

LOCATION:

I-96 EB EXIT RAMP AT LATSON ROAD

CONTROL SECTION-SPOT #

47065-01-107

CLEAR PAGE 3

Level of Service Criteria for Stop Sign Controlled Intersections

The level of service criteria are given in Exhibit 20-2. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in queue.

The average total delay for any particular controlled movement is a function three (capacity) factors: distribution of gaps in the major-street traffic stream, driver judgment in selecting gaps through which to execute the desired maneuvers, and the follow-up headways required by each driver in a queue.

The basic capacity model assumes gaps in the conflicting movements are randomly distributed. When traffic signals are present on the major street, upstream of the subject intersection, flows may not be random but will likely have some platoon structure. Although the procedures in this chapter provide a method for approximating the operations of a TWSC intersection with an upstream signal, the operations of such an intersection is arguably best handled by including it in a complete simulation

Exhibit 20-2. Level of Service Criteria for Stop-Controlled Intersections (Motor Vehciles)

LEVEL OF SERVICE	AVERAGE CONTROL DELAY (sec/veh)
A	$\leq$ 10
B	> 10 and $\leq$ 15
C	> 15 and $\leq$ 25
D	> 25 and $\leq$ 35
E	> 35 and $\leq$ 50
F	> 50

Average total delay less than 10 sec/veh is defined as Level of Service (LOS) A. Follow-up times of less than 5 sec have been measured when there is no conflicting traffic for a minor street movement, so control delays of less than 10 sec/veh are appropriate for low flow conditions. A total delay of 50 sec/veh is assumed as the break point between LOS E and F.

The LOS criteria for TWSC intersections differ somewhat from the criteria used in Chapter 19 for signalized intersections, primarily because user perceptions differ among transportation facility types. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will present greater delay than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, where drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection.

LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queueing on the minor approaches. The method, however, is based on a constant critical gap size - that is, the critical gap remains constant, no matter how long the side street motorist waits. LOS F may also appear in the form of side street vehicles' selecting smaller-than-usual gaps. In such cases, safety may be a problem and some disruption to the major traffic stream may result. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal gap acceptance behavior. The latter is more difficult to observe on the field than queueing, which is more obvious.

Source: Highway Capacity Manual, 6th Edition. Transportation Research Board, National Research Council

Level of Service for Signalized Intersections

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. LOS can be characterized for the entire intersection, each intersection approach, and each lane group. Specifically, level-of-service (LOS) criteria are stated in terms of the average stopped delay per vehicle. The criteria are given in Exhibit 19-8. Delay may be measured in the field or estimated using procedures presented later in this chapter. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

LOS A describes operations with a control delay of 10 s/veh or less. This level is typically assigned when the volume-to-capacity ratio is low and either progression is extremely favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during a green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

Exhibit 19.8. Level-of-Service Criteria for Signalized Intersections (Motorized Vehicles)

LEVEL OF SERVICE	STOPPED DELAY PER VEHICLE (SEC)
A	≤10.0
B	> 10.0 and ≤20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	>80.0

1. If the v/c ratio for a lane group exceeds 1.0, a LOS F is assigned to the individual lane group. LOS for approach-based and intersection-wide assessments are determined solely by the control delay.

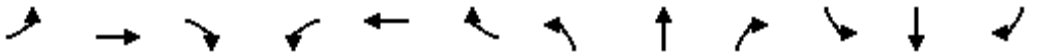
LOS C describes operations with control delay between 20 and 35 s/veh. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e. one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number if vehicle stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operations with control delay between 35 and 55 s/veh. This level is typically assigned when when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operations with control delay between 55 and 80 s/veh. This level is typically assigned when when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level, considered to be unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of the intersection. This level is typically assigned when the volume-to-capacity ratio is high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: Highway Capacity Manual, 6th Edition. Transportation Research Board, National Research Council



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	433	129	161	374	139	153	199	277	476	366	116
Future Volume (veh/h)	62	433	129	161	374	139	153	199	277	476	366	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1767	1767	1767	1796	1796	1796	1781	1781	1781	1841	1841	1841
Adj Flow Rate, veh/h	67	471	140	187	435	162	176	229	318	517	398	126
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %	9	9	9	7	7	7	8	8	8	4	4	4
Cap, veh/h	147	908	524	236	1012	738	274	485	324	641	868	458
Arrive On Green	0.05	0.27	0.27	0.07	0.30	0.30	0.08	0.14	0.14	0.19	0.25	0.25
Sat Flow, veh/h	3264	3357	1476	3319	3413	1521	3291	3385	1510	3401	3497	1560
Grp Volume(v), veh/h	67	471	140	187	435	162	176	229	318	517	398	126
Grp Sat Flow(s),veh/h/ln	1632	1678	1476	1659	1706	1521	1646	1692	1510	1700	1749	1560
Q Serve(g_s), s	1.8	10.7	6.1	5.0	9.2	5.5	4.7	5.6	12.9	13.1	8.7	5.6
Cycle Q Clear(g_c), s	1.8	10.7	6.1	5.0	9.2	5.5	4.7	5.6	12.9	13.1	8.7	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	147	908	524	236	1012	738	274	485	324	641	868	458
V/C Ratio(X)	0.45	0.52	0.27	0.79	0.43	0.22	0.64	0.47	0.98	0.81	0.46	0.28
Avail Cap(c_a), veh/h	232	908	524	236	1012	738	764	485	324	790	868	458
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	27.9	20.8	41.1	25.5	13.4	39.9	35.4	35.2	35.0	28.7	24.4
Incr Delay (d2), s/veh	2.2	2.1	1.2	16.7	1.3	0.7	5.3	3.3	45.7	6.9	1.7	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	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.2	2.1	2.5	3.6	1.7	2.0	2.4	10.4	5.6	3.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	30.0	22.0	57.8	26.9	14.1	45.2	38.7	80.9	41.8	30.4	25.9
LnGrp LOS	D	C	C	E	C	B	D	D	F	D	C	C
Approach Vol, veh/h		678			784			723			1041	
Approach Delay, s/veh		29.7			31.6			58.8			35.5	
Approach LOS		C			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	34.3	14.6	29.4	14.0	31.9	24.1	20.0
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	6.4	20.4	20.9	12.9	6.4	20.4	20.9	12.9
Max Q Clear Time (g_c+I1), s	3.8	11.2	6.7	10.7	7.0	12.7	15.1	14.9
Green Ext Time (p_c), s	0.0	0.3	0.9	1.4	0.0	0.3	1.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	17	0	166	75	645	0	0	440	240
Future Volume (veh/h)	0	0	0	17	0	166	75	645	0	0	440	240
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1767	0	1767	1841	1841	0	0	1722	1722
Adj Flow Rate, veh/h				19	0	184	85	733	0	0	494	270
Peak Hour Factor				0.90	0.90	0.90	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %				9	0	9	4	4	0	0	12	12
Cap, veh/h				168	0	263	542	2584	0	0	2417	1078
Arrive On Green				0.10	0.00	0.10	1.00	1.00	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1682	0	2635	692	3589	0	0	3358	1459
Grp Volume(v), veh/h				19	0	184	85	733	0	0	494	270
Grp Sat Flow(s),veh/h/ln				1682	0	1317	692	1749	0	0	1636	1459
Q Serve(g_s), s				0.8	0.0	5.4	1.4	0.0	0.0	0.0	6.8	8.5
Cycle Q Clear(g_c), s				0.8	0.0	5.4	8.1	0.0	0.0	0.0	6.8	8.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				168	0	263	542	2584	0	0	2417	1078
V/C Ratio(X)				0.11	0.00	0.70	0.16	0.28	0.00	0.00	0.20	0.25
Avail Cap(c_a), veh/h				532	0	833	542	2584	0	0	2417	1078
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.67	0.67
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.91	0.91
Uniform Delay (d), s/veh				32.8	0.0	34.8	0.5	0.0	0.0	0.0	7.0	7.4
Incr Delay (d2), s/veh				0.3	0.0	3.3	0.6	0.2	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln				0.3	0.0	1.8	0.1	0.1	0.0	0.0	1.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.1	0.0	38.2	1.0	0.2	0.0	0.0	7.2	7.9
LnGrp LOS				C	A	D	A	A	A	A	A	A
Approach Vol, veh/h					203			818			764	
Approach Delay, s/veh					37.7			0.3			7.4	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	65.3		65.3		14.7			
Change Period (Y+Rc), s	6.2		6.2		6.7			
Max Green Setting (Gmax), s	41.8		41.8		25.3			
Max Q Clear Time (g_c+I1), s	10.1		10.5		7.4			
Green Ext Time (p_c), s	0.8		0.4		0.7			

Intersection Summary		
HCM 6th Ctrl Delay	7.6	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	392	0	68	0	0	0	0	328	66	250	207	0
Future Volume (veh/h)	392	0	68	0	0	0	0	328	66	250	207	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1870	1870	1752	1752	0
Adj Flow Rate, veh/h	445	0	77				0	353	71	284	235	0
Peak Hour Factor	0.88	0.88	0.88				0.93	0.93	0.93	0.88	0.88	0.88
Percent Heavy Veh, %	5	0	5				0	2	2	10	10	0
Cap, veh/h	579	0	266				0	2371	1057	659	2221	0
Arrive On Green	0.17	0.00	0.17				0.00	0.67	0.67	1.00	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3647	1585	902	3416	0
Grp Volume(v), veh/h	445	0	77				0	353	71	284	235	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1777	1585	902	1664	0
Q Serve(g_s), s	10.1	0.0	3.5				0.0	2.9	1.2	2.6	0.0	0.0
Cycle Q Clear(g_c), s	10.1	0.0	3.5				0.0	2.9	1.2	5.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	579	0	266				0	2371	1057	659	2221	0
V/C Ratio(X)	0.77	0.00	0.29				0.00	0.15	0.07	0.43	0.11	0.00
Avail Cap(c_a), veh/h	1067	0	489				0	2371	1057	659	2221	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.99	0.99	0.00
Uniform Delay (d), s/veh	31.6	0.0	28.9				0.0	4.9	4.6	0.2	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.6				0.0	0.1	0.1	2.0	0.1	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
%ile BackOfQ(50%),veh/ln	4.2	0.0	1.3				0.0	0.7	0.3	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	29.5				0.0	5.1	4.8	2.2	0.1	0.0
LnGrp LOS	C	A	C				A	A	A	A	A	A
Approach Vol, veh/h		522						424			519	
Approach Delay, s/veh		33.2						5.0			1.2	
Approach LOS		C						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	59.6	20.4	59.6
Change Period (Y+Rc), s	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	41.8	* 25	41.8
Max Q Clear Time (g_c+I1), s	4.9	12.1	7.6
Green Ext Time (p_c), s	0.3	1.7	0.4

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	0	0	0	0	2	0	375	0	1	265	9
Future Vol, veh/h	17	0	0	0	0	2	0	375	0	1	265	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	175	-	-	200	-	-	400	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	60	60	60	94	94	94	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	10	10	10
Mvmt Flow	28	0	0	0	0	3	0	399	0	1	301	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	508	707	156	552	712	200	311	0	0	399	0	0
Stage 1	308	308	-	399	399	-	-	-	-	-	-	-
Stage 2	200	399	-	153	313	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.14	-	-	4.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.22	-	-	2.3	-	-
Pot Cap-1 Maneuver	583	429	*1007	*540	426	814	1388	-	-	1101	-	-
Stage 1	847	763	-	*604	606	-	-	-	-	-	-	-
Stage 2	789	606	-	*949	760	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	580	428	*1007	*539	426	814	1388	-	-	1101	-	-
Mov Cap-2 Maneuver	580	428	-	*539	426	-	-	-	-	-	-	-
Stage 1	847	763	-	*604	606	-	-	-	-	-	-	-
Stage 2	786	606	-	*948	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	9.4	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1388	-	-	580	-	-	814	1101	-	-
HCM Lane V/C Ratio	-	-	-	0.048	-	-	0.004	0.001	-	-
HCM Control Delay (s)	0	-	-	11.5	0	0	9.4	8.3	-	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-	-	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	0	0	0	4	0	9	0	355	1	4	241	0
Future Vol, veh/h	0	0	0	4	0	9	0	355	1	4	241	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	81	81	81	95	95	95	90	90	90
Heavy Vehicles, %	2	2	2	8	8	8	2	2	2	9	9	9
Mvmt Flow	0	0	0	5	0	11	0	374	1	4	268	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	656	651	268	650	650	374	268	0	0	375	0	0
Stage 1	276	276	-	374	374	-	-	-	-	-	-	-
Stage 2	380	375	-	276	276	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.58	6.28	4.12	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.072	3.372	2.218	-	-	2.281	-	-
Pot Cap-1 Maneuver	379	388	771	374	381	659	1296	-	-	1146	-	-
Stage 1	730	682	-	635	607	-	-	-	-	-	-	-
Stage 2	642	617	-	717	671	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	371	386	771	373	379	659	1296	-	-	1146	-	-
Mov Cap-2 Maneuver	371	386	-	373	379	-	-	-	-	-	-	-
Stage 1	730	679	-	635	607	-	-	-	-	-	-	-
Stage 2	631	617	-	714	668	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12	0	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1296	-	-	-	533	1146	-	-
HCM Lane V/C Ratio	-	-	-	-	0.03	0.004	-	-
HCM Control Delay (s)	0	-	-	0	12	8.2	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	14	1	21	14	84	1	272	95	68	174	7
Future Vol, veh/h	12	14	1	21	14	84	1	272	95	68	174	7
Peak Hour Factor	0.68	0.68	0.68	0.83	0.83	0.83	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	9	9	9
Mvmt Flow	18	21	1	25	17	101	1	296	103	72	185	7
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.7	9.8	14.8	10.4
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	74%	0%	93%	0%	14%	0%	96%
Vol Right, %	0%	26%	0%	7%	0%	86%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	367	12	15	21	98	68	181
LT Vol	1	0	12	0	21	0	68	0
Through Vol	0	272	0	14	0	14	0	174
RT Vol	0	95	0	1	0	84	0	7
Lane Flow Rate	1	399	18	22	25	118	72	193
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.002	0.573	0.034	0.04	0.048	0.189	0.124	0.301
Departure Headway (Hd)	5.957	5.271	7.019	6.463	6.872	5.757	6.168	5.636
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	604	690	512	556	523	626	585	641
Service Time	3.657	2.971	4.736	4.18	4.583	3.468	3.868	3.336
HCM Lane V/C Ratio	0.002	0.578	0.035	0.04	0.048	0.188	0.123	0.301
HCM Control Delay	8.7	14.8	10	9.4	9.9	9.8	9.7	10.7
HCM Lane LOS	A	B	A	A	A	A	A	B
HCM 95th-tile Q	0	3.7	0.1	0.1	0.2	0.7	0.4	1.3

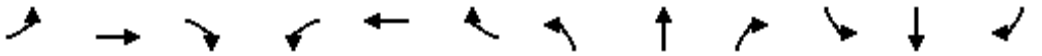
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	14	4	2	11	9	2	102	5	8	64	2
Future Vol, veh/h	3	14	4	2	11	9	2	102	5	8	64	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	79	79	79	85	85	85	71	71	71
Heavy Vehicles, %	10	10	10	14	14	14	3	3	3	10	10	10
Mvmt Flow	4	19	5	3	14	11	2	120	6	11	90	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	254	244	92	253	242	123	93	0	0	126	0	0
Stage 1	114	114	-	127	127	-	-	-	-	-	-	-
Stage 2	140	130	-	126	115	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.24	6.64	6.34	4.13	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.24	5.64	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.24	5.64	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.626	4.126	3.426	2.227	-	-	2.29	-	-
Pot Cap-1 Maneuver	683	644	944	676	639	897	1495	-	-	1412	-	-
Stage 1	872	786	-	849	768	-	-	-	-	-	-	-
Stage 2	844	773	-	850	778	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	658	638	944	653	633	897	1495	-	-	1412	-	-
Mov Cap-2 Maneuver	658	638	-	653	633	-	-	-	-	-	-	-
Stage 1	871	780	-	848	767	-	-	-	-	-	-	-
Stage 2	817	772	-	818	772	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	10.2	0.1	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1495	-	-	683	722	1412	-	-
HCM Lane V/C Ratio	0.002	-	-	0.041	0.039	0.008	-	-
HCM Control Delay (s)	7.4	0	-	10.5	10.2	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	562	213	433	724	640	248	434	240	305	396	102
Future Volume (veh/h)	258	562	213	433	724	640	248	434	240	305	396	102
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	277	604	229	456	762	674	267	467	258	328	426	110
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	888	551	476	1010	607	338	664	514	342	667	462
Arrive On Green	0.10	0.25	0.25	0.14	0.28	0.28	0.10	0.19	0.19	0.10	0.19	0.19
Sat Flow, veh/h	3456	3554	1583	3456	3554	1583	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	277	604	229	456	762	674	267	467	258	328	426	110
Grp Sat Flow(s),veh/h/ln	1728	1777	1583	1728	1777	1583	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	7.0	13.8	9.9	11.8	17.6	25.6	6.8	11.1	11.8	8.5	10.0	4.8
Cycle Q Clear(g_c), s	7.0	13.8	9.9	11.8	17.6	25.6	6.8	11.1	11.8	8.5	10.0	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	358	888	551	476	1010	607	338	664	514	342	667	462
V/C Ratio(X)	0.77	0.68	0.42	0.96	0.75	1.11	0.79	0.70	0.50	0.96	0.64	0.24
Avail Cap(c_a), veh/h	476	888	551	476	1010	607	342	707	534	342	707	479
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	30.5	22.4	38.5	29.3	27.8	39.7	34.3	24.5	40.4	33.7	24.3
Incr Delay (d2), s/veh	5.6	4.2	2.3	30.6	5.2	70.8	13.4	6.2	3.5	38.5	4.6	1.2
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(50%),veh/ln	3.1	6.0	3.6	6.7	7.6	23.2	3.3	4.9	4.5	5.2	4.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	34.7	24.7	69.2	34.6	98.6	53.1	40.4	28.0	78.9	38.4	25.5
LnGrp LOS	D	C	C	E	C	F	D	D	C	E	D	C
Approach Vol, veh/h		1110			1892			992			864	
Approach Delay, s/veh		35.2			65.7			40.6			52.1	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	33.2	15.9	24.0	20.0	30.1	16.0	23.9
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	12.4	21.4	8.9	17.9	12.4	21.4	8.9	17.9
Max Q Clear Time (g_c+I1), s	9.0	27.6	8.8	12.0	13.8	15.8	10.5	13.8
Green Ext Time (p_c), s	0.3	0.0	0.0	3.5	0.0	0.4	0.0	3.0

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	86	0	425	96	726	0	0	637	593
Future Volume (veh/h)	0	0	0	86	0	425	96	726	0	0	637	593
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1841	0	1841	1841	1841	0	0	1870	1870
Adj Flow Rate, veh/h				95	0	467	107	807	0	0	685	423
Peak Hour Factor				0.91	0.91	0.91	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %				4	0	4	4	4	0	0	2	2
Cap, veh/h				366	0	573	324	2203	0	0	2238	998
Arrive On Green				0.21	0.00	0.21	1.00	1.00	0.00	0.00	0.21	0.21
Sat Flow, veh/h				1753	0	2745	501	3589	0	0	3647	1585
Grp Volume(v), veh/h				95	0	467	107	807	0	0	685	423
Grp Sat Flow(s),veh/h/ln				1753	0	1373	501	1749	0	0	1777	1585
Q Serve(g_s), s				3.6	0.0	13.0	6.7	0.0	0.0	0.0	13.0	18.5
Cycle Q Clear(g_c), s				3.6	0.0	13.0	19.7	0.0	0.0	0.0	13.0	18.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				366	0	573	324	2203	0	0	2238	998
V/C Ratio(X)				0.26	0.00	0.81	0.33	0.37	0.00	0.00	0.31	0.42
Avail Cap(c_a), veh/h				554	0	868	324	2203	0	0	2238	998
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.69	0.69
Uniform Delay (d), s/veh				26.5	0.0	30.2	2.6	0.0	0.0	0.0	16.9	19.1
Incr Delay (d2), s/veh				0.4	0.0	3.6	2.5	0.4	0.0	0.0	0.2	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.5	0.0	4.5	0.2	0.1	0.0	0.0	5.4	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.8	0.0	33.8	5.0	0.4	0.0	0.0	17.1	20.0
LnGrp LOS				C	A	C	A	A	A	A	B	B
Approach Vol, veh/h					562			914			1108	
Approach Delay, s/veh					32.6			1.0			18.2	
Approach LOS					C			A			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	56.6		56.6		23.4			
Change Period (Y+Rc), s	6.2		6.2		6.7			
Max Green Setting (Gmax), s	41.8		41.8		25.3			
Max Q Clear Time (g_c+I1), s	21.7		20.5		15.0			
Green Ext Time (p_c), s	1.2		0.5		1.7			

Intersection Summary		
HCM 6th Ctrl Delay	15.3	
HCM 6th LOS	B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	387	0	96	0	0	0	0	435	38	242	481	0
Future Volume (veh/h)	387	0	96	0	0	0	0	435	38	242	481	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1841	1841	1870	1870	0
Adj Flow Rate, veh/h	455	0	113				0	463	40	272	540	0
Peak Hour Factor	0.85	0.85	0.85				0.94	0.94	0.94	0.89	0.89	0.89
Percent Heavy Veh, %	3	0	3				0	4	4	2	2	0
Cap, veh/h	596	0	274				0	2325	1037	640	2362	0
Arrive On Green	0.17	0.00	0.17				0.00	0.66	0.66	1.00	1.00	0.00
Sat Flow, veh/h	3428	0	1572				0	3589	1560	896	3647	0
Grp Volume(v), veh/h	455	0	113				0	463	40	272	540	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1749	1560	896	1777	0
Q Serve(g_s), s	10.1	0.0	5.1				0.0	4.1	0.7	3.4	0.0	0.0
Cycle Q Clear(g_c), s	10.1	0.0	5.1				0.0	4.1	0.7	7.5	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	596	0	274				0	2325	1037	640	2362	0
V/C Ratio(X)	0.76	0.00	0.41				0.00	0.20	0.04	0.43	0.23	0.00
Avail Cap(c_a), veh/h	1084	0	497				0	2325	1037	640	2362	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	31.5	0.0	29.4				0.0	5.2	4.6	0.3	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	1.0				0.0	0.2	0.1	2.0	0.2	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
%ile BackOfQ(50%),veh/ln	4.3	0.0	2.0				0.0	1.0	0.2	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	30.4				0.0	5.4	4.7	2.3	0.2	0.0
LnGrp LOS	C	A	C				A	A	A	A	A	A
Approach Vol, veh/h		568						503			812	
Approach Delay, s/veh		32.9						5.3			0.9	
Approach LOS		C						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	59.4	20.6	59.4
Change Period (Y+Rc), s	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	41.8	* 25	41.8
Max Q Clear Time (g_c+I1), s	6.1	12.1	9.5
Green Ext Time (p_c), s	0.4	1.8	0.7

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	0	1	0	0	3	0	452	1	4	545	28
Future Vol, veh/h	18	0	1	0	0	3	0	452	1	4	545	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	175	-	-	200	-	-	400	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	75	75	75	94	94	94	95	95	95
Heavy Vehicles, %	5	5	5	4	4	4	4	4	4	1	1	1
Mvmt Flow	30	0	2	0	0	4	0	481	1	4	574	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	838	1079	302	777	1093	241	603	0	0	482	0	0
Stage 1	597	597	-	482	482	-	-	-	-	-	-	-
Stage 2	241	482	-	295	611	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.58	6.58	6.98	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.54	4.04	3.34	2.24	-	-	2.21	-	-
Pot Cap-1 Maneuver	460	310	*879	*523	304	754	1236	-	-	1084	-	-
Stage 1	759	682	-	*529	547	-	-	-	-	-	-	-
Stage 2	732	544	-	*832	672	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	457	308	*879	*520	303	754	1236	-	-	1084	-	-
Mov Cap-2 Maneuver	457	308	-	*520	303	-	-	-	-	-	-	-
Stage 1	759	679	-	*529	547	-	-	-	-	-	-	-
Stage 2	728	544	-	*828	669	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	9.8	0	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1236	-	-	457	879	-	754	1084	-	-
HCM Lane V/C Ratio	-	-	-	0.066	0.002	-	0.005	0.004	-	-
HCM Control Delay (s)	0	-	-	13.4	9.1	0	9.8	8.3	-	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	-	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	0	0	0	5	0	4	0	445	4	13	525	0
Future Vol, veh/h	0	0	0	5	0	4	0	445	4	13	525	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	91	91	91	95	95	95
Heavy Vehicles, %	2	2	2	22	22	22	4	4	4	1	1	1
Mvmt Flow	0	0	0	7	0	5	0	489	4	14	553	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1075	1074	553	1070	1070	489	553	0	0	493	0	0
Stage 1	581	581	-	489	489	-	-	-	-	-	-	-
Stage 2	494	493	-	581	581	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.32	6.72	6.42	4.14	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.698	4.198	3.498	2.236	-	-	2.209	-	-
Pot Cap-1 Maneuver	197	220	533	182	204	541	1007	-	-	1076	-	-
Stage 1	499	500	-	525	517	-	-	-	-	-	-	-
Stage 2	557	547	-	466	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	192	216	533	179	200	541	1007	-	-	1076	-	-
Mov Cap-2 Maneuver	192	216	-	179	200	-	-	-	-	-	-	-
Stage 1	499	491	-	525	517	-	-	-	-	-	-	-
Stage 2	552	547	-	457	460	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	19.8	0	0.2
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1007	-	-	-	255	1076	-	-
HCM Lane V/C Ratio	-	-	-	-	0.047	0.013	-	-
HCM Control Delay (s)	0	-	-	0	19.8	8.4	0	-
HCM Lane LOS	A	-	-	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-

Intersection	
Intersection Delay, s/veh	21.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	10	2	78	29	109	2	329	54	109	393	18
Future Vol, veh/h	10	10	2	78	29	109	2	329	54	109	393	18
Peak Hour Factor	0.61	0.61	0.61	0.83	0.83	0.83	0.88	0.88	0.88	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	4	4	4	2	2	2
Mvmt Flow	16	16	3	94	35	131	2	374	61	116	418	19
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.2	12.5	26.2	22.2
HCM LOS	B	B	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	86%	0%	83%	0%	21%	0%	96%
Vol Right, %	0%	14%	0%	17%	0%	79%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	383	10	12	78	138	109	411
LT Vol	2	0	10	0	78	0	109	0
Through Vol	0	329	0	10	0	29	0	393
RT Vol	0	54	0	2	0	109	0	18
Lane Flow Rate	2	435	16	20	94	166	116	437
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.004	0.759	0.039	0.043	0.203	0.309	0.216	0.748
Departure Headway (Hd)	6.889	6.281	8.51	7.873	7.765	6.687	6.7	6.161
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	575	423	458	460	534	533	586
Service Time	4.669	4.061	6.21	5.573	5.556	4.477	4.476	3.936
HCM Lane V/C Ratio	0.004	0.757	0.038	0.044	0.204	0.311	0.218	0.746
HCM Control Delay	9.7	26.3	11.6	10.9	12.5	12.5	11.3	25.1
HCM Lane LOS	A	D	B	B	B	B	B	D
HCM 95th-tile Q	0	6.8	0.1	0.1	0.8	1.3	0.8	6.5

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	17	1	2	33	14	6	140	1	4	120	6
Future Vol, veh/h	2	17	1	2	33	14	6	140	1	4	120	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	89	89	89	85	85	85	86	86	86
Heavy Vehicles, %	0	0	0	2	2	2	6	6	6	1	1	1
Mvmt Flow	2	20	1	2	37	16	7	165	1	5	140	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	360	334	144	344	337	166	147	0	0	166	0	0
Stage 1	154	154	-	180	180	-	-	-	-	-	-	-
Stage 2	206	180	-	164	157	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.16	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.254	-	-	2.209	-	-
Pot Cap-1 Maneuver	599	589	909	610	584	878	1411	-	-	1418	-	-
Stage 1	853	774	-	822	750	-	-	-	-	-	-	-
Stage 2	801	754	-	838	768	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	556	584	909	589	579	878	1411	-	-	1418	-	-
Mov Cap-2 Maneuver	556	584	-	589	579	-	-	-	-	-	-	-
Stage 1	849	771	-	818	746	-	-	-	-	-	-	-
Stage 2	744	750	-	811	765	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	11.1	0.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	592	642	1418	-	-
HCM Lane V/C Ratio	0.005	-	-	0.041	0.086	0.003	-	-
HCM Control Delay (s)	7.6	0	-	11.3	11.1	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	39	65	172	171	65	107	137	132	126	42	98	93
Average Queue (ft)	6	15	84	75	7	33	53	58	52	4	21	39
95th Queue (ft)	23	47	149	144	33	80	111	113	109	19	64	77
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	107	123	270	204	234	177	188	75
Average Queue (ft)	47	60	108	115	135	75	92	36
95th Queue (ft)	92	106	218	190	212	135	155	66
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)			1					
Queuing Penalty (veh)			1					

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	116	162	125	78	81	63	110	56	64
Average Queue (ft)	21	76	51	28	19	17	30	13	18
95th Queue (ft)	71	137	98	62	58	48	81	43	50
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	219	196	111	94	77	34	187	69	51
Average Queue (ft)	109	102	46	36	26	10	85	9	9
95th Queue (ft)	177	163	95	79	60	26	156	37	33
Link Distance (ft)		1378		394	394	394		1335	1335
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	WB	SB
Directions Served	L	TR	L
Maximum Queue (ft)	39	13	5
Average Queue (ft)	12	1	0
95th Queue (ft)	33	9	3
Link Distance (ft)		733	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		400
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	48	13
Average Queue (ft)	8	1
95th Queue (ft)	28	6
Link Distance (ft)	769	606
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Latson Road & Crooked Lake Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	29	30	37	64	27	136	68	92
Average Queue (ft)	7	11	11	34	1	68	29	47
95th Queue (ft)	26	33	34	53	9	116	54	75
Link Distance (ft)		1519		1017		1126		1561
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		650		300		1000	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	33	44	4	24
Average Queue (ft)	8	12	0	1
95th Queue (ft)	25	32	3	10
Link Distance (ft)	1779	1658	1488	1300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Latson Road & Site Drive #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	123	121	168	180	83	459	512	506	535	354	130	134
Average Queue (ft)	56	60	92	87	21	314	347	254	238	168	56	71
95th Queue (ft)	108	107	151	153	61	584	645	691	638	321	114	119
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)						12	18	0	0	4		
Queuing Penalty (veh)						44	63	1	1	15		

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	182	199	193	228	246	177	219	88
Average Queue (ft)	109	104	69	131	152	82	114	33
95th Queue (ft)	169	169	137	242	254	144	179	71
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)				0	0			
Queuing Penalty (veh)				0	0			

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	199	214	213	129	100	94	102	90	81
Average Queue (ft)	82	131	100	55	40	41	36	33	37
95th Queue (ft)	168	195	169	110	89	84	84	74	72
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	169	189	129	109	78	35	149	61	70
Average Queue (ft)	96	95	59	42	33	7	69	17	20
95th Queue (ft)	153	153	110	89	73	24	128	47	54
Link Distance (ft)		1378		394	394	394		1335	1335
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	EB	WB	SB
Directions Served	L	TR	TR	L
Maximum Queue (ft)	61	23	22	21
Average Queue (ft)	14	2	2	1
95th Queue (ft)	44	12	12	10
Link Distance (ft)		1023	733	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			400
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	58	44
Average Queue (ft)	8	4
95th Queue (ft)	30	22
Link Distance (ft)	769	606
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Latson Road & Crooked Lake Road

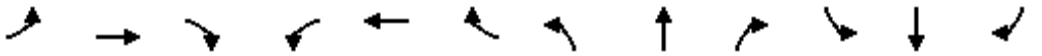
Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	35	29	61	84	28	230	92	142
Average Queue (ft)	7	7	30	38	2	91	39	77
95th Queue (ft)	26	27	51	64	12	162	69	120
Link Distance (ft)		1519		1017		1126		1561
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		650		300		1000	
Storage Blk Time (%)						0		
Queuing Penalty (veh)						0		

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	19	34	8	11
Average Queue (ft)	5	11	0	0
95th Queue (ft)	15	23	4	5
Link Distance (ft)	1779	1658	1488	1300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Latson Road & Site Drive #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	538	149	196	447	167	177	230	347	566	422	134
Future Volume (veh/h)	72	538	149	196	447	167	177	230	347	566	422	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1767	1767	1767	1796	1796	1796	1781	1781	1781	1841	1841	1841
Adj Flow Rate, veh/h	78	585	162	228	520	194	203	264	399	615	459	146
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %	9	9	9	7	7	7	8	8	8	4	4	4
Cap, veh/h	156	830	505	236	924	734	307	485	324	719	915	482
Arrive On Green	0.05	0.25	0.25	0.07	0.27	0.27	0.09	0.14	0.14	0.21	0.26	0.26
Sat Flow, veh/h	3264	3357	1476	3319	3413	1521	3291	3385	1510	3401	3497	1560
Grp Volume(v), veh/h	78	585	162	228	520	194	203	264	399	615	459	146
Grp Sat Flow(s),veh/h/ln	1632	1678	1476	1659	1706	1521	1646	1692	1510	1700	1749	1560
Q Serve(g_s), s	2.1	14.3	7.3	6.2	11.8	6.8	5.4	6.5	12.9	15.7	10.0	6.4
Cycle Q Clear(g_c), s	2.1	14.3	7.3	6.2	11.8	6.8	5.4	6.5	12.9	15.7	10.0	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	830	505	236	924	734	307	485	324	719	915	482
V/C Ratio(X)	0.50	0.70	0.32	0.97	0.56	0.26	0.66	0.54	1.23	0.85	0.50	0.30
Avail Cap(c_a), veh/h	232	830	505	236	924	734	764	485	324	790	915	482
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	30.9	22.0	41.7	28.2	13.8	39.4	35.8	35.4	34.2	28.2	23.7
Incr Delay (d2), s/veh	2.5	5.0	1.7	48.9	2.5	0.9	5.1	4.3	128.6	9.8	2.0	1.6
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(50%),veh/ln	0.9	5.9	2.5	4.0	4.7	2.2	2.2	2.8	18.0	6.9	4.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	35.9	23.6	90.6	30.7	14.7	44.5	40.2	163.9	43.9	30.2	25.3
LnGrp LOS	D	D	C	F	C	B	D	D	F	D	C	C
Approach Vol, veh/h		825			942			866			1220	
Approach Delay, s/veh		34.3			41.9			98.2			36.5	
Approach LOS		C			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	32.0	15.5	30.6	14.0	29.9	26.1	20.0
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	6.4	20.4	20.9	12.9	6.4	20.4	20.9	12.9
Max Q Clear Time (g_c+I1), s	4.1	13.8	7.4	12.0	8.2	16.3	17.7	14.9
Green Ext Time (p_c), s	0.0	0.4	1.1	0.6	0.0	0.3	1.4	0.0

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	20	0	192	87	771	0	0	508	287
Future Volume (veh/h)	0	0	0	20	0	192	87	771	0	0	508	287
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1767	0	1767	1841	1841	0	0	1722	1722
Adj Flow Rate, veh/h				22	0	213	99	876	0	0	571	322
Peak Hour Factor				0.90	0.90	0.90	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %				9	0	9	4	4	0	0	12	12
Cap, veh/h				189	0	296	473	2540	0	0	2377	1060
Arrive On Green				0.11	0.00	0.11	1.00	1.00	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1682	0	2635	613	3589	0	0	3358	1459
Grp Volume(v), veh/h				22	0	213	99	876	0	0	571	322
Grp Sat Flow(s),veh/h/ln				1682	0	1317	613	1749	0	0	1636	1459
Q Serve(g_s), s				0.9	0.0	6.2	2.3	0.0	0.0	0.0	8.1	10.6
Cycle Q Clear(g_c), s				0.9	0.0	6.2	10.4	0.0	0.0	0.0	8.1	10.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				189	0	296	473	2540	0	0	2377	1060
V/C Ratio(X)				0.12	0.00	0.72	0.21	0.34	0.00	0.00	0.24	0.30
Avail Cap(c_a), veh/h				532	0	833	473	2540	0	0	2377	1060
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.67	0.67
Upstream Filter(I)				1.00	0.00	1.00	0.87	0.87	0.00	0.00	0.85	0.85
Uniform Delay (d), s/veh				31.9	0.0	34.3	0.7	0.0	0.0	0.0	7.7	8.3
Incr Delay (d2), s/veh				0.3	0.0	3.3	0.9	0.3	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln				0.4	0.0	2.1	0.1	0.1	0.0	0.0	1.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.2	0.0	37.6	1.6	0.3	0.0	0.0	7.9	9.0
LnGrp LOS				C	A	D	A	A	A	A	A	A
Approach Vol, veh/h					235			975			893	
Approach Delay, s/veh					37.1			0.5			8.3	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	64.3		64.3		15.7			
Change Period (Y+Rc), s	6.2		6.2		6.7			
Max Green Setting (Gmax), s	41.8		41.8		25.3			
Max Q Clear Time (g_c+I1), s	12.4		12.6		8.2			
Green Ext Time (p_c), s	1.1		0.4		0.8			

Intersection Summary		
HCM 6th Ctrl Delay	7.9	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	479	0	78	0	0	0	0	379	76	289	239	0
Future Volume (veh/h)	479	0	78	0	0	0	0	379	76	289	239	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1870	1870	1752	1752	0
Adj Flow Rate, veh/h	544	0	89				0	408	82	328	272	0
Peak Hour Factor	0.88	0.88	0.88				0.93	0.93	0.93	0.88	0.88	0.88
Percent Heavy Veh, %	5	0	5				0	2	2	10	10	0
Cap, veh/h	683	0	313				0	2262	1009	590	2118	0
Arrive On Green	0.20	0.00	0.20				0.00	0.64	0.64	1.00	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3647	1585	849	3416	0
Grp Volume(v), veh/h	544	0	89				0	408	82	328	272	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1777	1585	849	1664	0
Q Serve(g_s), s	12.3	0.0	3.9				0.0	3.8	1.6	5.8	0.0	0.0
Cycle Q Clear(g_c), s	12.3	0.0	3.9				0.0	3.8	1.6	9.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	683	0	313				0	2262	1009	590	2118	0
V/C Ratio(X)	0.80	0.00	0.28				0.00	0.18	0.08	0.56	0.13	0.00
Avail Cap(c_a), veh/h	1067	0	489				0	2262	1009	590	2118	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.67	1.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	30.3	0.0	27.0				0.0	6.0	5.6	0.4	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.5				0.0	0.2	0.2	3.7	0.1	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
%ile BackOfQ(50%),veh/ln	5.1	0.0	1.5				0.0	1.0	0.4	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	27.5				0.0	6.1	5.7	4.0	0.1	0.0
LnGrp LOS	C	A	C				A	A	A	A	A	A
Approach Vol, veh/h		633						490			600	
Approach Delay, s/veh		32.0						6.1			2.3	
Approach LOS		C						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	57.1	22.9	57.1
Change Period (Y+Rc), s	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	41.8	* 25	41.8
Max Q Clear Time (g_c+I1), s	5.8	14.3	11.6
Green Ext Time (p_c), s	0.3	1.9	0.6

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	0	0	0	0	2	0	433	0	1	306	10
Future Vol, veh/h	20	0	0	0	0	2	0	433	0	1	306	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	175	-	-	200	-	-	400	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	60	60	60	94	94	94	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	10	10	10
Mvmt Flow	33	0	0	0	0	3	0	461	0	1	348	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	587	817	180	637	822	231	359	0	0	461	0	0
Stage 1	356	356	-	461	461	-	-	-	-	-	-	-
Stage 2	231	461	-	176	361	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.14	-	-	4.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.22	-	-	2.3	-	-
Pot Cap-1 Maneuver	507	367	*1007	*465	364	777	1329	-	-	1042	-	-
Stage 1	790	726	-	*555	569	-	-	-	-	-	-	-
Stage 2	757	569	-	*949	722	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	505	367	*1007	*464	364	777	1329	-	-	1042	-	-
Mov Cap-2 Maneuver	505	367	-	*464	364	-	-	-	-	-	-	-
Stage 1	790	725	-	*555	569	-	-	-	-	-	-	-
Stage 2	754	569	-	*948	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	9.7	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1329	-	-	505	-	-	777	1042	-	-
HCM Lane V/C Ratio	-	-	-	0.065	-	-	0.004	0.001	-	-
HCM Control Delay (s)	0	-	-	12.6	0	0	9.7	8.5	-	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-	-	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	0	0	0	5	0	10	0	410	1	5	278	0
Future Vol, veh/h	0	0	0	5	0	10	0	410	1	5	278	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	81	81	81	95	95	95	90	90	90
Heavy Vehicles, %	2	2	2	8	8	8	2	2	2	9	9	9
Mvmt Flow	0	0	0	6	0	12	0	432	1	6	309	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	760	754	309	753	753	432	309	0	0	433	0	0
Stage 1	321	321	-	432	432	-	-	-	-	-	-	-
Stage 2	439	433	-	321	321	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.58	6.28	4.12	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.072	3.372	2.218	-	-	2.281	-	-
Pot Cap-1 Maneuver	323	338	731	319	332	611	1252	-	-	1090	-	-
Stage 1	691	652	-	590	572	-	-	-	-	-	-	-
Stage 2	597	582	-	678	641	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	315	336	731	317	330	611	1252	-	-	1090	-	-
Mov Cap-2 Maneuver	315	336	-	317	330	-	-	-	-	-	-	-
Stage 1	691	647	-	590	572	-	-	-	-	-	-	-
Stage 2	585	582	-	673	637	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	13	0	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1252	-	-	-	467	1090	-	-
HCM Lane V/C Ratio	-	-	-	-	0.04	0.005	-	-
HCM Control Delay (s)	0	-	-	0	13	8.3	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0	-	-

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	16	1	24	16	97	1	314	110	78	201	8
Future Vol, veh/h	14	16	1	24	16	97	1	314	110	78	201	8
Peak Hour Factor	0.68	0.68	0.68	0.83	0.83	0.83	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	9	9	9
Mvmt Flow	21	24	1	29	19	117	1	341	120	83	214	9
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.2	10.6	19.8	11.4
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	74%	0%	94%	0%	14%	0%	96%
Vol Right, %	0%	26%	0%	6%	0%	86%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	424	14	17	24	113	78	209
LT Vol	1	0	14	0	24	0	78	0
Through Vol	0	314	0	16	0	16	0	201
RT Vol	0	110	0	1	0	97	0	8
Lane Flow Rate	1	461	21	25	29	136	83	222
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.002	0.697	0.042	0.048	0.058	0.229	0.147	0.361
Departure Headway (Hd)	6.129	5.441	7.4	6.847	7.186	6.067	6.377	5.844
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	585	664	483	522	498	591	563	616
Service Time	3.858	3.17	5.152	4.6	4.931	3.81	4.111	3.578
HCM Lane V/C Ratio	0.002	0.694	0.043	0.048	0.058	0.23	0.147	0.36
HCM Control Delay	8.9	19.8	10.5	9.9	10.4	10.6	10.2	11.9
HCM Lane LOS	A	C	B	A	B	B	B	B
HCM 95th-tile Q	0	5.6	0.1	0.2	0.2	0.9	0.5	1.6

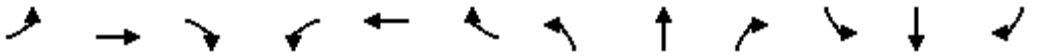
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	16	5	2	13	10	2	118	6	9	74	2
Future Vol, veh/h	3	16	5	2	13	10	2	118	6	9	74	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	79	79	79	85	85	85	71	71	71
Heavy Vehicles, %	10	10	10	14	14	14	3	3	3	10	10	10
Mvmt Flow	4	21	7	3	16	13	2	139	7	13	104	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	293	282	106	293	280	143	107	0	0	146	0	0
Stage 1	132	132	-	147	147	-	-	-	-	-	-	-
Stage 2	161	150	-	146	133	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.24	6.64	6.34	4.13	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.24	5.64	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.24	5.64	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.626	4.126	3.426	2.227	-	-	2.29	-	-
Pot Cap-1 Maneuver	644	613	927	636	609	874	1478	-	-	1388	-	-
Stage 1	853	772	-	828	753	-	-	-	-	-	-	-
Stage 2	823	758	-	829	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	616	606	927	609	602	874	1478	-	-	1388	-	-
Mov Cap-2 Maneuver	616	606	-	609	602	-	-	-	-	-	-	-
Stage 1	852	764	-	827	752	-	-	-	-	-	-	-
Stage 2	793	757	-	792	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	10.5	0.1	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	655	688	1388	-	-
HCM Lane V/C Ratio	0.002	-	-	0.049	0.046	0.009	-	-
HCM Control Delay (s)	7.4	0	-	10.8	10.5	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	661	246	519	863	751	286	501	285	357	457	118
Future Volume (veh/h)	298	661	246	519	863	751	286	501	285	357	457	118
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	320	711	265	546	908	791	308	539	306	384	491	127
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	856	538	476	936	574	342	696	529	342	696	493
Arrive On Green	0.12	0.24	0.24	0.14	0.26	0.26	0.10	0.20	0.20	0.10	0.20	0.20
Sat Flow, veh/h	3456	3554	1583	3456	3554	1583	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	320	711	265	546	908	791	308	539	306	384	491	127
Grp Sat Flow(s),veh/h/ln	1728	1777	1583	1728	1777	1583	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	8.1	17.1	11.9	12.4	22.8	23.7	7.9	12.9	14.3	8.9	11.6	5.4
Cycle Q Clear(g_c), s	8.1	17.1	11.9	12.4	22.8	23.7	7.9	12.9	14.3	8.9	11.6	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	856	538	476	936	574	342	696	529	342	696	493
V/C Ratio(X)	0.80	0.83	0.49	1.15	0.97	1.38	0.90	0.77	0.58	1.12	0.71	0.26
Avail Cap(c_a), veh/h	476	856	538	476	936	574	342	707	534	342	707	498
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	32.4	23.6	38.8	32.8	28.7	40.1	34.3	24.8	40.5	33.8	23.2
Incr Delay (d2), s/veh	8.2	9.2	3.2	88.2	23.1	181.3	26.8	8.2	4.6	86.5	5.9	1.3
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(50%),veh/ln	3.7	7.8	4.5	10.7	11.9	39.6	4.4	5.9	5.5	7.6	5.1	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	41.6	26.8	127.0	55.9	210.0	66.9	42.5	29.3	127.0	39.7	24.5
LnGrp LOS	D	D	C	F	E	F	E	D	C	F	D	C
Approach Vol, veh/h		1296			2245			1153			1002	
Approach Delay, s/veh		39.9			127.5			45.5			71.2	
Approach LOS		D			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	31.3	16.0	24.7	20.0	29.3	16.0	24.7
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	12.4	21.4	8.9	17.9	12.4	21.4	8.9	17.9
Max Q Clear Time (g_c+I1), s	10.1	25.7	9.9	13.6	14.4	19.1	10.9	16.3
Green Ext Time (p_c), s	0.3	0.0	0.0	2.9	0.0	0.3	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	81.1
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	99	0	491	111	846	0	0	735	703
Future Volume (veh/h)	0	0	0	99	0	491	111	846	0	0	735	703
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1841	0	1841	1841	1841	0	0	1870	1870
Adj Flow Rate, veh/h				109	0	540	123	940	0	0	790	541
Peak Hour Factor				0.91	0.91	0.91	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %				4	0	4	4	4	0	0	2	2
Cap, veh/h				412	0	645	257	2111	0	0	2145	957
Arrive On Green				0.24	0.00	0.24	1.00	1.00	0.00	0.00	0.20	0.20
Sat Flow, veh/h				1753	0	2745	405	3589	0	0	3647	1585
Grp Volume(v), veh/h				109	0	540	123	940	0	0	790	541
Grp Sat Flow(s),veh/h/ln				1753	0	1373	405	1749	0	0	1777	1585
Q Serve(g_s), s				4.1	0.0	15.0	15.6	0.0	0.0	0.0	15.4	24.6
Cycle Q Clear(g_c), s				4.1	0.0	15.0	30.9	0.0	0.0	0.0	15.4	24.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				412	0	645	257	2111	0	0	2145	957
V/C Ratio(X)				0.26	0.00	0.84	0.48	0.45	0.00	0.00	0.37	0.57
Avail Cap(c_a), veh/h				554	0	868	257	2111	0	0	2145	957
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.88	0.88	0.00	0.00	0.46	0.46
Uniform Delay (d), s/veh				25.0	0.0	29.1	4.9	0.0	0.0	0.0	18.8	22.6
Incr Delay (d2), s/veh				0.3	0.0	5.4	5.5	0.6	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln				1.7	0.0	5.3	0.5	0.2	0.0	0.0	7.0	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.3	0.0	34.6	10.5	0.6	0.0	0.0	19.1	23.7
LnGrp LOS				C	A	C	B	A	A	A	B	C
Approach Vol, veh/h					649			1063			1331	
Approach Delay, s/veh					33.0			1.7			20.9	
Approach LOS					C			A			C	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	54.5		54.5		25.5			
Change Period (Y+Rc), s	6.2		6.2		6.7			
Max Green Setting (Gmax), s	41.8		41.8		25.3			
Max Q Clear Time (g_c+I1), s	32.9		26.6		17.0			
Green Ext Time (p_c), s	1.4		0.6		1.8			

Intersection Summary		
HCM 6th Ctrl Delay	16.8	
HCM 6th LOS	B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	455	0	111	0	0	0	0	502	44	279	555	0
Future Volume (veh/h)	455	0	111	0	0	0	0	502	44	279	555	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1841	1841	1870	1870	0
Adj Flow Rate, veh/h	535	0	131				0	534	47	313	624	0
Peak Hour Factor	0.85	0.85	0.85				0.94	0.94	0.94	0.89	0.89	0.89
Percent Heavy Veh, %	3	0	3				0	4	4	2	2	0
Cap, veh/h	681	0	313				0	2238	998	569	2274	0
Arrive On Green	0.20	0.00	0.20				0.00	0.64	0.64	1.00	1.00	0.00
Sat Flow, veh/h	3428	0	1572				0	3589	1560	833	3647	0
Grp Volume(v), veh/h	535	0	131				0	534	47	313	624	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1749	1560	833	1777	0
Q Serve(g_s), s	11.9	0.0	5.8				0.0	5.2	0.9	7.4	0.0	0.0
Cycle Q Clear(g_c), s	11.9	0.0	5.8				0.0	5.2	0.9	12.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	681	0	313				0	2238	998	569	2274	0
V/C Ratio(X)	0.79	0.00	0.42				0.00	0.24	0.05	0.55	0.27	0.00
Avail Cap(c_a), veh/h	1084	0	497				0	2238	998	569	2274	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.95	0.95	0.00
Uniform Delay (d), s/veh	30.4	0.0	28.0				0.0	6.1	5.3	0.6	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.9				0.0	0.3	0.1	3.6	0.3	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
%ile BackOfQ(50%),veh/ln	5.0	0.0	2.2				0.0	1.3	0.2	0.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	0.0	28.9				0.0	6.4	5.4	4.2	0.3	0.0
LnGrp LOS	C	A	C				A	A	A	A	A	A
Approach Vol, veh/h		666						581			937	
Approach Delay, s/veh		31.8						6.3			1.6	
Approach LOS		C						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	57.4	22.6	57.4
Change Period (Y+Rc), s	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	41.8	* 25	41.8
Max Q Clear Time (g_c+I1), s	7.2	13.9	14.6
Green Ext Time (p_c), s	0.4	2.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	0	1	0	0	3	0	522	1	5	629	32
Future Vol, veh/h	21	0	1	0	0	3	0	522	1	5	629	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	175	-	-	200	-	-	400	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	75	75	75	94	94	94	95	95	95
Heavy Vehicles, %	5	5	5	4	4	4	4	4	4	1	1	1
Mvmt Flow	35	0	2	0	0	4	0	555	1	5	662	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	967	1245	348	897	1262	278	696	0	0	556	0	0
Stage 1	689	689	-	556	556	-	-	-	-	-	-	-
Stage 2	278	556	-	341	706	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.58	6.58	6.98	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.54	4.04	3.34	2.24	-	-	2.21	-	-
Pot Cap-1 Maneuver	409	256	*841	*475	251	713	1195	-	-	1018	-	-
Stage 1	740	661	-	*478	506	-	-	-	-	-	-	-
Stage 2	696	504	-	*797	649	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	405	255	*841	*472	250	713	1195	-	-	1018	-	-
Mov Cap-2 Maneuver	405	255	-	*472	250	-	-	-	-	-	-	-
Stage 1	740	658	-	*478	506	-	-	-	-	-	-	-
Stage 2	692	504	-	*791	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	10.1	0	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1195	-	-	405	841	-	713	1018	-	-
HCM Lane V/C Ratio	-	-	-	0.086	0.002	-	0.006	0.005	-	-
HCM Control Delay (s)	0	-	-	14.7	9.3	0	10.1	8.6	-	-
HCM Lane LOS	A	-	-	B	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	-	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	0	0	0	6	0	5	0	513	5	15	606	0
Future Vol, veh/h	0	0	0	6	0	5	0	513	5	15	606	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	91	91	91	95	95	95
Heavy Vehicles, %	2	2	2	22	22	22	4	4	4	1	1	1
Mvmt Flow	0	0	0	8	0	7	0	564	5	16	638	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1240	1239	638	1234	1234	564	638	0	0	569	0	0
Stage 1	670	670	-	564	564	-	-	-	-	-	-	-
Stage 2	570	569	-	670	670	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.32	6.72	6.42	4.14	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.698	4.198	3.498	2.236	-	-	2.209	-	-
Pot Cap-1 Maneuver	152	175	477	140	162	489	936	-	-	1008	-	-
Stage 1	446	455	-	477	478	-	-	-	-	-	-	-
Stage 2	506	506	-	415	426	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	147	171	477	137	158	489	936	-	-	1008	-	-
Mov Cap-2 Maneuver	147	171	-	137	158	-	-	-	-	-	-	-
Stage 1	446	444	-	477	478	-	-	-	-	-	-	-
Stage 2	499	506	-	405	415	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	24	0	0.2
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	936	-	-	-	204	1008	-	-
HCM Lane V/C Ratio	-	-	-	-	0.072	0.016	-	-
HCM Control Delay (s)	0	-	-	0	24	8.6	0	-
HCM Lane LOS	A	-	-	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-	-

Intersection	
Intersection Delay, s/veh	39.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	12	2	90	33	126	2	380	62	126	454	21
Future Vol, veh/h	12	12	2	90	33	126	2	380	62	126	454	21
Peak Hour Factor	0.61	0.61	0.61	0.83	0.83	0.83	0.88	0.88	0.88	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	4	4	4	2	2	2
Mvmt Flow	20	20	3	108	40	152	2	432	70	134	483	22
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.2	14.3	53.4	42.2
HCM LOS	B	B	F	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	86%	0%	86%	0%	21%	0%	96%
Vol Right, %	0%	14%	0%	14%	0%	79%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	442	12	14	90	159	126	475
LT Vol	2	0	12	0	90	0	126	0
Through Vol	0	380	0	12	0	33	0	454
RT Vol	0	62	0	2	0	126	0	21
Lane Flow Rate	2	502	20	23	108	192	134	505
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.005	0.95	0.051	0.055	0.252	0.387	0.269	0.936
Departure Headway (Hd)	7.419	6.808	9.245	8.62	8.359	7.271	7.212	6.669
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	482	532	387	415	430	494	499	546
Service Time	5.164	4.552	7.012	6.386	6.105	5.016	4.955	4.412
HCM Lane V/C Ratio	0.004	0.944	0.052	0.055	0.251	0.389	0.269	0.925
HCM Control Delay	10.2	53.6	12.5	11.9	13.9	14.6	12.6	50.1
HCM Lane LOS	B	F	B	B	B	B	B	F
HCM 95th-tile Q	0	12.1	0.2	0.2	1	1.8	1.1	11.7

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	20	1	2	38	16	7	162	1	5	139	7
Future Vol, veh/h	2	20	1	2	38	16	7	162	1	5	139	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	89	89	89	85	85	85	86	86	86
Heavy Vehicles, %	0	0	0	2	2	2	6	6	6	1	1	1
Mvmt Flow	2	24	1	2	43	18	8	191	1	6	162	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	416	386	166	399	390	192	170	0	0	192	0	0
Stage 1	178	178	-	208	208	-	-	-	-	-	-	-
Stage 2	238	208	-	191	182	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.16	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.254	-	-	2.209	-	-
Pot Cap-1 Maneuver	551	551	884	561	545	850	1383	-	-	1388	-	-
Stage 1	828	756	-	794	730	-	-	-	-	-	-	-
Stage 2	770	734	-	811	749	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	503	545	884	537	539	850	1383	-	-	1388	-	-
Mov Cap-2 Maneuver	503	545	-	537	539	-	-	-	-	-	-	-
Stage 1	823	752	-	789	726	-	-	-	-	-	-	-
Stage 2	705	730	-	780	745	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	11.7	0.3	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	550	602	1388	-	-
HCM Lane V/C Ratio	0.006	-	-	0.05	0.105	0.004	-	-
HCM Control Delay (s)	7.6	0	-	11.9	11.7	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0	-	-

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	45	65	223	214	62	131	140	171	166	58	105	120
Average Queue (ft)	8	15	112	105	9	52	66	73	71	7	32	48
95th Queue (ft)	27	46	191	188	37	107	120	135	141	29	79	93
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	135	271	366	353	432	542	517	113
Average Queue (ft)	62	74	165	252	293	189	148	42
95th Queue (ft)	112	171	291	481	582	633	444	81
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)			2	22	27	0		
Queuing Penalty (veh)			3	47	57	0		

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	142	170	122	103	90	104	146	70	86
Average Queue (ft)	29	79	51	35	25	25	35	15	23
95th Queue (ft)	88	134	100	79	69	68	101	48	64
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	205	190	122	108	92	32	294	40	64
Average Queue (ft)	126	116	49	41	34	11	135	10	13
95th Queue (ft)	189	175	95	90	74	27	249	32	42
Link Distance (ft)		1378		394	394	394		1335	1335
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	WB	SB
Directions Served	L	TR	L
Maximum Queue (ft)	34	22	6
Average Queue (ft)	12	2	0
95th Queue (ft)	32	13	0
Link Distance (ft)		733	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		400
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	40	17
Average Queue (ft)	10	1
95th Queue (ft)	30	9
Link Distance (ft)	769	606
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Latson Road & Crooked Lake Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	29	35	34	70	10	192	66	112
Average Queue (ft)	9	15	14	36	0	83	32	55
95th Queue (ft)	29	38	35	60	5	155	55	88
Link Distance (ft)		1519		1017		1126		1561
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		650		300		1000	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	47	45	8	24
Average Queue (ft)	11	11	0	1
95th Queue (ft)	31	30	4	11
Link Distance (ft)	1779	1658	1488	1300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Latson Road & Site Drive #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	130	136	259	257	88	600	700	2863	2941	450	176	198
Average Queue (ft)	71	72	128	129	29	564	652	1646	1652	348	100	115
95th Queue (ft)	120	118	214	220	78	685	807	3270	3316	556	183	199
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)								7	9			
Queuing Penalty (veh)								0	0			
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)						58	80	6	29	32		
Queuing Penalty (veh)						250	346	34	219	136		

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	255	259	189	438	505	592	420	86
Average Queue (ft)	141	131	88	316	349	240	208	36
95th Queue (ft)	220	216	151	499	581	695	583	69
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)		0		31	41	0	0	
Queuing Penalty (veh)		0		69	92	0	0	

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	182	234	206	196	119	118	112	104	119
Average Queue (ft)	86	143	115	86	46	53	43	35	49
95th Queue (ft)	167	212	187	176	94	101	92	78	94
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	204	191	144	109	101	29	253	70	73
Average Queue (ft)	116	118	64	50	43	9	103	17	19
95th Queue (ft)	185	177	123	96	87	25	199	46	49
Link Distance (ft)		1378		394	394	394		1335	1335
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	EB	WB	SB
Directions Served	L	TR	TR	L
Maximum Queue (ft)	38	14	22	23
Average Queue (ft)	11	1	2	2
95th Queue (ft)	33	7	11	13
Link Distance (ft)		1023	733	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			400
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	WB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	53	59
Average Queue (ft)	9	5
95th Queue (ft)	34	30
Link Distance (ft)	769	606
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Latson Road & Crooked Lake Road

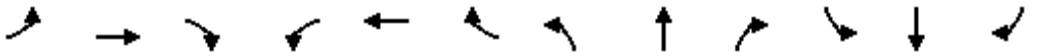
Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	38	39	66	94	16	370	88	216
Average Queue (ft)	9	12	32	46	2	146	38	102
95th Queue (ft)	31	35	56	78	15	309	68	177
Link Distance (ft)		1519		1017		1126		1561
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		650		300		1000	
Storage Blk Time (%)						6		
Queuing Penalty (veh)						0		

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	20	43	12	16
Average Queue (ft)	8	13	0	1
95th Queue (ft)	19	26	5	7
Link Distance (ft)	1779	1658	1488	1300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Latson Road & Site Drive #1

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	538	198	252	447	167	205	261	386	566	493	134
Future Volume (veh/h)	72	538	198	252	447	167	205	261	386	566	493	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1767	1767	1767	1796	1796	1796	1781	1781	1781	1841	1841	1841
Adj Flow Rate, veh/h	78	585	215	293	520	194	236	300	444	615	536	146
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %	9	9	9	7	7	7	8	8	8	4	4	4
Cap, veh/h	156	830	522	236	924	734	346	485	324	719	873	464
Arrive On Green	0.05	0.25	0.25	0.07	0.27	0.27	0.11	0.14	0.14	0.21	0.25	0.25
Sat Flow, veh/h	3264	3357	1476	3319	3413	1521	3291	3385	1510	3401	3497	1560
Grp Volume(v), veh/h	78	585	215	293	520	194	236	300	444	615	536	146
Grp Sat Flow(s),veh/h/ln	1632	1678	1476	1659	1706	1521	1646	1692	1510	1700	1749	1560
Q Serve(g_s), s	2.1	14.3	9.9	6.4	11.8	6.8	6.2	7.5	12.9	15.7	12.2	6.5
Cycle Q Clear(g_c), s	2.1	14.3	9.9	6.4	11.8	6.8	6.2	7.5	12.9	15.7	12.2	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	830	522	236	924	734	346	485	324	719	873	464
V/C Ratio(X)	0.50	0.70	0.41	1.24	0.56	0.26	0.68	0.62	1.37	0.85	0.61	0.31
Avail Cap(c_a), veh/h	232	830	522	236	924	734	764	485	324	790	873	464
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	30.9	22.1	41.8	28.2	13.8	38.8	36.2	35.4	34.2	29.9	24.5
Incr Delay (d2), s/veh	2.5	5.0	2.4	139.3	2.5	0.9	5.0	5.8	185.6	9.8	3.2	1.8
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(50%),veh/ln	0.9	5.9	3.4	7.0	4.7	2.2	2.6	3.3	23.1	6.9	5.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	35.9	24.5	181.1	30.7	14.7	43.8	42.1	221.0	43.9	33.1	26.3
LnGrp LOS	D	D	C	F	C	B	D	D	F	D	C	C
Approach Vol, veh/h		878			1007			980			1297	
Approach Delay, s/veh		33.8			71.4			123.5			37.5	
Approach LOS		C			E			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	32.0	16.6	29.6	14.0	29.9	26.1	20.0
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	6.4	20.4	20.9	12.9	6.4	20.4	20.9	12.9
Max Q Clear Time (g_c+I1), s	4.1	13.8	8.2	14.2	8.4	16.3	17.7	14.9
Green Ext Time (p_c), s	0.0	0.4	1.3	0.0	0.0	0.3	1.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	65.2
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	192	0	192	210	869	0	0	684	287
Future Volume (veh/h)	0	0	0	192	0	192	210	869	0	0	684	287
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1767	0	1767	1841	1841	0	0	1722	1722
Adj Flow Rate, veh/h				213	0	213	239	988	0	0	769	322
Peak Hour Factor				0.90	0.90	0.90	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %				9	0	9	4	4	0	0	12	12
Cap, veh/h				274	0	429	333	2364	0	0	2212	987
Arrive On Green				0.16	0.00	0.16	1.00	1.00	0.00	0.00	0.22	0.22
Sat Flow, veh/h				1682	0	2635	509	3589	0	0	3358	1459
Grp Volume(v), veh/h				213	0	213	239	988	0	0	769	322
Grp Sat Flow(s),veh/h/ln				1682	0	1317	509	1749	0	0	1636	1459
Q Serve(g_s), s				9.7	0.0	5.9	36.1	0.0	0.0	0.0	15.8	14.8
Cycle Q Clear(g_c), s				9.7	0.0	5.9	51.9	0.0	0.0	0.0	15.8	14.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				274	0	429	333	2364	0	0	2212	987
V/C Ratio(X)				0.78	0.00	0.50	0.72	0.42	0.00	0.00	0.35	0.33
Avail Cap(c_a), veh/h				532	0	833	333	2364	0	0	2212	987
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.88	0.88	0.00	0.00	0.72	0.72
Uniform Delay (d), s/veh				32.1	0.0	30.5	7.6	0.0	0.0	0.0	16.2	15.8
Incr Delay (d2), s/veh				4.8	0.0	0.9	11.1	0.5	0.0	0.0	0.3	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
%ile BackOfQ(50%),veh/ln				4.2	0.0	1.9	1.5	0.2	0.0	0.0	6.8	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.9	0.0	31.4	18.7	0.5	0.0	0.0	16.5	16.4
LnGrp LOS				D	A	C	B	A	A	A	B	B
Approach Vol, veh/h					426			1227			1091	
Approach Delay, s/veh					34.1			4.0			16.5	
Approach LOS					C			A			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	60.3		60.3		19.7			
Change Period (Y+Rc), s	6.2		6.2		6.7			
Max Green Setting (Gmax), s	41.8		41.8		25.3			
Max Q Clear Time (g_c+I1), s	53.9		17.8		11.7			
Green Ext Time (p_c), s	0.0		0.6		1.3			

Intersection Summary		
HCM 6th Ctrl Delay	13.7	
HCM 6th LOS	B	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	479	0	330	0	0	0	0	600	193	289	587	0
Future Volume (veh/h)	479	0	330	0	0	0	0	600	193	289	587	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1870	1870	1752	1752	0
Adj Flow Rate, veh/h	544	0	375				0	645	208	328	667	0
Peak Hour Factor	0.88	0.88	0.88				0.93	0.93	0.93	0.88	0.88	0.88
Percent Heavy Veh, %	5	0	5				0	2	2	10	10	0
Cap, veh/h	937	0	430				0	1994	889	371	1867	0
Arrive On Green	0.28	0.00	0.28				0.00	0.56	0.56	1.00	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3647	1585	606	3416	0
Grp Volume(v), veh/h	544	0	375				0	645	208	328	667	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1777	1585	606	1664	0
Q Serve(g_s), s	11.1	0.0	18.5				0.0	7.8	5.3	37.1	0.0	0.0
Cycle Q Clear(g_c), s	11.1	0.0	18.5				0.0	7.8	5.3	44.9	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	937	0	430				0	1994	889	371	1867	0
V/C Ratio(X)	0.58	0.00	0.87				0.00	0.32	0.23	0.88	0.36	0.00
Avail Cap(c_a), veh/h	1067	0	489				0	1994	889	371	1867	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	24.9	0.0	27.5				0.0	9.4	8.9	6.6	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	14.5				0.0	0.4	0.6	23.1	0.5	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
%ile BackOfQ(50%),veh/ln	4.4	0.0	8.4				0.0	2.4	1.5	2.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	42.1				0.0	9.8	9.5	29.7	0.5	0.0
LnGrp LOS	C	A	D				A	A	A	C	A	A
Approach Vol, veh/h		919						853			995	
Approach Delay, s/veh		32.3						9.8			10.1	
Approach LOS		C						A			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	51.1	28.9	51.1
Change Period (Y+Rc), s	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	41.8	* 25	41.8
Max Q Clear Time (g_c+I1), s	9.8	20.5	46.9
Green Ext Time (p_c), s	0.5	1.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	0	0	40	0	122	0	651	58	128	779	10
Future Vol, veh/h	20	0	0	40	0	122	0	651	58	128	779	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	175	-	-	200	-	-	400	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	60	60	60	94	94	94	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	10	10	10
Mvmt Flow	33	0	0	67	0	203	0	693	62	145	885	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1528	1936	448	1457	1910	378	896	0	0	755	0	0
Stage 1	1181	1181	-	724	724	-	-	-	-	-	-	-
Stage 2	347	755	-	733	1186	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.14	-	-	4.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.22	-	-	2.3	-	-
Pot Cap-1 Maneuver	159	87	*778	*187	91	625	1106	-	-	801	-	-
Stage 1	401	409	-	*388	433	-	-	-	-	-	-	-
Stage 2	648	420	-	*733	406	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	92	71	*778	*161	75	625	1106	-	-	801	-	-
Mov Cap-2 Maneuver	92	71	-	*161	75	-	-	-	-	-	-	-
Stage 1	401	335	-	*388	433	-	-	-	-	-	-	-
Stage 2	437	420	-	*601	333	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	64.4	20.6	0	1.5
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1106	-	-	92	-	161	625	801	-	-
HCM Lane V/C Ratio	-	-	-	0.356	-	0.414	0.325	0.182	-	-
HCM Control Delay (s)	0	-	-	64.4	0	42.3	13.5	10.5	-	-
HCM Lane LOS	A	-	-	F	A	E	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	1.4	-	1.8	1.4	0.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	27	0	2	5	0	10	10	592	1	5	374	116
Future Vol, veh/h	27	0	2	5	0	10	10	592	1	5	374	116
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	81	81	81	95	95	95	90	90	90
Heavy Vehicles, %	2	2	2	8	8	8	2	2	2	9	9	9
Mvmt Flow	29	0	2	6	0	12	11	623	1	6	416	129

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1145	1139	481	1139	1202	623	545	0	0	624	0	0
Stage 1	493	493	-	645	645	-	-	-	-	-	-	-
Stage 2	652	646	-	494	557	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.58	6.28	4.12	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.072	3.372	2.218	-	-	2.281	-	-
Pot Cap-1 Maneuver	177	201	585	174	180	475	1024	-	-	924	-	-
Stage 1	558	547	-	451	458	-	-	-	-	-	-	-
Stage 2	457	467	-	546	503	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	169	196	585	170	175	475	1024	-	-	924	-	-
Mov Cap-2 Maneuver	169	196	-	170	175	-	-	-	-	-	-	-
Stage 1	549	542	-	444	451	-	-	-	-	-	-	-
Stage 2	438	460	-	539	498	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.5	17.9	0.1	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1024	-	-	178	297	924	-	-
HCM Lane V/C Ratio	0.01	-	-	0.177	0.062	0.006	-	-
HCM Control Delay (s)	8.6	0	-	29.5	17.9	8.9	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.2	0	-	-

Intersection	
Intersection Delay, s/veh	17.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	19	4	24	17	106	2	341	110	81	211	8
Future Vol, veh/h	14	19	4	24	17	106	2	341	110	81	211	8
Peak Hour Factor	0.68	0.68	0.68	0.83	0.83	0.83	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	3	3	3	3	3	3	9	9	9
Mvmt Flow	21	28	6	29	20	128	2	371	120	86	224	9
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.4	11	23.6	12
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	76%	0%	83%	0%	14%	0%	96%
Vol Right, %	0%	24%	0%	17%	0%	86%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	451	14	23	24	123	81	219
LT Vol	2	0	14	0	24	0	81	0
Through Vol	0	341	0	19	0	17	0	211
RT Vol	0	110	0	4	0	106	0	8
Lane Flow Rate	2	490	21	34	29	148	86	233
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.004	0.758	0.043	0.065	0.059	0.256	0.156	0.388
Departure Headway (Hd)	6.248	5.57	7.59	6.954	7.352	6.228	6.527	5.995
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	573	652	470	513	486	575	550	599
Service Time	3.983	3.305	5.357	4.721	5.108	3.983	4.268	3.736
HCM Lane V/C Ratio	0.003	0.752	0.045	0.066	0.06	0.257	0.156	0.389
HCM Control Delay	9	23.7	10.7	10.2	10.6	11.1	10.5	12.5
HCM Lane LOS	A	C	B	B	B	B	B	B
HCM 95th-tile Q	0	6.9	0.1	0.2	0.2	1	0.5	1.8

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	16	5	2	13	10	2	118	6	9	74	2
Future Vol, veh/h	3	16	5	2	13	10	2	118	6	9	74	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	79	79	79	85	85	85	71	71	71
Heavy Vehicles, %	10	10	10	14	14	14	3	3	3	10	10	10
Mvmt Flow	4	21	7	3	16	13	2	139	7	13	104	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	293	282	106	293	280	143	107	0	0	146	0	0
Stage 1	132	132	-	147	147	-	-	-	-	-	-	-
Stage 2	161	150	-	146	133	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.24	6.64	6.34	4.13	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.24	5.64	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.24	5.64	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.626	4.126	3.426	2.227	-	-	2.29	-	-
Pot Cap-1 Maneuver	644	613	927	636	609	874	1478	-	-	1388	-	-
Stage 1	853	772	-	828	753	-	-	-	-	-	-	-
Stage 2	823	758	-	829	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	616	606	927	609	602	874	1478	-	-	1388	-	-
Mov Cap-2 Maneuver	616	606	-	609	602	-	-	-	-	-	-	-
Stage 1	852	764	-	827	752	-	-	-	-	-	-	-
Stage 2	793	757	-	792	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	10.5	0.1	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	655	688	1388	-	-
HCM Lane V/C Ratio	0.002	-	-	0.049	0.046	0.009	-	-
HCM Control Delay (s)	7.4	0	-	10.8	10.5	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	0	2	9	0	38	10	616	16	79	507	233
Future Vol, veh/h	55	0	2	9	0	38	10	616	16	79	507	233
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	94	94	94	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	10	10	10
Mvmt Flow	60	0	2	10	0	41	11	655	17	89	570	262

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1229	1573	416	1149	1696	336	832	0	0	672	0	0
Stage 1	879	879	-	686	686	-	-	-	-	-	-	-
Stage 2	350	694	-	463	1010	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.3	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.3	-	-
Pot Cap-1 Maneuver	212	139	*887	*250	113	660	985	-	-	863	-	-
Stage 1	483	486	-	*404	446	-	-	-	-	-	-	-
Stage 2	639	442	-	*836	412	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	182	124	*887	*228	100	660	985	-	-	863	-	-
Mov Cap-2 Maneuver	182	124	-	*228	100	-	-	-	-	-	-	-
Stage 1	477	436	-	*400	441	-	-	-	-	-	-	-
Stage 2	592	437	-	*748	370	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.5	13.3	0.1	0.9
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	985	-	-	187	484	863	-	-
HCM Lane V/C Ratio	0.011	-	-	0.331	0.106	0.103	-	-
HCM Control Delay (s)	8.7	-	-	33.5	13.3	9.6	-	-
HCM Lane LOS	A	-	-	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.4	0.4	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	161	3	5	442	293	88
Future Vol, veh/h	161	3	5	442	293	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	94	94	92	92
Heavy Vehicles, %	2	2	2	2	9	9
Mvmt Flow	175	3	5	470	318	96

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	846	366	414	0	-	0
Stage 1	366	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	333	679	1145	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	331	679	1145	-	-	-
Mov Cap-2 Maneuver	331	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27.5	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1145	-	334	-	-
HCM Lane V/C Ratio	0.005	-	0.534	-	-
HCM Control Delay (s)	8.2	0	27.5	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0	-	3	-	-

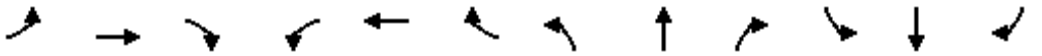
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	25	2	6	0
Future Vol, veh/h	0	31	25	2	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	27	2	7	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	29	0	-	0	62	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	34	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1584	-	-	-	944	1047
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1584	-	-	-	944	1047
Mov Cap-2 Maneuver	-	-	-	-	944	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	988	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1584	-	-	-	944
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	661	295	596	863	751	360	578	386	357	500	118
Future Volume (veh/h)	298	661	295	596	863	751	360	578	386	357	500	118
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	320	711	317	627	908	791	387	622	415	384	538	127
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	845	533	476	925	569	342	707	534	342	707	498
Arrive On Green	0.12	0.24	0.24	0.14	0.26	0.26	0.10	0.20	0.20	0.10	0.20	0.20
Sat Flow, veh/h	3456	3554	1583	3456	3554	1583	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	320	711	317	627	908	791	387	622	415	384	538	127
Grp Sat Flow(s),veh/h/ln	1728	1777	1583	1728	1777	1583	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	8.1	17.2	14.9	12.4	22.8	23.4	8.9	15.3	17.9	8.9	12.9	5.4
Cycle Q Clear(g_c), s	8.1	17.2	14.9	12.4	22.8	23.4	8.9	15.3	17.9	8.9	12.9	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	845	533	476	925	569	342	707	534	342	707	498
V/C Ratio(X)	0.80	0.84	0.59	1.32	0.98	1.39	1.13	0.88	0.78	1.12	0.76	0.26
Avail Cap(c_a), veh/h	476	845	533	476	925	569	342	707	534	342	707	498
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	32.7	24.8	38.8	33.1	28.8	40.5	35.0	26.8	40.5	34.0	23.0
Incr Delay (d2), s/veh	8.2	9.9	4.8	156.9	25.5	186.5	89.6	14.7	10.7	86.5	7.6	1.2
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(50%),veh/ln	3.7	7.9	5.7	15.3	12.2	40.1	7.8	7.5	8.6	7.6	5.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	42.6	29.6	195.7	58.6	215.3	130.1	49.7	37.5	127.0	41.6	24.2
LnGrp LOS	D	D	C	F	E	F	F	D	D	F	D	C
Approach Vol, veh/h		1348			2326			1424			1049	
Approach Delay, s/veh		40.6			148.8			68.0			70.8	
Approach LOS		D			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	31.0	16.0	25.0	20.0	29.0	16.0	25.0
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	12.4	21.4	8.9	17.9	12.4	21.4	8.9	17.9
Max Q Clear Time (g_c+I1), s	10.1	25.4	10.9	14.9	14.4	19.2	10.9	19.9
Green Ext Time (p_c), s	0.3	0.0	0.0	2.2	0.0	0.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	93.1
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	254	0	491	333	1098	0	0	904	703
Future Volume (veh/h)	0	0	0	254	0	491	333	1098	0	0	904	703
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1841	0	1841	1841	1841	0	0	1870	1870
Adj Flow Rate, veh/h				279	0	540	370	1220	0	0	972	541
Peak Hour Factor				0.91	0.91	0.91	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %				4	0	4	4	4	0	0	2	2
Cap, veh/h				420	0	658	212	2096	0	0	2130	950
Arrive On Green				0.24	0.00	0.24	1.00	1.00	0.00	0.00	0.20	0.20
Sat Flow, veh/h				1753	0	2745	340	3589	0	0	3647	1585
Grp Volume(v), veh/h				279	0	540	370	1220	0	0	972	541
Grp Sat Flow(s),veh/h/ln				1753	0	1373	340	1749	0	0	1777	1585
Q Serve(g_s), s				11.5	0.0	14.9	28.6	0.0	0.0	0.0	19.3	24.7
Cycle Q Clear(g_c), s				11.5	0.0	14.9	47.9	0.0	0.0	0.0	19.3	24.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				420	0	658	212	2096	0	0	2130	950
V/C Ratio(X)				0.66	0.00	0.82	1.75	0.58	0.00	0.00	0.46	0.57
Avail Cap(c_a), veh/h				554	0	868	212	2096	0	0	2130	950
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.81	0.81	0.00	0.00	0.25	0.25
Uniform Delay (d), s/veh				27.5	0.0	28.8	15.7	0.0	0.0	0.0	20.6	22.8
Incr Delay (d2), s/veh				1.9	0.0	4.8	351.6	1.0	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln				4.9	0.0	5.2	24.0	0.3	0.0	0.0	8.9	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.4	0.0	33.6	367.4	1.0	0.0	0.0	20.8	23.4
LnGrp LOS				C	A	C	F	A	A	A	C	C
Approach Vol, veh/h					819			1590			1513	
Approach Delay, s/veh					32.2			86.2			21.7	
Approach LOS					C			F			C	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	54.1		54.1		25.9			
Change Period (Y+Rc), s	6.2		6.2		6.7			
Max Green Setting (Gmax), s	41.8		41.8		25.3			
Max Q Clear Time (g_c+I1), s	49.9		26.7		16.9			
Green Ext Time (p_c), s	0.0		0.7		2.3			

Intersection Summary		
HCM 6th Ctrl Delay	50.1	
HCM 6th LOS	D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	455	0	249	0	0	0	0	976	263	279	879	0
Future Volume (veh/h)	455	0	249	0	0	0	0	976	263	279	879	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1841	1841	1870	1870	0
Adj Flow Rate, veh/h	535	0	293				0	1038	280	313	988	0
Peak Hour Factor	0.85	0.85	0.85				0.94	0.94	0.94	0.89	0.89	0.89
Percent Heavy Veh, %	3	0	3				0	4	4	2	2	0
Cap, veh/h	790	0	362				0	2128	949	275	2162	0
Arrive On Green	0.23	0.00	0.23				0.00	0.61	0.61	1.00	1.00	0.00
Sat Flow, veh/h	3428	0	1572				0	3589	1560	417	3647	0
Grp Volume(v), veh/h	535	0	293				0	1038	280	313	988	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1749	1560	417	1777	0
Q Serve(g_s), s	11.4	0.0	14.1				0.0	13.2	6.9	35.5	0.0	0.0
Cycle Q Clear(g_c), s	11.4	0.0	14.1				0.0	13.2	6.9	48.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	790	0	362				0	2128	949	275	2162	0
V/C Ratio(X)	0.68	0.00	0.81				0.00	0.49	0.30	1.14	0.46	0.00
Avail Cap(c_a), veh/h	1084	0	497				0	2128	949	275	2162	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.85	0.85	0.00
Uniform Delay (d), s/veh	28.1	0.0	29.1				0.0	8.7	7.5	12.4	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	6.9				0.0	0.8	0.8	93.5	0.6	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
%ile BackOfQ(50%),veh/ln	4.7	0.0	5.9				0.0	3.7	1.8	9.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	0.0	36.1				0.0	9.5	8.3	105.9	0.6	0.0
LnGrp LOS	C	A	D				A	A	A	F	A	A
Approach Vol, veh/h		828						1318			1301	
Approach Delay, s/veh		31.6						9.3			25.9	
Approach LOS		C						A			C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	54.9	25.1	54.9
Change Period (Y+Rc), s	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	41.8	* 25	41.8
Max Q Clear Time (g_c+I1), s	15.2	16.1	50.7
Green Ext Time (p_c), s	0.9	2.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	37

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	0	1	67	0	173	0	1045	58	181	915	32
Future Vol, veh/h	21	0	1	67	0	173	0	1045	58	181	915	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	175	-	-	200	-	-	400	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	75	75	75	94	94	94	95	95	95
Heavy Vehicles, %	5	5	5	4	4	4	4	4	4	1	1	1
Mvmt Flow	35	0	2	89	0	231	0	1112	62	191	963	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1918	2536	499	2007	2522	587	997	0	0	1174	0	0
Stage 1	1362	1362	-	1143	1143	-	-	-	-	-	-	-
Stage 2	556	1174	-	864	1379	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.6	7	7.58	6.58	6.98	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.6	5.6	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.6	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4.05	3.35	3.54	4.04	3.34	2.24	-	-	2.21	-	-
Pot Cap-1 Maneuver	65	24	*729	*~ 52	25	448	1045	-	-	596	-	-
Stage 1	309	331	-	*210	269	-	-	-	-	-	-	-
Stage 2	475	258	-	*690	323	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	~ 24	17	*729	*~ 39	17	448	1045	-	-	596	-	-
Mov Cap-2 Maneuver	~ 24	17	-	*~ 39	17	-	-	-	-	-	-	-
Stage 1	309	225	-	*210	269	-	-	-	-	-	-	-
Stage 2	230	258	-	*468	220	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 562.1	241.8	0	2.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1045	-	-	24	729	39	448	596	-	-
HCM Lane V/C Ratio	-	-	-	1.458	0.002	2.291	0.515	0.32	-	-
HCM Control Delay (s)	0	-	-	$ 588.4	10	$ 811.3	21.3	13.9	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	4.4	0	9.7	2.9	1.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	31.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	112	0	10	6	0	5	3	662	5	15	803	32
Future Vol, veh/h	112	0	10	6	0	5	3	662	5	15	803	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	40	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	91	91	91	95	95	95
Heavy Vehicles, %	2	2	2	22	22	22	4	4	4	1	1	1
Mvmt Flow	122	0	11	8	0	7	3	727	5	16	845	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1633	1632	862	1633	1644	727	879	0	0	732	0	0
Stage 1	894	894	-	733	733	-	-	-	-	-	-	-
Stage 2	739	738	-	900	911	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.32	6.72	6.42	4.14	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.698	4.198	3.498	2.236	-	-	2.209	-	-
Pot Cap-1 Maneuver	~ 81	101	355	73	90	392	760	-	-	877	-	-
Stage 1	336	360	-	383	398	-	-	-	-	-	-	-
Stage 2	409	424	-	307	327	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 77	97	355	68	86	392	760	-	-	877	-	-
Mov Cap-2 Maneuver	~ 77	97	-	68	86	-	-	-	-	-	-	-
Stage 1	334	347	-	380	395	-	-	-	-	-	-	-
Stage 2	399	421	-	287	315	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 414.1	43.1	0	0.2
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	760	-	-	82	109	877	-	-
HCM Lane V/C Ratio	0.004	-	-	1.617	0.135	0.018	-	-
HCM Control Delay (s)	9.8	0	-	$ 414.1	43.1	9.2	0	-
HCM Lane LOS	A	A	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	10.9	0.4	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	49.9
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	14	5	90	36	133	7	394	62	138	482	21
Future Vol, veh/h	12	14	5	90	36	133	7	394	62	138	482	21
Peak Hour Factor	0.61	0.61	0.61	0.83	0.83	0.83	0.88	0.88	0.88	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	4	4	4	2	2	2
Mvmt Flow	20	23	8	108	43	160	8	448	70	147	513	22
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.4	15	63.3	58.3
HCM LOS	B	B	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	86%	0%	74%	0%	21%	0%	96%
Vol Right, %	0%	14%	0%	26%	0%	79%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	456	12	19	90	169	138	503
LT Vol	7	0	12	0	90	0	138	0
Through Vol	0	394	0	14	0	36	0	482
RT Vol	0	62	0	5	0	133	0	21
Lane Flow Rate	8	518	20	31	108	204	147	535
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.017	0.992	0.051	0.074	0.254	0.415	0.302	1.021
Departure Headway (Hd)	7.66	7.051	9.553	8.838	8.601	7.513	7.408	6.866
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	470	518	377	408	421	483	489	530
Service Time	5.36	4.751	7.253	6.538	6.301	5.213	5.108	4.566
HCM Lane V/C Ratio	0.017	1	0.053	0.076	0.257	0.422	0.301	1.009
HCM Control Delay	10.5	64.1	12.8	12.2	14.2	15.4	13.3	70.7
HCM Lane LOS	B	F	B	B	B	C	B	F
HCM 95th-tile Q	0.1	13.5	0.2	0.2	1	2	1.3	14.9

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	20	1	2	38	16	7	162	1	5	139	7
Future Vol, veh/h	2	20	1	2	38	16	7	162	1	5	139	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	89	89	89	85	85	85	86	86	86
Heavy Vehicles, %	0	0	0	2	2	2	6	6	6	1	1	1
Mvmt Flow	2	24	1	2	43	18	8	191	1	6	162	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	416	386	166	399	390	192	170	0	0	192	0	0
Stage 1	178	178	-	208	208	-	-	-	-	-	-	-
Stage 2	238	208	-	191	182	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.16	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.254	-	-	2.209	-	-
Pot Cap-1 Maneuver	551	551	884	561	545	850	1383	-	-	1388	-	-
Stage 1	828	756	-	794	730	-	-	-	-	-	-	-
Stage 2	770	734	-	811	749	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	503	545	884	537	539	850	1383	-	-	1388	-	-
Mov Cap-2 Maneuver	503	545	-	537	539	-	-	-	-	-	-	-
Stage 1	823	752	-	789	726	-	-	-	-	-	-	-
Stage 2	705	730	-	780	745	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	11.7	0.3	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	550	602	1388	-	-
HCM Lane V/C Ratio	0.006	-	-	0.05	0.105	0.004	-	-
HCM Control Delay (s)	7.6	0	-	11.9	11.7	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0	-	-

Intersection	
Int Delay, s/veh	71.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	224	0	10	29	0	121	3	758	23	100	820	63
Future Vol, veh/h	224	0	10	29	0	121	3	758	23	100	820	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	225	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	94	94	94	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	4	4	4	1	1	1
Mvmt Flow	243	0	11	32	0	132	3	806	24	105	863	66

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1515	1942	465	1466	1963	415	929	0	0	830	0	0
Stage 1	1106	1106	-	824	824	-	-	-	-	-	-	-
Stage 2	409	836	-	642	1139	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.18	-	-	4.12	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.24	-	-	2.21	-	-
Pot Cap-1 Maneuver	~ 161	84	*773	*181	81	586	1054	-	-	804	-	-
Stage 1	458	452	-	*333	385	-	-	-	-	-	-	-
Stage 2	590	381	-	*729	431	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1		1	-	-		-	-
Mov Cap-1 Maneuver	~ 112	73	*773	*160	70	586	1054	-	-	804	-	-
Mov Cap-2 Maneuver	~ 112	73	-	*160	70	-	-	-	-	-	-	-
Stage 1	456	393	-	*332	384	-	-	-	-	-	-	-
Stage 2	456	380	-	*625	374	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 624.7	20.9	0	1
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1054	-	-	116	387	804	-	-
HCM Lane V/C Ratio	0.003	-	-	2.193	0.421	0.131	-	-
HCM Control Delay (s)	8.4	-	-	$ 624.7	20.9	10.2	-	-
HCM Lane LOS	A	-	-	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	21.7	2	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	134	6	3	536	646	173
Future Vol, veh/h	134	6	3	536	646	173
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	91	91	95	95
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	146	7	3	589	680	182

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1366	771	862	0	-	0
Stage 1	771	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.14	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.236	-	-	-
Pot Cap-1 Maneuver	162	400	772	-	-	-
Stage 1	456	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	161	400	772	-	-	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	106.1	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	772	-	165	-	-
HCM Lane V/C Ratio	0.004	-	0.922	-	-
HCM Control Delay (s)	9.7	0	106.1	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0	-	6.8	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	26	56	8	5	0
Future Vol, veh/h	0	26	56	8	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	61	9	5	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	94	66
Stage 1	-	-	-	-	66	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1531	-	-	-	906	998
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	995	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1531	-	-	-	906	998
Mov Cap-2 Maneuver	-	-	-	-	906	-
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	995	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1531	-	-	-	906
HCM Lane V/C Ratio	-	-	-	-	0.006
HCM Control Delay (s)	0	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	53	88	239	203	71	298	341	172	151	76	114	150
Average Queue (ft)	10	20	124	119	13	153	176	79	79	7	45	60
95th Queue (ft)	32	55	201	199	41	292	321	148	148	31	92	109
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	151	133	387	360	381	184	196	73
Average Queue (ft)	73	73	189	213	228	94	121	36
95th Queue (ft)	130	112	309	324	339	152	189	66
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)			4	2	3			
Queuing Penalty (veh)			4	4	7			

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	233	111	110	594	114	117	394	420	350
Average Queue (ft)	122	69	54	316	50	50	214	185	80
95th Queue (ft)	211	104	98	621	100	106	495	466	265
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)							19	8	
Queuing Penalty (veh)							86	35	
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)								9	
Queuing Penalty (veh)								24	

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	279	279	244	149	106	60	1025	1362	1338
Average Queue (ft)	135	127	157	80	55	23	881	896	357
95th Queue (ft)	229	202	243	132	90	45	1182	1790	1134
Link Distance (ft)		1378		394	394	394		1335	1335
Upstream Blk Time (%)								29	1
Queuing Penalty (veh)								120	5
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)							52	16	
Queuing Penalty (veh)							148	46	

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	TR	TR	L
Maximum Queue (ft)	95	96	136	20	148
Average Queue (ft)	29	37	36	1	54
95th Queue (ft)	75	82	75	7	113
Link Distance (ft)			733	631	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250	175			400
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	EB	WB	NB
Directions Served	LTR	LTR	LT
Maximum Queue (ft)	74	81	59
Average Queue (ft)	19	11	4
95th Queue (ft)	45	40	25
Link Distance (ft)	1212	769	2180
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

Intersection: 6: Latson Road & Crooked Lake Road

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	TR	TR	L	TR
Maximum Queue (ft)	52	31	29	54	287	91	94
Average Queue (ft)	4	16	13	35	87	30	53
95th Queue (ft)	24	39	33	53	171	62	83
Link Distance (ft)		1519		1017	1126		1561
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	200		650			1000	
Storage Blk Time (%)					0		
Queuing Penalty (veh)					0		

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	34	39
Average Queue (ft)	10	8
95th Queue (ft)	22	26
Link Distance (ft)	1779	1658
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Latson Road & Site Drive #1

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	93	52	28	52
Average Queue (ft)	32	26	2	18
95th Queue (ft)	69	50	13	41
Link Distance (ft)	1202	951	289	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				225
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Latson Road & Site Drive #3

Movement	EB
Directions Served	LR
Maximum Queue (ft)	117
Average Queue (ft)	55
95th Queue (ft)	90
Link Distance (ft)	723
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Crooked Lake Road & Site Drive #4

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	7
95th Queue (ft)	29
Link Distance (ft)	416
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 479

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	144	136	213	200	126	600	700	3160	3160	426	490	525
Average Queue (ft)	78	71	117	114	42	599	700	2568	2555	205	186	192
95th Queue (ft)	132	118	183	173	99	601	700	3787	3815	390	397	404
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)								42	41			
Queuing Penalty (veh)								0	0			
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)						84	100	0	0	9		0
Queuing Penalty (veh)						365	431	0	3	41		1

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	561	283	246	462	600	1098	1064	113
Average Queue (ft)	144	123	101	400	492	584	471	46
95th Queue (ft)	306	234	197	555	728	1220	1101	93
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)		0		72	79		0	
Queuing Penalty (veh)		0		180	198		1	

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	310	327	189	1025	1361	1357	153	137	87
Average Queue (ft)	152	140	111	1020	1351	418	68	53	46
95th Queue (ft)	267	230	177	1037	1360	1355	128	110	79
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)					66	4			
Queuing Penalty (veh)					470	33			
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)				88	38				
Queuing Penalty (veh)				480	126				

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	750	1431	750	441	462	72	964	889	851
Average Queue (ft)	566	887	269	396	304	24	540	328	162
95th Queue (ft)	974	1850	733	520	524	66	957	840	523
Link Distance (ft)		1378		394	394	394		1335	1335
Upstream Blk Time (%)		40		84	28				
Queuing Penalty (veh)		0		345	113				
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)	66	20							
Queuing Penalty (veh)	309	97							

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	T	TR	L	T	TR
Maximum Queue (ft)	268	24	350	767	676	695	394	438	394
Average Queue (ft)	159	2	200	636	564	530	204	126	42
95th Queue (ft)	333	11	404	991	926	948	438	422	223
Link Distance (ft)		1023		733	631	631		394	394
Upstream Blk Time (%)				74	80	58	17	18	0
Queuing Penalty (veh)				0	444	321	0	105	0
Storage Bay Dist (ft)	250		175				400		
Storage Blk Time (%)	50		67	83	85		17	18	
Queuing Penalty (veh)	0		117	63	0		76	33	

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	LT	R	LTR
Maximum Queue (ft)	1222	264	2250	80	37
Average Queue (ft)	575	67	1244	8	3
95th Queue (ft)	1394	194	2802	47	17
Link Distance (ft)	1212	769	2180		606
Upstream Blk Time (%)	25		34		
Queuing Penalty (veh)	0		223		
Storage Bay Dist (ft)				40	
Storage Blk Time (%)			58		
Queuing Penalty (veh)			3		

Intersection: 6: Latson Road & Crooked Lake Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	30	31	135	74	499	802	74	138
Average Queue (ft)	4	15	33	46	23	209	35	88
95th Queue (ft)	20	37	74	65	173	554	62	132
Link Distance (ft)		1519		1017		1126		1561
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		650		300		1000	
Storage Blk Time (%)						19		
Queuing Penalty (veh)						1		

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	16	53	19	33
Average Queue (ft)	8	14	1	1
95th Queue (ft)	19	29	6	11
Link Distance (ft)	1779	1658	1488	1300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Latson Road & Site Drive #1

Movement	EB	WB	NB	NB	NB	SB
Directions Served	LTR	LTR	L	T	TR	L
Maximum Queue (ft)	1216	966	28	348	376	202
Average Queue (ft)	981	655	2	257	252	31
95th Queue (ft)	1543	1299	13	464	483	90
Link Distance (ft)	1202	951	289	289	289	
Upstream Blk Time (%)	61	50		55	44	
Queuing Penalty (veh)	0	0		142	117	
Storage Bay Dist (ft)						225
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: Latson Road & Site Drive #3

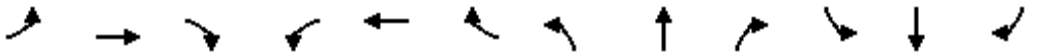
Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	716	1451
Average Queue (ft)	218	385
95th Queue (ft)	632	1265
Link Distance (ft)	723	1419
Upstream Blk Time (%)	13	2
Queuing Penalty (veh)	0	10
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: Crooked Lake Road & Site Drive #4

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	22
Link Distance (ft)	416
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 4849



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	538	198	252	447	167	205	261	386	566	493	134
Future Volume (veh/h)	72	538	198	252	447	167	205	261	386	566	493	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1767	1767	1767	1796	1796	1796	1781	1781	1781	1841	1841	1841
Adj Flow Rate, veh/h	78	585	215	293	520	194	236	300	444	615	536	146
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %	9	9	9	7	7	7	8	8	8	4	4	4
Cap, veh/h	156	670	440	362	892	700	320	560	415	676	935	491
Arrive On Green	0.05	0.20	0.20	0.11	0.26	0.26	0.16	0.28	0.28	0.20	0.27	0.27
Sat Flow, veh/h	3264	3357	1475	3319	3413	1521	3291	3385	1510	3401	3497	1560
Grp Volume(v), veh/h	78	585	215	293	520	194	236	300	444	615	536	146
Grp Sat Flow(s),veh/h/ln	1632	1678	1475	1659	1706	1521	1646	1692	1510	1700	1749	1560
Q Serve(g_s), s	2.1	15.2	10.8	7.8	12.0	7.1	6.1	6.8	14.9	15.9	11.9	6.4
Cycle Q Clear(g_c), s	2.1	15.2	10.8	7.8	12.0	7.1	6.1	6.8	14.9	15.9	11.9	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	670	440	362	892	700	320	560	415	676	935	491
V/C Ratio(X)	0.50	0.87	0.49	0.81	0.58	0.28	0.74	0.54	1.07	0.91	0.57	0.30
Avail Cap(c_a), veh/h	232	670	440	384	892	700	472	560	415	676	935	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	34.9	26.0	39.2	29.0	15.0	36.6	29.6	29.0	35.3	28.5	23.3
Incr Delay (d2), s/veh	2.5	14.7	3.8	11.6	2.8	1.0	6.9	3.6	64.2	17.0	2.6	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	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.1	3.9	3.6	4.8	2.3	2.5	2.7	14.3	7.6	4.9	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	49.6	29.9	50.8	31.8	16.0	43.5	33.3	93.2	52.2	31.1	24.8
LnGrp LOS	D	D	C	D	C	B	D	C	F	D	C	C
Approach Vol, veh/h		878			1007			980			1297	
Approach Delay, s/veh		44.3			34.3			62.9			40.4	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	31.1	15.8	31.2	17.4	25.6	25.0	22.0
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	6.4	21.4	12.9	19.9	10.4	17.4	17.9	14.9
Max Q Clear Time (g_c+I1), s	4.1	14.0	8.1	13.9	9.8	17.2	17.9	16.9
Green Ext Time (p_c), s	0.0	0.4	0.6	4.1	0.1	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	192	0	192	210	869	0	0	684	287
Future Volume (veh/h)	0	0	0	192	0	192	210	869	0	0	684	287
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1767	0	1767	1841	1841	0	0	1722	1722
Adj Flow Rate, veh/h				213	0	213	239	988	0	0	769	322
Peak Hour Factor				0.90	0.90	0.90	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %				9	0	9	4	4	0	0	12	12
Cap, veh/h				262	0	411	508	2450	0	0	1788	798
Arrive On Green				0.16	0.00	0.16	0.17	1.00	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1682	0	2635	1753	3589	0	0	3358	1459
Grp Volume(v), veh/h				213	0	213	239	988	0	0	769	322
Grp Sat Flow(s),veh/h/ln				1682	0	1317	1753	1749	0	0	1636	1459
Q Serve(g_s), s				11.0	0.0	6.7	5.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				11.0	0.0	6.7	5.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				262	0	411	508	2450	0	0	1788	798
V/C Ratio(X)				0.81	0.00	0.52	0.47	0.40	0.00	0.00	0.43	0.40
Avail Cap(c_a), veh/h				398	0	624	666	2450	0	0	1788	798
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh				36.7	0.0	34.9	5.8	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				7.4	0.0	1.0	0.5	0.4	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				5.0	0.0	2.2	1.2	0.1	0.0	0.0	0.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.1	0.0	35.9	6.3	0.4	0.0	0.0	0.6	1.1
LnGrp LOS				D	A	D	A	A	A	A	A	A
Approach Vol, veh/h					426			1227			1091	
Approach Delay, s/veh					40.0			1.5			0.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	69.3		13.9	55.4		20.7
Change Period (Y+Rc), s	6.2		6.2	6.2		6.7
Max Green Setting (Gmax), s	55.8		15.8	33.8		21.3
Max Q Clear Time (g_c+I1), s	2.0		7.3	2.0		13.0
Green Ext Time (p_c), s	0.9		0.4	0.6		1.0

Intersection Summary		
HCM 6th Ctrl Delay		7.2
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	479	0	330	0	0	0	0	600	193	289	587	0
Future Volume (veh/h)	479	0	330	0	0	0	0	600	193	289	587	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1826	0	1826				0	1870	1870	1752	1752	0
Adj Flow Rate, veh/h	544	0	375				0	645	208	328	667	0
Peak Hour Factor	0.88	0.88	0.88				0.93	0.93	0.93	0.88	0.88	0.88
Percent Heavy Veh, %	5	0	5				0	2	2	10	10	0
Cap, veh/h	900	0	413				0	1318	588	510	1963	0
Arrive On Green	0.27	0.00	0.27				0.00	0.74	0.74	0.30	1.00	0.00
Sat Flow, veh/h	3374	0	1547				0	3647	1585	1668	3416	0
Grp Volume(v), veh/h	544	0	375				0	645	208	328	667	0
Grp Sat Flow(s),veh/h/ln	1687	0	1547				0	1777	1585	1668	1664	0
Q Serve(g_s), s	12.7	0.0	21.1				0.0	6.6	4.1	11.0	0.0	0.0
Cycle Q Clear(g_c), s	12.7	0.0	21.1				0.0	6.6	4.1	11.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	900	0	413				0	1318	588	510	1963	0
V/C Ratio(X)	0.60	0.00	0.91				0.00	0.49	0.35	0.64	0.34	0.00
Avail Cap(c_a), veh/h	948	0	435				0	1318	588	627	1963	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.97	0.97	0.83	0.83	0.00
Uniform Delay (d), s/veh	28.8	0.0	31.9				0.0	8.2	7.9	10.4	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	22.0				0.0	1.3	1.6	1.3	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
%ile BackOfQ(50%),veh/ln	5.2	0.0	10.3				0.0	1.9	1.3	2.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	0.0	53.9				0.0	9.4	9.5	11.7	0.4	0.0
LnGrp LOS	C	A	D				A	A	A	B	A	A
Approach Vol, veh/h		919						853			995	
Approach Delay, s/veh		39.7						9.4			4.1	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	19.7	39.6	30.7	59.3
Change Period (Y+Rc), s	6.2	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	13.5	25.8	* 25	51.8
Max Q Clear Time (g_c+I1), s	13.0	8.6	23.1	2.0
Green Ext Time (p_c), s	0.5	0.5	0.9	0.6

Intersection Summary	
HCM 6th Ctrl Delay	17.6
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)	20	0	0	40	0	122	0	651	58	128	779	10
Future Volume (veh/h)	20	0	0	40	0	122	0	651	58	128	779	10
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	1900	1900	1900	1900	1900	1900	1870	1870	1870	1752	1752	1752
Adj Flow Rate, veh/h	33	0	0	67	0	203	0	693	62	145	885	11
Peak Hour Factor	0.61	0.61	0.61	0.60	0.60	0.60	0.94	0.94	0.94	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	10	10	10
Cap, veh/h	139	321	0	324	0	272	80	2275	203	538	2322	29
Arrive On Green	0.17	0.00	0.00	0.17	0.00	0.17	0.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1198	1900	0	1440	0	1610	621	3299	295	664	3367	42
Grp Volume(v), veh/h	33	0	0	67	0	203	0	373	382	145	437	459
Grp Sat Flow(s),veh/h/ln	1198	1900	0	1440	0	1610	621	1777	1817	664	1664	1744
Q Serve(g_s), s	2.4	0.0	0.0	3.6	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.2	0.0	0.0	3.6	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.16	1.00		0.02
Lane Grp Cap(c), veh/h	139	321	0	324	0	272	80	1225	1253	538	1148	1203
V/C Ratio(X)	0.24	0.00	0.00	0.21	0.00	0.75	0.00	0.30	0.30	0.27	0.38	0.38
Avail Cap(c_a), veh/h	247	492	0	453	0	417	80	1225	1253	538	1148	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.98	0.98	0.89	0.89	0.89
Uniform Delay (d), s/veh	41.8	0.0	0.0	32.6	0.0	35.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.3	0.0	4.0	0.0	0.6	0.6	1.1	0.9	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(50%),veh/ln	0.7	0.0	0.0	1.2	0.0	4.2	0.0	0.2	0.2	0.2	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	0.0	0.0	32.9	0.0	39.6	0.0	0.6	0.6	1.1	0.9	0.8
LnGrp LOS	D	A	A	C	A	D	A	A	A	A	A	A
Approach Vol, veh/h		33			270			755			1041	
Approach Delay, s/veh		42.7			37.9			0.6			0.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	68.1	21.9	68.1	21.9
Change Period (Y+Rc), s	* 6	* 6.7	* 6	* 6.7
Max Green Setting (Gmax), s	* 54	* 23	* 54	* 23
Max Q Clear Time (g_c+I1), s	2.0	15.2	2.0	12.8
Green Ext Time (p_c), s	4.4	0.0	7.3	0.9

Intersection Summary	
HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

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

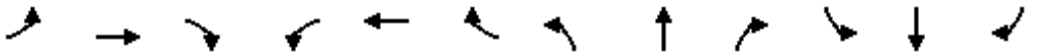
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	0	2	5	0	10	10	592	1	5	374	116
Future Vol, veh/h	27	0	2	5	0	10	10	592	1	5	374	116
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	40	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	81	81	81	95	95	95	90	90	90
Heavy Vehicles, %	2	2	2	8	8	8	2	2	2	9	9	9
Mvmt Flow	29	0	2	6	0	12	11	623	1	6	416	129

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1080	1074	416	1139	1202	623	545	0	0	624	0	0
Stage 1	428	428	-	645	645	-	-	-	-	-	-	-
Stage 2	652	646	-	494	557	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.58	6.28	4.12	-	-	4.19	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.072	3.372	2.218	-	-	2.281	-	-
Pot Cap-1 Maneuver	196	220	637	174	180	475	1024	-	-	924	-	-
Stage 1	605	585	-	451	458	-	-	-	-	-	-	-
Stage 2	457	467	-	546	503	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	187	214	637	170	175	475	1024	-	-	924	-	-
Mov Cap-2 Maneuver	187	214	-	170	175	-	-	-	-	-	-	-
Stage 1	595	579	-	444	451	-	-	-	-	-	-	-
Stage 2	438	460	-	539	498	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.6	17.9	0.1	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1024	-	-	187	637	297	924	-	-
HCM Lane V/C Ratio	0.01	-	-	0.157	0.003	0.062	0.006	-	-
HCM Control Delay (s)	8.6	0	-	27.8	10.7	17.9	8.9	0	-
HCM Lane LOS	A	A	-	D	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0	0.2	0	-	-



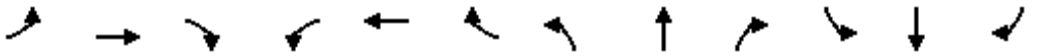
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	19	4	24	17	106	2	341	110	81	211	8
Future Volume (veh/h)	14	19	4	24	17	106	2	341	110	81	211	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1900	1900	1900	1856	1856	1856	1856	1856	1856	1767	1767	1767
Adj Flow Rate, veh/h	21	28	6	29	20	128	2	371	120	86	224	9
Peak Hour Factor	0.68	0.68	0.68	0.83	0.83	0.83	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	3	3	3	3	3	3	9	9	9
Cap, veh/h	352	284	61	454	41	260	596	563	182	389	708	28
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1259	1517	325	1364	217	1389	1138	1343	434	855	1687	68
Grp Volume(v), veh/h	21	0	34	29	0	148	2	0	491	86	0	233
Grp Sat Flow(s),veh/h/ln	1259	0	1842	1364	0	1606	1138	0	1777	855	0	1754
Q Serve(g_s), s	0.5	0.0	0.5	0.6	0.0	2.7	0.0	0.0	7.3	2.9	0.0	2.9
Cycle Q Clear(g_c), s	3.2	0.0	0.5	1.1	0.0	2.7	3.0	0.0	7.3	10.2	0.0	2.9
Prop In Lane	1.00		0.18	1.00		0.86	1.00		0.24	1.00		0.04
Lane Grp Cap(c), veh/h	352	0	345	454	0	301	596	0	746	389	0	736
V/C Ratio(X)	0.06	0.00	0.10	0.06	0.00	0.49	0.00	0.00	0.66	0.22	0.00	0.32
Avail Cap(c_a), veh/h	626	0	746	751	0	651	1290	0	1830	911	0	1807
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	11.0	11.5	0.0	11.9	7.4	0.0	7.6	11.7	0.0	6.4
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	1.2	0.0	0.0	1.0	0.3	0.0	0.2
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(50%),veh/ln	0.1	0.0	0.1	0.1	0.0	0.7	0.0	0.0	1.1	0.3	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.4	0.0	11.2	11.5	0.0	13.2	7.4	0.0	8.6	12.0	0.0	6.6
LnGrp LOS	B	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		55			177			493			319	
Approach Delay, s/veh		12.0			12.9			8.6			8.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		12.9		20.0		12.9				
Change Period (Y+Rc), s		6.2		* 6.7		6.2		* 6.7				
Max Green Setting (Gmax), s		33.8		* 13		33.8		* 13				
Max Q Clear Time (g_c+I1), s		9.3		5.2		12.2		4.7				
Green Ext Time (p_c), s		2.7		0.1		1.6		0.5				

Intersection Summary		
HCM 6th Ctrl Delay	9.4	
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)	55	0	2	9	0	38	10	616	16	79	507	233
Future Volume (veh/h)	55	0	2	9	0	38	10	616	16	79	507	233
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1752	1752	1752
Adj Flow Rate, veh/h	60	0	2	10	0	41	11	655	17	89	570	262
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	10	10	10
Cap, veh/h	163	0	135	199	0	135	589	2729	71	596	2567	1145
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.77	0.77	0.77	1.00	1.00	1.00
Sat Flow, veh/h	1366	0	1585	1415	0	1585	660	3539	92	717	3328	1485
Grp Volume(v), veh/h	60	0	2	10	0	41	11	329	343	89	570	262
Grp Sat Flow(s),veh/h/ln	1366	0	1585	1415	0	1585	660	1777	1854	717	1664	1485
Q Serve(g_s), s	3.9	0.0	0.1	0.6	0.0	2.2	0.3	4.7	4.7	0.9	0.0	0.0
Cycle Q Clear(g_c), s	6.1	0.0	0.1	0.7	0.0	2.2	0.3	4.7	4.7	5.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	163	0	135	199	0	135	589	1370	1430	596	2567	1145
V/C Ratio(X)	0.37	0.00	0.01	0.05	0.00	0.30	0.02	0.24	0.24	0.15	0.22	0.23
Avail Cap(c_a), veh/h	400	0	410	445	0	410	589	1370	1430	596	2567	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	41.5	0.0	37.7	38.0	0.0	38.6	2.4	2.9	2.9	0.2	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.1	0.0	1.2	0.1	0.4	0.4	0.5	0.2	0.4
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	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.2	0.0	0.9	0.0	0.8	0.9	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	0.0	37.7	38.1	0.0	39.9	2.5	3.3	3.3	0.7	0.2	0.4
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		62			51			683			921	
Approach Delay, s/veh		42.7			39.5			3.3			0.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		75.6		14.4		75.6		14.4				
Change Period (Y+Rc), s		6.2		* 6.7		6.2		* 6.7				
Max Green Setting (Gmax), s		53.8		* 23		53.8		* 23				
Max Q Clear Time (g_c+I1), s		6.7		8.1		7.6		4.2				
Green Ext Time (p_c), s		3.8		0.1		5.5		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			4.2									
HCM 6th LOS			A									

Notes

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

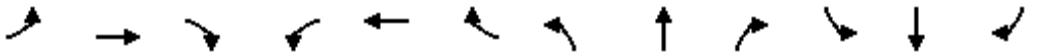
Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	161	3	5	442	293	88
Future Vol, veh/h	161	3	5	442	293	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	94	94	92	92
Heavy Vehicles, %	2	2	2	2	9	9
Mvmt Flow	175	3	5	470	318	96

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	798	318	414	0	-	0
Stage 1	318	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	355	723	1145	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	353	723	1145	-	-	-
Mov Cap-2 Maneuver	353	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1145	-	353	723	-	-
HCM Lane V/C Ratio	0.005	-	0.496	0.005	-	-
HCM Control Delay (s)	8.2	0	24.8	10	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0	-	2.6	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	661	295	596	863	751	360	578	386	357	500	118
Future Volume (veh/h)	298	661	295	596	863	751	360	578	386	357	500	118
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	320	711	317	627	908	791	387	622	415	384	538	127
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	361	727	516	591	963	621	419	628	551	419	628	446
Arrive On Green	0.10	0.20	0.20	0.17	0.27	0.27	0.20	0.30	0.30	0.12	0.18	0.18
Sat Flow, veh/h	3456	3554	1583	3456	3554	1583	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	320	711	317	627	908	791	387	622	415	384	538	127
Grp Sat Flow(s),veh/h/ln	1728	1777	1583	1728	1777	1583	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	8.2	17.9	15.2	15.4	22.5	24.4	9.9	15.7	15.9	9.9	13.2	5.6
Cycle Q Clear(g_c), s	8.2	17.9	15.2	15.4	22.5	24.4	9.9	15.7	15.9	9.9	13.2	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	727	516	591	963	621	419	628	551	419	628	446
V/C Ratio(X)	0.89	0.98	0.61	1.06	0.94	1.27	0.92	0.99	0.75	0.92	0.86	0.29
Avail Cap(c_a), veh/h	361	727	516	591	963	621	419	628	551	419	628	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	35.6	25.6	37.3	32.1	27.4	35.5	31.7	22.7	39.1	35.9	25.3
Incr Delay (d2), s/veh	22.3	28.6	5.4	54.0	18.0	135.3	27.0	33.7	9.2	25.7	14.1	1.6
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(50%),veh/ln	4.4	10.0	5.9	10.5	11.2	34.8	5.1	8.1	7.0	5.4	6.5	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	64.2	31.0	91.3	50.1	162.6	62.5	65.4	31.9	64.8	50.0	26.9
LnGrp LOS	E	E	C	F	D	F	E	E	C	E	D	C
Approach Vol, veh/h		1348			2326			1424			1049	
Approach Delay, s/veh		55.9			99.5			54.8			52.7	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	32.0	18.0	23.0	23.0	26.0	18.0	23.0
Change Period (Y+Rc), s	7.6	7.6	7.1	7.1	7.6	7.6	7.1	7.1
Max Green Setting (Gmax), s	9.4	24.4	10.9	15.9	15.4	18.4	10.9	15.9
Max Q Clear Time (g_c+I1), s	10.2	26.4	11.9	15.2	17.4	19.9	11.9	17.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	71.6
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	254	0	491	333	1098	0	0	904	703
Future Volume (veh/h)	0	0	0	254	0	491	333	1098	0	0	904	703
Initial Q (Qb), veh				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
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1841	0	1841	1841	1841	0	0	1870	1870
Adj Flow Rate, veh/h				279	0	540	370	1220	0	0	972	541
Peak Hour Factor				0.91	0.91	0.91	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %				4	0	4	4	4	0	0	2	2
Cap, veh/h				376	0	589	456	2246	0	0	1504	671
Arrive On Green				0.21	0.00	0.21	0.30	1.00	0.00	0.00	0.85	0.85
Sat Flow, veh/h				1753	0	2745	1753	3589	0	0	3647	1585
Grp Volume(v), veh/h				279	0	540	370	1220	0	0	972	541
Grp Sat Flow(s),veh/h/ln				1753	0	1373	1753	1749	0	0	1777	1585
Q Serve(g_s), s				13.4	0.0	17.3	10.9	0.0	0.0	0.0	8.4	14.9
Cycle Q Clear(g_c), s				13.4	0.0	17.3	10.9	0.0	0.0	0.0	8.4	14.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				376	0	589	456	2246	0	0	1504	671
V/C Ratio(X)				0.74	0.00	0.92	0.81	0.54	0.00	0.00	0.65	0.81
Avail Cap(c_a), veh/h				376	0	589	559	2246	0	0	1504	671
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.61	0.61	0.00	0.00	0.35	0.35
Uniform Delay (d), s/veh				33.0	0.0	34.6	10.7	0.0	0.0	0.0	4.6	5.1
Incr Delay (d2), s/veh				7.7	0.0	19.4	4.6	0.6	0.0	0.0	0.8	3.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.4	0.0	7.3	2.8	0.2	0.0	0.0	1.6	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.7	0.0	54.0	15.4	0.6	0.0	0.0	5.4	8.9
LnGrp LOS				D	A	D	B	A	A	A	A	A
Approach Vol, veh/h					819			1590			1513	
Approach Delay, s/veh					49.4			4.0			6.6	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	64.0		19.7	44.3		26.0
Change Period (Y+Rc), s	6.2		6.2	6.2		6.7
Max Green Setting (Gmax), s	57.8		18.8	32.8		19.3
Max Q Clear Time (g_c+I1), s	2.0		12.9	16.9		19.3
Green Ext Time (p_c), s	1.2		0.6	0.7		0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	455	0	249	0	0	0	0	976	263	279	879	0
Future Volume (veh/h)	455	0	249	0	0	0	0	976	263	279	879	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1841	1841	1870	1870	0
Adj Flow Rate, veh/h	535	0	293				0	1038	280	313	988	0
Peak Hour Factor	0.85	0.85	0.85				0.94	0.94	0.94	0.89	0.89	0.89
Percent Heavy Veh, %	3	0	3				0	4	4	2	2	0
Cap, veh/h	735	0	337				0	1579	704	456	2282	0
Arrive On Green	0.21	0.00	0.21				0.00	0.90	0.90	0.24	1.00	0.00
Sat Flow, veh/h	3428	0	1572				0	3589	1560	1781	3647	0
Grp Volume(v), veh/h	535	0	293				0	1038	280	313	988	0
Grp Sat Flow(s),veh/h/ln	1714	0	1572				0	1749	1560	1781	1777	0
Q Serve(g_s), s	13.1	0.0	16.2				0.0	6.4	2.4	8.5	0.0	0.0
Cycle Q Clear(g_c), s	13.1	0.0	16.2				0.0	6.4	2.4	8.5	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	735	0	337				0	1579	704	456	2282	0
V/C Ratio(X)	0.73	0.00	0.87				0.00	0.66	0.40	0.69	0.43	0.00
Avail Cap(c_a), veh/h	811	0	372				0	1579	704	571	2282	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.76	0.76	0.64	0.64	0.00
Uniform Delay (d), s/veh	32.9	0.0	34.1				0.0	2.7	2.5	8.8	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	18.1				0.0	1.6	1.3	1.6	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
%ile BackOfQ(50%),veh/ln	5.7	0.0	7.8				0.0	1.3	0.7	2.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	0.0	52.2				0.0	4.3	3.8	10.4	0.4	0.0
LnGrp LOS	D	A	D				A	A	A	B	A	A
Approach Vol, veh/h		828						1318			1301	
Approach Delay, s/veh		41.7						4.2			2.8	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	17.2	46.8	26.0	64.0
Change Period (Y+Rc), s	6.2	6.2	* 6.7	6.2
Max Green Setting (Gmax), s	10.8	32.8	* 21	55.8
Max Q Clear Time (g_c+I1), s	10.5	8.4	18.2	2.0
Green Ext Time (p_c), s	0.5	0.9	1.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	12.7
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)	21	0	1	67	0	173	0	1045	58	181	915	32
Future Volume (veh/h)	21	0	1	67	0	173	0	1045	58	181	915	32
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	1826	1826	1826	1841	1841	1841	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	35	0	2	89	0	231	0	1112	62	191	963	34
Peak Hour Factor	0.60	0.60	0.60	0.75	0.75	0.75	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	5	4	4	4	4	4	4	1	1	1
Cap, veh/h	139	0	299	348	0	301	80	1758	98	462	2341	83
Arrive On Green	0.19	0.00	0.19	0.19	0.00	0.19	0.00	1.00	1.00	0.15	1.00	1.00
Sat Flow, veh/h	1122	0	1547	1393	0	1560	556	3368	188	1795	3529	125
Grp Volume(v), veh/h	35	0	2	89	0	231	0	577	597	191	489	508
Grp Sat Flow(s),veh/h/ln	1122	0	1547	1393	0	1560	556	1749	1807	1795	1791	1863
Q Serve(g_s), s	2.7	0.0	0.1	5.0	0.0	12.6	0.0	0.0	0.0	4.3	0.0	0.0
Cycle Q Clear(g_c), s	15.4	0.0	0.1	5.1	0.0	12.6	0.0	0.0	0.0	4.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.07
Lane Grp Cap(c), veh/h	139	0	299	348	0	301	80	913	943	462	1188	1236
V/C Ratio(X)	0.25	0.00	0.01	0.26	0.00	0.77	0.00	0.63	0.63	0.41	0.41	0.41
Avail Cap(c_a), veh/h	213	0	401	439	0	404	80	913	943	627	1188	1236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.87	0.87	0.87	0.87	0.87
Uniform Delay (d), s/veh	41.7	0.0	29.3	31.4	0.0	34.4	0.0	0.0	0.0	6.9	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.4	0.0	6.1	0.0	2.9	2.8	0.5	0.9	0.9
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(50%),veh/ln	0.7	0.0	0.0	1.6	0.0	4.9	0.0	0.7	0.7	1.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	0.0	29.3	31.8	0.0	40.5	0.0	2.9	2.8	7.4	0.9	0.9
LnGrp LOS	D	A	C	C	A	D	A	A	A	A	A	A
Approach Vol, veh/h		37			320			1174			1188	
Approach Delay, s/veh		41.9			38.1			2.9			1.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.7	53.2		24.1		65.9		24.1				
Change Period (Y+Rc), s	6.2	6.2		* 6.7		6.2		* 6.7				
Max Green Setting (Gmax), s	14.8	32.8		* 23		53.8		* 23				
Max Q Clear Time (g_c+I1), s	16.3	2.0		17.4		2.0		14.6				
Green Ext Time (p_c), s	0.3	7.7		0.0		6.3		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	27.1

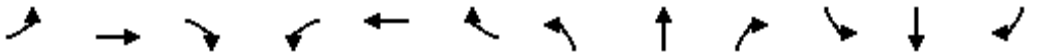
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	112	0	10	6	0	5	3	662	5	15	803	32
Future Vol, veh/h	112	0	10	6	0	5	3	662	5	15	803	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	40	-	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	91	91	91	95	95	95
Heavy Vehicles, %	2	2	2	22	22	22	4	4	4	1	1	1
Mvmt Flow	122	0	11	8	0	7	3	727	5	16	845	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1616	1615	845	1633	1644	727	879	0	0	732	0	0
Stage 1	877	877	-	733	733	-	-	-	-	-	-	-
Stage 2	739	738	-	900	911	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.32	6.72	6.42	4.14	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.32	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.698	4.198	3.498	2.236	-	-	2.209	-	-
Pot Cap-1 Maneuver	~ 83	104	363	73	90	392	760	-	-	877	-	-
Stage 1	343	366	-	383	398	-	-	-	-	-	-	-
Stage 2	409	424	-	307	327	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 79	100	363	68	86	392	760	-	-	877	-	-
Mov Cap-2 Maneuver	~ 79	100	-	68	86	-	-	-	-	-	-	-
Stage 1	341	353	-	380	395	-	-	-	-	-	-	-
Stage 2	399	421	-	287	315	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 357.2	43.1	0	0.2
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	760	-	-	79	363	109	877	-	-
HCM Lane V/C Ratio	0.004	-	-	1.541	0.03	0.135	0.018	-	-
HCM Control Delay (s)	9.8	0	-	$ 387.7	15.2	43.1	9.2	0	-
HCM Lane LOS	A	A	-	F	C	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	9.9	0.1	0.4	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



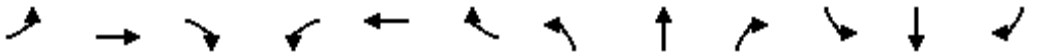
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	14	5	90	36	133	7	394	62	138	482	21
Future Volume (veh/h)	12	14	5	90	36	133	7	394	62	138	482	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1900	1900	1900	1885	1885	1885	1841	1841	1841	1870	1870	1870
Adj Flow Rate, veh/h	20	23	8	108	43	160	8	448	70	147	513	22
Peak Hour Factor	0.61	0.61	0.61	0.83	0.83	0.83	0.88	0.88	0.88	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	2	2	2
Cap, veh/h	264	245	85	417	64	237	425	761	119	433	871	37
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1198	1347	469	1389	350	1301	856	1554	243	883	1780	76
Grp Volume(v), veh/h	20	0	31	108	0	203	8	0	518	147	0	535
Grp Sat Flow(s),veh/h/ln	1198	0	1816	1389	0	1651	856	0	1797	883	0	1857
Q Serve(g_s), s	0.6	0.0	0.6	2.8	0.0	4.5	0.3	0.0	8.1	5.6	0.0	8.1
Cycle Q Clear(g_c), s	5.1	0.0	0.6	3.3	0.0	4.5	8.4	0.0	8.1	13.8	0.0	8.1
Prop In Lane	1.00		0.26	1.00		0.79	1.00		0.14	1.00		0.04
Lane Grp Cap(c), veh/h	264	0	331	417	0	301	425	0	880	433	0	909
V/C Ratio(X)	0.08	0.00	0.09	0.26	0.00	0.67	0.02	0.00	0.59	0.34	0.00	0.59
Avail Cap(c_a), veh/h	482	0	661	669	0	601	721	0	1500	738	0	1550
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	13.4	14.7	0.0	15.0	10.2	0.0	7.2	12.1	0.0	7.2
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.3	0.0	2.6	0.0	0.0	0.6	0.5	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(50%),veh/ln	0.1	0.0	0.2	0.6	0.0	1.4	0.0	0.0	1.3	0.7	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	13.5	15.1	0.0	17.6	10.2	0.0	7.8	12.6	0.0	7.8
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		51			311			526			682	
Approach Delay, s/veh		15.1			16.7			7.9			8.8	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	25.4	13.9	25.4	13.9
Change Period (Y+Rc), s	6.2	* 6.7	6.2	* 6.7
Max Green Setting (Gmax), s	32.8	* 14	32.8	* 14
Max Q Clear Time (g_c+I1), s	10.4	7.1	15.8	6.5
Green Ext Time (p_c), s	2.9	0.1	3.5	0.8

Intersection Summary	
HCM 6th Ctrl Delay	10.3
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)	224	0	10	29	0	121	3	758	23	100	820	63
Future Volume (veh/h)	224	0	10	29	0	121	3	758	23	100	820	63
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	1870	1870	1870	1870	1870	1870	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	243	0	11	32	0	132	3	806	24	105	863	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	1	1	1
Cap, veh/h	352	0	446	468	0	446	421	1996	59	378	2061	919
Arrive On Green	0.28	0.00	0.28	0.28	0.00	0.28	0.58	0.58	0.58	1.00	1.00	1.00
Sat Flow, veh/h	1258	0	1585	1404	0	1585	593	3468	103	666	3582	1598
Grp Volume(v), veh/h	243	0	11	32	0	132	3	406	424	105	863	66
Grp Sat Flow(s),veh/h/ln	1258	0	1585	1404	0	1585	593	1749	1822	666	1791	1598
Q Serve(g_s), s	16.9	0.0	0.5	1.5	0.0	5.9	0.2	11.6	11.6	4.4	0.0	0.0
Cycle Q Clear(g_c), s	22.8	0.0	0.5	2.0	0.0	5.9	0.2	11.6	11.6	15.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	352	0	446	468	0	446	421	1006	1049	378	2061	919
V/C Ratio(X)	0.69	0.00	0.02	0.07	0.00	0.30	0.01	0.40	0.40	0.28	0.42	0.07
Avail Cap(c_a), veh/h	449	0	569	577	0	569	421	1006	1049	378	2061	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	34.3	0.0	23.4	24.1	0.0	25.4	8.1	10.6	10.6	1.8	0.0	0.0
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.1	0.0	0.4	0.0	1.2	1.2	1.7	0.6	0.1
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	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	0.2	0.5	0.0	2.2	0.0	3.8	4.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	23.4	24.2	0.0	25.7	8.2	11.8	11.7	3.5	0.6	0.1
LnGrp LOS	D	A	C	C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		254			164			833			1034	
Approach Delay, s/veh		36.8			25.4			11.7			0.8	
Approach LOS		D			C			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		58.0		32.0		58.0		32.0				
Change Period (Y+Rc), s		6.2		* 6.7		6.2		* 6.7				
Max Green Setting (Gmax), s		44.8		* 32		44.8		* 32				
Max Q Clear Time (g_c+I1), s		13.6		24.8		17.9		7.9				
Green Ext Time (p_c), s		4.8		0.5		6.9		0.9				

Intersection Summary		
HCM 6th Ctrl Delay	10.6	
HCM 6th LOS	B	

Notes

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

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	134	6	3	536	646	173
Future Vol, veh/h	134	6	3	536	646	173
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	91	91	95	95
Heavy Vehicles, %	2	2	4	4	2	2
Mvmt Flow	146	7	3	589	680	182

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1275	680	862	0	-	0
Stage 1	680	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.14	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.236	-	-	-
Pot Cap-1 Maneuver	184	451	772	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	183	451	772	-	-	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	71.8	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	772	-	183	451	-	-
HCM Lane V/C Ratio	0.004	-	0.796	0.014	-	-
HCM Control Delay (s)	9.7	0	74.4	13.1	-	-
HCM Lane LOS	A	A	F	B	-	-
HCM 95th %tile Q(veh)	0	-	5.4	0	-	-

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	45	60	210	234	97	154	155	182	184	71	114	131
Average Queue (ft)	8	18	115	109	25	65	79	71	73	12	40	59
95th Queue (ft)	27	51	191	191	72	128	141	138	145	45	91	109
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	130	147	290	462	600	1233	1147	94
Average Queue (ft)	65	70	140	380	460	617	510	39
95th Queue (ft)	120	120	243	564	726	1491	1327	74
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)			1	56	63	0	0	
Queuing Penalty (veh)			1	137	155	0	0	

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	221	152	128	163	148	150	303	261	178
Average Queue (ft)	130	74	59	73	52	51	152	114	70
95th Queue (ft)	211	136	112	131	115	117	265	224	137
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)								0	0
Queuing Penalty (veh)								1	0

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	252	210	353	203	173	91	279	209	211
Average Queue (ft)	138	118	183	110	84	36	144	94	101
95th Queue (ft)	214	188	298	174	147	71	256	176	184
Link Distance (ft)		1378		371	371	371		1335	1335
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)			0						
Queuing Penalty (veh)			1						

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	TR	T	TR	L	T	TR
Maximum Queue (ft)	55	85	81	77	104	137	146	150
Average Queue (ft)	14	28	34	21	30	67	36	40
95th Queue (ft)	39	64	65	59	79	120	101	106
Link Distance (ft)			729	576	576		371	371
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250	175				350		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	EB	EB	WB	NB	SB
Directions Served	L	TR	LTR	LT	LT
Maximum Queue (ft)	53	20	41	48	31
Average Queue (ft)	19	2	10	3	2
95th Queue (ft)	44	10	30	21	13
Link Distance (ft)	1199	1199	770	2173	600
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	

Intersection: 6: Latson Road & Crooked Lake Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	45	47	46	96	15	164	104	97
Average Queue (ft)	9	14	16	37	1	64	46	35
95th Queue (ft)	30	38	38	72	8	128	88	79
Link Distance (ft)		1519		1017		1126		1561
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		650		300		1000	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	31	56	19
Average Queue (ft)	10	13	1
95th Queue (ft)	25	37	9
Link Distance (ft)	1779	1658	1300
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Latson Road & Site Drive #1

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	T	R
Maximum Queue (ft)	100	16	43	59	28	77	92	93	64	84	60
Average Queue (ft)	37	1	10	26	5	18	26	30	19	25	19
95th Queue (ft)	76	8	35	51	23	51	70	68	52	68	49
Link Distance (ft)	1175	1175	937	937	258	258	258		576	576	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								150			150
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 9: Latson Road & Site Drive #3

Movement	EB	EB	NB
Directions Served	L	R	LT
Maximum Queue (ft)	133	21	20
Average Queue (ft)	52	2	1
95th Queue (ft)	94	13	12
Link Distance (ft)	710	710	1407
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Crooked Lake Road & Site Drive #4

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	5
95th Queue (ft)	24
Link Distance (ft)	416
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 294

Intersection: 1: Latson Road & Grand River Ave.

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	T	R	L	L
Maximum Queue (ft)	168	166	462	448	160	600	700	2655	2665	406	612	700
Average Queue (ft)	92	96	198	202	62	579	664	1693	1655	239	399	431
95th Queue (ft)	161	163	353	362	136	655	780	3300	3321	415	701	771
Link Distance (ft)			2930	2930				3108	3108			
Upstream Blk Time (%)								7	7			0
Queuing Penalty (veh)								0	0			0
Storage Bay Dist (ft)	500	500			1000	500	500			250	525	525
Storage Blk Time (%)			0			61	85	1	3	11	31	34
Queuing Penalty (veh)			1			262	368	6	21	49	87	97

Intersection: 1: Latson Road & Grand River Ave.

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	764	742	366	404	487	950	823	91
Average Queue (ft)	419	333	147	320	374	464	428	45
95th Queue (ft)	859	663	387	518	645	1306	1201	78
Link Distance (ft)	716	716				2493	2493	
Upstream Blk Time (%)	15	0						
Queuing Penalty (veh)	97	3						
Storage Bay Dist (ft)			300	325	325			275
Storage Blk Time (%)	1	38		39	40	0	0	
Queuing Penalty (veh)	5	143		97	101	0	1	

Intersection: 2: Latson Road & WB I-96 Ramps

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	R	L	T	T	T	T	R
Maximum Queue (ft)	288	245	264	337	260	290	286	320	342
Average Queue (ft)	163	161	140	152	152	156	178	161	213
95th Queue (ft)	257	237	219	280	251	255	267	262	329
Link Distance (ft)		1526			1335	1335	377	377	
Upstream Blk Time (%)								0	
Queuing Penalty (veh)								0	
Storage Bay Dist (ft)	500		350	1000					250
Storage Blk Time (%)								0	8
Queuing Penalty (veh)								3	36

Intersection: 3: Latson Road & EB I-96 Ramps

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	245	203	250	386	368	162	190	159	165
Average Queue (ft)	126	110	135	244	227	72	107	79	69
95th Queue (ft)	198	180	213	345	353	135	181	135	130
Link Distance (ft)		1378		371	371	371		1335	1335
Upstream Blk Time (%)				0	1				
Queuing Penalty (veh)				2	2				
Storage Bay Dist (ft)	500		500				1000		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 4: Latson Road & Beck Rd.

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	T	TR	L	T	TR
Maximum Queue (ft)	71	24	109	153	237	283	129	164	162
Average Queue (ft)	14	2	43	63	108	124	72	79	89
95th Queue (ft)	48	14	98	122	212	235	123	141	161
Link Distance (ft)		1007		729	576	576		371	371
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	250		175				350		
Storage Blk Time (%)				0	3				
Queuing Penalty (veh)				0	0				

Intersection: 5: Latson Road & Site Drive #2/Sweet Rd.

Movement	EB	EB	WB	SB
Directions Served	L	TR	LTR	LT
Maximum Queue (ft)	178	21	58	104
Average Queue (ft)	82	8	7	8
95th Queue (ft)	150	24	32	42
Link Distance (ft)	1199	1199	770	600
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Latson Road & Crooked Lake Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	26	38	117	107	40	166	179	169
Average Queue (ft)	7	10	47	50	3	78	62	77
95th Queue (ft)	25	31	96	91	19	144	126	148
Link Distance (ft)		1519		1017		1126		1561
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	200		650		300		1000	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 7: Chilson Road & Crooked Lake Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	15	44	13	10
Average Queue (ft)	6	14	1	0
95th Queue (ft)	16	30	7	5
Link Distance (ft)	1779	1658	1488	1300
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Latson Road & Site Drive #1

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	T	R
Maximum Queue (ft)	258	21	74	75	27	126	156	117	106	105	51
Average Queue (ft)	137	6	21	44	2	58	73	49	32	41	10
95th Queue (ft)	222	21	57	71	13	117	131	94	80	91	34
Link Distance (ft)	1175	1175	937	937	258	258	258		576	576	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)								150			150
Storage Blk Time (%)									0	0	
Queuing Penalty (veh)									0	0	

Intersection: 9: Latson Road & Site Drive #3

Movement	EB	EB	NB
Directions Served	L	R	LT
Maximum Queue (ft)	103	42	52
Average Queue (ft)	51	6	4
95th Queue (ft)	90	24	22
Link Distance (ft)	710	710	1407
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

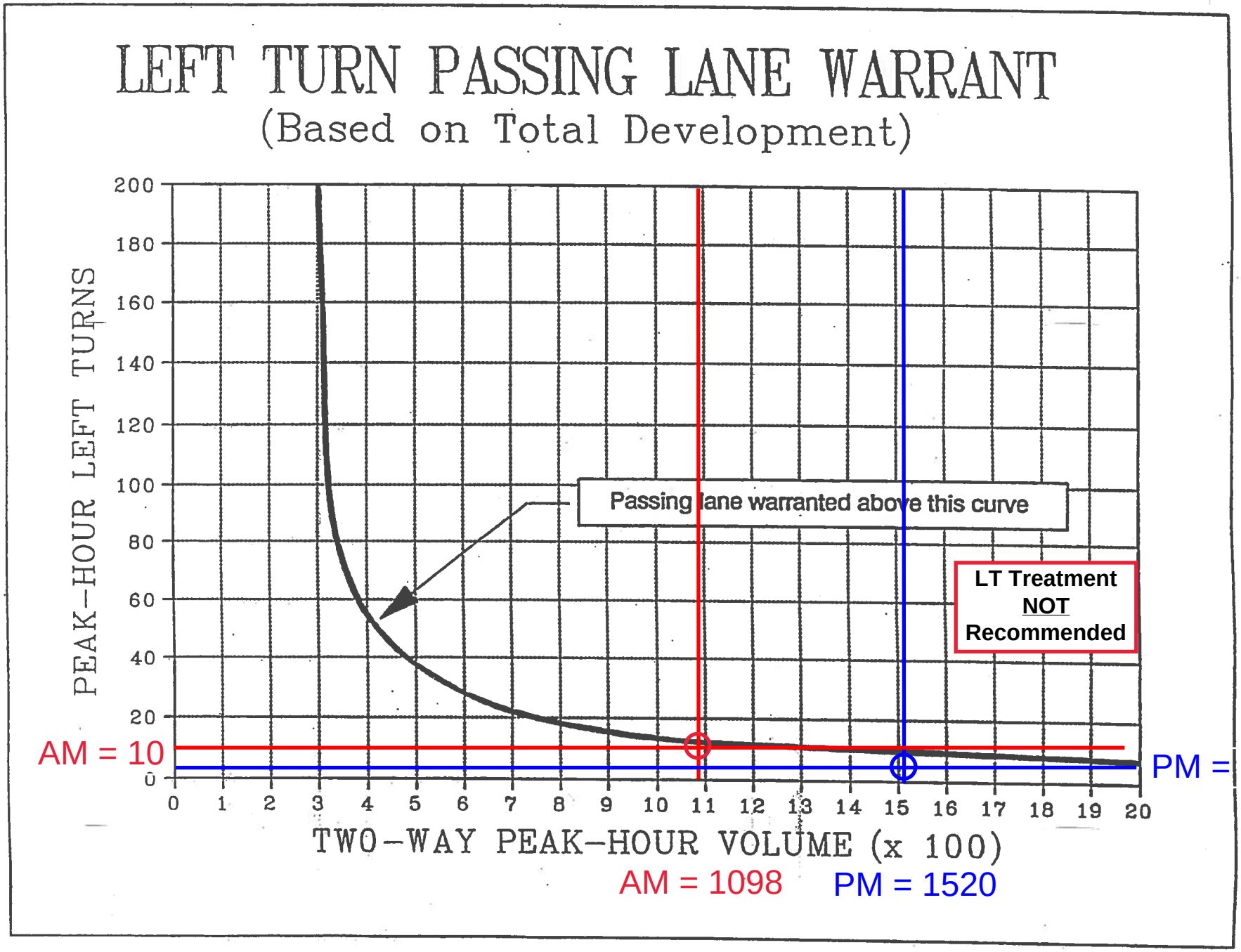
Intersection: 10: Crooked Lake Road & Site Drive #4

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	416
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

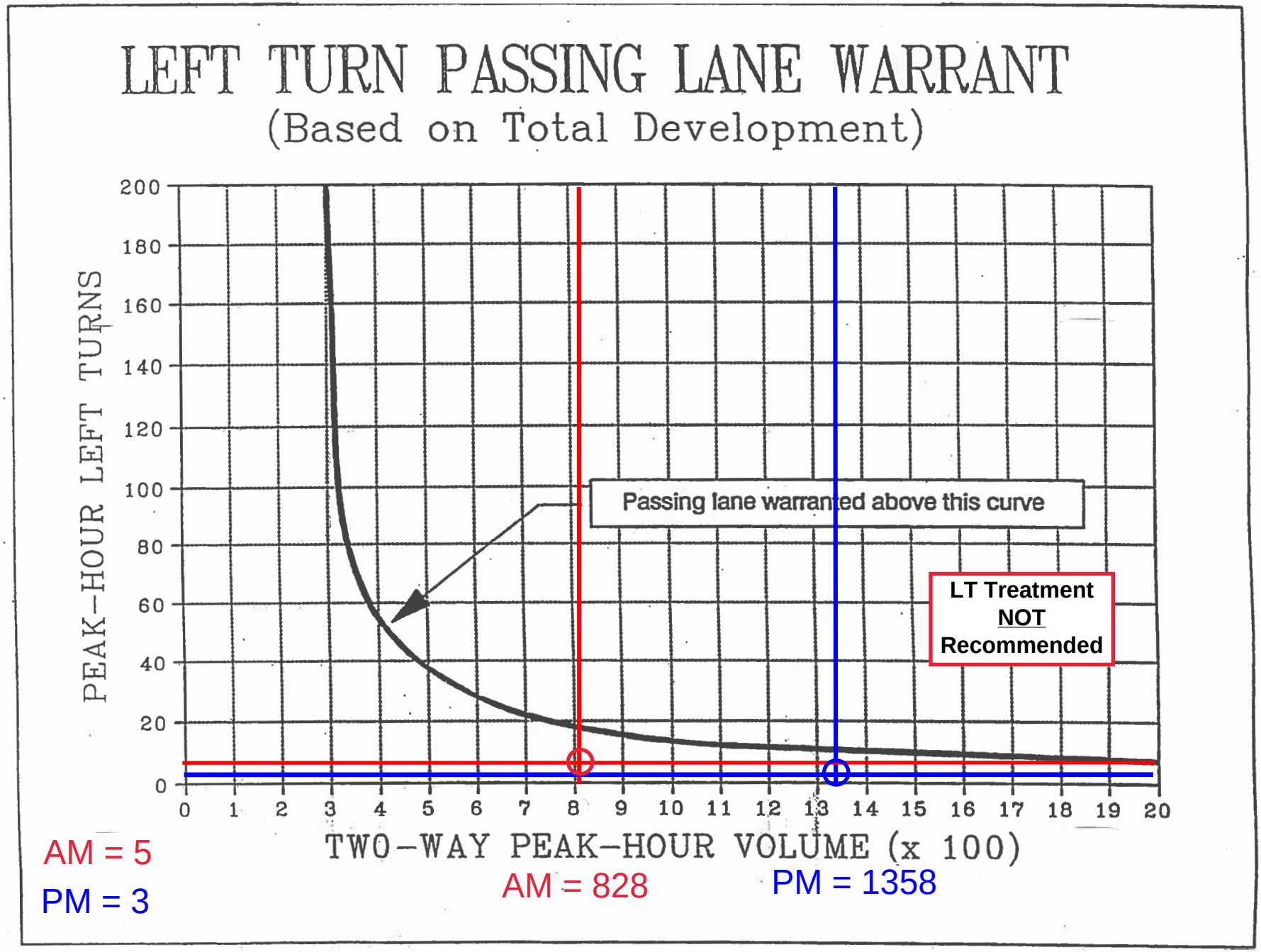
Zone Summary

Zone wide Queuing Penalty: 1382

NB LATSON ROAD & SITE DRIVE # 2

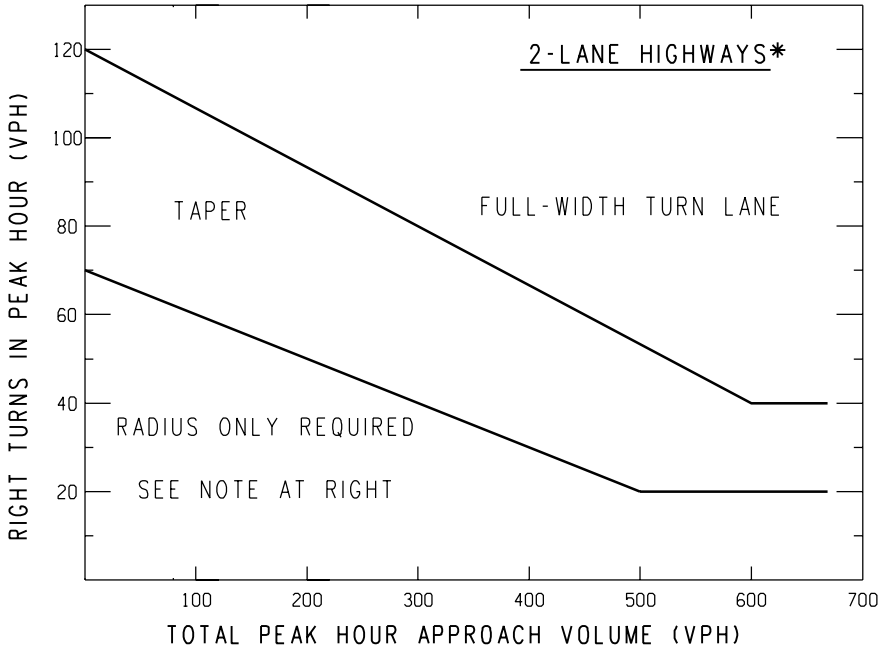


NB LATSON ROAD & SITE DRIVE # 3



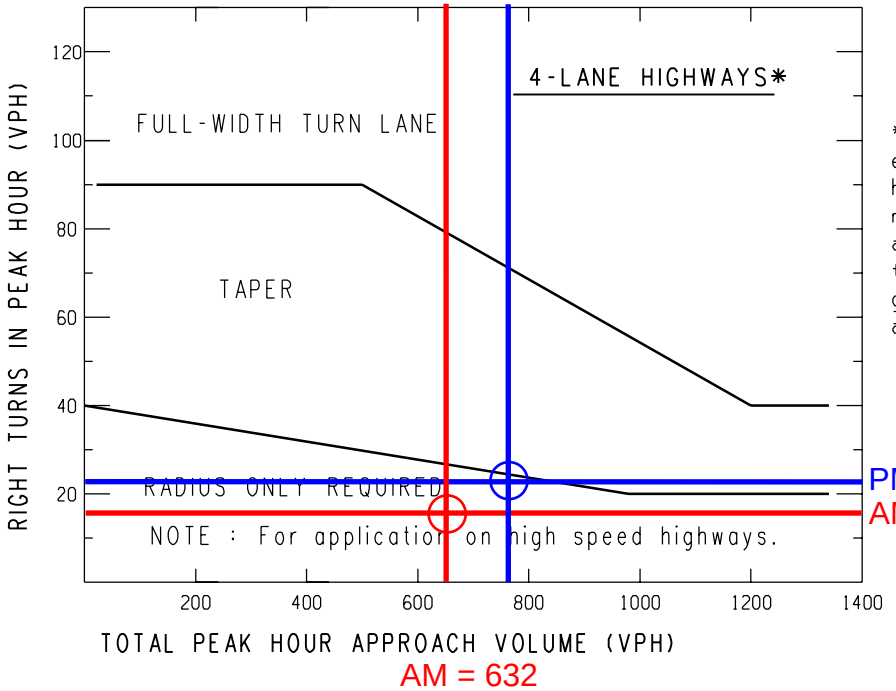
A.15

NB LATSON ROAD & SITE DRIVE # 1



NOTE:
For posted speeds at or under 45 mph, peak hour right turns greater than 40 vph, and total peak hour approach less than 300 vph, adjust right turn volumes.

Adjust peak hour right turns = Peak hour right turns - 20



*If a center left-turn lane exists(i.e. 3 or 5 lane highway), subtract the number of left turns in approach volume from the total approach volume to get an adjusted total approach volume.

RT Treatment NOT Recommended

Sample Problem:
The Design Speed is 55 mph. The Peak Hour Approach Volume is 300 vph. The Number of Right Turns in the Peak Hour is 100 vph. Determine if a right turn lane is recommended.

Solution:
Figure indicates that the intersection of 300 vph and 100 vph is located above the upper trend line; thus,a right-turn lane may be recommended.

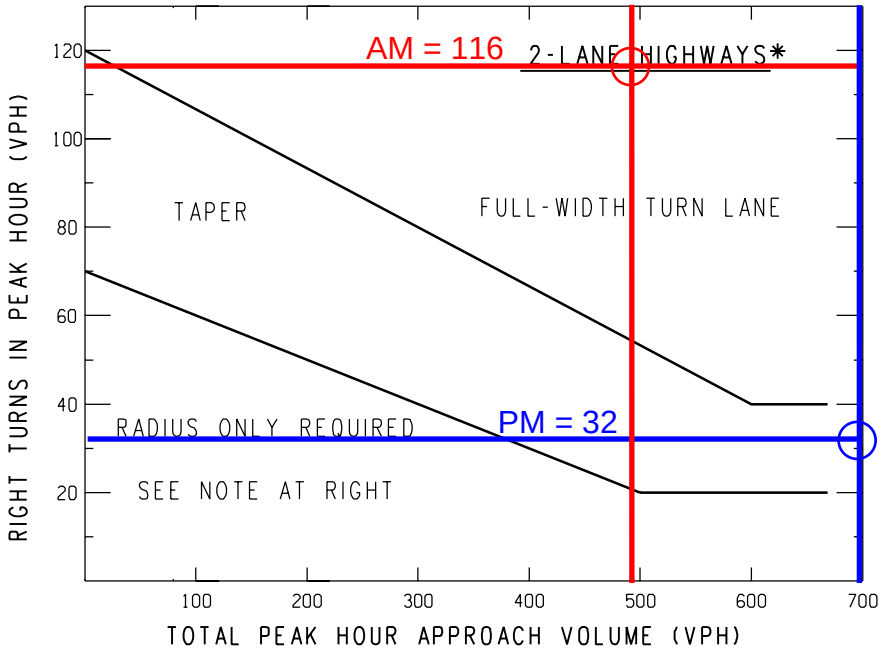
MDOT Michigan Department of Transportation

TRAFFIC AND SAFETY NOTE

TRAFFIC VOLUME GUIDELINES FOR RIGHT-TURN LANES AND TAPERS

DRAWN BY: MTS	08/05/2004	604A	SHEET 2 OF 2
CHECKED BY: JAT	PLAN DATE:		
FILE: K:/DGN/ts notes/Note604A tsn.dgn		REV. 08/05/2004	

LATSON ROAD & SITE DRIVE # 2

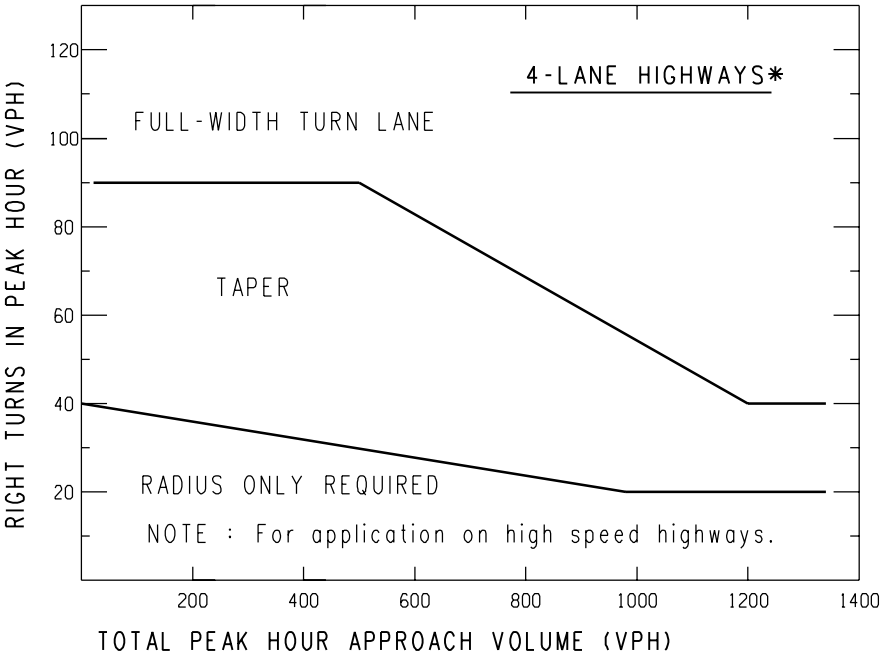


NOTE:
For posted speeds at or under 45 mph, peak hour right turns greater than 40 vph, and total peak hour approach less than 300 vph, adjust right turn volumes.

Adjust peak hour right turns = Peak hour right turns - 20

Total Peak Hour Approach Volume
AM = 495
PM = 850

Full-Width RT Lane Recommended



*If a center left-turn lane exists(i.e. 3 or 5 lane highway), subtract the number of left turns in approach volume from the total approach volume to get an adjusted total approach volume.

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Solution:
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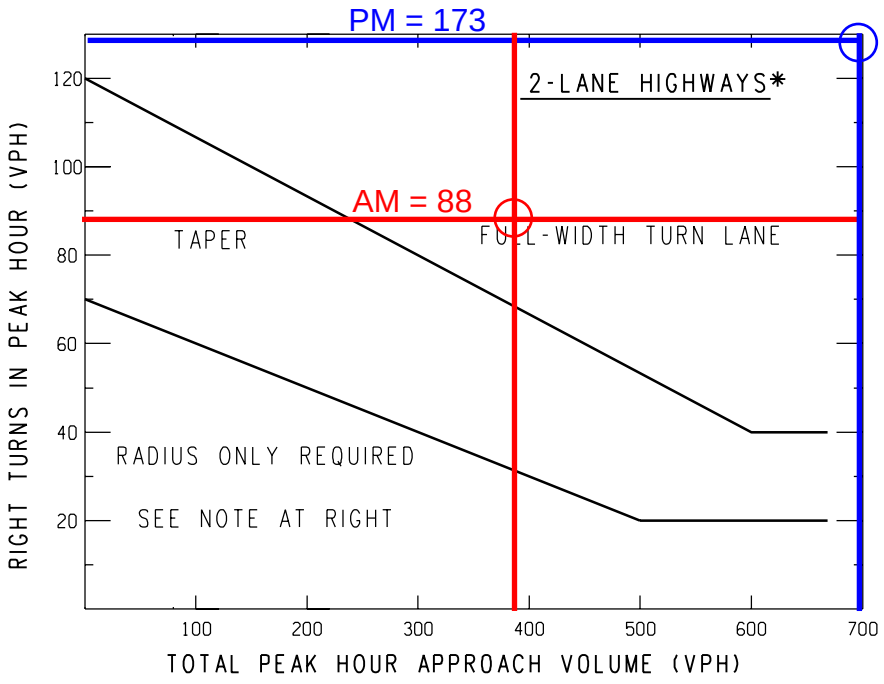
MDOT Michigan Department of Transportation

TRAFFIC AND SAFETY NOTE

TRAFFIC VOLUME GUIDELINES FOR RIGHT-TURN LANES AND TAPERS

DRAWN BY: MTS	08/05/2004	604A	SHEET 2 OF 2
CHECKED BY: JAT	PLAN DATE:		
FILE: K:/DGN/ts notes/Note604A tsn.dgn		REV. 08/05/2004	

SB LATSON ROAD & SITE DRIVE # 3

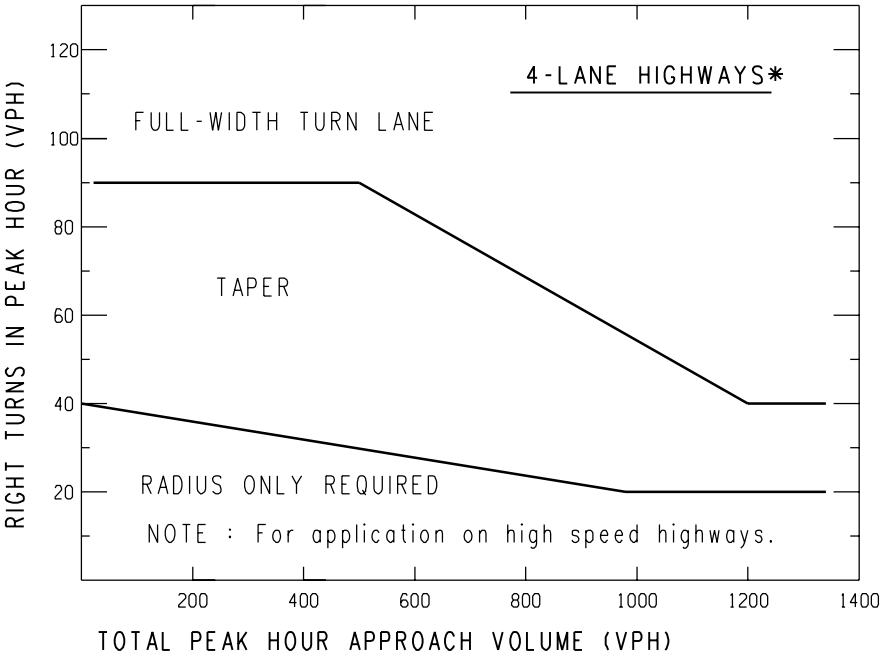


NOTE:
For posted speeds at or under 45 mph, peak hour right turns greater than 40 vph, and total peak hour approach less than 300 vph, adjust right turn volumes.

Adjust peak hour right turns = Peak hour right turns - 20

Total Peak Hour Approach Volume
AM = 381
PM = 819

Full-Width RT Lane Recommended



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Sample Problem:
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Solution:
Figure indicates that the intersection of 300 vph and 100 vph is located above the upper trend line; thus, a right-turn lane may be recommended.

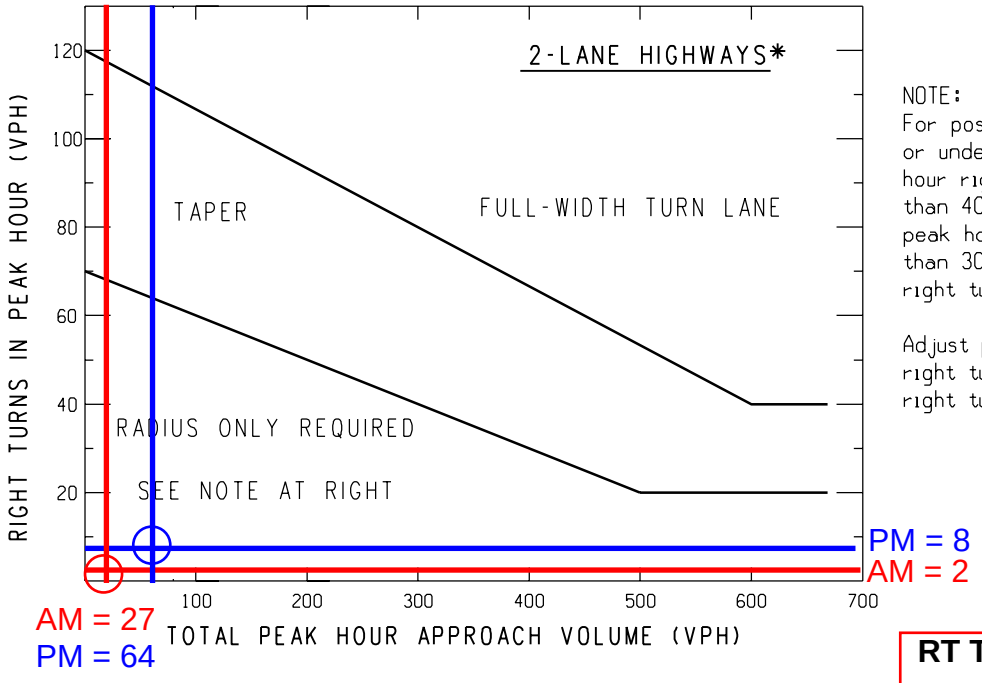
MDOT Michigan Department of Transportation

TRAFFIC AND SAFETY NOTE

TRAFFIC VOLUME GUIDELINES FOR RIGHT-TURN LANES AND TAPERS

DRAWN BY: MTS	08/05/2004	604A	SHEET 2 OF 2
CHECKED BY: JAT	PLAN DATE:		
FILE: K:/DGN/ts notes/Note604A tsn.dgn		REV. 08/05/2004	

WB CROKKED LAKE ROAD & SITE DRIVE # 4



NOTE:
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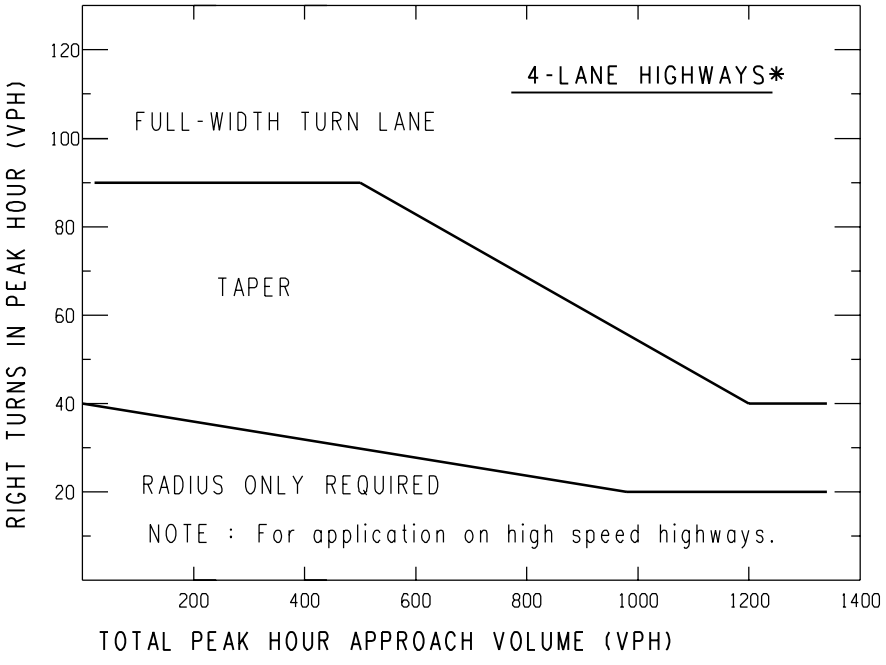
Adjust peak hour right turns = Peak hour right turns - 20

RT Treatment NOT Recommended



*If a center left-turn lane exists(i.e. 3 or 5 lane highway), subtract the number of left turns in approach volume from the total approach volume to get an adjusted total approach volume.

Sample Problem:
The Design Speed is 55 mph. The Peak Hour Approach Volume is 300 vph. The Number of Right Turns in the Peak Hour is 100 vph. Determine if a right turn lane is recommended.

Solution:
Figure indicates that the intersection of 300 vph and 100 vph is located above the upper trend line; thus, a right-turn lane may be recommended.

MDOT Michigan Department of Transportation

TRAFFIC AND SAFETY NOTE

TRAFFIC VOLUME GUIDELINES FOR RIGHT-TURN LANES AND TAPERS

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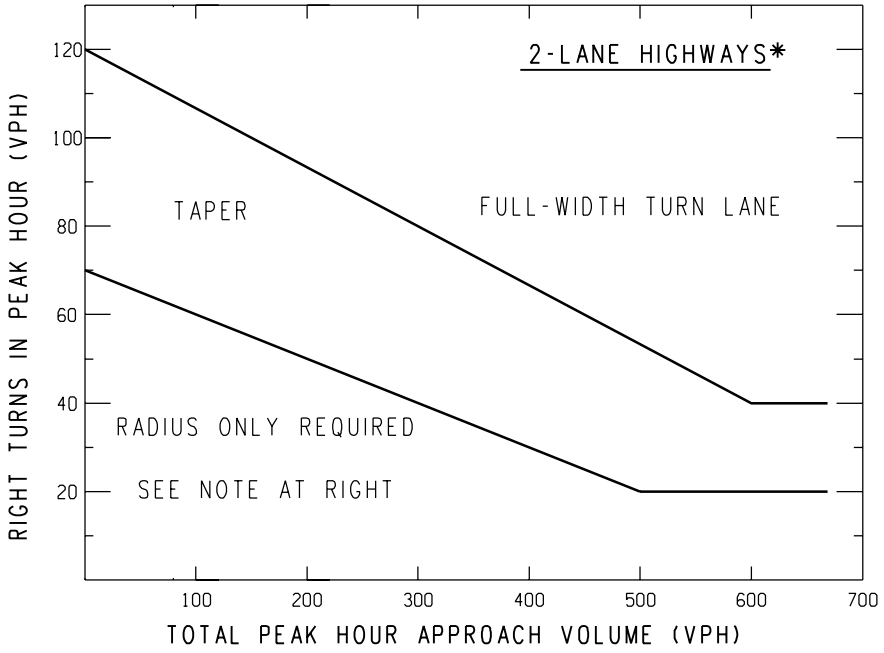
CHECKED BY: JAT	PLAN DATE:		
FILE: K:/DGN/ts notes/Note604A tsn.dgn		REV. 08/05/2004	

SB LATSON ROAD & SITE DRIVE # 1



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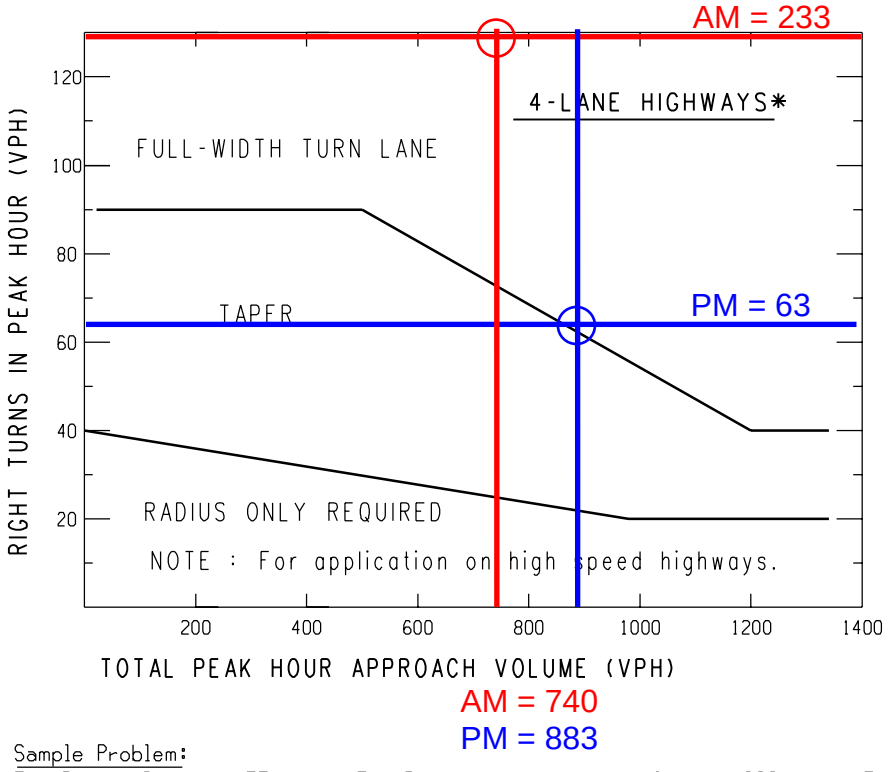
Adjust peak hour right turns = Peak hour right turns - 20



*If a center left-turn lane exists(i.e. 3 or 5 lane highway), subtract the number of left turns in approach volume from the total approach volume to get an adjusted total approach volume.

Full-Width RT Lane Recommended

AM = 740
PM = 883

Sample Problem:
The Design Speed is 55 mph. The Peak Hour Approach Volume is 300 vph. The Number of Right Turns in the Peak Hour is 100 vph. Determine if a right turn lane is recommended.

Solution:
Figure indicates that the intersection of 300 vph and 100 vph is located above the upper trend line; thus,a right-turn lane may be recommended.

MDOT Michigan Department of Transportation

TRAFFIC AND SAFETY NOTE

TRAFFIC VOLUME GUIDELINES FOR RIGHT-TURN LANES AND TAPERS

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CHECKED BY: JAT	PLAN DATE:		
FILE: K:/DGN/ts notes/Note604A tsn.dgn		REV. 08/05/2004	

Summary of Warrants

Spot Number:	Future Conditions		
Major Street:	Latson Road	Minor Street:	Beck Road
Intersection:	Latson Road at Beck Road		
City/Twp:	Genoa Township		
Date Performed:	5/26/2023	Performed By:	F&V
Date Volumes Collected:	5/2/2023		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(70%)	**YES**
WARRANT 3: Peak-Hour Vehicular Volume	(70%)	**YES**
	Condition A	**N/A**
	Condition B	**YES**
WARRANT 4: Pedestrian Volume	(70%)	**NO**
	Four Hour	N/A
	Peak Hour	N/A
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Latson Road @ Beck Road		
Date	5/26/2023	by	F&V

3	: No. of Lanes on Major St?
2	: No. of Lanes on Minor St?
55	: Speed limit or 85th Percentile? (MPH)
NO	: Is the intersection within an Isolated community?
0	: if answer 4 is Yes, then what is the of the population isolated community?
NO	: Have other remedial measures been tried?

USE 70% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	N-S	E-W											
00:01 - 01:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
01:00 - 02:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
02:00 - 03:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
03:00 - 04:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
04:00 - 05:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
05:00 - 06:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
06:00 - 07:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
07:00 - 08:00	1532	101	420	140	NO	630	70	YES	N/A	N/A	N/A	N/A	N/A
08:00 - 09:00	1614	101	420	140	NO	630	70	YES	N/A	N/A	N/A	N/A	N/A
09:00 - 10:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
10:00 - 11:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
11:00 - 12:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
12:00 - 13:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
13:00 - 14:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
14:00 - 15:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
15:00 - 16:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
16:00 - 17:00	2171	156	420	140	YES	630	70	YES	N/A	N/A	N/A	N/A	N/A
17:00 - 18:00	2120	154	420	140	YES	630	70	YES	N/A	N/A	N/A	N/A	N/A
18:00 - 19:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
19:00 - 20:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
20:00 - 21:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
21:00 - 22:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
22:00 - 23:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A
23:00 - 00:00	0	0	420	140	NO	630	70	NO	N/A	N/A	N/A	N/A	N/A

Number of Hours that met the warrant 1A =	2
Number of Hours that met the warrant 1B =	4
Number of Hours that met the warrant 1 A & B =	0

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	NO
B. Is the Interruption of Continuous Traffic Met? (Condition B)	NO
C. Combination of Warrants A and B Criteria Met?	N/A

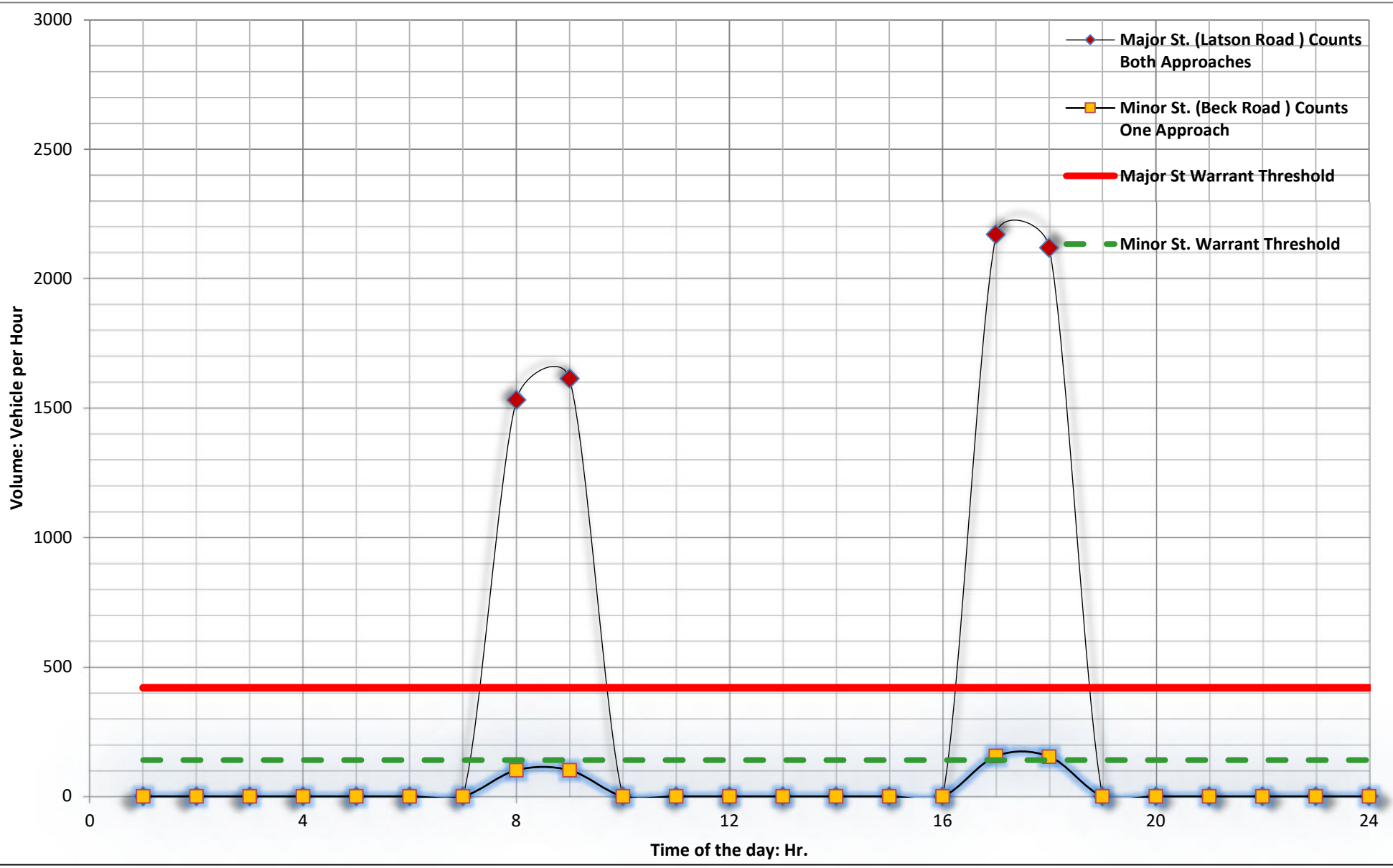


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? YES

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Future Conditions

Latson Road @ Beck Road

NO. OF LANES ON MAJOR ST.? 3

NO. OF LANES ON MINOR ST.? 2

Number of Hours that met the Warrant: 2

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 5/2/2023

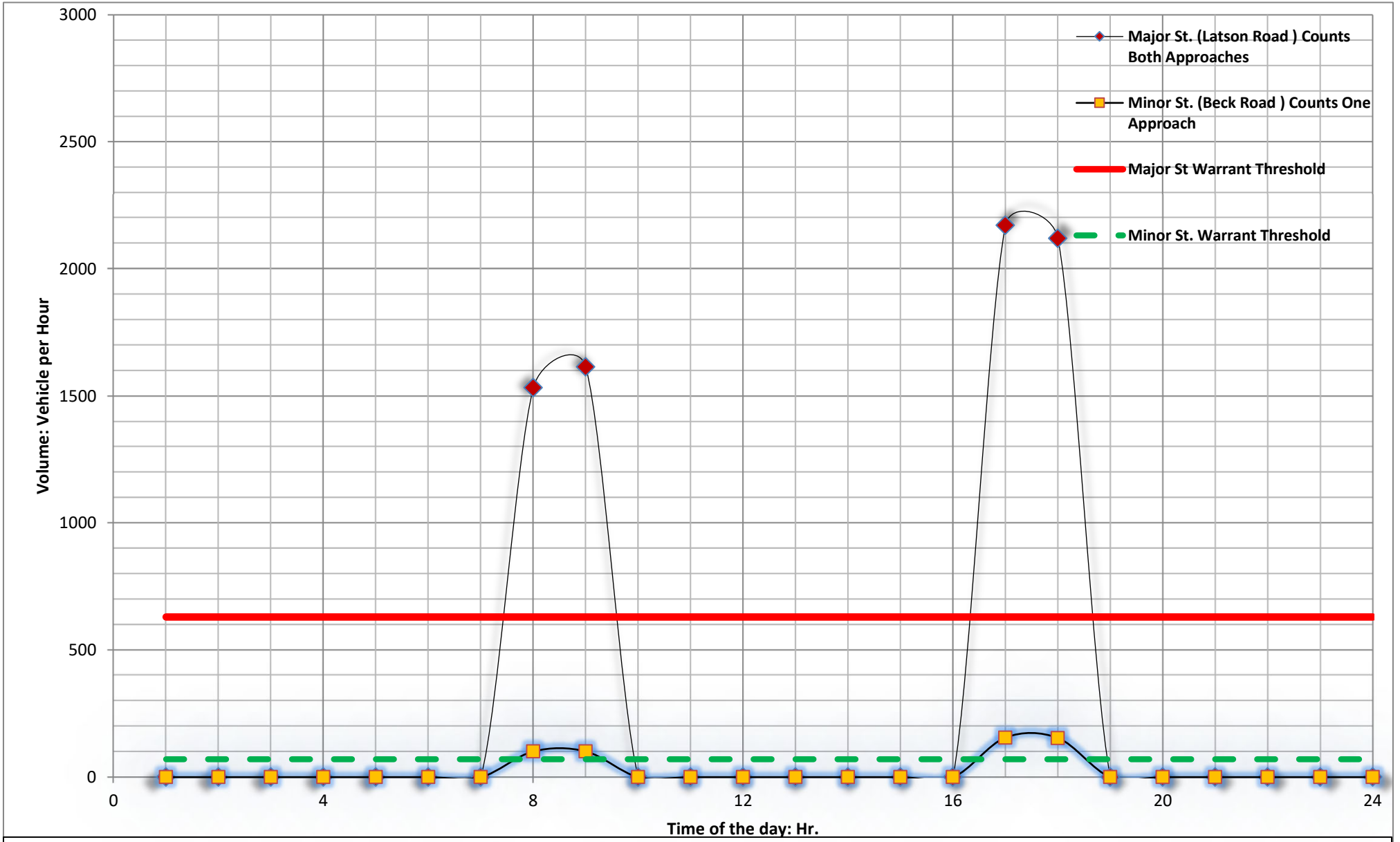


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? YES

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Future Conditions

Latson Road @ Beck Road

NO. OF LANES ON MAJOR ST.? 3

NO. OF LANES ON MINOR ST.? 2

Number of Hours that met the Warrant: 4

Does this intersection meet Warrant 1B for signal installation? NO

Data Collection Date: 5/2/2023

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Future Conditions		
Intersection:	Latson Road @ Beck Road		
Date	5/26/2023	by	F&V

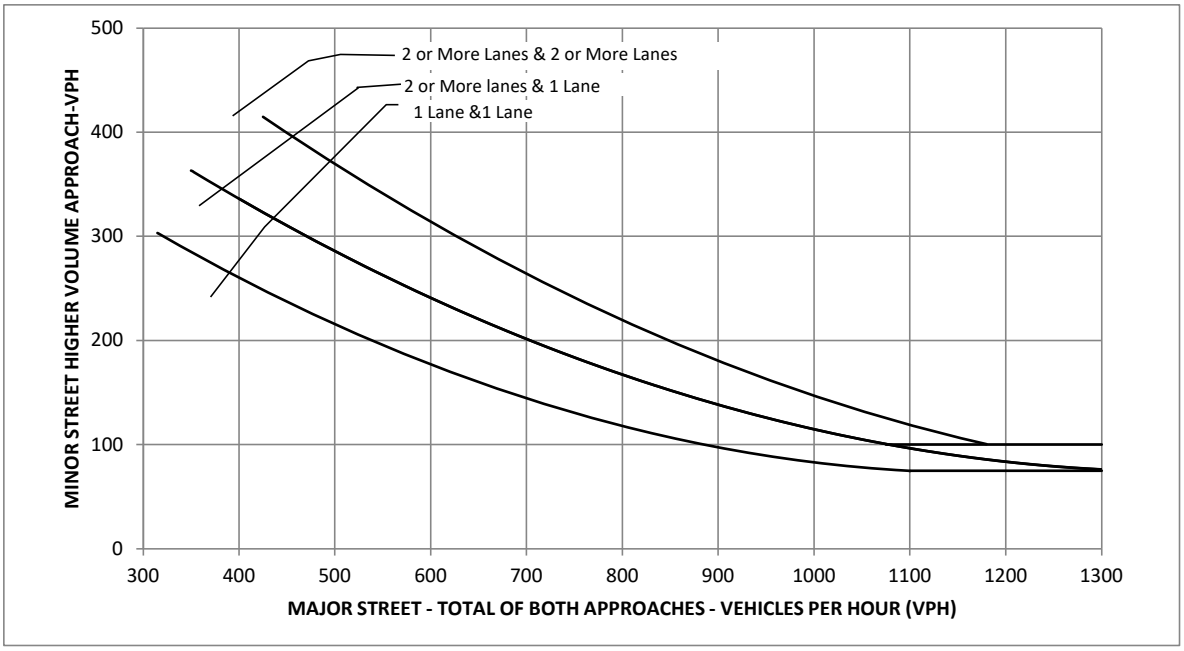
3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
55	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

How Many Hours Are Met	**4**
Is Warrant (70%) Met?	**YES**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(70%): Peak-Hour Vehicular Volume

Spot Number:	Future Conditions		
Intersection:	Latson Road @ Beck Road		
Date	5/26/2023	by	F&V

3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
55	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**4**
Is Warrant (70%) Met?	**YES**

Summary of Warrants

Spot Number:	Future Conditions		
Major Street:	Latson Road	Minor Street:	Crooked Lake Road
Intersection:	Latson Road at Crooked Lake Road		
City/Twp:	Genoa Township		
Date Performed:	5/26/2023	Performed By:	F&V
Date Volumes Collected:	5/2/2023		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(70%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(70%)	**YES**
	Condition A	**N/A**
	Condition B	**YES**
WARRANT 4: Pedestrian Volume	(70%)	**NO**
	Four Hour	N/A
	Peak Hour	N/A
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Latson Road @ Crooked Lake Road		
Date	5/26/2023	by	F&V

2	**: No. of Lanes on Major St?**
2	**: No. of Lanes on Minor St?**
55	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: if answer 4 is Yes, then what is the of the population isolated community?**
NO	**: Have other remedial measures been tried?**

USE 70% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	**N-S**	E-W											
00:01 - 01:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
01:00 - 02:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
02:00 - 03:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
03:00 - 04:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
04:00 - 05:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
05:00 - 06:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
06:00 - 07:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
07:00 - 08:00	666	51	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
08:00 - 09:00	734	92	420	140	**NO**	630	70	**YES**	N/A	N/A	N/A	N/A	**N/A**
09:00 - 10:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
10:00 - 11:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
11:00 - 12:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
12:00 - 13:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
13:00 - 14:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
14:00 - 15:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
15:00 - 16:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
16:00 - 17:00	1044	140	420	140	**YES**	630	70	**YES**	N/A	N/A	N/A	N/A	**N/A**
17:00 - 18:00	988	170	420	140	**YES**	630	70	**YES**	N/A	N/A	N/A	N/A	**N/A**
18:00 - 19:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
19:00 - 20:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
20:00 - 21:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
21:00 - 22:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
22:00 - 23:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**
23:00 - 00:00	0	0	420	140	**NO**	630	70	**NO**	N/A	N/A	N/A	N/A	**N/A**

Number of Hours that met the warrant 1A =	**2**
Number of Hours that met the warrant 1B =	**3**
Number of Hours that met the warrant 1 A & B =	**0**

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	**NO**
B. Is the Interruption of Continuous Traffic Met? (Condition B)	**NO**
C. Combination of Warrants A and B Criteria Met?	**N/A**

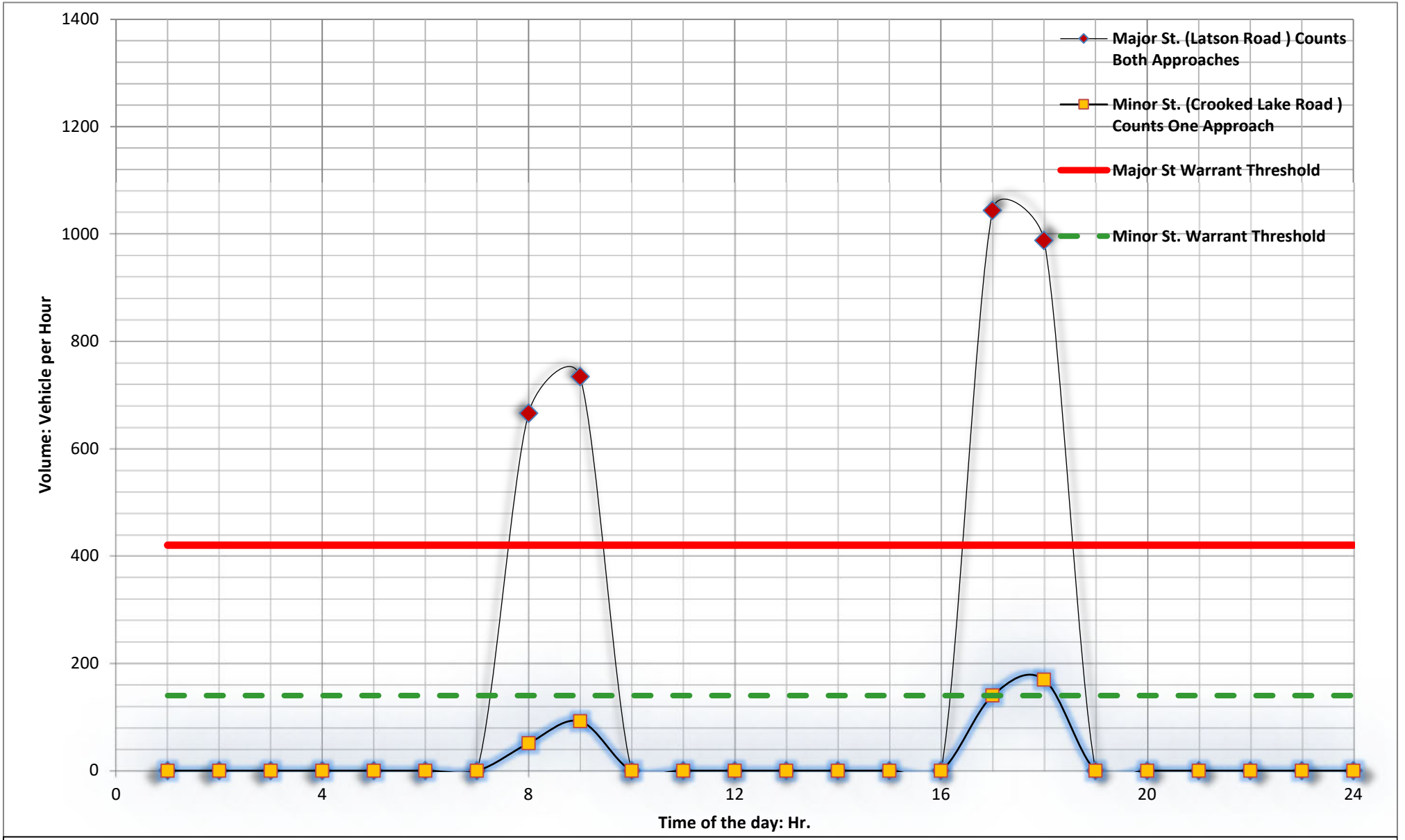


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? YES

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Future Conditions

Latson Road @ Crooked Lake Road

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 2

Number of Hours that met the Warrant: 2

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 5/2/2023

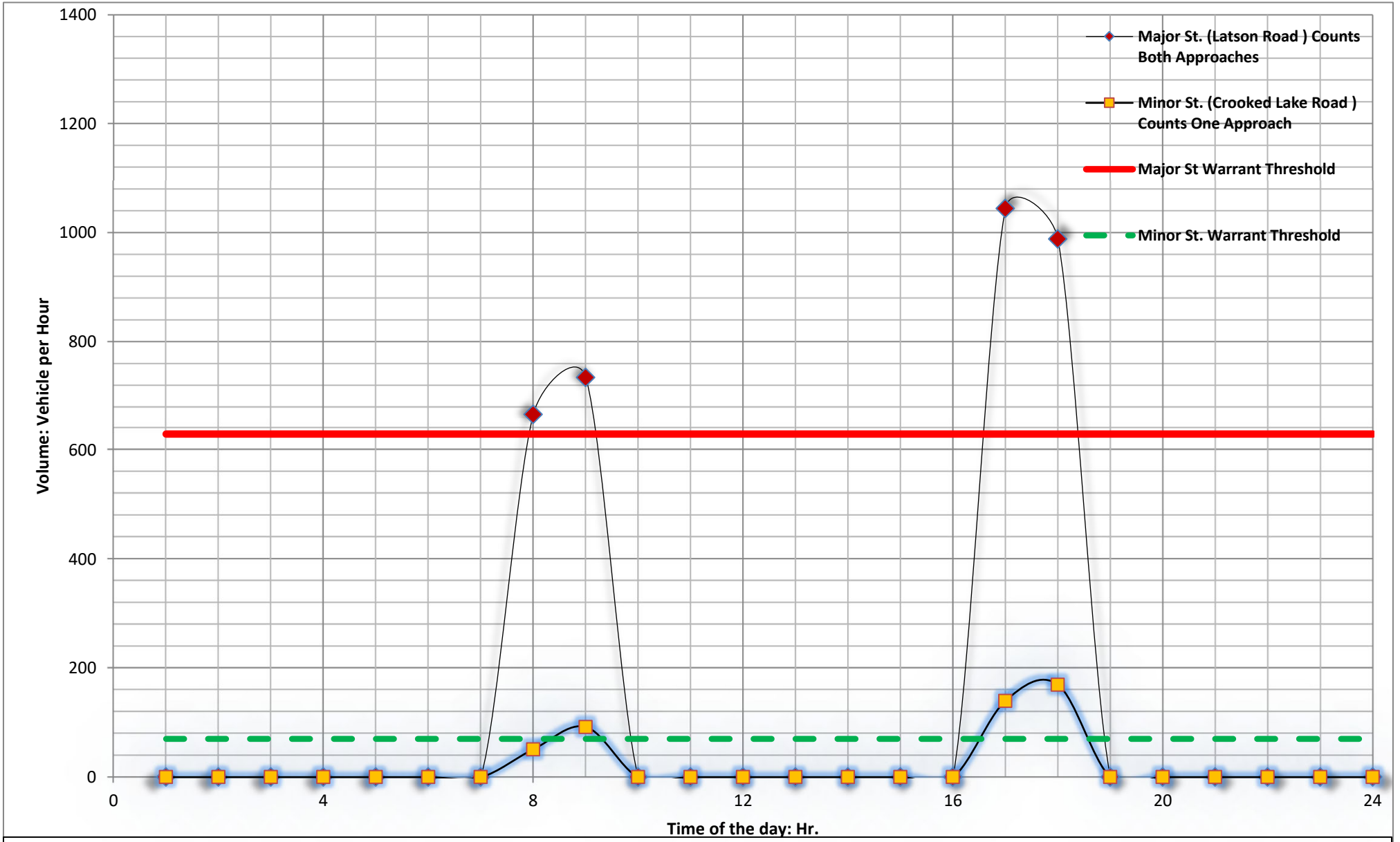


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? YES

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Future Conditions

Latson Road @ Crooked Lake Road

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 2

Number of Hours that met the Warrant: 3

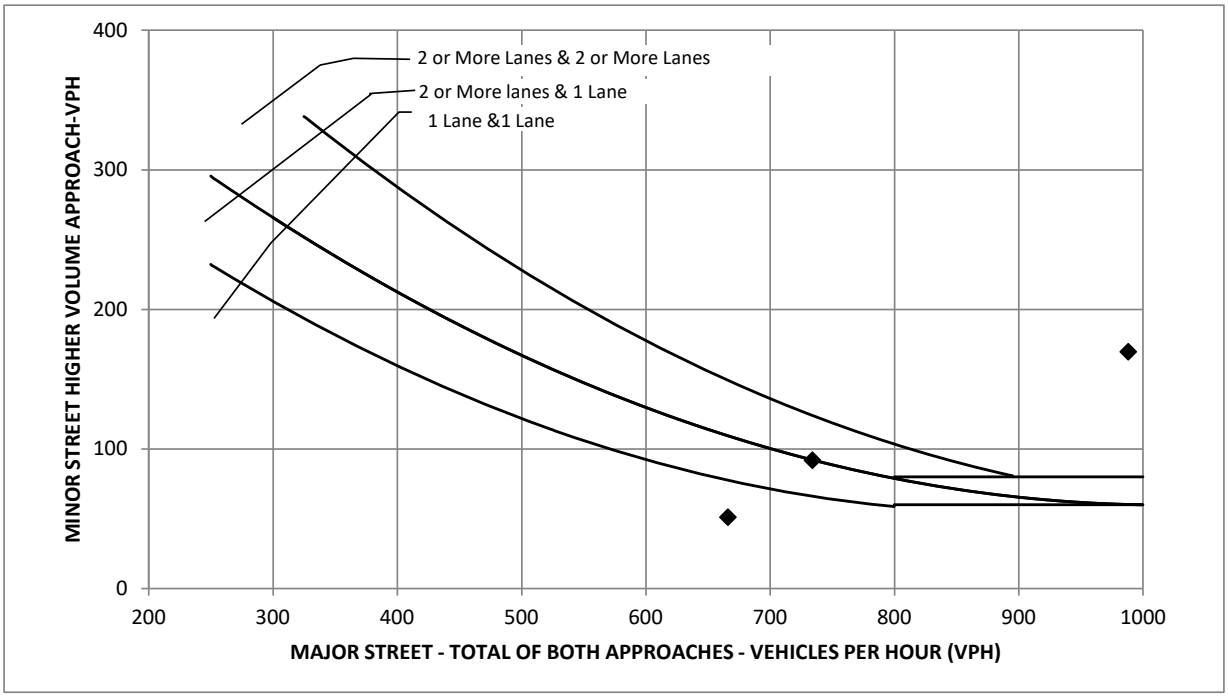
Does this intersection meet Warrant 1B for signal installation? NO

Data Collection Date: 5/2/2023

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Future Conditions		
Intersection:	Latson Road @ Crooked Lake Road		
Date	5/26/2023	by	F&V

2	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
55	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

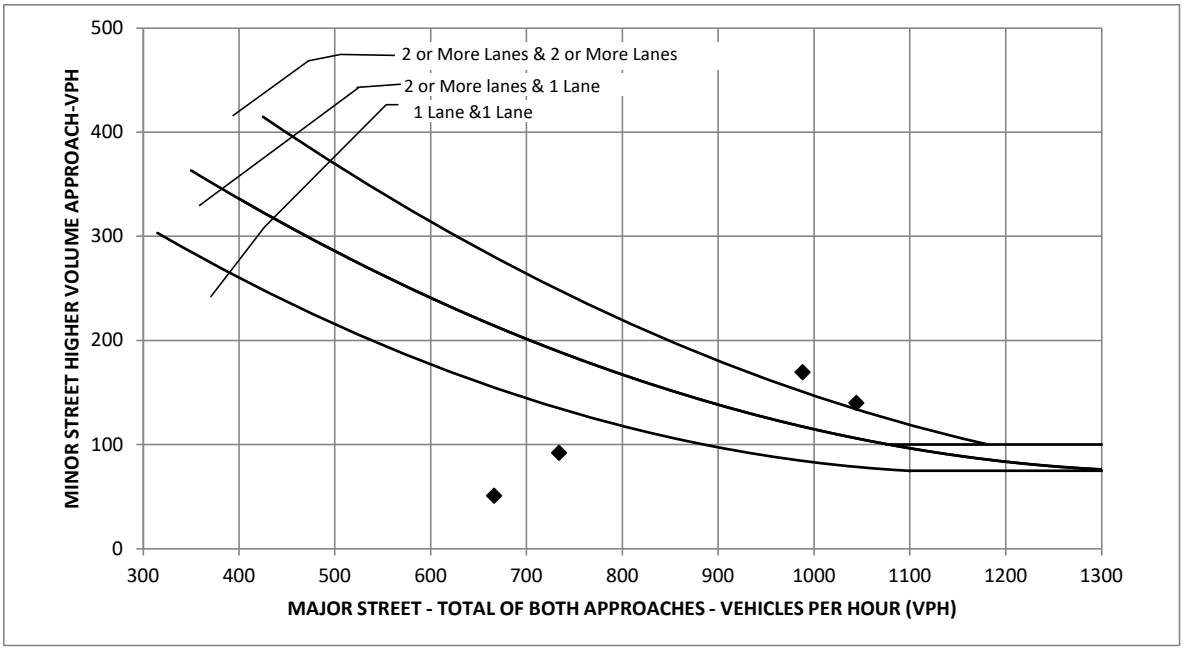


How Many Hours Are Met	**2**
Is Warrant (70%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(70%): Peak-Hour Vehicular Volume

Spot Number:	Future Conditions		
Intersection:	Latson Road @ Crooked Lake Road		
Date	5/26/2023	by	F&V

2	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
55	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**2**
Is Warrant (70%) Met?	**YES**

Summary of Warrants

Spot Number:	Future Conditions		
Major Street:	Latson Road	Minor Street:	Site Drive # 1
Intersection:	Latson Road at Site Drive # 1		
City/Twp:	Genoa Township		
Date Performed:	5/26/2023	Performed By:	F&V
Date Volumes Collected:	5/2/2023		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(70%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(70%)	**YES**
	Condition A	**N/A**
	Condition B	**YES**
WARRANT 4: Pedestrian Volume	(70%)	**NO**
	Four Hour	N/A
	Peak Hour	N/A
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Latson Road @ Site Drive # 1		
Date	5/26/2023	by	F&V

3	: No. of Lanes on Major St?
1	: No. of Lanes on Minor St?
55	: Speed limit or 85th Percentile? (MPH)
NO	: Is the intersection within an Isolated community?
0	: if answer 4 is Yes, then what is the of the population isolated community?
NO	: Have other remedial measures been tried?

USE 70% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	N-S	E-W											
00:01 - 01:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
01:00 - 02:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
02:00 - 03:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
03:00 - 04:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
04:00 - 05:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
05:00 - 06:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
06:00 - 07:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
07:00 - 08:00	1368	56	420	105	NO	630	53	YES	N/A	N/A	N/A	N/A	N/A
08:00 - 09:00	1449	56	420	105	NO	630	53	YES	N/A	N/A	N/A	N/A	N/A
09:00 - 10:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
10:00 - 11:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
11:00 - 12:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
12:00 - 13:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
13:00 - 14:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
14:00 - 15:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
15:00 - 16:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
16:00 - 17:00	1711	229	420	105	YES	630	53	YES	N/A	N/A	N/A	N/A	N/A
17:00 - 18:00	1650	229	420	105	YES	630	53	YES	N/A	N/A	N/A	N/A	N/A
18:00 - 19:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
19:00 - 20:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
20:00 - 21:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
21:00 - 22:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
22:00 - 23:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A
23:00 - 00:00	0	0	420	105	NO	630	53	NO	N/A	N/A	N/A	N/A	N/A

Number of Hours that met the warrant 1A =	2
Number of Hours that met the warrant 1B =	4
Number of Hours that met the warrant 1 A & B =	0

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	NO
B. Is the Interruption of Continuous Traffic Met? (Condition B)	NO
C. Combination of Warrants A and B Criteria Met?	N/A

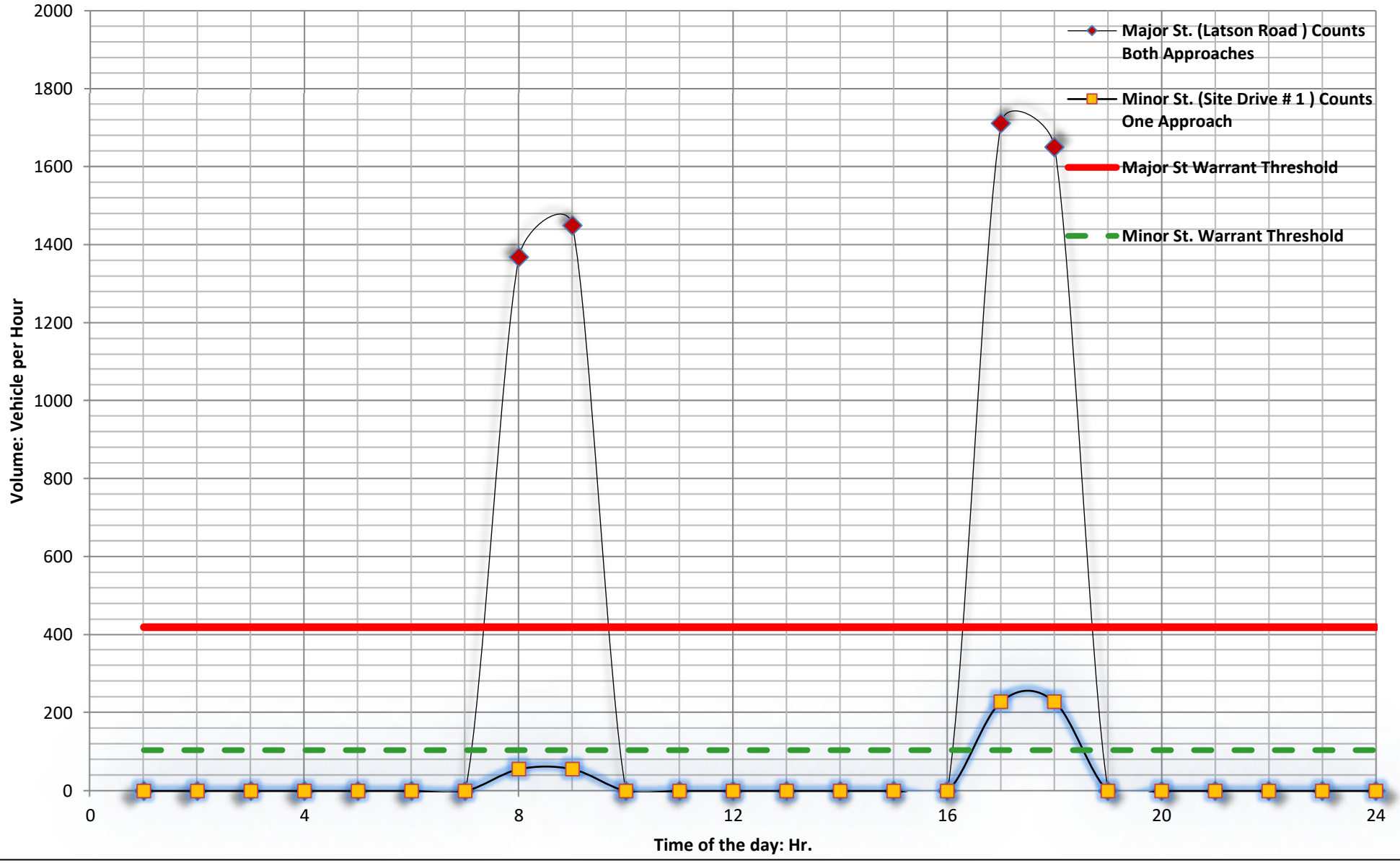


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? **YES**

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? **NO**

Spot Number: **Future Conditions**

Latson Road @ Site Drive # 1

NO. OF LANES ON MAJOR ST.? **3**

NO. OF LANES ON MINOR ST.? **1**

Number of Hours that met the Warrant: **2**

Does this intersection meet Warrant 1A for signal installation? **NO**

Data Collection Date: **5/2/2023**

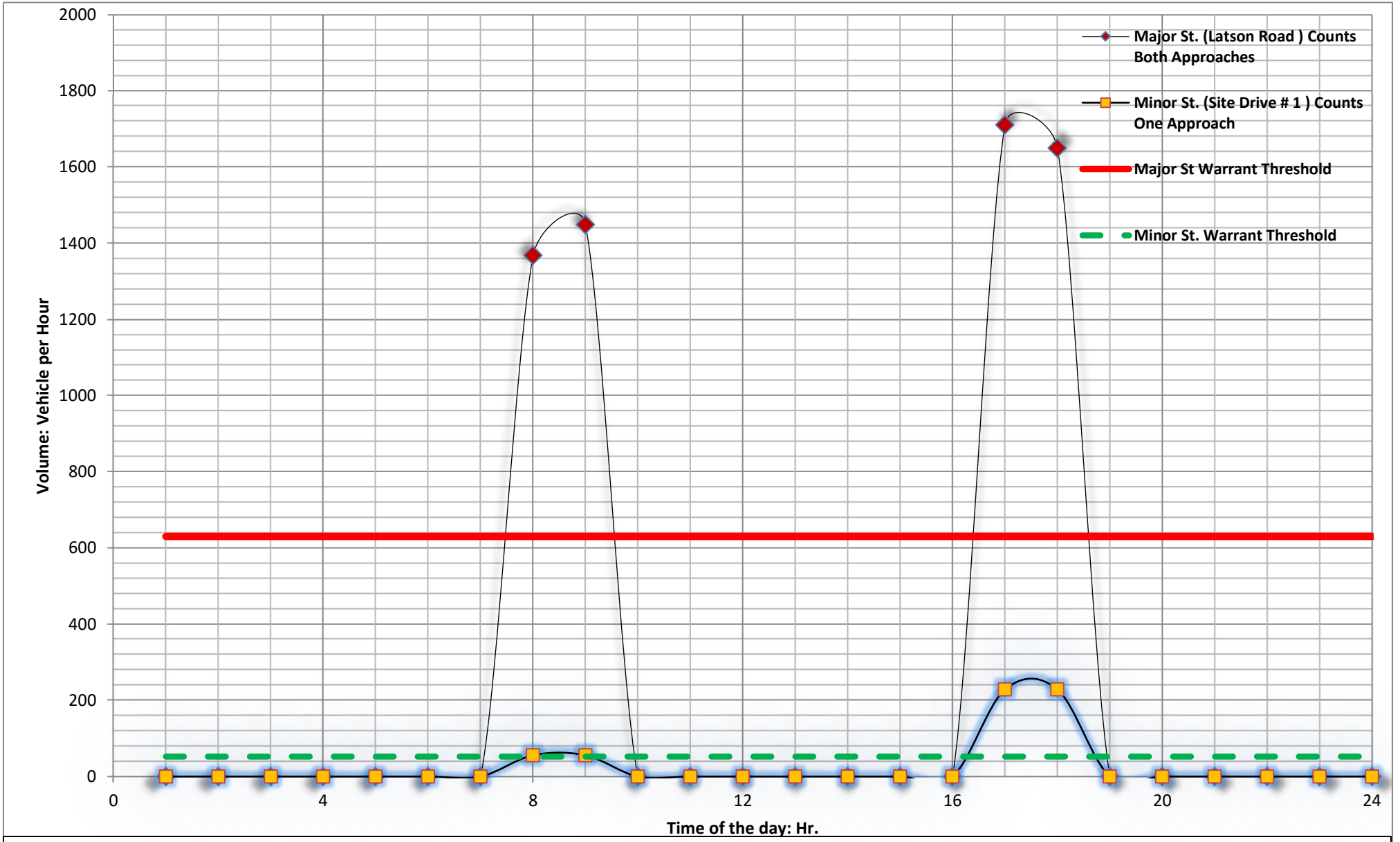


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? YES

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Future Conditions

Latson Road @ Site Drive # 1

NO. OF LANES ON MAJOR ST.? 3

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 4

Does this intersection meet Warrant 1B for signal installation? NO

Data Collection Date: 5/2/2023

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Future Conditions		
Intersection:	Latson Road @ Site Drive # 1		
Date	5/26/2023	by	F&V

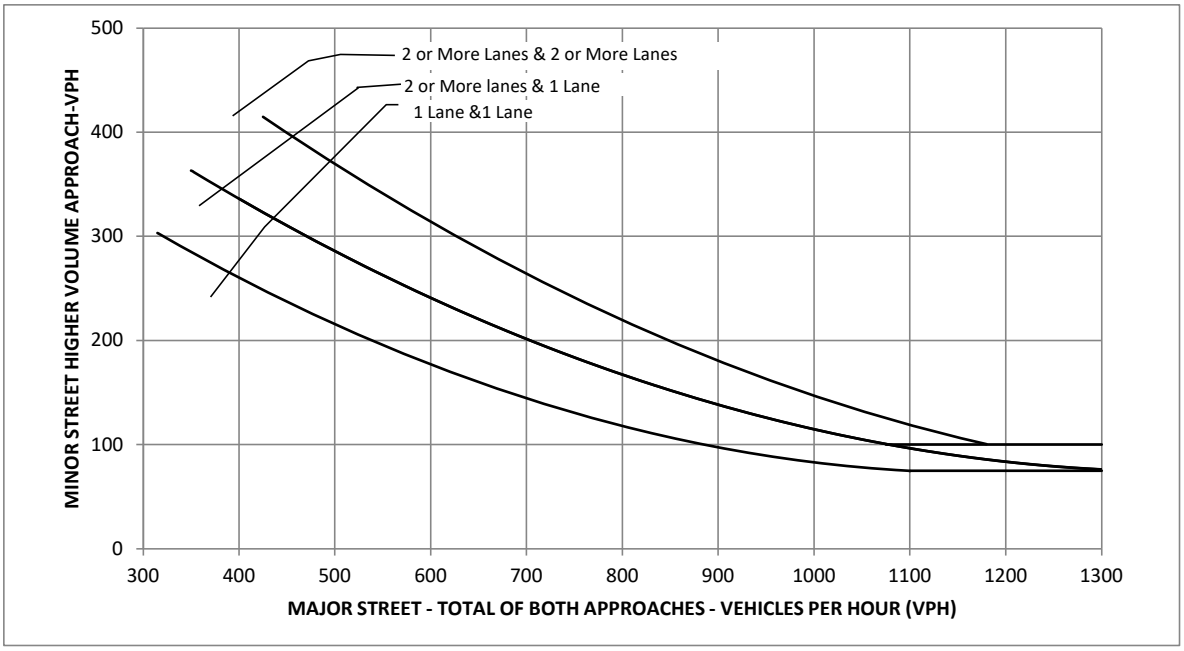
3	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
55	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

How Many Hours Are Met	**2**
Is Warrant (70%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(70%): Peak-Hour Vehicular Volume

Spot Number:	Future Conditions		
Intersection:	Latson Road @ Site Drive # 1		
Date	5/26/2023	by	F&V

3	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
55	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



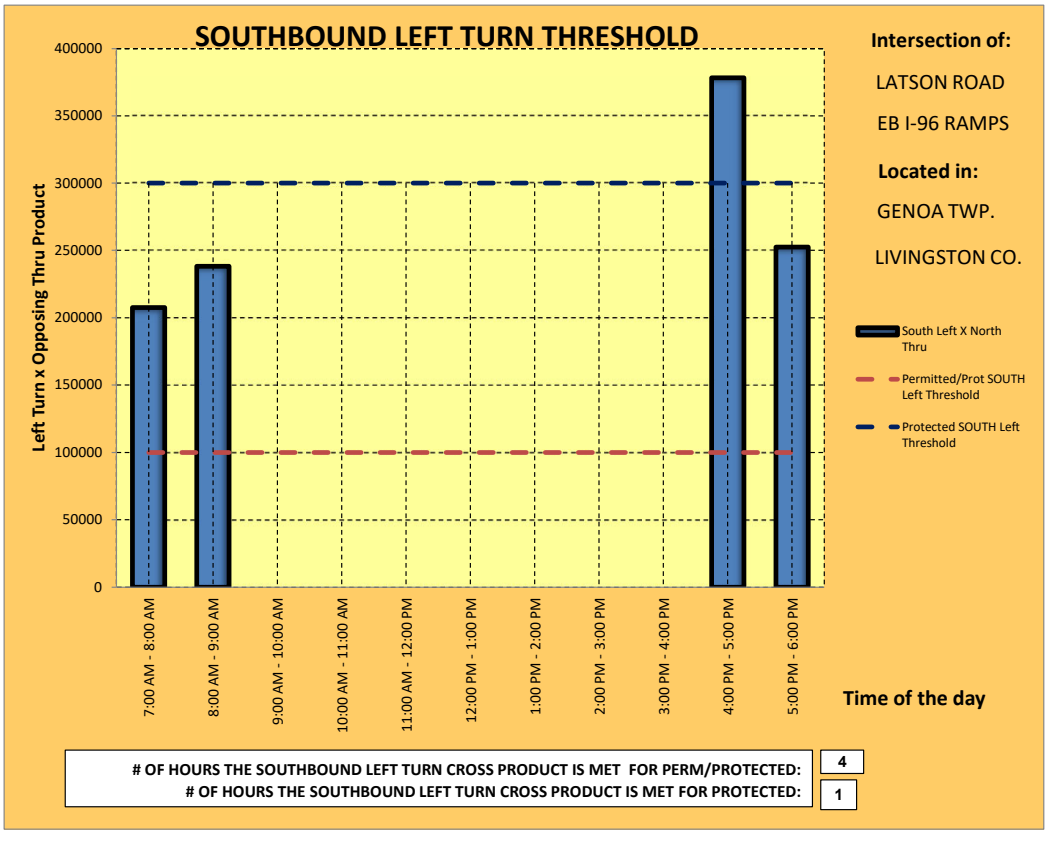
How Many Hours Are Met	**2**
Is Warrant (70%) Met?	**YES**

NORTHBOUND AND SOUTHBOUND LEFT TURN PHASE THRESHOLDS

Please enter Data in Yellow Boxes ONLY

CONDITIONS		Items to Consider for Protected Only	Items to Consider for Permissive/Protected
NORTHBOUND LEFT TURN GEOMETRY			
No. of Opposing SOUTHbound Thru Lanes (include combination thru lanes)	2	NO	YES
No. of Opposing SOUTHbound Right Turn Only Lanes	0	N/A	
What is the Opposing SOUTHbound speed limit or 85%ile? (mph)	55	YES	N / A
No. of NORTHbound Left Turning Lanes	0	NO	N / A
What is the NORTHbound sight distance in the field? (ft)	1000	NO	YES
Minimum Required Sight Distance (ft)	485		
SOUTHBOUND LEFT TURN GEOMETRY			
No. of Opposing NORTHbound Thru Lanes (include combination thru lanes)	2	NO	YES
No. of Opposing NORTHbound Right Turn Only Lanes	1	N/A	
What is the Opposing NORTHbound speed limit or 85%ile? (mph)	55	YES	N / A
No. of SOUTHbound Left Turning Lanes	1	NO	N / A
What is the SOUTHbound sight distance in the field? (ft)	1000	NO	YES
Minimum Required Sight Distance (ft)	526		
TRAFFIC CHARACTERISTICS			
NORTHbound Left Turn Vol (vph)	0	NO	
SOUTHbound Left Turn Vol (vph)	306	YES	
Cross Product of LEFT TURN NORTH (See Chart Below)	0	NO	NO
Cross Product of LEFT TURN SOUTH (See Chart Below)	378216	YES	YES
CRASH HISTORY			
Is there an existing permissive/protected or permissive/protected LT phase?	NO		
"One Left Turn Movement" refers to	Southbound		
ONE LEFT TURN MOVEMENT — Crash History for 12 Month Period			
ONE LEFT TURN MOVEMENT — Enter Number of Correctable crashes? (Left-Turn Head-On)	2	NO	NO
ONE LEFT TURN MOVEMENT — Crash History for 24 Month Period			
ONE LEFT TURN MOVEMENT — Enter Number of Correctable crashes? (Left-Turn Head-On)	3	NO	NO
TWO LEFT TURN MOVEMENTS — Crash History for 12 Month Period			
TWO LEFT TURN MOVEMENTS — Enter Number of Correctable crashes? (Left-Turn Head-On)	2	NO	NO
TWO LEFT TURN MOVEMENTS — Crash History for 24 Month Period			
TWO LEFT TURN MOVEMENTS — Enter Number of Correctable crashes? (Left-Turn Head-On)	3	NO	NO
NORTHbound Left Turn DELAY per vehicle? Sec. / Veh.	0	NO	
NORTHbound TOTAL Left Turn DELAY? Veh-Hr	0.00		
SOUTHbound Left Turn DELAY per vehicle? Sec. / Veh.	105.9	YES	
SOUTHbound TOTAL Left Turn DELAY? Veh-Hr	9.00		

Left-turn phasing should only be approved and installed after a comprehensive engineering study indicates such an operation is necessary for the safe and efficient operation of an intersection. The type of left-turn phasing will be determined based on data from the engineering study which includes the amount of delay experienced by left-turning traffic, crash patterns that may be occurring and available capacity of the intersection.



# OF HOURS THE SOUTHBOUND LEFT TURN CROSS PRODUCT IS MET FOR PERM/PROTECTED:	4
# OF HOURS THE SOUTHBOUND LEFT TURN CROSS PRODUCT IS MET FOR PROTECTED:	1

NORTHBOUND AND SOUTHBOUND LEFT TURN PHASE THRESHOLDS

Please enter Data in Yellow Boxes ONLY

CONDITIONS		Items to Consider for Protected Only	Items to Consider for Permissive/Protected
NORTHBOUND LEFT TURN GEOMETRY			
No. of Opposing SOUTHbound Thru Lanes (include combination thru lanes)	2	NO	YES
No. of Opposing SOUTHbound Right Turn Only Lanes	1	N/A	
What is the Opposing SOUTHbound speed limit or 85%ile? (mph)	55	YES	N / A
No. of NORTHbound Left Turning Lanes	1	NO	N / A
What is the NORTHbound sight distance in the field? (ft)	1000	NO	YES
Minimum Required Sight Distance (ft)	**526**		
SOUTHBOUND LEFT TURN GEOMETRY			
No. of Opposing NORTHbound Thru Lanes (include combination thru lanes)	2	NO	YES
No. of Opposing NORTHbound Right Turn Only Lanes	0	N/A	
What is the Opposing NORTHbound speed limit or 85%ile? (mph)	55	YES	N / A
No. of SOUTHbound Left Turning Lanes	0	NO	N / A
What is the SOUTHbound sight distance in the field? (ft)	1000	NO	YES
Minimum Required Sight Distance (ft)	**485**		
TRAFFIC CHARACTERISTICS			
NORTHbound Left Turn Vol (vph)	347	YES	
SOUTHbound Left Turn Vol (vph)	0	NO	
Cross Product of LEFT TURN NORTH (See Chart Below)	541320	YES	YES
Cross Product of LEFT TURN SOUTH (See Chart Below)	0	NO	NO
CRASH HISTORY			
Is there an existing permissive/protected or permissive/protected LT phase?	NO		
"One Left Turn Movement" refers to	Northbound		
ONE LEFT TURN MOVEMENT — Crash History for 12 Month Period			
Enter Number of Correctable crashes? (Left-Turn Head-On)	1	NO	NO
ONE LEFT TURN MOVEMENT — Crash History for 24 Month Period			
Enter Number of Correctable crashes? (Left-Turn Head-On)	1	NO	NO
TWO LEFT TURN MOVEMENTS — Crash History for 12 Month Period			
Enter Number of Correctable crashes? (Left-Turn Head-On)	1	NO	NO
TWO LEFT TURN MOVEMENTS — Crash History for 24 Month Period			
Enter Number of Correctable crashes? (Left-Turn Head-On)	1	NO	NO
NORTHbound Left Turn DELAY per vehicle? Sec. / Veh.	367.4	YES	
NORTHbound TOTAL Left Turn DELAY? Veh-Hr	35.41		
SOUTHbound Left Turn DELAY per vehicle? Sec. / Veh.	0	NO	
SOUTHbound TOTAL Left Turn DELAY? Veh-Hr	0.00		

Left-turn phasing should only be approved and installed after a comprehensive engineering study indicates such an operation is necessary for the safe and efficient operation of an intersection. The type of left-turn phasing will be determined based on data from the engineering study which includes the amount of delay experienced by left-turning traffic, crash patterns that may be occurring and available capacity of the intersection.