Traffic Impact Analysis for
4th Street and Pleasant Street Corridors

Beloit, Wisconsin

Final Report

Prepared for:

City of Beloit, Wisconsin through the Stateline Area Transportation Study Metropolitan Planning Organization (SLATS MPO)

Prepared by:

August 2019

SRF No. 11578.02

*This document was prepared with Federal funds but does not necessarily reflect the official views or policy of the U.S. Department of Transportation

Table of Contents

List of Appendices

List of Figures

List of Tables

Executive Summary

This report documents the results of a traffic impact analysis (TIA) for the 4th Street and Pleasant Street corridors in Beloit, Wisconsin. The purpose of this TIA is to identify transportation system impacts due to proposed changes to the number of travel lanes of either, or both, roadways. It is our understanding that the 4th Street and Pleasant Street corridors were identified by the City of Beloit for potential streetscape and downtown revitalization improvements. These improvements call for the reduction of the number of travel lanes along these corridors from four to two.

Weekday morning and afternoon intersection turning movement counts were collected at eight intersections in the study area. Peak-hour volumes at these locations were submitted to the Wisconsin Department of Transportation (WisDOT) Traffic Forecasting Section to develop Year 2040 traffic forecasts. Additionally, StreetLight probe data was collected to develop data-driven, diversion proportions to reflect roadway capacity changes (i.e. reduction of travel lanes) and traffic shifts because of these changes. Traffic operations analysis was performed for existing-year, Year 2040 no-build, and Year 2040 with the various lane reductions. The following findings and recommendations are provided below:

- Traffic operations analysis performed and outlined in Chapter 6.0 indicate that the study intersections currently, and will continue to, operate adequately during peak traffic periods. The eastbound approach of Portland Avenue at 4th Street operates at LOS D; however, approach volumes on the other three intersection legs are higher than the eastbound approach and requires more traffic signal green time to maintain mobility along those intersection legs.
- When 4th Street is evaluated with two travel lanes, the study intersections can accommodate diverted traffic from 4th Street with little to no additional improvements necessary (see Chapter 7.0).
    - Improvements such as traffic signal phasing and timing updates may be necessary to maximize mobility; however, no roadway improvements, such as additional turn lanes or through lanes, are needed to accommodate this alternative.
    - Reducing 4th Street to two travel lanes north of Portland Avenue will provide an opportunity for additional roadway accommodations such as exclusive left-turn lanes and/or on-street bicycle accommodations.
- When Pleasant Street is evaluated with two travel lanes, study intersections can accommodate diverted traffic from 4th Street with the exception of the 4th Street and Portland Avenue intersection (see Chapter 7.0). This intersection is anticipated to experience operational deficiencies due to traffic increases on the northbound approach.
    - Updating the northbound approach to provide an exclusive left-turn lane, through lane, and an exclusive right-turn lane can improve traffic operations under this alternative. It should be noted that this improvement can be accommodated within the existing roadway cross-section.

- When 4th Street and Pleasant Street are evaluated with two travel lanes, the study intersections can accommodate forecasted traffic volumes with little to no additional improvements necessary (see Chapter 7.0).
    - Improvements such as traffic signal phasing and timing updates may be necessary to maximize mobility; however, no roadway improvements, such as additional turn lanes or through lanes, are needed to accommodate this alternative.
    - Unlike previous alternatives, traffic is not anticipated to divert to either roadway since both roadways would have the same roadway cross-section.
    - Because favorable traffic operations occur for this alternative, it is unlikely that this alternative would make motorists divert to roadways outside of the study area, particularly in the residential neighborhoods.

1.0 Introduction

1.1 Study Purpose

This report documents the results of a traffic impact analysis (TIA) for the 4th Street and Pleasant Street corridors in Beloit, Wisconsin. The purpose of this TIA is to identify transportation system impacts due to proposed changes to the number of travel lanes of either, or both, roadways. It is our understanding that the 4th Street and Pleasant Street corridors were identified by the City of Beloit for potential streetscape and downtown revitalization improvements. These improvements call for the reduction of the number of travel lanes along 4th Street and/or Pleasant Street from four to two. Transportation system modification recommendations to the two study corridors were made to accommodate traffic increases in the downtown Beloit area.

1.2 Study Area

The TIA study area includes an analysis of the following intersections:

- 4th Street and Portland Avenue
- 4th Street and Grand Avenue
- Broad Street and Mill Street
- Broad Street and State Street
- Broad Street and Pleasant Street
- Pleasant Street and Grand Avenue
- Pleasant Street and Public Avenue
- Pleasant Street and White Avenue

The general study area limits are illustrated in Figure 1.1.

SRF Consulting Group, Inc.

Study Area

4th Street and Pleasant Street Corridor Study
Beloit, Wisconsin

Figure 1.1

11578.02
February 2019

2.0 Existing Area Conditions

2.1 Roadway Transportation System

Descriptions of major area roadways within the study area are summarized below while roadway and intersection characteristics are illustrated in Figure 2.1.

4th Street

4th Street is a north-south principal arterial that runs along the west side of the Rock River in downtown Beloit. At the Rock River bridge, the roadway designated as 4th Street becomes known as Broad Street. Wisconsin State Trunk Highway 213 (WIS 213) runs concurrent with 4th Street through the study area. North of Portland Avenue, Wisconsin State Trunk Highway 81 (WIS 81) also runs concurrent to 4th Street. 4th Street provides a four-lane undivided cross-section except for a one-block stretch from Grand Avenue to Saint Lawrence Avenue, where the roadway provides an undivided two-lane cross-section. At its signalized intersections with Portland Avenue and Grand Avenue, exclusive left-turn lanes are provided on both approaches of 4th Street. Parking is prohibited on 4th Street except for the west side of 4th Street from Grand Avenue to Saint Lawrence Avenue. 4th Street does not have a posted speed limit within the study area.

Broad Street

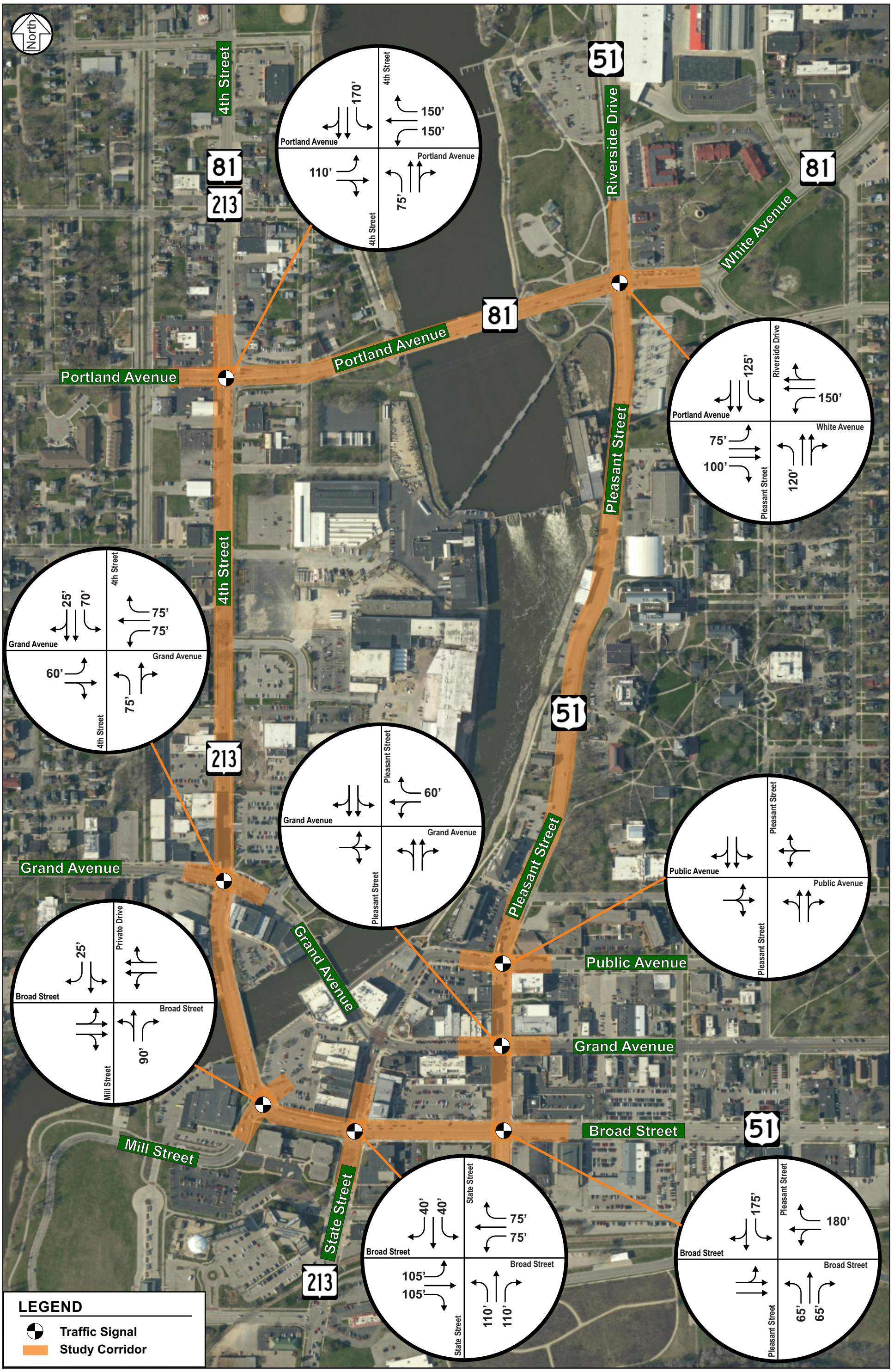
Broad Street is an east-west principal arterial that runs along the south side of downtown Beloit. At the Rock River bridge, the roadway designated as 4th Street becomes known as Broad Street. Wisconsin State Trunk Highway 213 (WIS 213) runs concurrent with Broad Street from the Rock River bridge (via 4th Street) to State Street, where WIS 213 goes south. East of Pleasant Street, United States Highway 51 (US 51) runs concurrent to Broad Street. Broad Street provides a four-lane undivided cross-section through the study area; however, at several key intersections, trapping left-turn and right-turn lanes are present due to limited right of way to develop proper exclusive turning lanes. Broad Street has signalized intersections with Mill Street, State Street, and Pleasant Street and exclusive turning lanes are provided at State Street and Pleasant Street. Parking is permitted on both sides of Broad Street from State Street to Pleasant Street and the roadway has a posted speed limit of 25 miles per hour in the study area.

Pleasant Street

Pleasant Street is a north-south, four-lane undivided principal arterial that runs along the east side of the Rock River. From Broad Street northward, US 51 runs concurrent to Pleasant Street. North of White Avenue, the roadway designated as Pleasant Street becomes Riverside Drive. Pleasant Street has signalized intersections with Broad Street, Grand Avenue, Public Avenue, and White Avenue with exclusive turning lanes provided at Broad Street and White Avenue. On-street parking is permitted along both sides of Pleasant Street from Broad Street to Public Avenue and the roadway has a posted speed limit of 25 mph within the study area.

White Avenue / Portland Avenue

White Avenue is an east-west, four-lane undivided principal arterial in the City of Beloit. At the Rock River bridge, the roadway east of the river is designated as White Avenue while the roadway west of the river is designated as Portland Avenue. WIS 81 runs concurrently on Portland Avenue at 4th Street and along White Avenue through the study area. The roadway has signalized intersections with 4th Street and Pleasant Street with exclusive turning lanes provided on both approaches to these intersections. On-street parking is prohibited on White Avenue and Portland Avenue and a bike lane is present on both sides of the roadway through the study area. White Avenue and Portland Avenue has a posted speed limit of 25 mph.



Study Intersections

4th Street and Pleasant Street Corridor Study

Beloit, Wisconsin

Figure 2.1

SRF Consulting Group, Inc.

11578.02
February 2019

State Street

State Street is a north-south roadway that runs from the Illinois State Line into downtown Beloit. South of Broad Street, the roadway is designated as a principal arterial that provides four travel lanes and WIS 213 runs concurrent to it. North of Broad Street, State Street is designated as a collector roadway that provides two travel lanes. At its signalized intersection with Broad Street, exclusive turning lanes are provided on both approaches of State Street. On-street parking is permitted along both sides of State Street and the roadway does not have a posted speed limit within the study area.

Grand Avenue

Grand Avenue is a two-lane, east-west minor arterial that connects residential neighborhoods to the west to downtown Beloit. At its signalized intersections with 4th Street and Pleasant Street, exclusive turning lanes are provided along Grand Avenue. On-street parking is permitted along both sides of Grand Avenue and the roadway does not have a posted speed limit.

Public Avenue

Public Avenue is a two-lane, east-west local street within downtown Beloit. At its signalized intersection with Pleasant Street, no exclusive turning lanes are provided. On-street parking is permitted along both sides of Public Avenue and the roadway does not have a posted speed limit.

2.2 Area Land Uses

Land uses in the study area comprise of various office and industrial uses along both sides of the Rock River. The downtown core of Beloit is generally located south of Public Avenue and Grand Avenue. Beloit College is located on the east side of Pleasant Street, north of Public Avenue.

2.3 Data Collection Plan

SRF's data collection efforts focused on gathering and organizing a variety of information related to the study area. A field review of the study area was performed to gather intersection and roadway geometrics, multi-modal facilities, and surrounding land uses. Traffic signal phasing and timing information for signalized intersections within the study area was provided by the City of Beloit. Intersection turning movement counts were gathered to understand traffic operations during peak traffic periods within the study area.

Key intersections located along 4th Street and Pleasant Street were identified during the project scoping process. These intersections would be the most directly affected by changes to the cross-section of 4th Street and Pleasant Street. Discussions with SLATS MPO and City of Beloit staff determined that intersection data collection would be conducted at eight intersections, listed below:

- 4th Street and Portland Avenue
- 4th Street and Grand Avenue
- Broad Street and Mill Street
- Broad Street and State Street
- Broad Street and Pleasant Street
- Pleasant Street and Grand Avenue
- Pleasant Street and Public Avenue
- Pleasant Street and White Avenue

2.4 Peak Hour Turning Movement Counts

Weekday morning (7:00 to 9:00 a.m.) and weekday afternoon (4:00 to 6:00 p.m.) peak hour turning movement counts were collected at the eight intersections listed in Chapter 2.3 in October 2018. The counts were collected using video-based data collection technology. Specifically, a video camera was mounted on a pole to capture traffic operations at each intersection. The recorded video data were reviewed and quantified into traffic counts. It was determined that the morning peak hour of the study area occurs from 7:15 to 8:15 a.m. and the afternoon peak hour occurs from 4:30 to 5:30 p.m. Peak hour turning movement volumes are displayed in Figure 2.2 while intersection turning movement count summaries for each intersection is provided in Appendix A. It should be noted that intersection turning movement counts were collected over several weeks while local streets and significant land uses have access to 4th Street and Pleasant Street between study intersections. To account for these conditions, several intersections with no or minimal mid-block access were adjusted to provide balanced volumes between the intersections. Areas such as 4th Street, south of Portland Avenue, and near Beloit College, however, were not balanced as multiple access points and traffic generators are present mid-block between the study intersections.

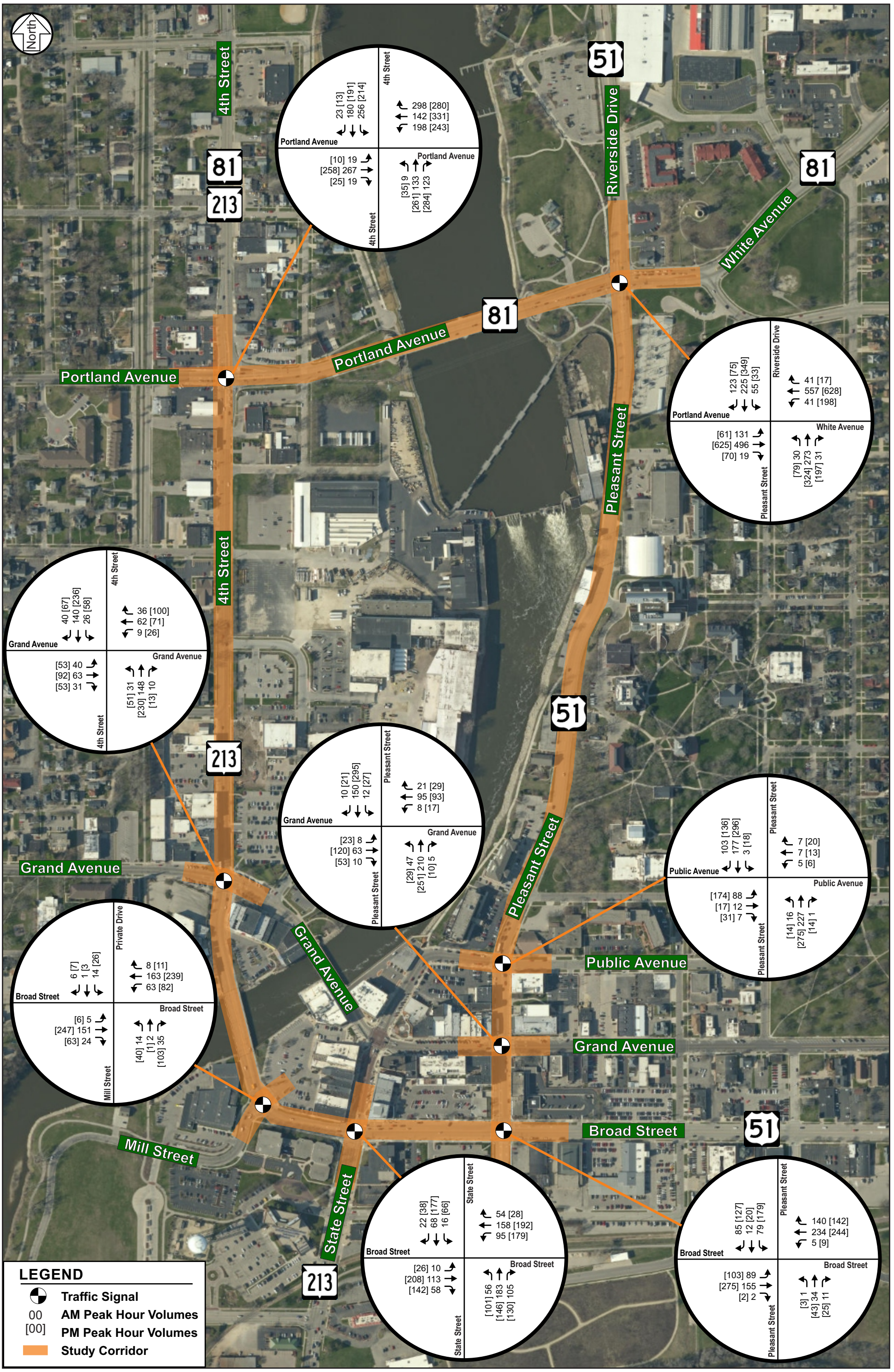
2.5 Probe Data Collection

GPS probe data from vehicles was collected via the vendor software, StreetLight, to understand travel patterns motorists as they travel to, along, and from 4th Street and Pleasant Street. This data was used to determine traffic diversion along these corridors to evaluate roadway capacity alternatives along each route and its impact to the surrounding roadways.

StreetLight data comes from commercial fleet navigation systems, GPS navigation devices in personal vehicles, and turn-by-turn navigation smartphone apps. Data is collected at one to three minutes intervals for commercial trucks and every few seconds for personal vehicles. SRF accessed StreetLight's data for the study area for the entire year of 2017. Data was distinguished into weekday morning (6:00 – 10:00 a.m.) and afternoon peak (3:00 – 7:00 p.m.) periods for analysis purposes. Utilizing this robust travel data set increases the level of accuracy for analysis.

The next step was to establish data zones in and around the study area to capture trips that originate and/or terminate in the study area. Figure 2.3 illustrates the study area developed to gather and interpret Streetlight data. The following discusses how the StreetLight probe data was used to review traffic patterns in the downtown Beloit study area:

- Origin-destination (O-D) tables were created based on trips traveling to and/or from each predetermined zone. The O-D tables were distinguished by time-of-day and vehicle type (e.g. passenger vehicles, commercial trucks).
- While these tables illustrate trip magnitudes for each zone, the tables do not provide specific trip routes used to travel to/from each zone.
- Internal zones were created to understand trip routes between zones along the study corridors. Four internal zones were created in the study area: two along 4th Street (zones 14 and 15 in Figure 2.3) and two along Pleasant Street (zones 4 and 13). From this, a travelshed analysis was performed for each internal zone to determine what zones traffic was traveling to and from each internal zone.
- From the travelshed analysis, a diversion percentage was estimated for each internal zone. This diversion percentage was applied to the Year 2040 forecasted traffic volumes and traffic was diverted to other roadways. Since the O-D tables provided traffic data for each zone, traffic was diverted based on the traffic proportions determined in the O-D tables. Table 2.4 illustrates the internal zones and the diversion percentages for each zone.



SRF Consulting Group, Inc.

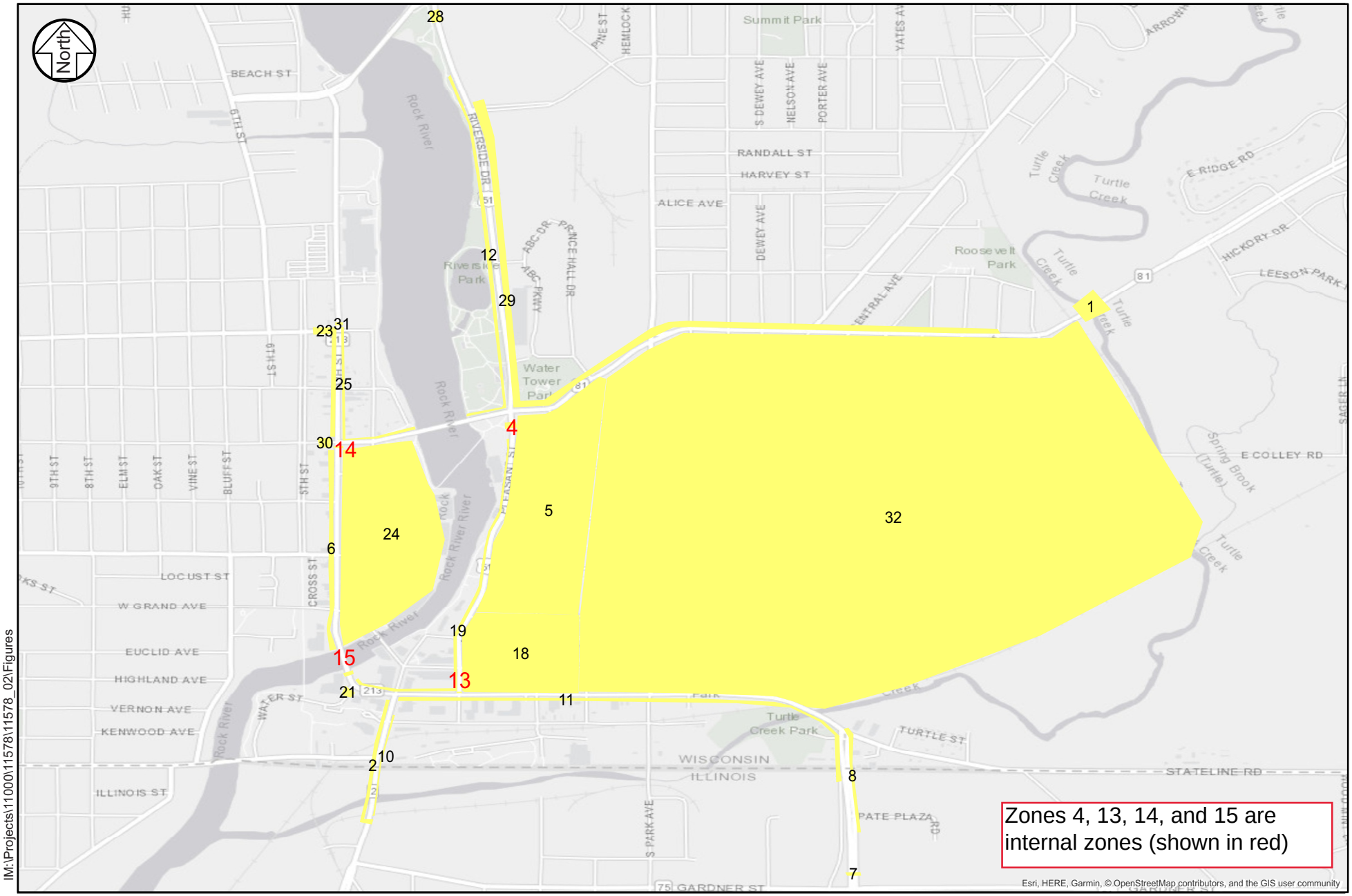
Year 2018 Peak Hour Intersection Turning Movement Counts

4th Street and Pleasant Street Corridor Study

Beloit, Wisconsin

Figure 2.2

11578.02
February 2019



IM:\Projects\11000\11578\11578_02\Figures

SRF Consulting Group, Inc.

Origin-Destination Zones

Beloit Traffic Study
City of Beloit, Wisconsin

Figure 2.3

11578
November 2018

Table 2.4 Traffic Diversion Analysis

Origin Zones	Destination Zones	Time Period	Percent of Traffic that can Divert
2,4,5,6,7,8,10,11,18,19,21,24 & 32	4th Street NB	AM Peak (6 am- 10 am)	75%
2,4,5,6,7,8,10,11,18,19,21,24 & 32	4th Street NB	PM Peak (3 pm -7 pm)	79%
1,4,6,12,23,24,25,28,29,30,31 & 32	4th Street SB	AM Peak (6 am- 10 am)	81%
1,4,6,12,23,24,25,28,29,30,31 & 32	4th Street SB	PM Peak (3 pm -7 pm)	68%
2,5,7,8,10,11,15,18,19,21 & 32	Pleasant Street NB	AM Peak (6 am- 10 am)	53%
2,5,7,8,10,11,15,18,19,21 & 32	Pleasant Street NB	PM Peak (3 pm -7 pm)	81%
1,5,12,14,18,23,24,25,28,29,30,31 & 32	Pleasant Street SB	AM Peak (6 am- 10 am)	58%
1,5,12,14,18,23,24,25,28,29,30,31 & 32	Pleasant Street SB	PM Peak (3 pm -7 pm)	51%

Refer to Figure 2.3 for origin zone locations

The percentages shown in Table 2.4 indicate the amount of traffic that could divert from their current route to a different route (for this study, the 4th Street and Pleasant Street corridors would serve as diversion routes to each other). These percentages are based on the amount of existing traffic, via StreetLight, that travel from the origin zone to the destination zone. Higher diversion percentages indicate that higher amounts of existing traffic can be diverted to an alternate route. This is due to the provision of parallel routes that can accommodate diverted traffic with a minimal increase in delay.

As previously stated, these diversion percentages show how much traffic that could divert from their current roadway. To evaluate a conservative (i.e. "worst-case") scenario, these percentages were diverted from their current roadway and applied to their parallel route. By doing so, the study intersections were analyzed under a scenario where the maximum forecasted diversion would take place.

3.0 Future-Year Traffic Volumes

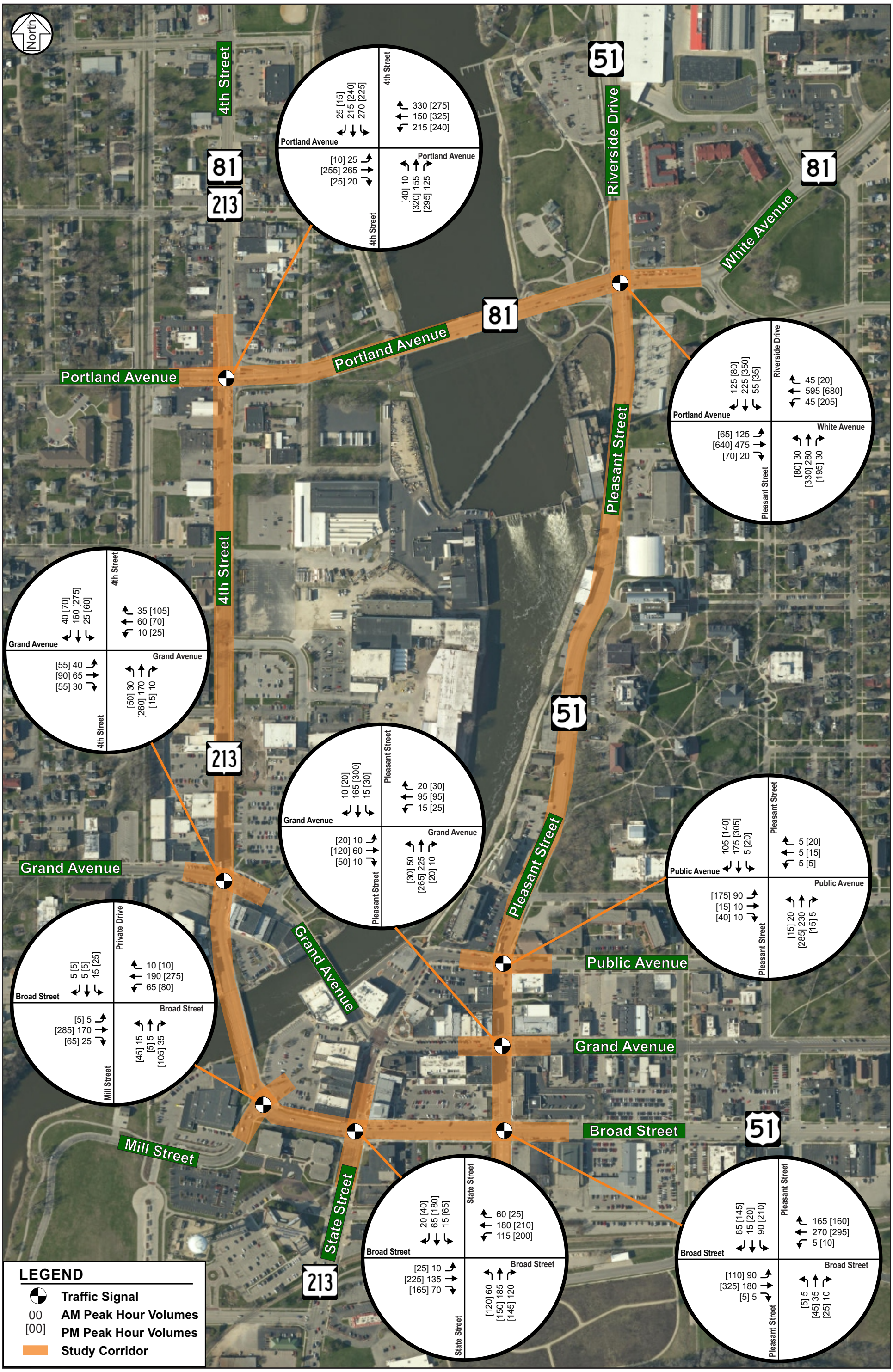
3.1 Year 2040 Traffic Forecasts, No Build

Year 2040 traffic forecasts for the study area were developed by the WisDOT Traffic Forecasting Section (TFS). Peak-hour traffic volumes collected by SRF and daily traffic volumes collected by WisDOT, coupled with growth rates developed in the Beloit travel demand model, were used to develop Year 2040 daily and peak-hour traffic forecasts for the study area. Year 2040 forecasted traffic volumes are illustrated in Figure 3.1 and the TFS forecasts worksheets are provided in the Appendix.

3.2 Year 2040 Traffic Forecasts, Diverted Traffic Alternatives

WisDOT TFS provided Year 2040 peak-hour traffic volumes for the study intersections. These forecasts were based on no improvements to the roadway network, such as capacity increases or decreases (i.e. no roadway travel lanes added or removed).

As discussed in Chapter 2.5, SRF obtained Streetlight data for the study area and developed time-of-day O-D tables to determine traffic characteristics along the 4th Street and Pleasant Street corridors. This data was used to determine potential traffic diversion proportions if 4th Street or Pleasant Street reduced their roadway capacity. These proportions were applied to the study roadway network and peak-hour traffic volumes were updated to reflect diverted traffic. Figure 3.2 illustrates Year 2040 forecasted traffic volumes for the 4th Street lane reduction alternative while Figure 3.3 illustrates Year 2040 forecasted traffic volumes for the Pleasant Street lane reduction alternative.



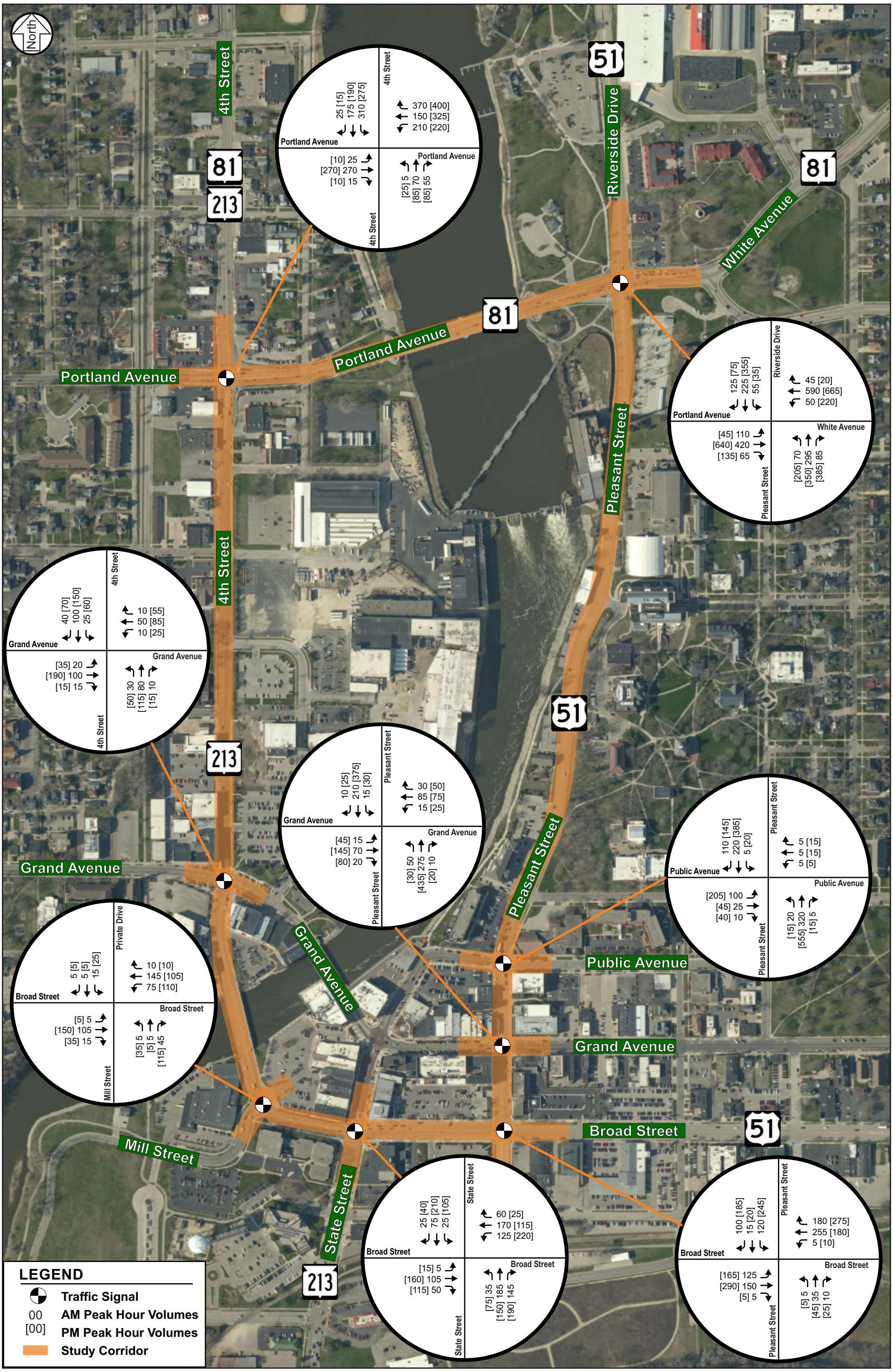
SRF Consulting Group, Inc.

Year 2040 Forecasted Peak-Hour Intersection Traffic Volumes, No Build

4th Street and Pleasant Street Corridor Study
Beloit, Wisconsin

Figure 3.1

11578.02
February 2019



SRF Consulting Group, Inc.

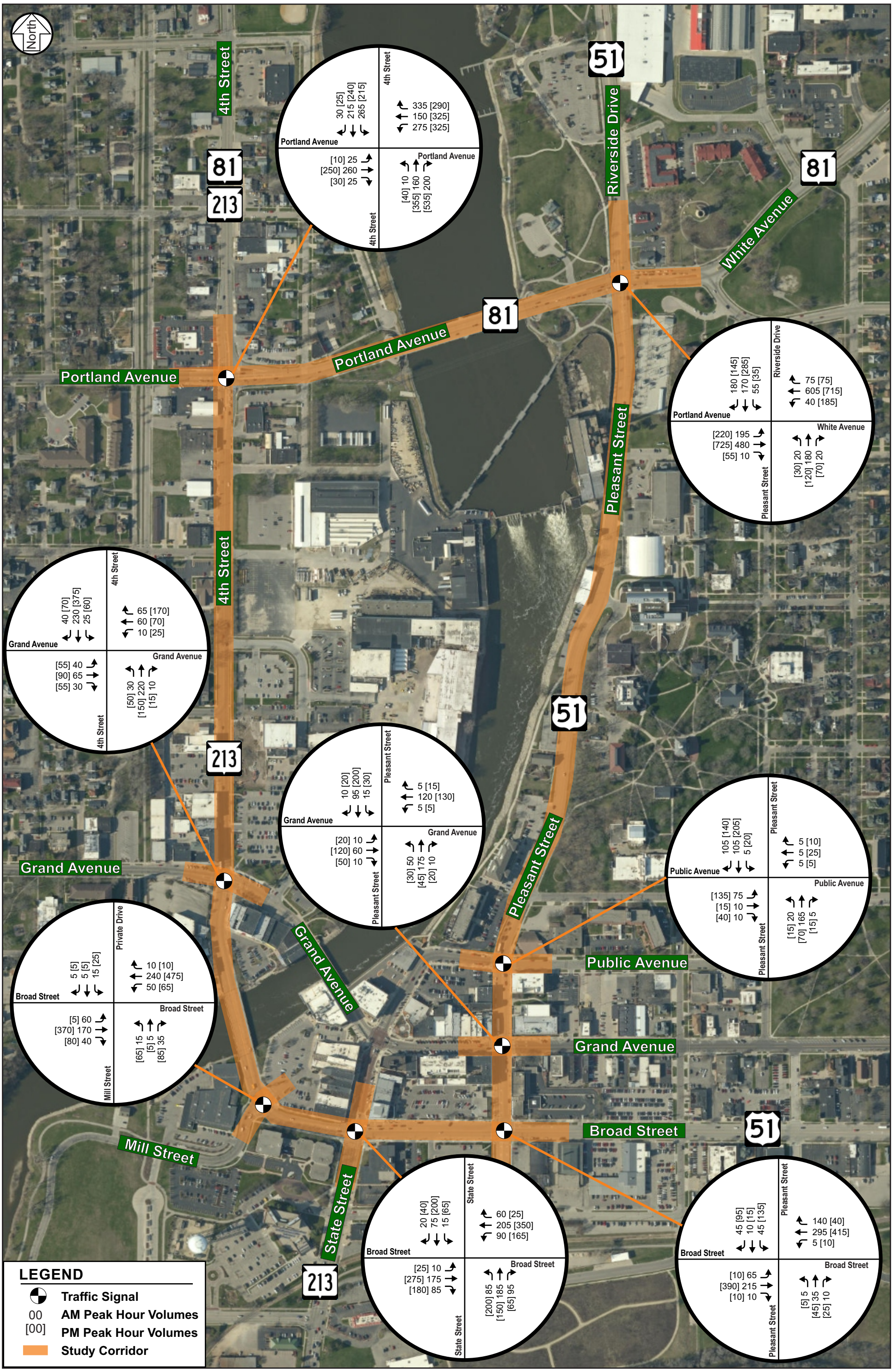
Year 2040 Forecasted Peak-Hour Traffic Volumes, 4th Street Lane Reduction

4th Street and Pleasant Street Corridor Study

Beloit, Wisconsin

Figure 3.2

11578.02
February 2019



SRF Consulting Group, Inc.

Year 2040 Forecasted Peak-Hour Traffic Volumes, Pleasant Street Lane Reduction

4th Street and Pleasant Street Corridor Study

Beloit, Wisconsin

Figure 3.3

11578.02
February 2019

4.0 Corridor Alternatives

The following describes corridor alternatives along 4th Street and Pleasant Street that will be evaluated as part of this study:

4.1 4th Street Corridor Alternative

Through the study area, 4th Street primarily consists of an undivided four-lane cross-section. However, the roadway has an undivided two-lane cross-section for one block, from Grand Avenue to Saint Lawrence Avenue. For this alternative, 4th Street is proposed to have an undivided two-lane cross-section from State Street to Liberty Avenue (north of Portland Avenue). Exclusive left-turn lanes would be provided at key intersections along this stretch of 4th Street. A northbound exclusive right-turn lane would be provided on 4th Street at Portland Avenue.

4.2 Pleasant Street Corridor Alternative

Pleasant Street provides an undivided four-lane cross-section through the study area. Pleasant Street divides Beloit College and residential neighborhoods to the east from riverfront and downtown Beloit businesses to the west. For this alternative, Pleasant Street is proposed to have an undivided two-lane cross-section from Broad Street to just south of White Avenue / Portland Avenue. Exclusive left-turn lanes would be provided at key intersections along this stretch of Pleasant Street. Exclusive right-turn lanes would be provided on both approaches of Pleasant Street at White Avenue / Portland Avenue.

4.3 4th Street and Pleasant Street Corridor Alternative

This alternative is a combination of the previous alternative; both 4th Street and Pleasant Street would have undivided, two-lane cross-sections. This would maximize multimodal and on-street parking accommodations along both corridors. Exclusive turning lane assumptions made for each individual roadway alternative would be applied for this alternative.

5.0 Traffic Operations Analysis

To determine how traffic operates under current and future conditions, an operational analysis was conducted for intersections identified in Section 3.3 using methodologies published in the *Highway Capacity Manual* (HCM). The HCM module in the traffic operations software package, Synchro, was used to document the results of the traffic operations analysis. Operational analysis results identify a Level of Service (LOS), which is intended to depict the quality of traffic flow through an intersection. Signalized and unsignalized intersections are given a ranking from LOS A through LOS F as a function of the average control delay as presented in Table 6.1 for signalized intersections (this study is evaluating only signalized intersections).

Table 6.1 Level of Service (LOS) Criteria, Signalized Intersections

LOS Designation	Average Control Delay/Vehicle (seconds)	Description
A	≤ 10.0	Very low vehicle delays, free flow, signal progression extremely favorable, most vehicles arrive during given signal phase.
B	10.1 to 20.0	Good signal progression, more vehicles stop and experience higher delays than for LOS A.
C	20.1 to 35.0	Stable flow, fair signal progression, significant number of vehicles stop at signals.
D	35.1 to 55.0	Congestion noticeable, longer delays and unfavorable signal progression, many vehicles stop at signals.
E	55.1 to 80.0	Limit of acceptable delay, unstable flow, poor signal progression, traffic near roadway capacity, frequent cycle failures.
F	> 80.0	Unacceptable delays, extremely unstable flow and congestion, traffic exceeds roadway capacity, stop-and-go conditions

LOS A through C is typically considered acceptable traffic operations. However, for principal arterial corridors that go through downtown areas, such as 4th Street and Pleasant Street, it may not be cost-effective to maintain LOS C (e.g. right of way constraints and impacts to improve the roadway). Therefore, while the desirable LOS along principal arterials is LOS C, the minimum acceptable LOS for these roadway types may be LOS D.

For the intersection operations analysis, all key intersections in the study area were evaluated to determine which intersections may not operate at LOS A, B or C. In addition, a more detailed analysis of the intersections was conducted to identify and address individual turning movements (greater than 50 vehicles per hour) that are operating at LOS D, E, or F. It is important to note that some intersections may currently have individual turning movements that operate at LOS D, E or F. However, these movements may have relatively low volumes (less than 50 vehicles per hour) and cost-effective improvements may not exist to improve their LOS.

In addition, the addition of traffic growth may lead to small increases in vehicle delay, triggering a change in the level of service range from LOS C to D. The actual increase in delay may only be a few seconds, which would be insignificant in terms of driver perception. In those cases, mitigating improvements may not be necessary.

6.1 Existing Conditions

To determine how traffic currently operates in the study area, an operational analysis was conducted for the weekday morning and afternoon peak hours at the key intersections. Existing geometrics, traffic controls, and peak hour traffic volumes for the key intersections are shown in Figures 3.1 and 3.2. Level of service and queueing results for each turning movement at the analyzed intersections are shown in Table 6.2 for the weekday AM peak hour and Table 6.3 for the weekday PM peak hour. The traffic operations output files are in Appendix B.

Table 6.2 Traffic Operations Analysis, Existing Conditions, Weekday AM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	25.1	C	Delay (s)	21.4	46.1		21.8	21.3	15.3	23.6	29.6		19.2	17.8	
			LOS	C	D		C	C	B	C	C		B	B	
			V/C Ratio	0.07	0.83		0.68	0.3	0.49	0.03	0.46		0.64	0.20	
			95% Queue (ft)	20	370		185	145	250	10	150		230	90	
4th Street and Grand Avenue	10.6	B	Delay (s)	10.2	11.4		11.9	13.0	12.8	10.3	9.9		11.2	9.3	
			LOS	B	B		B	B	B	B	A		B	A	
			V/C Ratio	0.08	0.21		0.02	0.17	0.12	0.07	0.30		0.06	0.17	
			95% Queue (ft)	20	45		5	30	20	15	75		15	40	
Broad Street and Mill Street	5.1	A	Delay (s)	3.0			2.9			17.4	17.1		17.3		16.9
			LOS	A			A			B	B		B		B
			V/C Ratio	0.13			0.09			0.1	0.04		0.1		0.00
			95% Queue (ft)	35			25			10	15		10		0
Broad Street and State Street	13.0	B	Delay (s)	17.1	18.8	18.0	11.1	9.9	9.2	11.8	11	11	17.2	18	17
			LOS	B	B	B	B	A	A	B	B	B	B	B	B
			V/C Ratio	0.03	0.35	0.21	0.19	0.22	0.09	0.11	0.28	0.19	0.05	0.19	0.08
			95% Queue (ft)	5	70	35	45	75	25	30	90	50	10	45	15
Broad Street and Pleasant Street	9.0	A	Delay (s)	8.2			8.8		7.5	17.2	18.3	17.2	9.8	9.3	
			LOS	A			A		A	B	B	B	A	A	
			V/C Ratio	0.28			0.39		0.11	0.01	0.24	0.01	0.21	0.09	
			95% Queue (ft)	50			100		20	5	30	0	30	20	
Pleasant Street and Grand Avenue	11.3	B	Delay (s)	30.4			31.5		28.5	3.4			0.1		
			LOS	C			C		C	A			A		
			V/C Ratio	0.33			0.42		0.12	0.15			0.09		
			95% Queue (ft)	95			120		25	50			5		
Pleasant Street and Public Avenue	7.6	A	Delay (s)	31.7			28.2			0.2			3.4		
			LOS	C			C			A			A		
			V/C Ratio	0.40			0.08			0.11			0.13		
			95% Queue (ft)	110			20			5			50		
Pleasant Street and White Avenue	21.0	C	Delay (s)	14.5	17	12	13.8	20.2		21.7	27.0		21.2	26.5	
			LOS	B	B	B	B	C		C	C		C	C	
			V/C Ratio	0.40	0.42	0.03	0.12	0.54		0.12	0.45		0.20	0.49	
			95% Queue (ft)	95	205	15	30	260		30	160		50	185	

Table 6.3 Traffic Operations Analysis, Existing Conditions, Weekday PM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	24.0	C	Delay (s)	21.5	36.9		19.3	23.3	15.0	17.9	29.0		18.6	18.6	
			LOS	C	D		B	C	B	B	C		B	B	
			V/C Ratio	0.04	0.71		0.60	0.54	0.40	0.07	0.66		0.59	0.19	
			95% Queue (ft)	10	280		175	265	195	25	265		150	80	
4th Street and Grand Avenue	11.5	B	Delay (s)	10.3	12.4		11.6	13.1	13.8	11.7	10.9		13.2	10.1	
			LOS	B	B		B	B	B	B	B		B	B	
			V/C Ratio	0.10	0.31		0.06	0.17	0.29	0.12	0.41		0.15	0.27	
			95% Queue (ft)	25	70		10	35	50	25	110		30	65	
Broad Street and Mill Street	7.5	A	Delay (s)	6.1			5.9			12.9	12.6		12.7		12.3
			LOS	A			A			B	B		B		B
			V/C Ratio	0.24			0.19			0.12	0.07		0.08		0.00
			95% Queue (ft)	50			40			25	25		20		0
Broad Street and State Street	17.5	B	Delay (s)	19.7	23.6	22.5	14.1	11.4	10.0	14.2	12.5	12.6	22.2	24.1	21.0
			LOS	B	C	C	B	B	B	B	B	B	C	C	C
			V/C Ratio	0.09	0.63	0.50	0.45	0.29	0.05	0.26	0.24	0.25	0.25	0.58	0.15
			95% Queue (ft)	20	185	120	115	115	15	65	95	85	55	155	30
Broad Street and Pleasant Street	11.9	B	Delay (s)	13.1			13.1		10.9	18.9	19.8	18.8	8.9	7.9	
			LOS	B			B		B	B	B	B	A	A	
			V/C Ratio	0.51			0.48		0.11	0.03	0.23	0	0.36	0.13	
			95% Queue (ft)	90			125		25	10	40	5	70	25	
Pleasant Street and Grand Avenue	10.8	B	Delay (s)	26.5			22.9		21.4	6.8			0.4		
			LOS	C			C		C	A			A		
			V/C Ratio	0.54			0.26		0.09	0.18			0.20		
			95% Queue (ft)	205			110		30	80			5		
Pleasant Street and Public Avenue	10.2	B	Delay (s)	29.9			23.6			0.3			6.0		
			LOS	C			C			A			A		
			V/C Ratio	0.59			0.10			0.15			0.23		
			95% Queue (ft)	215			35			5			110		
Pleasant Street and White Avenue	23.5	C	Delay (s)	16.8	23.3	16.2	16.7	20.5		22.0	28.0		22.5	28.2	
			LOS	B	C	B	B	C		C	C		C	C	
			V/C Ratio	0.17	0.53	0.11	0.52	..48		0.25	0.56		0.13	0.48	
			95% Queue (ft)	45	265	50	140	265		65	250		30	205	

From Table 6.2 and Table 6.3, overall intersection traffic operations within the study area are performing at LOS C or better. Only one movement during the weekday morning and afternoon peak hours, the eastbound through lane on Portland Avenue at 4th Street, currently experience LOS D. The longer delay is expected as this is the minor approach to the convergence / divergence of the WIS 81 and WIS 213 corridors. The majority of green time at this traffic signal is allotted to the north, east, and south approaches as they carry the highest traffic volumes.

6.2 Year 2040 Conditions

To determine if the existing roadway system will accommodate Year 2040 forecasted traffic volumes, a peak hour operations analysis was conducted that analyzed existing-year and background traffic for Year 2040 conditions. Level of service (LOS) and queuing results for the Year 2040 conditions analysis are shown in Table 6.5 (weekday morning peak hour) and Table 6.6 (weekday afternoon peak hour). Traffic operations output files for Year 2040 conditions are presented in Appendix C.

Table 6.5 Traffic Operations Analysis, Year 2040 Conditions, Weekday AM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	26.0	C	Delay (s)	21.7	48.1		22.5	22.3	16.3	24.7	32.0		20.5	18.7	
			LOS	C	D		C	C	B	C	C		C	B	
			V/C Ratio	0.09	0.84		0.72	0.32	0.54	0.04	0.52		0.68	0.24	
			95% Queue (ft)	25	380		205	160	285	10	175		250	115	
4th Street and Grand Avenue	10.6	B	Delay (s)	10.3	11.5		11.9	12.9	12.8	10.4	10.2		11.6	9.4	
			LOS	B	B		B	B	B	B	B		B	A	
			V/C Ratio	0.08	0.21		0.02	0.16	0.11	0.07	0.34		0.06	0.19	
			95% Queue (ft)	20	45		5	30	20	15	85		15	45	
Broad Street and Mill Street	5.1	A	Delay (s)	3.1			3.0			17.2	16.9		17.2		16.7
			LOS	A			A			B	B		B		B
			V/C Ratio	0.15			0.11			0.10	0.05		0.12		0.00
			95% Queue (ft)	35			25			10	15		10		0
Broad Street and State Street	13.4	B	Delay (s)	17.6	19.8	18.8	11.4	10.1	9.3	12.1	11.6	11.3	17.7	18.3	17.8
			LOS	B	B	B	B	B	A	B	B	B	B	B	B
			V/C Ratio	0.03	0.42	0.26	0.23	0.25	0.10	0.12	0.28	0.22	0.05	0.19	0.07
			95% Queue (ft)	5	90	45	55	85	30	30	95	60	10	40	15
Broad Street and Pleasant Street	9.3	A	Delay (s)	8.3			9.1		7.6	18.0	19.1	17.9	10.4	9.7	
			LOS	A			A		A	B	B	B	B	A	
			V/C Ratio	0.31			0.44		0.13	0.04	0.26	0.01	0.24	0.10	
			95% Queue (ft)	50			100		20	5	30	0	30	20	
Pleasant Street and Grand Avenue	10.9	B	Delay (s)	30.0			31.4		28.1	3.6			0.2		
			LOS	C			C		C	A			A		
			V/C Ratio	0.32			0.43		0.11	0.16			0.10		
			95% Queue (ft)	90			130		25	60			5		
Pleasant Street and Public Avenue	7.5	A	Delay (s)	31.9			28.1			0.2			3.5		
			LOS	C			C			A			A		
			V/C Ratio	0.41			0.07			0.12			0.14		
			95% Queue (ft)	115			15			5			50		
Pleasant Street and White Avenue	21.3	C	Delay (s)	14.9	17.0	12.3	13.6	20.4		22.1	27.5		21.6	27.3	
			LOS	B	B	B	B	C		C	C		C	C	
			V/C Ratio	0.40	0.40	0.03	0.13	0.56		0.12	0.46		0.20	0.51	
			95% Queue (ft)	90	200	15	35	280		30	165		50	190	

Table 6.6 Traffic Operations Analysis, Year 2040 Conditions, Weekday PM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	25.0	C	Delay (s)	22.1	37.8		19.8	23.9	15.1	17.8	31.5		19.1	19.0	
			LOS	C	D		B	C	B	B	C		B	B	
			V/C Ratio	0.04	0.72		0.60	0.54	0.39	0.08	0.72		0.63	0.23	
			95% Queue (ft)	10	280		175	265	195	30	290		160	100	
4th Street and Grand Avenue	11.6	B	Delay (s)	10.2	12.3		11.7	13.2	13.9	12.1	11.3		13.9	10.3	
			LOS	B	B		B	B	B	B	B		B	B	
			V/C Ratio	0.11	0.31		0.05	0.17	0.30	0.13	0.47		0.16	0.30	
			95% Queue (ft)	25	70		10	35	55	25	130		30	75	
Broad Street and Mill Street	7.5	A	Delay (s)	6.2			6.0			13.0	12.6		12.7		12.3
			LOS	A			A			B	B		B		B
			V/C Ratio	0.26			0.22			0.14	0.08		0.09		0.00
			95% Queue (ft)	55			50			25	25		25		0
Broad Street and State Street	18.1	B	Delay (s)	19.8	24.2	23.4	15.0	11.8	10.2	14.9	12.9	13.2	22.9	25.0	21.7
			LOS	B	C	C	B	B	B	B	B	B	C	C	C
			V/C Ratio	0.08	0.65	0.56	0.52	0.31	0.04	0.31	0.24	0.28	0.25	0.58	0.15
			95% Queue (ft)	20	205	150	135	135	15	80	100	95	55	165	35
Broad Street and Pleasant Street	13.1	B	Delay (s)	14.7			13.2		11.2	21.0	22.0	20.8	10.1	8.8	
			LOS	B			B		B	C	C	C	B	A	
			V/C Ratio	0.6			0.55		0.12	0.04	0.25	0.02	0.41	0.14	
			95% Queue (ft)	115			160		25	10	45	5	95	30	
Pleasant Street and Grand Avenue	10.7	B	Delay (s)	26.4			23.3		21.6	6.8			0.5		
			LOS	C			C		C	A			A		
			V/C Ratio	0.52			0.29		0.10	0.19			0.21		
			95% Queue (ft)	200			120		30	85			5		
Pleasant Street and Public Avenue	10.2	B	Delay (s)	29.7			23.2			0.3			6.4		
			LOS	C			C			A			A		
			V/C Ratio	0.60			0.10			0.16			0.24		
			95% Queue (ft)	225			35			5			115		
Pleasant Street and White Avenue	24.0	C	Delay (s)	17.1	23.6	16.3	17.0	21.1		22.7	29.1		23.2	29.1	
			LOS	B	C	B	B	C		C	C		C	C	
			V/C Ratio	0.19	0.54	0.11	0.54	0.51		0.25	0.57		0.14	0.48	
			95% Queue (ft)	50	275	55	145	290		70	260		30	215	

From Table 6.5 and Table 6.6, overall intersection traffic operations within the study area should still perform at LOS C or better for Year 2040 operations without site traffic. Operations on the eastbound approach of Portland Avenue at 4th Street will continue to operate at LOS D; however, the increase in delay for this approach during the peak traffic periods is less than two seconds. This is due to the minimal growth anticipated for this approach.

7.0 Traffic Operations Analysis (Alternative Analysis)

From Section 6.0, traffic operations analysis was performed along the existing transportation network for existing-year (Year 2018) and Year 2040 conditions to understand how the study corridors will accommodate existing and projected traffic volumes. Analysis indicated that many of the study intersections currently, and will continue to, operate adequately during peak traffic periods with no intersection improvements necessary.

The following will discuss Year 2040 traffic operations analysis for the following roadway alternatives:

- 4th Street becomes an undivided, two-lane roadway from State Street to Liberty Avenue
- Pleasant Street becomes an undivided two-lane roadway from Broad Street to White Avenue
- 4th Street and Pleasant Street both become undivided two-lane roadways

7.1 Year 2040 Conditions, 4th Street Reduction Alternative

As referenced in Section 4.0, the following describes updates to the roadway network for this alternative:

- 4th Street was reduced from four travel lanes to two travel lanes from State Street to Liberty Avenue (north of Portland Avenue)
- The northbound approach at the Portland Avenue intersection was updated to provide an exclusive left-turn lane, through lane, and an exclusive right-turn lane
    - This reconfiguration can be accommodated within the existing roadway cross-section
- Traffic signal phasing and timing updates were made at the 4th Street and Portland Avenue intersection to maximize traffic operations

Level of service results of Year 2040 conditions with 4th Street reduced to two travel lanes is shown in Table 7.1 for the weekday morning peak hour while Table 7.2 illustrates traffic operations for the weekday afternoon peak hour. Traffic operations files for Year 2040 conditions with 4th Street reduced are presented in Appendix D.

Table 7.1 Traffic Operations Analysis, Year 2040, 4th Street Reduced, Weekday AM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	24.7	C	Delay (s)	18.9	30.7		21.6	20.8	16.6	30.4	33.6	0.0	30.7	25.5	
			LOS	B	C		C	C	B	C	C	A	C	C	
			V/C Ratio	0.08	0.58		0.62	0.27	0.55	0.02	0.24	0	0.73	0.42	
			95% Queue (ft)	25	340		210	165	340	5	95	0	140	235	
4th Street and Grand Avenue	10.3	B	Delay (s)	10.7	12.1		11.4	12.2	11.9	10.2	8.9		9.8	9.0	
			LOS	B	B		B	B	B	B	A		A	A	
			V/C Ratio	0.04	0.28		0.03	0.13	0.03	0.07	0.23		0.05	0.26	
			95% Queue (ft)	10	60		5	25	5	15	50		10	60	
Broad Street and Mill Street	5.8	A	Delay (s)	3.5			3.0			16.8	17.0		17.3		16.7
			LOS	A			A			B	B		B		B
			V/C Ratio	0.25			0.12			0.03	0.06		0.12		0.00
			95% Queue (ft)	80			40			5	15		14		0
Broad Street and State Street	12.7	B	Delay (s)	16.6	18.1	17.4	10.4	9.1	8.5	12.4	12.2	12.1	17.0	17.5	16.9
			LOS	B	B	B	B	A	A	B	B	B	B	B	B
			V/C Ratio	0.01	0.32	0.18	0.23	0.23	0.10	0.08	0.3	0.28	0.08	0.21	0.09
			95% Queue (ft)	5	65	30	60	75	25	20	95	75	15	45	15
Broad Street and Pleasant Street	9.5	A	Delay (s)	8.7			9.2		7.9	18.3	19.4	18.2	10.6	9.7	
			LOS	A			A		A	B	B	B	B	A	
			V/C Ratio	0.34			0.42		0.15	0.04	0.26	0.01	0.31	0.11	
			95% Queue (ft)	60			115		25	10	30	0	50	25	
Pleasant Street and Grand Avenue	10.6	B	Delay (s)	31.2			30.9		28.6	3.8			0.2		
			LOS	C			C		C	A			A		
			V/C Ratio	0.42			0.4		0.17	0.19			0.13		
			95% Queue (ft)	120			115		35	70			5		
Pleasant Street and Public Avenue	7.3	A	Delay (s)	31.8			27.2			0.3			3.8		
			LOS	C			C			A			A		
			V/C Ratio	0.47			0.06			0.16			0.17		
			95% Queue (ft)	145			15			5			60		
Pleasant Street and White Avenue	22.3	C	Delay (s)	16.1	18.4	13.3	14.6	21.9		21.1	27.2		21.1	27.2	
			LOS	B	B	B	B	C		C	C		C	C	
			V/C Ratio	0.38	0.38	0.11	0.14	0.58		0.25	0.51		0.20	0.48	
			95% Queue (ft)	85	185	50	40	285		60	200		50	190	

Table 7.2 Traffic Operations Analysis, Year 2040, 4th Street Reduced, Weekday PM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	21.5	C	Delay (s)	21.2	34.7		19.0	23.5	16.2	19.9	23.7	0.0	16.3	19.2	
			LOS	C	C		B	C	B	B	C	A	B	B	
			V/C Ratio	0.04	0.68		0.56	0.54	0.55	0.06	0.20	0	0.47	0.35	
			95% Queue (ft)	10	270		160	265	270	20	70	0	195	160	
4th Street and Grand Avenue	10.1	B	Delay (s)	0.0	13.7		9.8	8.3	8.2	9.9	8.6		9.6	8.7	
			LOS	A	B		A	A	A	A	A		A	A	
			V/C Ratio	0.00	0.48		0.07	0.13	0.10	0.1	0.16		0.11	0.18	
			95% Queue (ft)	0	100		10	30	20	20	35		25	45	
Broad Street and Mill Street	8.4	A	Delay (s)	6.6			5.9			13.3	13.2		13.2		12.8
			LOS	A			A			B	B		B		B
			V/C Ratio	0.32			0.21			0.11	0.08		0.09		0.00
			95% Queue (ft)	80			60			20	25		20		0
Broad Street and State Street	17.1	B	Delay (s)	20.6	24.2	23.6	15.3	11.4	10.6	12.7	11.2	12.0	21.2	22.0	18.6
			LOS	C	C	C	B	B	B	B	B	B	C	C	B
			V/C Ratio	0.05	0.59	0.50	0.54	0.19	0.05	0.19	0.23	0.34	0.37	0.59	0.13
			95% Queue (ft)	15	140	100	150	70	15	45	90	115	90	175	30
Broad Street and Pleasant Street	12.9	B	Delay (s)	14.1			12.5		11.8	23.0	24.2	22.9	11.6	9.9	
			LOS	B			B		B	C	C	C	B	A	
			V/C Ratio	0.54			0.33		0.21	0.05	0.27	0.02	0.48	0.18	
			95% Queue (ft)	120			100		30	10	45	5	115	30	
Pleasant Street and Grand Avenue	11.3	B	Delay (s)	27.1			20.2		19.5	9.2			0.6		
			LOS	C			C		B	A			A		
			V/C Ratio	0.66			0.23		0.13	0.31			0.27		
			95% Queue (ft)	200			120		30	85			5		
Pleasant Street and Public Avenue	9.5	A	Delay (s)	29.0			20.8			0.6			7.9		
			LOS	C			C			A			A		
			V/C Ratio	0.66			0.08			0.30			0.29		
			95% Queue (ft)	270			30			10			145		
Pleasant Street and White Avenue	26.5	C	Delay (s)	23.1	29.2	20.1	21.2	26.4		20.7	28.3		23.8	28.9	
			LOS	C	C	C	C	C		C	C		C	C	
			V/C Ratio	0.16	0.47	0.23	0.56	0.56		0.49	0.64		0.15	0.44	
			95% Queue (ft)	40	230	115	190	315		175	350		30	215	

The traffic operations analysis indicates that converting 4th Street to two travel lanes can be accommodated by the surrounding transportation network such as Pleasant Street and other cross-corridor connections in the study area (it should be noted that residential streets and other local streets outside of the study area will likely not see an increase in traffic volume due to this diversion). The analysis also indicates that the Pleasant Street corridor can accommodate Year 2040 traffic volumes and diverted traffic from 4th Street with no intersection improvements necessary.

In addition to the favorable traffic operations in the study area, reducing 4th Street to two travel lanes north of Portland Avenue will likely maintain mobility while providing additional roadway accommodations. Currently, 4th Street from Portland Avenue to Liberty Avenue is an undivided four-lane cross-section. Reducing the number of travel lanes from four to two would allow for the provision of exclusive left-turn lanes and/or on-street bicycle accommodations, and reduce the crosswalk walking distance across the roadway.

7.2 Year 2040 Conditions, Pleasant Street Reduction Alternative

As referenced in Section 4.0, the following describes updates to the roadway network for this alternative:

- Pleasant Street was reduced from four travel lanes to two travel lanes from Broad Street to White Avenue
- The northbound and southbound approaches at the White Avenue intersection were updated to provide an exclusive left-turn lane, through lane, and an exclusive right-turn lane
    - This reconfiguration can be accommodated within the existing roadway cross-section
- Traffic signal phasing and timing updates were made at the Pleasant Street and White Avenue intersection to maximize traffic operations

Level of service results of Year 2040 conditions with Pleasant Street reduced to two travel lanes is shown in Table 7.3 for the weekday morning peak hour while Table 7.4 illustrates traffic operations for the weekday afternoon peak hour. Traffic operations files for Year 2040 conditions with 4th Street reduced are presented in Appendix D.

Table 7.3 Traffic Operations Analysis, Year 2040, Pleasant Street Reduced, Weekday AM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	31.1	C	Delay (s)	21.8	39.8		34.6	21.5	15.7	27.6	44.0		34.9	21.8	
			LOS	C	D		C	C	B	C	D		C	C	
			V/C Ratio	0.08	0.73		0.83	0.29	0.52	0.04	0.72		0.82	0.26	
			95% Queue (ft)	25	370		305	160	295	15	300		305	135	
4th Street and Grand Avenue	11.0	B	Delay (s)	10.2	11.4		11.8	12.9	13.2	11.1	10.8		12.7	9.9	
			LOS	B	B		B	B	B	B	B		B	A	
			V/C Ratio	0.08	0.21		0.02	0.16	0.21	0.08	0.44		0.07	0.27	
			95% Queue (ft)	20	45		5	30	35	15	115		15	60	
Broad Street and Mill Street	4.8	A	Delay (s)	3.1			3.1			17.2	16.9		17.2		16.7
			LOS	A			A			B	B		B		B
			V/C Ratio	0.17			0.16			0.10	0.05		0.12		0.00
			95% Queue (ft)	45			40			10	15		15		0
Broad Street and State Street	14.1	B	Delay (s)	17.8	21.0	19.3	12.1	11.0	10.0	11.9	11.1	10.6	18.1	18.9	18.1
			LOS	B	C	B	B	B	B	B	B	B	B	B	B
			V/C Ratio	0.03	0.54	0.31	0.2	0.3	0.11	0.16	0.27	0.16	0.05	0.22	0.07
			95% Queue (ft)	5	120	55	45	100	30	45	95	45	10	50	15
Broad Street and Pleasant Street	7.5	A	Delay (s)	6.1			6.9		5.6	16.6	17.7	16.5	11.5	11.0	
			LOS	A			A		A	B	B	B	B	B	
			V/C Ratio	0.26			0.42		0.11	0.04	0.26	0.01	0.17	0.06	
			95% Queue (ft)	50			120		20	10	30	0	25	20	
Pleasant Street and Grand Avenue	13.1	B	Delay (s)	29.2			31.2		26.8	4.3			0.2		
			LOS	C			C		C	A			A		
			V/C Ratio	0.30			0.47		0.02	0.25			0.12		
			95% Queue (ft)	90			145		5	105			5		
Pleasant Street and Public Avenue	8.2	A	Delay (s)	31.1			28.1			0.3			3.7		
			LOS	C			C			A			A		
			V/C Ratio	0.36			0.07			0.16			0.19		
			95% Queue (ft)	100			15			5			80		
Pleasant Street and White Avenue	21.6	C	Delay (s)	15.2	15.5	11.5	13.8	21.3		24.7	31.4	26.6	24.1	28.5	30.5
			LOS	B	B	B	B	C		C	C	C	C	C	C
			V/C Ratio	0.58	0.37	0.02	0.11	0.59		0.90	0.57	0.08	0.22	0.47	0.59
			95% Queue (ft)	140	195	10	30	305		20	205	20	55	185	205

Table 7.4 Traffic Operations Analysis, Year 2040, Pleasant Street Reduced, Weekday PM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	45.8	D	Delay (s)	31.7	51.9		34.6	29.8	20.5	20.9	70.4		45.6	22.0	
			LOS	C	D		C	C	C	C	E		D	C	
			V/C Ratio	0.04	0.75		0.79	0.51	0.41	0.08	0.89		0.88	0.21	
			95% Queue (ft)	15	365		335	335	260	35	805		310	130	
4th Street and Grand Avenue	13.3	B	Delay (s)	13.0	15.7		14.8	16.6	19.3	11.7	13.2		17.9	9.6	
			LOS	B	B		B	B	B	B	B		B	A	
			V/C Ratio	0.12	0.35		0.06	0.2	0.56	0.12	0.68		0.21	0.32	
			95% Queue (ft)	30	85		15	40	110	25	260		40	100	
Broad Street and Mill Street	7.5	A	Delay (s)	6.7			6.2			13.5	12.8		12.9		12.5
			LOS	A			A			B	B		B		B
			V/C Ratio	0.38			0.28			0.20	0.06		0.09		0.00
			95% Queue (ft)	80			60			35	20		20		0
Broad Street and State Street	19.3	B	Delay (s)	19.7	24.9	23.2	15.1	13.4	10.4	18.0	14.1	13.3	24.4	27.5	23.3
			LOS	B	C	C	B	B	B	B	B	B	C	C	C
			V/C Ratio	0.09	0.69	0.54	0.46	0.48	0.04	0.54	0.24	0.12	0.24	0.65	0.15
			95% Queue (ft)	20	250	170	110	230	15	155	105	45	60	200	35
Broad Street and Pleasant Street	11.0	B	Delay (s)	8.5			10.9		7.2	20.4	21.5	20.3	13.3	11.9	
			LOS	A			B		A	C	C	C	B	B	
			V/C Ratio	0.32			0.59		0.03	0.04	0.26	0.02	0.39	0.11	
			95% Queue (ft)	95			225		15	10	45	5	75	30	
Pleasant Street and Grand Avenue	13.5	B	Delay (s)	26.5			23.5		21.2	6.3			0.6		
			LOS	C			C		C	A			A		
			V/C Ratio	0.53			0.32		0.05	0.12			0.28		
			95% Queue (ft)	200			135		15	50			10		
Pleasant Street and Public Avenue	13.6	B	Delay (s)	30.6			25.0			4.6			6.1		
			LOS	C			C			A			A		
			V/C Ratio	0.56			0.11			0.09			0.33		
			95% Queue (ft)	195			35			40			170		
Pleasant Street and White Avenue	22.5	C	Delay (s)	16.2	20.0	14.1	15.3	22.0		25.4	28.6	27.9	24.3	33.7	29.9
			LOS	B	C	B	B	C		C	C	C	C	C	C
			V/C Ratio	0.57	0.52	0.08	0.48	0.58		0.14	0.29	0.20	0.10	0.69	0.42
			95% Queue (ft)	155	285	40	130	325		30	120	70	30	285	150

The traffic operations analysis indicates that converting Pleasant Street to two travel lanes can be accommodated by the surrounding transportation network such as 4th Street and other cross-corridor connections in the study area (it should be noted that residential streets and other local streets outside of the study area will likely not see an increase in traffic volume due to this diversion). One exception to this is the intersection of 4th Street and Portland Avenue. At this intersection, the northbound approach experiences reduced traffic operations due to traffic increases at this location, particularly northbound right-turning vehicles. The eastbound approach continues to experience operational deficiencies as traffic signal green time is allotted to other higher-volume approaches.

Improvement Analysis, Year 2040 Conditions, Pleasant Street Reduction Alternative, 4th Street and Portland Avenue

The following improvements were made to the 4th Street and Portland Avenue intersection to mitigate traffic operations deficiencies anticipated with the lane reduction along Pleasant Street:

- Update the northbound approach to provide an exclusive left-turn lane, through lane, and an exclusive right-turn lane (this can be accommodated in the existing roadway cross-section)

Table 7.5 illustrates the results of this improvement analysis by comparing existing and improved intersection geometrics.

Table 7.5 Traffic Operations Analysis, Year 2040, Pleasant Street Reduced, Improved Alternative

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue (AM Peak)	31.1	C	Delay (s)	21.8	39.8		34.6	21.5	15.7	27.6	44.0		34.9	21.8	
			LOS	C	D		C	C	B	C	D		C	C	
			V/C Ratio	0.08	0.73		0.83	0.29	0.52	0.04	0.72		0.82	0.26	
			95% Queue (ft)	25	370		305	160	295	15	300		305	135	
4th Street and Portland Avenue (AM Peak, Improved)	27.0	C	Delay (s)	20.5	43.0		34.8	20.4	17.7	23.1	29.7	20.0	28.3	20.0	
			LOS	C	D		C	C	B	C	C	C	C	C	
			V/C Ratio	0.09	0.80		0.85	0.30	0.57	0.04	0.51	0.44	0.76	0.27	
			95% Queue (ft)	25	360		295	150	295	10	190	195	130	120	
4th Street and Portland Avenue (PM Peak)	45.8	D	Delay (s)	31.7	51.9		34.6	29.8	20.5	20.9	70.4		45.6	22.0	
			LOS	C	D		C	C	C	C	E		D	C	
			V/C Ratio	0.04	0.75		0.79	0.51	0.41	0.08	0.89		0.88	0.21	
			95% Queue (ft)	15	365		335	335	260	35	805		310	130	
4th Street and Portland Avenue (PM Peak, Improved)	28.6	C	Delay (s)	24.3	36.8		34.5	25.8	17.9	19.2	31.6	32.5	23.8	21.1	
			LOS	C	D		C	C	B	B	C	C	C	C	
			V/C Ratio	0.04	0.63		0.81	0.51	0.41	0.08	0.66	0.83	0.67	0.22	
			95% Queue (ft)	10	300		190	295	235	35	345	515	180	120	

Table 7.5 indicates that by updating the northbound approach, traffic operations are improved during peak traffic periods. It should be noted that the eastbound approach will still operate at LOS D; however, this approach is anticipated to operate at LOS D for Year 2040 no-build conditions and this alternative – and subsequent improvement – would maintain or improve delays when compared to no-build conditions. Therefore, no improvements to the eastbound approach are recommended for this alternative.

7.3 Year 2040 Conditions, 4th Street and Pleasant Street Reduction Alternative

As referenced in Section 4.0, the following describes updates to the roadway network for this alternative:

- 4th Street was reduced from four travel lanes to two travel lanes from State Street to Liberty Avenue (north of Portland Avenue)
- Pleasant Street was reduced from four travel lanes to two travel lanes from Broad Street to White Avenue
- The northbound approach at the Portland Avenue intersection was updated to provide an exclusive left-turn lane, through lane, and an exclusive right-turn lane
    - This reconfiguration can be accommodated within the existing roadway cross-section
- The northbound and southbound approaches at the White Avenue intersection were updated to provide an exclusive left-turn lane, through lane, and an exclusive right-turn lane
    - This reconfiguration can be accommodated within the existing roadway cross-section
- Traffic signal phasing and timing updates were made at the Pleasant Street and White Avenue intersection to maximize traffic operations

Level of service results of Year 2040 conditions with both 4th Street and Pleasant Street reduced to two travel lanes is shown in Table 7.6 for the weekday morning peak hour while Table 7.7 illustrates traffic operations for the weekday afternoon peak hour. Traffic operations files for Year 2040 conditions with 4th Street reduced are presented in Appendix D.

The traffic operations analysis indicates that converting 4th Street and Pleasant Street to two travel lanes, in addition to the aforementioned improvements, can be accommodated by the surrounding transportation network in the study area (it should be noted that residential streets and other local streets outside of the study area will likely not see an increase in traffic volume due to this diversion). This indicates that no additional improvements are necessary to accommodate the updated roadway network.

Table 7.6 Traffic Operations Analysis, Year 2040, 4th Street and Pleasant Street Reduced, Weekday AM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	25.8	C	Delay (s)	18.9	32.8		21.1	19.9	15.5	26.4	34.1	34.1	30.4	25.4	
			LOS	B	C		C	B	B	C	C	C	C	C	
			V/C Ratio	0.08	0.66		0.64	0.28	0.52	0.04	0.55	0.52	0.77	0.53	
			95% Queue (ft)	25	330		200	155	285	10	200	165	295	260	
4th Street and Grand Avenue	11.0	B	Delay (s)	10.3	11.5		11.9	12.9	12.8	12.1	10.2		11.6	10.4	
			LOS	B	B		B	B	B	B	B		B	B	
			V/C Ratio	0.08	0.21		0.02	0.16	0.11	0.08	0.34		0.06	0.38	
			95% Queue (ft)	20	45		5	30	20	15	85		15	95	
Broad Street and Mill Street	5.4	A	Delay (s)	3.6			3.3			17.2	16.9		17.2		16.7
			LOS	A			A			B	B		B		B
			V/C Ratio	0.28			0.19			0.10	0.05		0.12		0.00
			95% Queue (ft)	90			65			10	15		15		0
Broad Street and State Street	13.4	B	Delay (s)	17.6	19.8	18.8	11.4	10.1	9.3	12.1	11.6	11.3	17.7	18.3	17.8
			LOS	B	B	B	B	B	A	B	B	B	B	B	B
			V/C Ratio	0.03	0.42	0.26	0.23	0.25	0.10	0.12	0.28	0.22	0.05	0.19	0.07
			95% Queue (ft)	5	90	45	55	85	30	30	95	60	10	40	15
Broad Street and Pleasant Street	9.3	A	Delay (s)	8.3			9.1		7.6	18.0	19.1	17.9	10.4	9.7	
			LOS	A			A		A	B	B	B	B	A	
			V/C Ratio	0.31			0.44		0.13	0.04	0.26	0.01	0.24	0.10	
			95% Queue (ft)	55			120		25	10	30	0	40	25	
Pleasant Street and Grand Avenue	11.3	B	Delay (s)	30.0			31.4		28.1	4.4			0.3		
			LOS	C			C		C	A			A		
			V/C Ratio	0.32			0.43		0.11	0.30			0.19		
			95% Queue (ft)	90			130		25	130			5		
Pleasant Street and Public Avenue	7.8	A	Delay (s)	31.9			28.1			0.4			4.0		
			LOS	C			C			A			A		
			V/C Ratio	0.42			0.07			0.22			0.25		
			95% Queue (ft)	115			15			5			110		
Pleasant Street and White Avenue	23.3	C	Delay (s)	17.2	19.5	14.3	15.9	23.6		21.6	30.4	23.6	22.0	26.9	25.0
			LOS	B	B	B	B	C		C	C	C	C	C	C
			V/C Ratio	0.43	0.42	0.04	0.14	0.59		0.12	0.67	0.09	0.23	0.51	0.34
			95% Queue (ft)	100	215	15	35	310		30	300	30	50	235	130

Table 7.7 Traffic Operations Analysis, Year 2040, 4th Street and Pleasant Street Reduced, Weekday PM Peak Hour

Intersection	Overall		By Approach	Eastbound			Westbound			Northbound			Southbound		
	Delay (s)	LOS		LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
4th Street and Portland Avenue	25.2	C	Delay (s)	21.5	34.3		19.4	23.2	14.7	18.8	31.0	34.8	19.5	22.3	
			LOS	C	C		B	C	B	B	C	C	B	C	
			V/C Ratio	0.04	0.66		0.59	0.52	0.39	0.10	0.70	0.76	0.62	0.46	
			95% Queue (ft)	10	275		180	265	195	30	290	290	165	210	
4th Street and Grand Avenue	11.6	B	Delay (s)	10.2	12.3		11.7	13.2	13.9	12.1	11.3		13.9	10.4	
			LOS	B	B		B	B	B	B	B		B	B	
			V/C Ratio	0.11	0.31		0.05	0.17	0.30	0.13	0.47		0.16	0.31	
			95% Queue (ft)	25	70		10	35	55	25	130		30	75	
Broad Street and Mill Street	8.4	A	Delay (s)	7.4			6.8			14.0	13.6		13.7		13.3
			LOS	A			A			B	B		B		B
			V/C Ratio	0.46			0.39			0.15	0.08		0.09		0.00
			95% Queue (ft)	125			110			30	30		25		0
Broad Street and State Street	18.1	B	Delay (s)	19.8	24.2	23.4	15.0	11.8	10.2	14.9	12.9	13.2	22.9	25.0	21.7
			LOS	B	C	C	B	B	B	B	B	B	C	C	C
			V/C Ratio	0.08	0.65	0.56	0.52	0.31	0.04	0.31	0.24	0.28	0.25	0.58	0.15
			95% Queue (ft)	20	205	150	135	135	15	80	100	95	55	165	35
Broad Street and Pleasant Street	13.1	B	Delay (s)	14.7			14.3		11.2	21.0	22.0	20.8	10.1	8.8	
			LOS	B			B		B	C	C	C	B	A	
			V/C Ratio	0.6			0.55		0.12	0.04	0.25	0.02	0.41	0.14	
			95% Queue (ft)	70			90		0	0	15	0	40	5	
Pleasant Street and Grand Avenue	11.3	B	Delay (s)	26.5			23.2		21.6	8.1			0.9		
			LOS	C			C		C	A			A		
			V/C Ratio	0.53			0.29		0.10	0.36			0.39		
			95% Queue (ft)	200			120		30	190			15		
Pleasant Street and Public Avenue	11.1	B	Delay (s)	29.7			23.1			0.6			8.1		
			LOS	C			C			A			A		
			V/C Ratio	0.60			0.10			0.29			0.44		
			95% Queue (ft)	225			35			10			240		
Pleasant Street and White Avenue	24.0	C	Delay (s)	17.1	23.6	13.6	17.0	21.1		24.7	31.4	26.6	24.1	28.5	30.5
			LOS	B	C	B	B	C		C	C	C	C	C	C
			V/C Ratio	0.19	0.54	0.11	0.54	0.51		0.90	0.57	0.08	0.22	0.47	0.59
			95% Queue (ft)	50	275	55	145	285		70	260	0	30	215	0

8.0 Findings and Recommendations

The following findings and recommendations for the proposed lane reductions to 4th Street and Pleasant Street are based on site reviews of the study area, Year 2040 traffic forecasts, diversion analysis of trips in the downtown area, and intersection operations analysis for existing-year and future-year conditions.

- Traffic operations analysis performed and outlined in Chapter 6.0 indicate that the study intersections currently, and will continue to, operate adequately during peak traffic periods. The eastbound approach of Portland Avenue at 4th Street operates at LOS D; however, approach volumes on the other three intersection legs are higher than the eastbound approach and requires more traffic signal green time to maintain mobility along those intersection legs.
- When 4th Street is evaluated with two travel lanes, the study intersections can accommodate diverted traffic from 4th Street with little to no additional improvements necessary (see Chapter 7.0).
    - Improvements such as traffic signal phasing and timing updates may be necessary to maximize mobility; however, no roadway improvements, such as additional turn lanes or through lanes, are needed to accommodate this alternative.
    - Reducing 4th Street to two travel lanes north of Portland Avenue will provide an opportunity for additional roadway accommodations such as exclusive left-turn lanes and/or on-street bicycle accommodations.
- When Pleasant Street is evaluated with two travel lanes, study intersections can accommodate diverted traffic from 4th Street with the exception of the 4th Street and Portland Avenue intersection (see Chapter 7.0). This intersection is anticipated to experience operational deficiencies due to traffic increases on the northbound approach.
    - Updating the northbound approach to provide an exclusive left-turn lane, through lane, and an exclusive right-turn lane can improve traffic operations under this alternative. It should be noted that this improvement can be accommodated within the existing roadway cross-section.
- When 4th Street and Pleasant Street are evaluated with two travel lanes, the study intersections can accommodate forecasted traffic volumes with little to no additional improvements necessary (see Chapter 7.0).
    - Improvements such as traffic signal phasing and timing updates may be necessary to maximize mobility; however, no roadway improvements, such as additional turn lanes or through lanes, are needed to accommodate this alternative.
- Because favorable traffic operations occur for all alternatives, it is unlikely that capacity reduction (i.e. reduction of the number of travel lanes) to the 4th Street and/or Pleasant Street corridors would make motorists divert to roadways outside of the study area, particularly in the residential neighborhoods.

Appendix

Appendix A: Intersection Turning Movement Counts

Appendix B: Year 2040 WisDOT Traffic Forecast Worksheets

Appendix C: Year 2018 Traffic Operations Analysis Worksheets

Appendix D: Year 2040 (No Build) Traffic Operations Analysis Worksheets

Appendix E: Year 2040 (4th Street Reduction) Traffic Operations Analysis Worksheets

Appendix F: Year 2040 (Pleasant Street Reduction) Traffic Operations Analysis Worksheets

Appendix G: Year 2040 (4th Street and Pleasant Street Reduction) Traffic Operations Analysis Worksheets

Appendix A: Intersection Turning Movement Counts

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1	Page 1 of 11
Start Date:	Saturday, January 0, 1900	0
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: 4th Street (WIS 81/213) and Portland Avenue (WIS 81)

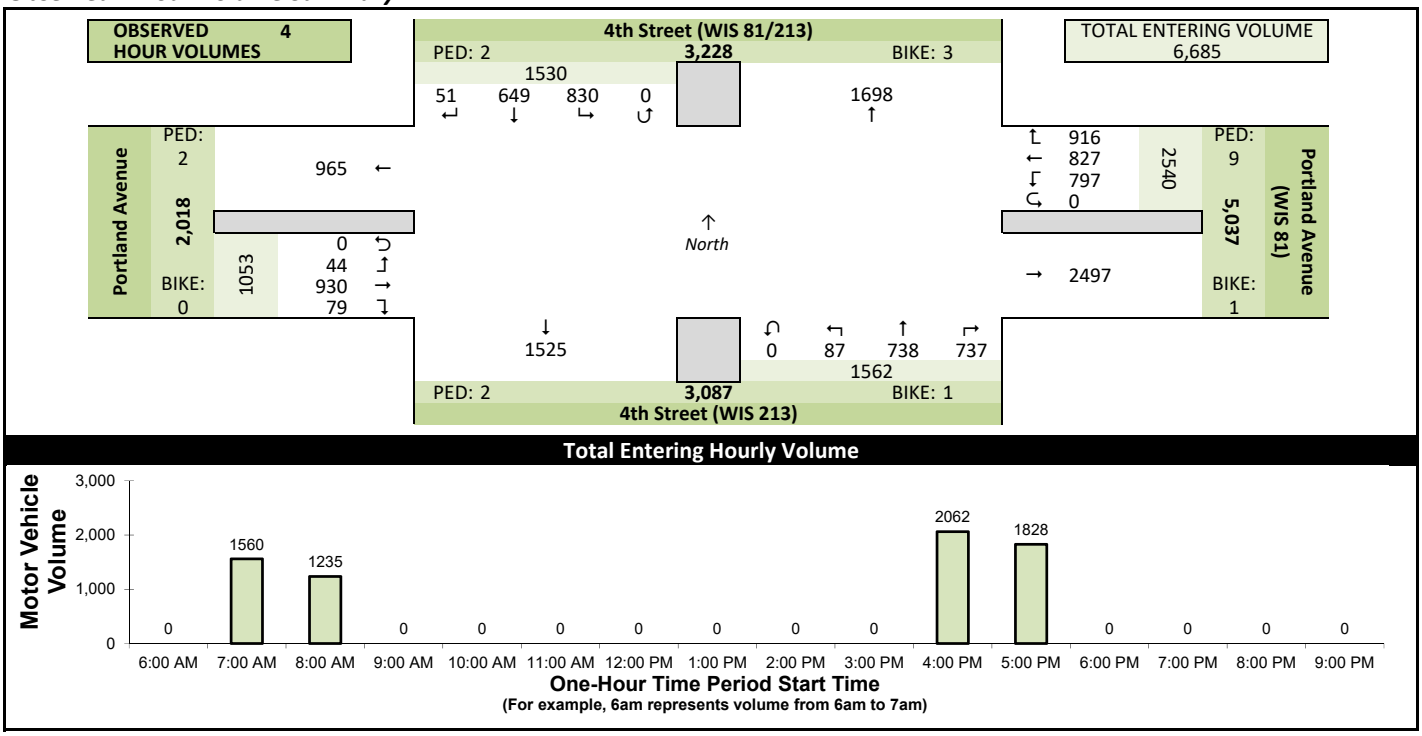
Site Information

Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	4th Street (WIS 81/213)		
East Leg	Portland Avenue (WIS 81)		
South Leg	4th Street (WIS 213)		
West Leg	Portland Avenue		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

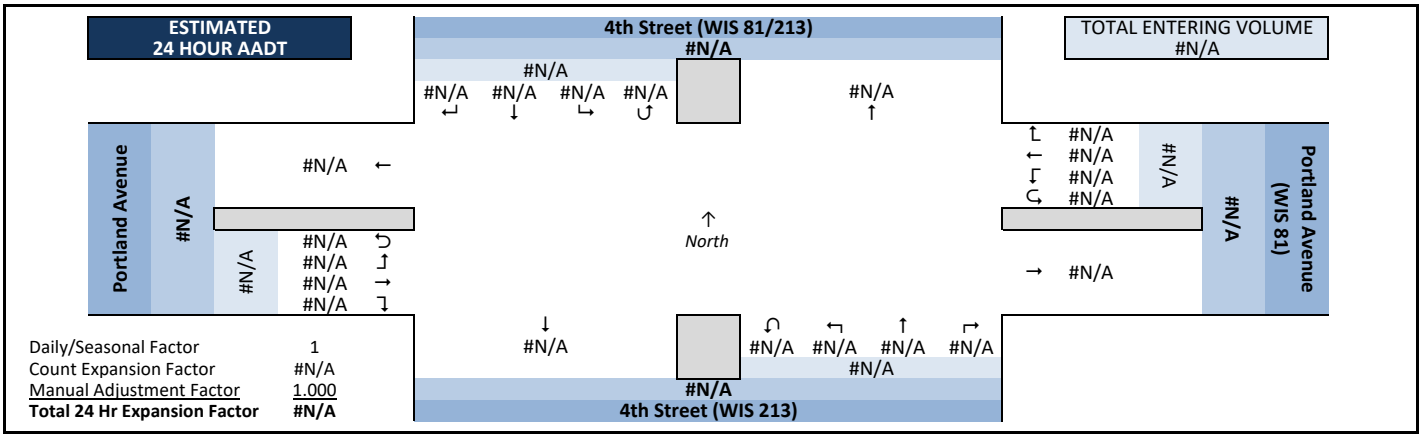
Count Information

Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM				
1st Day of Count	Tuesday, October 9, 2018			Weather	
AM Peak Period				Clear & Dry	
Midday Peak Period				Clear & Dry	
PM Peak Period				Clear & Dry	
Calculated Peak Hours					
AM	7:15-8:15am	MD		PM	4:15-5:15pm
Peak Hours Selected for Analysis					
AM	7:15-8:15am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group					
Count Expansion Group					
Daily/Seasonal Adjustment Factor	1		Count Expansion Factor	#N/A	
Company Name	SRF Consulting, Inc.		Manual Adj.	1.000	
Observers	AM Peak Period	John Doe, John Deer			
	Midday Peak Period	John Doe, John Deer			
	PM Peak Period	John Doe, John Deer			
Comments					

Observed 4 Hour Volume Summary



Estimated 24 Hour AADT

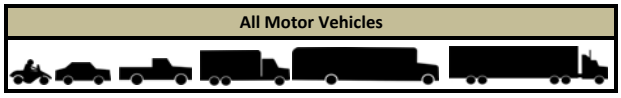


Intersection Traffic Volume Report

Count Basics		*Page 3 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

4th Street (WIS 81/213) and Portland Avenue (WIS 81)



Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	4th Street (WIS 81/213)					Portland Avenue (WIS 81)					4th Street (WIS 213)					Portland Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	3	38	34	0	75	61	35	35	0	131	32	26	2	0	60	4	49	3	0	56	322
	7:30 AM	2	44	81	0	127	107	40	34	0	181	30	48	2	0	80	6	77	11	0	94	482
	7:45 AM	16	65	95	0	176	85	31	66	0	182	31	37	4	0	72	5	90	2	0	97	527
	8:00 AM	2	33	46	0	81	45	36	63	0	144	30	22	1	0	53	4	51	3	0	58	336
	Peak Hour Volume	23	180	256	0	459	298	142	198	0	638	123	133	9	0	265	19	267	19	0	305	1667
	Rounded Hourly Volume	25	180	255	0	460	300	140	200	0	640	125	135	10	0	270	20	265	20	0	305	1675
	% Single Unit Trucks	8.7	7.2	5.9	0.0	6.5	8.4	4.9	2.0	0.0	5.6	3.3	9.8	0.0	0.0	6.4	0.0	3.0	10.5	0.0	3.3	5.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	8.7	7.2	5.9	0.0	6.5	8.4	4.9	2.0	0.0	5.6	3.3	9.8	0.0	0.0	6.4	0.0	3.0	10.5	0.0	3.3	5.6
	Peak Hour Factor (PHF)	0.36	0.69	0.67	0.00	0.65	0.70	0.89	0.75	0.00	0.88	0.96	0.69	0.56	0.00	0.83	0.79	0.74	0.43	0.00	0.79	0.79

N/A		From North					From East					From South					From West					
	MD Peak Hour	4th Street (WIS 81/213)					Portland Avenue (WIS 81)					4th Street (WIS 213)					Portland Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	4th Street (WIS 81/213)					Portland Avenue (WIS 81)					4th Street (WIS 213)					Portland Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	2	50	52	0	104	59	66	54	0	179	72	61	15	0	148	5	69	2	0	76	507
	4:45 PM	5	45	46	0	96	74	85	59	0	218	69	66	5	0	140	10	54	5	0	69	523
	5:00 PM	1	51	54	0	106	64	90	46	0	200	93	66	9	0	168	7	63	1	0	71	545
	5:15 PM	5	45	62	0	112	49	74	62	0	185	50	68	6	0	124	3	72	2	0	77	498
	Peak Hour Volume	13	191	214	0	418	246	315	221	0	782	284	261	35	0	580	25	258	10	0	293	2073
	Rounded Hourly Volume	15	190	215	0	420	245	315	220	0	780	285	260	35	0	580	25	260	10	0	295	2075
	% Single Unit Trucks	0.0	2.6	6.5	0.0	4.5	2.8	0.6	0.9	0.0	1.4	2.1	2.3	0.0	0.0	2.1	0.0	1.2	20.0	0.0	1.7	2.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	2.6	6.5	0.0	4.5	2.8	0.6	0.9	0.0	1.4	2.1	2.3	0.0	0.0	2.1	0.0	1.2	20.0	0.0	1.7	2.3
	Peak Hour Factor (PHF)	0.65	0.94	0.86	0.00	0.93	0.83	0.87	0.89	0.00	0.90	0.76	0.96	0.58	0.00	0.86	0.62	0.90	0.50	0.00	0.95	0.95

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike
		4th Street (WIS 81/213)			Portland Avenue (WIS 81)			4th Street (WIS 213)			Portland Avenue			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Volume
AM	7:15 AM	0	0	0	4	0	4	0	0	0	0	0	0	4
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	4	0	4	0	0	0	0	0	0	4
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	1	1	2	2	0	2	0	0	0	0	0	0	4
	5:15 PM	1	1	2	0	0	0	0	0	0	0	0	0	2
	Total	2	2	4	2	0	2	0	0	0	1	0	1	7

Intersection Traffic Volume Report

Count Basics		*Page 5 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

4th Street (WIS 81/213) and Portland Avenue (WIS 81)

15-Minute Motor Vehicle Data

15-Minute Time Period		From North (↓) 4th Street (WIS 81/213)					From East (←) Portland Avenue (WIS 81)					From South (↑) 4th Street (WIS 213)					From West (→) Portland Avenue					15-Min	Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	1	16	36	0	53	34	20	24	0	78	22	27	2	0	51	3	44	0	0	47	229	1560	0.74
	7:15 AM	3	38	34	0	75	61	35	35	0	131	32	26	2	0	60	4	49	3	0	56	322	1667	0.79
	7:30 AM	2	44	81	0	127	107	40	34	0	181	30	48	2	0	80	6	77	11	0	94	482	1662	0.79
	7:45 AM	16	65	95	0	176	85	31	66	0	182	31	37	4	0	72	5	90	2	0	97	527	1453	0.69
	8:00 AM	2	33	46	0	81	45	36	63	0	144	30	22	1	0	53	4	51	3	0	58	336	1235	0.92
	8:15 AM	1	32	35	0	68	41	40	59	0	140	21	26	5	0	52	4	53	0	0	57	317		
	8:30 AM	1	24	43	0	68	30	30	38	0	98	31	22	2	0	55	5	45	2	0	52	273		
	8:45 AM	1	30	36	0	67	41	26	42	0	109	39	39	6	0	84	4	42	3	0	49	309		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	3	55	58	0	116	68	80	66	0	214	64	58	6	0	128	7	66	3	0	76	534	2062	0.97
	4:15 PM	3	43	62	0	108	56	59	61	0	176	65	73	8	0	146	5	59	4	0	68	498	2073	0.95
	4:30 PM	2	50	52	0	104	59	66	54	0	179	72	61	15	0	148	5	69	2	0	76	507	2073	0.95
	4:45 PM	5	45	46	0	96	74	85	59	0	218	69	66	5	0	140	10	54	5	0	69	523	1984	0.91
	5:00 PM	1	51	54	0	106	64	90	46	0	200	93	66	9	0	168	7	63	1	0	71	545	1828	0.84
	5:15 PM	5	45	62	0	112	49	74	62	0	185	50	68	6	0	124	3	72	2	0	77	498		
	5:30 PM	2	48	52	0	102	41	59	52	0	152	50	52	5	0	107	4	51	2	0	57	418		
	5:45 PM	3	30	38	0	71	61	56	36	0	153	38	47	9	0	94	3	45	1	0	49	367		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		51	649	830	0	1530	916	827	797	0	2540	737	738	87	0	1562	79	930	44	0	1053	6685		

Peak Hour All Vehicle Volume Summary

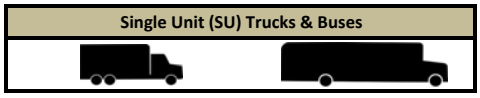
Hourly Time Period		From North (↓) 4th Street (WIS 81/213)					From East (←) Portland Avenue (WIS 81)					From South (↑) 4th Street (WIS 213)					From West (→) Portland Avenue					Total Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:15 AM	23	180	256	0	459	298	142	198	0	638	123	133	9	0	265	19	267	19	0	305	1667	0.79
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	13	191	214	0	418	246	315	221	0	782	284	261	35	0	580	25	258	10	0	293	2073	0.95

Intersection Traffic Volume Report

Count Basics		*Page 7 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

4th Street (WIS 81/213) and Portland Avenue (WIS 81)



15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	Start Time	From North (↓) 4th Street (WIS 81/213)					From East (←) Portland Avenue (WIS 81)					From South (↑) 4th Street (WIS 213)					From West (→) Portland Avenue					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	1	2	1	0	4	1	0	2	0	3	1	4	0	0	5	0	1	0	0	1	13	79
	7:15 AM	1	0	1	0	2	7	0	0	0	7	3	5	0	0	8	0	1	1	0	2	19	93
	7:30 AM	0	3	3	0	6	7	3	1	0	11	0	3	0	0	3	0	0	0	0	0	20	95
	7:45 AM	0	8	5	0	13	6	1	1	0	8	0	2	0	0	2	0	4	0	0	4	27	93
	8:00 AM	1	2	6	0	9	5	3	2	0	10	1	3	0	0	4	0	3	1	0	4	27	95
	8:15 AM	0	3	4	0	7	4	0	5	0	9	0	4	0	0	4	0	1	0	0	1	21	
	8:30 AM	0	5	3	0	8	4	1	1	0	6	1	2	0	0	3	0	1	0	0	1	18	
	8:45 AM	0	4	5	0	9	8	0	2	0	10	1	5	0	0	6	0	2	2	0	4	29	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	3	5	0	8	3	1	2	0	6	3	2	0	0	5	0	1	1	0	2	21	59
	4:15 PM	0	4	2	0	6	3	0	1	0	4	1	3	0	0	4	0	0	0	0	0	14	52
	4:30 PM	0	4	4	0	8	2	0	0	0	2	2	0	0	0	2	0	1	0	0	1	13	47
	4:45 PM	0	0	4	0	4	2	1	0	0	3	2	1	0	0	3	0	0	1	0	1	11	39
	5:00 PM	0	1	3	0	4	2	1	1	0	4	2	2	0	0	4	0	2	0	0	2	14	35
	5:15 PM	0	0	3	0	3	1	0	1	0	2	0	3	0	0	3	0	0	1	0	1	9	
	5:30 PM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	5	
	5:45 PM	0	0	1	0	1	2	1	1	0	4	1	1	0	0	2	0	0	0	0	0	7	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		3	41	51	0	95	58	12	20	0	90	18	40	0	0	58	0	18	7	0	25	268	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period	Start Time	From North (↓) 4th Street (WIS 81/213)					From East (←) Portland Avenue (WIS 81)					From South (↑) 4th Street (WIS 213)					From West (→) Portland Avenue					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	2	13	15	0	30	25	7	4	0	36	4	13	0	0	17	0	8	2	0	10	93
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	5	14	0	19	7	2	2	0	11	6	6	0	0	12	0	3	2	0	5	47

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1		Page 1 of 11
Start Date:	Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4		Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: 4th Street (WIS 213) and Grand Avenue

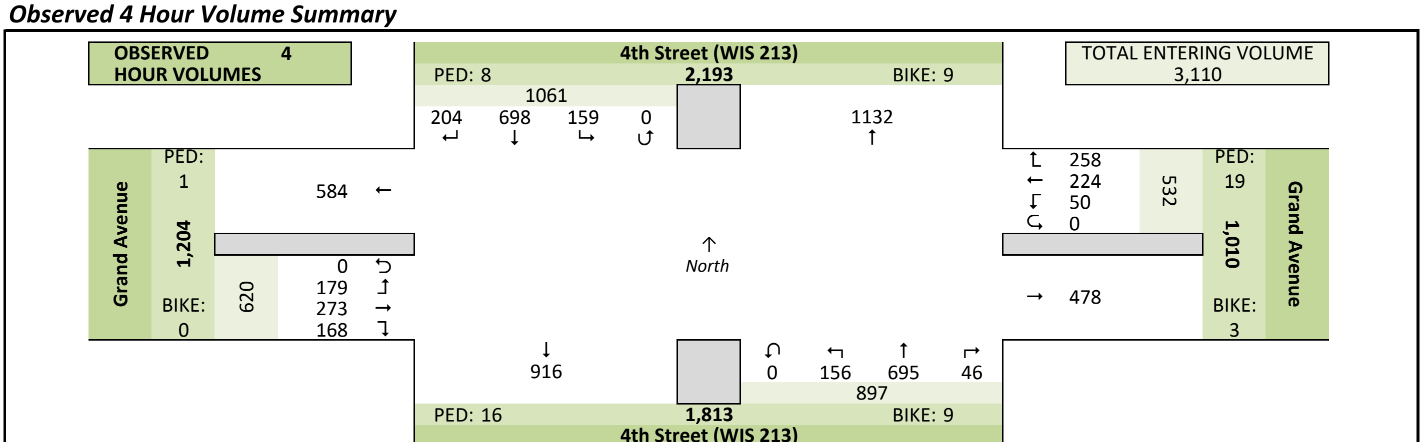
Site Information

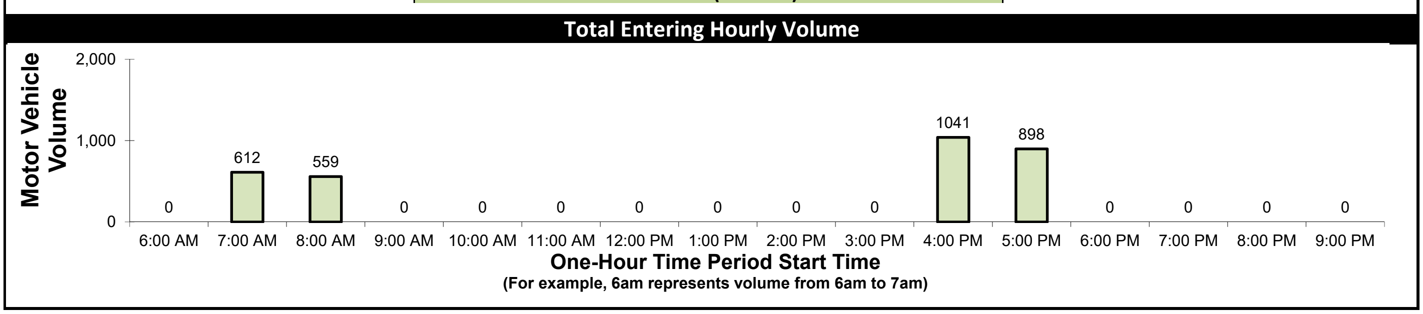
Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	4th Street (WIS 213)		
East Leg	Grand Avenue		
South Leg	4th Street (WIS 213)		
West Leg	Grand Avenue		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

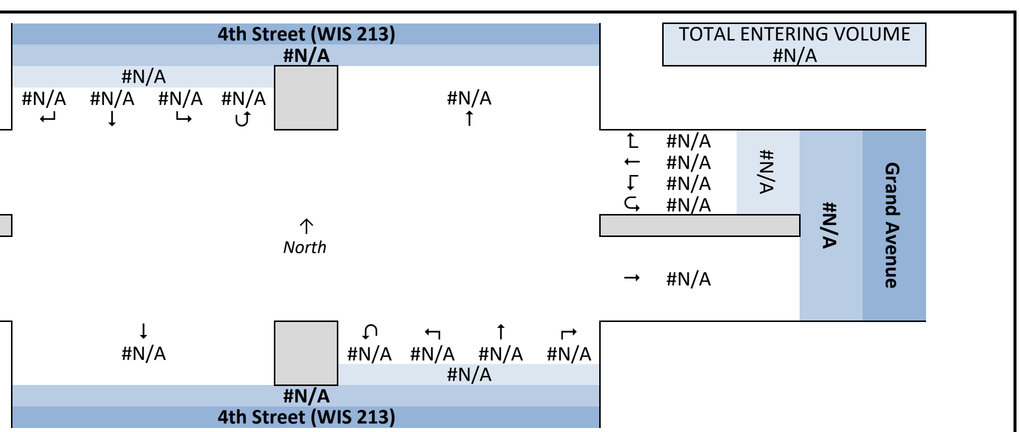
Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM				
1st Day of Count	Tuesday, October 9, 2018			Weather	
AM Peak Period				Clear & Dry	
Midday Peak Period				Clear & Dry	
PM Peak Period				Clear & Dry	
Calculated Peak Hours					
AM	7:15-8:15am	MD		PM	4:15-5:15pm
Peak Hours Selected for Analysis					
AM	7:15-8:15am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group					
Count Expansion Group					
Daily/Seasonal Adjustment Factor	1	Count Expansion Factor	#N/A		
Company Name	SRF Consulting, Inc.	Manual Adj.	1.000		
Observers	AM Peak Period	John Doe, John Deer			
	Midday Peak Period	John Doe, John Deer			
	PM Peak Period	John Doe, John Deer			
Comments					

Observed 4 Hour Volume Summary





Estimated 24 Hour AADT



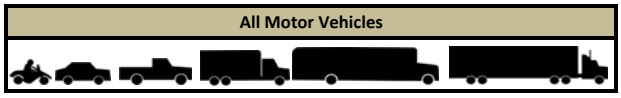
Daily/Seasonal Factor	1
Count Expansion Factor	#N/A
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**#N/A**

Intersection Traffic Volume Report

Count Basics		*Page 3 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

4th Street (WIS 213) and Grand Avenue



Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	4th Street (WIS 213)					Grand Avenue					4th Street (WIS 213)					Grand Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	10	33	3	0	46	5	10	0	0	15	1	37	14	0	52	7	8	11	0	26	139
	7:30 AM	8	35	7	0	50	12	22	5	0	39	2	43	4	0	49	12	15	13	0	40	178
	7:45 AM	18	43	9	0	70	12	22	2	0	36	3	33	5	0	41	6	25	9	0	40	187
	8:00 AM	4	29	7	0	40	7	8	2	0	17	4	35	8	0	47	6	15	7	0	28	132
	Peak Hour Volume	40	140	26	0	206	36	62	9	0	107	10	148	31	0	189	31	63	40	0	134	636
	Rounded Hourly Volume	40	140	25	0	205	35	60	10	0	105	10	150	30	0	190	30	65	40	0	135	635
	% Single Unit Trucks	2.5	10.0	0.0	0.0	7.3	0.0	4.8	0.0	0.0	2.8	0.0	8.8	9.7	0.0	8.5	0.0	0.0	0.0	0.0	0.0	5.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	2.5	10.0	0.0	0.0	7.3	0.0	4.8	0.0	0.0	2.8	0.0	8.8	9.7	0.0	8.5	0.0	0.0	0.0	0.0	0.0	5.3
	Peak Hour Factor (PHF)	0.56	0.81	0.72	0.00	0.74	0.75	0.70	0.45	0.00	0.69	0.62	0.86	0.55	0.00	0.91	0.65	0.63	0.77	0.00	0.84	0.85

N/A		From North					From East					From South					From West					
	MD Peak Hour	4th Street (WIS 213)					Grand Avenue					4th Street (WIS 213)					Grand Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	4th Street (WIS 213)					Grand Avenue					4th Street (WIS 213)					Grand Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	17	55	16	0	88	27	15	10	0	52	2	51	10	0	63	11	25	11	0	47	250
	4:45 PM	20	59	16	0	95	27	26	4	0	57	3	55	14	0	72	20	33	12	0	65	289
	5:00 PM	15	72	12	0	99	25	16	8	0	49	4	67	21	0	92	13	22	13	0	48	288
	5:15 PM	15	50	14	0	79	21	14	4	0	39	4	57	6	0	67	9	12	17	0	38	223
	Peak Hour Volume	67	236	58	0	361	100	71	26	0	197	13	230	51	0	294	53	92	53	0	198	1050
	Rounded Hourly Volume	65	235	60	0	360	100	70	25	0	195	15	230	50	0	295	55	90	55	0	200	1050
	% Single Unit Trucks	0.0	2.5	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	2.6	3.9	0.0	2.7	0.0	0.0	0.0	0.0	0.0	1.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	2.5	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	2.6	3.9	0.0	2.7	0.0	0.0	0.0	0.0	0.0	1.3
	Peak Hour Factor (PHF)	0.84	0.82	0.91	0.00	0.91	0.93	0.68	0.65	0.00	0.86	0.81	0.86	0.61	0.00	0.80	0.66	0.70	0.78	0.00	0.76	0.91

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		4th Street (WIS 213)			Grand Avenue			4th Street (WIS 213)			Grand Avenue			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	1	1	2	0	0	0	2
	7:30 AM	1	0	1	2	0	2	2	0	2	0	0	0	5
	7:45 AM	0	1	1	2	0	2	1	0	1	1	0	1	5
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	1	2	4	0	4	4	1	5	1	0	1	12
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	0	0	0	1	0	1	1	1	2	0	0	0	3
	4:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	1
	5:00 PM	0	0	0	1	0	1	0	5	5	0	0	0	6
	5:15 PM	2	0	2	0	0	0	0	0	0	0	0	0	2
	Total	2	0	2	3	0	3	1	6	7	0	0	0	12

Intersection Traffic Volume Report

Count Basics		*Page 5 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

4th Street (WIS 213) and Grand Avenue

15-Minute Motor Vehicle Data

	15-Minute Time Period	From North (↓) 4th Street (WIS 213)					From East (←) Grand Avenue					From South (↑) 4th Street (WIS 213)					From West (→) Grand Avenue					15-Min	Hourly	
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	6	22	3	0	31	7	6	1	0	14	4	34	9	0	47	3	5	8	0	16	108	612	0.82
	7:15 AM	10	33	3	0	46	5	10	0	0	15	1	37	14	0	52	7	8	11	0	26	139	636	0.85
	7:30 AM	8	35	7	0	50	12	22	5	0	39	2	43	4	0	49	12	15	13	0	40	178	629	0.84
	7:45 AM	18	43	9	0	70	12	22	2	0	36	3	33	5	0	41	6	25	9	0	40	187	598	0.80
	8:00 AM	4	29	7	0	40	7	8	2	0	17	4	35	8	0	47	6	15	7	0	28	132	559	0.94
	8:15 AM	5	30	8	0	43	12	5	3	0	20	2	30	6	0	38	11	15	5	0	31	132		
	8:30 AM	9	32	8	0	49	12	8	1	0	21	1	33	4	0	38	15	13	11	0	39	147		
	8:45 AM	9	34	11	0	54	10	6	0	0	16	1	33	7	0	41	9	12	16	0	37	148		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	20	61	14	0	95	26	18	3	0	47	5	49	12	0	66	18	23	13	0	54	262	1041	0.90
	4:15 PM	20	47	12	0	79	22	15	1	0	38	4	54	19	0	77	16	15	15	0	46	240	1067	0.92
	4:30 PM	17	55	16	0	88	27	15	10	0	52	2	51	10	0	63	11	25	11	0	47	250	1050	0.91
	4:45 PM	20	59	16	0	95	27	26	4	0	57	3	55	14	0	72	20	33	12	0	65	289	1013	0.88
	5:00 PM	15	72	12	0	99	25	16	8	0	49	4	67	21	0	92	13	22	13	0	48	288	898	0.78
	5:15 PM	15	50	14	0	79	21	14	4	0	39	4	57	6	0	67	9	12	17	0	38	223		
	5:30 PM	17	68	10	0	95	18	19	2	0	39	3	39	6	0	48	7	13	11	0	31	213		
	5:45 PM	11	28	9	0	48	15	14	4	0	33	3	45	11	0	59	5	22	7	0	34	174		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		204	698	159	0	1061	258	224	50	0	532	46	695	156	0	897	168	273	179	0	620	3110		

Peak Hour All Vehicle Volume Summary

	Hourly Time Period	From North (↓) 4th Street (WIS 213)					From East (←) Grand Avenue					From South (↑) 4th Street (WIS 213)					From West (→) Grand Avenue					Total Hourly	
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:15 AM	40	140	26	0	206	36	62	9	0	107	10	148	31	0	189	31	63	40	0	134	636	0.85
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	67	236	58	0	361	100	71	26	0	197	13	230	51	0	294	53	92	53	0	198	1050	0.91

Intersection Traffic Volume Report

Count Basics		*Page 7 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Single Unit (SU) Truck & Bus Data

Single Unit (SU) Trucks & Buses

4th Street (WIS 213) and Grand Avenue

15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	Start Time	From North (↓) 4th Street (WIS 213)					From East (←) Grand Avenue					From South (↑) 4th Street (WIS 213)					From West (→) Grand Avenue					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	2	0	0	2	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	10	35
	7:15 AM	0	3	0	0	3	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	8	34
	7:30 AM	0	0	0	0	0	0	1	0	0	1	0	4	1	0	5	0	0	0	0	0	6	31
	7:45 AM	1	9	0	0	10	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	11	36
	8:00 AM	0	2	0	0	2	0	2	0	0	2	0	4	1	0	5	0	0	0	0	0	9	34
	8:15 AM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5	
	8:30 AM	1	3	0	0	4	0	1	0	0	1	0	2	1	0	3	3	0	0	0	3	11	
	8:45 AM	0	2	1	0	3	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	9	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	3	0	0	3	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	9	22
	4:15 PM	0	5	0	0	5	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6	17
	4:30 PM	0	3	0	0	3	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	5	14
	4:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4	11
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	3	
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
	5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		4	38	1	0	43	1	5	0	0	6	0	39	8	0	47	4	0	2	0	6	102	

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period	Start Time	From North (↓) 4th Street (WIS 213)					From East (←) Grand Avenue					From South (↑) 4th Street (WIS 213)					From West (→) Grand Avenue					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	1	14	0	0	15	0	3	0	0	3	0	13	3	0	16	0	0	0	0	0	34
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	6	0	0	6	0	0	0	0	0	0	6	2	0	8	0	0	0	0	0	14

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1		Page 1 of 11
Start Date:	Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4		Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Mill Street and Broad Street (WIS 213)

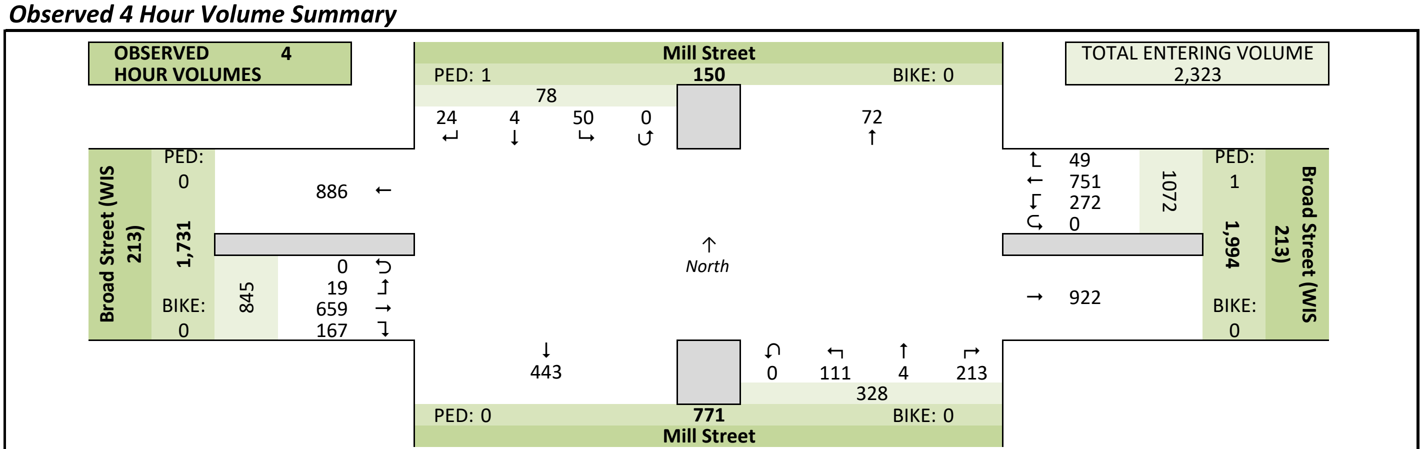
Site Information

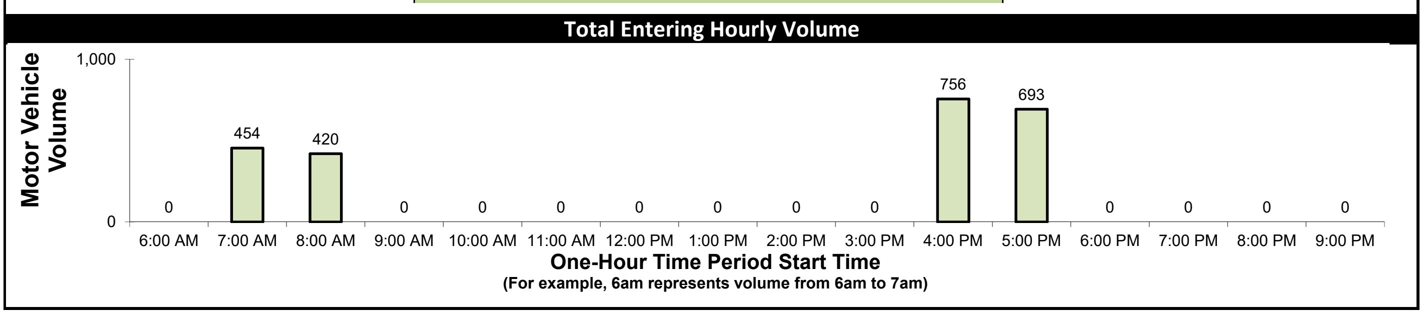
Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Mill Street		
East Leg	Broad Street (WIS 213)		
South Leg	Mill Street		
West Leg	Broad Street (WIS 213)		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

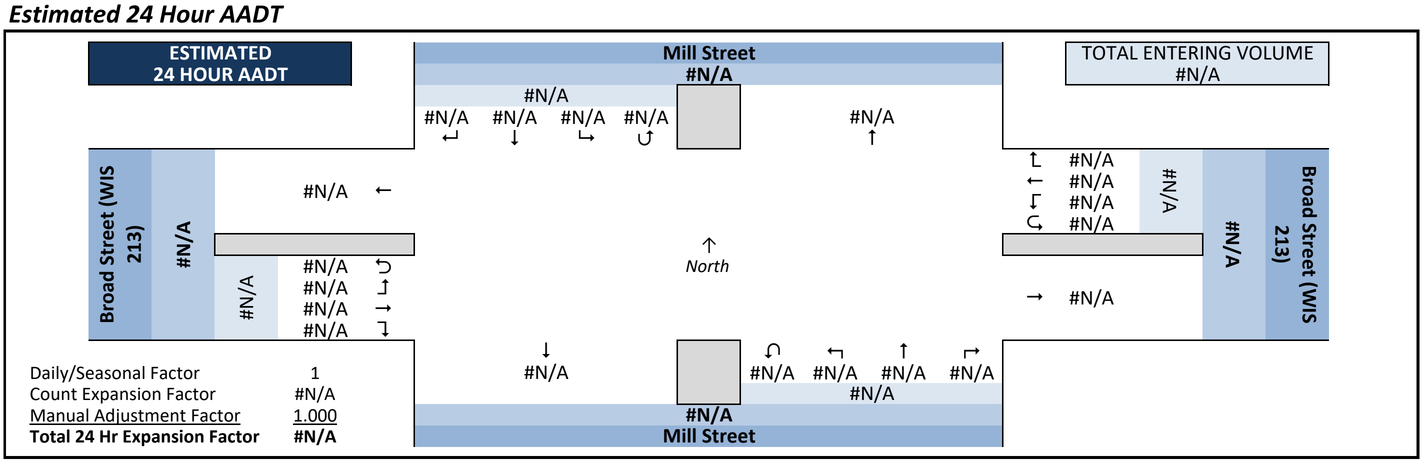
Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM		
1st Day of Count	Wednesday, October 10, 2018		Weather
AM Peak Period			Clear & Dry
Midday Peak Period			Clear & Dry
PM Peak Period			Clear & Dry
Calculated Peak Hours			
AM	7:15-8:15am	MD	PM 4:15-5:15pm
Peak Hours Selected for Analysis			
AM	7:15-8:15am	MD	PM 4:30-5:30pm
Daily/Seasonal Adjustment Group			
Count Expansion Group			
Daily/Seasonal Adjustment Factor	1	Count Expansion Factor	#N/A
Company Name	SRF Consulting, Inc.	Manual Adj.	1.000
Observers	AM Peak Period	John Doe, John Deer	
	Midday Peak Period	John Doe, John Deer	
	PM Peak Period	John Doe, John Deer	
Comments			

Observed 4 Hour Volume Summary





Estimated 24 Hour AADT



Intersection Traffic Volume Report

Count Basics		Page 3 of 11
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

Mill Street and Broad Street (WIS 213)

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	Mill Street					Broad Street (WIS 213)					Mill Street					Broad Street (WIS 213)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	4	0	7	0	11	1	43	11	0	55	5	1	2	0	8	4	27	1	0	32	106
	7:30 AM	1	0	3	0	4	4	42	18	0	64	9	1	6	0	16	6	35	3	0	44	128
	7:45 AM	0	0	2	0	2	1	34	23	0	58	12	0	4	0	16	10	43	0	0	53	129
	8:00 AM	1	1	2	0	4	2	44	11	0	57	9	0	2	0	11	4	36	1	0	41	113
	Peak Hour Volume	6	1	14	0	21	8	163	63	0	234	35	2	14	0	51	24	141	5	0	170	476
	Rounded Hourly Volume	5	0	15	0	20	10	165	65	0	240	35	0	15	0	50	25	140	5	0	170	480
	% Single Unit Trucks	16.7	0.0	0.0	0.0	4.8	0.0	7.4	3.2	0.0	6.0	8.6	50.0	14.3	0.0	11.8	4.2	9.2	0.0	0.0	8.2	7.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	16.7	0.0	0.0	0.0	4.8	0.0	7.4	3.2	0.0	6.0	8.6	50.0	14.3	0.0	11.8	4.2	9.2	0.0	0.0	8.2	7.4
	Peak Hour Factor (PHF)	0.37	0.25	0.50	0.00	0.48	0.50	0.93	0.68	0.00	0.91	0.73	0.50	0.58	0.00	0.80	0.60	0.82	0.42	0.00	0.80	0.92

N/A		From North					From East					From South					From West					
	MD Peak Hour	Mill Street					Broad Street (WIS 213)					Mill Street					Broad Street (WIS 213)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	Mill Street					Broad Street (WIS 213)					Mill Street					Broad Street (WIS 213)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	1	1	0	0	2	3	65	18	0	86	21	0	13	0	34	21	50	1	0	72	194
	4:45 PM	2	0	9	0	11	3	47	25	0	75	23	0	13	0	36	13	53	3	0	69	191
	5:00 PM	3	1	6	0	10	4	70	24	0	98	16	0	7	0	23	18	49	1	0	68	199
	5:15 PM	1	1	6	0	8	1	57	15	0	73	21	0	9	0	30	11	43	1	0	55	166
	Peak Hour Volume	7	3	21	0	31	11	239	82	0	332	81	0	42	0	123	63	195	6	0	264	750
	Rounded Hourly Volume	5	5	20	0	30	10	240	80	0	330	80	0	40	0	120	65	195	5	0	265	745
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.7	0.0	3.3	4.9	0.0	4.8	0.0	4.9	1.6	4.6	0.0	0.0	3.8	3.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.7	0.0	3.3	4.9	0.0	4.8	0.0	4.9	1.6	4.6	0.0	0.0	3.8	3.6
	Peak Hour Factor (PHF)	0.58	0.75	0.58	0.00	0.70	0.69	0.85	0.82	0.00	0.85	0.88	0.00	0.81	0.00	0.85	0.75	0.92	0.50	0.00	0.92	0.94

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Mill Street			Broad Street (WIS 213)			Mill Street			Broad Street (WIS 213)			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	0	1	0	0	0	0	0	0	0	0	0	1
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	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

Intersection Traffic Volume Report

Count Basics		Page 5 of 11
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Mill Street and Broad Street (WIS 213)

15-Minute Motor Vehicle Data

15-Minute Time Period		From North (↓) Mill Street					From East (←) Broad Street (WIS 213)					From South (↑) Mill Street					From West (→) Broad Street (WIS 213)					15-Min	Hourly	
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	2	0	1	0	3	2	42	7	0	51	10	0	2	0	12	5	19	1	0	25	91	454	0.88
	7:15 AM	4	0	7	0	11	1	43	11	0	55	5	1	2	0	8	4	27	1	0	32	106	476	0.92
	7:30 AM	1	0	3	0	4	4	42	18	0	64	9	1	6	0	16	6	35	3	0	44	128	459	0.89
	7:45 AM	0	0	2	0	2	1	34	23	0	58	12	0	4	0	16	10	43	0	0	53	129	433	0.84
	8:00 AM	1	1	2	0	4	2	44	11	0	57	9	0	2	0	11	4	36	1	0	41	113	420	0.91
	8:15 AM	1	0	0	0	1	11	32	7	0	50	4	1	7	0	12	5	20	1	0	26	89		
	8:30 AM	0	0	2	0	2	1	31	10	0	42	10	1	6	0	17	6	35	0	0	41	102		
	8:45 AM	1	0	1	0	2	8	38	14	0	60	9	0	4	0	13	9	29	3	0	41	116		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	0	0	1	0	1	1	56	19	0	76	18	0	10	0	28	14	60	1	0	75	180	756	0.97
	4:15 PM	2	0	2	0	4	2	63	29	0	94	20	0	6	0	26	20	47	0	0	67	191	775	0.97
	4:30 PM	1	1	0	0	2	3	65	18	0	86	21	0	13	0	34	21	50	1	0	72	194	750	0.94
	4:45 PM	2	0	9	0	11	3	47	25	0	75	23	0	13	0	36	13	53	3	0	69	191	736	0.92
	5:00 PM	3	1	6	0	10	4	70	24	0	98	16	0	7	0	23	18	49	1	0	68	199	693	0.87
	5:15 PM	1	1	6	0	8	1	57	15	0	73	21	0	9	0	30	11	43	1	0	55	166		
	5:30 PM	3	0	5	0	8	2	44	20	0	66	17	0	10	0	27	12	65	2	0	79	180		
	5:45 PM	2	0	3	0	5	3	43	21	0	67	9	0	10	0	19	9	48	0	0	57	148		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		24	4	50	0	78	49	751	272	0	1072	213	4	111	0	328	167	659	19	0	845	2323		

Peak Hour All Vehicle Volume Summary

Hourly Time Period		From North (↓) Mill Street					From East (←) Broad Street (WIS 213)					From South (↑) Mill Street					From West (→) Broad Street (WIS 213)					Total Hourly	
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:15 AM	6	1	14	0	21	8	163	63	0	234	35	2	14	0	51	24	141	5	0	170	476	0.92
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	7	3	21	0	31	11	239	82	0	332	81	0	42	0	123	63	195	6	0	264	750	0.94

Intersection Traffic Volume Report

Count Basics		*Page 9 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Mill Street and Broad Street (WIS 213)

15-Minute Heavy Vehicle Data

15-Minute Time Period	Start Time	From North (↓) Mill Street					From East (←) Broad Street (WIS 213)					From South (↑) Mill Street					From West (→) Broad Street (WIS 213)					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	0	0	0	0	0	10	1	0	11	1	0	0	0	1	1	0	0	0	1	13	41
	7:15 AM	1	0	0	0	1	0	3	0	0	3	1	1	1	0	3	0	4	0	0	4	11	35
	7:30 AM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	1	1	0	0	2	7	34
	7:45 AM	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	0	5	0	0	5	10	36
	8:00 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	3	0	0	3	7	31
	8:15 AM	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	1	2	0	0	3	10	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	7	0	0	7	9	
	8:45 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	1	0	0	1	5	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	8	0	0	8	12	33
	4:15 PM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	1	1	0	0	2	6	26
	4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	0	5	0	0	5	8	27
	4:45 PM	0	0	0	0	0	0	2	2	0	4	1	0	0	0	1	0	2	0	0	2	7	23
	5:00 PM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	1	1	0	0	2	5	21
	5:15 PM	0	0	0	0	0	0	4	0	0	4	1	0	1	0	2	0	1	0	0	1	7	
	5:30 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	1	1	0	0	2	4	
	5:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	0	2	0	0	2	5	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		1	0	0	0	1	0	46	11	0	57	12	1	5	0	18	6	44	0	0	50	126	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period	Start Time	From North (↓) Mill Street					From East (←) Broad Street (WIS 213)					From South (↑) Mill Street					From West (→) Broad Street (WIS 213)					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	1	0	0	0	1	0	12	2	0	14	3	1	2	0	6	1	13	0	0	14	35
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	8	3	0	11	4	0	2	0	6	1	9	0	0	10	27

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1		Page 1 of 11
Start Date:	Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4		Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: State Street and Broad Street

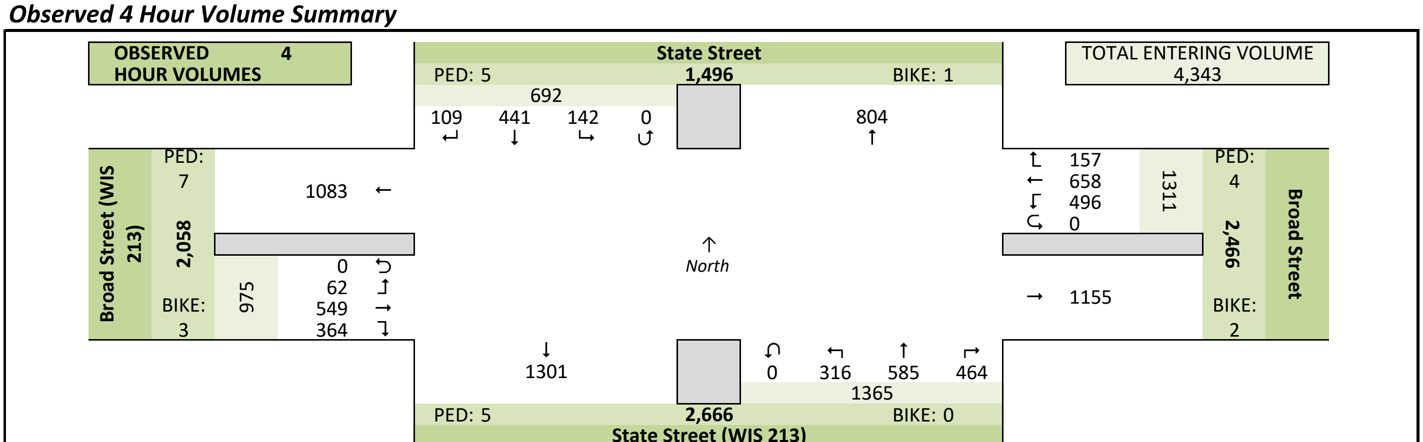
Site Information

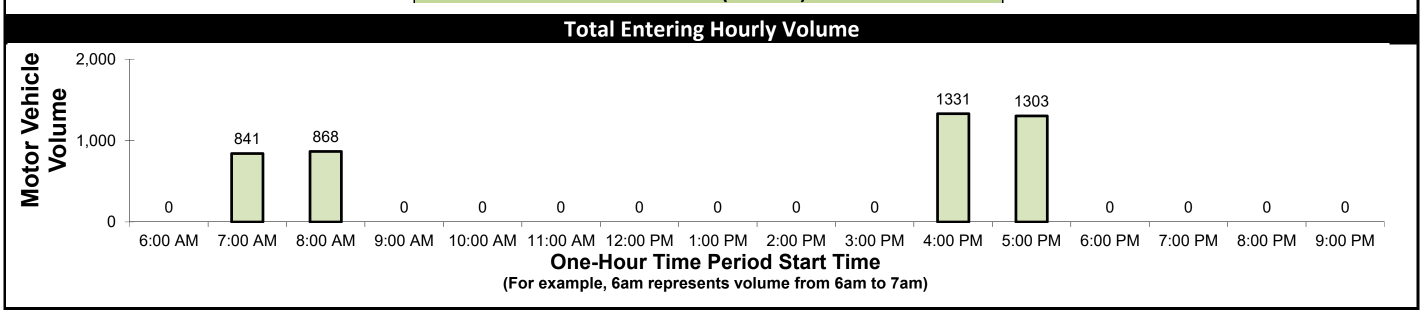
Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	State Street		
East Leg	Broad Street		
South Leg	State Street (WIS 213)		
West Leg	Broad Street (WIS 213)		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

Count Information

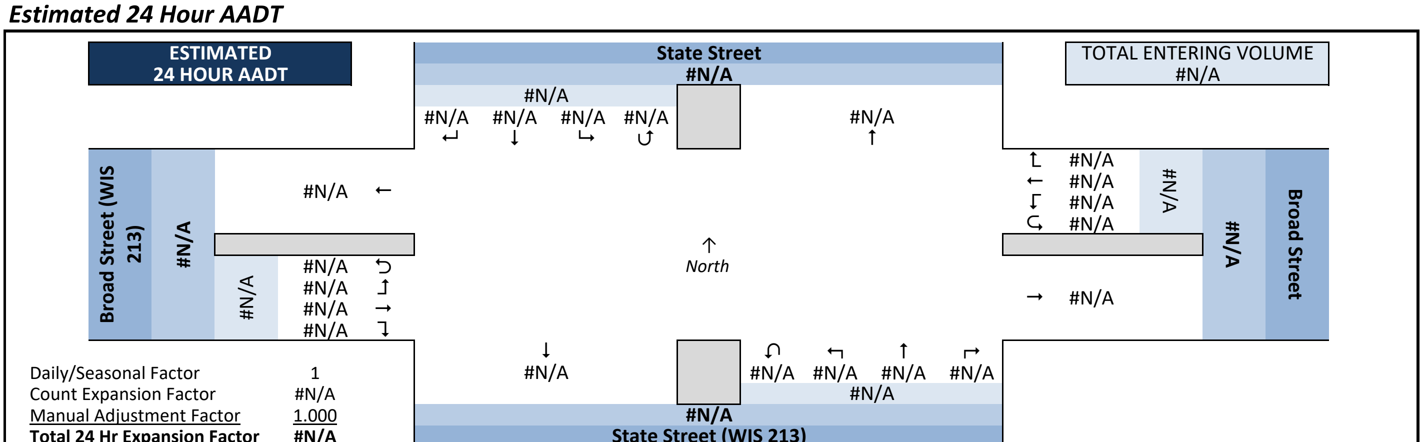
Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM				
1st Day of Count	Tuesday, October 9, 2018			Weather	
AM Peak Period				Clear & Dry	
Midday Peak Period				Clear & Dry	
PM Peak Period				Clear & Dry	
Calculated Peak Hours					
AM	7:30-8:30am	MD		PM	4:30-5:30pm
Peak Hours Selected for Analysis					
AM	7:15-8:15am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group					
Count Expansion Group					
Daily/Seasonal Adjustment Factor	1	Count Expansion Factor	#N/A		
Company Name	SRF Consulting, Inc.	Manual Adj.	1.000		
Observers	AM Peak Period	John Doe, John Deer			
	Midday Peak Period	John Doe, John Deer			
	PM Peak Period	John Doe, John Deer			
Comments					

Observed 4 Hour Volume Summary





Estimated 24 Hour AADT

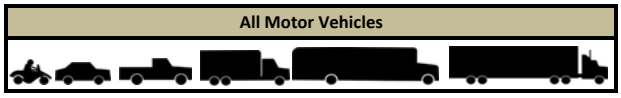


Intersection Traffic Volume Report

Count Basics		*Page 3 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

State Street and Broad Street



Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	State Street					Broad Street					State Street (WIS 213)					Broad Street (WIS 213)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	3	18	6	0	27	5	32	20	0	57	19	38	12	0	69	12	19	1	0	32	185
	7:30 AM	6	16	3	0	25	16	42	21	0	79	26	51	11	0	88	24	33	4	0	61	253
	7:45 AM	9	17	3	0	29	14	40	30	0	84	30	52	14	0	96	16	24	3	0	43	252
	8:00 AM	4	17	4	0	25	19	44	24	0	87	30	42	19	0	91	6	37	2	0	45	248
	Peak Hour Volume	22	68	16	0	106	54	158	95	0	307	105	183	56	0	344	58	113	10	0	181	938
	Rounded Hourly Volume	20	70	15	0	105	55	160	95	0	310	105	185	55	0	345	60	115	10	0	185	945
	% Single Unit Trucks	4.5	0.0	0.0	0.0	0.9	0.0	8.9	4.2	0.0	5.9	10.5	1.1	8.9	0.0	5.2	5.2	12.4	0.0	0.0	9.4	5.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	4.5	0.0	0.0	0.0	0.9	0.0	8.9	4.2	0.0	5.9	10.5	1.1	8.9	0.0	5.2	5.2	12.4	0.0	0.0	9.4	5.8
	Peak Hour Factor (PHF)	0.61	0.94	0.67	0.00	0.91	0.71	0.90	0.79	0.00	0.88	0.87	0.88	0.74	0.00	0.90	0.60	0.76	0.62	0.00	0.74	0.93

N/A		From North					From East					From South					From West					
	MD Peak Hour	State Street					Broad Street					State Street (WIS 213)					Broad Street (WIS 213)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	State Street					Broad Street					State Street (WIS 213)					Broad Street (WIS 213)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	8	38	9	0	55	3	39	54	0	96	22	34	28	0	84	31	49	5	0	85	320
	4:45 PM	9	38	15	0	62	7	59	39	0	105	38	44	18	0	100	29	45	6	0	80	347
	5:00 PM	11	60	26	0	97	10	54	49	0	113	37	34	27	0	98	54	62	7	0	123	431
	5:15 PM	10	41	16	0	67	8	40	37	0	85	33	34	28	0	95	28	52	8	0	88	335
	Peak Hour Volume	38	177	66	0	281	28	192	179	0	399	130	146	101	0	377	142	208	26	0	376	1433
	Rounded Hourly Volume	40	175	65	0	280	30	190	180	0	400	130	145	100	0	375	140	210	25	0	375	1430
	% Single Unit Trucks	0.0	0.6	0.0	0.0	0.4	3.6	4.7	2.8	0.0	3.8	3.1	1.4	2.0	0.0	2.1	0.7	4.8	0.0	0.0	2.9	2.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.6	0.0	0.0	0.4	3.6	4.7	2.8	0.0	3.8	3.1	1.4	2.0	0.0	2.1	0.7	4.8	0.0	0.0	2.9	2.4
	Peak Hour Factor (PHF)	0.86	0.74	0.63	0.00	0.72	0.70	0.81	0.83	0.00	0.88	0.86	0.83	0.90	0.00	0.94	0.66	0.84	0.81	0.00	0.76	0.83

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		State Street			Broad Street			State Street (WIS 213)			Broad Street (WIS 213)			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	1	0	1	1	0	1	2
	7:30 AM	1	0	1	1	0	1	1	0	1	0	0	0	3
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	1	2	0	2	1	0	1	0	1	1	5
	Total	1	1	2	3	0	3	3	0	3	1	1	2	10
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	2	0	2	0	0	0	2	0	2	1	0	1	5
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	2	0	2	0	0	0	2	0	2	2	0	2	6

Intersection Traffic Volume Report

Count Basics		Page 5 of 11
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

State Street and Broad Street

15-Minute Motor Vehicle Data

15-Minute Time Period		From North (↓) State Street					From East (←) Broad Street					From South (↑) State Street (WIS 213)					From West (→) Broad Street (WIS 213)					15-Min	Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	2	14	4	0	20	8	28	16	0	52	24	16	17	0	57	7	12	3	0	22	151	841	0.83
	7:15 AM	3	18	6	0	27	5	32	20	0	57	19	38	12	0	69	12	19	1	0	32	185	938	0.93
	7:30 AM	6	16	3	0	25	16	42	21	0	79	26	51	11	0	88	24	33	4	0	61	253	955	0.94
	7:45 AM	9	17	3	0	29	14	40	30	0	84	30	52	14	0	96	16	24	3	0	43	252	905	0.90
	8:00 AM	4	17	4	0	25	19	44	24	0	87	30	42	19	0	91	6	37	2	0	45	248	868	0.88
	8:15 AM	5	17	5	0	27	12	23	18	0	53	25	38	19	0	82	11	28	1	0	40	202		
	8:30 AM	4	14	4	0	22	12	35	20	0	67	27	26	14	0	67	15	31	1	0	47	203		
	8:45 AM	9	20	2	0	31	4	42	20	0	66	27	35	20	0	82	13	17	6	0	36	215		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	7	47	6	0	60	10	60	44	0	114	29	31	17	0	77	36	46	2	0	84	335	1331	0.96
	4:15 PM	8	31	16	0	55	12	52	46	0	110	29	39	25	0	93	31	38	2	0	71	329	1427	0.83
	4:30 PM	8	38	9	0	55	3	39	54	0	96	22	34	28	0	84	31	49	5	0	85	320	1433	0.83
	4:45 PM	9	38	15	0	62	7	59	39	0	105	38	44	18	0	100	29	45	6	0	80	347	1379	0.80
	5:00 PM	11	60	26	0	97	10	54	49	0	113	37	34	27	0	98	54	62	7	0	123	431	1303	0.76
	5:15 PM	10	41	16	0	67	8	40	37	0	85	33	34	28	0	95	28	52	8	0	88	335		
	5:30 PM	8	29	11	0	48	9	29	23	0	61	28	36	20	0	84	29	37	7	0	73	266		
	5:45 PM	6	24	12	0	42	8	39	35	0	82	40	35	27	0	102	22	19	4	0	45	271		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		109	441	142	0	692	157	658	496	0	1311	464	585	316	0	1365	364	549	62	0	975	4343		

Peak Hour All Vehicle Volume Summary

Hourly Time Period		From North (↓) State Street					From East (←) Broad Street					From South (↑) State Street (WIS 213)					From West (→) Broad Street (WIS 213)					Total Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:15 AM	22	68	16	0	106	54	158	95	0	307	105	183	56	0	344	58	113	10	0	181	938	0.93
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	38	177	66	0	281	28	192	179	0	399	130	146	101	0	377	142	208	26	0	376	1433	0.83

Intersection Traffic Volume Report

Count Basics		*Page 9 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

State Street and Broad Street

15-Minute Heavy Vehicle Data

15-Minute Time Period Start Time		From North (↓) State Street					From East (←) Broad Street					From South (↑) State Street (WIS 213)					From West (→) Broad Street (WIS 213)					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	1	0	0	1	0	8	1	0	9	1	0	0	0	1	1	2	0	0	3	14	52
	7:15 AM	0	0	0	0	0	0	3	0	0	3	3	1	2	0	6	1	1	0	0	2	11	54
	7:30 AM	1	0	0	0	1	0	4	0	0	4	4	0	1	0	5	1	2	0	0	3	13	53
	7:45 AM	0	0	0	0	0	0	2	4	0	6	2	0	1	0	3	1	4	0	0	5	14	58
	8:00 AM	0	0	0	0	0	0	5	0	0	5	2	1	1	0	4	0	7	0	0	7	16	59
	8:15 AM	0	0	0	0	0	1	3	2	0	6	1	0	1	0	2	0	2	0	0	2	10	
	8:30 AM	0	0	0	0	0	0	1	2	0	3	3	0	1	0	4	2	9	0	0	11	18	
	8:45 AM	0	0	0	0	0	0	4	3	0	7	2	0	2	0	4	0	4	0	0	4	15	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	0	0	0	0	1	4	2	0	7	3	0	1	0	4	1	6	0	0	7	18	49
	4:15 PM	0	0	0	0	0	0	3	1	0	4	1	1	0	0	2	0	3	0	0	3	9	38
	4:30 PM	0	0	0	0	0	1	2	1	0	4	1	1	0	0	2	0	6	0	0	6	12	35
	4:45 PM	0	0	0	0	0	0	2	1	0	3	3	1	0	0	4	1	2	0	0	3	10	26
	5:00 PM	0	1	0	0	1	0	4	0	0	4	0	0	1	0	1	0	1	0	0	1	7	19
	5:15 PM	0	0	0	0	0	0	1	3	0	4	0	0	1	0	1	0	1	0	0	1	6	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	3	
	5:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		1	2	0	0	3	3	49	20	0	72	28	5	12	0	45	8	51	0	0	59	179	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time		From North (↓) State Street					From East (←) Broad Street					From South (↑) State Street (WIS 213)					From West (→) Broad Street (WIS 213)					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	1	0	0	0	1	0	14	4	0	18	11	2	5	0	18	3	14	0	0	17	54
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	1	0	0	1	1	9	5	0	15	4	2	2	0	8	1	10	0	0	11	35

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1		Page 1 of 11
Start Date:	Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4		Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Pleasant Street (US 51) and Broad Street (US 51)

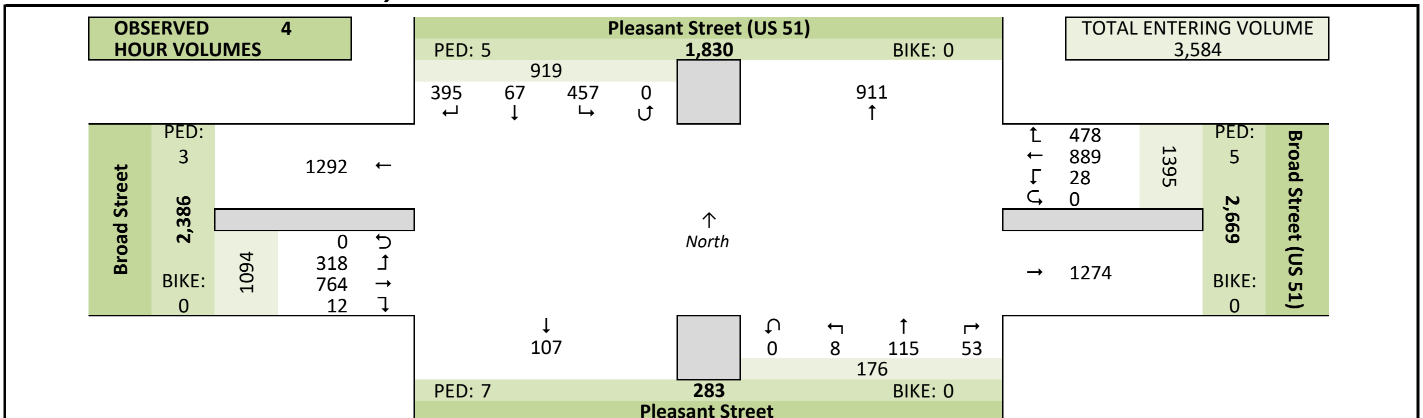
Site Information

Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Pleasant Street (US 51)		
East Leg	Broad Street (US 51)		
South Leg	Pleasant Street		
West Leg	Broad Street		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe) None	None		

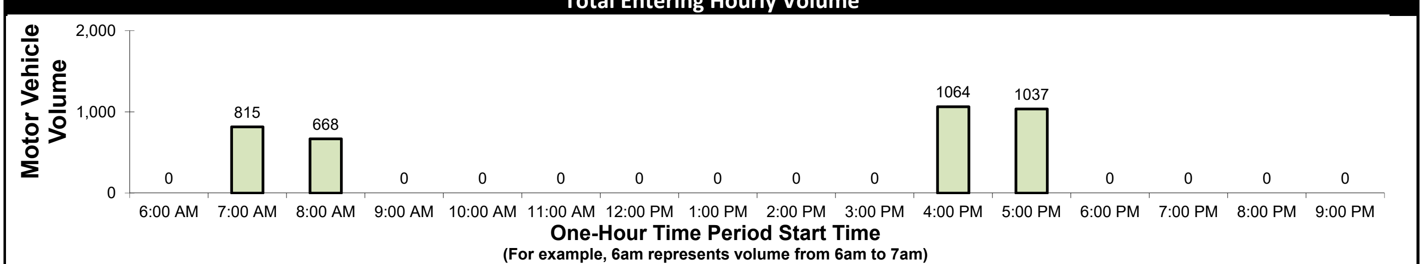
Count Information

Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM		
1st Day of Count	Tuesday, October 16, 2018	Weather	
AM Peak Period		Clear & Dry	
Midday Peak Period		Clear & Dry	
PM Peak Period		Clear & Dry	
Calculated Peak Hours			
AM 7:15-8:15am	MD	PM 4:30-5:30pm	
Peak Hours Selected for Analysis			
AM 7:15-8:15am	MD	PM 4:30-5:30pm	
Daily/Seasonal Adjustment Group			
Count Expansion Group			
Daily/Seasonal Adjustment Factor	1	Count Expansion Factor	#N/A
Company Name	SRF Consulting, Inc.	Manual Adj.	1.000
Observers	AM Peak Period	John Doe, John Deer	
	Midday Peak Period	John Doe, John Deer	
	PM Peak Period	John Doe, John Deer	
Comments			

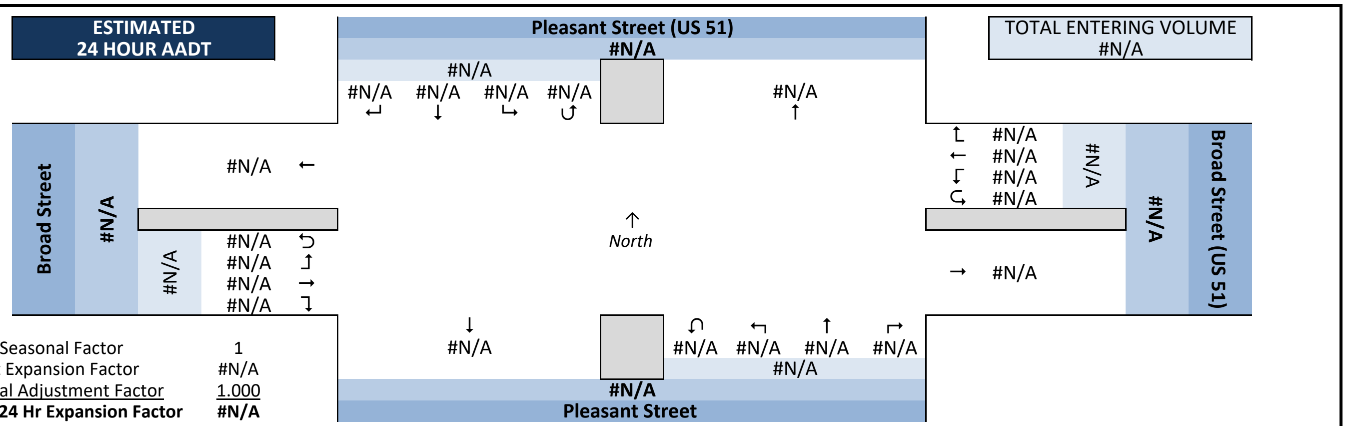
Observed 4 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



Daily/Seasonal Factor	1
Count Expansion Factor	#N/A
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**#N/A**

Intersection Traffic Volume Report

Count Basics		Page 3 of 11
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

Pleasant Street (US 51) and Broad Street (US 51)

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	Pleasant Street (US 51)					Broad Street (US 51)					Pleasant Street					Broad Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	20	2	22	0	44	28	49	2	0	79	2	8	0	0	10	1	39	25	0	65	198
	7:30 AM	19	3	14	0	36	30	53	2	0	85	2	10	0	0	12	0	46	27	0	73	206
	7:45 AM	30	4	26	0	60	46	79	0	0	125	4	10	0	0	14	0	38	20	0	58	257
	8:00 AM	16	3	17	0	36	36	53	1	0	90	3	6	0	0	9	1	32	17	0	50	185
	Peak Hour Volume	85	12	79	0	176	140	234	5	0	379	11	34	0	0	45	2	155	89	0	246	846
	Rounded Hourly Volume	85	10	80	0	175	140	235	5	0	380	10	35	0	0	45	0	155	90	0	245	845
	% Single Unit Trucks	3.5	0.0	7.6	0.0	5.1	6.4	3.8	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	6.5	9.0	0.0	7.3	5.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	3.5	0.0	7.6	0.0	5.1	6.4	3.8	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	6.5	9.0	0.0	7.3	5.3
	Peak Hour Factor (PHF)	0.71	0.75	0.76	0.00	0.73	0.76	0.74	0.62	0.00	0.76	0.69	0.85	0.00	0.00	0.80	0.50	0.84	0.82	0.00	0.84	0.82

N/A		From North					From East					From South					From West					
	MD Peak Hour	Pleasant Street (US 51)					Broad Street (US 51)					Pleasant Street					Broad Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	Pleasant Street (US 51)					Broad Street (US 51)					Pleasant Street					Broad Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	39	5	34	0	78	37	62	4	0	103	9	11	0	0	20	0	56	32	0	88	289
	4:45 PM	35	2	40	0	77	35	70	2	0	107	5	11	0	0	16	1	56	23	0	80	280
	5:00 PM	32	8	66	0	106	31	60	2	0	93	10	18	3	0	31	0	95	25	0	120	350
	5:15 PM	21	5	39	0	65	33	52	1	0	86	1	3	0	0	4	1	68	19	0	88	243
	Peak Hour Volume	127	20	179	0	326	136	244	9	0	389	25	43	3	0	71	2	275	99	0	376	1162
	Rounded Hourly Volume	125	20	180	0	325	135	245	10	0	390	25	45	5	0	75	0	275	100	0	375	1165
	% Single Unit Trucks	2.4	0.0	3.9	0.0	3.1	1.5	2.9	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	4.0	2.9
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	2.4	0.0	3.9	0.0	3.1	1.5	2.9	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	0.0	4.0	2.9
	Peak Hour Factor (PHF)	0.81	0.62	0.68	0.00	0.77	0.92	0.87	0.56	0.00	0.91	0.62	0.60	0.25	0.00	0.57	0.50	0.72	0.77	0.00	0.78	0.83

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Pleasant Street (US 51)			Broad Street (US 51)			Pleasant Street			Broad Street			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	1
	8:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	1
	Total	0	0	0	2	0	2	1	0	1	0	0	0	3
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	0	0	0	0	0	0	2	0	2	1	0	1	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	2	0	2	1	0	1	3

Intersection Traffic Volume Report

Count Basics		Page 5 of 11
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Pleasant Street (US 51) and Broad Street (US 51)

15-Minute Motor Vehicle Data

15-Minute Time Period Start Time		From North (↓) Pleasant Street (US 51)					From East (←) Broad Street (US 51)					From South (↑) Pleasant Street					From West (→) Broad Street					15-Min Totals	Hourly Sum	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	15	1	18	0	34	32	40	2	0	74	1	7	0	0	8	1	20	17	0	38	154	815	0.79
	7:15 AM	20	2	22	0	44	28	49	2	0	79	2	8	0	0	10	1	39	25	0	65	198	846	0.82
	7:30 AM	19	3	14	0	36	30	53	2	0	85	2	10	0	0	12	0	46	27	0	73	206	813	0.79
	7:45 AM	30	4	26	0	60	46	79	0	0	125	4	10	0	0	14	0	38	20	0	58	257	768	0.75
	8:00 AM	16	3	17	0	36	36	53	1	0	90	3	6	0	0	9	1	32	17	0	50	185	668	0.90
	8:15 AM	17	5	11	0	33	26	49	1	0	76	1	3	1	0	5	0	33	18	0	51	165		
	8:30 AM	12	5	16	0	33	20	53	1	0	74	3	4	1	0	8	0	28	18	0	46	161		
	8:45 AM	21	2	8	0	31	15	50	3	0	68	3	3	0	0	6	1	36	15	0	52	157		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	30	8	39	0	77	30	54	2	0	86	3	7	1	0	11	4	64	15	0	83	257	1064	0.92
	4:15 PM	31	7	32	0	70	27	71	1	0	99	2	4	1	0	7	1	52	9	0	62	238	1157	0.83
	4:30 PM	39	5	34	0	78	37	62	4	0	103	9	11	0	0	20	0	56	32	0	88	289	1162	0.83
	4:45 PM	35	2	40	0	77	35	70	2	0	107	5	11	0	0	16	1	56	23	0	80	280	1115	0.80
	5:00 PM	32	8	66	0	106	31	60	2	0	93	10	18	3	0	31	0	95	25	0	120	350	1037	0.74
	5:15 PM	21	5	39	0	65	33	52	1	0	86	1	3	0	0	4	1	68	19	0	88	243		
	5:30 PM	34	4	44	0	82	23	46	2	0	71	1	6	1	0	8	1	60	20	0	81	242		
	5:45 PM	23	3	31	0	57	29	48	2	0	79	3	4	0	0	7	0	41	18	0	59	202		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		395	67	457	0	919	478	889	28	0	1395	53	115	8	0	176	12	764	318	0	1094	3584		

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time		From North (↓) Pleasant Street (US 51)					From East (←) Broad Street (US 51)					From South (↑) Pleasant Street					From West (→) Broad Street					Total Hourly Volume	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:15 AM	85	12	79	0	176	140	234	5	0	379	11	34	0	0	45	2	155	89	0	246	846	0.82
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	127	20	179	0	326	136	244	9	0	389	25	43	3	0	71	2	275	99	0	376	1162	0.83

Intersection Traffic Volume Report

Count Basics		*Page 9 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Pleasant Street (US 51) and Broad Street (US 51)

15-Minute Heavy Vehicle Data

15-Minute Time Period Start Time		From North (↓) Pleasant Street (US 51)					From East (←) Broad Street (US 51)					From South (↑) Pleasant Street					From West (→) Broad Street					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	1	0	1	0	2	1	5	0	0	6	0	0	0	0	0	0	0	3	0	3	11	47
	7:15 AM	0	0	2	0	2	5	0	0	0	5	0	0	0	0	0	0	4	4	0	8	15	45
	7:30 AM	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	2	2	0	4	8	37
	7:45 AM	3	0	2	0	5	3	3	0	0	6	0	0	0	0	0	0	1	1	0	2	13	48
	8:00 AM	0	0	2	0	2	0	3	0	0	3	0	0	0	0	0	0	3	1	0	4	9	51
	8:15 AM	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	7	
	8:30 AM	1	0	6	0	7	0	5	0	0	5	0	0	0	0	0	0	6	1	0	7	19	
	8:45 AM	2	0	2	0	4	3	4	0	0	7	0	0	0	0	0	0	5	0	0	5	16	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	1	0	1	0	2	0	5	0	0	5	0	0	0	0	0	0	2	2	0	4	11	37
	4:15 PM	1	0	2	0	3	1	1	0	0	2	0	0	0	0	0	0	3	0	0	3	8	35
	4:30 PM	1	0	4	0	5	1	2	0	0	3	0	0	0	0	0	0	4	1	0	5	13	34
	4:45 PM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	5	29
	5:00 PM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	2	3	0	5	9	33
	5:15 PM	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	7	
	5:30 PM	1	0	1	0	2	0	2	0	0	2	0	0	0	0	0	0	2	2	0	4	8	
	5:45 PM	1	0	1	0	2	1	2	0	0	3	0	0	0	0	0	0	4	0	0	4	9	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		16	0	28	0	44	17	40	0	0	57	0	0	0	0	0	0	46	21	0	67	168	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time		From North (↓) Pleasant Street (US 51)					From East (←) Broad Street (US 51)					From South (↑) Pleasant Street					From West (→) Broad Street					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	3	0	6	0	9	9	9	0	0	18	0	0	0	0	0	0	10	8	0	18	45
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	3	0	7	0	10	2	7	0	0	9	0	0	0	0	0	0	11	4	0	15	34

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1	Page 1 of 11
Start Date:	Saturday, January 0, 1900	0
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Pleasant Street (US 51) and Grand Avenue

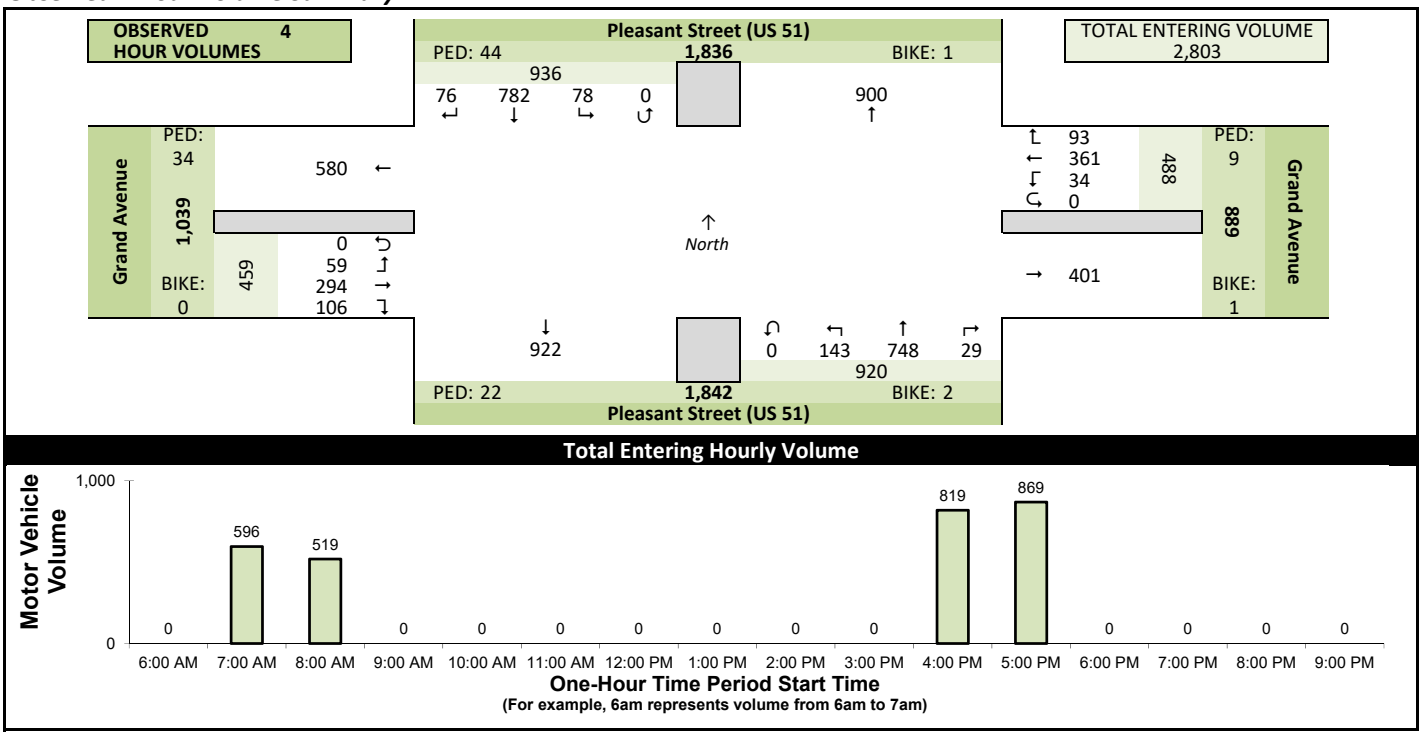
Site Information

Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Pleasant Street (US 51)		
East Leg	Grand Avenue		
South Leg	Pleasant Street (US 51)		
West Leg	Grand Avenue		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

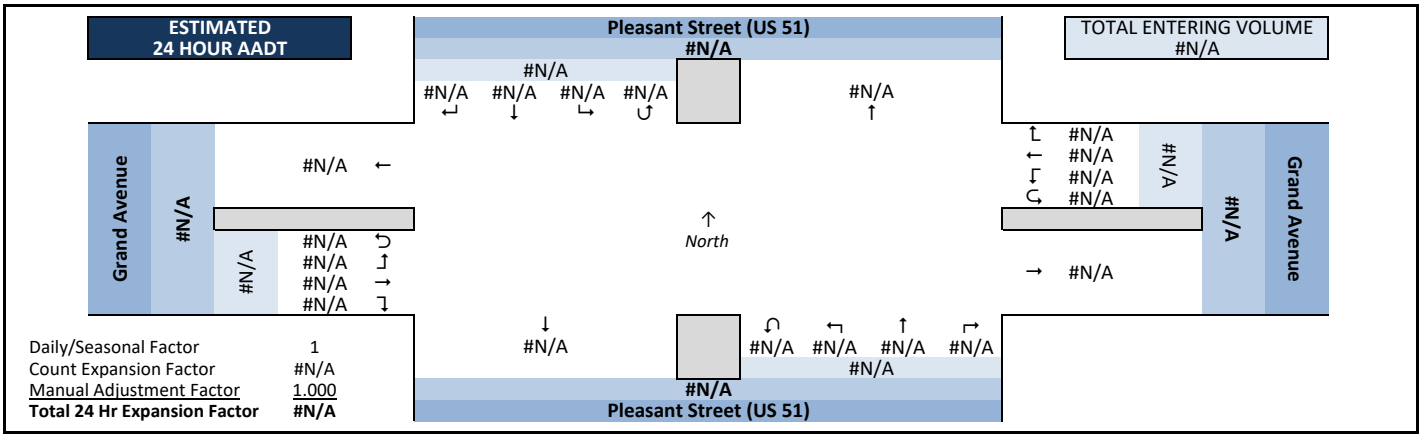
Count Information

Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM				
1st Day of Count	Tuesday, October 16, 2018			Weather	
AM Peak Period				Clear & Dry	
Midday Peak Period				Clear & Dry	
PM Peak Period				Clear & Dry	
Calculated Peak Hours					
AM	7:30-8:30am	MD		PM	4:45-5:45pm
Peak Hours Selected for Analysis					
AM	7:15-8:15am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group					
Count Expansion Group					
Daily/Seasonal Adjustment Factor	1		Count Expansion Factor	#N/A	
Company Name	SRF Consulting, Inc.		Manual Adj.	1.000	
Observers	AM Peak Period	John Doe, John Deer			
	Midday Peak Period	John Doe, John Deer			
	PM Peak Period	John Doe, John Deer			
Comments					

Observed 4 Hour Volume Summary



Estimated 24 Hour AADT



Intersection Traffic Volume Report

Count Basics		*Page 3 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

Pleasant Street (US 51) and Grand Avenue

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	Pleasant Street (US 51)					Grand Avenue					Pleasant Street (US 51)					Grand Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	3	27	1	0	31	7	16	0	0	23	1	44	5	0	50	3	12	0	0	15	119
	7:30 AM	3	38	2	0	43	4	30	0	0	34	1	61	8	0	70	3	15	3	0	21	168
	7:45 AM	1	54	5	0	60	7	30	3	0	40	2	54	17	0	73	4	21	3	0	28	201
	8:00 AM	3	31	4	0	38	3	19	5	0	27	1	51	17	0	69	0	15	2	0	17	151
	Peak Hour Volume	10	150	12	0	172	21	95	8	0	124	5	210	47	0	262	10	63	8	0	81	639
	Rounded Hourly Volume	10	150	10	0	170	20	95	10	0	125	5	210	45	0	260	10	65	10	0	85	640
	% Single Unit Trucks	0.0	8.0	0.0	0.0	7.0	4.8	3.2	0.0	0.0	3.2	0.0	8.1	2.1	0.0	6.9	0.0	0.0	0.0	0.0	0.0	5.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	8.0	0.0	0.0	7.0	4.8	3.2	0.0	0.0	3.2	0.0	8.1	2.1	0.0	6.9	0.0	0.0	0.0	0.0	0.0	5.3
	Peak Hour Factor (PHF)	0.83	0.69	0.60	0.00	0.72	0.75	0.79	0.40	0.00	0.77	0.62	0.86	0.69	0.00	0.90	0.62	0.75	0.67	0.00	0.72	0.79

N/A		From North					From East					From South					From West					
	MD Peak Hour	Pleasant Street (US 51)					Grand Avenue					Pleasant Street (US 51)					Grand Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	Pleasant Street (US 51)					Grand Avenue					Pleasant Street (US 51)					Grand Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	3	71	7	0	81	4	22	2	0	28	4	52	11	0	67	6	26	2	0	34	210
	4:45 PM	5	63	6	0	74	6	24	4	0	34	5	60	3	0	68	13	31	3	0	47	223
	5:00 PM	8	78	8	0	94	10	25	8	0	43	1	74	10	0	85	25	33	8	0	66	288
	5:15 PM	5	61	6	0	72	7	22	2	0	31	0	50	5	0	55	5	30	9	0	44	202
	Peak Hour Volume	21	273	27	0	321	27	93	16	0	136	10	236	29	0	275	49	120	22	0	191	923
	Rounded Hourly Volume	20	275	25	0	320	25	95	15	0	135	10	235	30	0	275	50	120	20	0	190	920
	% Single Unit Trucks	0.0	2.6	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	1.6
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	2.6	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	1.6
	Peak Hour Factor (PHF)	0.66	0.87	0.84	0.00	0.85	0.67	0.93	0.50	0.00	0.79	0.50	0.80	0.66	0.00	0.81	0.49	0.91	0.61	0.00	0.72	0.80

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Pleasant Street (US 51)			Grand Avenue			Pleasant Street (US 51)			Grand Avenue			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	2	0	2	2	0	2	0	0	0	4
	7:30 AM	0	0	0	0	0	0	1	0	1	0	0	0	1
	7:45 AM	0	0	0	0	0	0	2	0	2	0	0	0	2
	8:00 AM	5	0	5	0	0	0	1	0	1	1	0	1	7
	Total	5	0	5	2	0	2	6	0	6	1	0	1	14
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	6	0	6	0	0	0	3	0	3	3	0	3	12
	4:45 PM	4	1	5	1	0	1	1	0	1	5	0	5	12
	5:00 PM	8	0	8	1	0	1	5	0	5	4	0	4	18
	5:15 PM	4	0	4	0	0	0	0	0	0	4	0	4	8
	Total	22	1	23	2	0	2	9	0	9	16	0	16	50

Intersection Traffic Volume Report

Count Basics		*Page 5 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Pleasant Street (US 51) and Grand Avenue

15-Minute Motor Vehicle Data

15-Minute Time Period		From North (↓) Pleasant Street (US 51)					From East (←) Grand Avenue					From South (↑) Pleasant Street (US 51)					From West (→) Grand Avenue					15-Min	Hourly	
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	3	31	3	0	37	4	11	0	0	15	0	37	13	0	50	3	3	0	0	6	108	596	0.74
	7:15 AM	3	27	1	0	31	7	16	0	0	23	1	44	5	0	50	3	12	0	0	15	119	639	0.79
	7:30 AM	3	38	2	0	43	4	30	0	0	34	1	61	8	0	70	3	15	3	0	21	168	648	0.81
	7:45 AM	1	54	5	0	60	7	30	3	0	40	2	54	17	0	73	4	21	3	0	28	201	593	0.74
	8:00 AM	3	31	4	0	38	3	19	5	0	27	1	51	17	0	69	0	15	2	0	17	151	519	0.86
	8:15 AM	2	39	3	0	44	4	24	0	0	28	1	35	11	0	47	0	8	1	0	9	128		
	8:30 AM	0	19	3	0	22	2	21	1	0	24	3	37	5	0	45	2	19	1	0	22	113		
	8:45 AM	5	33	5	0	43	6	23	4	0	33	2	27	9	0	38	1	7	5	0	13	127		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	11	65	5	0	81	6	27	1	0	34	3	40	10	0	53	13	26	3	0	42	210	819	0.92
	4:15 PM	7	57	8	0	72	5	23	2	0	30	3	36	4	0	43	10	15	6	0	31	176	897	0.78
	4:30 PM	3	71	7	0	81	4	22	2	0	28	4	52	11	0	67	6	26	2	0	34	210	923	0.80
	4:45 PM	5	63	6	0	74	6	24	4	0	34	5	60	3	0	68	13	31	3	0	47	223	925	0.80
	5:00 PM	8	78	8	0	94	10	25	8	0	43	1	74	10	0	85	25	33	8	0	66	288	869	0.75
	5:15 PM	5	61	6	0	72	7	22	2	0	31	0	50	5	0	55	5	30	9	0	44	202		
	5:30 PM	8	70	4	0	82	12	28	2	0	42	0	42	6	0	48	11	22	7	0	40	212		
	5:45 PM	9	45	8	0	62	6	16	0	0	22	2	48	9	0	59	7	11	6	0	24	167		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		76	782	78	0	936	93	361	34	0	488	29	748	143	0	920	106	294	59	0	459	2803		

Peak Hour All Vehicle Volume Summary

Hourly Time Period		From North (↓) Pleasant Street (US 51)					From East (←) Grand Avenue					From South (↑) Pleasant Street (US 51)					From West (→) Grand Avenue					Total Hourly	
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:15 AM	10	150	12	0	172	21	95	8	0	124	5	210	47	0	262	10	63	8	0	81	639	0.79
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	21	273	27	0	321	27	93	16	0	136	10	236	29	0	275	49	120	22	0	191	923	0.80

Intersection Traffic Volume Report

Count Basics		*Page 9 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Pleasant Street (US 51) and Grand Avenue

15-Minute Heavy Vehicle Data

	15-Minute Time Period Start Time	From North (↓) Pleasant Street (US 51)					From East (←) Grand Avenue					From South (↑) Pleasant Street (US 51)					From West (→) Grand Avenue					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	1	2	0	0	3	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	7	34
	7:15 AM	0	2	0	0	2	1	1	0	0	2	0	6	0	0	6	0	0	0	0	0	10	34
	7:30 AM	0	1	0	0	1	0	1	0	0	1	0	8	0	0	8	0	0	0	0	0	10	32
	7:45 AM	0	5	0	0	5	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	7	28
	8:00 AM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7	32
	8:15 AM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	8	
	8:30 AM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	6	
	8:45 AM	0	8	0	0	8	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	11	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	4	17
	4:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4	16
	4:30 PM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6	15
	4:45 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	13
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	14
	5:15 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	
	5:30 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4	
	5:45 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		1	45	0	0	46	1	4	0	0	5	0	42	1	0	43	0	3	0	0	3	97	

Peak Hour Heavy Vehicle Volume Summary

	Hourly Time Period Start Time	From North (↓) Pleasant Street (US 51)					From East (←) Grand Avenue					From South (↑) Pleasant Street (US 51)					From West (→) Grand Avenue					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	0	12	0	0	12	1	3	0	0	4	0	17	1	0	18	0	0	0	0	0	34
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	7	0	0	7	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	15

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1	Page 1 of 11
Start Date:	Saturday, January 0, 1900	0
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Pleasant Street (US 51) and Public Avenue

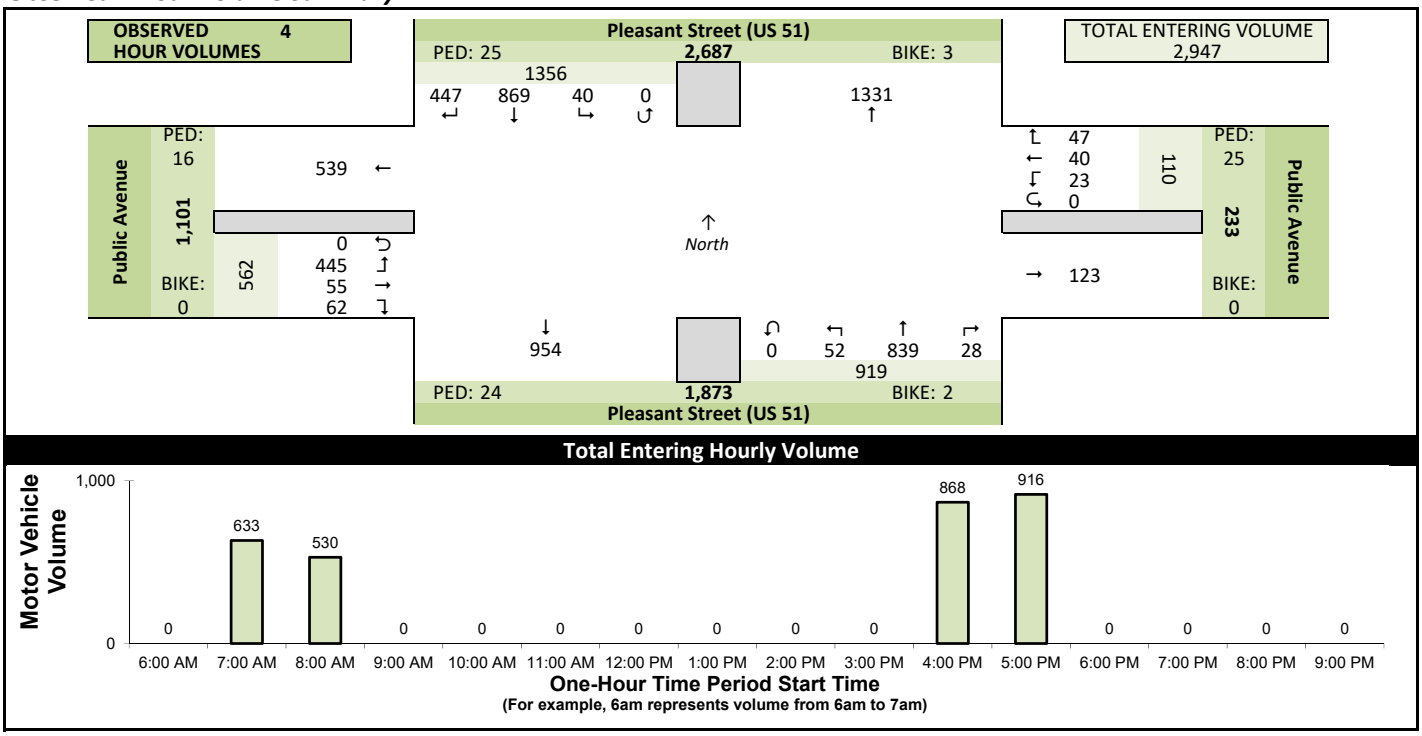
Site Information

Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Pleasant Street (US 51)		
East Leg	Public Avenue		
South Leg	Pleasant Street (US 51)		
West Leg	Public Avenue		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None	None	

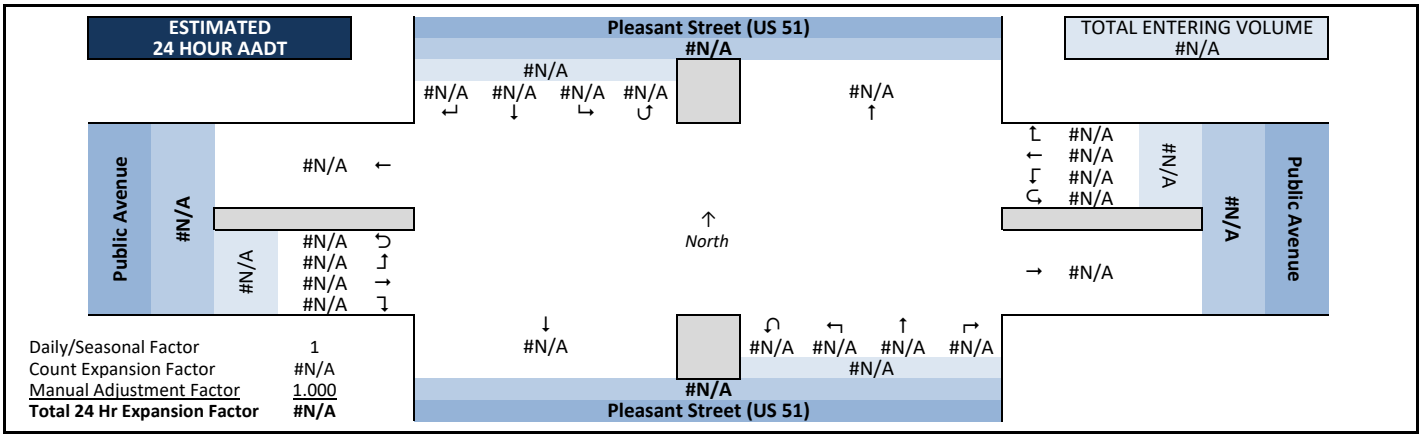
Count Information

Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM				
1st Day of Count	Tuesday, October 16, 2018			Weather	
AM Peak Period				Clear & Dry	
Midday Peak Period				Clear & Dry	
PM Peak Period				Clear & Dry	
Calculated Peak Hours					
AM	7:15-8:15am	MD		PM	4:30-5:30pm
Peak Hours Selected for Analysis					
AM	7:15-8:15am	MD		PM	4:30-5:30pm
Daily/Seasonal Adjustment Group					
Count Expansion Group					
Daily/Seasonal Adjustment Factor	1		Count Expansion Factor	#N/A	
Company Name	SRF Consulting, Inc.		Manual Adj.	1.000	
Observers	AM Peak Period	John Doe, John Deer			
	Midday Peak Period	John Doe, John Deer			
	PM Peak Period	John Doe, John Deer			
Comments					

Observed 4 Hour Volume Summary



Estimated 24 Hour AADT

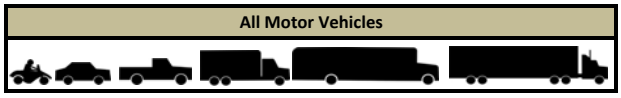


Intersection Traffic Volume Report

Count Basics		*Page 3 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

Pleasant Street (US 51) and Public Avenue



Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	Pleasant Street (US 51)					Public Avenue					Pleasant Street (US 51)					Public Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	17	42	2	0	61	3	1	1	0	5	0	63	3	0	66	1	3	20	0	24	156
	7:30 AM	27	53	0	0	80	1	1	1	0	3	0	60	2	0	62	2	4	29	0	35	180
	7:45 AM	30	52	0	0	82	3	3	0	0	6	1	59	9	0	69	2	3	21	0	26	183
	8:00 AM	29	30	1	0	60	0	2	3	0	5	0	45	2	0	47	2	2	18	0	22	134
	Peak Hour Volume	103	177	3	0	283	7	7	5	0	19	1	227	16	0	244	7	12	88	0	107	653
	Rounded Hourly Volume	105	175	5	0	285	5	5	5	0	15	0	225	15	0	240	5	10	90	0	105	645
	% Single Unit Trucks	1.0	5.1	0.0	0.0	3.5	0.0	0.0	60.0	0.0	15.8	0.0	5.7	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	4.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	1.0	5.1	0.0	0.0	3.5	0.0	0.0	60.0	0.0	15.8	0.0	5.7	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	4.0
	Peak Hour Factor (PHF)	0.86	0.83	0.37	0.00	0.86	0.58	0.58	0.42	0.00	0.79	0.25	0.90	0.44	0.00	0.88	0.87	0.75	0.76	0.00	0.76	0.89

N/A		From North					From East					From South					From West					
	MD Peak Hour	Pleasant Street (US 51)					Public Avenue					Pleasant Street (US 51)					Public Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	Pleasant Street (US 51)					Public Avenue					Pleasant Street (US 51)					Public Avenue					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	28	70	3	0	101	2	4	1	0	7	2	76	1	0	79	4	5	33	0	42	229
	4:45 PM	37	67	7	0	111	4	1	1	0	6	4	68	2	0	74	9	0	43	0	52	243
	5:00 PM	35	71	2	0	108	10	1	2	0	13	5	73	6	0	84	10	8	53	0	71	276
	5:15 PM	36	74	6	0	116	4	7	2	0	13	3	58	5	0	66	8	4	45	0	57	252
	Peak Hour Volume	136	282	18	0	436	20	13	6	0	39	14	275	14	0	303	31	17	174	0	222	1000
	Rounded Hourly Volume	135	280	20	0	435	20	15	5	0	40	15	275	15	0	305	30	15	175	0	220	1000
	% Single Unit Trucks	0.0	2.1	0.0	0.0	1.4	0.0	0.0	50.0	0.0	7.7	0.0	2.9	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	1.7
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	2.1	0.0	0.0	1.4	0.0	0.0	50.0	0.0	7.7	0.0	2.9	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	1.7
	Peak Hour Factor (PHF)	0.92	0.95	0.64	0.00	0.94	0.50	0.46	0.75	0.00	0.75	0.70	0.90	0.58	0.00	0.90	0.77	0.53	0.82	0.00	0.78	0.91

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Pleasant Street (US 51)			Public Avenue			Pleasant Street (US 51)			Public Avenue			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	2	0	2	0	0	0	2
	7:45 AM	5	1	6	3	0	3	0	0	0	0	0	0	9
	8:00 AM	0	0	0	2	0	2	2	0	2	3	0	3	7
	Total	5	1	6	5	0	5	4	0	4	3	0	3	18
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	0	0	0	1	0	1	3	0	3	0	0	0	4
	4:45 PM	1	1	2	1	0	1	0	0	0	1	0	1	4
	5:00 PM	1	0	1	1	0	1	0	0	0	0	0	0	2
	5:15 PM	3	0	3	1	0	1	2	1	3	1	0	1	8
	Total	5	1	6	4	0	4	5	1	6	2	0	2	18

Intersection Traffic Volume Report

Count Basics		Page 5 of 11
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Pleasant Street (US 51) and Public Avenue

15-Minute Motor Vehicle Data

	15-Minute Time Period Start Time	From North (Pleasant Street (US 51))					From East (Public Avenue)					From South (Pleasant Street (US 51))					From West (Public Avenue)					15-Min Totals	Hourly Sum	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	9	38	1	0	48	2	1	1	0	4	0	44	1	0	45	0	2	15	0	17	114	633	0.86
	7:15 AM	17	42	2	0	61	3	1	1	0	5	0	63	3	0	66	1	3	20	0	24	156	653	0.89
	7:30 AM	27	53	0	0	80	1	1	1	0	3	0	60	2	0	62	2	4	29	0	35	180	635	0.87
	7:45 AM	30	52	0	0	82	3	3	0	0	6	1	59	9	0	69	2	3	21	0	26	183	593	0.81
	8:00 AM	29	30	1	0	60	0	2	3	0	5	0	45	2	0	47	2	2	18	0	22	134	530	0.96
	8:15 AM	22	36	3	0	61	4	2	2	0	8	0	37	1	0	38	1	6	24	0	31	138		
	8:30 AM	21	35	3	0	59	1	4	2	0	7	1	45	4	0	50	2	0	20	0	22	138		
	8:45 AM	19	31	6	0	56	3	2	0	0	5	2	24	2	0	28	5	5	21	0	31	120		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	43	67	0	0	110	2	4	3	0	9	1	41	4	0	46	4	4	31	0	39	204	868	0.89
	4:15 PM	34	71	0	0	105	3	3	1	0	7	4	45	1	0	50	6	3	21	0	30	192	940	0.85
	4:30 PM	28	70	3	0	101	2	4	1	0	7	2	76	1	0	79	4	5	33	0	42	229	1000	0.91
	4:45 PM	37	67	7	0	111	4	1	1	0	6	4	68	2	0	74	9	0	43	0	52	243	962	0.87
	5:00 PM	35	71	2	0	108	10	1	2	0	13	5	73	6	0	84	10	8	53	0	71	276	916	0.83
	5:15 PM	36	74	6	0	116	4	7	2	0	13	3	58	5	0	66	8	4	45	0	57	252		
	5:30 PM	29	66	4	0	99	0	3	1	0	4	2	51	4	0	57	4	2	25	0	31	191		
	5:45 PM	31	66	2	0	99	5	1	2	0	8	3	50	5	0	58	2	4	26	0	32	197		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		447	869	40	0	1356	47	40	23	0	110	28	839	52	0	919	62	55	445	0	562	2947		

Peak Hour All Vehicle Volume Summary

	Hourly Time Period Start Time	From North (Pleasant Street (US 51))					From East (Public Avenue)					From South (Pleasant Street (US 51))					From West (Public Avenue)					Total Hourly Volume	PHF
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	7:15 AM	103	177	3	0	283	7	7	5	0	19	1	227	16	0	244	7	12	88	0	107	653	0.89
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	136	282	18	0	436	20	13	6	0	39	14	275	14	0	303	31	17	174	0	222	1000	0.91

Intersection Traffic Volume Report

Count Basics		*Page 9 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)

Pleasant Street (US 51) and Public Avenue

15-Minute Heavy Vehicle Data

15-Minute Time Period	Start Time	From North (↓) Pleasant Street (US 51)					From East (←) Public Avenue					From South (↑) Pleasant Street (US 51)					From West (→) Public Avenue					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	0	1	0	0	1	8	31
	7:15 AM	0	2	0	0	2	0	0	1	0	1	0	9	0	0	9	0	0	0	0	0	12	26
	7:30 AM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2	19
	7:45 AM	0	7	0	0	7	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	9	25
	8:00 AM	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3	20
	8:15 AM	0	3	0	0	3	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	5	
	8:30 AM	0	4	0	0	4	0	1	1	0	2	0	2	0	0	2	0	0	0	0	0	8	
	8:45 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	5	21
	4:15 PM	1	2	0	0	3	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	6	20
	4:30 PM	0	2	0	0	2	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	7	17
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	12
	5:00 PM	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	4	14
	5:15 PM	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3	
	5:30 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2	
	5:45 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		2	37	0	0	39	0	1	12	0	13	1	32	0	0	33	0	1	0	0	1	86	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period	Start Time	From North (↓) Pleasant Street (US 51)					From East (←) Public Avenue					From South (↑) Pleasant Street (US 51)					From West (→) Public Avenue					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	1	9	0	0	10	0	0	3	0	3	0	13	0	0	13	0	0	0	0	0	26
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	6	0	0	6	0	0	3	0	3	0	8	0	0	8	0	0	0	0	0	17

Intersection Traffic Volume Report

Count Basics	Version 2013.J4.1		Page 1 of 11
Start Date:	Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4		Non-Holiday	No Special Events

Base Information, Observed (4) Hour and Estimated (24) Hour Volume Summaries

Intersection of: Pleasant Street (US 51) and White Avenue (WIS 81)

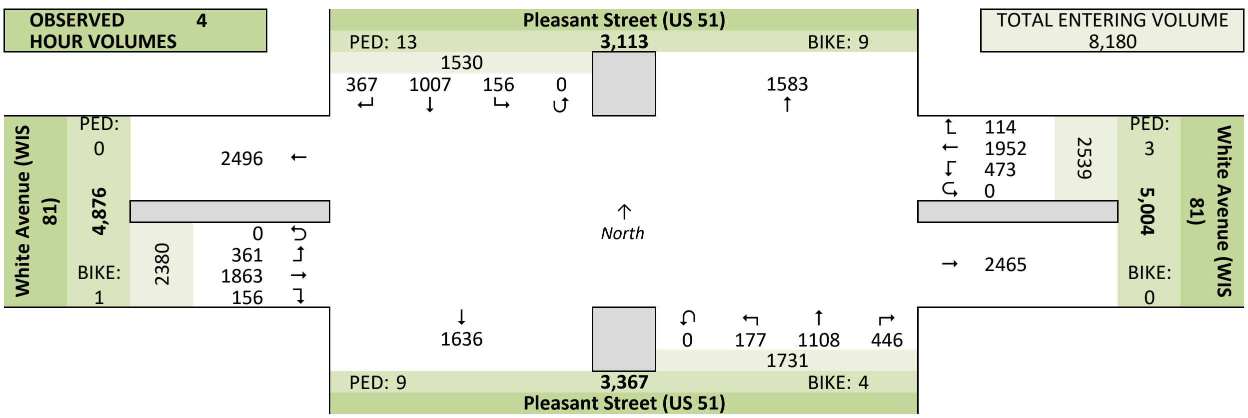
Site Information

Municipality	Beloit		
County	Rock	WisDOT Region	SW-M
Traffic Control	Traffic Signal		
Roadway Names		North Direction	↑
North Leg	Pleasant Street (US 51)		
East Leg	White Avenue (WIS 81)		
South Leg	Pleasant Street (US 51)		
West Leg	White Avenue (WIS 81)		
Special Considerations			
Schools	Other		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementry school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe) None	None		

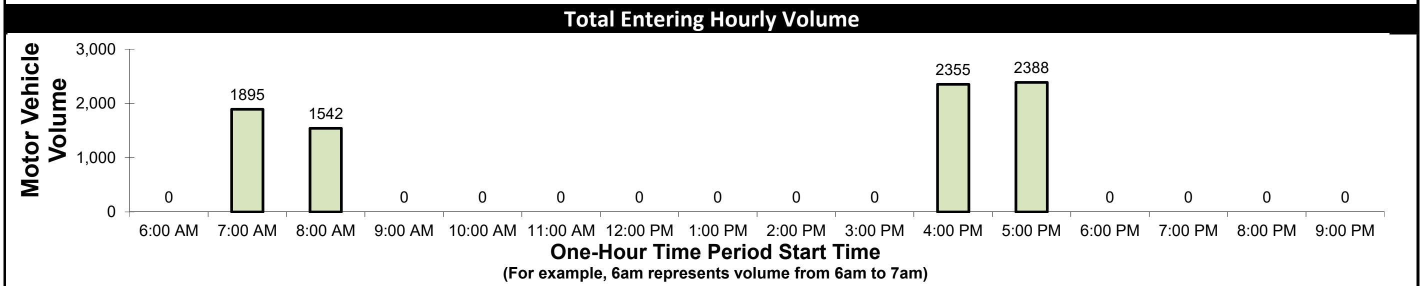
Count Information

Hrs Counted:	7:00 AM-9:00 AM and 4:00 PM-6:00 PM		
1st Day of Count	Tuesday, October 16, 2018		Weather
AM Peak Period			Clear & Dry
Midday Peak Period			Clear & Dry
PM Peak Period			Clear & Dry
Calculated Peak Hours			
AM 7:30-8:30am	MD		PM 4:30-5:30pm
Peak Hours Selected for Analysis			
AM 7:15-8:15am	MD		PM 4:30-5:30pm
Daily/Seasonal Adjustment Group			
Count Expansion Group			
Daily/Seasonal Adjustment Factor	1	Count Expansion Factor	#N/A
Company Name	SRF Consulting, Inc.	Manual Adj.	1.000
Observers	AM Peak Period	John Doe, John Deer	
	Midday Peak Period	John Doe, John Deer	
	PM Peak Period	John Doe, John Deer	
Comments			

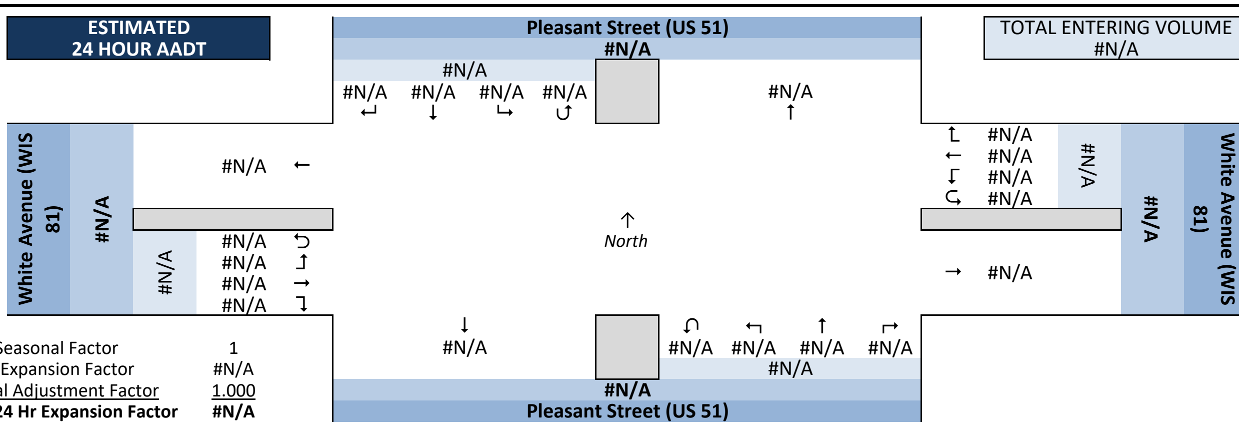
Observed 4 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



Daily/Seasonal Factor	1
Count Expansion Factor	#N/A
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	**#N/A**

Intersection Traffic Volume Report

Count Basics		*Page 3 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

Peak Hour Volume Summary

Pleasant Street (US 51) and White Avenue (WIS 81)

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Saturday, January 0, 1900		From North					From East					From South					From West					
	AM Peak Hour	Pleasant Street (US 51)					White Avenue (WIS 81)					Pleasant Street (US 51)					White Avenue (WIS 81)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	7:15 AM	19	49	12	0	80	9	118	9	0	136	6	56	4	0	66	4	90	21	0	115	397
	7:30 AM	39	65	17	0	121	14	167	7	0	188	8	88	16	0	112	2	131	31	0	164	585
	7:45 AM	40	66	14	0	120	10	148	19	0	177	9	74	9	0	92	8	155	41	0	204	593
	8:00 AM	25	45	12	0	82	8	124	6	0	138	8	55	1	0	64	4	100	33	0	137	421
	Peak Hour Volume	123	225	55	0	403	41	557	41	0	639	31	273	30	0	334	18	476	126	0	620	1996
	Rounded Hourly Volume	125	225	55	0	405	40	555	40	0	635	30	275	30	0	335	20	475	125	0	620	1995
	% Single Unit Trucks	1.6	3.6	12.7	0.0	4.2	4.9	2.9	4.9	0.0	3.1	3.2	5.9	0.0	0.0	5.1	5.6	5.7	0.8	0.0	4.7	4.2
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	1.6	3.6	12.7	0.0	4.2	4.9	2.9	4.9	0.0	3.1	3.2	5.9	0.0	0.0	5.1	5.6	5.7	0.8	0.0	4.7	4.2
	Peak Hour Factor (PHF)	0.77	0.85	0.81	0.00	0.83	0.73	0.83	0.54	0.00	0.85	0.86	0.78	0.47	0.00	0.75	0.56	0.77	0.77	0.00	0.76	0.84

N/A		From North					From East					From South					From West					
	MD Peak Hour	Pleasant Street (US 51)					White Avenue (WIS 81)					Pleasant Street (US 51)					White Avenue (WIS 81)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
Midday (MD) Peak Hour	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Saturday, January 0, 1900		From North					From East					From South					From West					
	PM Peak Hour	Pleasant Street (US 51)					White Avenue (WIS 81)					Pleasant Street (US 51)					White Avenue (WIS 81)					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
PM Peak Hour	4:30 PM	17	68	9	0	94	6	141	54	0	201	49	76	11	0	136	20	153	23	0	196	627
	4:45 PM	12	88	8	0	108	3	146	42	0	191	45	71	20	0	136	10	135	14	0	159	594
	5:00 PM	23	111	9	0	143	5	138	58	0	201	54	96	21	0	171	11	126	11	0	148	663
	5:15 PM	15	82	7	0	104	3	140	44	0	187	49	81	19	0	149	23	153	17	0	193	633
	Peak Hour Volume	67	349	33	0	449	17	565	198	0	780	197	324	71	0	592	64	567	65	0	696	2517
	Rounded Hourly Volume	65	350	35	0	450	15	565	200	0	780	195	325	70	0	590	65	565	65	0	695	2515
	% Single Unit Trucks	0.0	2.3	0.0	0.0	1.8	0.0	2.3	0.0	0.0	1.7	0.0	0.9	1.4	0.0	0.7	1.6	1.4	4.6	0.0	1.7	1.5
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	2.3	0.0	0.0	1.8	0.0	2.3	0.0	0.0	1.7	0.0	0.9	1.4	0.0	0.7	1.6	1.4	4.6	0.0	1.7	1.5
	Peak Hour Factor (PHF)	0.73	0.79	0.92	0.00	0.78	0.71	0.97	0.85	0.00	0.97	0.91	0.84	0.85	0.00	0.87	0.70	0.93	0.71	0.00	0.89	0.95

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			Total Ped & Bike Volume
		Pleasant Street (US 51)			White Avenue (WIS 81)			Pleasant Street (US 51)			White Avenue (WIS 81)			
	15-Minute Start Time	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:15 AM	0	2	2	0	0	0	0	0	0	0	0	0	2
	7:30 AM	4	2	6	1	0	1	1	0	1	0	0	0	8
	7:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	4	5	9	1	0	1	1	0	1	0	0	0	11
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	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
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	1	0	0	0	3	1	4	0	0	0	5
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	0	1	0	0	0	3	1	4	0	1	1	6

Intersection Traffic Volume Report

Count Basics		*Page 5 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Motor Vehicle Data

All Motor Vehicles

Pleasant Street (US 51) and White Avenue (WIS 81)

15-Minute Motor Vehicle Data

15-Minute Time Period		From North (↓) Pleasant Street (US 51)					From East (←) White Avenue (WIS 81)					From South (↑) Pleasant Street (US 51)					From West (→) White Avenue (WIS 81)					15-Min	Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	Sum	PHF
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	25	33	15	0	73	11	81	10	0	102	9	36	2	0	47	2	72	24	0	98	320	1895	0.80
	7:15 AM	19	49	12	0	80	9	118	9	0	136	6	56	4	0	66	4	90	21	0	115	397	1996	0.84
	7:30 AM	39	65	17	0	121	14	167	7	0	188	8	88	16	0	112	2	131	31	0	164	585	2026	0.85
	7:45 AM	40	66	14	0	120	10	148	19	0	177	9	74	9	0	92	8	155	41	0	204	593	1786	0.75
	8:00 AM	25	45	12	0	82	8	124	6	0	138	8	55	1	0	64	4	100	33	0	137	421	1542	0.90
	8:15 AM	37	56	12	0	105	6	85	17	0	108	12	56	3	0	71	2	108	33	0	143	427		
	8:30 AM	26	43	11	0	80	9	69	11	0	89	10	46	4	0	60	5	88	23	0	116	345		
	8:45 AM	36	52	9	0	97	8	82	6	0	96	8	40	3	0	51	3	73	29	0	105	349		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	13	60	5	0	78	7	144	55	0	206	37	87	12	0	136	25	131	14	0	170	590	2355	0.94
	4:15 PM	12	57	8	0	77	4	137	36	0	177	56	84	19	0	159	13	101	17	0	131	544	2428	0.92
	4:30 PM	17	68	9	0	94	6	141	54	0	201	49	76	11	0	136	20	153	23	0	196	627	2517	0.95
	4:45 PM	12	88	8	0	108	3	146	42	0	191	45	71	20	0	136	10	135	14	0	159	594	2469	0.93
	5:00 PM	23	111	9	0	143	5	138	58	0	201	54	96	21	0	171	11	126	11	0	148	663	2388	0.90
	5:15 PM	15	82	7	0	104	3	140	44	0	187	49	81	19	0	149	23	153	17	0	193	633		
	5:30 PM	11	77	5	0	93	5	123	58	0	186	47	81	13	0	141	15	130	14	0	159	579		
	5:45 PM	17	55	3	0	75	6	109	41	0	156	39	81	20	0	140	9	117	16	0	142	513		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		367	1007	156	0	1530	114	1952	473	0	2539	446	1108	177	0	1731	156	1863	361	0	2380	8180		

Peak Hour All Vehicle Volume Summary

Hourly Time Period		From North (↓) Pleasant Street (US 51)					From East (←) White Avenue (WIS 81)					From South (↑) Pleasant Street (US 51)					From West (→) White Avenue (WIS 81)					Total Hourly	
Start Time		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM	7:15 AM	123	225	55	0	403	41	557	41	0	639	31	273	30	0	334	18	476	126	0	620	1996	0.84
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM	4:30 PM	67	349	33	0	449	17	565	198	0	780	197	324	71	0	592	64	567	65	0	696	2517	0.95

Intersection Traffic Volume Report

Count Basics		*Page 9 of 11*
Start Date: Saturday, January 0, 1900	0	
Total Number of Hours Counted: 4	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Pleasant Street (US 51) and White Avenue (WIS 81)

15-Minute Heavy Vehicle Data

15-Minute Time Period	Start Time	From North (↓) Pleasant Street (US 51)					From East (←) White Avenue (WIS 81)					From South (↑) Pleasant Street (US 51)					From West (→) White Avenue (WIS 81)					15-Min Totals	Hourly Sum
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 AM	0	1	0	0	1	1	3	2	0	6	1	3	0	0	4	0	6	0	0	6	17	76
	7:15 AM	0	2	0	0	2	0	3	0	0	3	0	5	0	0	5	0	9	0	0	9	19	83
	7:30 AM	1	1	2	0	4	0	2	0	0	2	1	7	0	0	8	0	3	0	0	3	17	80
	7:45 AM	0	5	0	0	5	2	6	1	0	9	0	1	0	0	1	0	8	0	0	8	23	84
	8:00 AM	1	0	5	0	6	0	5	1	0	6	0	3	0	0	3	1	7	1	0	9	24	81
	8:15 AM	0	1	1	0	2	1	5	1	0	7	0	0	0	0	0	0	5	2	0	7	16	
	8:30 AM	1	5	2	0	8	1	2	0	0	3	0	1	0	0	1	0	8	1	0	9	21	
	8:45 AM	1	3	0	0	4	1	2	1	0	4	1	2	0	0	3	0	8	1	0	9	20	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:00 PM	0	1	0	0	1	1	4	1	0	6	0	1	1	0	2	0	1	0	0	1	10	48
	4:15 PM	1	1	1	0	3	1	6	2	0	9	1	5	0	0	6	0	2	0	0	2	20	48
	4:30 PM	0	3	0	0	3	0	6	0	0	6	0	1	0	0	1	1	0	1	0	2	12	37
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	1	1	0	2	0	2	0	0	2	6	32
	5:00 PM	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	5	1	0	6	10	32
	5:15 PM	0	1	0	0	1	0	5	0	0	5	0	1	0	0	1	0	1	1	0	2	9	
	5:30 PM	0	1	0	0	1	0	3	0	0	3	0	1	0	0	1	0	2	0	0	2	7	
	5:45 PM	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2	0	1	0	0	1	6	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		5	30	11	0	46	8	56	9	0	73	4	34	2	0	40	2	68	8	0	78	237	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period	Start Time	From North (↓) Pleasant Street (US 51)					From East (←) White Avenue (WIS 81)					From South (↑) Pleasant Street (US 51)					From West (→) White Avenue (WIS 81)					Total Hourly Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:15 AM	2	8	7	0	17	2	16	2	0	20	1	16	0	0	17	1	27	1	0	29	83
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	8	0	0	8	0	13	0	0	13	0	3	1	0	4	1	8	3	0	12	37

Appendix B: Year 2040 WisDOT Traffic Forecast Worksheets

Traffic Forecasting Section; Bureau of Planning and Economic Development; Division of Transportation Investment Management

WisDOT TRAFFIC FORECAST REPORT

PROJECT ID(S):	0653-01-00
ROUTE(S):	USH 51, STH 81 & 213
Region/COUNTY(IES):	SW / Rock
LOCATION:	4th, Broad, Pleasant St corridors
COMPLETED:	02/13/2019

Developed By: Matthew G. Miller
Phone: (608) 266-2571
FAX #: (608) 267-0294
E-Mail: Matthew.Miller@dot.wi.gov

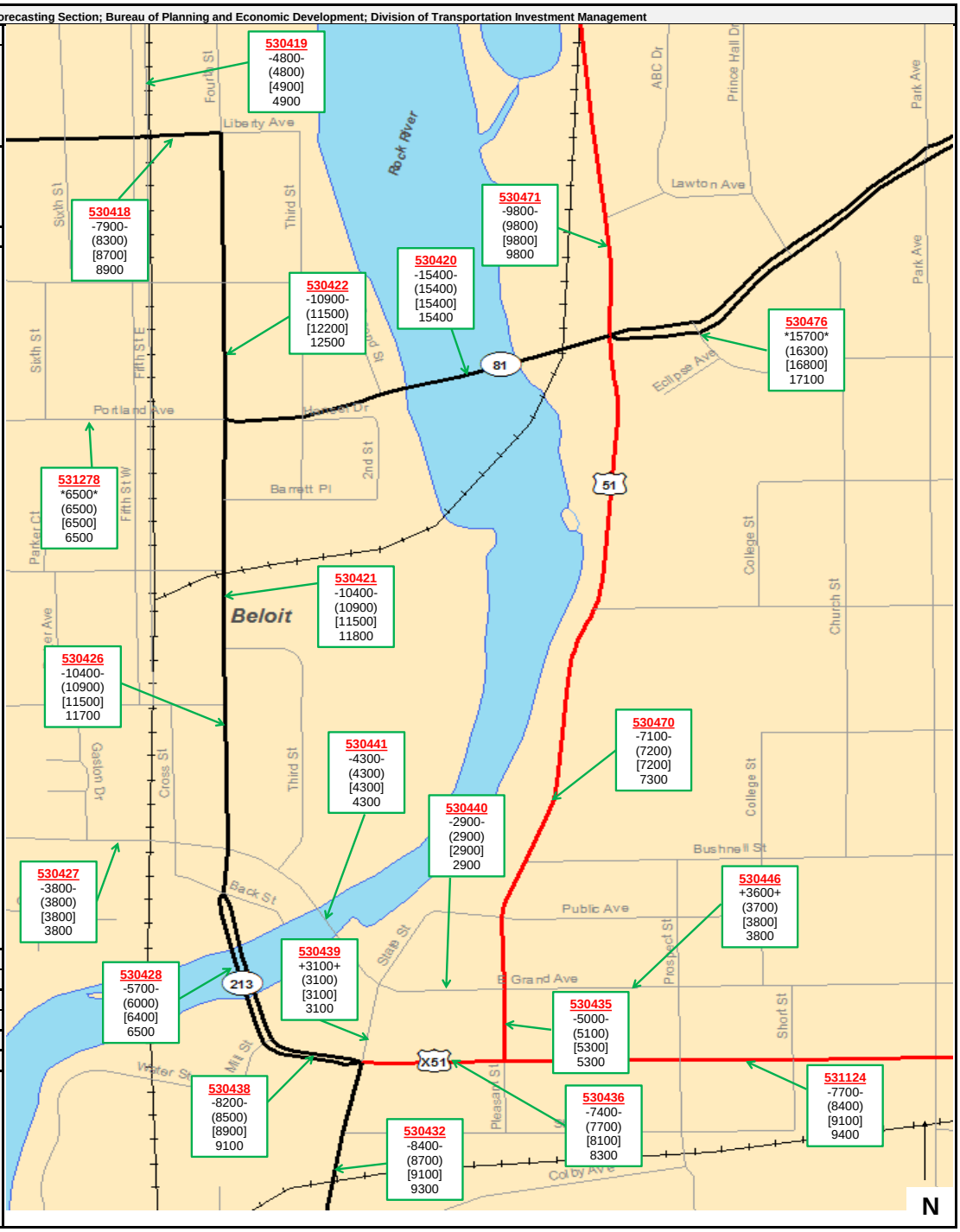
NOTES ON THE FORECAST:

1. This projection assumes that no major new traffic generators will be added to the development already included in the 2010/2050 Rock County Travel Demand Model (TDM) Version 4.2.
2. Vehicle classification data and design values (K factors, directional splits, and percent trucks in design hours) are available here: http://wisconsindot.gov/Pages/projects/data-plan/traf-fore/default.aspx
3. USH 51, STH 81 and STH 213 are Factor Group II (Urban-Other) roadways (indicating low to moderate fluctuation in traffic from a seasonal perspective) and are functionally classified as Urban Principal Arterials (14) for count purposes. (Sites 530426, 530438, 530435).
4. The 2010/2050 Rock County Travel Demand Model (TDM) Version 4.2 was used to complete this forecast. The Traffic Analysis Forecasting Information System output was used as a comparison tool to check against the model output. Adjustments were made as needed.
5. Roadway improvements coded within the existing plus committed (E+C) network of the 2010/2050 Rock County Travel Demand Model (TDM) Version 4.2 were assumed to be in place for the purposes of developing this forecast.
6. Intersection leg growth rates determined by suitable count sites' growth rates near the intersection(s) of interest. Turning movements calculated, then balanced for final product.

Site(s)	530422	530428	530436
Routes(s)	STH 81	STH 213	USH 51
Volume(s)	12520	6530	8310
Site Growth %	0.63%	0.58%	0.54%

SITE ID = Colored, **bolded**, and underlined

Symbol	Count	Symbol	Forecast
-000-	2016 Count	(000)	2025 AADT
000	2013 Count	[000]	2035 AADT
+000+	2010 Count	000	2040 AADT



WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

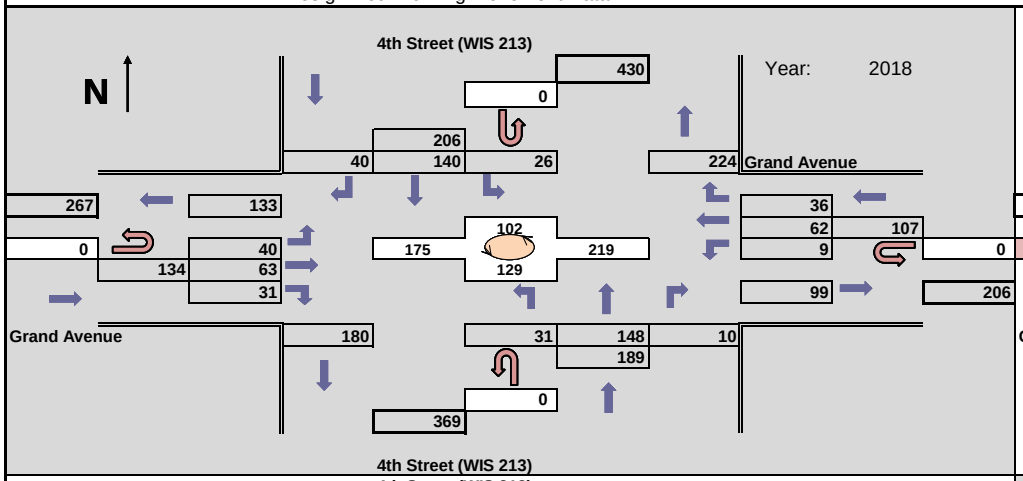
Design Hour: 7:15-8:15am

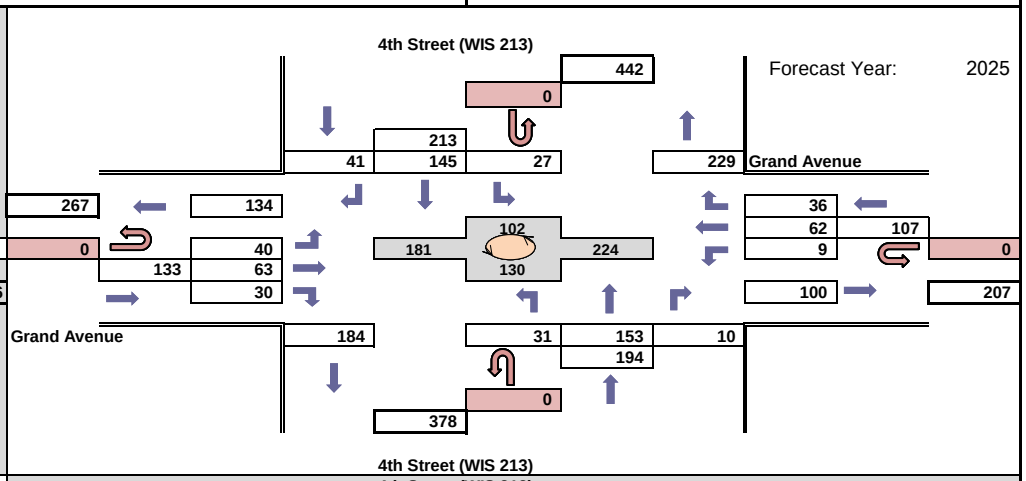
Forecast Completed: 2/13/2019

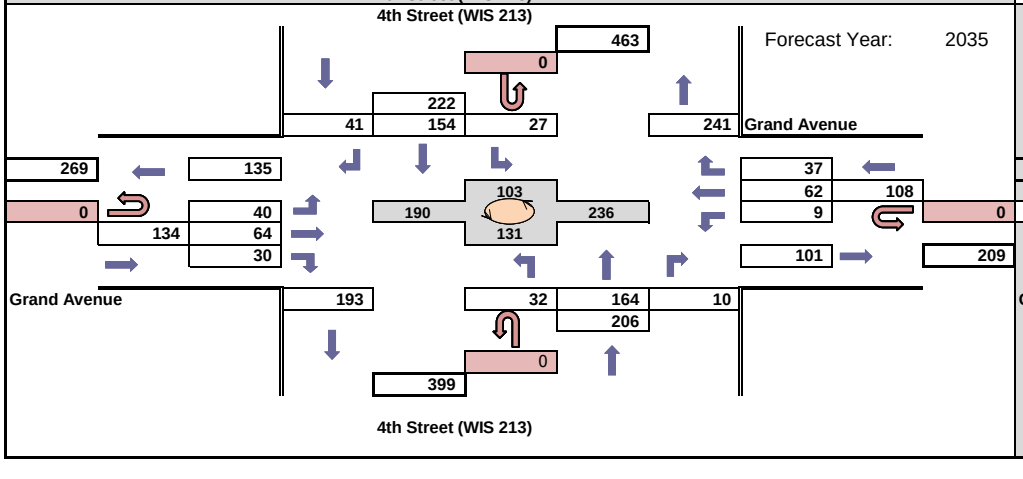
Design Hour Turning Movement Data

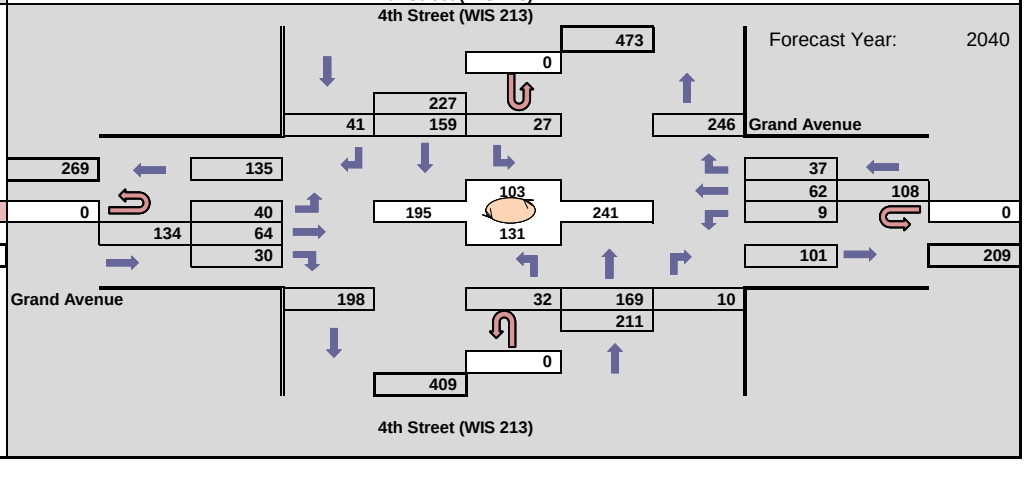
Project Description

Project ID(s): 0653-01-00
Route(s): STH 213
Region/COUNTY(IES): SW / Rock
Location: 4th St & Grand Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

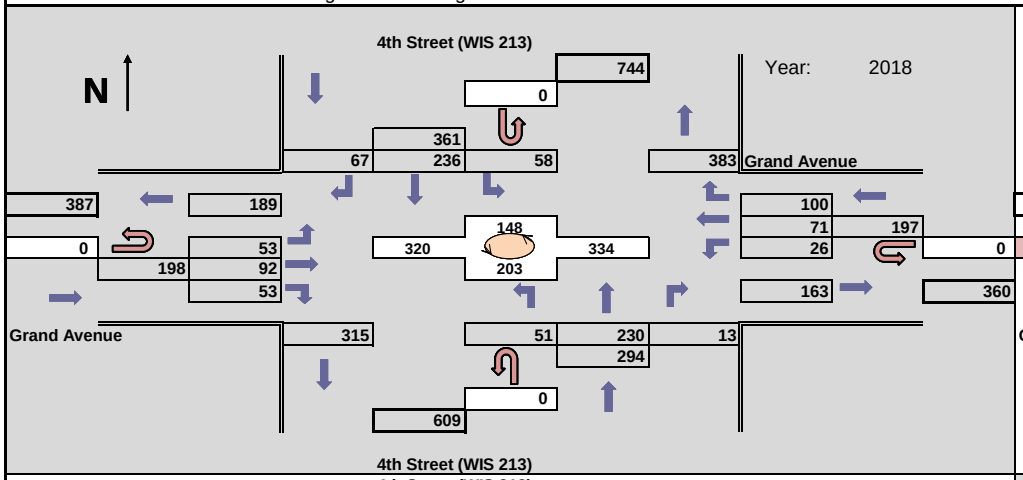
Design Hour: 4:30-5:30pm

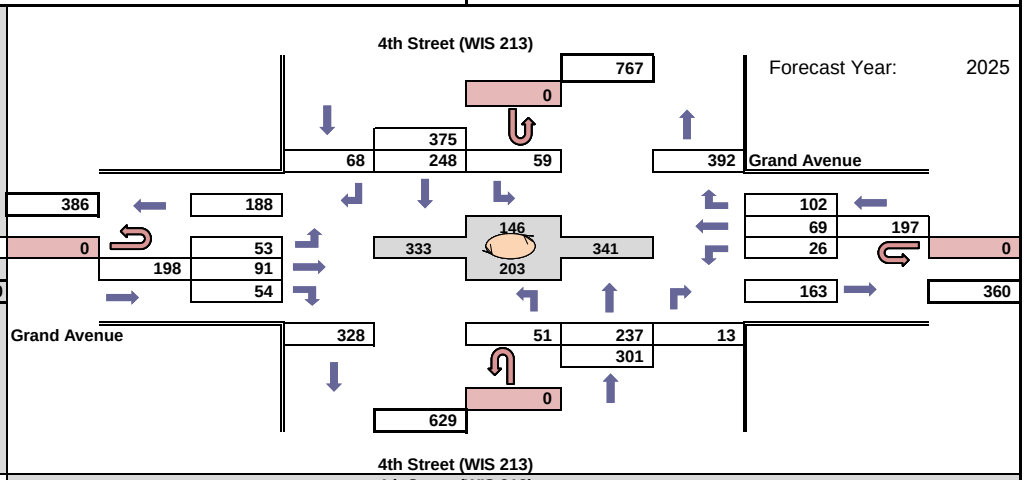
Forecast Completed: 2/13/2019

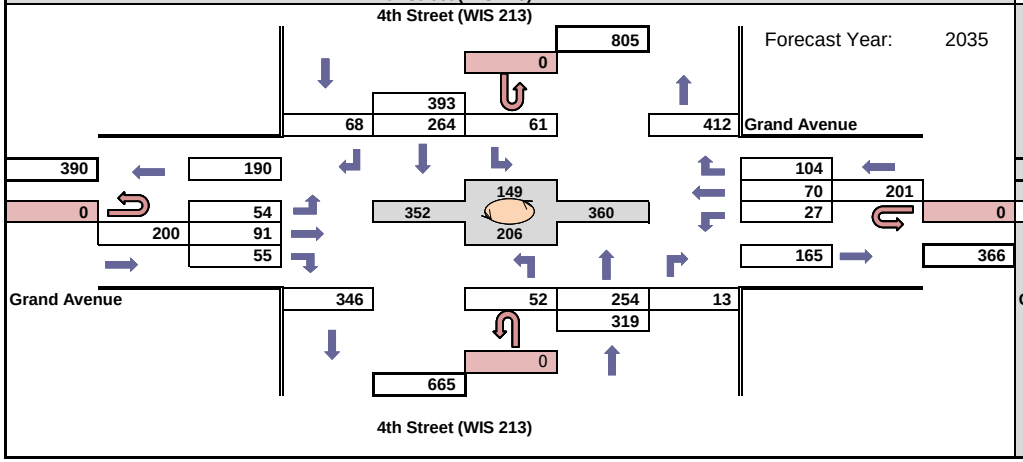
Design Hour Turning Movement Data

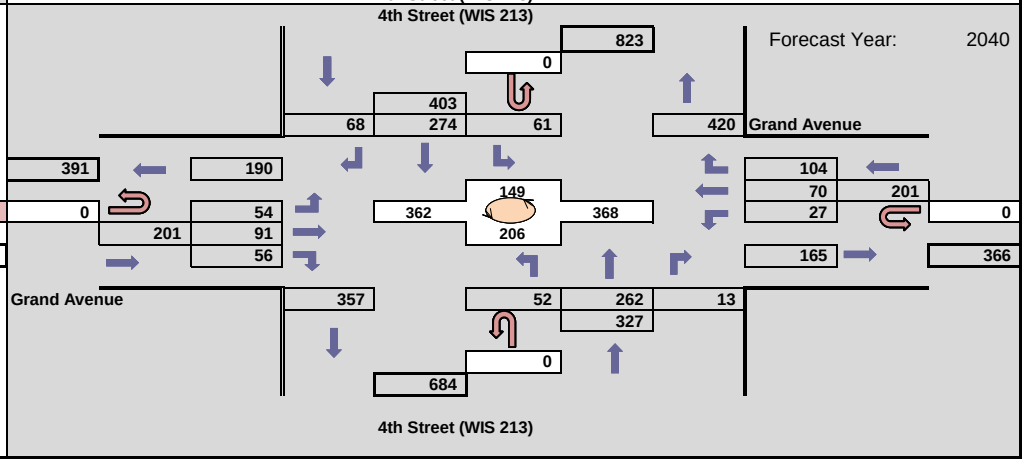
Project Description

Project ID(s): 0653-01-00
Route(s): STH 213
Region/COUNTY(IES): SW / Rock
Location: 4th St & Grand Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

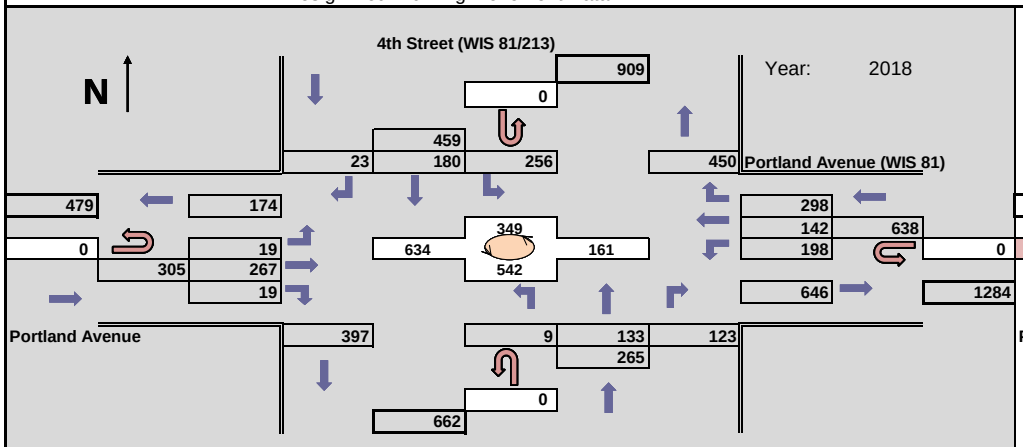
Design Hour: 7:15-8:15am

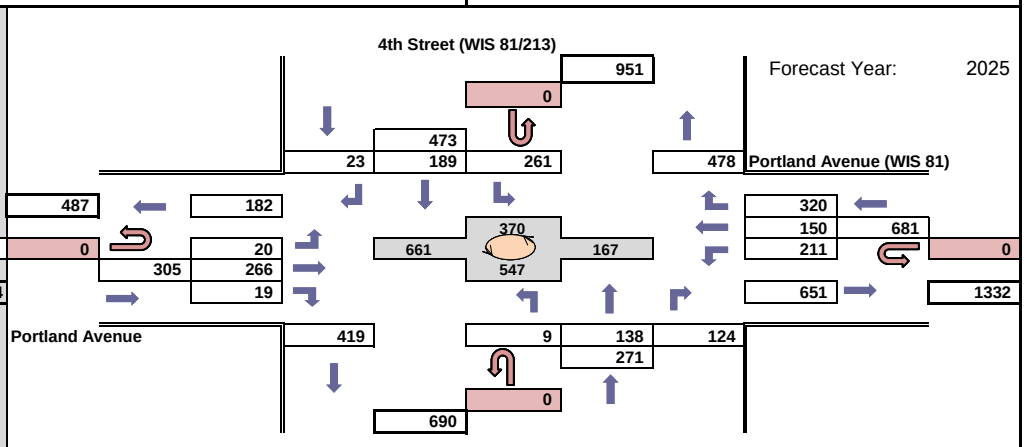
Forecast Completed: 2/13/2019

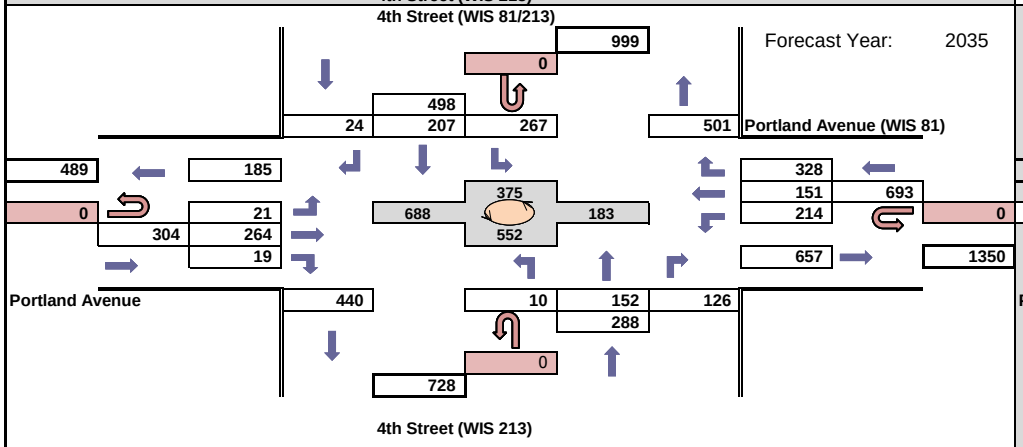
Design Hour Turning Movement Data

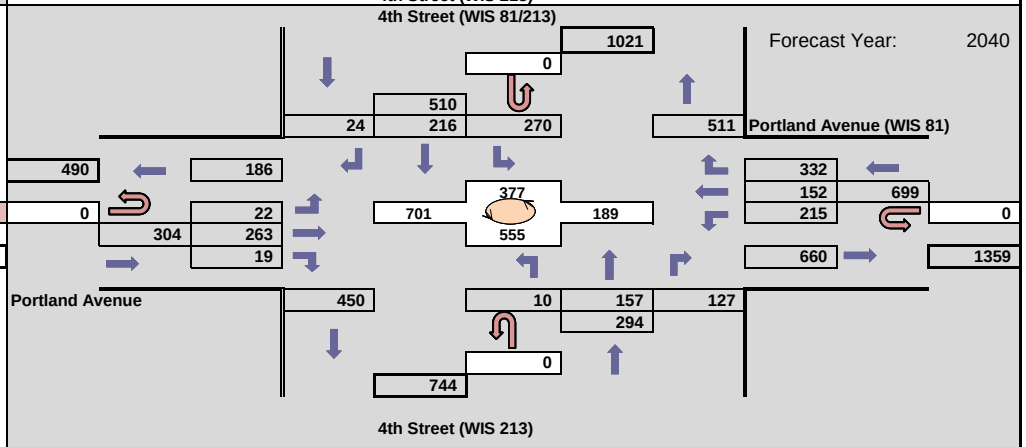
Project Description

Project ID(s): 0653-01-00
Route(s): STH 81/213
Region/COUNTY(IES): SW / Rock
Location: 4th St & Portland Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

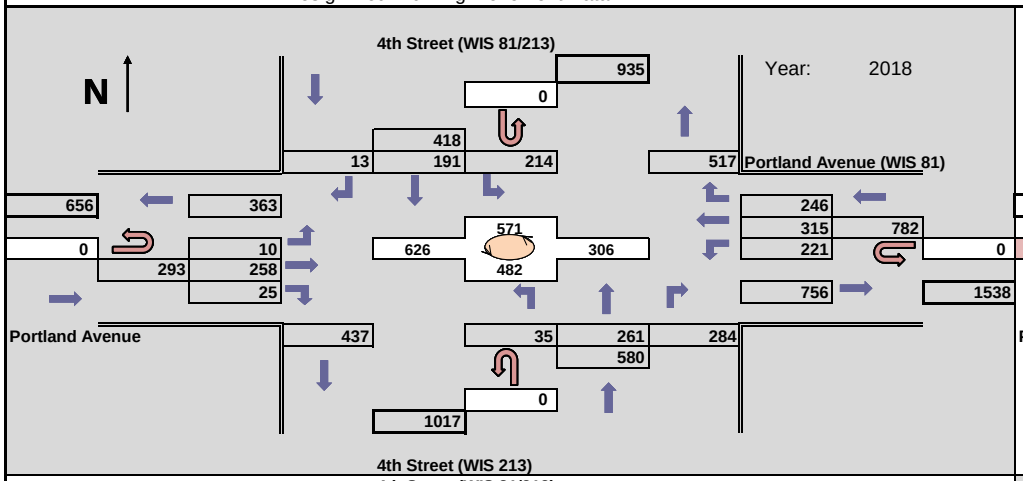
Design Hour: 4:30-5:30pm

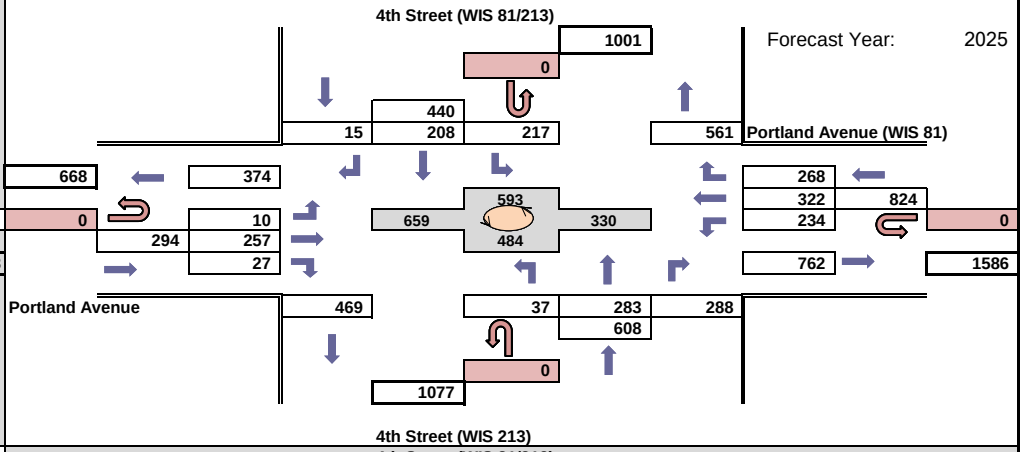
Forecast Completed: 2/13/2019

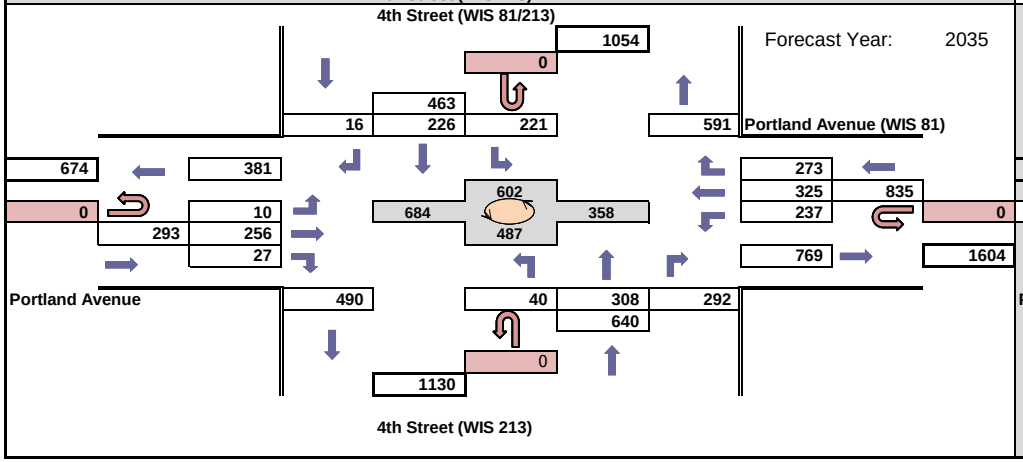
Design Hour Turning Movement Data

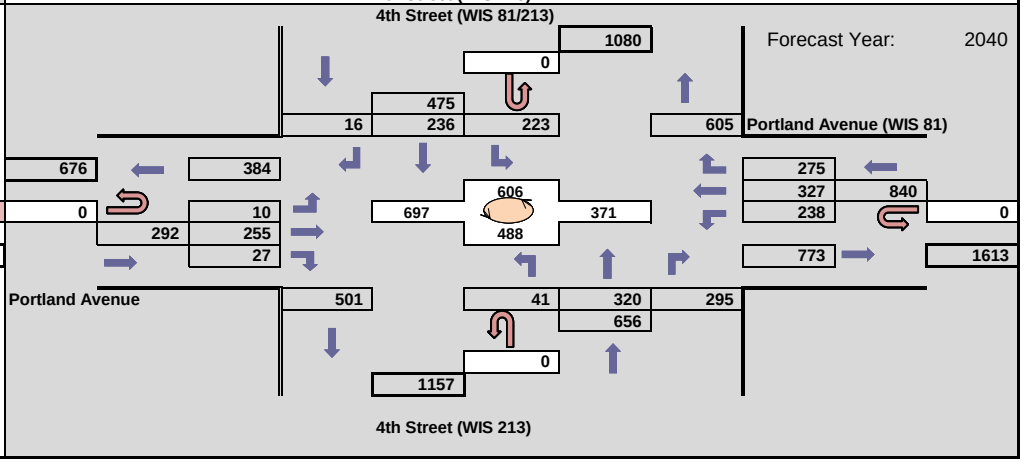
Project Description

Project ID(s): 0653-01-00
Route(s): STH 81/213
Region/COUNTY(IES): SW / Rock
Location: 4th St & Portland Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

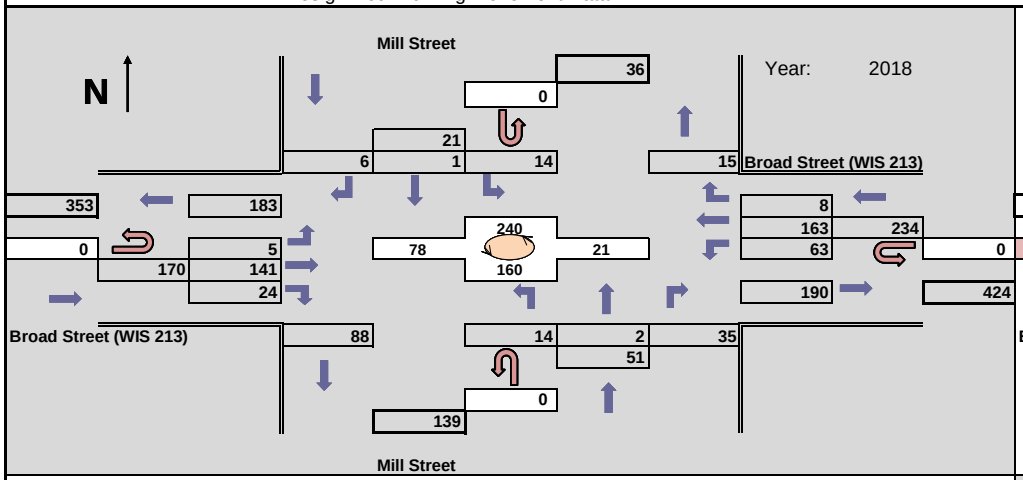
Design Hour: 7:15-8:15am

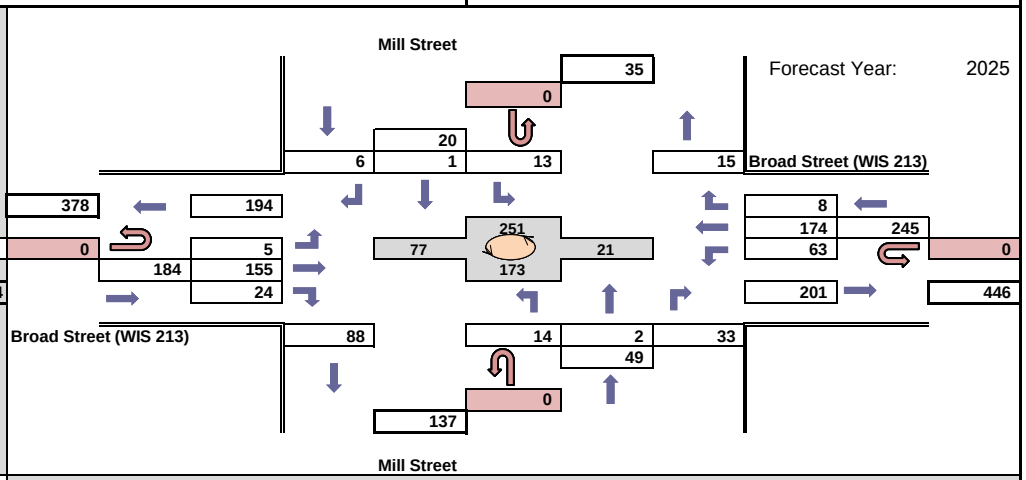
Forecast Completed: 2/13/2019

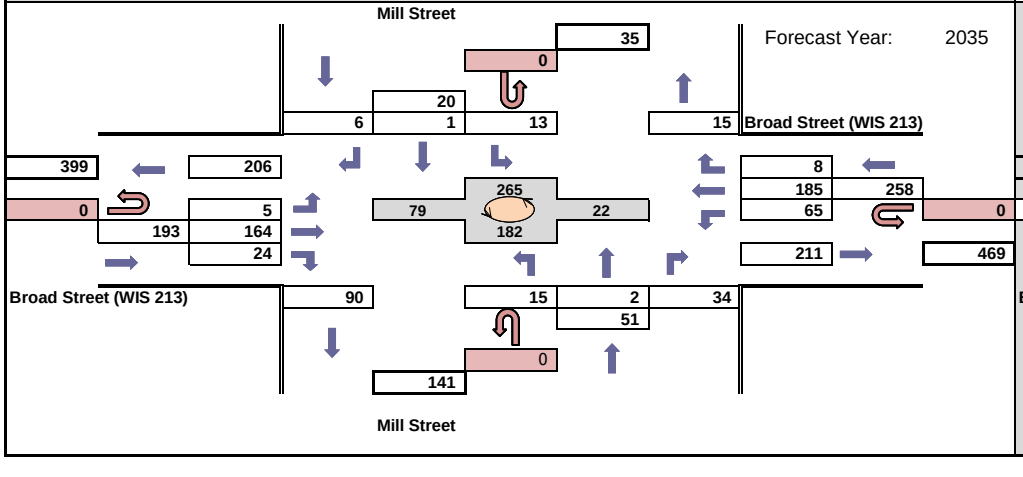
Design Hour Turning Movement Data

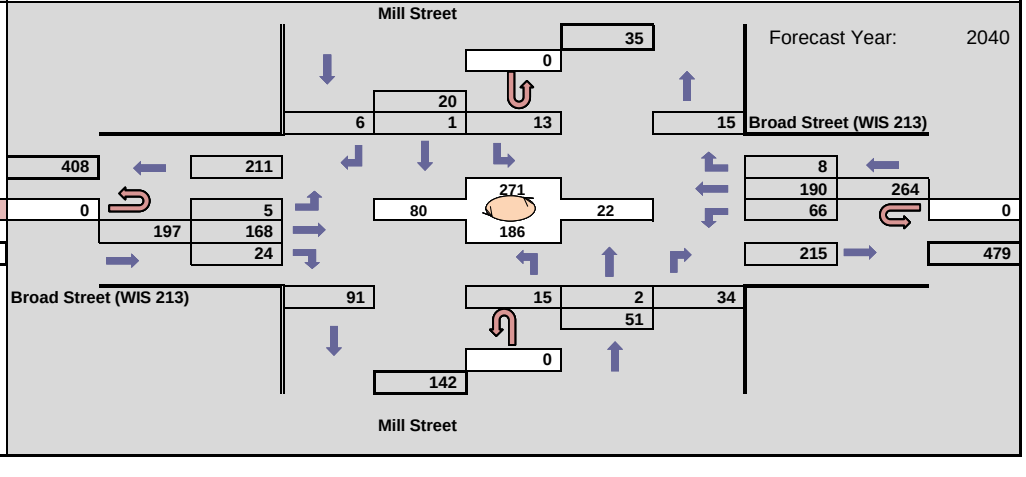
Project Description

Project ID(s): 0653-01-00
Route(s): STH 213
Region/COUNTY(IES): SW / Rock
Location: Mill St & Broad St









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

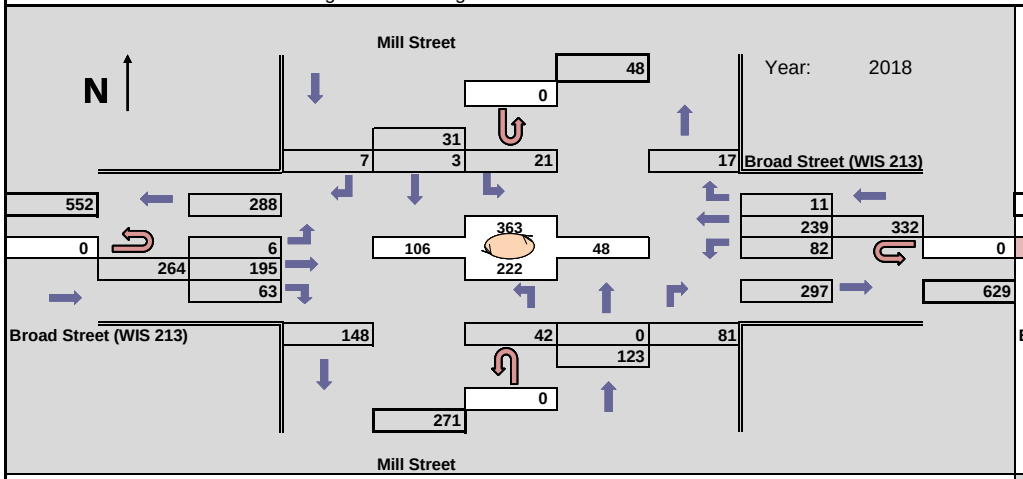
Design Hour: 4:30-5:30pm

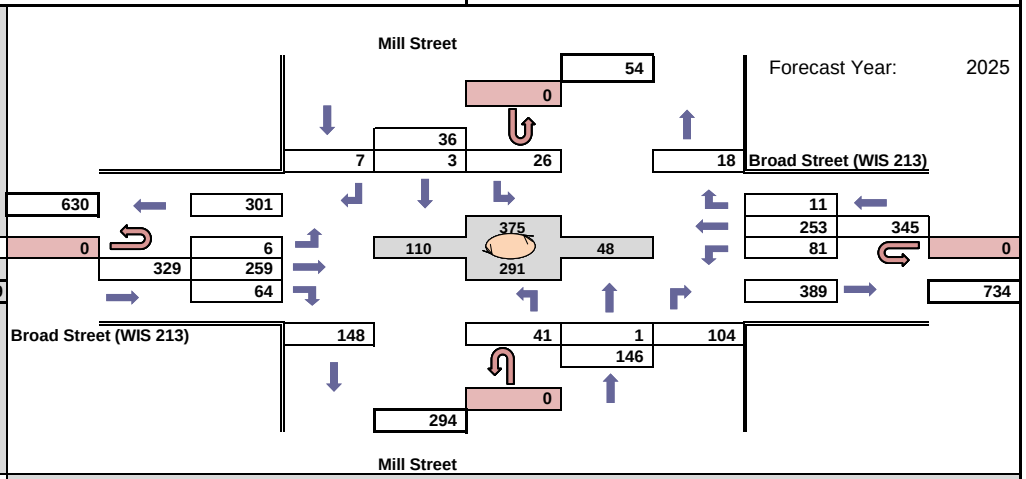
Forecast Completed: 2/13/2019

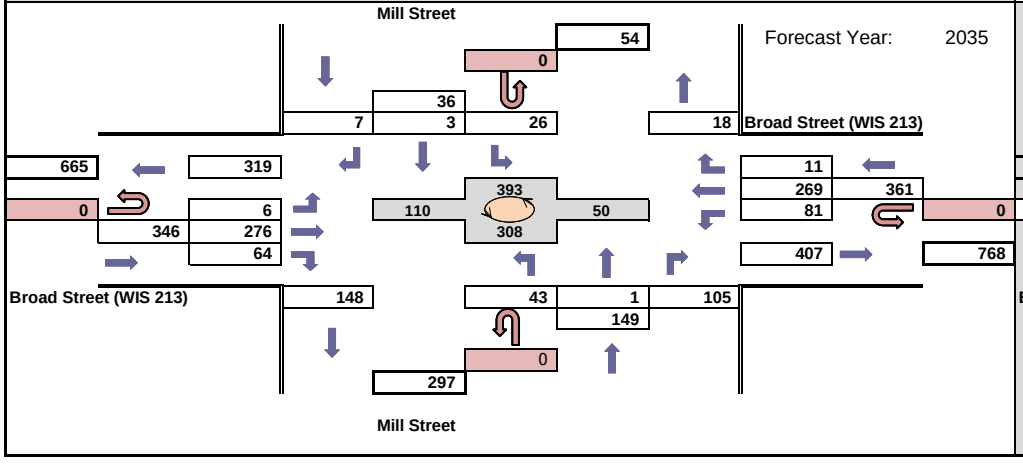
Design Hour Turning Movement Data

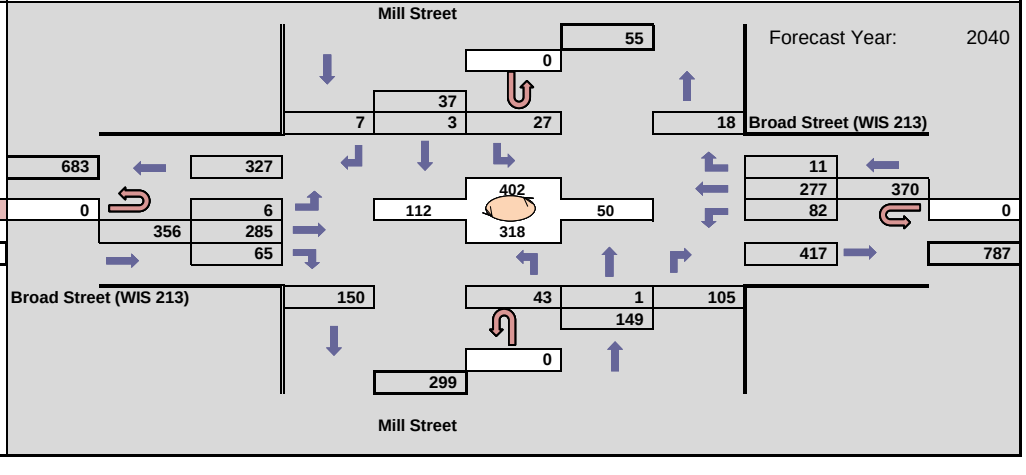
Project Description

Project ID(s): 0653-01-00
Route(s): STH 213
Region/COUNTY(IES): SW / Rock
Location: Mill St & Broad St









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

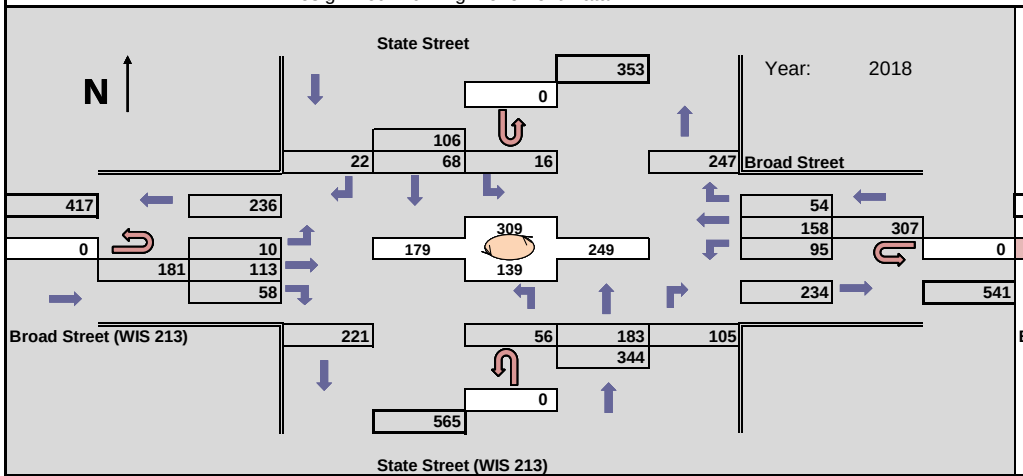
Design Hour: 7:15-8:15am

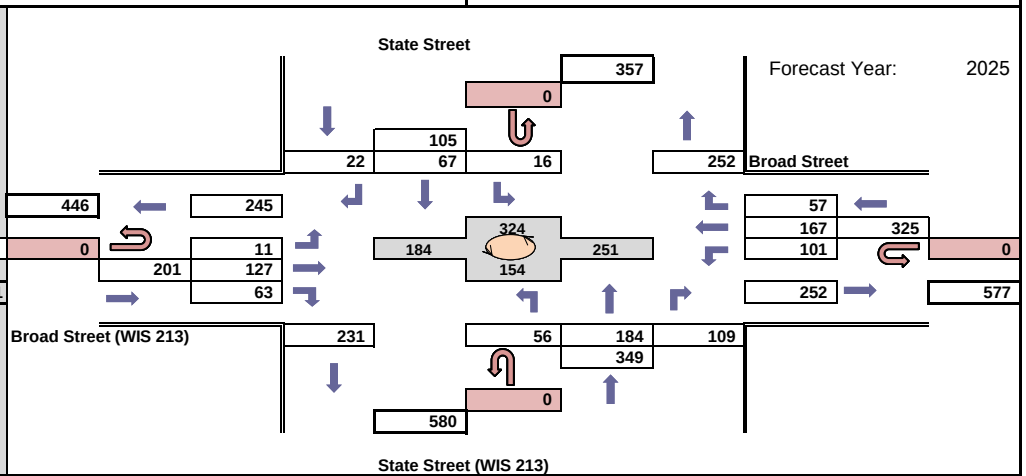
Forecast Completed: 2/13/2019

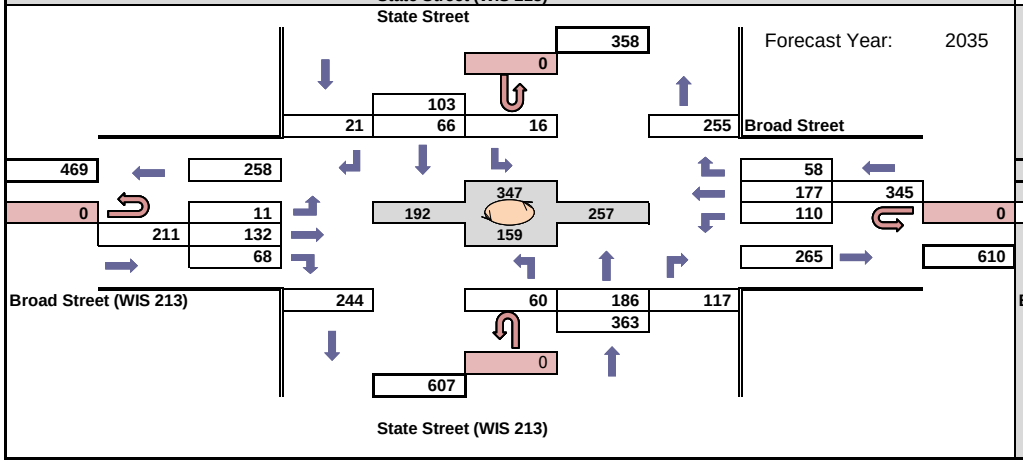
Design Hour Turning Movement Data

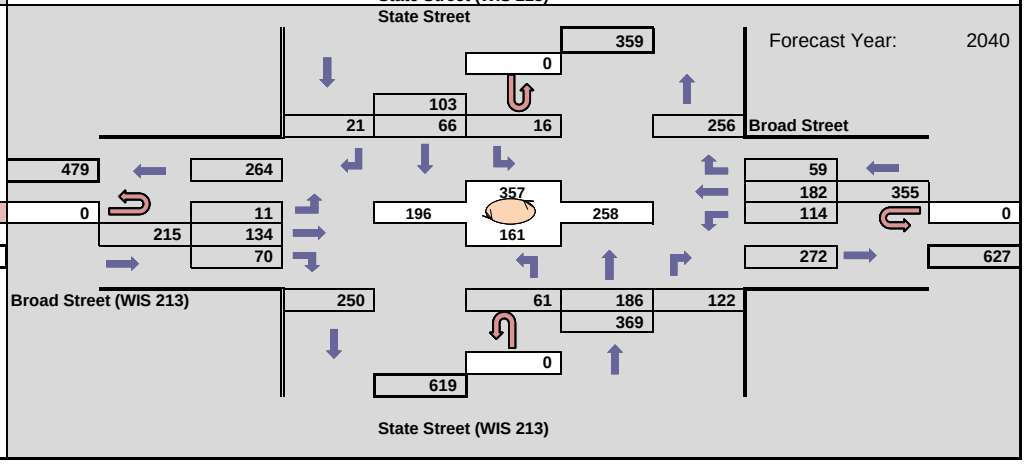
Project Description

Project ID(s): 0653-01-00
Route(s): STH 213
Region/COUNTY(IES): SW / Rock
Location: Broad St & State St









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

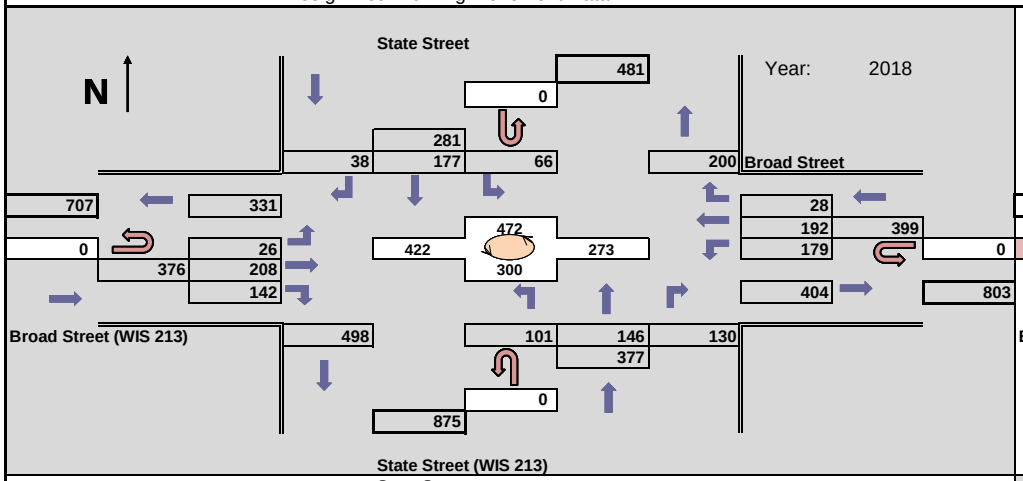
Design Hour: 4:30-5:30pm

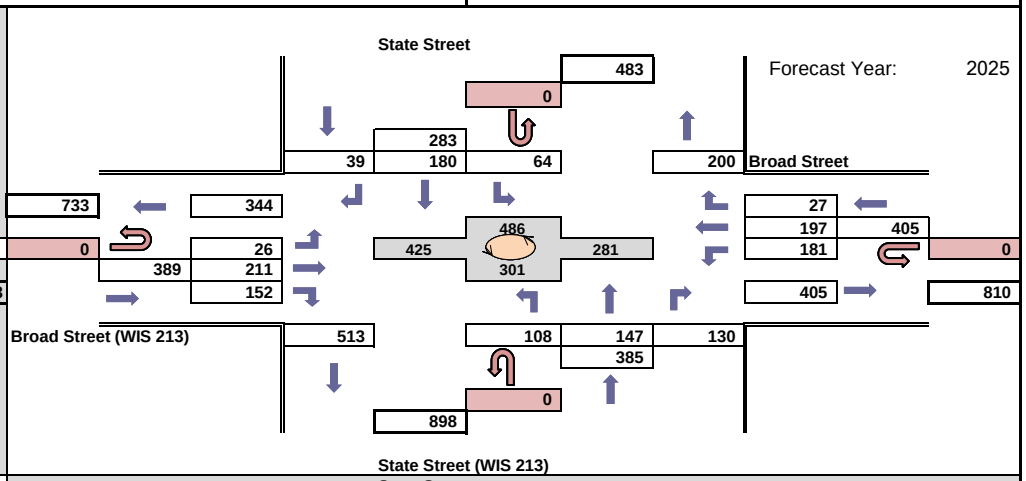
Forecast Completed: 2/13/2019

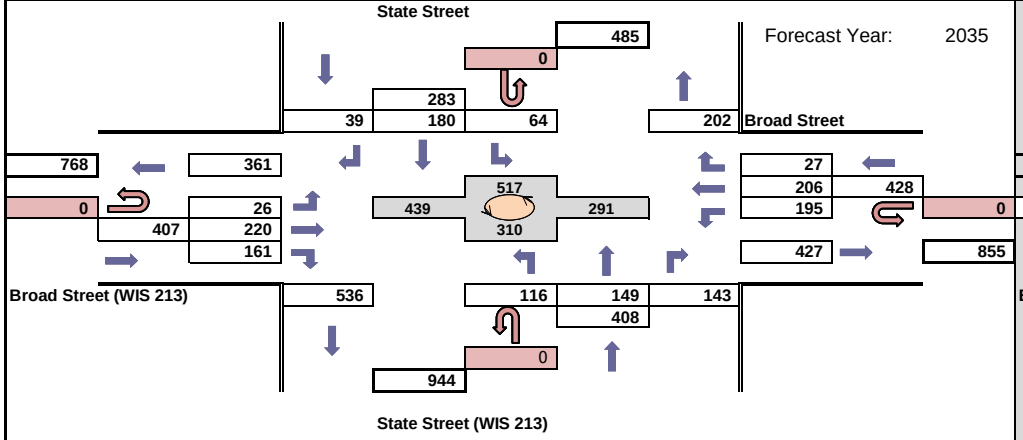
Design Hour Turning Movement Data

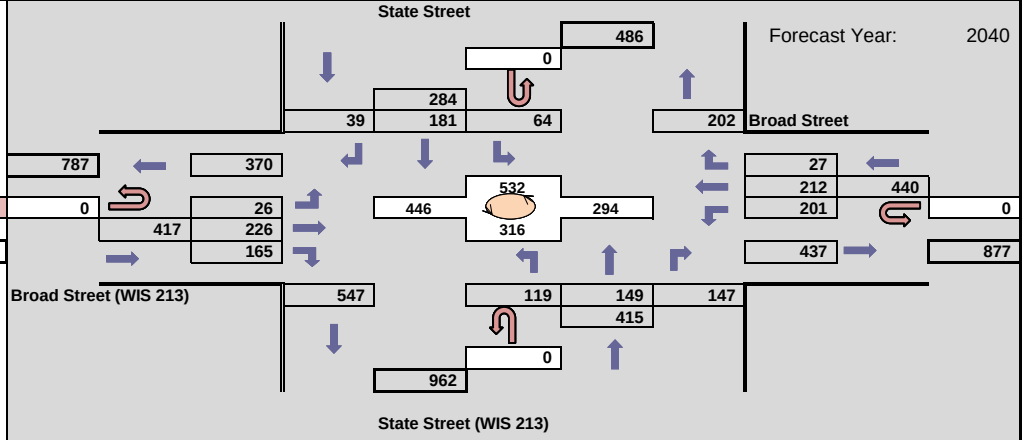
Project Description

Project ID(s): 0653-01-00
Route(s): STH 213
Region/COUNTY(IES): SW / Rock
Location: Broad St & State St









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

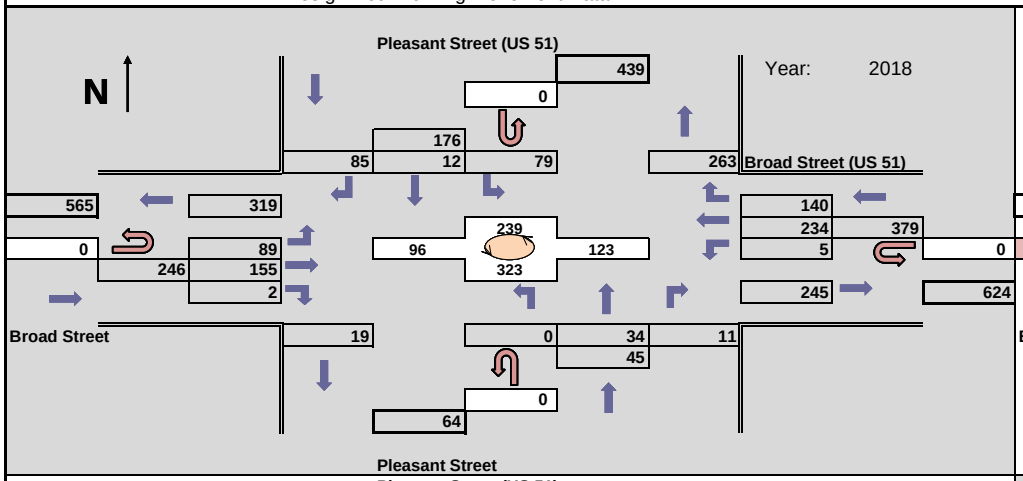
Design Hour: 7:15-8:15am

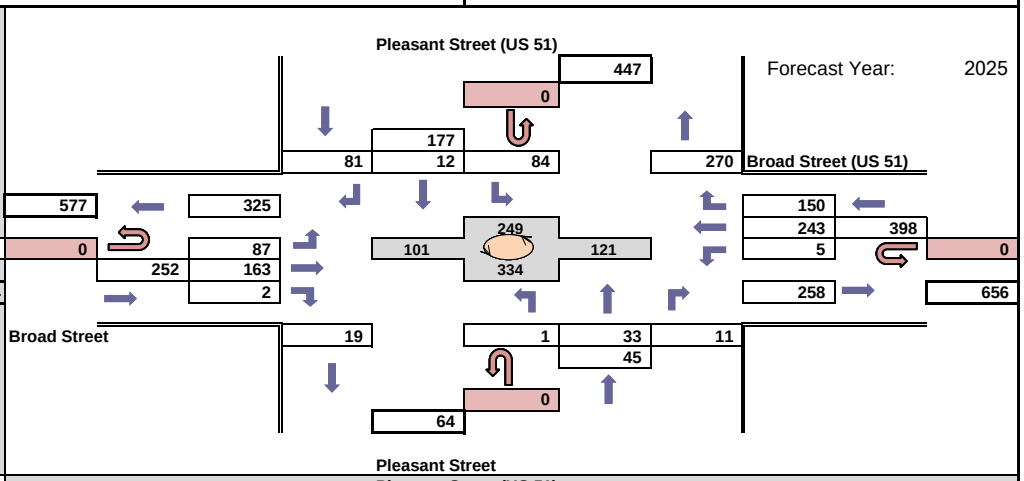
Forecast Completed: 2/13/2019

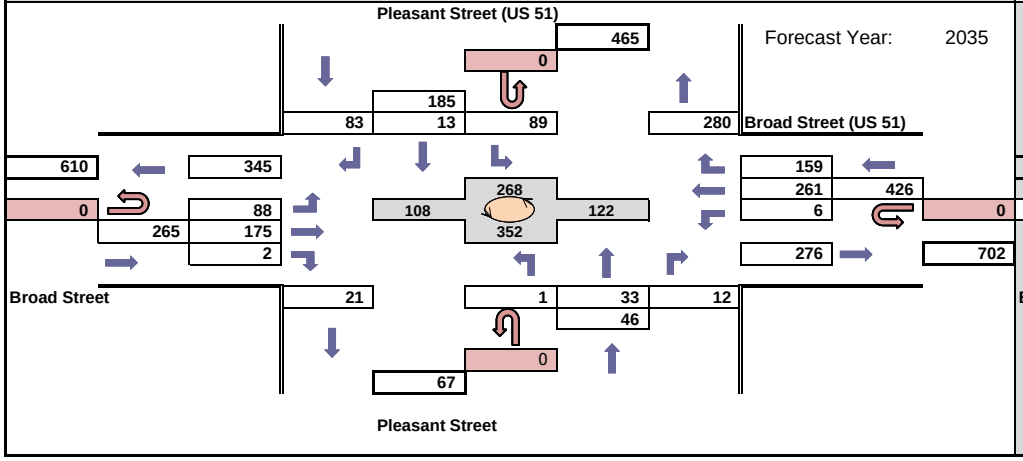
Design Hour Turning Movement Data

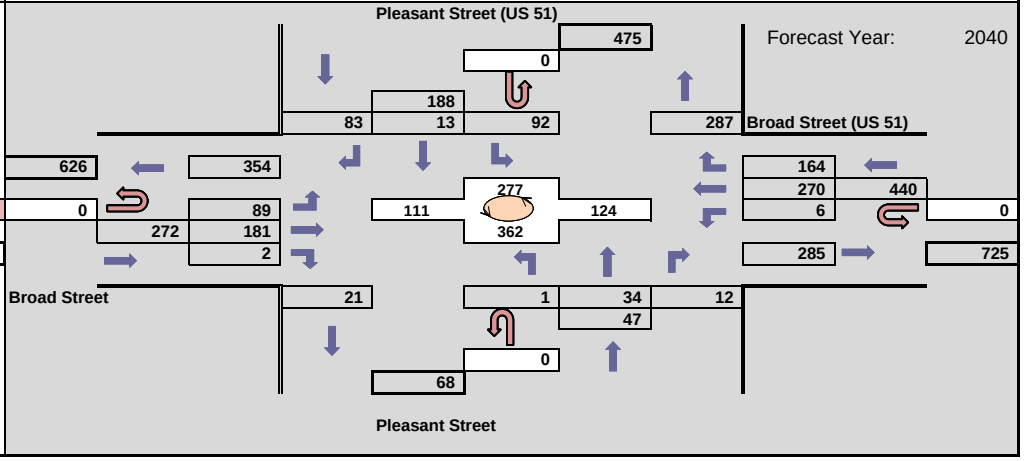
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & Broad St









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

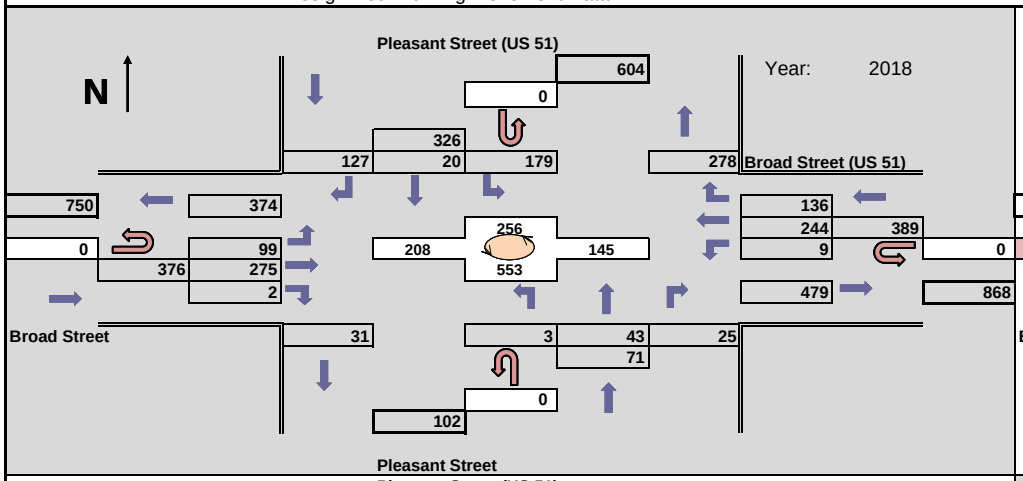
Design Hour: 4:30-5:30pm

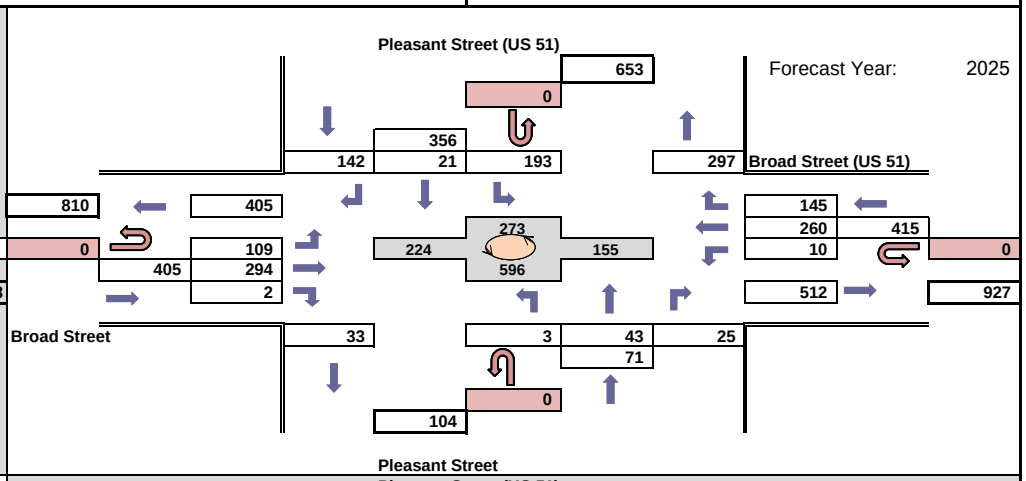
Forecast Completed: 2/13/2019

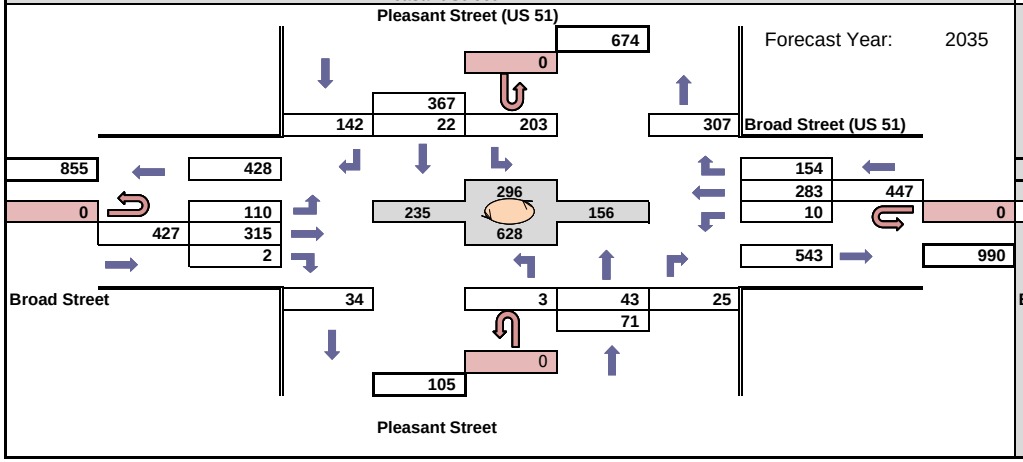
Design Hour Turning Movement Data

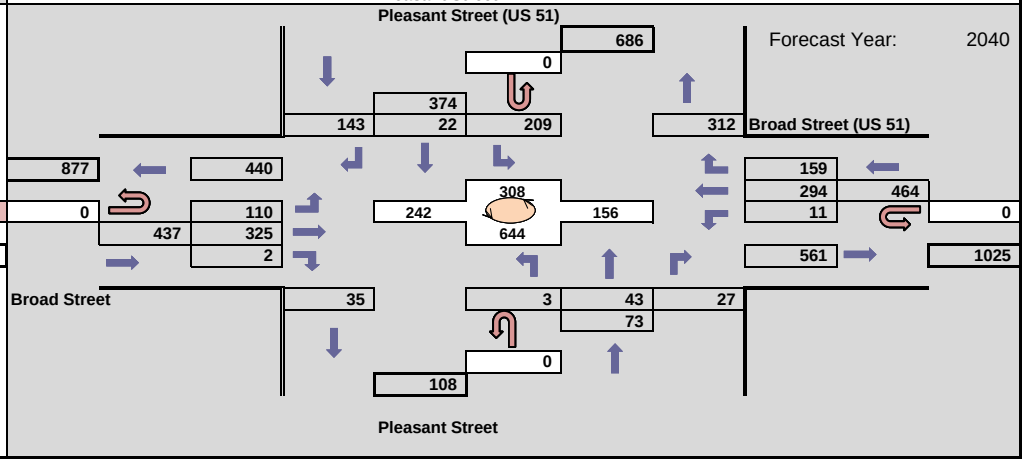
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & Broad St









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

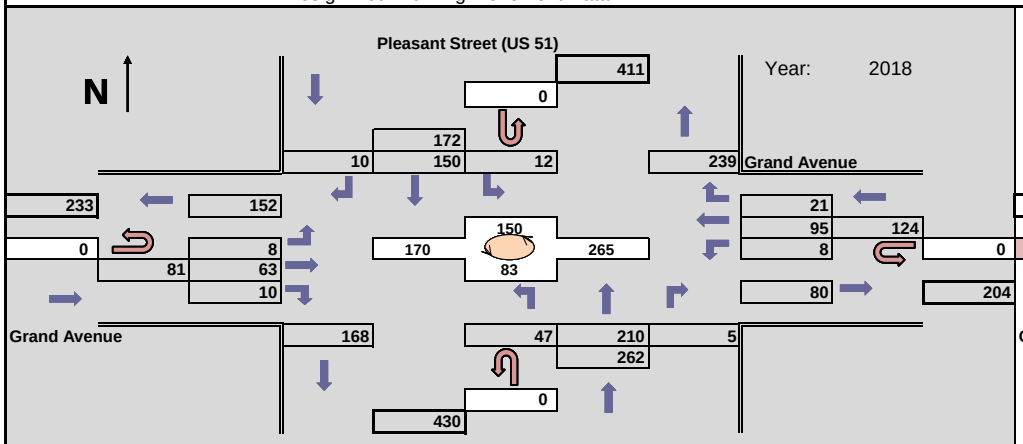
Design Hour: 7:15-8:15am

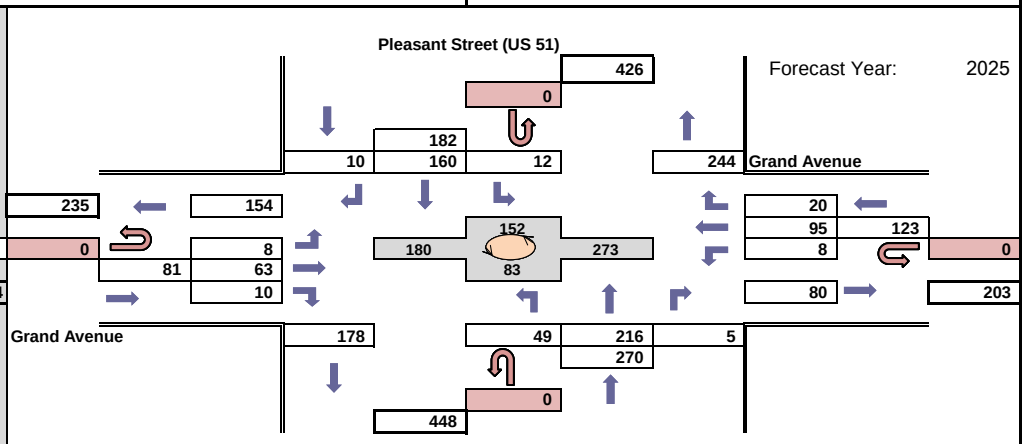
Forecast Completed: 2/13/2019

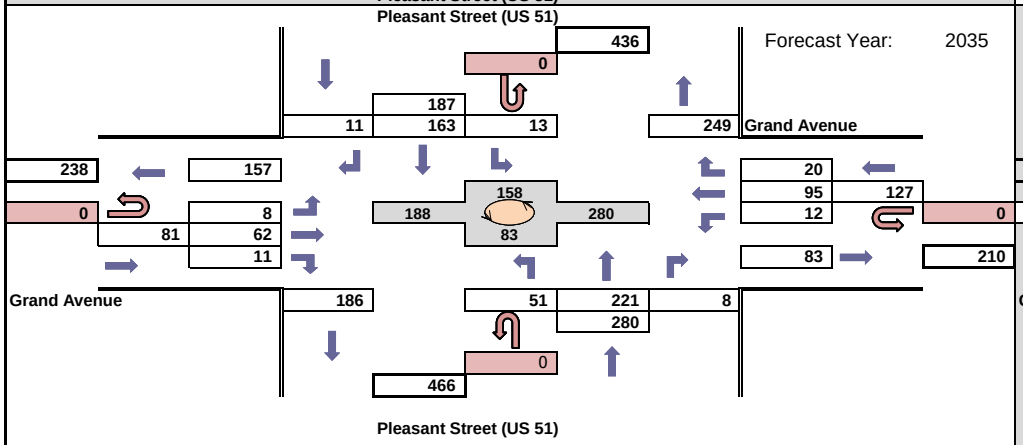
Design Hour Turning Movement Data

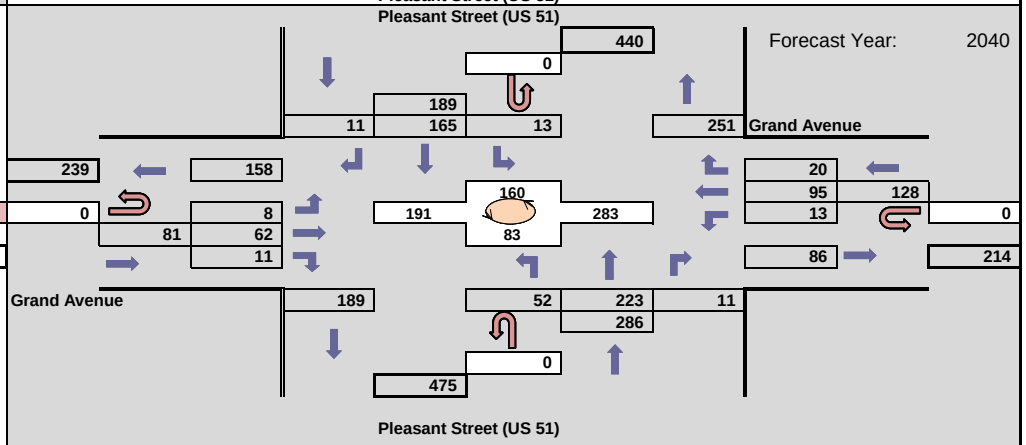
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & Grand Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

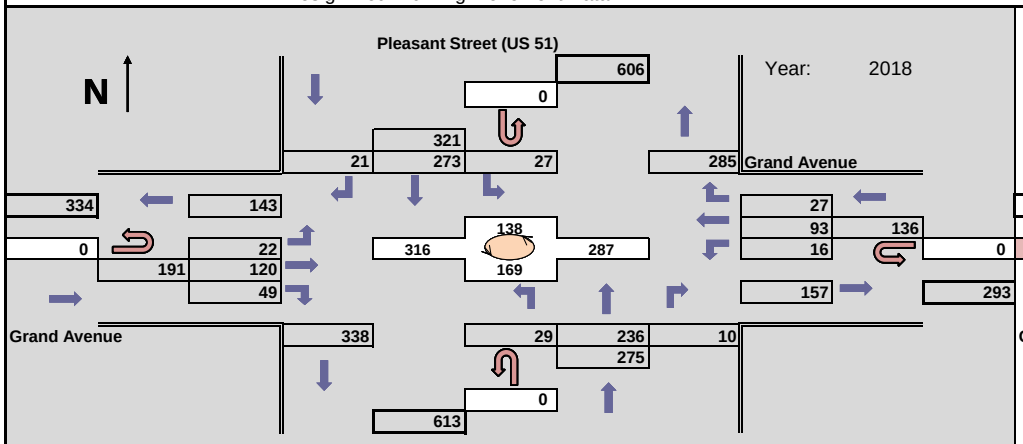
Design Hour: 4:30-5:30pm

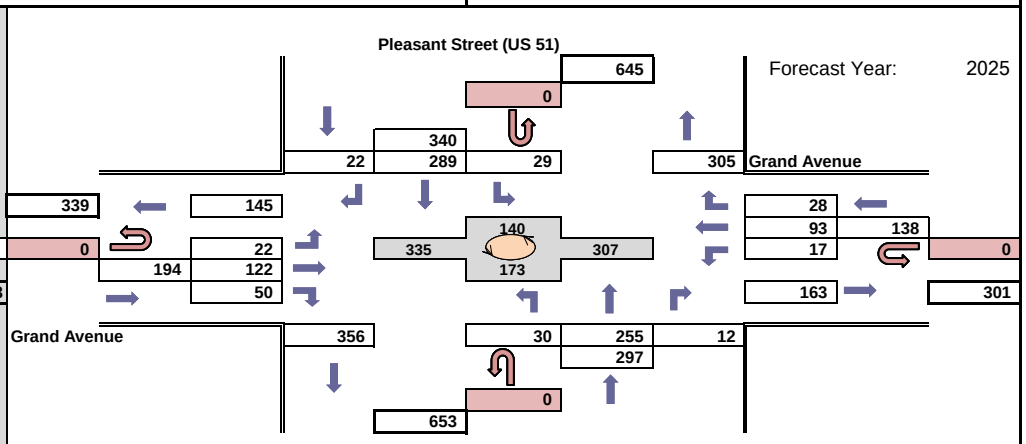
Forecast Completed: 2/13/2019

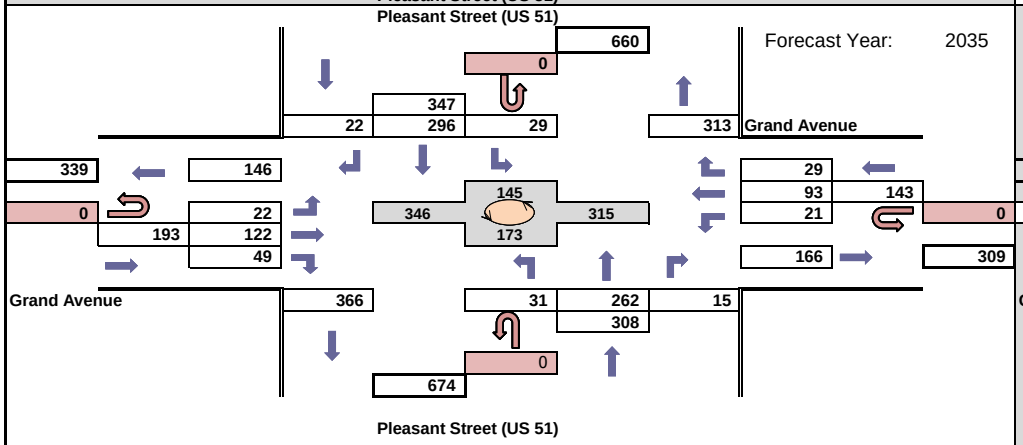
Design Hour Turning Movement Data

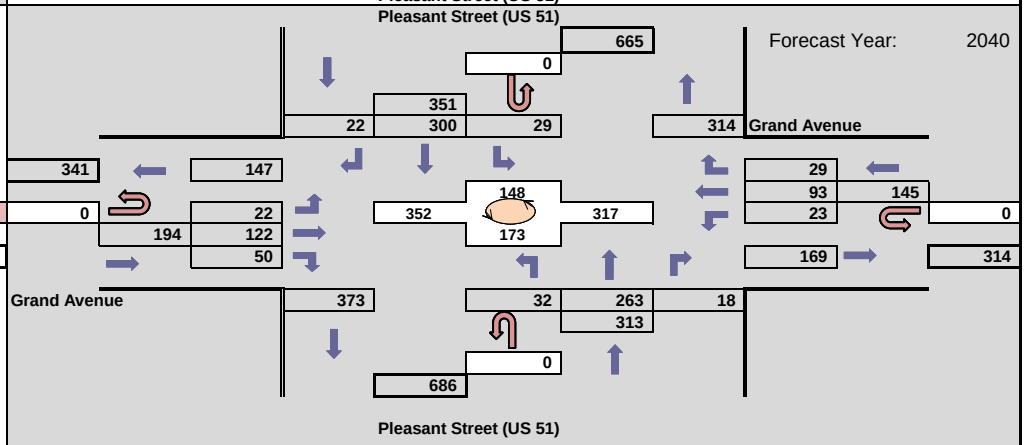
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & Grand Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

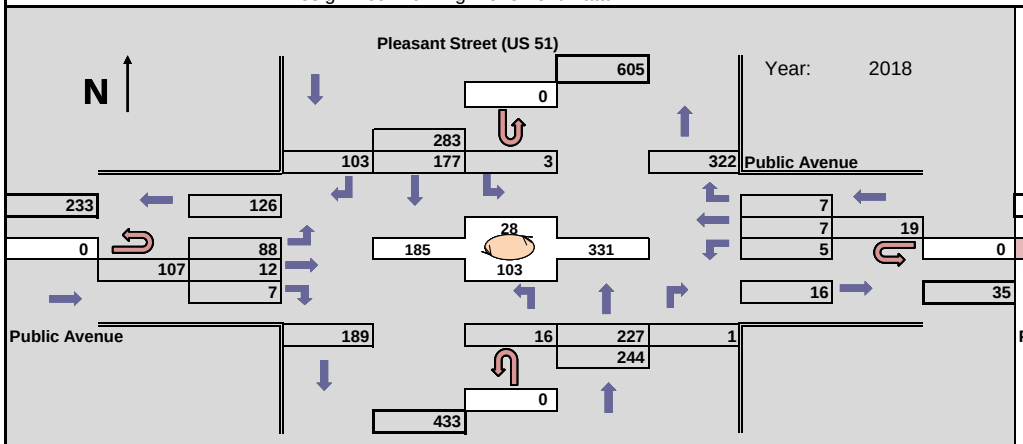
Design Hour: 7:15-8:15am

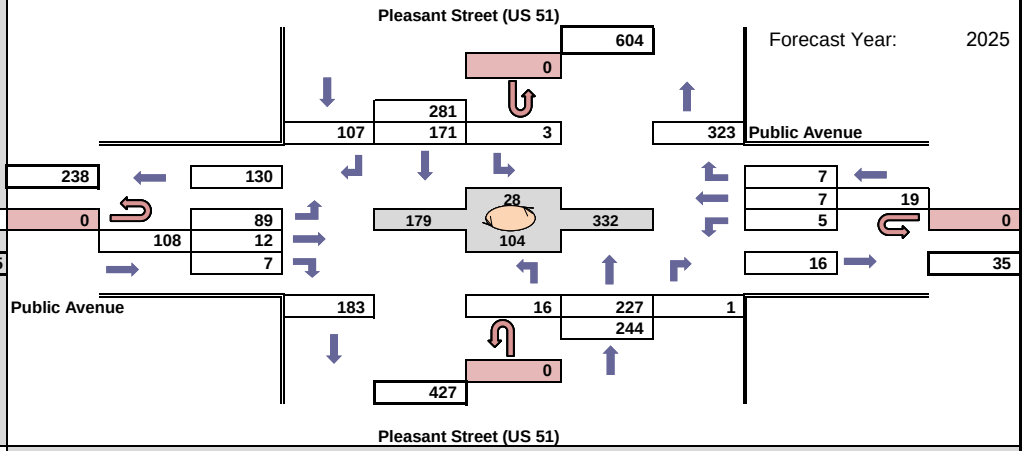
Forecast Completed: 2/13/2019

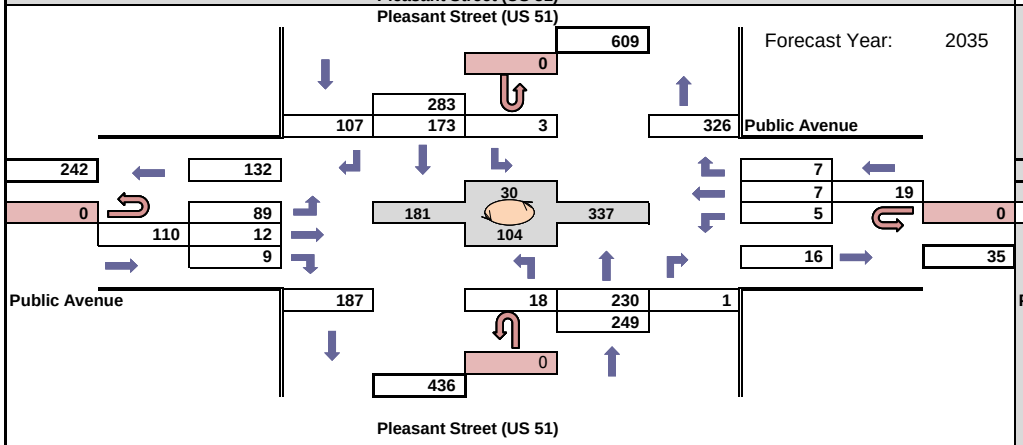
Design Hour Turning Movement Data

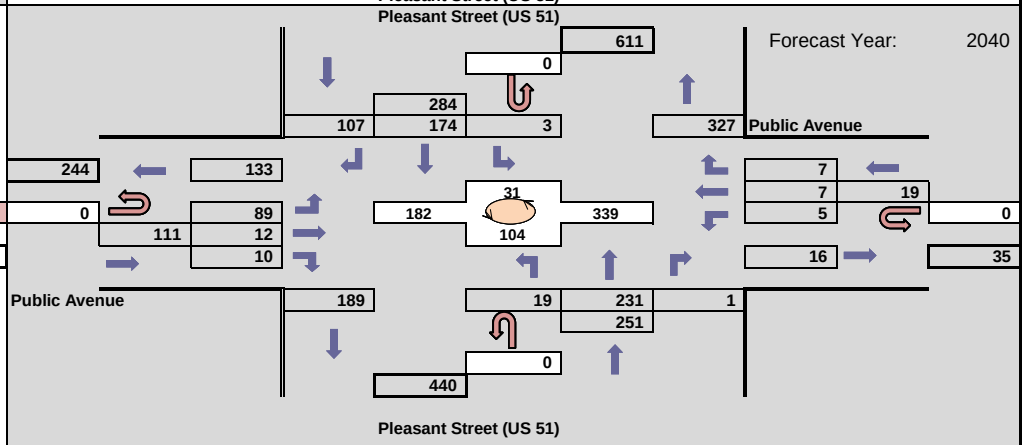
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & Public Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

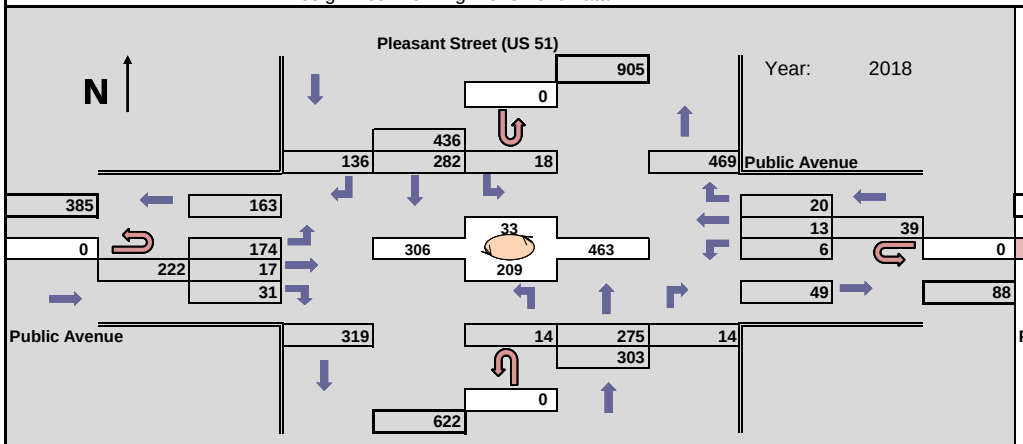
Design Hour: 4:30-5:30pm

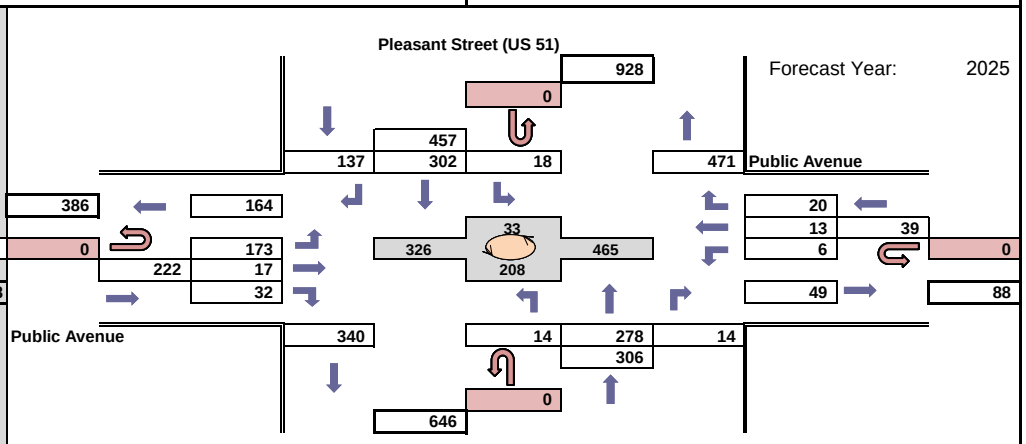
Forecast Completed: 2/13/2019

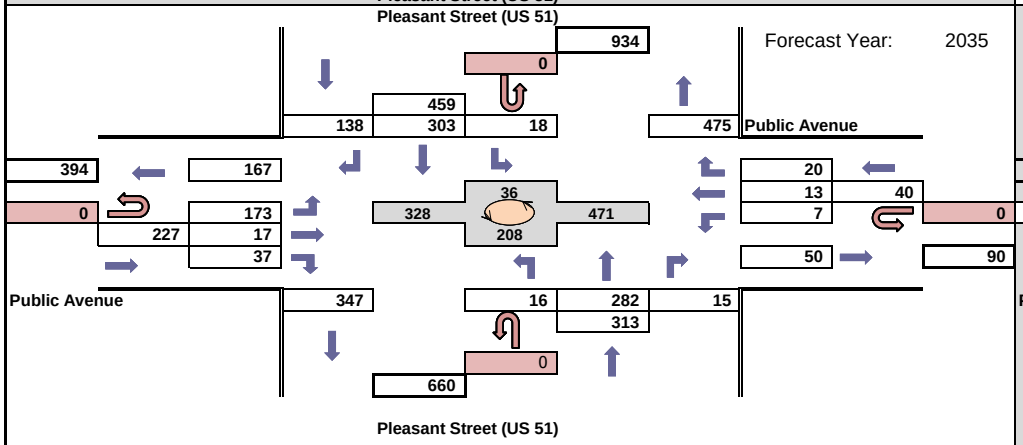
Design Hour Turning Movement Data

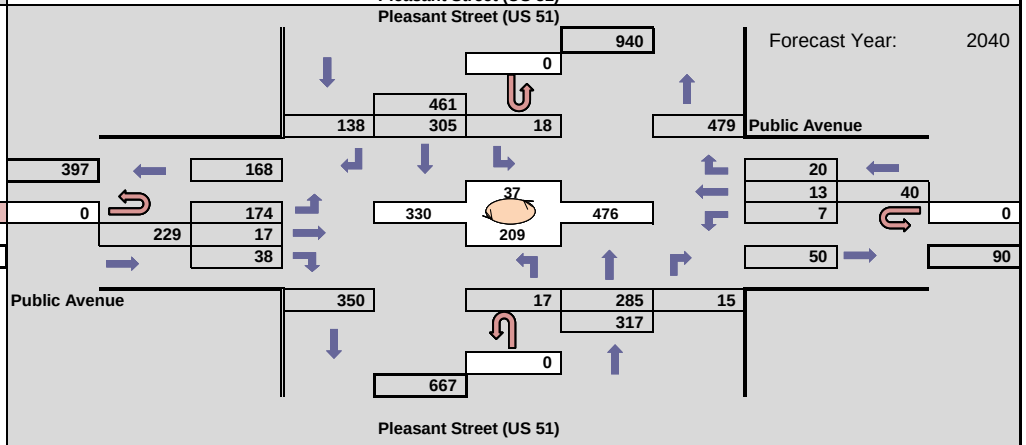
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & Public Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected AM Design Hour Traffic Volumes

Indicates roundabout

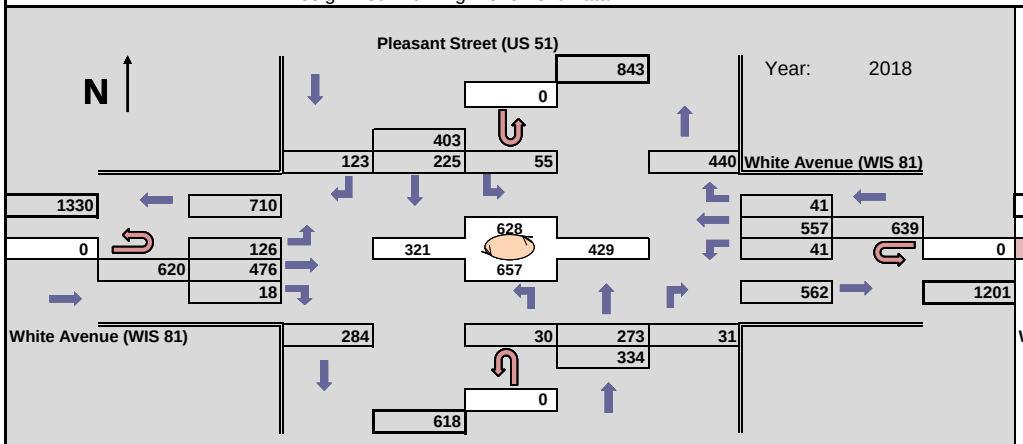
Design Hour: 7:15-8:15am

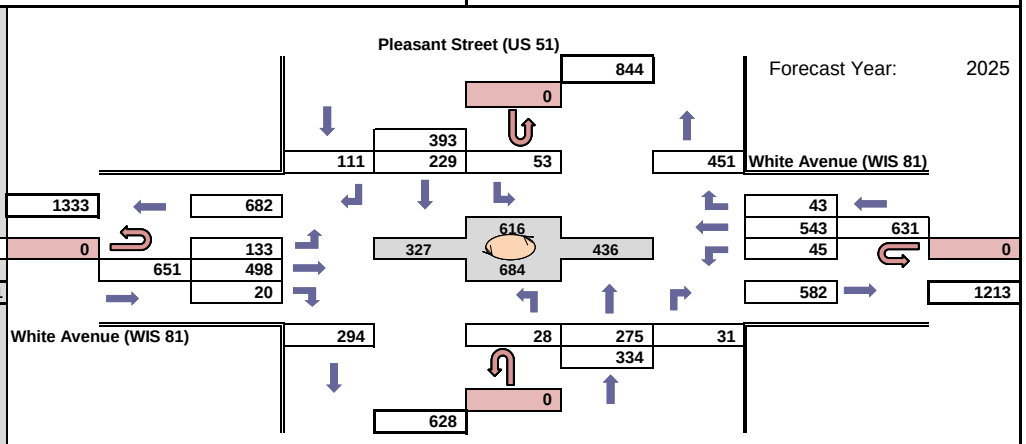
Forecast Completed: 2/13/2019

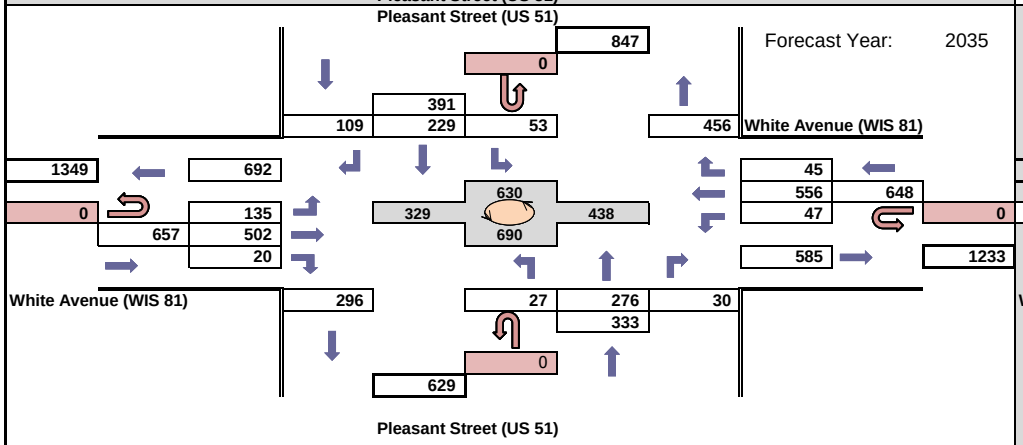
Design Hour Turning Movement Data

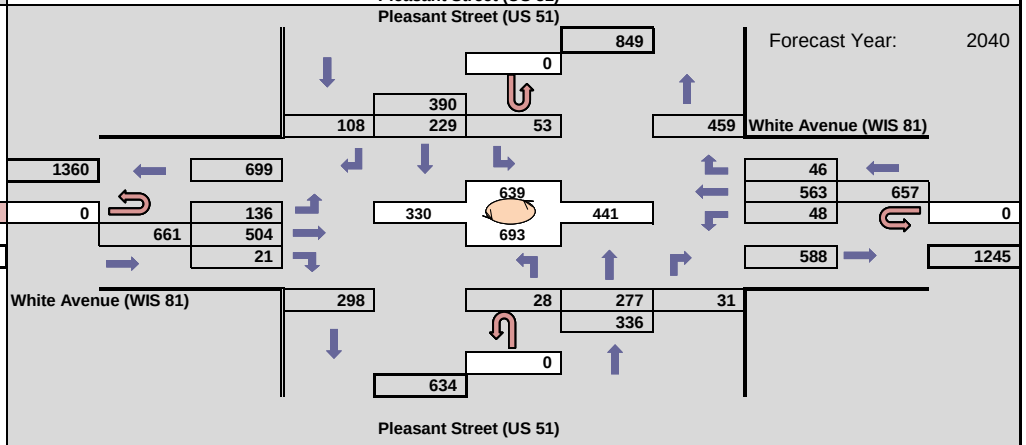
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51 & STH 81
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & White Ave









WisDOT Bureau of Planning & Economic Development
Traffic Forecasting Section
Forecast by: Matthew G. Miller
Phone: 608-266-2571
Email: Matthew.Miller@dot.wi.gov

Projected PM Design Hour Traffic Volumes

Indicates roundabout

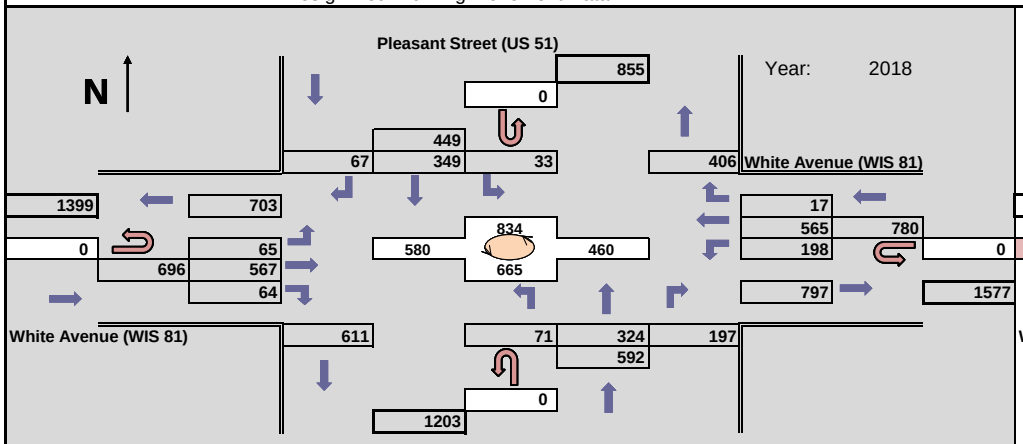
Design Hour: 4:30-5:30pm

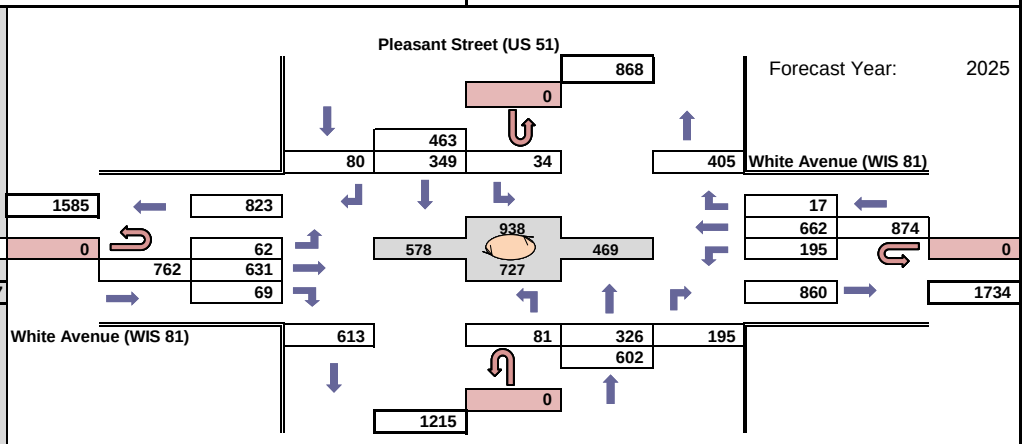
Forecast Completed: 2/13/2019

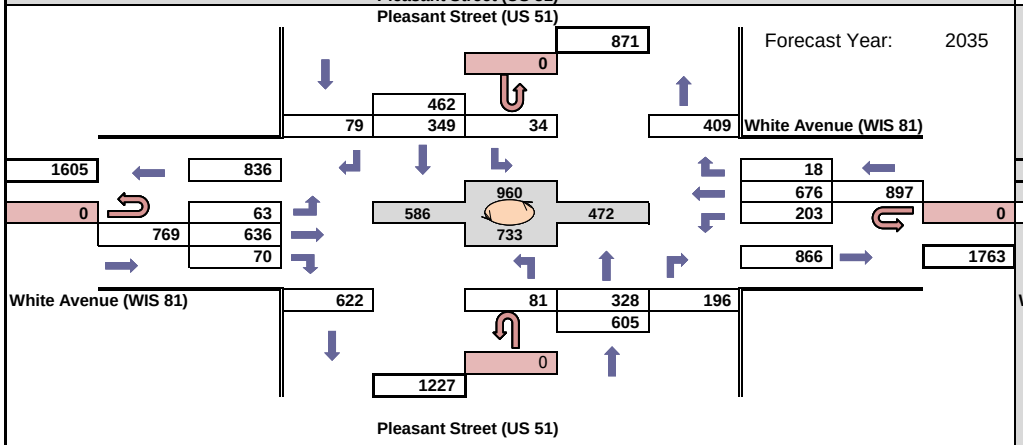
Design Hour Turning Movement Data

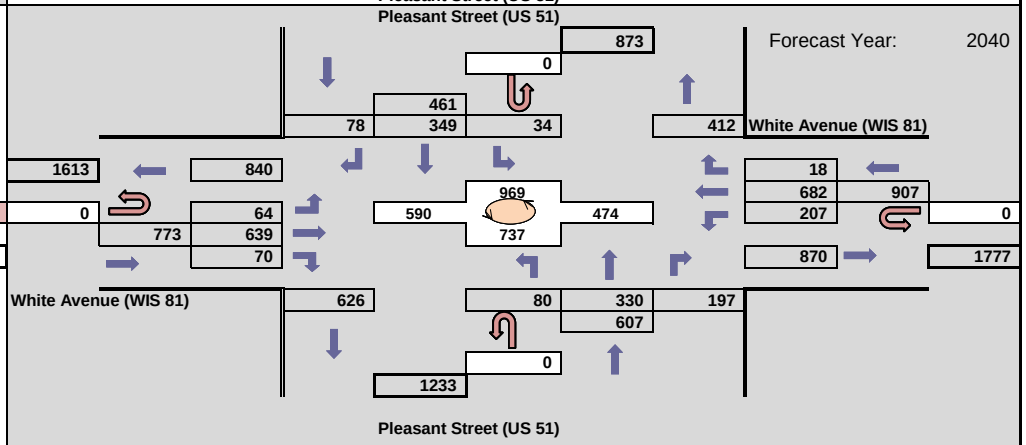
Project Description

Project ID(s): 0653-01-00
Route(s): USH 51 & STH 81
Region/COUNTY(IES): SW / Rock
Location: Pleasant St & White Ave









Appendix C: Year 2018 Traffic Operations Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	267	19	198	142	298	9	133	123	256	180	23
Future Volume (veh/h)	19	267	19	198	142	298	9	133	123	256	180	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
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	0.99		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1792	1792	1792	1792	1792	1900	1776	1776	1900
Adj Flow Rate, veh/h	24	338	24	251	180	377	11	168	156	324	228	29
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	3	3	3	6	6	6	6	6	6	7	7	7
Cap, veh/h	361	406	29	370	597	770	358	376	326	509	1114	140
Arrive On Green	0.04	0.24	0.24	0.14	0.33	0.33	0.02	0.22	0.22	0.17	0.37	0.37
Sat Flow, veh/h	1757	1702	121	1707	1792	1518	1707	1726	1496	1691	3014	379
Grp Volume(v), veh/h	24	0	362	251	180	377	11	166	158	324	126	131
Grp Sat Flow(s),veh/h/ln	1757	0	1823	1707	1792	1518	1707	1703	1520	1691	1687	1706
Q Serve(g_s), s	0.8	0.0	15.3	8.4	6.0	13.2	0.4	6.8	7.4	11.2	4.1	4.2
Cycle Q Clear(g_c), s	0.8	0.0	15.3	8.4	6.0	13.2	0.4	6.8	7.4	11.2	4.1	4.2
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.98	1.00		0.22
Lane Grp Cap(c), veh/h	361	0	435	370	597	770	358	371	331	509	623	630
V/C Ratio(X)	0.07	0.00	0.83	0.68	0.30	0.49	0.03	0.45	0.48	0.64	0.20	0.21
Avail Cap(c_a), veh/h	863	0	540	696	597	770	880	504	450	768	623	630
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	29.3	19.6	20.0	13.1	23.6	27.5	27.7	17.9	17.4	17.4
Incr Delay (d2), s/veh	0.1	0.0	16.8	2.2	1.3	2.2	0.0	1.8	2.3	1.3	0.3	0.3
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(95%),veh/ln	0.7	0.0	14.8	7.4	5.8	9.9	0.3	6.1	5.9	9.1	3.6	3.7
LnGrp Delay(d),s/veh	21.4	0.0	46.1	21.8	21.3	15.3	23.6	29.3	30.0	19.2	17.8	17.8
LnGrp LOS	C		D	C	C	B	C	C	C	B	B	B
Approach Vol, veh/h		386			808			335			581	
Approach Delay, s/veh		44.6			18.7			29.4			18.6	
Approach LOS		D			B			C			B	

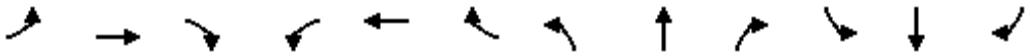
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	23.6	14.5	25.3	5.3	35.9	6.8	33.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	26.5	24.0	26.5	24.0	26.5	24.0	26.5	24.0
Max Q Clear Time (g_c+I1), s	13.2	9.4	10.4	17.3	2.4	6.2	2.8	15.2
Green Ext Time (p_c), s	0.8	3.0	0.7	2.0	0.0	6.0	0.0	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	63	31	9	62	36	31	148	10	26	140	40
Future Volume (veh/h)	40	63	31	9	62	36	31	148	10	26	140	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.96	1.00		0.99	0.99		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1845	1845	1845	1743	1743	1900	1776	1776	1900
Adj Flow Rate, veh/h	47	74	36	11	73	42	36	174	12	31	165	47
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	2	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	3	3	3	9	9	9	7	7	7
Cap, veh/h	562	352	171	494	438	358	514	581	40	490	941	260
Arrive On Green	0.07	0.29	0.29	0.01	0.24	0.24	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1200	584	1757	1845	1508	1085	1611	111	1128	2608	721
Grp Volume(v), veh/h	47	0	110	11	73	42	36	0	186	31	105	107
Grp Sat Flow(s),veh/h/ln	1810	0	1785	1757	1845	1508	1085	0	1722	1128	1687	1643
Q Serve(g_s), s	0.8	0.0	2.0	0.2	1.3	0.9	1.0	0.0	3.3	0.9	1.8	1.9
Cycle Q Clear(g_c), s	0.8	0.0	2.0	0.2	1.3	0.9	2.9	0.0	3.3	4.1	1.8	1.9
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.06	1.00		0.44
Lane Grp Cap(c), veh/h	562	0	523	494	438	358	514	0	621	490	608	592
V/C Ratio(X)	0.08	0.00	0.21	0.02	0.17	0.12	0.07	0.00	0.30	0.06	0.17	0.18
Avail Cap(c_a), veh/h	1549	0	1057	1552	1093	893	765	0	1020	752	999	973
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	11.2	11.9	12.8	12.6	10.2	0.0	9.7	11.1	9.2	9.2
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.3	0.1	0.1	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(95%),veh/ln	0.7	0.0	1.8	0.2	1.2	0.7	0.5	0.0	2.9	0.5	1.5	1.5
LnGrp Delay(d),s/veh	10.2	0.0	11.4	11.9	13.0	12.8	10.3	0.0	9.9	11.2	9.3	9.4
LnGrp LOS	B		B	B	B	B	B		A	B	A	A
Approach Vol, veh/h		157			126			222			243	
Approach Delay, s/veh		11.1			12.8			10.0			9.6	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	4.6	17.4		20.2	7.0	15.0
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	26.0	25.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		5.3	2.2	4.0		6.1	2.8	3.3
Green Ext Time (p_c), s		2.7	0.0	1.1		2.6	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	2	35	14	1	6	63	163	8	5	151	24
Future Volume (vph)	14	2	35	14	1	6	63	163	8	5	151	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00	0.99		1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.86			1.00	0.85		0.99			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.99			1.00	
Satd. Flow (prot)	1608	1455			1815	1592		3343			3272	
Flt Permitted	0.75	1.00			0.71	1.00		0.85			0.95	
Satd. Flow (perm)	1264	1455			1349	1592		2883			3110	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	2	38	15	1	7	68	177	9	5	164	26
RTOR Reduction (vph)	0	33	0	0	0	6	0	2	0	0	6	0
Lane Group Flow (vph)	15	7	0	0	16	1	0	252	0	0	189	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	6%	6%	6%	8%	8%	8%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	5.5	5.5			5.5	5.5		28.6			28.6	
Effective Green, g (s)	5.5	5.5			5.5	5.5		28.6			28.6	
Actuated g/C Ratio	0.12	0.12			0.12	0.12		0.65			0.65	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	157	181			168	198		1869			2016	
v/s Ratio Prot		0.00										
v/s Ratio Perm	c0.01				0.01	0.00		c0.09			0.06	
v/c Ratio	0.10	0.04			0.10	0.00		0.13			0.09	
Uniform Delay, d1	17.1	17.0			17.1	16.9		3.0			2.9	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.3	0.1			0.2	0.0		0.1			0.0	
Delay (s)	17.4	17.1			17.3	16.9		3.0			2.9	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		17.1			17.2			3.0			2.9	
Approach LOS		B			B			A			A	

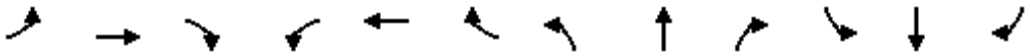
Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.15		
Actuated Cycle Length (s)	44.1	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	113	58	95	158	54	56	183	105	16	68	22
Future Volume (veh/h)	10	113	58	95	158	54	56	183	105	16	68	22
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.97	1.00		1.00	0.99		0.98
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
Adj Sat Flow, veh/h/ln	1743	1743	1743	1792	1792	1792	1810	1810	1810	1881	1881	1881
Adj Flow Rate, veh/h	11	122	62	102	170	58	60	197	113	17	73	24
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	6	6	6	5	5	5	1	1	1
Cap, veh/h	350	352	298	549	760	628	538	702	594	351	379	316
Arrive On Green	0.20	0.20	0.20	0.15	0.42	0.42	0.11	0.39	0.39	0.20	0.20	0.20
Sat Flow, veh/h	1063	1743	1473	1707	1792	1481	1723	1810	1531	1069	1881	1569
Grp Volume(v), veh/h	11	122	62	102	170	58	60	197	113	17	73	24
Grp Sat Flow(s),veh/h/ln	1063	1743	1473	1707	1792	1481	1723	1810	1531	1069	1881	1569
Q Serve(g_s), s	0.4	3.2	1.9	2.1	3.2	1.2	1.2	4.0	2.6	0.7	1.7	0.7
Cycle Q Clear(g_c), s	0.4	3.2	1.9	2.1	3.2	1.2	1.2	4.0	2.6	0.7	1.7	0.7
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	350	352	298	549	760	628	538	702	594	351	379	316
V/C Ratio(X)	0.03	0.35	0.21	0.19	0.22	0.09	0.11	0.28	0.19	0.05	0.19	0.08
Avail Cap(c_a), veh/h	636	821	694	1135	1857	1535	1192	1875	1586	639	886	739
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	17.1	18.2	17.6	10.9	9.7	9.2	11.8	11.2	10.7	17.2	17.6	17.2
Incr Delay (d2), s/veh	0.0	0.6	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	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(95%),veh/ln	0.2	2.8	1.4	1.8	2.9	0.9	1.1	3.6	2.0	0.4	1.7	0.5
LnGrp Delay(d),s/veh	17.1	18.8	18.0	11.1	9.9	9.2	11.8	11.4	10.9	17.2	17.8	17.3
LnGrp LOS	B	B	B	B	A	A	B	B	B	B	B	B
Approach Vol, veh/h		195			330			370			114	
Approach Delay, s/veh		18.4			10.1			11.3			17.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	11.8	15.7	9.9	15.7		27.5		25.6
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	4.1	5.2	3.2	3.7		5.2		6.0
Green Ext Time (p_c), s	0.2	2.1	0.1	2.1		2.4		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	155	2	5	234	140	1	34	11	79	12	85
Future Volume (vph)	89	155	2	5	234	140	1	34	11	79	12	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		0.98			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3310			1808	1518	1804	1900	1593	1718	1572	
Flt Permitted		0.76			0.99	1.00	1.00	1.00	1.00	0.56	1.00	
Satd. Flow (perm)		2568			1795	1518	1899	1900	1593	1005	1572	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	109	189	2	6	285	171	1	41	13	96	15	104
RTOR Reduction (vph)	0	0	0	0	0	100	0	0	12	0	68	0
Lane Group Flow (vph)	0	300	0	0	291	71	1	41	1	96	51	0
Confl. Peds. (#/hr)			1	3		2	1		3	2		
Heavy Vehicles (%)	7%	7%	7%	5%	5%	5%	0%	0%	0%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		17.2			17.2	17.2	3.7	3.7	3.7	14.2	14.2	
Effective Green, g (s)		17.2			17.2	17.2	3.7	3.7	3.7	14.2	14.2	
Actuated g/C Ratio		0.42			0.42	0.42	0.09	0.09	0.09	0.34	0.34	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1066			745	630	169	169	142	465	539	
v/s Ratio Prot								0.02		c0.03	0.03	
v/s Ratio Perm		0.12			c0.16	0.05	0.00		0.00	c0.04		
v/c Ratio		0.28			0.39	0.11	0.01	0.24	0.01	0.21	0.09	
Uniform Delay, d1		8.0			8.4	7.4	17.2	17.5	17.2	9.6	9.2	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1			0.3	0.1	0.0	0.7	0.0	0.2	0.1	
Delay (s)		8.2			8.8	7.5	17.2	18.3	17.2	9.8	9.3	
Level of Service		A			A	A	B	B	B	A	A	
Approach Delay (s)		8.2			8.3			18.0			9.5	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	41.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	63	10	8	95	21	47	210	5	12	150	10
Future Volume (veh/h)	8	63	10	8	95	21	47	210	5	12	150	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.98	1.00		0.99	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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1845	1845	1900	1776	1900	1900	1776	1900
Adj Flow Rate, veh/h	10	80	13	10	120	27	59	266	6	15	190	13
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	0	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	3	3	3	7	7	7	7	7	7
Cap, veh/h	64	216	33	60	253	221	416	1844	42	173	2083	142
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	79	1506	229	60	1758	1542	485	2551	59	164	2881	196
Grp Volume(v), veh/h	103	0	0	130	0	27	167	0	164	113	0	105
Grp Sat Flow(s),veh/h/ln	1814	0	0	1818	0	1542	1489	0	1605	1662	0	1580
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	2.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0	4.9	0.0	1.1	2.2	0.0	2.4	0.0	0.0	0.0
Prop In Lane	0.10		0.13	0.08		1.00	0.35		0.04	0.13		0.12
Lane Grp Cap(c), veh/h	313	0	0	313	0	221	1141	0	1161	1256	0	1142
V/C Ratio(X)	0.33	0.00	0.00	0.42	0.00	0.12	0.15	0.00	0.14	0.09	0.00	0.09
Avail Cap(c_a), veh/h	696	0	0	699	0	555	1141	0	1161	1256	0	1142
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	0.00	1.00	0.00	1.00	0.99	0.00	0.99	0.99	0.00	0.99
Uniform Delay (d), s/veh	29.1	0.0	0.0	29.6	0.0	28.0	3.2	0.0	3.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	1.9	0.0	0.5	0.3	0.0	0.3	0.1	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(95%),veh/ln	3.7	0.0	0.0	4.8	0.0	0.9	2.0	0.0	2.0	0.1	0.0	0.1
LnGrp Delay(d),s/veh	30.4	0.0	0.0	31.5	0.0	28.5	3.4	0.0	3.5	0.1	0.0	0.2
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		103			157			331			218	
Approach Delay, s/veh		30.4			31.0			3.4			0.1	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		59.2		15.8		59.2		15.8
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		4.4		5.8		2.0		6.9
Green Ext Time (p_c), s		7.3		2.6		7.5		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	12	7	5	7	7	16	227	1	3	177	103
Future Volume (veh/h)	88	12	7	5	7	7	16	227	1	3	177	103
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.97	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1633	1900	1900	1810	1900	1900	1827	1900
Adj Flow Rate, veh/h	99	13	8	6	8	8	18	255	1	3	199	116
Adj No. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	5	5	5	4	4	4
Cap, veh/h	253	32	14	94	100	76	169	2289	9	54	1527	837
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	1.00	1.00	1.00	0.72	0.72	0.72
Sat Flow, veh/h	1159	222	99	231	700	532	158	3163	12	7	2109	1156
Grp Volume(v), veh/h	120	0	0	22	0	0	142	0	132	173	0	145
Grp Sat Flow(s),veh/h/ln	1479	0	0	1462	0	0	1689	0	1644	1822	0	1449
Q Serve(g_s), s	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Cycle Q Clear(g_c), s	5.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2.3
Prop In Lane	0.82		0.07	0.27		0.36	0.13		0.01	0.02		0.80
Lane Grp Cap(c), veh/h	299	0	0	270	0	0	1276	0	1190	1368	0	1049
V/C Ratio(X)	0.40	0.00	0.00	0.08	0.00	0.00	0.11	0.00	0.11	0.13	0.00	0.14
Avail Cap(c_a), veh/h	613	0	0	571	0	0	1276	0	1190	1368	0	1049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	3.2
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.2	0.2	0.0	0.3
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(95%),veh/ln	4.4	0.0	0.0	0.8	0.0	0.0	0.1	0.0	0.1	2.0	0.0	1.8
LnGrp Delay(d),s/veh	31.7	0.0	0.0	28.2	0.0	0.0	0.2	0.0	0.2	3.3	0.0	3.5
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		120			22			274			318	
Approach Delay, s/veh		31.7			28.2			0.2			3.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		59.3		15.7		59.3		15.7
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0		7.5		4.3		2.9
Green Ext Time (p_c), s		8.2		1.3		8.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	496	19	41	557	41	30	273	31	55	225	123
Future Volume (veh/h)	131	496	19	41	557	41	30	273	31	55	225	123
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.98	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1810	1810	1810	1845	1845	1900	1810	1810	1900	1827	1827	1900
Adj Flow Rate, veh/h	156	590	23	49	663	49	36	325	37	65	268	146
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	5	5	5	3	3	3	5	5	5	4	4	4
Cap, veh/h	387	1394	686	405	1237	91	294	720	81	333	543	287
Arrive On Green	0.08	0.41	0.41	0.05	0.37	0.37	0.04	0.23	0.23	0.06	0.25	0.25
Sat Flow, veh/h	1723	3438	1534	1757	3305	244	1723	3114	352	1740	2192	1158
Grp Volume(v), veh/h	156	590	23	49	351	361	36	178	184	65	210	204
Grp Sat Flow(s),veh/h/ln	1723	1719	1534	1757	1752	1796	1723	1719	1746	1740	1736	1614
Q Serve(g_s), s	4.2	9.7	0.7	1.3	12.3	12.3	1.2	7.0	7.1	2.2	8.1	8.5
Cycle Q Clear(g_c), s	4.2	9.7	0.7	1.3	12.3	12.3	1.2	7.0	7.1	2.2	8.1	8.5
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.20	1.00		0.72
Lane Grp Cap(c), veh/h	387	1394	686	405	656	672	294	398	404	333	430	400
V/C Ratio(X)	0.40	0.42	0.03	0.12	0.54	0.54	0.12	0.45	0.45	0.20	0.49	0.51
Avail Cap(c_a), veh/h	818	1929	924	899	983	1008	794	965	980	809	974	906
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	13.8	16.7	12.2	13.7	19.2	19.2	21.5	25.9	25.9	20.9	25.3	25.4
Incr Delay (d2), s/veh	0.7	0.3	0.0	0.1	1.0	0.9	0.2	1.1	1.1	0.3	1.2	1.4
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(95%),veh/ln	3.7	8.2	0.5	1.1	10.2	10.4	1.1	6.2	6.4	1.9	7.3	7.1
LnGrp Delay(d),s/veh	14.5	17.0	12.2	13.8	20.2	20.2	21.7	27.0	27.0	21.2	26.5	26.8
LnGrp LOS	B	B	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		769			761			398			479	
Approach Delay, s/veh		16.4			19.7			26.5			25.9	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	37.8	7.3	25.4	10.4	35.4	8.5	24.1
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	26.0	44.0	26.0	44.0	26.0	44.0
Max Q Clear Time (g_c+I1), s	3.3	11.7	3.2	10.5	6.2	14.3	4.2	9.1
Green Ext Time (p_c), s	0.1	15.7	0.1	8.2	0.4	15.0	0.1	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	258	25	243	331	280	35	261	284	214	191	13
Future Volume (veh/h)	10	258	25	243	331	280	35	261	284	214	191	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.98	0.99		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1881	1863	1863	1900	1810	1810	1900
Adj Flow Rate, veh/h	11	272	26	256	348	295	37	275	299	225	201	14
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	5	5	5
Cap, veh/h	285	381	36	424	644	733	500	465	415	379	1067	74
Arrive On Green	0.02	0.23	0.23	0.14	0.34	0.34	0.06	0.26	0.26	0.12	0.33	0.33
Sat Flow, veh/h	1774	1674	160	1792	1881	1572	1774	1770	1580	1723	3262	226
Grp Volume(v), veh/h	11	0	298	256	348	295	37	275	299	225	105	110
Grp Sat Flow(s),veh/h/ln	1774	0	1834	1792	1881	1572	1774	1770	1580	1723	1719	1768
Q Serve(g_s), s	0.4	0.0	11.3	7.7	11.3	9.4	1.1	10.3	13.0	6.7	3.3	3.4
Cycle Q Clear(g_c), s	0.4	0.0	11.3	7.7	11.3	9.4	1.1	10.3	13.0	6.7	3.3	3.4
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	285	0	418	424	644	733	500	465	415	379	562	579
V/C Ratio(X)	0.04	0.00	0.71	0.60	0.54	0.40	0.07	0.59	0.72	0.59	0.19	0.19
Avail Cap(c_a), veh/h	868	0	582	808	644	733	1021	562	502	773	562	579
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	26.9	17.9	20.1	13.4	17.9	24.3	25.3	17.1	18.2	18.2
Incr Delay (d2), s/veh	0.1	0.0	10.0	1.4	3.2	1.6	0.1	2.6	6.0	1.5	0.3	0.3
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(95%),veh/ln	0.3	0.0	11.2	6.9	10.5	7.8	1.0	9.1	10.5	5.9	2.9	3.1
LnGrp Delay(d),s/veh	21.5	0.0	36.9	19.3	23.3	15.0	17.9	26.9	31.4	18.6	18.6	18.6
LnGrp LOS	C		D	B	C	B	B	C	C	B	B	B
Approach Vol, veh/h		309			899			611			440	
Approach Delay, s/veh		36.3			19.4			28.5			18.6	
Approach LOS		D			B			C			B	

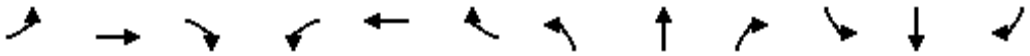
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	25.8	13.8	23.2	7.8	30.7	5.1	31.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	26.5	24.0	26.5	24.0	26.5	24.0	26.5	24.0
Max Q Clear Time (g_c+I1), s	8.7	15.0	9.7	13.3	3.1	5.4	2.4	13.3
Green Ext Time (p_c), s	0.6	4.8	0.7	3.9	0.1	8.5	0.0	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	92	53	26	71	100	51	230	13	58	236	67
Future Volume (veh/h)	53	92	53	26	71	100	51	230	13	58	236	67
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	58	101	58	29	78	110	56	253	14	64	259	74
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	563	322	185	498	453	381	460	612	34	436	965	270
Arrive On Green	0.08	0.29	0.29	0.03	0.24	0.24	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1810	1125	646	1810	1900	1598	1029	1731	96	1104	2728	763
Grp Volume(v), veh/h	58	0	159	29	78	110	56	0	267	64	166	167
Grp Sat Flow(s),veh/h/ln	1810	0	1771	1810	1900	1598	1029	0	1827	1104	1770	1722
Q Serve(g_s), s	1.0	0.0	3.0	0.5	1.4	2.4	1.8	0.0	4.7	2.0	2.9	3.0
Cycle Q Clear(g_c), s	1.0	0.0	3.0	0.5	1.4	2.4	4.7	0.0	4.7	6.7	2.9	3.0
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.05	1.00		0.44
Lane Grp Cap(c), veh/h	563	0	506	498	453	381	460	0	646	436	626	609
V/C Ratio(X)	0.10	0.00	0.31	0.06	0.17	0.29	0.12	0.00	0.41	0.15	0.27	0.27
Avail Cap(c_a), veh/h	1513	0	1033	1533	1108	932	696	0	1065	690	1032	1004
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	12.0	11.5	13.0	13.4	11.6	0.0	10.5	13.0	9.9	9.9
Incr Delay (d2), s/veh	0.1	0.0	0.4	0.0	0.2	0.4	0.1	0.0	0.4	0.2	0.2	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(95%),veh/ln	0.9	0.0	2.7	0.4	1.4	2.0	0.9	0.0	4.4	1.1	2.6	2.6
LnGrp Delay(d),s/veh	10.3	0.0	12.4	11.6	13.1	13.8	11.7	0.0	10.9	13.2	10.1	10.2
LnGrp LOS	B		B	B	B	B	B		B	B	B	B
Approach Vol, veh/h		217			217			323			397	
Approach Delay, s/veh		11.8			13.3			11.1			10.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	5.5	17.3		20.2	7.5	15.2
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	26.0	25.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		6.7	2.5	5.0		8.7	3.0	4.4
Green Ext Time (p_c), s		4.2	0.0	1.7		4.0	0.1	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	11.5
HCM 2010 LOS	B



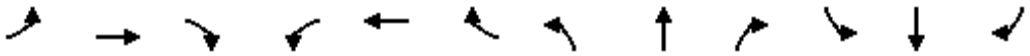
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	1	103	26	3	7	82	239	11	6	247	63
Future Volume (vph)	40	1	103	26	3	7	82	239	11	6	247	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95			0.95	
Frt	1.00	0.85			1.00	0.85		0.99			0.97	
Flt Protected	0.95	1.00			0.96	1.00		0.99			1.00	
Satd. Flow (prot)	1719	1541			1818	1615		3445			3364	
Flt Permitted	0.74	1.00			0.74	1.00		0.81			0.95	
Satd. Flow (perm)	1334	1541			1406	1615		2817			3196	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	43	1	110	28	3	7	87	254	12	6	263	67
RTOR Reduction (vph)	0	81	0	0	0	5	0	2	0	0	14	0
Lane Group Flow (vph)	43	30	0	0	31	2	0	351	0	0	322	0
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	3%	3%	3%	4%	4%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Effective Green, g (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Actuated g/C Ratio	0.26	0.26			0.26	0.26		0.52			0.52	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	346	400			365	419		1458			1654	
v/s Ratio Prot		0.02										
v/s Ratio Perm	c0.03				0.02	0.00		c0.12			0.10	
v/c Ratio	0.12	0.07			0.08	0.00		0.24			0.19	
Uniform Delay, d1	12.7	12.6			12.6	12.3		6.0			5.8	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.2	0.1			0.1	0.0		0.1			0.1	
Delay (s)	12.9	12.6			12.7	12.3		6.1			5.9	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		12.7			12.6			6.1			5.9	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	208	142	179	192	28	101	146	130	66	177	38
Future Volume (veh/h)	26	208	142	179	192	28	101	146	130	66	177	38
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1863	1863	1863	1900	1900	1900
Adj Flow Rate, veh/h	31	251	171	216	231	34	122	176	157	80	213	46
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	4	4	4	2	2	2	0	0	0
Cap, veh/h	354	401	339	478	801	680	470	746	632	322	370	313
Arrive On Green	0.22	0.22	0.22	0.16	0.44	0.44	0.14	0.40	0.40	0.19	0.19	0.19
Sat Flow, veh/h	1096	1845	1559	1740	1827	1549	1774	1863	1579	1060	1900	1605
Grp Volume(v), veh/h	31	251	171	216	231	34	122	176	157	80	213	46
Grp Sat Flow(s),veh/h/ln	1096	1845	1559	1740	1827	1549	1774	1863	1579	1060	1900	1605
Q Serve(g_s), s	1.4	7.7	6.0	5.2	5.0	0.8	2.9	3.9	4.1	4.1	6.3	1.5
Cycle Q Clear(g_c), s	1.4	7.7	6.0	5.2	5.0	0.8	2.9	3.9	4.1	4.1	6.3	1.5
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	354	401	339	478	801	680	470	746	632	322	370	313
V/C Ratio(X)	0.09	0.63	0.50	0.45	0.29	0.05	0.26	0.24	0.25	0.25	0.58	0.15
Avail Cap(c_a), veh/h	557	742	627	932	1617	1371	962	1649	1397	542	764	646
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	19.6	22.0	21.4	13.5	11.2	10.0	13.9	12.3	12.4	21.8	22.7	20.7
Incr Delay (d2), s/veh	0.1	1.6	1.2	0.7	0.2	0.0	0.3	0.2	0.2	0.4	1.4	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(95%),veh/ln	0.8	7.4	4.8	4.6	4.6	0.6	2.6	3.7	3.3	2.2	6.2	1.2
LnGrp Delay(d),s/veh	19.7	23.6	22.5	14.1	11.4	10.0	14.2	12.5	12.6	22.2	24.1	21.0
LnGrp LOS	B	C	C	B	B	B	B	B	B	C	C	C
Approach Vol, veh/h		453			481			455			339	
Approach Delay, s/veh		23.0			12.5			13.0			23.2	
Approach LOS		C			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	13.8	18.5	12.8	17.1		32.3		29.9
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	7.2	9.7	4.9	8.3		7.0		6.1
Green Ext Time (p_c), s	0.6	3.5	0.3	3.2		4.3		3.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	275	2	9	244	142	3	43	25	179	20	127
Future Volume (vph)	103	275	2	9	244	142	3	43	25	179	20	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	0.99	1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		0.99			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3422			1859	1583	1802	1900	1594	1752	1588	
Flt Permitted		0.75			0.98	1.00	0.68	1.00	1.00	0.45	1.00	
Satd. Flow (perm)		2584			1820	1583	1286	1900	1594	837	1588	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	124	331	2	11	294	171	4	52	30	216	24	153
RTOR Reduction (vph)	0	0	0	0	0	112	0	0	26	0	84	0
Lane Group Flow (vph)	0	457	0	0	305	59	4	52	4	216	93	0
Confl. Peds. (#/hr)	1		3	2			3		2			1
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		16.8			16.8	16.8	5.9	5.9	5.9	21.8	21.8	
Effective Green, g (s)		16.8			16.8	16.8	5.9	5.9	5.9	21.8	21.8	
Actuated g/C Ratio		0.35			0.35	0.35	0.12	0.12	0.12	0.45	0.45	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		893			629	547	156	230	193	608	712	
v/s Ratio Prot								0.03		c0.09	0.06	
v/s Ratio Perm		c0.18			0.17	0.04	0.00		0.00	c0.07		
v/c Ratio		0.51			0.48	0.11	0.03	0.23	0.02	0.36	0.13	
Uniform Delay, d1		12.6			12.5	10.8	18.8	19.3	18.8	8.6	7.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5			0.6	0.1	0.1	0.5	0.0	0.4	0.1	
Delay (s)		13.1			13.1	10.9	18.9	19.8	18.8	8.9	7.9	
Level of Service		B			B	B	B	B	B	A	A	
Approach Delay (s)		13.1			12.3			19.4			8.5	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	16.5
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	120	53	17	93	29	29	251	10	27	295	21
Future Volume (veh/h)	23	120	53	17	93	29	29	251	10	27	295	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.96	0.98		0.98	0.99		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1845	1900	1900	1863	1900
Adj Flow Rate, veh/h	29	150	66	21	116	36	36	314	12	34	369	26
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	80	266	108	93	430	399	211	1770	68	174	1802	126
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.61	0.61	0.61	1.00	1.00	1.00
Sat Flow, veh/h	102	1036	420	145	1672	1550	252	2905	111	195	2957	206
Grp Volume(v), veh/h	245	0	0	137	0	36	184	0	178	221	0	208
Grp Sat Flow(s),veh/h/ln	1557	0	0	1817	0	1550	1612	0	1656	1707	0	1651
Q Serve(g_s), s	1.8	0.0	0.0	0.0	0.0	1.3	0.0	0.0	3.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.1	0.0	0.0	4.3	0.0	1.3	3.2	0.0	3.5	0.0	0.0	0.0
Prop In Lane	0.12		0.27	0.15		1.00	0.20		0.07	0.15		0.12
Lane Grp Cap(c), veh/h	454	0	0	523	0	399	1040	0	1009	1096	0	1006
V/C Ratio(X)	0.54	0.00	0.00	0.26	0.00	0.09	0.18	0.00	0.18	0.20	0.00	0.21
Avail Cap(c_a), veh/h	610	0	0	701	0	558	1040	0	1009	1096	0	1006
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	0.00	1.00	0.00	1.00	0.98	0.00	0.98	0.98	0.00	0.98
Uniform Delay (d), s/veh	24.4	0.0	0.0	22.3	0.0	21.2	6.4	0.0	6.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.6	0.0	0.2	0.4	0.0	0.4	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.2	0.0	0.0	4.3	0.0	1.1	3.1	0.0	3.0	0.2	0.0	0.2
LnGrp Delay(d),s/veh	26.5	0.0	0.0	22.9	0.0	21.4	6.7	0.0	6.8	0.4	0.0	0.5
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		245			173			362			429	
Approach Delay, s/veh		26.5			22.6			6.8			0.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.7		24.3		50.7		24.3
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		5.5		12.1		2.0		6.3
Green Ext Time (p_c), s		11.1		3.8		11.5		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	17	31	6	13	20	14	275	14	18	296	136
Future Volume (veh/h)	174	17	31	6	13	20	14	275	14	18	296	136
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1757	1900	1900	1845	1900	1900	1881	1900
Adj Flow Rate, veh/h	191	19	34	7	14	22	15	302	15	20	325	149
Adj No. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	1	1	1
Cap, veh/h	339	28	46	86	143	181	110	2034	100	100	1465	646
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	1.00	1.00	1.00	0.64	0.64	0.64
Sat Flow, veh/h	1140	127	205	136	642	815	90	3155	155	76	2273	1002
Grp Volume(v), veh/h	244	0	0	43	0	0	172	0	160	267	0	227
Grp Sat Flow(s),veh/h/ln	1472	0	0	1594	0	0	1751	0	1650	1823	0	1527
Q Serve(g_s), s	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
Cycle Q Clear(g_c), s	11.4	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	4.4	0.0	4.7
Prop In Lane	0.78		0.14	0.16		0.51	0.09		0.09	0.07		0.66
Lane Grp Cap(c), veh/h	412	0	0	410	0	0	1181	0	1064	1227	0	984
V/C Ratio(X)	0.59	0.00	0.00	0.10	0.00	0.00	0.15	0.00	0.15	0.22	0.00	0.23
Avail Cap(c_a), veh/h	610	0	0	617	0	0	1181	0	1064	1227	0	984
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	5.5	0.0	5.6
Incr Delay (d2), s/veh	2.9	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.3	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.7	0.0	0.0	1.3	0.0	0.0	0.2	0.0	0.2	4.3	0.0	3.8
LnGrp Delay(d),s/veh	29.9	0.0	0.0	23.6	0.0	0.0	0.3	0.0	0.3	5.9	0.0	6.1
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		244			43			332			494	
Approach Delay, s/veh		29.9			23.6			0.3			6.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		53.3		21.7		53.3		21.7
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0		13.4		6.7		3.6
Green Ext Time (p_c), s		12.1		2.5		11.5		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	625	70	198	628	17	79	324	197	33	349	75
Future Volume (veh/h)	61	625	70	198	628	17	79	324	197	33	349	75
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1881	1881	1900	1863	1863	1900
Adj Flow Rate, veh/h	64	658	74	208	661	18	83	341	207	35	367	79
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	2	2	2
Cap, veh/h	371	1237	646	402	1387	38	336	612	364	277	764	163
Arrive On Green	0.05	0.35	0.35	0.10	0.39	0.39	0.06	0.28	0.28	0.04	0.26	0.26
Sat Flow, veh/h	1774	3539	1579	1774	3518	96	1792	2155	1283	1774	2897	616
Grp Volume(v), veh/h	64	658	74	208	332	347	83	282	266	35	223	223
Grp Sat Flow(s),veh/h/ln	1774	1770	1579	1774	1770	1844	1792	1787	1650	1774	1770	1744
Q Serve(g_s), s	2.0	13.0	2.5	6.2	12.3	12.3	2.9	11.7	12.1	1.2	9.3	9.5
Cycle Q Clear(g_c), s	2.0	13.0	2.5	6.2	12.3	12.3	2.9	11.7	12.1	1.2	9.3	9.5
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.78	1.00		0.35
Lane Grp Cap(c), veh/h	371	1237	646	402	698	727	336	508	469	277	467	460
V/C Ratio(X)	0.17	0.53	0.11	0.52	0.48	0.48	0.25	0.56	0.57	0.13	0.48	0.49
Avail Cap(c_a), veh/h	801	1778	888	754	889	927	762	898	829	734	889	876
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	16.6	22.8	16.0	15.7	19.8	19.8	21.6	26.6	26.8	22.3	27.1	27.2
Incr Delay (d2), s/veh	0.2	0.5	0.1	1.0	0.7	0.7	0.4	1.4	1.5	0.2	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	10.5	2.0	5.6	10.2	10.5	2.6	10.0	9.6	1.1	8.2	8.2
LnGrp Delay(d),s/veh	16.8	23.3	16.2	16.7	20.5	20.5	22.0	28.0	28.3	22.5	28.2	28.3
LnGrp LOS	B	C	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		796			887			631			481	
Approach Delay, s/veh		22.1			19.6			27.3			27.9	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	36.6	9.2	29.1	8.7	40.5	7.4	30.9
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	26.0	44.0	26.0	44.0	26.0	44.0
Max Q Clear Time (g_c+I1), s	8.2	15.0	4.9	11.5	4.0	14.3	3.2	14.1
Green Ext Time (p_c), s	0.5	15.6	0.2	11.0	0.1	15.8	0.1	10.6

Intersection Summary	
HCM 2010 Ctrl Delay	23.5
HCM 2010 LOS	C

Appendix D: Year 2040 (No Build) Traffic Operations Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	265	20	215	150	330	10	155	125	270	215	25
Future Volume (veh/h)	25	265	20	215	150	330	10	155	125	270	215	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
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	0.99		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1792	1792	1792	1792	1792	1900	1776	1776	1900
Adj Flow Rate, veh/h	32	335	25	272	190	418	13	196	158	342	272	32
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	3	3	3	6	6	6	6	6	6	7	7	7
Cap, veh/h	363	398	30	380	591	779	343	383	292	501	1115	130
Arrive On Green	0.05	0.23	0.23	0.15	0.33	0.33	0.02	0.21	0.21	0.18	0.37	0.37
Sat Flow, veh/h	1757	1696	127	1707	1792	1518	1707	1838	1402	1691	3043	355
Grp Volume(v), veh/h	32	0	360	272	190	418	13	181	173	342	150	154
Grp Sat Flow(s),veh/h/ln	1757	0	1822	1707	1792	1518	1707	1703	1537	1691	1687	1711
Q Serve(g_s), s	1.1	0.0	15.7	9.4	6.6	15.4	0.5	7.8	8.4	12.3	5.1	5.2
Cycle Q Clear(g_c), s	1.1	0.0	15.7	9.4	6.6	15.4	0.5	7.8	8.4	12.3	5.1	5.2
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.91	1.00		0.21
Lane Grp Cap(c), veh/h	363	0	428	380	591	779	343	355	320	501	618	627
V/C Ratio(X)	0.09	0.00	0.84	0.72	0.32	0.54	0.04	0.51	0.54	0.68	0.24	0.25
Avail Cap(c_a), veh/h	834	0	526	676	591	779	844	492	444	731	618	627
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	30.3	20.0	20.9	13.6	24.6	29.1	29.3	18.8	18.3	18.3
Incr Delay (d2), s/veh	0.1	0.0	17.8	2.5	1.4	2.6	0.0	2.4	3.0	1.7	0.4	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(95%),veh/ln	1.0	0.0	15.2	8.2	6.3	11.4	0.4	7.0	6.9	9.9	4.4	4.5
LnGrp Delay(d),s/veh	21.7	0.0	48.1	22.5	22.3	16.3	24.7	31.5	32.4	20.5	18.7	18.8
LnGrp LOS	C		D	C	C	B	C	C	C	C	B	B
Approach Vol, veh/h		392			880			367			646	
Approach Delay, s/veh		46.0			19.5			31.7			19.7	
Approach LOS		D			B			C			B	

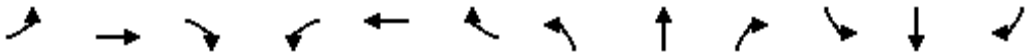
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	23.3	15.6	25.5	5.6	36.5	7.7	33.4
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	26.5	24.0	26.5	24.0	26.5	24.0	26.5	24.0
Max Q Clear Time (g_c+I1), s	14.3	10.4	11.4	17.7	2.5	7.2	3.1	17.4
Green Ext Time (p_c), s	0.9	3.1	0.7	1.9	0.0	6.6	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	65	30	10	60	35	30	170	10	25	160	40
Future Volume (veh/h)	40	65	30	10	60	35	30	170	10	25	160	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.96	1.00		0.99	0.99		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1845	1845	1845	1743	1743	1900	1776	1776	1900
Adj Flow Rate, veh/h	47	76	35	12	71	41	35	200	12	29	188	47
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	2	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	3	3	3	9	9	9	7	7	7
Cap, veh/h	563	357	165	496	438	358	501	587	35	470	969	236
Arrive On Green	0.07	0.29	0.29	0.02	0.24	0.24	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1225	564	1757	1845	1508	1062	1627	98	1102	2687	655
Grp Volume(v), veh/h	47	0	111	12	71	41	35	0	212	29	116	119
Grp Sat Flow(s),veh/h/ln	1810	0	1788	1757	1845	1508	1062	0	1725	1102	1687	1655
Q Serve(g_s), s	0.8	0.0	2.0	0.2	1.3	0.9	1.0	0.0	3.8	0.8	2.0	2.1
Cycle Q Clear(g_c), s	0.8	0.0	2.0	0.2	1.3	0.9	3.1	0.0	3.8	4.6	2.0	2.1
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.06	1.00		0.40
Lane Grp Cap(c), veh/h	563	0	522	496	438	358	501	0	622	470	609	597
V/C Ratio(X)	0.08	0.00	0.21	0.02	0.16	0.11	0.07	0.00	0.34	0.06	0.19	0.20
Avail Cap(c_a), veh/h	1551	0	1060	1551	1093	894	748	0	1022	725	999	980
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	11.3	11.9	12.8	12.6	10.3	0.0	9.8	11.5	9.3	9.3
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.3	0.1	0.2	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(95%),veh/ln	0.7	0.0	1.8	0.2	1.2	0.7	0.5	0.0	3.3	0.5	1.7	1.8
LnGrp Delay(d),s/veh	10.3	0.0	11.5	11.9	12.9	12.8	10.4	0.0	10.2	11.6	9.4	9.4
LnGrp LOS	B		B	B	B	B	B		B	B	A	A
Approach Vol, veh/h		158			124			247			264	
Approach Delay, s/veh		11.1			12.8			10.2			9.7	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	4.7	17.3		20.2	7.0	15.0
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	26.0	25.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		5.8	2.2	4.0		6.6	2.8	3.3
Green Ext Time (p_c), s		3.0	0.0	1.1		2.9	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	5	35	15	5	5	65	190	10	5	170	25
Future Volume (vph)	15	5	35	15	5	5	65	190	10	5	170	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00	0.99		1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.87			1.00	0.85		0.99			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.99			1.00	
Satd. Flow (prot)	1608	1472			1830	1592		3345			3276	
Flt Permitted	0.74	1.00			0.75	1.00		0.85			0.95	
Satd. Flow (perm)	1259	1472			1423	1592		2882			3114	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	5	38	16	5	5	71	207	11	5	185	27
RTOR Reduction (vph)	0	33	0	0	0	4	0	2	0	0	5	0
Lane Group Flow (vph)	16	10	0	0	21	1	0	287	0	0	212	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	6%	6%	6%	8%	8%	8%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Effective Green, g (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Actuated g/C Ratio	0.12	0.12			0.12	0.12		0.65			0.65	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	156	182			176	197		1861			2011	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.01				c0.01	0.00		c0.10			0.07	
v/c Ratio	0.10	0.05			0.12	0.00		0.15			0.11	
Uniform Delay, d1	16.9	16.8			16.9	16.7		3.0			2.9	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.3	0.1			0.3	0.0		0.1			0.0	
Delay (s)	17.2	16.9			17.2	16.7		3.1			3.0	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		17.0			17.1			3.1			3.0	
Approach LOS		B			B			A			A	

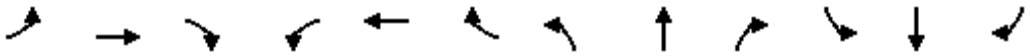
Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	135	70	115	180	60	60	185	120	15	65	20
Future Volume (veh/h)	10	135	70	115	180	60	60	185	120	15	65	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.97	1.00		1.00	0.99		0.98
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
Adj Sat Flow, veh/h/ln	1743	1743	1743	1792	1792	1792	1810	1810	1810	1881	1881	1881
Adj Flow Rate, veh/h	11	145	75	124	194	65	65	199	129	16	70	22
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	6	6	6	5	5	5	1	1	1
Cap, veh/h	338	346	292	539	768	634	541	700	593	341	373	311
Arrive On Green	0.20	0.20	0.20	0.16	0.43	0.43	0.12	0.39	0.39	0.20	0.20	0.20
Sat Flow, veh/h	1033	1743	1473	1707	1792	1481	1723	1810	1531	1052	1881	1569
Grp Volume(v), veh/h	11	145	75	124	194	65	65	199	129	16	70	22
Grp Sat Flow(s),veh/h/ln	1033	1743	1473	1707	1792	1481	1723	1810	1531	1052	1881	1569
Q Serve(g_s), s	0.5	3.9	2.3	2.6	3.8	1.4	1.4	4.1	3.1	0.7	1.7	0.6
Cycle Q Clear(g_c), s	0.5	3.9	2.3	2.6	3.8	1.4	1.4	4.1	3.1	0.7	1.7	0.6
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	338	346	292	539	768	634	541	700	593	341	373	311
V/C Ratio(X)	0.03	0.42	0.26	0.23	0.25	0.10	0.12	0.28	0.22	0.05	0.19	0.07
Avail Cap(c_a), veh/h	610	805	680	1092	1820	1504	1170	1838	1555	619	868	724
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	17.6	19.0	18.3	11.2	9.9	9.3	12.0	11.4	11.1	17.7	18.1	17.7
Incr Delay (d2), s/veh	0.0	0.8	0.5	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2	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(95%),veh/ln	0.2	3.5	1.8	2.2	3.4	1.1	1.2	3.8	2.3	0.4	1.6	0.5
LnGrp Delay(d),s/veh	17.6	19.8	18.8	11.4	10.1	9.3	12.1	11.6	11.3	17.7	18.3	17.8
LnGrp LOS	B	B	B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		231			383			393			108	
Approach Delay, s/veh		19.4			10.4			11.6			18.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	12.5	15.7	10.2	15.7		28.2		26.0
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	4.6	5.9	3.4	3.7		5.8		6.1
Green Ext Time (p_c), s	0.3	2.5	0.1	2.2		2.9		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	180	5	5	270	165	5	35	10	90	15	85
Future Volume (vph)	90	180	5	5	270	165	5	35	10	90	15	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		0.98			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3309			1808	1518	1804	1900	1593	1718	1578	
Flt Permitted		0.76			0.99	1.00	1.00	1.00	1.00	0.55	1.00	
Satd. Flow (perm)		2562			1796	1518	1899	1900	1593	991	1578	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	110	220	6	6	329	201	6	43	12	110	18	104
RTOR Reduction (vph)	0	1	0	0	0	115	0	0	11	0	68	0
Lane Group Flow (vph)	0	335	0	0	335	86	6	43	1	110	54	0
Confl. Peds. (#/hr)			1	3		2	1		3	2		
Heavy Vehicles (%)	7%	7%	7%	5%	5%	5%	0%	0%	0%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		18.3			18.3	18.3	3.8	3.8	3.8	14.7	14.7	
Effective Green, g (s)		18.3			18.3	18.3	3.8	3.8	3.8	14.7	14.7	
Actuated g/C Ratio		0.43			0.43	0.43	0.09	0.09	0.09	0.34	0.34	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1090			764	646	167	167	140	463	539	
v/s Ratio Prot								0.02		c0.04	0.03	
v/s Ratio Perm		0.13			c0.19	0.06	0.00		0.00	c0.04		
v/c Ratio		0.31			0.44	0.13	0.04	0.26	0.01	0.24	0.10	
Uniform Delay, d1		8.2			8.7	7.5	17.9	18.3	17.9	10.1	9.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.4	0.1	0.1	0.8	0.0	0.3	0.1	
Delay (s)		8.3			9.1	7.6	18.0	19.1	17.9	10.4	9.7	
Level of Service		A			A	A	B	B	B	B	A	
Approach Delay (s)		8.3			8.6			18.8			10.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	43.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	60	10	15	95	20	50	225	10	15	165	10
Future Volume (veh/h)	10	60	10	15	95	20	50	225	10	15	165	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.98	1.00		0.99	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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1845	1845	1900	1776	1900	1900	1776	1900
Adj Flow Rate, veh/h	13	76	13	19	120	25	63	285	13	19	209	13
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	0	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	3	3	3	7	7	7	7	7	7
Cap, veh/h	70	217	34	74	246	229	404	1788	83	194	2044	127
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	110	1460	229	129	1658	1543	472	2490	115	193	2846	177
Grp Volume(v), veh/h	102	0	0	139	0	25	181	0	180	125	0	116
Grp Sat Flow(s),veh/h/ln	1799	0	0	1787	0	1543	1483	0	1595	1633	0	1584
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	1.1	0.0	0.0	2.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	5.2	0.0	1.1	2.4	0.0	2.7	0.0	0.0	0.0
Prop In Lane	0.13		0.13	0.14		1.00	0.35		0.07	0.15		0.11
Lane Grp Cap(c), veh/h	321	0	0	320	0	229	1130	0	1145	1228	0	1137
V/C Ratio(X)	0.32	0.00	0.00	0.43	0.00	0.11	0.16	0.00	0.16	0.10	0.00	0.10
Avail Cap(c_a), veh/h	690	0	0	688	0	555	1130	0	1145	1228	0	1137
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	0.00	1.00	0.00	1.00	0.99	0.00	0.99	0.99	0.00	0.99
Uniform Delay (d), s/veh	28.8	0.0	0.0	29.4	0.0	27.6	3.3	0.0	3.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	2.0	0.0	0.4	0.3	0.0	0.3	0.2	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(95%),veh/ln	3.6	0.0	0.0	5.1	0.0	0.9	2.3	0.0	2.2	0.1	0.0	0.1
LnGrp Delay(d),s/veh	30.0	0.0	0.0	31.4	0.0	28.1	3.6	0.0	3.6	0.2	0.0	0.2
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		102			164			361			241	
Approach Delay, s/veh		30.0			30.9			3.6			0.2	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		58.9		16.1		58.9		16.1
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		4.7		5.7		2.0		7.2
Green Ext Time (p_c), s		8.2		2.7		8.4		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	10	5	5	5	20	230	5	5	175	105
Future Volume (veh/h)	90	10	10	5	5	5	20	230	5	5	175	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.99		0.97	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1583	1900	1900	1810	1900	1900	1827	1900
Adj Flow Rate, veh/h	101	11	11	6	6	6	22	258	6	6	197	118
Adj No. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	5	5	5	4	4	4
Cap, veh/h	252	28	19	108	91	68	194	2196	51	66	1501	842
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	1.00	1.00	1.00	0.72	0.72	0.72
Sat Flow, veh/h	1149	194	132	311	637	474	192	3033	71	23	2074	1163
Grp Volume(v), veh/h	123	0	0	18	0	0	147	0	139	174	0	147
Grp Sat Flow(s),veh/h/ln	1475	0	0	1422	0	0	1663	0	1634	1812	0	1448
Q Serve(g_s), s	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Cycle Q Clear(g_c), s	5.7	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2.3
Prop In Lane	0.82		0.09	0.33		0.33	0.15		0.04	0.03		0.80
Lane Grp Cap(c), veh/h	298	0	0	267	0	0	1259	0	1182	1361	0	1048
V/C Ratio(X)	0.41	0.00	0.00	0.07	0.00	0.00	0.12	0.00	0.12	0.13	0.00	0.14
Avail Cap(c_a), veh/h	612	0	0	555	0	0	1259	0	1182	1361	0	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	0.0	27.9	0.0	0.0	0.0	0.0	0.0	3.2	0.0	3.2
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.2	0.2	0.0	0.3
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(95%),veh/ln	4.5	0.0	0.0	0.6	0.0	0.0	0.1	0.0	0.1	2.0	0.0	1.8
LnGrp Delay(d),s/veh	31.9	0.0	0.0	28.1	0.0	0.0	0.2	0.0	0.2	3.4	0.0	3.5
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		123			18			286			321	
Approach Delay, s/veh		31.9			28.1			0.2			3.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		59.3		15.7		59.3		15.7
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0		7.7		4.3		2.8
Green Ext Time (p_c), s		8.4		1.3		8.3		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	475	20	45	595	45	30	280	30	55	225	125
Future Volume (veh/h)	125	475	20	45	595	45	30	280	30	55	225	125
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.98	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1810	1810	1810	1845	1845	1900	1810	1810	1900	1827	1827	1900
Adj Flow Rate, veh/h	149	565	24	54	708	54	36	333	36	65	268	149
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	5	5	5	3	3	3	5	5	5	4	4	4
Cap, veh/h	370	1402	689	420	1260	96	291	726	78	328	539	290
Arrive On Green	0.08	0.41	0.41	0.05	0.38	0.38	0.04	0.23	0.23	0.06	0.25	0.25
Sat Flow, veh/h	1723	3438	1534	1757	3296	251	1723	3132	336	1740	2175	1172
Grp Volume(v), veh/h	149	565	24	54	376	386	36	182	187	65	212	205
Grp Sat Flow(s),veh/h/ln	1723	1719	1534	1757	1752	1795	1723	1719	1749	1740	1736	1612
Q Serve(g_s), s	4.1	9.3	0.7	1.4	13.5	13.5	1.2	7.2	7.4	2.2	8.4	8.7
Cycle Q Clear(g_c), s	4.1	9.3	0.7	1.4	13.5	13.5	1.2	7.2	7.4	2.2	8.4	8.7
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.19	1.00		0.73
Lane Grp Cap(c), veh/h	370	1402	689	420	670	686	291	398	405	328	430	399
V/C Ratio(X)	0.40	0.40	0.03	0.13	0.56	0.56	0.12	0.46	0.46	0.20	0.49	0.51
Avail Cap(c_a), veh/h	797	1895	909	900	966	989	781	948	964	795	957	888
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	14.2	16.7	12.3	13.5	19.4	19.4	21.9	26.3	26.4	21.3	25.7	25.9
Incr Delay (d2), s/veh	0.7	0.3	0.0	0.1	1.1	1.0	0.2	1.2	1.2	0.3	1.2	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(95%),veh/ln	3.6	7.9	0.5	1.3	10.9	11.1	1.1	6.4	6.6	1.9	7.5	7.3
LnGrp Delay(d),s/veh	14.9	17.0	12.3	13.6	20.4	20.4	22.1	27.5	27.5	21.6	27.0	27.3
LnGrp LOS	B	B	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		738			816			405			482	
Approach Delay, s/veh		16.4			20.0			27.0			26.4	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	38.5	7.3	25.8	10.2	36.5	8.6	24.5
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	26.0	44.0	26.0	44.0	26.0	44.0
Max Q Clear Time (g_c+I1), s	3.4	11.3	3.2	10.7	6.1	15.5	4.2	9.4
Green Ext Time (p_c), s	0.1	16.2	0.1	8.3	0.4	15.0	0.1	8.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	255	25	240	325	275	40	320	295	225	240	15
Future Volume (veh/h)	10	255	25	240	325	275	40	320	295	225	240	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.98	0.99		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1881	1863	1863	1900	1810	1810	1900
Adj Flow Rate, veh/h	11	268	26	253	342	289	42	337	311	237	253	16
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	5	5	5
Cap, veh/h	283	374	36	418	634	732	497	473	422	378	1090	69
Arrive On Green	0.02	0.22	0.22	0.14	0.34	0.34	0.06	0.27	0.27	0.13	0.33	0.33
Sat Flow, veh/h	1774	1671	162	1792	1881	1572	1774	1770	1580	1723	3284	207
Grp Volume(v), veh/h	11	0	294	253	342	289	42	337	311	237	132	137
Grp Sat Flow(s),veh/h/ln	1774	0	1833	1792	1881	1572	1774	1770	1580	1723	1719	1772
Q Serve(g_s), s	0.4	0.0	11.4	7.8	11.3	9.3	1.2	13.2	13.8	7.1	4.3	4.3
Cycle Q Clear(g_c), s	0.4	0.0	11.4	7.8	11.3	9.3	1.2	13.2	13.8	7.1	4.3	4.3
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	283	0	410	418	634	732	497	473	422	378	570	588
V/C Ratio(X)	0.04	0.00	0.72	0.60	0.54	0.39	0.08	0.71	0.74	0.63	0.23	0.23
Avail Cap(c_a), veh/h	857	0	573	795	634	732	1001	553	494	755	570	588
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	27.5	18.4	20.6	13.5	17.7	25.4	25.6	17.3	18.6	18.6
Incr Delay (d2), s/veh	0.1	0.0	10.3	1.4	3.3	1.6	0.1	5.2	6.8	1.7	0.4	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(95%),veh/ln	0.3	0.0	11.2	7.0	10.5	7.8	1.1	11.5	11.0	6.4	3.7	3.9
LnGrp Delay(d),s/veh	22.1	0.0	37.8	19.8	23.9	15.1	17.8	30.7	32.4	19.1	19.0	19.0
LnGrp LOS	C		D	B	C	B	B	C	C	B	B	B
Approach Vol, veh/h		305			884			690			506	
Approach Delay, s/veh		37.3			19.9			30.7			19.0	
Approach LOS		D			B			C			B	

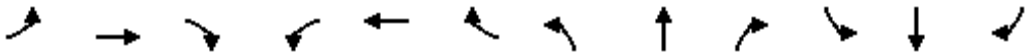
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	26.5	13.9	23.2	8.2	31.5	5.2	31.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	26.5	24.0	26.5	24.0	26.5	24.0	26.5	24.0
Max Q Clear Time (g_c+I1), s	9.1	15.8	9.8	13.4	3.2	6.3	2.4	13.3
Green Ext Time (p_c), s	0.6	4.7	0.7	3.8	0.1	9.5	0.0	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	90	55	25	70	105	50	260	15	60	275	70
Future Volume (veh/h)	55	90	55	25	70	105	50	260	15	60	275	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	60	99	60	27	77	115	55	286	16	66	302	77
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	566	318	193	498	452	380	437	610	34	408	988	248
Arrive On Green	0.08	0.29	0.29	0.03	0.24	0.24	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1810	1100	667	1810	1900	1598	986	1730	97	1070	2800	702
Grp Volume(v), veh/h	60	0	159	27	77	115	55	0	302	66	189	190
Grp Sat Flow(s),veh/h/ln	1810	0	1767	1810	1900	1598	986	0	1827	1070	1770	1733
Q Serve(g_s), s	1.0	0.0	3.0	0.5	1.4	2.5	1.8	0.0	5.5	2.2	3.3	3.4
Cycle Q Clear(g_c), s	1.0	0.0	3.0	0.5	1.4	2.5	5.3	0.0	5.5	7.7	3.3	3.4
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.05	1.00		0.41
Lane Grp Cap(c), veh/h	566	0	511	498	452	380	437	0	645	408	624	611
V/C Ratio(X)	0.11	0.00	0.31	0.05	0.17	0.30	0.13	0.00	0.47	0.16	0.30	0.31
Avail Cap(c_a), veh/h	1510	0	1028	1535	1105	930	663	0	1063	653	1030	1008
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	11.9	11.6	13.0	13.4	12.0	0.0	10.8	13.8	10.1	10.1
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.0	0.2	0.4	0.1	0.0	0.5	0.2	0.3	0.3
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(95%),veh/ln	0.9	0.0	2.7	0.4	1.3	2.1	0.9	0.0	5.2	1.2	3.0	3.0
LnGrp Delay(d),s/veh	10.2	0.0	12.3	11.7	13.2	13.9	12.1	0.0	11.3	13.9	10.3	10.4
LnGrp LOS	B		B	B	B	B	B		B	B	B	B
Approach Vol, veh/h		219			219			357			445	
Approach Delay, s/veh		11.7			13.4			11.4			10.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	5.4	17.4		20.2	7.6	15.2
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	26.0	25.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		7.5	2.5	5.0		9.7	3.0	4.5
Green Ext Time (p_c), s		4.7	0.0	1.7		4.4	0.1	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B



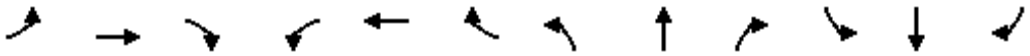
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	1	105	25	5	5	80	275	10	5	285	65
Future Volume (vph)	45	1	105	25	5	5	80	275	10	5	285	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95			0.95	
Frt	1.00	0.85			1.00	0.85		1.00			0.97	
Flt Protected	0.95	1.00			0.96	1.00		0.99			1.00	
Satd. Flow (prot)	1719	1540			1823	1615		3452			3374	
Flt Permitted	0.74	1.00			0.75	1.00		0.81			0.95	
Satd. Flow (perm)	1332	1540			1430	1615		2831			3208	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	48	1	112	27	5	5	85	293	11	5	303	69
RTOR Reduction (vph)	0	83	0	0	0	4	0	2	0	0	13	0
Lane Group Flow (vph)	48	30	0	0	32	1	0	387	0	0	364	0
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	3%	3%	3%	4%	4%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Effective Green, g (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Actuated g/C Ratio	0.26	0.26			0.26	0.26		0.52			0.52	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	346	400			371	419		1465			1661	
v/s Ratio Prot		0.02										
v/s Ratio Perm	c0.04				0.02	0.00		c0.14			0.11	
v/c Ratio	0.14	0.08			0.09	0.00		0.26			0.22	
Uniform Delay, d1	12.8	12.6			12.6	12.3		6.1			5.9	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.2	0.1			0.1	0.0		0.2			0.1	
Delay (s)	13.0	12.6			12.7	12.3		6.2			6.0	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		12.7			12.7			6.2			6.0	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	225	165	200	210	25	120	150	145	65	180	40
Future Volume (veh/h)	25	225	165	200	210	25	120	150	145	65	180	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1863	1863	1863	1900	1900	1900
Adj Flow Rate, veh/h	30	271	199	241	253	30	145	181	175	78	217	48
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	4	4	4	2	2	2	0	0	0
Cap, veh/h	357	419	354	464	809	686	469	748	634	315	371	313
Arrive On Green	0.23	0.23	0.23	0.15	0.44	0.44	0.14	0.40	0.40	0.20	0.20	0.20
Sat Flow, veh/h	1078	1845	1560	1740	1827	1549	1774	1863	1579	1038	1900	1605
Grp Volume(v), veh/h	30	271	199	241	253	30	145	181	175	78	217	48
Grp Sat Flow(s),veh/h/ln	1078	1845	1560	1740	1827	1549	1774	1863	1579	1038	1900	1605
Q Serve(g_s), s	1.4	8.6	7.3	6.1	5.8	0.7	3.6	4.1	4.8	4.2	6.7	1.6
Cycle Q Clear(g_c), s	1.4	8.6	7.3	6.1	5.8	0.7	3.6	4.1	4.8	4.2	6.7	1.6
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	357	419	354	464	809	686	469	748	634	315	371	313
V/C Ratio(X)	0.08	0.65	0.56	0.52	0.31	0.04	0.31	0.24	0.28	0.25	0.58	0.15
Avail Cap(c_a), veh/h	531	718	607	901	1564	1326	931	1595	1351	516	739	625
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	19.7	22.5	22.0	14.1	11.6	10.2	14.5	12.7	12.9	22.5	23.5	21.4
Incr Delay (d2), s/veh	0.1	1.7	1.4	0.9	0.2	0.0	0.4	0.2	0.2	0.4	1.5	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(95%),veh/ln	0.8	8.1	5.9	5.4	5.3	0.5	3.2	3.9	3.8	2.2	6.6	1.3
LnGrp Delay(d),s/veh	19.8	24.2	23.4	15.0	11.8	10.2	14.9	12.9	13.2	22.9	25.0	21.7
LnGrp LOS	B	C	C	B	B	B	B	B	B	C	C	C
Approach Vol, veh/h		500			524			501			343	
Approach Delay, s/veh		23.6			13.2			13.6			24.0	
Approach LOS		C			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	13.9	19.6	13.2	17.5		33.5		30.8
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	8.1	10.6	5.6	8.7		7.8		6.8
Green Ext Time (p_c), s	0.7	3.7	0.4	3.3		4.8		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	325	5	10	295	160	5	45	25	210	20	145
Future Volume (vph)	110	325	5	10	295	160	5	45	25	210	20	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	0.99	1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		0.99			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3421			1860	1583	1802	1900	1593	1752	1583	
Flt Permitted		0.70			0.98	1.00	0.67	1.00	1.00	0.46	1.00	
Satd. Flow (perm)		2426			1820	1583	1265	1900	1593	841	1583	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	133	392	6	12	355	193	6	54	30	253	24	175
RTOR Reduction (vph)	0	1	0	0	0	122	0	0	27	0	97	0
Lane Group Flow (vph)	0	530	0	0	367	71	6	54	3	253	102	0
Confl. Peds. (#/hr)	1		3	2			3		2			1
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		19.3			19.3	19.3	6.0	6.0	6.0	23.5	23.5	
Effective Green, g (s)		19.3			19.3	19.3	6.0	6.0	6.0	23.5	23.5	
Actuated g/C Ratio		0.37			0.37	0.37	0.11	0.11	0.11	0.45	0.45	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		886			665	578	143	215	181	615	704	
v/s Ratio Prot								0.03		c0.11	0.06	
v/s Ratio Perm		c0.22			0.20	0.04	0.00		0.00	c0.07		
v/c Ratio		0.60			0.55	0.12	0.04	0.25	0.02	0.41	0.14	
Uniform Delay, d1		13.6			13.3	11.1	20.8	21.4	20.8	9.6	8.7	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.1			1.0	0.1	0.1	0.6	0.0	0.4	0.1	
Delay (s)		14.7			14.3	11.2	21.0	22.0	20.8	10.1	8.8	
Level of Service		B			B	B	C	C	C	B	A	
Approach Delay (s)		14.7			13.2			21.5			9.5	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	52.8	Sum of lost time (s)	16.5
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	120	50	25	95	30	30	265	20	30	300	20
Future Volume (veh/h)	20	120	50	25	95	30	30	265	20	30	300	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.96	0.98		0.98	0.99		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1845	1900	1900	1863	1900
Adj Flow Rate, veh/h	25	150	62	31	119	38	38	331	25	38	375	25
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	75	272	104	116	397	395	205	1714	129	190	1788	118
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.61	0.61	0.61	1.00	1.00	1.00
Sat Flow, veh/h	87	1070	410	229	1558	1550	242	2801	211	218	2921	193
Grp Volume(v), veh/h	237	0	0	150	0	38	200	0	194	224	0	214
Grp Sat Flow(s),veh/h/ln	1567	0	0	1786	0	1550	1618	0	1636	1678	0	1654
Q Serve(g_s), s	0.9	0.0	0.0	0.0	0.0	1.4	0.0	0.0	3.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.7	0.0	0.0	4.8	0.0	1.4	3.5	0.0	3.9	0.0	0.0	0.0
Prop In Lane	0.11		0.26	0.21		1.00	0.19		0.13	0.17		0.12
Lane Grp Cap(c), veh/h	452	0	0	513	0	395	1048	0	1001	1083	0	1012
V/C Ratio(X)	0.52	0.00	0.00	0.29	0.00	0.10	0.19	0.00	0.19	0.21	0.00	0.21
Avail Cap(c_a), veh/h	613	0	0	690	0	558	1048	0	1001	1083	0	1012
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	0.00	1.00	0.00	1.00	0.98	0.00	0.98	0.97	0.00	0.97
Uniform Delay (d), s/veh	24.4	0.0	0.0	22.6	0.0	21.4	6.3	0.0	6.4	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.7	0.0	0.2	0.4	0.0	0.4	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	0.0	0.0	4.7	0.0	1.1	3.4	0.0	3.3	0.2	0.0	0.2
LnGrp Delay(d),s/veh	26.4	0.0	0.0	23.3	0.0	21.6	6.7	0.0	6.8	0.4	0.0	0.5
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		237			188			394			438	
Approach Delay, s/veh		26.4			22.9			6.8			0.4	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.9		24.1		50.9		24.1
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		5.9		11.7		2.0		6.8
Green Ext Time (p_c), s		11.7		4.0		12.2		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	15	40	5	15	20	15	285	15	20	305	140
Future Volume (veh/h)	175	15	40	5	15	20	15	285	15	20	305	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1796	1900	1900	1845	1900	1900	1881	1900
Adj Flow Rate, veh/h	192	16	44	5	16	22	16	313	16	22	335	154
Adj No. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	1	1	1
Cap, veh/h	336	25	58	72	162	189	112	2008	102	105	1445	639
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.64	0.64	0.64
Sat Flow, veh/h	1104	108	257	79	713	830	93	3142	159	82	2261	1000
Grp Volume(v), veh/h	252	0	0	43	0	0	179	0	166	276	0	235
Grp Sat Flow(s),veh/h/ln	1469	0	0	1622	0	0	1745	0	1649	1816	0	1527
Q Serve(g_s), s	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
Cycle Q Clear(g_c), s	11.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	4.7	0.0	4.9
Prop In Lane	0.76		0.17	0.12		0.51	0.09		0.10	0.08		0.66
Lane Grp Cap(c), veh/h	419	0	0	423	0	0	1167	0	1054	1212	0	976
V/C Ratio(X)	0.60	0.00	0.00	0.10	0.00	0.00	0.15	0.00	0.16	0.23	0.00	0.24
Avail Cap(c_a), veh/h	609	0	0	629	0	0	1167	0	1054	1212	0	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.8	0.0	0.0	23.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	5.8
Incr Delay (d2), s/veh	2.9	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.3	0.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	0.0	0.0	1.3	0.0	0.0	0.2	0.0	0.2	4.5	0.0	3.9
LnGrp Delay(d),s/veh	29.7	0.0	0.0	23.2	0.0	0.0	0.3	0.0	0.3	6.2	0.0	6.4
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		252			43			345			511	
Approach Delay, s/veh		29.7			23.2			0.3			6.3	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.9		22.1		52.9		22.1
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0		13.8		6.9		3.6
Green Ext Time (p_c), s		12.7		2.5		11.9		3.4

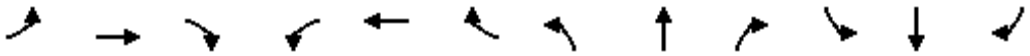
Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	640	70	205	680	20	80	330	195	35	350	80
Future Volume (veh/h)	65	640	70	205	680	20	80	330	195	35	350	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1881	1881	1900	1863	1863	1900
Adj Flow Rate, veh/h	68	674	74	216	716	21	84	347	205	37	368	84
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	2	2	2
Cap, veh/h	354	1257	654	403	1407	41	330	614	356	273	755	170
Arrive On Green	0.05	0.36	0.36	0.10	0.40	0.40	0.06	0.28	0.28	0.04	0.26	0.26
Sat Flow, veh/h	1774	3539	1579	1774	3509	103	1792	2178	1263	1774	2862	646
Grp Volume(v), veh/h	68	674	74	216	361	376	84	284	268	37	226	226
Grp Sat Flow(s),veh/h/ln	1774	1770	1579	1774	1770	1843	1792	1787	1654	1774	1770	1738
Q Serve(g_s), s	2.1	13.6	2.6	6.5	13.8	13.8	3.0	12.2	12.5	1.3	9.7	9.9
Cycle Q Clear(g_c), s	2.1	13.6	2.6	6.5	13.8	13.8	3.0	12.2	12.5	1.3	9.7	9.9
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.76	1.00		0.37
Lane Grp Cap(c), veh/h	354	1257	654	403	710	739	330	504	466	273	467	458
V/C Ratio(X)	0.19	0.54	0.11	0.54	0.51	0.51	0.25	0.56	0.58	0.14	0.48	0.49
Avail Cap(c_a), veh/h	770	1731	865	737	865	901	743	874	809	714	865	850
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	16.9	23.1	16.2	15.9	20.3	20.3	22.3	27.6	27.7	23.0	28.0	28.0
Incr Delay (d2), s/veh	0.3	0.5	0.1	1.1	0.8	0.8	0.4	1.4	1.6	0.2	1.1	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(95%),veh/ln	1.9	11.0	2.1	5.8	11.2	11.5	2.7	10.3	9.9	1.2	8.5	8.6
LnGrp Delay(d),s/veh	17.1	23.6	16.3	17.0	21.1	21.1	22.7	29.0	29.3	23.2	29.1	29.2
LnGrp LOS	B	C	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		816			953			636			489	
Approach Delay, s/veh		22.4			20.2			28.3			28.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	38.0	9.3	29.7	8.9	42.1	7.6	31.4
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	26.0	44.0	26.0	44.0	26.0	44.0
Max Q Clear Time (g_c+I1), s	8.5	15.6	5.0	11.9	4.1	15.8	3.3	14.5
Green Ext Time (p_c), s	0.6	16.3	0.2	11.1	0.1	16.2	0.1	10.7

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C

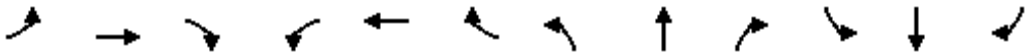
Appendix E: Year 2040 (4th Street Reduction) Traffic Operations Analysis Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	5	45	15	5	5	75	145	10	5	105	15
Future Volume (vph)	5	5	45	15	5	5	75	145	10	5	105	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.86			1.00	0.85		0.99			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.98			1.00	
Satd. Flow (prot)	1605	1466			1830	1576		1753			1728	
Flt Permitted	0.74	1.00			0.74	1.00		0.88			0.99	
Satd. Flow (perm)	1257	1466			1409	1576		1566			1716	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	49	16	5	5	82	158	11	5	114	16
RTOR Reduction (vph)	0	43	0	0	0	4	0	1	0	0	2	0
Lane Group Flow (vph)	5	11	0	0	21	1	0	250	0	0	133	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	6%	6%	6%	8%	8%	8%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Effective Green, g (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Actuated g/C Ratio	0.12	0.12			0.12	0.12		0.65			0.65	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	156	181			174	195		1011			1108	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.00				c0.01	0.00		c0.16			0.08	
v/c Ratio	0.03	0.06			0.12	0.00		0.25			0.12	
Uniform Delay, d1	16.8	16.8			16.9	16.7		3.2			3.0	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.1	0.1			0.3	0.0		0.2			0.1	
Delay (s)	16.8	17.0			17.3	16.7		3.5			3.0	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		16.9			17.1			3.5			3.0	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	150	5	5	255	180	5	35	10	120	15	100
Future Volume (vph)	125	150	5	5	255	180	5	35	10	120	15	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.99	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		0.98			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3290			1808	1518	1804	1900	1593	1718	1573	
Flt Permitted		0.71			0.99	1.00	1.00	1.00	1.00	0.56	1.00	
Satd. Flow (perm)		2373			1795	1518	1899	1900	1593	1005	1573	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	152	183	6	6	311	220	6	43	12	146	18	122
RTOR Reduction (vph)	0	1	0	0	0	127	0	0	11	0	80	0
Lane Group Flow (vph)	0	340	0	0	317	93	6	43	1	146	60	0
Confl. Peds. (#/hr)			1	3		2	1		3	2		
Heavy Vehicles (%)	7%	7%	7%	5%	5%	5%	0%	0%	0%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		18.4			18.4	18.4	3.7	3.7	3.7	15.1	15.1	
Effective Green, g (s)		18.4			18.4	18.4	3.7	3.7	3.7	15.1	15.1	
Actuated g/C Ratio		0.42			0.42	0.42	0.09	0.09	0.09	0.35	0.35	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1003			759	642	161	161	135	478	546	
v/s Ratio Prot								0.02		c0.06	0.04	
v/s Ratio Perm		0.14			c0.18	0.06	0.00		0.00	c0.05		
v/c Ratio		0.34			0.42	0.14	0.04	0.27	0.01	0.31	0.11	
Uniform Delay, d1		8.5			8.8	7.7	18.3	18.6	18.2	10.3	9.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.4	0.1	0.1	0.9	0.0	0.4	0.1	
Delay (s)		8.7			9.2	7.8	18.4	19.5	18.2	10.6	9.7	
Level of Service		A			A	A	B	B	B	B	A	
Approach Delay (s)		8.7			8.6			19.2			10.2	
Approach LOS		A			A			B			B	

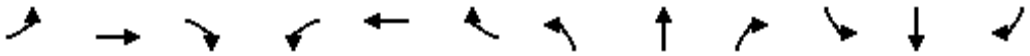
Intersection Summary			
HCM 2000 Control Delay	9.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	16.5
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	270	15	210	150	370	5	70	55	310	175	25
Future Volume (veh/h)	25	270	15	210	150	370	5	70	55	310	175	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.99	0.99		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1792	1792	1792	1792	1792	1792	1776	1776	1900
Adj Flow Rate, veh/h	32	342	19	266	190	468	6	89	0	392	222	32
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	3	3	3	6	6	6	6	6	6	7	7	7
Cap, veh/h	407	588	33	428	715	845	312	364	310	539	528	76
Arrive On Green	0.05	0.34	0.34	0.11	0.40	0.40	0.01	0.20	0.00	0.16	0.35	0.35
Sat Flow, veh/h	1757	1731	96	1707	1792	1516	1707	1792	1524	1691	1517	219
Grp Volume(v), veh/h	32	0	361	266	190	468	6	89	0	392	0	254
Grp Sat Flow(s),veh/h/ln	1757	0	1828	1707	1792	1516	1707	1792	1524	1691	0	1736
Q Serve(g_s), s	1.1	0.0	16.0	9.7	7.0	19.5	0.3	4.1	0.0	15.5	0.0	11.0
Cycle Q Clear(g_c), s	1.1	0.0	16.0	9.7	7.0	19.5	0.3	4.1	0.0	15.5	0.0	11.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	407	0	621	428	715	845	312	364	310	539	0	605
V/C Ratio(X)	0.08	0.00	0.58	0.62	0.27	0.55	0.02	0.24	0.00	0.73	0.00	0.42
Avail Cap(c_a), veh/h	511	0	761	428	747	871	456	619	526	539	0	705
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	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	26.7	18.8	19.9	14.0	30.4	32.9	0.0	25.8	0.0	24.5
Incr Delay (d2), s/veh	0.1	0.0	3.9	2.7	0.9	2.6	0.0	0.7	0.0	4.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	13.5	8.4	6.6	13.6	0.2	3.8	0.0	5.5	0.0	9.3
LnGrp Delay(d),s/veh	18.9	0.0	30.7	21.6	20.8	16.6	30.4	33.6	0.0	30.7	0.0	25.5
LnGrp LOS	B		C	C	C	B	C	C		C		C
Approach Vol, veh/h		393			924			95			646	
Approach Delay, s/veh		29.7			18.9			33.4			28.6	
Approach LOS		C			B			C			C	

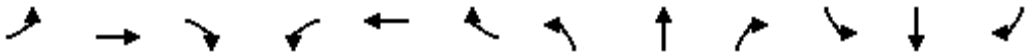
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	26.0	14.0	39.4	4.7	40.3	8.2	45.3
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	15.5	34.0	10.5	41.0	9.5	40.0	10.5	41.0
Max Q Clear Time (g_c+I1), s	17.5	6.1	11.7	18.0	2.3	13.0	3.1	21.5
Green Ext Time (p_c), s	0.0	4.2	0.0	15.4	0.0	4.2	0.0	13.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1	115	25	5	5	110	105	10	5	150	35
Future Volume (vph)	35	1	115	25	5	5	110	105	10	5	150	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.85			1.00	0.85		0.99			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.98			1.00	
Satd. Flow (prot)	1719	1540			1823	1615		1790			1780	
Flt Permitted	0.74	1.00			0.75	1.00		0.78			0.99	
Satd. Flow (perm)	1332	1540			1420	1615		1422			1770	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	37	1	122	27	5	5	117	112	11	5	160	37
RTOR Reduction (vph)	0	90	0	0	0	4	0	1	0	0	5	0
Lane Group Flow (vph)	37	33	0	0	32	1	0	239	0	0	197	0
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	3%	3%	3%	4%	4%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Effective Green, g (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Actuated g/C Ratio	0.26	0.26			0.26	0.26		0.52			0.52	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	346	400			369	419		736			916	
v/s Ratio Prot		0.02										
v/s Ratio Perm	c0.03				0.02	0.00		c0.17			0.11	
v/c Ratio	0.11	0.08			0.09	0.00		0.32			0.21	
Uniform Delay, d1	12.7	12.6			12.6	12.3		6.3			5.9	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.1	0.1			0.1	0.0		0.4			0.2	
Delay (s)	12.8	12.7			12.7	12.3		6.7			6.1	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		12.7			12.7			6.7			6.1	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	290	5	10	180	275	5	45	25	245	20	185
Future Volume (vph)	165	290	5	10	180	275	5	45	25	245	20	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	0.99	1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.86	
Flt Protected		0.98			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3403			1858	1583	1802	1900	1593	1752	1577	
Flt Permitted		0.76			0.96	1.00	0.67	1.00	1.00	0.46	1.00	
Satd. Flow (perm)		2645			1795	1583	1265	1900	1593	841	1577	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	199	349	6	12	217	331	6	54	30	295	24	223
RTOR Reduction (vph)	0	1	0	0	0	208	0	0	27	0	123	0
Lane Group Flow (vph)	0	553	0	0	229	123	6	54	3	295	124	0
Confl. Peds. (#/hr)	1		3	2			3		2			1
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		20.4			20.4	20.4	6.0	6.0	6.0	24.7	24.7	
Effective Green, g (s)		20.4			20.4	20.4	6.0	6.0	6.0	24.7	24.7	
Actuated g/C Ratio		0.37			0.37	0.37	0.11	0.11	0.11	0.45	0.45	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		979			664	586	137	206	173	628	706	
v/s Ratio Prot								0.03		c0.13	0.08	
v/s Ratio Perm		c0.21			0.13	0.08	0.00		0.00	c0.08		
v/c Ratio		0.57			0.34	0.21	0.04	0.26	0.02	0.47	0.18	
Uniform Delay, d1		13.8			12.5	11.8	22.0	22.5	21.9	10.2	9.1	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.8			0.3	0.2	0.1	0.7	0.0	0.6	0.1	
Delay (s)		14.6			12.8	12.0	22.1	23.2	22.0	10.8	9.2	
Level of Service		B			B	B	C	C	C	B	A	
Approach Delay (s)		14.6			12.4			22.7			10.1	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	16.5
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	270	10	220	325	400	25	85	85	275	190	15
Future Volume (veh/h)	10	270	10	220	325	400	25	85	85	275	190	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.97	0.99		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1881	1863	1863	1863	1810	1810	1900
Adj Flow Rate, veh/h	11	284	11	232	342	421	26	89	0	289	200	16
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	5	5	5
Cap, veh/h	267	417	16	416	635	771	446	438	372	610	570	46
Arrive On Green	0.02	0.23	0.23	0.13	0.34	0.34	0.04	0.24	0.00	0.15	0.34	0.34
Sat Flow, veh/h	1774	1781	69	1792	1881	1554	1774	1863	1583	1723	1653	132
Grp Volume(v), veh/h	11	0	295	232	342	421	26	89	0	289	0	216
Grp Sat Flow(s),veh/h/ln	1774	0	1850	1792	1881	1554	1774	1863	1583	1723	0	1785
Q Serve(g_s), s	0.4	0.0	11.0	6.9	11.1	14.3	0.8	2.9	0.0	8.9	0.0	6.8
Cycle Q Clear(g_c), s	0.4	0.0	11.0	6.9	11.1	14.3	0.8	2.9	0.0	8.9	0.0	6.8
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	267	0	433	416	635	771	446	438	372	610	0	616
V/C Ratio(X)	0.04	0.00	0.68	0.56	0.54	0.55	0.06	0.20	0.00	0.47	0.00	0.35
Avail Cap(c_a), veh/h	850	0	588	820	635	771	989	592	503	948	0	616
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	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	26.4	17.8	20.3	13.4	19.9	23.2	0.0	15.7	0.0	18.5
Incr Delay (d2), s/veh	0.1	0.0	8.4	1.2	3.3	2.8	0.1	0.5	0.0	0.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	10.8	6.3	10.5	10.8	0.7	2.8	0.0	7.7	0.0	6.3
LnGrp Delay(d),s/veh	21.2	0.0	34.7	19.0	23.5	16.2	19.9	23.7	0.0	16.3	0.0	19.2
LnGrp LOS	C		C	B	C	B	B	C		B		B
Approach Vol, veh/h		306			995			115			505	
Approach Delay, s/veh		34.2			19.4			22.8			17.5	
Approach LOS		C			B			C			B	

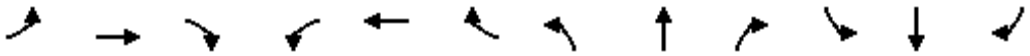
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	23.8	12.9	23.7	6.9	32.1	5.1	31.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	26.5	24.0	26.5	24.0	26.5	24.0	26.5	24.0
Max Q Clear Time (g_c+I1), s	10.9	4.9	8.9	13.0	2.8	8.8	2.4	16.3
Green Ext Time (p_c), s	0.8	0.9	0.6	4.7	0.0	2.8	0.0	6.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	190	15	25	85	55	50	80	15	60	150	70
Future Volume (veh/h)	0	190	15	25	85	55	50	80	15	60	150	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	0	209	16	27	93	60	55	88	16	66	165	77
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	496	435	33	409	724	612	539	566	103	605	886	395
Arrive On Green	0.00	0.25	0.25	0.03	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1810	1738	133	1810	1900	1604	1117	1518	276	1279	2377	1060
Grp Volume(v), veh/h	0	0	225	27	93	60	55	0	104	66	121	121
Grp Sat Flow(s),veh/h/ln	1810	0	1871	1810	1900	1604	1117	0	1794	1279	1770	1667
Q Serve(g_s), s	0.0	0.0	4.2	0.4	1.3	1.0	1.4	0.0	1.6	1.5	1.9	2.0
Cycle Q Clear(g_c), s	0.0	0.0	4.2	0.4	1.3	1.0	3.4	0.0	1.6	3.0	1.9	2.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.15	1.00		0.64
Lane Grp Cap(c), veh/h	496	0	469	409	724	612	539	0	669	605	660	621
V/C Ratio(X)	0.00	0.00	0.48	0.07	0.13	0.10	0.10	0.00	0.16	0.11	0.18	0.19
Avail Cap(c_a), veh/h	1649	0	875	1775	1169	987	809	0	1104	915	1088	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	13.0	9.7	8.2	8.1	9.8	0.0	8.5	9.5	8.6	8.6
Incr Delay (d2), s/veh	0.0	0.0	0.8	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	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(95%),veh/ln	0.0	0.0	4.0	0.4	1.2	0.8	0.8	0.0	1.4	0.9	1.7	1.7
LnGrp Delay(d),s/veh	0.0	0.0	13.7	9.8	8.3	8.2	9.9	0.0	8.6	9.6	8.7	8.8
LnGrp LOS			B	A	A	A	A		A	A	A	A
Approach Vol, veh/h		225			180			159			308	
Approach Delay, s/veh		13.7			8.4			9.0			8.9	
Approach LOS		B			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	5.3	15.2		20.2	0.0	20.5
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	32.0	19.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		5.4	2.4	6.2		5.0	0.0	3.3
Green Ext Time (p_c), s		2.5	0.0	1.7		2.5	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B



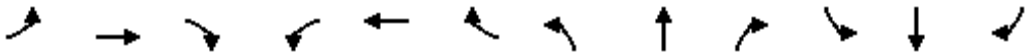
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1	115	25	5	5	110	105	10	5	150	35
Future Volume (vph)	35	1	115	25	5	5	110	105	10	5	150	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.85			1.00	0.85		0.99			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.98			1.00	
Satd. Flow (prot)	1719	1540			1823	1615		1790			1780	
Flt Permitted	0.74	1.00			0.75	1.00		0.78			0.99	
Satd. Flow (perm)	1332	1540			1420	1615		1422			1770	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	37	1	122	27	5	5	117	112	11	5	160	37
RTOR Reduction (vph)	0	90	0	0	0	4	0	1	0	0	5	0
Lane Group Flow (vph)	37	33	0	0	32	1	0	239	0	0	197	0
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	3%	3%	3%	4%	4%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Effective Green, g (s)	11.7	11.7			11.7	11.7		23.3			23.3	
Actuated g/C Ratio	0.26	0.26			0.26	0.26		0.52			0.52	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	346	400			369	419		736			916	
v/s Ratio Prot		0.02										
v/s Ratio Perm	c0.03				0.02	0.00		c0.17			0.11	
v/c Ratio	0.11	0.08			0.09	0.00		0.32			0.21	
Uniform Delay, d1	12.7	12.6			12.6	12.3		6.3			5.9	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.1	0.1			0.1	0.0		0.4			0.2	
Delay (s)	12.8	12.7			12.7	12.3		6.7			6.1	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		12.7			12.7			6.7			6.1	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	160	115	220	115	25	75	150	190	105	210	40
Future Volume (veh/h)	15	160	115	220	115	25	75	150	190	105	210	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1863	1863	1863	1900	1900	1900
Adj Flow Rate, veh/h	18	193	139	265	139	30	90	181	229	127	253	48
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	4	4	4	2	2	2	0	0	0
Cap, veh/h	334	330	278	492	750	636	465	787	667	344	430	362
Arrive On Green	0.18	0.18	0.18	0.16	0.41	0.41	0.13	0.42	0.42	0.23	0.23	0.23
Sat Flow, veh/h	1194	1845	1557	1740	1827	1549	1774	1863	1579	988	1900	1601
Grp Volume(v), veh/h	18	193	139	265	139	30	90	181	229	127	253	48
Grp Sat Flow(s),veh/h/ln	1194	1845	1557	1740	1827	1549	1774	1863	1579	988	1900	1601
Q Serve(g_s), s	0.8	5.7	4.8	6.7	2.9	0.7	2.0	3.7	5.9	6.8	7.1	1.4
Cycle Q Clear(g_c), s	0.8	5.7	4.8	6.7	2.9	0.7	2.0	3.7	5.9	6.8	7.1	1.4
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	334	330	278	492	750	636	465	787	667	344	430	362
V/C Ratio(X)	0.05	0.59	0.50	0.54	0.19	0.05	0.19	0.23	0.34	0.37	0.59	0.13
Avail Cap(c_a), veh/h	619	770	650	960	1677	1422	1005	1710	1450	533	793	668
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	20.5	22.6	22.2	14.4	11.3	10.6	12.5	11.1	11.7	20.6	20.7	18.5
Incr Delay (d2), s/veh	0.1	1.6	1.4	0.9	0.1	0.0	0.2	0.1	0.3	0.7	1.3	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(95%),veh/ln	0.5	5.5	3.9	5.9	2.7	0.5	1.8	3.5	4.6	3.5	7.0	1.2
LnGrp Delay(d),s/veh	20.6	24.2	23.6	15.3	11.4	10.6	12.7	11.2	12.0	21.2	22.0	18.6
LnGrp LOS	C	C	C	B	B	B	B	B	B	C	C	B
Approach Vol, veh/h		350			434			500			428	
Approach Delay, s/veh		23.8			13.7			11.8			21.4	
Approach LOS		C			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	13.9	15.7	11.8	18.6		29.6		30.3
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	8.7	7.7	4.0	9.1		4.9		7.9
Green Ext Time (p_c), s	0.7	2.5	0.2	4.0		2.9		4.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	290	5	10	180	275	5	45	25	245	20	185
Future Volume (vph)	165	290	5	10	180	275	5	45	25	245	20	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	0.99	1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.86	
Flt Protected		0.98			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3403			1858	1583	1802	1900	1593	1752	1577	
Flt Permitted		0.76			0.96	1.00	0.67	1.00	1.00	0.46	1.00	
Satd. Flow (perm)		2645			1795	1583	1265	1900	1593	841	1577	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	199	349	6	12	217	331	6	54	30	295	24	223
RTOR Reduction (vph)	0	1	0	0	0	208	0	0	27	0	123	0
Lane Group Flow (vph)	0	553	0	0	229	123	6	54	3	295	124	0
Confl. Peds. (#/hr)	1		3	2			3		2			1
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		20.4			20.4	20.4	6.0	6.0	6.0	24.7	24.7	
Effective Green, g (s)		20.4			20.4	20.4	6.0	6.0	6.0	24.7	24.7	
Actuated g/C Ratio		0.37			0.37	0.37	0.11	0.11	0.11	0.45	0.45	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		979			664	586	137	206	173	628	706	
v/s Ratio Prot								0.03		c0.13	0.08	
v/s Ratio Perm		c0.21			0.13	0.08	0.00		0.00	c0.08		
v/c Ratio		0.57			0.34	0.21	0.04	0.26	0.02	0.47	0.18	
Uniform Delay, d1		13.8			12.5	11.8	22.0	22.5	21.9	10.2	9.1	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.8			0.3	0.2	0.1	0.7	0.0	0.6	0.1	
Delay (s)		14.6			12.8	12.0	22.1	23.2	22.0	10.8	9.2	
Level of Service		B			B	B	C	C	C	B	A	
Approach Delay (s)		14.6			12.4			22.7			10.1	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	16.5
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	145	80	25	75	50	30	435	20	30	375	25
Future Volume (veh/h)	45	145	80	25	75	50	30	435	20	30	375	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.96	0.98		0.98	0.99		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1845	1900	1900	1863	1900
Adj Flow Rate, veh/h	56	181	100	31	94	62	38	544	25	38	469	31
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	107	267	134	144	401	465	131	1741	79	145	1683	110
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.57	0.57	0.57	1.00	1.00	1.00
Sat Flow, veh/h	172	893	450	280	1342	1556	136	3068	139	159	2965	193
Grp Volume(v), veh/h	337	0	0	125	0	62	310	0	297	273	0	265
Grp Sat Flow(s),veh/h/ln	1515	0	0	1623	0	1556	1692	0	1650	1665	0	1653
Q Serve(g_s), s	8.1	0.0	0.0	0.0	0.0	2.2	0.0	0.0	7.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.8	0.0	0.0	3.7	0.0	2.2	6.5	0.0	7.1	0.0	0.0	0.0
Prop In Lane	0.17		0.30	0.25		1.00	0.12		0.08	0.14		0.12
Lane Grp Cap(c), veh/h	509	0	0	545	0	465	1015	0	937	1000	0	938
V/C Ratio(X)	0.66	0.00	0.00	0.23	0.00	0.13	0.31	0.00	0.32	0.27	0.00	0.28
Avail Cap(c_a), veh/h	599	0	0	643	0	560	1015	0	937	1000	0	938
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	0.00	1.00	0.00	1.00	0.93	0.00	0.93	0.95	0.00	0.95
Uniform Delay (d), s/veh	23.5	0.0	0.0	19.7	0.0	19.2	8.4	0.0	8.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.6	0.0	0.0	0.5	0.0	0.3	0.7	0.0	0.8	0.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.0	0.0	0.0	3.6	0.0	1.7	6.3	0.0	6.2	0.3	0.0	0.3
LnGrp Delay(d),s/veh	27.1	0.0	0.0	20.2	0.0	19.5	9.1	0.0	9.4	0.6	0.0	0.7
LnGrp LOS	C			C		B	A		A	A		A
Approach Vol, veh/h		337			187			607			538	
Approach Delay, s/veh		27.1			19.9			9.3			0.7	
Approach LOS		C			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		47.6		27.4		47.6		27.4
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		9.1		16.8		2.0		5.7
Green Ext Time (p_c), s		15.8		3.9		17.9		6.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	45	40	5	15	15	15	555	15	20	385	145
Future Volume (veh/h)	205	45	40	5	15	15	15	555	15	20	385	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	1.00		0.98	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1780	1900	1900	1845	1900	1900	1881	1900
Adj Flow Rate, veh/h	225	49	44	5	16	16	16	610	16	22	423	159
Adj No. of Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	1	1	1
Cap, veh/h	362	62	55	85	217	188	71	2010	52	88	1448	529
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	1.00	1.00	1.00	0.60	0.60	0.60
Sat Flow, veh/h	1054	234	207	113	818	709	34	3344	87	60	2409	879
Grp Volume(v), veh/h	318	0	0	37	0	0	335	0	307	324	0	280
Grp Sat Flow(s),veh/h/ln	1495	0	0	1640	0	0	1802	0	1663	1800	0	1549
Q Serve(g_s), s	13.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
Cycle Q Clear(g_c), s	14.8	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	6.2	0.0	6.6
Prop In Lane	0.71		0.14	0.14		0.43	0.05		0.05	0.07		0.57
Lane Grp Cap(c), veh/h	479	0	0	490	0	0	1133	0	999	1133	0	931
V/C Ratio(X)	0.66	0.00	0.00	0.08	0.00	0.00	0.30	0.00	0.31	0.29	0.00	0.30
Avail Cap(c_a), veh/h	618	0	0	637	0	0	1133	0	999	1133	0	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.96	0.00	0.96	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.5	0.0	0.0	20.7	0.0	0.0	0.0	0.0	0.0	7.2	0.0	7.3
Incr Delay (d2), s/veh	3.5	0.0	0.0	0.1	0.0	0.0	0.6	0.0	0.8	0.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.8	0.0	0.0	1.1	0.0	0.0	0.4	0.0	0.4	6.2	0.0	5.4
LnGrp Delay(d),s/veh	29.0	0.0	0.0	20.8	0.0	0.0	0.6	0.0	0.8	7.8	0.0	8.1
LnGrp LOS	C			C			A		A	A		A
Approach Vol, veh/h		318			37			642			604	
Approach Delay, s/veh		29.0			20.8			0.7			8.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.1		24.9		50.1		24.9
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0		16.8		8.6		3.3
Green Ext Time (p_c), s		19.6		2.7		17.4		4.3

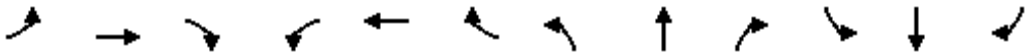
Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	450	135	220	665	20	205	350	385	35	355	75
Future Volume (veh/h)	45	450	135	220	665	20	205	350	385	35	355	75
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.98	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1881	1881	1900	1863	1863	1900
Adj Flow Rate, veh/h	47	474	142	232	700	21	216	368	405	37	374	79
Adj No. of Lanes	1	2	1	1	2	0	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	2	2	2
Cap, veh/h	293	1007	617	416	1241	37	437	637	569	239	842	176
Arrive On Green	0.04	0.28	0.28	0.11	0.35	0.35	0.11	0.36	0.36	0.04	0.29	0.29
Sat Flow, veh/h	1774	3539	1578	1774	3507	105	1792	1787	1595	1774	2908	607
Grp Volume(v), veh/h	47	474	142	232	353	368	216	368	405	37	226	227
Grp Sat Flow(s),veh/h/ln	1774	1770	1578	1774	1770	1842	1792	1787	1595	1774	1770	1746
Q Serve(g_s), s	1.8	10.7	5.8	8.5	15.6	15.6	7.8	16.2	21.3	1.4	10.1	10.3
Cycle Q Clear(g_c), s	1.8	10.7	5.8	8.5	15.6	15.6	7.8	16.2	21.3	1.4	10.1	10.3
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	293	1007	617	416	626	652	437	637	569	239	512	505
V/C Ratio(X)	0.16	0.47	0.23	0.56	0.56	0.56	0.49	0.58	0.71	0.15	0.44	0.45
Avail Cap(c_a), veh/h	690	1605	883	689	802	835	727	810	723	645	802	791
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	22.9	28.7	19.8	20.0	25.3	25.3	19.8	25.3	26.9	23.5	28.1	28.1
Incr Delay (d2), s/veh	0.3	0.5	0.3	1.2	1.1	1.1	0.9	1.2	3.0	0.3	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(95%),veh/ln	1.6	9.1	4.6	7.6	12.4	12.9	7.0	12.9	14.9	1.2	8.7	8.8
LnGrp Delay(d),s/veh	23.1	29.2	20.1	21.2	26.4	26.4	20.7	26.5	29.9	23.8	28.9	29.0
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		663			953			989			490	
Approach Delay, s/veh		26.8			25.1			26.6			28.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	33.6	14.3	34.1	8.3	40.3	7.8	40.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	26.0	44.0	26.0	44.0	26.0	44.0
Max Q Clear Time (g_c+I1), s	10.5	12.7	9.8	12.3	3.8	17.6	3.4	23.3
Green Ext Time (p_c), s	0.6	14.8	0.5	14.3	0.1	13.6	0.1	11.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

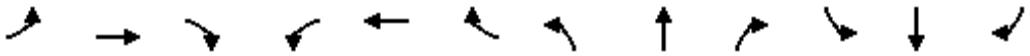
Appendix F: Year 2040 (Pleasant Street Reduction) Traffic Operations Analysis Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	5	35	15	5	5	50	240	10	60	170	40
Future Volume (vph)	15	5	35	15	5	5	50	240	10	60	170	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00	0.99		1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.87			1.00	0.85		0.99			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.99			0.99	
Satd. Flow (prot)	1608	1472			1830	1592		3361			3233	
Flt Permitted	0.74	1.00			0.75	1.00		0.87			0.84	
Satd. Flow (perm)	1259	1472			1423	1592		2963			2750	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	5	38	16	5	5	54	261	11	65	185	43
RTOR Reduction (vph)	0	33	0	0	0	4	0	1	0	0	7	0
Lane Group Flow (vph)	16	10	0	0	21	1	0	325	0	0	286	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	6%	6%	6%	8%	8%	8%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Effective Green, g (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Actuated g/C Ratio	0.12	0.12			0.12	0.12		0.65			0.65	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	156	182			176	197		1914			1776	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.01				c0.01	0.00		c0.11			0.10	
v/c Ratio	0.10	0.05			0.12	0.00		0.17			0.16	
Uniform Delay, d1	16.9	16.8			16.9	16.7		3.1			3.0	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.3	0.1			0.3	0.0		0.1			0.1	
Delay (s)	17.2	16.9			17.2	16.7		3.1			3.1	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		17.0			17.1			3.1			3.1	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	215	10	5	295	140	5	35	10	45	10	45
Future Volume (vph)	65	215	10	5	295	140	5	35	10	45	10	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.99			1.00	0.85	1.00	1.00	0.85	1.00	0.88	
Flt Protected		0.99			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3317			1808	1505	1804	1900	1593	1718	1587	
Flt Permitted		0.82			0.99	1.00	1.00	1.00	1.00	0.58	1.00	
Satd. Flow (perm)		2748			1797	1505	1899	1900	1593	1048	1587	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	79	262	12	6	360	171	6	43	12	55	12	55
RTOR Reduction (vph)	0	1	0	0	0	88	0	0	11	0	41	0
Lane Group Flow (vph)	0	352	0	0	366	83	6	43	1	55	26	0
Confl. Peds. (#/hr)			1	3		2	1		3	2		
Heavy Vehicles (%)	7%	7%	7%	5%	5%	5%	0%	0%	0%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		19.1			19.1	19.1	3.4	3.4	3.4	10.3	10.3	
Effective Green, g (s)		19.1			19.1	19.1	3.4	3.4	3.4	10.3	10.3	
Actuated g/C Ratio		0.48			0.48	0.48	0.09	0.09	0.09	0.26	0.26	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1332			871	729	163	163	137	331	414	
v/s Ratio Prot								0.02		c0.01	0.02	
v/s Ratio Perm		0.13			c0.20	0.06	0.00		0.00	c0.03		
v/c Ratio		0.26			0.42	0.11	0.04	0.26	0.01	0.17	0.06	
Uniform Delay, d1		6.0			6.6	5.5	16.5	16.8	16.5	11.2	10.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1			0.3	0.1	0.1	0.9	0.0	0.2	0.1	
Delay (s)		6.1			6.9	5.6	16.6	17.7	16.5	11.5	11.0	
Level of Service		A			A	A	B	B	B	B	B	
Approach Delay (s)		6.1			6.5			17.3			11.2	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	39.4	Sum of lost time (s)	16.5
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	260	25	275	150	335	10	160	200	265	215	30
Future Volume (veh/h)	25	260	25	275	150	335	10	160	200	265	215	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
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	0.99		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1792	1792	1792	1792	1792	1900	1776	1776	1900
Adj Flow Rate, veh/h	32	329	32	348	190	424	13	203	253	335	272	38
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	3	3	3	6	6	6	6	6	6	7	7	7
Cap, veh/h	379	448	44	417	662	822	328	347	309	408	1044	144
Arrive On Green	0.05	0.27	0.27	0.15	0.37	0.37	0.02	0.20	0.20	0.17	0.35	0.35
Sat Flow, veh/h	1757	1655	161	1707	1792	1519	1707	1703	1515	1691	2976	411
Grp Volume(v), veh/h	32	0	361	348	190	424	13	203	253	335	153	157
Grp Sat Flow(s),veh/h/ln	1757	0	1816	1707	1792	1519	1707	1703	1515	1691	1687	1700
Q Serve(g_s), s	1.2	0.0	16.6	13.2	6.9	16.3	0.5	9.9	14.7	13.7	5.9	6.1
Cycle Q Clear(g_c), s	1.2	0.0	16.6	13.2	6.9	16.3	0.5	9.9	14.7	13.7	5.9	6.1
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	379	0	492	417	662	822	328	347	309	408	592	597
V/C Ratio(X)	0.08	0.00	0.73	0.83	0.29	0.52	0.04	0.59	0.82	0.82	0.26	0.26
Avail Cap(c_a), veh/h	476	0	573	417	662	822	462	408	363	421	592	597
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	30.5	21.0	20.4	13.4	27.6	33.1	35.0	22.9	21.3	21.3
Incr Delay (d2), s/veh	0.1	0.0	9.4	13.6	1.1	2.3	0.0	3.3	15.1	12.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	14.7	12.2	6.4	11.7	0.5	8.6	11.9	12.2	5.1	5.3
LnGrp Delay(d),s/veh	21.8	0.0	39.8	34.6	21.5	15.7	27.6	36.4	50.1	34.9	21.8	21.8
LnGrp LOS	C		D	C	C	B	C	D	D	C	C	C
Approach Vol, veh/h		393			962			469			645	
Approach Delay, s/veh		38.4			23.7			43.5			28.6	
Approach LOS		D			C			D			C	

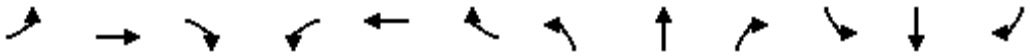
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	24.7	17.0	30.9	5.8	38.2	8.0	39.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	16.5	22.0	13.5	29.0	9.5	29.0	9.5	33.0
Max Q Clear Time (g_c+I1), s	15.7	16.7	15.2	18.6	2.5	8.1	3.2	18.3
Green Ext Time (p_c), s	0.1	1.9	0.0	6.3	0.0	8.8	0.0	10.5

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	260	25	275	150	335	10	160	200	265	215	30
Future Volume (veh/h)	25	260	25	275	150	335	10	160	200	265	215	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
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	0.99		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1792	1792	1792	1792	1792	1792	1776	1776	1900
Adj Flow Rate, veh/h	32	329	32	348	190	424	13	203	253	335	272	38
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	3	3	3	6	6	6	6	6	6	7	7	7
Cap, veh/h	374	409	40	410	628	747	360	402	574	438	1013	140
Arrive On Green	0.05	0.25	0.25	0.15	0.35	0.35	0.03	0.22	0.22	0.14	0.34	0.34
Sat Flow, veh/h	1757	1655	161	1707	1792	1518	1707	1792	1516	1691	2976	411
Grp Volume(v), veh/h	32	0	361	348	190	424	13	203	253	335	153	157
Grp Sat Flow(s),veh/h/ln	1757	0	1816	1707	1792	1518	1707	1792	1516	1691	1687	1700
Q Serve(g_s), s	1.1	0.0	15.2	12.0	6.3	16.0	0.5	8.1	10.1	11.5	5.3	5.5
Cycle Q Clear(g_c), s	1.1	0.0	15.2	12.0	6.3	16.0	0.5	8.1	10.1	11.5	5.3	5.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	374	0	449	410	628	747	360	402	574	438	574	579
V/C Ratio(X)	0.09	0.00	0.80	0.85	0.30	0.57	0.04	0.51	0.44	0.76	0.27	0.27
Avail Cap(c_a), veh/h	490	0	536	410	628	747	516	507	663	438	574	579
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	28.8	19.4	19.2	14.6	23.1	27.6	18.9	20.5	19.4	19.5
Incr Delay (d2), s/veh	0.1	0.0	14.2	15.3	1.2	3.1	0.0	2.1	1.1	7.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	14.4	11.7	6.0	11.7	0.4	7.6	7.8	5.1	4.6	4.8
LnGrp Delay(d),s/veh	20.5	0.0	43.0	34.8	20.4	17.7	23.1	29.7	20.0	28.3	20.0	20.0
LnGrp LOS	C		D	C	C	B	C	C	C	C	B	C
Approach Vol, veh/h		393			962			469			645	
Approach Delay, s/veh		41.1			24.4			24.3			24.3	
Approach LOS		D			C			C			C	

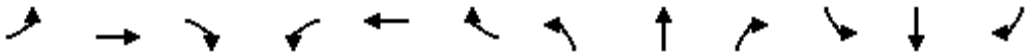
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	24.2	16.0	26.1	5.5	33.7	7.6	34.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	11.5	23.0	12.5	24.0	9.5	25.0	9.5	27.0
Max Q Clear Time (g_c+I1), s	13.5	12.1	14.0	17.2	2.5	7.5	3.1	18.0
Green Ext Time (p_c), s	0.0	3.4	0.0	2.9	0.0	7.1	0.0	6.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.0
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	1	85	25	5	5	65	475	10	5	370	80
Future Volume (vph)	65	1	85	25	5	5	65	475	10	5	370	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95			0.95	
Frt	1.00	0.85			1.00	0.85		1.00			0.97	
Flt Protected	0.95	1.00			0.96	1.00		0.99			1.00	
Satd. Flow (prot)	1719	1541			1823	1615		3474			3378	
Flt Permitted	0.74	1.00			0.76	1.00		0.85			0.95	
Satd. Flow (perm)	1332	1541			1450	1615		2982			3210	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	69	1	90	27	5	5	69	505	11	5	394	85
RTOR Reduction (vph)	0	67	0	0	0	4	0	1	0	0	11	0
Lane Group Flow (vph)	69	24	0	0	32	1	0	584	0	0	473	0
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	3%	3%	3%	4%	4%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	11.7	11.7			11.7	11.7		23.8			23.8	
Effective Green, g (s)	11.7	11.7			11.7	11.7		23.8			23.8	
Actuated g/C Ratio	0.26	0.26			0.26	0.26		0.52			0.52	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	342	396			372	415		1559			1679	
v/s Ratio Prot		0.02										
v/s Ratio Perm	c0.05				0.02	0.00		c0.20			0.15	
v/c Ratio	0.20	0.06			0.09	0.00		0.37			0.28	
Uniform Delay, d1	13.2	12.8			12.8	12.6		6.4			6.1	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.3	0.1			0.1	0.0		0.3			0.2	
Delay (s)	13.5	12.8			12.9	12.6		6.7			6.2	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		13.1			12.9			6.7			6.2	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	45.5	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	390	10	10	415	40	5	45	25	135	15	95
Future Volume (vph)	10	390	10	10	415	40	5	45	25	135	15	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	0.99	1.00	0.99	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		1.00			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3452			1861	1583	1802	1900	1593	1752	1588	
Flt Permitted		0.94			0.99	1.00	0.70	1.00	1.00	0.45	1.00	
Satd. Flow (perm)		3255			1837	1583	1331	1900	1593	825	1588	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	12	470	12	12	500	48	6	54	30	163	18	114
RTOR Reduction (vph)	0	1	0	0	0	25	0	0	27	0	76	0
Lane Group Flow (vph)	0	493	0	0	512	23	6	54	3	163	56	0
Confl. Peds. (#/hr)	1		3	2			3		2			1
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		24.2			24.2	24.2	5.7	5.7	5.7	17.0	17.0	
Effective Green, g (s)		24.2			24.2	24.2	5.7	5.7	5.7	17.0	17.0	
Actuated g/C Ratio		0.47			0.47	0.47	0.11	0.11	0.11	0.33	0.33	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1538			868	748	148	211	177	415	527	
v/s Ratio Prot								0.03		c0.06	0.04	
v/s Ratio Perm		0.15			c0.28	0.01	0.00		0.00	c0.07		
v/c Ratio		0.32			0.59	0.03	0.04	0.26	0.02	0.39	0.11	
Uniform Delay, d1		8.4			9.9	7.2	20.3	20.8	20.3	12.7	11.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1			1.0	0.0	0.1	0.6	0.0	0.6	0.1	
Delay (s)		8.5			10.9	7.2	20.4	21.5	20.3	13.3	11.9	
Level of Service		A			B	A	C	C	C	B	B	
Approach Delay (s)		8.5			10.6			21.0			12.7	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	51.2	Sum of lost time (s)	16.5
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	250	30	325	325	290	40	355	535	215	240	25
Future Volume (veh/h)	10	250	30	325	325	290	40	355	535	215	240	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.98	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1881	1863	1863	1900	1810	1810	1900
Adj Flow Rate, veh/h	11	263	32	342	342	305	42	374	563	226	253	26
Adj No. of Lanes	1	1	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	5	5	5
Cap, veh/h	272	351	43	431	675	742	525	590	527	258	1233	126
Arrive On Green	0.02	0.22	0.22	0.16	0.36	0.36	0.05	0.33	0.33	0.11	0.39	0.39
Sat Flow, veh/h	1774	1629	198	1792	1881	1573	1774	1770	1580	1723	3149	321
Grp Volume(v), veh/h	11	0	295	342	342	305	42	374	563	226	137	142
Grp Sat Flow(s),veh/h/ln	1774	0	1827	1792	1881	1573	1774	1770	1580	1723	1719	1751
Q Serve(g_s), s	0.5	0.0	16.3	15.3	15.4	13.8	1.6	19.3	36.0	9.7	5.7	5.8
Cycle Q Clear(g_c), s	0.5	0.0	16.3	15.3	15.4	13.8	1.6	19.3	36.0	9.7	5.7	5.8
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	272	0	394	431	675	742	525	590	527	258	673	685
V/C Ratio(X)	0.04	0.00	0.75	0.79	0.51	0.41	0.08	0.63	1.07	0.88	0.20	0.21
Avail Cap(c_a), veh/h	391	0	457	477	675	742	587	590	527	346	700	713
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	39.6	26.4	27.1	18.8	20.8	30.4	36.0	28.4	21.7	21.8
Incr Delay (d2), s/veh	0.1	0.0	12.3	8.2	2.7	1.7	0.1	3.1	58.8	17.2	0.3	0.3
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(95%),veh/ln	0.5	0.0	14.6	13.3	13.3	10.4	1.4	15.1	43.7	12.4	5.0	5.1
LnGrp Delay(d),s/veh	31.7	0.0	51.9	34.6	29.8	20.5	20.9	33.6	94.8	45.6	22.0	22.1
LnGrp LOS	C		D	C	C	C	C	C	F	D	C	C
Approach Vol, veh/h		306			989			979			505	
Approach Delay, s/veh		51.1			28.6			68.2			32.6	
Approach LOS		D			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	42.0	21.2	29.3	9.2	48.3	5.7	44.7
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	17.5	36.0	20.5	27.0	9.5	44.0	9.5	38.0
Max Q Clear Time (g_c+I1), s	11.7	38.0	17.3	18.3	3.6	7.8	2.5	17.4
Green Ext Time (p_c), s	0.3	0.0	0.4	5.0	0.0	20.2	0.0	13.5

Intersection Summary	
HCM 2010 Ctrl Delay	45.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	90	55	25	70	170	50	480	15	60	375	70
Future Volume (veh/h)	55	90	55	25	70	170	50	480	15	60	375	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	1.00		0.99	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	60	99	60	27	77	187	55	527	16	66	412	77
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	484	281	170	427	395	331	448	770	23	311	1289	239
Arrive On Green	0.08	0.26	0.26	0.03	0.21	0.21	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1810	1100	667	1810	1900	1596	893	1781	54	859	2979	552
Grp Volume(v), veh/h	60	0	159	27	77	187	55	0	543	66	243	246
Grp Sat Flow(s),veh/h/ln	1810	0	1767	1810	1900	1596	893	0	1835	859	1770	1762
Q Serve(g_s), s	1.2	0.0	3.7	0.6	1.7	5.3	2.2	0.0	11.9	3.3	4.5	4.6
Cycle Q Clear(g_c), s	1.2	0.0	3.7	0.6	1.7	5.3	6.7	0.0	11.9	15.3	4.5	4.6
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.03	1.00		0.31
Lane Grp Cap(c), veh/h	484	0	452	427	395	331	448	0	794	311	766	762
V/C Ratio(X)	0.12	0.00	0.35	0.06	0.20	0.56	0.12	0.00	0.68	0.21	0.32	0.32
Avail Cap(c_a), veh/h	1283	0	885	1313	952	799	509	0	919	370	886	882
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	15.2	14.7	16.3	17.7	11.6	0.0	11.4	17.6	9.3	9.3
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.1	0.2	1.5	0.1	0.0	1.7	0.3	0.2	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(95%),veh/ln	1.1	0.0	3.3	0.5	1.6	4.4	1.0	0.0	10.4	1.5	4.0	4.0
LnGrp Delay(d),s/veh	13.0	0.0	15.7	14.8	16.6	19.3	11.7	0.0	13.2	17.9	9.6	9.6
LnGrp LOS	B		B	B	B	B	B		B	B	A	A
Approach Vol, veh/h		219			291			598			555	
Approach Delay, s/veh		14.9			18.1			13.0			10.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.6	5.6	17.8		26.6	8.0	15.4
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	26.0	25.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		13.9	2.6	5.7		17.3	3.2	7.3
Green Ext Time (p_c), s		5.6	0.0	2.0		4.3	0.1	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

HCM 2010 edition methodology does not support a perm + prot left-turn type from a shared lane. Left-turn bay is needed for phases 5.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	275	180	165	330	25	200	150	65	65	200	40
Future Volume (veh/h)	25	275	180	165	330	25	200	150	65	65	200	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1863	1863	1863	1900	1900	1900
Adj Flow Rate, veh/h	30	331	217	199	398	30	241	181	78	78	241	48
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	4	4	4	2	2	2	0	0	0
Cap, veh/h	349	478	404	431	837	710	444	740	627	326	373	315
Arrive On Green	0.26	0.26	0.26	0.14	0.46	0.46	0.14	0.40	0.40	0.20	0.20	0.20
Sat Flow, veh/h	944	1845	1561	1740	1827	1549	1774	1863	1579	1133	1900	1605
Grp Volume(v), veh/h	30	331	217	199	398	30	241	181	78	78	241	48
Grp Sat Flow(s),veh/h/ln	944	1845	1561	1740	1827	1549	1774	1863	1579	1133	1900	1605
Q Serve(g_s), s	1.7	11.2	8.3	5.1	10.4	0.7	6.9	4.5	2.2	4.1	8.1	1.7
Cycle Q Clear(g_c), s	1.7	11.2	8.3	5.1	10.4	0.7	6.9	4.5	2.2	4.1	8.1	1.7
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	349	478	404	431	837	710	444	740	627	326	373	315
V/C Ratio(X)	0.09	0.69	0.54	0.46	0.48	0.04	0.54	0.24	0.12	0.24	0.65	0.15
Avail Cap(c_a), veh/h	445	667	564	839	1453	1232	857	1481	1255	514	687	580
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	19.6	23.1	22.1	14.4	13.0	10.3	16.9	13.9	13.2	24.0	25.6	23.0
Incr Delay (d2), s/veh	0.1	1.8	1.1	0.8	0.4	0.0	1.0	0.2	0.1	0.4	1.9	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(95%),veh/ln	0.8	9.9	6.7	4.4	9.1	0.6	6.1	4.2	1.7	2.4	7.9	1.4
LnGrp Delay(d),s/veh	19.7	24.9	23.2	15.1	13.4	10.4	18.0	14.1	13.3	24.4	27.5	23.3
LnGrp LOS	B	C	C	B	B	B	B	B	B	C	C	C
Approach Vol, veh/h		578			627			500			367	
Approach Delay, s/veh		24.0			13.8			15.8			26.3	
Approach LOS		C			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	13.8	22.9	13.9	18.6		36.7		32.5
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	7.1	13.2	8.9	10.1		12.4		6.5
Green Ext Time (p_c), s	0.5	4.6	0.6	3.0		7.0		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	19.3
HCM 2010 LOS	B

HCM 2010 edition methodology does not support a perm + prot left-turn type from a shared lane. Left-turn bay is needed for phases 3.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	120	50	5	130	15	30	45	20	30	200	20
Future Volume (veh/h)	20	120	50	5	130	15	30	45	20	30	200	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.93	0.96		0.93	0.98		0.98	0.98		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1845	1900	1900	1863	1900
Adj Flow Rate, veh/h	25	150	62	6	162	19	38	56	25	38	250	25
Adj No. of Lanes	0	1	0	0	1	1	0	1	0	0	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	75	270	104	55	478	385	319	457	189	144	903	86
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.61	0.61	0.61	1.00	1.00	1.00
Sat Flow, veh/h	86	1058	405	19	1869	1506	419	747	310	148	1478	141
Grp Volume(v), veh/h	237	0	0	168	0	19	119	0	0	313	0	0
Grp Sat Flow(s),veh/h/ln	1548	0	0	1887	0	1506	1476	0	0	1767	0	0
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.0	5.4	0.0	0.7	2.1	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.11		0.26	0.04		1.00	0.32		0.21	0.12		0.08
Lane Grp Cap(c), veh/h	449	0	0	532	0	385	965	0	0	1133	0	0
V/C Ratio(X)	0.53	0.00	0.00	0.32	0.00	0.05	0.12	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	606	0	0	726	0	542	965	0	0	1133	0	0
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	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.94	0.00	0.00
Uniform Delay (d), s/veh	24.4	0.0	0.0	22.8	0.0	21.0	6.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.7	0.0	0.1	0.3	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	0.0	0.0	5.3	0.0	0.6	2.0	0.0	0.0	0.3	0.0	0.0
LnGrp Delay(d),s/veh	26.5	0.0	0.0	23.5	0.0	21.2	6.3	0.0	0.0	0.6	0.0	0.0
LnGrp LOS	C			C		C	A			A		
Approach Vol, veh/h		237			187			119			313	
Approach Delay, s/veh		26.5			23.3			6.3			0.6	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.8		24.2		50.8		24.2
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		4.1		11.8		2.0		7.4
Green Ext Time (p_c), s		5.9		4.0		6.0		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	15	40	5	25	10	15	70	15	20	205	140
Future Volume (veh/h)	135	15	40	5	25	10	15	70	15	20	205	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.96	1.00		0.99	0.99		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1796	1900	1900	1845	1900	1900	1881	1900
Adj Flow Rate, veh/h	148	16	44	5	27	11	16	77	16	22	225	154
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	1	1	1
Cap, veh/h	280	33	62	68	233	85	176	815	161	81	685	446
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	995	165	311	74	1172	428	181	1221	241	45	1025	667
Grp Volume(v), veh/h	208	0	0	43	0	0	109	0	0	401	0	0
Grp Sat Flow(s),veh/h/ln	1471	0	0	1674	0	0	1643	0	0	1738	0	0
Q Serve(g_s), s	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.7	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0	7.4	0.0	0.0
Prop In Lane	0.71		0.21	0.12		0.26	0.15		0.15	0.05		0.38
Lane Grp Cap(c), veh/h	374	0	0	386	0	0	1153	0	0	1212	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.11	0.00	0.00	0.09	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	605	0	0	648	0	0	1153	0	0	1212	0	0
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	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.8	0.0	0.0	24.7	0.0	0.0	4.4	0.0	0.0	5.4	0.0	0.0
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.7	0.0	0.0	1.4	0.0	0.0	1.5	0.0	0.0	6.7	0.0	0.0
LnGrp Delay(d),s/veh	30.6	0.0	0.0	25.0	0.0	0.0	4.6	0.0	0.0	6.1	0.0	0.0
LnGrp LOS	C			C			A			A		
Approach Vol, veh/h		208			43			109			401	
Approach Delay, s/veh		30.6			25.0			4.6			6.1	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.1		19.9		55.1		19.9
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		3.6		11.7		9.4		3.6
Green Ext Time (p_c), s		7.4		2.3		7.0		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	725	55	185	715	75	30	120	70	35	285	145
Future Volume (veh/h)	220	725	55	185	715	75	30	120	70	35	285	145
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1881	1881	1881	1863	1863	1863
Adj Flow Rate, veh/h	232	763	58	195	753	79	32	126	74	37	300	153
Adj No. of Lanes	1	2	1	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	2	2	2
Cap, veh/h	407	1460	709	408	1288	135	230	436	369	360	438	367
Arrive On Green	0.10	0.41	0.41	0.09	0.40	0.40	0.04	0.23	0.23	0.04	0.24	0.24
Sat Flow, veh/h	1774	3539	1578	1774	3228	339	1792	1881	1593	1774	1863	1561
Grp Volume(v), veh/h	232	763	58	195	413	419	32	126	74	37	300	153
Grp Sat Flow(s),veh/h/ln	1774	1770	1578	1774	1770	1797	1792	1881	1593	1774	1863	1561
Q Serve(g_s), s	6.6	14.3	1.9	5.6	16.2	16.3	1.2	4.9	3.3	1.4	13.0	7.4
Cycle Q Clear(g_c), s	6.6	14.3	1.9	5.6	16.2	16.3	1.2	4.9	3.3	1.4	13.0	7.4
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	407	1460	709	408	706	717	230	436	369	360	438	367
V/C Ratio(X)	0.57	0.52	0.08	0.48	0.58	0.58	0.14	0.29	0.20	0.10	0.69	0.42
Avail Cap(c_a), veh/h	742	1753	840	767	876	890	688	932	789	807	922	773
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	14.9	19.6	14.0	14.4	20.9	20.9	25.2	28.1	27.5	24.2	31.0	28.8
Incr Delay (d2), s/veh	1.3	0.4	0.1	0.9	1.1	1.1	0.3	0.5	0.4	0.1	2.7	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.1	11.4	1.5	5.1	12.8	13.0	1.1	4.7	2.7	1.2	11.3	5.9
LnGrp Delay(d),s/veh	16.2	20.0	14.1	15.3	22.0	22.0	25.4	28.6	27.9	24.3	33.7	29.9
LnGrp LOS	B	B	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1053			1027			232			490	
Approach Delay, s/veh		18.8			20.7			28.0			31.8	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	42.6	7.3	26.9	13.2	41.5	7.6	26.6
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	26.0	44.0	26.0	44.0	26.0	44.0
Max Q Clear Time (g_c+I1), s	7.6	16.3	3.2	15.0	8.6	18.3	3.4	6.9
Green Ext Time (p_c), s	0.5	18.1	0.0	5.5	0.6	17.2	0.1	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	250	30	325	325	290	40	355	535	215	240	25
Future Volume (veh/h)	10	250	30	325	325	290	40	355	535	215	240	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.98	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1881	1863	1863	1863	1810	1810	1900
Adj Flow Rate, veh/h	11	263	32	342	342	305	42	374	563	226	253	26
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	5	5	5
Cap, veh/h	285	416	51	424	675	737	506	568	680	340	1120	114
Arrive On Green	0.02	0.26	0.26	0.13	0.36	0.36	0.06	0.30	0.30	0.11	0.36	0.36
Sat Flow, veh/h	1774	1629	198	1792	1881	1573	1774	1863	1580	1723	3149	321
Grp Volume(v), veh/h	11	0	295	342	342	305	42	374	563	226	137	142
Grp Sat Flow(s),veh/h/ln	1774	0	1827	1792	1881	1573	1774	1863	1580	1723	1719	1751
Q Serve(g_s), s	0.4	0.0	13.2	11.5	13.1	11.8	1.4	16.0	28.0	7.8	5.1	5.2
Cycle Q Clear(g_c), s	0.4	0.0	13.2	11.5	13.1	11.8	1.4	16.0	28.0	7.8	5.1	5.2
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	285	0	466	424	675	737	506	568	680	340	611	622
V/C Ratio(X)	0.04	0.00	0.63	0.81	0.51	0.41	0.08	0.66	0.83	0.67	0.22	0.23
Avail Cap(c_a), veh/h	431	0	597	424	675	737	588	568	680	369	611	622
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	30.4	23.7	23.1	16.2	19.1	27.8	23.2	19.8	20.7	20.8
Incr Delay (d2), s/veh	0.1	0.0	6.4	10.9	2.7	1.7	0.1	3.8	9.3	4.0	0.4	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(95%),veh/ln	0.4	0.0	11.9	7.5	11.7	9.3	1.3	13.7	20.5	7.2	4.5	4.7
LnGrp Delay(d),s/veh	24.3	0.0	36.8	34.5	25.8	17.9	19.2	31.6	32.5	23.8	21.1	21.2
LnGrp LOS	C		D	C	C	B	B	C	C	C	C	C
Approach Vol, veh/h		306			989			979			505	
Approach Delay, s/veh		36.3			26.4			31.6			22.3	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	34.0	15.0	29.4	8.8	38.7	5.5	39.0
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	11.5	28.0	11.5	30.0	9.5	30.0	9.5	32.0
Max Q Clear Time (g_c+I1), s	9.8	30.0	13.5	15.2	3.4	7.2	2.4	15.1
Green Ext Time (p_c), s	0.1	0.0	0.0	8.3	0.0	12.9	0.0	11.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.6
HCM 2010 LOS	C

Appendix G: Year 2040 (4th Street and Pleasant Street Reduction) Traffic Operations Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	265	20	215	150	330	10	155	125	270	215	25
Future Volume (veh/h)	25	265	20	215	150	330	10	155	125	270	215	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.99	0.99		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1792	1792	1792	1792	1792	1792	1776	1776	1900
Adj Flow Rate, veh/h	32	335	25	272	190	418	13	196	158	342	272	32
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	3	3	3	6	6	6	6	6	6	7	7	7
Cap, veh/h	409	508	38	425	677	808	318	359	304	444	515	61
Arrive On Green	0.05	0.30	0.30	0.13	0.38	0.38	0.02	0.20	0.20	0.15	0.33	0.33
Sat Flow, veh/h	1757	1696	127	1707	1792	1516	1707	1792	1516	1691	1559	183
Grp Volume(v), veh/h	32	0	360	272	190	418	13	196	158	342	0	304
Grp Sat Flow(s),veh/h/ln	1757	0	1822	1707	1792	1516	1707	1792	1516	1691	0	1742
Q Serve(g_s), s	1.1	0.0	15.0	9.1	6.4	15.5	0.5	8.6	8.1	13.5	0.0	12.3
Cycle Q Clear(g_c), s	1.1	0.0	15.0	9.1	6.4	15.5	0.5	8.6	8.1	13.5	0.0	12.3
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	409	0	546	425	677	808	318	359	304	444	0	575
V/C Ratio(X)	0.08	0.00	0.66	0.64	0.28	0.52	0.04	0.55	0.52	0.77	0.00	0.53
Avail Cap(c_a), veh/h	554	0	669	432	677	808	540	493	417	444	0	575
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	26.7	18.0	18.9	13.2	26.4	31.3	31.1	22.3	0.0	23.7
Incr Delay (d2), s/veh	0.1	0.0	6.1	3.1	1.0	2.4	0.1	2.8	2.9	8.1	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	13.2	8.0	6.1	11.3	0.4	8.0	6.5	11.7	0.0	10.3
LnGrp Delay(d),s/veh	18.9	0.0	32.8	21.1	19.9	15.5	26.4	34.1	34.1	30.4	0.0	25.4
LnGrp LOS	B		C	C	B	B	C	C	C	C		C
Approach Vol, veh/h		392			880			367			646	
Approach Delay, s/veh		31.7			18.2			33.8			28.1	
Approach LOS		C			B			C			C	

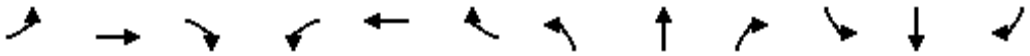
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	23.5	14.6	32.1	5.7	34.8	7.8	38.9
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	13.5	24.0	11.5	32.0	13.5	24.0	11.5	32.0
Max Q Clear Time (g_c+I1), s	15.5	10.6	11.1	17.0	2.5	14.3	3.1	17.5
Green Ext Time (p_c), s	0.0	2.9	0.0	9.1	0.0	4.3	0.0	10.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	65	30	10	60	35	30	170	10	25	160	40
Future Volume (veh/h)	40	65	30	10	60	35	30	170	10	25	160	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.96	1.00		0.99	0.99		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1845	1845	1845	1743	1743	1900	1776	1776	1900
Adj Flow Rate, veh/h	47	76	35	12	71	41	35	200	12	29	188	47
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	3	3	3	9	9	9	7	7	7
Cap, veh/h	563	356	164	495	438	358	446	587	35	470	494	124
Arrive On Green	0.07	0.29	0.29	0.02	0.24	0.24	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1219	561	1757	1845	1508	1063	1627	98	1102	1370	342
Grp Volume(v), veh/h	47	0	111	12	71	41	35	0	212	29	0	235
Grp Sat Flow(s),veh/h/ln	1810	0	1781	1757	1845	1508	1063	0	1725	1102	0	1712
Q Serve(g_s), s	0.8	0.0	2.0	0.2	1.3	0.9	1.1	0.0	3.8	0.8	0.0	4.3
Cycle Q Clear(g_c), s	0.8	0.0	2.0	0.2	1.3	0.9	5.4	0.0	3.8	4.6	0.0	4.3
Prop In Lane	1.00		0.32	1.00		1.00	1.00		0.06	1.00		0.20
Lane Grp Cap(c), veh/h	563	0	520	495	438	358	446	0	622	470	0	618
V/C Ratio(X)	0.08	0.00	0.21	0.02	0.16	0.11	0.08	0.00	0.34	0.06	0.00	0.38
Avail Cap(c_a), veh/h	1551	0	1055	1550	1093	894	692	0	1022	725	0	1015
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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	11.3	11.9	12.8	12.6	12.0	0.0	9.8	11.5	0.0	10.0
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.3	0.1	0.0	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(95%),veh/ln	0.7	0.0	1.8	0.2	1.2	0.7	0.6	0.0	3.3	0.5	0.0	3.8
LnGrp Delay(d),s/veh	10.3	0.0	11.5	11.9	12.9	12.8	12.1	0.0	10.2	11.6	0.0	10.4
LnGrp LOS	B		B	B	B	B	B		B	B		B
Approach Vol, veh/h		158			124			247			264	
Approach Delay, s/veh		11.1			12.8			10.4			10.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	4.7	17.3		20.2	7.0	15.0
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	26.0	25.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		7.4	2.2	4.0		6.6	2.8	3.3
Green Ext Time (p_c), s		2.9	0.0	1.1		3.0	0.1	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	11.0
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	5	35	15	5	5	65	190	10	5	170	25
Future Volume (vph)	15	5	35	15	5	5	65	190	10	5	170	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.98		1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.87			1.00	0.85		0.99			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.99			1.00	
Satd. Flow (prot)	1605	1472			1830	1576		1762			1728	
Flt Permitted	0.74	1.00			0.75	1.00		0.89			0.99	
Satd. Flow (perm)	1257	1472			1423	1576		1588			1719	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	5	38	16	5	5	71	207	11	5	185	27
RTOR Reduction (vph)	0	33	0	0	0	4	0	1	0	0	2	0
Lane Group Flow (vph)	16	10	0	0	21	1	0	288	0	0	215	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	6%	6%	6%	8%	8%	8%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Effective Green, g (s)	5.4	5.4			5.4	5.4		28.1			28.1	
Actuated g/C Ratio	0.12	0.12			0.12	0.12		0.65			0.65	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	156	182			176	195		1025			1110	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.01				c0.01	0.00		c0.18			0.12	
v/c Ratio	0.10	0.05			0.12	0.00		0.28			0.19	
Uniform Delay, d1	16.9	16.8			16.9	16.7		3.3			3.1	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.3	0.1			0.3	0.0		0.3			0.1	
Delay (s)	17.2	16.9			17.2	16.7		3.6			3.3	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		17.0			17.1			3.6			3.3	
Approach LOS		B			B			A			A	

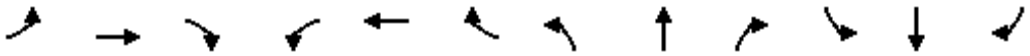
Intersection Summary			
HCM 2000 Control Delay	5.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	43.5	Sum of lost time (s)	14.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	135	70	115	180	60	60	185	120	15	65	20
Future Volume (veh/h)	10	135	70	115	180	60	60	185	120	15	65	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.97	0.99		1.00	0.99		0.97
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
Adj Sat Flow, veh/h/ln	1743	1743	1743	1792	1792	1792	1810	1810	1810	1881	1881	1881
Adj Flow Rate, veh/h	11	145	75	124	194	65	65	199	129	16	70	22
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	9	9	9	6	6	6	5	5	5	1	1	1
Cap, veh/h	338	346	292	539	768	634	541	700	593	341	373	307
Arrive On Green	0.20	0.20	0.20	0.16	0.43	0.43	0.12	0.39	0.39	0.20	0.20	0.20
Sat Flow, veh/h	1033	1743	1473	1707	1792	1481	1723	1810	1531	1052	1881	1548
Grp Volume(v), veh/h	11	145	75	124	194	65	65	199	129	16	70	22
Grp Sat Flow(s),veh/h/ln	1033	1743	1473	1707	1792	1481	1723	1810	1531	1052	1881	1548
Q Serve(g_s), s	0.5	3.9	2.3	2.6	3.8	1.4	1.4	4.1	3.1	0.7	1.7	0.6
Cycle Q Clear(g_c), s	0.5	3.9	2.3	2.6	3.8	1.4	1.4	4.1	3.1	0.7	1.7	0.6
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	338	346	292	539	768	634	541	700	593	341	373	307
V/C Ratio(X)	0.03	0.42	0.26	0.23	0.25	0.10	0.12	0.28	0.22	0.05	0.19	0.07
Avail Cap(c_a), veh/h	610	805	680	1092	1820	1504	1170	1838	1555	619	868	715
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	17.6	19.0	18.3	11.2	9.9	9.3	12.0	11.4	11.1	17.7	18.1	17.7
Incr Delay (d2), s/veh	0.0	0.8	0.5	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2	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(95%),veh/ln	0.2	3.5	1.8	2.2	3.4	1.1	1.2	3.8	2.3	0.4	1.6	0.5
LnGrp Delay(d),s/veh	17.6	19.8	18.8	11.4	10.1	9.3	12.1	11.6	11.3	17.7	18.3	17.8
LnGrp LOS	B	B	B	B	B	A	B	B	B	B	B	B
Approach Vol, veh/h		231			383			393			108	
Approach Delay, s/veh		19.4			10.4			11.6			18.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	12.5	15.7	10.2	15.7		28.2		26.0
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	4.6	5.9	3.4	3.7		5.8		6.1
Green Ext Time (p_c), s	0.3	2.5	0.1	2.2		2.9		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	180	5	5	270	165	5	35	10	90	15	85
Future Volume (vph)	90	180	5	5	270	165	5	35	10	90	15	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		0.98			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3309			1808	1504	1804	1900	1593	1718	1578	
Flt Permitted		0.76			0.99	1.00	1.00	1.00	1.00	0.55	1.00	
Satd. Flow (perm)		2562			1796	1504	1899	1900	1593	991	1578	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	110	220	6	6	329	201	6	43	12	110	18	104
RTOR Reduction (vph)	0	1	0	0	0	115	0	0	11	0	68	0
Lane Group Flow (vph)	0	335	0	0	335	86	6	43	1	110	54	0
Confl. Peds. (#/hr)			1	3		2	1		3	2		
Heavy Vehicles (%)	7%	7%	7%	5%	5%	5%	0%	0%	0%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		18.3			18.3	18.3	3.8	3.8	3.8	14.7	14.7	
Effective Green, g (s)		18.3			18.3	18.3	3.8	3.8	3.8	14.7	14.7	
Actuated g/C Ratio		0.43			0.43	0.43	0.09	0.09	0.09	0.34	0.34	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1090			764	640	167	167	140	463	539	
v/s Ratio Prot								0.02		c0.04	0.03	
v/s Ratio Perm		0.13			c0.19	0.06	0.00		0.00	c0.04		
v/c Ratio		0.31			0.44	0.13	0.04	0.26	0.01	0.24	0.10	
Uniform Delay, d1		8.2			8.7	7.5	17.9	18.3	17.9	10.1	9.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.4	0.1	0.1	0.8	0.0	0.3	0.1	
Delay (s)		8.3			9.1	7.6	18.0	19.1	17.9	10.4	9.7	
Level of Service		A			A	A	B	B	B	B	A	
Approach Delay (s)		8.3			8.6			18.8			10.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	43.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	60	10	15	95	20	50	225	10	15	165	10
Future Volume (veh/h)	10	60	10	15	95	20	50	225	10	15	165	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.97	1.00		0.99	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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1845	1845	1900	1776	1900	1900	1776	1900
Adj Flow Rate, veh/h	13	76	13	19	120	25	63	285	13	19	209	13
Adj No. of Lanes	0	1	0	0	1	1	0	1	0	0	1	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	3	3	3	7	7	7	7	7	7
Cap, veh/h	70	217	34	74	246	227	221	959	42	110	1097	66
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	109	1457	229	129	1657	1526	229	1335	58	80	1528	92
Grp Volume(v), veh/h	102	0	0	139	0	25	361	0	0	241	0	0
Grp Sat Flow(s),veh/h/ln	1795	0	0	1786	0	1526	1623	0	0	1700	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	5.2	0.0	1.1	5.4	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.13		0.13	0.14		1.00	0.17		0.04	0.08		0.05
Lane Grp Cap(c), veh/h	321	0	0	320	0	227	1222	0	0	1272	0	0
V/C Ratio(X)	0.32	0.00	0.00	0.43	0.00	0.11	0.30	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	688	0	0	687	0	549	1222	0	0	1272	0	0
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	0.00	1.00	0.00	1.00	0.99	0.00	0.00	0.97	0.00	0.00
Uniform Delay (d), s/veh	28.8	0.0	0.0	29.4	0.0	27.6	3.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	2.0	0.0	0.5	0.6	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	0.0	0.0	5.1	0.0	0.9	5.1	0.0	0.0	0.2	0.0	0.0
LnGrp Delay(d),s/veh	30.0	0.0	0.0	31.4	0.0	28.1	4.4	0.0	0.0	0.3	0.0	0.0
LnGrp LOS	C			C		C	A			A		
Approach Vol, veh/h		102			164			361			241	
Approach Delay, s/veh		30.0			30.9			4.4			0.3	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		58.9		16.1		58.9		16.1
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		7.4		5.7		2.0		7.2
Green Ext Time (p_c), s		8.4		2.7		8.8		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	10	10	5	5	5	20	230	5	5	175	105
Future Volume (veh/h)	90	10	10	5	5	5	20	230	5	5	175	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.98		0.94	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1583	1900	1900	1810	1900	1900	1827	1900
Adj Flow Rate, veh/h	101	11	11	6	6	6	22	258	6	6	197	118
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	5	5	5	4	4	4
Cap, veh/h	250	28	19	108	90	67	109	1177	26	54	775	454
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	1.00	1.00	1.00	0.72	0.72	0.72
Sat Flow, veh/h	1135	193	130	309	632	471	80	1626	37	8	1071	627
Grp Volume(v), veh/h	123	0	0	18	0	0	286	0	0	321	0	0
Grp Sat Flow(s),veh/h/ln	1458	0	0	1412	0	0	1742	0	0	1706	0	0
Q Serve(g_s), s	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0
Prop In Lane	0.82		0.09	0.33		0.33	0.08		0.02	0.02		0.37
Lane Grp Cap(c), veh/h	296	0	0	266	0	0	1313	0	0	1284	0	0
V/C Ratio(X)	0.42	0.00	0.00	0.07	0.00	0.00	0.22	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	606	0	0	551	0	0	1313	0	0	1284	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.96	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.0	0.0	0.0	27.9	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.2	0.0	0.0	0.4	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.0	0.0	0.6	0.0	0.0	0.2	0.0	0.0	4.3	0.0	0.0
LnGrp Delay(d),s/veh	31.9	0.0	0.0	28.1	0.0	0.0	0.4	0.0	0.0	4.0	0.0	0.0
LnGrp LOS	C			C			A			A		
Approach Vol, veh/h		123			18			286			321	
Approach Delay, s/veh		31.9			28.1			0.4			4.0	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		59.3		15.7		59.3		15.7
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0		7.8		6.8		2.8
Green Ext Time (p_c), s		8.9		1.3		8.5		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	475	20	45	595	45	30	280	30	55	225	125
Future Volume (veh/h)	125	475	20	45	595	45	30	280	30	55	225	125
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.98	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1810	1810	1810	1845	1845	1900	1810	1810	1810	1827	1827	1827
Adj Flow Rate, veh/h	149	565	24	54	708	54	36	333	36	65	268	149
Adj No. of Lanes	1	2	1	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	5	5	5	3	3	3	5	5	5	4	4	4
Cap, veh/h	346	1346	661	393	1201	92	307	494	419	286	526	445
Arrive On Green	0.08	0.39	0.39	0.05	0.36	0.36	0.04	0.27	0.27	0.05	0.29	0.29
Sat Flow, veh/h	1723	3438	1530	1757	3296	251	1723	1810	1535	1740	1827	1545
Grp Volume(v), veh/h	149	565	24	54	376	386	36	333	36	65	268	149
Grp Sat Flow(s),veh/h/ln	1723	1719	1530	1757	1752	1795	1723	1810	1535	1740	1827	1545
Q Serve(g_s), s	4.6	10.4	0.8	1.6	15.1	15.1	1.3	14.2	1.5	2.3	10.6	6.6
Cycle Q Clear(g_c), s	4.6	10.4	0.8	1.6	15.1	15.1	1.3	14.2	1.5	2.3	10.6	6.6
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	1346	661	393	638	654	307	494	419	286	526	445
V/C Ratio(X)	0.43	0.42	0.04	0.14	0.59	0.59	0.12	0.67	0.09	0.23	0.51	0.34
Avail Cap(c_a), veh/h	728	1741	837	830	887	909	753	916	777	712	925	782
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	16.4	19.2	14.3	15.8	22.4	22.4	21.4	28.1	23.5	21.6	25.8	24.4
Incr Delay (d2), s/veh	0.8	0.3	0.0	0.2	1.2	1.2	0.2	2.3	0.1	0.4	1.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	8.7	0.6	1.4	12.0	12.3	1.1	11.9	1.2	2.0	9.4	5.2
LnGrp Delay(d),s/veh	17.2	19.5	14.3	15.9	23.6	23.6	21.6	30.4	23.6	22.0	26.9	25.0
LnGrp LOS	B	B	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		738			816			405			482	
Approach Delay, s/veh		18.9			23.1			29.0			25.7	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	40.0	7.5	31.0	10.7	37.7	8.8	29.7
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	26.0	44.0	26.0	44.0	26.0	44.0	26.0	44.0
Max Q Clear Time (g_c+I1), s	3.6	12.4	3.3	12.6	6.6	17.1	4.3	16.2
Green Ext Time (p_c), s	0.1	15.9	0.1	7.4	0.4	14.5	0.1	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	255	25	240	325	275	40	320	295	225	240	15
Future Volume (veh/h)	10	255	25	240	325	275	40	320	295	225	240	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.97	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1881	1863	1863	1863	1810	1810	1900
Adj Flow Rate, veh/h	11	268	26	253	342	289	42	337	311	237	253	16
Adj No. of Lanes	1	1	0	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	1	1	1	2	2	2	5	5	5
Cap, veh/h	293	406	39	430	659	747	426	483	410	382	547	35
Arrive On Green	0.02	0.24	0.24	0.13	0.35	0.35	0.06	0.26	0.26	0.13	0.32	0.32
Sat Flow, veh/h	1774	1671	162	1792	1881	1555	1774	1863	1580	1723	1683	106
Grp Volume(v), veh/h	11	0	294	253	342	289	42	337	311	237	0	269
Grp Sat Flow(s),veh/h/ln	1774	0	1833	1792	1881	1555	1774	1863	1580	1723	0	1790
Q Serve(g_s), s	0.4	0.0	11.4	7.8	11.3	9.4	1.3	12.9	14.3	7.4	0.0	9.4
Cycle Q Clear(g_c), s	0.4	0.0	11.4	7.8	11.3	9.4	1.3	12.9	14.3	7.4	0.0	9.4
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	293	0	445	430	659	747	426	483	410	382	0	581
V/C Ratio(X)	0.04	0.00	0.66	0.59	0.52	0.39	0.10	0.70	0.76	0.62	0.00	0.46
Avail Cap(c_a), veh/h	853	0	793	575	659	747	916	569	483	745	0	581
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	26.8	18.1	20.2	13.2	18.7	26.3	26.8	17.8	0.0	21.1
Incr Delay (d2), s/veh	0.1	0.0	7.5	1.3	2.9	1.5	0.1	4.7	8.0	1.6	0.0	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(95%),veh/ln	0.3	0.0	10.9	7.1	10.6	7.7	1.2	11.6	11.5	6.5	0.0	8.4
LnGrp Delay(d),s/veh	21.5	0.0	34.3	19.4	23.2	14.7	18.8	31.0	34.8	19.5	0.0	22.3
LnGrp LOS	C		C	B	C	B	B	C	C	B		C
Approach Vol, veh/h		305			884			690			506	
Approach Delay, s/veh		33.8			19.3			32.0			21.0	
Approach LOS		C			B			C			C	

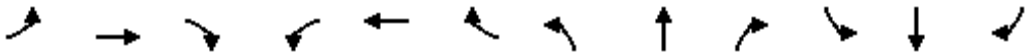
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	26.4	13.7	25.1	8.3	31.5	5.2	33.5
Change Period (Y+Rc), s	3.5	6.0	3.5	6.0	3.5	6.0	3.5	6.0
Max Green Setting (Gmax), s	26.5	24.0	16.5	34.0	26.5	24.0	26.5	24.0
Max Q Clear Time (g_c+I1), s	9.4	16.3	9.8	13.4	3.3	11.4	2.4	13.3
Green Ext Time (p_c), s	0.6	4.1	0.4	5.7	0.1	6.9	0.0	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	90	55	25	70	105	50	260	15	60	275	70
Future Volume (veh/h)	55	90	55	25	70	105	50	260	15	60	275	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	1.00		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1845	1845	1900	1863	1863	1900
Adj Flow Rate, veh/h	60	99	60	27	77	115	55	286	16	66	302	77
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	566	317	192	497	452	380	437	610	34	408	988	248
Arrive On Green	0.08	0.29	0.29	0.03	0.24	0.24	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1810	1095	663	1810	1900	1598	986	1730	97	1070	2800	702
Grp Volume(v), veh/h	60	0	159	27	77	115	55	0	302	66	189	190
Grp Sat Flow(s),veh/h/ln	1810	0	1758	1810	1900	1598	986	0	1827	1070	1770	1733
Q Serve(g_s), s	1.0	0.0	3.0	0.5	1.4	2.5	1.8	0.0	5.5	2.2	3.3	3.4
Cycle Q Clear(g_c), s	1.0	0.0	3.0	0.5	1.4	2.5	5.3	0.0	5.5	7.7	3.3	3.4
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.05	1.00		0.41
Lane Grp Cap(c), veh/h	566	0	509	497	452	380	437	0	645	408	624	611
V/C Ratio(X)	0.11	0.00	0.31	0.05	0.17	0.30	0.13	0.00	0.47	0.16	0.30	0.31
Avail Cap(c_a), veh/h	1510	0	1023	1534	1105	930	663	0	1063	653	1030	1008
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	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	11.9	11.6	13.0	13.4	12.0	0.0	10.8	13.8	10.1	10.1
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.0	0.2	0.4	0.1	0.0	0.5	0.2	0.3	0.3
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(95%),veh/ln	0.9	0.0	2.7	0.4	1.3	2.1	0.9	0.0	5.2	1.2	3.0	3.0
LnGrp Delay(d),s/veh	10.2	0.0	12.3	11.7	13.2	13.9	12.1	0.0	11.3	13.9	10.3	10.4
LnGrp LOS	B		B	B	B	B	B		B	B	B	B
Approach Vol, veh/h		219			219			357			445	
Approach Delay, s/veh		11.7			13.4			11.4			10.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.2	5.4	17.4		20.2	7.6	15.2
Change Period (Y+Rc), s		5.0	4.0	5.0		5.0	4.0	5.0
Max Green Setting (Gmax), s		25.0	26.0	25.0		25.0	26.0	25.0
Max Q Clear Time (g_c+I1), s		7.5	2.5	5.0		9.7	3.0	4.5
Green Ext Time (p_c), s		4.7	0.0	1.7		4.4	0.1	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.6
HCM 2010 LOS	B



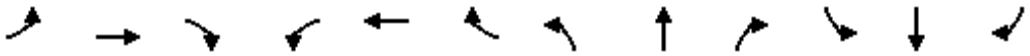
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	1	105	25	5	5	80	275	10	5	285	65
Future Volume (vph)	45	1	105	25	5	5	80	275	10	5	285	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.85			1.00	0.85		1.00			0.98	
Flt Protected	0.95	1.00			0.96	1.00		0.99			1.00	
Satd. Flow (prot)	1719	1540			1823	1615		1818			1781	
Flt Permitted	0.74	1.00			0.75	1.00		0.85			1.00	
Satd. Flow (perm)	1332	1540			1425	1615		1567			1773	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	48	1	112	27	5	5	85	293	11	5	303	69
RTOR Reduction (vph)	0	84	0	0	0	4	0	1	0	0	5	0
Lane Group Flow (vph)	48	29	0	0	32	1	0	388	0	0	372	0
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	3%	3%	3%	4%	4%	4%
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	11.7	11.7			11.7	11.7		25.3			25.3	
Effective Green, g (s)	11.7	11.7			11.7	11.7		25.3			25.3	
Actuated g/C Ratio	0.25	0.25			0.25	0.25		0.54			0.54	
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		4.5			4.5	
Lane Grp Cap (vph)	331	383			354	402		843			954	
v/s Ratio Prot		0.02										
v/s Ratio Perm	c0.04				0.02	0.00		c0.25			0.21	
v/c Ratio	0.15	0.08			0.09	0.00		0.46			0.39	
Uniform Delay, d1	13.8	13.5			13.6	13.3		6.7			6.3	
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.2	0.1			0.1	0.0		0.7			0.5	
Delay (s)	14.0	13.6			13.7	13.3		7.4			6.8	
Level of Service	B	B			B	B		A			A	
Approach Delay (s)		13.7			13.6			7.4			6.8	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	47.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	225	165	200	210	25	120	150	145	65	180	40
Future Volume (veh/h)	25	225	165	200	210	25	120	150	145	65	180	40
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1827	1827	1827	1863	1863	1863	1900	1900	1900
Adj Flow Rate, veh/h	30	271	199	241	253	30	145	181	175	78	217	48
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	3	3	3	4	4	4	2	2	2	0	0	0
Cap, veh/h	357	419	354	464	809	686	468	748	634	315	371	312
Arrive On Green	0.23	0.23	0.23	0.15	0.44	0.44	0.14	0.40	0.40	0.20	0.20	0.20
Sat Flow, veh/h	1078	1845	1560	1740	1827	1549	1774	1863	1579	1038	1900	1598
Grp Volume(v), veh/h	30	271	199	241	253	30	145	181	175	78	217	48
Grp Sat Flow(s),veh/h/ln	1078	1845	1560	1740	1827	1549	1774	1863	1579	1038	1900	1598
Q Serve(g_s), s	1.4	8.6	7.3	6.1	5.8	0.7	3.6	4.1	4.8	4.2	6.7	1.6
Cycle Q Clear(g_c), s	1.4	8.6	7.3	6.1	5.8	0.7	3.6	4.1	4.8	4.2	6.7	1.6
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	357	419	354	464	809	686	468	748	634	315	371	312
V/C Ratio(X)	0.08	0.65	0.56	0.52	0.31	0.04	0.31	0.24	0.28	0.25	0.58	0.15
Avail Cap(c_a), veh/h	531	718	607	901	1564	1326	931	1595	1351	516	739	622
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	19.7	22.5	22.0	14.1	11.6	10.2	14.5	12.7	12.9	22.5	23.5	21.5
Incr Delay (d2), s/veh	0.1	1.7	1.4	0.9	0.2	0.0	0.4	0.2	0.2	0.4	1.5	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(95%),veh/ln	0.8	8.1	5.9	5.4	5.3	0.5	3.2	3.9	3.8	2.2	6.6	1.3
LnGrp Delay(d),s/veh	19.8	24.2	23.4	15.0	11.8	10.2	14.9	12.9	13.2	22.9	25.0	21.7
LnGrp LOS	B	C	C	B	B	B	B	B	B	C	C	C
Approach Vol, veh/h		500			524			501			343	
Approach Delay, s/veh		23.6			13.2			13.6			24.0	
Approach LOS		C			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	13.9	19.6	13.2	17.5		33.5		30.8
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	26.0	25.0	26.0	25.0		55.0		55.0
Max Q Clear Time (g_c+I1), s	8.1	10.6	5.6	8.7		7.8		6.8
Green Ext Time (p_c), s	0.7	3.7	0.4	3.3		4.8		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	18.1
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	180	5	5	270	165	5	35	10	90	15	85
Future Volume (vph)	90	180	5	5	270	165	5	35	10	90	15	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Lane Util. Factor		0.95			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes		1.00			1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00	0.87	
Flt Protected		0.98			1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3309			1808	1504	1804	1900	1593	1718	1578	
Flt Permitted		0.76			0.99	1.00	1.00	1.00	1.00	0.55	1.00	
Satd. Flow (perm)		2562			1796	1504	1899	1900	1593	991	1578	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	110	220	6	6	329	201	6	43	12	110	18	104
RTOR Reduction (vph)	0	1	0	0	0	115	0	0	11	0	68	0
Lane Group Flow (vph)	0	335	0	0	335	86	6	43	1	110	54	0
Confl. Peds. (#/hr)			1	3		2	1		3	2		
Heavy Vehicles (%)	7%	7%	7%	5%	5%	5%	0%	0%	0%	5%	5%	5%
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	
Protected Phases		4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2	6		
Actuated Green, G (s)		18.3			18.3	18.3	3.8	3.8	3.8	14.7	14.7	
Effective Green, g (s)		18.3			18.3	18.3	3.8	3.8	3.8	14.7	14.7	
Actuated g/C Ratio		0.43			0.43	0.43	0.09	0.09	0.09	0.34	0.34	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0	5.0	3.5	5.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1090			764	640	167	167	140	463	539	
v/s Ratio Prot								0.02		c0.04	0.03	
v/s Ratio Perm		0.13			c0.19	0.06	0.00		0.00	c0.04		
v/c Ratio		0.31			0.44	0.13	0.04	0.26	0.01	0.24	0.10	
Uniform Delay, d1		8.2			8.7	7.5	17.9	18.3	17.9	10.1	9.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.4	0.1	0.1	0.8	0.0	0.3	0.1	
Delay (s)		8.3			9.1	7.6	18.0	19.1	17.9	10.4	9.7	
Level of Service		A			A	A	B	B	B	B	A	
Approach Delay (s)		8.3			8.6			18.8			10.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	43.0	Sum of lost time (s)	16.5
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	120	50	25	95	30	30	265	20	30	300	20
Future Volume (veh/h)	20	120	50	25	95	30	30	265	20	30	300	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.93	0.96		0.93	0.98		0.98	0.99		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1845	1900	1900	1863	1900
Adj Flow Rate, veh/h	25	150	62	31	119	38	38	331	25	38	375	25
Adj No. of Lanes	0	1	0	0	1	1	0	1	0	0	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	75	271	104	116	397	385	115	926	67	107	963	62
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.61	0.61	0.61	1.00	1.00	1.00
Sat Flow, veh/h	86	1059	406	228	1554	1506	102	1516	110	89	1576	101
Grp Volume(v), veh/h	237	0	0	150	0	38	394	0	0	438	0	0
Grp Sat Flow(s),veh/h/ln	1551	0	0	1782	0	1506	1728	0	0	1766	0	0
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.0	4.8	0.0	1.4	8.1	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.11		0.26	0.21		1.00	0.10		0.06	0.09		0.06
Lane Grp Cap(c), veh/h	449	0	0	513	0	385	1108	0	0	1131	0	0
V/C Ratio(X)	0.53	0.00	0.00	0.29	0.00	0.10	0.36	0.00	0.00	0.39	0.00	0.00
Avail Cap(c_a), veh/h	607	0	0	688	0	542	1108	0	0	1131	0	0
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	0.00	1.00	0.00	1.00	0.98	0.00	0.00	0.87	0.00	0.00
Uniform Delay (d), s/veh	24.4	0.0	0.0	22.6	0.0	21.3	7.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.7	0.0	0.2	0.9	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	0.0	0.0	4.7	0.0	1.1	7.5	0.0	0.0	0.5	0.0	0.0
LnGrp Delay(d),s/veh	26.5	0.0	0.0	23.2	0.0	21.6	8.1	0.0	0.0	0.9	0.0	0.0
LnGrp LOS	C			C		C	A			A		
Approach Vol, veh/h		237			188			394			438	
Approach Delay, s/veh		26.5			22.9			8.1			0.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.8		24.2		50.8		24.2
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		10.1		11.8		2.0		6.8
Green Ext Time (p_c), s		11.7		4.0		13.2		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	15	40	5	15	20	15	285	15	20	305	140
Future Volume (veh/h)	175	15	40	5	15	20	15	285	15	20	305	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.96	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1796	1900	1900	1845	1900	1900	1881	1900
Adj Flow Rate, veh/h	192	16	44	5	16	22	16	313	16	22	335	154
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	1	1	1
Cap, veh/h	335	25	58	72	162	188	72	1069	53	71	762	338
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.64	0.64	0.64
Sat Flow, veh/h	1095	108	255	79	707	823	34	1677	83	34	1194	529
Grp Volume(v), veh/h	252	0	0	43	0	0	345	0	0	511	0	0
Grp Sat Flow(s),veh/h/ln	1458	0	0	1609	0	0	1793	0	0	1757	0	0
Q Serve(g_s), s	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.9	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0
Prop In Lane	0.76		0.17	0.12		0.51	0.05		0.05	0.04		0.30
Lane Grp Cap(c), veh/h	418	0	0	422	0	0	1194	0	0	1171	0	0
V/C Ratio(X)	0.60	0.00	0.00	0.10	0.00	0.00	0.29	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	605	0	0	624	0	0	1194	0	0	1171	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.95	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.7	0.0	0.0	22.9	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	0.0	0.0	1.3	0.0	0.0	0.3	0.0	0.0	9.5	0.0	0.0
LnGrp Delay(d),s/veh	29.7	0.0	0.0	23.1	0.0	0.0	0.6	0.0	0.0	8.1	0.0	0.0
LnGrp LOS	C			C			A			A		
Approach Vol, veh/h		252			43			345			511	
Approach Delay, s/veh		29.7			23.1			0.6			8.1	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		52.8		22.2		52.8		22.2
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		38.0		27.0		38.0		27.0
Max Q Clear Time (g_c+I1), s		2.0		13.9		12.9		3.6
Green Ext Time (p_c), s		13.7		2.5		11.5		3.5

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	640	70	205	680	20	80	330	195	35	350	80
Future Volume (veh/h)	65	640	70	205	680	20	80	330	195	35	350	80
Number	5	2	12	1	6	16	3	8	18	7	4	14
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		0.98	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1881	1881	1881	1863	1863	1863
Adj Flow Rate, veh/h	68	674	74	216	716	21	84	347	205	37	368	84
Adj No. of Lanes	1	2	1	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	1	1	1	2	2	2
Cap, veh/h	327	1094	586	376	1246	37	297	566	479	284	521	437
Arrive On Green	0.06	0.31	0.31	0.10	0.35	0.35	0.06	0.30	0.30	0.04	0.28	0.28
Sat Flow, veh/h	1774	3539	1576	1774	3509	103	1792	1881	1594	1774	1863	1561
Grp Volume(v), veh/h	68	674	74	216	361	376	84	347	205	37	368	84
Grp Sat Flow(s),veh/h/ln	1774	1770	1576	1774	1770	1843	1792	1881	1594	1774	1863	1561
Q Serve(g_s), s	2.1	13.3	2.5	6.4	13.5	13.5	2.6	12.9	8.4	1.2	14.5	3.3
Cycle Q Clear(g_c), s	2.1	13.3	2.5	6.4	13.5	13.5	2.6	12.9	8.4	1.2	14.5	3.3
Prop In Lane	1.00		1.00	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1094	586	376	628	654	297	566	479	284	521	437
V/C Ratio(X)	0.21	0.62	0.13	0.57	0.57	0.58	0.28	0.61	0.43	0.13	0.71	0.19
Avail Cap(c_a), veh/h	376	1257	659	410	694	722	339	668	566	362	662	555
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	17.7	24.1	16.9	16.9	21.3	21.3	19.9	24.5	22.9	20.0	26.4	22.4
Incr Delay (d2), s/veh	0.3	0.9	0.1	1.7	1.3	1.2	0.5	1.7	0.9	0.2	3.1	0.3
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(95%),veh/ln	1.9	10.8	2.0	5.8	11.0	11.4	2.4	11.2	6.9	1.1	12.5	2.7
LnGrp Delay(d),s/veh	18.0	25.0	17.0	18.5	22.6	22.6	20.4	26.2	23.8	20.2	29.5	22.7
LnGrp LOS	B	C	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		816			953			636			489	
Approach Delay, s/veh		23.7			21.7			24.6			27.6	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	31.2	9.1	28.8	8.7	35.0	7.4	30.5
Change Period (Y+Rc), s	4.0	6.0	4.0	6.0	4.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	10.0	29.0	7.0	29.0	7.0	32.0	7.0	29.0
Max Q Clear Time (g_c+I1), s	8.4	15.3	4.6	16.5	4.1	15.5	3.2	14.9
Green Ext Time (p_c), s	0.1	9.8	0.0	6.1	0.0	11.3	0.0	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C