TRAFFIC OPERATIONS REPORT

Project No.

IM-1-094(231)152

PCN

23594

Sunset Drive Interchange (Exit 152)



Prepared by

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION
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Traffic Operations Report

IM-1-094(231)152, PCN 23594

SUNSET DRIVE INTERCHANGE (EXIT 152)

City of Mandan, ND

CERTIFICATION



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1. Background Introduction

A. Project Description and Background

The City of Mandan, across the Missouri River from Bismarck, ND, is continuing to grow. Current plans for expansion include construction of a new high school facility, an increase of over 300 single family residential units, 6 commercial lots, and urban street reconstruction, all within 5 miles of the I-94 at Sunset Drive interchange. Additionally, the approved Master Plan calls for the future extension of Sunset Drive between 31st and 38th Street and additional growth, primarily on the easterly side on Sunset Drive. The I-94 bridges over Sunset Dr are functionally obsolete and have aging components, such as overhead clearances, which may necessitate rehabilitation or replacement in the upcoming years. With the projected growth and aging bridge infrastructure, improvements will be needed to the Sunset Drive corridor and in particular the Sunset Drive at I-94 interchange. This study is to determine the feasibility of various retention and reconstruction alternatives to the Sunset Drive at I-94 interchange, which will be carried forward into the Preliminary Engineering and Design phases of the project.

It should be noted the Sunset Drive corridor has two ongoing independent studies. North Dakota Department of Transportation (NDDOT) is leading the Interstate 94 (I-94) and Sunset Drive Interchange Preliminary Engineering & Feasibility Study (this study), which focuses on interchange improvements / reconfigurations. The Bismarck-Mandan Metropolitan Planning Organization along with the City of Mandan are studying Sunset Drive in Mandan for potential traffic and safety improvements as part of the Sunset Drive Corridor Study.

This study will evaluate potential interchange configurations, roadway alignments, bridge types and sizes, and include an operational and geometric evaluation of I-94, Sunset Drive, Boundary Street, and Old Red Trail. It will also include analysis of existing conditions and projected volumes for the years 2030 and 2045. The study area will include I-94 from reference point (R.P.) 147.2 (State Highway 25 interchange) to R.P. 154.5 (east of Mandan Ave interchange), and includes the Sunset Drive Interchange, Mandan Avenue interchange, and a proposed interchange at 56th Street (R.P. 149.2) as proposed by the Bismarck-Mandan MPO. A project area map is included below in **Figure 1.**

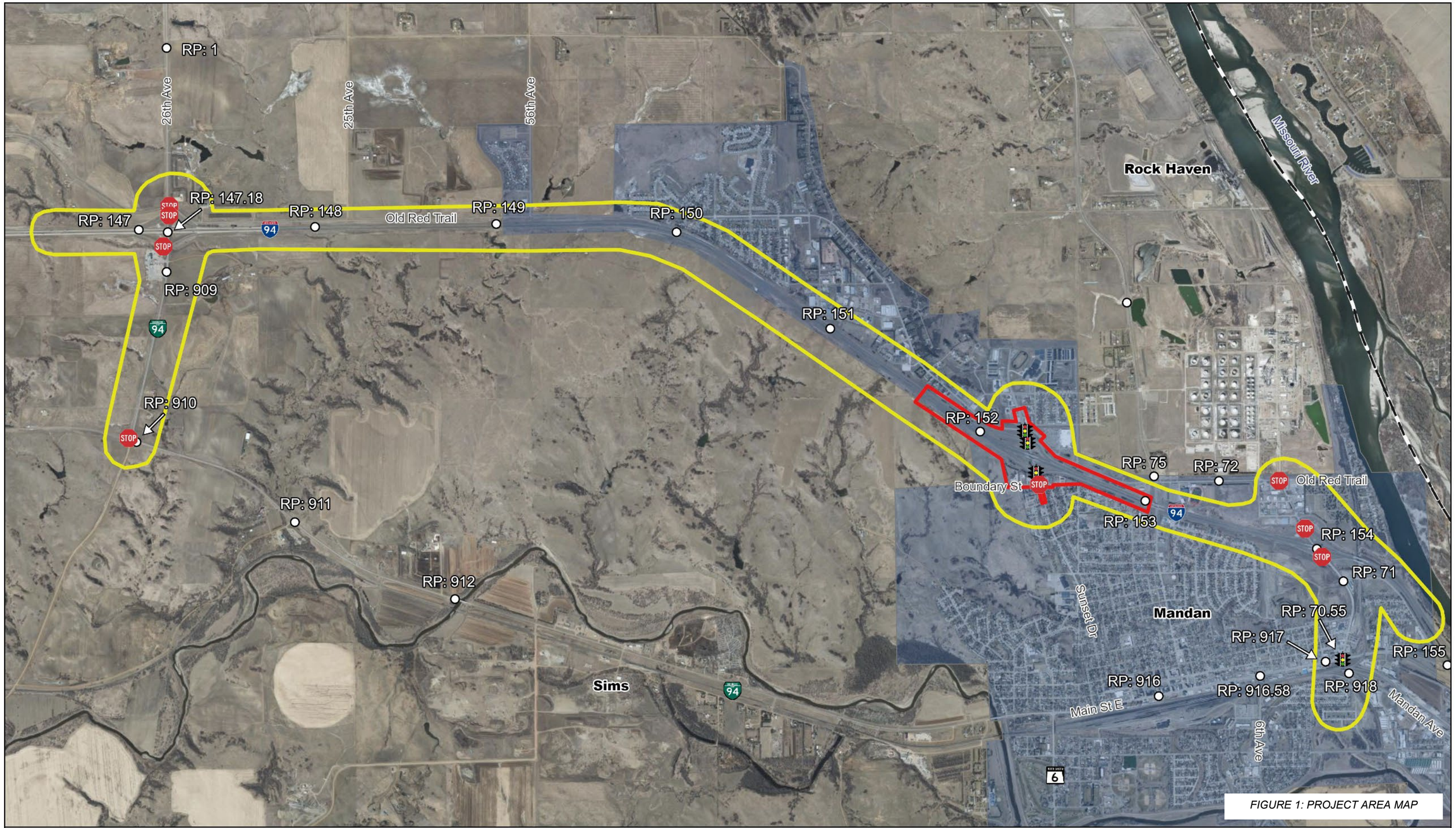


FIGURE 1: PROJECT AREA MAP

Legend

- Traffic Signal
- Stop Sign
- Reference Point
- Sunset Drive Interchange Study Area
- Interchange Justification Report Analysis Area
- County Boundary
- Mandan Boundary

0 0.5 1 Miles

N

2. Existing Conditions Assessment

B. Data Collection

Intersection Turning Movement Counts (TMCs) were collected on site at 12 different intersections within the study area on Tuesday, November 29, 2022 and Thursday, December 1, 2022. Each turning movement count was conducted over a 24-hour period, and the data was analyzed to determine the peak hour volumes for both the AM and the PM peak periods. The turning movement count data are included in **Appendix A1**.

Average daily traffic counts along freeway and arterial segments were conducted during the week of Monday, November 28, 2022 through Sunday, December 4, 2022. The counts collected vehicle classification data, volume data, and speed data for the 7-day period above for 15 different locations, including each of the interchange ramps. The data was used in conjunction with the TMCs to verify the peak periods. Automated traffic count data is included in **Appendix A2**.

Additionally, crash data from the years 2017 through 2022 was requested and provided from NDDOT for the study area intersections and segments. Signal timing data was requested for the study area intersections and input into Synchro and VISSIM models reflecting existing signal timings. Crash data and signal timing data will be further mentioned in later sections, as will their location in the Appendices, as applicable.

C. Background Review

The planned developments immediately adjacent to the Sunset Drive / I-94 interchange include:

- relocation of the Mandan High School to the property just east of the Walmart in the northeast quadrant of the Old Red Trail / Sunset Drive intersection, expected to provide education to approximately 1400 students
- 152 residential units in a proposed subdivision at the northern terminus of Sunset Drive
- 149 total residential units over two phases along County Highway 1806 approximately 1/3-mile north of 27th Street
- 21 residential units in the Big Sky Estates subdivision at Old Red Trail and 31st Street
- 6 commercial lots to surround the proposed high school, along Old Red Trail and along County Highway 1806.

Additionally, the approved Master Plan includes an extension of Sunset Drive from 31st Street to 38th Street and includes additional growth in the area north of the interchange.

Other traffic and planning studies that have been conducted in the area include:

- Arrive 2045 Bismarck-Mandan Metropolitan Transportation Plan (March 2020)
- Bismarck-Mandan Intersection Analysis Study (December 2020)
- Bismarck-Mandan Bicycle + Pedestrian Plan (December 2017)
- I-94 Corridor Study (August 2014 / May 2015)
- Mandan Land Use and Transportation Plan (February 2015)
- Mandan-Bismarck Corridor Improvement Study (August 2016)
- North Dakota DOT Traffic Operations Manual (October 2021)
- North Mandan Subarea Transportation Study (August 2013)
- Transit Development Plan (April 2019)
- Travel Model Review and Socio-Economic Update Study (December 2018)
- Sunset Drive Corridor Study (underway)

These other studies did not identify any specific developments outside of the aforementioned list, though they recommended various improvements for safety and/or capacity reasons, that will be addressed in this report. The studies were made available through coordination with the North Dakota Department of Transportation and the Bismarck-Mandan Metropolitan Planning Organization (MPO).

D. Study Area Overview and Field Observations

(1) Study Area Overview

The study area consists of the following facilities:

- **I-94** is an urban interstate highway running due east-west from approximately R.P. 147 through R.P. 150, then turns to a west-northwest-east-southeast orientation from R.P. 150 to R.P. 154.5. The posted speed limit is 75 mph west of R.P. 151, and 60 mph east of that point. The cross-section is 4-lane interstate highway section with dual 12-foot travel lanes, a 4-foot left shoulder, and 10-foot right shoulder in each direction. The travel lanes are separated by a 60' grassy median as measured between inside edges of the travel lanes. Construction for the original roadway started in 1963, with completion in 1965. Major rehabilitation projects occurred in 1999 and in 2019. The typical section of I-94 through the study area is shown in **Figure 2** below.



FIGURE 2: I-94 TYPICAL SECTION

- The **I-94 at Sunset Drive interchange** is a diamond interchange with I-94 passing over Sunset Drive, with separate 3-span bridge decks for each direction of I-94. There are no advisory speed limits on the exit ramps; it is presumed that their design speeds are 25 mph to match Sunset Dr. The westbound (WB) exit ramp experiences the heaviest volume, it approaches Sunset Drive with a 36-foot pavement width, and 6' shoulders on each side. The WB entrance, eastbound (EB) exit, and EB entrance ramps all have 16-foot pavement widths, 4-foot left shoulders, and 6-foot right shoulders. The existing interchange acceleration and deceleration lane lengths and AASHTO recommended lengths are shown below in **Table 1**.

TABLE 1: EXISTING INTERCHANGE ACCELERATION AND DECELERATION LANE LENGTHS

MOVEMENT	LANE TYPE	LENGTH	AASHTO Recommended
WB I-94 to Sunset Dr	Deceleration	720’	460’
Sunset Dr to WB I-94	Acceleration	800’	1020’
EB I-94 to Sunset Dr	Deceleration	950’	460’
Sunset Dr to EB I-94	Acceleration	540’	1020’

- **Sunset Drive** is a principal arterial south of the I-94 interchange, and a collector roadway north of the interchange. From Boundary Street the pavement widens from 34-foot to 56-foot wide by the time it reaches Old Red Trail. The posted speed limit along Sunset Drive is 25 mph. The cross-section changes from two-lane, two-way at Boundary Street, to a 3-lane section at the I-94 EB ramps, to a 4-lane section at the I-94 WB ramps and at Old Red Trail intersections. The typical section of Sunset Dr under the I-94 bridge is shown below in **Figure 3**, and the section between the I-94 WB ramp terminal and Old Red Trail is shown in **Figure 4**.



FIGURE 3: SUNSET DR TYPICAL SECTION UNDER I-94 BRIDGE

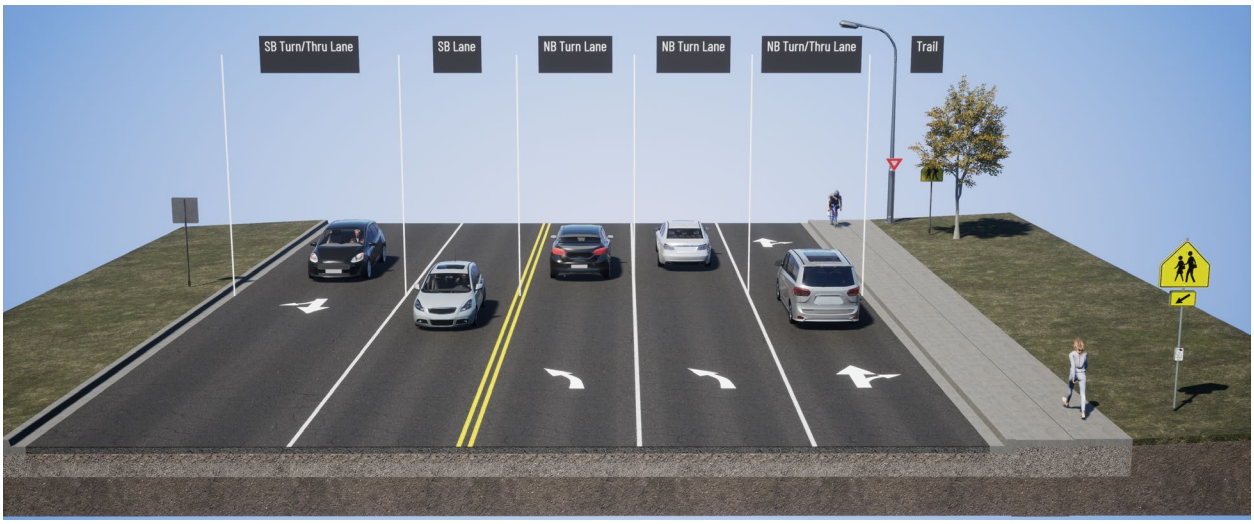


FIGURE 4: SUNSET DR TYPICAL SECTION SOUTH OF OLD RED TRAIL

- **Boundary Street** is a local roadway with a 32-foot wide cross-section. It operates as a two-lane, two-way street, with parking on the EB approach to Sunset Drive. The posted speed limit is 25 mph and the street intersects Sunset Drive south of the I-94 interchange as the minor street of a two-way-stop-controlled (TWSC) intersection.
- **Old Red Trail** is a minor arterial north of the I-94 interchange. The posted speed limits are 35 mph east of Sunset Drive, and 25 mph west of Sunset Drive. The pavement has a 44-foot width east of Sunset Drive and is striped as a 3-lane cross-section. The pavement has a 48-foot width west of Sunset Drive and is striped for a 4-lane cross-section with no median. Old Red Trail runs concurrently with State Highway 1806 to the east, and is a principal arterial for the length of the route concurrence.
- **State Route 25 / Business I-94** is a minor arterial north of I-94 that changes to a principal arterial when it becomes Business I-94 south of the interchange. Business I-94 turns from north-south to east-west about 1 mile south of the I-94 diamond interchange. The north-south stretch is 40-foot wide, including a two-lane two-way cross-section with 8-foot shoulders on each side. The east-west stretch is 32-foot wide, with a two-lane two-way cross section and 4-foot shoulders on each side. It widens to a 3-lane urban cross section between the Heart River and the intersection with State Route 1806. For the concurrence with State Route 1806, Business I-94 is a 5-lane urban cross section with a two-way left-turn lane. The posted speed is 55 mph outside of the City of Mandan limits, and 25 mph within.
- **Mandan Ave (State Route 1806)** is a principal arterial along the eastern side of the City of Mandan. It is a 3-lane urban cross-section between Business I-94 and the I-94 diamond interchange, then changes to a two-lane, two-way cross section north of the interchange. State Route 1806 runs concurrently with this entire stretch. The posted speed limit is 25 mph.

Relevant information about State Route 25/Business I-94 and Mandan Ave have been included for the purposes of crash analysis and will be included in the network wide modeling required for the Interchange Justification Report (IJR). Alternative development and capacity analysis will focus along the Sunset Drive corridor and interchange only.

The urban cross-sections accommodate either a sidewalk or a multi-use trail on either side of the roadways. Through the Sunset Drive corridor, there is a 10-foot-wide combined use bike path and sidewalk running along the east side of Sunset Drive, separated by a 5-foot-wide grassy buffer. The path crosses to the west side at Boundary Street, and ties into the path along the south side of Old Red Trail. Pedestrian and trail users cross the I-94 ramps and the Sunset Drive at Old Red Trail intersection using pedestrian signals, push-buttons and at-grade marked crosswalks. **Figure 5** shows the multi-use trail through the corridor. The BisMan Transit – Purple Route also travels through the corridor.

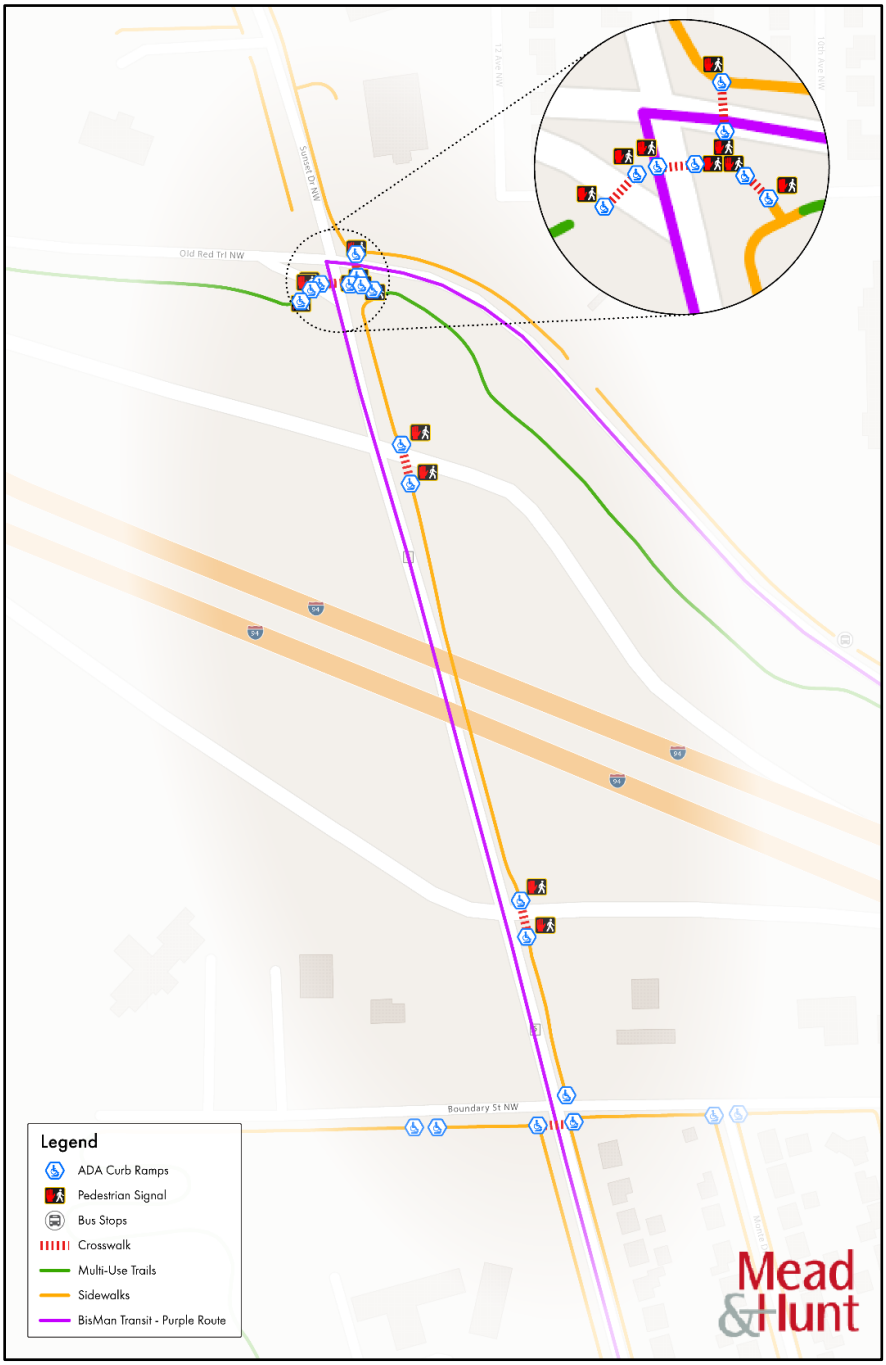


FIGURE 5: MULTIMODAL NETWORK

(2) Field Observations

Field observations were conducted on January 18th and 19th, 2023, between 7-9 AM and 3-6 PM. Vehicle queues lengths at all study intersections were collected during the AM and PM peak hours, and an origin-destination survey was conducted on northbound Sunset Dr approaching Old Red Trail, to capture the paths of vehicles coming from I-94 WB and upstream Sunset Dr through the intersection of Sunset Dr at Old Red Trail. The collected data will be summarized and used for calibration in the network wide analysis section of this report.

Observations were made regarding general traffic operations along the Sunset Dr corridor. The key observations are summarized below:

- Old Red Trail at Sunset Dr:
    - Drivers for the most part do not obey the signal control on the channelized eastbound right-turn lane on Old Red Trail. It is treated more as a Yield control than full color signal.
    - In the PM peak, the westbound left turn movement on Old Red Trail occasionally had residual queues, due to vehicles not finding gaps to make the movement against the eastbound through vehicles.
    - In the AM peak, the northbound left turn lanes on Sunset Dr experienced rare queueing spillbacks into the intersection of Sunset Dr at I-94 WB ramps, with one or two vehicles queueing into the intersection.
    - During the 3 o'clock hour, the southbound approach of Sunset Dr experienced heavy queueing, caused by the dismissal of Mandan Middle School to the north.
- I-94 WB Ramps at Sunset Dr:
    - The outer lane of the southbound approach was underutilized compared to the inner lane, as many drivers queued on the inner lane to position themselves to be in the downstream left-turn lane to get to I-94 EB.
    - On the westbound approach, right turning vehicles often pulled beyond the stop bar to improve their sight distance looking left when attempting the make a right turn on red.
- I-94 EB Ramps at Sunset Dr:
    - The detector on the eastbound right turn lane at the I-94 EB off-ramp appeared not to be operating correctly. The eastbound phase was skipped multiple times despite there being a vehicle queued in the eastbound right turn lane. The phase appeared only to come up if there was a vehicle in the eastbound left-turn lane.
- Boundary St NW at Sunset Dr:
    - During both the AM and PM peaks, left turning vehicles from the side streets struggled to find gaps in mainline Sunset Dr to make their movements, and sometimes queued for over 60 seconds waiting for a gap.

E. Traffic Safety Assessment

(1) Sunset Drive Corridor

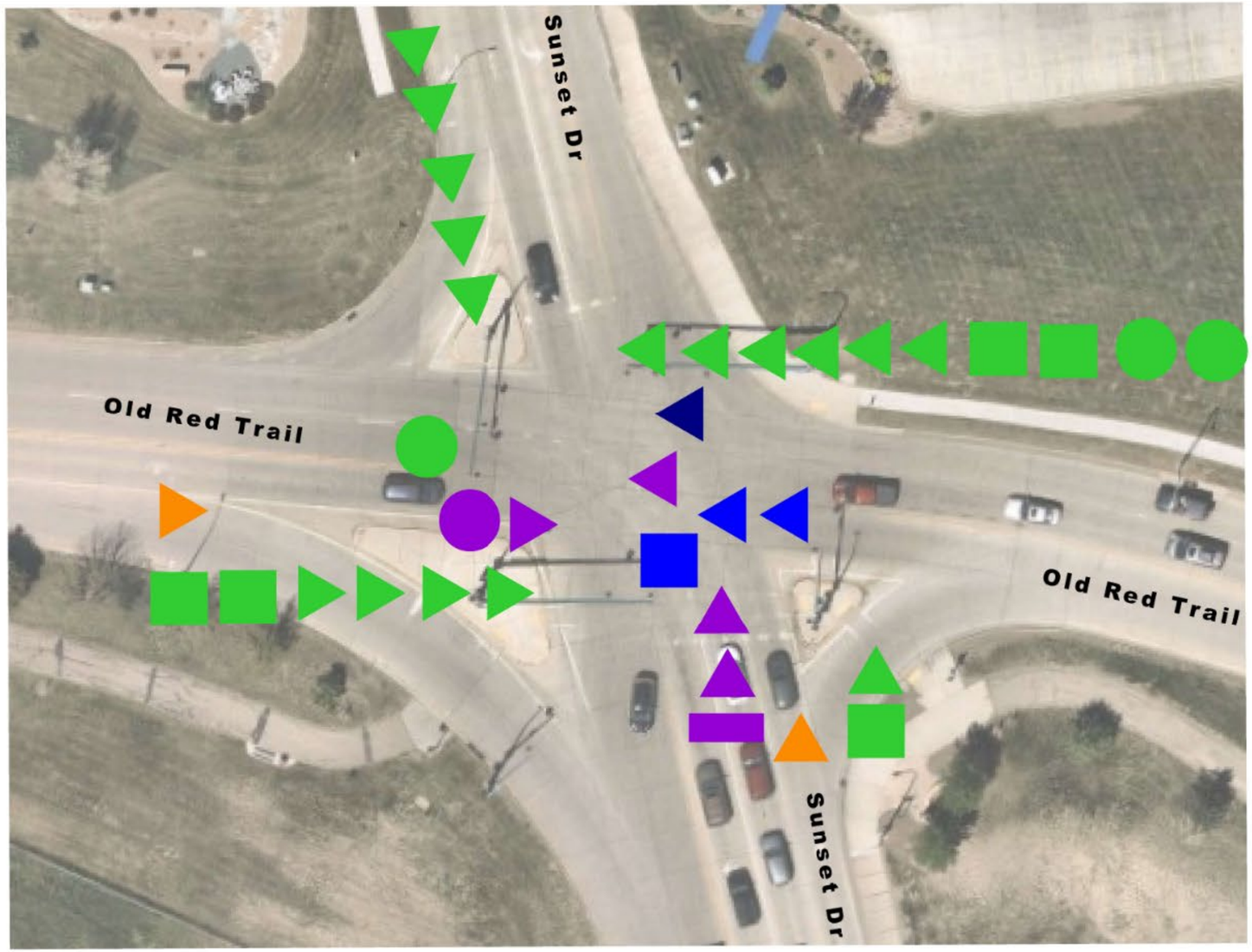
Over the period from 2017 to 2022, there were 95 reported crashes along Sunset Drive between Boundary Street and Old Red Trail. Of those crashes, 84 were reported at the intersections within the corridor. The report includes a detailed breakdown of the crash locations, types, and adverse conditions that may have contributed, located in **Appendix B**. The Sunset Drive crashes are shown in crash diagrams for each intersection in **Figure 6** through **Figure 9**. Additionally, a crash heat map of Sunset Drive is shown in **Figure 10** and overall corridor crash diagrams are shown in **Figure 13** and **Figure 14**.

A summary of the crashes appears in **Table 2** below.

TABLE 2: SUMMARY OF SUNSET DRIVE CORRIDOR CRASHES

Year	# Crashes
2017	4
2018	29
2019	25
2020	11
2021	17
2022	9
Crash Type	**# Crashes**
Left Turn	7
Sideswipe	5
Rear End	57
Angle	15
Single Vehicle	8
Other	3
Injury/Fatality/Damage	**# Crashes**
Injury	24
Property Damage Only (PDO)	71
Roadway Surface	**# Crashes**
Dry	61
Wet	7
Snow/Ice	27
Weather	**# Crashes**
Sunny / Clear	77
Cloudy / Overcast	9
Precipitation	9
Time of Day	**# Crashes**
Day	77
Night / Dawn / Dusk	18

The majority of crashes were property damage only, rear-end type collisions. Detailed review of the crashes will give a better indication where weather conditions, time of day, and roadway surface conditions contributed, in addition to roadway geometry and traffic control. It was noted that the number of crashes decreased in 2020 and 2021, which is likely attributable to the COVID-19 pandemic related shutdowns, and the resultant lower overall traffic volumes caused by persons working remotely and/or being unemployed. The number of crashes in 2017 and 2022 should not be considered for any type of regression analysis as neither year is indicative of the entire calendar year. The crash volumes and patterns do not indicate that there is any specific geometry or traffic control issue at this intersection.



NOTE: ALL CRASHES INVOLVE TWO VEHICLES UNLESS OTHERWISE NOTED. AN (X) INDICATES THE NUMBER OF VEHICLES INVOLVED.

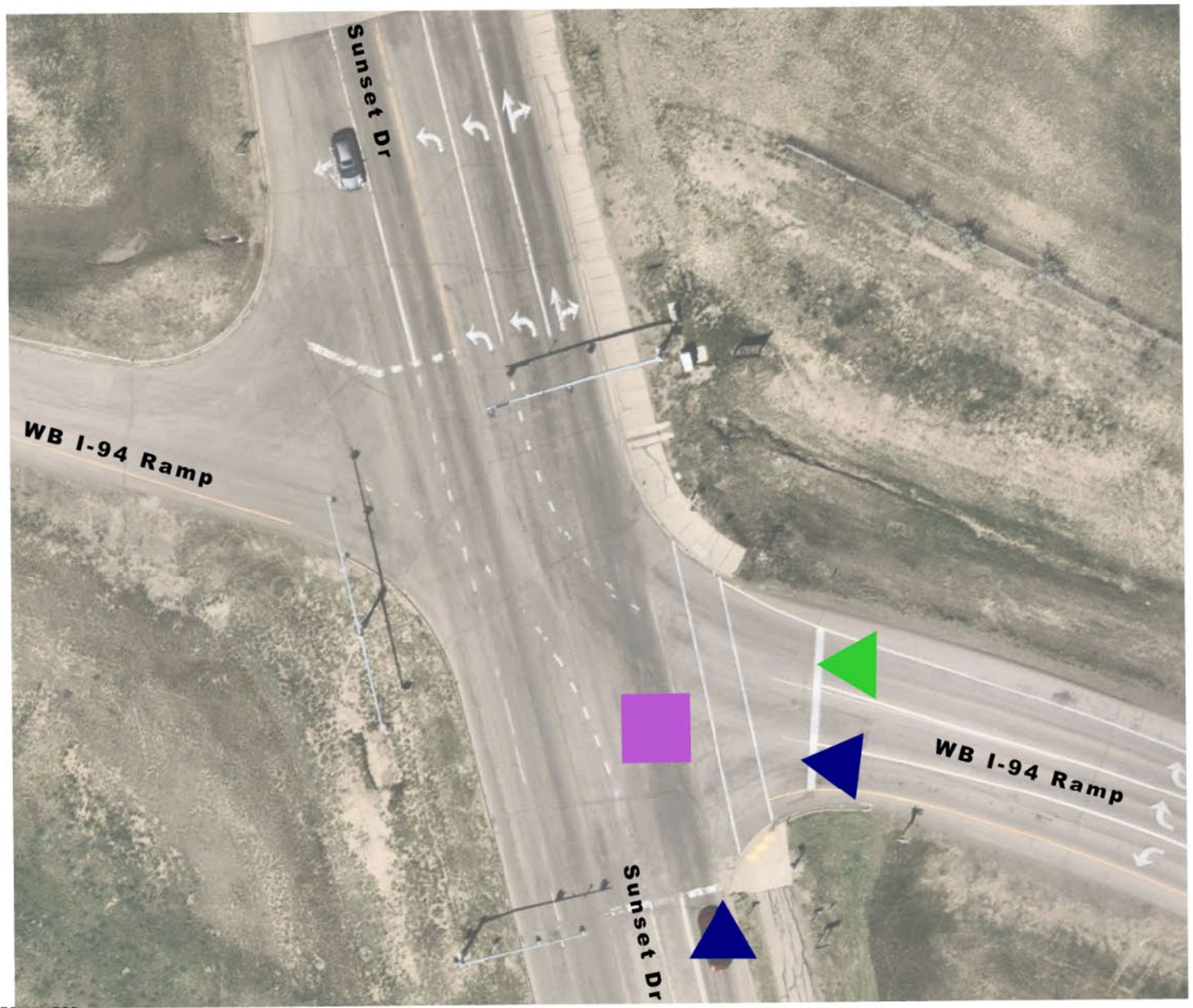
FIGURE 6: SUNSET DR AT OLD RED TRAIL CRASH DIAGRAM

Rear End	Side Swipe	**SEVERITY**	**COLLISION DIAGRAM 2017 to 2022**
Fixed Object	Left Turn	PROPERTY DAMAGE ONLY	**INTERSECTION: Sunset Drive AT: Old Red Trail**
Curb	Angle	POSSIBLE INJURY	**COUNTY: Morton**
		NON-INCAPACITATING INJURY	
		INCAPACITATING INJURY	
		FATAL	

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NOTE: ALL CRASHES INVOLVE TWO VEHICLES UNLESS OTHERWISE NOTED. AN (X) INDICATES THE NUMBER OF VEHICLES INVOLVED.

FIGURE 7: SUNSET DR AT I-94 WB RAMPS CRASH DIAGRAM

Rear End	Side Swipe	
Fixed Object	Left Turn	
Curb	Angle	

SEVERITY
PROPERTY DAMAGE ONLY
POSSIBLE INJURY
NON-INCAPACITATING INJURY
INCAPACITATING INJURY
FATAL

COLLISION DIAGRAM
2017 to 2022

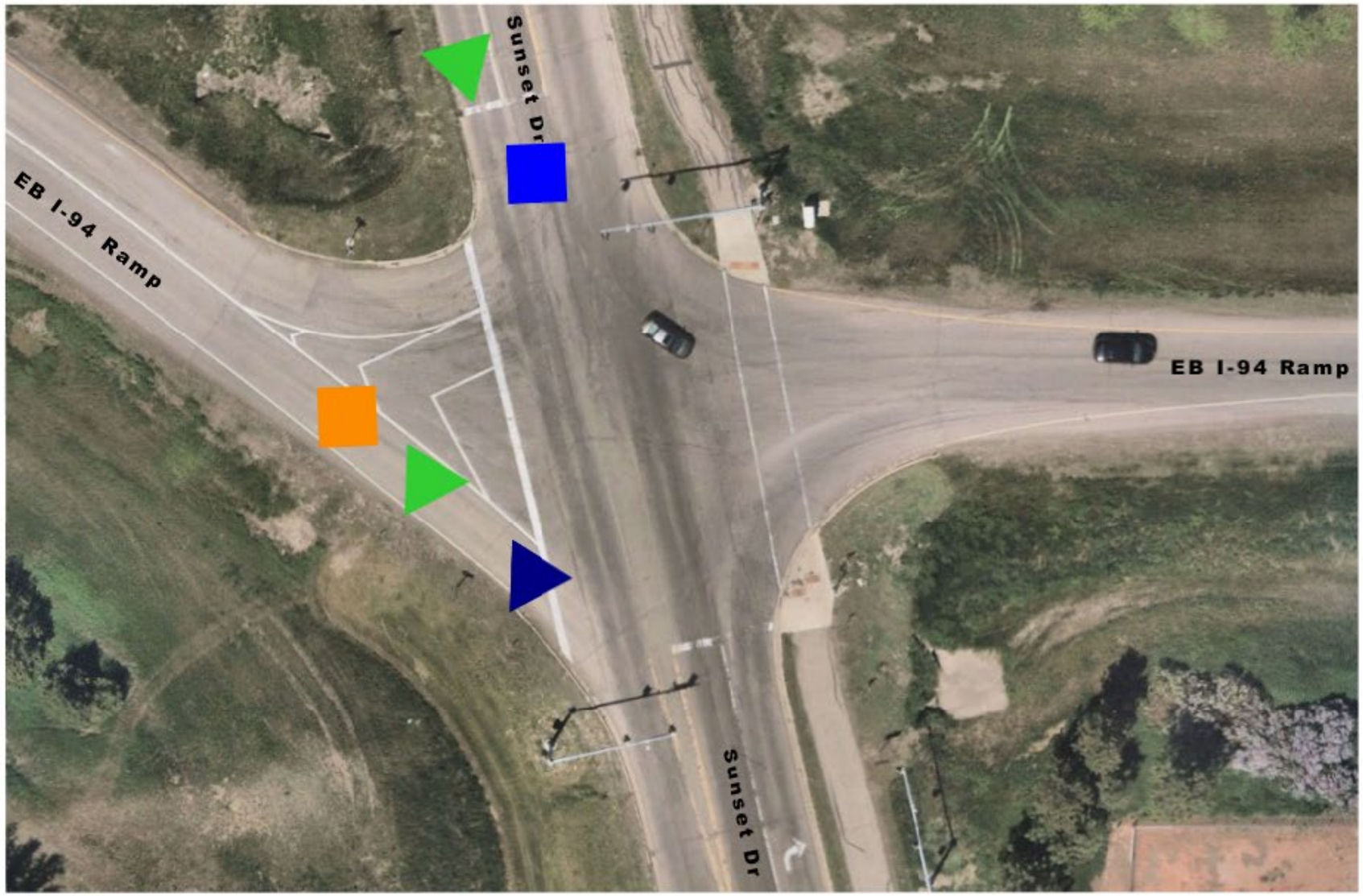
INTERSECTION: I-94 **AT: WB Ramps**

COUNTY: Morton

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Suite 100
Columbia, MD 21046
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DATE: 03 - 08 - 2023

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NOTE: ALL CRASHES INVOLVE TWO VEHICLES UNLESS OTHERWISE NOTED. AN (X) INDICATES THE NUMBER OF VEHICLES INVOLVED.

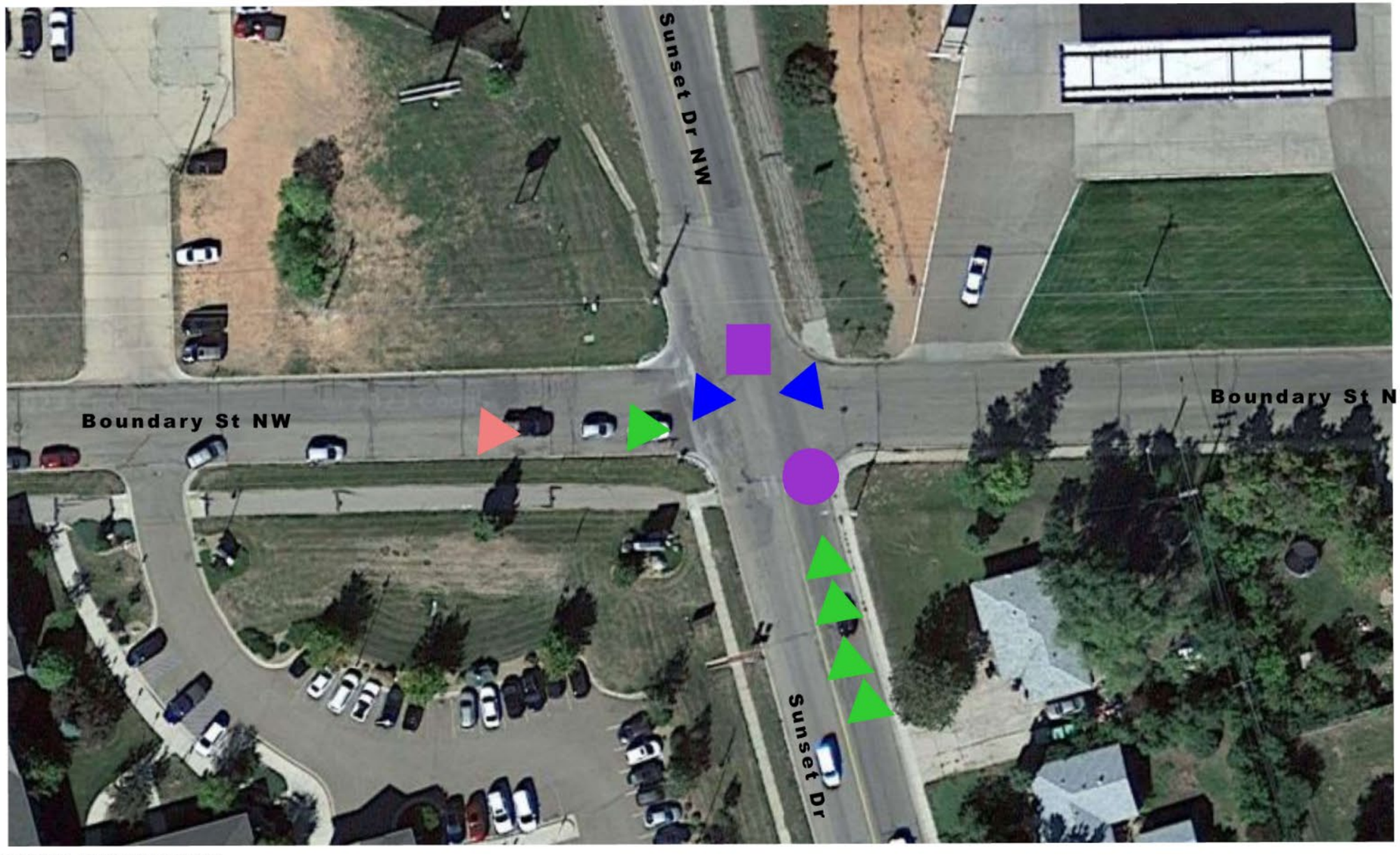
FIGURE 8: SUNSET DR AT I-94 EB CRASH DIAGRAM

Rear End	Side Swipe	PROPERTY DAMAGE ONLY	COLLISION DIAGRAM 2017 to 2022
Fixed Object	Left Turn	POSSIBLE INJURY	INTERSECTION: I-94 AT: EB Ramps
Curb	Angle	NON-INCAPACITATING INJURY	
		INCAPACITATING INJURY	COUNTY: Morton
		FATAL	

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NOTE: ALL CRASHES INVOLVE TWO VEHICLES UNLESS OTHERWISE NOTED. AN (X) INDICATES THE NUMBER OF VEHICLES INVOLVED.

FIGURE 9: SUNSET DR AT BOUNDARY ST NW CRASH DIAGRAM

Rear End	Side Swipe
Backing	Left Turn
Curb	Angle

SEVERITY
PROPERTY DAMAGE ONLY
POSSIBLE INJURY
NON-INCAPACITATING INJURY
INCAPACITATING INJURY
FATAL

COLLISION DIAGRAM
2017 to 2022

INTERSECTION: Boundary St AT: Sunset Dr

COUNTY: Morton

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DATE: 03 - 08 - 2023

PAGE: 1 OF 1



FIGURE 10: SUNSET DR AT I-94 INTERCHANGE CRASH DENSITY HEATMAP

(2) I-94 Corridor

Over the period from 2017 to 2022, there were 72 reported crashes along I-94 between R.P. 147.2 and 154.5. These are mainline crashes only, and do not include crashes along the ramps. The report includes a detailed breakdown of the crash locations, types, and adverse conditions that may have contributed, located in **Appendix B**. The I-94 crashes are summarized in **Table 3** and overall corridor crash diagrams are shown in **Figure 12**, **Figure 13**, **Figure 15**, and **Figure 16**.

TABLE 3: SUMMARY OF I-94 CORRIDOR CRASHES

Year	# Crashes
2017	7
2018	7
2019	27
2020	10
2021	15
2022	6
Roadway Surface	# Crashes
Dry	38
Wet	4
Snow/Ice	30

There was a greater prevalence of single-vehicle crashes along I-94. There is a correlation between the increase in 2019 crashes and the number of crashes involving slick pavement; both were higher, particularly west of Sunset Drive. As Sunset Drive is where the land uses generally change from urban to rural, it is possible that this contributed to the extra 2019 crashes during inclement weather. As noted with the Sunset Drive crash rate, the pandemic had an impact in 2020 and 2021 crash volumes. Also, 2017 and 2022 do not represent full calendar year data.

(3) State Route 25 / Business I-94

Over the period from 2017 to 2022, there were 12 reported crashes along the north-south portion of State Route 25 / Business I-94. Data was not collected for the east-west portion of Business I-94. The report includes a detailed breakdown of the crash locations, types, and adverse conditions that may have contributed, located in **Appendix B**. The State Route 25 / Business I-94 crashes are summarized in **Table 4** and the corridor crash diagram is shown in **Figure 12**.

TABLE 4: SUMMARY OF STATE ROUTE 25 / BUSINESS I-94 CORRIDOR CRASHES

Year	# Crashes
2017	0
2018	4
2019	6

2020	0
2021	1
2022	1
Roadway Surface	# Crashes
Dry	6
Wet	1
Snow/Ice	5

Like on I-94, there was a correlation between the number of crashes and slick roadway conditions. As noted with the Sunset Drive crash rate, the pandemic had an impact in 2020 and 2021 crash volumes. Also, 2017 and 2022 do not represent full calendar year data.

(4) Old Red Trail

Over the period from 2017 to 2022, there were 22 reported crashes along Old Red Trail and Mandan Avenue. These numbers do not include the intersections at Sunset Drive or Mandan Avenue; those numbers are included in the respective sections for each road facility. The report includes a detailed breakdown of the crash locations, types, and adverse conditions that may have contributed, located in **Appendix B**. The Old Red Trail crashes are summarized in **Table 5** and overall corridor crash diagrams are shown in **Figure 13** and **Figure 15**.

TABLE 5: SUMMARY OF OLD RED TRAIL CORRIDOR CRASHES

Year	# Crashes
2017	0
2018	4
2019	8
2020	5
2021	2
2022	3
Roadway Surface	# Crashes
Dry	9
Wet	2
Snow/Ice	11

On Old Red Trail, there was a correlation between the number of crashes and slick roadway conditions. As noted with the Sunset Drive crash rate, the pandemic had an impact in 2020 and 2021 crash volumes. Also, 2017 and 2022 do not represent full calendar year data.

(5) Mandan Avenue

Over the period from 2017 to 2022, there were 95 reported crashes along Old Red Trail and Mandan

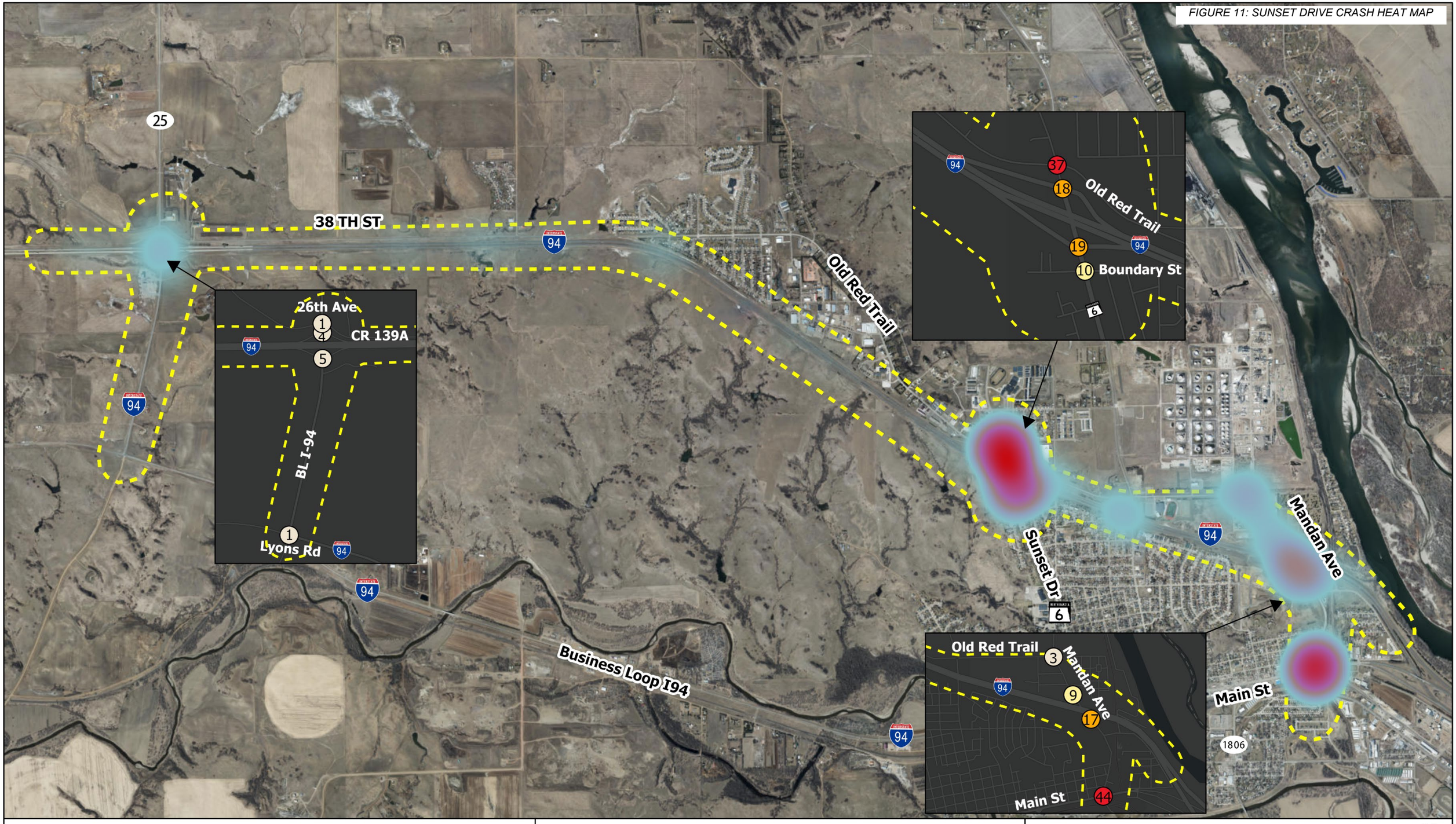
Avenue. These numbers do not include the intersections at Sunset Drive or Mandan Avenue; those numbers are included in the respective sections for each road facility. The report includes a detailed breakdown of the crash locations, types, and adverse conditions that may have contributed, located in **Appendix B**. The Mandan Avenue crashes are summarized in **Table 6** and overall corridor crash diagrams are shown in **Figure 15** and **Figure 16**.

TABLE 6: SUMMARY OF MANDAN AVENUE CORRIDOR CRASHES

Year	# Crashes
2017	4
2018	26
2019	33
2020	8
2021	12
2022	12
Roadway Surface	# Crashes
Dry	64
Wet	5
Snow/Ice	26

There was a correlation between the number of crashes and slick roadway conditions. However, due to the increased number of intersections, angle crashes and left turn crashes were noted as well. As noted with the Sunset Drive crash rate, the pandemic had an impact in 2020 and 2021 crash volumes. Also, 2017 and 2022 do not represent full calendar year data.

FIGURE 11: SUNSET DRIVE CRASH HEAT MAP



Legend

Sparse — Dense

Study Area

Crashes Per Intersection

<=5 <=10 <=20 More than 20 crashes

Crash Heat Map

Source: NDDOT Crash Data November 2017 - December 2022

N

0 1.5 3 Miles

FIGURE 12: CRASH DIAGRAM #1

County Road 139A

26th Ave

57th Ave NW

37th Ave NW

Old Red Trl NW

Business Loop I-94

Nygren Dr

39th St

10/20/2019, Wet, Cloudy, Dark

12/25/2021, Ice/Snow, Blowing Snow, Daylight

12/19/2019, Dry, Clear, Dark

11/16/2020, Ice/Snow, Clear, Daylight

1/25/2020, Ice/Snow, Sleet/Hail/Freezing, Dark

2/24/2021, Dry, Clear, Daylight

2/3/2018, Snow, Clear, Daylight

1/16/2019, Dry, Clear, Dark

2/19/2019, Ice/Snow, Blowing Snow, Dark

1/14/2021, Dry, Severe Wind, Daylight

6/23/2022, Dry, Clear, Daylight

4/24/2022, Wet, Rain, Dark

11/3/2017, Snow, Snow, Daylight

1/23/2019, Ice/Snow, Blowing Snow, Daylight

3/10/2019, Ice/Snow, Clear, Dark

6/18/2019, Dry, Clear, Daylight

1/23/2019, Ice/Snow, Blowing Snow, Dark

12/24/2019, Dry Fog, Smoke, Dust

1/23/2019, Ice/Snow, Blowing Snow, Dark

12/19/2021, Dry, Clear, Daylight

8/30/2019, Dry, Clear, Dawn

12/11/2017, Dry, Clear, Dark

3/14/2019, Snow, Blowing Snow, Daylight

3/9/2019, Snow, Cloudy, Daylight

9/14/2018, Dry,Clear, Daylight

3/9/2019, Ice/Snow, Clear, Daylight

1/15/2018, Dry, Clear, Daylight

3/5/2018, Snow, Blowing Snow, Daylight

11/18/2018, Ice/Snow, Cloudy, Daylight

9/1/2019, Dry, Clear, Daylight

11/4/2019, Ice/Snow, Cloudy, Dawn

12/28/2021, Dry, Clear, Dark

8/6/2020, Dry, Clear, Daylight

9/14/2018, Dry, Clear, Dusk

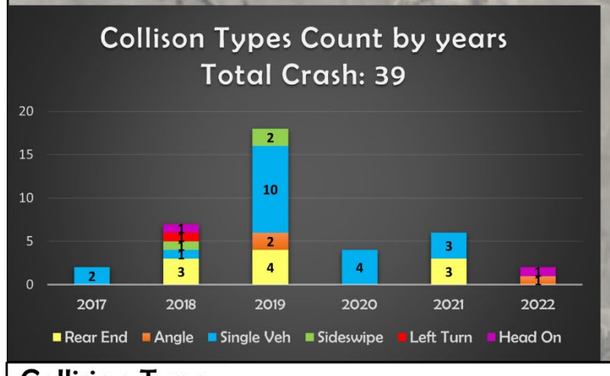
11/13/2021, Ice/Snow, Sleet/Hail/Freezing Rain, Daylight

10/19/2020, Ice/Snow, Snow, Dawn

1/22/2019, Snow, Cloudy, Daylight

5/10/2018, Dry, Clear, Daylight

8/27/2019, Dry, Clear, Daylight



0 0.25 0.5 1 Miles

Collision Type

Rear End · Sideswipe · Angle · Single Vehicle · Left Turn · Head On

Pedestrian/ Bike · Backing · Other · Year, Surface, Weather, Lighting

Severity

Fatal · PDO · Injury (Incapacitating Injury; Non-Incapacitating Injury; Possible Injury)

Crash Diagram Hot Spot 1

I-94 between WB County Road 139A and EB Nygren Dr NW

Source: NDDOT Crash Data November 2017 - December 2022

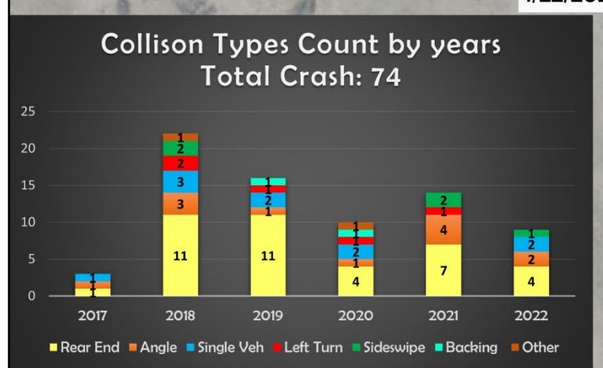


N

FIGURE 13: CRASH DIAGRAM #2

Severity/Collsion Type	Total	Year	Surface	Weather	Lighting
PDO/Rear End	17	2017: 1	Dry: 11	Clear: 14	Daylight: 16
		2018: 6	Ice/Snow: 1	Cloudy: 3	Dusk: 1
		2019: 3	Slush: 2		
		2020: 2	Snow: 3		
		2021: 2			
		2022: 3			
Injury/Rear End	7	2018: 2	Dry: 6	Clear: 6	Daylight: 7
		2019: 2	Wet: 1	Cloudy: 1	
		2020: 1			
		2021: 2			
PDO/Angle	4	2018: 2	Dry: 4	Clear: 3	Dark: 1
		2021: 2		Cloudy: 1	Daylight: 3
Injury/Left Turn	2	2019: 1	Slush: 1	Clear: 1	Daylight: 2
		2021: 1	Wet: 1	Snow: 1	
Injury/Angle	2	2021: 1	Dry: 2	Clear: 2	Daylight: 2
		2022: 1			
PDO/Sideswipe	2	2021: 1	Dry: 2	Clear: 2	Daylight: 2
		2022: 1			
PDO/Left Turn	2	2018: 2	Snow: 1	Clear: 2	Dark: 1
			Dry: 1		Dusk: 1
PDO/Single Veh	1	2018: 1	Ice/Snow: 1	Cloudy: 1	Daylight: 1
Total	37				

Severity/Collsion Type	Total	Year	Surface	Weather	Lighting
PDO/Rear End	6	2018: 2	Dry: 3	Clear: 2	Daylight: 3
		2019: 2	Snow: 2	Cloudy: 1	Dark: 3
		2020: 1	Wet: 1	Rain: 1	
		2022: 1		Snow: 2	
PDO/Angle	5	2018: 1	Dry: 4	Clear: 5	Daylight: 4
		2019: 1	Snow: 1		Dark: 1
		2020: 1			
		2021: 1			
		2022: 1			
PDO/Sideswipe	2	2018: 2	Dry: 2	Clear: 2	Dark: 1
					Daylight: 1
Injury/Single Veh	1	2018: 1	Wet: 1	Rain: 1	Dusk: 1
Injury/Angle	1	2017: 1	Ice/Snow: 1	Clear: 1	Daylight: 1
Injury/Rear End	1	2021: 1	Dry: 1	Clear: 1	Daylight: 1
PDO/Single Veh	1	2017: 1	Ice/Snow: 1	Clear: 1	Daylight: 1
PDO/Left Turn	1	2020: 1	Dry: 1	Clear: 1	Daylight: 1
Total	18				



Surprise Church Mandan

08/9/2021, Dry, Clear, Daylight

Old Red Trail NW

Sunset Dr NW

12 Ave NW

27th St NW

8th Ave NW

06/24/2020, Dry, Clear, Daylight

04/23/2019, Dry, Severe Wind, Daylight

1/13/2021, Dry, Clear, Daylight

4/11/2019, Snow, Snow, Dusk

8/6/2021, Dry, Clear, Daylight

1/22/2022, Ice/Snow, Cloudy, Daylight

8/14/2020, Dry, Clear, Daylight

7/2/2019, Dry, Clear, Daylight

9/1/2022, Dry, Clear, Daylight

12/27/2018, Snow, Blowing Snow, Daylight

3/9/2018, Dry, Clear, Daylight

2/22/2020, Dry, Clear, Daylight

11/30/2018, Ice/Snow, Clear, Daylight

10/15/2019, Dry, Clear, Daylight

9/20/2019, Wet, Rain, Daylight

7/8/2019, Dry, Cloudy, Daylight

1/23/2019, Snow, Blowing Snow, Dark

11/8/2020, Dry, Clear, Daylight

0 0.05 0.1 0.2 0.3 Miles

Collision Type

Rear End · Sideswipe · Angle · Single Vehicle · Left Turn · Head On

Pedestrian/ Bike · Backing · Other · Year, Surface, Weather, Lighting

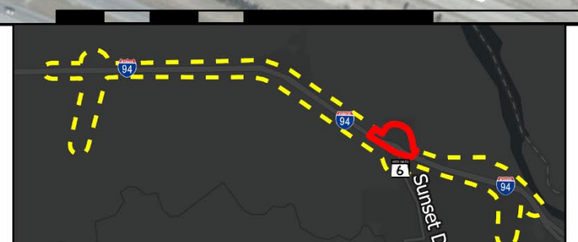
Severity

Fatal · PDO · Injury (Incapacitating Injury, Non-Incapacitating Injury, Possible Injury)

Crash Diagram Hot Spot 2

Sunset Drive between Old Red Trail and I-94 EB ramp
I-94 between WB Surprise Church Mandan and EB
8th Ave NW

Source: NDDOT Crash Data November 2017 - December 2022



N

FIGURE 14: CRASH DIAGRAM #3

Severity/Collsion Type	Total	Year	Surface	Weather	Lighting
PDO/Rear End	11	2018: 4	Dry: 6	Clear: 9	Daylight: 8
		2019: 4	Snow: 4	Cloudy: 1	Dusk: 2
		2020: 1	Ice/Snow: 1	Snow: 1	Dark: 1
		2021: 2			
Injury/Rear End	3	2018: 1	Dry: 3	Clear: 3	Daylight: 3
		2019: 1			
		2021: 1			
Injury/Single Veh	2	2020: 1	Dry: 2	Clear: 2	Dark: 1
		2021: 1			Daylight: 1
PDO/Angle	1	2019: 1	Ice/Snow: 1	Clear: 1	Dark: 1
PDO/Single Veh	1	2018: 1	Ice/Snow: 1	Clear: 1	Daylight: 1
PDO/Sideswipe	1	2021: 1	Wet: 1	Rain: 1	Daylight: 1
Total	19				

2/13/2019, Snow, Clear, Daylight

19

12/20/2019, Dry, Clear, Daylight

9/10/2018, Dry, Clear, Daylight

Sunset Dr NW

Severity/Collsion Type	Total	Year	Surface	Weather	Lighting
PDO/Rear End	5	2018: 1	Dry: 4	Clear: 4	Daylight: 4
		2019: 3	Snow: 1	Cloudy: 1	Dark: 1
		2022: 1			
Injury/Angle	2	2020: 1	Dry: 1	Clear: 2	Daylight: 1
		2021: 1	Wet: 1		Dark: 1
PDO/Left Turn	2	2017: 1	Snow: 1	Clear: 1	Daylight: 2
		2019: 1	Wet: 1	Snow: 1	
PDO Backing	1	2019: 1	Dry: 1	Clear: 1	Daylight: 1
Total	10				

3/11/2019, Ice/Snow, Clear, Daylight

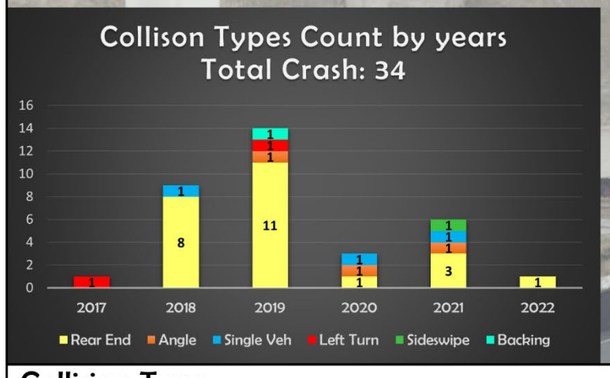
11/16/2018, Ice/Snow, Clear, Daylight

10

Boundary St NW

Boundary St NW

6



0 0.03 0.05 Miles

Collision Type

Rear End · Sideswipe · Angle · Single Vehicle · Left Turn · Head On

Pedestrian/ Bike · Backing · Other · Year, Surface, Weather, Lighting

Severity

Fatal · PDO · Injury (Incapacitating Injury; Non-Incapacitating Injury; Possible Injury)

Crash Diagram Hot Spot 3

Sunset Drive between I-94 EB ramp and Boundary St NW

Source: NDDOT Crash Data November 2017 - December 2022



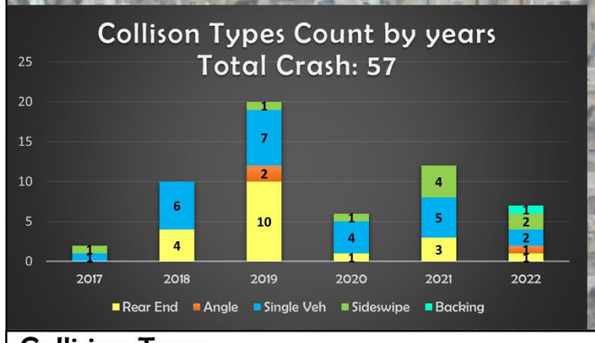
N

FIGURE 15: CRASH DIAGRAM #4

8th Ave NW

1806

10/13/2021, Wet, Rain, Daylight
11/19/2021, Dry, Clear, Daylight
1/14/2019, Dry, Clear, Dawn
4/25/2022, Dry, Clear, Daylight
7/16/2020, Dry, Clear, Daylight
1/8/2019, Dry, Clear, Daylight
7/4/2019, Dry, Clear, Daylight
7/6/2021, Dry, Clear, Daylight
6/4/2021, Dry, Clear, Daylight
10/10/2019, Ice/Snow, Snow, Dark
12/27/2021, Snow, Cloudy, Dark
5/26/2022, Dry, Clear, Daylight
12/29/2017, Slush, Clear, Daylight
1/31/2020, Ice/Snow, Clear, Daylight
2/14/2018, Dry, Clear, Daylight
4/2/2020, Ice/Snow, Cloudy, Daylight
4/14/2021, Dry, Clear, Daylight
2/20/2018, Ice/Snow, Clear, Daylight
2/11/2019, Snow, Sleet/Hail/Freezing Rain, Daylight
9/8/2019, Wet, Rain, Dark
12/24/2019, Ice/Snow, Clear, Dark
1/14/2020, Snow, Clear, Dark
2/11/2019, Snow, Snow, Dusk
12/25/2021, Snow, Snow, Daylight
7/22/2018, Wet, Cloudy, Dark
Old Red Trail NW
1/27/2019, Snow, Clear, Dark
2/8/2019, Snow, Snow, Dark
1/5/2020, Snow, Clear, Daylight
3/27/2022, Dry, Clear, Daylight
3/19/2018, Slush, Snow, Daylight
9/16/2018, Dry, Clear, Daylight
11/3/2020, Dry, Clear, Daylight
12/19/2021, Ice/Snow, Clear, Daylight
3/31/2022, Dry, Clear, Daylight
Marathon Refinery Entrance
6/14/2018, Dry, Clear, Daylight
10/10/2019, Snow, Clear, Daylight
10/28/2019, Dry, Clear, Dark
11/1/2019, Dry, Cloudy, Daylight
11/4/2019, Snow, Snow, Dawn
11/4/2019, Ice/Snow, Snow, Dawn
12/5/2021, Snow, Cloudy, Daylight
Mandan Ave
12/20/2017, Dry, Clear, Daylight
12/1/2018, Ice/Snow, Cloudy, Dark
12/3/2018, Dry, Clear, Daylight
9/13/2022, Dry, Clear, Daylight
5/7/2022, Dry, Clear, Daylight
1/20/2021, Dry, Clear, Daylight
9/18/2019, Dry, Clear, Daylight
6th Ave NW
14th St NW
Collins Ave
15th St NW
6th Ave NE
94



Severity/Collsion Type	Total	Year	Surface	Weather	Lighting
PDO/Single Veh	4	2018: 1	Dry: 3	Clear: 3	Daylight: 3
		2019: 1	Snow: 1	Snow: 1	Dark: 1
		2021: 2			
PDO/Rear End	2	2018: 1	Dry: 2	Clear: 1	Daylight: 1
		2019: 1		Cloudy: 1	Dark: 1
Fatal/Single Veh	1	2022: 1	Dry: 1	Clear: 1	Daylight: 1
Injury/Sideswipe	1	2019: 1	Dry: 1	Clear: 1	Daylight: 1
PDO/Angle	1	2019: 1	Dry: 1	Clear: 1	Dawn: 1
Total	9				

0 0.05 0.1 0.2 0.3 Miles

Collision Type

Rear End | Sideswipe | Angle | Single Vehicle | Left Turn | Head On

Pedestrian/ Bike | Backing | Other | Year, Surface, Weather, Lighting

Severity

Fatal | PDO | Injury (Incapacitating Injury; Non-Incapacitating Injury; Possible Injury)

Crash Diagram Hot Spot 4

I - 94 between 6th Ave NW and 6th Ave NE
Old Red Trail between 8th Ave NW and Marathon Refinery Entrance
Mandan Ave between Marathon Refinery Entrance and I-94 WB Ramps
Source: NDDOT Crash Data November 2017 - December 2022



N

FIGURE 16: CRASH DIAGRAM #5

15th St NE

8th AVE NE

9/8/2022, Dry, Clear, Dark

10/22/2020, Ice/Snow, Snow, Dark

3/10/2019, Ice/Snow, Blowing Snow, Dark

10/30/2018, Dry, Clear, Dawn

8/17/2021, Dry, Clear, Dark

12/29/2020, Ice/Snow, Blowing Snow, Daylight

7/20/2019, Dry, Clear, Daylight

6/25/2019, Dry, Clear, Dark

4/26/2019, Dry, Clear, Dark

12/28/2017, Ice/Snow, Unknown, Dark

8/22/2018, Dry, Clear, Daylight

12/27/2017, Ice/Snow, Unknow, Daylight

12/27/2017, Ice/Snow, Unknow, Daylight

11/27/2017, Dry, Clear, Dark

12/26/2018, Snow, Snow, Daylight

8/23/2020, Dry, Clear, Daylight

Missouri Dr NE

Mandan Ave NE

Severity/Collsion Type	Total	Year	Surface	Weather	Lighting
PDO/Rear End	9	2019: 8	Dry: 7	Clear: 6	Daylight: 8
		2022: 1	Snow: 1	Cloudy: 1	Dark: 1
			Wet: 1	Snow: 1	
				Rain: 1	
PDO/Sideswipe	6	2019: 3	Dry: 4	Clear: 4	Daylight: 5
		2020: 2	Ice/Snow: 1	Cloudy: 1	Dark: 1
		2021: 1	Snow: 1	Snow: 1	
Injury/Rear End	1	2019: 1	Dry: 1	Clear: 1	Daylight: 1
PDO/Single Veh	1	2019: 1	Dry: 1	Clear: 1	Daylight: 1
Total	17				

Severity/Collsion Type	Total	Year	Surface	Weather	Lighting
PDO/Rear End	21	2017: 1	Dry: 11	Clear: 17	Daylight: 19
		2018: 7	Ice/Snow: 3	Cloudy: 2	Dark: 2
		2019: 5	Slush: 1	Rain: 1	
		2020: 2	Snow: 5	Snow: 1	
		2021: 1	Wet: 1		
		2022: 5			
PDO/Left Turn	5	2017: 1	Dry: 2	Clear: 2	Daylight: 3
		2018: 3	Ice/Snow: 1	Cloudy: 2	Dark: 2
		2022: 1	Snow: 2	Snow: 1	
PDO/Angle	5	2018: 1	Dry: 4	Clear: 4	Dark: 1
		2019: 1	Ice/Snow: 1	Snow: 1	Daylight: 2
		2020: 1			Dusk: 1
		2021: 2			Unknown: 1
Injury/Rear End	4	2018: 2	Dry: 3	Clear: 4	Daylight: 4
		2019: 1	Wet: 1		
		2022: 1			
Injury/Single Veh	4	2018: 2	Dry: 4	Clear: 3	Daylight: 2
		2020: 1		Cloudy: 1	Dark: 1
		2021: 1			Dawn: 1
Injury /Angle	2	2019: 2	Snow: 2	Snow: 2	Daylight: 1
					Dark: 1
Injury /Left Turn	1	2022: 1	Dry: 1	Clear: 1	Dusk: 1
Injury/Other	1	2019: 1	Dry: 1	Clear: 1	Daylight: 1
PDO/Sideswipe	1	2021: 1	Dry: 1	Clear: 1	Dark: 1
Total	44				

7/30/2018, Dry, Clear, Daylight

12/13/2018, Dry, Clear, Daylight

3/20/2019, Ice/Snow, Clear, Daylight

1/13/2021, Wet, Rain, Daylight

7/9/2021, Dry, Clear, Daylight

3/25/2022, Dry, Clear, Daylight

3rd St NE

7/4/2021, Dry, Clear, Daylight

3/21/2018, Dry, Clear, Daylight

2nd St NE

4/21/2018, Dry, Clear, Daylight

1st St NE

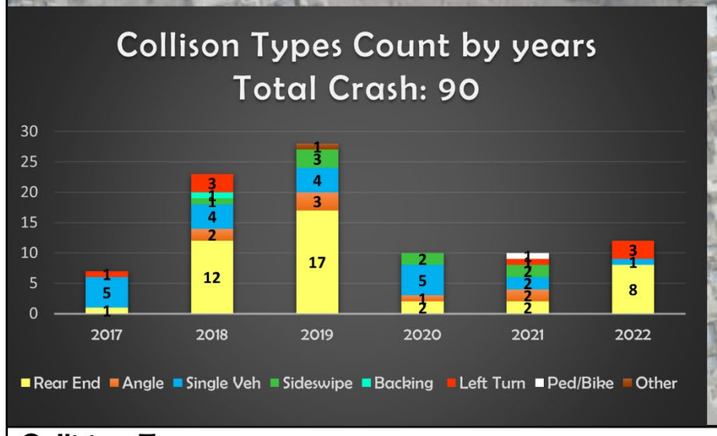
12/28/2018, Snow, Clear, Daylight

11/10/2017, Dry, Clear, Daylight

4/21/2022, Wet, Rain, Dark

9/13/2020, Dry, Clear, Daylight

Main St E



0 0.05 0.1 0.2 0.3 0.4 0.5 Miles

Collision Type

Rear End, Sideswipe, Angle, Single Vehicle, Left Turn, Head On, Pedestrian/ Bike, Backing, Other, Year, Surface, Weather, Lighting

Severity

Fatal, PDO, Injury (Incapacitating Injury; Non-Incapacitating Injury; Possible Injury)

Crash Diagram Hot Spot 5

Mandan Ave between I-94 EB ramp and Main St

I-94 between 8th Ave and Missouri Dr NE

Source: NDDOT Crash Data November 2017 - December 2022



N

F. Traffic Volume Development

(1) Base Year (2023) Volume Development

24-hour Intersection Turning Movement Counts (TMCs) and Average Daily Traffic (ADT) tube counts were conducted in December 2022 for all 12 study intersections and interchange ramps within the model limits. The newly collected counts were used to develop base year (2023) morning and evening peak hour turning movement volumes, which will be used for the Existing Conditions analysis in this study. The peak hour volumes were rounded to the nearest five and balanced to zero. Imbalances were preserved at a few key locations to account for sources and sinks at unsignalized intersections and driveways. Existing 2023 volumes are shown below in **Figure 18** for the focus area, and all intersections can be found in **Appendix C**.

(2) 2030 and 2045 No-Build Volume Development

As previously discussed, the Sunset Drive corridor has two ongoing independent studies. North Dakota Department of Transportation is leading the *Interstate 94 and Sunset Drive Interchange Preliminary Engineering & Feasibility Study* (this study), which focuses on interchange improvements / reconfigurations. The Bismarck-Mandan Metropolitan Planning Organization along with the City of Mandan are studying Sunset Drive in Mandan for potential traffic and safety improvements as part of the *Sunset Drive Corridor Study*. Although these studies are independent, it was suggested that the traffic volume development between the two studies be coordinated to maintain consistency between the two studies. The *Sunset Drive Corridor Study* volume development preceded the volume development for the *Interstate 94 and Sunset Drive Interchange Preliminary Engineering Study.* Therefore, as part of this study, the *Sunset Drive Corridor Study* volumes were reviewed, and any proposed adjustments are noted the *Interstate 94 at Sunset Drive Interchange Preliminary Engineering & Feasibility Study: Volume Development Methodology* memo in **Appendix D**.

The *Sunset Drive Corridor Study* volume development process involved the following:

1. Annual traffic volume growth rates were developed from the Bismarck Mandan Metropolitan Organization Travel Demand Model (TDM) using base year (2015) and future year (2030) ADT outputs. The Sunset Drive extension to 38th Street was included in the 2030 model.
2. Forecasted 2022 ADTs were developed using the 2015 ADTs from the TDM and the annual growth rates. These forecasted ADTs were compared to 2022 historical ADT counts and found to be approximately 20% too low.
3. To compensate, the 2030 ADTs from the TDM were increased/adjusted by 20%. The 2015 to 2030 growth rates were recalculated and used to develop 2030 peak hour turning movement volumes from the baseline turning movement counts.
4. 2045 peak hour turning movement volumes were then developed from the 2030 peak hour turning movement volumes using the growth trend of the TDM.

The adjusted ADTs used to grow the base year turning movement counts are shown below in **Figure 17**. These ADTs are summarized in **Table 7**.

It should also be noted that the *Sunset Drive Corridor Study* volumes consider the following:

- Change in travel patterns due to the vacation of the current Mandan High school, and recent construction of the new Mandan High school. Motorists who previously wanted to access the high school in its previous location south of the proposed interchange, will instead travel to its new location northeast of the interchange. These updated travel patterns of local motorists have been incorporated in all future volume scenarios.
- The approved Master Plan for Mandan details development and growth along Sunset Drive as Sunset Drive will be extended past its current terminus of 31st Street to 38th Street. This development has been accounted for in all future volume scenarios.

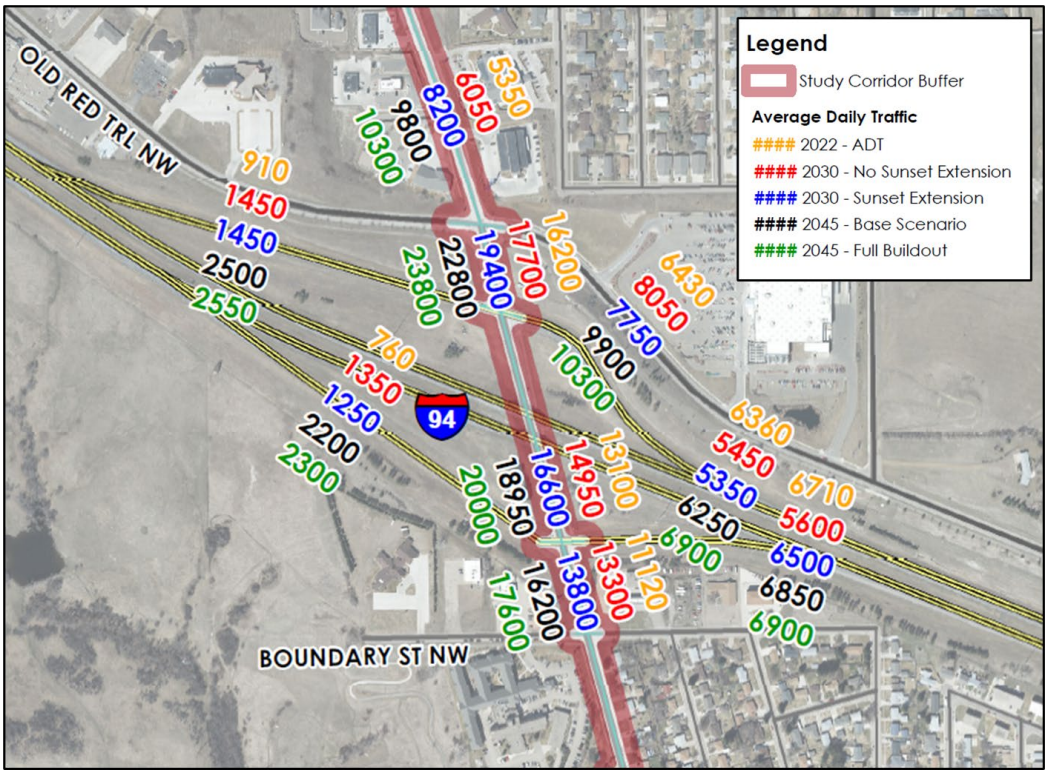


FIGURE 17: SUNSET DRIVE CORRIDOR STUDY - ADJUSTED ADTS

TABLE 7: SUNSET DR CORRIDOR STUDY – ADJUSTED ADTS

	2022	2030 - No Sunset Extension	2030 - Sunset Extension	2045 - Base Scenario	2045 - Full Build Out
I-94 WB Exit Ramp	6,430	8,050	7,750	9,900	10,300
I-94 WB Entrance Ramp	910	1,450	1,450	2,500	2,550
I-94 EB Exit Ramp	760	1,350	1,250	2,200	2,300
I-94 EB Entrance Ramp	6,535	5,525	5,925	6,550	6,900
Sunset Dr S of I-94 EB Ramps	11,120	13,300	13,800	16,200	17,600
Sunset Dr between I-94 Ramp Terminals	13,100	14,950	16,600	18,950	20,000
Sunset Dr between I-94 WB Ramps and Old Red Trail	16,200	17,700	19,400	22,800	23,800
Sunset Dr north of Old Red Trail	5,350	6,050	8,200	9,800	10,300

To develop the 2030 volumes for this study, all movements with higher 2023 volumes than the *Sunset Drive Corridor Study* 2030 volumes were identified. These movements were then adjusted by growing the 2023 volumes using growth rates based on the *Sunset Drive Corridor Study* adjusted ADTs (see **Figure 17**). The 2030 volumes were then rounded to the nearest five and rebalanced.

All movements adjusted for 2030 were similarly adjusted for 2045 to ensure that all volume sets remain consistent with one another. The adjusted 2030 movements were grown to 2045 using growth rates based on the *Sunset Drive Corridor Study* adjusted ADTs (see **Figure 17**)

The 2030 and 2045 volumes are shown below in **Figure 19** and **Figure 20**, respectively, for the focus area, and all intersections can be found in **Appendix C**.

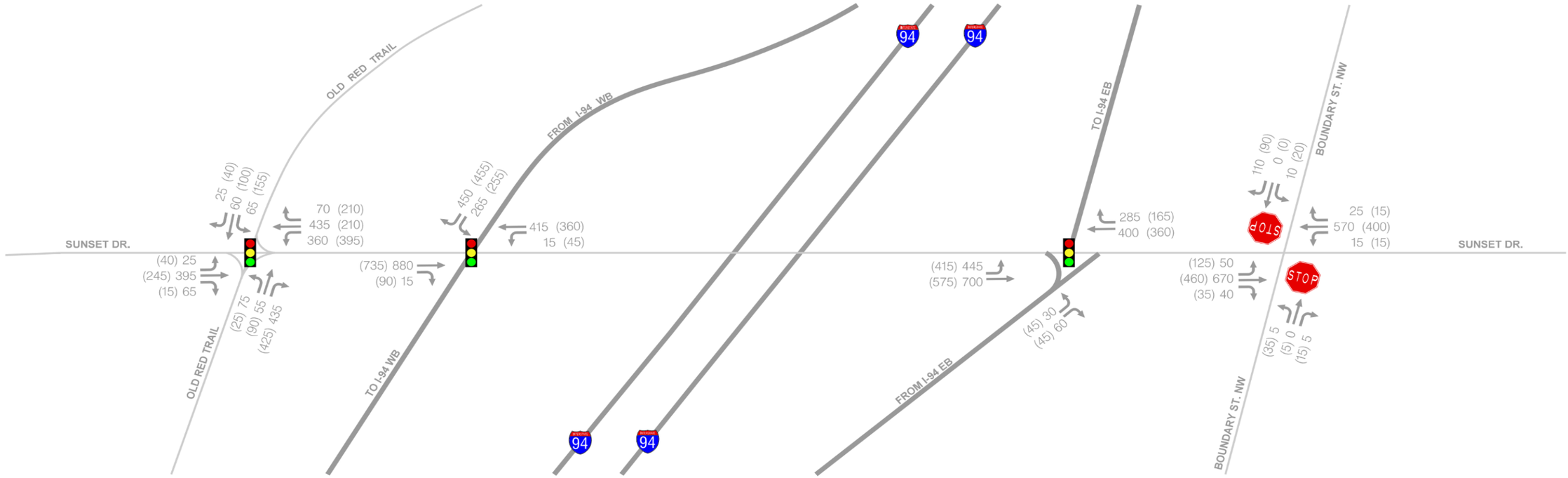


FIGURE 18: EXISTING PEAK HOUR VOLUMES

OPERATOR02430 – PLOTTED: 4/3/2023
FILE NAME: \Columbia\Shared\Josh Hartsock\SunsetDr_Volume_Diagrams.dgn

Mead & Hunt

Sunset Drive: Volume Diagram 2023 Existing

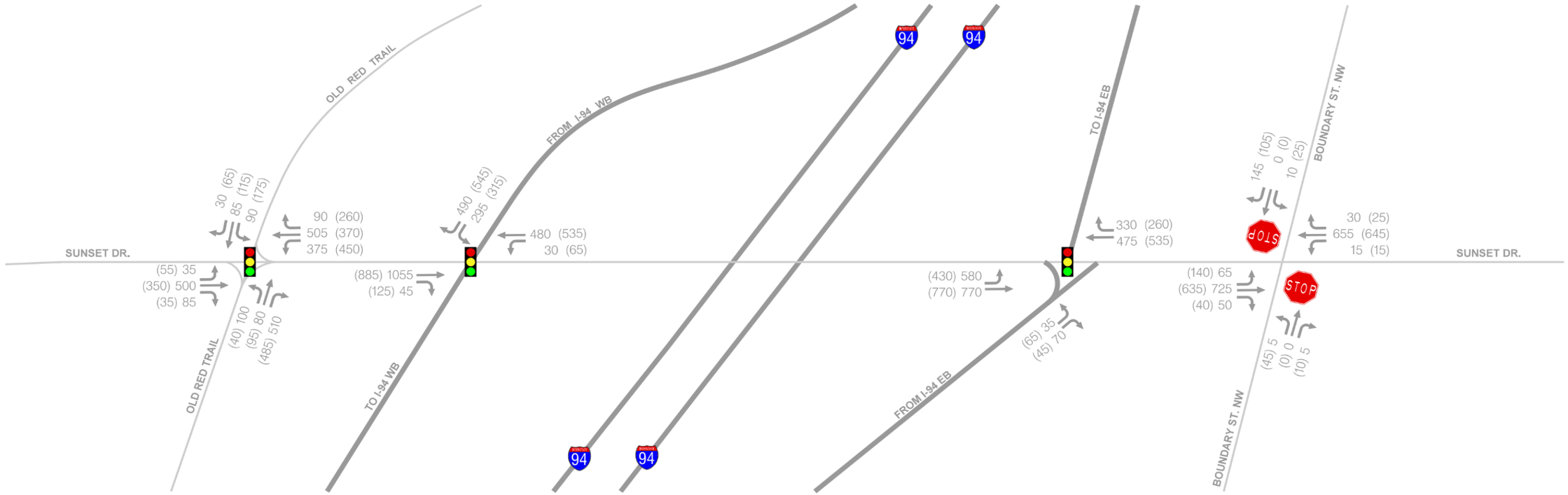


FIGURE 19: 2030 PEAK HOUR VOLUMES

Mead & Hunt

Sunset Drive: Volume Diagram 2030 No Build

OPERATOR024.30 – PLOTTED: 4/3/2023
FILE NAMES: \Columbia\Shared\Josh Hartsock\SunsetDr_Volume_Diagrams.dgn

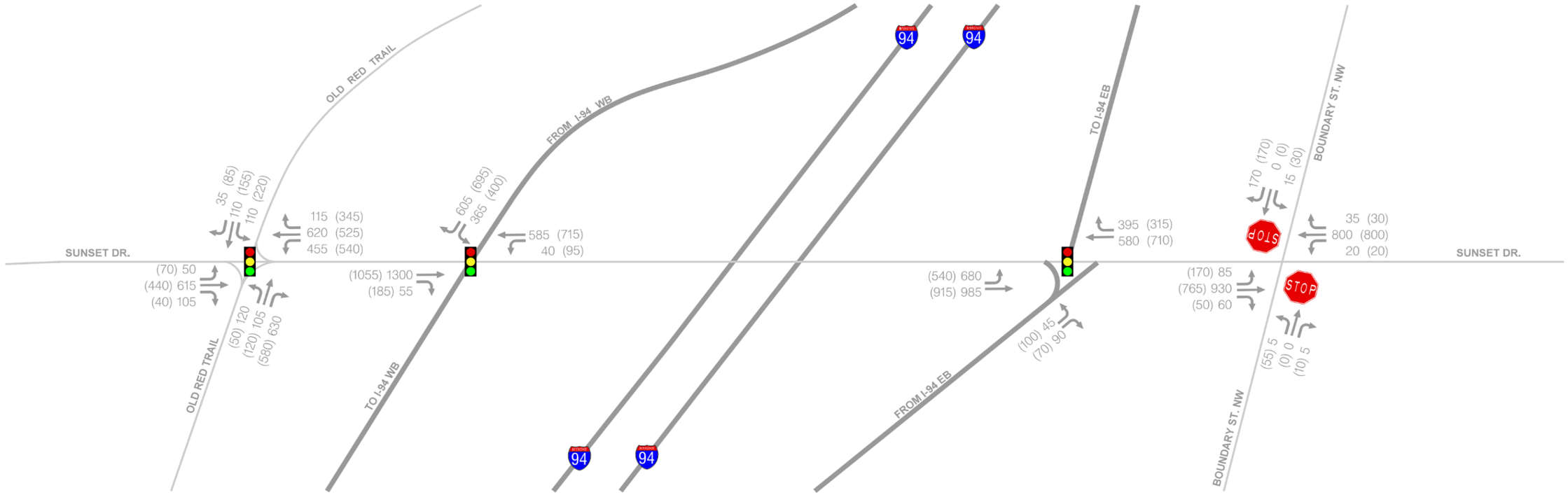


FIGURE 20: 2045 PEAK HOUR VOLUMES

Mead & Hunt

Sunset Drive: Volume Diagram 2045 No Build

OPERATOR:D2430 – PLOTTED: 4/3/2023
FILE NAME:G: \Columbia\Shared\Josh Hartsock\Sunset Dr_Volume_Diagrams.dgn

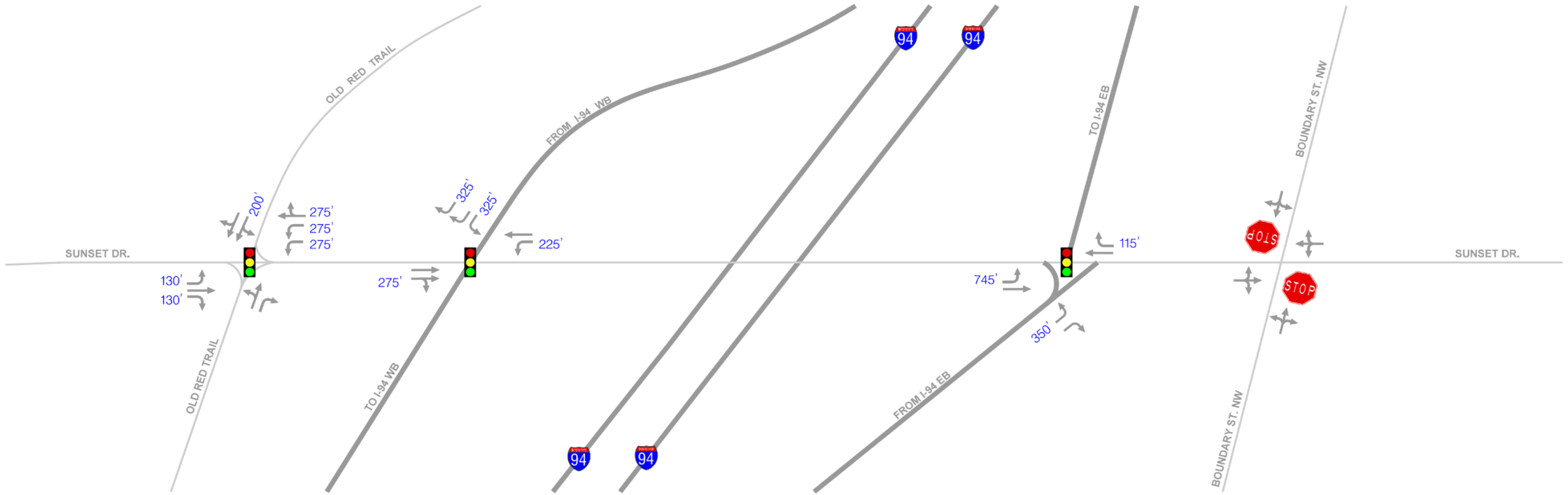


FIGURE 21: LANE CONFIGURATION AND STORAGE LENGTHS

Mead & Hunt

Sunset Drive Lane Configuration & Storage Lengths

OPERATOR0224.30 – PLOTTED: 4/3/2023
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G. Baseline Traffic Models and Analysis

Existing conditions (2023), 2030 and 2045 No Build, and all non-roundabout alternative models were coded in Synchro 11, a deterministic traffic analysis software that implements Highway Capacity Manual (HCM) methodology to analyze signalized and unsignalized intersections. The measures of effectiveness (MOEs) reported from Synchro include level-of-service (LOS), average vehicle delay (in seconds per vehicle), and volume-to-capacity ratio (V/C).

Level of Service (LOS) is a qualitative measure describing operational conditions of an intersection or any other transportation facility. LOS measures the quality of traffic service, and may be determined for intersections, roadway segments, or arterial corridors based on delay, congested speed, volume to capacity (v/c) ratio, or vehicle density by functional class. At intersections, LOS is a letter designation that corresponds to a certain range of roadway operating conditions. The levels of service range from 'A' to 'F', with 'A' indicating the best operating conditions and 'F' indicating the worst, or a failing, operating condition. The levels of service grades are assigned based on average delay thresholds, for both signalized and unsignalized intersections, listed below in **Table 8.**

TABLE 8: HCM 2000 LOS THRESHOLDS

LOS	Signalized Intersection Delay (seconds)	Unsignalized Intersection Delay (seconds)
A	0 - 10.0	0 - 10.0
B	10.1 - 20.0	10.1 – 15.0
C	20.1 - 35.0	15.1 – 25.0
D	35.1 – 55.0	25.1 – 35.0
E	55.1 – 80.0	35.1 – 50.0
F	>80.0	>50.0

The *volume-to-capacity ratio (v/c ratio)* is the ratio of current flow rate to the capacity of the intersection. This ratio is often used to determine how sufficient capacity is on a given roadway. A ratio of 1.0 indicates that the roadway is operating at capacity. A ratio of greater than 1.0 indicates that the facility is operating above capacity as the number of vehicles exceeds the roadway capacity.

Delay (Control delay) is the portion of delay attributed to traffic signal operation for signalized intersections. Control delay (overall delay) can be categorized into deceleration delay, stopped delay, and acceleration delay.

HCM 6th (2016) and 7th (2022) Editions are unable to analyze signalized intersections without standard NEMA phasing. Since several of the intersections/alternatives are complex and do not have standard NEMA phasing, HCM 2000 was used to report intersection measures of effectiveness for consistency.

The overall intersection result for signalized intersections is the average delay of each movement, weighted by each movement's volume. The overall result for unsignalized intersections displays the operation of the worst approach of the intersection.

The Existing conditions models were developed using the balanced volume set of collected turning movements counts, detailed in Section F. The signal timing data were obtained from the City of Mandan and coded in the model to reflect the latest signal operation plans (included in **Appendix E**). Intersection geometry, lane configurations, storage bay lengths were coded based on the latest available Bing maps aerial imagery and NearMap aerial imagery, and confirmed with images taken during the January field visit discussed in Section D. Link speeds were set to match posted speeds on each roadway.

The 2030 and 2045 balanced volume sets were applied to the Existing conditions model to create the future No Build models. All other parameters were kept consistent with existing conditions.

The intersection MOEs for the entire study area are shown below in **Table 9**, and in the maps in **Figure 22**, **Figure 23**, **and Figure 24**, showing the level of service under existing conditions, 2030 No Build, and 2045 No Build, respectively. Under existing conditions, all intersections operate at LOS D or better, except for the intersection of Sunset Dr and Boundary St NW, which displays LOS F, as stop controlled intersections report the worst approach of the intersection as the overall LOS. In the 2030 No Build scenario, only the intersection of Mandan Ave and the I-94 EB off ramp degrades to a failing LOS in the AM and PM peaks, which is not part of the primary study corridor/focus area. No intersections on Sunset Dr degrade to a failing LOS which were not already failing under existing conditions. In 2045, the intersections of Sunset Dr and Old Red Tr, and Sunset Dr and I-94 EB ramps degrade to LOS E in the AM peak in the primary study corridor. On Mandan Ave, the intersections at I-94 WB ramps and I-94 EB ramps degrade to LOS E and F in the PM and AM peaks, respectively.

HCM reports for Existing, 2030 No Build, and 2045 No Build can be found in **Appendix F**.

TABLE 9: EXISTING, 2030 NO-BUILD, AND 2045 NO-BUILD OVERALL INTERSECTION MOE TABLE

ID	Intersection		Existing			2030 No Build			2045 No Build		
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
1	Sunset Dr & Old Red Trail	Control Type	Signal			Signal			Signal		
		Overall	23.3 (24.1)	C (C)	0.68 (0.56)	28.3 (25.3)	C (C)	0.88 (0.74)	55.1 (44.1)	E (D)	1.14 (1.02)
2	Sunset Dr & I-94 WB	Control Type	Signal			Signal			Signal		
		Overall	15.8 (16.8)	B (B)	0.59 (0.51)	16.3 (17.6)	B (B)	0.70 (0.63)	19.0 (21.2)	B (C)	0.87 (0.90)
3	Sunset Dr & I-94 EB	Control Type	Signal			Signal			Signal		
		Overall	10.8 (8.6)	B (A)	0.68 (0.61)	21.5 (13.6)	C (B)	0.88 (0.74)	64.9 (53.3)	E (D)	1.05 (1.02)
4	Sunset Dr & Boundary St NW	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	53.4 (61.1)	F (F)	0.12 (0.49)	115.3 (>300)	F (F)	0.24 (>2.00)	>300 (>300)	F (F)	>2.00 (>2.00)
5	Hwy 25 & CR 139A	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	10.0 (9.7)	B (A)	0.12 (0.04)	10.5 (10.0)	B (A)	0.15 (0.05)	11.9 (10.9)	B (B)	0.22 (0.06)
6	Hwy 25 & I-94 WB On Ramp/I-94 WB Off Ramp	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	10.7 (11.6)	B (B)	0.10 (0.31)	12.1 (14.9)	B (B)	0.15 (0.47)	17.3 (49.8)	C (E)	0.32 (0.91)
7	Hwy 25 & I-94 EB Off Ramp/I-94 EB On Ramp	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	10.4 (10.7)	B (B)	0.03 (0.07)	10.9 (12.2)	B (B)	0.04 (0.12)	14.7 (16.1)	B (C)	0.12 (0.24)
8	Hwy 25 & CR 139/I-94 BL	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	9.4 (9.4)	A (A)	0.05 (0.07)	9.9 (9.8)	A (A)	0.09 (0.14)	11.6 (12.3)	B (B)	0.22 (0.33)
9	Old Red Trail & Mandan Ave	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	12.9 (16.8)	B (C)	0.03 (0.05)	14.5 (20.8)	B (C)	0.04 (0.07)	20.8 (38.8)	C (E)	0.08 (0.16)
10	Mandan Ave & I-94 WB On Ramp/I-94 WB Off Ramp	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	13.8 (19.1)	B (C)	0.01 (0.02)	15.6 (24.7)	C (C)	0.01 (0.06)	21.8 (46.0)	C (E)	0.05 (0.11)
11	Mandan Ave & I-94 EB Off Ramp	Control Type	Stop (2 - Way)			Stop (2 - Way)			Stop (2 - Way)		
		Worst Approach	22.5 (31.3)	C (D)	0.05 (0.14)	30.5 (51.9)	D (F)	0.07 (0.26)	71.8 (251.3)	F (F)	0.23 (0.83)
12	Mandan Ave & Main St	Control Type	Signal			Signal			Signal		
		Overall	18.0 (27.5)	B (C)	0.55 (0.73)	19.3 (31.4)	B (C)	0.59 (0.79)	24.2 (43.1)	C (D)	0.68 (0.93)



FIGURE 22: EXISTING CONDITIONS LOS MAP

Level of Service

A, B, C D E F

Study Area

Overall LOS: AM PM

Level of Service - Existing

Source: Synchro 03/2023

N

0 1.5 3 Miles

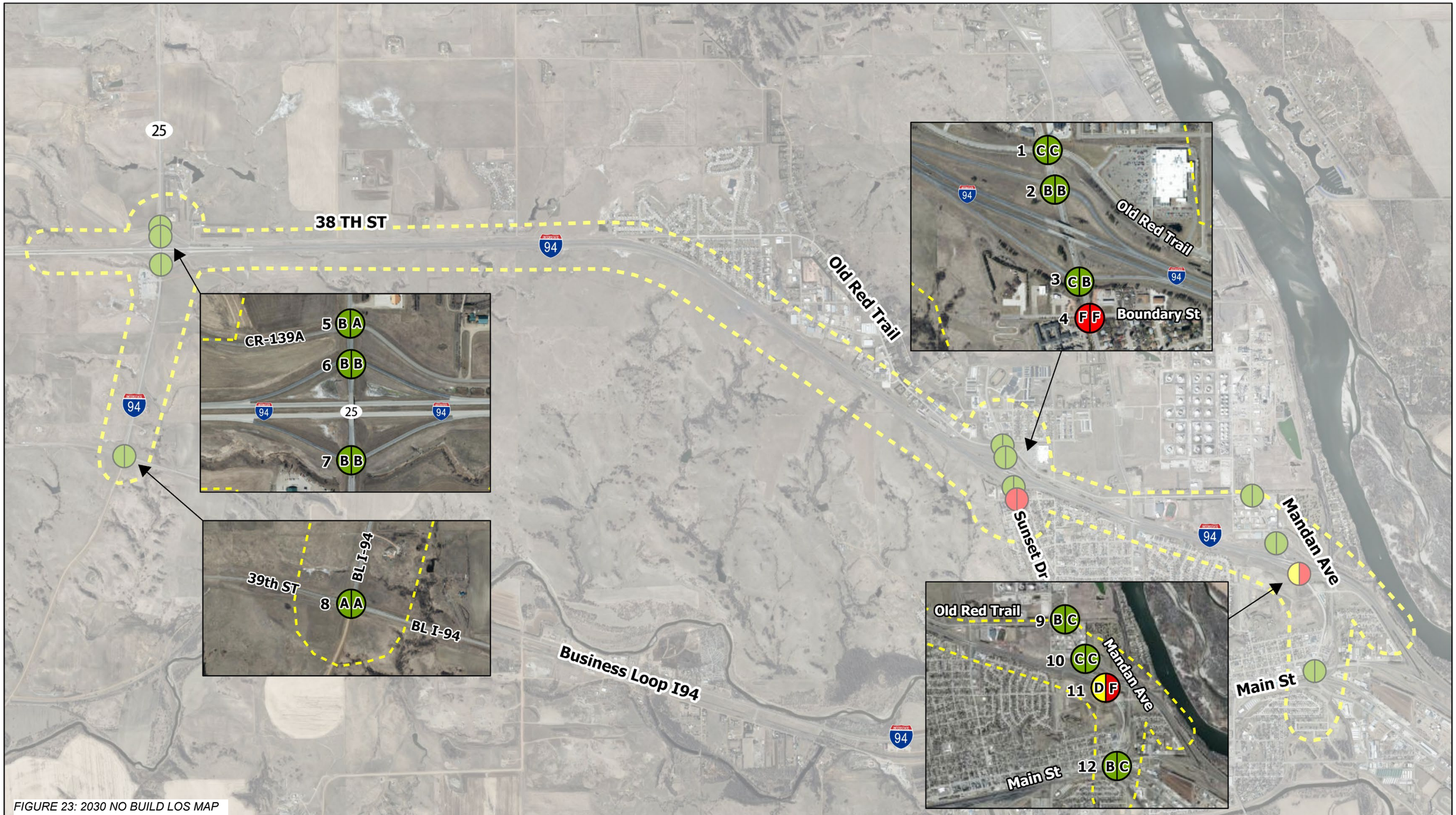


FIGURE 23: 2030 NO BUILD LOS MAP

Level of Service

A, B, C D E F

Study Area

Overall LOS:

AM PM

Level of Service - 2030 No Build

Source: Synchro 03/2023

N

0 1.5 3 Miles

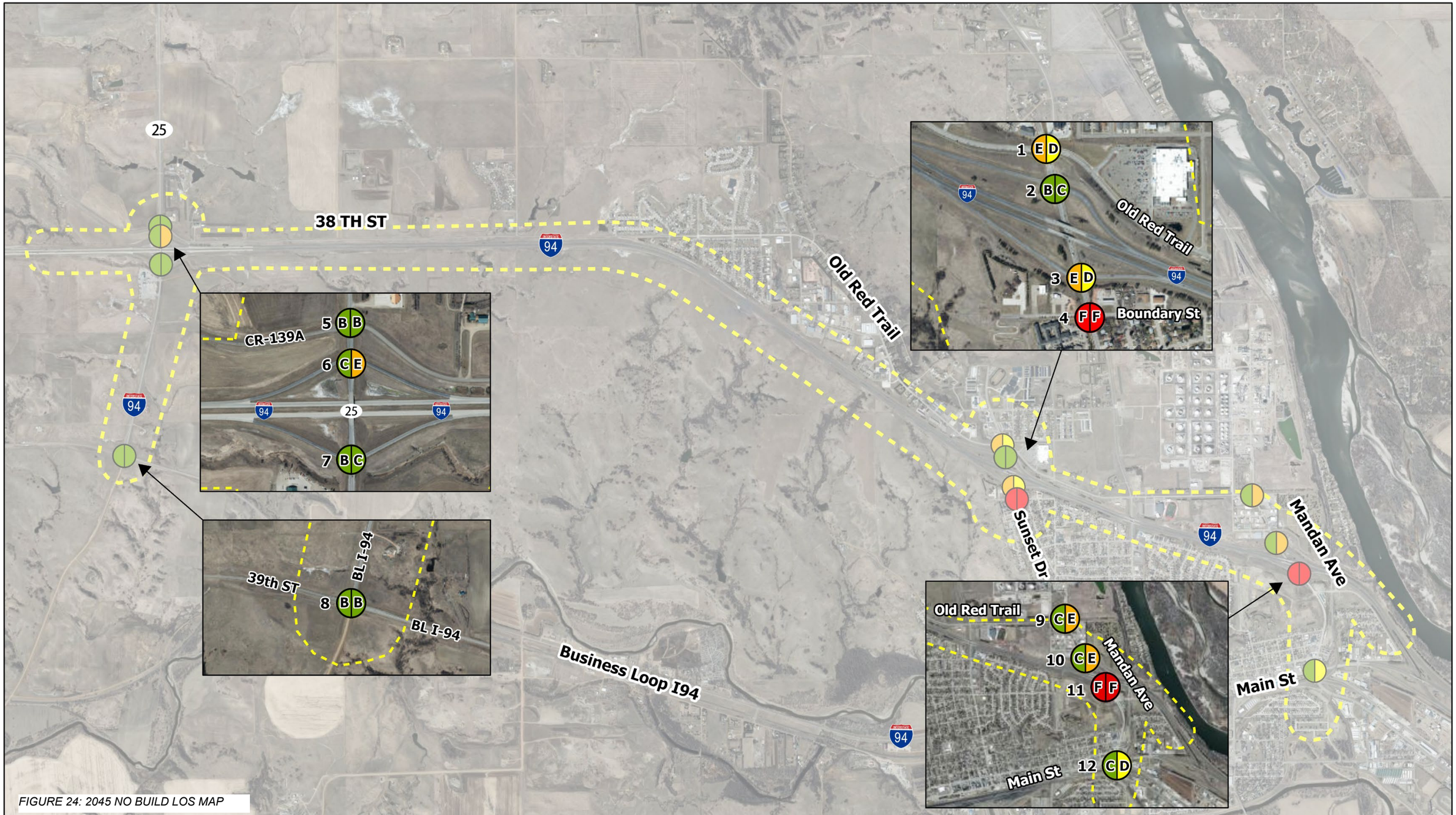


FIGURE 24: 2045 NO BUILD LOS MAP

Level of Service

A, B, C D E F

Study Area

Overall LOS:

AM / PM

Level of Service - 2045 No Build

Source: Synchro 03/2023

N

0 1.5 3 Miles

H. Alternatives Assessment

As part of the future conditions analysis, CAP-X was used to determine which interchange configurations to further analyze. CAP-X is an FHWA created program which serves as a screening tool to determine operationally feasible at-grade intersection and grade separated interchange configurations at a given location. It performs a Critical Lane Volume analysis of the input volumes and lane configurations, then ranks the best options based on max v/c ratio. As the study location is an existing grade separated interchange, only interchanges were considered from the CAP-X analysis. 2045 PM peak hour volumes were used as the inputs as it has a greater total entering volume of the interchange in the future condition than the AM peak hour. The screening revealed that a SPUI (Single Point), Parclo A, Parclo B, DDI (Diverging Diamond Interchange), Contraflow Left, and Displaced Left Turn interchange configurations operated below capacity. The SPUI, DDI, and Parclo A were selected for further analysis. Roundabouts (often referred to as a bowtie or dumbbell interchange) were also selected for further analysis. They do not appear in the CAP-X rankings as the program cannot analyze the interchange type. **Figure 25** shows the CAP-X rankings. Full CAP-X Analysis results can be found in **Appendix H.**

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking
Single Point N-S	0.48	1
Partial Cloverleaf B N-S	0.52	2
Partial Cloverleaf A N-S	0.54	3
Diverging Diamond Interchange N-S	0.54	3
Contraflow Left Interchange N-S	0.61	5
Displaced Left Turn (Interchange) N-S	0.97	6

FIGURE 25: CAP-X ANALYSIS SUMMARY

Given the proximity of the adjacent intersections of Sunset Dr and Old Red Trail and Sunset Dr and Boundary St NW, design improvements were considered for them in addition to the interchange redesign. At Old Red Trail, a roundabout, additional turn lanes, and I-94 WB connections to Old Red Trail scenarios were considered. At Boundary St NW, signalization and a roundabout were considered to mitigate the unacceptable level of service.

The selected interchange configurations and intersection alternatives were analyzed with Synchro using HCM methodology, except for the roundabout scenarios. All roundabouts were modelled using SIDRA, a deterministic traffic analysis software tool similar to Synchro, but is more suitable for the analysis of roundabouts. The program can accommodate more specific roundabout specific data inputs than Synchro, and reports intersection results using HCM 6th Edition methodology.

Each alternative is described below.

(1) Interchange Alternatives

At the interchange of I-94 at Sunset Dr, four alternatives were analyzed. The intersection capacity analysis summary table for all interchange alternatives is shown in **Table 10** at the end of the section. The intersection LOS can also be seen on the maps in **Figure 39** and **Figure 40** for 2030 and 2045, respectively.

(a). Single Point Urban Interchange (SPUI)

This interchange will condense the diamond so that all ramps intersect with Sunset Drive at a single point under the I-94 centerline. This configuration will double the distance between ramp intersections from Old Red Trail and from Boundary Street, allowing for greater design flexibility for the approaches to those intersections, but may require lengthened spans of the I-94 bridge decks to accommodate the wider interchange cross-section, which is shown in **Figure 27**. The lane configuration of the interchange is shown below in **Figure 26** and the conceptual layout can be found in **Appendix I**. The interchange operates at an acceptable LOS C in both the AM and PM peak hours in 2045. Due to the merge on the I-94 EB on-ramp downstream of the southbound left turn, an uneven lane utilization was considered for the movement. It was assumed in the analysis that approximately two thirds of the movement volume would use the inner turn lane, adjacent to the through lane.

All movements operate at LOS D or better in the 2045 analysis year except for the following:

- Westbound Left, LOS E, AM Peak

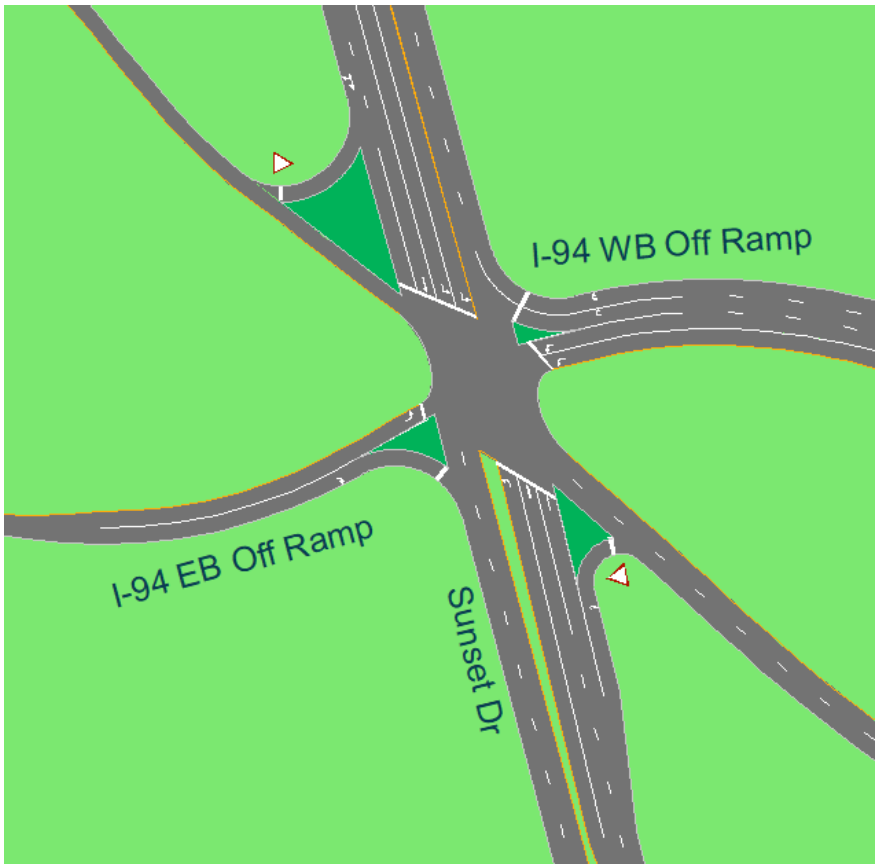


FIGURE 26: SPUI LANE CONFIGURATION

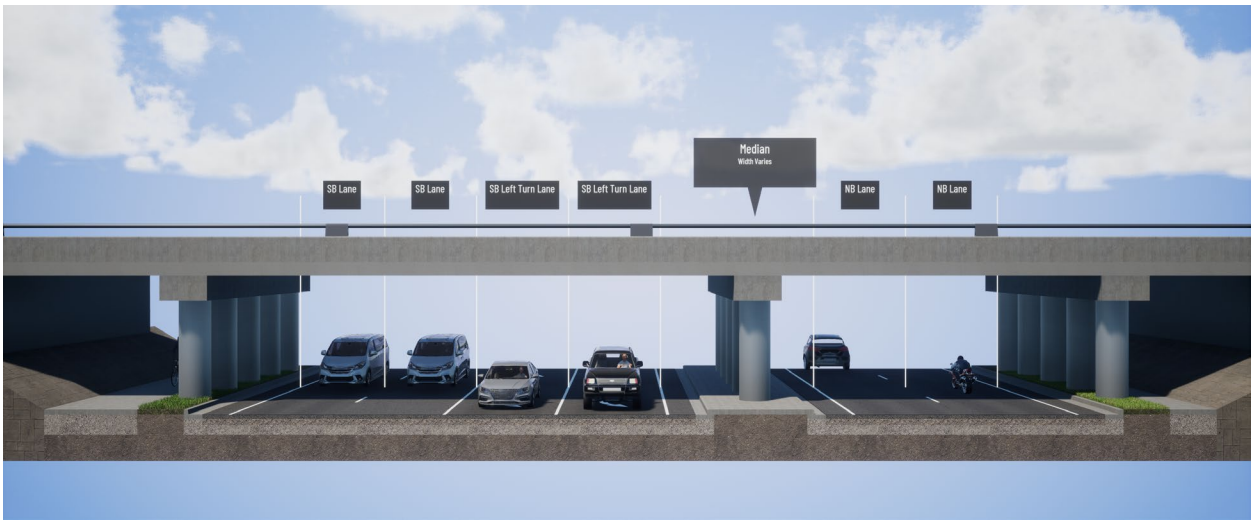


FIGURE 27: SUNSET DR TYPICAL SECTION AT SPUI

(b). Alternative 2: Diverging Diamond Interchange (DDI)

This interchange will replace the existing ramp intersections with new ones that allow the mainline Sunset Drive to cross over to the left side of the road, allowing for free flow left turn movements without oncoming traffic conflicts. The bridge decks would need to be lengthened to accommodate the wider interchange cross-section. **Figure 28** shows the lane configuration of the interchange, and **Figure 29** shows the typical section of Sunset Dr. The conceptual layout can be found in **Appendix I**. The initial design and preliminary analysis results showed that the interchange would operate acceptably with the outer southbound lane dropping as an exclusive left toward I-94 EB, with one lane at the signal at the southern half of the interchange. However, further analysis showed that the queue at southbound through movement would spill back through the northern half of the interchange and affect the Old Red Trail intersection. A sensitivity analysis was performed and indicated the single through lane at the southern intersection (Sunset Dr and I-94 EB ramps) would begin to break down sometime between 2040 and 2045. It may be possible to design the DDI interchange in such a way that the interchange can initially be striped with a SB lane drop at the I-94 EB on-ramp and sometime closer to the design year be modified to include the second SB through lane at the southern crossover. However, for the purposes of this analysis, the configuration shown in **Figure 28** was analyzed for all future scenarios. In 2045, both the northern and southern halves of the interchange operate at acceptable levels of service. The northern signal operates at LOS C in both peaks, and the southern signal operates at LOS B in both peaks.

All movements operate at LOS D or better in the 2045 analysis year except for the following:

- Sunset Dr at I-94 WB Ramps:
    - Westbound Left, LOS F, AM Peak
    - Northbound Through, LOS E, AM and PM Peaks

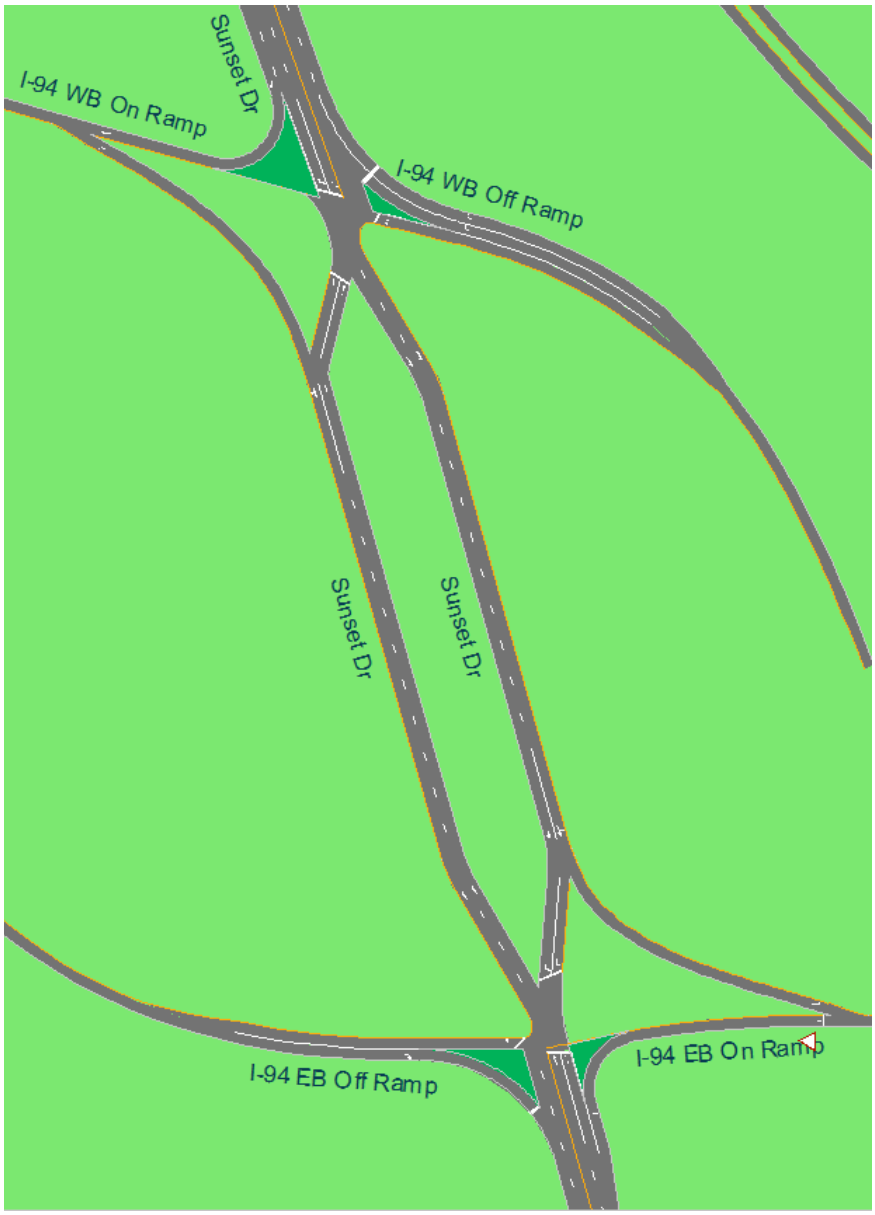


FIGURE 28: DDI LANE CONFIGURATION

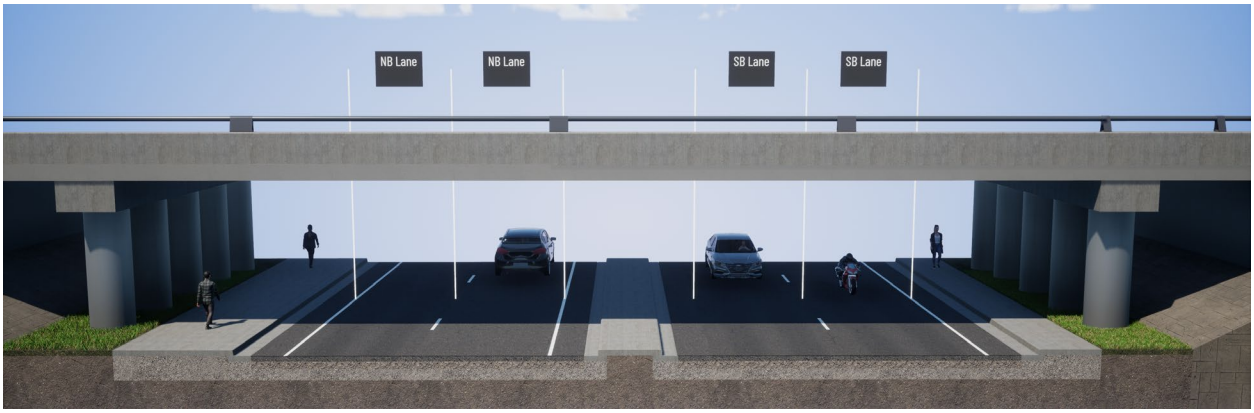


FIGURE 29: TYPICAL SECTION OF SUNSET DR IN DDI ALTERNATIVE UNDER I-94 BRIDGE

(c). Alternative 3: Partial Cloverleaf A (Parclo A)

This interchange would install a loop ramp in the southwest quadrant to serve the Sunset Drive southbound to eastbound movement. The interchange configuration would maintain the existing on-ramp in the southeast quadrant to serve the Sunset Drive northbound to eastbound movement, allowing for free-flow movements for traffic accessing eastbound I-94. The tight geometry of such a loop ramp would require an acceleration lane along I-94, whose terminus would nearly coincide with the entrance gore for the northbound-to-eastbound ramp to remain. The configuration would remove the southbound left turn to the I-94 EB on-ramp, thus simplifying the operation of the signal and removing the volume of vehicles bound for I-94 EB from the intersection. This alternative was initially evaluated with a loop ramp in the northeast quadrant as well providing northbound Sunset Drive access to westbound I-94. The lane configuration of the interchange is shown below in **Figure 30,** and the typical section under the I-94 bridge is shown in **Figure 31**. Both intersections operate at acceptable levels of service in 2045. The intersection with the WB ramp operates at LOS C in both peaks, and the intersection with the EB ramps operates at LOS A in both peaks.

All movements operate at LOS D or better in the 2045 analysis year except for the following:

- Sunset Dr at I-94 WB Ramps:
    - Northbound Left, LOS F, PM Peak
- Sunset Dr at I-94 EB Ramps:
    - Eastbound Left, LOS E, AM Peak

While laying out the interchange concept, which can be found in **Appendix I**, it was determined that due to geometric constraints along with low traffic volumes that the northeast quadrant ramp be removed from the design and the westbound ramp terminal intersection remain with operations similar to existing conditions. The removal of the southbound left turns from the intersection with the I-94 EB ramps would reduce the total entering volume at the intersection significantly and may cause the traffic signal to become unwarranted. Therefore, a traffic signal warrant analysis was performed at the intersection under 2030 volumes, assuming the removal southbound left turns from the intersection. The full warrant analysis is attached in **Appendix P**. The analysis revealed that a traffic signal does not meet the minimum volume requirements in 2030. Although the intersection does not warrant a signal in terms of vehicle volumes, the eastbound approach from the I-94 EB off ramp experiences high delays, approximately 95 seconds in the AM peak, and 145 seconds in the PM peak in 2030. To mitigate the excessive delay eastbound vehicles would experience with a stop control, the intersection remains signalized under the alternative.

Since the I-94 EB off ramp intersection does not meet warrants under the Parclo A alternative, an alternative traffic control option was tested at the intersection. This option would include roundabout control at the I-94 EB ramp terminal instead of signalization and would assume the I-94 EB on ramp from Sunset Dr SB will remain a loop ramp removed from the intersection. The roundabout would operate acceptably, at LOS B in both peaks, in the 2045 analysis year under this configuration. Although this option could be explored further if the Parclo A is selected as the preferred alternative, this study assumes signalized control at the EB ramp terminal intersection.



FIGURE 30: PARCLO A LANE CONFIGURATION

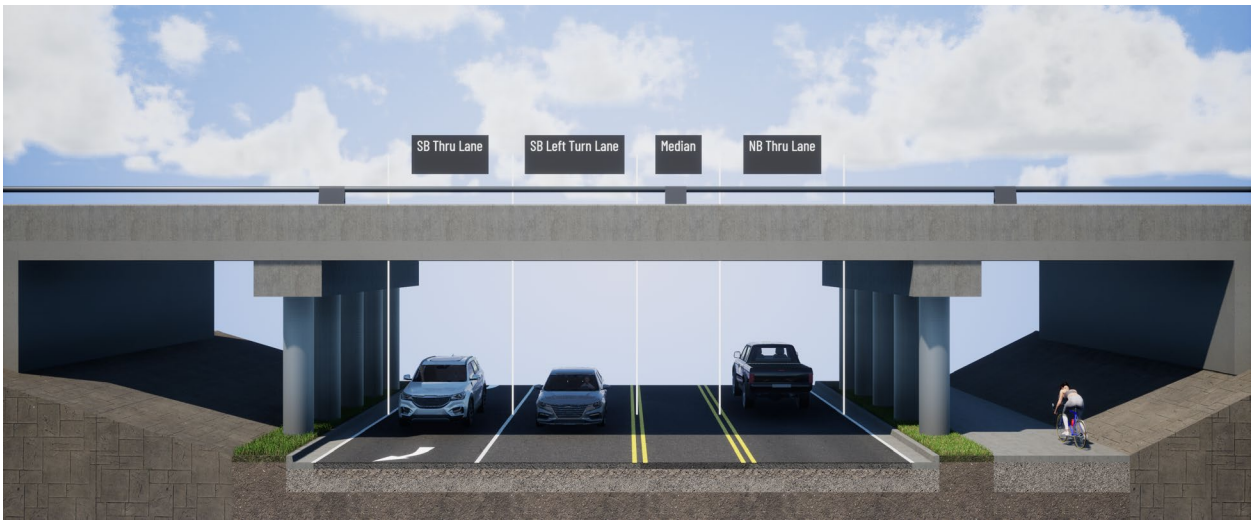


FIGURE 31: TYPICAL SECTION OF PARCLO ALTERNATIVE UNDER I-94 BRIDGE

(d). Alternative 4: Roundabouts (RAB)

This configuration would replace the signalized intersections of the interchange with roundabouts. This allows all traffic to operate generally with continuous flow and removes signal infrastructure, although it requires a larger footprint at the ramp terminals. The lane configurations of both roundabouts are shown in **Figure 32,** and the typical section of Sunset Dr is shown in **Figure 33**. A conceptual layout of a series of roundabouts is shown in **Appendix I**. A bridge retention alternative with one northbound lane under the bridge and through the I-94 westbound ramp terminal intersection was initially evaluated. However, two northbound lanes were determined necessary between the I-94 EB ramp terminal intersection and Old Red Trail for continuity of the section with the upstream and downstream roundabouts (i.e. avoiding lane drops), simplifying northbound operation and reducing the weaving between northbound vehicles and vehicles exiting I-94 WB. It was also determined that a second northbound lane opening south of Boundary St would become necessary to mitigate queueing which would cause inadequate operation of the intersection between 2030 and 2035. With queuing issues arising and a single lane not reaching a 10+ year life, a single NB lane is not recommended as an interim design option and the analysis was performed under all alternatives with two NB lanes as shown in **Figure 32**. The northern roundabout operates at LOS C and D in the AM and PM peaks, respectively. The southern roundabout operates at LOS B during both the AM and PM peaks.

All movements operate at LOS D or better in the 2045 analysis year except for the following:

- Sunset Dr at I-94 WB Ramps:
    - Westbound Left, LOS F, PM Peak
    - Westbound Right, LOS F, PM Peak

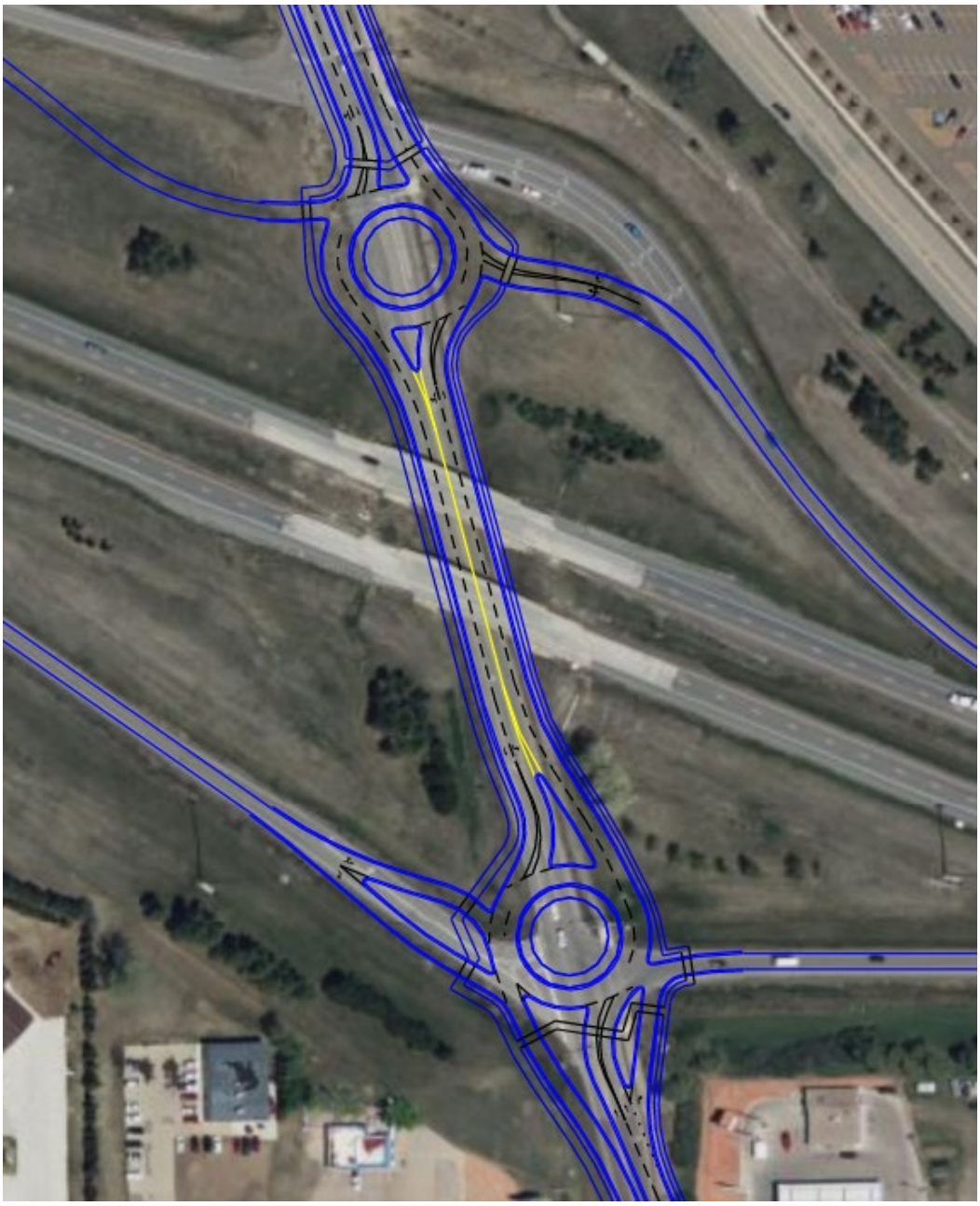


FIGURE 32: ROUNDABOUTS LANE CONFIGURATION

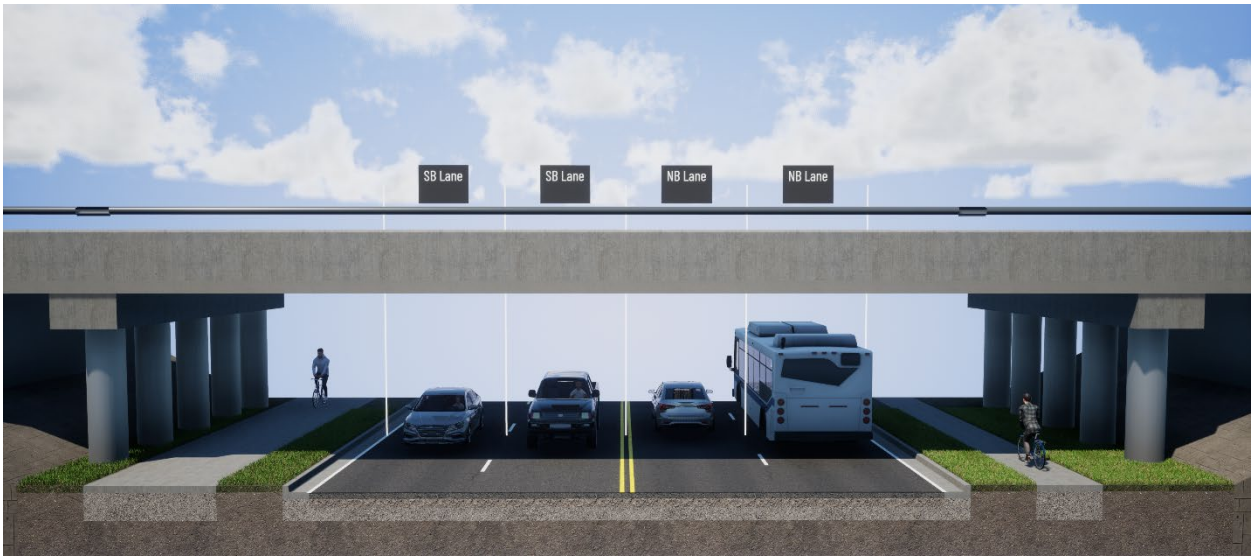


FIGURE 33: TYPICAL SECTION OF SUNSET DR IN ROUNDABOUT ALTERNATIVE UNDER I-94 BRIDGE

TABLE 10: INTERCHANGE ALTERNATIVES CAPACITY ANALYSIS

ID	Intersection	Approach	Existing			2030 No Build			2030 Parclo			2030 DDI			2030 SPUI			2030 Roundabout[1]		
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
2	Sunset Dr & I-94 WB	Control Type	Signal			Signal			Signal			Signal			Does Not Exist Under This Alternative			Roundabout		
		Overall	15.8 (16.8)	B (B)	0.59 (0.51)	16.3 (17.6)	B (B)	0.70 (0.63)	18.3 (19.9)	B (B)	0.70 (0.63)	21.2 (23.6)	C (C)	0.65 (0.53)				10.3 (11.6)	B (B)	0.60 (0.63)
3	Sunset Dr & I-94 EB	Control Type	Signal			Signal			Signal			Signal			Does Not Exist Under This Alternative			Roundabout		
		Overall	10.8 (8.6)	B (A)	0.68 (0.61)	21.5 (13.6)	C (B)	0.88 (0.74)	6.3 (6.8)	A (A)	0.62 (0.61)	12.6 (15.0)	B (B)	0.48 (0.48)				9.3 (8.3)	A (A)	0.61 (0.61)
14	Sunset Dr & I-94 Ramps	Control Type	Does Not Exist Under This Alternative			Does Not Exist Under This Alternative			Does Not Exist Under This Alternative			Does Not Exist Under This Alternative			Signal			Does Not Exist Under This Alternative		
		Overall													26.7 (26.2)	C (C)	0.74 (0.65)			

ID	Intersection	Approach	Existing			2045 No Build			2045 Parclo			2045 DDI			2045 SPUI			2045 Roundabout[1]		
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
2	Sunset Dr & I-94 WB	Control Type	Signal			Signal			Signal			Signal			Does Not Exist Under This Alternative			Roundabout		
		Overall	15.8 (16.8)	B (B)	0.59 (0.51)	19.0 (21.2)	B (C)	0.87 (0.90)	22.6 (27.0)	C (C)	0.87 (0.90)	31.4 (27.5)	C (C)	0.84 (0.68)				18.0 (31.5)	C (D)	0.81 (0.99)
3	Sunset Dr & I-94 EB	Control Type	Signal			Signal			Signal			Signal			Does Not Exist Under This Alternative			Roundabout		
		Overall	10.8 (8.6)	B (A)	0.68 (0.61)	64.9 (53.3)	E (D)	1.05 (1.02)	7.7 (9.3)	A (A)	0.79 (0.75)	15.3 (17.0)	B (B)	0.60 (0.60)				13.3 (11.6)	B (B)	0.78 (0.72)
14	Sunset Dr & I-94 Ramps	Control Type	Does Not Exist Under This Alternative			Does Not Exist Under This Alternative			Does Not Exist Under This Alternative			Does Not Exist Under This Alternative			Signal			Does Not Exist Under This Alternative		
		Overall													30.2 (30.3)	C (C)	0.88 (0.83)			

[1]Analyzed Using HCM6 Methodology

(2) Sunset Drive at Old Red Trail Alternatives

At the intersection of Sunset Drive and Old Red Trail, three alternatives were analyzed to improve traffic operations in the future year. The intersection would tie-in with one of the interchange configurations described above to the south and is assumed to narrow down to a three-lane cross-section north of the intersection. The intersection capacity analysis summary table for all alternatives is shown in **Table 11** below. The intersection LOS can also be seen on the maps in **Figure 39** and **Figure 40** for 2030 and 2045, respectively.

(a). Additional Turn Lanes

This alternative would mitigate the failing operations of the intersection by providing eastbound and westbound left turn lanes with protected phasing, an additional southbound and northbound through lane, and an additional eastbound right turn lane, shown in **Figure 34**. The additional lanes will reduce the average intersection delay, and reduce 95th percentile queue lengths below the length at which they would exceed the available queuing distance, specifically at the northbound approach. The intersection operates at LOS C during both the AM and PM peaks in the 2045 analysis year.

The second northbound through lane on Sunset Dr is necessary to provide adequate capacity through the intersection in the 2045 scenario and manage queue lengths. Initial analysis of the intersection had the second lane dropping as a merge approximately 400 ft beyond the signal, however, NDDOT prefers to avoid midblock lane drops as they may cause uneven lane utilization (i.e. the outer through lane may be underutilized as motorists would prefer the inner lane to avoid merging). Therefore, it is assumed that the lane drop would occur further downstream, at an intersection as an exclusive turn lane. Initial discussion suggested dropping the outer lane as a right-turn only lane at 27th Street N, however, this is beyond the limits of the study area. Further coordination with the Bismarck-Mandan Metropolitan Planning Organization and City of Mandan may be necessary to determine how to accommodate an additional northbound lane on Sunset Dr north of Old Red Trail and tie-in with the proposed three-lane cross-section of the Sunset Drive Corridor Study.

All movements operate at LOS D or better in the 2045 analysis year except for the following:

- Southbound Through-Right, LOS E, AM Peak

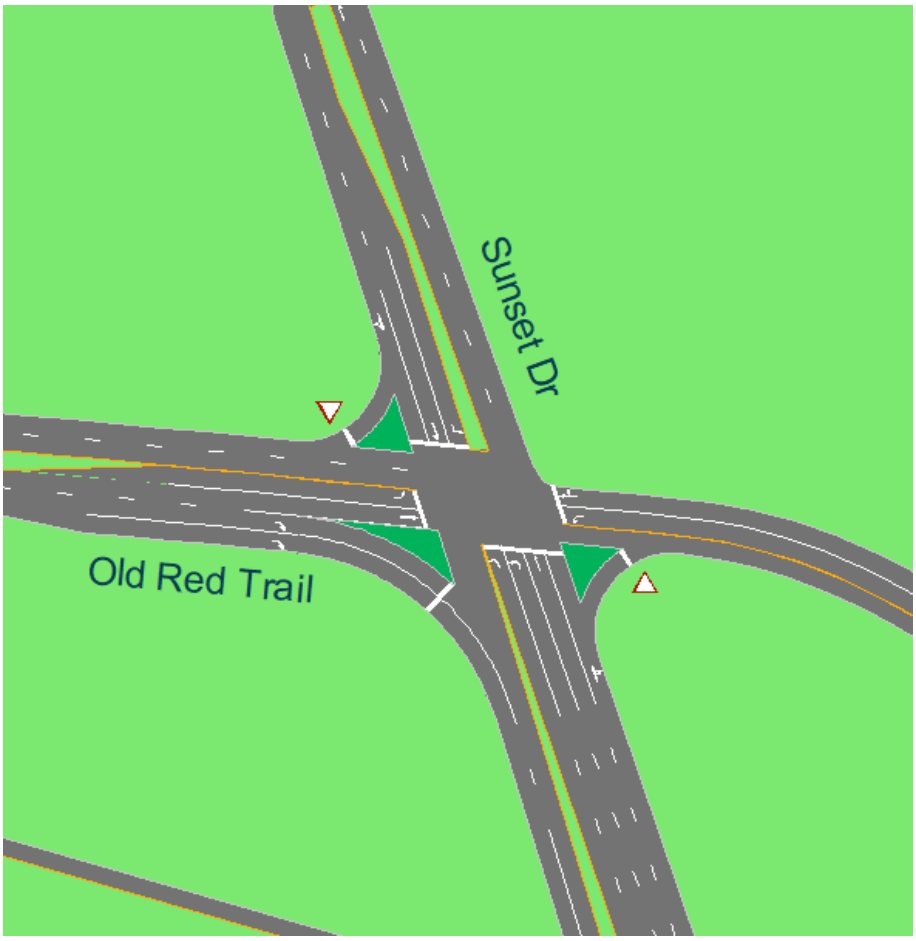


FIGURE 34: SUNSET DR AT OLD RED TRAIL ADDITIONAL TURN LANES

(b). Roundabout

This alternative would be a two-lane roundabout, which would remove the existing signal control and allow for near constant vehicular flow. The lane configuration, shown in **Figure 35**, would improve the operation of the northbound approach, reducing the 95th percentile queue length to below the distance between the approach and the upstream intersection with I-94 WB ramps. The second eastbound right turn lane would allow vehicles from Old Red Trail bound for I-94 EB to make the movement into the inner southbound lane of Sunset Dr, eliminating the need for a lane change. The intersection operates at LOS C and B in the AM and PM peak hours, respectively, in 2045. All movements would operate at LOS D or better.

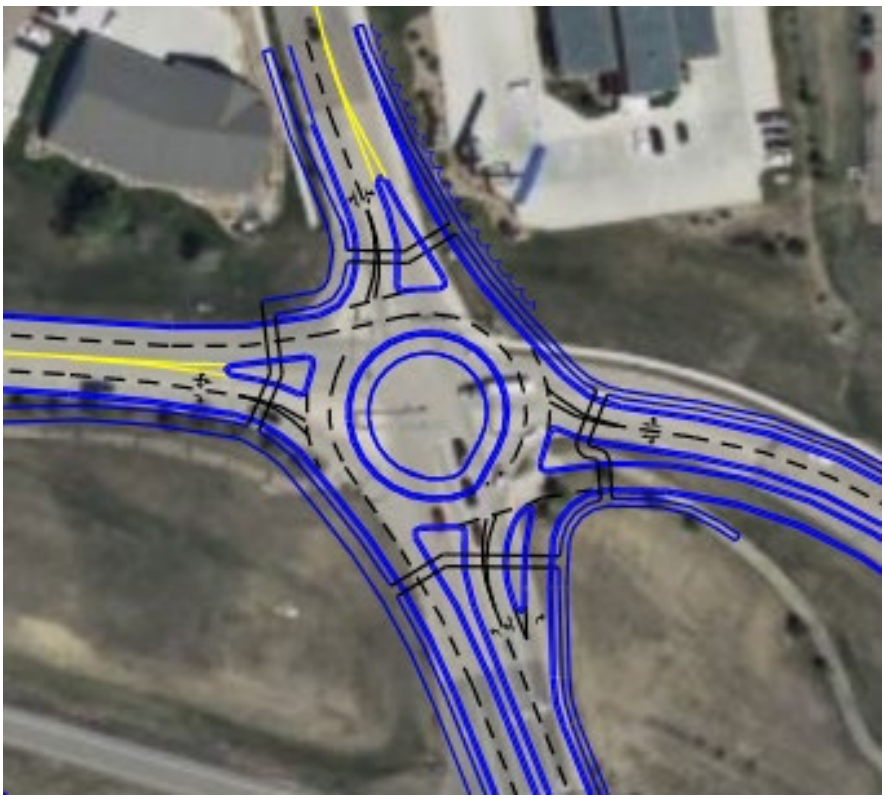


FIGURE 35: SUNSET DR AT OLD RED TRAIL ROUNDABOUT CONFIGURATION

(c). Old Red Trail – I-94 WB Ramp Tie-ins

Under this alternative, the WB ramps to and from I-94 would relocate to connect to Old Red Trail, with the off-ramp connecting east of Sunset Dr, forming a signalized 4-leg intersection with Old Red Trail and the western entrance to the Wal-Mart, with two left turn lanes and a shared through-right from the off-ramp. The on-ramp would connect west of Sunset Dr, and would create an unsignalized T-intersection with Old Red Trail. To accommodate the additional volumes through the intersection of Sunset Dr at Old Red Trail, additional lanes would be added. The westbound approach has two left turn and two through lanes, a second southbound through lane would be added, and a second eastbound right turn lane would be constructed. The lane configurations of all three intersections are shown in **Figure 36** below. The western intersection operates at LOS B and A in the AM and PM peak the eastern intersection at LOS C in both peaks, and the intersection with Sunset Dr at LOS D and C in the AM and PM peak, respectively.

All movements operate at LOS D or better in the 2045 analysis year except for the following:

- Sunset Dr at Old Red Trail:
    - Westbound Left, LOS F and E, AM and PM Peak, respectively
    - Southbound Through-Right, LOS F, AM Peak

Per Technical Advisory Meeting #1, it was decided not to move forward with this alternative at this time.

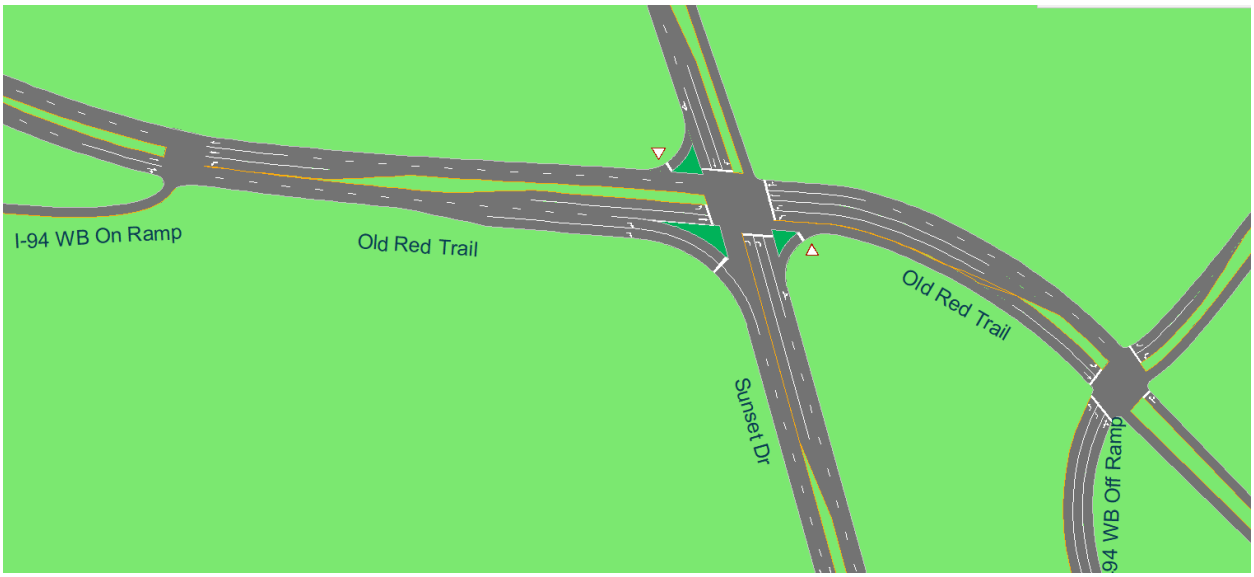


FIGURE 36: OLD RED TRAIL - I-94 WB RAMP TIE-INS LANE CONFIGURATION

TABLE 11: SUNSET DR AT OLD RED TRAIL ALTERNATIVES INTERSECTION CAPACITY ANALYSIS

ID	Intersection	Approach	Existing			2030 No Build			2030 Ramp Tieins			2030 Roundabout[1]			2030 Sunset Old Red Turn Lanes		
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
1	Sunset Dr & Old Red Trail	Control Type	Signal			Signal			Signal			Roundabout			Signal		
		Overall	23.3 (24.1)	C (C)	0.68 (0.56)	28.3 (25.3)	C (C)	0.88 (0.74)	35.3 (30.8)	D (C)	0.73 (0.62)	9.9 (9.0)	A (A)	0.52 (0.45)	24.3 (23.9)	C (C)	0.63 (0.61)
14	Old Red Trail & I-94 WB On Ramp	Control Type	Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario			Stop (T-Int)			Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario		
		Worst Approach							9.5 (9.1)	A (A)	0.07 (0.15)						
15	Old Red Trail & I-94 WB Off Ramp and Walmart Entrance	Control Type	Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario			Signal			Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario		
		Overall							24.6 (25.7)	C (C)	0.48 (0.57)						

ID	Intersection	Approach	Existing			2045 No Build			2045 Ramp Tie-ins			2045 Sunset Old Red Turn Lanes			2045 Roundabout[1]		
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
1	Sunset Dr & Old Red Trail	Control Type	Signal			Signal			Signal			Signal			Roundabout		
		Overall	23.3 (24.1)	C (C)	0.68 (0.56)	55.1 (44.1)	E (D)	1.14 (1.02)	50.5 (34.5)	D (C)	0.92 (0.83)	32.4 (28.2)	C (C)	0.76 (0.75)	16.1 (14.1)	C (B)	0.74 (0.62)
14	Old Red Trail & I-94 WB On Ramp	Control Type	Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario			Stop (T-Int)			Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario		
		Worst Approach							10.3 (9.9)	B (A)	0.10 (0.22)						
15	Old Red Trail & I-94 WB Off Ramp and Walmart Entrance	Control Type	Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario			Signal			Intersection Does Not Exist Under This Scenario			Intersection Does Not Exist Under This Scenario		
		Overall							24.1 (29.9)	C (C)	0.59 (0.70)						

[1]**Analyzed using HCM6 Methodology**

(3) Sunset Drive at Boundary Street NW Alternatives

Two alternatives were analyzed at the intersection of Sunset Dr and Boundary St NW to improve operations of the side streets. The intersection would tie-in with one of the interchange configurations described above to the north and is assumed to narrow down to a three-lane cross-section south of the intersection. The intersection capacity analysis summary table is shown in **Table 12**. The intersection LOS can also be seen on the maps in **Figure 39** and **Figure 40** for 2030 and 2045, respectively.

(a). Signalization

A signal warrant analysis was performed for the intersection, using a 2030 opening year forecasted turning movement count volume. The full analysis is attached in **Appendix P**. The analysis found that a full color traffic signal is warranted at the intersection by 2030, with volumes meeting the minimum requirements for Warrant 2 (Four Hour Volume). The signalization of the intersection will mitigate the excessive delays of the side street approaches, while not significantly impacting the mainline approaches of Sunset Dr. The southbound approach will have left turn pocket, all other approaches will be one lane, shown in **Figure 37** below. The intersection will operate at LOS A and B in the AM and PM peaks, respectively, during 2045.

All movements operate at LOS D or better in the 2045 analysis year except for the following:

- Eastbound Left-Through-Right, LOS F, PM Peak

The NDDOT Traffic Operations Manual states that exclusive left-turn lanes are recommended at all signalized intersections. The above analysis represents the minimum design that would operate at acceptable levels in each alternative. Inclusion of exclusive left-turn lanes would not have any substantive effect on the operation of the intersection or the Sunset Dr corridor but have been added to the layouts in **Appendix I** per the NDDOT Traffic Operations Manual recommendations.

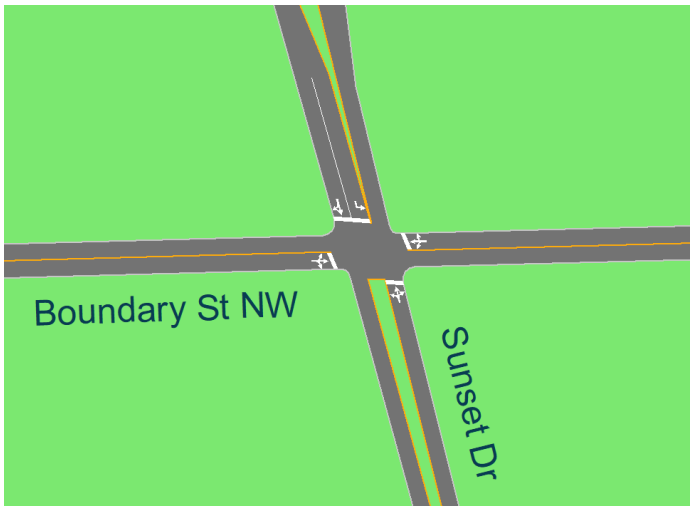


FIGURE 37: SUNSET DR AT BOUNDARY ST SIGNALIZATION LANE CONFIGURATION

(b). Roundabout

A roundabout at this intersection would improve the operation of the east and westbound approaches of Boundary St NW, without disrupting the flow of traffic on Sunset Dr like a signalized intersection would. The roundabout would have a one lane entrance from the north, east, and west legs, and two entrance and circulating lanes from the south leg, shown in **Figure 38**. The 2nd northbound lane becomes necessary to mitigate queueing concerns observed in the 2045 scenario. The 1 lane configuration would become inadequate between 2030 and 2035. The roundabout operates at LOS C and B in the AM and PM peaks, respectively, during 2045.

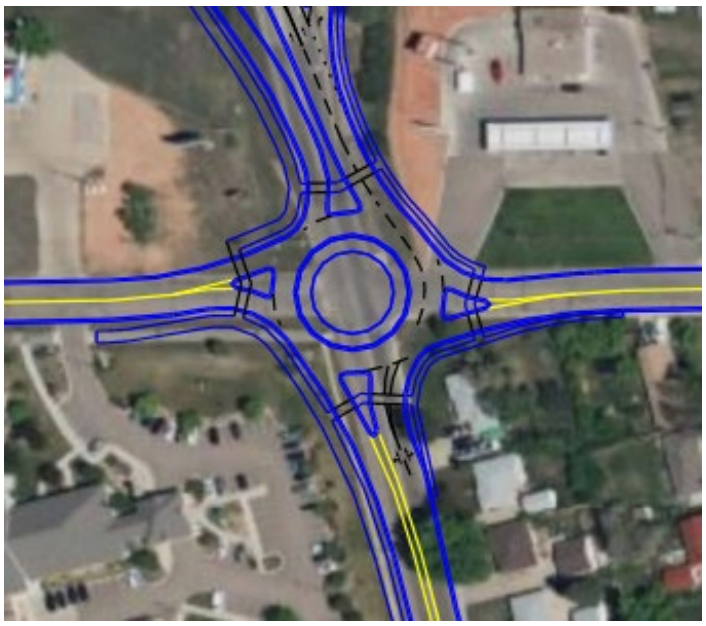


FIGURE 38: SUNSET DR AT BOUNDARY ST NW ROUNDABOUT LANE CONFIGURATION

HCM reports for existing conditions, 2030 and 2045 No Build, and all future alternatives are attached in **Appendix F**, and movement level capacity analysis summaries are attached in **Appendix G**.

TABLE 12: SUNSET DR AT BOUNDARY ST NW INTERSECTION CAPACITY ANALYSIS

ID	Intersection	Approach	Existing			2030 No Build			2030 Boundary St Signal			2030 Roundabout[1]		
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
4	Sunset Dr & Boundary St NW	Control Type	Stop (2 - Way)[2]			Stop (2 - Way)[2]			Signal			Roundabout		
		Overall	53.4 (61.1)	F (F)	0.12 (0.49)	115.3 (>300)	F (F)	0.24 (>2.00)	8.1 (8.7)	A (A)	0.56 (0.55)	8.9 (9.2)	A (A)	0.70 (0.69)

ID	Intersection	Approach	Existing			2045 No Build			2045 Boundary St Signal			2045 Roundabout[1]		
			Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C
4	Sunset Dr & Boundary St NW	Control Type	Stop (2 - Way)[2]			Stop (2 - Way)[2]			Signal			Roundabout		
		Overall	53.4 (61.1)	F (F)	0.12 (0.49)	>300 (>300)	F (F)	>2.00 (>2.00)	8.0 (10.6)	A (B)	0.72 (0.72)	16.1 (13.6)	C (B)	0.90 (0.84)

[1]HCM 6th Edition Methodology [2]Worst Approach Reported for Stop controlled intersections



FIGURE 39: 2030 ALTERNATIVES LOS MAP

Level of Service

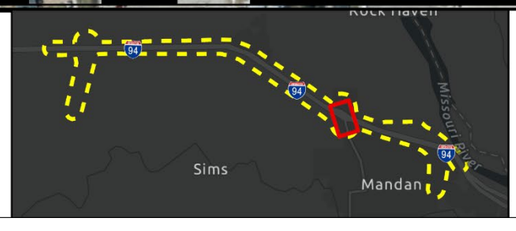
A, B, C D E F

Intersections Study Area

Overall LOS: AM | PM

Level of Service - 2030 Alternative Scenarios

Source: Level of Service Synchro 03/2023



N



FIGURE 40: 2045 ALTERNATIVES LOS MAP

Level of Service

A, B, C D E F

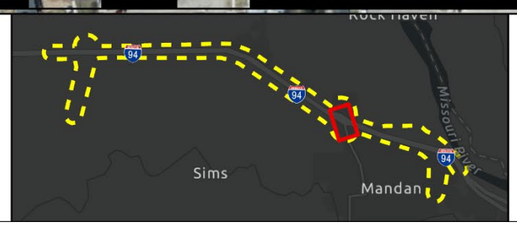
Intersections Study Area

Overall LOS:

AM PM

Level of Service - 2045 Alternative Scenarios

Source: Level of Service Synchro 03/2023



N

(4) Signal Warrant Analyses

In accordance with the NDDOT Traffic Operations Manual, signal warrant analyses were performed for all intersections along Sunset Dr, including both existing intersections to which changes were proposed and newly proposed intersections. The analyses were performed using 2030 Build Opening Year turning movement counts. The analysis forms are attached in **Appendix P** and summarized in **Table 13** below.

All intersections, except for the intersection of Sunset Dr at I-94 EB Off-ramp under the Parclo and DDI alternatives, were found to satisfy at least one of the nine warrants, and therefore warranted the maintenance of or implementation of a full color traffic signal. However, as discussed in **Section H.1.c**, a traffic signal is still recommended at the intersection of Sunset Dr at I-94 EB Off-ramp in the Parclo alternative to mitigate the excessive delay experienced by vehicles on the I-94 EB Off-ramp. A traffic signal is also recommended at the intersection of Sunset Dr at I-94 EB ramp terminals under the DDI alternative, to facilitate proper operation of this interchange type / interchange as a whole.

TABLE 13: SIGNAL WARRANT ANALYSIS SUMMARY

Intersection	Alternative	Warrant(s) Met	Signal Warranted
Sunset Dr at Old Red Tr	Additional Turn Lanes	2	Yes
Sunset Dr at I-94 WB Ramps	Parclo	1,2	Yes
	DDI	2	Yes
Sunset Dr at I-94 Ramps	SPUI	1,2	Yes
Sunset Dr at I-94 EB Ramps	Parclo	None	No
	DDI	None	No
Sunset Dr at Boundary St	Signalization	2	Yes

(5) Multimodal Considerations

Multimodal facilities were also considered in the design of the alternatives. The shared use path, currently on the east side of Sunset Drive, is to be relocated to the west side of Sunset Dr under the SPUI, DDI, and roundabouts interchange alternatives. The existing crosswalk on the south leg the intersection of Sunset Dr and Old Red Trail will be used to transition the path from the east to the west side of Sunset Dr. Under the Parclo alternative, the path is to remain on the east side of Sunset Dr, as the conflicting vehicle volume across the I-94 WB on ramp loop is much less than the volume using the I-94 EB no ramp loop.

Additionally, consideration was given to whether pedestrians should be accommodated at-grade or at grade separated crossings. Section III-07.01 Pedestrian Facilities (Sidewalks) of the NDDOT Design Manual states “Separated crossings should be considered where the pedestrian volume, traffic volume and intersection capacity favor their use. The Traffic Operations Report will normally recommend it if warranted.” Pedestrian volumes walking along Sunset Drive were reviewed as part of the traffic counts for this study (December 2022) and from the *Sunset Drive Corridor Study* counts (May 2022) and were found to have less than 10 pedestrians crossing during the peak hours and no more than 11 pedestrians crossing during any one hour. Although specific guidance for grade separated multimodal crossings does not exist, NDDOT does provide pedestrian volume thresholds for marked pedestrian crosswalks at locations with no

traffic control. The guidance at these locations is that greater than 15 pedestrians per hour are required to consider marking the crosswalk. As grade separated crossings would be a much higher tier and cost treatment and pedestrian volumes do not meet those thresholds, grade separated crossings would likely be an overdesign. While this is the only connection across I-94, the pedestrian volumes are low, the signal splits are generally governed by vehicle volumes, costs would be high, and there would be maintenance, lighting, public safety, and aesthetic concerns. At-grade crossings can provide safe and efficient crossings for pedestrians and bicyclists under any of the above analyzed alternatives. Full ADA compliant ramps, marked crosswalks, and push buttons are recommended and can be supplemented with additional pedestrian crosswalk treatments, if needed, unless City and NDDOT advise grade separated crossings be used.

(6) Lighting Considerations

The NDDOT Traffic Operations Manual (January 2023) provides guidance on lighting including lighting warrants. The Complete Interchange Lighting Warrant is met if one of the following is satisfied:

- 2A Where continuous freeway/interstate lighting is installed.
- 2B Where the total current AADT ramp traffic entering and leaving the freeway/interstate within the interchange area ≥ 10,000 for urban conditions, 8,000 for suburban conditions, or 5,000 for rural conditions.
- 2C Where the current AADT on the crossroad ≥ 10,000 for urban conditions, 8,000 for suburban conditions, or 5,000 for rural conditions.
- 2D Where existing substantial commercial or industrial development that is lighted during hours of darkness is located in the immediate vicinity of the interchange, or where the crossroad is lighted for 0.5 mile or more on each side of the interchange.
- 2E Where lighting is recommended based on engineering judgment as part of a traffic operations study.
- 2F Where an existing complete interchange lighting system is removed due to a roadway construction project.
- 2G Where a local governmental agency agrees to pay 50% of the installation costs and 100% of the maintenance and operating costs.

Complete interchange lighting provides relatively uniform lighting within the limits of an interchange, including: main lanes, direct connections, ramp terminals, frontage road or crossroad intersections. If one of the warrants is satisfied, then complete interchange lighting may be installed at the option of NDDOT. The interchange meets Warrant 2C under Existing Conditions (with AADTs on Sunset Drive > 10,000), so complete interchange lighting would be satisfied under all alternatives.

(7) Access Management Considerations

The NDDOT Traffic Operations Manual (January 2023) provides guidance on access management including location of driveways and proximity to intersection functional areas. On Boundary St NW, east of Sunset Dr, lies a Mobil gas station on the north side of the roadway. The gas station has two driveways, the western of which sits approximately 50 feet from the intersection of Sunset Dr and Boundary St NW and falls within NDDOT right-of-way. This driveway also is within the functional area of the adjacent intersection, especially if there is to be a left turn lane on the east leg of the intersection under a build

alternative. Additionally, it is recommended by NDDOT that unsignalized accesses on the same side of the road should not lie within 325 feet of each on a roadway with a 25 MPH posted speed limit. The two driveways for the gas station are 160 feet apart. Therefore, it is recommended that consideration should be given to closing the western access consolidating all access to and from the Mobil station to the eastern driveway.

No other driveways or access points were found to conflict with any of the roadways or intersections in the study area.

(8) Analysis Summary

NDDOT provides guidance on LOS in the NDDOT Traffic Operations Manual (January 2023) that states "The capacity analysis is one factor to determine recommended geometric design. The NDDOT guidance is to meet or exceed an overall LOS D under 20-year projected automobile traffic." As the results presented above show, all the alternatives evaluated would operate at a LOS D or better overall under 2045 conditions.

Table 14 below shows some of the advantages/disadvantages between each of the alternatives. The next section, Network Analysis, will model microsimulations of several of these alternatives in combination to evaluate the network as a whole and determine any queuing impacts/ interactions between the I-94 ramp terminals and adjacent intersections on Sunset Drive as well as perform a predictive safety analysis of the corridor/intersections and analyze the sensitivity of the traffic volumes.

TABLE 14: ALTERNATIVE ADVANTAGES AND DISADVANTAGES

Alternative	Advantages	Disadvantages
Interchange Alternatives		
Single Point Urban Interchange	• Acceptable 2045 LOS • Increases spacing between adjacent intersections • Driver understanding	• Requires replacement of bridge • Less pedestrian and bicycle friendly
Diverging Diamond Interchange	• Acceptable 2045 LOS • Fewer conflicts points • Moderate increase in intersection spacing	• Driver understanding/complexity of movements (crossovers) • Less pedestrian and bicycle friendly • Requires replacement of bridge
Partial Cloverleaf A	• Acceptable 2045 LOS • Driver understanding • May allow bridge retention	• Large interchange footprint due to required radii of loop ramps • I-94 EB Ramp terminal may not meet signal warrant requirements
Roundabouts	• Fewer conflict points • Potential reduction in queue lengths along Sunset Drive	• Large footprint • No increase in spacing between adjacent intersections • Requires replacement of bridge • WB Off-ramp queues may impact I-94 WB mainline operations
Sunset Dr at Old Red Trail Intersection Alternatives		
Additional Turn Lanes	• Acceptable 2045 LOS • Driver understanding	• No increase in spacing between adjacent intersections • Increases intersection footprint
Roundabout	• Fewer conflict points • Potential reduction in queue lengths • Acceptable 2045 LOS	• Large intersection footprint • No increase in spacing between adjacent intersections
I-94 WB Ramp Tie-ins	• Acceptable 2045 LOS • Increased spacing of intersections on Sunset Dr • No widening of Sunset Dr – potential for bridge retention	• Additional traffic signals on Old Red Trail • Driver understanding and ramp geometry • Technical Advisory Meeting #1 decided not to proceed with this alternative
Sunset Dr at Boundary St NW		
Signalization	• Acceptable 2045 LOS • Operational improvement of Boundary St NW	• Disruption of Sunset Dr traffic • Potential for queueing issues between intersection and I-94 EB Ramps
Roundabout	• Minimal disruption of Sunset Dr traffic • Operational improvement of Boundary St NW	• Unacceptable degree of saturation in 2045 with single lane configuration • Large intersection footprint

I. Network Analysis

The study area and focus area, as outlined in **FIGURE 1**, was modelled using VISSIM 2022, a microscopic, simulation-based traffic analysis software, to evaluate arterial, freeway, and network wide operations. Hourly vehicle throughput, maximum queue lengths, average arterial travel times and vehicle speeds, and total network delay were reported from the VISSIM simulations. Freeway density in passenger car/lane/mile and LOS were reported on I-94 to satisfy IJR requirements. The network analysis provides a more detailed look into the corridor level operations of the alternatives with the improvements at adjacent intersections, and captures the influence each may have on another (e.g. queue spillback), as well as impacts to the local roadway network as a whole, whereas the Synchro analysis performed in Section H looks at the alternatives in isolation, and do not account for any influence to and from adjacent intersections and roadways.

(1) VISSIM Model Development and Calibration

Existing conditions, 2030 and 2045 No Build, and all alternatives were coded in VISSIM 2022 (SP 08). The existing conditions models were developed using the balanced volume set of collected turning movement counts, detailed in Section F. Signal timings were coded to match the timings received from the City of Mandan and the Synchro models described in Section H. Roadway geometry, horizontal curvature, lane configurations, and storage lengths were coded to match latest available Bing Maps and NearMap aerial imagery, and confirmed with both pictures and GoPro video taken during the January field visit discussed in Section D.

Existing conditions models were calibrated to field collected queue lengths, INRIX travel times, and turning movement volumes. The calibration methodology, including calibration targets and acceptable calibration parameter thresholds, is attached in **Appendix J**. Calibration summaries, including throughput and queueing comparisons, and travel time comparisons, are shown in the **Table 15** and **Table 16**, respectively. Full calibration tables, including movement level throughput and queueing comparisons are attached in **Appendix K**.

The results of the AM and PM model calibration indicate that the models were able to achieve at least 85% of simulated volumes and queue lengths within the thresholds discussed in the calibration methodology memo (**Appendix J**). Both models were also able to achieve travel times on both Sunset Dr and I-94 within the acceptable ranges.

TABLE 15: VEHICLE THROUGHPUT AND QUEUEING CALIBRATION SUMMARY

Peak	Calibration Measurement	Targets Met	Total Targets	Percent Met
AM	Volume	98	98	100%
	Queueing	31	34	91%
PM	Volume	98	98	100%
	Queueing	29	34	85%

TABLE 16: TRAVEL TIME CALIBRATION SUMMARY

Peak	Direction	Name	Segment	INRIX Time	Simulated Time	Percent Difference	Numerical Difference
AM	Eastbound	I-94	SR 25 to Sunset Dr	256	252	-1.7%	-4
			Sunset Dr to Mandan Ave	93	95	2.3%	2
			Total	**349**	**347**	**-0.6%**	**-2**
	Westbound		Mandan Ave to Sunset Dr	94	95	0.8%	1
			Sunset Dr to SR 25	261	253	-3.0%	-8
			Total	**355**	**348**	**-2.0%**	**-7**
	Northbound	Sunset Dr	I-94 WB Ramps to I-94 EB Ramps	44	36	-17.8%	-8
	Southbound			33	41	25.1%	8
PM	Eastbound	I-94	SR 25 to Sunset Dr	253	252	-0.3%	-1
			Sunset Dr to Mandan Ave	91	95	4.6%	4
			Total	**344**	**347**	**1.0%**	**3**
	Westbound		Mandan Ave to Sunset Dr	91	95	4.8%	4
			Sunset Dr to SR 25	253	255	0.7%	2
			Total	**344**	**350**	**1.8%**	**6**
	Northbound	Sunset Dr	I-94 WB Ramps to I-94 EB Ramps	45	34	-24.9%	-11
	Southbound			34	36	6.3%	2

From the calibrated existing conditions models, 2030 and 2045 No Build models were coded, updating the volume inputs and static vehicle route flows with the future year volume sets, and alternatives were coded from the No Build models.

(2) Freeway Measures of Effectiveness

I-94 mainline was analyzed from the interchange at SR 25 to the interchange at Mandan Ave. The measures of effectiveness reported were freeway density in passenger car/lane/mile, and segment LOS, based on density thresholds provided in HCM 6th Edition. The freeway was segmented into basic, merge, and diverge sections, which have different LOS thresholds for density. Merging and diverging sections are defined as the 1500' from the ramp gore of an on-ramp or off-ramp. I-94 operates at LOS A or B in all scenarios, except for 2045 No Build AM peak, during which I-94 WB between Mandan Ave and Sunset Dr, including the diverging section at the exit to Sunset Dr, operates at LOS D and E. Freeway density and LOS are summarized in **Appendix L**.

In 2045, the intersection of Mandan Ave at I-94 WB ramps degrades to a failing LOS and causes queueing spillbacks which block mainline I-94 WB. This in turn metered volumes downstream on I-94 WB, and caused the Sunset Drive area to operate unrealistically well, as the demand was not being realized from I-94 WB. Therefore, under all 2045 scenarios, a background improvement of signalizing the intersection was assumed to be implemented to prevent queueing spillbacks onto I-94 WB and allow traffic to reach the focus area.

(3) Network Delay, Queueing, and Arterial Travel Time

To evaluate the interchange alternatives in combination with the intersection improvements at Sunset Dr and Old Red Trail and Sunset Dr and Boundary St NW, four alternative packages were modelled in VISSIM. The series of four roundabouts, and the Parclo, SPUI, and DDI, all with additional lanes at Sunset Dr and Old Red Trail and a signal at Sunset Dr at Boundary St NW, were selected for VISSIM analysis based on the results in the Alternatives Assessment section (Section H) as well as initial discussion during Technical Advisory Meeting #1.

The measures of effectiveness recorded from the simulations include total network delay (including latent delay), average network delay, total network travel times, vehicle throughput, average arterial travel time and speed, and maximum queue lengths. Network delay and travel times are summarized in **Figure 41, Figure 42,** and **Figure 43**, respectively. The queueing summary is shown in **Table 17**. Note the maximum queue length is reported and is greater than the average and 95th percentile queue length. Full tables for throughput, travel times, queueing, and network statistics are attached in **Appendix M.**

Initial evaluation of the 2045 No Build scenario revealed that the intersection of Mandan Ave at I-94 WB had degraded due to the increase in volumes on both Mandan Ave and the I-94 WB off ramp. The stop control at the I-94 WB ramp terminal caused excessive queueing, which spilled back to mainline I-94 WB, and metered the traffic bound for Sunset Dr, thus preventing an accurate analysis of the operations of Sunset Dr, as the demand could not be met due to the congestion upstream on I-94 WB. Therefore, under all 2045 scenarios, including No Build, it was assumed that a background improvement at the intersection of Mandan Ave and I-94 WB ramps would be implemented, and the intersection was signalized in the VISSIM models, to prevent queueing spillbacks from the off-ramp to Mandan Ave.

The network analysis revealed that the SPUI alternative operates best. The increased intersection spacing provided adequate queueing space for vehicles on Sunset Dr, and for the I-94 WB off-ramp, which under No Build conditions spills back onto mainline I-94 WB. The average travel time on Sunset Dr was a few seconds longer than the Parclo alternative, due only to the introduction of new signal phases at the SPUI. However, the alternative still showed a 25% reduction in travel times over the No Build.

The DDI operated well, however there are some instances in which the maximum queue lengths spill back to the upstream signal. The travel times on Sunset Dr show an increase over the No Build, due to the operation of the signals, in which the mainline of Sunset Dr is split phased at the crossovers. This interchange configuration is best served when the majority of traffic is bound to or from the freeway, however, there is still a large volume of traffic bound north and south of the interchange on Sunset Dr,

generated by the middle school and future developments north of Old Red Trail.

The Parclo alternative shows the best improvement in terms of total network delay over the other alternatives, due in large part to the removal of southbound lefts bound for I-94 EB from signal control, and providing a free movement. However, the alternative does not change the configuration or operation of the I-94 WB ramp signal, and thus does not address the issues of intersection spacing or operations of the WB off ramp, which were indicated as a concern under Existing Conditions. Therefore, the alternative still shows issues of queueing spillbacks on Sunset Dr between Old Red Trail and I-94 WB ramps, and on the I-94 WB ramps.

In the 2045 analysis year, the roundabout alternative does not operate as efficiently as the other alternatives. The westbound approach from the I-94 WB off-ramp at the intersection with Sunset Dr would experience maximum queues that would extend to the mainline of I-94 WB, due to the conflict with northbound vehicles on Sunset Dr, and thus is not recommended unless additional mitigation is considered. At the intersection with the I-94 EB ramps, the conflict between the southbound left and northbound through causes queueing spillbacks of the northbound approach through the roundabout at Boundary St NW. In 2030, the roundabout outperforms the other alternatives, however, by 2040, the volumes on Sunset Dr reach a critical point, which causes the excessive queueing on the I-94 WB off-ramp and northbound Sunset Dr south of the I-94 EB ramps.

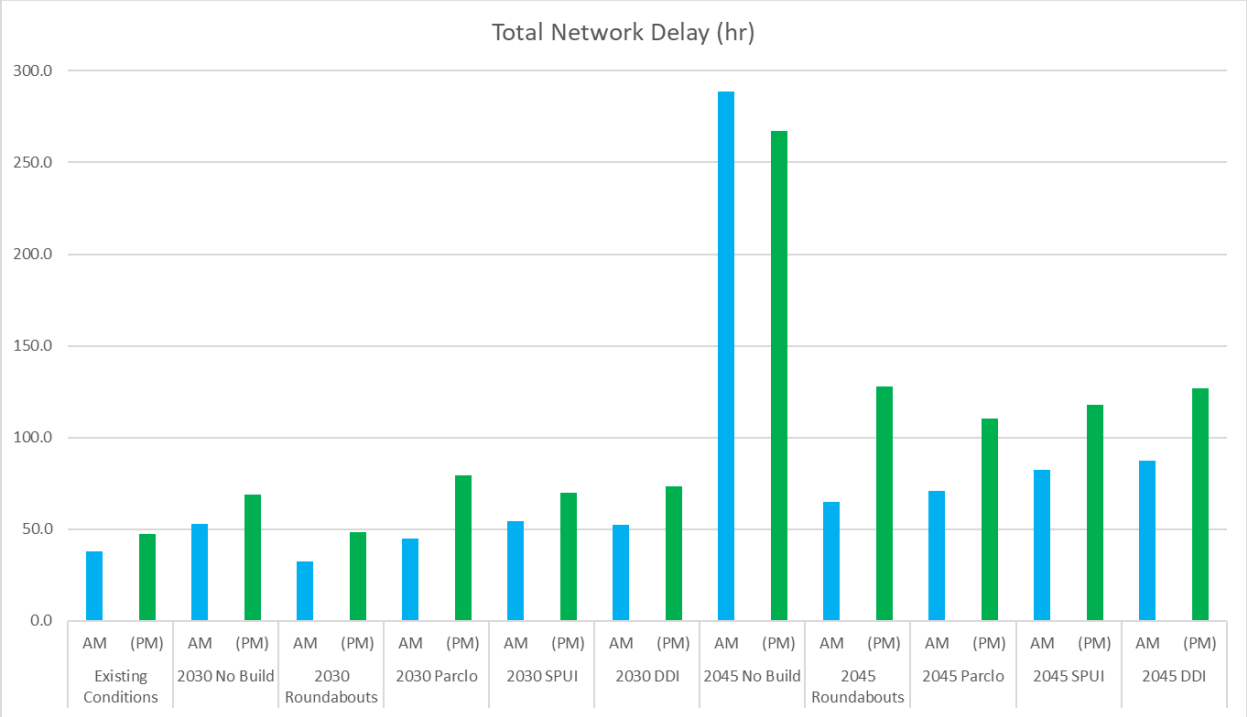


FIGURE 41: TOTAL NETWORK DELAY (HOURS)

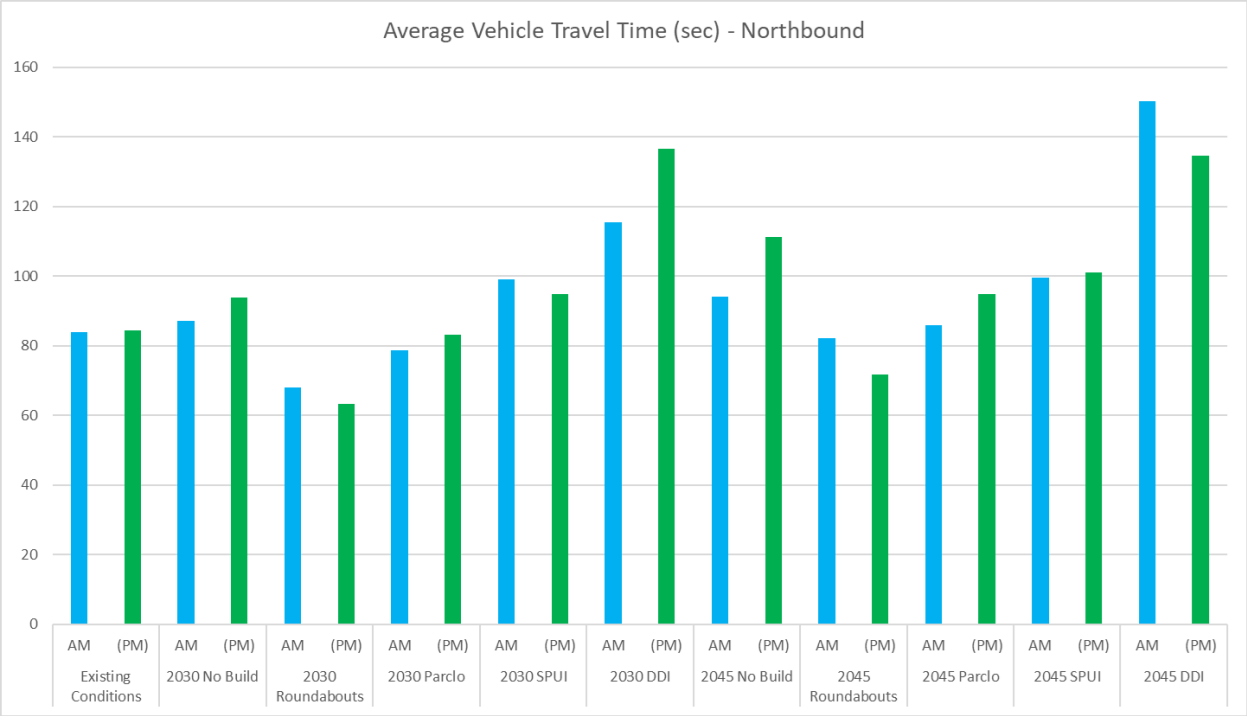


FIGURE 42: AVERAGE TRAVEL TIMES ON SUNSET DR, NORTHBOUND

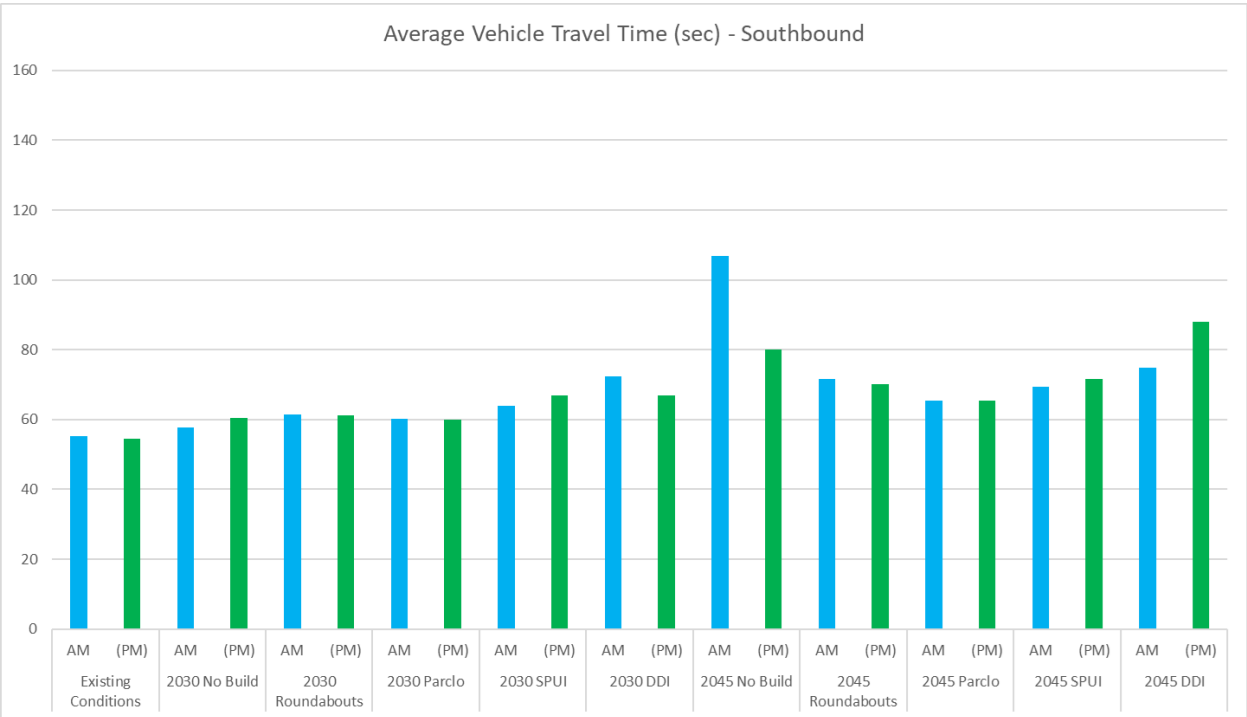


FIGURE 43: AVERAGE TRAVEL TIMES ON SUNSET DR, SOUTHBOUND

TABLE 17: MAXIMUM QUEUE LENGTHS (FT) SUMMARY

Node	Intersection	Movement	Max Queue Length (ft)																												
			Existing Conditions			2030 No Build			2030 Roundabouts			2030 Parclo			2030 SPUI			2030 DDI			2045 No Build			2045 Roundabouts			2045 Parclo			2045 SPUI			2045 DDI		
			Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)
1	Sunset Dr at Old Red Trail	EBL	>1000	200	(150)	>1000	250	(150)	>1000	150	(125)	150	150	(100)	>1000	150	(75)	>1000	150	(100)	>1000	775	(175)	>1000	250	(175)	150	150	(75)	>1000	150	(75)	>1000	150	(75)
		EBT	>1000	200	(150)	>1000	250	(150)	>1000	150	(125)	>1000	125	(150)	>1000	125	(150)	>1000	125	(150)	>1000	775	(175)	>1000	250	(175)	>1000	150	(150)	>1000	150	(175)	>1000	175	(175)
		EBR	>1000	250	(175)	>1000	325	(250)	>1000	150	(125)	>1000	0	(100)	>1000	125	(100)	>1000	125	(100)	>1000	1600	(300)	>1000	250	(175)	>1000	0	(125)	>1000	150	(125)	>1000	125	(125)
		WBL	275	150	(200)	275	175	(275)	275	75	(100)	275	125	(200)	275	125	(200)	275	125	(200)	275	200	(400)	275	100	(150)	275	150	(275)	275	150	(275)	275	150	(275)
		WBT	>1000	150	(200)	>1000	175	(275)	>1000	75	(100)	>1000	175	(225)	>1000	175	(250)	>1000	175	(225)	>1000	200	(400)	>1000	100	(150)	>1000	200	(325)	>1000	200	(325)	>1000	200	(300)
		WBR	>1000	100	(150)	>1000	125	(175)	>1000	75	(100)	>1000	200	(250)	>1000	200	(275)	>1000	200	(250)	>1000	150	(200)	>1000	100	(150)	>1000	225	(350)	>1000	225	(350)	>1000	225	(325)
		NBL	275	225	(225)	275	250	(275)	350	250	(150)	275	250	(250)	300	225	(225)	300	300	(325)	275	325	(350)	350	375	(250)	275	325	(300)	300	275	(300)	300	375	(350)
		NBT	275	225	(150)	275	225	(250)	350	250	(150)	275	325	(200)	625	325	(225)	475	225	(150)	275	250	(250)	350	375	(250)	275	450	(375)	625	425	(300)	475	225	(275)
		NBR	275	75	(100)	275	100	(200)	350	300	(250)	275	50	(100)	625	125	(100)	275	50	(125)	275	175	(275)	350	450	(450)	275	50	(150)	625	150	(150)	275	75	(150)
		SBL	125	50	(75)	125	75	(75)	>1000	150	(150)	125	75	(100)	125	75	(100)	125	75	(100)	125	75	(100)	>1000	300	(275)	125	100	(100)	125	75	(100)	125	100	(100)
		SBT	>1000	375	(225)	>1000	600	(375)	>1000	150	(150)	>1000	250	(200)	>1000	250	(200)	>1000	250	(175)	>1000	1100	(675)	>1000	300	(275)	>1000	350	(250)	>1000	375	(275)	>1000	325	(250)
		SBR	125	75	(25)	125	50	(50)	400	150	(150)	300	225	(175)	300	225	(175)	300	0	(50)	125	50	(50)	400	300	(275)	300	300	(225)	300	275	(225)	300	75	(50)
2	Sunset Dr at I-94 WB Ramps	WBL	325	350	(300)	325	300	(375)	>1000	250	(400)	325	325	(375)	-	-	(-)	450	250	(325)	325	1475	(575)	>1000	800	(1350)	325	650	(550)	-	-	(-)	450	625	(550)
		WBR	>1000	150	(150)	>1000	175	(200)	300	250	(400)	>1000	175	(175)	-	-	(-)	>1000	200	(225)	>1000	300	(300)	300	800	(1350)	>1000	250	(225)	-	-	(-)	>1000	250	(275)
		NBL	225	50	(75)	225	50	(75)	625	25	(25)	225	50	(100)	-	-	(-)	515	0	(275)	225	75	(100)	625	50	(50)	225	75	(250)	-	-	(-)	515	350	(375)
		NBT	925	275	(275)	925	375	(400)	625	25	(25)	925	300	(350)	-	-	(-)	515	200	(450)	925	550	(725)	625	50	(50)	925	500	(600)	-	-	(-)	515	550	(575)
		SBT	275	250	(225)	275	275	(300)	625	300	(275)	275	350	(275)	-	-	(-)	515	300	(250)	275	375	(375)	625	450	(450)	275	400	(375)	-	-	(-)	515	350	(325)
		SBR	275	175	(200)	275	200	(275)	625	300	(275)	275	300	(275)	-	-	(-)	515	150	(100)	275	325	(325)	625	450	(450)	275	350	(325)	-	-	(-)	515	125	(150)
3	Sunset Dr at I-94 EB Ramps	EBL	300	100	(125)	300	100	(125)	300	75	(100)	300	100	(125)	-	-	(-)	400	50	(75)	300	100	(175)	300	150	(250)	300	100	(175)	-	-	(-)	400	50	(125)
		EBR	>1000	75	(75)	>1000	75	(75)	>1000	175	(75)	>1000	100	(100)	-	-	(-)	>1000	75	(75)	>1000	150	(275)	>1000	475	(125)	>1000	125	(100)	-	-	(-)	>1000	100	(100)
		NBT	360	225	(250)	360	275	(350)	300	275	(150)	360	150	(200)	-	-	(-)	480	350	(375)	360	350	(400)	300	475	(325)	360	175	(275)	-	-	(-)	480	525	(475)
		NBR	115	125	(75)	115	325	(150)	300	525	(275)	115	50	(75)	-	-	(-)	265	75	(100)	115	375	(250)	300	925	(525)	115	50	(150)	-	-	(-)	265	250	(175)
		SBL	925	275	(225)	925	625	(275)	625	100	(100)	-	-	(-)	-	-	(-)	515	75	(25)	925	950	(625)	625	475	(275)	-	-	(-)	-	-	(-)	515	125	(75)
		SBT	925	250	(225)	925	325	(325)	625	100	(100)	925	375	(325)	-	-	(-)	515	200	(175)	925	925	(800)	625	475	(275)	925	475	(0)	-	-	(-)	515	200	(250)
		SBR	-	-	(-)	-	-	(-)	-	-	(-)	825	225	(175)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	825	325	(250)	-	-	(-)	-	-	(-)
4	Sunset Dr at Boundary St NW	EBL	800	75	(100)	800	75	(100)	800	50	(75)	800	50	(100)	800	50	(100)	800	50	(100)	800	75	(100)	800	50	(100)	800	50	(100)	800	50	(100)	800	50	(100)
		EBT	800	75	(100)	800	75	(100)	800	50	(75)	800	50	(100)	800	50	(100)	800	50	(100)	800	75	(100)	800	50	(100)	800	50	(100)	800	50	(100)	800	50	(100)
		EBR	800	75	(100)	800	75	(100)	800	50	(75)	800	50	(125)	800	50	(125)	800	50	(125)	800	75	(100)	800	50	(100)	800	75	(125)	800	75	(125)	800	75	(125)
		WBL	>1000	125	(125)	>1000	175	(150)	>1000	125	(100)	>1000	150	(175)	>1000	150	(175)	>1000	150	(200)	>1000	200	(500)	>1000	175	(150)	>1000	200	(225)	>1000	200	(225)	>1000	200	(225)
		WBT	>1000	125	(125)	>1000	175	(150)	>1000	125	(100)	>1000	150	(175)	>1000	150	(175)	>1000	150	(200)	>1000	200	(500)	>1000	175	(150)	>1000	200	(225)	>1000	200	(225)	>1000	200	(225)
		WBR	>1000	125	(125)	>1000	175	(150)	>1000	125	(100)	>1000	175	(200)	>1000	175	(200)	>1000	175	(200)	>1000	200	(500)	>1000	175	(150)	>1000	225	(225)	>1000	225	(250)	>1000	225	(250)
		NBL	>1000	150	(75)	>1000	225	(300)	>1000	100	(125)	>1000	425	(300)	>1000	350	(350)	>1000	300	(350)	>1000	850	(1350)	>1000	200	(125)	>1000	775	(450)	>1000	575	(800)	>1000	575	(725)
		NBT	>1000	125	(50)	>1000	175	(275)	>1000	100	(125)	>1000	425	(300)	>1000	350	(350)	>1000	300	(350)	>1000	800	(1300)	>1000	200	(125)	>1000	775	(450)	>1000	575	(800)	>1000	575	(725)
		NBR	>1000	125	(50)	>1000	175	(275)	>1000	100	(125)	>1000	450	(325)	>1000	375	(375)	>1000	325	(375)	>1000	800	(1300)	>1000	200	(125)	>1000	800	(450)	>1000	600	(825)	>1000	600	(750)
		SBL	360	250	(200)	360	350	(425)	300	350	(400)	360	50	(100)	625	125	(150)	475	250	(300)	360	425	(475)	300	475	(475)	360	100	(200)	625	150	(250)	475	375	(500)
		SBT	360	225	(175)	360	325	(400)	300	350	(400)	360	375	(275)	625	300	(175)	475	275	(300)	360	400	(450)	300	475	(475)	360	500	(350)	625	475	(400)	475	375	(500)
		SBR	360	225	(175)	360	325	(400)	300	350	(400)	360	375	(300)	625	300	(175)	475	300	(325)	360	400	(450)	300	475	(475)	360	525	(375)	625	475	(425)	475	400	(500)
5	Sunset Dr at I-94 Ramps SPUI	EBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(125)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(175)	-	-	(-)
		EBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	>1000	100	(75)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	>1000	100	(100)	-	-	(-)
		WBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	175	(200)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	250	(250)	-	-	(-)
		WBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	200	(275)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	275	(275)	-	-	(-)
		NBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(125)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(150)	-	-	(-)
		NBT	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	250	(225)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	300	(300)	-	-	(-)
		NBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	215	300	(200)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	215	350	(225)	-	-	(-)
		SBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	325	275	(250)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	325	300	(275)	-	-	(-)
		SBT	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	175	(175)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	200	(175)	-	-	(-)
		SBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	150	25	(0)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	150	25	(0)	-	-	(-)

(4) Predictive Safety Analysis

Safety analysis plays a key role in the assessment of alternatives. According to the National Safety Council, the economic loss to a community resulting from past motor-vehicle crashes is $1.78 million for a death, $155,000 for a disabling injury (with varying costs by severity of injuries), and $5,700 for property damage only crashes as of 2021. Therefore, safer designs can provide a costs savings over time. The Highway Safety Manual (HSM) Part C – Predictive Method was used to assess the safety impacts of the proposed interchange improvements on the Sunset Drive interchange, which include a Single Point Urban Interchange (SPUI), Partial Cloverleaf (Parclo-A), Ramp Terminal Roundabouts, and a Diverging Diamond Interchange (DDI). The predictive method was also used to assess the safety impacts of the proposed improvements at the intersections of Sunset Drive with Old Red Trail and Boundary Street in combination with the interchange alternatives. The methodology was applied using the Interactive Highway Safety Design Model (IHSDM).

The I-94 study corridor limits are 0.25 miles north of the gore of the I-94 eastbound off ramp to the Mandan Scenic Viewpoint to 0.25 miles south of the gore of the I-94 EB on ramp from Sunset Drive. The interchange study area includes the ramp terminals and all ramps. Crash data from January 1, 2017, to December 31, 2022, was provided by NDDOT for the I-94 study limits, the Sunset Drive interchange, and the intersections of Sunset Drive with Old Red Trail and Boundary Street. A summary of the crash data is provided in **Section E.**

An existing conditions model was developed for the Sunset Drive interchange and surrounding intersections. The existing geometry of the freeway section (I-94), interchange ramps, and ramp terminals was coded into IHSDM. IHSDM models provide two different categories of safety results: predicted crashes and expected crashes. Predicted crashes are calculated based on the geometric and traffic data input into the model, while the expected number of crashes is a modification of the predicted number of crashes, weighted by the observed number of crashes. The difference between the expected and predicted crashes is the potential for safety improvements at the interchange. The results of the expected and predicted number of crashes are shown in **Table 18** below. The IHSDM model predicts 61 total crashes for all existing site types, and 78 crashes were expected for all site types. Since the total number of predicted crashes is lower than the number of expected crashes, there is potential for safety improvements at the interchange. The predicted number of crashes for the existing conditions sites will serve as a baseline for comparison for the other alternatives.

TABLE 18: PREDICTED AND EXPECTED CRASH COMPARISON, EXISTING CONDITIONS

Site Type	Description	Predicted Crashes (FI)	Predicted Crashes (PDO)	Expected Crashes (FI)	Expected Crashes (PDO)
Freeway Segments	All Segments	4	7	3	6
Ramps	Entrance Ramps	2	3	1	2
	Exit Ramps	2	3	1	2
Ramp Terminals	EB Ramp Terminal	4	7	4	10
	WB Ramp Terminal	4	6	3	9
Intersection	Sunset Dr & Old Red Trail	4	8	8	20
	Sunset Dr & Boundary St NW	3	6	2	7
SUM		22	39	23	55

* Crash totals shown for an analysis period of five years

Build Conditions IHSDM models were developed for four scenarios, described below.

1. Single-Point Urban Interchange (SPUI)

A SPUI combines the two existing ramp terminals into one terminal point and alters the configuration of the terminal ramps. The freeway segments in this alternative do not change from existing conditions.

2. Partial Cloverleaf (Parclo-A)

A Parclo-A interchange maintains the two ramp terminal points but converts the I-94 EB ramp terminal to a partial cloverleaf. This alternative also changes the configuration of the ramps and freeway segments from existing conditions.

3. Diverging Diamond Interchange (DDI)

A DDI alters the ramp terminal configurations along Sunset Drive as shown in **Figure 28**. A CMF (ID 8258) was used to assess the predicted impact of a DDI at the ramp terminals since no Safety Performance Function (SPF) is currently available for this interchange configuration.

In the first three alternatives, the following changes were implemented at the Sunset Drive intersections with Old Red Trail and Boundary Street:

- Old Red Trail: Additional turn lanes were added to the eastbound approach of Old Red Trail. A dedicated left turn lane was added, along with an additional channelized right turn Lane.
- Boundary St: The traffic control at the Boundary Street intersection was changed to a signalized intersection, which included a dedicated left turn lane on the southbound approach of Sunset Drive. A CMF (ID 7983) was used to assess the predicted impact of for the conversion of an unsignalized intersection to a signalized intersection. Changing the intersection control type in IHSDM predicted a higher number of crashes than was predicted under no-build conditions, which is a known flaw of the current HSM.

4. Ramp Terminal Roundabouts

This alternative replaces the existing ramp terminals with roundabouts and alters the configuration of the terminal ramps. The freeway segments in this alternative do not change from existing conditions. Both Old Red Trail and Boundary Street were also converted to roundabouts in this alternative. A roundabout CMF (ID 225) was used to assess the predicted impact for the conversion of a signalized

intersection to a roundabout, and a CMF (ID 227) was used to predict the impact of the conversion of a stop-controlled intersection to a roundabout. Changing the intersection control type in IHSDM predicted a higher number of crashes than were predicted under the no-build conditions, which was not consistent with the expected results of a roundabout conversion.

The results of the IHSDM analysis are summarized in **Table 19, Table 20**, and **Table 21. Table 19** shows the comparison of crashes for the intersection alternatives and **Table 20** shows the comparison of crashes for the interchange alternatives. Each table has the predicted number of crashes under each alternative as well as the relative difference between the predicted number of crashes in the no-build alternative and the alternatives number of crashes for each severity type. The number of predicted crashes for each alternative is shown for an evaluation period of 5 years. IHSDM reports are attached in **Appendix N.**

TABLE 19: INTERSECTION ALTERNATIVES - PREDICTIVE SAFETY ANALYSIS RESULTS

Intersection	Alternative	Predicted Crashes (FI)	Relative Difference, FI (%)	Predicted Crashes (PDO)	Relative Difference, PDO (%)
Sunset Dr & Old Red Trail	No Build	4	-	8	-
	Additional Turn Lanes	3	-25%	7	-13%
	Roundabout	2	-50%	4	-50%
Sunset Dr & Boundary St	No Build	3	-	6	-
	Signalization	2	-33%	4	-33%
	Roundabout	2	-33%	4	-33%

* Crash totals shown for an analysis period of five years

A direct comparison of the number of crashes for the intersection alternatives shows that the additional turn lanes and signalization both provide a reduction in crashes. The roundabout at Old Red Trail, where the CMF was applied, shows a reduction in crashes over the additional turn lanes alternative. The signalization and the roundabout at Sunset Dr & Boundary St provide the same reduction in crashes over the no build.

TABLE 20: INTERCHANGE ALTERNATIVES - PREDICTIVE SAFETY ANALYSIS RESULTS

Site Type	Description	No Build		SPUI		Parclo		DDI		Ramp Terminal Roundabouts	
		Predicted Crashes (FI)	Predicted Crashes (PDO)	Predicted Crashes (FI)	Predicted Crashes (PDO)	Predicted Crashes (FI)	Predicted Crashes (PDO)	Predicted Crashes (FI)	Predicted Crashes (PDO)	Predicted Crashes (FI)	Predicted Crashes (PDO)
Freeway Segments	All Segments	4	7	4	7	4	6	4	7	4	7
Ramps	Entrance Ramps	2	3	2	3	4	5	2	4	2	3
	Exit Ramps	2	3	2	3	2	3	3	6	2	3
Ramp Terminals	EB Ramp Terminal	4	7	5	16	4	5	3	5	2	4
	WB Ramp Terminal	4	6			4	6	2	4	2	3
SUM		15	25	13	28	18	25	15	25	11	19
Relative Difference				-13%	12%	21%	-2%	-1%	-1%	-23%	-26%

* Crash totals shown for an analysis period of five years

The Ramp Terminal Roundabouts alternative provided the highest percent reduction in the total number of crashes. This alternative removes conflict points at the ramp terminals, leading to a higher percent reduction over the predicted number of crashes. The DDI also provides a reduction in crashes at the ramp terminals for the same reason.

The Parclo alternative reduces the number of property damage only crashes but provides a similar number of fatal/ injury crashes. This is due to the addition of entrance ramps and the presence of more uncontrolled movements. The SPUI alternative reduces the number of fatal/ injury crashes but increases the number of PDO crashes.

A summary of the total number of crashes for the total interchange and intersection traffic analysis sections is shown below in **Table 21**, which shows that the Ramp Terminal Roundabouts alternative provides the highest overall reduction in crashes from the no build, followed closely by the DDI. All four of the analyzed scenarios provide an overall reduction in crashes.

TABLE 21: IHSDM ALTERNATIVE RESULTS – TRAFFIC ANALYSIS SECTIONS

Site Type	Description	No Build	SPUI	Parclo	DDI	Ramp Terminal Roundabouts
Freeway Segments	All Segments	10	10	10	10	10
Ramps	Entrance Ramps	4	5	9	6	4
	Exit Ramps	5	5	5	9	4
Ramp Terminals	EB Ramp Terminal	11	21	8	7	6
	WB Ramp Terminal	10		10	6	5
Intersection	Sunset Dr & Old Red Trail	12	10	10	10	6
	Sunset Dr & Boundary St NW	10	6	6	6	10
SUM		61	57	58	55	46
Relative Difference			-7%	-5%	-10%	-25%

* Crash totals shown for an analysis period of five years

(5) Sensitivity Analysis

A sensitivity analysis was performed to test the impact of adding the potential future 56th Avenue interchange and connecting network on the I-94 and Sunset Drive interchange long range demand and projected traffic volumes.

Two models were provided by the North Dakota State University Advanced Traffic Analysis Center (ATAC) for the evaluation: the Bismarck Mandan Metropolitan Planning Organization (MPO) 2045 Constrained Long Range Plan model and Scenario 5 from the *Arrive 2045* Metropolitan Transportation Plan (MTP) (described in Chapter 6 – Alternatives Analysis) model. A comparison of the Bismarck Mandan MPO 2045 Constrained Long Range Plan model (without the interchange) and the Scenario 5 2045 MTP model (with the interchange) showed several other additional network changes such as the extension of Sunset Drive from Old Red Trail to 38th Street. Therefore, a controlled sensitivity analysis using the two models was performed. This controlled sensitivity analysis included the following:

- Adjusted parameters to fix the stochastic assignment random seed so run to run results of the same scenario produce consistent outputs.
- Base Case: Using the MPO 2045 Constrained Long Range Plan scenario network (without the interchange) and land use as a baseline.
- Sensitivity Analysis: Using the MPO 2045 Constrained Long Range Plan scenario and

adding the 56th Avenue interchange and connecting network (transferred from the Scenario 5 2045 MTP scenario).

- Keeping all other network and demographics the same.

The resulting model ADT plots and some of the additional slides describing the methodology can be found in **Appendix O**. The impacts along Sunset Drive and through the I-94 interchange are minimal. All percent differences are less than 7% of the daily traffic volumes, as shown in **Table 22** below.

TABLE 22: SENSITIVITY ANALYSIS VOLUME SUMMARY

Sunset Drive From/To	BASE 2045 ADT	Sensitivity Analyis 2045 ADT	Difference	Percent Difference
Mandan Middle School to 27th St NW	5530	5588	58	1%
27th St NW to Old Red Trail	9727	9751	24	0%
Old Red Trail to I-94 West Bound Ramps	19173	17838	-1335	-7%
I-94 WB Ramps to I-94 EB Ramps	16367	15464	-903	-6%
I-94 EB Ramps to Boundary Rd NW	14066	14117	51	0%
Boundary Rd NW to Division St NW	11270	11332	62	1%
Division St. NW to 8th St. NW	9896	10140	244	2%

This indicates that even if the I-94 at 56th Avenue interchange was constructed, there would be very little impact to the I-94 at Sunset Drive volumes and the ultimate design recommendation would not change.

J. Recommendations

Based on the results of the Alternatives Assessment and Network Analysis section, the alternatives were compared and ranked. **Table 23** below ranks the four alternatives in seven categories: intersection operations, queueing and intersection spacing, Sunset Dr travel times, total network delay, impact to I-94 mainline operations, intersection safety, and multimodal/pedestrian accommodation. The categories are color coded and scored, dark green showing significant improvement over No Build conditions, worth two (2) points, light green showing moderate over No Build, worth one (1) point, yellow showing no change, worth zero (0) points. The orange and red colors show slight and moderate deterioration compared to No Build, worth negative one (-1) and negative two (-2) points, respectively.

TABLE 23: ALTERNATIVE RANKING SUMMARY

Alternative	Intersection Operations	Queueing/ Intersection Spacing	Travel Time	Network Delay	I-94 Operations	Safety	Multi-modal	Total Score	Overall Rank
#1 SPUI	2	2	1	2	1	0	-1	7	**1**
#2 Parclo	2	1	1	2	1	-1	0	6	**2**
#3 DDI	2	1	-1	2	1	0	-1	4	**3**
#4 Roundabout	-2	-1	2	2	-2	2	1	2	**4**

From a traffic operations perspective, the SPUI shows the greatest improvement of queue lengths over No Build conditions, and had the fewest spillbacks compared to the other alternatives. The travel times, though not the lowest of the alternatives, is comparable to the roundabout and parclo alternatives, and the difference can be attributed to the additional signal phases of the SPUI. The total network delay of the four alternatives is similar, and a significant improvement over No Build. The SPUI is preferential to the other alternatives, as it best addresses existing concerns of intersection spacing on Sunset Dr, and queueing concerns on Sunset Dr and on the I-94 WB off-ramp. A drawback of the SPUI is the complication of multimodal movement and operation, as it increases the number of crossings a pedestrian or cyclist must make to navigate the intersection. However, safe multimodal operations can still be provided with proper pedestrian signing, marking, and signalization.

Secondary to the SPUI, the Parclo operates adequately, showing significant operational improvement over the no build. The removal of southbound lefts bound for I-94 EB to the loop ramp reduces total delay and travel time, as a major movement in the corridor is provided free operation. However, the alternative does not address the intersection spacing concerns between the I-94 WB ramp terminal and Old Red Trail, as the configuration of the westbound ramps is to remain the same as No Build.

The DDI alternative improves general traffic operations along the corridor and provides a moderate increase in intersection spacing between the I-94 WB ramps and Old Red Trail. However, the configuration of the interchange disbenefits vehicles on Sunset Dr not bound to or from I-94 in a manner which the other alternatives do not. The signal operation of the DDI causes Sunset Dr to be split phased and introduces additional signal delay to through vehicles on Sunset Dr, increasing the travel time over the No Build condition.

The roundabout alternative operates best in terms of vehicle travel time and intersection safety but is not preferred due to the intersection operations and queueing. The roundabout at Sunset Dr and I-94 WB ramps operates with a degree of saturation of 0.99 in the PM peak of the 2045 analysis year and sees a maximum queue length on the I-94 WB off-ramp that spills back to the mainline of I-94 WB, an operational failure that is unacceptable.

The Single Point Urban Interchange with intersection improvements at Sunset Dr and Old Red Trail and signalization at Sunset Dr and Boundary St NW is recommended for the mitigation of traffic operations at the interchange of I-94 at Sunset Dr. The alternative performs better than all other tested alternatives in 2045, from a wholistic perspective of all measures of effectiveness. The alternative particularly excels in regard to intersection spacing/queueing, and the vehicle travel times, and total network delay fall in line with the other alternatives.

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I-94 at Sunset Dr Interchange



Appendix

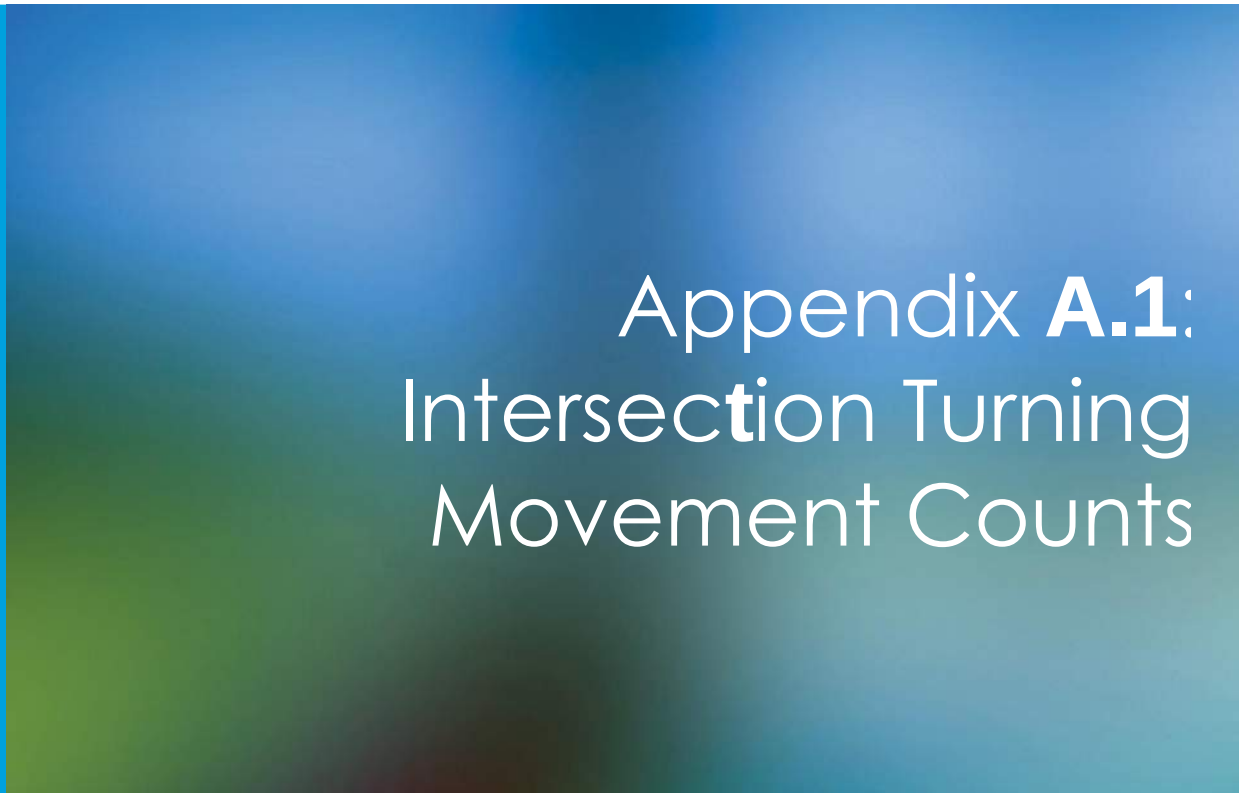
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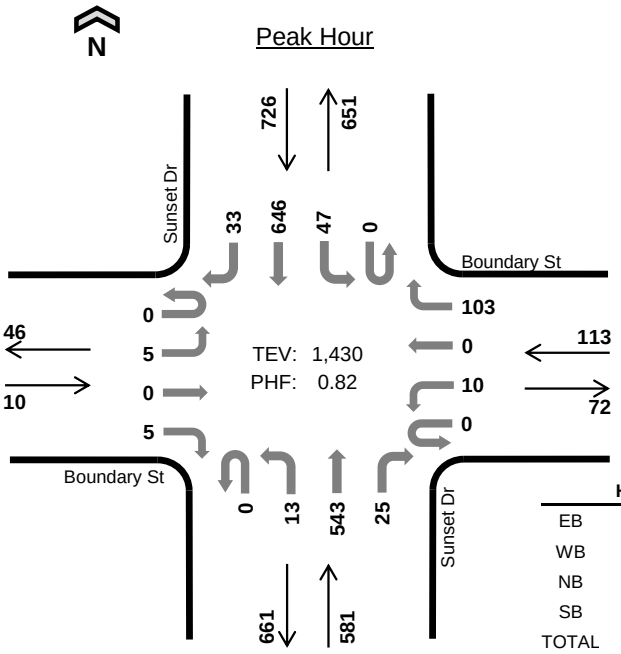
I-94 at Sunset Dr Interchange

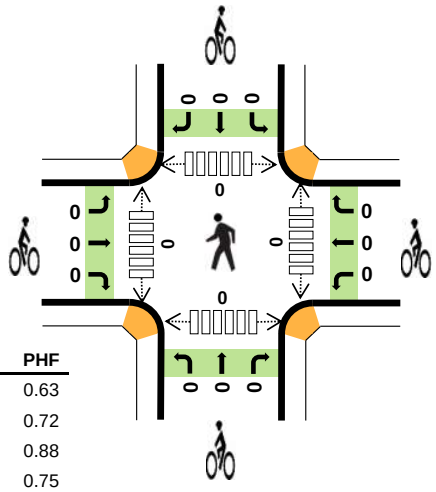


Appendix **A.1**: Intersection Turning Movement Counts

Sunset Dr
Boundary St

Date: 12/01/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	0.0%	0.63
WB	0.9%	0.72
NB	5.9%	0.88
SB	2.6%	0.75
TOTAL	3.8%	0.82

Six-Hour Count Summaries

Interval Start		Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	1	0	1	0	2	0	25	0	5	118	9	0	11	138	5	315	0
7:45 AM		0	0	0	1	0	1	0	38	0	2	147	7	0	9	189	9	403	0
8:00 AM		0	1	0	3	0	5	0	21	0	1	161	4	0	16	214	11	437	0
8:15 AM		0	3	0	0	0	2	0	19	0	5	117	5	0	11	105	8	275	1,430
Peak Hour	All	0	5	0	5	0	10	0	103	0	13	543	25	0	47	646	33	1,430	0
	HV	0	0	0	0	0	0	0	1	0	3	30	1	0	1	18	0	54	0
	HV%	-	0%	-	0%	-	0%	-	1%	-	23%	6%	4%	-	2%	3%	0%	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:30 AM	0	0	9	0	*9*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	1	8	9	*18*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	0	0	11	6	*17*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	0	6	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	1	34	19	*54*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	1	0	0	0	0	0	10	0	1	25	3	0	0	7	4	51	0
6:15 AM	0	1	0	1	0	0	0	7	0	0	25	1	0	2	7	0	44	0
6:30 AM	0	1	0	0	0	1	0	8	0	0	42	3	0	6	18	0	79	0
6:45 AM	0	3	0	0	0	1	1	10	0	0	52	5	0	2	28	2	104	278
7:00 AM	0	1	1	1	0	3	1	12	0	1	50	4	0	4	30	2	110	337
7:15 AM	0	2	0	0	0	0	0	12	0	1	78	6	0	3	63	3	168	461
7:30 AM	**0**	**1**	**0**	**1**	**0**	**2**	**0**	**25**	**0**	**5**	**118**	**9**	**0**	**11**	**138**	**5**	**315**	697
7:45 AM	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**38**	**0**	**2**	**147**	**7**	**0**	**9**	**189**	**9**	**403**	996
8:00 AM	**0**	**1**	**0**	**3**	**0**	**5**	**0**	**21**	**0**	**1**	**161**	**4**	**0**	**16**	**214**	**11**	**437**	1,323
8:15 AM	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**19**	**0**	**5**	**117**	**5**	**0**	**11**	**105**	**8**	**275**	**1,430**
8:30 AM	0	2	0	2	0	3	0	9	0	1	69	3	0	5	50	5	149	1,264
8:45 AM	0	2	0	3	0	1	0	9	0	2	50	3	0	5	52	1	128	989
9:00 AM	0	2	0	0	0	0	2	10	0	4	46	5	0	4	37	1	111	663
9:15 AM	0	1	2	2	0	1	3	11	0	7	69	2	0	6	48	6	158	546
9:30 AM	0	4	1	2	0	2	0	7	0	1	37	1	0	2	36	6	99	496
9:45 AM	0	2	1	3	0	1	0	5	0	3	51	0	0	5	40	5	116	484
10:00 AM	0	4	1	1	0	1	1	9	0	1	54	2	0	8	40	1	123	496
10:15 AM	0	3	1	3	0	2	1	10	0	6	49	2	0	9	41	7	134	472
10:30 AM	0	6	0	4	0	1	1	7	0	1	47	8	0	4	35	3	117	490
10:45 AM	0	10	0	2	0	2	1	15	0	4	48	1	0	8	58	10	159	533
11:00 AM	0	12	1	5	0	5	1	11	0	5	53	2	0	4	48	9	156	566
11:15 AM	0	6	2	2	0	6	0	7	0	4	55	7	0	7	43	4	143	575
11:30 AM	0	6	0	3	0	2	0	13	0	5	60	4	0	8	63	6	170	628
11:45 AM	0	6	1	2	0	3	2	10	0	7	62	7	0	12	59	5	176	645
Count Total	0	80	11	41	0	45	14	295	0	67	1,565	94	0	151	1,449	113	3,925	0
Peak Hour All	**0**	**5**	**0**	**5**	**0**	**10**	**0**	**103**	**0**	**13**	**543**	**25**	**0**	**47**	**646**	**33**	**1,430**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**30**	**1**	**0**	**1**	**18**	**0**	**54**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**1%**	**-**	**23%**	**6%**	**4%**	**-**	**2%**	**3%**	**0%**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	0	1	1	*2*	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*
6:30 AM	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*
7:00 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**0**	**0**	**9**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**1**	**8**	**9**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**11**	**6**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**6**	**4**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	0	0	4	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	2	1	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	0	0	6	2	*8*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	1	0	3	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	1	0	3	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	0	0	3	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	0	0	11	5	*16*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	1	10	1	4	*16*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	1	1	2	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	0	0	1	0	*1*	0	0	0	0	*0*	1	0	0	1	*2*
11:30 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	0	1	2	3	*6*	0	0	0	0	*0*	2	0	0	0	*2*
Count Total	4	17	78	50	*149*	0	0	0	0	*0*	3	0	0	1	*4*
Peak Hour	**0**	**1**	**34**	**19**	***54***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
6:15 AM	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
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	4
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**6**	**1**	**0**	**0**	**0**	**0**	**9**	13
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**8**	**0**	**0**	**1**	**8**	**0**	**18**	31
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**6**	**0**	**17**	46
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**5**	**0**	**0**	**0**	**4**	**0**	**10**	**54**
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	1	1	0	6	51
8:45 AM	0	0	0	0	0	0	0	2	0	0	1	0	0	2	0	0	5	38
9:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	8	29
9:15 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	2	0	5	24
9:30 AM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	1	5	23
9:45 AM	0	1	0	0	0	0	0	0	0	0	3	0	0	1	2	0	7	25
10:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	20
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	18
10:30 AM	0	0	0	0	0	0	0	0	0	0	4	7	0	1	4	0	16	29
10:45 AM	0	1	0	0	0	2	0	8	0	0	1	0	0	1	3	0	16	38
11:00 AM	0	1	0	0	0	1	0	0	0	0	2	0	0	0	3	0	7	42
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	40
11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	25
11:45 AM	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	6	15
Count Total	0	3	0	1	0	5	0	12	0	5	64	9	0	7	41	2	149	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**30**	**1**	**0**	**1**	**18**	**0**	**54**	**0**

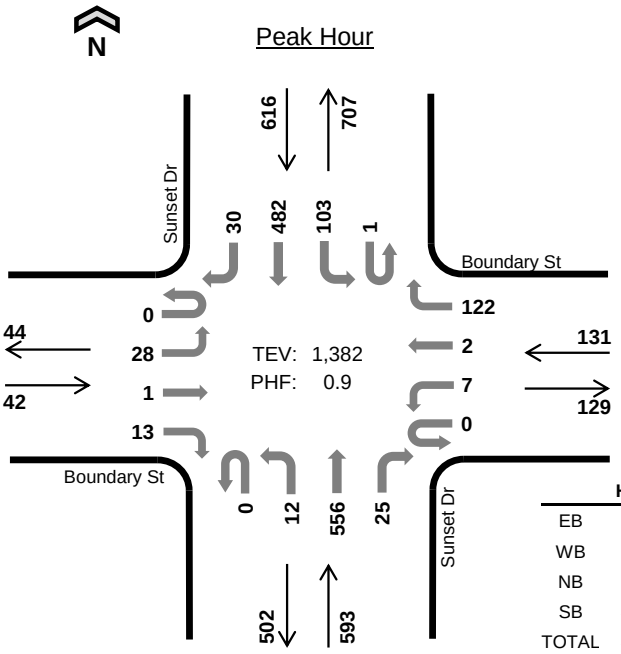
Six-Hour Count Summaries - Bikes

Interval Start	Boundary St Eastbound			Boundary St Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	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
6:30 AM	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
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

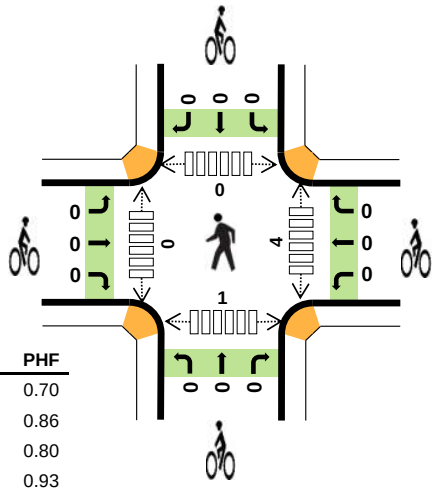
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
Boundary St

Date: 12/01/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 3:15 PM to 4:15 PM



	HV %:	PHF
EB	0.0%	0.70
WB	2.3%	0.86
NB	3.9%	0.80
SB	4.9%	0.93
TOTAL	4.1%	0.90



Six-Hour Count Summaries

Interval Start		Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:15 PM		0	7	0	1	0	1	1	34	0	4	120	2	0	28	116	9	323	0
3:30 PM		0	3	1	5	0	0	0	23	0	3	175	8	0	17	140	8	383	0
3:45 PM		0	11	0	4	0	3	1	30	0	2	142	8	0	25	105	6	337	0
4:00 PM		0	7	0	3	0	3	0	35	0	3	119	7	1	33	121	7	339	1,382
Peak Hour	All	0	28	1	13	0	7	2	122	0	12	556	25	1	103	482	30	1,382	0
	HV	0	0	0	0	0	0	0	3	0	0	23	0	0	3	27	0	56	0
	HV%	-	0%	0%	0%	-	0%	0%	2%	-	0%	4%	0%	0%	3%	6%	0%	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:15 PM	0	1	10	4	*15*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	0	1	5	20	*26*	0	0	0	0	*0*	3	0	0	1	*4*
3:45 PM	0	0	5	2	*7*	0	0	0	0	*0*	1	0	0	0	*1*
4:00 PM	0	1	3	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	3	23	30	*56*	0	0	0	0	*0*	4	0	0	1	*5*

Six-Hour Count Summaries

Interval Start	Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	9	0	4	0	1	1	9	0	3	58	4	0	9	87	18	203	0
12:15 PM	0	4	0	4	0	3	0	10	0	4	69	1	0	8	59	5	167	0
12:30 PM	0	4	1	2	0	1	0	9	0	4	51	1	0	6	60	6	145	0
12:45 PM	0	15	3	7	0	2	0	15	0	10	93	7	0	6	64	9	231	746
1:00 PM	0	7	0	7	0	3	0	12	0	7	57	5	0	4	61	5	168	711
1:15 PM	0	6	0	8	0	3	1	7	0	6	74	3	0	8	44	8	168	712
1:30 PM	0	5	0	1	0	1	0	5	0	3	69	4	0	8	54	7	157	724
1:45 PM	0	10	1	1	0	2	1	19	0	6	52	4	0	7	48	7	158	651
2:00 PM	0	10	1	1	0	1	1	8	0	3	88	5	0	5	64	7	194	677
2:15 PM	0	14	0	4	0	3	1	16	0	6	96	5	0	18	65	4	232	741
2:30 PM	0	13	1	5	0	1	0	13	0	4	72	2	0	9	66	6	192	776
2:45 PM	0	5	2	2	0	2	1	11	0	1	89	3	1	16	69	11	213	831
3:00 PM	0	6	1	5	0	1	0	26	0	1	113	6	1	27	84	8	279	916
3:15 PM	**0**	**7**	**0**	**1**	**0**	**1**	**1**	**34**	**0**	**4**	**120**	**2**	**0**	**28**	**116**	**9**	**323**	1,007
3:30 PM	**0**	**3**	**1**	**5**	**0**	**0**	**0**	**23**	**0**	**3**	**175**	**8**	**0**	**17**	**140**	**8**	**383**	1,198
3:45 PM	**0**	**11**	**0**	**4**	**0**	**3**	**1**	**30**	**0**	**2**	**142**	**8**	**0**	**25**	**105**	**6**	**337**	1,322
4:00 PM	**0**	**7**	**0**	**3**	**0**	**3**	**0**	**35**	**0**	**3**	**119**	**7**	**1**	**33**	**121**	**7**	**339**	**1,382**
4:15 PM	0	11	0	2	0	4	0	24	0	2	99	5	0	23	83	5	258	1,317
4:30 PM	0	9	3	8	0	4	1	17	0	3	99	4	0	27	79	13	267	1,201
4:45 PM	0	9	0	2	0	6	0	21	0	5	100	3	0	21	95	9	271	1,135
5:00 PM	0	14	0	8	0	2	0	21	0	2	102	5	0	38	112	8	312	1,108
5:15 PM	1	8	2	3	0	5	0	22	0	4	100	4	0	40	135	15	339	1,189
5:30 PM	0	3	1	3	0	6	0	24	0	2	94	5	2	20	118	3	281	1,203
5:45 PM	0	6	0	3	0	0	0	17	0	4	94	4	0	13	125	4	270	1,202
Count Total	1	196	17	93	0	58	9	428	0	92	2,225	105	5	416	2,054	188	5,887	0
Peak Hour All	**0**	**28**	**1**	**13**	**0**	**7**	**2**	**122**	**0**	**12**	**556**	**25**	**1**	**103**	**482**	**30**	**1,382**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**23**	**0**	**0**	**3**	**27**	**0**	**56**	**0**
Peak Hour HV%	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**2%**	**-**	**0%**	**4%**	**0%**	**0%**	**3%**	**6%**	**0%**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	2	14	*16*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	1	2	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	6	1	4	2	*13*	0	0	0	0	*0*	0	0	0	1	*1*
1:00 PM	1	0	3	1	*5*	0	0	0	0	*0*	0	0	0	2	*2*
1:15 PM	0	0	2	2	*4*	0	0	0	0	*0*	1	0	0	1	*2*
1:30 PM	1	1	3	0	*5*	0	0	0	0	*0*	1	0	0	0	*1*
1:45 PM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	1	0	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	1	1	4	*6*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	0	0	6	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	0	0	4	5	*9*	0	0	0	0	*0*	1	0	0	0	*1*
3:15 PM	**0**	**1**	**10**	**4**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
3:30 PM	**0**	**1**	**5**	**20**	***26***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**1**	*4*
3:45 PM	**0**	**0**	**5**	**2**	***7***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
4:00 PM	**0**	**1**	**3**	**4**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:15 PM	0	0	1	3	*4*	0	0	0	0	*0*	2	0	0	1	*3*
4:30 PM	0	1	2	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	3	6	*9*	0	0	0	0	*0*	0	0	0	1	*1*
5:00 PM	0	0	7	2	*9*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	2	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	1	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	9	9	72	91	*181*	0	0	0	0	*0*	9	0	0	7	*16*
Peak Hour	**0**	**3**	**23**	**30**	***56***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**1**	***5***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	8	6	16	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	2	0	5	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0
12:45 PM	0	6	0	0	0	0	0	1	0	1	3	0	0	1	1	0	13	37
1:00 PM	0	1	0	0	0	0	0	0	0	1	2	0	0	0	1	0	5	26
1:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	25
1:30 PM	0	1	0	0	0	0	0	1	0	0	2	1	0	0	0	0	5	27
1:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	16
2:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	0	4	15
2:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	4	0	6	17
2:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	15
2:45 PM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	4	0	10	23
3:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	9	28
3:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**10**	**0**	**0**	**1**	**3**	**0**	**15**	37
3:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	**0**	**0**	**1**	**19**	**0**	**26**	60
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**2**	**0**	**7**	57
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**1**	**3**	**0**	**8**	**56**
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	4	45
4:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	2	4	0	9	28
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0	9	30
5:00 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	2	0	0	9	31
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	28
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	24
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	3	18
Count Total	0	9	0	0	0	1	0	8	0	4	64	4	0	10	75	6	181	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**23**	**0**	**0**	**3**	**27**	**0**	**56**	**0**

Six-Hour Count Summaries - Bikes

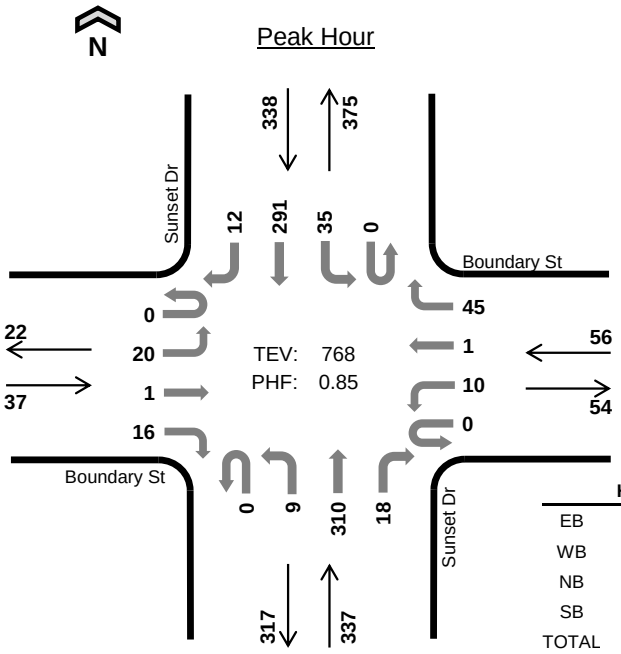
Interval Start	Boundary St Eastbound			Boundary St Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	**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
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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	0
5:00 PM	0	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	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

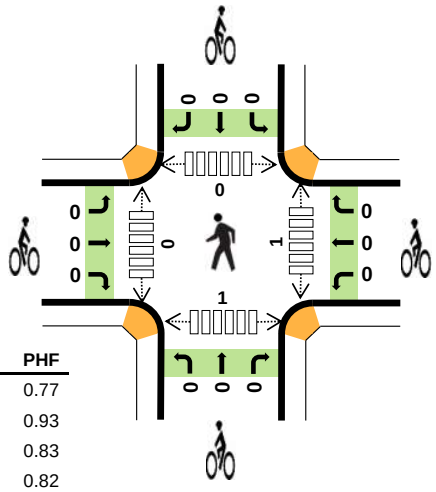
Sunset Dr
Boundary St

Date: 12/01/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM

Peak Hour



	HV %:	PHF
EB	0.0%	0.77
WB	0.0%	0.93
NB	1.2%	0.83
SB	3.3%	0.82
TOTAL	2.0%	0.85



Six-Hour Count Summaries

Interval Start		Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	3	0	5	0	2	0	13	0	4	94	3	0	9	90	4	227	0
6:15 PM		0	5	0	4	0	1	1	12	0	0	64	2	0	12	74	3	178	0
6:30 PM		0	4	1	3	0	4	0	9	0	1	89	9	0	7	68	3	198	0
6:45 PM		0	8	0	4	0	3	0	11	0	4	63	4	0	7	59	2	165	768
Peak Hour	All	0	20	1	16	0	10	1	45	0	9	310	18	0	35	291	12	768	0
	HV	0	0	0	0	0	0	0	0	0	0	4	0	0	0	11	0	15	0
	HV%	-	0%	0%	0%	-	0%	0%	0%	-	0%	1%	0%	-	0%	4%	0%	2%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	1	0	0	1	*2*
6:30 PM	0	0	1	9	*10*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	4	11	*15*	0	0	0	0	*0*	1	0	0	1	*2*

Six-Hour Count Summaries

Interval Start	Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**3**	**0**	**5**	**0**	**2**	**0**	**13**	**0**	**4**	**94**	**3**	**0**	**9**	**90**	**4**	**227**	0
6:15 PM	**0**	**5**	**0**	**4**	**0**	**1**	**1**	**12**	**0**	**0**	**64**	**2**	**0**	**12**	**74**	**3**	**178**	0
6:30 PM	**0**	**4**	**1**	**3**	**0**	**4**	**0**	**9**	**0**	**1**	**89**	**9**	**0**	**7**	**68**	**3**	**198**	0
6:45 PM	**0**	**8**	**0**	**4**	**0**	**3**	**0**	**11**	**0**	**4**	**63**	**4**	**0**	**7**	**59**	**2**	**165**	**768**
7:00 PM	0	4	0	3	0	3	0	8	0	1	68	4	0	10	55	2	158	699
7:15 PM	0	3	0	2	0	1	0	7	0	0	51	0	0	9	48	0	121	642
7:30 PM	0	3	1	0	0	1	0	9	0	0	39	1	0	8	30	0	92	536
7:45 PM	0	4	0	1	0	1	1	5	0	0	33	1	0	13	46	1	106	477
8:00 PM	0	3	0	2	0	1	0	3	0	0	32	7	0	8	53	3	112	431
8:15 PM	0	2	0	1	0	0	0	7	0	0	38	2	0	8	34	3	95	405
8:30 PM	0	3	1	0	0	4	0	9	0	0	35	3	0	8	36	3	102	415
8:45 PM	0	3	0	0	0	1	1	6	0	0	25	3	0	9	21	2	71	380
9:00 PM	0	2	3	2	0	4	0	7	0	2	28	3	0	7	31	1	90	358
9:15 PM	0	4	1	0	0	0	1	4	0	0	26	3	0	3	35	2	79	342
9:30 PM	0	1	0	2	0	2	0	7	0	0	15	2	0	6	27	2	64	304
9:45 PM	0	1	0	1	0	2	0	4	0	2	26	2	0	3	35	0	76	309
10:00 PM	0	3	0	1	0	2	0	2	0	0	22	2	0	8	32	3	75	294
10:15 PM	0	1	0	0	0	0	0	4	0	0	12	3	0	3	17	1	41	256
10:30 PM	0	4	0	0	0	0	0	5	0	0	10	0	0	7	24	1	51	243
10:45 PM	0	2	0	0	0	1	0	3	0	1	12	0	0	6	11	1	37	204
11:00 PM	0	0	0	0	0	0	0	2	0	0	6	1	0	1	11	0	21	150
11:15 PM	0	0	0	0	0	1	0	2	0	0	5	1	0	1	7	0	17	126
11:30 PM	0	0	0	2	0	0	0	2	0	1	5	1	0	5	4	0	20	95
11:45 PM	0	0	0	0	0	2	0	2	0	0	3	0	0	1	8	1	17	75
Count Total	0	63	7	33	0	36	4	143	0	16	801	57	0	159	856	38	2,213	0
Peak Hour All	**0**	**20**	**1**	**16**	**0**	**10**	**1**	**45**	**0**	**9**	**310**	**18**	**0**	**35**	**291**	**12**	**768**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**11**	**0**	**15**	**0**
Peak Hour HV%	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**1%**	**0%**	**-**	**0%**	**4%**	**0%**	**2%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**1**	*2*
6:30 PM	**0**	**0**	**1**	**9**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	0	0	0	1	*1*	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*
9:00 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 PM	0	0	0	1	*1*	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*
9:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	0	11	19	*30*	0	0	0	0	*0*	1	0	0	1	*2*
Peak Hour	**0**	**0**	**4**	**11**	***15***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**1**	***2***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Boundary St Eastbound				Boundary St Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**9**	**0**	**10**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**15**
7:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	3	15
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	16
7:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	8
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8
8:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
9:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	3
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	1	10	0	0	0	19	0	30	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**11**	**0**	**15**	**0**

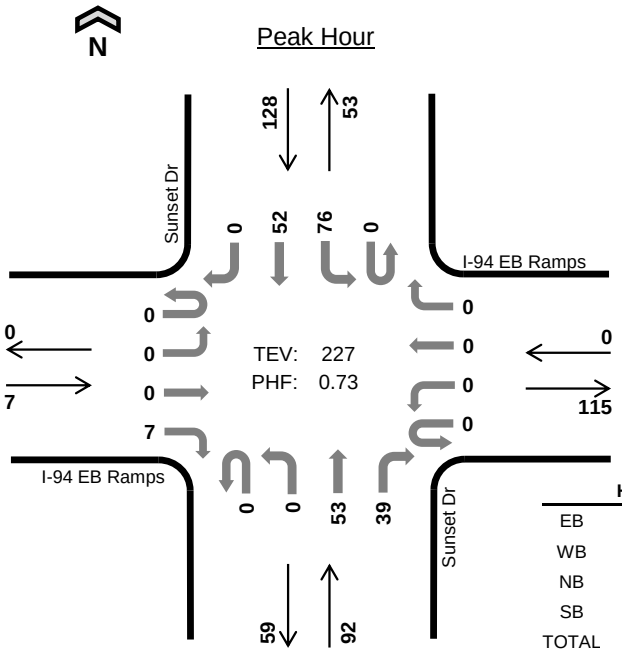
Six-Hour Count Summaries - Bikes

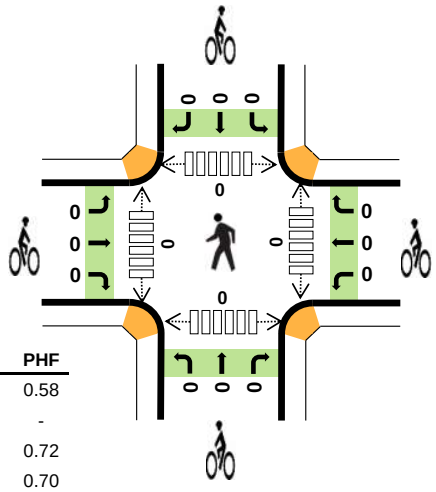
Interval Start	Boundary St Eastbound			Boundary St Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 EB Ramps

Date: 12/01/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM





	HV %:	PHF
EB	0.0%	0.58
WB	-	-
NB	1.1%	0.72
SB	3.9%	0.70
TOTAL	2.6%	0.73

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	0	1	0	0	0	0	0	0	15	6	0	10	10	0	42	0
5:15 AM		0	0	0	3	0	0	0	0	0	0	9	5	0	20	5	0	42	0
5:30 AM		0	0	0	3	0	0	0	0	0	0	13	12	0	23	14	0	65	0
5:45 AM		0	0	0	0	0	0	0	0	0	0	16	16	0	23	23	0	78	227
Peak Hour	All	0	0	0	7	0	0	0	0	0	0	53	39	0	76	52	0	227	0
	HV	0	0	0	0	0	0	0	0	0	0	1	0	0	4	1	0	6	0
	HV%	-	-	-	0%	-	-	-	-	-	-	2%	0%	-	5%	2%	-	3%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	1	5	*6*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	1	0	0	0	0	0	0	0	0	7	1	0	8	7	0	24	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	3	2	0	9	8	0	22	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	11	3	0	18	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	7	4	0	17	81
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	2	5	0	8	65
1:15 AM	0	1	0	0	0	0	0	0	0	0	2	2	0	5	1	0	11	54
1:30 AM	0	2	0	1	0	0	0	0	0	0	1	1	0	5	4	0	14	50
1:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	2	3	0	8	41
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	3	0	3	4	0	12	45
2:15 AM	0	0	0	0	0	0	0	0	0	0	4	4	0	1	6	0	15	49
2:30 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	2	1	0	6	41
2:45 AM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	4	0	11	44
3:00 AM	0	0	0	1	0	0	0	0	0	0	3	1	0	3	4	0	12	44
3:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	0	5	34
3:30 AM	0	0	0	0	0	0	0	0	0	0	3	2	0	2	1	0	8	36
3:45 AM	0	0	0	0	0	0	0	0	0	0	7	6	0	7	3	0	23	48
4:00 AM	0	0	0	0	0	0	0	0	0	0	1	7	0	4	8	0	20	56
4:15 AM	0	1	0	1	0	0	0	0	0	0	8	3	0	7	7	0	27	78
4:30 AM	0	0	0	0	0	0	0	0	0	0	5	3	0	9	6	0	23	93
4:45 AM	0	1	0	1	0	0	0	0	0	0	14	3	0	18	5	0	42	112
5:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**6**	**0**	**10**	**10**	**0**	**42**	134
5:15 AM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**5**	**0**	**20**	**5**	**0**	**42**	149
5:30 AM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**12**	**0**	**23**	**14**	**0**	**65**	191
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**16**	**0**	**23**	**23**	**0**	**78**	**227**
Count Total	0	8	0	11	0	0	0	0	0	0	125	89	0	182	138	0	553	0
Peak Hour All	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**53**	**39**	**0**	**76**	**52**	**0**	**227**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**1**	**0**	**6**	**0**
Peak Hour HV%	**-**	**-**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**2%**	**0%**	**-**	**5%**	**2%**	**-**	**3%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	2	0	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	0	0	1	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	3	0	3	13	*19*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**1**	**5**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	3
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
4:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	4	5
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	7
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	9
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	8
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**2**	**6**
Count Total	0	3	0	0	0	0	0	0	0	0	3	0	0	12	1	0	19	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**1**	**0**	**6**	**0**

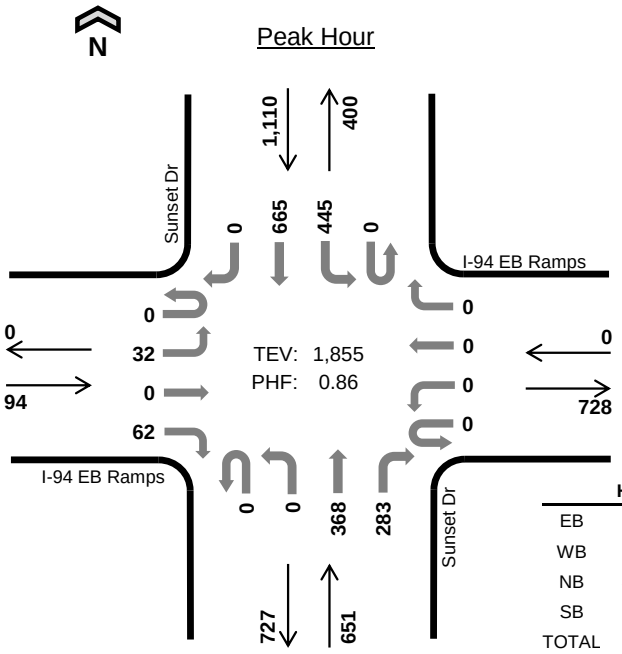
Six-Hour Count Summaries - Bikes

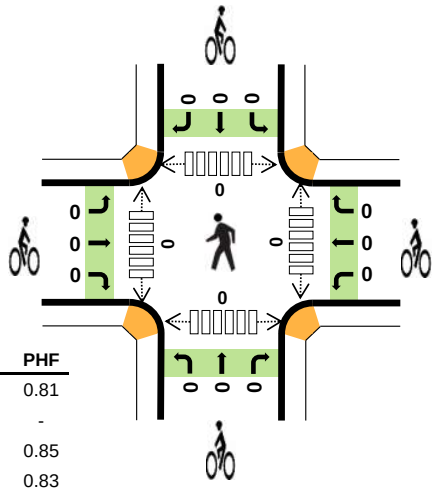
Interval Start	I-94 EB Ramps			I-94 EB Ramps			Sunset Dr			Sunset Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 EB Ramps

Date: 12/01/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	0.0%	0.81
WB	-	-
NB	4.9%	0.85
SB	3.1%	0.83
TOTAL	3.6%	0.86

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	9	0	20	0	0	0	0	0	0	72	72	0	123	133	0	429	0
7:45 AM		0	10	0	18	0	0	0	0	0	0	99	77	0	141	193	0	538	0
8:00 AM		0	10	0	16	0	0	0	0	0	0	121	70	0	78	223	0	518	0
8:15 AM		0	3	0	8	0	0	0	0	0	0	76	64	0	103	116	0	370	1,855
Peak Hour	All	0	32	0	62	0	0	0	0	0	0	368	283	0	445	665	0	1,855	0
	HV	0	0	0	0	0	0	0	0	0	0	28	4	0	15	19	0	66	0
	HV%	-	0%	-	0%	-	-	-	-	-	-	8%	1%	-	3%	3%	-	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:30 AM	0	0	7	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	0	8	15	*23*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	0	0	12	8	*20*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	0	5	10	*15*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	32	34	*66*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	1	0	1	0	0	0	0	0	0	19	17	0	27	10	0	75	0
6:15 AM	0	1	0	1	0	0	0	0	0	0	12	21	0	45	8	0	88	0
6:30 AM	0	3	0	3	0	0	0	0	0	0	19	32	0	72	21	0	150	0
6:45 AM	0	2	0	10	0	0	0	0	0	0	25	39	0	56	24	0	156	469
7:00 AM	0	5	0	5	0	0	0	0	0	0	29	35	0	67	30	0	171	565
7:15 AM	0	6	0	9	0	0	0	0	0	0	37	54	0	84	60	0	250	727
7:30 AM	**0**	**9**	**0**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**72**	**72**	**0**	**123**	**133**	**0**	**429**	1,006
7:45 AM	**0**	**10**	**0**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**99**	**77**	**0**	**141**	**193**	**0**	**538**	1,388
8:00 AM	**0**	**10**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**121**	**70**	**0**	**78**	**223**	**0**	**518**	1,735
8:15 AM	**0**	**3**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**76**	**64**	**0**	**103**	**116**	**0**	**370**	**1,855**
8:30 AM	0	5	0	6	0	0	0	0	0	0	39	41	0	71	54	0	216	1,642
8:45 AM	0	2	0	7	0	0	0	0	0	0	34	24	0	64	53	0	184	1,288
9:00 AM	0	4	0	6	0	0	0	0	0	0	29	29	0	48	36	0	152	922
9:15 AM	0	1	0	7	0	0	0	0	0	0	56	24	0	57	53	0	198	750
9:30 AM	0	4	0	4	0	0	0	0	0	0	30	19	0	54	40	0	151	685
9:45 AM	0	5	0	6	0	0	0	0	0	0	33	24	0	49	43	0	160	661
10:00 AM	0	6	0	5	0	0	0	0	0	0	42	25	0	33	44	0	155	664
10:15 AM	0	5	0	4	0	0	0	0	0	0	41	22	0	51	54	0	177	643
10:30 AM	0	6	0	3	0	0	0	0	0	0	37	23	0	48	39	0	156	648
10:45 AM	0	10	0	5	0	0	0	0	0	0	43	29	0	67	73	0	227	715
11:00 AM	0	6	0	1	0	0	0	0	0	0	57	15	0	50	59	0	188	748
11:15 AM	0	4	1	7	0	0	0	0	0	0	37	33	0	57	48	0	187	758
11:30 AM	0	4	0	7	0	0	0	0	0	0	45	34	0	47	70	0	207	809
11:45 AM	0	4	0	8	0	0	0	0	0	0	58	21	0	57	67	0	215	797
Count Total	0	116	1	167	0	0	0	0	0	0	1,090	844	0	1,549	1,551	0	5,318	0
Peak Hour All	**0**	**32**	**0**	**62**	**0**	**0**	**0**	**0**	**0**	**0**	**368**	**283**	**0**	**445**	**665**	**0**	**1,855**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**4**	**0**	**15**	**19**	**0**	**66**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**8%**	**1%**	**-**	**3%**	**3%**	**-**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	0	1	3	*4*	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*
6:30 AM	0	0	0	1	*1*	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*
7:00 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	6	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**0**	**0**	**7**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**8**	**15**	***23***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**12**	**8**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**5**	**10**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	0	0	4	7	*11*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	3	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	0	0	6	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	0	0	1	7	*8*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	0	0	3	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	1	0	4	8	*13*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	1	0	1	7	*9*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	0	0	4	8	*12*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	1	0	10	6	*17*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	0	0	3	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	1	0	1	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	0	0	1	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	4	0	79	117	*200*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**32**	**34**	***66***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	4	0
6:15 AM	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	1	0	0	1	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	9
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**1**	**0**	**1**	**0**	**0**	**8**	16
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**1**	**0**	**6**	**9**	**0**	**23**	39
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**2**	**0**	**2**	**6**	**0**	**20**	57
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**6**	**4**	**0**	**15**	**66**
8:30 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	5	2	0	11	69
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	4	2	0	9	55
9:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	2	2	0	10	45
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	5	2	0	8	38
9:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	5	1	0	9	36
9:45 AM	0	1	0	0	0	0	0	0	0	0	2	2	0	5	3	0	13	40
10:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	0	5	35
10:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	5	2	0	9	36
10:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	3	5	0	12	39
10:45 AM	0	1	0	0	0	0	0	0	0	0	9	1	0	1	5	0	17	43
11:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	2	0	6	44
11:15 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	3	0	0	5	40
11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	3	31
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	4	18
Count Total	0	3	1	0	0	0	0	0	0	0	70	9	0	69	48	0	200	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**4**	**0**	**15**	**19**	**0**	**66**	**0**

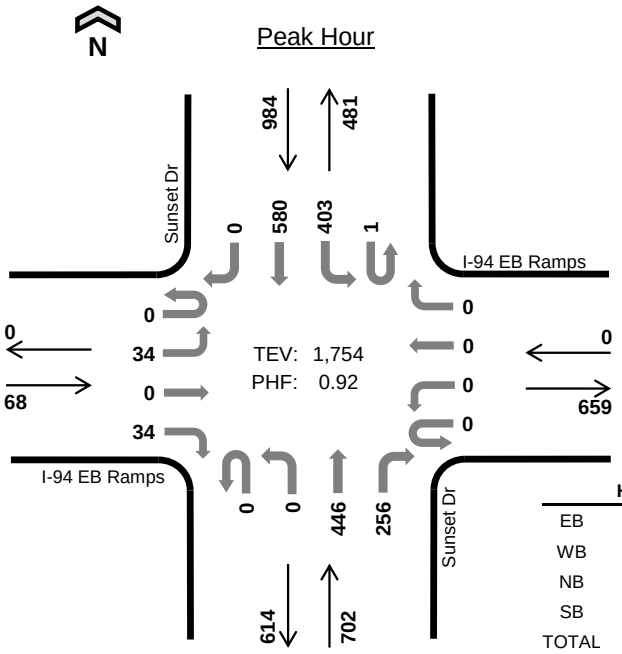
Six-Hour Count Summaries - Bikes

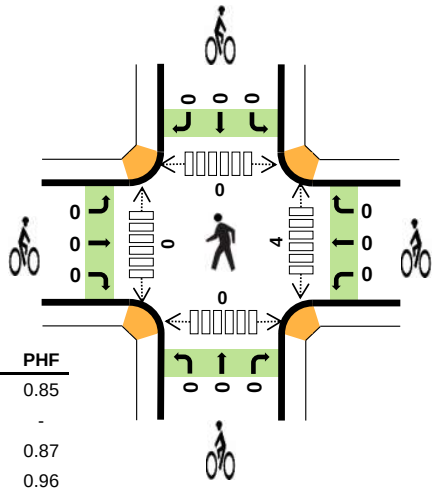
Interval Start	I-94 EB Ramps			I-94 EB Ramps			Sunset Dr			Sunset Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 EB Ramps

Date: 12/01/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 3:15 PM to 4:15 PM





	HV %:	PHF
EB	4.4%	0.85
WB	-	-
NB	3.7%	0.87
SB	4.5%	0.96
TOTAL	4.2%	0.92

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:15 PM		0	6	0	9	0	0	0	0	0	0	121	37	0	103	141	0	417	0
3:30 PM		0	8	0	11	0	0	0	0	0	0	127	74	0	96	159	0	475	0
3:45 PM		0	8	0	6	0	0	0	0	0	0	103	84	0	108	128	0	437	0
4:00 PM		0	12	0	8	0	0	0	0	0	0	95	61	1	96	152	0	425	1,754
Peak Hour	All	0	34	0	34	0	0	0	0	0	0	446	256	1	403	580	0	1,754	0
	HV	0	1	0	2	0	0	0	0	0	0	23	3	0	16	28	0	73	0
	HV%	-	3%	-	6%	-	-	-	-	-	-	5%	1%	0%	4%	5%	-	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:15 PM	2	0	11	8	*21*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	1	0	7	22	*30*	0	0	0	0	*0*	3	0	0	0	*3*
3:45 PM	0	0	4	7	*11*	0	0	0	0	*0*	1	0	0	0	*1*
4:00 PM	0	0	4	7	*11*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	3	0	26	44	*73*	0	0	0	0	*0*	4	0	0	0	*4*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	5	0	9	0	0	0	0	0	0	59	16	0	69	105	0	263	0
12:15 PM	0	5	0	4	0	0	0	0	0	0	55	25	0	65	66	0	220	0
12:30 PM	0	3	0	6	0	0	0	0	0	0	41	26	0	60	66	0	202	0
12:45 PM	0	5	0	10	0	0	0	0	0	0	82	38	0	52	69	0	256	941
1:00 PM	0	8	0	6	0	0	0	0	0	0	55	24	0	57	66	0	216	894
1:15 PM	0	7	0	6	0	0	0	0	0	0	47	40	0	52	52	0	204	878
1:30 PM	0	0	0	4	0	0	0	0	0	0	54	22	0	63	64	0	207	883
1:45 PM	0	2	0	5	0	0	0	0	0	0	50	34	0	41	57	0	189	816
2:00 PM	0	2	0	9	0	0	0	0	0	0	51	53	0	55	67	0	237	837
2:15 PM	0	5	0	9	0	0	0	0	0	0	69	54	0	74	78	0	289	922
2:30 PM	0	7	0	4	0	0	0	0	0	0	65	36	0	49	76	0	237	952
2:45 PM	0	2	0	8	0	0	0	0	0	0	65	41	0	69	92	0	277	1,040
3:00 PM	0	5	0	4	0	0	0	0	0	0	102	42	0	84	117	0	354	1,157
3:15 PM	**0**	**6**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**121**	**37**	**0**	**103**	**141**	**0**	**417**	1,285
3:30 PM	**0**	**8**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**127**	**74**	**0**	**96**	**159**	**0**	**475**	1,523
3:45 PM	**0**	**8**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**103**	**84**	**0**	**108**	**128**	**0**	**437**	1,683
4:00 PM	**0**	**12**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**95**	**61**	**1**	**96**	**152**	**0**	**425**	**1,754**
4:15 PM	0	10	0	8	0	0	0	0	0	0	81	60	0	93	101	0	353	1,690
4:30 PM	0	16	0	11	0	0	0	0	0	0	74	53	0	107	108	0	369	1,584
4:45 PM	0	11	1	8	0	0	0	0	0	0	87	39	0	102	122	0	370	1,517
5:00 PM	0	13	0	10	0	0	0	0	0	0	99	33	0	110	147	0	412	1,504
5:15 PM	0	6	0	9	0	0	0	0	0	0	97	39	0	97	182	0	430	1,581
5:30 PM	0	5	0	16	0	0	0	0	0	0	85	39	0	63	126	0	334	1,546
5:45 PM	0	4	0	17	0	0	0	0	0	0	77	41	0	59	125	0	323	1,499
Count Total	0	155	1	197	0	0	0	0	0	0	1,841	1,011	1	1,824	2,466	0	7,496	0
Peak Hour All	**0**	**34**	**0**	**34**	**0**	**0**	**0**	**0**	**0**	**0**	**446**	**256**	**1**	**403**	**580**	**0**	**1,754**	**0**
Peak Hour HV	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**3**	**0**	**16**	**28**	**0**	**73**	**0**
Peak Hour HV%	**-**	**3%**	**-**	**6%**	**-**	**-**	**-**	**-**	**-**	**-**	**5%**	**1%**	**0%**	**4%**	**5%**	**-**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
12:00 PM	0	0	1	17	*18*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	0	2	6	*8*	0	0	0	0	*0*	2	0	0	0	*2*
12:30 PM	0	0	1	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	0	0	8	2	*10*	0	0	0	0	*0*	1	0	0	0	*1*
1:00 PM	1	0	6	2	*9*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	0	0	2	2	*4*	0	0	0	0	*0*	1	0	0	0	*1*
1:30 PM	0	0	4	2	*6*	0	0	0	0	*0*	1	0	0	0	*1*
1:45 PM	0	0	0	3	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	0	0	1	4	*5*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	0	2	12	*14*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	1	0	2	4	*7*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	0	0	5	11	*16*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	1	0	4	7	*12*	0	0	0	0	*0*	1	0	0	0	*1*
3:15 PM	**2**	**0**	**11**	**8**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
3:30 PM	**1**	**0**	**7**	**22**	***30***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**0**	*3*
3:45 PM	**0**	**0**	**4**	**7**	***11***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
4:00 PM	**0**	**0**	**4**	**7**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:15 PM	0	0	1	6	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	2	0	4	10	*16*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	2	9	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	1	0	7	7	*15*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	1	0	0	1	*2*	0	0	0	0	*0*	2	0	0	0	*2*
5:30 PM	1	0	2	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	2	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	11	0	82	160	*253*	0	0	0	0	*0*	12	0	0	0	*12*
Peak Hour	**3**	**0**	**26**	**44**	***73***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**0**	***4***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	16	0	18	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	4	2	0	8	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	4	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	7	1	0	0	2	0	10	40
1:00 PM	0	1	0	0	0	0	0	0	0	0	6	0	0	0	2	0	9	31
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	4	27
1:30 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	2	0	0	6	29
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	22
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	5	18
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	8	4	0	14	28
2:30 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	3	1	0	7	29
2:45 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	7	4	0	16	42
3:00 PM	0	1	0	0	0	0	0	0	0	0	2	2	0	2	5	0	12	49
3:15 PM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**1**	**0**	**5**	**3**	**0**	**21**	56
3:30 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**1**	**0**	**3**	**19**	**0**	**30**	79
3:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**5**	**2**	**0**	**11**	74
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**3**	**4**	**0**	**11**	**73**
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	3	3	0	7	59
4:30 PM	0	2	0	0	0	0	0	0	0	0	3	1	0	4	6	0	16	45
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	3	6	0	11	45
5:00 PM	0	1	0	0	0	0	0	0	0	0	6	1	0	5	2	0	15	49
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	44
5:30 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	3	3	0	9	37
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	4	30
Count Total	0	9	0	2	0	0	0	0	0	0	66	16	0	69	91	0	253	0
Peak Hour	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**3**	**0**	**16**	**28**	**0**	**73**	**0**

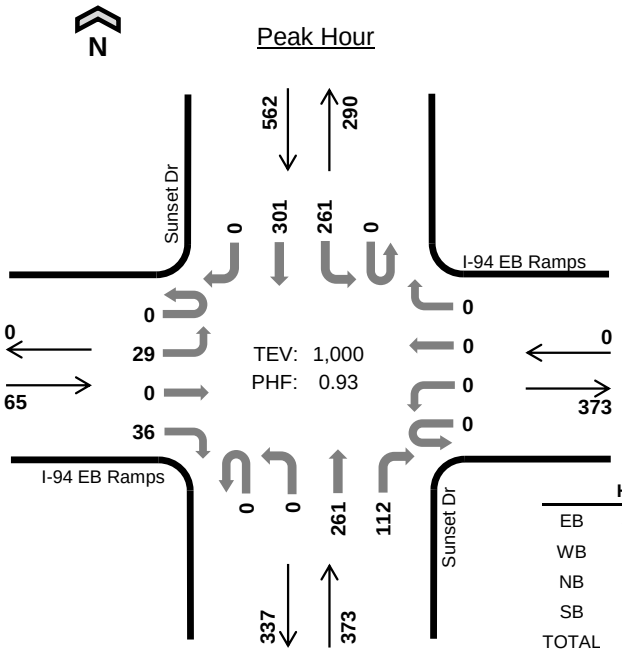
Six-Hour Count Summaries - Bikes

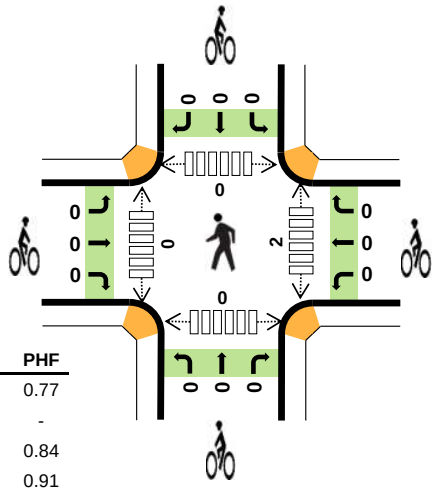
Interval Start	I-94 EB Ramps			I-94 EB Ramps			Sunset Dr			Sunset Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	**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
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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	0
5:00 PM	0	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	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 EB Ramps

Date: 12/01/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM





	HV %:	PHF
EB	4.6%	0.77
WB	-	-
NB	1.1%	0.84
SB	2.8%	0.91
TOTAL	2.3%	0.93

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	7	0	12	0	0	0	0	0	0	78	33	0	48	91	0	269	0
6:15 PM		0	4	0	7	0	0	0	0	0	0	54	27	0	74	81	0	247	0
6:30 PM		0	7	0	7	0	0	0	0	0	0	71	29	0	79	71	0	264	0
6:45 PM		0	11	0	10	0	0	0	0	0	0	58	23	0	60	58	0	220	1,000
Peak Hour	All	0	29	0	36	0	0	0	0	0	0	261	112	0	261	301	0	1,000	0
	HV	0	3	0	0	0	0	0	0	0	0	3	1	0	5	11	0	23	0
	HV%	-	10%	-	0%	-	-	-	-	-	-	1%	1%	-	2%	4%	-	2%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	0	0	2	1	*3*	0	0	0	0	*0*	2	0	0	0	*2*
6:15 PM	0	0	1	4	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	2	0	0	10	*12*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	1	0	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	3	0	4	16	*23*	0	0	0	0	*0*	2	0	0	0	*2*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**7**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**78**	**33**	**0**	**48**	**91**	**0**	**269**	0
6:15 PM	**0**	**4**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**54**	**27**	**0**	**74**	**81**	**0**	**247**	0
6:30 PM	**0**	**7**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**71**	**29**	**0**	**79**	**71**	**0**	**264**	0
6:45 PM	**0**	**11**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**58**	**23**	**0**	**60**	**58**	**0**	**220**	**1,000**
7:00 PM	0	4	0	5	0	0	0	0	0	0	59	20	0	38	61	0	187	918
7:15 PM	0	1	0	5	0	0	0	0	0	0	47	19	0	38	51	0	161	832
7:30 PM	0	2	0	0	0	0	0	0	0	0	42	11	0	62	37	0	154	722
7:45 PM	0	2	0	3	0	0	0	0	0	0	20	22	0	36	56	0	139	641
8:00 PM	0	2	0	1	0	0	0	0	0	0	23	14	0	97	66	0	203	657
8:15 PM	0	2	0	3	0	0	0	0	0	0	34	14	0	28	40	0	121	617
8:30 PM	0	2	0	2	0	0	0	0	0	0	35	12	0	36	45	0	132	595
8:45 PM	0	1	0	3	0	0	0	0	0	0	22	13	0	25	30	0	94	550
9:00 PM	0	1	0	2	0	0	0	0	0	0	25	12	0	10	36	0	86	433
9:15 PM	0	3	0	2	0	0	0	0	0	0	26	8	0	27	37	0	103	415
9:30 PM	0	1	0	1	0	0	0	0	0	0	16	7	0	24	34	0	83	366
9:45 PM	0	1	0	3	0	0	0	0	0	0	24	8	0	32	35	0	103	375
10:00 PM	0	2	0	1	0	0	0	0	0	0	19	9	0	13	42	0	86	375
10:15 PM	0	0	0	3	0	0	0	0	0	0	8	9	0	13	18	0	51	323
10:30 PM	0	0	0	2	0	0	0	0	0	0	13	6	0	11	30	0	62	302
10:45 PM	0	0	0	0	0	0	0	0	0	0	8	9	0	10	18	0	45	244
11:00 PM	0	0	0	1	0	0	0	0	0	0	6	2	0	7	11	0	27	185
11:15 PM	0	0	0	0	0	0	0	0	0	0	4	4	0	4	8	0	20	154
11:30 PM	0	0	0	0	0	0	0	0	0	0	3	4	0	8	9	0	24	116
11:45 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	1	10	0	16	87
Count Total	0	53	0	73	0	0	0	0	0	0	699	316	0	781	975	0	2,897	0
Peak Hour All	**0**	**29**	**0**	**36**	**0**	**0**	**0**	**0**	**0**	**0**	**261**	**112**	**0**	**261**	**301**	**0**	**1,000**	**0**
Peak Hour HV	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**5**	**11**	**0**	**23**	**0**
Peak Hour HV%	**-**	**10%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**1%**	**1%**	**-**	**2%**	**4%**	**-**	**2%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
6:15 PM	**0**	**0**	**1**	**4**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**2**	**0**	**0**	**10**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**1**	**0**	**1**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	1	0	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	0	0	1	1	*2*	0	0	0	0	*0*	1	0	0	0	*1*
7:45 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	0	0	0	2	*2*	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*
9:00 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	1	0	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	6	0	10	29	*45*	0	0	0	0	*0*	3	0	0	0	*3*
Peak Hour	**3**	**0**	**4**	**16**	***23***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	***2***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**3**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**0**	**0**	**5**	0
6:30 PM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**9**	**0**	**12**	0
6:45 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**3**	**23**
7:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	23
7:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	21
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	11
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	10
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	9
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	7
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
9:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
10:00 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	6
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	6	0	0	0	0	0	0	0	0	6	4	0	10	19	0	45	0
Peak Hour	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**5**	**11**	**0**	**23**	**0**

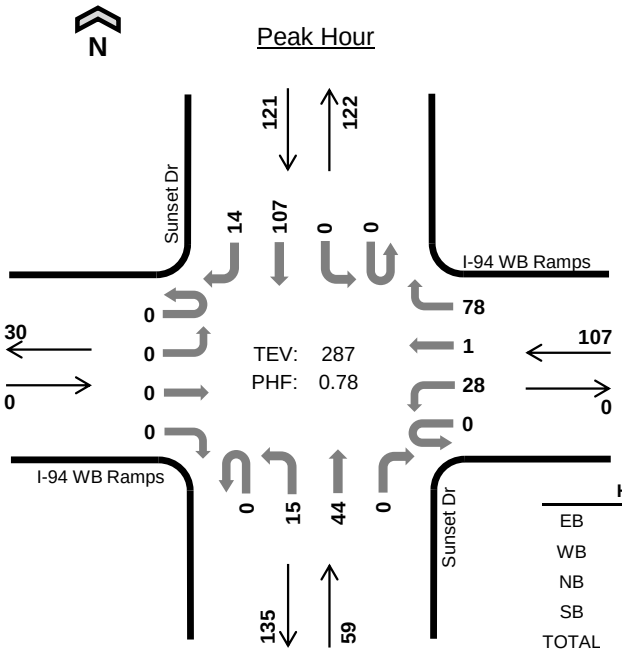
Six-Hour Count Summaries - Bikes

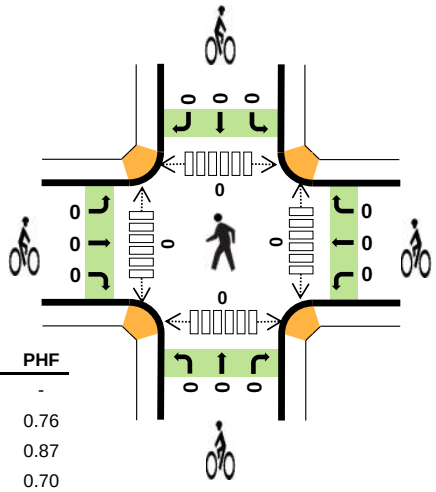
Interval Start	I-94 EB Ramps			I-94 EB Ramps			Sunset Dr			Sunset Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 WB Ramps

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM





	HV %:	PHF
EB	-	-
WB	5.6%	0.76
NB	1.7%	0.87
SB	3.3%	0.70
TOTAL	3.8%	0.78

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	0	0	0	3	1	12	0	3	11	0	0	0	12	1	43	0
5:15 AM		0	0	0	0	0	8	0	16	0	5	9	0	0	0	21	5	64	0
5:30 AM		0	0	0	0	0	7	0	25	0	4	13	0	0	0	40	3	92	0
5:45 AM		0	0	0	0	0	10	0	25	0	3	11	0	0	0	34	5	88	287
Peak Hour	All	0	0	0	0	0	28	1	78	0	15	44	0	0	0	107	14	287	0
	HV	0	0	0	0	0	1	0	5	0	0	1	0	0	0	3	1	11	0
	HV%	-	-	-	-	-	4%	0%	6%	-	0%	2%	-	-	-	3%	7%	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	1	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	0	3	0	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	6	1	4	*11*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	3	0	4	0	0	3	0	0	0	22	0	32	0
12:15 AM	0	0	0	0	0	4	0	6	0	0	0	0	0	0	8	1	19	0
12:30 AM	0	0	0	0	0	1	0	4	0	2	2	0	0	0	4	0	13	0
12:45 AM	0	0	0	0	0	1	0	5	0	0	3	0	0	0	2	0	11	75
1:00 AM	0	0	0	0	0	1	0	3	0	0	1	0	0	0	10	0	15	58
1:15 AM	0	0	0	0	0	3	0	1	0	0	1	0	0	0	1	0	6	45
1:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	6	38
1:45 AM	0	0	0	0	0	0	0	2	0	0	2	0	0	0	1	0	5	32
2:00 AM	0	0	0	0	0	0	0	2	0	0	2	0	0	0	8	0	12	29
2:15 AM	0	0	0	0	0	1	0	2	0	0	1	0	0	0	1	0	5	28
2:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	4	26
2:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	4	0	6	27
3:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	0	6	21
3:15 AM	0	0	0	0	0	1	0	3	0	0	0	0	0	0	5	0	9	25
3:30 AM	0	0	0	0	0	2	0	3	0	3	3	0	0	0	2	1	14	35
3:45 AM	0	0	0	0	0	0	0	7	0	2	4	0	0	0	2	0	15	44
4:00 AM	0	0	0	0	0	1	0	4	0	0	5	0	0	0	9	1	20	58
4:15 AM	0	0	0	0	0	4	0	16	0	2	6	0	0	0	8	3	39	88
4:30 AM	0	0	0	0	0	6	0	17	0	2	2	0	0	0	16	3	46	120
4:45 AM	0	0	0	0	0	3	0	13	0	1	8	0	1	0	18	1	45	150
5:00 AM	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**12**	**0**	**3**	**11**	**0**	**0**	**0**	**12**	**1**	**43**	173
5:15 AM	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**16**	**0**	**5**	**9**	**0**	**0**	**0**	**21**	**5**	**64**	198
5:30 AM	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**25**	**0**	**4**	**13**	**0**	**0**	**0**	**40**	**3**	**92**	244
5:45 AM	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**25**	**0**	**3**	**11**	**0**	**0**	**0**	**34**	**5**	**88**	**287**
Count Total	0	0	0	0	0	61	1	177	0	27	88	0	1	0	236	24	615	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**28**	**1**	**78**	**0**	**15**	**44**	**0**	**0**	**0**	**107**	**14**	**287**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**1**	**11**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**4%**	**0%**	**6%**	**-**	**0%**	**2%**	**-**	**-**	**-**	**3%**	**7%**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	1	0	5	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**1**	**0**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**0**	**3**	**0**	**1**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	10	4	15	*29*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**6**	**1**	**4**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
12:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2
4:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	3
4:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	1	6	9
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	11
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	11
5:15 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	11
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**4**	9
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**11**
Count Total	0	0	0	0	0	2	0	8	0	1	3	0	0	0	13	2	29	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**1**	**11**	**0**

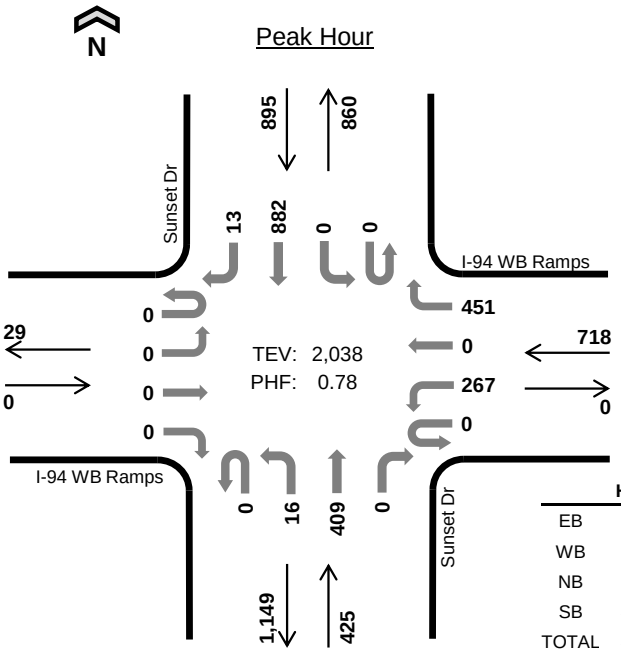
Six-Hour Count Summaries - Bikes

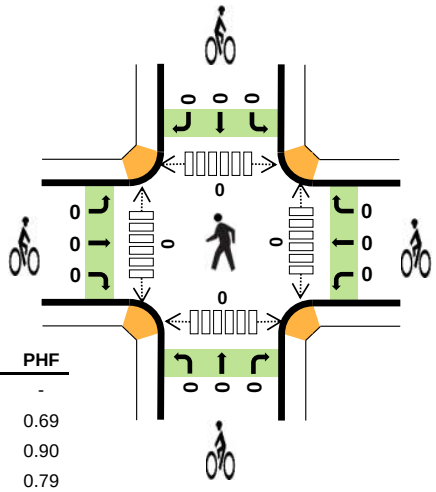
Interval Start	I-94 WB Ramps			I-94 WB Ramps			Sunset Dr			Sunset Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 WB Ramps

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	-	-
WB	2.5%	0.69
NB	7.5%	0.90
SB	4.5%	0.79
TOTAL	4.4%	0.78

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	0	0	0	0	62	0	108	0	5	72	0	0	0	210	3	460	0
7:45 AM		0	0	0	0	0	94	0	166	0	6	109	0	0	0	277	5	657	0
8:00 AM		0	0	0	0	0	67	0	112	0	1	117	0	0	0	212	2	511	0
8:15 AM		0	0	0	0	0	44	0	65	0	4	111	0	0	0	183	3	410	2,038
Peak Hour	All	0	0	0	0	0	267	0	451	0	16	409	0	0	0	882	13	2,038	0
	HV	0	0	0	0	0	4	0	14	0	0	32	0	0	0	38	2	90	0
	HV%	-	-	-	-	-	1%	-	3%	-	0%	8%	-	-	-	4%	15%	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:30 AM	0	4	4	4	*12*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	6	6	10	*22*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	0	4	10	11	*25*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	4	12	15	*31*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	18	32	40	*90*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	7	0	27	0	2	11	0	0	0	31	7	85	0
6:15 AM	0	0	0	0	0	4	0	27	0	3	13	0	0	0	52	6	105	0
6:30 AM	0	0	0	0	0	7	0	41	0	2	10	0	0	0	93	8	161	0
6:45 AM	0	0	0	0	0	7	0	67	0	2	31	0	0	0	60	6	173	524
7:00 AM	0	0	0	0	0	16	0	42	0	2	26	0	0	0	83	4	173	612
7:15 AM	0	0	0	0	0	40	0	74	0	1	37	0	0	0	138	6	296	803
7:30 AM	**0**	**0**	**0**	**0**	**0**	**62**	**0**	**108**	**0**	**5**	**72**	**0**	**0**	**0**	**210**	**3**	**460**	1,102
7:45 AM	**0**	**0**	**0**	**0**	**0**	**94**	**0**	**166**	**0**	**6**	**109**	**0**	**0**	**0**	**277**	**5**	**657**	1,586
8:00 AM	**0**	**0**	**0**	**0**	**0**	**67**	**0**	**112**	**0**	**1**	**117**	**0**	**0**	**0**	**212**	**2**	**511**	1,924
8:15 AM	**0**	**0**	**0**	**0**	**0**	**44**	**0**	**65**	**0**	**4**	**111**	**0**	**0**	**0**	**183**	**3**	**410**	**2,038**
8:30 AM	0	0	0	0	0	31	0	67	0	1	58	0	0	0	115	1	273	1,851
8:45 AM	0	0	0	0	0	24	0	69	0	6	53	0	0	0	98	6	256	1,450
9:00 AM	0	0	0	0	0	20	0	43	0	1	22	0	0	0	70	8	164	1,103
9:15 AM	0	0	0	0	0	14	0	42	0	4	38	0	0	0	74	4	176	869
9:30 AM	0	0	0	0	0	20	0	55	0	3	36	0	0	0	74	4	192	788
9:45 AM	0	0	0	0	0	17	0	41	0	4	33	0	0	0	69	3	167	699
10:00 AM	0	0	0	0	0	21	1	45	0	2	29	0	0	0	66	2	166	701
10:15 AM	0	0	0	0	0	14	0	37	0	2	37	0	0	0	70	2	162	687
10:30 AM	0	0	0	0	0	18	0	44	0	1	40	0	0	0	67	3	173	668
10:45 AM	0	0	0	0	0	22	0	44	0	0	37	0	0	0	98	3	204	705
11:00 AM	0	0	0	0	0	16	1	51	0	4	55	0	0	0	105	7	239	778
11:15 AM	0	0	0	0	0	24	0	44	0	1	41	0	0	0	97	9	216	832
11:30 AM	0	0	0	0	0	21	1	66	0	6	49	0	0	0	82	7	232	891
11:45 AM	0	0	0	0	0	29	0	39	0	3	65	0	0	0	96	8	240	927
Count Total	0	0	0	0	0	639	3	1,416	0	66	1,130	0	0	0	2,520	117	5,891	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**267**	**0**	**451**	**0**	**16**	**409**	**0**	**0**	**0**	**882**	**13**	**2,038**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**14**	**0**	**0**	**32**	**0**	**0**	**0**	**38**	**2**	**90**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**1%**	**-**	**3%**	**-**	**0%**	**8%**	**-**	**-**	**-**	**4%**	**15%**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	0	2	0	4	*6*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	0	2	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	1	0	6	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**0**	**4**	**4**	**4**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**6**	**6**	**10**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**4**	**10**	**11**	***25***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**4**	**12**	**15**	***31***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	0	1	7	11	*19*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	5	10	5	*20*	0	0	0	0	*0*	1	0	0	0	*1*
9:00 AM	0	3	2	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	0	1	4	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	0	2	4	3	*9*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	0	3	1	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	0	6	5	6	*17*	0	0	0	0	*0*	2	0	0	0	*2*
10:15 AM	0	5	2	7	*14*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	0	3	3	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	0	4	5	10	*19*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	0	2	3	8	*13*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	0	2	4	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	0	3	0	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	0	5	3	7	*15*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	68	86	132	*286*	0	0	0	0	*0*	3	0	0	0	*3*
Peak Hour	**0**	**18**	**32**	**40**	***90***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
6:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	4	0	6	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	11
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	4	14
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	0	7	19
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**4**	**0**	**0**	**0**	**3**	**1**	**12**	25
7:45 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**4**	**0**	**0**	**6**	**0**	**0**	**0**	**9**	**1**	**22**	45
8:00 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**0**	**10**	**0**	**0**	**0**	**11**	**0**	**25**	66
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**12**	**0**	**0**	**0**	**15**	**0**	**31**	**90**
8:30 AM	0	0	0	0	0	1	0	0	0	0	7	0	0	0	11	0	19	97
8:45 AM	0	0	0	0	0	1	0	4	0	1	9	0	0	0	5	0	20	95
9:00 AM	0	0	0	0	0	0	0	3	0	0	2	0	0	0	5	0	10	80
9:15 AM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	4	0	9	58
9:30 AM	0	0	0	0	0	0	0	2	0	0	4	0	0	0	3	0	9	48
9:45 AM	0	0	0	0	0	0	0	3	0	0	1	0	0	0	2	0	6	34
10:00 AM	0	0	0	0	0	1	0	5	0	1	4	0	0	0	6	0	17	41
10:15 AM	0	0	0	0	0	0	0	5	0	0	2	0	0	0	7	0	14	46
10:30 AM	0	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	7	44
10:45 AM	0	0	0	0	0	0	0	4	0	0	5	0	0	0	10	0	19	57
11:00 AM	0	0	0	0	0	0	0	2	0	0	3	0	0	0	6	2	13	53
11:15 AM	0	0	0	0	0	1	0	1	0	0	4	0	0	0	4	0	10	49
11:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	2	1	6	48
11:45 AM	0	0	0	0	0	1	0	4	0	1	2	0	0	0	6	1	15	44
Count Total	0	0	0	0	0	10	0	58	0	3	83	0	0	0	125	7	286	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**14**	**0**	**0**	**32**	**0**	**0**	**0**	**38**	**2**	**90**	**0**

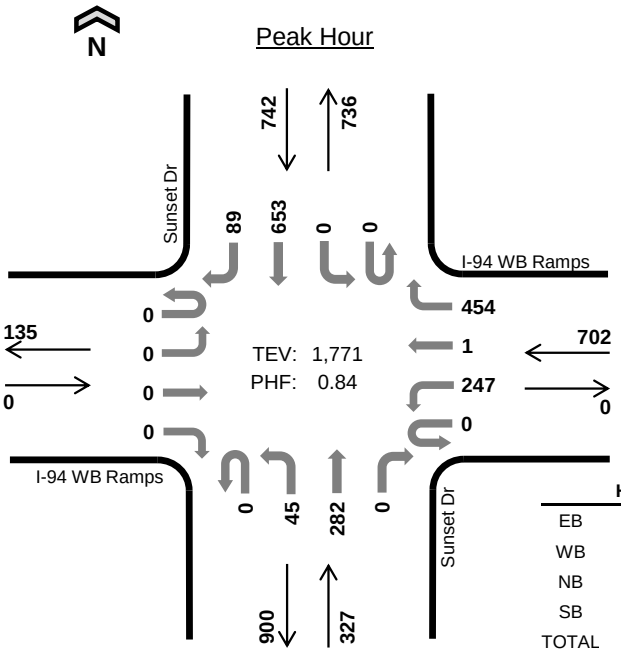
Six-Hour Count Summaries - Bikes

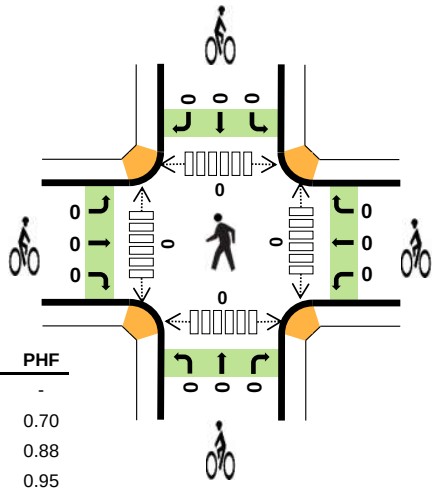
Interval Start	I-94 WB Ramps			I-94 WB Ramps			Sunset Dr			Sunset Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 WB Ramps

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	-	-
WB	1.0%	0.70
NB	0.9%	0.88
SB	1.1%	0.95
TOTAL	1.0%	0.84

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:45 PM		0	0	0	0	0	26	0	98	0	11	66	0	0	0	152	21	374	0
5:00 PM		0	0	0	0	0	52	0	111	0	14	67	0	0	0	167	25	436	0
5:15 PM		0	0	0	0	0	95	1	153	0	13	80	0	0	0	160	22	524	0
5:30 PM		0	0	0	0	0	74	0	92	0	7	69	0	0	0	174	21	437	1,771
Peak Hour	All	0	0	0	0	0	247	1	454	0	45	282	0	0	0	653	89	1,771	0
	HV	0	0	0	0	0	0	0	7	0	0	3	0	0	0	7	1	18	0
	HV%	-	-	-	-	-	0%	0%	2%	-	0%	1%	-	-	-	1%	1%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:45 PM	0	4	2	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	2	1	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	7	3	8	*18*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	25	0	47	0	3	51	0	0	0	111	7	244	0
12:15 PM	0	0	0	0	0	20	0	57	0	4	53	0	0	0	113	9	256	0
12:30 PM	0	0	0	0	0	27	0	60	0	2	33	0	0	0	99	6	227	0
12:45 PM	0	0	0	0	0	15	0	47	0	1	55	0	0	0	101	8	227	954
1:00 PM	0	0	0	0	0	24	0	55	0	3	50	0	0	0	99	5	236	946
1:15 PM	0	0	0	0	0	19	0	58	0	2	50	0	0	0	79	7	215	905
1:30 PM	0	0	0	0	0	23	0	63	0	7	47	0	0	0	103	5	248	926
1:45 PM	0	0	0	0	0	22	0	64	0	3	37	0	0	0	83	4	213	912
2:00 PM	0	0	0	0	0	24	0	64	0	3	60	0	0	0	102	12	265	941
2:15 PM	0	0	0	0	0	18	0	69	0	6	47	0	0	0	96	11	247	973
2:30 PM	0	0	0	0	0	23	0	74	0	2	67	0	0	0	104	10	280	1,005
2:45 PM	0	0	0	0	0	38	0	76	0	3	52	0	0	0	114	11	294	1,086
3:00 PM	0	0	0	0	0	23	0	62	0	2	86	0	0	0	142	8	323	1,144
3:15 PM	0	0	0	0	0	44	0	78	0	1	85	0	0	0	158	10	376	1,273
3:30 PM	0	0	0	0	0	40	0	83	0	9	109	0	0	0	200	9	450	1,443
3:45 PM	0	0	0	0	0	41	0	84	0	6	95	0	0	0	147	14	387	1,536
4:00 PM	0	0	0	0	0	27	0	103	0	4	59	0	0	0	172	14	379	1,592
4:15 PM	0	0	0	0	0	59	0	96	0	12	83	0	0	0	162	15	427	1,643
4:30 PM	0	0	0	0	0	37	0	114	0	8	57	0	0	0	190	10	416	1,609
4:45 PM	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**98**	**0**	**11**	**66**	**0**	**0**	**0**	**152**	**21**	**374**	1,596
5:00 PM	**0**	**0**	**0**	**0**	**0**	**52**	**0**	**111**	**0**	**14**	**67**	**0**	**0**	**0**	**167**	**25**	**436**	1,653
5:15 PM	**0**	**0**	**0**	**0**	**0**	**95**	**1**	**153**	**0**	**13**	**80**	**0**	**0**	**0**	**160**	**22**	**524**	1,750
5:30 PM	**0**	**0**	**0**	**0**	**0**	**74**	**0**	**92**	**0**	**7**	**69**	**0**	**0**	**0**	**174**	**21**	**437**	**1,771**
5:45 PM	0	0	0	0	0	60	0	81	0	5	60	0	0	0	139	20	365	1,762
Count Total	0	0	0	0	0	856	1	1,889	0	131	1,518	0	0	0	3,167	284	7,846	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**247**	**1**	**454**	**0**	**45**	**282**	**0**	**0**	**0**	**653**	**89**	**1,771**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**3**	**0**	**0**	**0**	**7**	**1**	**18**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**0%**	**2%**	**-**	**0%**	**1%**	**-**	**-**	**-**	**1%**	**1%**	**1%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	1	3	6	*10*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	1	2	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	0	3	2	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	0	2	5	2	*9*	0	0	0	0	*0*	1	0	0	0	*1*
1:00 PM	0	4	1	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	0	0	3	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	0	1	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	0	5	4	3	*12*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	2	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	0	4	2	3	*9*	0	0	0	0	*0*	1	0	0	0	*1*
2:45 PM	0	4	1	0	*5*	0	0	0	0	*0*	1	0	0	0	*1*
3:00 PM	0	5	4	4	*13*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	0	5	8	7	*20*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	0	6	3	18	*27*	0	0	0	0	*0*	2	0	0	0	*2*
3:45 PM	0	4	6	11	*21*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	0	0	2	4	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	4	3	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	3	1	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**0**	**4**	**2**	**4**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**2**	**1**	**3**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	62	57	93	*212*	0	0	0	0	*0*	5	0	0	0	*5*
Peak Hour	**0**	**7**	**3**	**8**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Sunset Dr				Sunset Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	5	1	10	0
12:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	6	0	9	0
12:30 PM	0	0	0	0	0	0	0	3	0	0	2	0	0	0	1	0	6	0
12:45 PM	0	0	0	0	0	0	0	2	0	0	5	0	0	0	2	0	9	34
1:00 PM	0	0	0	0	0	0	0	4	0	0	1	0	0	0	5	0	10	34
1:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0	9	34
1:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	3	31
1:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3	25
2:00 PM	0	0	0	0	0	2	0	3	0	0	4	0	0	0	2	1	12	27
2:15 PM	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	4	22
2:30 PM	0	0	0	0	0	1	0	3	0	0	2	0	0	0	3	0	9	28
2:45 PM	0	0	0	0	0	1	0	3	0	0	1	0	0	0	0	0	5	30
3:00 PM	0	0	0	0	0	0	0	5	0	0	4	0	0	0	4	0	13	31
3:15 PM	0	0	0	0	0	1	0	4	0	0	8	0	0	0	6	1	20	47
3:30 PM	0	0	0	0	0	0	0	6	0	1	2	0	0	0	18	0	27	65
3:45 PM	0	0	0	0	0	0	0	4	0	0	6	0	0	0	11	0	21	81
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	74
4:15 PM	0	0	0	0	0	1	0	3	0	0	3	0	0	0	3	0	10	64
4:30 PM	0	0	0	0	0	0	0	3	0	0	1	0	0	0	2	0	6	43
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**1**	**10**	32
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	27
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**6**	23
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**18**
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	10
Count Total	0	0	0	0	0	7	0	55	0	1	56	0	0	0	89	4	212	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**3**	**0**	**0**	**0**	**7**	**1**	**18**	**0**

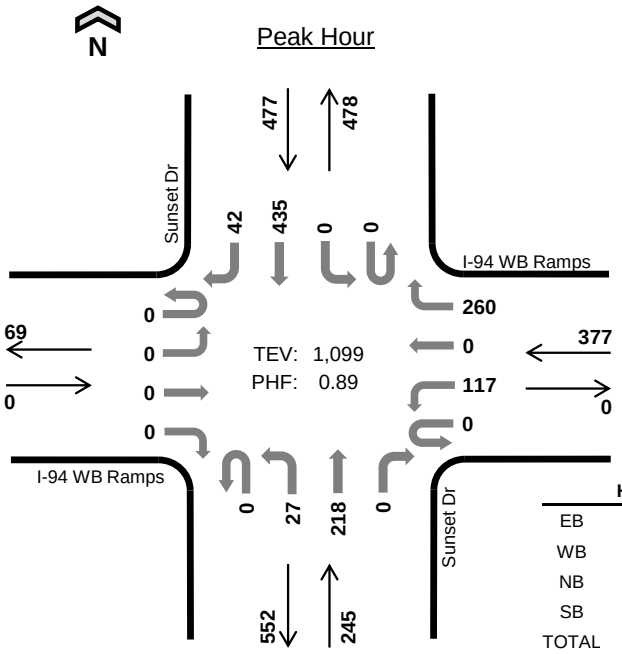
Six-Hour Count Summaries - Bikes

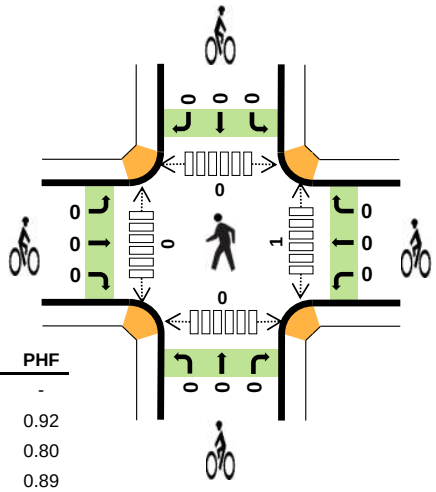
Interval Start	I-94 WB Ramps			I-94 WB Ramps			Sunset Dr			Sunset Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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**	0
5:00 PM	**0**	**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**	0
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
I-94 WB Ramps

Date: 11/29/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM





	HV %:	PHF
EB	-	-
WB	0.5%	0.92
NB	1.2%	0.80
SB	0.8%	0.89
TOTAL	0.8%	0.89

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	0	0	0	0	21	0	78	0	10	67	0	0	0	123	8	307	0
6:15 PM		0	0	0	0	0	32	0	59	0	9	59	0	0	0	119	15	293	0
6:30 PM		0	0	0	0	0	29	0	56	0	7	46	0	0	0	102	10	250	0
6:45 PM		0	0	0	0	0	35	0	67	0	1	46	0	0	0	91	9	249	1,099
Peak Hour	All	0	0	0	0	0	117	0	260	0	27	218	0	0	0	435	42	1,099	0
	HV	0	0	0	0	0	0	0	2	0	0	3	0	0	0	1	3	9	0
	HV%	-	-	-	-	-	0%	-	1%	-	0%	1%	-	-	-	0%	7%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	0	1	1	2	*4*	0	0	0	0	*0*	1	0	0	0	*1*
6:30 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	2	3	4	*9*	0	0	0	0	*0*	1	0	0	0	*1*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**78**	**0**	**10**	**67**	**0**	**0**	**0**	**123**	**8**	**307**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**32**	**0**	**59**	**0**	**9**	**59**	**0**	**0**	**0**	**119**	**15**	**293**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**29**	**0**	**56**	**0**	**7**	**46**	**0**	**0**	**0**	**102**	**10**	**250**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**35**	**0**	**67**	**0**	**1**	**46**	**0**	**0**	**0**	**91**	**9**	**249**	**1,099**
7:00 PM	0	0	0	0	0	26	0	61	0	9	88	0	0	0	80	11	275	1,067
7:15 PM	0	0	0	0	0	18	0	39	0	3	35	0	0	0	56	5	156	930
7:30 PM	0	0	0	0	0	13	0	38	0	3	21	0	0	0	62	4	141	821
7:45 PM	0	0	0	0	0	18	0	35	0	6	29	0	0	0	40	5	133	705
8:00 PM	0	0	0	0	0	19	0	36	0	6	29	0	0	0	42	4	136	566
8:15 PM	0	0	0	0	0	18	0	34	0	3	14	0	0	0	44	4	117	527
8:30 PM	0	0	0	0	0	10	0	37	0	2	25	0	0	0	53	1	128	514
8:45 PM	0	0	0	0	0	5	0	29	0	11	64	0	0	0	56	5	170	551
9:00 PM	0	0	0	0	0	15	0	22	0	2	16	0	0	0	44	12	111	526
9:15 PM	0	0	0	0	0	14	0	27	0	3	18	0	0	0	29	6	97	506
9:30 PM	0	0	0	0	0	6	0	21	0	2	9	0	0	0	29	6	73	451
9:45 PM	0	0	0	0	0	7	0	26	0	1	19	0	0	0	27	0	80	361
10:00 PM	0	0	0	0	0	8	0	17	0	1	13	0	0	0	22	3	64	314
10:15 PM	0	0	0	0	0	9	0	19	0	0	10	0	0	0	8	0	46	263
10:30 PM	0	0	0	0	0	4	0	15	0	3	4	0	0	0	17	1	44	234
10:45 PM	0	0	0	0	0	5	0	18	0	1	5	0	0	0	10	1	40	194
11:00 PM	0	0	0	0	0	3	0	8	0	0	9	0	0	0	9	0	29	159
11:15 PM	0	0	0	0	0	2	0	11	0	1	2	0	0	0	12	1	29	142
11:30 PM	0	0	0	0	0	1	0	2	0	1	2	0	0	0	14	0	20	118
11:45 PM	0	0	0	0	0	5	0	12	0	0	3	0	0	0	9	0	29	107
Count Total	0	0	0	0	0	323	0	767	0	85	633	0	0	0	1,098	111	3,017	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**117**	**0**	**260**	**0**	**27**	**218**	**0**	**0**	**0**	**435**	**42**	**1,099**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**3**	**9**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**1%**	**-**	**0%**	**1%**	**-**	**-**	**-**	**0%**	**7%**	**1%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
6:00 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**0**	**1**	**1**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
6:30 PM	**0**	**0**	**1**	**2**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**0**	**0**	**1**	**0**	***1***	**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*
7:15 PM	0	0	0	1	*1*	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*
7:45 PM	0	2	0	1	*3*	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*
8:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	0	1	0	0	*1*	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*
9:15 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	0	0	0	1	*1*	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*
10:00 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	9	5	9	*23*	0	0	0	0	*0*	1	0	0	0	*1*
Peak Hour	**0**	**2**	**3**	**4**	***9***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**4**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**3**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**9**
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	3	4
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
8:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	4
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	4
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
11:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	3
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	4
Count Total	0	0	0	0	0	1	0	8	0	2	3	0	0	0	4	5	23	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**3**	**9**	**0**

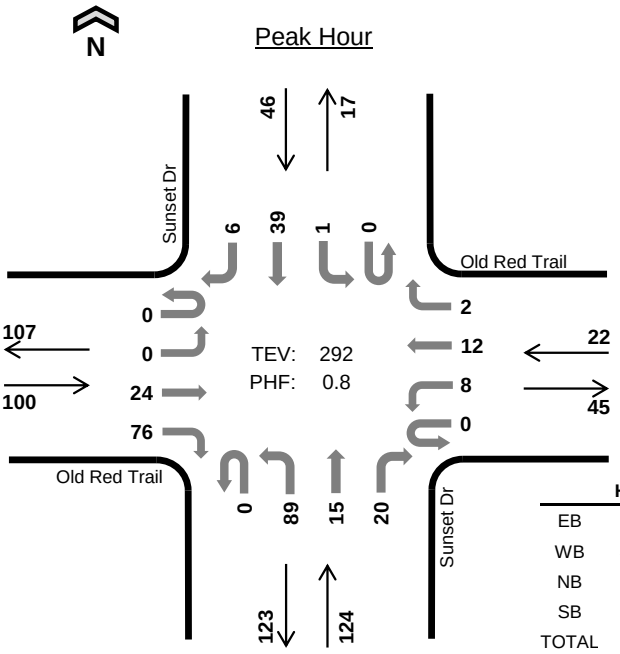
Six-Hour Count Summaries - Bikes

Interval Start	I-94 WB Ramps Eastbound			I-94 WB Ramps Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**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
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

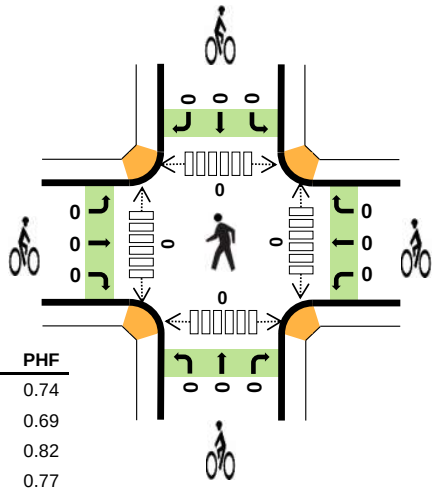
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
Old Red Trail

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM



	HV %:	PHF
EB	7.0%	0.74
WB	4.5%	0.69
NB	5.6%	0.82
SB	2.2%	0.77
TOTAL	5.5%	0.80



Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	3	9	0	0	2	1	0	14	1	8	0	0	4	1	43	0
5:15 AM		0	0	9	18	0	1	6	1	0	17	5	5	0	1	8	3	74	0
5:30 AM		0	0	3	24	0	4	2	0	0	28	6	2	0	0	14	1	84	0
5:45 AM		0	0	9	25	0	3	2	0	0	30	3	5	0	0	13	1	91	292
Peak Hour	All	0	0	24	76	0	8	12	2	0	89	15	20	0	1	39	6	292	0
	HV	0	0	4	3	0	1	0	0	0	3	0	4	0	0	0	1	16	0
	HV%	-	-	17%	4%	-	13%	0%	0%	-	3%	0%	20%	-	0%	0%	17%	5%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	1	0	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	2	0	2	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	2	1	3	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	7	1	7	1	*16*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	1	2	22	0	0	1	0	0	4	2	1	0	1	1	2	37	0
12:15 AM	0	1	0	6	0	0	2	0	0	4	2	0	0	0	2	0	17	0
12:30 AM	0	1	2	3	0	0	1	0	0	5	2	0	0	0	1	0	15	0
12:45 AM	0	0	2	0	0	0	0	1	0	7	0	1	0	0	2	0	13	82
1:00 AM	0	0	1	10	0	0	0	0	0	3	1	0	0	0	0	0	15	60
1:15 AM	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	3	46
1:30 AM	0	0	1	1	0	2	0	1	0	2	1	0	0	0	0	0	8	39
1:45 AM	0	0	0	1	0	0	0	0	0	0	2	2	0	1	0	0	6	32
2:00 AM	0	1	0	6	0	2	0	0	0	1	3	0	0	0	0	0	13	30
2:15 AM	0	0	0	1	0	0	0	1	0	2	0	1	0	0	0	0	5	32
2:30 AM	0	0	0	2	0	0	0	0	0	1	0	0	0	0	1	0	4	28
2:45 AM	0	0	0	3	0	0	0	0	0	0	0	2	0	0	1	0	6	28
3:00 AM	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	4	19
3:15 AM	0	0	0	4	0	0	0	0	0	0	2	1	0	0	1	0	8	22
3:30 AM	0	0	1	1	0	0	0	0	0	3	0	3	0	0	2	0	10	28
3:45 AM	0	0	0	2	0	0	1	0	0	7	1	3	0	0	0	1	15	37
4:00 AM	0	0	1	7	0	1	2	0	0	7	1	1	0	0	2	0	22	55
4:15 AM	0	0	0	7	0	0	6	0	0	21	1	0	0	0	4	3	42	89
4:30 AM	0	0	2	16	0	2	1	0	0	15	1	2	0	0	1	0	40	119
4:45 AM	0	0	2	13	0	2	4	1	0	16	1	6	0	1	5	0	51	155
5:00 AM	**0**	**0**	**3**	**9**	**0**	**0**	**2**	**1**	**0**	**14**	**1**	**8**	**0**	**0**	**4**	**1**	**43**	176
5:15 AM	**0**	**0**	**9**	**18**	**0**	**1**	**6**	**1**	**0**	**17**	**5**	**5**	**0**	**1**	**8**	**3**	**74**	208
5:30 AM	**0**	**0**	**3**	**24**	**0**	**4**	**2**	**0**	**0**	**28**	**6**	**2**	**0**	**0**	**14**	**1**	**84**	252
5:45 AM	**0**	**0**	**9**	**25**	**0**	**3**	**2**	**0**	**0**	**30**	**3**	**5**	**0**	**0**	**13**	**1**	**91**	**292**
Count Total	0	4	38	184	0	17	30	6	0	190	36	43	0	4	62	12	626	0
Peak Hour All	**0**	**0**	**24**	**76**	**0**	**8**	**12**	**2**	**0**	**89**	**15**	**20**	**0**	**1**	**39**	**6**	**292**	**0**
Peak Hour HV	**0**	**0**	**4**	**3**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**4**	**0**	**0**	**0**	**1**	**16**	**0**
Peak Hour HV%	**-**	**-**	**17%**	**4%**	**-**	**13%**	**0%**	**0%**	**-**	**3%**	**0%**	**20%**	**-**	**0%**	**0%**	**17%**	**5%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	4	1	1	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**1**	**0**	**1**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**2**	**0**	**2**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**2**	**0**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**2**	**1**	**3**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	17	2	12	1	*32*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**7**	**1**	**7**	**1**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
4:15 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	3
4:30 AM	0	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0	6	9
4:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	11
5:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	13
5:15 AM	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**	15
5:30 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	12
5:45 AM	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**16**
Count Total	0	0	4	13	0	2	0	0	0	5	1	6	0	0	0	1	32	0
Peak Hour	**0**	**0**	**4**	**3**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**4**	**0**	**0**	**0**	**1**	**16**	**0**

Six-Hour Count Summaries - Bikes

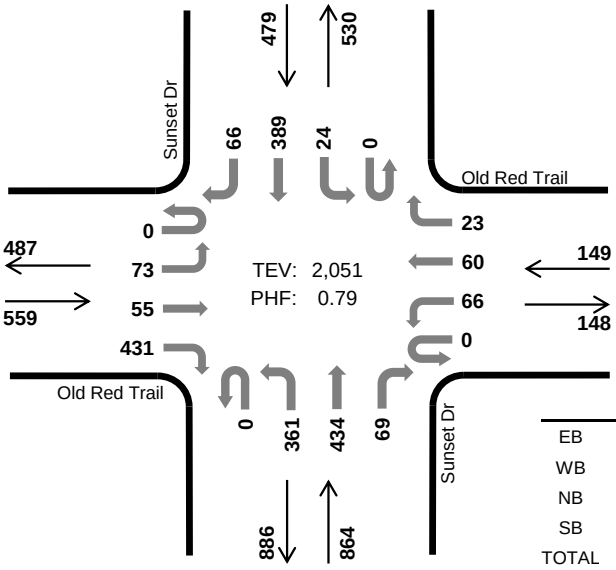
Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

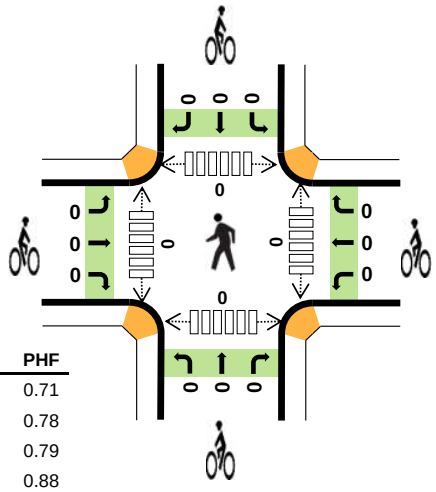
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
Old Red Trail

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:30 AM to 8:30 AM

Peak Hour





	HV %:	PHF
EB	3.2%	0.71
WB	4.7%	0.78
NB	5.3%	0.79
SB	6.5%	0.88
TOTAL	5.0%	0.79

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	12	5	119	0	13	10	4	0	83	87	6	0	4	84	17	444	0
7:45 AM		0	33	21	142	0	23	21	4	0	116	138	18	0	1	116	19	652	0
8:00 AM		0	14	16	88	0	19	20	9	0	98	117	24	0	10	104	15	534	0
8:15 AM		0	14	13	82	0	11	9	6	0	64	92	21	0	9	85	15	421	2,051
Peak Hour	All	0	73	55	431	0	66	60	23	0	361	434	69	0	24	389	66	2,051	0
	HV	0	4	1	13	0	4	1	2	0	13	27	6	0	5	22	4	102	0
	HV%	-	5%	2%	3%	-	6%	2%	9%	-	4%	6%	9%	-	21%	6%	6%	5%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:30 AM	3	0	8	3	*14*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	4	3	10	6	*23*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	6	2	12	12	*32*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	5	2	16	10	*33*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	18	7	46	31	*102*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	8	28	0	1	6	1	0	27	5	5	0	0	7	2	90	0
6:15 AM	0	0	5	41	0	2	4	0	0	20	14	7	0	4	15	1	113	0
6:30 AM	0	2	10	69	0	11	3	2	0	19	21	11	0	0	20	2	170	0
6:45 AM	0	2	9	41	0	8	4	3	0	62	21	14	0	3	18	8	193	566
7:00 AM	0	2	7	57	0	12	4	2	0	32	18	14	0	2	18	4	172	648
7:15 AM	0	7	10	87	0	15	15	8	0	67	29	10	0	2	45	8	303	838
7:30 AM	**0**	**12**	**5**	**119**	**0**	**13**	**10**	**4**	**0**	**83**	**87**	**6**	**0**	**4**	**84**	**17**	**444**	1,112
7:45 AM	**0**	**33**	**21**	**142**	**0**	**23**	**21**	**4**	**0**	**116**	**138**	**18**	**0**	**1**	**116**	**19**	**652**	1,571
8:00 AM	**0**	**14**	**16**	**88**	**0**	**19**	**20**	**9**	**0**	**98**	**117**	**24**	**0**	**10**	**104**	**15**	**534**	1,933
8:15 AM	**0**	**14**	**13**	**82**	**0**	**11**	**9**	**6**	**0**	**64**	**92**	**21**	**0**	**9**	**85**	**15**	**421**	**2,051**
8:30 AM	0	5	15	62	0	10	10	5	0	58	37	30	0	3	40	2	277	1,884
8:45 AM	0	7	12	49	0	13	8	8	0	48	37	34	0	4	42	5	267	1,499
9:00 AM	0	2	9	35	0	25	7	5	0	32	19	13	0	4	20	2	173	1,138
9:15 AM	0	2	7	44	0	10	7	5	0	21	36	24	0	2	22	1	181	898
9:30 AM	0	2	4	35	0	11	9	2	0	29	26	23	0	3	32	4	180	801
9:45 AM	0	3	13	35	0	12	9	4	0	32	29	24	0	4	28	3	196	730
10:00 AM	0	4	3	32	0	14	9	8	0	34	19	20	0	8	22	2	175	732
10:15 AM	0	0	7	36	0	14	3	12	0	27	22	25	0	10	22	7	185	736
10:30 AM	0	5	3	28	0	19	7	5	0	28	33	19	0	7	24	4	182	738
10:45 AM	0	11	10	58	0	17	17	6	0	34	22	27	0	6	26	8	242	784
11:00 AM	0	9	5	47	0	23	8	6	0	43	29	32	0	11	42	6	261	870
11:15 AM	0	7	11	43	0	22	11	12	0	32	26	23	0	3	40	8	238	923
11:30 AM	0	4	8	32	0	25	13	5	0	53	29	36	0	7	34	10	256	997
11:45 AM	0	3	8	45	0	22	14	14	0	35	36	31	0	3	36	6	253	1,008
Count Total	0	150	219	1,335	0	352	228	136	0	1,094	942	491	0	110	942	159	6,158	0
Peak Hour All	**0**	**73**	**55**	**431**	**0**	**66**	**60**	**23**	**0**	**361**	**434**	**69**	**0**	**24**	**389**	**66**	**2,051**	**0**
Peak Hour HV	**0**	**4**	**1**	**13**	**0**	**4**	**1**	**2**	**0**	**13**	**27**	**6**	**0**	**5**	**22**	**4**	**102**	**0**
Peak Hour HV%	**-**	**5%**	**2%**	**3%**	**-**	**6%**	**2%**	**9%**	**-**	**4%**	**6%**	**9%**	**-**	**21%**	**6%**	**6%**	**5%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	2	0	3	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	4	1	1	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	1	0	2	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	5	2	1	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**3**	**0**	**8**	**3**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**4**	**3**	**10**	**6**	***23***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**6**	**2**	**12**	**12**	***32***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**5**	**2**	**16**	**10**	***33***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	5	3	7	5	*20*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	4	1	12	2	*19*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	3	0	6	1	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	3	3	5	1	*12*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	3	0	5	2	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	1	2	4	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	3	3	9	1	*16*	0	0	0	0	*0*	2	0	0	0	*2*
10:15 AM	4	3	6	2	*15*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	0	1	4	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	5	5	10	2	*22*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	7	2	4	1	*14*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	2	3	6	2	*13*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	4	2	3	1	*10*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	3	5	5	1	*14*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	78	45	139	55	*317*	0	0	0	0	*0*	2	0	0	0	*2*
Peak Hour	**18**	**7**	**46**	**31**	***102***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
6:15 AM	0	0	1	1	0	0	0	0	0	2	1	0	0	0	0	1	6	0
6:30 AM	0	1	0	3	0	1	0	0	0	0	0	1	0	0	0	0	6	0
6:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	15
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	1	0	4	18
7:15 AM	0	0	0	5	0	1	1	0	0	1	0	0	0	0	0	0	8	20
7:30 AM	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**4**	**0**	**0**	**0**	**2**	**1**	**14**	28
7:45 AM	**0**	**0**	**0**	**4**	**0**	**2**	**0**	**1**	**0**	**1**	**7**	**2**	**0**	**1**	**4**	**1**	**23**	49
8:00 AM	**0**	**2**	**0**	**4**	**0**	**0**	**1**	**1**	**0**	**4**	**7**	**1**	**0**	**3**	**8**	**1**	**32**	77
8:15 AM	**0**	**0**	**1**	**4**	**0**	**2**	**0**	**0**	**0**	**4**	**9**	**3**	**0**	**1**	**8**	**1**	**33**	**102**
8:30 AM	0	1	0	4	0	2	1	0	0	1	1	5	0	0	5	0	20	108
8:45 AM	0	0	1	3	0	0	0	1	0	4	2	6	0	0	2	0	19	104
9:00 AM	0	0	0	3	0	0	0	0	0	5	1	0	0	0	1	0	10	82
9:15 AM	0	0	0	3	0	1	1	1	0	1	2	2	0	0	1	0	12	61
9:30 AM	0	0	1	2	0	0	0	0	0	2	0	3	0	1	1	0	10	51
9:45 AM	0	0	0	1	0	0	1	1	0	1	2	1	0	0	1	0	8	40
10:00 AM	0	0	0	3	0	2	1	0	0	4	1	4	0	0	1	0	16	46
10:15 AM	0	0	1	3	0	2	1	0	0	3	0	3	0	0	2	0	15	49
10:30 AM	0	0	0	0	0	1	0	0	0	1	1	2	0	0	0	0	5	44
10:45 AM	0	0	0	5	0	4	1	0	0	5	1	4	0	0	1	1	22	58
11:00 AM	0	0	0	7	0	1	0	1	0	2	0	2	0	1	0	0	14	56
11:15 AM	0	0	0	2	0	2	1	0	0	2	4	0	0	1	0	1	13	54
11:30 AM	0	1	0	3	0	1	1	0	0	3	0	0	0	1	0	0	10	59
11:45 AM	0	0	0	3	0	2	2	1	0	1	1	3	0	0	1	0	14	51
Count Total	0	7	5	66	0	26	12	7	0	51	44	44	0	9	39	7	317	0
Peak Hour	**0**	**4**	**1**	**13**	**0**	**4**	**1**	**2**	**0**	**13**	**27**	**6**	**0**	**5**	**22**	**4**	**102**	**0**

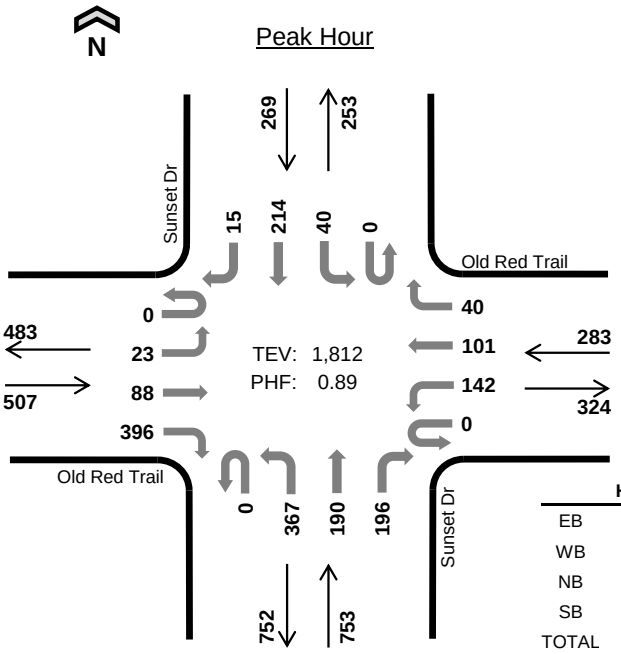
Six-Hour Count Summaries - Bikes

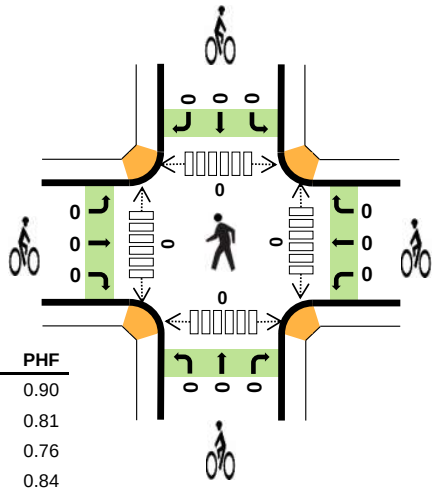
Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
Old Red Trail

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV %:	PHF
EB	1.2%	0.90
WB	1.1%	0.81
NB	1.6%	0.76
SB	1.1%	0.84
TOTAL	1.3%	0.89

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	4	27	110	0	25	18	9	0	81	41	46	0	10	66	4	441	0
4:45 PM		0	6	24	90	0	37	23	5	0	78	41	44	0	12	45	6	411	0
5:00 PM		0	3	22	115	0	37	39	11	0	88	37	48	0	8	42	1	451	0
5:15 PM		0	10	15	81	0	43	21	15	0	120	71	58	0	10	61	4	509	1,812
Peak Hour	All	0	23	88	396	0	142	101	40	0	367	190	196	0	40	214	15	1,812	0
	HV	0	0	1	5	0	2	1	0	0	6	3	3	0	0	3	0	24	0
	HV%	-	0%	1%	1%	-	1%	1%	0%	-	2%	2%	2%	-	0%	1%	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:30 PM	1	0	4	2	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	2	1	3	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	1	1	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	2	1	4	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	6	3	12	3	*24*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	9	40	63	0	23	16	17	0	43	22	31	0	6	35	7	312	0
12:15 PM	0	8	9	53	0	36	16	8	0	47	32	26	0	15	30	10	290	0
12:30 PM	0	3	12	42	0	27	27	11	0	43	34	20	0	5	39	5	268	0
12:45 PM	0	5	14	44	0	21	13	11	0	43	23	35	0	10	41	7	267	1,137
1:00 PM	0	1	8	47	0	30	22	9	0	41	31	31	0	9	35	6	270	1,095
1:15 PM	0	2	9	39	0	24	16	9	0	55	30	25	0	5	28	3	245	1,050
1:30 PM	0	5	10	55	0	24	7	6	0	44	33	33	0	10	27	4	258	1,040
1:45 PM	0	5	9	45	0	25	16	10	0	52	29	21	0	5	17	1	235	1,008
2:00 PM	0	1	13	57	0	28	7	11	0	49	28	44	0	12	31	2	283	1,021
2:15 PM	0	7	8	38	0	35	12	10	0	63	26	29	0	2	32	4	266	1,042
2:30 PM	0	5	9	50	0	26	23	21	0	53	48	39	0	6	34	6	320	1,104
2:45 PM	0	6	9	43	0	28	20	9	0	59	40	32	0	9	55	4	314	1,183
3:00 PM	0	21	35	95	0	26	10	11	0	47	60	35	0	8	27	5	380	1,280
3:15 PM	0	9	28	76	0	41	20	20	0	51	85	34	0	11	53	7	435	1,449
3:30 PM	0	6	23	59	0	33	22	10	0	66	70	54	0	8	116	16	483	1,612
3:45 PM	0	3	15	61	0	39	17	14	0	57	73	52	0	11	62	12	416	1,714
4:00 PM	0	8	18	77	0	29	24	11	0	50	60	46	0	14	73	6	416	1,750
4:15 PM	0	5	20	72	0	45	16	8	0	88	51	45	0	8	61	8	427	1,742
4:30 PM	**0**	**4**	**27**	**110**	**0**	**25**	**18**	**9**	**0**	**81**	**41**	**46**	**0**	**10**	**66**	**4**	**441**	1,700
4:45 PM	**0**	**6**	**24**	**90**	**0**	**37**	**23**	**5**	**0**	**78**	**41**	**44**	**0**	**12**	**45**	**6**	**411**	1,695
5:00 PM	**0**	**3**	**22**	**115**	**0**	**37**	**39**	**11**	**0**	**88**	**37**	**48**	**0**	**8**	**42**	**1**	**451**	1,730
5:15 PM	**0**	**10**	**15**	**81**	**0**	**43**	**21**	**15**	**0**	**120**	**71**	**58**	**0**	**10**	**61**	**4**	**509**	**1,812**
5:30 PM	0	9	12	84	0	47	30	12	0	67	50	43	0	9	62	7	432	1,803
5:45 PM	0	6	19	69	0	55	21	13	0	59	31	47	0	10	36	9	375	1,767
Count Total	0	147	408	1,565	0	784	456	271	0	1,444	1,046	918	0	213	1,108	144	8,504	0
Peak Hour All	**0**	**23**	**88**	**396**	**0**	**142**	**101**	**40**	**0**	**367**	**190**	**196**	**0**	**40**	**214**	**15**	**1,812**	**0**
Peak Hour HV	**0**	**0**	**1**	**5**	**0**	**2**	**1**	**0**	**0**	**6**	**3**	**3**	**0**	**0**	**3**	**0**	**24**	**0**
Peak Hour HV%	**-**	**0%**	**1%**	**1%**	**-**	**1%**	**1%**	**0%**	**-**	**2%**	**2%**	**2%**	**-**	**0%**	**1%**	**0%**	**1%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	2	4	4	3	*13*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	3	2	3	3	*11*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	1	0	5	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	2	1	7	0	*10*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	2	3	5	1	*11*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	3	2	3	3	*11*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	1	0	3	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	1	1	6	1	*9*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	1	0	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	2	3	5	2	*12*	0	0	0	0	*0*	1	0	0	0	*1*
2:45 PM	1	4	4	0	*9*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	7	1	8	2	*18*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	4	6	11	2	*23*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	4	3	11	17	*35*	0	0	0	0	*0*	2	0	0	0	*2*
3:45 PM	6	1	10	7	*24*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	2	0	2	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	2	0	5	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**1**	**0**	**4**	**2**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**2**	**1**	**3**	**1**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**1**	**1**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**2**	**1**	**4**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	54	34	109	51	*248*	0	0	0	0	*0*	3	0	0	0	*3*
Peak Hour	**6**	**3**	**12**	**3**	***24***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	1	1	0	3	0	1	0	4	0	0	0	0	2	1	13	0
12:15 PM	0	0	1	2	0	2	0	0	0	3	0	0	0	0	2	1	11	0
12:30 PM	0	0	0	1	0	0	0	0	0	3	0	2	0	0	0	1	7	0
12:45 PM	0	0	1	1	0	1	0	0	0	3	1	3	0	0	0	0	10	41
1:00 PM	0	0	0	2	0	2	1	0	0	3	1	1	0	0	1	0	11	39
1:15 PM	0	0	1	2	0	2	0	0	0	1	2	0	0	0	3	0	11	39
1:30 PM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	3	35
1:45 PM	0	0	1	0	0	0	0	0	0	2	0	1	0	0	0	0	4	29
2:00 PM	0	0	0	1	0	1	0	0	0	1	2	3	0	0	1	0	9	27
2:15 PM	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	3	19
2:30 PM	0	1	1	0	0	1	2	0	0	3	0	2	0	0	2	0	12	28
2:45 PM	0	0	0	1	0	0	3	1	0	3	1	0	0	0	0	0	9	33
3:00 PM	0	2	1	4	0	0	0	1	0	5	3	0	0	1	0	1	18	42
3:15 PM	0	1	1	2	0	3	0	3	0	5	6	0	0	0	2	0	23	62
3:30 PM	0	2	0	2	0	1	2	0	0	3	7	1	0	0	16	1	35	85
3:45 PM	0	0	0	6	0	0	1	0	0	4	5	1	0	0	4	3	24	100
4:00 PM	0	0	1	1	0	0	0	0	0	0	2	0	0	0	3	0	7	89
4:15 PM	0	1	0	1	0	0	0	0	0	2	2	1	0	0	2	1	10	76
4:30 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**1**	**0**	**0**	**2**	**0**	**7**	48
4:45 PM	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**1**	**0**	**7**	31
5:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	27
5:15 PM	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**2**	**1**	**1**	**0**	**0**	**0**	**0**	**7**	**24**
5:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	19
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	14
Count Total	0	8	10	36	0	18	10	6	0	54	35	20	0	1	41	9	248	0
Peak Hour	**0**	**0**	**1**	**5**	**0**	**2**	**1**	**0**	**0**	**6**	**3**	**3**	**0**	**0**	**3**	**0**	**24**	**0**

Six-Hour Count Summaries - Bikes

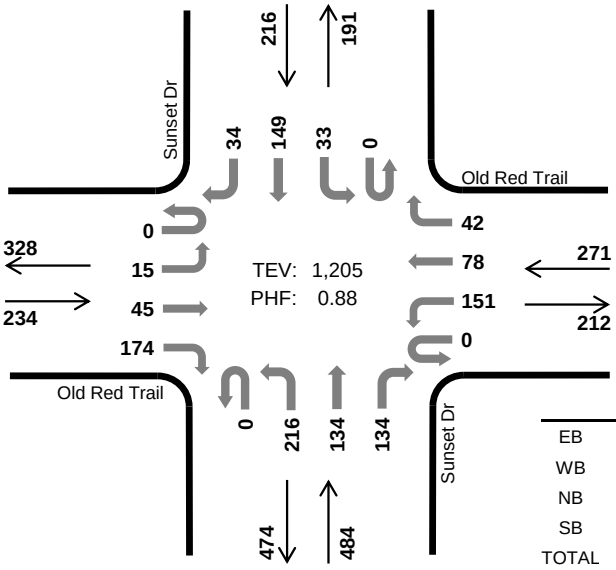
Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**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**	0
5:00 PM	**0**	**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**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

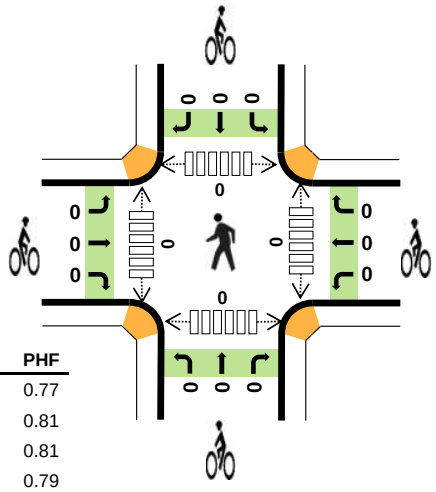
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Sunset Dr
Old Red Trail

Date: 11/29/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM

Peak Hour





	HV %:	PHF
EB	1.3%	0.77
WB	1.5%	0.81
NB	1.2%	0.81
SB	0.5%	0.79
TOTAL	1.2%	0.88

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	4	15	57	0	29	24	9	0	70	43	37	0	7	39	8	342	0
6:15 PM		0	4	9	44	0	44	15	10	0	46	35	36	0	9	48	11	311	0
6:30 PM		0	2	10	34	0	42	26	16	0	44	30	28	0	8	36	8	284	0
6:45 PM		0	5	11	39	0	36	13	7	0	56	26	33	0	9	26	7	268	1,205
Peak Hour	All	0	15	45	174	0	151	78	42	0	216	134	134	0	33	149	34	1,205	0
	HV	0	0	2	1	0	3	1	0	0	3	0	3	0	1	0	0	14	0
	HV%	-	0%	4%	1%	-	2%	1%	0%	-	1%	0%	2%	-	3%	0%	0%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	1	1	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	2	1	3	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	0	2	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	3	4	6	1	*14*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**4**	**15**	**57**	**0**	**29**	**24**	**9**	**0**	**70**	**43**	**37**	**0**	**7**	**39**	**8**	**342**	0
6:15 PM	**0**	**4**	**9**	**44**	**0**	**44**	**15**	**10**	**0**	**46**	**35**	**36**	**0**	**9**	**48**	**11**	**311**	0
6:30 PM	**0**	**2**	**10**	**34**	**0**	**42**	**26**	**16**	**0**	**44**	**30**	**28**	**0**	**8**	**36**	**8**	**284**	0
6:45 PM	**0**	**5**	**11**	**39**	**0**	**36**	**13**	**7**	**0**	**56**	**26**	**33**	**0**	**9**	**26**	**7**	**268**	**1,205**
7:00 PM	0	4	8	38	0	31	18	5	0	63	45	40	0	4	23	2	281	1,144
7:15 PM	0	3	9	22	0	20	22	4	0	36	15	24	0	2	17	2	176	1,009
7:30 PM	0	4	6	31	0	21	9	4	0	29	15	17	0	2	19	3	160	885
7:45 PM	0	2	6	13	0	15	6	3	0	30	16	19	0	3	14	3	130	747
8:00 PM	0	3	4	23	0	13	8	3	0	26	18	19	0	1	12	3	133	599
8:15 PM	0	5	11	19	0	16	5	5	0	25	10	15	0	4	14	3	132	555
8:30 PM	0	0	6	22	0	20	7	1	0	24	11	21	0	0	11	4	127	522
8:45 PM	0	1	9	27	0	21	10	2	0	48	27	26	0	2	12	1	186	578
9:00 PM	0	2	13	23	0	27	11	2	0	18	9	13	0	0	6	2	126	571
9:15 PM	0	1	3	11	0	16	14	2	0	19	17	9	0	0	8	1	101	540
9:30 PM	0	1	3	12	0	18	3	1	0	13	9	6	0	3	8	1	78	491
9:45 PM	0	1	1	7	0	11	2	3	0	22	9	15	0	0	7	1	79	384
10:00 PM	0	1	3	5	0	11	4	1	0	14	6	9	0	1	8	2	65	323
10:15 PM	0	0	1	3	0	2	2	2	0	16	4	10	0	0	3	0	43	265
10:30 PM	0	0	1	6	0	6	0	1	0	12	4	3	0	0	6	0	39	226
10:45 PM	0	0	0	5	0	3	1	1	0	17	5	1	0	0	3	0	36	183
11:00 PM	0	0	0	7	0	2	3	0	0	10	6	0	0	0	0	0	28	146
11:15 PM	0	0	1	7	0	4	1	0	0	10	4	0	0	1	2	0	30	133
11:30 PM	0	1	2	11	0	0	0	0	0	1	3	0	0	1	3	0	22	116
11:45 PM	0	0	0	8	0	0	0	0	0	8	3	5	0	0	1	0	25	105
Count Total	0	44	132	474	0	408	204	82	0	657	370	386	0	57	326	62	3,202	0
Peak Hour All	**0**	**15**	**45**	**174**	**0**	**151**	**78**	**42**	**0**	**216**	**134**	**134**	**0**	**33**	**149**	**34**	**1,205**	**0**
Peak Hour HV	**0**	**0**	**2**	**1**	**0**	**3**	**1**	**0**	**0**	**3**	**0**	**3**	**0**	**1**	**0**	**0**	**14**	**0**
Peak Hour HV%	**-**	**0%**	**4%**	**1%**	**-**	**2%**	**1%**	**0%**	**-**	**1%**	**0%**	**2%**	**-**	**3%**	**0%**	**0%**	**1%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	**1**	**1**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**2**	**1**	**3**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**0**	**2**	**1**	**1**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	0	2	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	0	1	0	0	*1*	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*
7:45 PM	0	1	1	0	*2*	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*
8:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	0	0	1	0	*1*	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*
9:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	0	0	0	0	*0*	0	0	0	1	*1*	0	0	0	0	*0*
10:00 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	4	10	14	2	*30*	0	0	0	1	*1*	0	0	0	0	*0*
Peak Hour	**3**	**4**	**6**	**1**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Sunset Dr Northbound				Sunset Dr Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
6:15 PM	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**4**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**14**
7:00 PM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	3	14
7:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	9
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
7:45 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	6
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
8:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	3
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
9:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
9:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	3
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
11:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2
11:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	3
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
Count Total	0	0	2	2	0	6	3	1	0	8	1	5	0	1	1	0	30	0
Peak Hour	**0**	**0**	**2**	**1**	**0**	**3**	**1**	**0**	**0**	**3**	**0**	**3**	**0**	**1**	**0**	**0**	**14**	**0**

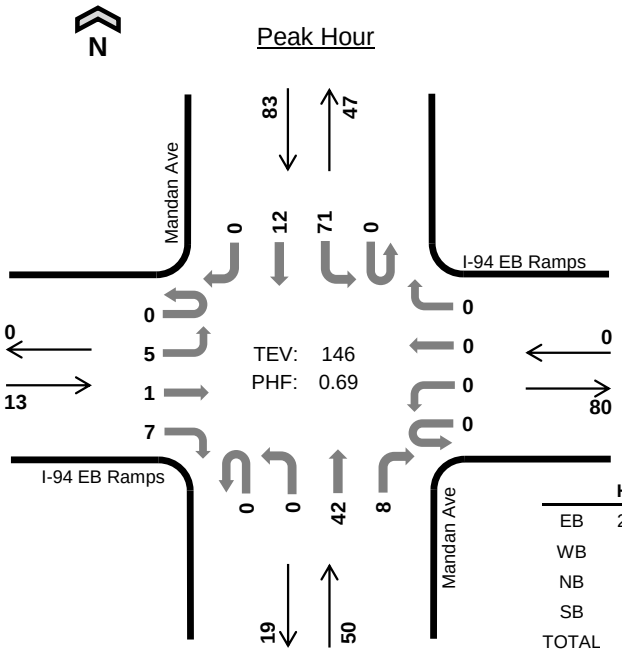
Six-Hour Count Summaries - Bikes

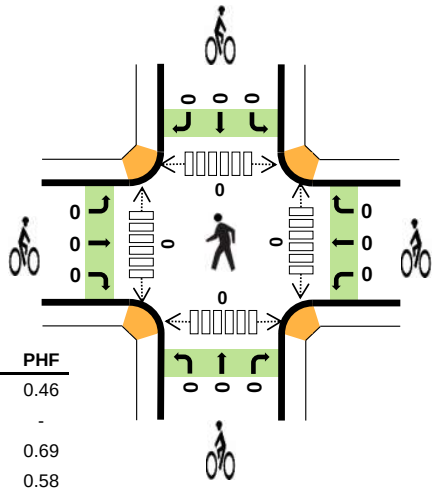
Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			Sunset Dr Northbound			Sunset Dr Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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	1	0	0	1	1
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	1	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
I-94 EB Ramps

Date: 12/01/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM





	HV %:	PHF
EB	23.1%	0.46
WB	-	-
NB	8.0%	0.69
SB	8.4%	0.58
TOTAL	9.6%	0.69

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	0	1	0	0	0	0	0	0	8	2	0	9	2	0	22	0
5:15 AM		0	0	0	2	0	0	0	0	0	0	6	2	0	16	3	0	29	0
5:30 AM		0	1	0	2	0	0	0	0	0	0	11	3	0	33	3	0	53	0
5:45 AM		0	4	1	2	0	0	0	0	0	0	17	1	0	13	4	0	42	146
Peak Hour	All	0	5	1	7	0	0	0	0	0	0	42	8	0	71	12	0	146	0
	HV	0	3	0	0	0	0	0	0	0	0	4	0	0	6	1	0	14	0
	HV%	-	60%	0%	0%	-	-	-	-	-	-	10%	0%	-	8%	8%	-	10%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	3	0	1	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	3	0	4	7	*14*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	1	0	2	0	0	0	0	0	0	2	0	0	2	0	0	7	0
12:15 AM	0	0	0	3	0	0	0	0	0	0	4	1	0	2	1	0	11	0
12:30 AM	0	0	0	3	0	0	0	0	0	0	4	1	0	4	1	0	13	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	6	37
1:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	33
1:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0	0	5	27
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	16
1:45 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	3	13
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	11
2:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	5	0	9	15
2:30 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	2	2	0	7	20
2:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	5	0	0	6	23
3:00 AM	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0	0	4	26
3:15 AM	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	5	22
3:30 AM	0	0	0	3	0	0	0	0	0	0	2	0	0	1	0	0	6	21
3:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	5	0	0	8	23
4:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	4	0	0	6	25
4:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	4	24
4:30 AM	0	2	0	0	0	0	0	0	0	0	2	1	0	7	0	0	12	30
4:45 AM	0	2	0	0	0	0	0	0	0	0	4	1	0	9	0	0	16	38
5:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**2**	**0**	**9**	**2**	**0**	**22**	54
5:15 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**2**	**0**	**16**	**3**	**0**	**29**	79
5:30 AM	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**3**	**0**	**33**	**3**	**0**	**53**	120
5:45 AM	**0**	**4**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**1**	**0**	**13**	**4**	**0**	**42**	**146**
Count Total	0	14	1	21	0	0	0	0	0	0	81	13	0	124	26	0	280	0
Peak Hour All	**0**	**5**	**1**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**42**	**8**	**0**	**71**	**12**	**0**	**146**	**0**
Peak Hour HV	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**6**	**1**	**0**	**14**	**0**
Peak Hour HV%	**-**	**60%**	**0%**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**10%**	**0%**	**-**	**8%**	**8%**	**-**	**10%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	1	0	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	2	0	0	5	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**0**	**0**	**1**	**2**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**3**	**0**	**1**	**2**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	11	0	9	22	*42*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**3**	**0**	**4**	**7**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	4
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	3
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	6
3:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	6
3:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	7
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	7
4:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	7
4:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
4:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	7	13
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**3**	13
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	13
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**3**	15
5:45 AM	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**6**	**14**
Count Total	0	11	0	0	0	0	0	0	0	0	9	0	0	19	3	0	42	0
Peak Hour	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**6**	**1**	**0**	**14**	**0**

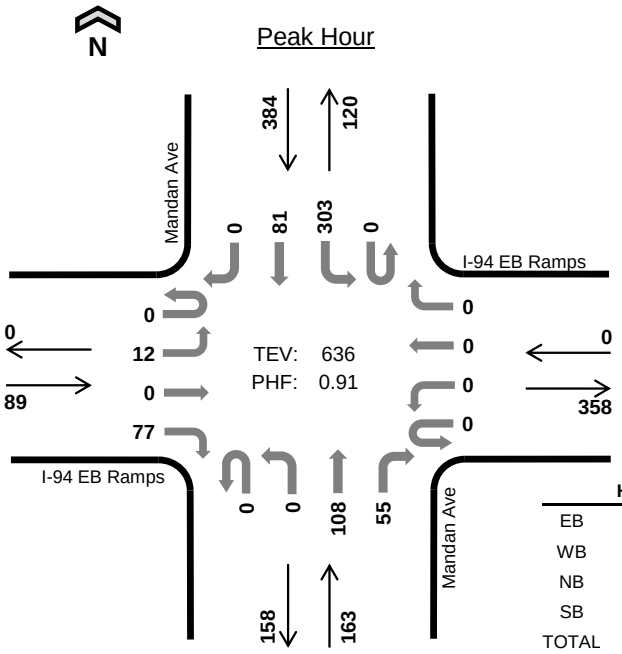
Six-Hour Count Summaries - Bikes

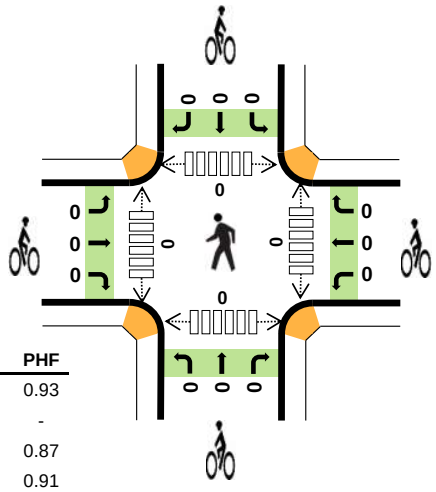
Interval Start	I-94 EB Ramps			I-94 EB Ramps			Mandan Ave			Mandan Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
I-94 EB Ramps

Date: 12/01/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:15 AM to 8:15 AM





	HV %:	PHF
EB	6.7%	0.93
WB	-	-
NB	6.7%	0.87
SB	3.4%	0.91
TOTAL	4.7%	0.91

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	4	0	17	0	0	0	0	0	0	23	7	0	76	13	0	140	0
7:30 AM		0	5	0	19	0	0	0	0	0	0	23	24	0	76	18	0	165	0
7:45 AM		0	0	0	21	0	0	0	0	0	0	32	15	0	82	24	0	174	0
8:00 AM		0	3	0	20	0	0	0	0	0	0	30	9	0	69	26	0	157	636
Peak Hour	All	0	12	0	77	0	0	0	0	0	0	108	55	0	303	81	0	636	0
	HV	0	3	0	3	0	0	0	0	0	0	10	1	0	6	7	0	30	0
	HV%	-	25%	-	4%	-	-	-	-	-	-	9%	2%	-	2%	9%	-	5%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:15 AM	1	0	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	1	0	6	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	2	0	3	3	*8*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	2	0	1	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	6	0	11	13	*30*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	5	0	2	0	0	0	0	0	0	17	1	0	17	3	0	45	0
6:15 AM	0	3	0	7	0	0	0	0	0	0	11	2	0	27	7	0	57	0
6:30 AM	0	3	0	9	0	0	0	0	0	0	24	6	0	51	11	0	104	0
6:45 AM	0	5	0	8	0	0	0	0	0	0	29	8	0	38	10	0	98	304
7:00 AM	0	1	0	12	0	0	0	0	0	0	12	7	0	46	13	0	91	350
7:15 AM	**0**	**4**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**7**	**0**	**76**	**13**	**0**	**140**	433
7:30 AM	**0**	**5**	**0**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**24**	**0**	**76**	**18**	**0**	**165**	494
7:45 AM	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**32**	**15**	**0**	**82**	**24**	**0**	**174**	570
8:00 AM	**0**	**3**	**0**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**9**	**0**	**69**	**26**	**0**	**157**	**636**
8:15 AM	0	1	0	14	0	0	0	0	0	0	35	5	0	60	21	0	136	632
8:30 AM	0	2	0	8	0	0	0	0	0	0	15	12	0	47	11	0	95	562
8:45 AM	0	4	0	12	0	0	0	0	0	0	26	8	0	30	29	0	109	497
9:00 AM	0	1	0	13	0	0	0	0	0	0	25	7	0	30	13	0	89	429
9:15 AM	0	2	0	16	0	0	0	0	0	0	18	6	0	28	27	0	97	390
9:30 AM	0	4	0	8	0	0	0	0	0	0	16	6	0	32	14	0	80	375
9:45 AM	0	2	0	9	0	0	0	0	0	0	22	5	0	37	11	0	86	352
10:00 AM	0	3	0	9	0	0	0	0	0	0	17	4	0	22	15	0	70	333
10:15 AM	0	4	0	12	0	0	0	0	0	0	22	13	0	34	15	0	100	336
10:30 AM	0	2	0	4	0	0	0	0	0	0	18	4	0	43	10	0	81	337
10:45 AM	0	5	0	15	0	0	0	0	0	0	24	10	0	32	13	0	99	350
11:00 AM	0	3	0	5	0	0	0	0	0	0	23	4	0	30	15	0	80	360
11:15 AM	0	1	0	23	0	0	0	0	0	0	25	9	0	30	19	0	107	367
11:30 AM	0	1	0	9	0	0	0	0	0	0	34	6	0	42	15	0	107	393
11:45 AM	0	0	0	13	0	0	0	0	0	0	29	8	0	43	18	0	111	405
Count Total	0	64	0	285	0	0	0	0	0	0	550	186	0	1,022	371	0	2,478	0
Peak Hour All	**0**	**12**	**0**	**77**	**0**	**0**	**0**	**0**	**0**	**0**	**108**	**55**	**0**	**303**	**81**	**0**	**636**	**0**
Peak Hour HV	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**1**	**0**	**6**	**7**	**0**	**30**	**0**
Peak Hour HV%	**-**	**25%**	**-**	**4%**	**-**	**-**	**-**	**-**	**-**	**-**	**9%**	**2%**	**-**	**2%**	**9%**	**-**	**5%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	2	0	2	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	1	0	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	1	0	3	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	2	0	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	1	0	2	4	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**1**	**0**	**1**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**1**	**0**	**6**	**3**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**2**	**0**	**3**	**3**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**2**	**0**	**1**	**6**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	0	5	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	2	0	0	6	*8*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	2	0	4	2	*8*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	2	0	1	4	*7*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	4	0	1	1	*6*	0	0	0	0	*0*	0	1	0	0	*1*
9:30 AM	1	0	2	5	*8*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	3	0	0	7	*10*	0	0	0	0	*0*	0	1	0	0	*1*
10:00 AM	2	0	0	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	3	0	3	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	2	0	2	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	3	0	2	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	1	0	2	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	3	0	4	4	*11*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	2	0	5	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	0	0	2	8	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	43	0	52	86	*181*	0	0	0	0	*0*	0	2	0	0	*2*
Peak Hour	**6**	**0**	**11**	**13**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	2	0	0	0	0	0	0	0	0	2	0	0	2	1	0	7	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	3	0
6:30 AM	0	1	0	0	0	0	0	0	0	0	3	0	0	0	1	0	5	0
6:45 AM	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	4	19
7:00 AM	0	1	0	0	0	0	0	0	0	0	2	0	0	3	1	0	7	19
7:15 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**3**	19
7:30 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**1**	**0**	**1**	**2**	**0**	**10**	24
7:45 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**2**	**1**	**0**	**8**	28
8:00 AM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**3**	**0**	**9**	**30**
8:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	4	2	0	11	38
8:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	5	1	0	8	36
8:45 AM	0	2	0	0	0	0	0	0	0	0	3	1	0	1	1	0	8	36
9:00 AM	0	1	0	1	0	0	0	0	0	0	1	0	0	2	2	0	7	34
9:15 AM	0	1	0	3	0	0	0	0	0	0	1	0	0	1	0	0	6	29
9:30 AM	0	1	0	0	0	0	0	0	0	0	2	0	0	4	1	0	8	29
9:45 AM	0	2	0	1	0	0	0	0	0	0	0	0	0	5	2	0	10	31
10:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	5	29
10:15 AM	0	3	0	0	0	0	0	0	0	0	3	0	0	1	0	0	7	30
10:30 AM	0	2	0	0	0	0	0	0	0	0	2	0	0	1	2	0	7	29
10:45 AM	0	3	0	0	0	0	0	0	0	0	2	0	0	5	0	0	10	29
11:00 AM	0	1	0	0	0	0	0	0	0	0	2	0	0	4	2	0	9	33
11:15 AM	0	1	0	2	0	0	0	0	0	0	3	1	0	3	1	0	11	37
11:30 AM	0	1	0	1	0	0	0	0	0	0	5	0	0	1	0	0	8	38
11:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	5	3	0	10	38
Count Total	0	32	0	11	0	0	0	0	0	0	49	3	0	57	29	0	181	0
Peak Hour	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**1**	**0**	**6**	**7**	**0**	**30**	**0**

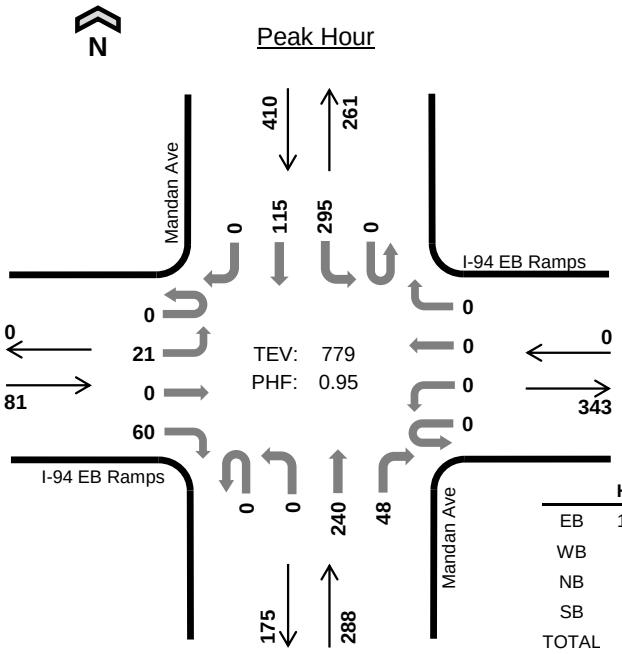
Six-Hour Count Summaries - Bikes

Interval Start	I-94 EB Ramps			I-94 EB Ramps			Mandan Ave			Mandan Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	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
6:30 AM	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
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

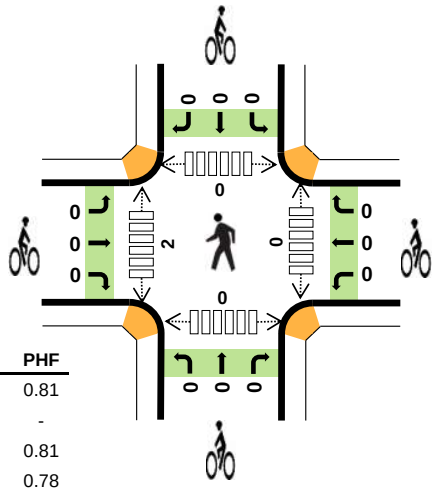
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
I-94 EB Ramps

Date: 12/01/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	16.0%	0.81
WB	-	-
NB	2.1%	0.81
SB	3.9%	0.78
TOTAL	4.5%	0.95



Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:45 PM		0	5	0	18	0	0	0	0	0	0	62	11	0	53	31	0	180	0
5:00 PM		0	8	0	17	0	0	0	0	0	0	68	21	0	63	28	0	205	0
5:15 PM		0	4	0	16	0	0	0	0	0	0	63	9	0	82	21	0	195	0
5:30 PM		0	4	0	9	0	0	0	0	0	0	47	7	0	97	35	0	199	779
Peak Hour	All	0	21	0	60	0	0	0	0	0	0	240	48	0	295	115	0	779	0
	HV	0	12	0	1	0	0	0	0	0	0	5	1	0	9	7	0	35	0
	HV%	-	57%	-	2%	-	-	-	-	-	-	2%	2%	-	3%	6%	-	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:45 PM	4	0	1	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	5	0	2	5	*12*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	1	0	3	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	3	0	0	4	*7*	0	0	0	0	*0*	0	2	0	0	*2*
Peak Hour	13	0	6	16	*35*	0	0	0	0	*0*	0	2	0	0	*2*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	3	0	16	0	0	0	0	0	0	43	6	0	41	26	0	135	0
12:15 PM	0	6	0	13	0	0	0	0	0	0	44	4	0	34	24	0	125	0
12:30 PM	0	4	1	13	0	0	0	0	0	0	36	6	0	38	29	0	127	0
12:45 PM	0	2	0	9	0	0	0	0	0	0	49	22	0	40	23	0	145	532
1:00 PM	0	1	1	28	0	0	0	0	0	0	32	10	0	33	25	0	130	527
1:15 PM	0	0	0	15	0	0	0	0	0	0	43	8	0	30	18	0	114	516
1:30 PM	0	3	0	5	0	0	0	0	0	0	25	4	0	29	20	0	86	475
1:45 PM	0	6	0	14	0	0	0	0	0	0	28	4	0	38	17	0	107	437
2:00 PM	0	1	0	14	0	0	0	0	0	0	26	8	0	40	26	0	115	422
2:15 PM	0	6	1	13	0	0	0	0	0	0	35	8	0	43	23	0	129	437
2:30 PM	0	4	1	12	0	0	0	0	0	0	43	8	0	24	26	0	118	469
2:45 PM	0	5	0	12	0	0	0	0	0	0	48	8	0	34	21	0	128	490
3:00 PM	0	4	0	14	0	0	0	0	0	0	38	11	0	28	19	0	114	489
3:15 PM	0	7	0	28	0	0	0	0	0	0	47	4	0	48	32	0	166	526
3:30 PM	0	4	0	11	0	0	0	0	0	0	42	5	0	73	40	0	175	583
3:45 PM	0	3	0	19	0	0	0	0	0	0	46	11	0	57	25	0	161	616
4:00 PM	0	6	0	8	0	0	0	0	0	0	46	9	0	70	30	0	169	671
4:15 PM	0	8	1	9	0	0	0	0	0	0	55	3	0	58	32	0	166	671
4:30 PM	0	1	0	14	0	0	0	0	0	0	55	9	0	67	32	0	178	674
4:45 PM	**0**	**5**	**0**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**62**	**11**	**0**	**53**	**31**	**0**	**180**	693
5:00 PM	**0**	**8**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**68**	**21**	**0**	**63**	**28**	**0**	**205**	729
5:15 PM	**0**	**4**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**63**	**9**	**0**	**82**	**21**	**0**	**195**	758
5:30 PM	**0**	**4**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**47**	**7**	**0**	**97**	**35**	**0**	**199**	**779**
5:45 PM	0	2	0	14	0	0	0	0	0	0	45	7	0	66	30	0	164	763
Count Total	0	97	5	341	0	0	0	0	0	0	1,066	203	0	1,186	633	0	3,531	0
Peak Hour All	**0**	**21**	**0**	**60**	**0**	**0**	**0**	**0**	**0**	**0**	**240**	**48**	**0**	**295**	**115**	**0**	**779**	**0**
Peak Hour HV	**0**	**12**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**1**	**0**	**9**	**7**	**0**	**35**	**0**
Peak Hour HV%	**-**	**57%**	**-**	**2%**	**-**	**-**	**-**	**-**	**-**	**-**	**2%**	**2%**	**-**	**3%**	**6%**	**-**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	2	0	3	9	*14*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	7	0	4	4	*15*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	4	0	3	6	*13*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	1	0	2	5	*8*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	2	0	0	4	*6*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	1	0	7	6	*14*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	1	0	3	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	4	0	7	10	*21*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	3	0	2	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	3	0	8	3	*14*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	4	0	3	4	*11*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	4	0	3	6	*13*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	2	0	6	3	*11*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	7	0	4	10	*21*	0	0	0	0	*0*	0	1	0	0	*1*
3:30 PM	1	0	4	2	*7*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	3	0	3	3	*9*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	2	0	1	7	*10*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	3	0	1	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	1	0	3	7	*11*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**4**	**0**	**1**	**6**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**5**	**0**	**2**	**5**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**1**	**0**	**3**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**3**	**0**	**0**	**4**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	***2***
5:45 PM	1	0	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	69	0	73	117	*259*	0	0	0	0	*0*	0	3	0	0	*3*
Peak Hour	**13**	**0**	**6**	**16**	***35***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	***2***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	2	0	0	0	0	0	0	0	0	3	0	0	4	5	0	14	0
12:15 PM	0	5	0	2	0	0	0	0	0	0	4	0	0	2	2	0	15	0
12:30 PM	0	2	1	1	0	0	0	0	0	0	3	0	0	4	2	0	13	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	2	3	0	8	50
1:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	42
1:15 PM	0	0	0	1	0	0	0	0	0	0	7	0	0	1	5	0	14	41
1:30 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	2	1	0	7	35
1:45 PM	0	3	0	1	0	0	0	0	0	0	7	0	0	6	4	0	21	48
2:00 PM	0	1	0	2	0	0	0	0	0	0	2	0	0	3	1	0	9	51
2:15 PM	0	3	0	0	0	0	0	0	0	0	7	1	0	1	2	0	14	51
2:30 PM	0	4	0	0	0	0	0	0	0	0	3	0	0	3	1	0	11	55
2:45 PM	0	3	0	1	0	0	0	0	0	0	3	0	0	5	1	0	13	47
3:00 PM	0	1	0	1	0	0	0	0	0	0	6	0	0	2	1	0	11	49
3:15 PM	0	3	0	4	0	0	0	0	0	0	4	0	0	1	9	0	21	56
3:30 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	2	0	0	7	52
3:45 PM	0	2	0	1	0	0	0	0	0	0	3	0	0	3	0	0	9	48
4:00 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	4	3	0	10	47
4:15 PM	0	3	0	0	0	0	0	0	0	0	1	0	0	1	1	0	6	32
4:30 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	4	3	0	11	36
4:45 PM	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**3**	**0**	**11**	38
5:00 PM	**0**	**4**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**3**	**2**	**0**	**12**	40
5:15 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**5**	39
5:30 PM	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**7**	**35**
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	4	28
Count Total	0	50	1	18	0	0	0	0	0	0	71	2	0	62	55	0	259	0
Peak Hour	**0**	**12**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**1**	**0**	**9**	**7**	**0**	**35**	**0**

Six-Hour Count Summaries - Bikes

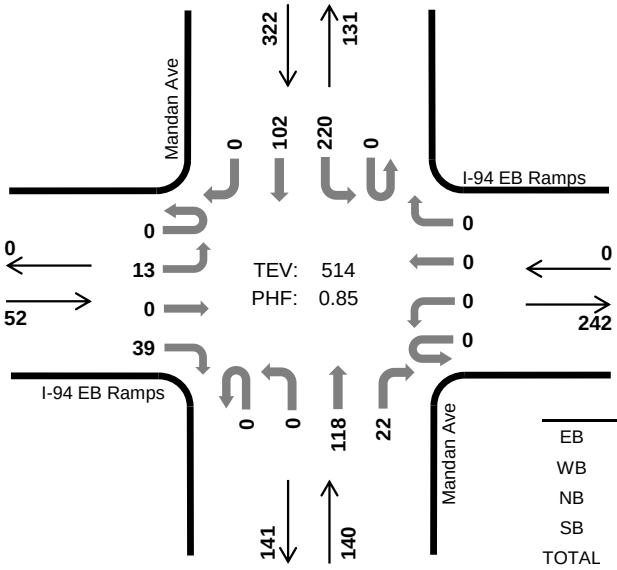
Interval Start	I-94 EB Ramps			I-94 EB Ramps			Mandan Ave			Mandan Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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**	0
5:00 PM	**0**	**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**	0
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

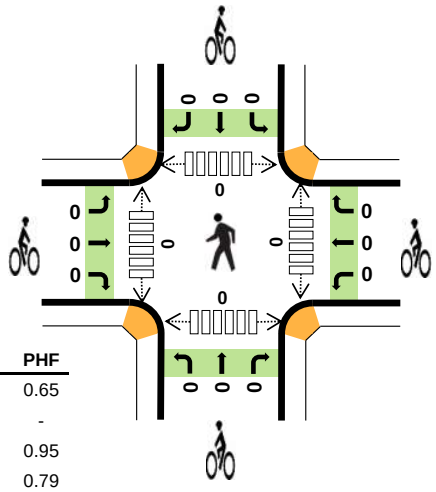
Mandan Ave
I-94 EB Ramps

Date: 12/01/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:15 PM to 7:15 PM

Peak Hour



	HV %:	PHF
EB	23.1%	0.65
WB	-	-
NB	0.0%	0.95
SB	3.7%	0.79
TOTAL	4.7%	0.85



Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:15 PM		0	3	0	9	0	0	0	0	0	0	32	5	0	51	25	0	125	0
6:30 PM		0	7	0	13	0	0	0	0	0	0	28	8	0	51	33	0	140	0
6:45 PM		0	1	0	6	0	0	0	0	0	0	25	6	0	41	19	0	98	0
7:00 PM		0	2	0	11	0	0	0	0	0	0	33	3	0	77	25	0	151	514
Peak Hour	All	0	13	0	39	0	0	0	0	0	0	118	22	0	220	102	0	514	0
	HV	0	9	0	3	0	0	0	0	0	0	0	0	0	4	8	0	24	0
	HV%	-	69%	-	8%	-	-	-	-	-	-	0%	0%	-	2%	8%	-	5%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:15 PM	3	0	0	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	6	0	0	6	*12*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 PM	3	0	0	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	12	0	0	12	*24*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	0	4	0	13	0	0	0	0	0	0	40	8	0	63	21	0	149	0
6:15 PM	**0**	**3**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**32**	**5**	**0**	**51**	**25**	**0**	**125**	0
6:30 PM	**0**	**7**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**8**	**0**	**51**	**33**	**0**	**140**	0
6:45 PM	**0**	**1**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**6**	**0**	**41**	**19**	**0**	**98**	512
7:00 PM	**0**	**2**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**33**	**3**	**0**	**77**	**25**	**0**	**151**	**514**
7:15 PM	0	1	0	8	0	0	0	0	0	0	21	7	0	67	14	0	118	507
7:30 PM	0	2	0	3	0	0	0	0	0	0	20	3	0	36	16	0	80	447
7:45 PM	0	0	0	9	0	0	0	0	0	0	24	2	0	28	11	0	74	423
8:00 PM	0	0	0	7	0	0	0	0	0	0	16	5	0	31	7	0	66	338
8:15 PM	0	1	0	1	0	0	0	0	0	0	11	0	0	30	8	0	51	271
8:30 PM	0	1	0	9	0	0	0	0	0	0	11	1	0	45	13	0	80	271
8:45 PM	0	1	0	3	0	0	0	0	0	0	14	2	0	42	10	0	72	269
9:00 PM	0	1	0	3	0	0	0	0	0	0	15	3	0	34	16	0	72	275
9:15 PM	0	0	0	5	0	0	0	0	0	0	15	2	0	18	12	0	52	276
9:30 PM	0	0	0	3	0	0	0	0	0	0	16	2	0	47	12	0	80	276
9:45 PM	0	0	0	1	0	0	0	0	0	0	10	2	0	131	23	0	167	371
10:00 PM	0	0	0	2	0	0	0	0	0	0	10	0	0	76	23	0	111	410
10:15 PM	0	0	1	2	0	0	0	0	0	0	9	2	0	43	10	0	67	425
10:30 PM	0	0	0	2	0	0	0	0	0	0	4	1	0	21	6	0	34	379
10:45 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	4	1	0	8	220
11:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	9	1	0	16	125
11:15 PM	0	0	0	1	0	0	0	0	0	0	6	0	0	10	2	0	19	77
11:30 PM	0	1	0	0	0	0	0	0	0	0	6	0	0	13	2	0	22	65
11:45 PM	0	1	0	0	0	0	0	0	0	0	4	0	0	8	2	0	15	72
Count Total	0	26	1	112	0	0	0	0	0	0	378	62	0	976	312	0	1,867	0
Peak Hour All	**0**	**13**	**0**	**39**	**0**	**0**	**0**	**0**	**0**	**0**	**118**	**22**	**0**	**220**	**102**	**0**	**514**	**0**
Peak Hour HV	**0**	**9**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**8**	**0**	**24**	**0**
Peak Hour HV%	**-**	**69%**	**-**	**8%**	**-**	**-**	**-**	**-**	**-**	**-**	**0%**	**0%**	**-**	**2%**	**8%**	**-**	**5%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	3	0	0	1	*4*	0	0	0	0	*0*	0	2	0	0	*2*
6:15 PM	**3**	**0**	**0**	**2**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**6**	**0**	**0**	**6**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:00 PM	**3**	**0**	**0**	**3**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	0	0	0	1	*1*	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*
8:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 PM	0	0	0	2	*2*	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*
9:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	3	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	20	0	2	26	*48*	0	0	0	0	*0*	0	2	0	0	*2*
Peak Hour	**12**	**0**	**0**	**12**	***24***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	4	0
6:15 PM	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**5**	0
6:30 PM	**0**	**5**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**12**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	22
7:00 PM	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**6**	**24**
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	20
7:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9
7:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	10
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
8:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	4
9:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	5
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	7
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
9:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	6
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	6
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	16	0	4	0	0	0	0	0	0	2	0	0	16	10	0	48	0
Peak Hour	**0**	**9**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**8**	**0**	**24**	**0**

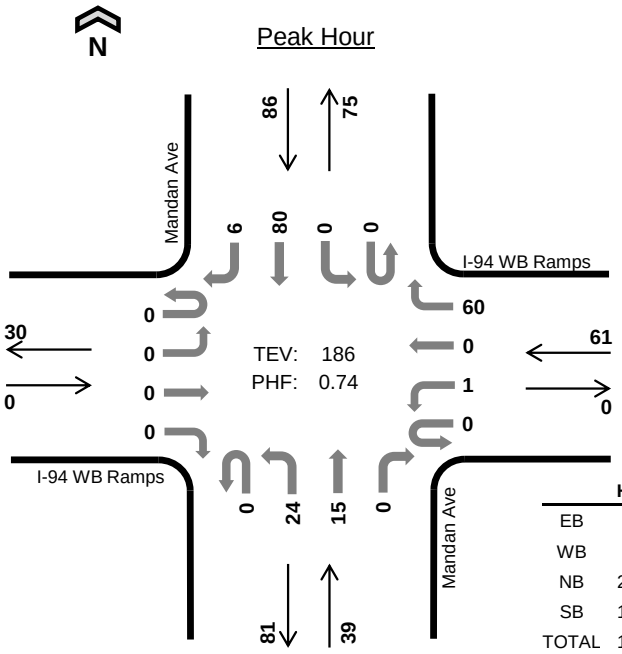
Six-Hour Count Summaries - Bikes

Interval Start	I-94 EB Ramps			I-94 EB Ramps			Mandan Ave			Mandan Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	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
6:30 PM	**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
7:00 PM	**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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

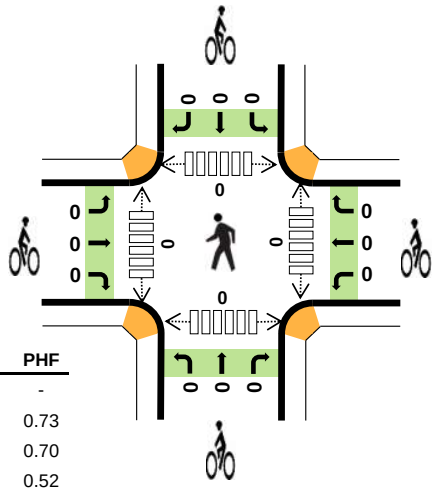
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
I-94 WB Ramps

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM



	HV %:	PHF
EB	-	-
WB	0.0%	0.73
NB	25.6%	0.70
SB	15.1%	0.52
TOTAL	12.4%	0.74



Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	0	0	0	0	0	10	0	1	3	0	0	0	12	1	27	0
5:15 AM		0	0	0	0	0	0	0	21	0	7	7	0	0	0	10	0	45	0
5:30 AM		0	0	0	0	0	0	0	11	0	9	2	0	0	0	38	3	63	0
5:45 AM		0	0	0	0	0	1	0	18	0	7	3	0	0	0	20	2	51	186
Peak Hour	All	0	0	0	0	0	1	0	60	0	24	15	0	0	0	80	6	186	0
	HV	0	0	0	0	0	0	0	0	0	4	6	0	0	0	10	3	23	0
	HV%	-	-	-	-	-	0%	-	0%	-	17%	40%	-	-	-	13%	50%	12%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	0	0	2	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	0	0	5	2	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	0	1	6	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	0	0	2	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	10	13	*23*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
12:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	0	0	2	0	5	0
12:30 AM	0	0	0	0	0	0	0	4	0	1	2	0	0	0	2	1	10	0
12:45 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	6	0	9	29
1:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	4	28
1:15 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	3	0	6	29
1:30 AM	0	0	0	0	0	0	0	3	0	0	1	0	0	0	2	1	7	26
1:45 AM	0	0	0	0	0	0	0	2	0	0	2	0	0	0	2	0	6	23
2:00 AM	0	0	0	0	0	0	0	2	0	1	1	0	0	0	4	0	8	27
2:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	3	0	7	28
2:30 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	2	0	5	26
2:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	1	5	25
3:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1	4	21
3:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	0	0	3	0	6	20
3:30 AM	0	0	0	0	0	0	0	3	0	1	2	0	0	0	2	2	10	25
3:45 AM	0	0	0	0	0	0	0	5	0	2	0	0	0	0	3	0	10	30
4:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	0	0	5	0	8	34
4:15 AM	0	0	0	0	0	0	0	4	0	0	4	0	0	0	7	1	16	44
4:30 AM	0	0	0	0	0	0	0	4	0	3	4	0	0	0	4	0	15	49
4:45 AM	0	0	0	0	0	0	0	8	0	0	6	0	0	0	11	0	25	64
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**1**	**3**	**0**	**0**	**0**	**12**	**1**	**27**	83
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**7**	**7**	**0**	**0**	**0**	**10**	**0**	**45**	112
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**9**	**2**	**0**	**0**	**0**	**38**	**3**	**63**	160
5:45 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**18**	**0**	**7**	**3**	**0**	**0**	**0**	**20**	**2**	**51**	**186**
Count Total	0	0	0	0	0	1	0	113	0	36	45	0	0	0	149	13	357	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**60**	**0**	**24**	**15**	**0**	**0**	**0**	**80**	**6**	**186**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**6**	**0**	**0**	**0**	**10**	**3**	**23**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**0%**	**-**	**17%**	**40%**	**-**	**-**	**-**	**13%**	**50%**	**12%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
12:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	1	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	2	2	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	1	4	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	0	3	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	0	1	3	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**0**	**0**	**5**	**2**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**0**	**1**	**6**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**0**	**0**	**2**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	11	24	35	*70*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**10**	**13**	***23***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	4	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
1:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	3	5
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
2:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	6
2:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	5
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	6
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7
3:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	7
3:30 AM	0	0	0	0	0	0	0	2	0	1	1	0	0	0	0	2	6	11
3:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	11
4:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	12
4:15 AM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	3	1	9	19
4:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	17
4:45 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	5	20
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**1**	**5**	23
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**2**	**0**	**7**	21
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**2**	**7**	24
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**4**	**23**
Count Total	0	0	0	0	0	0	0	11	0	5	19	0	0	0	25	10	70	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**6**	**0**	**0**	**0**	**10**	**3**	**23**	**0**

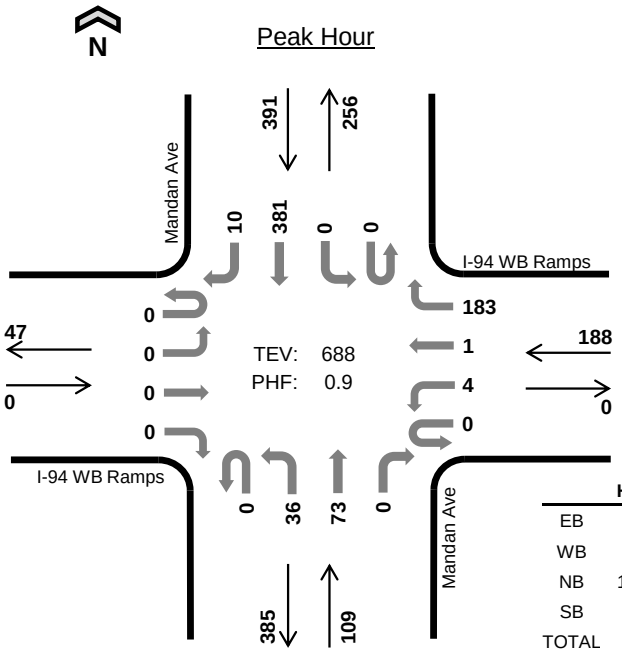
Six-Hour Count Summaries - Bikes

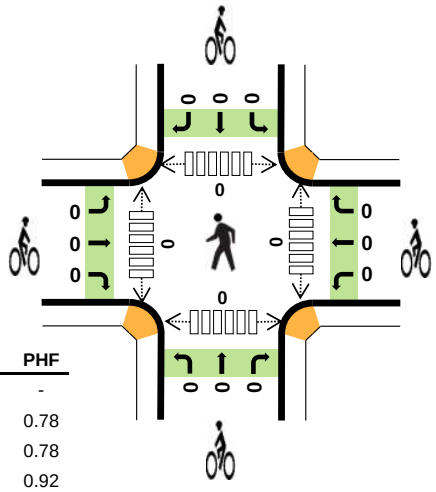
Interval Start	I-94 WB Ramps			I-94 WB Ramps			Mandan Ave			Mandan Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
I-94 WB Ramps

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:15 AM to 8:15 AM





	HV %:	PHF
EB	-	-
WB	6.9%	0.78
NB	14.7%	0.78
SB	6.9%	0.92
TOTAL	8.1%	0.90

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	0	0	0	0	2	0	49	0	5	18	0	0	0	95	1	170	0
7:30 AM		0	0	0	0	0	1	0	41	0	8	12	0	0	0	104	2	168	0
7:45 AM		0	0	0	0	0	1	0	59	0	13	22	0	0	0	94	3	192	0
8:00 AM		0	0	0	0	0	0	1	34	0	10	21	0	0	0	88	4	158	688
Peak Hour	All	0	0	0	0	0	4	1	183	0	36	73	0	0	0	381	10	688	0
	HV	0	0	0	0	0	1	0	12	0	4	12	0	0	0	21	6	56	0
	HV%	-	-	-	-	-	25%	0%	7%	-	11%	16%	-	-	-	6%	60%	8%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:15 AM	0	4	4	5	*13*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	4	5	7	*16*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	3	2	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	0	2	5	9	*16*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	13	16	27	*56*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	18	0	4	14	0	0	0	18	2	56	0
6:15 AM	0	0	0	0	0	1	0	48	0	5	16	0	0	0	36	1	107	0
6:30 AM	0	0	0	0	0	0	0	51	0	5	18	0	0	0	63	1	138	0
6:45 AM	0	0	0	0	0	2	0	73	0	5	25	0	0	0	49	1	155	456
7:00 AM	0	0	0	0	0	2	0	39	0	6	16	0	0	0	81	0	144	544
7:15 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**49**	**0**	**5**	**18**	**0**	**0**	**0**	**95**	**1**	**170**	607
7:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**41**	**0**	**8**	**12**	**0**	**0**	**0**	**104**	**2**	**168**	637
7:45 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**59**	**0**	**13**	**22**	**0**	**0**	**0**	**94**	**3**	**192**	674
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**34**	**0**	**10**	**21**	**0**	**0**	**0**	**88**	**4**	**158**	**688**
8:15 AM	0	0	0	0	0	1	0	30	0	12	21	0	0	0	99	3	166	684
8:30 AM	0	0	0	0	0	2	0	25	0	10	20	0	0	0	53	2	112	628
8:45 AM	0	0	0	0	0	1	0	28	0	6	15	0	0	0	51	4	105	541
9:00 AM	0	0	0	0	0	2	0	19	0	0	14	0	0	0	46	1	82	465
9:15 AM	0	0	0	0	0	2	0	21	0	8	22	0	0	0	46	3	102	401
9:30 AM	0	0	0	0	0	0	0	20	0	11	27	0	0	0	52	1	111	400
9:45 AM	0	0	0	0	0	0	1	29	0	8	17	0	0	0	58	2	115	410
10:00 AM	0	0	0	0	0	1	0	26	0	16	15	0	0	0	47	2	107	435
10:15 AM	0	0	0	0	0	0	1	26	0	5	24	0	0	0	39	2	97	430
10:30 AM	0	0	0	0	0	1	0	27	0	12	23	0	0	0	60	2	125	444
10:45 AM	0	0	0	0	0	4	0	21	0	12	15	0	0	0	47	1	100	429
11:00 AM	0	0	0	0	0	3	1	28	0	20	24	0	0	0	43	3	122	444
11:15 AM	0	0	0	0	0	0	1	35	0	10	22	0	0	0	40	3	111	458
11:30 AM	0	0	0	0	0	4	0	35	0	10	26	0	0	0	61	2	138	471
11:45 AM	0	0	0	0	0	2	0	24	0	8	19	0	0	0	65	5	123	494
Count Total	0	0	0	0	0	32	5	806	0	209	466	0	0	0	1,435	51	3,004	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**4**	**1**	**183**	**0**	**36**	**73**	**0**	**0**	**0**	**381**	**10**	**688**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**12**	**0**	**4**	**12**	**0**	**0**	**0**	**21**	**6**	**56**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**25%**	**0%**	**7%**	**-**	**11%**	**16%**	**-**	**-**	**-**	**6%**	**60%**	**8%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	0	1	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	0	1	1	4	*6*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	0	2	3	2	*7*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	0	4	1	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	0	0	3	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**0**	**4**	**4**	**5**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**4**	**5**	**7**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**3**	**2**	**6**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**2**	**5**	**9**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	1	7	11	*19*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	3	4	5	*12*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	2	4	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	0	2	5	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	0	3	6	5	*14*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	0	1	9	5	*15*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	0	4	6	8	*18*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	0	2	4	7	*13*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	0	1	3	6	*10*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	0	2	5	7	*14*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	0	2	5	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	0	3	2	7	*12*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	0	4	2	9	*15*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	0	1	5	6	*12*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	0	1	3	6	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	52	95	132	*279*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**13**	**16**	**27**	***56***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	4	0
6:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	3	1	6	0
6:30 AM	0	0	0	0	0	0	0	2	0	1	2	0	0	0	2	0	7	0
6:45 AM	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	1	6	23
7:00 AM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	0	6	25
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**1**	**3**	**0**	**0**	**0**	**4**	**1**	**13**	32
7:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**1**	**4**	**0**	**0**	**0**	**6**	**1**	**16**	41
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**0**	**0**	**0**	**3**	**3**	**11**	46
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**5**	**0**	**0**	**0**	**8**	**1**	**16**	**56**
8:15 AM	0	0	0	0	0	0	0	1	0	0	7	0	0	0	9	2	19	62
8:30 AM	0	0	0	0	0	0	0	3	0	0	4	0	0	0	4	1	12	58
8:45 AM	0	0	0	0	0	0	0	2	0	1	3	0	0	0	3	1	10	57
9:00 AM	0	0	0	0	0	0	0	2	0	0	5	0	0	0	3	0	10	51
9:15 AM	0	0	0	0	0	0	0	3	0	0	6	0	0	0	5	0	14	46
9:30 AM	0	0	0	0	0	0	0	1	0	1	8	0	0	0	5	0	15	49
9:45 AM	0	0	0	0	0	0	0	4	0	1	5	0	0	0	7	1	18	57
10:00 AM	0	0	0	0	0	0	0	2	0	2	2	0	0	0	5	2	13	60
10:15 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	5	1	10	56
10:30 AM	0	0	0	0	0	0	0	2	0	1	4	0	0	0	5	2	14	55
10:45 AM	0	0	0	0	0	0	0	2	0	0	5	0	0	0	3	0	10	47
11:00 AM	0	0	0	0	0	0	0	3	0	0	2	0	0	0	5	2	12	46
11:15 AM	0	0	0	0	0	0	0	4	0	0	2	0	0	0	7	2	15	51
11:30 AM	0	0	0	0	0	0	0	1	0	0	5	0	0	0	4	2	12	49
11:45 AM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	3	3	10	49
Count Total	0	0	0	0	0	1	0	51	0	13	82	0	0	0	104	28	279	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**12**	**0**	**4**	**12**	**0**	**0**	**0**	**21**	**6**	**56**	**0**

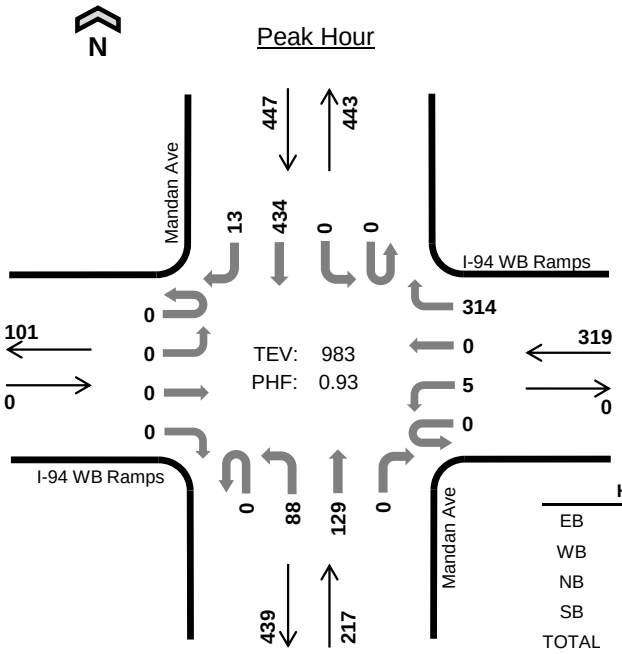
Six-Hour Count Summaries - Bikes

Interval Start	I-94 WB Ramps Eastbound			I-94 WB Ramps Westbound			Mandan Ave Northbound			Mandan Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	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
6:30 AM	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
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

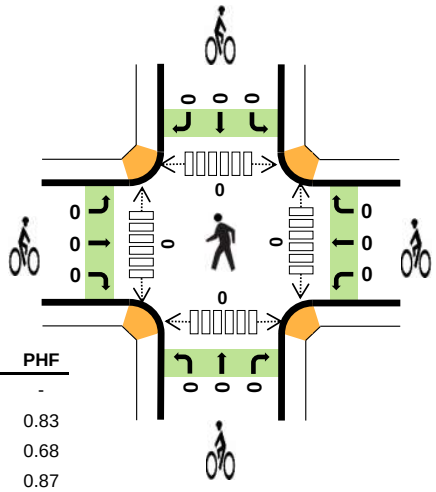
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
I-94 WB Ramps

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	-	-
WB	1.6%	0.83
NB	5.5%	0.68
SB	3.6%	0.87
TOTAL	3.4%	0.93



Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:45 PM		0	0	0	0	0	2	0	75	0	14	27	0	0	0	105	4	227	0
5:00 PM		0	0	0	0	0	0	0	82	0	33	47	0	0	0	97	1	260	0
5:15 PM		0	0	0	0	0	2	0	94	0	25	33	0	0	0	106	5	265	0
5:30 PM		0	0	0	0	0	1	0	63	0	16	22	0	0	0	126	3	231	983
Peak Hour	All	0	0	0	0	0	5	0	314	0	88	129	0	0	0	434	13	983	0
	HV	0	0	0	0	0	0	0	5	0	1	11	0	0	0	10	6	33	0
	HV%	-	-	-	-	-	0%	-	2%	-	1%	9%	-	-	-	2%	46%	3%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:45 PM	0	3	4	8	*15*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	0	1	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	1	3	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	4	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	5	12	16	*33*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	1	0	32	0	14	22	0	0	0	62	2	133	0
12:15 PM	0	0	0	0	0	2	1	46	0	22	21	0	0	0	47	2	141	0
12:30 PM	0	0	0	0	0	1	0	38	0	8	23	0	0	0	60	0	130	0
12:45 PM	0	0	0	0	0	1	0	32	0	11	26	0	0	0	51	3	124	528
1:00 PM	0	0	0	0	0	0	0	39	0	10	25	0	0	0	48	0	122	517
1:15 PM	0	0	0	0	0	2	0	31	0	4	26	0	0	0	40	4	107	483
1:30 PM	0	0	0	0	0	3	0	36	0	9	18	0	0	0	47	4	117	470
1:45 PM	0	0	0	0	0	4	0	44	0	8	34	0	0	0	47	0	137	483
2:00 PM	0	0	0	0	0	2	0	38	0	12	17	0	0	0	49	1	119	480
2:15 PM	0	0	0	0	0	1	0	54	0	14	25	0	0	0	39	2	135	508
2:30 PM	0	0	0	0	0	3	0	40	0	15	28	0	0	0	62	4	152	543
2:45 PM	0	0	0	0	0	9	0	41	0	17	29	0	0	0	57	0	153	559
3:00 PM	0	0	0	0	0	0	0	45	0	12	34	0	0	0	70	2	163	603
3:15 PM	0	0	0	0	0	0	0	53	0	13	33	0	0	0	71	2	172	640
3:30 PM	0	0	0	0	0	4	0	58	0	20	20	0	0	0	100	3	205	693
3:45 PM	0	0	0	0	0	1	0	58	0	16	28	0	0	0	79	2	184	724
4:00 PM	0	0	0	0	0	3	0	55	0	14	14	0	0	0	100	3	189	750
4:15 PM	0	0	0	0	0	5	0	66	0	11	27	0	0	0	74	2	185	763
4:30 PM	0	0	0	0	0	2	0	60	0	14	29	0	0	0	77	4	186	744
4:45 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**75**	**0**	**14**	**27**	**0**	**0**	**0**	**105**	**4**	**227**	787
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**82**	**0**	**33**	**47**	**0**	**0**	**0**	**97**	**1**	**260**	858
5:15 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**94**	**0**	**25**	**33**	**0**	**0**	**0**	**106**	**5**	**265**	938
5:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**63**	**0**	**16**	**22**	**0**	**0**	**0**	**126**	**3**	**231**	**983**
5:45 PM	0	0	0	0	0	4	0	60	0	16	24	0	0	0	76	2	182	938
Count Total	0	0	0	0	0	53	1	1,240	0	348	632	0	0	0	1,690	55	4,019	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**314**	**0**	**88**	**129**	**0**	**0**	**0**	**434**	**13**	**983**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**1**	**11**	**0**	**0**	**0**	**10**	**6**	**33**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**2%**	**-**	**1%**	**9%**	**-**	**-**	**-**	**2%**	**46%**	**3%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	2	3	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	1	4	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	0	0	7	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	0	0	4	8	*12*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	0	4	6	6	*16*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	0	2	1	5	*8*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	0	2	3	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	0	2	7	6	*15*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	0	5	5	5	*15*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	3	3	3	*9*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	0	5	7	8	*20*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	0	2	6	7	*15*	0	0	0	0	*0*	0	1	0	0	*1*
3:00 PM	0	2	5	5	*12*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	0	2	5	4	*11*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	0	4	0	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	0	0	3	7	*10*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	0	0	1	7	*8*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	1	0	5	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**0**	**3**	**4**	**8**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**1**	**1**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**1**	**3**	**4**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**4**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	2	1	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	45	84	116	*245*	0	0	0	0	*0*	0	1	0	0	*1*
Peak Hour	**0**	**5**	**12**	**16**	***33***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	2	0	0	3	0	0	0	3	2	10	0
12:15 PM	0	0	0	0	0	0	0	1	0	2	2	0	0	0	2	2	9	0
12:30 PM	0	0	0	0	0	0	0	0	0	1	6	0	0	0	3	0	10	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	5	3	12	41
1:00 PM	0	0	0	0	0	0	0	4	0	0	6	0	0	0	6	0	16	47
1:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	0	0	3	2	8	46
1:30 PM	0	0	0	0	0	0	0	2	0	0	3	0	0	0	5	0	10	46
1:45 PM	0	0	0	0	0	1	0	1	0	0	7	0	0	0	6	0	15	49
2:00 PM	0	0	0	0	0	1	0	4	0	1	4	0	0	0	4	1	15	48
2:15 PM	0	0	0	0	0	0	0	3	0	0	3	0	0	0	2	1	9	49
2:30 PM	0	0	0	0	0	0	0	5	0	3	4	0	0	0	7	1	20	59
2:45 PM	0	0	0	0	0	1	0	1	0	0	6	0	0	0	7	0	15	59
3:00 PM	0	0	0	0	0	0	0	2	0	3	2	0	0	0	4	1	12	56
3:15 PM	0	0	0	0	0	0	0	2	0	1	4	0	0	0	2	2	11	58
3:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	2	2	8	46
3:45 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	5	2	10	41
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	1	8	37
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	2	6	32
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	26
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**3**	**0**	**0**	**0**	**6**	**2**	**15**	31
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**3**	26
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**3**	**8**	28
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**1**	**7**	**33**
5:45 PM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	1	2	6	24
Count Total	0	0	0	0	0	3	0	42	0	16	68	0	0	0	86	30	245	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**1**	**11**	**0**	**0**	**0**	**10**	**6**	**33**	**0**

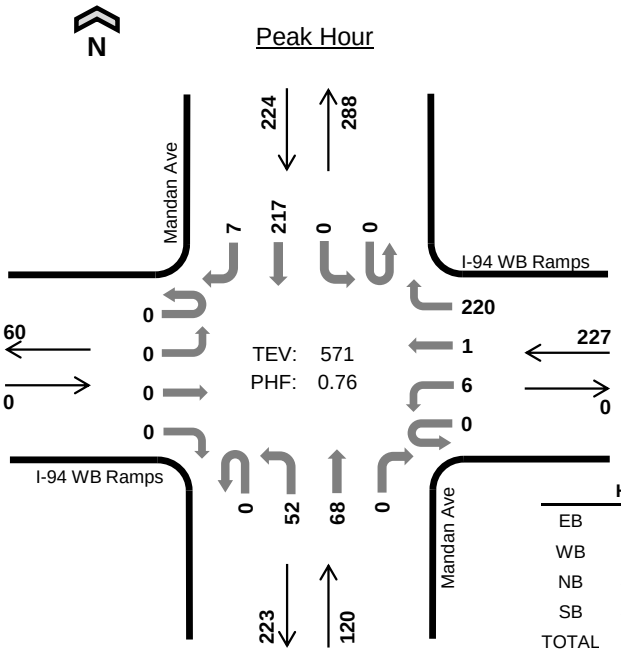
Six-Hour Count Summaries - Bikes

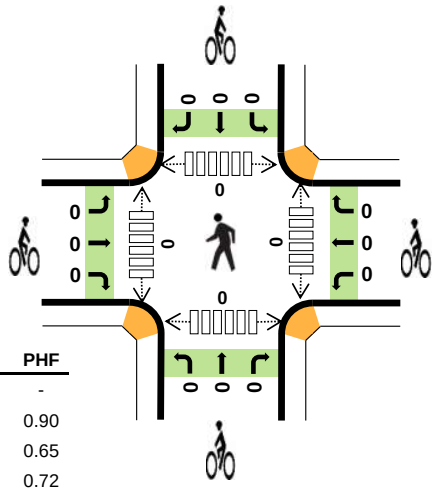
Interval Start	I-94 WB Ramps			I-94 WB Ramps			Mandan Ave			Mandan Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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**	0
5:00 PM	**0**	**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**	0
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
I-94 WB Ramps

Date: 11/29/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM





	HV %:	PHF
EB	-	-
WB	1.8%	0.90
NB	4.2%	0.65
SB	4.5%	0.72
TOTAL	3.3%	0.76

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	0	0	0	0	3	1	59	0	17	29	0	0	0	75	3	187	0
6:15 PM		0	0	0	0	0	1	0	55	0	16	19	0	0	0	53	1	145	0
6:30 PM		0	0	0	0	0	2	0	56	0	10	12	0	0	0	53	2	135	0
6:45 PM		0	0	0	0	0	0	0	50	0	9	8	0	0	0	36	1	104	571
Peak Hour	All	0	0	0	0	0	6	1	220	0	52	68	0	0	0	217	7	571	0
	HV	0	0	0	0	0	0	0	4	0	1	4	0	0	0	6	4	19	0
	HV%	-	-	-	-	-	0%	0%	2%	-	2%	6%	-	-	-	3%	57%	3%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	0	0	2	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	0	3	1	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	0	1	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	0	0	1	4	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	4	5	10	*19*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**59**	**0**	**17**	**29**	**0**	**0**	**0**	**75**	**3**	**187**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**55**	**0**	**16**	**19**	**0**	**0**	**0**	**53**	**1**	**145**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**56**	**0**	**10**	**12**	**0**	**0**	**0**	**53**	**2**	**135**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**50**	**0**	**9**	**8**	**0**	**0**	**0**	**36**	**1**	**104**	**571**
7:00 PM	0	0	0	0	0	1	0	39	0	10	16	0	0	0	37	1	104	488
7:15 PM	0	0	0	0	0	0	0	34	0	9	10	0	0	0	20	1	74	417
7:30 PM	0	0	0	0	0	0	1	19	0	5	9	0	0	0	31	0	65	347
7:45 PM	0	0	0	0	0	2	0	25	0	6	6	0	0	0	26	3	68	311
8:00 PM	0	0	0	0	0	1	0	28	0	7	8	0	0	0	26	1	71	278
8:15 PM	0	0	0	0	0	0	0	18	0	2	5	0	0	0	21	1	47	251
8:30 PM	0	0	0	0	0	1	0	36	0	13	6	0	0	0	23	0	79	265
8:45 PM	0	0	0	0	0	0	0	36	0	2	4	0	0	0	28	1	71	268
9:00 PM	0	0	0	0	0	1	0	23	0	5	7	0	0	0	63	0	99	296
9:15 PM	0	0	0	0	0	1	0	25	0	10	11	0	0	0	45	1	93	342
9:30 PM	0	0	0	0	0	1	0	15	0	2	5	0	0	0	27	0	50	313
9:45 PM	0	0	0	0	0	1	0	14	0	4	3	0	0	0	18	0	40	282
10:00 PM	0	0	0	0	0	0	0	14	0	3	5	0	0	0	12	1	35	218
10:15 PM	0	0	0	0	0	0	0	9	0	2	2	0	0	0	11	1	25	150
10:30 PM	0	0	0	0	0	0	0	10	0	2	4	0	0	0	16	0	32	132
10:45 PM	0	0	0	0	0	0	0	11	0	1	2	0	0	0	18	1	33	125
11:00 PM	0	0	0	0	0	0	0	3	0	3	4	0	0	0	16	0	26	116
11:15 PM	0	0	0	0	0	0	0	3	0	3	0	0	0	0	6	0	12	103
11:30 PM	0	0	0	0	0	0	0	4	0	2	1	0	0	0	6	0	13	84
11:45 PM	0	0	0	0	0	0	0	6	0	1	1	0	0	0	2	0	10	61
Count Total	0	0	0	0	0	15	2	592	0	144	177	0	0	0	669	19	1,618	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**6**	**1**	**220**	**0**	**52**	**68**	**0**	**0**	**0**	**217**	**7**	**571**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**1**	**4**	**0**	**0**	**0**	**6**	**4**	**19**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**0%**	**2%**	**-**	**2%**	**6%**	**-**	**-**	**-**	**3%**	**57%**	**3%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
6:00 PM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**0**	**3**	**1**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**0**	**1**	**1**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**0**	**0**	**1**	**4**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 PM	0	1	1	4	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	0	1	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 PM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 PM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	3	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	13	17	34	*64*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**4**	**5**	**10**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps				I-94 WB Ramps				Mandan Ave				Mandan Ave				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**2**	**1**	**5**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**5**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**4**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**1**	**5**	**19**
7:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	16
7:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	1	5	16
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	13
7:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	3	6	14
8:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	3	15
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11
8:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	13
8:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	9
9:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	3	9
9:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	3	11
9:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	10
9:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	3	11
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	9
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	9
10:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	8
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	7
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
11:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	4
Count Total	0	0	0	0	0	0	0	13	0	3	14	0	0	0	20	14	64	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**1**	**4**	**0**	**0**	**0**	**6**	**4**	**19**	**0**

Six-Hour Count Summaries - Bikes

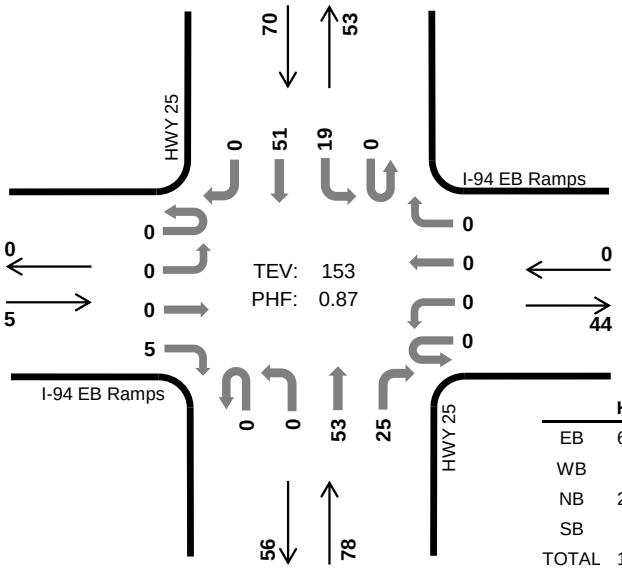
Interval Start	I-94 WB Ramps			I-94 WB Ramps			Mandan Ave			Mandan Ave			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

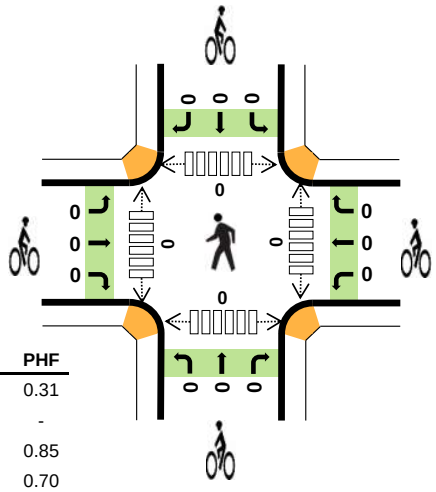
HWY 25
I-94 EB Ramps

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM

Peak Hour



	HV %:	PHF
EB	60.0%	0.31
WB	-	-
NB	25.6%	0.85
SB	5.7%	0.70
TOTAL	17.6%	0.87



Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	0	1	0	0	0	0	0	0	15	8	0	4	7	0	35	0
5:15 AM		0	0	0	4	0	0	0	0	0	0	14	3	0	3	10	0	34	0
5:30 AM		0	0	0	0	0	0	0	0	0	0	10	9	0	10	11	0	40	0
5:45 AM		0	0	0	0	0	0	0	0	0	0	14	5	0	2	23	0	44	153
Peak Hour	All	0	0	0	5	0	0	0	0	0	0	53	25	0	19	51	0	153	0
	HV	0	0	0	3	0	0	0	0	0	0	10	10	0	0	4	0	27	0
	HV%	-	-	-	60%	-	-	-	-	-	-	19%	40%	-	0%	8%	-	18%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	1	0	8	1	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	2	0	2	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	0	7	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	0	0	3	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	3	0	20	4	*27*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	3	0
12:15 AM	0	0	0	1	0	0	0	0	0	0	2	2	0	1	2	0	8	0
12:30 AM	0	1	0	0	0	0	0	0	0	0	0	1	0	2	2	0	6	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	3	0	7	24
1:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6	0	7	28
1:15 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	3	23
1:30 AM	0	1	0	2	0	0	0	0	0	0	7	0	0	1	0	0	11	28
1:45 AM	0	0	0	1	0	0	0	0	0	0	1	1	0	7	5	0	15	36
2:00 AM	0	0	0	1	0	0	0	0	0	0	1	1	0	4	3	0	10	39
2:15 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0	4	40
2:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	32
2:45 AM	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	4	21
3:00 AM	0	0	0	2	0	0	0	0	0	0	2	0	0	0	2	0	6	17
3:15 AM	0	0	0	0	0	0	0	0	0	0	2	5	0	1	3	0	11	24
3:30 AM	0	0	0	1	0	0	0	0	0	0	1	2	0	1	0	0	5	26
3:45 AM	0	0	0	1	0	0	0	0	0	0	2	3	0	1	5	0	12	34
4:00 AM	0	0	0	1	0	0	0	0	0	0	6	1	0	2	4	0	14	42
4:15 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	2	5	0	13	44
4:30 AM	0	0	0	1	0	0	0	0	0	0	11	2	0	3	9	0	26	65
4:45 AM	0	0	0	0	0	0	0	0	0	0	6	3	0	5	10	0	24	77
5:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**8**	**0**	**4**	**7**	**0**	**35**	98
5:15 AM	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**3**	**0**	**3**	**10**	**0**	**34**	119
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**9**	**0**	**10**	**11**	**0**	**40**	133
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**5**	**0**	**2**	**23**	**0**	**44**	**153**
Count Total	0	2	0	22	0	0	0	0	0	0	107	50	0	50	114	0	345	0
Peak Hour All	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**53**	**25**	**0**	**19**	**51**	**0**	**153**	**0**
Peak Hour HV	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**10**	**0**	**0**	**4**	**0**	**27**	**0**
Peak Hour HV%	**-**	**-**	**-**	**60%**	**-**	**-**	**-**	**-**	**-**	**-**	**19%**	**40%**	**-**	**0%**	**8%**	**-**	**18%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	1	0	4	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	1	0	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	2	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	1	0	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	1	0	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	0	5	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	1	0	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	1	0	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	0	4	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	1	0	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	0	0	0	3	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**1**	**0**	**8**	**1**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**2**	**0**	**2**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**0**	**7**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**0**	**0**	**3**	**1**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	11	0	50	27	*88*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**3**	**0**	**20**	**4**	***27***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	7
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	9
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8
1:30 AM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0	5	13
1:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	0	4	14
2:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	4	14
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	15
2:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	12
2:45 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	3	11
3:00 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0	4	11
3:15 AM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	1	0	6	15
3:30 AM	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	3	16
3:45 AM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	3	16
4:00 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	14
4:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	4	12
4:30 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	4	13
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	13
5:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**4**	**0**	**0**	**1**	**0**	**10**	21
5:15 AM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**5**	22
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**3**	**0**	**0**	**1**	**0**	**8**	26
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**1**	**0**	**4**	**27**
Count Total	0	0	0	11	0	0	0	0	0	0	25	25	0	2	25	0	88	0
Peak Hour	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**10**	**0**	**0**	**4**	**0**	**27**	**0**

Six-Hour Count Summaries - Bikes

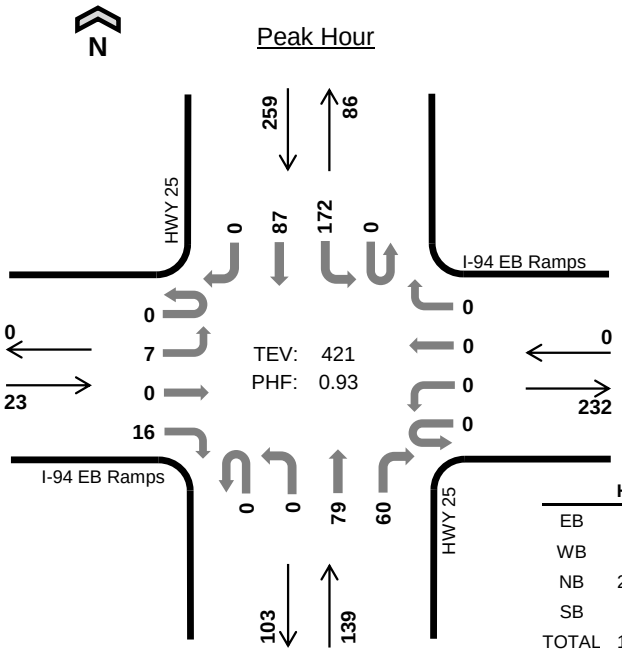
Interval Start	I-94 EB Ramps			I-94 EB Ramps			HWY 25			HWY 25			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

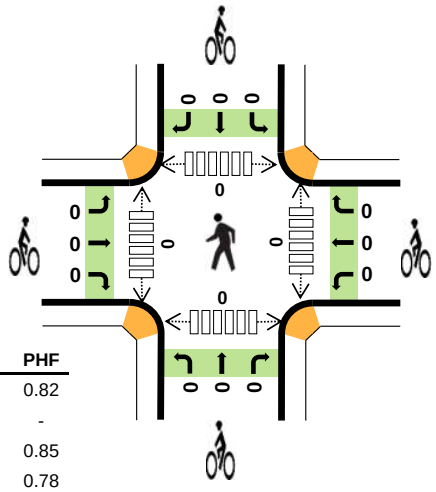
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
I-94 EB Ramps

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:00 AM to 8:00 AM

Peak Hour





	HV %:	PHF
EB	8.7%	0.82
WB	-	-
NB	28.1%	0.85
SB	6.6%	0.78
TOTAL	13.8%	0.93

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	0	4	0	0	0	0	0	0	18	20	0	39	17	0	99	0
7:15 AM		0	2	0	5	0	0	0	0	0	0	18	16	0	43	22	0	106	0
7:30 AM		0	2	0	5	0	0	0	0	0	0	23	18	0	39	16	0	103	0
7:45 AM		0	2	0	2	0	0	0	0	0	0	20	6	0	51	32	0	113	421
Peak Hour	All	0	7	0	16	0	0	0	0	0	0	79	60	0	172	87	0	421	0
	HV	0	0	0	2	0	0	0	0	0	0	24	15	0	2	15	0	58	0
	HV%	-	0%	-	13%	-	-	-	-	-	-	30%	25%	-	1%	17%	-	14%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	12	4	*17*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	7	7	*14*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	1	0	15	0	*16*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	0	5	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	2	0	39	17	*58*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	1	0	2	0	0	0	0	0	0	24	4	0	14	16	0	61	0
6:15 AM	0	0	0	4	0	0	0	0	0	0	13	2	0	17	23	0	59	0
6:30 AM	0	1	0	3	0	0	0	0	0	0	14	10	0	19	15	0	62	0
6:45 AM	0	3	0	8	0	0	0	0	0	0	10	7	0	17	13	0	58	240
7:00 AM	**0**	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**20**	**0**	**39**	**17**	**0**	**99**	278
7:15 AM	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**16**	**0**	**43**	**22**	**0**	**106**	325
7:30 AM	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**23**	**18**	**0**	**39**	**16**	**0**	**103**	366
7:45 AM	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**6**	**0**	**51**	**32**	**0**	**113**	**421**
8:00 AM	0	5	0	2	0	0	0	0	0	0	19	17	0	30	24	0	97	419
8:15 AM	0	0	0	3	0	0	0	0	0	0	18	5	0	20	20	0	66	379
8:30 AM	0	0	0	4	0	0	0	0	0	0	24	4	0	10	11	0	53	329
8:45 AM	0	1	0	4	0	0	0	0	0	0	14	9	0	11	14	0	53	269
9:00 AM	0	2	0	6	0	0	0	0	0	0	17	13	0	17	16	0	71	243
9:15 AM	0	1	0	7	0	0	0	0	0	0	17	10	0	9	12	0	56	233
9:30 AM	0	0	0	1	0	0	0	0	0	0	10	10	0	19	8	0	48	228
9:45 AM	0	1	0	10	0	0	0	0	0	0	10	4	0	15	14	0	54	229
10:00 AM	0	2	0	4	0	0	0	0	0	0	12	11	0	12	12	0	53	211
10:15 AM	0	0	0	8	0	0	0	0	0	0	10	10	0	9	9	0	46	201
10:30 AM	0	2	0	5	0	0	0	0	0	0	12	6	0	13	18	0	56	209
10:45 AM	0	3	0	6	0	0	0	0	0	0	10	7	0	13	13	0	52	207
11:00 AM	0	1	0	4	0	0	0	0	0	0	8	9	0	15	16	0	53	207
11:15 AM	0	0	1	10	0	0	0	0	0	0	13	4	0	20	13	0	61	222
11:30 AM	0	0	0	3	0	0	0	0	0	0	11	11	0	14	15	0	54	220
11:45 AM	0	0	0	9	0	0	0	0	0	0	11	7	0	8	17	0	52	220
Count Total	0	30	1	119	0	0	0	0	0	0	356	220	0	474	386	0	1,586	0
Peak Hour All	**0**	**7**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**79**	**60**	**0**	**172**	**87**	**0**	**421**	**0**
Peak Hour HV	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**15**	**0**	**2**	**15**	**0**	**58**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**13%**	**-**	**-**	**-**	**-**	**-**	**-**	**30%**	**25%**	**-**	**1%**	**17%**	**-**	**14%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	2	0	5	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	2	0	2	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	1	0	5	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	2	0	4	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	**1**	**0**	**12**	**4**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:15 AM	**0**	**0**	**7**	**7**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**1**	**0**	**15**	**0**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**0**	**5**	**6**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:00 AM	0	0	7	9	*16*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	1	0	8	3	*12*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	2	0	10	3	*15*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	3	0	4	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	1	0	9	5	*15*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	4	0	11	4	*19*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	1	0	5	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	5	0	4	3	*12*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	3	0	8	5	*16*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	4	0	7	3	*14*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	2	0	9	7	*18*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	6	0	10	4	*20*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	2	0	8	6	*16*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	8	0	5	9	*22*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	0	0	5	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	2	0	4	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	53	0	169	101	*323*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**2**	**0**	**39**	**17**	***58***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	2	0	0	0	0	0	0	4	1	0	0	0	0	7	0
6:15 AM	0	0	0	2	0	0	0	0	0	0	2	0	0	0	4	0	8	0
6:30 AM	0	0	0	1	0	0	0	0	0	0	3	2	0	0	0	0	6	0
6:45 AM	0	0	0	2	0	0	0	0	0	0	2	2	0	0	4	0	10	31
7:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**6**	**0**	**0**	**4**	**0**	**17**	41
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**3**	**0**	**2**	**5**	**0**	**14**	47
7:30 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**6**	**0**	**0**	**0**	**0**	**16**	57
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**6**	**0**	**11**	**58**
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	2	0	0	9	0	16	57
8:15 AM	0	0	0	1	0	0	0	0	0	0	8	0	0	0	3	0	12	55
8:30 AM	0	0	0	2	0	0	0	0	0	0	8	2	0	0	3	0	15	54
8:45 AM	0	1	0	2	0	0	0	0	0	0	1	3	0	0	3	0	10	53
9:00 AM	0	0	0	1	0	0	0	0	0	0	6	3	0	0	5	0	15	52
9:15 AM	0	0	0	4	0	0	0	0	0	0	7	4	0	1	3	0	19	59
9:30 AM	0	0	0	1	0	0	0	0	0	0	3	2	0	1	3	0	10	54
9:45 AM	0	0	0	5	0	0	0	0	0	0	2	2	0	0	3	0	12	56
10:00 AM	0	1	0	2	0	0	0	0	0	0	5	3	0	0	5	0	16	57
10:15 AM	0	0	0	4	0	0	0	0	0	0	4	3	0	0	3	0	14	52
10:30 AM	0	1	0	1	0	0	0	0	0	0	6	3	0	0	7	0	18	60
10:45 AM	0	2	0	4	0	0	0	0	0	0	7	3	0	0	4	0	20	68
11:00 AM	0	0	0	2	0	0	0	0	0	0	2	6	0	1	5	0	16	68
11:15 AM	0	0	0	8	0	0	0	0	0	0	2	3	0	3	6	0	22	76
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	3	0	1	3	0	9	67
11:45 AM	0	0	0	2	0	0	0	0	0	0	3	1	0	0	4	0	10	57
Count Total	0	5	0	48	0	0	0	0	0	0	106	63	0	9	92	0	323	0
Peak Hour	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**15**	**0**	**2**	**15**	**0**	**58**	**0**

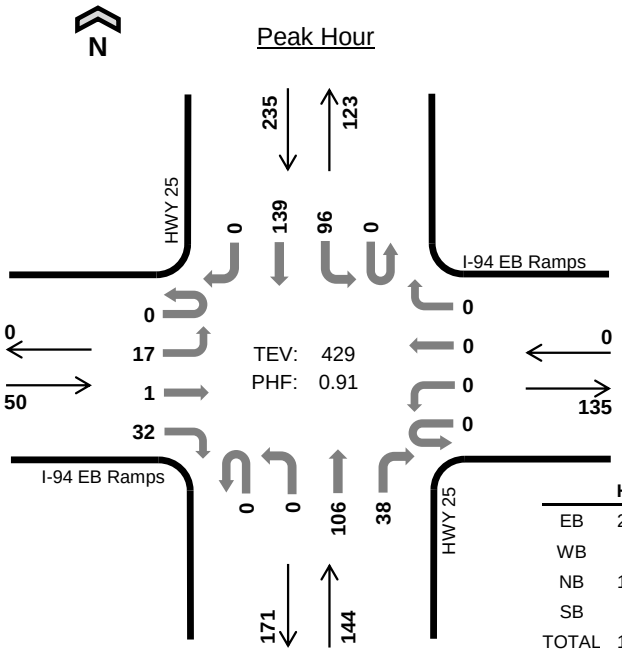
Six-Hour Count Summaries - Bikes

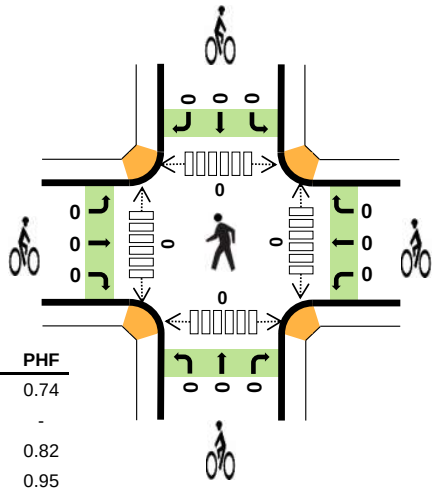
Interval Start	I-94 EB Ramps			I-94 EB Ramps			HWY 25			HWY 25			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**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**	**0**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
I-94 EB Ramps

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	26.0%	0.74
WB	-	-
NB	14.6%	0.82
SB	9.4%	0.95
TOTAL	13.1%	0.91

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:15 PM		0	3	0	10	0	0	0	0	0	0	32	11	0	33	29	0	118	0
4:30 PM		0	2	1	3	0	0	0	0	0	0	35	9	0	22	38	0	110	0
4:45 PM		0	6	0	11	0	0	0	0	0	0	20	8	0	19	38	0	102	0
5:00 PM		0	6	0	8	0	0	0	0	0	0	19	10	0	22	34	0	99	429
Peak Hour	All	0	17	1	32	0	0	0	0	0	0	106	38	0	96	139	0	429	0
	HV	0	0	0	13	0	0	0	0	0	0	11	10	0	3	19	0	56	0
	HV%	-	0%	0%	41%	-	-	-	-	-	-	10%	26%	-	3%	14%	-	13%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:15 PM	3	0	8	2	*13*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	1	0	5	2	*8*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	5	0	2	7	*14*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	4	0	6	11	*21*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	13	0	21	22	*56*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	4	0	0	0	0	0	0	14	5	0	11	17	0	51	0
12:15 PM	0	0	0	3	0	0	0	0	0	0	16	8	0	10	16	0	53	0
12:30 PM	0	0	0	5	0	0	0	0	0	0	14	11	0	14	16	0	60	0
12:45 PM	0	1	0	5	0	0	0	0	0	0	6	7	0	16	16	0	51	215
1:00 PM	0	3	0	4	0	0	0	0	0	0	13	5	0	16	19	0	60	224
1:15 PM	0	0	0	11	0	0	0	0	0	0	14	8	0	12	9	0	54	225
1:30 PM	0	0	0	8	0	0	0	0	0	0	17	6	0	12	17	0	60	225
1:45 PM	0	0	0	2	0	0	0	0	0	0	13	10	0	10	9	0	44	218
2:00 PM	0	1	1	3	0	0	0	0	0	0	7	9	0	15	11	0	47	205
2:15 PM	0	2	0	5	0	0	0	0	0	0	10	8	0	12	16	0	53	204
2:30 PM	0	1	0	3	0	0	0	0	0	0	12	8	0	11	24	0	59	203
2:45 PM	0	3	0	8	0	0	0	0	0	0	12	6	0	16	17	0	62	221
3:00 PM	0	1	0	9	0	0	0	0	0	0	18	9	0	15	14	0	66	240
3:15 PM	0	1	0	6	0	0	0	0	0	0	15	8	0	11	20	0	61	248
3:30 PM	0	0	0	8	0	0	0	0	0	0	21	10	0	9	22	0	70	259
3:45 PM	0	0	0	5	0	0	0	0	0	0	17	11	0	20	19	0	72	269
4:00 PM	0	2	0	8	0	0	0	0	0	0	13	13	0	22	29	0	87	290
4:15 PM	**0**	**3**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**32**	**11**	**0**	**33**	**29**	**0**	**118**	347
4:30 PM	**0**	**2**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**35**	**9**	**0**	**22**	**38**	**0**	**110**	387
4:45 PM	**0**	**6**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**8**	**0**	**19**	**38**	**0**	**102**	417
5:00 PM	**0**	**6**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**10**	**0**	**22**	**34**	**0**	**99**	**429**
5:15 PM	0	0	0	5	0	0	0	0	0	0	22	4	0	26	23	0	80	391
5:30 PM	0	2	0	11	0	0	0	0	0	0	25	14	0	29	19	0	100	381
5:45 PM	0	2	0	4	0	0	0	0	0	0	24	14	0	39	28	0	111	390
Count Total	0	36	2	149	0	0	0	0	0	0	409	212	0	422	500	0	1,730	0
Peak Hour All	**0**	**17**	**1**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**106**	**38**	**0**	**96**	**139**	**0**	**429**	**0**
Peak Hour HV	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**10**	**0**	**3**	**19**	**0**	**56**	**0**
Peak Hour HV%	**-**	**0%**	**0%**	**41%**	**-**	**-**	**-**	**-**	**-**	**-**	**10%**	**26%**	**-**	**3%**	**14%**	**-**	**13%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	2	0	9	4	*15*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	0	5	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	2	0	6	6	*14*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	3	0	5	8	*16*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	3	0	5	7	*15*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	6	0	4	0	*10*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	3	0	7	4	*14*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	1	0	4	2	*7*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	2	0	5	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	5	0	8	5	*18*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	2	0	5	2	*9*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	2	0	5	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	5	0	4	6	*15*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	2	0	4	7	*13*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	7	0	9	7	*23*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	1	0	10	3	*14*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	5	0	7	4	*16*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**3**	**0**	**8**	**2**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**0**	**5**	**2**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**5**	**0**	**2**	**7**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**4**	**0**	**6**	**11**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	1	0	2	6	*9*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	6	0	6	3	*15*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	3	0	6	3	*12*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	74	0	137	105	*316*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**13**	**0**	**21**	**22**	***56***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps				I-94 EB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	2	0	0	0	0	0	0	9	0	0	1	3	0	15	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	4	0	9	0
12:30 PM	0	0	0	2	0	0	0	0	0	0	3	3	0	1	5	0	14	0
12:45 PM	0	1	0	2	0	0	0	0	0	0	2	3	0	3	5	0	16	54
1:00 PM	0	0	0	3	0	0	0	0	0	0	2	3	0	0	7	0	15	54
1:15 PM	0	0	0	6	0	0	0	0	0	0	2	2	0	0	0	0	10	55
1:30 PM	0	0	0	3	0	0	0	0	0	0	5	2	0	0	4	0	14	55
1:45 PM	0	0	0	1	0	0	0	0	0	0	2	2	0	0	2	0	7	46
2:00 PM	0	0	1	1	0	0	0	0	0	0	2	3	0	0	1	0	8	39
2:15 PM	0	0	0	5	0	0	0	0	0	0	4	4	0	1	4	0	18	47
2:30 PM	0	0	0	2	0	0	0	0	0	0	1	4	0	1	1	0	9	42
2:45 PM	0	0	0	2	0	0	0	0	0	0	2	3	0	0	1	0	8	43
3:00 PM	0	0	0	5	0	0	0	0	0	0	1	3	0	1	5	0	15	50
3:15 PM	0	0	0	2	0	0	0	0	0	0	2	2	0	0	7	0	13	45
3:30 PM	0	0	0	7	0	0	0	0	0	0	6	3	0	0	7	0	23	59
3:45 PM	0	0	0	1	0	0	0	0	0	0	5	5	0	0	3	0	14	65
4:00 PM	0	1	0	4	0	0	0	0	0	0	4	3	0	0	4	0	16	66
4:15 PM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**1**	**0**	**1**	**1**	**0**	**13**	66
4:30 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**0**	**1**	**1**	**0**	**8**	51
4:45 PM	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**6**	**0**	**14**	51
5:00 PM	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**5**	**0**	**0**	**11**	**0**	**21**	**56**
5:15 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	2	4	0	9	52
5:30 PM	0	1	0	5	0	0	0	0	0	0	2	4	0	0	3	0	15	59
5:45 PM	0	0	0	3	0	0	0	0	0	0	3	3	0	0	3	0	12	57
Count Total	0	3	1	70	0	0	0	0	0	0	73	64	0	13	92	0	316	0
Peak Hour	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**10**	**0**	**3**	**19**	**0**	**56**	**0**

Six-Hour Count Summaries - Bikes

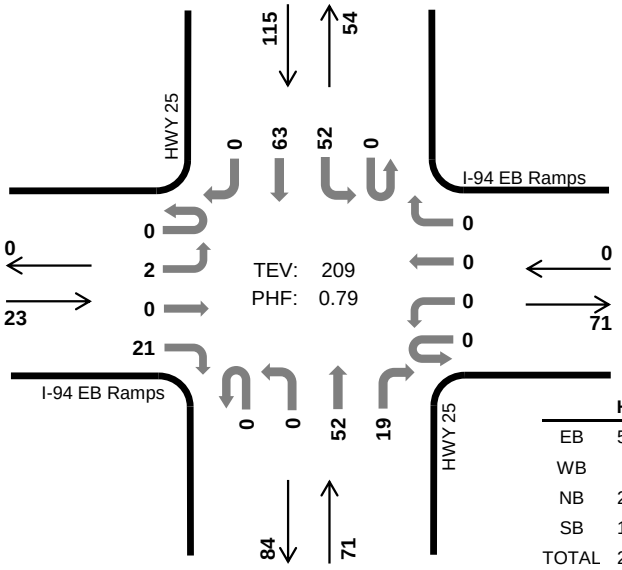
Interval Start	I-94 EB Ramps			I-94 EB Ramps			HWY 25			HWY 25			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**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**	0
5:00 PM	**0**	**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	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

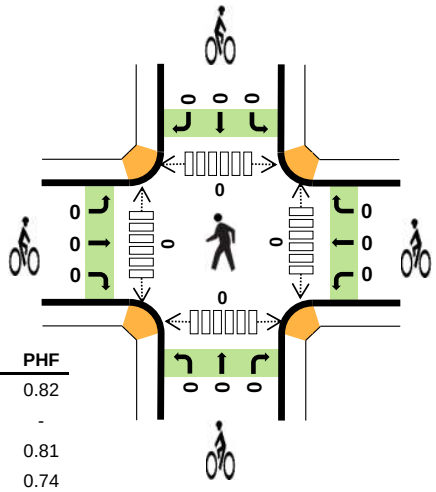
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
I-94 EB Ramps

Date: 11/29/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM

Peak Hour





	HV %:	PHF
EB	56.5%	0.82
WB	-	-
NB	23.9%	0.81
SB	14.8%	0.74
TOTAL	22.5%	0.79

Six-Hour Count Summaries

Interval Start		I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	1	0	4	0	0	0	0	0	0	17	5	0	19	20	0	66	0
6:15 PM		0	0	0	4	0	0	0	0	0	0	14	3	0	9	20	0	50	0
6:30 PM		0	0	0	7	0	0	0	0	0	0	15	6	0	16	13	0	57	0
6:45 PM		0	1	0	6	0	0	0	0	0	0	6	5	0	8	10	0	36	209
Peak Hour	All	0	2	0	21	0	0	0	0	0	0	52	19	0	52	63	0	209	0
	HV	0	0	0	13	0	0	0	0	0	0	11	6	0	2	15	0	47	0
	HV%	-	0%	-	62%	-	-	-	-	-	-	21%	32%	-	4%	24%	-	22%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	2	0	6	7	*15*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	3	0	6	4	*13*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	3	0	4	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	5	0	1	5	*11*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	13	0	17	17	*47*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 EB Ramps				I-94 EB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**5**	**0**	**19**	**20**	**0**	**66**	0
6:15 PM	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**3**	**0**	**9**	**20**	**0**	**50**	0
6:30 PM	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**6**	**0**	**16**	**13**	**0**	**57**	0
6:45 PM	**0**	**1**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**5**	**0**	**8**	**10**	**0**	**36**	**209**
7:00 PM	0	1	0	7	0	0	0	0	0	0	5	7	0	11	15	0	46	189
7:15 PM	0	1	0	3	0	0	0	0	0	0	10	3	0	8	15	0	40	179
7:30 PM	0	1	0	2	0	0	0	0	0	0	11	10	0	6	6	0	36	158
7:45 PM	0	2	0	2	0	0	0	0	0	0	10	4	0	2	11	0	31	153
8:00 PM	0	1	0	4	0	0	0	0	0	0	9	4	0	6	9	0	33	140
8:15 PM	0	0	0	0	0	0	0	0	0	0	5	1	0	1	7	0	14	114
8:30 PM	0	2	0	3	0	0	0	0	0	0	4	2	0	5	5	0	21	99
8:45 PM	0	1	0	0	0	0	0	0	0	0	4	1	0	1	6	0	13	81
9:00 PM	0	0	0	3	0	0	0	0	0	0	5	1	0	3	2	0	14	62
9:15 PM	0	0	0	2	0	0	0	0	0	0	4	1	0	1	7	0	15	63
9:30 PM	0	0	0	5	0	0	0	0	0	0	3	2	0	1	8	0	19	61
9:45 PM	0	2	0	3	0	0	0	0	0	0	7	3	0	2	7	0	24	72
10:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	2	3	0	9	67
10:15 PM	0	0	0	0	0	0	0	0	0	0	3	8	0	1	4	0	16	68
10:30 PM	0	0	0	4	0	0	0	0	0	0	3	2	0	1	6	0	16	65
10:45 PM	0	0	0	2	0	0	0	0	0	0	3	0	0	0	3	0	8	49
11:00 PM	0	0	0	1	0	0	0	0	0	0	4	2	0	4	3	0	14	54
11:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	1	4	0	8	46
11:30 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	2	1	0	8	38
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	8	38
Count Total	0	13	0	63	0	0	0	0	0	0	150	73	0	111	192	0	602	0
Peak Hour All	**0**	**2**	**0**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**52**	**19**	**0**	**52**	**63**	**0**	**209**	**0**
Peak Hour HV	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**6**	**0**	**2**	**15**	**0**	**47**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**62%**	**-**	**-**	**-**	**-**	**-**	**-**	**21%**	**32%**	**-**	**4%**	**24%**	**-**	**22%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	**2**	**0**	**6**	**7**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**3**	**0**	**6**	**4**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**3**	**0**	**4**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**5**	**0**	**1**	**5**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	5	0	5	4	*14*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	1	0	7	1	*9*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	2	0	5	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 PM	1	0	3	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	2	0	3	3	*8*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	0	0	2	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 PM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 PM	2	0	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	3	0	1	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	2	0	4	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	4	0	2	2	*8*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	41	0	59	42	*142*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**13**	**0**	**17**	**17**	***47***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 EB Ramps Eastbound				I-94 EB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**3**	**0**	**2**	**5**	**0**	**15**	0
6:15 PM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**1**	**0**	**0**	**4**	**0**	**13**	0
6:30 PM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**1**	**0**	**8**	0
6:45 PM	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	**0**	**11**	**47**
7:00 PM	0	0	0	5	0	0	0	0	0	0	1	4	0	0	4	0	14	46
7:15 PM	0	0	0	1	0	0	0	0	0	0	5	2	0	0	1	0	9	42
7:30 PM	0	0	0	2	0	0	0	0	0	0	1	4	0	0	3	0	10	44
7:45 PM	0	0	0	1	0	0	0	0	0	0	2	1	0	0	0	0	4	37
8:00 PM	0	0	0	2	0	0	0	0	0	0	2	1	0	0	3	0	8	31
8:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	26
8:30 PM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	3	19
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	17
9:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	11
9:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	3	10
9:30 PM	0	0	0	3	0	0	0	0	0	0	0	1	0	0	3	0	7	14
9:45 PM	0	1	0	1	0	0	0	0	0	0	2	2	0	0	1	0	7	19
10:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	20
10:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	20
10:30 PM	0	0	0	4	0	0	0	0	0	0	2	0	0	0	2	0	8	21
10:45 PM	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	3	17
11:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	17
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
Count Total	0	1	0	40	0	0	0	0	0	0	33	26	0	2	40	0	142	0
Peak Hour	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**6**	**0**	**2**	**15**	**0**	**47**	**0**

Six-Hour Count Summaries - Bikes

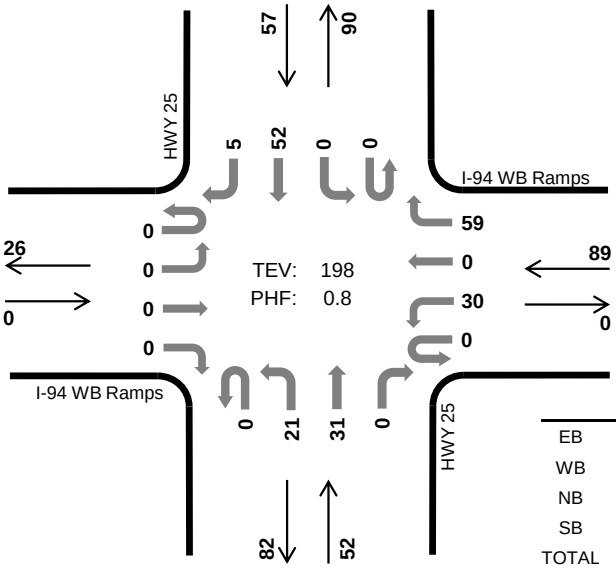
Interval Start	I-94 EB Ramps Eastbound			I-94 EB Ramps Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

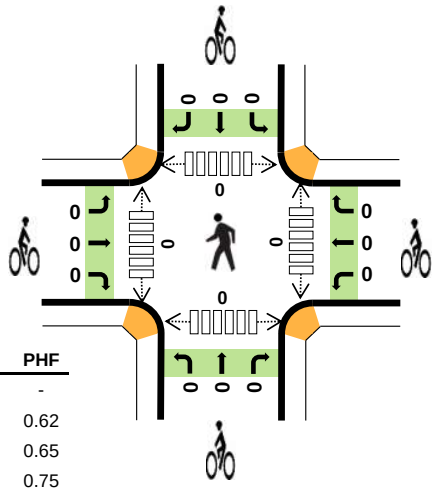
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
I-94 WB Ramps

Date: 12/01/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM

Peak Hour





	HV %:	PHF
EB	-	-
WB	6.7%	0.62
NB	13.5%	0.65
SB	3.5%	0.75
TOTAL	7.6%	0.80

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	0	0	0	5	0	13	0	7	7	0	0	0	10	1	43	0
5:15 AM		0	0	0	0	0	8	0	14	0	9	11	0	0	0	12	1	55	0
5:30 AM		0	0	0	0	0	2	0	11	0	2	4	0	0	0	17	2	38	0
5:45 AM		0	0	0	0	0	15	0	21	0	3	9	0	0	0	13	1	62	198
Peak Hour	All	0	0	0	0	0	30	0	59	0	21	31	0	0	0	52	5	198	0
	HV	0	0	0	0	0	4	0	2	0	5	2	0	0	0	1	1	15	0
	HV%	-	-	-	-	-	13%	-	3%	-	24%	6%	-	-	-	2%	20%	8%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	0	0	3	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	0	3	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	1	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	0	2	2	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	6	7	2	*15*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	3	0	0	0	4	0	0	0	0	1	1	9	0
12:15 AM	0	0	0	0	0	1	0	3	0	1	1	0	0	0	1	1	8	0
12:30 AM	0	0	0	0	0	0	0	4	0	0	2	0	0	0	1	0	7	0
12:45 AM	0	0	0	0	0	4	0	2	0	1	0	0	0	0	0	0	7	31
1:00 AM	0	0	0	0	0	0	0	1	0	3	1	0	0	0	3	0	8	30
1:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	4	26
1:30 AM	0	0	0	0	0	1	0	2	0	0	0	0	0	0	2	0	5	24
1:45 AM	0	0	0	0	0	2	0	1	0	0	3	0	0	0	12	0	18	35
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0	6	33
2:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	3	32
2:30 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	3	0	7	34
2:45 AM	0	0	0	0	0	1	0	1	0	1	3	0	0	0	1	0	7	23
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	18
3:15 AM	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	4	19
3:30 AM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	3	15
3:45 AM	0	0	0	0	0	1	0	3	0	1	1	0	0	0	2	0	8	16
4:00 AM	0	0	0	0	0	3	0	2	0	2	1	0	0	0	3	0	11	26
4:15 AM	0	0	0	0	0	2	0	0	0	3	2	0	0	0	7	2	16	38
4:30 AM	0	0	0	0	0	9	0	3	0	4	3	0	0	0	6	0	25	60
4:45 AM	0	0	0	0	0	7	0	3	0	2	10	0	0	0	5	0	27	79
5:00 AM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**13**	**0**	**7**	**7**	**0**	**0**	**0**	**10**	**1**	**43**	111
5:15 AM	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**14**	**0**	**9**	**11**	**0**	**0**	**0**	**12**	**1**	**55**	150
5:30 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**11**	**0**	**2**	**4**	**0**	**0**	**0**	**17**	**2**	**38**	163
5:45 AM	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**21**	**0**	**3**	**9**	**0**	**0**	**0**	**13**	**1**	**62**	**198**
Count Total	0	0	0	0	0	72	0	87	0	47	60	0	0	0	106	10	382	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**30**	**0**	**59**	**0**	**21**	**31**	**0**	**0**	**0**	**52**	**5**	**198**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**2**	**0**	**5**	**2**	**0**	**0**	**0**	**1**	**1**	**15**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**13%**	**-**	**3%**	**-**	**24%**	**6%**	**-**	**-**	**-**	**2%**	**20%**	**8%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
12:00 AM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	2	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	1	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	1	0	0	*1*	0	1	0	0	*1*	0	0	0	0	*0*
3:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	3	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	2	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**0**	**0**	**3**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**0**	**3**	**1**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**1**	**1**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**0**	**2**	**2**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	24	16	7	*47*	0	1	0	0	*1*	0	0	0	0	*0*
Peak Hour	**0**	**6**	**7**	**2**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps				I-94 WB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0
12:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
12:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
12:45 AM	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	3	7
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	5
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	4
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
2:30 AM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3	6
2:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	7
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	6
3:15 AM	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	4	9
3:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	7
3:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	8
4:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	9
4:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	6
4:30 AM	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	0	4	9
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	8
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	9
5:15 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	12
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**3**	11
5:45 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**5**	**15**
Count Total	0	0	0	0	0	19	0	5	0	14	2	0	0	0	6	1	47	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**2**	**0**	**5**	**2**	**0**	**0**	**0**	**1**	**1**	**15**	**0**

Six-Hour Count Summaries - Bikes

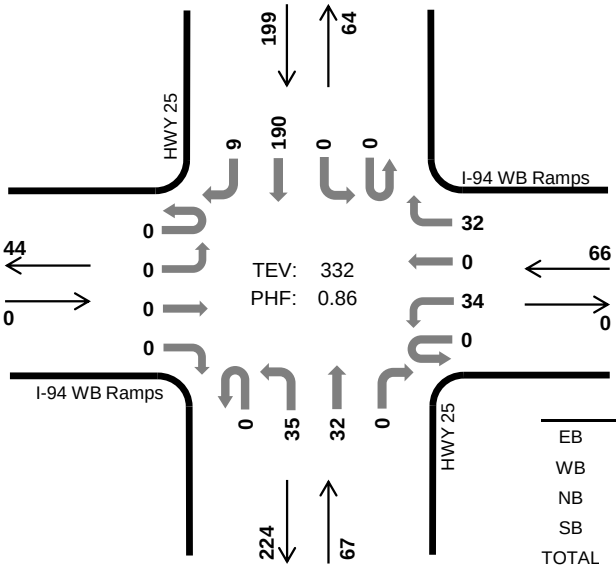
Interval Start	I-94 WB Ramps			I-94 WB Ramps			HWY 25			HWY 25			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	1	0	0	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

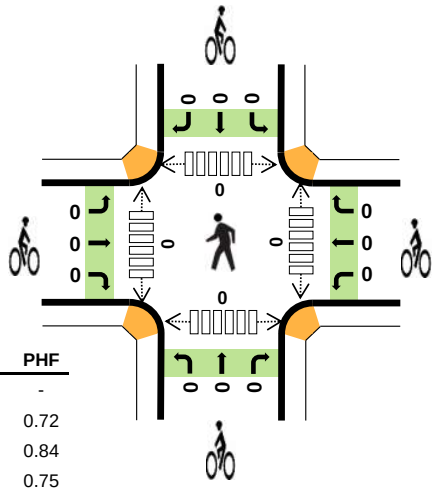
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
I-94 WB Ramps

Date: 12/01/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:15 AM to 8:15 AM

Peak Hour





	HV %:	PHF
EB	-	-
WB	25.8%	0.72
NB	23.9%	0.84
SB	0.0%	0.75
TOTAL	9.9%	0.86

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	0	0	0	0	6	0	10	0	6	7	0	0	0	35	2	66	0
7:30 AM		0	0	0	0	0	4	0	5	0	7	8	0	0	0	63	3	90	0
7:45 AM		0	0	0	0	0	10	0	13	0	9	10	0	0	0	52	3	97	0
8:00 AM		0	0	0	0	0	14	0	4	0	13	7	0	0	0	40	1	79	332
Peak Hour	All	0	0	0	0	0	34	0	32	0	35	32	0	0	0	190	9	332	0
	HV	0	0	0	0	0	13	0	4	0	14	2	0	0	0	0	0	33	0
	HV%	-	-	-	-	-	38%	-	13%	-	40%	6%	-	-	-	0%	0%	10%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:15 AM	0	3	3	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	2	3	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	6	6	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	0	6	4	0	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	17	16	0	*33*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	4	0	29	0	6	10	0	0	0	15	0	64	0
6:15 AM	0	0	0	0	0	8	0	21	0	5	10	0	0	0	28	1	73	0
6:30 AM	0	0	0	0	0	9	0	20	0	5	5	0	0	0	28	1	68	0
6:45 AM	0	0	0	0	0	6	0	14	0	7	9	0	0	0	23	2	61	266
7:00 AM	0	0	0	0	0	6	0	8	0	4	8	0	0	0	41	1	68	270
7:15 AM	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**10**	**0**	**6**	**7**	**0**	**0**	**0**	**35**	**2**	**66**	263
7:30 AM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**5**	**0**	**7**	**8**	**0**	**0**	**0**	**63**	**3**	**90**	285
7:45 AM	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**13**	**0**	**9**	**10**	**0**	**0**	**0**	**52**	**3**	**97**	321
8:00 AM	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**4**	**0**	**13**	**7**	**0**	**0**	**0**	**40**	**1**	**79**	**332**
8:15 AM	0	0	0	0	0	11	2	9	0	9	13	0	0	0	19	1	64	330
8:30 AM	0	0	0	0	0	9	0	15	0	11	6	0	0	0	24	1	66	306
8:45 AM	0	0	0	0	0	11	0	9	0	9	9	0	0	0	16	2	56	265
9:00 AM	0	0	0	0	0	9	1	3	0	8	6	0	0	0	25	0	52	238
9:15 AM	0	0	0	0	0	4	0	12	0	6	5	0	0	0	22	0	49	223
9:30 AM	0	0	0	0	0	4	0	7	0	10	5	0	0	0	21	3	50	207
9:45 AM	0	0	0	0	0	11	0	7	0	13	6	0	0	0	18	1	56	207
10:00 AM	0	0	0	0	0	8	0	3	0	4	7	0	0	0	16	1	39	194
10:15 AM	0	0	0	0	0	12	0	4	0	12	11	0	0	0	25	1	65	210
10:30 AM	0	0	0	0	0	14	0	7	0	7	6	0	0	0	18	0	52	212
10:45 AM	0	0	0	0	0	14	0	4	0	6	12	0	0	0	14	0	50	206
11:00 AM	0	0	0	0	0	6	0	7	0	6	7	0	0	0	21	1	48	215
11:15 AM	0	0	0	0	0	8	0	11	0	3	7	0	0	0	17	1	47	197
11:30 AM	0	0	0	0	0	10	0	9	0	7	2	0	0	0	16	2	46	191
11:45 AM	0	0	0	0	0	10	0	12	0	11	8	0	0	0	19	0	60	201
Count Total	0	0	0	0	0	208	3	243	0	184	184	0	0	0	616	28	1,466	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**34**	**0**	**32**	**0**	**35**	**32**	**0**	**0**	**0**	**190**	**9**	**332**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**4**	**0**	**14**	**2**	**0**	**0**	**0**	**0**	**0**	**33**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**38%**	**-**	**13%**	**-**	**40%**	**6%**	**-**	**-**	**-**	**0%**	**0%**	**10%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
6:00 AM	0	2	5	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	0	1	3	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	0	3	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	0	2	2	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	0	3	2	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**0**	**3**	**3**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**2**	**3**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**6**	**6**	**0**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**6**	**4**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	3	8	0	*11*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	3	4	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	3	4	2	*9*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	0	3	5	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	0	3	3	3	*9*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	0	2	4	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	0	6	6	2	*14*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	0	3	3	5	*11*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	0	6	4	3	*13*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	0	5	2	2	*9*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	0	3	5	4	*12*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	0	8	6	3	*17*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	0	4	3	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	0	4	6	2	*12*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	84	95	37	*216*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**17**	**16**	**0**	***33***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	2	0	4	1	0	0	0	0	0	7	0
6:15 AM	0	0	0	0	0	1	0	0	0	2	1	0	0	0	1	0	5	0
6:30 AM	0	0	0	0	0	2	0	1	0	0	1	0	0	0	0	0	4	0
6:45 AM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	1	0	5	21
7:00 AM	0	0	0	0	0	3	0	0	0	2	0	0	0	0	0	0	5	19
7:15 AM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**6**	20
7:30 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	21
7:45 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**4**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	28
8:00 AM	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**10**	**33**
8:15 AM	0	0	0	0	0	2	1	0	0	4	4	0	0	0	0	0	11	38
8:30 AM	0	0	0	0	0	1	0	2	0	4	0	0	0	0	0	0	7	40
8:45 AM	0	0	0	0	0	2	0	1	0	3	1	0	0	0	1	1	9	37
9:00 AM	0	0	0	0	0	2	0	1	0	3	2	0	0	0	0	0	8	35
9:15 AM	0	0	0	0	0	2	0	1	0	2	1	0	0	0	3	0	9	33
9:30 AM	0	0	0	0	0	1	0	1	0	2	2	0	0	0	2	2	10	36
9:45 AM	0	0	0	0	0	5	0	1	0	6	0	0	0	0	2	0	14	41
10:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0	5	38
10:15 AM	0	0	0	0	0	3	0	0	0	2	1	0	0	0	5	0	11	40
10:30 AM	0	0	0	0	0	5	0	1	0	3	1	0	0	0	3	0	13	43
10:45 AM	0	0	0	0	0	4	0	1	0	1	1	0	0	0	2	0	9	38
11:00 AM	0	0	0	0	0	3	0	0	0	3	2	0	0	0	4	0	12	45
11:15 AM	0	0	0	0	0	5	0	3	0	1	5	0	0	0	3	0	17	51
11:30 AM	0	0	0	0	0	4	0	0	0	3	0	0	0	0	2	1	10	48
11:45 AM	0	0	0	0	0	3	0	1	0	4	2	0	0	0	2	0	12	51
Count Total	0	0	0	0	0	63	1	20	0	68	27	0	0	0	33	4	216	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**4**	**0**	**14**	**2**	**0**	**0**	**0**	**0**	**0**	**33**	**0**

Six-Hour Count Summaries - Bikes

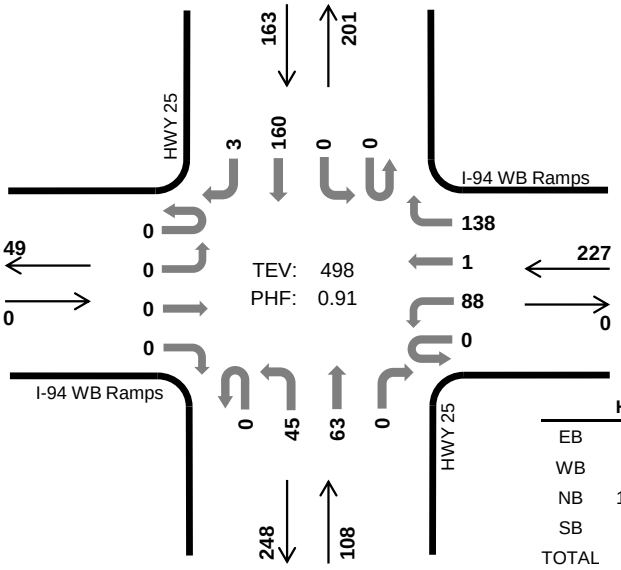
Interval Start	I-94 WB Ramps Eastbound			I-94 WB Ramps Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

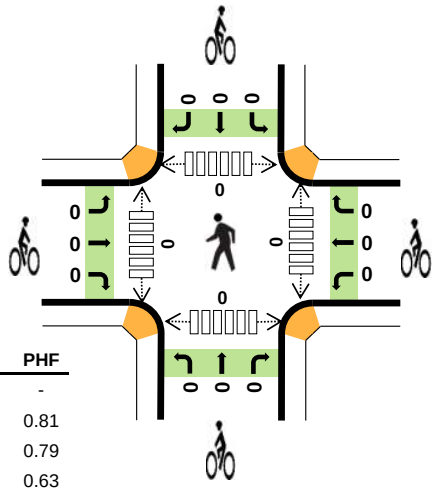
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
I-94 WB Ramps

Date: 12/01/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

Peak Hour





	HV %:	PHF
EB	-	-
WB	9.3%	0.81
NB	13.0%	0.79
SB	3.7%	0.63
TOTAL	8.2%	0.91

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	0	0	0	0	20	0	31	0	12	13	0	0	0	25	0	101	0
5:15 PM		0	0	0	0	0	25	1	44	0	11	23	0	0	0	21	2	127	0
5:30 PM		0	0	0	0	0	26	0	35	0	8	14	0	0	0	49	1	133	0
5:45 PM		0	0	0	0	0	17	0	28	0	14	13	0	0	0	65	0	137	498
Peak Hour	All	0	0	0	0	0	88	1	138	0	45	63	0	0	0	160	3	498	0
	HV	0	0	0	0	0	21	0	0	0	13	1	0	0	0	6	0	41	0
	HV%	-	-	-	-	-	24%	0%	0%	-	29%	2%	-	-	-	4%	0%	8%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 PM	0	6	4	1	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	7	4	0	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	3	4	4	*11*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	5	2	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	21	14	6	*41*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps				I-94 WB Ramps				HWY 25				HWY 25				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	6	0	7	0	8	3	0	0	0	11	0	35	0
12:15 PM	0	0	0	0	0	6	0	13	0	5	9	0	0	0	20	0	53	0
12:30 PM	0	0	0	0	0	6	0	15	0	5	7	0	0	0	22	0	55	0
12:45 PM	0	0	0	0	0	9	0	13	0	2	5	0	0	0	21	0	50	193
1:00 PM	0	0	0	0	0	9	0	10	0	7	11	0	0	0	18	1	56	214
1:15 PM	0	0	0	0	0	3	0	8	0	7	6	0	0	0	24	0	48	209
1:30 PM	0	0	0	0	0	10	0	15	0	9	6	0	0	0	7	0	47	201
1:45 PM	0	0	0	0	0	9	0	16	0	4	6	0	0	0	14	0	49	200
2:00 PM	0	0	0	0	0	6	0	12	0	3	6	0	0	0	18	0	45	189
2:15 PM	0	0	0	0	0	13	0	19	0	7	9	0	0	0	20	1	69	210
2:30 PM	0	0	0	0	0	14	0	16	0	9	12	0	0	0	27	2	80	243
2:45 PM	0	0	0	0	0	12	0	23	0	13	12	0	0	0	26	1	87	281
3:00 PM	0	0	0	0	0	8	0	7	0	10	13	0	0	0	21	3	62	298
3:15 PM	0	0	0	0	0	11	0	14	0	3	10	0	0	0	26	0	64	293
3:30 PM	0	0	0	0	0	16	0	18	0	11	12	0	0	0	31	4	92	305
3:45 PM	0	0	0	0	0	14	0	16	0	8	13	0	0	0	33	0	84	302
4:00 PM	0	0	0	0	0	20	1	25	0	16	12	0	0	0	34	3	111	351
4:15 PM	0	0	0	0	0	22	1	21	0	16	14	0	0	0	44	1	119	406
4:30 PM	0	0	0	0	0	20	0	34	0	11	14	0	0	0	49	5	133	447
4:45 PM	0	0	0	0	0	12	0	21	0	9	11	0	0	0	32	4	89	452
5:00 PM	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**31**	**0**	**12**	**13**	**0**	**0**	**0**	**25**	**0**	**101**	442
5:15 PM	**0**	**0**	**0**	**0**	**0**	**25**	**1**	**44**	**0**	**11**	**23**	**0**	**0**	**0**	**21**	**2**	**127**	450
5:30 PM	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**35**	**0**	**8**	**14**	**0**	**0**	**0**	**49**	**1**	**133**	450
5:45 PM	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**28**	**0**	**14**	**13**	**0**	**0**	**0**	**65**	**0**	**137**	**498**
Count Total	0	0	0	0	0	314	3	461	0	208	254	0	0	0	658	28	1,926	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**88**	**1**	**138**	**0**	**45**	**63**	**0**	**0**	**0**	**160**	**3**	**498**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**6**	**0**	**41**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**24%**	**0%**	**0%**	**-**	**29%**	**2%**	**-**	**-**	**-**	**4%**	**0%**	**8%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	1	6	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	3	2	3	*8*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	0	2	2	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	0	3	1	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	0	3	5	2	*10*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	0	1	2	7	*10*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	0	4	4	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	0	2	2	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	0	5	3	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	0	2	4	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	0	5	2	4	*11*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	0	0	6	2	*8*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	0	5	3	3	*11*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	0	4	3	9	*16*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	0	4	2	5	*11*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	0	1	4	2	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	1	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	5	1	6	*12*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	1	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**6**	**4**	**1**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**7**	**4**	**0**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**3**	**4**	**4**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**5**	**2**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	72	71	63	*206*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**21**	**14**	**6**	***41***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	1	0	4	2	0	0	0	0	0	7	0
12:15 PM	0	0	0	0	0	1	0	2	0	2	0	0	0	0	3	0	8	0
12:30 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	1	0	5	0
12:45 PM	0	0	0	0	0	3	0	0	0	0	1	0	0	0	4	0	8	28
1:00 PM	0	0	0	0	0	2	0	1	0	3	2	0	0	0	2	0	10	31
1:15 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	7	0	10	33
1:30 PM	0	0	0	0	0	1	0	3	0	3	1	0	0	0	0	0	8	36
1:45 PM	0	0	0	0	0	2	0	0	0	1	1	0	0	0	1	0	5	33
2:00 PM	0	0	0	0	0	2	0	3	0	1	2	0	0	0	0	0	8	31
2:15 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0	5	26
2:30 PM	0	0	0	0	0	2	0	0	0	3	1	0	0	0	1	0	7	25
2:45 PM	0	0	0	0	0	4	0	1	0	2	0	0	0	0	4	0	11	31
3:00 PM	0	0	0	0	0	0	0	0	0	3	3	0	0	0	2	0	8	31
3:15 PM	0	0	0	0	0	5	0	0	0	1	2	0	0	0	3	0	11	37
3:30 PM	0	0	0	0	0	3	0	1	0	2	1	0	0	0	8	1	16	46
3:45 PM	0	0	0	0	0	1	0	3	0	1	1	0	0	0	5	0	11	46
4:00 PM	0	0	0	0	0	1	0	0	0	3	1	0	0	0	2	0	7	45
4:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	2	0	4	38
4:30 PM	0	0	0	0	0	5	0	0	0	1	0	0	0	0	6	0	12	34
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	4	27
5:00 PM	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**11**	31
5:15 PM	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	38
5:30 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**4**	**0**	**11**	37
5:45 PM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	**41**
Count Total	0	0	0	0	0	57	0	15	0	50	21	0	0	0	61	2	206	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**6**	**0**	**41**	**0**

Six-Hour Count Summaries - Bikes

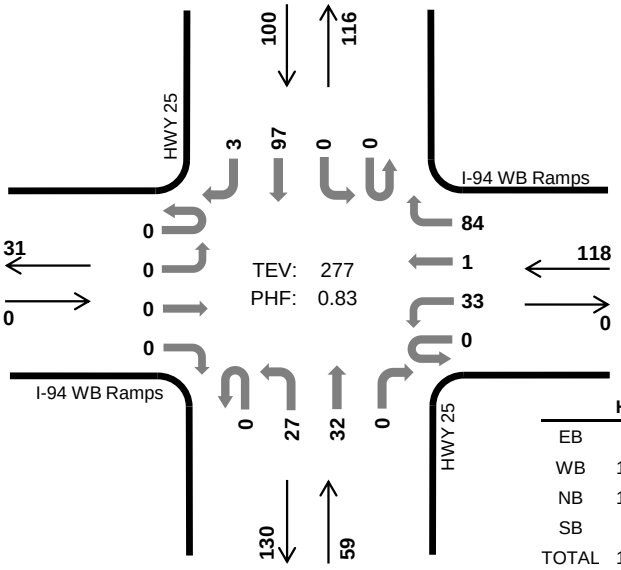
Interval Start	I-94 WB Ramps Eastbound			I-94 WB Ramps Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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	0
5:00 PM	**0**	**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**	0
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

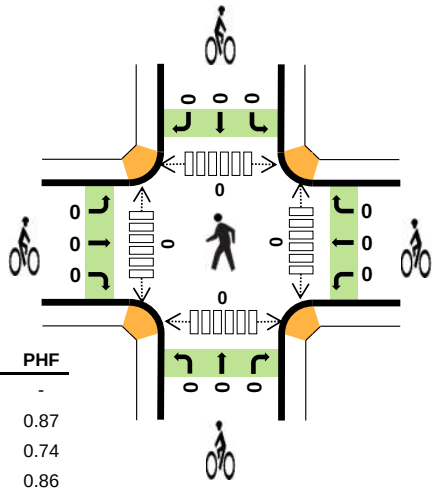
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
I-94 WB Ramps

Date: 12/01/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM

Peak Hour





	HV %:	PHF
EB	-	-
WB	11.0%	0.87
NB	18.6%	0.74
SB	5.0%	0.86
TOTAL	10.5%	0.83

Six-Hour Count Summaries

Interval Start		I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	0	0	0	0	7	0	27	0	10	10	0	0	0	28	1	83	0
6:15 PM		0	0	0	0	0	12	0	22	0	2	7	0	0	0	28	0	71	0
6:30 PM		0	0	0	0	0	6	1	19	0	9	8	0	0	0	26	2	71	0
6:45 PM		0	0	0	0	0	8	0	16	0	6	7	0	0	0	15	0	52	277
Peak Hour	All	0	0	0	0	0	33	1	84	0	27	32	0	0	0	97	3	277	0
	HV	0	0	0	0	0	8	1	4	0	10	1	0	0	0	4	1	29	0
	HV%	-	-	-	-	-	24%	100%	5%	-	37%	3%	-	-	-	4%	33%	10%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	0	3	6	0	*9*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	0	5	1	3	*9*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	0	2	2	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	0	3	2	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	13	11	5	*29*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**27**	**0**	**10**	**10**	**0**	**0**	**0**	**28**	**1**	**83**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**22**	**0**	**2**	**7**	**0**	**0**	**0**	**28**	**0**	**71**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**6**	**1**	**19**	**0**	**9**	**8**	**0**	**0**	**0**	**26**	**2**	**71**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**16**	**0**	**6**	**7**	**0**	**0**	**0**	**15**	**0**	**52**	**277**
7:00 PM	0	0	0	0	0	6	1	17	0	6	5	0	0	0	12	3	50	244
7:15 PM	0	0	0	0	0	6	0	14	0	5	1	0	0	0	15	1	42	215
7:30 PM	0	0	0	0	0	4	0	17	0	5	3	0	0	0	5	0	34	178
7:45 PM	0	0	0	0	0	5	0	18	0	2	5	0	0	0	4	0	34	160
8:00 PM	0	0	0	0	0	6	0	11	0	5	4	0	0	0	4	1	31	141
8:15 PM	0	0	0	0	0	8	0	7	0	6	5	0	0	0	7	1	34	133
8:30 PM	0	0	0	0	0	4	0	8	0	4	5	0	0	0	10	0	31	130
8:45 PM	0	0	0	0	0	12	0	9	0	3	6	0	0	0	7	1	38	134
9:00 PM	0	0	0	0	0	4	0	10	0	5	2	0	0	0	4	0	25	128
9:15 PM	0	0	0	0	0	3	0	8	0	2	2	0	0	0	5	0	20	114
9:30 PM	0	0	0	0	0	3	0	2	0	2	1	0	0	0	1	0	9	92
9:45 PM	0	0	0	0	0	11	0	9	0	2	3	0	0	0	2	1	28	82
10:00 PM	0	0	0	0	0	4	1	7	0	3	1	0	0	0	2	0	18	75
10:15 PM	0	0	0	0	0	2	1	6	0	0	1	0	0	0	2	1	13	68
10:30 PM	0	0	0	0	0	2	0	6	0	1	1	0	0	0	6	0	16	75
10:45 PM	0	0	0	0	0	3	0	3	0	4	2	0	0	0	2	0	14	61
11:00 PM	0	0	0	0	0	1	0	4	0	3	1	0	0	0	5	0	14	57
11:15 PM	0	0	0	0	0	4	0	1	0	2	1	0	0	0	1	0	9	53
11:30 PM	0	0	0	0	0	2	1	3	0	4	0	0	0	0	1	0	11	48
11:45 PM	0	0	0	0	0	3	0	3	0	2	0	0	0	0	1	0	9	43
Count Total	0	0	0	0	0	126	5	247	0	93	81	0	0	0	193	12	757	0
Peak Hour All	**0**	**0**	**0**	**0**	**0**	**33**	**1**	**84**	**0**	**27**	**32**	**0**	**0**	**0**	**97**	**3**	**277**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**8**	**1**	**4**	**0**	**10**	**1**	**0**	**0**	**0**	**4**	**1**	**29**	**0**
Peak Hour HV%	**-**	**-**	**-**	**-**	**-**	**24%**	**100%**	**5%**	**-**	**37%**	**3%**	**-**	**-**	**-**	**4%**	**33%**	**10%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) East	West	North	South	Total
6:00 PM	**0**	**3**	**6**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**0**	**5**	**1**	**3**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**0**	**2**	**2**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**0**	**3**	**2**	**1**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	0	3	4	2	*9*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	0	2	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	0	1	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 PM	0	1	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	0	3	2	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	0	2	2	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	0	1	5	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	0	3	1	0	*4*	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*
9:15 PM	0	2	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	0	2	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	3	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	1	3	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	2	2	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	2	2	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	45	40	12	*97*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**13**	**11**	**5**	***29***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	I-94 WB Ramps Eastbound				I-94 WB Ramps Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**9**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**9**	0
6:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**5**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**6**	**29**
7:00 PM	0	0	0	0	0	3	0	0	0	3	1	0	0	0	0	2	9	29
7:15 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	1	0	4	24
7:30 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	3	22
7:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	3	19
8:00 PM	0	0	0	0	0	3	0	0	0	1	1	0	0	0	0	0	5	15
8:15 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	0	6	17
8:30 PM	0	0	0	0	0	1	0	0	0	3	2	0	0	0	0	0	6	20
8:45 PM	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	4	21
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
9:15 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	1	0	4	14
9:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	9
9:45 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	3	8
10:00 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	11
10:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	8
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
10:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	6
11:00 PM	0	0	0	0	0	1	0	0	0	2	1	0	0	0	0	0	4	7
11:15 PM	0	0	0	0	0	2	0	0	0	1	1	0	0	0	0	0	4	10
11:30 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	4	14
11:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	14
Count Total	0	0	0	0	0	37	3	5	0	33	7	0	0	0	9	3	97	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**8**	**1**	**4**	**0**	**10**	**1**	**0**	**0**	**0**	**4**	**1**	**29**	**0**

Six-Hour Count Summaries - Bikes

Interval Start	I-94 WB Ramps Eastbound			I-94 WB Ramps Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**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
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

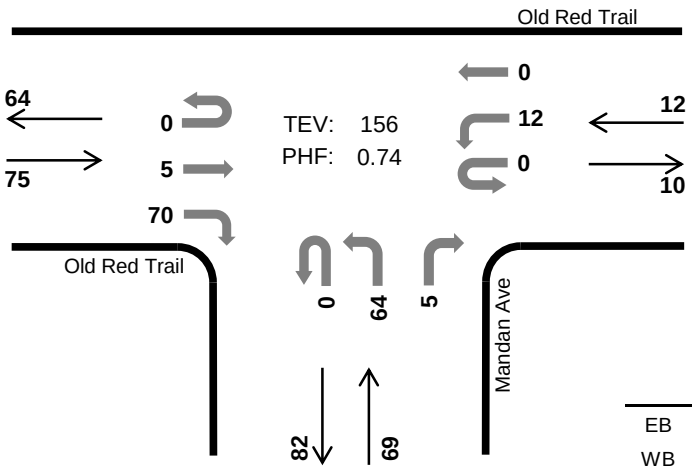
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

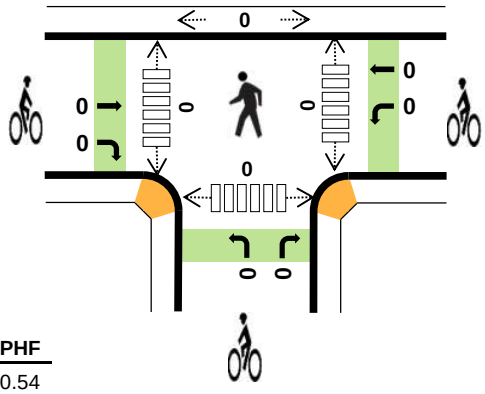
Mandan Ave
Old Red Trail

N

Peak Hour

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM





	HV %:	PHF
EB	9.3%	0.54
WB	100.0%	0.60
NB	10.1%	0.59
SB	-	-
TOTAL	16.7%	0.74

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	1	8	0	3	0	0	0	9	0	2	0	0	0	0	23	0
5:15 AM		0	0	0	10	0	1	0	0	0	27	0	2	0	0	0	0	40	0
5:30 AM		0	0	0	35	0	5	0	0	0	13	0	0	0	0	0	0	53	0
5:45 AM		0	0	4	17	0	3	0	0	0	15	0	1	0	0	0	0	40	156
Peak Hour	All	0	0	5	70	0	12	0	0	0	64	0	5	0	0	0	0	156	0
	HV	0	0	5	2	0	12	0	0	0	2	0	5	0	0	0	0	26	0
	HV%	-	-	100%	3%	-	100%	-	-	-	3%	-	100%	-	-	-	-	17%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	1	3	3	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	1	1	2	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	1	5	0	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	4	3	2	0	*9*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	7	12	7	0	*26*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	5	0
12:15 AM	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	5	0
12:30 AM	0	0	0	1	0	2	0	0	0	4	0	3	0	0	0	0	10	0
12:45 AM	0	0	0	5	0	1	0	0	0	3	0	0	0	0	0	0	9	29
1:00 AM	0	0	1	1	0	1	0	0	0	1	0	0	0	0	0	0	4	28
1:15 AM	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3	26
1:30 AM	0	0	0	1	0	2	1	0	0	3	0	1	0	0	0	0	8	24
1:45 AM	0	0	1	2	0	1	0	0	0	4	0	2	0	0	0	0	10	25
2:00 AM	0	0	1	1	0	0	0	0	0	2	0	0	0	0	0	0	4	25
2:15 AM	0	0	1	2	0	1	1	0	0	2	0	1	0	0	0	0	8	30
2:30 AM	0	0	0	1	0	1	0	0	0	2	0	1	0	0	0	0	5	27
2:45 AM	0	0	0	1	0	2	0	0	0	2	0	0	0	0	0	0	5	22
3:00 AM	0	0	1	1	0	2	0	0	0	2	0	0	0	0	0	0	6	24
3:15 AM	0	0	0	3	0	1	1	0	0	2	0	0	0	0	0	0	7	23
3:30 AM	0	0	1	2	0	0	0	0	0	2	0	3	0	0	0	0	8	26
3:45 AM	0	0	0	4	0	0	0	0	0	3	0	2	0	0	0	0	9	30
4:00 AM	0	0	0	5	0	1	0	0	0	2	0	2	0	0	0	0	10	34
4:15 AM	0	0	0	3	0	3	1	0	0	3	0	3	0	0	0	0	13	40
4:30 AM	0	0	1	3	0	1	0	0	0	5	0	2	0	0	0	0	12	44
4:45 AM	0	0	0	12	0	0	1	0	0	12	0	3	0	0	0	0	28	63
5:00 AM	**0**	**0**	**1**	**8**	**0**	**3**	**0**	**0**	**0**	**9**	**0**	**2**	**0**	**0**	**0**	**0**	**23**	76
5:15 AM	**0**	**0**	**0**	**10**	**0**	**1**	**0**	**0**	**0**	**27**	**0**	**2**	**0**	**0**	**0**	**0**	**40**	103
5:30 AM	**0**	**0**	**0**	**35**	**0**	**5**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**53**	144
5:45 AM	**0**	**0**	**4**	**17**	**0**	**3**	**0**	**0**	**0**	**15**	**0**	**1**	**0**	**0**	**0**	**0**	**40**	**156**
Count Total	0	0	12	124	0	31	5	0	0	125	0	28	0	0	0	0	325	0
Peak Hour All	**0**	**0**	**5**	**70**	**0**	**12**	**0**	**0**	**0**	**64**	**0**	**5**	**0**	**0**	**0**	**0**	**156**	**0**
Peak Hour HV	**0**	**0**	**5**	**2**	**0**	**12**	**0**	**0**	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**26**	**0**
Peak Hour HV%	**-**	**-**	**100%**	**3%**	**-**	**100%**	**-**	**-**	**-**	**3%**	**-**	**100%**	**-**	**-**	**-**	**-**	**17%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	2	4	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	3	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	2	1	2	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	1	2	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	1	0	3	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	1	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	4	3	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	1	3	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	1	0	4	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**1**	**3**	**3**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**1**	**1**	**2**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*

5:30 AM	**1**	**5**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**4**	**3**	**2**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	15	34	33	0	*82*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**7**	**12**	**7**	**0**	***26***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail				Old Red Trail				Mandan Ave				n/a				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	2	0	0	0	1	0	3	0	0	0	0	6	0
12:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	7
1:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	9
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
1:30 AM	0	0	0	0	0	2	1	0	0	0	0	1	0	0	0	0	4	7
1:45 AM	0	0	1	1	0	1	0	0	0	0	0	2	0	0	0	0	5	11
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10
2:15 AM	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0	0	4	14
2:30 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	12
2:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	9
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	9
3:15 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3	8
3:30 AM	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	4	10
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	10
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	3	12
4:15 AM	0	0	0	0	0	3	1	0	0	0	0	3	0	0	0	0	7	16
4:30 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	4	16
4:45 AM	0	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	5	19
5:00 AM	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**7**	23
5:15 AM	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**	20
5:30 AM	**0**	**0**	**0**	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	22
5:45 AM	**0**	**0**	**4**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**9**	**26**
Count Total	0	0	10	5	0	30	4	0	0	5	0	28	0	0	0	0	82	0
Peak Hour	**0**	**0**	**5**	**2**	**0**	**12**	**0**	**0**	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**26**	**0**

Six-Hour Count Summaries - Bikes

Interval Start	Old Red Trail			Old Red Trail			Mandan Ave			n/a			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

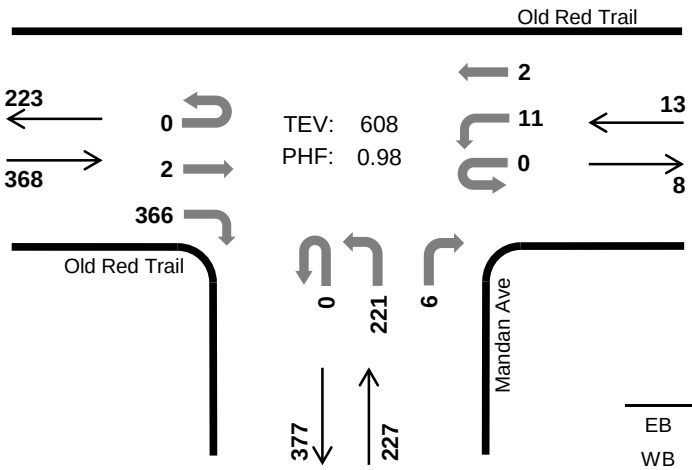
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

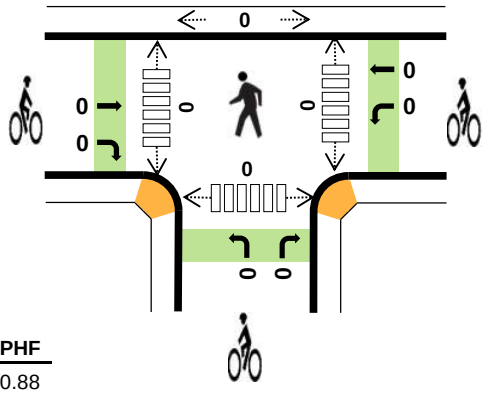
Mandan Ave
Old Red Trail

N

Peak Hour

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:15 AM to 8:15 AM





	HV %:	PHF
EB	2.7%	0.88
WB	84.6%	0.81
NB	9.3%	0.86
SB	-	-
TOTAL	6.9%	0.98

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	0	0	88	0	3	0	0	0	57	0	2	0	0	0	0	150	0
7:30 AM		0	0	1	104	0	2	1	0	0	44	0	2	0	0	0	0	154	0
7:45 AM		0	0	0	85	0	4	0	0	0	65	0	1	0	0	0	0	155	0
8:00 AM		0	0	1	89	0	2	1	0	0	55	0	1	0	0	0	0	149	608
Peak Hour	All	0	0	2	366	0	11	2	0	0	221	0	6	0	0	0	0	608	0
	HV	0	0	1	9	0	11	0	0	0	15	0	6	0	0	0	0	42	0
	HV%	-	-	50%	2%	-	100%	0%	-	-	7%	-	100%	-	-	-	-	7%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:15 AM	1	3	7	0	*11*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	5	2	6	0	*13*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	1	4	3	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	3	2	5	0	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	10	11	21	0	*42*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	1	18	0	2	0	0	0	23	0	1	0	0	0	0	45	0
6:15 AM	0	0	0	33	0	1	0	0	0	58	0	2	0	0	0	0	94	0
6:30 AM	0	0	1	62	0	1	0	0	0	64	0	5	0	0	0	0	133	0
6:45 AM	0	0	0	52	0	1	1	0	0	94	0	2	0	0	0	0	150	422
7:00 AM	0	0	1	81	0	2	0	0	0	45	0	1	0	0	0	0	130	507
7:15 AM	**0**	**0**	**0**	**88**	**0**	**3**	**0**	**0**	**0**	**57**	**0**	**2**	**0**	**0**	**0**	**0**	**150**	563
7:30 AM	**0**	**0**	**1**	**104**	**0**	**2**	**1**	**0**	**0**	**44**	**0**	**2**	**0**	**0**	**0**	**0**	**154**	584
7:45 AM	**0**	**0**	**0**	**85**	**0**	**4**	**0**	**0**	**0**	**65**	**0**	**1**	**0**	**0**	**0**	**0**	**155**	589
8:00 AM	**0**	**0**	**1**	**89**	**0**	**2**	**1**	**0**	**0**	**55**	**0**	**1**	**0**	**0**	**0**	**0**	**149**	**608**
8:15 AM	0	0	2	91	0	4	0	0	0	51	0	2	0	0	0	0	150	608
8:30 AM	0	0	2	55	0	1	1	0	0	45	0	2	0	0	0	0	106	560
8:45 AM	0	0	0	57	0	0	0	0	0	40	0	4	0	0	0	0	101	506
9:00 AM	0	0	2	47	0	1	1	0	0	39	0	1	0	0	0	0	91	448
9:15 AM	0	0	1	46	0	0	0	0	0	33	0	5	0	0	0	0	85	383
9:30 AM	0	0	0	53	0	2	0	0	0	47	0	3	0	0	0	0	105	382
9:45 AM	0	0	0	61	0	3	0	0	0	46	0	2	0	0	0	0	112	393
10:00 AM	0	0	1	46	0	5	0	0	0	44	0	1	0	0	0	0	97	399
10:15 AM	0	0	1	47	0	1	1	0	0	51	0	1	0	0	0	0	102	416
10:30 AM	0	0	0	65	0	3	1	0	0	52	0	3	0	0	0	0	124	435
10:45 AM	0	0	3	50	0	1	0	0	0	42	0	2	0	0	0	0	98	421
11:00 AM	0	0	0	48	0	3	0	0	0	47	0	1	0	0	0	0	99	423
11:15 AM	0	0	0	47	0	2	0	0	0	58	0	2	0	0	0	0	109	430
11:30 AM	0	0	0	61	0	4	0	0	0	64	0	2	0	0	0	0	131	437
11:45 AM	0	0	0	64	0	1	0	0	0	44	0	1	0	0	0	0	110	449
Count Total	0	0	17	1,450	0	49	7	0	0	1,208	0	49	0	0	0	0	2,780	0
Peak Hour All	**0**	**0**	**2**	**366**	**0**	**11**	**2**	**0**	**0**	**221**	**0**	**6**	**0**	**0**	**0**	**0**	**608**	**0**
Peak Hour HV	**0**	**0**	**1**	**9**	**0**	**11**	**0**	**0**	**0**	**15**	**0**	**6**	**0**	**0**	**0**	**0**	**42**	**0**
Peak Hour HV%	**-**	**-**	**50%**	**2%**	**-**	**100%**	**0%**	**-**	**-**	**7%**	**-**	**100%**	**-**	**-**	**-**	**-**	**7%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	1	2	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	1	1	2	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	2	1	6	0	*9*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	0	2	5	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	2	2	2	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**1**	**3**	**7**	**0**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**5**	**2**	**6**	**0**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**4**	**3**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**3**	**2**	**5**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	10	4	11	0	*25*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	9	1	11	0	*21*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	11	0	9	0	*20*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	7	1	14	0	*22*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	8	0	12	0	*20*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	9	2	14	0	*25*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	11	2	14	0	*27*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	6	5	8	0	*19*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	11	1	10	0	*22*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	12	3	14	0	*29*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	11	1	14	0	*26*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	10	3	12	0	*25*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	13	2	13	0	*28*	0	0	0	0	*0*	0	0	0	0	*0*

11:30 AM	11	4	13	0	*28*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	10	1	10	0	*21*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	165	49	216	0	*430*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**10**	**11**	**21**	**0**	***42***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail				Old Red Trail				Mandan Ave				n/a				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	1	0	0	2	0	0	0	0	0	1	0	0	0	0	4	0
6:15 AM	0	0	0	1	0	1	0	0	0	0	0	2	0	0	0	0	4	0
6:30 AM	0	0	1	1	0	1	0	0	0	1	0	5	0	0	0	0	9	0
6:45 AM	0	0	0	0	0	1	1	0	0	3	0	2	0	0	0	0	7	24
7:00 AM	0	0	1	1	0	2	0	0	0	1	0	1	0	0	0	0	6	26
7:15 AM	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**5**	**0**	**2**	**0**	**0**	**0**	**0**	**11**	33
7:30 AM	**0**	**0**	**1**	**4**	**0**	**2**	**0**	**0**	**0**	**4**	**0**	**2**	**0**	**0**	**0**	**0**	**13**	37
7:45 AM	**0**	**0**	**0**	**1**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**8**	38
8:00 AM	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**0**	**0**	**4**	**0**	**1**	**0**	**0**	**0**	**0**	**10**	**42**
8:15 AM	0	0	0	10	0	4	0	0	0	9	0	2	0	0	0	0	25	56
8:30 AM	0	0	1	8	0	1	0	0	0	9	0	2	0	0	0	0	21	64
8:45 AM	0	0	0	11	0	0	0	0	0	5	0	4	0	0	0	0	20	76
9:00 AM	0	0	1	6	0	1	0	0	0	13	0	1	0	0	0	0	22	88
9:15 AM	0	0	1	7	0	0	0	0	0	7	0	5	0	0	0	0	20	83
9:30 AM	0	0	0	9	0	2	0	0	0	11	0	3	0	0	0	0	25	87
9:45 AM	0	0	0	11	0	2	0	0	0	12	0	2	0	0	0	0	27	94
10:00 AM	0	0	0	6	0	5	0	0	0	7	0	1	0	0	0	0	19	91
10:15 AM	0	0	0	11	0	1	0	0	0	9	0	1	0	0	0	0	22	93
10:30 AM	0	0	0	12	0	3	0	0	0	11	0	3	0	0	0	0	29	97
10:45 AM	0	0	3	8	0	1	0	0	0	12	0	2	0	0	0	0	26	96
11:00 AM	0	0	0	10	0	3	0	0	0	11	0	1	0	0	0	0	25	102
11:15 AM	0	0	0	13	0	2	0	0	0	11	0	2	0	0	0	0	28	108
11:30 AM	0	0	0	11	0	4	0	0	0	11	0	2	0	0	0	0	28	107
11:45 AM	0	0	0	10	0	1	0	0	0	9	0	1	0	0	0	0	21	102
Count Total	0	0	10	155	0	48	1	0	0	167	0	49	0	0	0	0	430	0
Peak Hour	**0**	**0**	**1**	**9**	**0**	**11**	**0**	**0**	**0**	**15**	**0**	**6**	**0**	**0**	**0**	**0**	**42**	**0**

Six-Hour Count Summaries - Bikes

Interval Start	Old Red Trail			Old Red Trail			Mandan Ave			n/a			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	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
6:30 AM	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
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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

11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

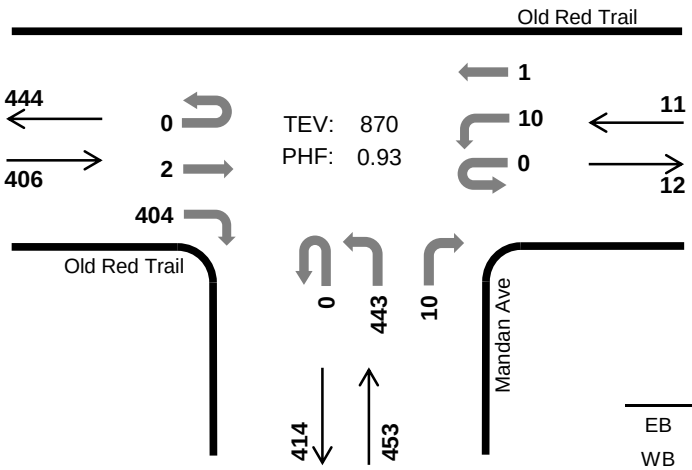
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

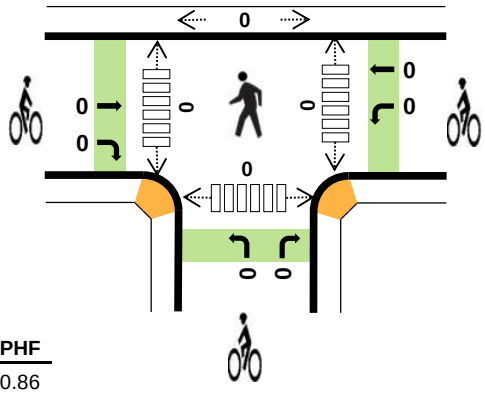
Mandan Ave
Old Red Trail

N

Peak Hour

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	1.7%	0.86
WB	100.0%	0.92
NB	3.5%	0.86
SB	-	-
TOTAL	3.9%	0.93

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:45 PM		0	0	0	93	0	3	0	0	0	102	0	3	0	0	0	0	201	0
5:00 PM		0	0	1	93	0	3	0	0	0	130	0	1	0	0	0	0	228	0
5:15 PM		0	0	0	101	0	1	1	0	0	129	0	3	0	0	0	0	235	0
5:30 PM		0	0	1	117	0	3	0	0	0	82	0	3	0	0	0	0	206	870
Peak Hour	All	0	0	2	404	0	10	1	0	0	443	0	10	0	0	0	0	870	0
	HV	0	0	2	5	0	10	1	0	0	6	0	10	0	0	0	0	34	0
	HV%	-	-	100%	1%	-	100%	100%	-	-	1%	-	100%	-	-	-	-	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:45 PM	3	3	6	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	3	3	2	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	2	4	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	1	3	4	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	7	11	16	0	*34*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	1	54	0	4	1	0	0	50	0	2	0	0	0	0	112	0
12:15 PM	0	0	1	43	0	3	1	0	0	57	0	1	0	0	0	0	106	0
12:30 PM	0	0	0	55	0	0	1	0	0	55	0	3	0	0	0	0	114	0
12:45 PM	0	0	3	43	0	3	1	0	0	54	0	2	0	0	0	0	106	438
1:00 PM	0	0	0	55	0	3	1	0	0	60	0	0	0	0	0	0	119	445
1:15 PM	0	0	2	42	0	2	1	0	0	59	0	2	0	0	0	0	108	447
1:30 PM	0	0	0	57	0	1	1	0	0	54	0	0	0	0	0	0	113	446
1:45 PM	0	0	0	47	0	3	0	0	0	81	0	1	0	0	0	0	132	472
2:00 PM	0	0	1	58	0	0	0	0	0	49	0	1	0	0	0	0	109	462
2:15 PM	0	0	0	45	0	3	0	0	0	82	0	2	0	0	0	0	132	486
2:30 PM	0	0	0	68	0	2	0	0	0	59	0	1	0	0	0	0	130	503
2:45 PM	0	0	0	59	0	1	1	0	0	78	0	1	0	0	0	0	140	511
3:00 PM	0	0	1	72	0	3	0	0	0	81	0	2	0	0	0	0	159	561
3:15 PM	0	0	1	72	0	2	2	0	0	76	0	2	0	0	0	0	155	584
3:30 PM	0	0	1	103	0	2	2	0	0	84	0	3	0	0	0	0	195	649
3:45 PM	0	0	0	73	0	4	0	0	0	89	0	0	0	0	0	0	166	675
4:00 PM	0	0	0	96	0	1	3	0	0	68	0	1	0	0	0	0	169	685
4:15 PM	0	0	0	69	0	4	1	0	0	94	0	1	0	0	0	0	169	699
4:30 PM	0	0	0	78	0	0	1	0	0	84	0	2	0	0	0	0	165	669
4:45 PM	**0**	**0**	**0**	**93**	**0**	**3**	**0**	**0**	**0**	**102**	**0**	**3**	**0**	**0**	**0**	**0**	**201**	704
5:00 PM	**0**	**0**	**1**	**93**	**0**	**3**	**0**	**0**	**0**	**130**	**0**	**1**	**0**	**0**	**0**	**0**	**228**	763
5:15 PM	**0**	**0**	**0**	**101**	**0**	**1**	**1**	**0**	**0**	**129**	**0**	**3**	**0**	**0**	**0**	**0**	**235**	829
5:30 PM	**0**	**0**	**1**	**117**	**0**	**3**	**0**	**0**	**0**	**82**	**0**	**3**	**0**	**0**	**0**	**0**	**206**	**870**
5:45 PM	0	0	0	69	0	3	0	0	0	77	0	1	0	0	0	0	150	819
Count Total	0	0	13	1,662	0	54	18	0	0	1,834	0	38	0	0	0	0	3,619	0
Peak Hour All	**0**	**0**	**2**	**404**	**0**	**10**	**1**	**0**	**0**	**443**	**0**	**10**	**0**	**0**	**0**	**0**	**870**	**0**
Peak Hour HV	**0**	**0**	**2**	**5**	**0**	**10**	**1**	**0**	**0**	**6**	**0**	**10**	**0**	**0**	**0**	**0**	**34**	**0**
Peak Hour HV%	**-**	**-**	**100%**	**1%**	**-**	**100%**	**100%**	**-**	**-**	**1%**	**-**	**100%**	**-**	**-**	**-**	**-**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	3	3	6	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	3	3	3	0	*9*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	3	0	5	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	6	3	3	0	*12*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	13	3	11	0	*27*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	10	2	12	0	*24*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	16	0	10	0	*26*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	10	3	12	0	*25*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	14	0	14	0	*28*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	8	2	12	0	*22*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	14	2	11	0	*27*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	12	1	14	0	*27*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	6	3	11	0	*20*	0	0	0	0	*0*	1	0	0	0	*1*
3:15 PM	10	2	9	0	*21*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	8	0	11	0	*19*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	10	4	6	0	*20*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	6	3	4	0	*13*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	5	5	5	0	*15*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	4	1	5	0	*10*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**3**	**3**	**6**	**0**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**3**	**3**	**2**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**2**	**4**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*

5:30 PM	**1**	**3**	**4**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	3	2	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	168	54	182	0	*404*	0	0	0	0	*0*	1	0	0	0	*1*
Peak Hr	**7**	**11**	**16**	**0**	***34***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail				Old Red Trail				Mandan Ave				n/a				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	1	2	0	3	0	0	0	4	0	2	0	0	0	0	12	0
12:15 PM	0	0	0	3	0	2	1	0	0	2	0	1	0	0	0	0	9	0
12:30 PM	0	0	0	3	0	0	0	0	0	2	0	3	0	0	0	0	8	0
12:45 PM	0	0	1	5	0	3	0	0	0	1	0	2	0	0	0	0	12	41
1:00 PM	0	0	0	13	0	2	1	0	0	11	0	0	0	0	0	0	27	56
1:15 PM	0	0	0	10	0	2	0	0	0	11	0	1	0	0	0	0	24	71
1:30 PM	0	0	0	16	0	0	0	0	0	10	0	0	0	0	0	0	26	89
1:45 PM	0	0	0	10	0	3	0	0	0	11	0	1	0	0	0	0	25	102
2:00 PM	0	0	0	14	0	0	0	0	0	13	0	1	0	0	0	0	28	103
2:15 PM	0	0	0	8	0	2	0	0	0	10	0	2	0	0	0	0	22	101
2:30 PM	0	0	0	14	0	2	0	0	0	10	0	1	0	0	0	0	27	102
2:45 PM	0	0	0	12	0	1	0	0	0	13	0	1	0	0	0	0	27	104
3:00 PM	0	0	0	6	0	3	0	0	0	9	0	2	0	0	0	0	20	96
3:15 PM	0	0	0	10	0	2	0	0	0	8	0	1	0	0	0	0	21	95
3:30 PM	0	0	1	7	0	0	0	0	0	8	0	3	0	0	0	0	19	87
3:45 PM	0	0	0	10	0	4	0	0	0	6	0	0	0	0	0	0	20	80
4:00 PM	0	0	0	6	0	1	2	0	0	3	0	1	0	0	0	0	13	73
4:15 PM	0	0	0	5	0	4	1	0	0	4	0	1	0	0	0	0	15	67
4:30 PM	0	0	0	4	0	0	1	0	0	3	0	2	0	0	0	0	10	58
4:45 PM	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**12**	50
5:00 PM	**0**	**0**	**1**	**2**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**8**	45
5:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**6**	36
5:30 PM	**0**	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**8**	**34**
5:45 PM	0	0	0	0	0	3	0	0	0	1	0	1	0	0	0	0	5	27
Count Total	0	0	5	163	0	47	7	0	0	146	0	36	0	0	0	0	404	0
Peak Hour	**0**	**0**	**2**	**5**	**0**	**10**	**1**	**0**	**0**	**6**	**0**	**10**	**0**	**0**	**0**	**0**	**34**	**0**

Six-Hour Count Summaries - Bikes

Interval Start	Old Red Trail			Old Red Trail			Mandan Ave			n/a			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	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
12:30 PM	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
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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**	**0**

5:00 PM	**0**	**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**	0
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

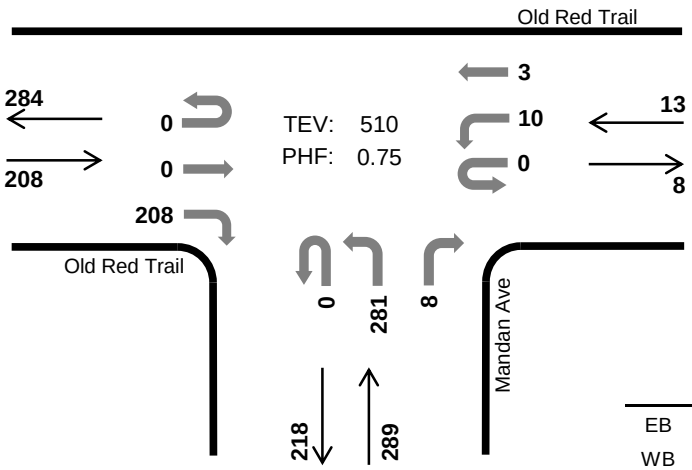
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

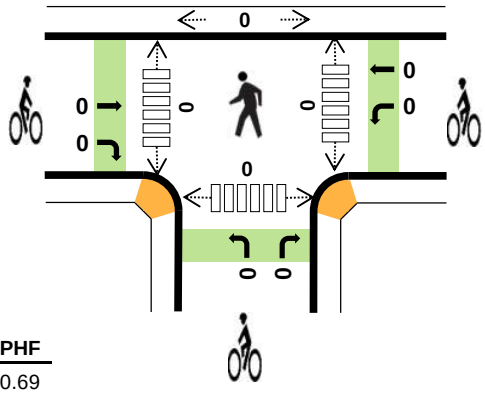
Mandan Ave
Old Red Trail

N

Peak Hour

Date: 11/29/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM





	HV %:	PHF
EB	0.5%	0.69
WB	84.6%	0.65
NB	2.8%	0.79
SB	-	-
TOTAL	3.9%	0.75

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	0	0	75	0	4	0	0	0	92	0	0	0	0	0	0	171	0
6:15 PM		0	0	0	52	0	1	1	0	0	64	0	4	0	0	0	0	122	0
6:30 PM		0	0	0	53	0	1	1	0	0	69	0	2	0	0	0	0	126	0
6:45 PM		0	0	0	28	0	4	1	0	0	56	0	2	0	0	0	0	91	510
Peak Hour	All	0	0	0	208	0	10	3	0	0	281	0	8	0	0	0	0	510	0
	HV	0	0	0	1	0	9	2	0	0	1	0	7	0	0	0	0	20	0
	HV%	-	-	-	0%	-	90%	67%	-	-	0%	-	88%	-	-	-	-	4%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	0	3	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	0	2	5	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	1	2	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	0	4	2	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	11	8	0	*20*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**75**	**0**	**4**	**0**	**0**	**0**	**92**	**0**	**0**	**0**	**0**	**0**	**0**	**171**	0
6:15 PM	**0**	**0**	**0**	**52**	**0**	**1**	**1**	**0**	**0**	**64**	**0**	**4**	**0**	**0**	**0**	**0**	**122**	0
6:30 PM	**0**	**0**	**0**	**53**	**0**	**1**	**1**	**0**	**0**	**69**	**0**	**2**	**0**	**0**	**0**	**0**	**126**	0
6:45 PM	**0**	**0**	**0**	**28**	**0**	**4**	**1**	**0**	**0**	**56**	**0**	**2**	**0**	**0**	**0**	**0**	**91**	**510**
7:00 PM	0	0	0	33	0	1	0	0	0	52	0	1	0	0	0	0	87	426
7:15 PM	0	0	0	19	0	2	1	0	0	44	0	3	0	0	0	0	69	373
7:30 PM	0	0	0	31	0	2	0	0	0	28	0	0	0	0	0	0	61	308
7:45 PM	0	0	0	25	0	4	0	0	0	29	0	2	0	0	0	0	60	277
8:00 PM	0	0	1	24	0	1	0	0	0	37	0	1	0	0	0	0	64	254
8:15 PM	0	0	0	21	0	2	0	0	0	23	0	0	0	0	0	0	46	231
8:30 PM	0	0	1	21	0	1	1	0	0	40	0	1	0	0	0	0	65	235
8:45 PM	0	0	0	28	0	1	0	0	0	38	0	0	0	0	0	0	67	242
9:00 PM	0	0	1	61	0	2	1	0	0	31	0	1	0	0	0	0	97	275
9:15 PM	0	0	0	48	0	3	0	0	0	33	0	2	0	0	0	0	86	315
9:30 PM	0	0	0	21	0	0	0	0	0	19	0	1	0	0	0	0	41	291
9:45 PM	0	0	0	17	0	1	0	0	0	16	0	0	0	0	0	0	34	258
10:00 PM	0	0	0	12	0	5	0	0	0	18	0	0	0	0	0	0	35	196
10:15 PM	0	0	0	10	0	0	0	0	0	12	0	1	0	0	0	0	23	133
10:30 PM	0	0	0	15	0	0	0	0	0	13	0	1	0	0	0	0	29	121
10:45 PM	0	0	0	19	0	2	0	0	0	13	0	0	0	0	0	0	34	121
11:00 PM	1	0	0	14	0	1	0	0	0	7	0	0	0	0	0	0	23	109
11:15 PM	0	0	0	6	0	0	0	0	0	3	0	0	0	0	0	0	9	95
11:30 PM	0	0	0	5	0	0	0	0	0	4	0	1	0	0	0	0	10	76
11:45 PM	0	0	0	2	0	0	0	0	0	8	0	1	0	0	0	0	11	53
Count Total	1	0	3	640	0	38	6	0	0	749	0	24	0	0	0	0	1,461	0
Peak Hour All	**0**	**0**	**0**	**208**	**0**	**10**	**3**	**0**	**0**	**281**	**0**	**8**	**0**	**0**	**0**	**0**	**510**	**0**
Peak Hour HV	**0**	**0**	**0**	**1**	**0**	**9**	**2**	**0**	**0**	**1**	**0**	**7**	**0**	**0**	**0**	**0**	**20**	**0**
Peak Hour HV%	**-**	**-**	**-**	**0%**	**-**	**90%**	**67%**	**-**	**-**	**0%**	**-**	**88%**	**-**	**-**	**-**	**-**	**4%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	**0**	**3**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**0**	**2**	**5**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**1**	**2**	**1**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**0**	**4**	**2**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	0	2	3	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 PM	0	4	2	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	1	1	3	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	1	2	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 PM	0	3	2	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 PM	0	1	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	5	0	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*

11:30 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	4	39	28	0	*71*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**1**	**11**	**8**	**0**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				Mandan Ave Northbound				n/a Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**4**	**0**	**0**	**0**	**0**	**7**	0
6:30 PM	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	0
6:45 PM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**6**	**20**
7:00 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	19
7:15 PM	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	5	17
7:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	15
7:45 PM	0	0	0	0	0	4	0	0	0	0	0	2	0	0	0	0	6	15
8:00 PM	0	0	1	0	0	1	0	0	0	2	0	1	0	0	0	0	5	18
8:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	15
8:30 PM	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0	0	4	17
8:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	13
9:00 PM	0	0	0	0	0	2	1	0	0	1	0	1	0	0	0	0	5	13
9:15 PM	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	3	14
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	11
9:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	10
10:00 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	10
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
10:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	9
11:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	5
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
11:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	4
Count Total	0	0	2	2	0	35	4	0	0	5	0	23	0	0	0	0	71	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**9**	**2**	**0**	**0**	**1**	**0**	**7**	**0**	**0**	**0**	**0**	**20**	**0**

Six-Hour Count Summaries - Bikes

Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			Mandan Ave Northbound			n/a Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**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
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0

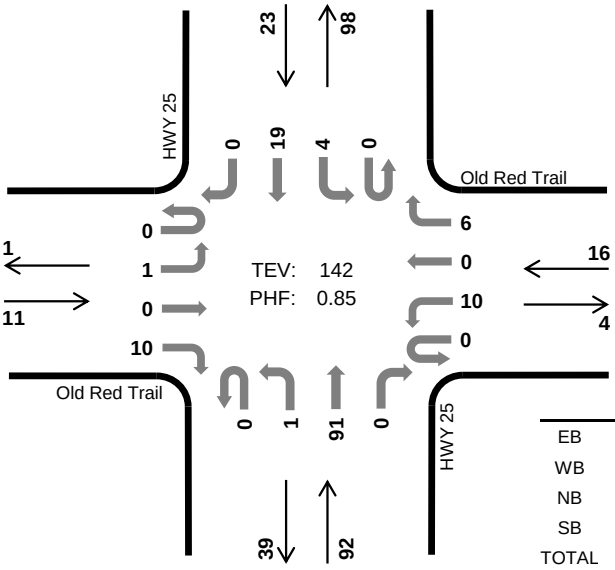
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

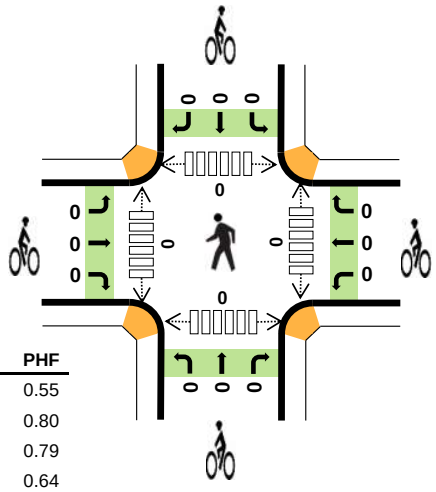
HWY 25
Old Red Trail

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM

Peak Hour



	HV %:	PHF
EB	9.1%	0.55
WB	6.3%	0.80
NB	1.1%	0.79
SB	0.0%	0.64
TOTAL	2.1%	0.85



Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	0	0	1	0	2	0	2	0	0	23	0	0	2	5	0	35	0
5:15 AM		0	0	0	5	0	1	0	4	0	1	28	0	0	2	1	0	42	0
5:30 AM		0	1	0	2	0	4	0	0	0	0	11	0	0	0	9	0	27	0
5:45 AM		0	0	0	2	0	3	0	0	0	0	29	0	0	0	4	0	38	142
Peak Hour	All	0	1	0	10	0	10	0	6	0	1	91	0	0	4	19	0	142	0
	HV	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	3	0
	HV%	-	0%	-	10%	-	10%	-	0%	-	0%	1%	-	-	0%	0%	-	2%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	1	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	5
1:00 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3	7
1:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	7
1:30 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	5	11
1:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	10	0	12	22
2:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	25
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
2:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	20
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	4
3:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	4	8
3:30 AM	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	4	10
3:45 AM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	2	0	7	17
4:00 AM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0	5	20
4:15 AM	0	1	0	1	0	1	0	1	0	0	1	0	0	0	3	0	8	24
4:30 AM	0	0	0	1	0	1	0	2	0	0	4	0	0	0	4	1	13	33
4:45 AM	0	0	0	3	0	1	0	3	0	0	6	0	0	0	4	0	17	43
5:00 AM	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**2**	**0**	**0**	**23**	**0**	**0**	**2**	**5**	**0**	**35**	73
5:15 AM	**0**	**0**	**0**	**5**	**0**	**1**	**0**	**4**	**0**	**1**	**28**	**0**	**0**	**2**	**1**	**0**	**42**	107
5:30 AM	**0**	**1**	**0**	**2**	**0**	**4**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**9**	**0**	**27**	121
5:45 AM	**0**	**0**	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**29**	**0**	**0**	**0**	**4**	**0**	**38**	**142**
Count Total	0	3	0	16	0	14	0	13	0	5	124	4	0	4	53	1	237	0
Peak Hour All	**0**	**1**	**0**	**10**	**0**	**10**	**0**	**6**	**0**	**1**	**91**	**0**	**0**	**4**	**19**	**0**	**142**	**0**
Peak Hour HV	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**10%**	**-**	**10%**	**-**	**0%**	**-**	**0%**	**1%**	**-**	**-**	**0%**	**0%**	**-**	**2%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	1	8	2	*12*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**1**	**1**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	3
1:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	4
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	2
5:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	2
5:45 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**
Count Total	0	0	0	1	0	1	0	0	0	3	5	0	0	0	2	0	12	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**

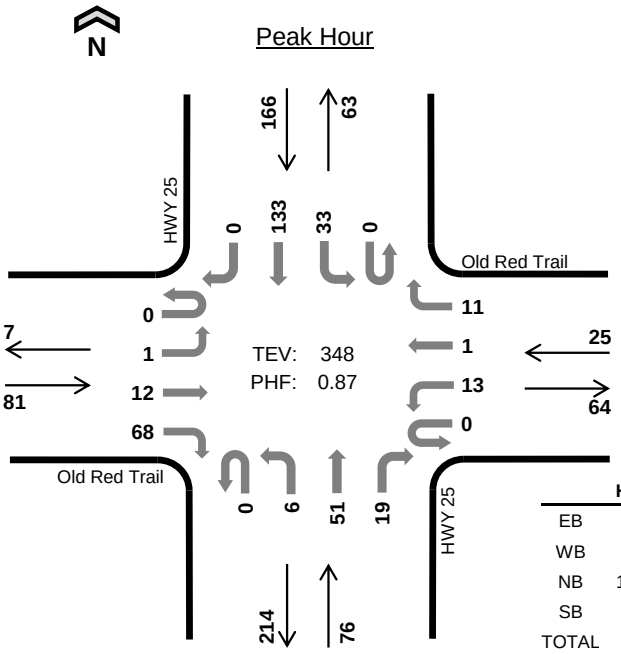
Six-Hour Count Summaries - Bikes

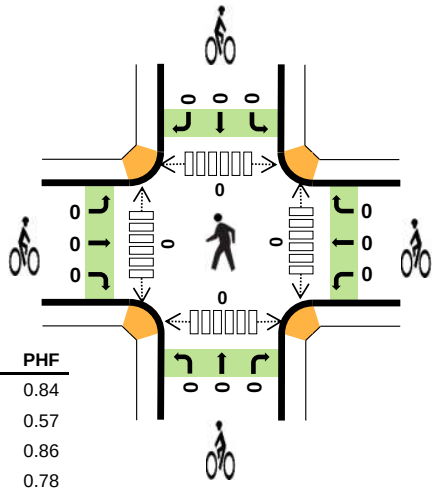
Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
Old Red Trail

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:15 AM to 8:15 AM





	HV %:	PHF
EB	2.5%	0.84
WB	8.0%	0.57
NB	11.8%	0.86
SB	2.4%	0.78
TOTAL	4.9%	0.87

Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	1	1	16	0	5	0	3	0	1	20	1	0	3	37	0	88	0
7:30 AM		0	0	3	21	0	1	0	1	0	0	10	6	0	11	30	0	83	0
7:45 AM		0	0	5	18	0	3	0	1	0	2	14	4	0	11	42	0	100	0
8:00 AM		0	0	3	13	0	4	1	6	0	3	7	8	0	8	24	0	77	348
Peak Hour	All	0	1	12	68	0	13	1	11	0	6	51	19	0	33	133	0	348	0
	HV	0	0	1	1	0	2	0	0	0	0	9	0	0	1	3	0	17	0
	HV%	-	0%	8%	1%	-	15%	0%	0%	-	0%	18%	0%	-	3%	2%	-	5%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:15 AM	1	1	2	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	1	1	3	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	2	2	9	4	*17*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	6	0	3	0	2	0	1	38	0	0	2	9	0	61	0
6:15 AM	0	0	0	10	0	3	0	1	0	0	32	1	0	2	12	0	61	0
6:30 AM	0	1	0	9	0	3	0	1	0	0	21	2	0	2	18	0	57	0
6:45 AM	0	0	2	10	0	2	0	2	0	2	12	5	0	2	10	0	47	226
7:00 AM	0	0	0	24	0	3	1	1	0	3	15	4	0	3	22	0	76	241
7:15 AM	**0**	**1**	**1**	**16**	**0**	**5**	**0**	**3**	**0**	**1**	**20**	**1**	**0**	**3**	**37**	**0**	**88**	268
7:30 AM	**0**	**0**	**3**	**21**	**0**	**1**	**0**	**1**	**0**	**0**	**10**	**6**	**0**	**11**	**30**	**0**	**83**	294
7:45 AM	**0**	**0**	**5**	**18**	**0**	**3**	**0**	**1**	**0**	**2**	**14**	**4**	**0**	**11**	**42**	**0**	**100**	347
8:00 AM	**0**	**0**	**3**	**13**	**0**	**4**	**1**	**6**	**0**	**3**	**7**	**8**	**0**	**8**	**24**	**0**	**77**	**348**
8:15 AM	0	0	0	6	0	5	2	2	0	2	18	0	0	2	16	0	53	313
8:30 AM	0	0	2	4	0	1	0	0	0	1	12	1	0	2	10	0	33	263
8:45 AM	0	0	1	6	0	3	1	3	0	2	14	0	0	2	11	0	43	206
9:00 AM	0	0	0	8	0	3	0	1	0	2	13	4	0	1	14	0	46	175
9:15 AM	0	0	0	0	0	1	0	0	0	2	6	1	0	0	12	0	22	144
9:30 AM	0	0	0	3	0	1	2	1	0	5	10	1	0	0	17	0	40	151
9:45 AM	0	0	0	3	0	2	0	2	0	2	2	2	0	0	12	1	26	134
10:00 AM	0	0	0	3	0	3	0	0	0	3	8	4	0	0	11	0	32	120
10:15 AM	0	0	0	2	0	5	0	1	0	0	8	1	0	0	10	0	27	125
10:30 AM	0	0	0	5	0	1	2	0	0	0	6	2	0	0	12	0	28	113
10:45 AM	0	0	0	1	0	2	0	2	0	1	12	3	0	0	15	0	36	123
11:00 AM	0	0	2	4	0	2	0	1	0	3	14	2	0	0	15	0	43	134
11:15 AM	0	0	1	1	0	0	2	1	0	3	9	3	0	0	20	0	40	147
11:30 AM	0	0	1	2	0	3	1	0	1	2	14	1	0	3	18	1	47	166
11:45 AM	0	0	0	2	0	3	0	0	0	3	9	3	0	0	16	0	36	166
Count Total	0	2	21	177	0	62	12	32	1	43	324	59	0	54	413	2	1,202	0
Peak Hour All	**0**	**1**	**12**	**68**	**0**	**13**	**1**	**11**	**0**	**6**	**51**	**19**	**0**	**33**	**133**	**0**	**348**	**0**
Peak Hour HV	**0**	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**1**	**3**	**0**	**17**	**0**
Peak Hour HV%	**-**	**0%**	**8%**	**1%**	**-**	**15%**	**0%**	**0%**	**-**	**0%**	**18%**	**0%**	**-**	**3%**	**2%**	**-**	**5%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	0	0	7	0	*7*	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*
7:00 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**1**	**1**	**2**	**2**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**0**	**2**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**1**	**1**	**3**	**1**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	0	3	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	0	0	3	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	0	0	3	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	0	1	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	1	2	1	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	0	0	6	2	*8*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	0	1	1	3	*5*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	3	8	45	21	*77*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**2**	**2**	**9**	**4**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	7	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	11
7:15 AM	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**6**	15
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	10
7:45 AM	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**6**	16
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**3**	**17**
8:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	14
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	13
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	9
9:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	9
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	8
9:30 AM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	4	11
9:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	11
10:00 AM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	3	11
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	11
10:30 AM	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	4	11
10:45 AM	0	0	0	0	0	0	0	0	0	0	4	2	0	0	2	0	8	17
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	16
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	18
11:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	1	5	19
11:45 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	13
Count Total	0	0	1	2	0	6	1	1	0	1	38	6	0	2	18	1	77	0
Peak Hour	**0**	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**1**	**3**	**0**	**17**	**0**

Six-Hour Count Summaries - Bikes

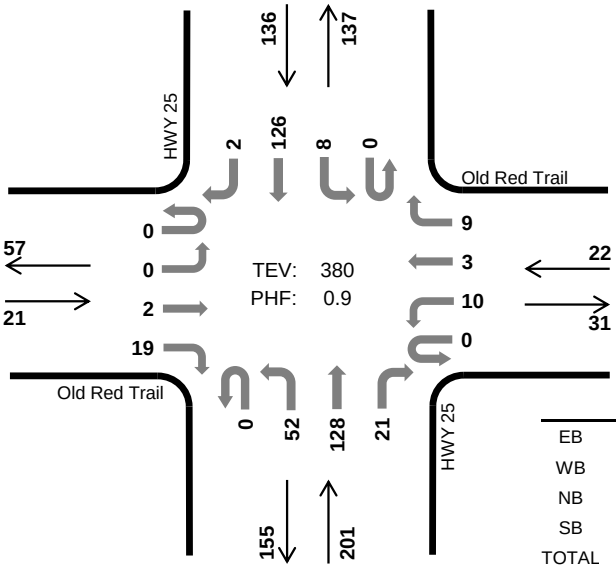
Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

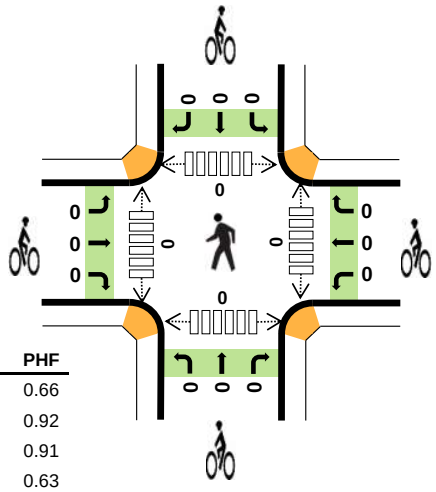
HWY 25
Old Red Trail

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

Peak Hour



	HV %:	PHF
EB	4.8%	0.66
WB	9.1%	0.92
NB	0.5%	0.91
SB	4.4%	0.63
TOTAL	2.6%	0.90



Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		0	0	1	2	0	3	1	2	0	21	30	4	0	1	27	2	94	0
5:15 PM		0	0	1	7	0	2	2	2	0	14	33	2	0	3	19	0	85	0
5:30 PM		0	0	0	6	0	2	0	4	0	11	37	6	0	1	29	0	96	0
5:45 PM		0	0	0	4	0	3	0	1	0	6	28	9	0	3	51	0	105	380
Peak Hour	All	0	0	2	19	0	10	3	9	0	52	128	21	0	8	126	2	380	0
	HV	0	0	0	1	0	2	0	0	0	0	0	1	0	0	6	0	10	0
	HV%	-	-	0%	5%	-	20%	0%	0%	-	0%	0%	5%	-	0%	5%	0%	3%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 PM	0	1	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	3	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	2	1	6	*10*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	4	0	7	1	0	0	1	9	0	0	0	9	0	31	0
12:15 PM	0	0	0	2	0	0	0	1	0	5	13	1	0	1	16	0	39	0
12:30 PM	0	0	0	1	0	1	1	0	0	4	7	0	0	1	18	0	33	0
12:45 PM	0	0	0	0	0	4	0	1	0	1	4	1	0	1	17	0	29	132
1:00 PM	0	0	0	1	0	1	2	1	0	4	14	3	0	0	19	0	45	146
1:15 PM	0	0	0	2	0	1	0	0	0	7	13	1	0	0	12	0	36	143
1:30 PM	0	0	1	5	0	2	0	0	0	4	18	0	0	4	8	1	43	153
1:45 PM	0	0	0	1	0	1	0	1	0	0	15	3	0	0	10	0	31	155
2:00 PM	0	0	0	6	0	2	1	1	0	2	13	1	0	0	13	1	40	150
2:15 PM	0	0	0	5	0	1	0	1	0	8	12	2	0	0	9	1	39	153
2:30 PM	0	0	2	1	0	3	0	0	0	2	17	1	0	2	15	0	43	153
2:45 PM	0	0	0	1	0	3	0	2	0	3	19	2	0	5	16	0	51	173
3:00 PM	0	0	0	6	0	1	1	8	0	5	12	3	0	3	11	0	50	183
3:15 PM	0	0	3	3	0	1	1	3	0	7	16	4	0	1	16	0	55	199
3:30 PM	0	0	1	2	0	4	4	2	0	2	16	1	0	2	8	0	42	198
3:45 PM	0	0	2	4	0	1	3	2	0	6	21	2	0	1	15	0	57	204
4:00 PM	0	0	1	1	0	6	2	5	0	9	14	2	0	3	27	0	70	224
4:15 PM	0	0	0	2	0	5	0	4	0	7	26	7	0	2	37	1	91	260
4:30 PM	0	0	0	2	0	10	0	4	0	10	28	2	0	3	30	1	90	308
4:45 PM	0	0	0	4	0	4	1	4	0	16	30	10	0	4	23	0	96	347
5:00 PM	**0**	**0**	**1**	**2**	**0**	**3**	**1**	**2**	**0**	**21**	**30**	**4**	**0**	**1**	**27**	**2**	**94**	371
5:15 PM	**0**	**0**	**1**	**7**	**0**	**2**	**2**	**2**	**0**	**14**	**33**	**2**	**0**	**3**	**19**	**0**	**85**	365
5:30 PM	**0**	**0**	**0**	**6**	**0**	**2**	**0**	**4**	**0**	**11**	**37**	**6**	**0**	**1**	**29**	**0**	**96**	371
5:45 PM	**0**	**0**	**0**	**4**	**0**	**3**	**0**	**1**	**0**	**6**	**28**	**9**	**0**	**3**	**51**	**0**	**105**	**380**
Count Total	0	0	12	72	0	68	20	49	0	155	445	67	0	41	455	7	1,391	0
Peak Hour All	**0**	**0**	**2**	**19**	**0**	**10**	**3**	**9**	**0**	**52**	**128**	**21**	**0**	**8**	**126**	**2**	**380**	**0**
Peak Hour HV	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**6**	**0**	**10**	**0**
Peak Hour HV%	**-**	**-**	**0%**	**5%**	**-**	**20%**	**0%**	**0%**	**-**	**0%**	**0%**	**5%**	**-**	**0%**	**5%**	**0%**	**3%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	1	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	0	0	0	3	*3*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	0	1	2	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	0	0	1	2	*3*	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*
1:30 PM	0	0	1	0	*1*	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*
2:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 PM	0	0	2	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	0	1	2	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	0	1	2	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	0	0	2	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**1**	**0**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**3**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	8	16	24	*49*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**1**	**2**	**1**	**6**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	3	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
12:45 PM	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	4	11
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	11
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	8
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	4
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	5
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	6
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	3	8
3:30 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	3	9
3:45 PM	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	4	12
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	11
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	9
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	3	9
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	7
5:00 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**4**	10
5:15 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	10
5:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	9
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**10**
Count Total	0	0	0	1	0	7	1	0	0	2	10	4	0	2	21	1	49	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**6**	**0**	**10**	**0**

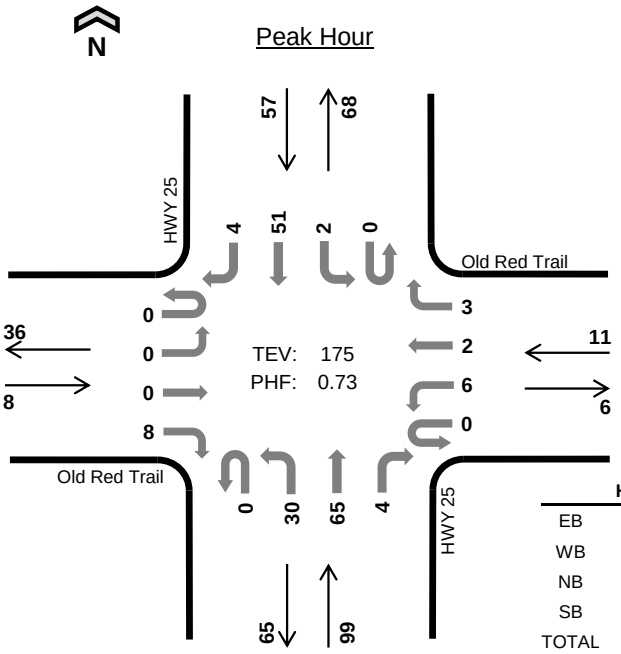
Six-Hour Count Summaries - Bikes

Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	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
12:30 PM	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
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	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	0
5:00 PM	**0**	**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**	0
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

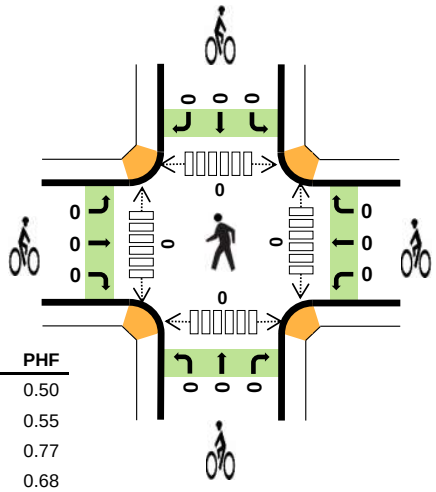
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
Old Red Trail

Date: 11/29/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM



	HV %:	PHF
EB	0.0%	0.50
WB	0.0%	0.55
NB	0.0%	0.77
SB	7.0%	0.68
TOTAL	2.3%	0.73



Six-Hour Count Summaries

Interval Start		Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	0	0	2	0	3	0	2	0	13	16	3	0	1	20	0	60	0
6:15 PM		0	0	0	4	0	1	1	1	0	6	17	0	0	0	11	1	42	0
6:30 PM		0	0	0	1	0	2	1	0	0	3	21	0	0	0	15	2	45	0
6:45 PM		0	0	0	1	0	0	0	0	0	8	11	1	0	1	5	1	28	175
Peak Hour	All	0	0	0	8	0	6	2	3	0	30	65	4	0	2	51	4	175	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0
	HV%	-	-	-	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%	8%	0%	2%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	0	0	0	4	*4*	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*
6:30 PM	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*
Peak Hour	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**2**	**0**	**3**	**0**	**2**	**0**	**13**	**16**	**3**	**0**	**1**	**20**	**0**	**60**	0
6:15 PM	**0**	**0**	**0**	**4**	**0**	**1**	**1**	**1**	**0**	**6**	**17**	**0**	**0**	**0**	**11**	**1**	**42**	0
6:30 PM	**0**	**0**	**0**	**1**	**0**	**2**	**1**	**0**	**0**	**3**	**21**	**0**	**0**	**0**	**15**	**2**	**45**	0
6:45 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**8**	**11**	**1**	**0**	**1**	**5**	**1**	**28**	**175**
7:00 PM	0	0	0	2	0	1	1	0	0	7	10	1	0	1	12	1	36	151
7:15 PM	0	0	0	3	0	1	0	1	0	6	15	2	0	0	7	0	35	144
7:30 PM	0	0	0	2	0	0	0	2	0	5	9	5	0	0	5	0	28	127
7:45 PM	0	0	0	2	0	1	0	0	0	1	10	2	0	0	5	0	21	120
8:00 PM	0	0	1	0	0	2	0	0	0	7	11	2	0	1	2	0	26	110
8:15 PM	0	1	0	0	0	0	0	0	0	7	4	0	0	0	2	0	14	89
8:30 PM	0	0	2	4	0	1	0	0	0	3	3	3	0	0	4	0	20	81
8:45 PM	0	0	2	0	0	0	0	0	0	2	10	3	0	1	2	0	20	80
9:00 PM	0	0	0	0	0	2	0	0	0	2	8	1	0	0	2	0	15	69
9:15 PM	0	0	0	1	0	0	1	0	0	1	5	1	0	0	1	0	10	65
9:30 PM	0	0	0	0	0	1	1	0	0	0	2	0	0	0	1	0	5	50
9:45 PM	0	0	0	1	0	2	0	0	0	2	6	1	0	0	0	0	12	42
10:00 PM	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	5	32
10:15 PM	0	0	0	0	0	0	0	0	0	8	1	0	0	0	2	0	11	33
10:30 PM	0	0	0	0	0	3	0	0	0	1	3	0	0	0	1	0	8	36
10:45 PM	0	0	0	0	0	1	0	0	0	3	1	0	0	0	1	0	6	30
11:00 PM	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	5	30
11:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	4	23
11:30 PM	0	0	0	0	0	1	0	0	0	1	4	0	0	0	0	1	7	22
11:45 PM	0	0	0	1	0	0	0	0	0	1	1	0	0	0	1	0	4	20
Count Total	0	1	5	27	0	25	5	6	0	89	171	26	0	5	101	6	467	0
Peak Hour All	**0**	**0**	**0**	**8**	**0**	**6**	**2**	**3**	**0**	**30**	**65**	**4**	**0**	**2**	**51**	**4**	**175**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**4**	**0**
Peak Hour HV%	**-**	**-**	**-**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**8%**	**0%**	**2%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	**0**	**0**	**0**	**4**	***4***	**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*
6:30 PM	**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***
7:00 PM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	0	0	0	1	*1*	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*
8:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	0	0	1	0	*1*	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*
8:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 PM	0	1	0	0	*1*	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*
9:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	1	2	4	5	*12*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**0**	**4**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Old Red Trail Eastbound				Old Red Trail Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**4**	0
6:15 PM	**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
6:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
7:00 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	2
7:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	3
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	1	0	2	0	0	0	2	1	1	0	0	5	0	12	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**4**	**0**

Six-Hour Count Summaries - Bikes

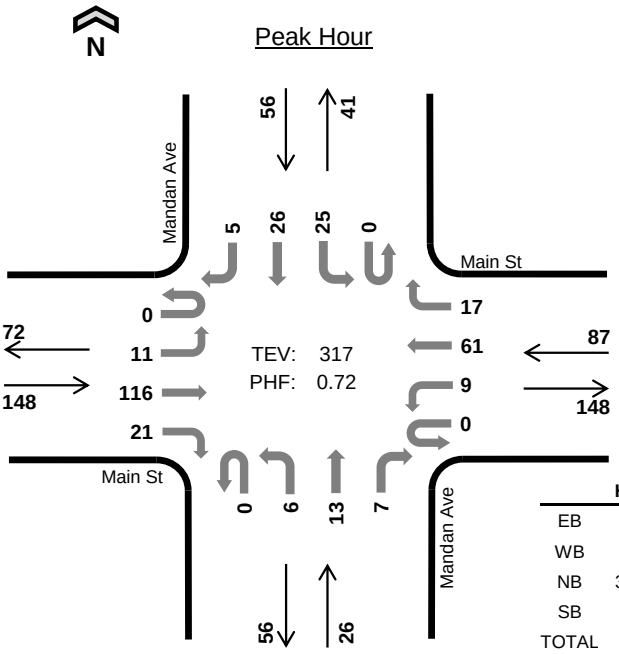
Interval Start	Old Red Trail Eastbound			Old Red Trail Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

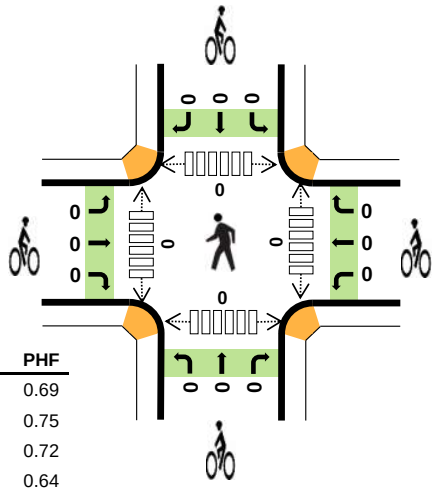
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
Main St

Peak Hour

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM





	HV %:	PHF
EB	5.4%	0.69
WB	6.9%	0.75
NB	30.8%	0.72
SB	0.0%	0.64
TOTAL	6.9%	0.72

Six-Hour Count Summaries

Interval Start		Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	2	17	2	0	0	10	4	0	1	3	1	0	3	2	1	46	0
5:15 AM		0	4	15	4	0	2	10	5	0	2	3	2	0	5	5	2	59	0
5:30 AM		0	3	44	7	0	5	17	5	0	2	2	1	0	8	6	2	102	0
5:45 AM		0	2	40	8	0	2	24	3	0	1	5	3	0	9	13	0	110	317
Peak Hour	All	0	11	116	21	0	9	61	17	0	6	13	7	0	25	26	5	317	0
	HV	0	2	4	2	0	0	3	3	0	2	5	1	0	0	0	0	22	0
	HV%	-	18%	3%	10%	-	0%	5%	18%	-	33%	38%	14%	-	0%	0%	0%	7%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	1	1	2	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	2	2	3	0	*7*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	3	2	1	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	2	1	2	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	8	6	8	0	*22*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	15	2	0	0	0	3	0	0	1	1	0	0	0	0	22	0
12:15 AM	0	0	15	3	0	1	0	1	0	0	0	1	0	1	1	0	23	0
12:30 AM	0	0	10	1	0	1	0	0	0	0	0	1	0	1	1	0	15	0
12:45 AM	0	0	4	3	0	1	0	0	0	0	1	0	0	1	0	0	10	70
1:00 AM	0	0	6	1	0	1	2	4	0	3	3	0	0	0	1	0	21	69
1:15 AM	0	0	6	2	0	0	4	2	0	1	2	0	0	2	1	0	20	66
1:30 AM	0	1	2	0	0	0	2	3	0	1	0	1	0	3	1	1	15	66
1:45 AM	0	0	7	0	0	1	5	3	0	0	0	0	0	0	0	0	16	72
2:00 AM	0	0	9	0	0	0	7	0	0	1	0	0	0	1	1	0	19	70
2:15 AM	0	0	5	2	0	0	3	1	0	0	0	0	0	1	2	0	14	64
2:30 AM	0	1	6	1	0	0	5	2	0	0	0	0	0	0	1	0	16	65
2:45 AM	0	0	5	0	0	0	4	0	0	0	0	0	0	0	2	0	11	60
3:00 AM	0	0	5	2	0	0	4	1	0	0	2	0	0	1	0	0	15	56
3:15 AM	0	0	8	0	0	0	5	1	0	2	1	0	0	1	1	0	19	61
3:30 AM	0	0	8	1	0	0	2	1	0	0	0	1	0	2	0	0	15	60
3:45 AM	0	0	4	0	0	2	6	2	0	0	2	1	0	1	1	0	19	68
4:00 AM	0	0	8	3	0	0	2	2	0	3	2	0	0	0	1	0	21	74
4:15 AM	0	1	13	2	0	0	3	0	0	1	1	0	0	2	1	0	24	79
4:30 AM	0	1	13	1	0	1	8	0	0	1	0	0	0	2	1	1	29	93
4:45 AM	0	1	14	6	0	1	11	3	0	3	1	0	0	5	4	2	51	125
5:00 AM	**0**	**2**	**17**	**2**	**0**	**0**	**10**	**4**	**0**	**1**	**3**	**1**	**0**	**3**	**2**	**1**	**46**	150
5:15 AM	**0**	**4**	**15**	**4**	**0**	**2**	**10**	**5**	**0**	**2**	**3**	**2**	**0**	**5**	**5**	**2**	**59**	185
5:30 AM	**0**	**3**	**44**	**7**	**0**	**5**	**17**	**5**	**0**	**2**	**2**	**1**	**0**	**8**	**6**	**2**	**102**	258
5:45 AM	**0**	**2**	**40**	**8**	**0**	**2**	**24**	**3**	**0**	**1**	**5**	**3**	**0**	**9**	**13**	**0**	**110**	**317**
Count Total	0	16	279	51	0	18	134	46	0	22	29	13	0	49	46	9	712	0
Peak Hour All	**0**	**11**	**116**	**21**	**0**	**9**	**61**	**17**	**0**	**6**	**13**	**7**	**0**	**25**	**26**	**5**	**317**	**0**
Peak Hour HV	**0**	**2**	**4**	**2**	**0**	**0**	**3**	**3**	**0**	**2**	**5**	**1**	**0**	**0**	**0**	**0**	**22**	**0**
Peak Hour HV%	**-**	**18%**	**3%**	**10%**	**-**	**0%**	**5%**	**18%**	**-**	**33%**	**38%**	**14%**	**-**	**0%**	**0%**	**0%**	**7%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	3	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	1	*1*
5:00 AM	**1**	**1**	**2**	**0**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**2**	**2**	**3**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**3**	**2**	**1**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**2**	**1**	**2**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	15	19	11	1	*46*	0	0	0	0	*0*	0	0	0	1	*1*
Peak Hour	**8**	**6**	**8**	**0**	***22***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	3
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3
1:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	3
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:45 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	5
4:00 AM	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3	8
4:15 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	8
4:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3	11
4:45 AM	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3	11
5:00 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**4**	12
5:15 AM	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**7**	17
5:30 AM	**0**	**0**	**2**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	20
5:45 AM	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**5**	**22**
Count Total	0	4	8	3	0	1	15	3	0	4	6	1	0	1	0	0	46	0
Peak Hour	**0**	**2**	**4**	**2**	**0**	**0**	**3**	**3**	**0**	**2**	**5**	**1**	**0**	**0**	**0**	**0**	**22**	**0**

Six-Hour Count Summaries - Bikes

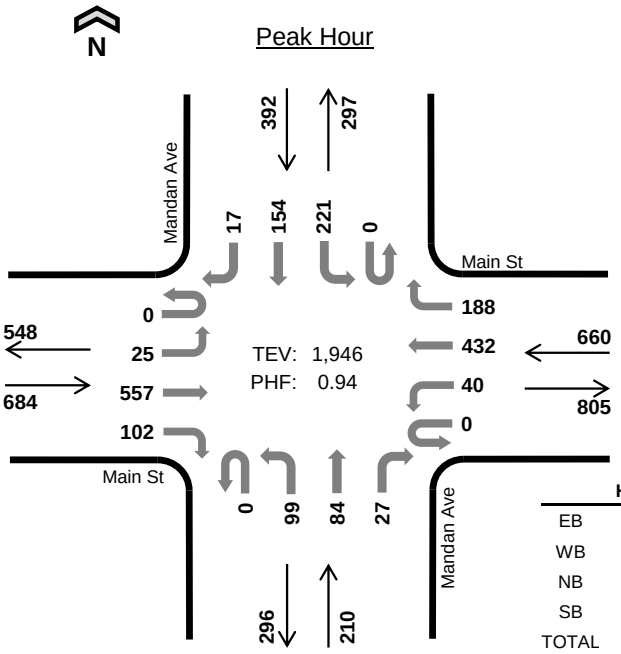
Interval Start	Main St Eastbound			Main St Westbound			Mandan Ave Northbound			Mandan Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

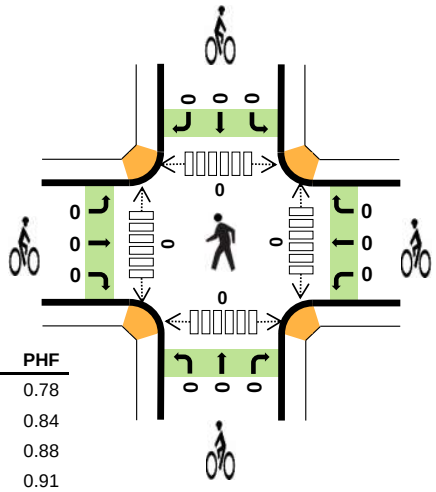
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
Main St

Peak Hour

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	5.8%	0.78
WB	2.7%	0.84
NB	9.0%	0.88
SB	5.9%	0.91
TOTAL	5.1%	0.94

Six-Hour Count Summaries

Interval Start		Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	8	188	23	0	8	84	44	0	16	15	5	0	71	36	1	499	0
7:45 AM		0	3	147	19	0	11	134	51	0	29	24	7	0	53	38	4	520	0
8:00 AM		0	6	98	17	0	8	109	40	0	25	27	7	0	45	40	4	426	0
8:15 AM		0	8	124	43	0	13	105	53	0	29	18	8	0	52	40	8	501	1,946
Peak Hour	All	0	25	557	102	0	40	432	188	0	99	84	27	0	221	154	17	1,946	0
	HV	0	9	18	13	0	3	13	2	0	11	5	3	0	3	12	8	100	0
	HV%	-	36%	3%	13%	-	8%	3%	1%	-	11%	6%	11%	-	1%	8%	47%	5%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:30 AM	11	1	2	3	*17*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	5	5	5	5	*20*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	6	6	7	6	*25*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	18	6	5	9	*38*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	40	18	19	23	*100*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	4	39	7	0	3	20	8	0	3	5	1	0	9	11	0	110	0
6:15 AM	0	7	55	13	0	4	33	8	0	2	5	1	0	13	11	4	156	0
6:30 AM	0	8	92	13	0	2	51	12	0	5	9	1	0	33	14	1	241	0
6:45 AM	0	8	92	11	0	5	63	16	0	12	13	3	0	21	19	0	263	770
7:00 AM	0	3	96	27	0	7	65	17	0	11	22	2	0	21	23	4	298	958
7:15 AM	0	2	128	18	0	13	92	34	0	16	13	5	0	44	29	3	397	1,199
7:30 AM	**0**	**8**	**188**	**23**	**0**	**8**	**84**	**44**	**0**	**16**	**15**	**5**	**0**	**71**	**36**	**1**	**499**	1,457
7:45 AM	**0**	**3**	**147**	**19**	**0**	**11**	**134**	**51**	**0**	**29**	**24**	**7**	**0**	**53**	**38**	**4**	**520**	1,714
8:00 AM	**0**	**6**	**98**	**17**	**0**	**8**	**109**	**40**	**0**	**25**	**27**	**7**	**0**	**45**	**40**	**4**	**426**	1,842
8:15 AM	**0**	**8**	**124**	**43**	**0**	**13**	**105**	**53**	**0**	**29**	**18**	**8**	**0**	**52**	**40**	**8**	**501**	**1,946**
8:30 AM	0	5	90	23	0	4	82	44	0	29	28	3	0	52	42	6	408	1,855
8:45 AM	0	1	92	23	0	9	74	30	1	41	6	9	0	38	31	5	360	1,695
9:00 AM	0	2	77	14	0	4	74	23	0	31	16	4	0	24	23	4	296	1,565
9:15 AM	0	2	76	39	0	5	71	18	0	34	21	4	0	35	26	2	333	1,397
9:30 AM	0	6	83	30	0	6	79	28	0	20	28	7	0	31	20	4	342	1,331
9:45 AM	0	7	87	31	0	5	88	18	0	26	18	5	0	35	29	6	355	1,326
10:00 AM	0	4	84	24	0	9	74	29	0	23	18	8	0	33	31	10	347	1,377
10:15 AM	0	5	78	33	0	5	79	23	0	33	32	7	0	27	23	4	349	1,393
10:30 AM	0	8	90	31	0	5	88	30	0	33	23	4	0	37	40	6	395	1,446
10:45 AM	0	3	90	24	0	5	89	34	0	39	23	4	0	34	35	4	384	1,475
11:00 AM	0	4	83	33	0	10	86	36	0	36	32	6	0	25	43	7	401	1,529
11:15 AM	0	5	100	26	0	9	91	29	0	41	36	9	0	40	30	8	424	1,604
11:30 AM	0	6	90	36	0	10	112	27	0	49	29	13	0	33	29	5	439	1,648
11:45 AM	0	4	98	35	0	9	99	30	0	40	32	9	0	39	27	10	432	1,696
Count Total	0	119	2,277	593	0	169	1,942	682	1	623	493	132	0	845	690	110	8,676	0
Peak Hour All	**0**	**25**	**557**	**102**	**0**	**40**	**432**	**188**	**0**	**99**	**84**	**27**	**0**	**221**	**154**	**17**	**1,946**	**0**
Peak Hour HV	**0**	**9**	**18**	**13**	**0**	**3**	**13**	**2**	**0**	**11**	**5**	**3**	**0**	**3**	**12**	**8**	**100**	**0**
Peak Hour HV%	**-**	**36%**	**3%**	**13%**	**-**	**8%**	**3%**	**1%**	**-**	**11%**	**6%**	**11%**	**-**	**1%**	**8%**	**47%**	**5%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	2	1	0	0	*3*	0	0	0	0	*0*	0	0	1	0	*1*
6:15 AM	2	1	1	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	1	3	1	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	3	2	3	0	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	4	7	3	1	*15*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	2	7	1	0	*10*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	**11**	**1**	**2**	**3**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**5**	**5**	**5**	**5**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**6**	**6**	**7**	**6**	***25***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**18**	**6**	**5**	**9**	***38***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	4	8	10	4	*26*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	4	3	4	8	*19*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	7	4	10	2	*23*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	9	8	4	3	*24*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	8	8	4	1	*21*	0	0	0	0	*0*	0	0	1	0	*1*
9:45 AM	7	9	5	5	*26*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 AM	6	8	4	5	*23*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	7	6	4	5	*22*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	4	11	3	8	*26*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	11	9	7	4	*31*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	6	5	2	6	*19*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	13	8	7	2	*30*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 AM	9	3	7	5	*24*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 AM	7	6	6	3	*22*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	156	135	105	86	*482*	0	0	0	0	*0*	0	0	3	0	*3*
Peak Hour	**40**	**18**	**19**	**23**	***100***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	3	0
6:15 AM	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	1	5	0
6:30 AM	0	0	1	0	0	0	3	0	0	0	1	0	0	0	0	0	5	0
6:45 AM	0	0	2	1	0	0	2	0	0	1	1	1	0	0	0	0	8	21
7:00 AM	0	0	2	2	0	0	6	1	0	0	3	0	0	0	0	1	15	33
7:15 AM	0	0	2	0	0	0	4	3	0	0	1	0	0	0	0	0	10	38
7:30 AM	**0**	**4**	**7**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**2**	**0**	**17**	50
7:45 AM	**0**	**1**	**4**	**0**	**0**	**1**	**3**	**1**	**0**	**3**	**1**	**1**	**0**	**1**	**2**	**2**	**20**	62
8:00 AM	**0**	**1**	**4**	**1**	**0**	**1**	**5**	**0**	**0**	**4**	**2**	**1**	**0**	**1**	**3**	**2**	**25**	72
8:15 AM	**0**	**3**	**3**	**12**	**0**	**1**	**4**	**1**	**0**	**3**	**2**	**0**	**0**	**0**	**5**	**4**	**38**	**100**
8:30 AM	0	0	2	2	0	0	6	2	0	5	4	1	0	0	4	0	26	109
8:45 AM	0	0	3	1	0	2	1	0	1	2	1	0	0	2	5	1	19	108
9:00 AM	0	0	5	2	0	0	3	1	0	4	5	1	0	2	0	0	23	106
9:15 AM	0	0	8	1	0	2	6	0	0	3	1	0	0	0	3	0	24	92
9:30 AM	0	1	5	2	0	0	6	2	0	0	4	0	0	0	0	1	21	87
9:45 AM	0	1	6	0	0	1	7	1	0	3	2	0	0	1	4	0	26	94
10:00 AM	0	0	5	1	0	0	7	1	0	3	1	0	0	2	2	1	23	94
10:15 AM	0	1	3	3	0	0	5	1	0	1	3	0	0	0	5	0	22	92
10:30 AM	0	0	3	1	0	0	9	2	0	2	1	0	0	0	8	0	26	97
10:45 AM	0	1	7	3	0	1	8	0	0	3	3	1	0	3	1	0	31	102
11:00 AM	0	0	3	3	0	0	3	2	0	0	2	0	0	1	3	2	19	98
11:15 AM	0	0	7	6	0	2	5	1	0	3	3	1	0	0	1	1	30	106
11:30 AM	0	0	5	4	0	1	2	0	0	5	1	1	0	0	5	0	24	104
11:45 AM	0	0	4	3	0	1	4	1	0	4	2	0	0	1	1	1	22	95
Count Total	0	14	92	50	0	13	102	20	1	50	45	9	0	15	54	17	482	0
Peak Hour	**0**	**9**	**18**	**13**	**0**	**3**	**13**	**2**	**0**	**11**	**5**	**3**	**0**	**3**	**12**	**8**	**100**	**0**

Six-Hour Count Summaries - Bikes

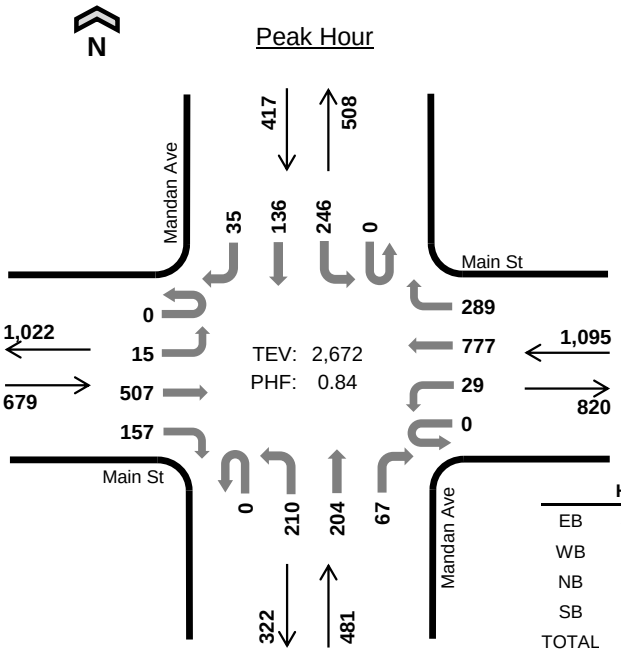
Interval Start	Main St Eastbound			Main St Westbound			Mandan Ave Northbound			Mandan Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

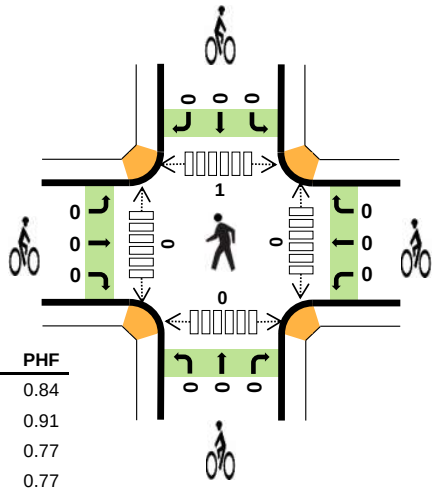
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
Main St

Peak Hour

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV %:	PHF
EB	4.1%	0.84
WB	1.4%	0.91
NB	0.4%	0.77
SB	2.4%	0.77
TOTAL	2.1%	0.84

Six-Hour Count Summaries

Interval Start		Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	3	131	45	0	12	177	68	0	50	37	12	0	64	25	10	634	0
4:45 PM		0	4	106	40	0	6	176	69	0	45	40	11	0	54	27	12	590	0
5:00 PM		0	2	153	48	0	5	222	75	0	54	69	33	0	74	52	10	797	0
5:15 PM		0	6	117	24	0	6	202	77	0	61	58	11	0	54	32	3	651	2,672
Peak Hour	All	0	15	507	157	0	29	777	289	0	210	204	67	0	246	136	35	2,672	0
	HV	0	1	22	5	0	1	10	4	0	1	1	0	0	2	4	4	55	0
	HV%	-	7%	4%	3%	-	3%	1%	1%	-	0%	0%	0%	-	1%	3%	11%	2%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:30 PM	11	6	0	2	*19*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	4	3	1	5	*13*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	9	4	0	2	*15*	0	0	0	0	*0*	0	0	1	0	*1*
5:15 PM	4	2	1	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	28	15	2	10	*55*	0	0	0	0	*0*	0	0	1	0	*1*

Six-Hour Count Summaries

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	7	80	45	0	5	105	38	0	47	37	13	0	49	41	11	478	0
12:15 PM	0	2	106	41	0	9	92	35	0	46	32	6	0	47	44	4	464	0
12:30 PM	0	3	91	47	0	5	90	31	0	38	24	6	0	37	27	0	399	0
12:45 PM	0	7	109	43	0	12	123	39	0	36	29	4	0	46	34	7	489	1,830
1:00 PM	0	3	108	34	0	6	103	30	0	54	35	10	0	34	30	8	455	1,807
1:15 PM	0	5	77	32	0	13	135	26	0	31	31	11	0	26	30	7	424	1,767
1:30 PM	0	3	81	46	0	9	91	38	0	39	21	15	0	37	37	6	423	1,791
1:45 PM	0	7	94	32	0	7	120	36	0	39	34	11	0	38	48	9	475	1,777
2:00 PM	0	3	102	33	0	11	106	43	0	43	27	6	0	18	27	8	427	1,749
2:15 PM	0	7	80	29	0	8	136	32	0	37	33	8	0	31	37	5	443	1,768
2:30 PM	0	7	94	31	0	7	126	40	0	40	30	8	0	30	35	10	458	1,803
2:45 PM	0	4	104	42	0	6	128	35	0	48	42	7	0	37	30	7	490	1,818
3:00 PM	0	3	117	41	0	10	145	46	0	40	36	6	0	49	34	6	533	1,924
3:15 PM	0	5	105	35	0	14	130	52	0	51	33	12	0	45	34	1	517	1,998
3:30 PM	0	5	147	33	0	16	145	53	0	39	41	11	0	66	52	9	617	2,157
3:45 PM	0	5	107	38	0	11	143	42	0	38	40	9	0	35	39	8	515	2,182
4:00 PM	0	5	115	47	0	8	169	54	0	39	34	10	0	59	34	12	586	2,235
4:15 PM	0	6	120	27	0	9	181	70	0	43	33	9	0	43	30	3	574	2,292
4:30 PM	**0**	**3**	**131**	**45**	**0**	**12**	**177**	**68**	**0**	**50**	**37**	**12**	**0**	**64**	**25**	**10**	**634**	2,309
4:45 PM	**0**	**4**	**106**	**40**	**0**	**6**	**176**	**69**	**0**	**45**	**40**	**11**	**0**	**54**	**27**	**12**	**590**	2,384
5:00 PM	**0**	**2**	**153**	**48**	**0**	**5**	**222**	**75**	**0**	**54**	**69**	**33**	**0**	**74**	**52**	**10**	**797**	2,595
5:15 PM	**0**	**6**	**117**	**24**	**0**	**6**	**202**	**77**	**0**	**61**	**58**	**11**	**0**	**54**	**32**	**3**	**651**	**2,672**
5:30 PM	0	8	114	25	0	3	208	62	0	44	43	4	0	33	33	11	588	2,626
5:45 PM	0	3	110	28	0	5	132	54	0	48	32	9	0	41	23	10	495	2,531
Count Total	0	113	2,568	886	0	203	3,385	1,145	0	1,050	871	242	0	1,047	835	177	12,522	0
Peak Hour All	**0**	**15**	**507**	**157**	**0**	**29**	**777**	**289**	**0**	**210**	**204**	**67**	**0**	**246**	**136**	**35**	**2,672**	**0**
Peak Hour HV	**0**	**1**	**22**	**5**	**0**	**1**	**10**	**4**	**0**	**1**	**1**	**0**	**0**	**2**	**4**	**4**	**55**	**0**
Peak Hour HV%	**-**	**7%**	**4%**	**3%**	**-**	**3%**	**1%**	**1%**	**-**	**0%**	**0%**	**0%**	**-**	**1%**	**3%**	**11%**	**2%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	8	5	1	6	*20*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	3	9	9	5	*26*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	7	2	6	1	*16*	0	0	0	0	*0*	0	0	1	0	*1*
12:45 PM	9	5	2	6	*22*	0	0	0	0	*0*	0	0	1	0	*1*
1:00 PM	8	3	5	7	*23*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	4	5	0	4	*13*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 PM	2	5	4	5	*16*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 PM	3	7	7	3	*20*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	5	4	6	4	*19*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	6	4	5	5	*20*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	5	4	9	7	*25*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	4	3	9	7	*23*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	7	11	1	1	*20*	0	0	0	0	*0*	0	0	1	0	*1*
3:15 PM	8	8	3	2	*21*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 PM	4	6	1	5	*16*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	7	3	3	7	*20*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	4	5	2	4	*15*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	7	5	1	2	*15*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**11**	**6**	**0**	**2**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**4**	**3**	**1**	**5**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**9**	**4**	**0**	**2**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
5:15 PM	**4**	**2**	**1**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	4	0	1	0	*5*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	4	2	2	1	*9*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	137	111	79	92	*419*	0	0	0	0	*0*	0	0	4	0	*4*
Peak Hour	**28**	**15**	**2**	**10**	***55***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	1	4	3	0	0	5	0	0	0	1	0	0	2	1	3	20	0
12:15 PM	0	1	2	0	0	2	7	0	0	5	3	1	0	3	2	0	26	0
12:30 PM	0	2	5	0	0	0	2	0	0	4	2	0	0	0	1	0	16	0
12:45 PM	0	0	6	3	0	1	4	0	0	0	2	0	0	4	1	1	22	84
1:00 PM	0	0	7	1	0	0	2	1	0	1	3	1	0	1	4	2	23	87
1:15 PM	0	0	1	3	0	1	4	0	0	0	0	0	0	2	1	1	13	74
1:30 PM	0	0	2	0	0	1	4	0	0	1	2	1	0	2	3	0	16	74
1:45 PM	0	0	3	0	0	1	6	0	0	2	4	1	0	0	3	0	20	72
2:00 PM	0	0	5	0	0	0	4	0	0	1	4	1	0	0	4	0	19	68
2:15 PM	0	0	6	0	0	1	3	0	0	1	4	0	0	1	1	3	20	75
2:30 PM	0	2	2	1	0	1	2	1	0	3	4	2	0	3	3	1	25	84
2:45 PM	0	0	2	2	0	0	1	2	0	2	5	2	0	1	3	3	23	87
3:00 PM	0	1	4	2	0	2	7	2	0	0	1	0	0	1	0	0	20	88
3:15 PM	0	0	7	1	0	1	6	1	0	1	2	0	0	1	1	0	21	89
3:30 PM	0	0	4	0	0	1	5	0	0	0	0	1	0	3	0	2	16	80
3:45 PM	0	0	6	1	0	1	2	0	0	0	0	3	0	3	3	1	20	77
4:00 PM	0	0	3	1	0	2	2	1	0	0	2	0	0	0	2	2	15	72
4:15 PM	0	0	6	1	0	0	4	1	0	1	0	0	0	2	0	0	15	66
4:30 PM	**0**	**0**	**9**	**2**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**19**	69
4:45 PM	**0**	**0**	**4**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**2**	**13**	62
5:00 PM	**0**	**0**	**6**	**3**	**0**	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**15**	62
5:15 PM	**0**	**1**	**3**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**8**	**55**
5:30 PM	0	2	2	0	0	0	0	0	0	1	0	0	0	0	0	0	5	41
5:45 PM	0	0	4	0	0	0	1	1	0	1	1	0	0	0	1	0	9	37
Count Total	0	10	103	24	0	16	81	14	0	25	41	13	0	31	38	23	419	0
Peak Hour	**0**	**1**	**22**	**5**	**0**	**1**	**10**	**4**	**0**	**1**	**1**	**0**	**0**	**2**	**4**	**4**	**55**	**0**

Six-Hour Count Summaries - Bikes

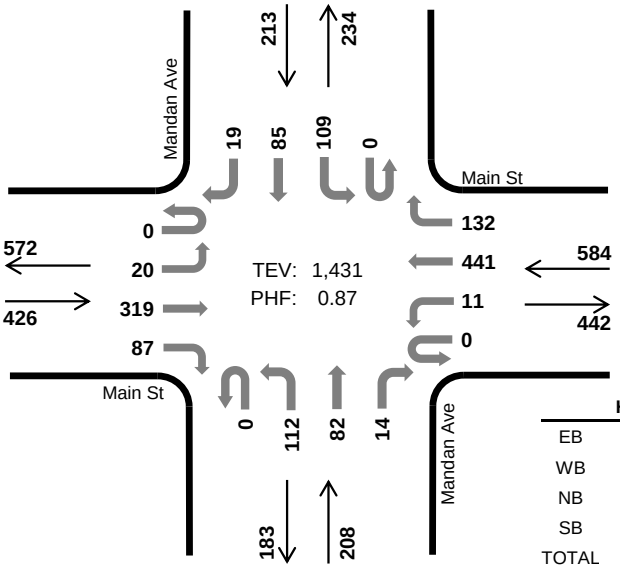
Interval Start	Main St Eastbound			Main St Westbound			Mandan Ave Northbound			Mandan Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**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**	0
5:00 PM	**0**	**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**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

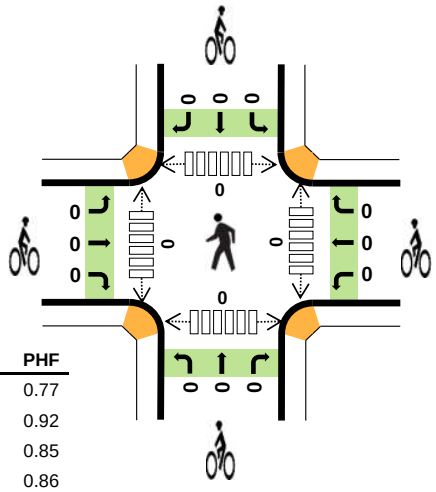
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Mandan Ave
Main St

Date: 11/29/2022
Count Period: 6:00 PM to 12:00 AM
Peak Hour: 6:00 PM to 7:00 PM

Peak Hour





	HV %:	PHF
EB	1.6%	0.77
WB	0.7%	0.92
NB	0.5%	0.85
SB	3.8%	0.86
TOTAL	1.4%	0.87

Six-Hour Count Summaries

Interval Start		Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM		0	8	101	30	0	3	122	34	0	24	30	7	0	20	25	5	409	0
6:15 PM		0	6	78	15	0	4	118	36	0	35	18	2	0	32	26	4	374	0
6:30 PM		0	2	71	26	0	2	94	34	0	28	23	5	0	35	17	7	344	0
6:45 PM		0	4	69	16	0	2	107	28	0	25	11	0	0	22	17	3	304	1,431
Peak Hour	All	0	20	319	87	0	11	441	132	0	112	82	14	0	109	85	19	1,431	0
	HV	0	0	6	1	0	0	4	0	0	1	0	0	0	3	3	2	20	0
	HV%	-	0%	2%	1%	-	0%	1%	0%	-	1%	0%	0%	-	3%	4%	11%	1%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	4	2	1	3	*10*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 PM	1	2	0	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	7	4	1	8	*20*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**8**	**101**	**30**	**0**	**3**	**122**	**34**	**0**	**24**	**30**	**7**	**0**	**20**	**25**	**5**	**409**	0
6:15 PM	**0**	**6**	**78**	**15**	**0**	**4**	**118**	**36**	**0**	**35**	**18**	**2**	**0**	**32**	**26**	**4**	**374**	0
6:30 PM	**0**	**2**	**71**	**26**	**0**	**2**	**94**	**34**	**0**	**28**	**23**	**5**	**0**	**35**	**17**	**7**	**344**	0
6:45 PM	**0**	**4**	**69**	**16**	**0**	**2**	**107**	**28**	**0**	**25**	**11**	**0**	**0**	**22**	**17**	**3**	**304**	**1,431**
7:00 PM	0	7	77	30	0	4	85	21	0	23	22	1	0	28	10	10	318	1,340
7:15 PM	0	5	65	21	0	3	81	21	0	26	17	3	0	13	13	2	270	1,236
7:30 PM	0	3	63	16	0	3	85	21	0	15	12	2	0	16	12	2	250	1,142
7:45 PM	0	2	50	15	0	2	69	22	0	16	11	0	0	16	13	5	221	1,059
8:00 PM	0	3	43	14	0	5	57	28	0	17	7	0	0	18	13	3	208	949
8:15 PM	0	3	51	10	0	1	60	13	0	20	9	2	0	12	12	1	194	873
8:30 PM	0	2	47	5	0	2	55	13	0	12	10	2	0	11	10	3	172	795
8:45 PM	0	2	53	30	0	1	67	15	0	14	12	4	0	14	16	2	230	804
9:00 PM	0	0	38	17	0	2	52	25	0	9	12	2	0	8	14	5	184	780
9:15 PM	0	4	22	11	0	4	37	17	0	11	7	2	0	14	8	6	143	729
9:30 PM	0	1	25	10	0	2	39	10	0	3	11	2	0	10	5	4	122	679
9:45 PM	0	0	32	7	0	1	44	9	0	6	7	2	0	6	4	1	119	568
10:00 PM	0	3	38	16	0	2	32	13	0	11	8	0	0	7	9	0	139	523
10:15 PM	0	1	21	8	0	0	29	13	0	6	3	1	0	2	3	0	87	467
10:30 PM	0	0	20	6	0	1	25	12	0	9	6	1	0	2	3	2	87	432
10:45 PM	0	1	18	4	0	1	25	3	0	1	4	0	0	2	2	1	62	375
11:00 PM	0	0	13	6	0	1	27	4	0	4	7	0	0	3	1	0	66	302
11:15 PM	0	1	14	2	0	0	23	9	0	1	3	2	0	4	1	0	60	275
11:30 PM	0	1	8	0	0	0	11	5	0	3	3	0	0	4	2	0	37	225
11:45 PM	0	1	3	1	0	0	15	2	0	0	1	1	0	0	1	0	25	188
Count Total	0	60	1,020	316	0	46	1,359	408	0	319	254	41	0	299	237	66	4,425	0
Peak Hour All	**0**	**20**	**319**	**87**	**0**	**11**	**441**	**132**	**0**	**112**	**82**	**14**	**0**	**109**	**85**	**19**	**1,431**	**0**
Peak Hour HV	**0**	**0**	**6**	**1**	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**3**	**2**	**20**	**0**
Peak Hour HV%	**-**	**0%**	**2%**	**1%**	**-**	**0%**	**1%**	**0%**	**-**	**1%**	**0%**	**0%**	**-**	**3%**	**4%**	**11%**	**1%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 PM	**4**	**2**	**1**	**3**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:15 PM	**1**	**0**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:30 PM	**1**	**0**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
6:45 PM	**1**	**2**	**0**	**3**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
7:00 PM	5	1	0	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 PM	2	0	1	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 PM	2	0	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 PM	2	0	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 PM	3	0	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 PM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 PM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 PM	2	2	0	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	1	0	*1*
9:15 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 PM	2	0	1	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
9:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
10:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
11:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
11:45 PM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	29	16	3	15	*63*	0	0	0	0	*0*	0	0	1	0	*1*
Peak Hour	**7**	**4**	**1**	**8**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Main St Eastbound				Main St Westbound				Mandan Ave Northbound				Mandan Ave Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 PM	**0**	**0**	**3**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**1**	**10**	0
6:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	0
6:30 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	0
6:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**6**	**20**
7:00 PM	0	2	2	1	0	0	1	0	0	0	0	0	0	0	0	1	7	17
7:15 PM	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3	18
7:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	18
7:45 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	4	16
8:00 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	12
8:15 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3	12
8:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	12
8:45 PM	0	0	2	0	0	0	1	1	0	0	0	0	0	0	0	1	5	13
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	11
9:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	10
9:30 PM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	4	12
9:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	8
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
11:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	3
11:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
11:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	6
Count Total	0	6	21	2	0	1	13	2	0	2	1	0	0	4	3	8	63	0
Peak Hour	**0**	**0**	**6**	**1**	**0**	**0**	**4**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**3**	**2**	**20**	**0**

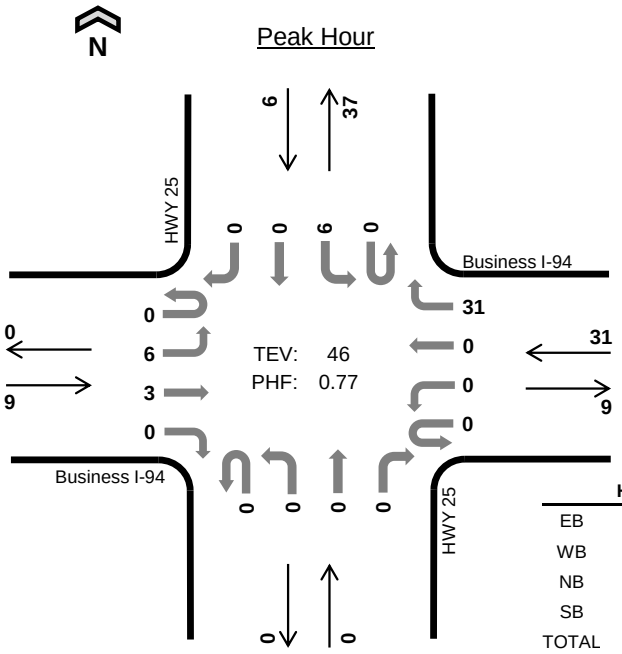
Six-Hour Count Summaries - Bikes

Interval Start	Main St Eastbound			Main St Westbound			Mandan Ave Northbound			Mandan Ave Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 PM	**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
6:30 PM	**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**
7:00 PM	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
7:30 PM	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
8:00 PM	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
8:30 PM	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
9:00 PM	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
9:30 PM	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
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

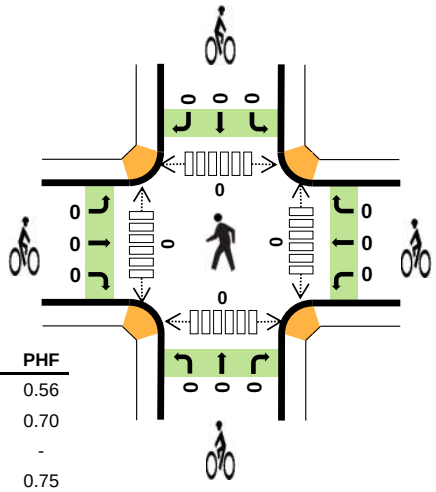
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
Business I-94

Date: 11/29/2022
Count Period: 12:00 AM to 6:00 AM
Peak Hour: 5:00 AM to 6:00 AM



	HV %:	PHF
EB	0.0%	0.56
WB	0.0%	0.70
NB	-	-
SB	0.0%	0.75
TOTAL	0.0%	0.77



Six-Hour Count Summaries

Interval Start		Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 AM		0	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0	9	0
5:15 AM		0	0	2	0	0	0	0	11	0	0	0	0	0	2	0	0	15	0
5:30 AM		0	3	1	0	0	0	0	5	0	0	0	0	0	2	0	0	11	0
5:45 AM		0	2	0	0	0	0	0	7	0	0	0	0	0	2	0	0	11	46
Peak Hour	All	0	6	3	0	0	0	0	31	0	0	0	0	0	6	0	0	46	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	0%	0%	-	-	-	-	0%	-	-	-	-	-	0%	-	-	0%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
12:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	3	0
12:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	5
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	8
1:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	3	10
1:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	9
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	8
2:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	7
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6
2:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	6
3:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	6
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
3:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	5
3:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	6
4:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	5
4:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	3	7
4:30 AM	0	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5	11
4:45 AM	0	0	0	0	0	0	0	4	0	0	1	0	0	1	0	0	6	15
5:00 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	23
5:15 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**15**	35
5:30 AM	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**11**	41
5:45 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**11**	**46**
Count Total	0	8	3	0	0	0	1	52	0	0	1	1	0	17	2	2	87	0
Peak Hour All	**0**	**6**	**3**	**0**	**0**	**0**	**0**	**31**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**46**	**0**
Peak Hour HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Peak Hour HV%	**-**	**0%**	**0%**	**-**	**-**	**-**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**-**	**0%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
1:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

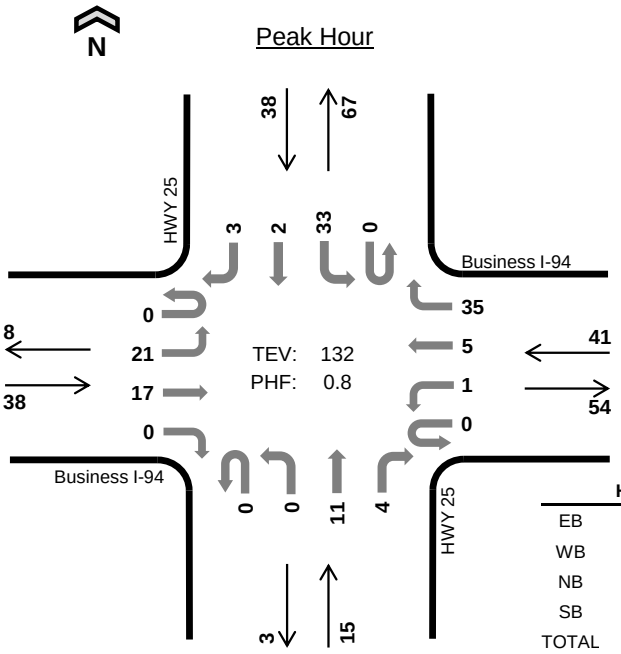
Six-Hour Count Summaries - Bikes

Interval Start	Business I-94 Eastbound			Business I-94 Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

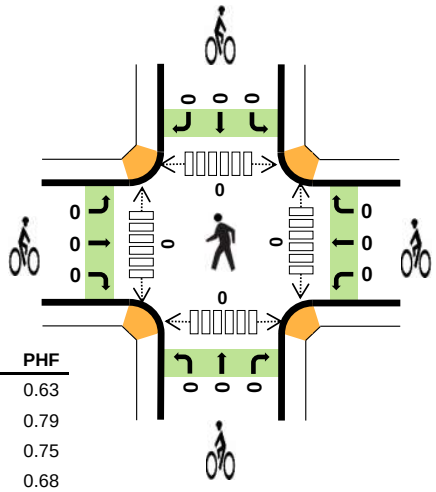
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
Business I-94

Date: 11/29/2022
Count Period: 6:00 AM to 12:00 PM
Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	2.6%	0.63
WB	7.3%	0.79
NB	0.0%	0.75
SB	7.9%	0.68
TOTAL	5.3%	0.80



Six-Hour Count Summaries

Interval Start		Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	8	2	0	0	1	1	11	0	0	3	1	0	13	1	0	41	0
7:30 AM		0	8	7	0	0	0	2	8	0	0	3	1	0	9	1	0	39	0
7:45 AM		0	2	2	0	0	0	0	7	0	0	1	1	0	6	0	2	21	0
8:00 AM		0	3	6	0	0	0	2	9	0	0	4	1	0	5	0	1	31	132
Peak Hour	All	0	21	17	0	0	1	5	35	0	0	11	4	0	33	2	3	132	0
	HV	0	0	1	0	0	0	0	3	0	0	0	0	0	3	0	0	7	0
	HV%	-	0%	6%	-	-	0%	0%	9%	-	-	0%	0%	-	9%	0%	0%	5%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:15 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	1	2	0	2	*5*	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	0	*0*
8:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	3	0	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	2	2	0	0	0	0	12	0	0	0	1	0	2	0	0	19	0
6:15 AM	0	2	0	0	0	1	0	5	0	0	0	1	0	6	0	1	16	0
6:30 AM	0	3	3	0	0	0	0	3	0	0	0	0	0	8	1	1	19	0
6:45 AM	0	4	3	0	0	2	0	5	0	0	0	0	0	7	2	0	23	77
7:00 AM	0	3	0	0	0	1	2	6	0	0	1	1	0	9	0	0	23	81
7:15 AM	**0**	**8**	**2**	**0**	**0**	**1**	**1**	**11**	**0**	**0**	**3**	**1**	**0**	**13**	**1**	**0**	**41**	106
7:30 AM	**0**	**8**	**7**	**0**	**0**	**0**	**2**	**8**	**0**	**0**	**3**	**1**	**0**	**9**	**1**	**0**	**39**	126
7:45 AM	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**1**	**1**	**0**	**6**	**0**	**2**	**21**	124
8:00 AM	**0**	**3**	**6**	**0**	**0**	**0**	**2**	**9**	**0**	**0**	**4**	**1**	**0**	**5**	**0**	**1**	**31**	**132**
8:15 AM	0	4	3	0	0	0	1	9	0	0	0	0	0	6	0	2	25	116
8:30 AM	0	2	4	0	0	0	3	10	0	0	0	0	0	4	0	1	24	101
8:45 AM	0	1	2	0	0	0	1	7	0	0	1	0	0	5	0	0	17	97
9:00 AM	0	1	6	1	0	0	1	6	0	0	2	0	0	10	1	2	30	96
9:15 AM	0	1	3	1	0	0	2	9	0	0	0	0	0	2	2	0	20	91
9:30 AM	0	4	6	0	0	0	4	4	0	0	0	0	0	2	1	1	22	89
9:45 AM	0	4	4	0	0	0	0	1	0	0	0	0	0	2	0	0	11	83
10:00 AM	0	4	1	0	0	0	1	4	0	0	0	0	0	4	0	0	14	67
10:15 AM	0	0	6	0	1	0	1	8	0	0	1	1	0	7	0	1	26	73
10:30 AM	0	3	0	0	0	0	0	6	0	0	0	0	0	10	0	1	20	71
10:45 AM	0	0	3	0	1	0	1	1	0	0	0	0	0	4	1	3	14	74
11:00 AM	0	0	4	0	0	0	2	5	0	0	0	0	0	5	1	0	17	77
11:15 AM	0	0	3	0	0	0	5	4	0	1	1	0	0	9	0	1	24	75
11:30 AM	0	3	1	0	0	1	1	8	0	0	2	0	0	9	0	0	25	80
11:45 AM	0	1	2	0	0	1	2	7	0	0	0	1	0	8	0	0	22	88
Count Total	0	63	73	2	2	7	32	155	0	1	19	9	0	152	11	17	543	0
Peak Hour All	**0**	**21**	**17**	**0**	**0**	**1**	**5**	**35**	**0**	**0**	**11**	**4**	**0**	**33**	**2**	**3**	**132**	**0**
Peak Hour HV	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**7**	**0**
Peak Hour HV%	**-**	**0%**	**6%**	**-**	**-**	**0%**	**0%**	**9%**	**-**	**-**	**0%**	**0%**	**-**	**9%**	**0%**	**0%**	**5%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
6:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
6:30 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
6:45 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:00 AM	0	2	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**1**	**2**	**0**	**2**	***5***	**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**	**0**	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
9:00 AM	1	1	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
9:15 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
9:30 AM	2	3	0	1	*6*	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*
10:00 AM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:15 AM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
10:30 AM	0	3	0	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
10:45 AM	0	2	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
11:00 AM	0	2	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
11:15 AM	0	1	0	4	*5*	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*
11:45 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	4	32	0	21	*57*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**1**	**3**	**0**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
6:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0
6:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
6:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	0
6:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	7
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	4	9
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	10
7:30 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**5**	13
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	11
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	6
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
9:00 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	2	0	0	4	6
9:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	7
9:30 AM	0	0	2	0	0	0	1	2	0	0	0	0	0	1	0	0	6	12
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
10:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	3	11
10:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	12
10:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	4	10
10:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	4	14
11:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	4	15
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0	5	17
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
11:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	11
Count Total	0	0	4	0	1	0	3	28	0	0	0	0	0	21	0	0	57	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**7**	**0**

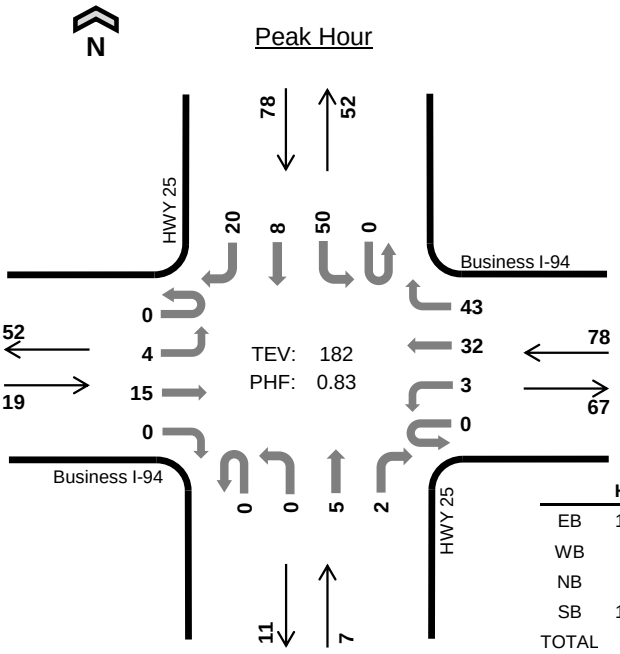
Six-Hour Count Summaries - Bikes

Interval Start	Business I-94 Eastbound			Business I-94 Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
6:00 AM	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
6:30 AM	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
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:30 AM	**0**	**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**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	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
9:30 AM	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
10:00 AM	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
10:30 AM	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
11:00 AM	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
11:30 AM	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
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

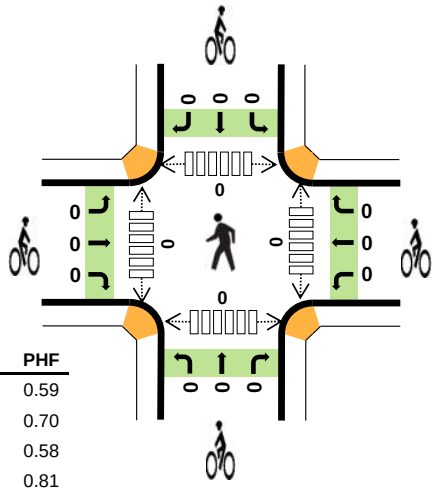
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

HWY 25
Business I-94

Date: 11/29/2022
Count Period: 12:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	10.5%	0.59
WB	5.1%	0.70
NB	0.0%	0.58
SB	12.8%	0.81
TOTAL	8.8%	0.83



Six-Hour Count Summaries

Interval Start		Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:15 PM		0	1	3	0	0	1	13	14	0	0	1	0	0	14	1	7	55	0
4:30 PM		0	1	7	0	0	1	7	11	0	0	1	0	0	9	3	7	47	0
4:45 PM		0	1	4	0	0	1	8	7	0	0	2	1	0	16	3	5	48	0
5:00 PM		0	1	1	0	0	0	4	11	0	0	1	1	0	11	1	1	32	182
Peak Hour	All	0	4	15	0	0	3	32	43	0	0	5	2	0	50	8	20	182	0
	HV	0	1	1	0	0	0	1	3	0	0	0	0	0	8	1	1	16	0
	HV%	-	25%	7%	-	-	0%	3%	7%	-	-	0%	0%	-	16%	13%	5%	9%	0

Note: For all three-hour count summary, see next page.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:15 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	1	1	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	1	1	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	0	1	0	5	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	2	4	0	10	*16*	0	0	0	0	*0*	0	0	0	0	*0*

Six-Hour Count Summaries

Interval Start	Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	5	4	0	0	0	1	4	0	0	1	0	0	3	1	2	21	0
12:15 PM	0	1	5	0	0	0	3	5	0	0	1	0	0	4	0	1	20	0
12:30 PM	0	2	2	0	0	0	1	4	0	0	1	0	0	9	2	1	22	0
12:45 PM	0	0	1	0	0	0	4	2	0	1	0	0	0	11	1	1	21	84
1:00 PM	0	2	3	0	0	0	6	6	0	0	0	0	0	3	1	2	23	86
1:15 PM	0	0	4	1	0	0	0	10	0	0	0	1	0	6	1	1	24	90
1:30 PM	0	0	4	0	0	0	5	9	0	0	1	0	0	5	2	3	29	97
1:45 PM	0	1	0	0	0	1	4	6	0	1	3	0	0	7	0	1	24	100
2:00 PM	0	1	2	0	0	0	5	6	0	0	0	1	0	9	0	1	25	102
2:15 PM	0	2	5	0	0	0	5	4	0	0	0	0	0	7	1	1	25	103
2:30 PM	0	0	4	0	0	1	1	6	0	0	1	0	0	6	1	2	22	96
2:45 PM	0	0	4	0	0	0	5	8	0	0	0	0	0	12	1	3	33	105
3:00 PM	0	2	5	0	0	0	5	9	0	0	2	1	0	6	0	0	30	110
3:15 PM	0	2	3	0	0	0	3	4	0	0	0	1	0	6	0	0	19	104
3:30 PM	0	1	2	0	0	0	7	15	0	0	0	1	0	3	4	1	34	116
3:45 PM	0	1	3	0	1	1	8	9	0	0	0	0	0	5	0	4	32	115
4:00 PM	0	2	3	0	0	1	3	6	0	0	0	0	0	9	1	2	27	112
4:15 PM	**0**	**1**	**3**	**0**	**0**	**1**	**13**	**14**	**0**	**0**	**1**	**0**	**0**	**14**	**1**	**7**	**55**	148
4:30 PM	**0**	**1**	**7**	**0**	**0**	**1**	**7**	**11**	**0**	**0**	**1**	**0**	**0**	**9**	**3**	**7**	**47**	161
4:45 PM	**0**	**1**	**4**	**0**	**0**	**1**	**8**	**7**	**0**	**0**	**2**	**1**	**0**	**16**	**3**	**5**	**48**	177
5:00 PM	**0**	**1**	**1**	**0**	**0**	**0**	**4**	**11**	**0**	**0**	**1**	**1**	**0**	**11**	**1**	**1**	**32**	**182**
5:15 PM	0	1	4	0	0	0	5	11	0	0	1	0	0	9	2	6	39	166
5:30 PM	0	2	1	0	0	0	7	6	0	1	3	1	0	5	2	3	31	150
5:45 PM	0	2	3	0	0	1	5	6	0	0	0	0	0	9	1	5	32	134
Count Total	0	31	77	1	1	8	115	179	0	3	19	8	0	184	29	60	715	0
Peak Hour All	**0**	**4**	**15**	**0**	**0**	**3**	**32**	**43**	**0**	**0**	**5**	**2**	**0**	**50**	**8**	**20**	**182**	**0**
Peak Hour HV	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**8**	**1**	**1**	**16**	**0**
Peak Hour HV%	**-**	**25%**	**7%**	**-**	**-**	**0%**	**3%**	**7%**	**-**	**-**	**0%**	**0%**	**-**	**16%**	**13%**	**5%**	**9%**	**0**

Note: Six-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
12:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
12:15 PM	1	2	0	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
12:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
12:45 PM	0	0	0	4	*4*	0	0	0	0	*0*	0	0	0	0	*0*
1:00 PM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
1:15 PM	0	3	0	1	*4*	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*
1:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
2:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
2:15 PM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:30 PM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
2:45 PM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
3:00 PM	1	0	0	3	*4*	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*
3:30 PM	0	2	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
3:45 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:00 PM	0	1	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**1**	**1**	**0**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**1**	**1**	**0**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**1**	**0**	**5**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:15 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	2	0	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	6	21	0	40	*67*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**2**	**4**	**0**	**10**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Six-Hour Count Summaries - Heavy Vehicles

Interval Start	Business I-94 Eastbound				Business I-94 Westbound				HWY 25 Northbound				HWY 25 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	1	0	0	0	0	2	0	0	0	0	0	3	0	0	6	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	11
1:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	3	14
1:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	4	12
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
2:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	4
2:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	3	7
2:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	3	9
3:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	4	13
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
3:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	4	11
3:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	10
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	4	10
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	12
4:30 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**4**	12
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**4**	14
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**6**	**16**
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	16
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	14
5:45 PM	0	1	0	0	0	0	0	2	0	0	0	0	0	2	0	0	5	15
Count Total	0	3	3	0	0	0	2	19	0	0	0	0	0	37	1	2	67	0
Peak Hour	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**8**	**1**	**1**	**16**	**0**

Six-Hour Count Summaries - Bikes

Interval Start	Business I-94 Eastbound			Business I-94 Westbound			HWY 25 Northbound			HWY 25 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
12:00 PM	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
12:30 PM	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
1:00 PM	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
1:30 PM	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
2:00 PM	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
2:30 PM	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
3:00 PM	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
3:30 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**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**	0
5:00 PM	**0**	**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	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange

Appendix A.2: Average Daily Traffic & ATR Counts

Vehicle Classification Report Summary

Location: Sunset Dr BTWN I-94 Ramps

Count Direction: Northbound / Southbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 01

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	17	8,883	6,812	41	3,987	81	0	17	41	8	1	1	3	19,892
Percent	0.1%	44.7%	34.2%	0.2%	20.0%	0.4%	0.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	47	33,167	9,931	31	3,201	205	0	55	122	50	3	0	26	46,838
Percent	0.1%	70.8%	21.2%	0.1%	6.8%	0.4%	0.0%	0.1%	0.3%	0.1%	0.0%	0.0%	0.1%	100%
Total	64	42,050	16,743	72	7,188	286	0	72	163	58	4	1	29	66,730
Percent	0.1%	63.0%	25.1%	0.1%	10.8%	0.4%	0.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Monday, November 28, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	2	0	2	0	0	0	0	0	0	0	0	**11**
1:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	2	3	0	1	1	0	0	0	0	0	0	0	**7**
3:00 AM	0	6	6	0	5	0	0	0	0	0	0	0	0	**17**
4:00 AM	0	15	7	0	9	1	0	0	0	0	0	0	0	**32**
5:00 AM	0	28	10	0	23	0	0	0	0	0	0	0	0	**61**
6:00 AM	0	31	25	0	17	0	0	0	1	0	0	0	0	**74**
7:00 AM	0	169	68	0	48	1	0	0	0	0	0	0	0	**286**
8:00 AM	0	129	93	1	61	1	0	0	0	0	0	0	0	**285**
9:00 AM	0	57	46	0	35	1	0	1	0	0	0	0	0	**140**
10:00 AM	0	79	47	4	38	2	0	0	0	0	0	0	0	**170**
11:00 AM	0	76	56	1	55	2	0	0	1	0	0	0	0	**191**
12:00 PM	2	87	79	0	60	1	0	0	0	0	0	0	0	**229**
1:00 PM	0	103	71	0	38	2	0	0	1	0	0	0	0	**215**
2:00 PM	0	116	83	0	49	0	0	0	0	0	0	0	0	**248**
3:00 PM	1	204	139	1	85	4	0	0	0	1	0	0	0	**435**
4:00 PM	0	132	105	2	62	1	0	0	0	0	0	0	0	**302**
5:00 PM	0	137	97	0	53	0	0	0	1	0	0	0	0	**288**
6:00 PM	0	118	80	0	39	0	0	0	1	0	0	0	0	**238**
7:00 PM	0	72	66	0	32	0	0	0	0	0	0	0	0	**170**
8:00 PM	1	24	34	0	20	0	0	0	1	0	0	0	0	**80**
9:00 PM	0	21	27	0	8	0	0	0	1	0	0	0	0	**57**
10:00 PM	0	14	17	0	11	0	0	0	0	0	0	0	0	**42**
11:00 PM	0	9	8	0	7	0	0	0	0	0	0	0	1	**25**
Total	**4**	**1,637**	**1,171**	**9**	**758**	**17**	**0**	**1**	**7**	**1**	**0**	**0**	**1**	**3,606**
Percent	**0.1%**	**45.4%**	**32.5%**	**0.2%**	**21.0%**	**0.5%**	**0.0%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Monday, November 28, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	16	4	0	0	0	0	0	0	0	0	0	0	**20**
1:00 AM	0	11	2	0	0	0	0	0	1	0	0	0	0	**14**
2:00 AM	0	10	3	0	0	1	0	0	1	0	0	0	0	**15**
3:00 AM	0	13	4	0	1	0	0	1	0	0	0	0	0	**19**
4:00 AM	0	30	11	0	6	2	0	1	2	0	0	0	0	**52**
5:00 AM	0	87	34	0	5	1	0	0	1	0	0	0	0	**128**
6:00 AM	0	196	68	0	23	0	0	0	0	1	0	0	0	**288**
7:00 AM	4	646	143	0	33	1	0	1	3	1	1	0	1	**834**
8:00 AM	0	494	167	0	58	2	0	1	1	0	0	0	0	**723**
9:00 AM	0	221	77	3	37	6	0	0	3	0	0	0	0	**347**
10:00 AM	2	227	71	2	34	4	0	1	1	0	0	0	0	**342**
11:00 AM	0	301	113	2	30	2	0	3	1	0	0	0	1	**453**
12:00 PM	0	329	104	1	35	2	0	0	2	0	0	0	1	**474**
1:00 PM	0	288	113	0	38	1	0	1	2	0	0	0	0	**443**
2:00 PM	1	313	119	0	24	3	0	0	2	0	0	0	1	**463**
3:00 PM	1	529	158	1	51	3	0	0	2	5	0	0	0	**750**
4:00 PM	1	540	165	2	55	6	0	0	3	2	0	0	0	**774**
5:00 PM	1	604	221	0	50	2	0	0	1	0	0	0	1	**880**
6:00 PM	0	402	125	0	24	0	0	0	0	0	0	0	0	**551**
7:00 PM	0	235	61	1	15	1	0	0	0	0	0	0	0	**313**
8:00 PM	0	161	32	0	9	0	0	0	0	1	0	0	0	**203**
9:00 PM	0	130	32	1	6	0	0	0	1	0	0	0	1	**171**
10:00 PM	0	78	13	0	5	0	0	0	0	0	0	0	0	**96**
11:00 PM	0	58	17	0	1	1	0	0	0	0	0	0	0	**77**
Total	**10**	**5,919**	**1,857**	**13**	**540**	**38**	**0**	**9**	**27**	**10**	**1**	**0**	**6**	**8,430**
Percent	**0.1%**	**70.2%**	**22.0%**	**0.2%**	**6.4%**	**0.5%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.1%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Tuesday, November 29, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	4	3	0	2	0	0	0	1	0	0	0	0	**10**
1:00 AM	0	2	1	0	0	0	0	0	1	0	0	0	0	**4**
2:00 AM	0	1	3	0	0	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	4	7	0	2	0	0	0	0	0	0	0	0	**13**
4:00 AM	0	13	4	0	6	0	0	0	1	0	0	0	0	**24**
5:00 AM	0	25	14	0	19	1	0	0	0	0	0	0	0	**59**
6:00 AM	0	29	22	0	19	1	0	0	0	0	0	0	0	**71**
7:00 AM	0	147	68	0	48	1	0	0	0	1	0	0	0	**265**
8:00 AM	0	143	114	2	61	5	0	1	0	0	0	0	0	**326**
9:00 AM	0	51	48	3	32	1	0	0	0	0	0	0	0	**135**
10:00 AM	0	56	60	0	33	4	0	1	1	0	0	0	0	**155**
11:00 AM	0	78	87	0	48	0	0	0	1	0	0	0	0	**214**
12:00 PM	0	80	79	0	41	1	0	0	0	1	0	0	0	**202**
1:00 PM	2	61	89	0	47	2	0	0	0	0	0	0	0	**201**
2:00 PM	0	80	100	0	57	0	0	1	1	0	0	0	0	**239**
3:00 PM	0	160	141	0	67	2	0	0	0	0	0	0	0	**370**
4:00 PM	1	126	124	0	53	2	0	0	0	0	0	0	0	**306**
5:00 PM	0	115	120	1	60	0	0	0	0	0	0	0	0	**296**
6:00 PM	1	105	90	1	46	0	0	0	0	0	0	0	0	**243**
7:00 PM	0	51	95	0	42	0	0	0	0	0	0	0	0	**188**
8:00 PM	0	62	65	0	25	0	0	0	0	0	0	0	0	**152**
9:00 PM	0	28	27	0	16	0	0	0	1	0	0	0	0	**72**
10:00 PM	0	16	16	0	5	0	0	0	0	0	0	0	0	**37**
11:00 PM	0	4	7	0	6	0	0	0	0	0	0	0	0	**17**
Total	**4**	**1,441**	**1,384**	**7**	**735**	**20**	**0**	**3**	**7**	**2**	**0**	**0**	**0**	**3,603**
Percent	**0.1%**	**40.0%**	**38.4%**	**0.2%**	**20.4%**	**0.6%**	**0.0%**	**0.1%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

TJ Wethington
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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Tuesday, November 29, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	37	6	0	1	0	0	0	0	0	0	0	0	**44**
1:00 AM	0	15	3	0	0	0	0	0	1	0	0	0	0	**19**
2:00 AM	0	9	5	0	2	0	0	1	0	0	0	0	0	**17**
3:00 AM	0	10	2	0	2	0	0	1	0	1	0	0	0	**16**
4:00 AM	0	43	13	0	7	0	0	1	2	0	0	0	0	**66**
5:00 AM	0	94	37	0	5	1	0	0	2	0	0	0	0	**139**
6:00 AM	2	175	64	0	22	2	0	0	2	0	0	0	0	**267**
7:00 AM	3	702	143	0	43	9	0	4	1	3	0	0	1	**909**
8:00 AM	2	557	135	1	53	7	0	0	2	1	0	0	0	**758**
9:00 AM	2	249	74	0	32	1	0	0	0	0	0	0	0	**358**
10:00 AM	0	235	99	0	30	6	0	0	5	0	0	0	0	**375**
11:00 AM	0	313	100	0	42	5	0	0	2	1	0	0	1	**464**
12:00 PM	0	325	125	0	37	2	0	0	0	1	0	0	0	**490**
1:00 PM	1	291	105	0	43	1	0	0	2	1	0	0	0	**444**
2:00 PM	0	335	127	0	45	3	0	0	1	2	0	0	0	**513**
3:00 PM	2	578	145	1	60	2	0	0	1	1	0	0	3	**793**
4:00 PM	2	559	179	0	52	1	0	1	0	1	0	0	0	**795**
5:00 PM	1	644	204	0	59	1	0	2	0	2	0	0	0	**913**
6:00 PM	0	401	115	0	25	1	0	0	0	1	0	0	0	**543**
7:00 PM	0	223	66	0	24	0	0	0	0	0	0	0	0	**313**
8:00 PM	2	182	47	0	10	2	0	0	0	0	0	0	0	**243**
9:00 PM	0	134	30	0	4	1	0	0	0	0	0	0	0	**169**
10:00 PM	0	63	14	0	5	0	0	0	0	0	0	0	0	**82**
11:00 PM	0	39	14	0	3	0	0	0	1	0	0	0	0	**57**
Total	**17**	**6,213**	**1,852**	**2**	**606**	**45**	**0**	**10**	**22**	**15**	**0**	**0**	**5**	**8,787**
Percent	**0.2%**	**70.7%**	**21.1%**	**0.0%**	**6.9%**	**0.5%**	**0.0%**	**0.1%**	**0.3%**	**0.2%**	**0.0%**	**0.0%**	**0.1%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Wednesday, November 30, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	8	0	0	0	0	0	1	0	0	0	0	**14**
1:00 AM	0	2	4	0	5	0	0	0	0	0	0	0	0	**11**
2:00 AM	0	3	12	0	0	0	0	0	0	0	0	0	0	**15**
3:00 AM	0	5	9	0	2	0	0	0	0	0	0	0	0	**16**
4:00 AM	0	6	12	0	11	0	0	0	2	0	0	0	0	**31**
5:00 AM	0	21	16	0	16	0	0	0	0	0	0	0	0	**53**
6:00 AM	1	34	31	0	20	0	0	0	1	0	0	0	0	**87**
7:00 AM	1	176	78	0	45	1	0	0	0	0	0	0	0	**301**
8:00 AM	0	125	113	1	60	3	0	0	0	0	0	0	0	**302**
9:00 AM	0	66	56	4	32	7	0	0	0	1	0	0	0	**166**
10:00 AM	1	60	60	2	42	5	0	0	1	0	0	0	0	**171**
11:00 AM	0	76	80	1	39	3	0	0	1	0	0	0	0	**200**
12:00 PM	0	103	73	4	40	1	0	0	0	0	0	0	0	**221**
1:00 PM	0	82	82	1	45	0	0	1	0	0	0	0	0	**211**
2:00 PM	0	94	78	0	41	1	0	0	0	0	0	0	0	**214**
3:00 PM	0	147	145	0	68	0	0	0	1	0	0	0	0	**361**
4:00 PM	1	128	116	1	53	1	0	0	0	0	0	0	0	**300**
5:00 PM	0	133	123	0	41	2	0	0	0	0	0	0	0	**299**
6:00 PM	0	92	86	0	42	0	0	0	0	1	0	0	0	**221**
7:00 PM	0	58	72	0	34	0	0	0	0	0	0	0	0	**164**
8:00 PM	0	51	52	0	33	0	0	0	0	0	0	0	0	**136**
9:00 PM	0	29	32	0	18	2	0	0	0	0	0	0	0	**81**
10:00 PM	0	14	13	0	13	0	0	0	0	0	0	0	0	**40**
11:00 PM	0	5	8	0	7	0	0	0	0	0	0	0	0	**20**
Total	**4**	**1,515**	**1,359**	**14**	**707**	**26**	**0**	**1**	**7**	**2**	**0**	**0**	**0**	**3,635**
Percent	**0.1%**	**41.7%**	**37.4%**	**0.4%**	**19.4%**	**0.7%**	**0.0%**	**0.0%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Wednesday, November 30, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	40	6	0	2	0	0	0	1	0	0	0	0	**49**
1:00 AM	0	17	3	0	3	0	0	0	1	0	0	0	0	**24**
2:00 AM	0	11	1	0	0	0	0	0	0	0	0	0	0	**12**
3:00 AM	0	8	8	0	1	0	0	1	0	0	0	0	0	**18**
4:00 AM	0	37	9	0	9	0	0	2	1	0	0	0	0	**58**
5:00 AM	0	96	29	0	13	2	0	1	4	0	0	0	1	**146**
6:00 AM	0	190	73	0	23	0	0	1	0	0	0	0	0	**287**
7:00 AM	1	657	128	1	45	2	0	2	1	2	0	0	2	**841**
8:00 AM	2	501	157	1	61	9	0	1	0	4	0	0	1	**737**
9:00 AM	0	210	93	0	33	2	0	0	2	1	0	0	0	**341**
10:00 AM	0	238	77	0	32	3	0	1	1	0	0	0	1	**353**
11:00 AM	0	330	106	1	38	4	0	0	7	0	0	0	1	**487**
12:00 PM	1	317	93	0	38	3	0	0	1	2	0	0	0	**455**
1:00 PM	0	318	132	0	40	3	0	0	1	1	0	0	0	**495**
2:00 PM	0	362	106	0	34	1	0	1	0	0	0	0	0	**504**
3:00 PM	0	574	149	0	68	0	0	0	1	1	1	0	0	**794**
4:00 PM	1	654	170	1	66	6	0	0	1	0	0	0	1	**900**
5:00 PM	2	587	196	0	51	3	0	0	0	0	0	0	1	**840**
6:00 PM	0	391	107	0	38	0	0	0	2	0	0	0	0	**538**
7:00 PM	0	211	56	0	21	0	0	0	1	0	0	0	0	**289**
8:00 PM	0	196	49	0	14	2	0	0	0	0	0	0	0	**261**
9:00 PM	0	143	37	0	17	0	0	0	0	0	0	0	0	**197**
10:00 PM	0	69	26	0	6	0	0	0	0	0	0	0	0	**101**
11:00 PM	0	47	11	0	3	0	0	0	0	0	0	0	0	**61**
Total	**7**	**6,204**	**1,822**	**4**	**656**	**40**	**0**	**10**	**25**	**11**	**1**	**0**	**8**	**8,788**
Percent	**0.1%**	**70.6%**	**20.7%**	**0.0%**	**7.5%**	**0.5%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.1%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Thursday, December 1, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	7	0	5	0	0	0	0	1	0	0	0	**16**
1:00 AM	0	2	3	0	1	0	0	0	1	0	0	0	0	**7**
2:00 AM	0	6	6	0	0	0	0	0	0	0	0	0	0	**12**
3:00 AM	0	5	9	0	1	0	0	0	0	0	0	0	0	**15**
4:00 AM	0	13	10	0	7	0	0	0	1	0	0	0	0	**31**
5:00 AM	0	19	14	0	16	1	0	0	0	0	0	0	0	**50**
6:00 AM	0	38	18	0	27	0	0	0	1	0	0	0	0	**84**
7:00 AM	0	146	83	0	54	2	0	0	0	0	0	0	0	**285**
8:00 AM	0	129	107	0	51	1	0	0	0	0	0	0	0	**288**
9:00 AM	0	55	65	1	37	2	0	1	1	0	0	0	0	**162**
10:00 AM	0	91	64	4	30	2	0	1	1	0	0	0	1	**194**
11:00 AM	0	92	68	0	46	0	0	1	0	0	0	0	0	**207**
12:00 PM	3	103	110	3	49	2	0	0	0	0	0	0	0	**270**
1:00 PM	0	85	86	0	41	1	0	2	1	0	0	0	0	**216**
2:00 PM	0	109	104	1	48	0	0	1	0	1	0	0	0	**264**
3:00 PM	0	207	175	0	72	1	0	0	0	0	0	0	0	**455**
4:00 PM	0	177	138	0	72	1	0	0	0	0	0	0	0	**388**
5:00 PM	0	148	155	1	64	2	0	0	0	0	0	1	0	**371**
6:00 PM	0	135	107	0	46	0	0	2	0	0	0	0	1	**291**
7:00 PM	0	65	59	0	44	0	0	0	0	0	0	0	0	**168**
8:00 PM	0	46	48	0	26	0	0	0	0	0	0	0	0	**120**
9:00 PM	0	30	33	0	27	0	0	0	0	0	0	0	0	**90**
10:00 PM	0	15	22	0	10	1	0	0	1	0	0	0	0	**49**
11:00 PM	0	4	6	0	6	0	0	0	0	0	0	0	0	**16**
Total	**3**	**1,723**	**1,497**	**10**	**780**	**16**	**0**	**8**	**7**	**2**	**0**	**1**	**2**	**4,049**
Percent	**0.1%**	**42.6%**	**37.0%**	**0.2%**	**19.3%**	**0.4%**	**0.0%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

TJ Wethington
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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Thursday, December 1, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	40	10	0	5	0	0	0	0	1	0	0	0	**56**
1:00 AM	0	21	2	0	2	0	0	0	1	0	0	0	0	**26**
2:00 AM	0	17	3	0	0	0	0	0	0	0	0	0	0	**20**
3:00 AM	0	14	6	0	2	0	0	2	0	0	0	0	0	**24**
4:00 AM	0	43	11	0	8	0	0	1	0	0	0	0	0	**63**
5:00 AM	0	87	30	0	12	1	0	0	1	0	0	0	0	**131**
6:00 AM	0	159	73	0	27	2	0	0	1	0	0	0	1	**263**
7:00 AM	2	584	157	2	49	2	0	0	3	1	0	0	1	**801**
8:00 AM	1	488	147	1	62	3	0	2	3	0	0	0	0	**707**
9:00 AM	0	227	77	0	48	3	0	1	4	1	0	0	0	**361**
10:00 AM	0	241	99	0	35	3	0	0	4	1	0	0	1	**384**
11:00 AM	0	311	101	0	35	1	0	0	2	0	0	0	0	**450**
12:00 PM	0	352	125	1	42	5	0	0	3	0	0	0	0	**528**
1:00 PM	0	309	90	0	34	4	0	0	2	0	0	0	0	**439**
2:00 PM	0	386	129	0	30	9	0	3	2	0	0	0	0	**559**
3:00 PM	3	685	170	1	73	3	0	0	1	0	0	0	0	**936**
4:00 PM	1	611	183	1	54	11	0	0	0	0	0	0	0	**861**
5:00 PM	0	626	195	1	61	6	0	1	0	0	0	0	1	**891**
6:00 PM	1	383	117	1	36	4	0	0	1	1	0	0	0	**544**
7:00 PM	0	284	74	0	13	0	0	1	0	0	0	0	0	**372**
8:00 PM	0	280	67	1	17	0	0	0	1	0	0	0	0	**366**
9:00 PM	0	173	43	0	16	1	0	0	0	0	0	0	0	**233**
10:00 PM	0	118	31	0	4	0	0	0	0	0	0	0	0	**153**
11:00 PM	0	43	11	0	4	0	0	0	0	0	0	0	0	**58**
Total	**8**	**6,482**	**1,951**	**9**	**669**	**58**	**0**	**11**	**29**	**5**	**0**	**0**	**4**	**9,226**
Percent	**0.1%**	**70.3%**	**21.1%**	**0.1%**	**7.3%**	**0.6%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Friday, December 2, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	3	0	2	0	0	0	1	0	0	0	0	**12**
1:00 AM	0	3	5	0	1	0	0	0	0	0	0	0	0	**9**
2:00 AM	0	4	5	0	2	0	0	0	0	0	0	0	0	**11**
3:00 AM	0	6	8	0	4	1	0	0	0	0	0	0	0	**19**
4:00 AM	0	10	8	0	5	0	0	0	0	0	0	0	0	**23**
5:00 AM	0	15	13	0	15	0	0	0	1	0	0	0	0	**44**
6:00 AM	0	24	20	0	16	0	0	0	0	0	0	0	0	**60**
7:00 AM	0	161	70	1	45	0	0	0	1	0	1	0	0	**279**
8:00 AM	0	14	8	0	2	0	0	0	0	0	0	0	0	**24**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**243**	**140**	**1**	**92**	**1**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**481**
Percent	**0.0%**	**50.5%**	**29.1%**	**0.2%**	**19.1%**	**0.2%**	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

DATA SOLUTIONS

Friday, December 2, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	45	12	0	4	0	0	0	0	0	0	0	0	**61**
1:00 AM	0	16	7	0	0	0	0	0	1	0	0	0	0	**24**
2:00 AM	0	14	5	0	1	0	0	0	0	0	0	0	0	**20**
3:00 AM	0	12	6	0	1	1	0	1	1	0	0	0	0	**22**
4:00 AM	0	31	13	0	10	0	0	1	1	0	0	0	1	**57**
5:00 AM	0	76	29	0	6	0	0	1	2	0	0	0	0	**114**
6:00 AM	0	142	55	0	23	4	0	0	1	0	0	0	0	**225**
7:00 AM	1	572	145	1	49	3	0	1	1	2	0	0	0	**775**
8:00 AM	0	47	15	0	8	0	0	0	0	0	0	0	0	**70**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**1**	**955**	**287**	**1**	**102**	**8**	**0**	**4**	**7**	**2**	**0**	**0**	**1**	**1,368**
Percent	**0.1%**	**69.8%**	**21.0%**	**0.1%**	**7.5%**	**0.6%**	**0.0%**	**0.3%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.1%**	

TJ Wethington
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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Saturday, December 3, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	30	3	0	1	0	0	0	0	0	0	0	0	**34**
10:00 AM	0	109	45	0	33	0	0	0	0	0	0	0	0	**187**
11:00 AM	0	91	56	0	33	0	0	0	1	1	0	0	0	**182**
12:00 PM	2	99	73	0	43	0	0	0	0	0	0	0	0	**217**
1:00 PM	0	117	65	0	44	0	0	0	0	0	0	0	0	**226**
2:00 PM	0	84	27	0	43	0	0	0	1	0	0	0	0	**155**
3:00 PM	0	101	47	0	36	0	0	0	0	0	0	0	0	**184**
4:00 PM	0	102	50	0	36	0	0	0	0	0	0	0	0	**188**
5:00 PM	0	129	67	0	45	0	0	0	0	0	0	0	0	**241**
6:00 PM	0	107	37	0	37	0	0	0	1	0	0	0	0	**182**
7:00 PM	0	55	53	0	30	0	0	0	0	0	0	0	0	**138**
8:00 PM	0	43	37	0	19	0	0	0	2	0	0	0	0	**101**
9:00 PM	0	31	28	0	12	0	0	0	0	0	0	0	0	**71**
10:00 PM	0	27	23	0	11	0	0	0	0	0	0	0	0	**61**
11:00 PM	0	23	9	0	8	0	0	0	1	0	0	0	0	**41**
Total	**2**	**1,148**	**620**	**0**	**431**	**0**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**2,208**
Percent	**0.1%**	**52.0%**	**28.1%**	**0.0%**	**19.5%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

DATA SOLUTIONS

Saturday, December 3, 2022
Southbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	21	9	0	0	0	0	0	0	1	0	0	0	**31**
10:00 AM	0	329	111	0	38	1	0	0	0	1	0	0	0	**480**
11:00 AM	0	388	95	0	29	3	0	2	1	1	0	0	0	**519**
12:00 PM	0	329	101	0	28	0	0	0	2	0	0	0	0	**460**
1:00 PM	0	325	105	0	23	0	0	3	0	1	0	0	0	**457**
2:00 PM	0	331	92	0	26	0	0	0	0	0	0	0	0	**449**
3:00 PM	0	333	105	0	26	1	0	0	0	1	0	0	0	**466**
4:00 PM	1	456	126	2	51	0	0	0	0	0	0	0	0	**636**
5:00 PM	0	309	63	0	26	2	0	0	0	0	0	0	1	**401**
6:00 PM	0	278	78	0	18	0	0	1	0	0	0	0	0	**375**
7:00 PM	0	194	69	0	18	2	0	0	0	0	0	0	0	**283**
8:00 PM	0	158	50	0	20	0	0	0	1	0	0	0	0	**229**
9:00 PM	0	157	46	0	13	0	0	0	0	0	0	0	0	**216**
10:00 PM	0	133	32	0	11	0	0	0	0	0	0	0	0	**176**
11:00 PM	0	73	24	0	14	0	0	0	0	0	0	0	0	**111**
Total	**1**	**3,814**	**1,106**	**2**	**341**	**9**	**0**	**6**	**4**	**5**	**0**	**0**	**1**	**5,289**
Percent	**0.0%**	**72.1%**	**20.9%**	**0.0%**	**6.4%**	**0.2%**	**0.0%**	**0.1%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Sunday, December 4, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	14	6	0	6	0	0	0	0	0	0	0	0	**26**
1:00 AM	0	4	7	0	5	0	0	0	0	0	0	0	0	**16**
2:00 AM	0	4	4	0	4	0	0	0	0	0	0	0	0	**12**
3:00 AM	0	7	4	0	2	0	0	0	0	0	0	0	0	**13**
4:00 AM	0	5	6	0	4	0	0	0	0	0	0	0	0	**15**
5:00 AM	0	4	3	0	2	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	13	4	0	1	0	0	0	0	0	0	0	0	**18**
7:00 AM	0	9	8	0	11	0	0	0	0	0	0	0	0	**28**
8:00 AM	0	41	16	0	11	0	0	0	2	0	0	0	0	**70**
9:00 AM	0	68	48	0	34	0	0	0	0	0	0	0	0	**150**
10:00 AM	0	86	57	0	31	0	0	1	0	0	0	0	0	**175**
11:00 AM	0	116	58	0	45	0	0	0	1	0	0	0	0	**220**
12:00 PM	0	105	46	0	48	0	0	0	0	0	0	0	0	**199**
1:00 PM	0	88	44	0	45	0	0	0	0	0	0	0	0	**177**
2:00 PM	0	101	54	0	40	0	0	0	1	0	0	0	0	**196**
3:00 PM	0	95	57	0	34	1	0	2	0	0	0	0	0	**189**
4:00 PM	0	96	56	0	27	0	0	0	0	0	0	0	0	**179**
5:00 PM	0	71	39	0	43	0	0	0	0	0	0	0	0	**153**
6:00 PM	0	78	41	0	31	0	0	1	0	0	0	0	0	**151**
7:00 PM	0	75	46	0	26	0	0	0	0	0	0	0	0	**147**
8:00 PM	0	38	24	0	15	0	0	0	0	0	0	0	0	**77**
9:00 PM	0	32	5	0	8	0	0	0	0	0	0	0	0	**45**
10:00 PM	0	21	4	0	8	0	0	0	0	0	0	0	0	**33**
11:00 PM	0	5	4	0	3	0	0	0	0	0	0	0	0	**12**
Total	**0**	**1,176**	**641**	**0**	**484**	**1**	**0**	**4**	**4**	**0**	**0**	**0**	**0**	**2,310**
Percent	**0.0%**	**50.9%**	**27.7%**	**0.0%**	**21.0%**	**0.0%**	**0.0%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

DATA SOLUTIONS

Sunday, December 4, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	63	17	0	8	0	0	0	0	0	0	0	0	**88**
1:00 AM	0	38	9	0	5	0	0	0	1	0	0	0	0	**53**
2:00 AM	0	21	5	0	0	0	0	0	0	0	0	0	0	**26**
3:00 AM	0	15	4	0	1	0	0	0	0	0	0	0	0	**20**
4:00 AM	0	8	1	0	2	0	0	0	0	0	0	0	0	**11**
5:00 AM	0	36	10	0	6	1	0	0	0	0	0	0	0	**53**
6:00 AM	0	27	13	0	3	0	0	0	0	0	0	0	0	**43**
7:00 AM	0	75	23	0	7	0	0	0	1	0	0	0	0	**106**
8:00 AM	0	127	31	0	10	0	0	0	0	0	0	0	0	**168**
9:00 AM	1	166	60	0	16	2	0	0	0	0	0	0	0	**245**
10:00 AM	0	224	80	0	14	1	0	0	2	1	0	0	0	**322**
11:00 AM	2	264	80	0	32	1	0	1	0	0	0	0	0	**380**
12:00 PM	0	293	92	0	20	0	0	0	0	0	0	0	1	**406**
1:00 PM	0	283	81	0	26	1	0	0	0	0	0	0	0	**391**
2:00 PM	0	304	109	0	29	0	0	0	1	0	0	0	0	**443**
3:00 PM	0	317	101	0	15	0	0	0	1	0	0	0	0	**434**
4:00 PM	0	301	83	0	14	0	0	0	1	1	0	0	0	**400**
5:00 PM	0	297	89	0	25	1	0	1	0	0	1	0	0	**414**
6:00 PM	0	207	58	0	24	0	0	1	0	0	0	0	0	**290**
7:00 PM	0	174	45	0	15	0	0	1	0	0	0	0	0	**235**
8:00 PM	0	137	23	0	4	0	0	0	0	0	0	0	0	**164**
9:00 PM	0	94	22	0	8	0	0	1	0	0	0	0	0	**125**
10:00 PM	0	77	9	0	3	0	0	0	1	0	0	0	0	**90**
11:00 PM	0	32	11	0	0	0	0	0	0	0	0	0	0	**43**
Total	**3**	**3,580**	**1,056**	**0**	**287**	**7**	**0**	**5**	**8**	**2**	**1**	**0**	**1**	**4,950**
Percent	**0.1%**	**72.3%**	**21.3%**	**0.0%**	**5.8%**	**0.1%**	**0.0%**	**0.1%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	4	0	2	0	0	0	0	0	0	0	0	**12**
1:00 AM	0	2	3	0	2	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	3	5	0	1	0	0	0	0	0	0	0	0	**9**
3:00 AM	0	5	6	0	2	0	0	0	0	0	0	0	0	**13**
4:00 AM	0	9	7	0	6	0	0	0	1	0	0	0	0	**23**
5:00 AM	0	16	10	0	13	0	0	0	0	0	0	0	0	**39**
6:00 AM	0	24	17	0	14	0	0	0	0	0	0	0	0	**55**
7:00 AM	0	115	54	0	36	1	0	0	0	0	0	0	0	**206**
8:00 AM	0	83	64	1	35	1	0	0	0	0	0	0	0	**184**
9:00 AM	0	47	38	1	24	2	0	0	0	0	0	0	0	**112**
10:00 AM	0	69	48	1	30	2	0	0	0	0	0	0	0	**150**
11:00 AM	0	76	58	0	38	1	0	0	1	0	0	0	0	**174**
12:00 PM	1	82	66	1	40	1	0	0	0	0	0	0	0	**191**
1:00 PM	0	77	62	0	37	1	0	0	0	0	0	0	0	**177**
2:00 PM	0	83	64	0	40	0	0	0	0	0	0	0	0	**187**
3:00 PM	0	131	101	0	52	1	0	0	0	0	0	0	0	**285**
4:00 PM	0	109	84	0	43	1	0	0	0	0	0	0	0	**237**
5:00 PM	0	105	86	0	44	1	0	0	0	0	0	0	0	**236**
6:00 PM	0	91	63	0	34	0	0	0	0	0	0	0	0	**188**
7:00 PM	0	54	56	0	30	0	0	0	0	0	0	0	0	**140**
8:00 PM	0	38	37	0	20	0	0	0	0	0	0	0	0	**95**
9:00 PM	0	24	22	0	13	0	0	0	0	0	0	0	0	**59**
10:00 PM	0	15	14	0	8	0	0	0	0	0	0	0	0	**37**
11:00 PM	0	7	6	0	5	0	0	0	0	0	0	0	0	**18**
Total	**1**	**1,271**	**975**	**4**	**569**	**12**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2,834**
Percent	**0.0%**	**44.8%**	**34.4%**	**0.1%**	**20.1%**	**0.4%**	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	34	8	0	3	0	0	0	0	0	0	0	0	**45**
1:00 AM	0	17	4	0	1	0	0	0	1	0	0	0	0	**23**
2:00 AM	0	12	3	0	0	0	0	0	0	0	0	0	0	**15**
3:00 AM	0	10	4	0	1	0	0	1	0	0	0	0	0	**16**
4:00 AM	0	27	8	0	6	0	0	1	1	0	0	0	0	**43**
5:00 AM	0	68	24	0	7	1	0	0	1	0	0	0	0	**101**
6:00 AM	0	127	49	0	17	1	0	0	1	0	0	0	0	**195**
7:00 AM	2	462	106	1	32	2	0	1	1	1	0	0	1	**609**
8:00 AM	1	316	93	0	36	3	0	1	1	1	0	0	0	**452**
9:00 AM	0	156	56	0	24	2	0	0	1	0	0	0	0	**239**
10:00 AM	0	213	77	0	26	3	0	0	2	0	0	0	0	**321**
11:00 AM	0	272	85	0	29	2	0	1	2	0	0	0	0	**391**
12:00 PM	0	278	91	0	29	2	0	0	1	0	0	0	0	**401**
1:00 PM	0	259	89	0	29	1	0	1	1	0	0	0	0	**380**
2:00 PM	0	290	97	0	27	2	0	1	1	0	0	0	0	**418**
3:00 PM	1	431	118	0	42	1	0	0	1	1	0	0	0	**595**
4:00 PM	1	446	129	1	42	3	0	0	1	1	0	0	0	**624**
5:00 PM	1	438	138	0	39	2	0	1	0	0	0	0	1	**620**
6:00 PM	0	295	86	0	24	1	0	0	0	0	0	0	0	**406**
7:00 PM	0	189	53	0	15	0	0	0	0	0	0	0	0	**257**
8:00 PM	0	159	38	0	11	1	0	0	0	0	0	0	0	**209**
9:00 PM	0	119	30	0	9	0	0	0	0	0	0	0	0	**158**
10:00 PM	0	77	18	0	5	0	0	0	0	0	0	0	0	**100**
11:00 PM	0	42	13	0	4	0	0	0	0	0	0	0	0	**59**
Total	**6**	**4,737**	**1,417**	**2**	**458**	**27**	**0**	**8**	**16**	**4**	**0**	**0**	**2**	**6,677**
Percent	**0.1%**	**70.9%**	**21.2%**	**0.0%**	**6.9%**	**0.4%**	**0.0%**	**0.1%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	4	6	0	2	0	0	0	1	0	0	0	0	**13**
1:00 AM	0	2	3	0	2	0	0	0	1	0	0	0	0	**7**
2:00 AM	0	3	7	0	0	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	5	8	0	2	0	0	0	0	0	0	0	0	**15**
4:00 AM	0	11	9	0	8	0	0	0	1	0	0	0	0	**29**
5:00 AM	0	22	15	0	17	1	0	0	0	0	0	0	0	**54**
6:00 AM	0	34	24	0	22	0	0	0	1	0	0	0	0	**81**
7:00 AM	0	156	76	0	49	1	0	0	0	0	0	0	0	**284**
8:00 AM	0	132	111	1	57	3	0	0	0	0	0	0	0	**305**
9:00 AM	0	57	56	3	34	3	0	0	0	0	0	0	0	**154**
10:00 AM	0	69	61	2	35	4	0	1	1	0	0	0	0	**173**
11:00 AM	0	82	78	0	44	1	0	0	1	0	0	0	0	**207**
12:00 PM	1	95	87	2	43	1	0	0	0	0	0	0	0	**231**
1:00 PM	1	76	86	0	44	1	0	1	0	0	0	0	0	**209**
2:00 PM	0	94	94	0	49	0	0	1	0	0	0	0	0	**239**
3:00 PM	0	171	154	0	69	1	0	0	0	0	0	0	0	**395**
4:00 PM	1	144	126	0	59	1	0	0	0	0	0	0	0	**331**
5:00 PM	0	132	133	1	55	1	0	0	0	0	0	0	0	**322**
6:00 PM	0	111	94	0	45	0	0	1	0	0	0	0	0	**252**
7:00 PM	0	58	75	0	40	0	0	0	0	0	0	0	0	**173**
8:00 PM	0	53	55	0	28	0	0	0	0	0	0	0	0	**136**
9:00 PM	0	29	31	0	20	1	0	0	0	0	0	0	0	**81**
10:00 PM	0	15	17	0	9	0	0	0	0	0	0	0	0	**42**
11:00 PM	0	4	7	0	6	0	0	0	0	0	0	0	0	**18**
Total	**4**	**1,560**	**1,413**	**10**	**741**	**21**	**0**	**4**	**7**	**2**	**0**	**0**	**1**	**3,762**
Percent	**0.1%**	**41.5%**	**37.6%**	**0.3%**	**19.7%**	**0.5%**	**0.0%**	**0.1%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: Sunset Dr BTWN I-94 Ramps
Date Range: 11/28/2022 to 12/4/2022
Site Code: 01

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	39	7	0	3	0	0	0	0	0	0	0	0	**50**
1:00 AM	0	18	3	0	2	0	0	0	1	0	0	0	0	**23**
2:00 AM	0	12	3	0	1	0	0	0	0	0	0	0	0	**16**
3:00 AM	0	11	5	0	2	0	0	1	0	0	0	0	0	**19**
4:00 AM	0	41	11	0	8	0	0	1	1	0	0	0	0	**62**
5:00 AM	0	92	32	0	10	1	0	0	2	0	0	0	0	**139**
6:00 AM	1	175	70	0	24	1	0	0	1	0	0	0	0	**272**
7:00 AM	2	648	143	1	46	4	0	2	2	2	0	0	1	**850**
8:00 AM	2	515	146	1	59	6	0	1	2	2	0	0	0	**734**
9:00 AM	1	229	81	0	38	2	0	0	2	1	0	0	0	**353**
10:00 AM	0	238	92	0	32	4	0	0	3	0	0	0	1	**371**
11:00 AM	0	318	102	0	38	3	0	0	4	0	0	0	1	**467**
12:00 PM	0	331	114	0	39	3	0	0	1	1	0	0	0	**491**
1:00 PM	0	306	109	0	39	3	0	0	2	1	0	0	0	**459**
2:00 PM	0	361	121	0	36	4	0	1	1	1	0	0	0	**525**
3:00 PM	2	612	155	1	67	2	0	0	1	1	0	0	1	**841**
4:00 PM	1	608	177	1	57	6	0	0	0	0	0	0	0	**852**
5:00 PM	1	619	198	0	57	3	0	1	0	1	0	0	1	**881**
6:00 PM	0	392	113	0	33	2	0	0	1	1	0	0	0	**542**
7:00 PM	0	239	65	0	19	0	0	0	0	0	0	0	0	**325**
8:00 PM	1	219	54	0	14	1	0	0	0	0	0	0	0	**290**
9:00 PM	0	150	37	0	12	1	0	0	0	0	0	0	0	**200**
10:00 PM	0	83	24	0	5	0	0	0	0	0	0	0	0	**112**
11:00 PM	0	43	12	0	3	0	0	0	0	0	0	0	0	**59**
Total	**11**	**6,300**	**1,875**	**5**	**644**	**48**	**0**	**10**	**25**	**10**	**0**	**0**	**6**	**8,934**
Percent	**0.1%**	**70.5%**	**21.0%**	**0.1%**	**7.2%**	**0.5%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.1%**	

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Vehicle Speed Report Summary

Location: I94 EB Ramp W/O Sunset Dr

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 04

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	1	4	3	16	62	292	957	1,244	882	357	90	26	4	3	0	0	0	3,941
Percent	0.0%	0.1%	0.1%	0.4%	1.6%	7.4%	24.3%	31.6%	22.4%	9.1%	2.3%	0.7%	0.1%	0.1%	0.0%	0.0%	0.0%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	4	3	16	62	292	957	1,244	882	357	90	26	4	3	0	0	0	3,941
Percent	0.0%	0.1%	0.1%	0.4%	1.6%	7.4%	24.3%	31.6%	22.4%	9.1%	2.3%	0.7%	0.1%	0.1%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	42.5	mph	Mean (Average) Speed	42.7	mph
85th Percentile	49.2	mph	10 mph Pace	36.9 - 46.9	mph
95th Percentile	53.5	mph	Percent in Pace	59.4	%
Westbound			**Westbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Monday, November 28, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	**2**
1:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	0	0	2	2	2	3	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	0	0	0	1	3	6	15	5	0	0	0	0	0	0	0	0	**30**
7:00 AM	0	0	0	0	1	13	29	34	10	3	1	0	0	0	0	0	0	**91**
8:00 AM	0	0	0	0	0	1	18	16	16	5	1	0	0	0	0	0	0	**57**
9:00 AM	0	1	0	0	0	4	19	12	7	1	0	0	0	0	0	0	0	**44**
10:00 AM	0	0	0	1	1	13	8	14	3	0	0	1	0	0	0	0	0	**41**
11:00 AM	0	0	0	0	1	1	18	16	3	1	0	0	0	0	0	0	0	**40**
12:00 PM	0	0	0	0	0	5	9	9	2	3	0	0	0	0	0	0	0	**28**
1:00 PM	0	0	0	0	1	3	12	13	8	1	0	0	0	0	0	0	0	**38**
2:00 PM	0	0	1	0	0	2	15	9	7	0	0	0	0	1	0	0	0	**35**
3:00 PM	0	0	0	0	2	2	13	17	11	3	1	0	0	0	0	0	0	**49**
4:00 PM	0	0	0	0	0	6	24	23	6	0	0	0	0	0	0	0	0	**59**
5:00 PM	0	0	0	0	0	5	18	10	18	5	0	0	0	0	0	0	0	**56**
6:00 PM	0	0	0	0	0	2	12	14	12	4	1	0	0	0	0	0	0	**45**
7:00 PM	0	0	0	2	4	2	12	9	5	1	1	0	0	0	0	0	0	**36**
8:00 PM	0	0	0	0	0	1	3	4	3	0	0	0	0	0	0	0	0	**11**
9:00 PM	0	0	0	0	0	0	2	1	5	1	0	0	0	0	0	0	0	**9**
10:00 PM	0	0	0	0	0	0	2	2	4	2	0	0	0	0	0	0	0	**10**
11:00 PM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
Total	**0**	**1**	**1**	**3**	**11**	**67**	**226**	**224**	**130**	**30**	**5**	**1**	**0**	**1**	**0**	**0**	**0**	**700**
Percent	**0.0%**	**0.1%**	**0.1%**	**0.4%**	**1.6%**	**9.6%**	**32.3%**	**32.0%**	**18.6%**	**4.3%**	**0.7%**	**0.1%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	40.7	mph	Mean (Average) Speed	41.0	mph
85th Percentile	46.5	mph	10 mph Pace	36.9 - 46.9	mph
95th Percentile	50.2	mph	Percent in Pace	66.3	%

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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Tuesday, November 29, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	**5**
5:00 AM	0	0	0	0	0	2	2	1	3	1	0	0	0	0	0	0	0	**9**
6:00 AM	0	0	0	0	0	2	6	13	2	2	0	0	0	0	0	0	0	**25**
7:00 AM	0	0	0	1	2	2	20	27	16	3	1	0	0	0	0	0	0	**72**
8:00 AM	0	0	0	0	1	4	8	14	13	4	2	1	0	1	0	0	0	**48**
9:00 AM	0	0	0	0	0	0	3	18	5	2	0	0	0	0	0	0	0	**28**
10:00 AM	0	0	0	0	1	3	13	14	3	1	1	0	0	0	0	0	0	**36**
11:00 AM	0	0	0	0	1	3	14	12	7	1	0	0	0	0	0	0	0	**38**
12:00 PM	0	0	0	0	0	1	8	12	5	0	0	0	0	0	0	0	0	**26**
1:00 PM	0	0	0	0	0	4	10	8	9	1	2	0	0	0	0	0	0	**34**
2:00 PM	0	0	1	4	3	3	11	12	5	1	1	0	0	0	0	0	0	**41**
3:00 PM	0	0	0	0	3	12	10	9	4	3	1	0	0	0	0	0	0	**42**
4:00 PM	0	0	0	0	3	8	15	19	8	1	0	0	0	0	0	0	0	**54**
5:00 PM	0	0	0	0	0	5	22	25	15	5	0	0	0	0	0	0	0	**72**
6:00 PM	0	0	0	1	5	8	10	19	10	2	2	0	0	0	0	0	0	**57**
7:00 PM	0	0	0	0	0	3	6	6	1	2	0	0	0	0	0	0	0	**18**
8:00 PM	0	0	0	0	0	0	6	4	1	1	0	0	0	0	0	0	0	**12**
9:00 PM	0	0	0	0	0	2	2	2	2	0	0	0	0	0	0	0	0	**8**
10:00 PM	0	0	0	0	0	1	1	5	3	0	0	0	0	0	0	0	0	**10**
11:00 PM	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	**4**
Total	**0**	**0**	**1**	**7**	**19**	**64**	**171**	**225**	**115**	**31**	**11**	**1**	**0**	**1**	**0**	**0**	**0**	**646**
Percent	**0.0%**	**0.0%**	**0.2%**	**1.1%**	**2.9%**	**9.9%**	**26.5%**	**34.8%**	**17.8%**	**4.8%**	**1.7%**	**0.2%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.3	mph	Mean (Average) Speed	41.2	mph
85th Percentile	47.2	mph	10 mph Pace	36.4 - 46.4	mph
95th Percentile	51.3	mph	Percent in Pace	63.0	%

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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Wednesday, November 30, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	**2**
6:00 AM	0	0	0	0	0	2	13	7	5	2	0	0	0	0	0	0	0	**29**
7:00 AM	0	0	0	0	1	8	35	16	14	4	0	0	0	0	0	0	0	**78**
8:00 AM	0	0	0	0	2	6	7	18	16	5	0	1	0	0	0	0	0	**55**
9:00 AM	0	0	0	0	0	2	5	18	6	5	0	0	0	0	0	0	0	**36**
10:00 AM	0	0	0	0	1	0	4	22	12	2	0	0	0	0	0	0	0	**41**
11:00 AM	0	0	0	0	0	5	4	15	7	1	0	0	0	0	0	0	0	**32**
12:00 PM	0	0	0	0	0	2	2	15	7	2	0	0	0	0	0	0	0	**28**
1:00 PM	0	0	0	0	1	1	11	15	7	3	0	0	0	0	0	0	0	**38**
2:00 PM	0	0	0	0	0	0	7	16	3	3	0	0	0	0	0	0	0	**29**
3:00 PM	0	0	0	0	1	2	9	13	8	6	0	0	0	0	0	0	0	**39**
4:00 PM	0	0	0	1	3	8	10	23	9	4	1	0	0	0	0	0	0	**59**
5:00 PM	0	0	0	0	0	5	23	29	15	2	0	0	0	0	0	0	0	**74**
6:00 PM	0	0	0	0	2	4	23	13	9	4	0	0	0	0	0	0	0	**55**
7:00 PM	0	0	0	0	1	2	7	10	3	1	0	0	0	0	0	0	0	**24**
8:00 PM	0	0	0	0	1	0	4	2	2	1	1	0	0	0	0	0	0	**11**
9:00 PM	0	0	0	0	0	3	2	2	0	0	0	0	0	0	0	0	0	**7**
10:00 PM	0	0	0	0	0	4	5	3	1	0	0	0	0	0	0	0	0	**13**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**2**	**14**	**57**	**177**	**238**	**125**	**47**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**664**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**2.1%**	**8.6%**	**26.7%**	**35.8%**	**18.8%**	**7.1%**	**0.5%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.6	mph	Mean (Average) Speed	41.7	mph
85th Percentile	47.3	mph	10 mph Pace	36.4 - 46.4	mph
95th Percentile	51.7	mph	Percent in Pace	66.0	%

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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Thursday, December 1, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
1:00 AM	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	0	0	0	0	2	3	0	2	0	0	0	0	0	0	0	0	**7**
6:00 AM	0	0	0	0	0	2	7	10	2	1	0	0	0	0	0	0	0	**22**
7:00 AM	0	0	0	0	2	10	29	28	13	2	0	0	0	0	0	0	0	**84**
8:00 AM	0	0	0	0	2	2	11	23	14	2	0	0	0	0	0	0	0	**54**
9:00 AM	0	0	0	1	0	1	8	13	13	2	0	0	0	0	0	0	0	**38**
10:00 AM	0	0	0	0	1	3	17	10	12	2	0	0	0	0	0	0	0	**45**
11:00 AM	0	0	0	0	1	4	16	12	10	2	0	0	0	0	0	0	0	**45**
12:00 PM	0	0	0	0	0	3	11	18	9	3	0	0	0	0	0	0	0	**44**
1:00 PM	0	0	0	1	0	1	13	18	7	1	0	0	0	0	0	0	0	**41**
2:00 PM	0	0	0	0	3	6	10	15	5	5	0	0	0	0	0	0	0	**44**
3:00 PM	0	0	0	0	2	6	17	18	10	3	0	0	0	0	0	0	0	**56**
4:00 PM	0	1	0	0	1	7	27	29	15	7	0	0	0	0	0	0	0	**87**
5:00 PM	0	0	0	0	0	5	24	29	16	0	4	0	0	0	0	0	0	**78**
6:00 PM	0	0	1	1	1	6	20	22	12	2	0	0	0	0	0	0	0	**65**
7:00 PM	0	0	0	0	1	1	5	12	1	2	0	0	0	0	0	0	0	**22**
8:00 PM	0	0	0	0	0	0	7	7	2	0	0	0	0	0	0	0	0	**16**
9:00 PM	0	0	0	0	0	2	4	5	1	2	0	0	0	0	0	0	0	**14**
10:00 PM	0	0	0	0	1	1	1	3	1	0	0	1	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
Total	**0**	**1**	**1**	**3**	**15**	**64**	**237**	**275**	**146**	**36**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**783**
Percent	**0.0%**	**0.1%**	**0.1%**	**0.4%**	**1.9%**	**8.2%**	**30.3%**	**35.1%**	**18.6%**	**4.6%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.0	mph	Mean (Average) Speed	41.2	mph
85th Percentile	47.1	mph	10 mph Pace	36.2 - 46.2	mph
95th Percentile	50.1	mph	Percent in Pace	66.3	%

TJ Wethington
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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Friday, December 2, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	0	0	2	1	1	4	0	1	0	0	0	0	0	0	**9**
6:00 AM	0	0	0	0	0	4	5	6	2	1	2	0	0	0	0	0	0	**20**
7:00 AM	0	1	0	0	1	12	29	23	6	0	0	0	0	0	0	0	0	**72**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**1**	**0**	**0**	**2**	**19**	**39**	**32**	**14**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**112**
Percent	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**1.8%**	**17.0%**	**34.8%**	**28.6%**	**12.5%**	**1.8%**	**2.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.7	mph	Mean (Average) Speed	39.9	mph
85th Percentile	46.1	mph	10 mph Pace	34.2 - 44.2	mph
95th Percentile	50.2	mph	Percent in Pace	67.9	%

TJ Wethington
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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Saturday, December 3, 2022
Eastbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	1	1	0	0	1	0	0	0	9	4	1	0	0	0	0	0	0	**17**
10:00 AM	0	0	0	1	0	2	9	18	14	15	6	3	0	0	0	0	0	**68**
11:00 AM	0	0	0	0	0	2	7	19	16	14	5	0	0	0	0	0	0	**63**
12:00 PM	0	0	0	0	0	0	4	14	18	4	2	0	0	0	0	0	0	**42**
1:00 PM	0	0	0	0	0	0	6	9	14	11	3	1	0	0	0	0	0	**44**
2:00 PM	0	0	0	0	0	1	4	6	18	11	1	1	0	0	0	0	0	**42**
3:00 PM	0	0	0	0	0	0	6	11	19	16	1	1	0	0	0	0	0	**54**
4:00 PM	0	0	0	0	0	1	5	11	12	5	0	0	0	0	0	0	0	**34**
5:00 PM	0	0	0	0	0	0	6	13	12	3	1	1	0	0	0	0	0	**36**
6:00 PM	0	0	0	0	0	2	1	9	13	4	3	1	0	0	0	0	0	**33**
7:00 PM	0	0	0	0	0	2	5	11	14	2	0	0	0	0	0	0	0	**34**
8:00 PM	0	0	0	0	0	2	1	1	5	3	1	0	0	0	0	0	0	**13**
9:00 PM	0	0	0	0	0	0	1	3	5	4	1	0	0	0	0	0	0	**14**
10:00 PM	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	0	0	1	4	2	2	1	0	0	0	0	0	0	**10**
Total	**1**	**1**	**0**	**1**	**1**	**12**	**57**	**132**	**175**	**98**	**26**	**8**	**0**	**0**	**0**	**0**	**0**	**512**
Percent	**0.2%**	**0.2%**	**0.0%**	**0.2%**	**0.2%**	**2.3%**	**11.1%**	**25.8%**	**34.2%**	**19.1%**	**5.1%**	**1.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	46.4	mph	Mean (Average) Speed	46.2	mph
85th Percentile	52.2	mph	10 mph Pace	41.0 - 51.0	mph
95th Percentile	55.7	mph	Percent in Pace	61.5	%

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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Sunday, December 4, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	**2**
1:00 AM	0	0	0	0	0	0	0	2	4	3	0	0	0	0	0	0	0	**9**
2:00 AM	0	0	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0	**4**
3:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	**4**
5:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
6:00 AM	0	0	0	0	0	0	0	2	3	2	0	0	0	0	0	0	0	**7**
7:00 AM	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	**3**
8:00 AM	0	0	0	0	0	0	1	3	8	1	3	2	1	0	0	0	0	**19**
9:00 AM	0	0	0	0	0	0	2	6	14	4	0	1	0	0	0	0	0	**27**
10:00 AM	0	0	0	0	0	0	3	9	11	18	3	1	0	0	0	0	0	**45**
11:00 AM	0	0	0	0	0	1	7	12	16	13	1	3	0	0	0	0	0	**53**
12:00 PM	0	0	0	0	0	0	1	8	16	14	7	3	1	0	0	0	0	**50**
1:00 PM	0	0	0	0	0	1	2	7	11	8	2	1	0	0	0	0	0	**32**
2:00 PM	0	0	0	0	0	0	5	6	21	11	5	1	0	0	0	0	0	**49**
3:00 PM	0	0	0	0	0	0	8	12	10	8	4	0	0	1	0	0	0	**43**
4:00 PM	0	0	0	0	0	1	1	5	11	5	1	0	0	0	0	0	0	**24**
5:00 PM	0	0	0	0	0	1	4	12	18	7	5	0	1	0	0	0	0	**48**
6:00 PM	0	0	0	0	0	2	8	5	7	5	2	1	0	0	0	0	0	**30**
7:00 PM	0	0	0	0	0	0	2	14	9	6	2	0	1	0	0	0	0	**34**
8:00 PM	0	0	0	0	0	3	3	4	5	4	1	0	0	0	0	0	0	**20**
9:00 PM	0	0	0	0	0	0	1	2	3	2	1	0	0	0	0	0	0	**9**
10:00 PM	0	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	**5**
11:00 PM	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	**5**
Total	**0**	**0**	**0**	**0**	**0**	**9**	**50**	**118**	**177**	**113**	**38**	**14**	**4**	**1**	**0**	**0**	**0**	**524**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.7%**	**9.5%**	**22.5%**	**33.8%**	**21.6%**	**7.3%**	**2.7%**	**0.8%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	47.3	mph	Mean (Average) Speed	47.6	mph
85th Percentile	53.7	mph	10 mph Pace	42.5 - 52.5	mph
95th Percentile	58.2	mph	Percent in Pace	60.1	%

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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	**5**
6:00 AM	0	0	0	0	0	2	5	8	3	1	0	0	0	0	0	0	0	**19**
7:00 AM	0	0	0	0	1	6	20	18	9	2	0	0	0	0	0	0	0	**56**
8:00 AM	0	0	0	0	1	2	6	11	10	2	1	1	0	0	0	0	0	**34**
9:00 AM	0	0	0	0	0	1	5	10	8	3	0	0	0	0	0	0	0	**27**
10:00 AM	0	0	0	0	1	3	8	12	8	5	1	1	0	0	0	0	0	**39**
11:00 AM	0	0	0	0	0	2	9	12	8	5	1	0	0	0	0	0	0	**37**
12:00 PM	0	0	0	0	0	2	5	11	8	4	1	0	0	0	0	0	0	**31**
1:00 PM	0	0	0	0	0	1	8	10	8	4	1	0	0	0	0	0	0	**32**
2:00 PM	0	0	0	1	1	2	7	9	8	4	1	0	0	0	0	0	0	**33**
3:00 PM	0	0	0	0	1	3	9	11	9	6	1	0	0	0	0	0	0	**40**
4:00 PM	0	0	0	0	1	4	12	16	9	3	0	0	0	0	0	0	0	**45**
5:00 PM	0	0	0	0	0	3	14	17	13	3	1	0	0	0	0	0	0	**51**
6:00 PM	0	0	0	0	1	3	11	12	9	3	1	0	0	0	0	0	0	**40**
7:00 PM	0	0	0	0	1	1	5	9	5	2	0	0	0	0	0	0	0	**23**
8:00 PM	0	0	0	0	0	1	3	3	3	1	0	0	0	0	0	0	0	**11**
9:00 PM	0	0	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	**8**
10:00 PM	0	0	0	0	0	1	2	3	2	0	0	0	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	**3**
Total	**0**	**0**	**0**	**1**	**8**	**40**	**138**	**179**	**127**	**49**	**9**	**2**	**0**	**0**	**0**	**0**	**0**	**553**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**1.4%**	**7.2%**	**25.0%**	**32.4%**	**23.0%**	**8.9%**	**1.6%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	42.5	mph	Mean (Average) Speed	42.7	mph
85th Percentile	49.2	mph	10 mph Pace	36.9 - 46.9	mph
95th Percentile	53.5	mph	Percent in Pace	59.4	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 04

Total Study Average
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

TJ Wethington
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Location: I94 EB Ramp W/O Sunset Dr
Date Range: 11/28/2022 - 12/4/2022
Site Code: 04

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	2	0	2	3	0	3	6	0	6	1	0	1	4	0	4	0	0	0	2	0	2	3	0	3
1:00 AM	1	0	1	3	0	3	1	0	1	4	0	4	1	0	1	0	0	0	9	0	9	3	0	3
2:00 AM	1	0	1	1	0	1	3	0	3	2	0	2	3	0	3	0	0	0	4	0	4	2	0	2
3:00 AM	3	0	3	0	0	0	2	0	2	1	0	1	2	0	2	0	0	0	1	0	1	1	0	1
4:00 AM	2	0	2	5	0	5	2	0	2	4	0	4	1	0	1	0	0	0	4	0	4	4	0	4
5:00 AM	9	0	9	9	0	9	2	0	2	7	0	7	9	0	9	0	0	0	1	0	1	6	0	6
6:00 AM	30	0	30	25	0	25	29	0	29	22	0	22	20	0	20	0	0	0	7	0	7	25	0	25
7:00 AM	91	0	91	72	0	72	78	0	78	84	0	84	72	0	72	0	0	0	3	0	3	78	0	78
8:00 AM	57	0	57	48	0	48	55	0	55	54	0	54	0	0	0	0	0	0	19	0	19	52	0	52
9:00 AM	44	0	44	28	0	28	36	0	36	38	0	38	0	0	0	17	0	17	27	0	27	34	0	34
10:00 AM	41	0	41	36	0	36	41	0	41	45	0	45	0	0	0	68	0	68	45	0	45	41	0	41
11:00 AM	40	0	40	38	0	38	32	0	32	45	0	45	0	0	0	63	0	63	53	0	53	38	0	38
12:00 PM	28	0	28	26	0	26	28	0	28	44	0	44	0	0	0	42	0	42	50	0	50	33	0	33
1:00 PM	38	0	38	34	0	34	38	0	38	41	0	41	0	0	0	44	0	44	32	0	32	38	0	38
2:00 PM	35	0	35	41	0	41	29	0	29	44	0	44	0	0	0	42	0	42	49	0	49	38	0	38
3:00 PM	49	0	49	42	0	42	39	0	39	56	0	56	0	0	0	54	0	54	43	0	43	46	0	46
4:00 PM	59	0	59	54	0	54	59	0	59	87	0	87	0	0	0	34	0	34	24	0	24	67	0	67
5:00 PM	56	0	56	72	0	72	74	0	74	78	0	78	0	0	0	36	0	36	48	0	48	75	0	75
6:00 PM	45	0	45	57	0	57	55	0	55	65	0	65	0	0	0	33	0	33	30	0	30	59	0	59
7:00 PM	36	0	36	18	0	18	24	0	24	22	0	22	0	0	0	34	0	34	34	0	34	21	0	21
8:00 PM	11	0	11	12	0	12	11	0	11	16	0	16	0	0	0	13	0	13	20	0	20	13	0	13
9:00 PM	9	0	9	8	0	8	7	0	7	14	0	14	0	0	0	14	0	14	9	0	9	10	0	10
10:00 PM	10	0	10	10	0	10	13	0	13	8	0	8	0	0	0	8	0	8	5	0	5	10	0	10
11:00 PM	3	0	3	4	0	4	0	0	0	1	0	1	0	0	0	10	0	10	5	0	5	2	0	2
Total	**700**	-	**700**	**646**	-	**646**	**664**	-	**664**	**783**	-	**783**	**112**	-	**112**	**512**	-	**512**	**524**	-	**524**	**698**	-	**698**
Percent	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I94 WB Ramp E/O Sunset Dr

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/5/2022

Site Code: 05

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	4	17,210	8,980	38	6,556	35	0	34	149	12	0	0	3	33,021
Percent	0.0%	52.1%	27.2%	0.1%	19.9%	0.1%	0.0%	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	100%
Total	4	17,210	8,980	38	6,556	35	0	34	149	12	0	0	3	33,021
Percent	0.0%	52.1%	27.2%	0.1%	19.9%	0.1%	0.0%	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Monday, November 28, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	15	5	0	0	0	0	0	1	0	0	0	0	**21**
1:00 AM	0	10	1	0	3	0	0	0	0	0	0	0	0	**14**
2:00 AM	0	7	3	0	0	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	9	3	0	0	0	0	0	1	0	0	0	0	**13**
4:00 AM	0	35	12	0	5	0	0	1	2	0	0	0	0	**55**
5:00 AM	0	59	29	0	16	0	0	0	1	0	0	0	0	**105**
6:00 AM	0	106	42	0	40	1	0	0	1	0	0	0	0	**190**
7:00 AM	0	344	121	0	87	0	0	0	1	0	0	0	0	**553**
8:00 AM	0	246	106	0	64	1	0	0	3	0	0	0	0	**420**
9:00 AM	0	102	65	1	33	1	0	0	2	0	0	0	0	**204**
10:00 AM	0	115	55	1	43	0	0	0	1	0	0	0	0	**215**
11:00 AM	0	148	85	0	38	1	0	1	1	0	0	0	0	**274**
12:00 PM	0	168	96	0	42	2	0	0	3	1	0	0	0	**312**
1:00 PM	0	203	86	0	43	1	0	2	0	0	0	0	0	**335**
2:00 PM	0	195	111	1	53	0	0	0	4	0	0	0	0	**364**
3:00 PM	0	262	136	0	73	1	0	0	4	1	0	0	0	**477**
4:00 PM	0	344	141	2	100	0	0	0	1	0	0	0	0	**588**
5:00 PM	0	416	157	0	121	1	0	0	1	0	0	0	0	**696**
6:00 PM	0	214	96	0	69	0	0	1	0	0	0	0	0	**380**
7:00 PM	0	149	55	0	36	0	0	0	1	0	0	0	0	**241**
8:00 PM	0	115	32	0	27	0	0	0	0	0	0	0	0	**174**
9:00 PM	0	87	29	2	12	0	0	0	0	0	0	0	0	**130**
10:00 PM	0	50	19	0	5	0	0	0	0	0	0	0	0	**74**
11:00 PM	0	28	9	0	5	1	0	0	0	0	0	0	0	**43**
Total	**0**	**3,427**	**1,494**	**7**	**915**	**10**	**0**	**5**	**28**	**2**	**0**	**0**	**0**	**5,888**
Percent	**0.0%**	**58.2%**	**25.4%**	**0.1%**	**15.5%**	**0.2%**	**0.0%**	**0.1%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Tuesday, November 29, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	19	5	0	4	0	0	0	1	0	0	0	0	**29**
1:00 AM	0	9	3	0	0	0	0	0	0	0	0	0	0	**12**
2:00 AM	0	3	4	0	1	0	0	0	0	1	0	0	0	**9**
3:00 AM	0	12	4	0	2	0	0	0	0	0	0	0	0	**18**
4:00 AM	0	41	16	0	7	0	0	0	1	0	0	0	0	**65**
5:00 AM	0	58	27	0	23	0	0	0	2	0	0	0	0	**110**
6:00 AM	0	99	35	0	55	1	0	0	1	0	0	0	0	**191**
7:00 AM	0	369	125	0	110	1	0	0	4	0	0	0	0	**609**
8:00 AM	0	268	107	0	93	1	0	0	2	0	0	0	0	**471**
9:00 AM	0	133	68	0	44	0	0	2	4	0	0	0	0	**251**
10:00 AM	0	125	59	1	55	2	0	0	3	0	0	0	0	**245**
11:00 AM	0	158	66	0	60	1	0	0	3	0	0	0	1	**289**
12:00 PM	0	158	66	0	76	0	0	0	1	0	0	0	0	**301**
1:00 PM	0	142	101	0	83	0	0	2	1	0	0	0	0	**329**
2:00 PM	0	193	108	1	83	1	0	1	0	0	0	0	0	**387**
3:00 PM	0	243	121	1	88	0	0	1	1	1	0	0	0	**456**
4:00 PM	0	314	151	0	100	1	0	0	2	0	0	0	0	**568**
5:00 PM	0	379	170	1	156	1	0	0	2	0	0	0	0	**709**
6:00 PM	0	226	86	0	70	1	0	0	0	0	0	0	0	**383**
7:00 PM	0	134	60	0	47	0	0	0	0	0	0	0	0	**241**
8:00 PM	0	95	54	1	38	0	0	0	0	0	0	0	0	**188**
9:00 PM	0	92	21	0	25	1	0	0	0	0	0	0	0	**139**
10:00 PM	0	48	22	0	23	0	0	0	0	0	0	0	0	**93**
11:00 PM	0	25	11	0	6	0	0	0	1	1	0	0	0	**44**
Total	**0**	**3,343**	**1,490**	**5**	**1,249**	**11**	**0**	**6**	**29**	**3**	**0**	**0**	**1**	**6,137**
Percent	**0.0%**	**54.5%**	**24.3%**	**0.1%**	**20.4%**	**0.2%**	**0.0%**	**0.1%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Wednesday, November 30, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	16	5	0	2	0	0	0	0	0	0	0	0	**23**
1:00 AM	0	11	7	0	2	0	0	0	0	0	0	0	0	**20**
2:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	0	**7**
3:00 AM	0	8	1	0	4	0	0	0	1	0	0	0	0	**14**
4:00 AM	0	40	10	0	10	0	0	1	0	0	0	0	0	**61**
5:00 AM	0	55	18	0	33	1	0	0	1	0	0	0	0	**108**
6:00 AM	0	98	43	0	63	0	0	1	3	1	0	0	0	**209**
7:00 AM	0	355	122	1	116	1	0	1	1	0	0	0	0	**597**
8:00 AM	0	246	110	0	109	0	0	0	2	1	0	0	0	**468**
9:00 AM	0	112	57	0	48	0	0	1	3	0	0	0	1	**222**
10:00 AM	0	89	62	2	57	0	0	0	3	0	0	0	0	**213**
11:00 AM	0	158	78	2	75	0	0	0	1	2	0	0	0	**316**
12:00 PM	0	170	78	1	69	0	0	0	4	0	0	0	0	**322**
1:00 PM	0	163	84	1	54	2	0	1	2	0	0	0	0	**307**
2:00 PM	0	181	98	1	69	0	0	1	0	0	0	0	0	**350**
3:00 PM	0	254	112	0	99	2	0	1	2	1	0	0	0	**471**
4:00 PM	0	328	148	0	103	0	0	0	1	0	0	0	0	**580**
5:00 PM	0	355	142	0	146	0	0	0	1	0	0	0	0	**644**
6:00 PM	0	230	88	0	98	0	0	0	0	0	0	0	0	**416**
7:00 PM	0	150	51	1	49	0	0	0	2	0	0	0	0	**253**
8:00 PM	0	116	44	0	36	1	0	0	0	0	0	0	0	**197**
9:00 PM	0	96	32	0	23	0	0	0	1	0	0	0	0	**152**
10:00 PM	0	45	20	0	23	0	0	1	0	0	0	0	0	**89**
11:00 PM	0	26	12	0	8	0	0	0	0	0	0	0	0	**46**
Total	**0**	**3,307**	**1,424**	**9**	**1,296**	**7**	**0**	**8**	**28**	**5**	**0**	**0**	**1**	**6,085**
Percent	**0.0%**	**54.3%**	**23.4%**	**0.1%**	**21.3%**	**0.1%**	**0.0%**	**0.1%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Thursday, December 1, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	11	11	0	4	0	0	0	0	0	0	0	0	**26**
1:00 AM	0	11	3	0	2	0	0	0	0	0	0	0	0	**16**
2:00 AM	0	9	4	0	0	0	0	0	0	0	0	0	0	**13**
3:00 AM	0	11	2	0	6	0	0	0	0	0	0	0	0	**19**
4:00 AM	0	34	11	0	9	0	0	1	1	0	0	0	0	**56**
5:00 AM	0	51	13	0	28	0	0	0	3	0	0	0	0	**95**
6:00 AM	0	89	38	1	56	0	0	0	0	0	0	0	0	**184**
7:00 AM	0	322	110	1	112	0	0	0	1	0	0	0	0	**546**
8:00 AM	0	218	113	1	76	1	0	1	4	0	0	0	0	**414**
9:00 AM	0	96	58	2	50	0	0	1	5	0	0	0	0	**212**
10:00 AM	0	114	66	2	51	0	0	1	1	0	0	0	0	**235**
11:00 AM	0	162	67	0	69	0	0	0	4	0	0	0	0	**302**
12:00 PM	0	154	82	0	77	0	0	1	1	0	0	0	0	**315**
1:00 PM	0	157	81	0	71	0	0	0	2	1	0	0	0	**312**
2:00 PM	0	223	101	0	83	1	0	1	5	0	0	0	0	**414**
3:00 PM	2	296	132	1	103	0	0	1	6	1	0	0	0	**542**
4:00 PM	0	331	166	0	116	0	0	0	1	0	0	0	0	**614**
5:00 PM	0	434	200	1	157	2	0	0	1	0	0	0	1	**796**
6:00 PM	0	175	68	0	86	0	0	0	2	0	0	0	0	**331**
7:00 PM	0	190	65	0	55	0	0	0	0	0	0	0	0	**310**
8:00 PM	0	147	58	0	39	0	0	0	0	0	0	0	0	**244**
9:00 PM	0	99	25	0	27	0	0	0	0	0	0	0	0	**151**
10:00 PM	0	54	17	0	18	0	0	0	1	0	0	0	0	**90**
11:00 PM	0	35	13	0	7	0	0	0	0	0	0	0	0	**55**
Total	**2**	**3,423**	**1,504**	**9**	**1,302**	**4**	**0**	**7**	**38**	**2**	**0**	**0**	**1**	**6,292**
Percent	**0.0%**	**54.4%**	**23.9%**	**0.1%**	**20.7%**	**0.1%**	**0.0%**	**0.1%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Friday, December 2, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	20	6	0	5	0	0	0	0	0	0	0	0	**31**
1:00 AM	0	10	8	0	1	0	0	0	0	0	0	0	0	**19**
2:00 AM	0	4	5	0	1	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	11	4	0	3	0	0	0	1	0	0	0	0	**19**
4:00 AM	0	29	14	0	10	0	0	0	0	0	0	0	0	**53**
5:00 AM	0	54	14	0	15	0	0	0	2	0	0	0	0	**85**
6:00 AM	0	67	31	1	37	1	0	1	1	0	0	0	0	**139**
7:00 AM	0	290	97	2	109	0	0	0	1	0	0	0	0	**499**
8:00 AM	2	151	76	1	58	0	0	0	1	0	0	0	0	**289**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**2**	**636**	**255**	**4**	**239**	**1**	**0**	**1**	**6**	**0**	**0**	**0**	**0**	**1,144**
Percent	**0.2%**	**55.6%**	**22.3%**	**0.3%**	**20.9%**	**0.1%**	**0.0%**	**0.1%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Saturday, December 3, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	136	116	1	65	0	0	1	2	0	0	0	0	**321**
10:00 AM	0	122	120	0	81	0	0	0	1	0	0	0	0	**324**
11:00 AM	0	146	108	0	71	0	0	0	1	0	0	0	0	**326**
12:00 PM	0	114	101	0	59	0	0	2	1	0	0	0	0	**277**
1:00 PM	0	148	120	0	67	0	0	0	0	0	0	0	0	**335**
2:00 PM	0	169	135	2	75	0	0	0	2	0	0	0	0	**383**
3:00 PM	0	142	156	0	79	0	0	0	0	0	0	0	0	**377**
4:00 PM	0	148	99	0	72	0	0	0	0	0	0	0	0	**319**
5:00 PM	0	127	109	0	70	1	0	0	0	0	0	0	0	**307**
6:00 PM	0	131	109	0	67	0	0	0	0	0	0	0	0	**307**
7:00 PM	0	77	74	0	61	0	0	0	0	0	0	0	0	**212**
8:00 PM	0	71	64	0	39	0	0	0	0	0	0	0	0	**174**
9:00 PM	0	78	62	0	32	0	0	1	0	0	0	0	0	**173**
10:00 PM	0	68	45	0	26	1	0	1	0	0	0	0	0	**141**
11:00 PM	0	36	26	0	16	0	0	0	2	0	0	0	0	**80**
Total	**0**	**1,713**	**1,444**	**3**	**880**	**2**	**0**	**5**	**9**	**0**	**0**	**0**	**0**	**4,056**
Percent	**0.0%**	**42.2%**	**35.6%**	**0.1%**	**21.7%**	**0.0%**	**0.0%**	**0.1%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Sunday, December 4, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	33	20	0	12	0	0	0	1	0	0	0	0	**66**
1:00 AM	0	22	12	0	7	0	0	0	0	0	0	0	0	**41**
2:00 AM	0	8	8	0	4	0	0	0	0	0	0	0	0	**20**
3:00 AM	0	7	2	0	3	0	0	0	0	0	0	0	0	**12**
4:00 AM	0	10	9	0	3	0	0	0	0	0	0	0	0	**22**
5:00 AM	0	14	6	0	5	0	0	0	0	0	0	0	0	**25**
6:00 AM	0	23	11	0	6	0	0	0	0	0	0	0	0	**40**
7:00 AM	0	25	19	0	10	0	0	0	1	0	0	0	0	**55**
8:00 AM	0	31	25	0	12	0	0	0	1	0	0	0	0	**69**
9:00 AM	0	67	64	0	37	0	0	0	1	0	0	0	0	**169**
10:00 AM	0	83	88	0	56	0	0	0	0	0	0	0	0	**227**
11:00 AM	0	97	95	0	47	0	0	0	0	0	0	0	0	**239**
12:00 PM	0	133	90	0	44	0	0	0	1	0	0	0	0	**268**
1:00 PM	0	92	106	0	55	0	0	0	0	0	0	0	0	**253**
2:00 PM	0	103	127	0	66	0	0	0	0	0	0	0	0	**296**
3:00 PM	0	104	169	0	67	0	0	1	2	0	0	0	0	**343**
4:00 PM	0	97	106	0	49	0	0	0	0	0	0	0	0	**252**
5:00 PM	0	103	122	0	50	0	0	1	0	0	0	0	0	**276**
6:00 PM	0	84	95	0	54	0	0	0	1	0	0	0	0	**234**
7:00 PM	0	68	73	1	35	0	0	0	1	0	0	0	0	**178**
8:00 PM	0	59	41	0	18	0	0	0	0	0	0	0	0	**118**
9:00 PM	0	42	33	0	16	0	0	0	1	0	0	0	0	**92**
10:00 PM	0	30	27	0	13	0	0	0	0	0	0	0	0	**70**
11:00 PM	0	14	14	0	5	0	0	0	1	0	0	0	0	**34**
Total	**0**	**1,349**	**1,362**	**1**	**674**	**0**	**0**	**2**	**11**	**0**	**0**	**0**	**0**	**3,399**
Percent	**0.0%**	**39.7%**	**40.1%**	**0.0%**	**19.8%**	**0.0%**	**0.0%**	**0.1%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Monday, December 5, 2022
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	12	7	0	1	0	0	0	0	0	0	0	0	**20**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**12**	**7**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**
Percent	**0.0%**	**60.0%**	**35.0%**	**0.0%**	**5.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Total Study Average
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	16	7	0	4	0	0	0	0	0	0	0	0	**27**
1:00 AM	0	10	5	0	2	0	0	0	0	0	0	0	0	**17**
2:00 AM	0	5	4	0	1	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	8	2	0	3	0	0	0	0	0	0	0	0	**13**
4:00 AM	0	27	10	0	6	0	0	0	1	0	0	0	0	**44**
5:00 AM	0	42	15	0	17	0	0	0	1	0	0	0	0	**75**
6:00 AM	0	69	29	0	37	0	0	0	1	0	0	0	0	**136**
7:00 AM	0	244	85	1	78	0	0	0	1	0	0	0	0	**409**
8:00 AM	0	166	77	0	59	0	0	0	2	0	0	0	0	**304**
9:00 AM	0	92	61	1	40	0	0	1	2	0	0	0	0	**197**
10:00 AM	0	93	64	1	49	0	0	0	1	0	0	0	0	**208**
11:00 AM	0	124	71	0	51	0	0	0	1	0	0	0	0	**247**
12:00 PM	0	128	73	0	52	0	0	0	2	0	0	0	0	**255**
1:00 PM	0	129	83	0	53	0	0	1	1	0	0	0	0	**267**
2:00 PM	0	152	97	1	61	0	0	0	2	0	0	0	0	**313**
3:00 PM	0	186	118	0	73	0	0	1	2	1	0	0	0	**381**
4:00 PM	0	223	116	0	77	0	0	0	1	0	0	0	0	**417**
5:00 PM	0	259	129	0	100	1	0	0	1	0	0	0	0	**490**
6:00 PM	0	151	77	0	63	0	0	0	0	0	0	0	0	**291**
7:00 PM	0	110	54	0	40	0	0	0	1	0	0	0	0	**205**
8:00 PM	0	86	42	0	28	0	0	0	0	0	0	0	0	**156**
9:00 PM	0	71	29	0	19	0	0	0	0	0	0	0	0	**119**
10:00 PM	0	42	21	0	15	0	0	0	0	0	0	0	0	**78**
11:00 PM	0	23	12	0	7	0	0	0	1	0	0	0	0	**43**
Total	**0**	**2,456**	**1,281**	**4**	**935**	**1**	**0**	**3**	**21**	**1**	**0**	**0**	**0**	**4,702**
Percent	**0.0%**	**52.2%**	**27.2%**	**0.1%**	**19.9%**	**0.0%**	**0.0%**	**0.1%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

3-Day (Tuesday - Thursday) Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

DATA SOLUTIONS

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	15	7	0	3	0	0	0	0	0	0	0	0	**26**
1:00 AM	0	10	4	0	1	0	0	0	0	0	0	0	0	**16**
2:00 AM	0	6	3	0	0	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	10	2	0	4	0	0	0	0	0	0	0	0	**17**
4:00 AM	0	38	12	0	9	0	0	1	1	0	0	0	0	**61**
5:00 AM	0	55	19	0	28	0	0	0	2	0	0	0	0	**104**
6:00 AM	0	95	39	0	58	0	0	0	1	0	0	0	0	**195**
7:00 AM	0	349	119	1	113	1	0	0	2	0	0	0	0	**584**
8:00 AM	0	244	110	0	93	1	0	0	3	0	0	0	0	**451**
9:00 AM	0	114	61	1	47	0	0	1	4	0	0	0	0	**228**
10:00 AM	0	109	62	2	54	1	0	0	2	0	0	0	0	**231**
11:00 AM	0	159	70	1	68	0	0	0	3	1	0	0	0	**302**
12:00 PM	0	161	75	0	74	0	0	0	2	0	0	0	0	**313**
1:00 PM	0	154	89	0	69	1	0	1	2	0	0	0	0	**316**
2:00 PM	0	199	102	1	78	1	0	1	2	0	0	0	0	**384**
3:00 PM	1	264	122	1	97	1	0	1	3	1	0	0	0	**490**
4:00 PM	0	324	155	0	106	0	0	0	1	0	0	0	0	**587**
5:00 PM	0	389	171	1	153	1	0	0	1	0	0	0	0	**716**
6:00 PM	0	210	81	0	85	0	0	0	1	0	0	0	0	**377**
7:00 PM	0	158	59	0	50	0	0	0	1	0	0	0	0	**268**
8:00 PM	0	119	52	0	38	0	0	0	0	0	0	0	0	**210**
9:00 PM	0	96	26	0	25	0	0	0	0	0	0	0	0	**147**
10:00 PM	0	49	20	0	21	0	0	0	0	0	0	0	0	**91**
11:00 PM	0	29	12	0	7	0	0	0	0	0	0	0	0	**48**
Total	**1**	**3,358**	**1,473**	**8**	**1,282**	**7**	**0**	**7**	**32**	**3**	**0**	**0**	**1**	**6,171**
Percent	**0.0%**	**54.4%**	**23.9%**	**0.1%**	**20.8%**	**0.1%**	**0.0%**	**0.1%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Vehicle Speed Report Summary

Location: I94 WB Ramp E/O Sunset Dr

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/5/2022

Site Code: 05

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	2	0	14	24	103	652	2,783	8,265	11,718	7,017	2,037	350	51	3	2	0	0	33,021
Percent	0.0%	0.0%	0.0%	0.1%	0.3%	2.0%	8.4%	25.0%	35.5%	21.3%	6.2%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	100%
Total	2	0	14	24	103	652	2,783	8,265	11,718	7,017	2,037	350	51	3	2	0	0	33,021
Percent	0.0%	0.0%	0.0%	0.1%	0.3%	2.0%	8.4%	25.0%	35.5%	21.3%	6.2%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%
Westbound			**Westbound**		
50th Percentile (Median)	47.0	mph	Mean (Average) Speed	46.9	mph
85th Percentile	52.7	mph	10 mph Pace	42.1 - 52.1	mph
95th Percentile	56.1	mph	Percent in Pace	63.4	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Monday, November 28, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	6	8	3	2	1	0	0	0	0	0	0	**21**
1:00 AM	0	0	0	0	0	1	3	4	2	4	0	0	0	0	0	0	0	**14**
2:00 AM	0	0	0	1	1	0	1	1	2	4	0	0	0	0	0	0	0	**10**
3:00 AM	0	0	0	0	0	2	1	2	1	7	0	0	0	0	0	0	0	**13**
4:00 AM	0	0	0	0	0	4	4	14	27	4	2	0	0	0	0	0	0	**55**
5:00 AM	0	0	0	0	1	2	5	41	29	18	8	1	0	0	0	0	0	**105**
6:00 AM	0	0	0	0	0	0	24	55	67	39	4	0	1	0	0	0	0	**190**
7:00 AM	0	0	0	0	1	32	100	212	160	41	5	2	0	0	0	0	0	**553**
8:00 AM	0	0	0	0	2	8	38	141	162	57	10	2	0	0	0	0	0	**420**
9:00 AM	0	0	0	0	0	2	18	87	67	26	4	0	0	0	0	0	0	**204**
10:00 AM	0	0	0	0	1	3	18	81	73	30	9	0	0	0	0	0	0	**215**
11:00 AM	0	0	0	0	0	5	28	80	101	50	9	1	0	0	0	0	0	**274**
12:00 PM	0	0	0	0	0	5	30	85	114	64	14	0	0	0	0	0	0	**312**
1:00 PM	0	0	0	0	0	4	37	100	127	56	10	1	0	0	0	0	0	**335**
2:00 PM	0	0	0	0	0	6	33	118	140	56	9	2	0	0	0	0	0	**364**
3:00 PM	0	0	1	4	7	11	29	134	203	76	12	0	0	0	0	0	0	**477**
4:00 PM	0	0	0	0	0	3	44	186	241	90	19	5	0	0	0	0	0	**588**
5:00 PM	0	0	0	0	10	42	120	225	215	72	10	2	0	0	0	0	0	**696**
6:00 PM	0	0	0	0	0	15	68	121	127	44	5	0	0	0	0	0	0	**380**
7:00 PM	0	0	1	0	0	5	40	92	75	23	4	1	0	0	0	0	0	**241**
8:00 PM	0	0	0	0	0	7	33	52	57	20	5	0	0	0	0	0	0	**174**
9:00 PM	0	0	0	0	0	2	20	42	47	16	3	0	0	0	0	0	0	**130**
10:00 PM	0	0	0	0	0	4	8	28	18	13	3	0	0	0	0	0	0	**74**
11:00 PM	0	0	0	0	0	2	9	15	12	3	2	0	0	0	0	0	0	**43**
Total	**0**	**0**	**2**	**5**	**23**	**166**	**717**	**1,924**	**2,070**	**815**	**148**	**17**	**1**	**0**	**0**	**0**	**0**	**5,888**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.4%**	**2.8%**	**12.2%**	**32.7%**	**35.2%**	**13.8%**	**2.5%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	45.2	mph	Mean (Average) Speed	45.1	mph
85th Percentile	50.3	mph	10 mph Pace	40.4 - 50.4	mph
95th Percentile	53.5	mph	Percent in Pace	67.99	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Tuesday, November 29, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	4	8	7	5	4	0	0	0	0	0	0	0	**29**
1:00 AM	0	0	0	0	0	0	1	7	1	3	0	0	0	0	0	0	0	**12**
2:00 AM	0	0	0	0	0	2	3	1	3	0	0	0	0	0	0	0	0	**9**
3:00 AM	0	0	0	1	0	1	2	3	6	3	2	0	0	0	0	0	0	**18**
4:00 AM	0	0	0	0	0	2	9	21	22	9	2	0	0	0	0	0	0	**65**
5:00 AM	0	0	0	0	0	5	15	37	32	12	7	2	0	0	0	0	0	**110**
6:00 AM	0	0	0	0	1	3	17	61	78	21	8	2	0	0	0	0	0	**191**
7:00 AM	0	0	1	6	9	42	89	220	187	51	3	1	0	0	0	0	0	**609**
8:00 AM	0	0	0	0	3	11	39	146	189	64	18	1	0	0	0	0	0	**471**
9:00 AM	0	0	0	0	1	4	11	71	108	43	13	0	0	0	0	0	0	**251**
10:00 AM	0	0	0	0	0	9	20	75	100	33	8	0	0	0	0	0	0	**245**
11:00 AM	0	0	0	0	0	2	25	84	117	52	8	1	0	0	0	0	0	**289**
12:00 PM	0	0	0	0	0	3	14	65	131	66	21	0	1	0	0	0	0	**301**
1:00 PM	0	0	0	0	0	3	20	86	138	69	11	2	0	0	0	0	0	**329**
2:00 PM	0	0	0	2	0	1	31	99	155	80	17	2	0	0	0	0	0	**387**
3:00 PM	0	0	0	0	0	9	38	131	174	81	23	0	0	0	0	0	0	**456**
4:00 PM	0	0	0	0	2	21	70	153	208	101	12	1	0	0	0	0	0	**568**
5:00 PM	0	0	0	0	9	46	150	224	182	89	9	0	0	0	0	0	0	**709**
6:00 PM	0	0	0	0	0	8	58	127	131	50	7	2	0	0	0	0	0	**383**
7:00 PM	0	0	0	2	4	8	22	84	80	35	4	2	0	0	0	0	0	**241**
8:00 PM	0	0	0	0	0	1	32	60	57	31	7	0	0	0	0	0	0	**188**
9:00 PM	0	0	0	0	0	10	15	39	53	18	2	2	0	0	0	0	0	**139**
10:00 PM	0	0	0	0	0	4	20	25	32	9	3	0	0	0	0	0	0	**93**
11:00 PM	0	0	0	0	0	7	7	15	10	4	1	0	0	0	0	0	0	**44**
Total	**0**	**0**	**1**	**11**	**30**	**206**	**716**	**1,841**	**2,199**	**928**	**186**	**18**	**1**	**0**	**0**	**0**	**0**	**6,137**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.5%**	**3.4%**	**11.7%**	**30.0%**	**35.8%**	**15.1%**	**3.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	45.4	mph	Mean (Average) Speed	45.2	mph
85th Percentile	50.8	mph	10 mph Pace	41.2 - 51.2	mph
95th Percentile	53.9	mph	Percent in Pace	65.8	%

TJ Wethington
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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Wednesday, November 30, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	4	9	7	1	1	0	0	0	0	0	0	**23**
1:00 AM	0	0	0	0	0	2	5	9	3	0	1	0	0	0	0	0	0	**20**
2:00 AM	0	0	0	0	0	1	1	0	3	1	1	0	0	0	0	0	0	**7**
3:00 AM	0	0	0	0	0	0	0	6	4	2	2	0	0	0	0	0	0	**14**
4:00 AM	0	0	0	0	0	3	8	11	18	17	3	1	0	0	0	0	0	**61**
5:00 AM	0	0	0	0	0	0	11	27	38	18	10	3	1	0	0	0	0	**108**
6:00 AM	0	0	0	0	1	3	16	59	74	39	15	2	0	0	0	0	0	**209**
7:00 AM	0	0	0	0	14	23	74	179	218	78	11	0	0	0	0	0	0	**597**
8:00 AM	0	0	0	0	0	3	38	107	189	98	28	4	1	0	0	0	0	**468**
9:00 AM	0	0	0	0	0	1	12	43	84	69	10	3	0	0	0	0	0	**222**
10:00 AM	0	0	0	1	0	4	13	44	93	43	13	2	0	0	0	0	0	**213**
11:00 AM	0	0	0	0	0	3	13	67	137	73	21	2	0	0	0	0	0	**316**
12:00 PM	0	0	0	0	0	1	10	86	116	81	24	4	0	0	0	0	0	**322**
1:00 PM	0	0	5	0	0	6	25	87	88	74	19	2	1	0	0	0	0	**307**
2:00 PM	0	0	0	0	0	2	10	68	142	91	29	8	0	0	0	0	0	**350**
3:00 PM	0	0	0	2	0	2	13	88	196	129	32	6	3	0	0	0	0	**471**
4:00 PM	0	0	0	0	0	3	27	128	230	149	37	6	0	0	0	0	0	**580**
5:00 PM	0	0	0	0	4	14	63	150	251	130	28	4	0	0	0	0	0	**644**
6:00 PM	0	0	0	0	1	6	48	122	161	61	15	1	1	0	0	0	0	**416**
7:00 PM	0	0	0	0	0	6	15	67	109	39	13	4	0	0	0	0	0	**253**
8:00 PM	0	0	0	0	0	7	9	50	81	36	13	1	0	0	0	0	0	**197**
9:00 PM	0	0	0	0	1	0	8	47	51	32	9	4	0	0	0	0	0	**152**
10:00 PM	0	0	0	0	0	2	5	24	33	21	4	0	0	0	0	0	0	**89**
11:00 PM	0	0	0	0	0	2	5	8	20	9	2	0	0	0	0	0	0	**46**
Total	**0**	**0**	**5**	**3**	**21**	**95**	**433**	**1,486**	**2,346**	**1,291**	**341**	**57**	**7**	**0**	**0**	**0**	**0**	**6,085**
Percent	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.3%**	**1.6%**	**7.1%**	**24.4%**	**38.6%**	**21.2%**	**5.6%**	**0.9%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	47.1	mph	Mean (Average) Speed	47	mph
85th Percentile	52.6	mph	10 mph Pace	42.2 - 52.2	mph
95th Percentile	55.7	mph	Percent in Pace	67.26	%

TJ Wethington
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tj.wethington@idaxdata.com

Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Thursday, December 1, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	3	6	13	4	0	0	0	0	0	0	0	**26**
1:00 AM	0	0	0	0	1	1	3	3	5	3	0	0	0	0	0	0	0	**16**
2:00 AM	0	0	0	0	0	0	3	2	4	3	1	0	0	0	0	0	0	**13**
3:00 AM	0	0	0	0	0	0	4	4	4	6	1	0	0	0	0	0	0	**19**
4:00 AM	0	0	0	0	0	0	2	13	14	20	7	0	0	0	0	0	0	**56**
5:00 AM	0	0	0	0	0	0	7	18	34	21	9	4	2	0	0	0	0	**95**
6:00 AM	0	0	0	0	0	3	7	25	65	59	21	4	0	0	0	0	0	**184**
7:00 AM	0	0	0	0	1	5	55	151	195	120	18	1	0	0	0	0	0	**546**
8:00 AM	0	0	0	0	3	9	27	76	173	94	28	3	1	0	0	0	0	**414**
9:00 AM	0	0	0	0	0	0	10	45	74	60	22	1	0	0	0	0	0	**212**
10:00 AM	0	0	0	0	0	7	13	54	83	54	21	3	0	0	0	0	0	**235**
11:00 AM	0	0	1	0	1	5	12	47	109	80	39	7	1	0	0	0	0	**302**
12:00 PM	0	0	0	0	0	0	3	66	114	89	37	6	0	0	0	0	0	**315**
1:00 PM	0	0	0	0	2	1	9	67	101	94	32	5	1	0	0	0	0	**312**
2:00 PM	0	0	0	0	0	4	23	77	162	110	23	12	3	0	0	0	0	**414**
3:00 PM	1	0	2	2	2	2	57	92	175	160	42	7	0	0	0	0	0	**542**
4:00 PM	0	0	0	0	0	15	33	115	230	179	40	2	0	0	0	0	0	**614**
5:00 PM	0	0	0	0	11	37	78	242	304	105	18	0	1	0	0	0	0	**796**
6:00 PM	0	0	0	2	2	3	31	88	113	71	18	1	2	0	0	0	0	**331**
7:00 PM	0	0	0	0	1	9	25	108	98	56	10	3	0	0	0	0	0	**310**
8:00 PM	0	0	0	0	0	6	20	69	91	49	8	1	0	0	0	0	0	**244**
9:00 PM	0	0	0	0	0	1	17	44	50	35	4	0	0	0	0	0	0	**151**
10:00 PM	0	0	0	0	0	2	10	33	36	6	2	0	1	0	0	0	0	**90**
11:00 PM	0	0	0	0	0	1	8	18	17	8	3	0	0	0	0	0	0	**55**
Total	**1**	**0**	**3**	**4**	**24**	**111**	**460**	**1,463**	**2,264**	**1,486**	**404**	**60**	**12**	**0**	**0**	**0**	**0**	**6,292**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.4%**	**1.8%**	**7.3%**	**23.3%**	**36.0%**	**23.6%**	**6.4%**	**1.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	47.5	mph	Mean (Average) Speed	47.2	mph
85th Percentile	52.8	mph	10 mph Pace	42.5 - 52.5	mph
95th Percentile	56.1	mph	Percent in Pace	64.49	%

TJ Wethington
720-646-1008
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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Friday, December 2, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	6	9	12	1	1	0	0	0	0	0	0	**31**
1:00 AM	0	0	0	0	0	1	3	7	4	4	0	0	0	0	0	0	0	**19**
2:00 AM	0	0	0	0	0	0	1	2	5	2	0	0	0	0	0	0	0	**10**
3:00 AM	0	0	0	0	0	2	1	6	6	3	1	0	0	0	0	0	0	**19**
4:00 AM	0	0	0	0	0	1	8	15	20	6	2	1	0	0	0	0	0	**53**
5:00 AM	0	0	0	0	0	4	9	17	32	18	1	4	0	0	0	0	0	**85**
6:00 AM	0	0	0	0	0	1	19	39	49	28	2	1	0	0	0	0	0	**139**
7:00 AM	0	0	0	0	2	6	74	191	156	59	11	0	0	0	0	0	0	**499**
8:00 AM	0	0	3	0	1	11	55	92	94	26	6	1	0	0	0	0	0	**289**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**3**	**0**	**3**	**28**	**176**	**378**	**378**	**147**	**24**	**7**	**0**	**0**	**0**	**0**	**0**	**1,144**
Percent	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.3%**	**2.4%**	**15.4%**	**33.0%**	**33.0%**	**12.8%**	**2.1%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	44.7	mph	Mean (Average) Speed	44.7	mph
85th Percentile	50.1	mph	10 mph Pace	40.5 - 50.5	mph
95th Percentile	53.4	mph	Percent in Pace	66.43	%

TJ Wethington
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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Saturday, December 3, 2022
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	1	0	0	1	0	5	7	40	101	113	38	14	0	1	0	0	0	**321**
10:00 AM	0	0	0	0	0	0	3	45	109	103	52	11	1	0	0	0	0	**324**
11:00 AM	0	0	0	0	1	1	5	28	110	125	46	10	0	0	0	0	0	**326**
12:00 PM	0	0	0	0	0	1	3	24	83	105	45	13	3	0	0	0	0	**277**
1:00 PM	0	0	0	0	0	1	9	44	119	110	47	4	1	0	0	0	0	**335**
2:00 PM	0	0	0	0	0	1	5	38	132	134	63	9	0	0	1	0	0	**383**
3:00 PM	0	0	0	0	0	0	5	42	113	142	62	12	1	0	0	0	0	**377**
4:00 PM	0	0	0	0	0	0	6	42	95	121	50	5	0	0	0	0	0	**319**
5:00 PM	0	0	0	0	0	3	11	60	98	97	30	5	3	0	0	0	0	**307**
6:00 PM	0	0	0	0	0	2	25	78	111	65	23	2	1	0	0	0	0	**307**
7:00 PM	0	0	0	0	1	5	10	61	68	48	15	4	0	0	0	0	0	**212**
8:00 PM	0	0	0	0	0	3	6	42	69	42	12	0	0	0	0	0	0	**174**
9:00 PM	0	0	0	0	0	2	18	49	65	28	10	1	0	0	0	0	0	**173**
10:00 PM	0	0	0	0	0	3	15	38	49	25	10	0	0	1	0	0	0	**141**
11:00 PM	0	0	0	0	0	1	11	23	26	12	7	0	0	0	0	0	0	**80**
Total	**1**	**0**	**0**	**1**	**2**	**28**	**139**	**654**	**1,348**	**1,270**	**510**	**90**	**10**	**2**	**1**	**0**	**0**	**4,056**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.7%**	**3.4%**	**16.1%**	**33.2%**	**31.3%**	**12.6%**	**2.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.4	mph	Mean (Average) Speed	49.4	mph
85th Percentile	55.0	mph	10 mph Pace	45.2 - 55.2	mph
95th Percentile	58.4	mph	Percent in Pace	64.37	%

TJ Wethington
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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Sunday, December 4, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	9	17	25	11	2	1	0	0	0	0	0	**66**
1:00 AM	0	0	0	0	0	2	3	8	18	7	2	1	0	0	0	0	0	**41**
2:00 AM	0	0	0	0	0	0	4	3	6	6	1	0	0	0	0	0	0	**20**
3:00 AM	0	0	0	0	0	0	1	4	3	3	1	0	0	0	0	0	0	**12**
4:00 AM	0	0	0	0	0	0	2	5	4	6	4	1	0	0	0	0	0	**22**
5:00 AM	0	0	0	0	0	0	1	6	10	7	1	0	0	0	0	0	0	**25**
6:00 AM	0	0	0	0	0	0	1	14	14	7	3	0	1	0	0	0	0	**40**
7:00 AM	0	0	0	0	0	0	5	11	21	16	2	0	0	0	0	0	0	**55**
8:00 AM	0	0	0	0	0	0	7	11	25	18	7	1	0	0	0	0	0	**69**
9:00 AM	0	0	0	0	0	0	3	18	74	58	13	3	0	0	0	0	0	**169**
10:00 AM	0	0	0	0	0	0	2	29	70	87	35	3	1	0	0	0	0	**227**
11:00 AM	0	0	0	0	0	0	4	25	90	83	25	11	1	0	0	0	0	**239**
12:00 PM	0	0	0	0	0	0	12	42	85	92	28	6	3	0	0	0	0	**268**
1:00 PM	0	0	0	0	0	0	8	17	51	110	50	13	3	1	0	0	0	**253**
2:00 PM	0	0	0	0	0	0	1	27	82	112	56	15	2	0	1	0	0	**296**
3:00 PM	0	0	0	0	0	0	6	33	99	126	62	17	0	0	0	0	0	**343**
4:00 PM	0	0	0	0	0	0	2	22	78	93	42	10	5	0	0	0	0	**252**
5:00 PM	0	0	0	0	0	2	13	39	97	76	40	7	2	0	0	0	0	**276**
6:00 PM	0	0	0	0	0	0	20	57	85	49	17	5	1	0	0	0	0	**234**
7:00 PM	0	0	0	0	0	3	12	42	67	43	9	2	0	0	0	0	0	**178**
8:00 PM	0	0	0	0	0	5	7	33	42	22	7	1	1	0	0	0	0	**118**
9:00 PM	0	0	0	0	0	4	4	27	26	22	8	1	0	0	0	0	0	**92**
10:00 PM	0	0	0	0	0	0	5	16	27	15	5	2	0	0	0	0	0	**70**
11:00 PM	0	0	0	0	0	0	9	7	7	6	4	1	0	0	0	0	0	**34**
Total	**0**	**0**	**0**	**0**	**0**	**17**	**141**	**513**	**1,106**	**1,075**	**424**	**101**	**20**	**1**	**1**	**0**	**0**	**3,399**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.5%**	**4.1%**	**15.1%**	**32.5%**	**31.6%**	**12.5%**	**3.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.5	mph	Mean (Average) Speed	49.6	mph
85th Percentile	55.3	mph	10 mph Pace	44.6 - 54.6	mph
95th Percentile	59.1	mph	Percent in Pace	64.58	%

TJ Wethington
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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Monday, December 5, 2022
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	1	6	7	5	0	0	0	0	0	0	0	**20**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**6**	**7**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**5.0%**	**5.0%**	**30.0%**	**35.0%**	**25.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	46.9	mph	Mean (Average) Speed	46.4	mph
85th Percentile	52.5	mph	10 mph Pace	41.2 - 51.2	mph
95th Percentile	54.6	mph	Percent in Pace	75	%

TJ Wethington
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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Total Study Average
Eastbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/5/2022
Site Code: 05

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	5	8	9	4	1	0	0	0	0	0	0	**28**
1:00 AM	0	0	0	0	0	1	3	5	5	3	0	0	0	0	0	0	0	**17**
2:00 AM	0	0	0	0	0	0	2	1	3	2	0	0	0	0	0	0	0	**8**
3:00 AM	0	0	0	0	0	1	1	4	3	3	1	0	0	0	0	0	0	**13**
4:00 AM	0	0	0	0	0	1	5	11	15	9	3	0	0	0	0	0	0	**44**
5:00 AM	0	0	0	0	0	2	7	21	25	13	5	2	0	0	0	0	0	**75**
6:00 AM	0	0	0	0	0	1	12	36	50	28	8	1	0	0	0	0	0	**136**
7:00 AM	0	0	0	1	4	15	57	138	134	52	7	1	0	0	0	0	0	**409**
8:00 AM	0	0	0	0	1	6	29	82	119	51	14	2	0	0	0	0	0	**304**
9:00 AM	0	0	0	0	0	2	9	43	73	53	14	3	0	0	0	0	0	**197**
10:00 AM	0	0	0	0	0	3	10	47	75	50	20	3	0	0	0	0	0	**208**
11:00 AM	0	0	0	0	0	2	12	47	95	66	21	5	0	0	0	0	0	**248**
12:00 PM	0	0	0	0	0	1	10	53	92	71	24	4	1	0	0	0	0	**256**
1:00 PM	0	0	1	0	0	2	15	57	89	73	24	4	1	0	0	0	0	**266**
2:00 PM	0	0	0	0	0	2	15	61	116	83	28	7	1	0	0	0	0	**313**
3:00 PM	0	0	0	1	1	3	21	74	137	102	33	6	1	0	0	0	0	**379**
4:00 PM	0	0	0	0	0	6	26	92	155	105	29	4	1	0	0	0	0	**418**
5:00 PM	0	0	0	0	5	21	62	134	164	81	19	3	1	0	0	0	0	**490**
6:00 PM	0	0	0	0	0	5	36	85	104	49	12	2	1	0	0	0	0	**294**
7:00 PM	0	0	0	0	1	5	18	65	71	35	8	2	0	0	0	0	0	**205**
8:00 PM	0	0	0	0	0	4	15	44	57	29	7	0	0	0	0	0	0	**156**
9:00 PM	0	0	0	0	0	3	12	35	42	22	5	1	0	0	0	0	0	**120**
10:00 PM	0	0	0	0	0	2	9	23	28	13	4	0	0	0	0	0	0	**79**
11:00 PM	0	0	0	0	0	2	7	12	13	6	3	0	0	0	0	0	0	**43**
Total	**0**	**0**	**1**	**2**	**12**	**91**	**398**	**1,178**	**1,674**	**1,003**	**290**	**50**	**7**	**0**	**0**	**0**	**0**	**4,706**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**1.9%**	**8.5%**	**25.0%**	**35.6%**	**21.3%**	**6.2%**	**1.1%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	47.0	mph	Mean (Average) Speed	46.9	mph
85th Percentile	52.7	mph	10 mph Pace	42.1 - 52.1	mph
95th Percentile	56.1	mph	Percent in Pace	63.4	%

TJ Wethington
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Location: I94 WB Ramp E/O Sunset Dr
Date Range: 11/28/2022 - 12/4/2022
Site Code: 05

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	21	21	0	29	29	0	23	23	0	26	26	0	31	31	0	0	0	0	66	66	0	26	26
1:00 AM	0	14	14	0	12	12	0	20	20	0	16	16	0	19	19	0	0	0	0	41	41	0	16	16
2:00 AM	0	10	10	0	9	9	0	7	7	0	13	13	0	10	10	0	0	0	0	20	20	0	10	10
3:00 AM	0	13	13	0	18	18	0	14	14	0	19	19	0	19	19	0	0	0	0	12	12	0	17	17
4:00 AM	0	55	55	0	65	65	0	61	61	0	56	56	0	53	53	0	0	0	0	22	22	0	61	61
5:00 AM	0	105	105	0	110	110	0	108	108	0	95	95	0	85	85	0	0	0	0	25	25	0	104	104
6:00 AM	0	190	190	0	191	191	0	209	209	0	184	184	0	139	139	0	0	0	0	40	40	0	195	195
7:00 AM	0	553	553	0	609	609	0	597	597	0	546	546	0	499	499	0	0	0	0	55	55	0	584	584
8:00 AM	0	420	420	0	471	471	0	468	468	0	414	414	0	289	289	0	0	0	0	69	69	0	451	451
9:00 AM	0	204	204	0	251	251	0	222	222	0	212	212	0	0	0	0	321	321	0	169	169	0	228	228
10:00 AM	0	215	215	0	245	245	0	213	213	0	235	235	0	0	0	0	324	324	0	227	227	0	231	231
11:00 AM	0	274	274	0	289	289	0	316	316	0	302	302	0	0	0	0	326	326	0	239	239	0	302	302
12:00 PM	0	312	312	0	301	301	0	322	322	0	315	315	0	0	0	0	277	277	0	268	268	0	313	313
1:00 PM	0	335	335	0	329	329	0	307	307	0	312	312	0	0	0	0	335	335	0	253	253	0	316	316
2:00 PM	0	364	364	0	387	387	0	350	350	0	414	414	0	0	0	0	383	383	0	296	296	0	384	384
3:00 PM	0	477	477	0	456	456	0	471	471	0	542	542	0	0	0	0	377	377	0	343	343	0	490	490
4:00 PM	0	588	588	0	568	568	0	580	580	0	614	614	0	0	0	0	319	319	0	252	252	0	587	587
5:00 PM	0	696	696	0	709	709	0	644	644	0	796	796	0	0	0	0	307	307	0	276	276	0	716	716
6:00 PM	0	380	380	0	383	383	0	416	416	0	331	331	0	0	0	0	307	307	0	234	234	0	377	377
7:00 PM	0	241	241	0	241	241	0	253	253	0	310	310	0	0	0	0	212	212	0	178	178	0	268	268
8:00 PM	0	174	174	0	188	188	0	197	197	0	244	244	0	0	0	0	174	174	0	118	118	0	210	210
9:00 PM	0	130	130	0	139	139	0	152	152	0	151	151	0	0	0	0	173	173	0	92	92	0	147	147
10:00 PM	0	74	74	0	93	93	0	89	89	0	90	90	0	0	0	0	141	141	0	70	70	0	91	91
11:00 PM	0	43	43	0	44	44	0	46	46	0	55	55	0	0	0	0	80	80	0	34	34	0	48	48
Total	-	**5,888**	**5,888**	-	**6,137**	**6,137**	-	**6,085**	**6,085**	-	**6,292**	**6,292**	-	**1,144**	**1,144**	-	**4,056**	**4,056**	-	**3,399**	**3,399**	-	**6,171**	**6,171**
Percent	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I94 EB Ramp E/O Sunset Dr

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 06

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	6	19,432	8,942	29	6,077	231	0	41	116	22	0	0	4	34,900
Percent	0.0%	55.7%	25.6%	0.1%	17.4%	0.7%	0.0%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	6	19,432	8,942	29	6,077	231	0	41	116	22	0	0	4	34,900
Percent	0.0%	55.7%	25.6%	0.1%	17.4%	0.7%	0.0%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Monday, November 28, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	11	2	0	0	1	0	0	0	0	0	0	0	**14**
1:00 AM	0	5	4	0	1	0	0	0	1	0	0	0	0	**11**
2:00 AM	0	2	4	0	1	1	0	0	1	0	0	0	0	**9**
3:00 AM	0	7	2	0	5	0	0	1	0	0	0	0	0	**15**
4:00 AM	0	22	14	0	13	1	0	1	2	0	0	0	0	**53**
5:00 AM	0	52	35	1	23	1	0	0	1	0	0	0	0	**113**
6:00 AM	0	176	68	0	75	1	0	0	0	1	0	0	0	**321**
7:00 AM	0	370	160	0	136	2	0	0	5	0	0	0	0	**673**
8:00 AM	0	259	159	0	113	3	0	0	0	1	0	0	0	**535**
9:00 AM	0	126	83	0	47	3	0	1	3	0	0	0	0	**263**
10:00 AM	1	131	81	2	56	1	0	2	2	0	0	0	0	**276**
11:00 AM	0	150	83	0	66	0	0	2	2	0	0	0	0	**303**
12:00 PM	0	194	86	0	70	0	0	0	3	0	0	0	0	**353**
1:00 PM	0	180	88	0	70	1	0	1	2	0	0	0	0	**342**
2:00 PM	0	198	84	0	72	2	0	0	2	0	0	0	0	**358**
3:00 PM	0	316	150	0	92	0	0	0	1	0	0	0	0	**559**
4:00 PM	0	308	139	2	111	4	0	0	4	0	0	0	0	**568**
5:00 PM	0	294	125	0	102	2	0	0	2	1	0	0	0	**526**
6:00 PM	0	215	84	0	56	4	0	0	0	0	0	0	0	**359**
7:00 PM	0	123	61	0	23	1	0	0	0	1	0	0	0	**209**
8:00 PM	0	81	32	0	12	1	0	0	0	0	0	0	0	**126**
9:00 PM	0	84	26	1	18	3	0	0	1	0	0	0	0	**133**
10:00 PM	0	39	14	0	9	2	0	0	0	0	0	0	0	**64**
11:00 PM	0	25	14	0	7	0	0	0	0	0	0	0	0	**46**
Total	**1**	**3,368**	**1,598**	**6**	**1,178**	**34**	**0**	**8**	**32**	**4**	**0**	**0**	**0**	**6,229**
Percent	**0.0%**	**54.1%**	**25.7%**	**0.1%**	**18.9%**	**0.5%**	**0.0%**	**0.1%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Tuesday, November 29, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	18	11	0	3	1	0	0	0	0	0	0	0	**33**
1:00 AM	0	7	7	0	0	0	0	0	1	0	0	0	0	**15**
2:00 AM	0	6	5	0	4	1	0	1	0	0	0	0	0	**17**
3:00 AM	0	10	5	0	3	0	0	1	0	0	0	0	0	**19**
4:00 AM	0	26	19	0	9	0	0	1	0	2	0	0	0	**57**
5:00 AM	0	68	47	0	16	4	0	0	1	0	0	0	0	**136**
6:00 AM	0	170	87	0	59	1	0	0	1	0	0	0	0	**318**
7:00 AM	2	386	215	0	104	7	0	1	1	1	0	0	0	**717**
8:00 AM	0	270	164	0	99	9	0	0	4	0	0	0	1	**547**
9:00 AM	0	139	78	0	49	3	0	0	1	0	0	0	0	**270**
10:00 AM	0	156	75	2	59	4	0	0	5	0	0	0	0	**301**
11:00 AM	0	165	87	2	78	2	0	0	1	1	0	0	0	**336**
12:00 PM	0	197	87	0	86	2	0	0	0	0	0	0	0	**372**
1:00 PM	0	174	68	0	67	2	0	0	4	0	0	0	0	**315**
2:00 PM	0	218	101	0	74	2	0	0	1	0	0	0	0	**396**
3:00 PM	0	296	157	1	81	1	0	1	1	0	0	0	0	**538**
4:00 PM	0	348	154	0	114	3	0	1	0	0	0	0	0	**620**
5:00 PM	0	274	116	0	90	5	0	2	0	0	0	0	0	**487**
6:00 PM	0	196	74	1	50	3	0	0	0	0	0	0	0	**324**
7:00 PM	0	147	57	0	29	2	0	0	0	0	0	0	0	**235**
8:00 PM	0	102	44	0	19	2	0	0	0	0	0	0	0	**167**
9:00 PM	0	64	24	0	10	0	0	0	0	0	0	0	0	**98**
10:00 PM	0	34	11	0	10	0	0	0	0	0	0	0	0	**55**
11:00 PM	0	22	11	0	3	1	0	0	1	0	0	0	0	**38**
Total	**2**	**3,493**	**1,704**	**6**	**1,116**	**55**	**0**	**8**	**22**	**4**	**0**	**0**	**1**	**6,411**
Percent	**0.0%**	**54.5%**	**26.6%**	**0.1%**	**17.4%**	**0.9%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Wednesday, November 30, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	22	10	0	1	0	0	0	1	0	0	0	0	**34**
1:00 AM	0	9	5	0	3	0	0	0	1	0	0	0	0	**18**
2:00 AM	0	4	4	0	0	0	0	0	0	0	0	0	0	**8**
3:00 AM	0	8	5	0	6	0	0	1	0	0	0	0	0	**20**
4:00 AM	0	30	14	0	13	0	0	1	1	0	0	0	0	**59**
5:00 AM	0	71	36	0	17	3	0	1	3	1	0	0	0	**132**
6:00 AM	0	190	64	0	63	4	0	0	0	0	0	0	0	**321**
7:00 AM	0	398	187	0	102	6	0	0	3	2	0	0	0	**698**
8:00 AM	0	271	167	0	89	5	0	1	1	1	0	0	1	**536**
9:00 AM	0	145	83	0	48	3	0	0	1	0	0	0	0	**280**
10:00 AM	0	147	72	0	54	0	0	0	2	0	0	0	0	**275**
11:00 AM	0	163	87	1	77	3	0	1	4	0	0	0	0	**336**
12:00 PM	0	173	81	0	57	2	0	1	0	1	0	0	0	**315**
1:00 PM	0	160	92	0	78	1	0	0	1	1	0	0	0	**333**
2:00 PM	0	224	95	0	66	1	0	0	0	0	0	0	0	**386**
3:00 PM	0	363	135	0	90	3	0	0	0	0	0	0	0	**591**
4:00 PM	0	391	138	1	115	2	0	1	1	0	0	0	0	**649**
5:00 PM	0	309	126	0	101	2	0	0	0	0	0	0	0	**538**
6:00 PM	0	193	87	0	50	3	0	0	1	0	0	0	0	**334**
7:00 PM	0	138	54	0	38	4	0	0	1	0	0	0	0	**235**
8:00 PM	0	102	47	0	21	3	0	0	0	0	0	0	0	**173**
9:00 PM	0	72	34	0	22	1	0	0	0	0	0	0	0	**129**
10:00 PM	0	34	15	0	9	1	0	0	0	0	0	0	0	**59**
11:00 PM	0	16	15	0	5	0	0	0	0	0	0	0	0	**36**
Total	**0**	**3,633**	**1,653**	**2**	**1,125**	**47**	**0**	**7**	**21**	**6**	**0**	**0**	**1**	**6,495**
Percent	**0.0%**	**55.9%**	**25.5%**	**0.0%**	**17.3%**	**0.7%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Thursday, December 1, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	29	7	0	4	1	0	0	0	1	0	0	0	**42**
1:00 AM	0	14	3	0	2	0	0	0	1	0	0	0	0	**20**
2:00 AM	0	7	7	0	3	1	0	0	0	0	0	0	0	**18**
3:00 AM	0	13	3	0	5	0	0	2	0	0	0	0	0	**23**
4:00 AM	0	28	13	0	12	1	0	1	0	0	0	0	0	**55**
5:00 AM	0	58	31	0	25	3	0	0	1	0	0	0	0	**118**
6:00 AM	0	168	83	0	65	0	0	0	2	0	0	0	0	**318**
7:00 AM	0	379	164	1	111	11	0	0	1	1	0	0	0	**668**
8:00 AM	0	259	164	1	85	4	0	0	2	0	0	0	0	**515**
9:00 AM	0	149	87	1	65	3	0	1	3	0	0	0	0	**309**
10:00 AM	0	160	72	1	60	3	0	0	3	0	0	0	0	**299**
11:00 AM	0	161	90	0	62	1	0	0	2	0	0	0	0	**316**
12:00 PM	0	200	84	1	60	2	0	1	2	0	0	0	0	**350**
1:00 PM	0	178	87	0	66	3	0	0	2	0	0	0	0	**336**
2:00 PM	0	232	112	1	77	6	0	1	3	0	0	0	0	**432**
3:00 PM	0	367	155	1	108	4	0	1	1	0	0	0	0	**637**
4:00 PM	0	334	161	1	115	5	0	0	0	0	0	0	0	**616**
5:00 PM	0	273	123	0	88	7	0	0	1	0	0	0	0	**492**
6:00 PM	0	227	75	1	74	3	0	0	0	0	0	0	0	**380**
7:00 PM	0	145	64	0	34	2	0	1	0	1	0	0	0	**247**
8:00 PM	0	141	67	0	27	0	0	1	1	0	0	0	0	**237**
9:00 PM	0	88	26	0	19	1	0	0	0	0	0	0	0	**134**
10:00 PM	0	48	25	0	7	0	0	0	0	0	0	0	0	**80**
11:00 PM	0	21	8	0	2	1	0	0	0	0	0	0	0	**32**
Total	**0**	**3,679**	**1,711**	**9**	**1,176**	**62**	**0**	**9**	**25**	**3**	**0**	**0**	**0**	**6,674**
Percent	**0.0%**	**55.1%**	**25.6%**	**0.1%**	**17.6%**	**0.9%**	**0.0%**	**0.1%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Friday, December 2, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	31	8	0	6	0	0	0	0	0	0	0	0	**45**
1:00 AM	0	9	3	0	0	0	0	0	1	0	0	0	0	**13**
2:00 AM	0	4	6	0	2	0	0	0	0	0	0	0	0	**12**
3:00 AM	0	12	11	0	3	0	0	1	1	0	0	0	0	**28**
4:00 AM	0	23	13	0	12	2	0	1	1	0	0	0	1	**53**
5:00 AM	0	60	23	0	16	2	0	0	2	0	0	0	0	**103**
6:00 AM	0	146	59	1	49	2	0	0	0	1	0	0	0	**258**
7:00 AM	0	358	130	3	136	1	0	1	0	0	0	0	0	**629**
8:00 AM	0	107	57	1	36	2	0	0	0	0	0	0	0	**203**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**750**	**310**	**5**	**260**	**9**	**0**	**3**	**5**	**1**	**0**	**0**	**1**	**1,344**
Percent	**0.0%**	**55.8%**	**23.1%**	**0.4%**	**19.3%**	**0.7%**	**0.0%**	**0.2%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**	**0.1%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Saturday, December 3, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	1	195	81	0	57	1	0	0	0	1	0	0	0	**336**
11:00 AM	0	237	125	0	64	2	0	1	0	0	0	0	1	**430**
12:00 PM	0	246	112	0	53	1	0	0	2	0	0	0	0	**414**
1:00 PM	0	243	134	0	84	1	0	1	0	0	0	0	0	**463**
2:00 PM	0	189	69	0	47	1	0	0	0	0	0	0	0	**306**
3:00 PM	0	188	109	0	59	1	0	1	0	0	0	0	0	**358**
4:00 PM	0	310	138	0	86	1	0	0	0	0	0	0	0	**535**
5:00 PM	0	232	104	0	43	2	0	0	0	0	0	0	0	**381**
6:00 PM	0	162	62	0	39	3	0	0	0	0	0	0	0	**266**
7:00 PM	0	101	46	0	32	1	0	0	0	0	0	0	0	**180**
8:00 PM	0	90	36	0	20	1	0	0	1	0	0	0	0	**148**
9:00 PM	0	81	39	0	14	1	0	0	0	0	0	0	0	**135**
10:00 PM	0	80	17	0	19	2	0	0	0	0	0	0	0	**118**
11:00 PM	0	46	16	0	9	1	0	0	0	0	0	0	0	**72**
Total	**1**	**2,400**	**1,088**	**0**	**626**	**19**	**0**	**3**	**3**	**1**	**0**	**0**	**1**	**4,142**
Percent	**0.0%**	**57.9%**	**26.3%**	**0.0%**	**15.1%**	**0.5%**	**0.0%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Sunday, December 4, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	41	15	0	8	0	0	0	0	0	0	0	0	**64**
1:00 AM	0	27	7	0	6	0	0	0	1	0	0	0	0	**41**
2:00 AM	0	5	9	0	2	0	0	0	0	0	0	0	0	**16**
3:00 AM	0	14	2	0	3	0	0	0	0	0	0	0	0	**19**
4:00 AM	0	6	3	0	4	0	0	0	0	0	0	0	0	**13**
5:00 AM	0	18	12	0	8	1	0	0	0	0	0	0	0	**39**
6:00 AM	0	30	8	0	9	0	0	0	0	1	0	0	0	**48**
7:00 AM	0	47	25	0	12	1	0	0	1	0	0	0	0	**86**
8:00 AM	0	81	37	0	16	0	0	0	0	0	0	0	0	**134**
9:00 AM	1	111	46	0	26	0	0	0	0	0	0	0	0	**184**
10:00 AM	0	138	68	0	44	0	0	0	4	0	0	0	0	**254**
11:00 AM	0	172	65	0	58	1	0	1	0	0	0	0	0	**297**
12:00 PM	0	175	60	0	58	0	0	0	0	0	0	0	0	**293**
1:00 PM	0	163	76	0	54	0	0	0	0	1	0	0	0	**294**
2:00 PM	0	183	93	0	62	0	0	0	0	0	0	0	0	**338**
3:00 PM	0	167	92	0	42	0	0	0	1	0	0	0	0	**302**
4:00 PM	1	162	68	1	47	0	0	0	0	1	0	0	0	**280**
5:00 PM	0	156	63	0	43	0	0	0	0	0	0	0	0	**262**
6:00 PM	0	126	48	0	38	1	0	0	0	0	0	0	0	**213**
7:00 PM	0	104	33	0	31	0	0	1	0	0	0	0	0	**169**
8:00 PM	0	67	17	0	8	0	0	0	0	0	0	0	0	**92**
9:00 PM	0	56	14	0	12	0	0	1	0	0	0	0	0	**83**
10:00 PM	0	39	10	0	4	1	0	0	1	0	0	0	0	**55**
11:00 PM	0	21	7	0	1	0	0	0	0	0	0	0	0	**29**
Total	**2**	**2,109**	**878**	**1**	**596**	**5**	**0**	**3**	**8**	**3**	**0**	**0**	**0**	**3,605**
Percent	**0.1%**	**58.5%**	**24.4%**	**0.0%**	**16.5%**	**0.1%**	**0.0%**	**0.1%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	22	8	0	3	0	0	0	0	0	0	0	0	**33**
1:00 AM	0	10	4	0	2	0	0	0	1	0	0	0	0	**17**
2:00 AM	0	4	5	0	2	0	0	0	0	0	0	0	0	**11**
3:00 AM	0	9	4	0	4	0	0	1	0	0	0	0	0	**18**
4:00 AM	0	19	11	0	9	1	0	1	1	0	0	0	0	**42**
5:00 AM	0	47	26	0	15	2	0	0	1	0	0	0	0	**91**
6:00 AM	0	126	53	0	46	1	0	0	0	0	0	0	0	**226**
7:00 AM	0	277	126	1	86	4	0	0	2	1	0	0	0	**497**
8:00 AM	0	178	107	0	63	3	0	0	1	0	0	0	0	**352**
9:00 AM	0	96	54	0	34	2	0	0	1	0	0	0	0	**187**
10:00 AM	0	132	64	1	47	1	0	0	2	0	0	0	0	**247**
11:00 AM	0	150	77	0	58	1	0	1	1	0	0	0	0	**288**
12:00 PM	0	169	73	0	55	1	0	0	1	0	0	0	0	**299**
1:00 PM	0	157	78	0	60	1	0	0	1	0	0	0	0	**297**
2:00 PM	0	178	79	0	57	2	0	0	1	0	0	0	0	**317**
3:00 PM	0	242	114	0	67	1	0	0	1	0	0	0	0	**425**
4:00 PM	0	265	114	1	84	2	0	0	1	0	0	0	0	**467**
5:00 PM	0	220	94	0	67	3	0	0	0	0	0	0	0	**384**
6:00 PM	0	160	61	0	44	2	0	0	0	0	0	0	0	**267**
7:00 PM	0	108	45	0	27	1	0	0	0	0	0	0	0	**181**
8:00 PM	0	83	35	0	15	1	0	0	0	0	0	0	0	**134**
9:00 PM	0	64	23	0	14	1	0	0	0	0	0	0	0	**102**
10:00 PM	0	39	13	0	8	1	0	0	0	0	0	0	0	**61**
11:00 PM	0	22	10	0	4	0	0	0	0	0	0	0	0	**36**
Total	**0**	**2,777**	**1,278**	**3**	**871**	**31**	**0**	**3**	**15**	**1**	**0**	**0**	**0**	**4,979**
Percent	**0.0%**	**55.8%**	**25.7%**	**0.1%**	**17.5%**	**0.6%**	**0.0%**	**0.1%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

3-Day (Tuesday - Thursday) Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	23	9	0	3	1	0	0	0	0	0	0	0	**36**
1:00 AM	0	10	5	0	2	0	0	0	1	0	0	0	0	**18**
2:00 AM	0	6	5	0	2	1	0	0	0	0	0	0	0	**14**
3:00 AM	0	10	4	0	5	0	0	1	0	0	0	0	0	**21**
4:00 AM	0	28	15	0	11	0	0	1	0	1	0	0	0	**57**
5:00 AM	0	66	38	0	19	3	0	0	2	0	0	0	0	**129**
6:00 AM	0	176	78	0	62	2	0	0	1	0	0	0	0	**319**
7:00 AM	1	388	189	0	106	8	0	0	2	1	0	0	0	**694**
8:00 AM	0	267	165	0	91	6	0	0	2	0	0	0	1	**533**
9:00 AM	0	144	83	0	54	3	0	0	2	0	0	0	0	**286**
10:00 AM	0	154	73	1	58	2	0	0	3	0	0	0	0	**292**
11:00 AM	0	163	88	1	72	2	0	0	2	0	0	0	0	**329**
12:00 PM	0	190	84	0	68	2	0	1	1	0	0	0	0	**346**
1:00 PM	0	171	82	0	70	2	0	0	2	0	0	0	0	**328**
2:00 PM	0	225	103	0	72	3	0	0	1	0	0	0	0	**405**
3:00 PM	0	342	149	1	93	3	0	1	1	0	0	0	0	**589**
4:00 PM	0	358	151	1	115	3	0	1	0	0	0	0	0	**628**
5:00 PM	0	285	122	0	93	5	0	1	0	0	0	0	0	**506**
6:00 PM	0	205	79	1	58	3	0	0	0	0	0	0	0	**346**
7:00 PM	0	143	58	0	34	3	0	0	0	0	0	0	0	**239**
8:00 PM	0	115	53	0	22	2	0	0	0	0	0	0	0	**192**
9:00 PM	0	75	28	0	17	1	0	0	0	0	0	0	0	**120**
10:00 PM	0	39	17	0	9	0	0	0	0	0	0	0	0	**65**
11:00 PM	0	20	11	0	3	1	0	0	0	0	0	0	0	**35**
Total	**1**	**3,602**	**1,689**	**6**	**1,139**	**55**	**0**	**8**	**23**	**4**	**0**	**0**	**1**	**6,527**
Percent	**0.0%**	**55.2%**	**25.9%**	**0.1%**	**17.5%**	**0.8%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Vehicle Speed Report Summary

Location: I94 EB Ramp E/O Sunset Dr

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 06

	Speed Range (mph)																Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	4	2	14	40	228	1,465	9,207	16,657	6,173	919	150	33	7	0	1	0	0	34,900
Percent	0.0%	0.0%	0.0%	0.1%	0.7%	4.2%	26.4%	47.7%	17.7%	2.6%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4	2	14	40	228	1,465	9,207	16,657	6,173	919	150	33	7	0	1	0	0	34,900
Percent	0.0%	0.0%	0.0%	0.1%	0.7%	4.2%	26.4%	47.7%	17.7%	2.6%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	41.8	mph	Mean (Average) Speed	41.9	mph
85th Percentile	46.0	mph	10 mph Pace	37.0 - 47.0	mph
95th Percentile	48.9	mph	Percent in Pace	78.5	%
Westbound			**Westbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Monday, November 28, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	5	5	1	1	0	0	0	0	0	0	0	**14**
1:00 AM	0	0	0	0	0	2	1	4	2	1	1	0	0	0	0	0	0	**11**
2:00 AM	0	0	0	0	1	2	1	4	1	0	0	0	0	0	0	0	0	**9**
3:00 AM	0	0	0	0	0	2	7	5	0	1	0	0	0	0	0	0	0	**15**
4:00 AM	0	0	0	0	1	9	19	14	8	2	0	0	0	0	0	0	0	**53**
5:00 AM	0	0	0	0	4	10	29	55	13	2	0	0	0	0	0	0	0	**113**
6:00 AM	0	0	0	0	1	7	93	167	46	7	0	0	0	0	0	0	0	**321**
7:00 AM	0	0	0	1	6	30	171	338	118	9	0	0	0	0	0	0	0	**673**
8:00 AM	0	0	0	0	0	8	153	276	87	10	1	0	0	0	0	0	0	**535**
9:00 AM	0	0	0	1	6	14	75	116	46	4	1	0	0	0	0	0	0	**263**
10:00 AM	1	0	0	0	4	21	62	126	55	5	1	1	0	0	0	0	0	**276**
11:00 AM	0	0	0	3	3	8	70	138	71	9	1	0	0	0	0	0	0	**303**
12:00 PM	0	0	0	0	1	20	77	152	81	19	2	0	1	0	0	0	0	**353**
1:00 PM	0	0	0	0	0	9	77	154	87	14	1	0	0	0	0	0	0	**342**
2:00 PM	0	0	0	1	6	18	57	177	83	11	5	0	0	0	0	0	0	**358**
3:00 PM	0	0	0	0	2	10	100	292	128	21	6	0	0	0	0	0	0	**559**
4:00 PM	0	0	0	1	8	14	132	285	110	16	0	2	0	0	0	0	0	**568**
5:00 PM	0	0	0	0	0	12	123	270	105	10	5	1	0	0	0	0	0	**526**
6:00 PM	0	0	0	0	0	7	74	198	70	10	0	0	0	0	0	0	0	**359**
7:00 PM	0	0	0	0	3	2	29	121	42	12	0	0	0	0	0	0	0	**209**
8:00 PM	0	0	0	0	0	2	33	57	27	5	2	0	0	0	0	0	0	**126**
9:00 PM	0	0	0	0	0	6	25	59	40	3	0	0	0	0	0	0	0	**133**
10:00 PM	0	0	0	0	0	4	18	29	11	2	0	0	0	0	0	0	0	**64**
11:00 PM	0	0	0	1	0	1	11	19	13	1	0	0	0	0	0	0	0	**46**
Total	**1**	**0**	**0**	**8**	**46**	**220**	**1,442**	**3,061**	**1,245**	**175**	**26**	**4**	**1**	**0**	**0**	**0**	**0**	**6,229**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.7%**	**3.5%**	**23.1%**	**49.1%**	**20.0%**	**2.8%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.2	mph	Mean (Average) Speed	42.2	mph
85th Percentile	46.2	mph	10 mph Pace	37.6 - 47.6	mph
95th Percentile	49.0	mph	Percent in Pace	79.3	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Tuesday, November 29, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	11	12	10	0	0	0	0	0	0	0	0	**33**
1:00 AM	0	0	0	0	0	4	3	3	3	1	1	0	0	0	0	0	0	**15**
2:00 AM	0	0	0	0	0	1	8	3	4	1	0	0	0	0	0	0	0	**17**
3:00 AM	0	0	0	0	2	2	3	6	5	1	0	0	0	0	0	0	0	**19**
4:00 AM	0	0	0	0	2	4	16	23	10	1	1	0	0	0	0	0	0	**57**
5:00 AM	0	0	0	0	1	9	33	68	22	3	0	0	0	0	0	0	0	**136**
6:00 AM	0	0	0	0	2	15	88	156	50	6	1	0	0	0	0	0	0	**318**
7:00 AM	2	1	0	2	1	19	173	353	154	12	0	0	0	0	0	0	0	**717**
8:00 AM	0	0	0	0	5	19	143	279	86	14	1	0	0	0	0	0	0	**547**
9:00 AM	0	0	0	0	2	7	56	130	63	10	1	1	0	0	0	0	0	**270**
10:00 AM	0	0	0	0	0	11	61	135	80	13	1	0	0	0	0	0	0	**301**
11:00 AM	0	0	0	3	5	7	85	155	67	13	1	0	0	0	0	0	0	**336**
12:00 PM	0	0	0	0	1	14	86	168	77	23	1	1	0	0	1	0	0	**372**
1:00 PM	0	0	0	1	2	13	80	145	61	11	2	0	0	0	0	0	0	**315**
2:00 PM	0	0	1	0	2	9	98	188	75	20	2	1	0	0	0	0	0	**396**
3:00 PM	0	0	0	0	3	15	128	266	106	17	3	0	0	0	0	0	0	**538**
4:00 PM	0	0	0	0	0	16	178	314	93	17	2	0	0	0	0	0	0	**620**
5:00 PM	0	0	0	0	2	14	114	249	93	13	1	0	1	0	0	0	0	**487**
6:00 PM	0	0	0	0	0	12	84	160	57	7	2	1	1	0	0	0	0	**324**
7:00 PM	0	0	0	0	0	8	62	97	54	10	3	1	0	0	0	0	0	**235**
8:00 PM	0	0	0	0	0	1	51	75	35	5	0	0	0	0	0	0	0	**167**
9:00 PM	0	0	0	0	1	6	12	50	24	5	0	0	0	0	0	0	0	**98**
10:00 PM	0	0	0	0	1	1	11	25	14	2	1	0	0	0	0	0	0	**55**
11:00 PM	0	0	0	2	0	4	14	12	3	3	0	0	0	0	0	0	0	**38**
Total	**2**	**1**	**1**	**8**	**32**	**211**	**1,598**	**3,072**	**1,246**	**208**	**24**	**5**	**2**	**0**	**1**	**0**	**0**	**6,411**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.5%**	**3.3%**	**24.9%**	**47.9%**	**19.4%**	**3.2%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.2	mph	Mean (Average) Speed	42.2	mph
85th Percentile	46.2	mph	10 mph Pace	36.9 - 46.9	mph
95th Percentile	49.3	mph	Percent in Pace	78.8	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Wednesday, November 30, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	4	12	15	2	1	0	0	0	0	0	0	0	**34**
1:00 AM	0	0	0	0	0	1	6	7	4	0	0	0	0	0	0	0	0	**18**
2:00 AM	0	0	0	0	0	1	3	2	2	0	0	0	0	0	0	0	0	**8**
3:00 AM	0	0	0	0	0	4	6	3	5	2	0	0	0	0	0	0	0	**20**
4:00 AM	0	0	0	1	1	5	17	20	13	2	0	0	0	0	0	0	0	**59**
5:00 AM	0	0	0	0	6	15	29	64	16	1	1	0	0	0	0	0	0	**132**
6:00 AM	0	0	0	0	0	11	96	163	42	7	2	0	0	0	0	0	0	**321**
7:00 AM	0	0	0	0	10	16	171	361	125	12	2	1	0	0	0	0	0	**698**
8:00 AM	0	0	0	0	7	16	125	279	96	11	1	0	1	0	0	0	0	**536**
9:00 AM	0	0	0	0	2	13	51	161	49	3	0	1	0	0	0	0	0	**280**
10:00 AM	0	0	0	0	1	11	67	140	48	6	1	1	0	0	0	0	0	**275**
11:00 AM	0	0	0	0	8	14	78	160	63	11	2	0	0	0	0	0	0	**336**
12:00 PM	0	0	0	0	0	7	81	145	60	19	0	3	0	0	0	0	0	**315**
1:00 PM	0	0	0	0	3	14	81	151	70	11	2	0	1	0	0	0	0	**333**
2:00 PM	0	0	0	0	0	9	102	179	76	16	4	0	0	0	0	0	0	**386**
3:00 PM	0	0	0	0	1	16	145	301	111	14	2	1	0	0	0	0	0	**591**
4:00 PM	0	0	0	0	9	19	179	321	108	9	4	0	0	0	0	0	0	**649**
5:00 PM	0	0	0	0	1	11	168	263	83	8	3	1	0	0	0	0	0	**538**
6:00 PM	0	0	0	0	3	6	88	168	59	9	1	0	0	0	0	0	0	**334**
7:00 PM	0	0	0	0	1	11	64	120	31	6	2	0	0	0	0	0	0	**235**
8:00 PM	0	0	0	0	2	9	45	88	24	3	2	0	0	0	0	0	0	**173**
9:00 PM	0	0	0	0	2	5	33	60	23	4	2	0	0	0	0	0	0	**129**
10:00 PM	0	0	0	0	0	3	17	21	13	5	0	0	0	0	0	0	0	**59**
11:00 PM	0	0	0	0	0	3	10	13	9	1	0	0	0	0	0	0	0	**36**
Total	**0**	**0**	**0**	**1**	**57**	**224**	**1,674**	**3,205**	**1,132**	**161**	**31**	**8**	**2**	**0**	**0**	**0**	**0**	**6,495**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**3.4%**	**25.8%**	**49.3%**	**17.4%**	**2.5%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.8	mph	Mean (Average) Speed	41.9	mph
85th Percentile	45.9	mph	10 mph Pace	37.0 - 47.0	mph
95th Percentile	48.8	mph	Percent in Pace	80.3	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Thursday, December 1, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	2	21	14	3	0	0	0	0	0	0	0	0	**42**
1:00 AM	0	0	0	0	0	5	8	7	0	0	0	0	0	0	0	0	0	**20**
2:00 AM	0	0	0	0	0	3	5	7	2	1	0	0	0	0	0	0	0	**18**
3:00 AM	0	0	0	0	2	1	6	6	6	2	0	0	0	0	0	0	0	**23**
4:00 AM	0	0	0	0	0	7	15	23	7	3	0	0	0	0	0	0	0	**55**
5:00 AM	0	0	0	0	0	11	38	57	12	0	0	0	0	0	0	0	0	**118**
6:00 AM	0	0	0	0	2	17	83	158	52	6	0	0	0	0	0	0	0	**318**
7:00 AM	0	0	0	0	5	22	175	360	96	9	1	0	0	0	0	0	0	**668**
8:00 AM	0	0	0	0	5	26	172	246	58	7	1	0	0	0	0	0	0	**515**
9:00 AM	0	0	0	0	3	26	99	134	42	5	0	0	0	0	0	0	0	**309**
10:00 AM	0	0	0	0	1	30	114	105	43	5	1	0	0	0	0	0	0	**299**
11:00 AM	0	0	1	1	4	13	71	148	68	8	2	0	0	0	0	0	0	**316**
12:00 PM	0	0	0	0	3	24	100	151	61	9	2	0	0	0	0	0	0	**350**
1:00 PM	0	0	0	0	5	21	91	148	59	9	2	1	0	0	0	0	0	**336**
2:00 PM	0	0	0	1	0	42	133	183	60	7	5	1	0	0	0	0	0	**432**
3:00 PM	0	0	0	0	0	21	188	308	102	15	3	0	0	0	0	0	0	**637**
4:00 PM	0	0	0	0	8	51	173	268	97	14	4	1	0	0	0	0	0	**616**
5:00 PM	0	0	0	0	0	17	115	248	96	14	2	0	0	0	0	0	0	**492**
6:00 PM	0	0	0	2	5	12	98	182	64	14	3	0	0	0	0	0	0	**380**
7:00 PM	0	0	0	0	0	16	62	115	45	9	0	0	0	0	0	0	0	**247**
8:00 PM	0	0	0	0	1	20	82	99	33	1	1	0	0	0	0	0	0	**237**
9:00 PM	0	0	0	0	1	5	43	56	25	3	1	0	0	0	0	0	0	**134**
10:00 PM	0	0	0	0	2	6	26	28	17	0	1	0	0	0	0	0	0	**80**
11:00 PM	0	0	0	0	0	4	9	12	6	1	0	0	0	0	0	0	0	**32**
Total	**0**	**0**	**1**	**4**	**49**	**402**	**1,927**	**3,063**	**1,054**	**142**	**29**	**3**	**0**	**0**	**0**	**0**	**0**	**6,674**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.7%**	**6.0%**	**28.9%**	**45.9%**	**15.8%**	**2.1%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.4	mph	Mean (Average) Speed	41.4	mph
85th Percentile	45.5	mph	10 mph Pace	36.7 - 46.7	mph
95th Percentile	48.3	mph	Percent in Pace	78.2	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Friday, December 2, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	7	16	18	4	0	0	0	0	0	0	0	0	**45**
1:00 AM	0	0	0	0	0	4	2	7	0	0	0	0	0	0	0	0	0	**13**
2:00 AM	0	0	0	0	0	3	2	5	0	1	0	1	0	0	0	0	0	**12**
3:00 AM	0	0	0	0	2	5	6	8	4	2	1	0	0	0	0	0	0	**28**
4:00 AM	0	0	2	1	2	7	12	19	9	0	1	0	0	0	0	0	0	**53**
5:00 AM	0	0	0	0	0	12	31	47	11	2	0	0	0	0	0	0	0	**103**
6:00 AM	0	0	0	1	1	9	66	135	41	4	1	0	0	0	0	0	0	**258**
7:00 AM	0	0	0	0	1	24	197	298	92	13	3	1	0	0	0	0	0	**629**
8:00 AM	0	0	1	1	3	12	102	75	9	0	0	0	0	0	0	0	0	**203**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**3**	**3**	**9**	**83**	**434**	**612**	**170**	**22**	**6**	**2**	**0**	**0**	**0**	**0**	**0**	**1,344**
Percent	**0.0%**	**0.0%**	**0.2%**	**0.2%**	**0.7%**	**6.2%**	**32.3%**	**45.5%**	**12.6%**	**1.6%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.0	mph	Mean (Average) Speed	41.0	mph
85th Percentile	45.0	mph	10 mph Pace	35.8 - 45.8	mph
95th Percentile	47.6	mph	Percent in Pace	79.1	%

TJ Wethington
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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Saturday, December 3, 2022
Eastbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	1	1	6	9	4	28	118	132	30	6	1	0	0	0	0	0	0	**336**
11:00 AM	0	0	0	0	2	22	145	192	60	6	2	1	0	0	0	0	0	**430**
12:00 PM	0	0	0	0	2	12	143	191	59	5	1	1	0	0	0	0	0	**414**
1:00 PM	0	0	0	0	2	12	142	212	86	7	2	0	0	0	0	0	0	**463**
2:00 PM	0	0	0	0	1	10	91	141	52	6	5	0	0	0	0	0	0	**306**
3:00 PM	0	0	0	0	0	4	81	196	67	9	1	0	0	0	0	0	0	**358**
4:00 PM	0	0	0	0	0	10	166	266	82	8	2	1	0	0	0	0	0	**535**
5:00 PM	0	0	0	0	1	10	94	202	66	8	0	0	0	0	0	0	0	**381**
6:00 PM	0	0	0	0	0	16	72	136	34	6	2	0	0	0	0	0	0	**266**
7:00 PM	0	0	0	0	0	6	45	88	38	3	0	0	0	0	0	0	0	**180**
8:00 PM	0	0	0	0	0	9	37	70	26	6	0	0	0	0	0	0	0	**148**
9:00 PM	0	0	0	0	0	8	32	64	28	3	0	0	0	0	0	0	0	**135**
10:00 PM	0	0	1	0	1	7	35	48	20	5	1	0	0	0	0	0	0	**118**
11:00 PM	0	0	0	0	1	6	33	19	8	3	1	1	0	0	0	0	0	**72**
Total	**1**	**1**	**7**	**9**	**14**	**160**	**1,234**	**1,957**	**656**	**81**	**18**	**4**	**0**	**0**	**0**	**0**	**0**	**4,142**
Percent	**0.0%**	**0.0%**	**0.2%**	**0.2%**	**0.3%**	**3.9%**	**29.8%**	**47.2%**	**15.8%**	**2.0%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.6	mph	Mean (Average) Speed	41.6	mph
85th Percentile	45.6	mph	10 mph Pace	36.6 - 46.6	mph
95th Percentile	48.4	mph	Percent in Pace	78.9	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Sunday, December 4, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	4	17	24	14	2	1	1	0	0	0	0	0	**64**
1:00 AM	0	0	0	0	1	2	13	20	4	1	0	0	0	0	0	0	0	**41**
2:00 AM	0	0	0	0	0	2	4	4	6	0	0	0	0	0	0	0	0	**16**
3:00 AM	0	0	1	0	1	0	7	7	2	1	0	0	0	0	0	0	0	**19**
4:00 AM	0	0	0	1	0	1	3	5	2	1	0	0	0	0	0	0	0	**13**
5:00 AM	0	0	0	0	1	3	12	15	4	4	0	0	0	0	0	0	0	**39**
6:00 AM	0	0	0	0	0	5	8	21	10	4	0	0	0	0	0	0	0	**48**
7:00 AM	0	0	0	0	0	10	16	35	20	3	1	1	0	0	0	0	0	**86**
8:00 AM	0	0	0	0	1	8	34	67	21	3	0	0	0	0	0	0	0	**134**
9:00 AM	0	0	1	0	0	17	53	83	27	2	0	1	0	0	0	0	0	**184**
10:00 AM	0	0	0	0	3	12	74	117	37	9	2	0	0	0	0	0	0	**254**
11:00 AM	0	0	0	1	5	10	61	150	61	7	1	1	0	0	0	0	0	**297**
12:00 PM	0	0	0	0	0	9	69	137	59	16	3	0	0	0	0	0	0	**293**
1:00 PM	0	0	0	5	1	5	66	149	47	20	0	0	1	0	0	0	0	**294**
2:00 PM	0	0	0	0	0	15	81	151	72	17	1	1	0	0	0	0	0	**338**
3:00 PM	0	0	0	0	1	12	71	142	67	7	1	1	0	0	0	0	0	**302**
4:00 PM	0	0	0	0	4	7	70	128	55	12	3	0	1	0	0	0	0	**280**
5:00 PM	0	0	0	0	0	7	73	128	46	7	1	0	0	0	0	0	0	**262**
6:00 PM	0	0	0	0	0	5	61	98	40	7	1	1	0	0	0	0	0	**213**
7:00 PM	0	0	0	0	0	18	44	74	30	2	1	0	0	0	0	0	0	**169**
8:00 PM	0	0	0	0	0	4	25	45	15	3	0	0	0	0	0	0	0	**92**
9:00 PM	0	0	0	0	2	4	20	43	12	2	0	0	0	0	0	0	0	**83**
10:00 PM	0	0	0	0	0	3	8	32	12	0	0	0	0	0	0	0	0	**55**
11:00 PM	0	0	0	0	0	2	8	12	7	0	0	0	0	0	0	0	0	**29**
Total	**0**	**0**	**2**	**7**	**21**	**165**	**898**	**1,687**	**670**	**130**	**16**	**7**	**2**	**0**	**0**	**0**	**0**	**3,605**
Percent	**0.0%**	**0.0%**	**0.1%**	**0.2%**	**0.6%**	**4.6%**	**24.9%**	**46.8%**	**18.6%**	**3.6%**	**0.4%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.2	mph	Mean (Average) Speed	42.1	mph
85th Percentile	46.3	mph	10 mph Pace	37.1 - 47.1	mph
95th Percentile	49.5	mph	Percent in Pace	76.0	%

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	3	12	13	5	1	0	0	0	0	0	0	0	**34**
1:00 AM	0	0	0	0	0	3	5	7	2	0	0	0	0	0	0	0	0	**17**
2:00 AM	0	0	0	0	0	2	3	4	2	0	0	0	0	0	0	0	0	**11**
3:00 AM	0	0	0	0	1	2	5	5	3	1	0	0	0	0	0	0	0	**17**
4:00 AM	0	0	0	0	1	5	12	15	7	1	0	0	0	0	0	0	0	**41**
5:00 AM	0	0	0	0	2	9	25	44	11	2	0	0	0	0	0	0	0	**93**
6:00 AM	0	0	0	0	1	9	62	114	34	5	1	0	0	0	0	0	0	**226**
7:00 AM	0	0	0	0	3	17	129	249	86	8	1	0	0	0	0	0	0	**493**
8:00 AM	0	0	0	0	3	13	104	175	51	6	1	0	0	0	0	0	0	**353**
9:00 AM	0	0	0	0	2	11	48	89	32	3	0	0	0	0	0	0	0	**185**
10:00 AM	0	0	1	1	2	16	71	108	42	6	1	0	0	0	0	0	0	**248**
11:00 AM	0	0	0	1	4	11	73	135	56	8	1	0	0	0	0	0	0	**289**
12:00 PM	0	0	0	0	1	12	79	135	57	13	1	1	0	0	0	0	0	**299**
1:00 PM	0	0	0	1	2	11	77	137	59	10	1	0	0	0	0	0	0	**298**
2:00 PM	0	0	0	0	1	15	80	146	60	11	3	0	0	0	0	0	0	**316**
3:00 PM	0	0	0	0	1	11	102	215	83	12	2	0	0	0	0	0	0	**426**
4:00 PM	0	0	0	0	4	17	128	226	78	11	2	1	0	0	0	0	0	**467**
5:00 PM	0	0	0	0	1	10	98	194	70	9	2	0	0	0	0	0	0	**384**
6:00 PM	0	0	0	0	1	8	68	135	46	8	1	0	0	0	0	0	0	**267**
7:00 PM	0	0	0	0	1	9	44	88	34	6	1	0	0	0	0	0	0	**183**
8:00 PM	0	0	0	0	0	6	39	62	23	3	1	0	0	0	0	0	0	**134**
9:00 PM	0	0	0	0	1	5	24	47	22	3	0	0	0	0	0	0	0	**102**
10:00 PM	0	0	0	0	1	3	16	26	12	2	0	0	0	0	0	0	0	**60**
11:00 PM	0	0	0	0	0	3	12	12	7	1	0	0	0	0	0	0	0	**35**
Total	**0**	**0**	**1**	**3**	**33**	**211**	**1,316**	**2,381**	**882**	**130**	**19**	**2**	**0**	**0**	**0**	**0**	**0**	**4,978**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.7%**	**4.2%**	**26.4%**	**47.8%**	**17.7%**	**2.6%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	41.8	mph	Mean (Average) Speed	41.9	mph
85th Percentile	46.0	mph	10 mph Pace	37.0 - 47.0	mph
95th Percentile	48.9	mph	Percent in Pace	78.5	%

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 06

Total Study Average
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I94 EB Ramp E/O Sunset Dr
Date Range: 11/28/2022 - 12/4/2022
Site Code: 06

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	14	0	14	33	0	33	34	0	34	42	0	42	45	0	45	0	0	0	64	0	64	36	0	36
1:00 AM	11	0	11	15	0	15	18	0	18	20	0	20	13	0	13	0	0	0	41	0	41	18	0	18
2:00 AM	9	0	9	17	0	17	8	0	8	18	0	18	12	0	12	0	0	0	16	0	16	14	0	14
3:00 AM	15	0	15	19	0	19	20	0	20	23	0	23	28	0	28	0	0	0	19	0	19	21	0	21
4:00 AM	53	0	53	57	0	57	59	0	59	55	0	55	53	0	53	0	0	0	13	0	13	57	0	57
5:00 AM	113	0	113	136	0	136	132	0	132	118	0	118	103	0	103	0	0	0	39	0	39	129	0	129
6:00 AM	321	0	321	318	0	318	321	0	321	318	0	318	258	0	258	0	0	0	48	0	48	319	0	319
7:00 AM	673	0	673	717	0	717	698	0	698	668	0	668	629	0	629	0	0	0	86	0	86	694	0	694
8:00 AM	535	0	535	547	0	547	536	0	536	515	0	515	203	0	203	0	0	0	134	0	134	533	0	533
9:00 AM	263	0	263	270	0	270	280	0	280	309	0	309	0	0	0	0	0	0	184	0	184	286	0	286
10:00 AM	276	0	276	301	0	301	275	0	275	299	0	299	0	0	0	336	0	336	254	0	254	292	0	292
11:00 AM	303	0	303	336	0	336	336	0	336	316	0	316	0	0	0	430	0	430	297	0	297	329	0	329
12:00 PM	353	0	353	372	0	372	315	0	315	350	0	350	0	0	0	414	0	414	293	0	293	346	0	346
1:00 PM	342	0	342	315	0	315	333	0	333	336	0	336	0	0	0	463	0	463	294	0	294	328	0	328
2:00 PM	358	0	358	396	0	396	386	0	386	432	0	432	0	0	0	306	0	306	338	0	338	405	0	405
3:00 PM	559	0	559	538	0	538	591	0	591	637	0	637	0	0	0	358	0	358	302	0	302	589	0	589
4:00 PM	568	0	568	620	0	620	649	0	649	616	0	616	0	0	0	535	0	535	280	0	280	628	0	628
5:00 PM	526	0	526	487	0	487	538	0	538	492	0	492	0	0	0	381	0	381	262	0	262	506	0	506
6:00 PM	359	0	359	324	0	324	334	0	334	380	0	380	0	0	0	266	0	266	213	0	213	346	0	346
7:00 PM	209	0	209	235	0	235	235	0	235	247	0	247	0	0	0	180	0	180	169	0	169	239	0	239
8:00 PM	126	0	126	167	0	167	173	0	173	237	0	237	0	0	0	148	0	148	92	0	92	192	0	192
9:00 PM	133	0	133	98	0	98	129	0	129	134	0	134	0	0	0	135	0	135	83	0	83	120	0	120
10:00 PM	64	0	64	55	0	55	59	0	59	80	0	80	0	0	0	118	0	118	55	0	55	65	0	65
11:00 PM	46	0	46	38	0	38	36	0	36	32	0	32	0	0	0	72	0	72	29	0	29	35	0	35
Total	**6,229**	-	**6,229**	**6,411**	-	**6,411**	**6,495**	-	**6,495**	**6,674**	-	**6,674**	**1,344**	-	**1,344**	**4,142**	-	**4,142**	**3,605**	-	**3,605**	**6,527**	-	**6,527**
Percent	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I-94 WB Ramp W/O Sunset Dr

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 07

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	20	2,766	1,176	9	700	25	0	2	43	6	0	0	5	4,752
Percent	0.4%	58.2%	24.7%	0.2%	14.7%	0.5%	0.0%	0.0%	0.9%	0.1%	0.0%	0.0%	0.1%	100%
Total	20	2,766	1,176	9	700	25	0	2	43	6	0	0	5	4,752
Percent	0.4%	58.2%	24.7%	0.2%	14.7%	0.5%	0.0%	0.0%	0.9%	0.1%	0.0%	0.0%	0.1%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Monday, November 28, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	1	**4**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	7	2	0	1	1	0	0	0	0	0	0	0	**11**
5:00 AM	0	17	7	0	8	0	0	0	0	0	0	0	0	**32**
6:00 AM	0	18	9	0	2	0	0	0	1	0	0	0	0	**30**
7:00 AM	0	15	12	0	4	0	0	0	0	0	0	0	0	**31**
8:00 AM	0	20	12	0	5	0	0	0	0	0	0	0	0	**37**
9:00 AM	0	18	4	1	8	0	0	0	0	0	0	0	1	**32**
10:00 AM	0	14	6	0	4	0	0	0	2	0	0	0	0	**26**
11:00 AM	0	19	8	1	6	0	0	0	0	0	0	0	1	**35**
12:00 PM	2	22	18	0	13	2	0	0	0	1	0	0	0	**58**
1:00 PM	0	20	8	0	5	0	0	0	0	0	0	0	0	**33**
2:00 PM	0	36	16	0	9	0	0	0	1	0	0	0	0	**62**
3:00 PM	3	46	14	0	10	1	0	0	0	0	0	0	0	**74**
4:00 PM	0	72	24	0	8	0	0	0	0	0	0	0	0	**104**
5:00 PM	0	63	20	0	5	1	0	0	0	0	0	0	0	**89**
6:00 PM	1	45	14	1	4	0	0	0	1	0	0	0	0	**66**
7:00 PM	0	21	13	0	1	0	0	0	1	0	0	0	0	**36**
8:00 PM	0	9	4	0	1	0	0	0	0	0	0	0	0	**14**
9:00 PM	0	11	7	0	1	0	0	0	1	0	0	0	0	**20**
10:00 PM	0	5	1	0	2	0	0	0	0	0	0	0	0	**8**
11:00 PM	0	4	2	0	1	0	0	0	0	0	0	0	0	**7**
Total	**6**	**488**	**204**	**3**	**99**	**5**	**0**	**0**	**7**	**1**	**0**	**0**	**3**	**816**
Percent	**0.7%**	**59.8%**	**25.0%**	**0.4%**	**12.1%**	**0.6%**	**0.0%**	**0.0%**	**0.9%**	**0.1%**	**0.0%**	**0.0%**	**0.4%**	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Tuesday, November 29, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	0	0	1	0	0	0	1	0	0	0	0	**3**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	11	0	0	2	0	0	0	0	0	0	0	0	**13**
5:00 AM	0	18	6	0	7	0	0	0	0	0	0	0	0	**31**
6:00 AM	0	19	12	0	6	0	0	0	0	0	0	0	0	**37**
7:00 AM	0	22	5	0	8	0	0	0	0	0	0	0	0	**35**
8:00 AM	0	13	8	0	6	0	0	0	0	0	0	0	0	**27**
9:00 AM	0	18	10	0	3	0	0	0	0	0	0	0	0	**31**
10:00 AM	0	15	2	0	1	0	0	0	0	0	0	0	0	**18**
11:00 AM	0	30	9	0	5	0	0	0	3	1	0	0	0	**48**
12:00 PM	1	27	13	0	3	0	0	0	0	0	0	0	1	**45**
1:00 PM	0	18	11	0	8	0	0	0	0	0	0	0	0	**37**
2:00 PM	0	38	14	0	5	2	0	0	0	0	0	0	0	**59**
3:00 PM	0	36	15	0	9	0	0	0	0	0	0	0	0	**60**
4:00 PM	1	64	20	0	10	1	0	0	0	0	0	0	0	**96**
5:00 PM	0	62	43	0	21	0	0	0	0	0	0	0	0	**126**
6:00 PM	1	49	13	0	6	3	0	0	0	0	0	0	0	**72**
7:00 PM	0	26	15	1	6	0	0	0	0	0	0	0	0	**48**
8:00 PM	0	20	13	0	2	0	0	0	0	0	0	0	0	**35**
9:00 PM	0	18	12	0	2	0	0	0	1	0	0	0	0	**33**
10:00 PM	0	4	5	0	0	0	0	0	0	0	0	0	0	**9**
11:00 PM	0	0	2	0	1	0	0	0	0	0	0	0	0	**3**
Total	**3**	**515**	**228**	**1**	**112**	**6**	**0**	**0**	**5**	**1**	**0**	**0**	**1**	**872**
Percent	**0.3%**	**59.1%**	**26.1%**	**0.1%**	**12.8%**	**0.7%**	**0.0%**	**0.0%**	**0.6%**	**0.1%**	**0.0%**	**0.0%**	**0.1%**	

TJ Wethington
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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Wednesday, November 30, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	1	**3**
3:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	12	0	0	1	0	0	0	0	0	0	0	0	**13**
5:00 AM	0	15	5	0	5	0	0	0	1	0	0	0	0	**26**
6:00 AM	0	17	16	0	4	0	0	0	3	0	0	0	0	**40**
7:00 AM	0	16	10	0	7	0	0	0	0	0	0	0	0	**33**
8:00 AM	0	17	10	0	5	0	0	0	0	1	0	0	0	**33**
9:00 AM	0	11	9	0	6	0	0	0	0	0	0	0	0	**26**
10:00 AM	2	13	6	0	2	2	0	0	0	0	0	0	0	**25**
11:00 AM	0	19	2	0	6	0	0	0	2	0	0	0	0	**29**
12:00 PM	0	19	10	0	6	0	0	0	1	0	0	0	0	**36**
1:00 PM	2	25	13	1	0	2	0	0	0	0	0	0	0	**43**
2:00 PM	0	47	16	0	6	0	0	0	1	0	0	0	0	**70**
3:00 PM	0	45	17	0	5	0	0	0	0	0	0	0	0	**67**
4:00 PM	0	82	30	0	7	0	0	0	0	0	0	0	0	**119**
5:00 PM	0	67	22	0	7	0	0	0	0	1	0	0	0	**97**
6:00 PM	0	41	12	0	5	0	0	0	0	0	0	0	0	**58**
7:00 PM	0	24	19	0	5	0	0	0	0	0	0	0	0	**48**
8:00 PM	0	27	7	0	1	0	0	0	0	0	0	0	0	**35**
9:00 PM	0	8	5	0	1	0	0	0	0	0	0	0	0	**14**
10:00 PM	0	5	4	0	2	0	0	0	0	0	0	0	0	**11**
11:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
Total	**4**	**523**	**215**	**1**	**82**	**4**	**0**	**0**	**8**	**2**	**0**	**0**	**1**	**840**
Percent	**0.5%**	**62.3%**	**25.6%**	**0.1%**	**9.8%**	**0.5%**	**0.0%**	**0.0%**	**1.0%**	**0.2%**	**0.0%**	**0.0%**	**0.1%**	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Thursday, December 1, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	2	0	1	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	1	7	0	0	0	0	0	0	0	0	0	0	0	**8**
4:00 AM	0	12	2	0	1	0	0	0	1	0	0	0	0	**16**
5:00 AM	0	14	6	0	5	0	0	0	1	0	0	0	0	**26**
6:00 AM	1	21	18	0	4	1	0	0	0	0	0	0	0	**45**
7:00 AM	0	18	9	0	5	0	0	0	2	0	0	0	0	**34**
8:00 AM	0	16	7	0	6	0	0	0	0	0	0	0	0	**29**
9:00 AM	0	18	5	0	9	0	0	0	0	0	0	0	0	**32**
10:00 AM	0	18	9	0	1	0	0	0	1	0	0	0	0	**29**
11:00 AM	0	21	12	1	6	0	0	0	2	0	0	0	0	**42**
12:00 PM	0	22	10	0	7	0	0	0	1	0	0	0	0	**40**
1:00 PM	0	26	8	0	9	0	0	0	0	0	0	0	0	**43**
2:00 PM	1	37	14	0	5	1	0	0	0	0	0	0	0	**58**
3:00 PM	1	48	19	0	12	1	0	0	0	0	0	0	0	**81**
4:00 PM	1	56	13	1	7	2	0	0	1	0	0	0	0	**81**
5:00 PM	1	66	26	0	13	0	0	0	0	0	0	0	0	**106**
6:00 PM	0	39	15	0	9	0	0	0	0	0	0	0	0	**63**
7:00 PM	0	19	15	0	4	0	0	0	0	0	0	0	0	**38**
8:00 PM	0	29	11	0	2	0	0	0	0	1	0	0	0	**43**
9:00 PM	0	22	7	0	4	0	0	0	0	0	0	0	0	**33**
10:00 PM	0	15	3	0	3	0	0	0	1	0	0	0	0	**22**
11:00 PM	0	3	0	0	2	0	0	0	0	0	0	0	0	**5**
Total	**6**	**529**	**211**	**2**	**115**	**5**	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**879**
Percent	**0.7%**	**60.2%**	**24.0%**	**0.2%**	**13.1%**	**0.6%**	**0.0%**	**0.0%**	**1.1%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Friday, December 2, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
1:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	10	1	0	2	0	0	0	0	0	0	0	0	**13**
5:00 AM	0	15	4	0	2	0	0	0	0	0	0	0	0	**21**
6:00 AM	0	17	3	0	7	0	0	0	0	0	0	0	0	**27**
7:00 AM	0	7	1	0	1	0	0	0	1	0	0	0	0	**10**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**53**	**11**	**0**	**16**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**81**
Percent	**0.0%**	**65.4%**	**13.6%**	**0.0%**	**19.8%**	**0.0%**	**0.0%**	**0.0%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Saturday, December 3, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	6	4	0	4	0	0	0	0	0	0	0	0	**14**
10:00 AM	0	21	7	0	9	0	0	0	1	0	0	0	0	**38**
11:00 AM	0	24	5	0	3	0	0	0	2	0	0	0	0	**34**
12:00 PM	0	20	7	0	13	1	0	0	0	0	0	0	0	**41**
1:00 PM	0	20	12	0	13	0	0	0	0	0	0	0	0	**45**
2:00 PM	0	27	16	0	12	0	0	0	2	1	0	0	0	**58**
3:00 PM	0	26	12	0	20	0	0	0	1	0	0	0	0	**59**
4:00 PM	0	40	26	1	13	0	0	0	0	0	0	0	0	**80**
5:00 PM	0	31	23	1	15	0	0	0	0	0	0	0	0	**70**
6:00 PM	1	27	11	0	11	2	0	0	0	0	0	0	0	**52**
7:00 PM	0	24	15	0	10	1	0	0	0	0	0	0	0	**50**
8:00 PM	0	10	6	0	9	0	0	0	1	0	0	0	0	**26**
9:00 PM	0	12	8	0	2	0	0	0	0	0	0	0	0	**22**
10:00 PM	0	18	3	0	1	0	0	1	0	0	0	0	0	**23**
11:00 PM	0	5	2	0	1	0	0	0	0	0	0	0	0	**8**
Total	**1**	**311**	**157**	**2**	**136**	**4**	**0**	**1**	**7**	**1**	**0**	**0**	**0**	**620**
Percent	**0.2%**	**50.2%**	**25.3%**	**0.3%**	**21.9%**	**0.6%**	**0.0%**	**0.2%**	**1.1%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

DATA SOLUTIONS

Sunday, December 4, 2022
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	1	0	3	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	3	6	0	0	0	0	0	0	0	0	0	0	**9**
5:00 AM	0	4	2	0	2	0	0	0	0	0	0	0	0	**8**
6:00 AM	0	5	1	0	2	0	0	0	0	0	0	0	0	**8**
7:00 AM	0	3	1	0	5	0	0	0	0	0	0	0	0	**9**
8:00 AM	0	2	3	0	6	0	0	0	2	0	0	0	0	**13**
9:00 AM	0	19	7	0	10	0	0	0	0	0	0	0	0	**36**
10:00 AM	0	17	6	0	9	0	0	0	1	0	0	0	0	**33**
11:00 AM	0	20	15	0	7	0	0	0	1	0	0	0	0	**43**
12:00 PM	0	21	12	0	11	0	0	0	0	0	0	0	0	**44**
1:00 PM	0	32	18	0	11	0	0	0	1	0	0	0	0	**62**
2:00 PM	0	29	11	0	10	0	0	0	0	0	0	0	0	**50**
3:00 PM	0	39	14	0	14	0	0	0	0	0	0	0	0	**67**
4:00 PM	0	29	12	0	12	0	0	1	0	0	0	0	0	**54**
5:00 PM	0	39	10	0	9	1	0	0	0	0	0	0	0	**59**
6:00 PM	0	24	11	0	11	0	0	0	0	0	0	0	0	**46**
7:00 PM	0	16	12	0	10	0	0	0	0	0	0	0	0	**38**
8:00 PM	0	13	4	0	4	0	0	0	0	0	0	0	0	**21**
9:00 PM	0	9	2	0	1	0	0	0	0	0	0	0	0	**12**
10:00 PM	0	8	0	0	2	0	0	0	0	0	0	0	0	**10**
11:00 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
Total	**0**	**347**	**150**	**0**	**140**	**1**	**0**	**1**	**5**	**0**	**0**	**0**	**0**	**644**
Percent	**0.0%**	**53.9%**	**23.3%**	**0.0%**	**21.7%**	**0.2%**	**0.0%**	**0.2%**	**0.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	8	2	0	1	0	0	0	0	0	0	0	0	**11**
5:00 AM	0	12	4	0	4	0	0	0	0	0	0	0	0	**20**
6:00 AM	0	14	8	0	4	0	0	0	1	0	0	0	0	**27**
7:00 AM	0	12	5	0	4	0	0	0	0	0	0	0	0	**21**
8:00 AM	0	10	6	0	4	0	0	0	0	0	0	0	0	**20**
9:00 AM	0	13	6	0	6	0	0	0	0	0	0	0	0	**25**
10:00 AM	0	14	5	0	4	0	0	0	1	0	0	0	0	**24**
11:00 AM	0	19	7	0	5	0	0	0	1	0	0	0	0	**32**
12:00 PM	0	19	10	0	8	0	0	0	0	0	0	0	0	**37**
1:00 PM	0	20	10	0	7	0	0	0	0	0	0	0	0	**37**
2:00 PM	0	31	12	0	7	0	0	0	1	0	0	0	0	**51**
3:00 PM	1	34	13	0	10	0	0	0	0	0	0	0	0	**58**
4:00 PM	0	49	18	0	8	0	0	0	0	0	0	0	0	**75**
5:00 PM	0	47	21	0	10	0	0	0	0	0	0	0	0	**78**
6:00 PM	0	32	11	0	7	1	0	0	0	0	0	0	0	**51**
7:00 PM	0	19	13	0	5	0	0	0	0	0	0	0	0	**37**
8:00 PM	0	15	6	0	3	0	0	0	0	0	0	0	0	**24**
9:00 PM	0	11	6	0	2	0	0	0	0	0	0	0	0	**19**
10:00 PM	0	8	2	0	1	0	0	0	0	0	0	0	0	**11**
11:00 PM	0	3	1	0	1	0	0	0	0	0	0	0	0	**5**
Total	**1**	**397**	**167**	**0**	**103**	**1**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**673**
Percent	**0.1%**	**59.0%**	**24.8%**	**0.0%**	**15.3%**	**0.1%**	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

3-Day (Tuesday - Thursday) Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	0	**7**
4:00 AM	0	12	1	0	1	0	0	0	0	0	0	0	0	**14**
5:00 AM	0	16	6	0	6	0	0	0	1	0	0	0	0	**28**
6:00 AM	0	19	15	0	5	0	0	0	1	0	0	0	0	**41**
7:00 AM	0	19	8	0	7	0	0	0	1	0	0	0	0	**34**
8:00 AM	0	15	8	0	6	0	0	0	0	0	0	0	0	**30**
9:00 AM	0	16	8	0	6	0	0	0	0	0	0	0	0	**30**
10:00 AM	1	15	6	0	1	1	0	0	0	0	0	0	0	**24**
11:00 AM	0	23	8	0	6	0	0	0	2	0	0	0	0	**40**
12:00 PM	0	23	11	0	5	0	0	0	1	0	0	0	0	**40**
1:00 PM	1	23	11	0	6	1	0	0	0	0	0	0	0	**41**
2:00 PM	0	41	15	0	5	1	0	0	0	0	0	0	0	**62**
3:00 PM	0	43	17	0	9	0	0	0	0	0	0	0	0	**69**
4:00 PM	1	67	21	0	8	1	0	0	0	0	0	0	0	**99**
5:00 PM	0	65	30	0	14	0	0	0	0	0	0	0	0	**110**
6:00 PM	0	43	13	0	7	1	0	0	0	0	0	0	0	**64**
7:00 PM	0	23	16	0	5	0	0	0	0	0	0	0	0	**45**
8:00 PM	0	25	10	0	2	0	0	0	0	0	0	0	0	**38**
9:00 PM	0	16	8	0	2	0	0	0	0	0	0	0	0	**27**
10:00 PM	0	8	4	0	2	0	0	0	0	0	0	0	0	**14**
11:00 PM	0	2	1	0	1	0	0	0	0	0	0	0	0	**4**
Total	**4**	**522**	**218**	**1**	**103**	**5**	**0**	**0**	**8**	**1**	**0**	**0**	**1**	**864**
Percent	**0.5%**	**60.5%**	**25.2%**	**0.2%**	**11.9%**	**0.6%**	**0.0%**	**0.0%**	**0.9%**	**0.2%**	**0.0%**	**0.0%**	**0.1%**	

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Vehicle Speed Report Summary

Location: I-94 WB Ramp W/O Sunset Dr

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 07

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	1	14	108	544	1,781	1,468	656	147	26	7	0	0	0	0	0	0	0	4,752
Percent	0.0%	0.3%	2.3%	11.4%	37.5%	30.9%	13.8%	3.1%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	1	14	108	544	1,781	1,468	656	147	26	7	0	0	0	0	0	0	0	4,752
Percent	0.0%	0.3%	2.3%	11.4%	37.5%	30.9%	13.8%	3.1%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%
Westbound			**Westbound**		
50th Percentile (Median)	29.8	mph	Mean (Average) Speed	30.2	mph
85th Percentile	35.7	mph	10 mph Pace	25.1 - 35.1	mph
95th Percentile	39.1	mph	Percent in Pace	68.2	%

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Monday, November 28, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	1	0	3	4	2	1	0	0	0	0	0	0	0	0	0	**11**
5:00 AM	0	0	0	3	15	9	4	1	0	0	0	0	0	0	0	0	0	**32**
6:00 AM	0	0	3	2	13	8	2	2	0	0	0	0	0	0	0	0	0	**30**
7:00 AM	0	0	1	2	13	9	4	2	0	0	0	0	0	0	0	0	0	**31**
8:00 AM	0	0	1	1	19	10	3	2	0	1	0	0	0	0	0	0	0	**37**
9:00 AM	0	0	1	4	6	13	7	1	0	0	0	0	0	0	0	0	0	**32**
10:00 AM	0	0	2	1	11	8	4	0	0	0	0	0	0	0	0	0	0	**26**
11:00 AM	0	1	2	5	13	12	2	0	0	0	0	0	0	0	0	0	0	**35**
12:00 PM	0	1	4	4	22	13	9	5	0	0	0	0	0	0	0	0	0	**58**
1:00 PM	0	0	1	5	15	9	2	1	0	0	0	0	0	0	0	0	0	**33**
2:00 PM	0	1	2	8	31	12	6	2	0	0	0	0	0	0	0	0	0	**62**
3:00 PM	0	0	3	13	19	21	13	4	1	0	0	0	0	0	0	0	0	**74**
4:00 PM	0	0	0	5	53	32	14	0	0	0	0	0	0	0	0	0	0	**104**
5:00 PM	0	0	2	5	30	32	14	5	1	0	0	0	0	0	0	0	0	**89**
6:00 PM	0	0	3	6	31	18	7	1	0	0	0	0	0	0	0	0	0	**66**
7:00 PM	0	0	1	4	18	7	6	0	0	0	0	0	0	0	0	0	0	**36**
8:00 PM	0	0	0	1	6	3	4	0	0	0	0	0	0	0	0	0	0	**14**
9:00 PM	0	0	1	4	11	2	1	0	1	0	0	0	0	0	0	0	0	**20**
10:00 PM	0	0	0	0	2	5	0	1	0	0	0	0	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	**7**
Total	**0**	**3**	**29**	**75**	**335**	**235**	**107**	**28**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**816**
Percent	**0.0%**	**0.4%**	**3.6%**	**9.2%**	**41.1%**	**28.8%**	**13.1%**	**3.4%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.6	mph	Mean (Average) Speed	30	mph
85th Percentile	35.3	mph	10 mph Pace	25.3 - 35.3	mph
95th Percentile	39.1	mph	Percent in Pace	69.98	%

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Tuesday, November 29, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	1	4	1	0	0	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	0	0	2	6	4	1	0	0	0	0	0	0	0	0	0	0	**13**
5:00 AM	0	0	0	3	13	11	4	0	0	0	0	0	0	0	0	0	0	**31**
6:00 AM	0	0	3	4	15	11	3	1	0	0	0	0	0	0	0	0	0	**37**
7:00 AM	0	0	0	3	15	10	5	2	0	0	0	0	0	0	0	0	0	**35**
8:00 AM	0	0	0	3	3	14	7	0	0	0	0	0	0	0	0	0	0	**27**
9:00 AM	0	0	0	5	10	9	6	0	1	0	0	0	0	0	0	0	0	**31**
10:00 AM	0	0	0	2	9	6	1	0	0	0	0	0	0	0	0	0	0	**18**
11:00 AM	0	0	4	6	17	14	4	3	0	0	0	0	0	0	0	0	0	**48**
12:00 PM	0	0	2	9	17	10	5	2	0	0	0	0	0	0	0	0	0	**45**
1:00 PM	0	0	0	3	13	14	5	2	0	0	0	0	0	0	0	0	0	**37**
2:00 PM	0	1	1	12	27	12	5	1	0	0	0	0	0	0	0	0	0	**59**
3:00 PM	0	0	0	9	27	13	9	1	0	1	0	0	0	0	0	0	0	**60**
4:00 PM	0	0	1	8	41	26	12	8	0	0	0	0	0	0	0	0	0	**96**
5:00 PM	0	0	0	13	52	41	15	3	1	1	0	0	0	0	0	0	0	**126**
6:00 PM	0	0	2	8	29	28	5	0	0	0	0	0	0	0	0	0	0	**72**
7:00 PM	0	0	0	6	17	14	9	2	0	0	0	0	0	0	0	0	0	**48**
8:00 PM	0	0	1	0	12	16	5	1	0	0	0	0	0	0	0	0	0	**35**
9:00 PM	1	0	0	6	10	12	4	0	0	0	0	0	0	0	0	0	0	**33**
10:00 PM	0	0	0	2	0	5	2	0	0	0	0	0	0	0	0	0	0	**9**
11:00 PM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	**3**
Total	**1**	**1**	**14**	**105**	**336**	**275**	**110**	**26**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**872**
Percent	**0.1%**	**0.1%**	**1.6%**	**12.0%**	**38.5%**	**31.5%**	**12.6%**	**3.0%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.6	mph	Mean (Average) Speed	30.1	mph
85th Percentile	35.2	mph	10 mph Pace	24.2 - 34.2	mph
95th Percentile	39.2	mph	Percent in Pace	70.18	%

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Wednesday, November 30, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	0	3	1	2	0	0	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	0	0	1	4	4	3	1	0	0	0	0	0	0	0	0	0	**13**
5:00 AM	0	0	0	6	7	8	4	1	0	0	0	0	0	0	0	0	0	**26**
6:00 AM	0	1	1	4	17	11	4	2	0	0	0	0	0	0	0	0	0	**40**
7:00 AM	0	0	1	5	10	14	0	1	2	0	0	0	0	0	0	0	0	**33**
8:00 AM	0	0	1	4	9	13	5	0	1	0	0	0	0	0	0	0	0	**33**
9:00 AM	0	0	1	3	9	6	5	2	0	0	0	0	0	0	0	0	0	**26**
10:00 AM	0	0	0	7	8	6	4	0	0	0	0	0	0	0	0	0	0	**25**
11:00 AM	0	0	1	3	8	7	9	1	0	0	0	0	0	0	0	0	0	**29**
12:00 PM	0	0	1	5	13	10	7	0	0	0	0	0	0	0	0	0	0	**36**
1:00 PM	0	0	3	8	16	10	6	0	0	0	0	0	0	0	0	0	0	**43**
2:00 PM	0	0	2	8	22	26	6	3	3	0	0	0	0	0	0	0	0	**70**
3:00 PM	0	0	0	10	29	18	7	2	1	0	0	0	0	0	0	0	0	**67**
4:00 PM	0	0	1	12	53	33	17	3	0	0	0	0	0	0	0	0	0	**119**
5:00 PM	0	1	1	7	45	26	14	2	0	1	0	0	0	0	0	0	0	**97**
6:00 PM	0	0	0	4	33	11	10	0	0	0	0	0	0	0	0	0	0	**58**
7:00 PM	0	0	0	4	17	21	6	0	0	0	0	0	0	0	0	0	0	**48**
8:00 PM	0	0	1	4	13	7	5	5	0	0	0	0	0	0	0	0	0	**35**
9:00 PM	0	0	0	2	5	3	3	1	0	0	0	0	0	0	0	0	0	**14**
10:00 PM	0	0	0	0	4	5	1	0	1	0	0	0	0	0	0	0	0	**11**
11:00 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
Total	**0**	**2**	**15**	**97**	**328**	**244**	**120**	**25**	**8**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**840**
Percent	**0.0%**	**0.2%**	**1.8%**	**11.5%**	**39.0%**	**29.0%**	**14.3%**	**3.0%**	**1.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.7	mph	Mean (Average) Speed	30.3	mph
85th Percentile	36.0	mph	10 mph Pace	25.1 - 35.1	mph
95th Percentile	39.6	mph	Percent in Pace	68.1	%

TJ Wethington
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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Thursday, December 1, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	1	1	2	1	3	0	0	0	0	0	0	0	0	0	0	**8**
4:00 AM	0	0	1	2	2	6	5	0	0	0	0	0	0	0	0	0	0	**16**
5:00 AM	0	0	1	3	8	9	3	2	0	0	0	0	0	0	0	0	0	**26**
6:00 AM	0	1	2	4	16	18	3	1	0	0	0	0	0	0	0	0	0	**45**
7:00 AM	0	1	1	3	11	7	5	5	0	1	0	0	0	0	0	0	0	**34**
8:00 AM	0	0	1	0	9	10	6	3	0	0	0	0	0	0	0	0	0	**29**
9:00 AM	0	0	0	2	11	11	7	1	0	0	0	0	0	0	0	0	0	**32**
10:00 AM	0	0	0	7	15	5	2	0	0	0	0	0	0	0	0	0	0	**29**
11:00 AM	0	0	4	5	9	18	5	1	0	0	0	0	0	0	0	0	0	**42**
12:00 PM	0	0	0	6	20	11	3	0	0	0	0	0	0	0	0	0	0	**40**
1:00 PM	0	0	0	4	18	13	7	0	1	0	0	0	0	0	0	0	0	**43**
2:00 PM	0	2	1	2	13	26	12	2	0	0	0	0	0	0	0	0	0	**58**
3:00 PM	0	0	1	6	24	30	17	3	0	0	0	0	0	0	0	0	0	**81**
4:00 PM	0	1	2	4	22	28	19	2	3	0	0	0	0	0	0	0	0	**81**
5:00 PM	0	0	3	12	39	37	11	3	1	0	0	0	0	0	0	0	0	**106**
6:00 PM	0	0	4	12	24	16	5	2	0	0	0	0	0	0	0	0	0	**63**
7:00 PM	0	0	1	7	12	14	3	1	0	0	0	0	0	0	0	0	0	**38**
8:00 PM	0	0	1	8	17	15	1	1	0	0	0	0	0	0	0	0	0	**43**
9:00 PM	0	0	2	7	12	8	4	0	0	0	0	0	0	0	0	0	0	**33**
10:00 PM	0	0	1	3	10	4	4	0	0	0	0	0	0	0	0	0	0	**22**
11:00 PM	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	**5**
Total	**0**	**5**	**27**	**98**	**297**	**292**	**126**	**27**	**5**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**879**
Percent	**0.0%**	**0.6%**	**3.1%**	**11.1%**	**33.8%**	**33.2%**	**14.3%**	**3.1%**	**0.6%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	30.1	mph	Mean (Average) Speed	30.3	mph
85th Percentile	35.8	mph	10 mph Pace	25.2 - 35.2	mph
95th Percentile	39.3	mph	Percent in Pace	66.89	%

TJ Wethington
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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Friday, December 2, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
1:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	1	2	5	3	2	0	0	0	0	0	0	0	0	0	0	**13**
5:00 AM	0	0	1	1	9	7	3	0	0	0	0	0	0	0	0	0	0	**21**
6:00 AM	0	0	0	6	13	4	4	0	0	0	0	0	0	0	0	0	0	**27**
7:00 AM	0	1	0	2	3	3	1	0	0	0	0	0	0	0	0	0	0	**10**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**1**	**2**	**13**	**32**	**20**	**11**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**81**
Percent	**0.0%**	**1.2%**	**2.5%**	**16.0%**	**39.5%**	**24.7%**	**13.6%**	**1.2%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.6	mph	Mean (Average) Speed	29.4	mph
85th Percentile	35.1	mph	10 mph Pace	23.5 - 33.5	mph
95th Percentile	38.7	mph	Percent in Pace	66.67	%

TJ Wethington
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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Saturday, December 3, 2022
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	1	1	6	2	3	1	0	0	0	0	0	0	0	0	0	**14**
10:00 AM	0	0	1	3	14	13	7	0	0	0	0	0	0	0	0	0	0	**38**
11:00 AM	0	0	1	4	11	12	4	2	0	0	0	0	0	0	0	0	0	**34**
12:00 PM	0	1	0	4	18	13	4	1	0	0	0	0	0	0	0	0	0	**41**
1:00 PM	0	0	0	2	15	20	6	1	1	0	0	0	0	0	0	0	0	**45**
2:00 PM	0	0	1	9	22	13	11	2	0	0	0	0	0	0	0	0	0	**58**
3:00 PM	0	0	2	12	11	17	15	1	1	0	0	0	0	0	0	0	0	**59**
4:00 PM	0	0	1	11	34	25	6	3	0	0	0	0	0	0	0	0	0	**80**
5:00 PM	0	0	1	10	26	19	9	3	2	0	0	0	0	0	0	0	0	**70**
6:00 PM	0	0	2	7	17	17	8	1	0	0	0	0	0	0	0	0	0	**52**
7:00 PM	0	0	0	9	17	16	5	2	1	0	0	0	0	0	0	0	0	**50**
8:00 PM	0	0	2	1	8	13	2	0	0	0	0	0	0	0	0	0	0	**26**
9:00 PM	0	0	1	3	11	4	3	0	0	0	0	0	0	0	0	0	0	**22**
10:00 PM	0	1	0	3	8	7	4	0	0	0	0	0	0	0	0	0	0	**23**
11:00 PM	0	0	1	1	5	1	0	0	0	0	0	0	0	0	0	0	0	**8**
Total	**0**	**2**	**14**	**80**	**223**	**192**	**87**	**17**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**620**
Percent	**0.0%**	**0.3%**	**2.3%**	**12.9%**	**36.0%**	**31.0%**	**14.0%**	**2.7%**	**0.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.8	mph	Mean (Average) Speed	30.2	mph
85th Percentile	35.7	mph	10 mph Pace	23.9 - 33.9	mph
95th Percentile	38.9	mph	Percent in Pace	67.58	%

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Sunday, December 4, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	2	3	0	1	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	5	2	2	0	0	0	0	0	0	0	0	0	0	**9**
5:00 AM	0	0	0	3	3	1	1	0	0	0	0	0	0	0	0	0	0	**8**
6:00 AM	0	0	0	2	0	5	1	0	0	0	0	0	0	0	0	0	0	**8**
7:00 AM	0	0	0	0	4	4	1	0	0	0	0	0	0	0	0	0	0	**9**
8:00 AM	0	0	0	5	1	5	0	2	0	0	0	0	0	0	0	0	0	**13**
9:00 AM	0	0	1	4	12	11	7	1	0	0	0	0	0	0	0	0	0	**36**
10:00 AM	0	0	0	5	9	9	6	3	1	0	0	0	0	0	0	0	0	**33**
11:00 AM	0	0	0	4	18	11	9	1	0	0	0	0	0	0	0	0	0	**43**
12:00 PM	0	0	0	2	15	17	9	1	0	0	0	0	0	0	0	0	0	**44**
1:00 PM	0	0	0	9	24	22	6	0	0	1	0	0	0	0	0	0	0	**62**
2:00 PM	0	0	0	5	22	14	8	1	0	0	0	0	0	0	0	0	0	**50**
3:00 PM	0	0	0	4	25	22	13	2	1	0	0	0	0	0	0	0	0	**67**
4:00 PM	0	0	1	5	25	14	6	3	0	0	0	0	0	0	0	0	0	**54**
5:00 PM	0	0	1	10	23	16	8	1	0	0	0	0	0	0	0	0	0	**59**
6:00 PM	0	0	0	6	18	14	6	2	0	0	0	0	0	0	0	0	0	**46**
7:00 PM	0	0	4	3	11	14	5	1	0	0	0	0	0	0	0	0	0	**38**
8:00 PM	0	0	0	8	4	5	3	1	0	0	0	0	0	0	0	0	0	**21**
9:00 PM	0	0	0	0	4	8	0	0	0	0	0	0	0	0	0	0	0	**12**
10:00 PM	0	0	0	1	3	5	0	1	0	0	0	0	0	0	0	0	0	**10**
11:00 PM	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	**5**
Total	**0**	**0**	**7**	**76**	**230**	**210**	**95**	**23**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**644**
Percent	**0.0%**	**0.0%**	**1.1%**	**11.8%**	**35.7%**	**32.6%**	**14.8%**	**3.6%**	**0.3%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	30.2	mph	Mean (Average) Speed	30.6	mph
85th Percentile	35.8	mph	10 mph Pace	24.3 - 34.3	mph
95th Percentile	39.3	mph	Percent in Pace	68.63	%

TJ Wethington
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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Total Study Average
Eastbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

TJ Wethington
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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 to 12/4/2022
Site Code: 07

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	1	4	3	2	0	0	0	0	0	0	0	0	0	0	**10**
5:00 AM	0	0	0	3	8	6	3	1	0	0	0	0	0	0	0	0	0	**21**
6:00 AM	0	0	1	3	11	8	2	1	0	0	0	0	0	0	0	0	0	**26**
7:00 AM	0	0	0	2	8	7	2	1	0	0	0	0	0	0	0	0	0	**20**
8:00 AM	0	0	0	2	6	7	3	1	0	0	0	0	0	0	0	0	0	**19**
9:00 AM	0	0	1	3	8	7	5	1	0	0	0	0	0	0	0	0	0	**25**
10:00 AM	0	0	0	4	9	7	3	0	0	0	0	0	0	0	0	0	0	**23**
11:00 AM	0	0	2	4	11	11	5	1	0	0	0	0	0	0	0	0	0	**34**
12:00 PM	0	0	1	4	15	11	5	1	0	0	0	0	0	0	0	0	0	**37**
1:00 PM	0	0	1	4	14	13	5	1	0	0	0	0	0	0	0	0	0	**38**
2:00 PM	0	1	1	6	20	15	7	2	0	0	0	0	0	0	0	0	0	**52**
3:00 PM	0	0	1	8	19	17	11	2	1	0	0	0	0	0	0	0	0	**59**
4:00 PM	0	0	1	6	33	23	11	3	0	0	0	0	0	0	0	0	0	**77**
5:00 PM	0	0	1	8	31	24	10	2	1	0	0	0	0	0	0	0	0	**77**
6:00 PM	0	0	2	6	22	15	6	1	0	0	0	0	0	0	0	0	0	**52**
7:00 PM	0	0	1	5	13	12	5	1	0	0	0	0	0	0	0	0	0	**37**
8:00 PM	0	0	1	3	9	8	3	1	0	0	0	0	0	0	0	0	0	**25**
9:00 PM	0	0	1	3	8	5	2	0	0	0	0	0	0	0	0	0	0	**19**
10:00 PM	0	0	0	1	4	4	2	0	0	0	0	0	0	0	0	0	0	**11**
11:00 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	**4**
Total	**0**	**1**	**15**	**76**	**258**	**210**	**94**	**20**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**676**
Percent	**0.0%**	**0.1%**	**2.2%**	**11.2%**	**38.2%**	**31.1%**	**13.9%**	**3.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	29.8	mph	Mean (Average) Speed	30.2	mph
85th Percentile	35.7	mph	10 mph Pace	25.1 - 35.1	mph
95th Percentile	39.1	mph	Percent in Pace	68.2	%

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Location: I-94 WB Ramp W/O Sunset Dr
Date Range: 11/28/2022 - 12/4/2022
Site Code: 07

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	4	4	0	3	3	0	3	3	0	4	4	0	2	2	0	0	0	0	4	4	0	3	3
1:00 AM	0	0	0	0	0	0	0	2	2	0	0	0	0	2	2	0	0	0	0	6	6	0	1	1
2:00 AM	0	2	2	0	0	0	0	3	3	0	1	1	0	2	2	0	0	0	0	4	4	0	1	1
3:00 AM	0	5	5	0	6	6	0	6	6	0	8	8	0	4	4	0	0	0	0	3	3	0	7	7
4:00 AM	0	11	11	0	13	13	0	13	13	0	16	16	0	13	13	0	0	0	0	9	9	0	14	14
5:00 AM	0	32	32	0	31	31	0	26	26	0	26	26	0	21	21	0	0	0	0	8	8	0	28	28
6:00 AM	0	30	30	0	37	37	0	40	40	0	45	45	0	27	27	0	0	0	0	8	8	0	41	41
7:00 AM	0	31	31	0	35	35	0	33	33	0	34	34	0	10	10	0	0	0	0	9	9	0	34	34
8:00 AM	0	37	37	0	27	27	0	33	33	0	29	29	0	0	0	0	0	0	0	13	13	0	30	30
9:00 AM	0	32	32	0	31	31	0	26	26	0	32	32	0	0	0	0	14	14	0	36	36	0	30	30
10:00 AM	0	26	26	0	18	18	0	25	25	0	29	29	0	0	0	0	38	38	0	33	33	0	24	24
11:00 AM	0	35	35	0	48	48	0	29	29	0	42	42	0	0	0	0	34	34	0	43	43	0	40	40
12:00 PM	0	58	58	0	45	45	0	36	36	0	40	40	0	0	0	0	41	41	0	44	44	0	40	40
1:00 PM	0	33	33	0	37	37	0	43	43	0	43	43	0	0	0	0	45	45	0	62	62	0	41	41
2:00 PM	0	62	62	0	59	59	0	70	70	0	58	58	0	0	0	0	58	58	0	50	50	0	62	62
3:00 PM	0	74	74	0	60	60	0	67	67	0	81	81	0	0	0	0	59	59	0	67	67	0	69	69
4:00 PM	0	104	104	0	96	96	0	119	119	0	81	81	0	0	0	0	80	80	0	54	54	0	99	99
5:00 PM	0	89	89	0	126	126	0	97	97	0	106	106	0	0	0	0	70	70	0	59	59	0	110	110
6:00 PM	0	66	66	0	72	72	0	58	58	0	63	63	0	0	0	0	52	52	0	46	46	0	64	64
7:00 PM	0	36	36	0	48	48	0	48	48	0	38	38	0	0	0	0	50	50	0	38	38	0	45	45
8:00 PM	0	14	14	0	35	35	0	35	35	0	43	43	0	0	0	0	26	26	0	21	21	0	38	38
9:00 PM	0	20	20	0	33	33	0	14	14	0	33	33	0	0	0	0	22	22	0	12	12	0	27	27
10:00 PM	0	8	8	0	9	9	0	11	11	0	22	22	0	0	0	0	23	23	0	10	10	0	14	14
11:00 PM	0	7	7	0	3	3	0	3	3	0	5	5	0	0	0	0	8	8	0	5	5	0	4	4
Total	-	**816**	**816**	-	**872**	**872**	-	**840**	**840**	-	**879**	**879**	-	**81**	**81**	-	**620**	**620**	-	**644**	**644**	-	**864**	**864**
Percent	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I-94 EB Ramp W/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 08

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	47	1,612	1,383	95	1,258	48	0	33	158	114	0	0	51	4,799
Percent	1.0%	33.6%	28.8%	2.0%	26.2%	1.0%	0.0%	0.7%	3.3%	2.4%	0.0%	0.0%	1.1%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	47	1,612	1,383	95	1,258	48	0	33	158	114	0	0	51	4,799
Percent	1.0%	33.6%	28.8%	2.0%	26.2%	1.0%	0.0%	0.7%	3.3%	2.4%	0.0%	0.0%	1.1%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Monday, November 28, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	1	0	0	0	0	0	0	2	0	0	0	**4**
1:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	1	2	0	0	0	0	0	0	1	0	0	0	**4**
4:00 AM	0	2	2	0	2	0	0	0	3	0	0	0	1	**10**
5:00 AM	0	4	4	1	5	0	0	0	2	0	0	0	0	**16**
6:00 AM	1	18	4	1	11	0	0	0	1	0	0	0	2	**38**
7:00 AM	2	27	19	1	18	1	0	0	0	0	0	0	0	**68**
8:00 AM	0	31	21	1	21	0	0	0	1	3	0	0	0	**78**
9:00 AM	0	17	11	0	16	0	0	0	1	3	0	0	0	**48**
10:00 AM	1	10	9	2	14	1	0	1	2	4	0	0	2	**46**
11:00 AM	0	18	14	0	22	0	0	0	2	2	0	0	0	**58**
12:00 PM	1	13	22	1	19	0	0	0	3	1	0	0	1	**61**
1:00 PM	0	25	7	0	10	0	0	0	6	1	0	0	0	**49**
2:00 PM	0	10	12	0	13	0	0	0	2	2	0	0	1	**40**
3:00 PM	2	25	19	2	15	0	0	0	0	0	0	0	1	**64**
4:00 PM	0	30	16	0	13	0	0	1	1	0	0	0	0	**61**
5:00 PM	0	25	15	1	15	1	0	0	0	2	0	0	0	**59**
6:00 PM	1	20	9	1	8	0	0	0	3	2	0	0	0	**44**
7:00 PM	0	13	4	0	5	1	0	0	2	0	0	0	0	**25**
8:00 PM	0	7	6	0	3	0	0	0	1	0	0	0	1	**18**
9:00 PM	0	4	3	0	2	0	0	0	0	2	0	0	0	**11**
10:00 PM	0	2	2	0	0	0	0	0	1	0	0	0	0	**5**
11:00 PM	0	3	1	0	1	0	0	0	0	1	0	0	1	**7**
Total	**8**	**306**	**203**	**11**	**213**	**4**	**0**	**2**	**32**	**26**	**0**	**0**	**10**	**815**
Percent	**1.0%**	**37.5%**	**24.9%**	**1.3%**	**26.1%**	**0.5%**	**0.0%**	**0.2%**	**3.9%**	**3.2%**	**0.0%**	**0.0%**	**1.2%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

DATA SOLUTIONS

Tuesday, November 29, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	1	0	1	0	0	0	1	0	0	0	0	**5**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	2	0	0	0	0	0	1	0	0	0	0	**3**
4:00 AM	2	2	1	3	1	1	0	0	2	2	0	0	0	**14**
5:00 AM	1	2	6	1	4	0	0	0	2	0	0	0	0	**16**
6:00 AM	1	13	11	1	13	0	0	0	0	1	0	0	2	**42**
7:00 AM	1	23	32	1	19	0	0	0	1	0	0	0	0	**77**
8:00 AM	0	21	22	0	20	0	0	1	1	1	0	0	1	**67**
9:00 AM	0	14	20	2	14	1	0	1	2	0	0	0	1	**55**
10:00 AM	1	21	26	2	16	1	0	1	1	2	0	0	0	**71**
11:00 AM	1	11	13	2	21	1	0	0	0	1	0	0	0	**50**
12:00 PM	1	19	21	3	20	2	0	2	2	1	0	0	0	**71**
1:00 PM	1	19	24	1	20	4	0	2	4	1	0	0	0	**76**
2:00 PM	0	28	17	0	25	1	0	3	1	4	0	0	0	**79**
3:00 PM	0	18	24	0	14	0	0	0	0	1	0	0	1	**58**
4:00 PM	1	25	24	2	18	0	0	0	0	1	0	0	0	**71**
5:00 PM	1	27	16	1	9	0	0	0	1	2	0	0	0	**57**
6:00 PM	0	19	16	1	9	1	0	0	3	0	0	0	0	**49**
7:00 PM	0	13	11	1	10	0	0	0	1	1	0	0	0	**37**
8:00 PM	1	10	7	1	1	0	0	0	0	0	0	0	0	**20**
9:00 PM	0	3	4	0	0	0	0	0	0	1	0	0	0	**8**
10:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
11:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
Total	**12**	**295**	**300**	**22**	**237**	**12**	**0**	**10**	**23**	**19**	**0**	**0**	**5**	**935**
Percent	**1.3%**	**31.6%**	**32.1%**	**2.4%**	**25.3%**	**1.3%**	**0.0%**	**1.1%**	**2.5%**	**2.0%**	**0.0%**	**0.0%**	**0.5%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Wednesday, November 30, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	2	0	0	0	0	0	1	0	0	0	0	**6**
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	**2**
3:00 AM	0	0	2	0	2	0	0	0	1	0	0	0	0	**5**
4:00 AM	1	1	1	1	1	0	0	0	2	0	0	0	0	**7**
5:00 AM	0	3	4	1	3	1	0	0	2	1	0	0	0	**15**
6:00 AM	0	15	6	1	10	0	0	0	1	0	0	0	0	**33**
7:00 AM	1	28	19	2	32	0	0	0	2	1	0	0	3	**88**
8:00 AM	2	24	22	2	19	0	0	0	4	2	0	0	2	**77**
9:00 AM	0	10	14	0	12	1	0	1	3	3	0	0	1	**45**
10:00 AM	0	18	24	2	21	1	0	2	6	4	0	0	1	**79**
11:00 AM	1	13	16	1	16	0	0	1	1	2	0	0	1	**52**
12:00 PM	0	22	19	3	35	2	0	2	1	1	0	0	0	**85**
1:00 PM	1	14	17	2	14	0	0	3	1	1	0	0	0	**53**
2:00 PM	1	14	12	5	11	1	0	1	3	0	0	0	2	**50**
3:00 PM	0	26	27	0	21	0	0	0	1	0	0	0	0	**75**
4:00 PM	0	22	21	2	12	2	0	0	1	0	0	0	0	**60**
5:00 PM	0	20	14	1	12	0	0	0	3	1	0	0	0	**51**
6:00 PM	1	19	17	1	10	0	0	1	1	0	0	0	0	**50**
7:00 PM	1	10	7	2	11	0	0	0	3	0	0	0	0	**34**
8:00 PM	0	9	3	0	5	0	0	0	1	0	0	0	2	**20**
9:00 PM	0	6	1	0	1	0	0	0	0	0	0	0	0	**8**
10:00 PM	0	0	1	0	3	0	0	0	0	0	0	0	0	**4**
11:00 PM	1	0	1	1	1	0	0	0	1	0	0	0	0	**5**
Total	**10**	**280**	**250**	**27**	**252**	**8**	**0**	**11**	**39**	**17**	**0**	**0**	**12**	**906**
Percent	**1.1%**	**30.9%**	**27.6%**	**3.0%**	**27.8%**	**0.9%**	**0.0%**	**1.2%**	**4.3%**	**1.9%**	**0.0%**	**0.0%**	**1.3%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

DATA SOLUTIONS

Thursday, December 1, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	1	0	0	0	0	0	0	1	0	0	0	**9**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	1	1	0	1	0	0	0	2	1	0	0	0	**6**
4:00 AM	0	2	0	0	0	0	0	0	2	1	0	0	1	**6**
5:00 AM	0	6	3	1	2	0	0	0	1	0	0	0	0	**13**
6:00 AM	1	12	10	1	11	0	0	0	0	2	0	0	2	**39**
7:00 AM	1	28	24	1	25	0	0	0	0	1	0	0	2	**82**
8:00 AM	0	26	17	0	12	0	0	0	0	2	0	0	1	**58**
9:00 AM	0	12	17	0	23	0	0	0	2	3	0	0	0	**57**
10:00 AM	0	12	14	2	20	1	0	0	2	5	0	0	1	**57**
11:00 AM	0	18	18	0	15	0	0	0	3	1	0	0	0	**55**
12:00 PM	0	23	13	2	20	0	0	0	4	4	0	0	1	**67**
1:00 PM	0	17	26	2	22	3	0	0	3	0	0	0	0	**73**
2:00 PM	1	23	18	2	19	6	0	0	1	2	0	0	0	**72**
3:00 PM	1	42	17	3	20	1	0	2	0	2	0	0	1	**89**
4:00 PM	0	26	18	1	19	3	0	0	2	1	0	0	2	**72**
5:00 PM	0	31	15	0	21	5	0	0	3	0	0	0	0	**75**
6:00 PM	1	20	10	1	17	1	0	0	2	0	0	0	0	**52**
7:00 PM	0	9	12	0	10	1	0	1	1	2	0	0	0	**36**
8:00 PM	1	12	7	1	2	0	0	0	0	1	0	0	0	**24**
9:00 PM	0	6	1	0	6	0	0	0	0	0	0	0	1	**14**
10:00 PM	0	3	4	0	1	0	0	0	0	0	0	0	0	**8**
11:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	**3**
Total	**6**	**340**	**246**	**17**	**267**	**21**	**0**	**3**	**28**	**29**	**0**	**0**	**13**	**970**
Percent	**0.6%**	**35.1%**	**25.4%**	**1.8%**	**27.5%**	**2.2%**	**0.0%**	**0.3%**	**2.9%**	**3.0%**	**0.0%**	**0.0%**	**1.3%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Friday, December 2, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	1	0	0	0	0	1	0	0	0	**7**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
3:00 AM	0	1	1	0	0	0	0	0	2	0	0	0	0	**4**
4:00 AM	0	2	0	0	0	0	0	0	2	2	0	0	1	**7**
5:00 AM	1	5	3	2	1	0	0	0	0	0	0	0	0	**12**
6:00 AM	0	9	1	1	11	0	0	0	2	0	0	0	0	**24**
7:00 AM	1	29	15	2	28	0	0	0	1	0	0	0	0	**76**
8:00 AM	0	13	9	0	10	0	0	0	2	0	0	0	1	**35**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**2**	**65**	**29**	**5**	**51**	**0**	**0**	**0**	**9**	**4**	**0**	**0**	**2**	**167**
Percent	**1.2%**	**38.9%**	**17.4%**	**3.0%**	**30.5%**	**0.0%**	**0.0%**	**0.0%**	**5.4%**	**2.4%**	**0.0%**	**0.0%**	**1.2%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Saturday, December 3, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	1	20	15	1	12	0	0	0	0	0	0	0	0	**49**
11:00 AM	0	19	30	0	24	0	0	0	1	0	0	0	0	**74**
12:00 PM	1	12	22	1	18	1	0	1	2	1	0	0	0	**59**
1:00 PM	0	14	14	0	14	0	0	0	0	0	0	0	0	**42**
2:00 PM	0	8	7	1	13	1	0	0	2	1	0	0	1	**34**
3:00 PM	0	19	17	0	9	0	0	1	0	1	0	0	0	**47**
4:00 PM	1	16	20	1	8	0	0	0	1	0	0	0	0	**47**
5:00 PM	1	14	11	1	13	0	0	0	0	1	0	0	0	**41**
6:00 PM	0	13	11	0	4	0	0	0	3	1	0	0	0	**32**
7:00 PM	0	9	7	0	4	0	0	0	0	0	0	0	1	**21**
8:00 PM	0	11	7	0	6	0	0	0	0	0	0	0	1	**25**
9:00 PM	0	7	9	0	3	0	0	0	0	0	0	0	0	**19**
10:00 PM	1	10	3	1	5	0	0	0	0	0	0	0	0	**20**
11:00 PM	1	2	4	1	2	0	0	0	0	1	0	0	0	**11**
Total	**6**	**174**	**177**	**7**	**135**	**2**	**0**	**2**	**9**	**6**	**0**	**0**	**3**	**521**
Percent	**1.2%**	**33.4%**	**34.0%**	**1.3%**	**25.9%**	**0.4%**	**0.0%**	**0.4%**	**1.7%**	**1.2%**	**0.0%**	**0.0%**	**0.6%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

DATA SOLUTIONS

Sunday, December 4, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	0	**7**
1:00 AM	0	1	2	0	0	0	0	0	1	0	0	0	0	**4**
2:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	0	**2**
3:00 AM	0	0	4	0	1	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	2	1	1	2	0	0	0	1	0	0	0	0	**7**
6:00 AM	0	2	0	0	4	0	0	0	1	1	0	0	0	**8**
7:00 AM	0	5	1	0	5	0	0	0	1	0	0	0	2	**14**
8:00 AM	0	9	6	0	5	0	0	0	0	1	0	0	0	**21**
9:00 AM	0	11	7	0	5	0	0	0	0	0	0	0	0	**23**
10:00 AM	0	11	13	0	11	0	0	0	1	0	0	0	1	**37**
11:00 AM	0	13	14	0	7	0	0	0	3	2	0	0	1	**40**
12:00 PM	1	13	11	2	6	1	0	1	1	0	0	0	0	**36**
1:00 PM	0	9	11	0	6	0	0	0	3	3	0	0	0	**32**
2:00 PM	0	10	17	0	10	0	0	0	1	0	0	0	0	**38**
3:00 PM	0	9	19	0	3	0	0	1	1	0	0	0	0	**33**
4:00 PM	1	14	17	1	8	0	0	1	2	1	0	0	0	**45**
5:00 PM	0	11	17	0	9	0	0	1	0	0	0	0	2	**40**
6:00 PM	1	7	9	1	6	0	0	1	1	2	0	0	0	**28**
7:00 PM	0	7	10	0	8	0	0	0	0	0	0	0	0	**25**
8:00 PM	0	6	7	0	1	0	0	0	0	1	0	0	0	**15**
9:00 PM	0	2	4	0	2	0	0	0	0	0	0	0	0	**8**
10:00 PM	0	2	4	1	2	0	0	0	0	2	0	0	0	**11**
11:00 PM	0	2	1	0	2	0	0	0	0	0	0	0	0	**5**
Total	**3**	**152**	**178**	**6**	**103**	**1**	**0**	**5**	**18**	**13**	**0**	**0**	**6**	**485**
Percent	**0.6%**	**31.3%**	**36.7%**	**1.2%**	**21.2%**	**0.2%**	**0.0%**	**1.0%**	**3.7%**	**2.7%**	**0.0%**	**0.0%**	**1.2%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	1	0	0	0	0	0	0	1	0	0	0	**5**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	2	0	1	0	0	0	1	0	0	0	0	**4**
4:00 AM	0	1	1	1	1	0	0	0	2	1	0	0	0	**7**
5:00 AM	0	3	3	1	2	0	0	0	1	0	0	0	0	**10**
6:00 AM	0	10	5	1	9	0	0	0	1	1	0	0	1	**28**
7:00 AM	1	20	16	1	18	0	0	0	1	0	0	0	1	**58**
8:00 AM	0	18	14	0	12	0	0	0	1	1	0	0	1	**47**
9:00 AM	0	9	10	0	10	0	0	0	1	1	0	0	0	**31**
10:00 AM	0	13	14	1	13	1	0	1	2	2	0	0	1	**48**
11:00 AM	0	13	15	0	15	0	0	0	1	1	0	0	0	**45**
12:00 PM	1	15	15	2	17	1	0	1	2	1	0	0	0	**55**
1:00 PM	0	14	14	1	12	1	0	1	2	1	0	0	0	**46**
2:00 PM	0	13	12	1	13	1	0	1	1	1	0	0	1	**44**
3:00 PM	0	20	18	1	12	0	0	1	0	1	0	0	0	**53**
4:00 PM	0	19	17	1	11	1	0	0	1	0	0	0	0	**50**
5:00 PM	0	18	13	1	11	1	0	0	1	1	0	0	0	**46**
6:00 PM	1	14	10	1	8	0	0	0	2	1	0	0	0	**37**
7:00 PM	0	9	7	0	7	0	0	0	1	0	0	0	0	**24**
8:00 PM	0	8	5	0	3	0	0	0	0	0	0	0	1	**17**
9:00 PM	0	4	3	0	2	0	0	0	0	0	0	0	0	**9**
10:00 PM	0	3	2	0	2	0	0	0	0	0	0	0	0	**7**
11:00 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	**3**
Total	**3**	**230**	**198**	**13**	**180**	**6**	**0**	**5**	**21**	**14**	**0**	**0**	**6**	**676**
Percent	**0.4%**	**34.0%**	**29.3%**	**1.9%**	**26.6%**	**0.9%**	**0.0%**	**0.7%**	**3.1%**	**2.1%**	**0.0%**	**0.0%**	**0.9%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

3-Day (Tuesday - Thursday) Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	4	1	0	0	0	0	0	1	0	0	0	0	**7**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	2	0	1	0	0	0	1	0	0	0	0	**5**
4:00 AM	1	2	1	1	1	0	0	0	2	1	0	0	0	**9**
5:00 AM	0	4	4	1	3	0	0	0	2	0	0	0	0	**15**
6:00 AM	1	13	9	1	11	0	0	0	0	1	0	0	1	**38**
7:00 AM	1	26	25	1	25	0	0	0	1	1	0	0	2	**82**
8:00 AM	1	24	20	1	17	0	0	0	2	2	0	0	1	**67**
9:00 AM	0	12	17	1	16	1	0	1	2	2	0	0	1	**52**
10:00 AM	0	17	21	2	19	1	0	1	3	4	0	0	1	**69**
11:00 AM	1	14	16	1	17	0	0	0	1	1	0	0	0	**52**
12:00 PM	0	21	18	3	25	1	0	1	2	2	0	0	0	**74**
1:00 PM	1	17	22	2	19	2	0	2	3	1	0	0	0	**67**
2:00 PM	1	22	16	2	18	3	0	1	2	2	0	0	1	**67**
3:00 PM	0	29	23	1	18	0	0	1	0	1	0	0	1	**74**
4:00 PM	0	24	21	2	16	2	0	0	1	1	0	0	1	**68**
5:00 PM	0	26	15	1	14	2	0	0	2	1	0	0	0	**61**
6:00 PM	1	19	14	1	12	1	0	0	2	0	0	0	0	**50**
7:00 PM	0	11	10	1	10	0	0	0	2	1	0	0	0	**36**
8:00 PM	1	10	6	1	3	0	0	0	0	0	0	0	1	**21**
9:00 PM	0	5	2	0	2	0	0	0	0	0	0	0	0	**10**
10:00 PM	0	2	2	0	2	0	0	0	0	0	0	0	0	**5**
11:00 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	**3**
Total	**9**	**305**	**265**	**22**	**252**	**14**	**0**	**8**	**30**	**22**	**0**	**0**	**10**	**937**
Percent	**1.0%**	**32.6%**	**28.3%**	**2.3%**	**26.9%**	**1.5%**	**0.0%**	**0.9%**	**3.2%**	**2.3%**	**0.0%**	**0.0%**	**1.1%**	

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Vehicle Speed Report Summary

Location: I-94 EB Ramp W/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 08

	Speed Range (mph)																Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	0	1	9	27	99	253	404	840	1,445	1,142	482	82	11	4	0	0	4,799
Percent	0.0%	0.0%	0.0%	0.2%	0.6%	2.1%	5.3%	8.4%	17.5%	30.1%	23.8%	10.0%	1.7%	0.2%	0.1%	0.0%	0.0%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	0	1	9	27	99	253	404	840	1,445	1,142	482	82	11	4	0	0	4,799
Percent	0.0%	0.0%	0.0%	0.2%	0.6%	2.1%	5.3%	8.4%	17.5%	30.1%	23.8%	10.0%	1.7%	0.2%	0.1%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	52.7	mph	Mean (Average) Speed	51.9	mph
85th Percentile	59.2	mph	10 mph Pace	48.4 - 58.4	mph
95th Percentile	62.5	mph	Percent in Pace	54.7	%
Westbound			**Westbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

TJ Wethington
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tj.wethington@idaxdata.com

Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Monday, November 28, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	2	0	0	1	1	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	1	0	2	0	1	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	1	1	1	3	2	0	1	1	0	0	0	0	0	**10**
5:00 AM	0	0	0	1	0	2	1	1	4	2	4	0	1	0	0	0	0	**16**
6:00 AM	0	0	0	0	2	0	2	5	10	11	7	1	0	0	0	0	0	**38**
7:00 AM	0	0	0	0	0	0	1	5	14	27	17	3	1	0	0	0	0	**68**
8:00 AM	0	0	0	0	0	1	7	3	12	21	25	8	1	0	0	0	0	**78**
9:00 AM	0	0	0	0	0	0	0	7	10	14	12	3	1	1	0	0	0	**48**
10:00 AM	0	0	0	0	0	1	5	9	6	14	9	2	0	0	0	0	0	**46**
11:00 AM	0	0	0	0	0	1	2	0	11	20	18	6	0	0	0	0	0	**58**
12:00 PM	0	0	0	0	0	0	3	1	14	18	19	6	0	0	0	0	0	**61**
1:00 PM	0	0	0	1	0	2	6	3	9	7	9	10	1	1	0	0	0	**49**
2:00 PM	0	0	0	0	0	0	3	4	5	9	14	4	0	0	1	0	0	**40**
3:00 PM	0	0	0	0	0	0	2	3	10	21	15	12	1	0	0	0	0	**64**
4:00 PM	0	0	0	1	0	0	1	4	11	22	16	4	2	0	0	0	0	**61**
5:00 PM	0	0	0	0	0	0	3	2	6	23	17	8	0	0	0	0	0	**59**
6:00 PM	0	0	0	0	0	0	3	2	3	19	11	6	0	0	0	0	0	**44**
7:00 PM	0	0	0	0	1	0	0	1	3	13	5	2	0	0	0	0	0	**25**
8:00 PM	0	0	0	0	0	0	0	3	5	6	3	1	0	0	0	0	0	**18**
9:00 PM	0	0	0	0	0	0	0	1	3	2	3	1	1	0	0	0	0	**11**
10:00 PM	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	**5**
11:00 PM	0	0	0	0	0	0	1	1	2	2	0	1	0	0	0	0	0	**7**
Total	**0**	**0**	**0**	**4**	**4**	**8**	**45**	**60**	**143**	**253**	**207**	**79**	**9**	**2**	**1**	**0**	**0**	**815**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.5%**	**0.5%**	**1.0%**	**5.5%**	**7.4%**	**17.5%**	**31.0%**	**25.4%**	**9.7%**	**1.1%**	**0.2%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	53.0	mph	Mean (Average) Speed	52.0	mph
85th Percentile	58.8	mph	10 mph Pace	48.4 - 58.4	mph
95th Percentile	62.1	mph	Percent in Pace	57.9	%

TJ Wethington
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tj.wethington@idaxdata.com

Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Tuesday, November 29, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	1	2	1	0	1	0	0	0	0	0	**5**
1:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	**3**
4:00 AM	0	0	0	1	0	0	1	7	2	1	2	0	0	0	0	0	0	**14**
5:00 AM	0	0	0	0	0	0	3	1	2	2	4	3	1	0	0	0	0	**16**
6:00 AM	0	0	0	0	0	0	2	4	7	13	8	7	1	0	0	0	0	**42**
7:00 AM	0	0	0	0	0	0	1	2	14	26	22	10	2	0	0	0	0	**77**
8:00 AM	0	0	0	0	0	0	5	2	5	17	22	15	1	0	0	0	0	**67**
9:00 AM	0	0	0	0	0	0	4	8	7	17	8	6	4	1	0	0	0	**55**
10:00 AM	0	0	0	0	0	4	4	5	7	18	16	15	1	1	0	0	0	**71**
11:00 AM	0	0	0	0	1	2	3	3	14	14	4	8	1	0	0	0	0	**50**
12:00 PM	0	0	0	0	1	4	4	6	11	15	22	6	2	0	0	0	0	**71**
1:00 PM	0	0	0	0	0	9	4	5	11	22	12	11	1	0	1	0	0	**76**
2:00 PM	0	0	0	3	1	4	2	6	12	22	20	8	1	0	0	0	0	**79**
3:00 PM	0	0	0	0	0	0	4	4	6	14	19	9	2	0	0	0	0	**58**
4:00 PM	0	0	0	0	0	2	5	7	11	17	16	13	0	0	0	0	0	**71**
5:00 PM	0	0	0	0	0	1	2	4	6	17	20	7	0	0	0	0	0	**57**
6:00 PM	0	0	0	0	1	6	3	4	7	13	6	9	0	0	0	0	0	**49**
7:00 PM	0	0	0	0	1	0	0	3	7	11	12	3	0	0	0	0	0	**37**
8:00 PM	0	0	0	0	0	0	0	2	2	6	6	2	2	0	0	0	0	**20**
9:00 PM	0	0	0	0	0	0	0	1	3	2	2	0	0	0	0	0	0	**8**
10:00 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	0	**4**
11:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	**2**
Total	**0**	**0**	**0**	**4**	**5**	**32**	**48**	**77**	**137**	**252**	**223**	**133**	**20**	**2**	**2**	**0**	**0**	**935**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.4%**	**0.5%**	**3.4%**	**5.1%**	**8.2%**	**14.7%**	**27.0%**	**23.9%**	**14.2%**	**2.1%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	53.2	mph	Mean (Average) Speed	52.3	mph
85th Percentile	60.5	mph	10 mph Pace	49.3 - 59.3	mph
95th Percentile	63.3	mph	Percent in Pace	50.9	%

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Wednesday, November 30, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	0	2	1	2	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	**2**
2:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	0	0	1	2	1	2	0	1	0	0	0	0	0	**7**
5:00 AM	0	0	0	0	0	1	3	3	1	5	2	0	0	0	0	0	0	**15**
6:00 AM	0	0	0	0	0	1	2	1	6	10	7	6	0	0	0	0	0	**33**
7:00 AM	0	0	0	0	0	2	2	3	23	26	25	7	0	0	0	0	0	**88**
8:00 AM	0	0	0	0	0	1	2	6	10	31	20	5	2	0	0	0	0	**77**
9:00 AM	0	0	0	0	0	1	4	5	9	13	9	3	1	0	0	0	0	**45**
10:00 AM	0	0	0	0	0	4	4	7	15	22	16	10	0	1	0	0	0	**79**
11:00 AM	0	0	0	0	0	0	5	3	11	9	16	6	2	0	0	0	0	**52**
12:00 PM	0	0	0	0	0	0	5	5	9	29	17	16	4	0	0	0	0	**85**
1:00 PM	0	0	0	0	0	1	4	2	7	14	21	2	2	0	0	0	0	**53**
2:00 PM	0	0	0	0	0	1	8	6	9	7	17	2	0	0	0	0	0	**50**
3:00 PM	0	0	0	0	0	0	1	6	8	24	20	14	1	1	0	0	0	**75**
4:00 PM	0	0	0	0	0	1	2	3	7	20	19	6	2	0	0	0	0	**60**
5:00 PM	0	0	0	0	0	1	4	3	10	18	12	3	0	0	0	0	0	**51**
6:00 PM	0	0	0	0	1	3	4	2	10	26	2	2	0	0	0	0	0	**50**
7:00 PM	0	0	0	0	0	1	3	4	6	9	8	2	0	1	0	0	0	**34**
8:00 PM	0	0	0	0	0	0	1	5	3	7	1	3	0	0	0	0	0	**20**
9:00 PM	0	0	0	0	0	0	0	3	0	2	1	1	1	0	0	0	0	**8**
10:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	**4**
11:00 PM	0	0	0	0	0	2	0	1	1	1	0	0	0	0	0	0	0	**5**
Total	**0**	**0**	**0**	**0**	**1**	**20**	**57**	**72**	**150**	**281**	**218**	**89**	**15**	**3**	**0**	**0**	**0**	**906**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**2.2%**	**6.3%**	**7.9%**	**16.6%**	**31.0%**	**24.1%**	**9.8%**	**1.7%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	53.1	mph	Mean (Average) Speed	52.0	mph
85th Percentile	59.0	mph	10 mph Pace	48.9 - 58.9	mph
95th Percentile	62.5	mph	Percent in Pace	56.7	%

TJ Wethington
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tj.wethington@idaxdata.com

Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Thursday, December 1, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	3	2	2	0	1	0	0	0	0	0	**9**
1:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	2	0	1	2	0	1	0	0	0	0	0	0	**6**
4:00 AM	0	0	0	0	0	0	2	3	0	0	0	1	0	0	0	0	0	**6**
5:00 AM	0	0	0	0	0	3	0	0	1	3	6	0	0	0	0	0	0	**13**
6:00 AM	0	0	0	0	0	0	0	5	12	12	9	1	0	0	0	0	0	**39**
7:00 AM	0	0	0	0	1	0	2	10	21	24	18	5	1	0	0	0	0	**82**
8:00 AM	0	0	0	0	1	1	3	2	11	12	16	12	0	0	0	0	0	**58**
9:00 AM	0	0	0	0	0	1	5	4	18	16	9	2	2	0	0	0	0	**57**
10:00 AM	0	0	0	0	0	2	2	6	10	20	14	2	1	0	0	0	0	**57**
11:00 AM	0	0	0	0	0	0	4	4	7	19	8	13	0	0	0	0	0	**55**
12:00 PM	0	0	0	0	1	3	7	5	8	21	15	4	3	0	0	0	0	**67**
1:00 PM	0	0	0	0	0	1	7	10	11	22	19	2	1	0	0	0	0	**73**
2:00 PM	0	0	0	0	0	0	6	10	12	18	18	7	1	0	0	0	0	**72**
3:00 PM	0	0	0	0	1	0	3	9	23	28	21	4	0	0	0	0	0	**89**
4:00 PM	0	0	0	0	2	3	1	4	16	22	19	3	2	0	0	0	0	**72**
5:00 PM	0	0	0	0	0	0	6	16	12	27	9	5	0	0	0	0	0	**75**
6:00 PM	0	0	0	0	0	2	2	2	10	15	14	7	0	0	0	0	0	**52**
7:00 PM	0	0	0	0	0	0	1	2	10	12	9	2	0	0	0	0	0	**36**
8:00 PM	0	0	0	0	0	0	0	3	4	6	8	3	0	0	0	0	0	**24**
9:00 PM	0	0	0	0	0	1	0	1	1	4	3	3	1	0	0	0	0	**14**
10:00 PM	0	0	0	0	0	0	0	1	1	4	2	0	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	**3**
Total	**0**	**0**	**0**	**0**	**6**	**19**	**52**	**103**	**194**	**288**	**218**	**78**	**12**	**0**	**0**	**0**	**0**	**970**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**2.0%**	**5.4%**	**10.6%**	**20.0%**	**29.7%**	**22.5%**	**8.0%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	51.9	mph	Mean (Average) Speed	51.1	mph
85th Percentile	57.9	mph	10 mph Pace	48.0 - 58.0	mph
95th Percentile	61.6	mph	Percent in Pace	56.0	%

TJ Wethington
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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Friday, December 2, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	2	0	4	1	0	0	0	0	0	0	0	**7**
1:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	1	0	3	1	0	2	0	0	0	0	0	0	0	**7**
5:00 AM	0	0	0	0	2	0	2	3	3	0	1	1	0	0	0	0	0	**12**
6:00 AM	0	0	0	0	1	1	0	3	8	7	3	1	0	0	0	0	0	**24**
7:00 AM	0	0	0	0	0	1	3	3	18	31	19	1	0	0	0	0	0	**76**
8:00 AM	0	0	0	0	0	1	2	9	14	8	1	0	0	0	0	0	0	**35**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**5**	**3**	**13**	**20**	**48**	**50**	**25**	**3**	**0**	**0**	**0**	**0**	**0**	**167**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.0%**	**1.8%**	**7.8%**	**12.0%**	**28.7%**	**29.9%**	**15.0%**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.1	mph	Mean (Average) Speed	48.4	mph
85th Percentile	55.3	mph	10 mph Pace	45.9 - 55.9	mph
95th Percentile	57.6	mph	Percent in Pace	61.7	%

TJ Wethington
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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Saturday, December 3, 2022
Eastbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	0	0	0	0	0	0	2	2	10	19	9	6	0	1	0	0	0	**49**
11:00 AM	0	0	0	0	0	0	0	4	13	23	22	8	4	0	0	0	0	**74**
12:00 PM	0	0	0	0	0	0	3	4	5	26	17	2	2	0	0	0	0	**59**
1:00 PM	0	0	0	0	0	0	1	3	5	14	13	5	1	0	0	0	0	**42**
2:00 PM	0	0	0	0	0	0	3	1	7	10	6	5	2	0	0	0	0	**34**
3:00 PM	0	0	0	0	0	0	1	1	5	18	18	3	1	0	0	0	0	**47**
4:00 PM	0	0	0	0	0	0	1	4	10	11	17	3	1	0	0	0	0	**47**
5:00 PM	0	0	0	0	0	1	2	1	7	17	11	2	0	0	0	0	0	**41**
6:00 PM	0	0	0	0	0	0	2	2	6	14	5	3	0	0	0	0	0	**32**
7:00 PM	0	0	0	0	0	0	1	3	1	13	3	0	0	0	0	0	0	**21**
8:00 PM	0	0	0	0	0	1	0	4	5	11	4	0	0	0	0	0	0	**25**
9:00 PM	0	0	0	0	0	0	0	3	5	7	4	0	0	0	0	0	0	**19**
10:00 PM	0	0	0	0	0	2	0	2	5	8	1	1	1	0	0	0	0	**20**
11:00 PM	0	0	0	0	0	0	2	1	5	1	2	0	0	0	0	0	0	**11**
Total	**0**	**0**	**0**	**0**	**0**	**4**	**18**	**35**	**89**	**192**	**132**	**38**	**12**	**1**	**0**	**0**	**0**	**521**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.8%**	**3.5%**	**6.7%**	**17.1%**	**36.9%**	**25.3%**	**7.3%**	**2.3%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	53.1	mph	Mean (Average) Speed	52.8	mph
85th Percentile	59.2	mph	10 mph Pace	49.9 - 59.9	mph
95th Percentile	62.1	mph	Percent in Pace	62.4	%

TJ Wethington
720-646-1008
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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Sunday, December 4, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	1	3	3	0	0	0	0	0	0	0	**7**
1:00 AM	0	0	0	0	0	0	0	1	2	0	1	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	0	0	1	1	1	0	3	1	0	0	0	0	0	0	**7**
6:00 AM	0	0	0	0	0	0	0	2	2	1	2	1	0	0	0	0	0	**8**
7:00 AM	0	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	**14**
8:00 AM	0	0	0	0	0	2	0	0	4	7	4	4	0	0	0	0	0	**21**
9:00 AM	0	0	0	0	0	0	1	2	5	7	7	0	0	0	1	0	0	**23**
10:00 AM	0	0	0	0	1	0	0	1	6	12	10	6	0	1	0	0	0	**37**
11:00 AM	0	0	0	0	1	0	0	4	6	10	13	6	0	0	0	0	0	**40**
12:00 PM	0	0	1	1	2	1	1	3	3	10	9	4	1	0	0	0	0	**36**
1:00 PM	0	0	0	0	0	1	1	1	6	6	8	4	4	1	0	0	0	**32**
2:00 PM	0	0	0	0	0	2	3	0	6	8	10	5	3	1	0	0	0	**38**
3:00 PM	0	0	0	0	0	1	1	3	5	5	11	7	0	0	0	0	0	**33**
4:00 PM	0	0	0	0	0	0	4	4	3	7	21	5	1	0	0	0	0	**45**
5:00 PM	0	0	0	0	0	2	1	2	3	10	8	11	3	0	0	0	0	**40**
6:00 PM	0	0	0	0	2	2	3	1	4	9	4	1	2	0	0	0	0	**28**
7:00 PM	0	0	0	0	0	0	0	3	5	10	3	4	0	0	0	0	0	**25**
8:00 PM	0	0	0	0	0	0	1	2	4	6	2	0	0	0	0	0	0	**15**
9:00 PM	0	0	0	0	0	0	0	0	2	2	2	2	0	0	0	0	0	**8**
10:00 PM	0	0	0	0	0	0	3	0	4	1	2	1	0	0	0	0	0	**11**
11:00 PM	0	0	0	0	0	0	0	0	3	1	1	0	0	0	0	0	0	**5**
Total	**0**	**0**	**1**	**1**	**6**	**13**	**20**	**37**	**79**	**129**	**119**	**62**	**14**	**3**	**1**	**0**	**0**	**485**
Percent	**0.0%**	**0.0%**	**0.2%**	**0.2%**	**1.2%**	**2.7%**	**4.1%**	**7.6%**	**16.3%**	**26.6%**	**24.5%**	**12.8%**	**2.9%**	**0.6%**	**0.2%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	53.1	mph	Mean (Average) Speed	52.4	mph
85th Percentile	60.4	mph	10 mph Pace	49.2 - 59.2	mph
95th Percentile	64.3	mph	Percent in Pace	51.1	%

TJ Wethington
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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	**5**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	**5**
5:00 AM	0	0	0	0	0	1	1	1	2	2	3	1	0	0	0	0	0	**11**
6:00 AM	0	0	0	0	0	0	1	3	6	8	5	2	0	0	0	0	0	**25**
7:00 AM	0	0	0	0	0	0	1	4	13	20	14	4	1	0	0	0	0	**57**
8:00 AM	0	0	0	0	0	1	3	3	8	14	13	6	1	0	0	0	0	**49**
9:00 AM	0	0	0	0	0	0	2	4	7	10	6	2	1	0	0	0	0	**32**
10:00 AM	0	0	0	0	0	2	2	4	8	15	11	6	0	1	0	0	0	**49**
11:00 AM	0	0	0	0	0	0	2	3	9	14	12	7	1	0	0	0	0	**48**
12:00 PM	0	0	0	0	1	1	3	3	7	17	14	5	2	0	0	0	0	**53**
1:00 PM	0	0	0	0	0	2	3	3	7	12	12	5	1	0	0	0	0	**45**
2:00 PM	0	0	0	0	0	1	4	4	7	11	12	4	1	0	0	0	0	**44**
3:00 PM	0	0	0	0	0	0	2	4	8	16	15	7	1	0	0	0	0	**53**
4:00 PM	0	0	0	0	0	1	2	4	8	14	15	5	1	0	0	0	0	**50**
5:00 PM	0	0	0	0	0	1	3	4	6	16	11	5	0	0	0	0	0	**46**
6:00 PM	0	0	0	0	1	2	2	2	6	14	6	4	0	0	0	0	0	**37**
7:00 PM	0	0	0	0	0	0	1	2	5	10	6	2	0	0	0	0	0	**26**
8:00 PM	0	0	0	0	0	0	0	3	3	6	3	1	0	0	0	0	0	**16**
9:00 PM	0	0	0	0	0	0	0	1	2	3	2	1	0	0	0	0	0	**9**
10:00 PM	0	0	0	0	0	0	1	1	2	3	1	0	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	**5**
Total	**0**	**0**	**0**	**0**	**2**	**12**	**35**	**58**	**120**	**209**	**163**	**67**	**10**	**1**	**0**	**0**	**0**	**677**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**1.8%**	**5.2%**	**8.6%**	**17.7%**	**30.9%**	**24.1%**	**9.9%**	**1.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	52.7	mph	Mean (Average) Speed	51.9	mph
85th Percentile	59.2	mph	10 mph Pace	48.4 - 58.4	mph
95th Percentile	62.5	mph	Percent in Pace	54.7	%

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 08

Total Study Average
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I-94 EB Ramp W/O Mandan Ave
Date Range: 11/28/2022 - 12/4/2022
Site Code: 08

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	4	0	4	5	0	5	6	0	6	9	0	9	7	0	7	0	0	0	7	0	7	7	0	7
1:00 AM	1	0	1	1	0	1	2	0	2	1	0	1	1	0	1	0	0	0	4	0	4	1	0	1
2:00 AM	0	0	0	2	0	2	2	0	2	2	0	2	1	0	1	0	0	0	2	0	2	2	0	2
3:00 AM	4	0	4	3	0	3	5	0	5	6	0	6	4	0	4	0	0	0	5	0	5	5	0	5
4:00 AM	10	0	10	14	0	14	7	0	7	6	0	6	7	0	7	0	0	0	1	0	1	9	0	9
5:00 AM	16	0	16	16	0	16	15	0	15	13	0	13	12	0	12	0	0	0	7	0	7	15	0	15
6:00 AM	38	0	38	42	0	42	33	0	33	39	0	39	24	0	24	0	0	0	8	0	8	38	0	38
7:00 AM	68	0	68	77	0	77	88	0	88	82	0	82	76	0	76	0	0	0	14	0	14	82	0	82
8:00 AM	78	0	78	67	0	67	77	0	77	58	0	58	35	0	35	0	0	0	21	0	21	67	0	67
9:00 AM	48	0	48	55	0	55	45	0	45	57	0	57	0	0	0	0	0	0	23	0	23	52	0	52
10:00 AM	46	0	46	71	0	71	79	0	79	57	0	57	0	0	0	49	0	49	37	0	37	69	0	69
11:00 AM	58	0	58	50	0	50	52	0	52	55	0	55	0	0	0	74	0	74	40	0	40	52	0	52
12:00 PM	61	0	61	71	0	71	85	0	85	67	0	67	0	0	0	59	0	59	36	0	36	74	0	74
1:00 PM	49	0	49	76	0	76	53	0	53	73	0	73	0	0	0	42	0	42	32	0	32	67	0	67
2:00 PM	40	0	40	79	0	79	50	0	50	72	0	72	0	0	0	34	0	34	38	0	38	67	0	67
3:00 PM	64	0	64	58	0	58	75	0	75	89	0	89	0	0	0	47	0	47	33	0	33	74	0	74
4:00 PM	61	0	61	71	0	71	60	0	60	72	0	72	0	0	0	47	0	47	45	0	45	68	0	68
5:00 PM	59	0	59	57	0	57	51	0	51	75	0	75	0	0	0	41	0	41	40	0	40	61	0	61
6:00 PM	44	0	44	49	0	49	50	0	50	52	0	52	0	0	0	32	0	32	28	0	28	50	0	50
7:00 PM	25	0	25	37	0	37	34	0	34	36	0	36	0	0	0	21	0	21	25	0	25	36	0	36
8:00 PM	18	0	18	20	0	20	20	0	20	24	0	24	0	0	0	25	0	25	15	0	15	21	0	21
9:00 PM	11	0	11	8	0	8	8	0	8	14	0	14	0	0	0	19	0	19	8	0	8	10	0	10
10:00 PM	5	0	5	4	0	4	4	0	4	8	0	8	0	0	0	20	0	20	11	0	11	5	0	5
11:00 PM	7	0	7	2	0	2	5	0	5	3	0	3	0	0	0	11	0	11	5	0	5	3	0	3
Total	**815**	-	**815**	**935**	-	**935**	**906**	-	**906**	**970**	-	**970**	**167**	-	**167**	**521**	-	**521**	**485**	-	**485**	**937**	-	**937**
Percent	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-

1. Mid-week average includes data between Tuesday and Thursday.

TJ Wethington
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Vehicle Classification Report Summary

Location: I-94 WB Ramp W/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 09

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	8	1,866	1,213	44	1,142	29	0	21	75	43	0	0	237	4,678
Percent	0.2%	39.9%	25.9%	0.9%	24.4%	0.6%	0.0%	0.4%	1.6%	0.9%	0.0%	0.0%	5.1%	100%
Total	8	1,866	1,213	44	1,142	29	0	21	75	43	0	0	237	4,678
Percent	0.2%	39.9%	25.9%	0.9%	24.4%	0.6%	0.0%	0.4%	1.6%	0.9%	0.0%	0.0%	5.1%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Monday, November 28, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	2	0	0	0	0	0	0	1	0	0	1	**6**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	**2**
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	2	**3**
4:00 AM	0	5	2	0	0	0	0	0	0	0	0	0	2	**9**
5:00 AM	0	10	7	0	6	0	0	0	0	2	0	0	2	**27**
6:00 AM	0	14	10	0	12	1	0	0	0	0	0	0	5	**42**
7:00 AM	0	11	11	2	12	0	0	0	0	0	0	0	5	**41**
8:00 AM	0	13	12	0	9	0	0	0	2	1	0	0	3	**40**
9:00 AM	0	16	15	2	19	0	0	1	1	2	0	0	4	**60**
10:00 AM	0	9	11	0	11	0	0	0	0	1	0	0	2	**34**
11:00 AM	0	18	10	0	8	0	0	1	2	0	0	0	0	**39**
12:00 PM	0	20	16	1	14	1	0	0	2	0	0	0	1	**55**
1:00 PM	0	16	17	0	18	0	0	0	0	0	0	0	3	**54**
2:00 PM	0	29	9	0	15	0	0	0	0	0	0	0	3	**56**
3:00 PM	1	20	20	0	17	0	0	0	1	1	0	0	3	**63**
4:00 PM	0	41	19	0	16	0	0	0	1	2	0	0	5	**84**
5:00 PM	0	42	19	0	23	0	0	0	0	1	0	0	4	**89**
6:00 PM	0	25	10	1	11	1	0	1	2	1	0	0	1	**53**
7:00 PM	0	18	11	0	8	1	0	0	0	0	0	0	1	**39**
8:00 PM	0	8	3	0	4	0	0	0	0	0	0	0	0	**15**
9:00 PM	0	10	5	0	4	0	0	0	0	0	0	0	0	**19**
10:00 PM	0	3	0	1	0	0	0	0	0	1	0	0	1	**6**
11:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	**6**
Total	**1**	**334**	**209**	**7**	**211**	**4**	**0**	**3**	**11**	**13**	**0**	**0**	**50**	**843**
Percent	**0.1%**	**39.6%**	**24.8%**	**0.8%**	**25.0%**	**0.5%**	**0.0%**	**0.4%**	**1.3%**	**1.5%**	**0.0%**	**0.0%**	**5.9%**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

DATA SOLUTIONS

Tuesday, November 29, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	1	**3**
1:00 AM	0	2	3	0	1	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	1	**3**
3:00 AM	0	0	0	0	4	0	0	0	0	0	0	0	2	**6**
4:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	1	**4**
5:00 AM	0	9	6	0	7	0	0	0	2	0	0	0	2	**26**
6:00 AM	0	9	2	0	10	0	0	0	0	0	0	0	3	**24**
7:00 AM	0	18	13	2	8	0	0	0	0	0	0	0	4	**45**
8:00 AM	0	22	12	1	13	1	0	0	0	1	0	0	2	**52**
9:00 AM	1	9	13	0	10	1	0	1	0	0	0	0	1	**36**
10:00 AM	1	20	13	0	22	0	0	0	0	0	0	0	3	**59**
11:00 AM	1	34	9	1	14	1	0	0	1	0	0	0	5	**66**
12:00 PM	0	29	21	0	14	1	0	1	3	0	0	0	1	**70**
1:00 PM	0	15	8	1	12	0	0	2	0	0	0	0	1	**39**
2:00 PM	0	24	21	0	20	0	0	0	0	0	0	0	1	**66**
3:00 PM	0	28	11	1	26	0	0	1	1	0	0	0	4	**72**
4:00 PM	0	24	23	0	14	0	0	2	2	1	0	0	3	**69**
5:00 PM	0	50	30	0	15	0	0	0	1	1	0	0	4	**101**
6:00 PM	0	24	12	0	18	0	0	1	1	2	0	0	2	**60**
7:00 PM	0	21	7	0	7	0	0	0	1	0	0	0	3	**39**
8:00 PM	0	12	5	0	1	0	0	0	1	0	0	0	1	**20**
9:00 PM	0	12	2	0	7	0	0	0	0	1	0	0	0	**22**
10:00 PM	0	7	4	2	2	0	0	0	0	0	0	0	0	**15**
11:00 PM	0	5	1	0	2	0	0	0	0	0	0	0	0	**8**
Total	**3**	**380**	**216**	**8**	**228**	**4**	**0**	**8**	**13**	**6**	**0**	**0**	**45**	**911**
Percent	**0.3%**	**41.7%**	**23.7%**	**0.9%**	**25.0%**	**0.4%**	**0.0%**	**0.9%**	**1.4%**	**0.7%**	**0.0%**	**0.0%**	**4.9%**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Wednesday, November 30, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	2	**5**
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	1	**3**
3:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	1	**4**
4:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	3	**6**
5:00 AM	0	13	4	2	5	0	0	0	0	0	0	0	3	**27**
6:00 AM	1	16	6	1	15	0	0	0	0	0	0	0	3	**42**
7:00 AM	0	19	8	2	12	0	0	0	1	1	0	0	3	**46**
8:00 AM	0	15	11	1	5	1	0	0	1	2	0	0	5	**41**
9:00 AM	0	11	21	2	11	0	0	0	1	0	0	0	2	**48**
10:00 AM	0	15	10	0	10	0	0	1	2	0	0	0	2	**40**
11:00 AM	0	20	14	2	16	0	0	0	1	1	0	0	2	**56**
12:00 PM	0	22	17	0	15	1	0	0	2	1	0	0	1	**59**
1:00 PM	0	12	14	0	17	1	0	1	0	0	0	0	2	**47**
2:00 PM	0	24	14	0	12	0	0	0	1	0	0	0	2	**53**
3:00 PM	0	29	18	0	15	0	0	0	3	0	0	0	1	**66**
4:00 PM	0	37	22	0	20	0	0	0	1	1	0	0	3	**84**
5:00 PM	0	39	17	0	15	1	0	0	0	2	0	0	3	**77**
6:00 PM	0	29	14	0	17	1	0	0	0	0	0	0	1	**62**
7:00 PM	0	14	10	0	10	0	0	0	1	1	0	0	1	**37**
8:00 PM	0	7	5	1	5	0	0	0	0	0	0	0	2	**20**
9:00 PM	0	6	3	0	5	0	0	0	1	0	0	0	0	**15**
10:00 PM	0	9	3	0	2	0	0	0	0	0	0	0	0	**14**
11:00 PM	0	6	1	0	3	0	0	0	0	0	0	0	1	**11**
Total	**1**	**348**	**217**	**11**	**214**	**5**	**0**	**2**	**15**	**9**	**0**	**0**	**44**	**866**
Percent	**0.1%**	**40.2%**	**25.1%**	**1.3%**	**24.7%**	**0.6%**	**0.0%**	**0.2%**	**1.7%**	**1.0%**	**0.0%**	**0.0%**	**5.1%**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Thursday, December 1, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	2	0	3	1	0	0	0	0	0	0	0	**6**
1:00 AM	1	3	0	0	1	0	0	0	0	0	0	0	1	**6**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	2	**3**
3:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	3	**5**
4:00 AM	0	2	1	0	2	0	0	0	0	1	0	0	1	**7**
5:00 AM	0	14	3	0	6	0	0	1	0	0	0	0	0	**24**
6:00 AM	0	15	10	0	10	1	0	0	0	0	0	0	4	**40**
7:00 AM	0	18	9	0	13	1	0	0	1	0	0	0	4	**46**
8:00 AM	0	14	12	1	17	0	0	0	1	1	0	0	4	**50**
9:00 AM	0	12	16	1	8	2	0	0	0	0	0	0	3	**42**
10:00 AM	0	8	12	0	14	2	0	0	2	1	0	0	3	**42**
11:00 AM	0	20	11	1	6	0	0	1	3	0	0	0	4	**46**
12:00 PM	0	17	21	1	19	1	0	0	1	0	0	0	4	**64**
1:00 PM	0	16	22	2	14	0	0	0	0	1	0	0	0	**55**
2:00 PM	0	33	12	0	15	0	0	1	1	1	0	0	2	**65**
3:00 PM	1	30	21	0	17	2	0	0	1	0	0	0	2	**74**
4:00 PM	0	37	21	2	25	0	0	0	0	0	0	0	1	**86**
5:00 PM	0	43	29	0	28	0	0	0	1	2	0	0	2	**105**
6:00 PM	0	28	12	0	9	0	0	0	1	0	0	0	2	**52**
7:00 PM	0	27	13	1	7	1	0	0	0	0	0	0	2	**51**
8:00 PM	0	15	4	0	6	0	0	0	0	0	0	0	0	**25**
9:00 PM	0	13	3	0	3	1	0	0	0	0	0	0	0	**20**
10:00 PM	0	7	1	0	3	0	0	0	0	1	0	0	1	**13**
11:00 PM	0	4	2	0	3	0	0	0	0	0	0	0	0	**9**
Total	**2**	**378**	**237**	**9**	**230**	**12**	**0**	**3**	**12**	**8**	**0**	**0**	**45**	**936**
Percent	**0.2%**	**40.4%**	**25.3%**	**1.0%**	**24.6%**	**1.3%**	**0.0%**	**0.3%**	**1.3%**	**0.9%**	**0.0%**	**0.0%**	**4.8%**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Friday, December 2, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	3	0	0	0	0	1	0	0	1	**8**
1:00 AM	0	2	0	0	0	0	0	0	1	0	0	0	0	**3**
2:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	1	0	2	0	0	0	0	0	0	0	3	**6**
4:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	2	**5**
5:00 AM	0	9	3	0	3	0	0	0	0	0	0	0	2	**17**
6:00 AM	0	5	3	0	10	0	0	0	1	0	0	0	4	**23**
7:00 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	**4**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**22**	**8**	**0**	**23**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**12**	**68**
Percent	**0.0%**	**32.4%**	**11.8%**	**0.0%**	**33.8%**	**0.0%**	**0.0%**	**0.0%**	**2.9%**	**1.5%**	**0.0%**	**0.0%**	**17.6%**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

DATA SOLUTIONS

Saturday, December 3, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	1	5	4	0	6	0	0	0	2	1	0	0	2	**21**
10:00 AM	0	12	9	0	6	1	0	0	0	1	0	0	1	**30**
11:00 AM	0	15	8	0	8	0	0	0	1	0	0	0	2	**34**
12:00 PM	0	18	13	1	9	2	0	0	0	0	0	0	1	**44**
1:00 PM	0	19	12	0	9	0	0	0	0	0	0	0	2	**42**
2:00 PM	0	24	13	1	14	0	0	0	0	0	0	0	1	**53**
3:00 PM	0	16	16	1	12	0	0	0	0	1	0	0	0	**46**
4:00 PM	0	32	23	0	18	0	0	1	1	0	0	0	0	**75**
5:00 PM	0	16	17	0	9	0	0	0	0	0	0	0	2	**44**
6:00 PM	0	21	17	1	8	0	0	0	0	0	0	0	1	**48**
7:00 PM	0	11	10	1	9	0	0	1	0	0	0	0	2	**34**
8:00 PM	0	12	8	0	8	0	0	0	1	0	0	0	1	**30**
9:00 PM	0	9	7	0	6	0	0	0	2	0	0	0	0	**24**
10:00 PM	0	13	3	0	6	0	0	0	0	0	0	0	0	**22**
11:00 PM	0	5	4	0	4	0	0	0	0	0	0	0	0	**13**
Total	**1**	**228**	**164**	**5**	**132**	**3**	**0**	**2**	**7**	**3**	**0**	**0**	**15**	**560**
Percent	**0.2%**	**40.7%**	**29.3%**	**0.9%**	**23.6%**	**0.5%**	**0.0%**	**0.4%**	**1.3%**	**0.5%**	**0.0%**	**0.0%**	**2.7%**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

DATA SOLUTIONS

Sunday, December 4, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	5	1	3	1	0	0	0	0	0	0	1	**14**
1:00 AM	0	4	1	0	2	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	**2**
3:00 AM	0	2	0	0	0	0	0	0	1	0	0	0	1	**4**
4:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	**2**
5:00 AM	0	2	1	0	3	0	0	0	0	0	0	0	0	**6**
6:00 AM	0	2	3	0	0	0	0	0	1	0	0	0	1	**7**
7:00 AM	0	3	2	0	1	0	0	0	0	1	0	0	1	**8**
8:00 AM	0	3	2	0	0	0	0	0	3	1	0	0	1	**10**
9:00 AM	0	12	12	1	4	0	0	0	0	0	0	0	0	**29**
10:00 AM	0	9	6	0	12	0	0	0	1	0	0	0	1	**29**
11:00 AM	0	16	7	0	8	0	0	1	1	0	0	0	4	**37**
12:00 PM	0	11	8	0	9	0	0	0	2	0	0	0	2	**32**
1:00 PM	0	9	12	1	7	0	0	1	1	0	0	0	0	**31**
2:00 PM	0	9	20	0	6	0	0	0	0	0	0	0	6	**41**
3:00 PM	0	18	11	0	12	0	0	0	1	0	0	0	0	**42**
4:00 PM	0	14	12	0	12	0	0	0	1	0	0	0	1	**40**
5:00 PM	0	14	13	0	5	0	0	0	0	0	0	0	1	**33**
6:00 PM	0	9	15	0	4	0	0	0	1	1	0	0	1	**31**
7:00 PM	0	15	21	1	7	0	0	1	1	0	0	0	1	**47**
8:00 PM	0	7	5	0	4	0	0	0	0	0	0	0	0	**16**
9:00 PM	0	6	3	0	2	0	0	0	0	0	0	0	0	**11**
10:00 PM	0	6	2	0	2	0	0	0	1	0	0	0	1	**12**
11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	1	**3**
Total	**0**	**176**	**162**	**4**	**104**	**1**	**0**	**3**	**15**	**3**	**0**	**0**	**26**	**494**
Percent	**0.0%**	**35.6%**	**32.8%**	**0.8%**	**21.1%**	**0.2%**	**0.0%**	**0.6%**	**3.0%**	**0.6%**	**0.0%**	**0.0%**	**5.3%**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

TJ Wethington
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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

DATA SOLUTIONS

Total Study Average
Westbound

	FHWA Vehicle Classification													Total
Time	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**Volume**
12:00 AM	0	2	2	0	1	0	0	0	0	0	0	0	1	**6**
1:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	1	**5**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	**2**
3:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2	**4**
4:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	1	**5**
5:00 AM	0	8	3	0	4	0	0	0	0	0	0	0	1	**16**
6:00 AM	0	9	5	0	8	0	0	0	0	0	0	0	3	**25**
7:00 AM	0	10	6	1	7	0	0	0	0	0	0	0	2	**26**
8:00 AM	0	10	7	0	6	0	0	0	1	1	0	0	2	**27**
9:00 AM	0	9	12	1	8	0	0	0	1	0	0	0	2	**33**
10:00 AM	0	10	9	0	11	0	0	0	1	0	0	0	2	**33**
11:00 AM	0	18	8	1	9	0	0	0	1	0	0	0	2	**39**
12:00 PM	0	17	14	0	11	1	0	0	1	0	0	0	1	**45**
1:00 PM	0	12	12	1	11	0	0	1	0	0	0	0	1	**38**
2:00 PM	0	20	13	0	12	0	0	0	0	0	0	0	2	**47**
3:00 PM	0	20	14	0	14	0	0	0	1	0	0	0	1	**50**
4:00 PM	0	26	17	0	15	0	0	0	1	1	0	0	2	**62**
5:00 PM	0	29	18	0	14	0	0	0	0	1	0	0	2	**64**
6:00 PM	0	19	11	0	10	0	0	0	1	1	0	0	1	**43**
7:00 PM	0	15	10	0	7	0	0	0	0	0	0	0	1	**33**
8:00 PM	0	9	4	0	4	0	0	0	0	0	0	0	1	**18**
9:00 PM	0	8	3	0	4	0	0	0	0	0	0	0	0	**15**
10:00 PM	0	6	2	0	2	0	0	0	0	0	0	0	0	**10**
11:00 PM	0	3	1	0	2	0	0	0	0	0	0	0	0	**6**
Total	**0**	**265**	**173**	**4**	**164**	**1**	**0**	**1**	**8**	**4**	**0**	**0**	**32**	**652**
Percent	**0.0%**	**40.6%**	**26.5%**	**0.6%**	**25.2%**	**0.2%**	**0.0%**	**0.2%**	**1.2%**	**0.6%**	**0.0%**	**0.0%**	**4.9%**	

Note: Average only condsidered on days with 24-hours of data.

TJ Wethington
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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

3-Day (Tuesday - Thursday) Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	2	2	0	1	0	0	0	0	0	0	0	1	**6**
2:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	**3**
3:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	2	**5**
4:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	2	**6**
5:00 AM	0	12	4	1	6	0	0	0	1	0	0	0	2	**26**
6:00 AM	0	13	6	0	12	0	0	0	0	0	0	0	3	**35**
7:00 AM	0	18	10	1	11	0	0	0	1	0	0	0	4	**46**
8:00 AM	0	17	12	1	12	1	0	0	1	1	0	0	4	**48**
9:00 AM	0	11	17	1	10	1	0	0	0	0	0	0	2	**42**
10:00 AM	0	14	12	0	15	1	0	0	1	0	0	0	3	**47**
11:00 AM	0	25	11	1	12	0	0	0	2	0	0	0	4	**56**
12:00 PM	0	23	20	0	16	1	0	0	2	0	0	0	2	**64**
1:00 PM	0	14	15	1	14	0	0	1	0	0	0	0	1	**47**
2:00 PM	0	27	16	0	16	0	0	0	1	0	0	0	2	**61**
3:00 PM	0	29	17	0	19	1	0	0	2	0	0	0	2	**71**
4:00 PM	0	33	22	1	20	0	0	1	1	1	0	0	2	**80**
5:00 PM	0	44	25	0	19	0	0	0	1	2	0	0	3	**94**
6:00 PM	0	27	13	0	15	0	0	0	1	1	0	0	2	**58**
7:00 PM	0	21	10	0	8	0	0	0	1	0	0	0	2	**42**
8:00 PM	0	11	5	0	4	0	0	0	0	0	0	0	1	**22**
9:00 PM	0	10	3	0	5	0	0	0	0	0	0	0	0	**19**
10:00 PM	0	8	3	1	2	0	0	0	0	0	0	0	0	**14**
11:00 PM	0	5	1	0	3	0	0	0	0	0	0	0	0	**9**
Total	**2**	**369**	**223**	**9**	**224**	**7**	**0**	**4**	**13**	**8**	**0**	**0**	**45**	**904**
Percent	**0.2%**	**40.8%**	**24.7%**	**1.0%**	**24.8%**	**0.8%**	**0.0%**	**0.5%**	**1.5%**	**0.8%**	**0.0%**	**0.0%**	**4.9%**	

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Vehicle Speed Report Summary

Location: I-94 WB Ramp W/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 09

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	2	13	142	288	134	310	850	1,453	1,000	352	98	32	4	0	0	0	0	4,678
Percent	0.0%	0.3%	3.0%	6.2%	2.9%	6.6%	18.2%	31.1%	21.4%	7.5%	2.1%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	100%
Total	2	13	142	288	134	310	850	1,453	1,000	352	98	32	4	0	0	0	0	4,678
Percent	0.0%	0.3%	3.0%	6.2%	2.9%	6.6%	18.2%	31.1%	21.4%	7.5%	2.1%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%
Westbound			**Westbound**		
50th Percentile (Median)	42.2	mph	Mean (Average) Speed	40.7	mph
85th Percentile	48.5	mph	10 mph Pace	38.0 - 48.0	mph
95th Percentile	52.8	mph	Percent in Pace	55.0	%

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Monday, November 28, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	2	1	1	2	3	0	0	0	0	0	0	0	0	0	**9**
5:00 AM	0	1	2	2	1	3	4	7	6	1	0	0	0	0	0	0	0	**27**
6:00 AM	0	0	5	5	0	5	7	8	11	1	0	0	0	0	0	0	0	**42**
7:00 AM	0	0	0	5	3	7	5	11	6	2	1	1	0	0	0	0	0	**41**
8:00 AM	0	0	0	3	3	0	5	11	14	2	1	1	0	0	0	0	0	**40**
9:00 AM	0	0	1	6	6	9	14	14	8	2	0	0	0	0	0	0	0	**60**
10:00 AM	0	0	3	4	0	2	6	8	9	2	0	0	0	0	0	0	0	**34**
11:00 AM	0	0	0	1	0	3	8	20	3	3	1	0	0	0	0	0	0	**39**
12:00 PM	0	0	0	2	1	11	10	15	12	3	1	0	0	0	0	0	0	**55**
1:00 PM	0	0	5	1	0	5	8	15	11	7	1	1	0	0	0	0	0	**54**
2:00 PM	0	0	1	1	1	4	13	24	10	2	0	0	0	0	0	0	0	**56**
3:00 PM	0	1	2	3	2	5	13	17	14	6	0	0	0	0	0	0	0	**63**
4:00 PM	0	0	3	5	1	3	12	34	18	6	2	0	0	0	0	0	0	**84**
5:00 PM	0	0	1	4	0	6	22	30	18	6	1	1	0	0	0	0	0	**89**
6:00 PM	1	1	1	4	4	3	8	14	13	3	1	0	0	0	0	0	0	**53**
7:00 PM	0	0	1	0	1	1	6	17	7	4	2	0	0	0	0	0	0	**39**
8:00 PM	0	0	0	0	0	1	2	7	5	0	0	0	0	0	0	0	0	**15**
9:00 PM	0	0	0	0	0	0	6	8	3	0	2	0	0	0	0	0	0	**19**
10:00 PM	0	0	0	1	0	1	1	2	1	0	0	0	0	0	0	0	0	**6**
11:00 PM	0	0	0	0	0	1	0	3	1	1	0	0	0	0	0	0	0	**6**
Total	**1**	**3**	**28**	**54**	**24**	**71**	**153**	**271**	**170**	**51**	**13**	**4**	**0**	**0**	**0**	**0**	**0**	**843**
Percent	**0.1%**	**0.4%**	**3.3%**	**6.4%**	**2.8%**	**8.4%**	**18.1%**	**32.1%**	**20.2%**	**6.0%**	**1.5%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.5	mph	Mean (Average) Speed	40	mph
85th Percentile	47.8	mph	10 mph Pace	37.4 - 47.4	mph
95th Percentile	52.5	mph	Percent in Pace	54.57	%

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Tuesday, November 29, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	2	0	0	3	1	0	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	2	1	0	2	0	1	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	0	1	1	3	4	5	5	6	1	0	0	0	0	0	0	0	**26**
6:00 AM	0	1	1	3	0	0	6	6	5	2	0	0	0	0	0	0	0	**24**
7:00 AM	0	1	0	4	7	2	5	11	9	4	2	0	0	0	0	0	0	**45**
8:00 AM	0	0	3	3	1	1	7	22	11	3	1	0	0	0	0	0	0	**52**
9:00 AM	0	0	0	3	3	3	7	12	7	1	0	0	0	0	0	0	0	**36**
10:00 AM	0	1	3	3	2	5	12	14	11	6	0	1	1	0	0	0	0	**59**
11:00 AM	0	0	2	5	1	5	13	26	7	4	2	1	0	0	0	0	0	**66**
12:00 PM	0	2	3	6	0	6	13	17	10	8	3	2	0	0	0	0	0	**70**
1:00 PM	0	0	0	2	2	4	7	10	12	2	0	0	0	0	0	0	0	**39**
2:00 PM	0	0	0	1	0	9	16	20	9	8	3	0	0	0	0	0	0	**66**
3:00 PM	0	1	4	3	1	4	22	20	13	4	0	0	0	0	0	0	0	**72**
4:00 PM	0	0	1	3	2	4	17	24	9	7	2	0	0	0	0	0	0	**69**
5:00 PM	0	0	1	6	1	10	16	32	26	5	4	0	0	0	0	0	0	**101**
6:00 PM	0	0	1	3	2	6	14	18	10	4	2	0	0	0	0	0	0	**60**
7:00 PM	0	0	3	1	2	4	10	5	11	1	2	0	0	0	0	0	0	**39**
8:00 PM	0	0	2	1	1	0	2	8	6	0	0	0	0	0	0	0	0	**20**
9:00 PM	0	0	0	0	1	2	4	7	5	2	0	1	0	0	0	0	0	**22**
10:00 PM	0	0	1	0	4	1	2	6	1	0	0	0	0	0	0	0	0	**15**
11:00 PM	0	0	0	0	0	1	2	4	0	1	0	0	0	0	0	0	0	**8**
Total	**0**	**6**	**30**	**51**	**34**	**75**	**184**	**269**	**172**	**63**	**21**	**5**	**1**	**0**	**0**	**0**	**0**	**911**
Percent	**0.0%**	**0.7%**	**3.3%**	**5.6%**	**3.7%**	**8.2%**	**20.2%**	**29.5%**	**18.9%**	**6.9%**	**2.3%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.4	mph	Mean (Average) Speed	40.1	mph
85th Percentile	48.0	mph	10 mph Pace	36.4 - 46.4	mph
95th Percentile	52.5	mph	Percent in Pace	54.23	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Wednesday, November 30, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	2	1	0	0	0	2	1	0	0	0	0	0	0	0	0	**6**
5:00 AM	0	0	4	4	0	0	1	6	9	2	1	0	0	0	0	0	0	**27**
6:00 AM	0	0	1	2	0	5	14	9	3	7	1	0	0	0	0	0	0	**42**
7:00 AM	0	0	2	2	3	4	7	10	14	1	3	0	0	0	0	0	0	**46**
8:00 AM	0	0	1	7	1	3	4	15	7	3	0	0	0	0	0	0	0	**41**
9:00 AM	0	0	1	1	2	5	13	10	14	0	0	2	0	0	0	0	0	**48**
10:00 AM	0	0	0	2	2	0	7	12	11	3	2	1	0	0	0	0	0	**40**
11:00 AM	0	0	0	3	1	6	9	24	9	2	2	0	0	0	0	0	0	**56**
12:00 PM	0	0	1	4	3	4	12	18	14	1	2	0	0	0	0	0	0	**59**
1:00 PM	0	1	3	2	1	3	7	16	10	2	1	1	0	0	0	0	0	**47**
2:00 PM	0	0	1	3	3	2	9	13	11	9	1	1	0	0	0	0	0	**53**
3:00 PM	0	0	0	4	2	2	7	28	17	5	1	0	0	0	0	0	0	**66**
4:00 PM	0	0	0	5	1	4	17	30	16	8	2	0	1	0	0	0	0	**84**
5:00 PM	0	0	3	5	1	4	14	28	18	3	1	0	0	0	0	0	0	**77**
6:00 PM	0	0	3	1	0	1	15	23	14	4	1	0	0	0	0	0	0	**62**
7:00 PM	0	0	1	1	0	7	3	15	7	3	0	0	0	0	0	0	0	**37**
8:00 PM	0	0	0	4	2	2	2	6	3	1	0	0	0	0	0	0	0	**20**
9:00 PM	0	0	0	2	0	0	4	4	2	1	2	0	0	0	0	0	0	**15**
10:00 PM	0	0	0	0	0	1	4	6	2	1	0	0	0	0	0	0	0	**14**
11:00 PM	0	0	1	0	0	1	1	6	2	0	0	0	0	0	0	0	0	**11**
Total	**0**	**1**	**25**	**58**	**23**	**56**	**151**	**286**	**184**	**56**	**20**	**5**	**1**	**0**	**0**	**0**	**0**	**866**
Percent	**0.0%**	**0.1%**	**2.9%**	**6.7%**	**2.7%**	**6.5%**	**17.4%**	**33.0%**	**21.2%**	**6.5%**	**2.3%**	**0.6%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.3	mph	Mean (Average) Speed	40.7	mph
85th Percentile	48.2	mph	10 mph Pace	38.8 - 48.8	mph
95th Percentile	52.9	mph	Percent in Pace	58.2	%

TJ Wethington
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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Thursday, December 1, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	1	0	0	1	2	1	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	2	0	0	2	1	1	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	1	2	0	0	1	0	1	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	2	0	1	0	0	2	1	1	0	0	0	0	0	0	0	**7**
5:00 AM	0	0	0	2	1	2	5	4	7	2	1	0	0	0	0	0	0	**24**
6:00 AM	0	0	4	2	0	4	5	11	10	2	1	0	1	0	0	0	0	**40**
7:00 AM	0	0	3	1	5	3	9	15	5	4	1	0	0	0	0	0	0	**46**
8:00 AM	0	0	2	4	0	4	8	13	14	2	2	1	0	0	0	0	0	**50**
9:00 AM	0	0	5	3	0	1	10	10	10	3	0	0	0	0	0	0	0	**42**
10:00 AM	0	0	3	5	4	4	7	9	8	1	0	1	0	0	0	0	0	**42**
11:00 AM	0	0	2	4	1	4	8	9	12	6	0	0	0	0	0	0	0	**46**
12:00 PM	0	0	2	2	2	4	14	17	11	9	3	0	0	0	0	0	0	**64**
1:00 PM	0	0	0	2	7	2	4	19	14	6	1	0	0	0	0	0	0	**55**
2:00 PM	0	0	0	2	1	6	10	23	13	8	2	0	0	0	0	0	0	**65**
3:00 PM	0	1	1	6	1	8	7	19	20	9	2	0	0	0	0	0	0	**74**
4:00 PM	0	0	0	3	4	2	15	26	18	12	2	4	0	0	0	0	0	**86**
5:00 PM	0	0	2	2	1	6	15	39	28	7	4	1	0	0	0	0	0	**105**
6:00 PM	0	0	1	1	1	0	11	15	19	3	1	0	0	0	0	0	0	**52**
7:00 PM	0	0	2	4	0	2	14	17	8	2	1	1	0	0	0	0	0	**51**
8:00 PM	0	0	0	1	0	0	5	12	5	2	0	0	0	0	0	0	0	**25**
9:00 PM	0	0	2	0	0	1	4	8	5	0	0	0	0	0	0	0	0	**20**
10:00 PM	0	0	1	1	0	0	1	4	3	2	1	0	0	0	0	0	0	**13**
11:00 PM	0	0	0	0	0	0	1	5	2	1	0	0	0	0	0	0	0	**9**
Total	**0**	**2**	**36**	**49**	**29**	**56**	**157**	**279**	**215**	**82**	**22**	**8**	**1**	**0**	**0**	**0**	**0**	**936**
Percent	**0.0%**	**0.2%**	**3.8%**	**5.2%**	**3.1%**	**6.0%**	**16.8%**	**29.8%**	**23.0%**	**8.8%**	**2.4%**	**0.9%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.6	mph	Mean (Average) Speed	41.1	mph
85th Percentile	49.0	mph	10 mph Pace	37.2 - 47.2	mph
95th Percentile	53.1	mph	Percent in Pace	55.13	%

TJ Wethington
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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Friday, December 2, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	3	0	0	1	3	1	0	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	3	0	1	1	1	0	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	0	1	1	0	0	1	2	0	0	0	0	0	0	0	0	0	**5**
5:00 AM	0	0	0	2	2	1	3	3	4	1	1	0	0	0	0	0	0	**17**
6:00 AM	0	0	1	5	0	1	8	5	2	1	0	0	0	0	0	0	0	**23**
7:00 AM	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	**4**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**2**	**14**	**2**	**4**	**16**	**18**	**9**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**68**
Percent	**0.0%**	**0.0%**	**2.9%**	**20.6%**	**2.9%**	**5.9%**	**23.5%**	**26.5%**	**13.2%**	**2.9%**	**1.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.0	mph	Mean (Average) Speed	36.7	mph
85th Percentile	46.1	mph	10 mph Pace	35.1 - 45.1	mph
95th Percentile	50.0	mph	Percent in Pace	50	%

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Saturday, December 3, 2022
Westbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	1	0	2	2	0	0	5	6	3	0	2	0	0	0	0	0	0	**21**
10:00 AM	0	0	2	2	0	0	8	7	7	4	0	0	0	0	0	0	0	**30**
11:00 AM	0	0	0	3	0	2	4	9	12	4	0	0	0	0	0	0	0	**34**
12:00 PM	0	0	3	5	2	1	6	12	8	3	2	2	0	0	0	0	0	**44**
1:00 PM	0	0	0	3	3	0	3	14	9	7	2	1	0	0	0	0	0	**42**
2:00 PM	0	0	3	0	0	4	4	19	18	5	0	0	0	0	0	0	0	**53**
3:00 PM	0	0	1	2	0	2	5	13	17	3	3	0	0	0	0	0	0	**46**
4:00 PM	0	0	0	2	1	1	12	23	26	6	2	2	0	0	0	0	0	**75**
5:00 PM	0	0	0	2	0	1	7	17	10	5	2	0	0	0	0	0	0	**44**
6:00 PM	0	0	1	0	2	5	10	19	9	2	0	0	0	0	0	0	0	**48**
7:00 PM	0	0	0	2	2	1	6	12	7	3	1	0	0	0	0	0	0	**34**
8:00 PM	0	0	0	0	2	2	7	7	8	3	1	0	0	0	0	0	0	**30**
9:00 PM	0	0	0	0	2	2	4	8	5	3	0	0	0	0	0	0	0	**24**
10:00 PM	0	0	0	0	0	0	6	11	1	4	0	0	0	0	0	0	0	**22**
11:00 PM	0	0	0	0	0	1	2	5	2	0	1	2	0	0	0	0	0	**13**
Total	**1**	**0**	**12**	**23**	**14**	**22**	**89**	**182**	**142**	**52**	**16**	**7**	**0**	**0**	**0**	**0**	**0**	**560**
Percent	**0.2%**	**0.0%**	**2.1%**	**4.1%**	**2.5%**	**3.9%**	**15.9%**	**32.5%**	**25.4%**	**9.3%**	**2.9%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	43.5	mph	Mean (Average) Speed	42.5	mph
85th Percentile	49.7	mph	10 mph Pace	39.4 - 49.4	mph
95th Percentile	54.1	mph	Percent in Pace	57.86	%

TJ Wethington
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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Sunday, December 4, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	2	0	0	1	5	4	1	0	0	0	0	0	0	0	**14**
1:00 AM	0	0	0	0	0	0	2	3	2	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	**6**
6:00 AM	0	0	2	2	0	0	1	0	2	0	0	0	0	0	0	0	0	**7**
7:00 AM	0	0	1	1	0	0	2	3	0	1	0	0	0	0	0	0	0	**8**
8:00 AM	0	0	1	1	2	0	3	3	0	0	0	0	0	0	0	0	0	**10**
9:00 AM	0	0	1	1	0	2	5	8	9	3	0	0	0	0	0	0	0	**29**
10:00 AM	0	0	1	1	0	1	8	7	6	4	1	0	0	0	0	0	0	**29**
11:00 AM	0	0	0	6	1	1	13	9	6	0	0	1	0	0	0	0	0	**37**
12:00 PM	0	0	0	4	0	1	5	11	8	3	0	0	0	0	0	0	0	**32**
1:00 PM	0	0	0	3	1	1	8	6	7	4	1	0	0	0	0	0	0	**31**
2:00 PM	0	0	1	7	0	0	8	8	11	5	0	1	0	0	0	0	0	**41**
3:00 PM	0	0	0	1	0	2	4	23	7	4	0	1	0	0	0	0	0	**42**
4:00 PM	0	0	0	1	1	1	6	11	11	7	2	0	0	0	0	0	0	**40**
5:00 PM	0	0	0	1	0	0	5	10	14	2	1	0	0	0	0	0	0	**33**
6:00 PM	0	0	0	2	1	7	4	10	6	1	0	0	0	0	0	0	0	**31**
7:00 PM	0	0	1	3	0	3	10	22	2	5	0	0	1	0	0	0	0	**47**
8:00 PM	0	0	0	0	0	2	4	4	5	1	0	0	0	0	0	0	0	**16**
9:00 PM	0	0	0	1	0	0	1	3	5	1	0	0	0	0	0	0	0	**11**
10:00 PM	0	0	0	0	1	2	7	1	0	1	0	0	0	0	0	0	0	**12**
11:00 PM	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	**3**
Total	**0**	**1**	**9**	**39**	**8**	**26**	**100**	**148**	**108**	**46**	**5**	**3**	**1**	**0**	**0**	**0**	**0**	**494**
Percent	**0.0%**	**0.2%**	**1.8%**	**7.9%**	**1.6%**	**5.3%**	**20.2%**	**30.0%**	**21.9%**	**9.3%**	**1.0%**	**0.6%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.2	mph	Mean (Average) Speed	40.9	mph
85th Percentile	48.6	mph	10 mph Pace	38.0 - 48.0	mph
95th Percentile	52.2	mph	Percent in Pace	57.49	%

TJ Wethington
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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Total Study Average
Eastbound

Time	Speed Range (mph)																Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

TJ Wethington
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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 09

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	0	1	1	2	1	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	**5**
5:00 AM	0	0	1	2	1	2	3	4	5	1	0	0	0	0	0	0	0	**19**
6:00 AM	0	0	2	3	0	2	6	6	5	2	0	0	0	0	0	0	0	**26**
7:00 AM	0	0	1	2	3	2	4	7	5	2	1	0	0	0	0	0	0	**27**
8:00 AM	0	0	1	3	1	1	4	9	7	1	1	0	0	0	0	0	0	**28**
9:00 AM	0	0	1	2	2	3	8	9	7	1	0	0	0	0	0	0	0	**33**
10:00 AM	0	0	2	2	1	2	7	8	7	3	0	0	0	0	0	0	0	**32**
11:00 AM	0	0	1	3	1	3	8	14	7	3	1	0	0	0	0	0	0	**41**
12:00 PM	0	0	1	3	1	4	9	13	9	4	2	1	0	0	0	0	0	**47**
1:00 PM	0	0	1	2	2	2	5	11	9	4	1	0	0	0	0	0	0	**37**
2:00 PM	0	0	1	2	1	4	9	15	10	5	1	0	0	0	0	0	0	**48**
3:00 PM	0	0	1	3	1	3	8	17	13	4	1	0	0	0	0	0	0	**51**
4:00 PM	0	0	1	3	1	2	11	21	14	7	2	1	0	0	0	0	0	**63**
5:00 PM	0	0	1	3	0	4	11	22	16	4	2	0	0	0	0	0	0	**63**
6:00 PM	0	0	1	2	1	3	9	14	10	2	1	0	0	0	0	0	0	**43**
7:00 PM	0	0	1	2	1	3	7	13	6	3	1	0	0	0	0	0	0	**37**
8:00 PM	0	0	0	1	1	1	3	6	5	1	0	0	0	0	0	0	0	**18**
9:00 PM	0	0	0	0	0	1	3	5	4	1	1	0	0	0	0	0	0	**15**
10:00 PM	0	0	0	0	1	1	3	4	1	1	0	0	0	0	0	0	0	**11**
11:00 PM	0	0	0	0	0	1	1	3	1	0	0	0	0	0	0	0	0	**6**
Total	**0**	**0**	**19**	**43**	**19**	**46**	**123**	**207**	**143**	**49**	**15**	**2**	**0**	**0**	**0**	**0**	**0**	**666**
Percent	**0.0%**	**0.0%**	**2.9%**	**6.5%**	**2.9%**	**6.9%**	**18.5%**	**31.1%**	**21.5%**	**7.4%**	**2.3%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	42.2	mph	Mean (Average) Speed	40.7	mph
85th Percentile	48.5	mph	10 mph Pace	38.0 - 48.0	mph
95th Percentile	52.8	mph	Percent in Pace	55.0	%

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Location: I-94 WB Ramp W/O Mandan Ave
Date Range: 11/28/2022 - 12/4/2022
Site Code: 09

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	6	6	0	3	3	0	3	3	0	6	6	0	8	8	0	0	0	0	14	14	0	4	4
1:00 AM	0	1	1	0	6	6	0	5	5	0	6	6	0	3	3	0	0	0	0	7	7	0	6	6
2:00 AM	0	2	2	0	3	3	0	3	3	0	3	3	0	2	2	0	0	0	0	2	2	0	3	3
3:00 AM	0	3	3	0	6	6	0	4	4	0	5	5	0	6	6	0	0	0	0	4	4	0	5	5
4:00 AM	0	9	9	0	4	4	0	6	6	0	7	7	0	5	5	0	0	0	0	2	2	0	6	6
5:00 AM	0	27	27	0	26	26	0	27	27	0	24	24	0	17	17	0	0	0	0	6	6	0	26	26
6:00 AM	0	42	42	0	24	24	0	42	42	0	40	40	0	23	23	0	0	0	0	7	7	0	35	35
7:00 AM	0	41	41	0	45	45	0	46	46	0	46	46	0	4	4	0	0	0	0	8	8	0	46	46
8:00 AM	0	40	40	0	52	52	0	41	41	0	50	50	0	0	0	0	0	0	0	10	10	0	48	48
9:00 AM	0	60	60	0	36	36	0	48	48	0	42	42	0	0	0	0	21	21	0	29	29	0	42	42
10:00 AM	0	34	34	0	59	59	0	40	40	0	42	42	0	0	0	0	30	30	0	29	29	0	47	47
11:00 AM	0	39	39	0	66	66	0	56	56	0	46	46	0	0	0	0	34	34	0	37	37	0	56	56
12:00 PM	0	55	55	0	70	70	0	59	59	0	64	64	0	0	0	0	44	44	0	32	32	0	64	64
1:00 PM	0	54	54	0	39	39	0	47	47	0	55	55	0	0	0	0	42	42	0	31	31	0	47	47
2:00 PM	0	56	56	0	66	66	0	53	53	0	65	65	0	0	0	0	53	53	0	41	41	0	61	61
3:00 PM	0	63	63	0	72	72	0	66	66	0	74	74	0	0	0	0	46	46	0	42	42	0	71	71
4:00 PM	0	84	84	0	69	69	0	84	84	0	86	86	0	0	0	0	75	75	0	40	40	0	80	80
5:00 PM	0	89	89	0	101	101	0	77	77	0	105	105	0	0	0	0	44	44	0	33	33	0	94	94
6:00 PM	0	53	53	0	60	60	0	62	62	0	52	52	0	0	0	0	48	48	0	31	31	0	58	58
7:00 PM	0	39	39	0	39	39	0	37	37	0	51	51	0	0	0	0	34	34	0	47	47	0	42	42
8:00 PM	0	15	15	0	20	20	0	20	20	0	25	25	0	0	0	0	30	30	0	16	16	0	22	22
9:00 PM	0	19	19	0	22	22	0	15	15	0	20	20	0	0	0	0	24	24	0	11	11	0	19	19
10:00 PM	0	6	6	0	15	15	0	14	14	0	13	13	0	0	0	0	22	22	0	12	12	0	14	14
11:00 PM	0	6	6	0	8	8	0	11	11	0	9	9	0	0	0	0	13	13	0	3	3	0	9	9
Total	-	**843**	**843**	-	**911**	**911**	-	**866**	**866**	-	**936**	**936**	-	**68**	**68**	-	**560**	**560**	-	**494**	**494**	-	**904**	**904**
Percent	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I-94 EB Ramp E/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 10

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	13	10,988	5,011	68	1,980	76	0	18	67	83	0	1	156	18,461
Percent	0.1%	59.5%	27.1%	0.4%	10.7%	0.4%	0.0%	0.1%	0.4%	0.4%	0.0%	0.0%	0.8%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	13	10,988	5,011	68	1,980	76	0	18	67	83	0	1	156	18,461
Percent	0.1%	59.5%	27.1%	0.4%	10.7%	0.4%	0.0%	0.1%	0.4%	0.4%	0.0%	0.0%	0.8%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Monday, November 28, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	1	**7**
3:00 AM	0	5	3	0	3	1	0	0	1	0	0	0	0	**13**
4:00 AM	0	17	6	0	4	0	0	0	0	0	0	0	5	**32**
5:00 AM	0	30	25	0	8	0	0	0	0	1	0	0	5	**69**
6:00 AM	0	94	44	0	20	0	0	0	0	0	0	0	0	**158**
7:00 AM	0	238	91	0	25	0	0	1	0	1	0	0	0	**356**
8:00 AM	0	133	63	0	25	0	0	0	2	0	0	0	0	**223**
9:00 AM	0	79	39	0	18	3	0	0	1	1	0	0	3	**144**
10:00 AM	0	94	55	0	22	2	0	1	2	0	0	0	4	**180**
11:00 AM	0	92	55	0	15	0	0	0	0	2	0	0	4	**168**
12:00 PM	0	96	36	0	30	1	0	1	1	4	0	0	2	**171**
1:00 PM	0	100	37	1	21	1	0	1	1	1	0	0	1	**164**
2:00 PM	0	101	45	2	12	3	0	1	0	0	0	0	0	**164**
3:00 PM	0	142	63	3	29	0	0	0	3	1	0	0	0	**241**
4:00 PM	0	150	70	1	32	0	0	0	1	0	0	0	0	**254**
5:00 PM	0	194	126	0	58	1	0	0	0	2	0	0	0	**381**
6:00 PM	1	83	40	1	16	0	0	0	1	0	0	0	0	**142**
7:00 PM	0	68	31	0	9	0	0	0	1	1	0	0	0	**110**
8:00 PM	0	40	18	1	8	0	0	0	0	0	0	0	3	**70**
9:00 PM	0	29	13	0	0	0	0	0	0	2	0	0	0	**44**
10:00 PM	0	20	9	0	3	0	0	0	0	0	0	0	0	**32**
11:00 PM	0	10	9	0	4	0	0	0	0	1	0	0	0	**24**
Total	**1**	**1,822**	**881**	**9**	**362**	**12**	**0**	**5**	**14**	**17**	**0**	**0**	**28**	**3,151**
Percent	**0.0%**	**57.8%**	**28.0%**	**0.3%**	**11.5%**	**0.4%**	**0.0%**	**0.2%**	**0.4%**	**0.5%**	**0.0%**	**0.0%**	**0.9%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Tuesday, November 29, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	3	5	0	1	0	0	0	1	0	0	0	0	**10**
1:00 AM	0	1	1	0	0	0	0	0	1	1	0	0	1	**5**
2:00 AM	1	3	2	1	1	0	0	0	0	0	0	0	2	**10**
3:00 AM	0	3	2	0	3	0	0	0	1	0	0	0	0	**9**
4:00 AM	0	15	9	0	1	0	0	0	0	1	0	0	3	**29**
5:00 AM	0	31	31	0	4	1	0	0	1	1	0	1	5	**75**
6:00 AM	0	95	48	0	13	1	0	0	1	0	0	0	1	**159**
7:00 AM	0	233	78	0	41	1	0	2	0	1	0	0	5	**361**
8:00 AM	1	144	54	0	25	2	0	0	1	0	0	0	1	**228**
9:00 AM	0	85	46	1	21	1	0	1	3	1	0	0	2	**161**
10:00 AM	0	80	50	1	16	0	0	0	2	2	0	0	1	**152**
11:00 AM	0	85	45	2	23	2	0	0	0	1	0	0	1	**159**
12:00 PM	0	97	48	0	32	1	0	1	0	0	0	0	1	**180**
1:00 PM	0	75	39	2	15	1	0	0	3	0	0	0	2	**137**
2:00 PM	0	103	38	1	19	1	0	1	0	1	0	0	1	**165**
3:00 PM	0	127	69	1	29	0	0	0	1	2	0	0	2	**231**
4:00 PM	0	159	88	0	38	0	0	0	2	0	0	0	0	**287**
5:00 PM	0	187	108	1	45	0	0	0	0	1	0	0	1	**343**
6:00 PM	0	105	43	0	24	0	0	0	0	1	0	0	0	**173**
7:00 PM	0	58	13	0	17	0	0	0	0	1	0	0	0	**89**
8:00 PM	0	41	24	0	5	0	0	0	0	1	0	0	0	**71**
9:00 PM	0	70	30	1	5	0	0	0	0	1	0	0	0	**107**
10:00 PM	0	32	10	1	2	0	0	0	0	1	0	0	1	**47**
11:00 PM	0	9	10	0	3	0	0	0	0	1	0	0	0	**23**
Total	**2**	**1,841**	**891**	**12**	**383**	**11**	**0**	**5**	**17**	**18**	**0**	**1**	**30**	**3,211**
Percent	**0.1%**	**57.3%**	**27.7%**	**0.4%**	**11.9%**	**0.3%**	**0.0%**	**0.2%**	**0.5%**	**0.6%**	**0.0%**	**0.0%**	**0.9%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Wednesday, November 30, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	2	0	0	0	0	0	0	2	0	0	1	**12**
1:00 AM	0	3	4	0	0	0	0	0	1	0	0	0	1	**9**
2:00 AM	0	4	2	0	2	0	0	0	0	2	0	0	0	**10**
3:00 AM	0	1	6	0	3	0	0	0	1	0	0	0	1	**12**
4:00 AM	0	10	3	0	2	0	0	0	0	0	0	0	4	**19**
5:00 AM	0	46	23	0	10	1	0	1	0	1	0	0	5	**87**
6:00 AM	0	93	43	0	13	0	0	0	0	0	0	0	2	**151**
7:00 AM	0	223	72	0	33	0	0	0	0	2	0	0	2	**332**
8:00 AM	0	146	65	1	26	1	0	0	3	0	0	0	0	**242**
9:00 AM	0	96	47	2	21	3	0	1	1	0	0	0	2	**173**
10:00 AM	0	79	52	1	17	3	0	0	0	0	0	0	5	**157**
11:00 AM	0	86	32	0	17	0	0	0	0	1	0	0	3	**139**
12:00 PM	0	93	50	2	29	2	0	0	2	1	0	0	3	**182**
1:00 PM	0	84	49	3	17	1	0	1	1	0	0	0	0	**156**
2:00 PM	1	103	38	1	20	3	0	1	1	1	0	0	1	**170**
3:00 PM	0	138	66	0	24	1	0	0	0	0	0	0	0	**229**
4:00 PM	0	184	85	0	30	0	0	0	2	0	0	0	3	**304**
5:00 PM	0	187	114	0	58	0	0	0	1	2	0	0	0	**362**
6:00 PM	0	125	58	0	24	0	0	0	0	0	0	0	0	**207**
7:00 PM	0	57	40	1	17	1	0	0	0	0	0	0	0	**116**
8:00 PM	0	48	25	0	6	0	0	0	0	0	0	0	1	**80**
9:00 PM	0	39	19	1	5	0	0	0	0	0	0	0	0	**64**
10:00 PM	0	15	15	0	0	0	0	0	1	0	0	0	0	**31**
11:00 PM	1	7	4	1	2	0	0	0	0	1	0	0	0	**16**
Total	**2**	**1,874**	**914**	**13**	**376**	**16**	**0**	**4**	**14**	**13**	**0**	**0**	**34**	**3,260**
Percent	**0.1%**	**57.5%**	**28.0%**	**0.4%**	**11.5%**	**0.5%**	**0.0%**	**0.1%**	**0.4%**	**0.4%**	**0.0%**	**0.0%**	**1.0%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Thursday, December 1, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	4	0	0	0	0	0	0	1	0	0	0	**13**
1:00 AM	0	2	1	0	0	0	0	0	0	1	0	0	0	**4**
2:00 AM	0	2	5	0	0	0	0	0	1	0	0	0	0	**8**
3:00 AM	0	3	3	0	1	0	0	0	0	1	0	0	0	**8**
4:00 AM	0	12	6	0	4	1	0	0	0	2	0	0	4	**29**
5:00 AM	0	44	23	0	5	0	0	0	0	2	0	0	4	**78**
6:00 AM	0	84	46	0	17	1	0	0	0	1	0	0	3	**152**
7:00 AM	0	236	73	1	26	1	0	0	0	1	0	0	1	**339**
8:00 AM	0	150	53	1	31	1	0	0	4	0	0	0	2	**242**
9:00 AM	0	81	45	1	20	1	0	0	1	1	0	0	2	**152**
10:00 AM	0	98	37	2	19	0	0	1	0	0	0	0	4	**161**
11:00 AM	0	91	51	1	23	0	0	0	2	0	0	0	5	**173**
12:00 PM	0	110	46	2	26	0	0	1	2	0	0	0	3	**190**
1:00 PM	0	101	30	1	21	5	0	1	0	1	0	0	0	**160**
2:00 PM	1	101	51	2	18	6	0	0	1	2	0	0	0	**182**
3:00 PM	0	154	65	2	17	2	0	0	0	0	0	0	0	**240**
4:00 PM	0	146	98	1	33	0	0	0	1	2	0	0	1	**282**
5:00 PM	1	187	113	0	48	0	0	0	0	3	0	0	0	**352**
6:00 PM	0	140	71	0	22	0	0	0	0	0	0	0	0	**233**
7:00 PM	0	135	67	0	18	0	0	0	1	1	0	0	1	**223**
8:00 PM	0	108	42	0	9	0	0	0	0	1	0	0	1	**161**
9:00 PM	0	161	58	0	16	0	0	0	1	0	0	0	2	**238**
10:00 PM	0	109	26	0	7	0	0	0	0	2	0	0	0	**144**
11:00 PM	0	21	17	0	1	0	0	0	0	1	0	0	0	**40**
Total	**2**	**2,284**	**1,031**	**14**	**382**	**18**	**0**	**3**	**14**	**23**	**0**	**0**	**33**	**3,804**
Percent	**0.1%**	**60.0%**	**27.1%**	**0.4%**	**10.0%**	**0.5%**	**0.0%**	**0.1%**	**0.4%**	**0.6%**	**0.0%**	**0.0%**	**0.9%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Friday, December 2, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	10	14	0	4	0	0	0	0	0	0	0	0	**28**
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	1	2	0	1	0	2	0	0	0	0	0	0	0	**6**
3:00 AM	0	6	5	0	0	0	0	0	0	0	0	0	1	**12**
4:00 AM	0	11	7	0	2	1	0	0	1	0	0	0	2	**24**
5:00 AM	0	35	20	1	9	0	0	0	0	0	0	0	6	**71**
6:00 AM	0	91	38	0	9	0	0	0	1	1	0	0	0	**140**
7:00 AM	0	199	63	1	22	0	0	0	0	0	0	0	0	**285**
8:00 AM	0	60	27	1	11	0	0	0	0	0	0	0	0	**99**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**1**	**416**	**174**	**4**	**57**	**3**	**0**	**0**	**2**	**1**	**0**	**0**	**9**	**667**
Percent	**0.1%**	**62.4%**	**26.1%**	**0.6%**	**8.5%**	**0.4%**	**0.0%**	**0.0%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**1.3%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Saturday, December 3, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	0	83	40	0	11	3	0	1	0	0	0	0	0	**138**
11:00 AM	0	132	64	0	19	0	0	0	0	0	0	0	2	**217**
12:00 PM	1	121	58	0	25	1	0	0	0	1	0	0	0	**207**
1:00 PM	0	97	37	0	17	0	0	0	0	2	0	0	0	**153**
2:00 PM	0	121	40	1	18	2	0	0	0	0	0	0	0	**182**
3:00 PM	0	145	62	0	24	3	0	0	0	1	0	0	2	**237**
4:00 PM	1	119	52	3	20	0	0	0	0	0	0	0	1	**196**
5:00 PM	0	138	79	0	25	1	0	0	0	1	0	0	1	**245**
6:00 PM	0	124	42	0	21	2	0	0	0	0	0	0	1	**190**
7:00 PM	0	51	20	0	12	2	0	0	0	1	0	0	1	**87**
8:00 PM	1	45	20	2	2	0	0	0	0	0	0	0	0	**70**
9:00 PM	0	173	45	1	12	0	0	0	1	0	0	0	1	**233**
10:00 PM	0	39	12	0	5	0	0	0	0	1	0	0	0	**57**
11:00 PM	0	32	14	1	4	0	0	0	0	0	0	0	0	**51**
Total	**3**	**1,420**	**585**	**8**	**215**	**14**	**0**	**1**	**1**	**7**	**0**	**0**	**9**	**2,263**
Percent	**0.1%**	**62.7%**	**25.9%**	**0.4%**	**9.5%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.4%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Sunday, December 4, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	1	14	2	1	2	0	0	0	0	1	0	0	0	**21**
1:00 AM	0	5	1	0	1	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	1	**5**
3:00 AM	0	6	2	0	1	0	0	0	0	0	0	0	0	**9**
4:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	18	5	1	4	0	0	0	0	1	0	0	1	**30**
6:00 AM	0	20	8	0	3	0	0	0	0	0	0	0	1	**32**
7:00 AM	0	28	18	0	2	0	0	0	0	0	0	0	2	**50**
8:00 AM	0	64	21	0	3	0	0	0	0	0	0	0	1	**89**
9:00 AM	0	74	23	1	9	0	0	0	0	0	0	0	0	**107**
10:00 AM	0	110	29	0	13	0	0	0	2	1	0	0	0	**155**
11:00 AM	0	104	32	0	17	2	0	0	0	0	0	0	0	**155**
12:00 PM	0	101	61	0	16	0	0	0	1	0	0	0	1	**180**
1:00 PM	0	108	57	0	17	0	0	0	0	0	0	0	1	**183**
2:00 PM	0	103	51	2	16	0	0	0	0	0	0	0	0	**172**
3:00 PM	0	119	48	0	13	0	0	0	1	0	0	0	0	**181**
4:00 PM	0	99	37	0	22	0	0	0	0	0	0	0	1	**159**
5:00 PM	0	102	44	0	18	0	0	0	0	0	0	0	2	**166**
6:00 PM	0	61	33	0	12	0	0	0	1	0	0	0	0	**107**
7:00 PM	0	46	16	1	8	0	0	0	0	0	0	0	1	**72**
8:00 PM	0	60	18	0	10	0	0	0	0	1	0	0	0	**89**
9:00 PM	0	45	17	1	8	0	0	0	0	0	0	0	0	**71**
10:00 PM	0	27	7	0	9	0	0	0	0	0	0	0	1	**44**
11:00 PM	1	11	3	1	1	0	0	0	0	0	0	0	0	**17**
Total	**2**	**1,331**	**535**	**8**	**205**	**2**	**0**	**0**	**5**	**4**	**0**	**0**	**13**	**2,105**
Percent	**0.1%**	**63.2%**	**25.4%**	**0.4%**	**9.7%**	**0.1%**	**0.0%**	**0.0%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**	**0.6%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Total Study Average
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	6	4	0	1	0	0	0	0	1	0	0	0	**12**
1:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	3	1	0	0	0	0	0	0	0	0	0	1	**5**
3:00 AM	0	3	3	0	2	0	0	0	0	0	0	0	0	**8**
4:00 AM	0	10	5	0	2	0	0	0	0	0	0	0	3	**20**
5:00 AM	0	29	18	0	6	0	0	0	0	1	0	0	4	**58**
6:00 AM	0	68	32	0	11	0	0	0	0	0	0	0	1	**112**
7:00 AM	0	165	56	0	21	0	0	0	0	1	0	0	1	**244**
8:00 AM	0	100	40	0	17	1	0	0	1	0	0	0	1	**160**
9:00 AM	0	59	29	1	13	1	0	0	1	0	0	0	1	**105**
10:00 AM	0	78	38	1	14	1	0	0	1	0	0	0	2	**135**
11:00 AM	0	84	40	0	16	1	0	0	0	1	0	0	2	**144**
12:00 PM	0	88	43	1	23	1	0	0	1	1	0	0	1	**159**
1:00 PM	0	81	36	1	15	1	0	0	1	1	0	0	1	**137**
2:00 PM	0	90	38	1	15	2	0	0	0	1	0	0	0	**147**
3:00 PM	0	118	53	1	19	1	0	0	1	1	0	0	1	**195**
4:00 PM	0	122	61	1	25	0	0	0	1	0	0	0	1	**211**
5:00 PM	0	142	83	0	36	0	0	0	0	1	0	0	1	**263**
6:00 PM	0	91	41	0	17	0	0	0	0	0	0	0	0	**149**
7:00 PM	0	59	27	0	12	0	0	0	0	1	0	0	0	**99**
8:00 PM	0	49	21	0	6	0	0	0	0	0	0	0	1	**77**
9:00 PM	0	74	26	1	7	0	0	0	0	0	0	0	0	**108**
10:00 PM	0	35	11	0	4	0	0	0	0	1	0	0	0	**51**
11:00 PM	0	13	8	0	2	0	0	0	0	1	0	0	0	**24**
Total	**0**	**1,569**	**715**	**8**	**284**	**9**	**0**	**0**	**7**	**12**	**0**	**0**	**22**	**2,626**
Percent	**0.0%**	**59.7%**	**27.2%**	**0.3%**	**10.8%**	**0.3%**	**0.0%**	**0.0%**	**0.3%**	**0.5%**	**0.0%**	**0.0%**	**0.8%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

3-Day (Tuesday - Thursday) Average
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	6	4	0	0	0	0	0	0	1	0	0	0	**12**
1:00 AM	0	2	2	0	0	0	0	0	1	1	0	0	1	**6**
2:00 AM	0	3	3	0	1	0	0	0	0	1	0	0	1	**9**
3:00 AM	0	2	4	0	2	0	0	0	1	0	0	0	0	**10**
4:00 AM	0	12	6	0	2	0	0	0	0	1	0	0	4	**26**
5:00 AM	0	40	26	0	6	1	0	0	0	1	0	0	5	**80**
6:00 AM	0	91	46	0	14	1	0	0	0	0	0	0	2	**154**
7:00 AM	0	231	74	0	33	1	0	1	0	1	0	0	3	**344**
8:00 AM	0	147	57	1	27	1	0	0	3	0	0	0	1	**237**
9:00 AM	0	87	46	1	21	2	0	1	2	1	0	0	2	**162**
10:00 AM	0	86	46	1	17	1	0	0	1	1	0	0	3	**157**
11:00 AM	0	87	43	1	21	1	0	0	1	1	0	0	3	**157**
12:00 PM	0	100	48	1	29	1	0	1	1	0	0	0	2	**184**
1:00 PM	0	87	39	2	18	2	0	1	1	0	0	0	1	**151**
2:00 PM	1	102	42	1	19	3	0	1	1	1	0	0	1	**172**
3:00 PM	0	140	67	1	23	1	0	0	0	1	0	0	1	**233**
4:00 PM	0	163	90	0	34	0	0	0	2	1	0	0	1	**291**
5:00 PM	0	187	112	0	50	0	0	0	0	2	0	0	0	**352**
6:00 PM	0	123	57	0	23	0	0	0	0	0	0	0	0	**204**
7:00 PM	0	83	40	0	17	0	0	0	0	1	0	0	0	**143**
8:00 PM	0	66	30	0	7	0	0	0	0	1	0	0	1	**104**
9:00 PM	0	90	36	1	9	0	0	0	0	0	0	0	1	**136**
10:00 PM	0	52	17	0	3	0	0	0	0	1	0	0	0	**74**
11:00 PM	0	12	10	0	2	0	0	0	0	1	0	0	0	**26**
Total	**2**	**2,000**	**945**	**13**	**380**	**15**	**0**	**4**	**15**	**18**	**0**	**0**	**32**	**3,425**
Percent	**0.1%**	**58.4%**	**27.6%**	**0.4%**	**11.1%**	**0.4%**	**0.0%**	**0.1%**	**0.4%**	**0.5%**	**0.0%**	**0.0%**	**0.9%**	

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Vehicle Speed Report Summary

Location: I-94 EB Ramp E/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 10

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	13	123	481	1,363	7,074	7,662	1,561	152	26	4	2	0	0	0	0	0	18,461
Percent	0.0%	0.1%	0.7%	2.6%	7.4%	38.3%	41.5%	8.5%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	13	123	481	1,363	7,074	7,662	1,561	152	26	4	2	0	0	0	0	0	18,461
Percent	0.0%	0.1%	0.7%	2.6%	7.4%	38.3%	41.5%	8.5%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	35.1	mph	Mean (Average) Speed	34.8	mph
85th Percentile	38.8	mph	10 mph Pace	30.4 - 40.4	mph
95th Percentile	41.5	mph	Percent in Pace	79.8	%
Westbound			**Westbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Monday, November 28, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	**3**
1:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	2	1	1	2	1	0	0	0	0	0	0	0	0	0	**7**
3:00 AM	0	0	1	1	3	6	1	1	0	0	0	0	0	0	0	0	0	**13**
4:00 AM	0	0	2	5	2	12	10	1	0	0	0	0	0	0	0	0	0	**32**
5:00 AM	0	0	2	6	5	21	28	6	1	0	0	0	0	0	0	0	0	**69**
6:00 AM	0	0	0	0	5	67	67	17	2	0	0	0	0	0	0	0	0	**158**
7:00 AM	0	0	0	5	19	143	168	18	2	1	0	0	0	0	0	0	0	**356**
8:00 AM	0	0	0	1	18	75	116	13	0	0	0	0	0	0	0	0	0	**223**
9:00 AM	0	3	1	5	14	64	45	12	0	0	0	0	0	0	0	0	0	**144**
10:00 AM	0	0	3	8	22	82	51	14	0	0	0	0	0	0	0	0	0	**180**
11:00 AM	0	0	0	6	11	64	65	20	2	0	0	0	0	0	0	0	0	**168**
12:00 PM	0	0	1	7	13	69	66	11	3	1	0	0	0	0	0	0	0	**171**
1:00 PM	0	0	1	4	12	61	74	10	1	1	0	0	0	0	0	0	0	**164**
2:00 PM	0	0	1	1	16	65	68	11	2	0	0	0	0	0	0	0	0	**164**
3:00 PM	0	0	0	3	21	94	103	18	1	1	0	0	0	0	0	0	0	**241**
4:00 PM	0	0	0	1	16	76	120	34	4	3	0	0	0	0	0	0	0	**254**
5:00 PM	0	0	0	8	24	156	161	30	2	0	0	0	0	0	0	0	0	**381**
6:00 PM	0	0	1	3	8	52	69	8	1	0	0	0	0	0	0	0	0	**142**
7:00 PM	0	0	0	1	9	33	54	13	0	0	0	0	0	0	0	0	0	**110**
8:00 PM	0	0	2	3	1	33	22	9	0	0	0	0	0	0	0	0	0	**70**
9:00 PM	0	0	0	5	3	20	12	4	0	0	0	0	0	0	0	0	0	**44**
10:00 PM	0	0	0	0	1	12	13	5	0	1	0	0	0	0	0	0	0	**32**
11:00 PM	0	0	0	1	1	9	10	2	0	0	1	0	0	0	0	0	0	**24**
Total	**0**	**3**	**15**	**76**	**226**	**1,216**	**1,327**	**258**	**21**	**8**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3,151**
Percent	**0.0%**	**0.1%**	**0.5%**	**2.4%**	**7.2%**	**38.6%**	**42.1%**	**8.2%**	**0.7%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	35.1	mph	Mean (Average) Speed	34.9	mph
85th Percentile	38.9	mph	10 mph Pace	30.1 - 40.1	mph
95th Percentile	41.4	mph	Percent in Pace	80.6	%

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Tuesday, November 29, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	2	2	0	2	0	2	2	0	0	0	0	0	0	0	0	**10**
1:00 AM	0	0	0	3	1	0	1	0	0	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	0	0	4	1	4	1	0	0	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	0	1	0	0	4	3	1	0	0	0	0	0	0	0	0	0	**9**
4:00 AM	0	0	2	4	1	10	11	1	0	0	0	0	0	0	0	0	0	**29**
5:00 AM	0	0	3	7	7	21	26	10	1	0	0	0	0	0	0	0	0	**75**
6:00 AM	0	0	1	4	8	47	80	18	1	0	0	0	0	0	0	0	0	**159**
7:00 AM	0	0	0	8	17	135	167	30	4	0	0	0	0	0	0	0	0	**361**
8:00 AM	0	0	0	3	20	79	103	22	1	0	0	0	0	0	0	0	0	**228**
9:00 AM	0	0	0	4	17	62	65	12	1	0	0	0	0	0	0	0	0	**161**
10:00 AM	0	0	3	7	15	49	59	16	2	1	0	0	0	0	0	0	0	**152**
11:00 AM	0	0	0	2	12	54	68	18	3	2	0	0	0	0	0	0	0	**159**
12:00 PM	0	0	0	3	13	73	76	14	1	0	0	0	0	0	0	0	0	**180**
1:00 PM	0	0	1	8	9	48	56	12	3	0	0	0	0	0	0	0	0	**137**
2:00 PM	0	0	1	5	15	69	61	11	3	0	0	0	0	0	0	0	0	**165**
3:00 PM	0	0	3	7	7	87	101	22	4	0	0	0	0	0	0	0	0	**231**
4:00 PM	0	0	1	7	15	113	118	25	8	0	0	0	0	0	0	0	0	**287**
5:00 PM	0	0	0	3	13	128	155	42	1	1	0	0	0	0	0	0	0	**343**
6:00 PM	0	0	0	0	10	60	76	26	1	0	0	0	0	0	0	0	0	**173**
7:00 PM	0	0	1	2	5	32	38	9	2	0	0	0	0	0	0	0	0	**89**
8:00 PM	0	0	1	2	4	28	31	4	1	0	0	0	0	0	0	0	0	**71**
9:00 PM	0	0	0	1	6	42	41	14	2	0	1	0	0	0	0	0	0	**107**
10:00 PM	0	0	0	2	2	11	24	7	1	0	0	0	0	0	0	0	0	**47**
11:00 PM	0	0	0	1	1	4	13	3	1	0	0	0	0	0	0	0	0	**23**
Total	**0**	**0**	**20**	**89**	**199**	**1,162**	**1,374**	**319**	**43**	**4**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3,211**
Percent	**0.0%**	**0.0%**	**0.6%**	**2.8%**	**6.2%**	**36.2%**	**42.8%**	**9.9%**	**1.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	35.5	mph	Mean (Average) Speed	35.2	mph
85th Percentile	39.4	mph	10 mph Pace	30.3 - 40.3	mph
95th Percentile	41.9	mph	Percent in Pace	79.4	%

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Wednesday, November 30, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	3	1	4	2	1	1	0	0	0	0	0	0	0	0	**12**
1:00 AM	0	0	0	4	1	2	2	0	0	0	0	0	0	0	0	0	0	**9**
2:00 AM	0	0	1	2	3	3	1	0	0	0	0	0	0	0	0	0	0	**10**
3:00 AM	0	0	0	4	2	1	4	1	0	0	0	0	0	0	0	0	0	**12**
4:00 AM	0	0	2	4	0	5	5	3	0	0	0	0	0	0	0	0	0	**19**
5:00 AM	0	0	0	9	7	25	34	10	2	0	0	0	0	0	0	0	0	**87**
6:00 AM	0	0	1	1	4	57	77	10	0	1	0	0	0	0	0	0	0	**151**
7:00 AM	0	0	0	14	17	122	153	25	1	0	0	0	0	0	0	0	0	**332**
8:00 AM	0	0	0	3	16	81	129	11	1	1	0	0	0	0	0	0	0	**242**
9:00 AM	0	0	4	6	18	77	63	5	0	0	0	0	0	0	0	0	0	**173**
10:00 AM	0	0	6	9	8	59	63	7	4	1	0	0	0	0	0	0	0	**157**
11:00 AM	0	0	1	5	8	53	44	25	3	0	0	0	0	0	0	0	0	**139**
12:00 PM	0	0	1	10	16	60	74	18	2	0	1	0	0	0	0	0	0	**182**
1:00 PM	0	0	0	8	16	53	63	14	1	1	0	0	0	0	0	0	0	**156**
2:00 PM	0	0	0	9	15	65	66	9	5	1	0	0	0	0	0	0	0	**170**
3:00 PM	0	0	2	1	13	81	105	25	2	0	0	0	0	0	0	0	0	**229**
4:00 PM	0	0	3	5	17	107	139	30	3	0	0	0	0	0	0	0	0	**304**
5:00 PM	0	0	0	3	28	163	133	28	6	1	0	0	0	0	0	0	0	**362**
6:00 PM	0	0	0	2	16	75	93	18	3	0	0	0	0	0	0	0	0	**207**
7:00 PM	0	0	0	2	9	54	43	8	0	0	0	0	0	0	0	0	0	**116**
8:00 PM	0	0	0	1	9	28	34	6	1	0	0	1	0	0	0	0	0	**80**
9:00 PM	0	0	0	2	9	23	26	4	0	0	0	0	0	0	0	0	0	**64**
10:00 PM	0	0	0	1	4	14	7	4	1	0	0	0	0	0	0	0	0	**31**
11:00 PM	0	0	0	3	4	7	2	0	0	0	0	0	0	0	0	0	0	**16**
Total	**0**	**0**	**21**	**111**	**241**	**1,219**	**1,362**	**262**	**36**	**6**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**3,260**
Percent	**0.0%**	**0.0%**	**0.6%**	**3.4%**	**7.4%**	**37.4%**	**41.8%**	**8.0%**	**1.1%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	35.1	mph	Mean (Average) Speed	34.8	mph
85th Percentile	38.9	mph	10 mph Pace	30.0 - 40.0	mph
95th Percentile	41.7	mph	Percent in Pace	79.1	%

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Thursday, December 1, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	4	0	6	2	1	0	0	0	0	0	0	0	0	0	**13**
1:00 AM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	1	2	1	3	1	0	0	0	0	0	0	0	0	0	0	**8**
3:00 AM	0	0	0	0	1	5	1	0	1	0	0	0	0	0	0	0	0	**8**
4:00 AM	0	0	1	7	5	11	5	0	0	0	0	0	0	0	0	0	0	**29**
5:00 AM	0	0	1	6	5	33	29	4	0	0	0	0	0	0	0	0	0	**78**
6:00 AM	0	0	2	2	13	44	77	13	1	0	0	0	0	0	0	0	0	**152**
7:00 AM	0	0	0	7	17	129	160	24	2	0	0	0	0	0	0	0	0	**339**
8:00 AM	0	0	1	4	19	104	95	17	2	0	0	0	0	0	0	0	0	**242**
9:00 AM	0	0	1	5	18	64	51	12	1	0	0	0	0	0	0	0	0	**152**
10:00 AM	0	3	3	2	12	66	57	17	1	0	0	0	0	0	0	0	0	**161**
11:00 AM	0	0	1	8	11	62	75	16	0	0	0	0	0	0	0	0	0	**173**
12:00 PM	0	0	1	12	19	68	71	18	1	0	0	0	0	0	0	0	0	**190**
1:00 PM	0	0	0	4	8	73	55	18	1	0	0	1	0	0	0	0	0	**160**
2:00 PM	0	1	5	9	26	61	65	14	1	0	0	0	0	0	0	0	0	**182**
3:00 PM	0	0	0	0	23	95	99	19	3	1	0	0	0	0	0	0	0	**240**
4:00 PM	0	0	1	9	25	115	111	18	3	0	0	0	0	0	0	0	0	**282**
5:00 PM	0	0	0	2	28	148	138	34	1	1	0	0	0	0	0	0	0	**352**
6:00 PM	0	1	0	1	16	97	94	22	2	0	0	0	0	0	0	0	0	**233**
7:00 PM	0	0	1	3	19	99	85	15	1	0	0	0	0	0	0	0	0	**223**
8:00 PM	0	0	0	1	27	65	60	8	0	0	0	0	0	0	0	0	0	**161**
9:00 PM	0	0	6	4	12	91	93	27	4	1	0	0	0	0	0	0	0	**238**
10:00 PM	0	0	0	1	9	53	64	15	2	0	0	0	0	0	0	0	0	**144**
11:00 PM	0	0	0	1	2	16	14	6	1	0	0	0	0	0	0	0	0	**40**
Total	**0**	**5**	**25**	**96**	**316**	**1,510**	**1,502**	**318**	**28**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**3,804**
Percent	**0.0%**	**0.1%**	**0.7%**	**2.5%**	**8.3%**	**39.7%**	**39.5%**	**8.4%**	**0.7%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.9	mph	Mean (Average) Speed	34.6	mph
85th Percentile	38.7	mph	10 mph Pace	29.9 - 39.9	mph
95th Percentile	41.3	mph	Percent in Pace	79.3	%

TJ Wethington
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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Friday, December 2, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	9	11	4	1	1	0	0	0	0	0	0	0	**28**
1:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00 AM	0	0	0	4	0	0	1	1	0	0	0	0	0	0	0	0	0	**6**
3:00 AM	0	0	0	3	2	3	2	1	0	1	0	0	0	0	0	0	0	**12**
4:00 AM	0	0	3	3	2	8	7	0	1	0	0	0	0	0	0	0	0	**24**
5:00 AM	0	0	0	9	12	30	17	3	0	0	0	0	0	0	0	0	0	**71**
6:00 AM	0	0	3	3	8	51	66	9	0	0	0	0	0	0	0	0	0	**140**
7:00 AM	0	0	0	1	11	106	142	24	1	0	0	0	0	0	0	0	0	**285**
8:00 AM	0	0	0	6	17	39	35	2	0	0	0	0	0	0	0	0	0	**99**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**6**	**29**	**56**	**246**	**281**	**44**	**3**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**667**
Percent	**0.0%**	**0.0%**	**0.9%**	**4.3%**	**8.4%**	**36.9%**	**42.1%**	**6.6%**	**0.4%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	35.0	mph	Mean (Average) Speed	34.5	mph
85th Percentile	38.5	mph	10 mph Pace	30.9 - 40.9	mph
95th Percentile	40.6	mph	Percent in Pace	79.8	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Saturday, December 3, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	0	0	0	3	20	65	45	5	0	0	0	0	0	0	0	0	0	**138**
11:00 AM	0	0	3	3	27	100	73	11	0	0	0	0	0	0	0	0	0	**217**
12:00 PM	0	2	7	3	23	84	78	10	0	0	0	0	0	0	0	0	0	**207**
1:00 PM	0	0	1	2	7	57	74	12	0	0	0	0	0	0	0	0	0	**153**
2:00 PM	0	0	0	1	18	70	80	13	0	0	0	0	0	0	0	0	0	**182**
3:00 PM	0	0	0	7	10	91	104	25	0	0	0	0	0	0	0	0	0	**237**
4:00 PM	0	0	0	3	19	93	79	2	0	0	0	0	0	0	0	0	0	**196**
5:00 PM	0	2	2	4	13	93	104	26	1	0	0	0	0	0	0	0	0	**245**
6:00 PM	0	0	3	3	15	83	71	15	0	0	0	0	0	0	0	0	0	**190**
7:00 PM	0	0	0	6	13	29	31	7	0	1	0	0	0	0	0	0	0	**87**
8:00 PM	0	0	2	1	7	30	25	4	0	1	0	0	0	0	0	0	0	**70**
9:00 PM	0	0	6	1	17	117	81	11	0	0	0	0	0	0	0	0	0	**233**
10:00 PM	0	0	0	1	12	26	16	1	1	0	0	0	0	0	0	0	0	**57**
11:00 PM	0	0	0	0	10	21	15	4	1	0	0	0	0	0	0	0	0	**51**
Total	**0**	**4**	**24**	**38**	**211**	**959**	**876**	**146**	**3**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,263**
Percent	**0.0%**	**0.2%**	**1.1%**	**1.7%**	**9.3%**	**42.4%**	**38.7%**	**6.5%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.7	mph	Mean (Average) Speed	34.3	mph
85th Percentile	38.4	mph	10 mph Pace	29.9 - 39.9	mph
95th Percentile	40.6	mph	Percent in Pace	81.2	%

TJ Wethington
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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Sunday, December 4, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	4	2	7	7	1	0	0	0	0	0	0	0	0	0	**21**
1:00 AM	0	0	0	0	0	1	5	1	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	1	0	1	2	1	0	0	0	0	0	0	0	0	0	**5**
3:00 AM	0	0	0	0	1	3	2	2	1	0	0	0	0	0	0	0	0	**9**
4:00 AM	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	0	1	2	0	8	16	2	1	0	0	0	0	0	0	0	0	**30**
6:00 AM	0	0	2	1	1	10	11	6	1	0	0	0	0	0	0	0	0	**32**
7:00 AM	0	0	0	2	2	24	17	4	1	0	0	0	0	0	0	0	0	**50**
8:00 AM	0	0	0	0	8	34	42	5	0	0	0	0	0	0	0	0	0	**89**
9:00 AM	0	0	0	0	9	42	48	8	0	0	0	0	0	0	0	0	0	**107**
10:00 AM	0	0	2	3	6	66	64	13	1	0	0	0	0	0	0	0	0	**155**
11:00 AM	0	0	1	2	8	56	70	17	1	0	0	0	0	0	0	0	0	**155**
12:00 PM	0	0	0	1	9	67	82	18	3	0	0	0	0	0	0	0	0	**180**
1:00 PM	0	0	0	3	3	56	97	23	0	1	0	0	0	0	0	0	0	**183**
2:00 PM	0	0	0	3	8	64	79	16	2	0	0	0	0	0	0	0	0	**172**
3:00 PM	0	0	0	4	8	54	91	21	3	0	0	0	0	0	0	0	0	**181**
4:00 PM	0	0	0	1	6	62	71	18	0	0	1	0	0	0	0	0	0	**159**
5:00 PM	0	0	0	5	9	59	75	16	2	0	0	0	0	0	0	0	0	**166**
6:00 PM	0	1	4	1	4	41	44	11	1	0	0	0	0	0	0	0	0	**107**
7:00 PM	0	0	1	2	8	23	32	6	0	0	0	0	0	0	0	0	0	**72**
8:00 PM	0	0	0	2	7	37	34	9	0	0	0	0	0	0	0	0	0	**89**
9:00 PM	0	0	0	1	6	26	29	8	1	0	0	0	0	0	0	0	0	**71**
10:00 PM	0	0	1	0	7	16	14	6	0	0	0	0	0	0	0	0	0	**44**
11:00 PM	0	0	0	3	2	4	6	2	0	0	0	0	0	0	0	0	0	**17**
Total	**0**	**1**	**12**	**42**	**114**	**762**	**940**	**214**	**18**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2,105**
Percent	**0.0%**	**0.0%**	**0.6%**	**2.0%**	**5.4%**	**36.2%**	**44.7%**	**10.2%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	35.5	mph	Mean (Average) Speed	35.3	mph
85th Percentile	39.0	mph	10 mph Pace	30.5 - 40.5	mph
95th Percentile	41.7	mph	Percent in Pace	81.5	%

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Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	1	4	3	1	1	0	0	0	0	0	0	0	0	**12**
1:00 AM	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	2	1	2	1	0	0	0	0	0	0	0	0	0	0	**6**
3:00 AM	0	0	0	1	1	3	2	1	0	0	0	0	0	0	0	0	0	**8**
4:00 AM	0	0	1	3	1	7	6	1	0	0	0	0	0	0	0	0	0	**19**
5:00 AM	0	0	1	6	5	20	21	5	1	0	0	0	0	0	0	0	0	**59**
6:00 AM	0	0	1	2	6	39	54	10	1	0	0	0	0	0	0	0	0	**113**
7:00 AM	0	0	0	5	12	94	115	18	2	0	0	0	0	0	0	0	0	**246**
8:00 AM	0	0	0	2	14	59	74	10	1	0	0	0	0	0	0	0	0	**160**
9:00 AM	0	0	1	3	11	44	39	7	0	0	0	0	0	0	0	0	0	**105**
10:00 AM	0	0	2	5	12	55	48	10	1	0	0	0	0	0	0	0	0	**133**
11:00 AM	0	0	1	4	11	56	56	15	1	0	0	0	0	0	0	0	0	**144**
12:00 PM	0	0	1	5	13	60	64	13	1	0	0	0	0	0	0	0	0	**157**
1:00 PM	0	0	0	4	8	50	60	13	1	0	0	0	0	0	0	0	0	**136**
2:00 PM	0	0	1	4	14	56	60	11	2	0	0	0	0	0	0	0	0	**148**
3:00 PM	0	0	1	3	12	72	86	19	2	0	0	0	0	0	0	0	0	**195**
4:00 PM	0	0	1	4	14	81	91	18	3	0	0	0	0	0	0	0	0	**212**
5:00 PM	0	0	0	4	16	107	109	25	2	0	0	0	0	0	0	0	0	**263**
6:00 PM	0	0	1	1	10	58	64	14	1	0	0	0	0	0	0	0	0	**149**
7:00 PM	0	0	0	2	9	39	40	8	0	0	0	0	0	0	0	0	0	**98**
8:00 PM	0	0	1	1	8	32	29	6	0	0	0	0	0	0	0	0	0	**77**
9:00 PM	0	0	2	2	8	46	40	10	1	0	0	0	0	0	0	0	0	**109**
10:00 PM	0	0	0	1	5	19	20	5	1	0	0	0	0	0	0	0	0	**51**
11:00 PM	0	0	0	1	3	9	9	2	0	0	0	0	0	0	0	0	0	**24**
Total	**0**	**0**	**15**	**68**	**196**	**1,013**	**1,092**	**222**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,628**
Percent	**0.0%**	**0.0%**	**0.6%**	**2.6%**	**7.5%**	**38.5%**	**41.6%**	**8.4%**	**0.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	35.1	mph	Mean (Average) Speed	34.8	mph
85th Percentile	38.8	mph	10 mph Pace	30.4 - 40.4	mph
95th Percentile	41.5	mph	Percent in Pace	79.8	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 10

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp E/O Mandan Ave
Date Range: 11/28/2022 - 12/4/2022
Site Code: 10

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	3	0	3	10	0	10	12	0	12	13	0	13	28	0	28	0	0	0	21	0	21	12	0	12
1:00 AM	1	0	1	5	0	5	9	0	9	4	0	4	2	0	2	0	0	0	7	0	7	6	0	6
2:00 AM	7	0	7	10	0	10	10	0	10	8	0	8	6	0	6	0	0	0	5	0	5	9	0	9
3:00 AM	13	0	13	9	0	9	12	0	12	8	0	8	12	0	12	0	0	0	9	0	9	10	0	10
4:00 AM	32	0	32	29	0	29	19	0	19	29	0	29	24	0	24	0	0	0	4	0	4	26	0	26
5:00 AM	69	0	69	75	0	75	87	0	87	78	0	78	71	0	71	0	0	0	30	0	30	80	0	80
6:00 AM	158	0	158	159	0	159	151	0	151	152	0	152	140	0	140	0	0	0	32	0	32	154	0	154
7:00 AM	356	0	356	361	0	361	332	0	332	339	0	339	285	0	285	0	0	0	50	0	50	344	0	344
8:00 AM	223	0	223	228	0	228	242	0	242	242	0	242	99	0	99	0	0	0	89	0	89	237	0	237
9:00 AM	144	0	144	161	0	161	173	0	173	152	0	152	0	0	0	0	0	0	107	0	107	162	0	162
10:00 AM	180	0	180	152	0	152	157	0	157	161	0	161	0	0	0	138	0	138	155	0	155	157	0	157
11:00 AM	168	0	168	159	0	159	139	0	139	173	0	173	0	0	0	217	0	217	155	0	155	157	0	157
12:00 PM	171	0	171	180	0	180	182	0	182	190	0	190	0	0	0	207	0	207	180	0	180	184	0	184
1:00 PM	164	0	164	137	0	137	156	0	156	160	0	160	0	0	0	153	0	153	183	0	183	151	0	151
2:00 PM	164	0	164	165	0	165	170	0	170	182	0	182	0	0	0	182	0	182	172	0	172	172	0	172
3:00 PM	241	0	241	231	0	231	229	0	229	240	0	240	0	0	0	237	0	237	181	0	181	233	0	233
4:00 PM	254	0	254	287	0	287	304	0	304	282	0	282	0	0	0	196	0	196	159	0	159	291	0	291
5:00 PM	381	0	381	343	0	343	362	0	362	352	0	352	0	0	0	245	0	245	166	0	166	352	0	352
6:00 PM	142	0	142	173	0	173	207	0	207	233	0	233	0	0	0	190	0	190	107	0	107	204	0	204
7:00 PM	110	0	110	89	0	89	116	0	116	223	0	223	0	0	0	87	0	87	72	0	72	143	0	143
8:00 PM	70	0	70	71	0	71	80	0	80	161	0	161	0	0	0	70	0	70	89	0	89	104	0	104
9:00 PM	44	0	44	107	0	107	64	0	64	238	0	238	0	0	0	233	0	233	71	0	71	136	0	136
10:00 PM	32	0	32	47	0	47	31	0	31	144	0	144	0	0	0	57	0	57	44	0	44	74	0	74
11:00 PM	24	0	24	23	0	23	16	0	16	40	0	40	0	0	0	51	0	51	17	0	17	26	0	26
Total	**3,151**	-	**3,151**	**3,211**	-	**3,211**	**3,260**	-	**3,260**	**3,804**	-	**3,804**	**667**	-	**667**	**2,263**	-	**2,263**	**2,105**	-	**2,105**	**3,425**	-	**3,425**
Percent	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I-94 WB Ramp E/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 11

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	11	8,637	4,376	46	3,034	38	0	19	130	148	0	2	35	16,476
Percent	0.1%	52.4%	26.6%	0.3%	18.4%	0.2%	0.0%	0.1%	0.8%	0.9%	0.0%	0.0%	0.2%	100%
Total	11	8,637	4,376	46	3,034	38	0	19	130	148	0	2	35	16,476
Percent	0.1%	52.4%	26.6%	0.3%	18.4%	0.2%	0.0%	0.1%	0.8%	0.9%	0.0%	0.0%	0.2%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Monday, November 28, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	1	0	1	0	0	0	0	0	0	0	0	**8**
1:00 AM	0	3	1	0	1	1	0	0	0	0	0	0	0	**6**
2:00 AM	0	4	3	0	0	0	0	0	1	0	0	0	0	**8**
3:00 AM	0	8	4	0	0	0	0	0	1	3	0	0	0	**16**
4:00 AM	0	9	3	0	5	0	0	0	0	2	0	0	0	**19**
5:00 AM	0	31	12	0	23	0	0	0	0	0	0	0	0	**66**
6:00 AM	0	66	67	0	39	1	0	0	0	2	0	0	0	**175**
7:00 AM	0	77	49	0	29	0	0	0	2	0	0	0	0	**157**
8:00 AM	0	72	31	2	22	1	0	0	2	2	0	0	0	**132**
9:00 AM	0	49	31	0	22	0	0	0	3	1	0	0	0	**106**
10:00 AM	0	49	28	0	17	0	0	0	2	2	0	0	0	**98**
11:00 AM	0	59	31	0	15	2	0	1	1	1	0	0	1	**111**
12:00 PM	0	70	41	0	25	1	0	1	3	2	0	0	1	**144**
1:00 PM	0	82	34	0	25	1	0	0	1	4	0	1	2	**150**
2:00 PM	0	113	42	0	25	1	0	0	2	2	0	0	0	**185**
3:00 PM	0	157	70	1	25	0	0	0	1	1	0	0	1	**256**
4:00 PM	1	186	60	1	34	0	0	0	2	0	0	0	1	**285**
5:00 PM	0	182	102	0	35	0	0	0	2	1	0	0	0	**322**
6:00 PM	0	110	39	0	23	1	0	0	2	3	0	0	0	**178**
7:00 PM	0	78	32	0	12	0	0	1	0	0	0	0	1	**124**
8:00 PM	1	67	31	0	12	1	0	0	0	0	0	0	0	**112**
9:00 PM	0	37	18	0	7	0	0	0	0	2	0	0	0	**64**
10:00 PM	0	27	4	0	5	0	0	0	2	1	0	0	0	**39**
11:00 PM	0	13	4	0	2	0	0	0	0	0	0	0	0	**19**
Total	**2**	**1,555**	**738**	**4**	**404**	**10**	**0**	**3**	**27**	**29**	**0**	**1**	**7**	**2,780**
Percent	**0.1%**	**55.9%**	**26.5%**	**0.1%**	**14.5%**	**0.4%**	**0.0%**	**0.1%**	**1.0%**	**1.0%**	**0.0%**	**0.0%**	**0.3%**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Tuesday, November 29, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	7	0	0	0	0	0	0	1	2	0	0	0	**10**
1:00 AM	0	3	2	0	1	0	0	0	1	2	0	0	0	**9**
2:00 AM	0	4	3	0	1	0	0	0	0	1	0	0	0	**9**
3:00 AM	0	5	2	0	1	0	0	0	1	3	0	0	0	**12**
4:00 AM	0	7	6	0	3	1	0	0	0	2	0	0	0	**19**
5:00 AM	0	25	16	0	19	0	0	0	0	0	0	0	0	**60**
6:00 AM	0	71	62	0	61	0	0	0	1	4	0	0	0	**199**
7:00 AM	0	101	50	0	34	0	0	0	5	2	0	0	0	**192**
8:00 AM	0	71	29	1	17	0	0	0	4	1	0	0	1	**124**
9:00 AM	0	41	27	2	18	0	0	0	4	1	0	0	1	**94**
10:00 AM	0	63	24	0	20	0	0	0	1	1	0	0	0	**109**
11:00 AM	0	68	32	2	21	3	0	0	2	1	0	0	1	**130**
12:00 PM	0	71	50	0	31	0	0	1	0	1	0	0	0	**154**
1:00 PM	1	85	37	5	29	1	0	0	3	0	0	0	0	**161**
2:00 PM	0	111	46	1	27	0	0	0	2	2	0	0	2	**191**
3:00 PM	0	124	60	1	32	0	0	1	2	2	0	0	0	**222**
4:00 PM	1	151	84	0	28	1	0	1	1	0	0	0	0	**267**
5:00 PM	0	183	72	2	50	0	0	0	1	0	0	0	1	**309**
6:00 PM	0	136	65	0	22	0	0	0	2	1	0	0	0	**226**
7:00 PM	0	80	31	0	8	0	0	0	0	1	0	0	0	**120**
8:00 PM	0	78	31	0	13	0	0	0	1	0	0	0	0	**123**
9:00 PM	1	51	14	1	10	1	0	0	3	0	0	0	0	**81**
10:00 PM	0	34	6	0	1	0	0	0	1	0	0	0	0	**42**
11:00 PM	0	7	4	0	4	0	0	0	1	0	0	0	0	**16**
Total	**3**	**1,577**	**753**	**15**	**451**	**7**	**0**	**3**	**37**	**27**	**0**	**0**	**6**	**2,879**
Percent	**0.1%**	**54.8%**	**26.2%**	**0.5%**	**15.7%**	**0.2%**	**0.0%**	**0.1%**	**1.3%**	**0.9%**	**0.0%**	**0.0%**	**0.2%**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Wednesday, November 30, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	0	0	1	0	0	0	1	3	0	0	0	**13**
1:00 AM	0	5	3	0	0	0	0	0	0	2	0	0	0	**10**
2:00 AM	0	7	1	0	2	0	0	0	0	1	0	0	0	**11**
3:00 AM	0	3	2	0	1	0	0	0	2	4	0	0	0	**12**
4:00 AM	0	3	2	0	4	0	0	0	0	2	0	0	0	**11**
5:00 AM	0	30	14	0	20	0	0	0	0	0	0	0	0	**64**
6:00 AM	0	72	53	0	75	0	0	0	0	1	0	0	0	**201**
7:00 AM	0	89	43	0	46	1	0	0	1	1	0	0	0	**181**
8:00 AM	0	62	42	2	17	0	0	0	1	3	0	0	0	**127**
9:00 AM	0	43	17	1	29	0	0	1	2	1	0	0	1	**95**
10:00 AM	0	42	33	0	23	0	0	0	1	1	0	0	0	**100**
11:00 AM	0	55	35	1	13	1	0	0	2	0	0	0	0	**107**
12:00 PM	0	76	37	2	21	0	0	0	1	1	0	0	1	**139**
1:00 PM	0	81	48	1	28	1	0	1	2	1	0	0	2	**165**
2:00 PM	0	115	44	2	27	1	0	0	2	3	0	0	0	**194**
3:00 PM	0	139	61	0	28	2	0	0	0	0	0	0	1	**231**
4:00 PM	0	148	80	0	41	0	0	0	0	1	0	0	0	**270**
5:00 PM	0	200	85	1	52	1	0	0	1	1	0	0	0	**341**
6:00 PM	0	127	47	0	27	1	0	0	0	1	0	0	0	**203**
7:00 PM	0	87	39	0	23	0	0	0	0	0	0	0	0	**149**
8:00 PM	0	83	27	0	15	1	0	0	0	0	0	0	0	**126**
9:00 PM	0	46	18	0	8	0	0	0	1	0	0	0	0	**73**
10:00 PM	0	20	6	0	7	0	0	0	0	0	0	0	0	**33**
11:00 PM	0	15	4	0	1	0	0	0	0	0	0	0	0	**20**
Total	**0**	**1,556**	**741**	**10**	**509**	**9**	**0**	**2**	**17**	**27**	**0**	**0**	**5**	**2,876**
Percent	**0.0%**	**54.1%**	**25.8%**	**0.3%**	**17.7%**	**0.3%**	**0.0%**	**0.1%**	**0.6%**	**0.9%**	**0.0%**	**0.0%**	**0.2%**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Thursday, December 1, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	1	0	0	0	0	0	0	1	0	0	0	**8**
1:00 AM	0	10	3	0	1	0	0	0	0	2	0	0	0	**16**
2:00 AM	0	3	2	0	1	0	0	0	2	0	0	0	1	**9**
3:00 AM	0	8	2	0	1	0	0	0	0	2	0	0	0	**13**
4:00 AM	0	2	3	0	4	0	0	0	0	2	0	0	0	**11**
5:00 AM	0	34	11	0	20	0	0	0	0	2	0	0	0	**67**
6:00 AM	0	54	57	0	70	0	0	0	2	2	0	0	0	**185**
7:00 AM	1	101	48	0	47	0	0	0	1	0	0	0	0	**198**
8:00 AM	0	41	30	1	32	0	0	0	1	2	0	0	1	**108**
9:00 AM	0	49	34	1	16	0	0	0	1	2	0	0	0	**103**
10:00 AM	0	55	26	3	16	0	0	1	3	1	0	0	1	**106**
11:00 AM	0	58	34	1	23	1	0	1	1	1	0	0	1	**121**
12:00 PM	0	80	30	1	29	1	0	0	1	0	0	0	0	**142**
1:00 PM	0	81	45	0	23	0	0	1	1	5	0	0	1	**157**
2:00 PM	0	118	60	1	29	1	0	1	1	1	0	1	0	**213**
3:00 PM	2	153	63	2	33	0	0	1	3	2	0	0	0	**259**
4:00 PM	0	188	126	0	86	0	0	0	1	1	0	0	0	**402**
5:00 PM	0	177	122	0	76	0	0	0	1	1	0	0	0	**377**
6:00 PM	0	112	62	0	65	0	0	0	0	2	0	0	1	**242**
7:00 PM	0	109	89	0	37	0	0	0	0	0	0	0	0	**235**
8:00 PM	0	55	37	0	37	0	0	0	1	2	0	0	0	**132**
9:00 PM	1	57	47	0	22	0	0	0	1	2	0	0	0	**130**
10:00 PM	0	18	18	0	13	0	0	0	0	0	0	0	0	**49**
11:00 PM	0	8	7	0	7	0	0	0	0	2	0	0	0	**24**
Total	**4**	**1,577**	**957**	**10**	**688**	**3**	**0**	**5**	**21**	**35**	**0**	**1**	**6**	**3,307**
Percent	**0.1%**	**47.7%**	**28.9%**	**0.3%**	**20.8%**	**0.1%**	**0.0%**	**0.2%**	**0.6%**	**1.1%**	**0.0%**	**0.0%**	**0.2%**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Friday, December 2, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	10	6	0	3	0	0	0	1	0	0	0	0	**20**
1:00 AM	0	3	2	0	3	0	0	0	0	0	0	0	0	**8**
2:00 AM	0	2	2	0	2	0	0	0	0	0	0	0	0	**6**
3:00 AM	0	2	4	0	3	0	0	0	1	2	0	0	0	**12**
4:00 AM	0	4	2	0	4	0	0	0	1	2	0	0	0	**13**
5:00 AM	0	18	9	0	24	0	0	0	0	1	0	0	0	**52**
6:00 AM	0	31	23	0	79	1	0	0	0	0	0	0	0	**134**
7:00 AM	0	52	43	0	52	0	0	0	1	1	0	0	0	**149**
8:00 AM	0	30	29	1	19	1	0	1	0	0	0	0	0	**81**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**152**	**120**	**1**	**189**	**2**	**0**	**1**	**4**	**6**	**0**	**0**	**0**	**475**
Percent	**0.0%**	**32.0%**	**25.3%**	**0.2%**	**39.8%**	**0.4%**	**0.0%**	**0.2%**	**0.8%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Saturday, December 3, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	1	43	25	0	25	0	0	0	0	0	0	0	1	**95**
10:00 AM	0	45	37	0	19	1	0	0	0	1	0	0	1	**104**
11:00 AM	0	84	36	0	27	0	0	1	1	2	0	0	1	**152**
12:00 PM	0	96	54	0	44	0	0	0	0	0	0	0	2	**196**
1:00 PM	0	101	42	0	35	0	0	0	2	1	0	0	0	**181**
2:00 PM	0	104	52	1	36	1	0	0	1	0	0	0	0	**195**
3:00 PM	1	104	56	1	41	1	0	0	4	0	0	0	1	**209**
4:00 PM	0	119	37	2	34	2	0	1	0	2	0	0	0	**197**
5:00 PM	0	113	40	0	38	0	0	0	0	1	0	0	1	**193**
6:00 PM	0	172	68	1	31	0	0	0	1	1	0	0	0	**274**
7:00 PM	0	93	32	0	23	0	0	0	3	1	0	0	0	**152**
8:00 PM	0	33	21	0	14	0	0	0	0	1	0	0	0	**69**
9:00 PM	0	40	27	0	19	0	0	0	1	0	0	0	0	**87**
10:00 PM	0	41	10	0	8	0	0	0	2	0	0	0	0	**61**
11:00 PM	0	21	9	0	5	1	0	1	0	1	0	0	0	**38**
Total	**2**	**1,209**	**546**	**5**	**399**	**6**	**0**	**3**	**15**	**11**	**0**	**0**	**7**	**2,203**
Percent	**0.1%**	**54.9%**	**24.8%**	**0.2%**	**18.1%**	**0.3%**	**0.0%**	**0.1%**	**0.7%**	**0.5%**	**0.0%**	**0.0%**	**0.3%**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Sunday, December 4, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	16	4	0	3	0	0	0	0	1	0	0	0	**24**
1:00 AM	0	6	3	0	3	0	0	0	0	0	0	0	0	**12**
2:00 AM	0	8	3	0	2	0	0	0	0	1	0	0	0	**14**
3:00 AM	0	6	1	0	1	0	0	0	0	1	0	0	0	**9**
4:00 AM	0	6	2	0	3	0	0	0	0	0	0	0	0	**11**
5:00 AM	0	8	3	0	13	0	0	0	0	0	0	0	0	**24**
6:00 AM	0	9	1	0	10	0	0	0	0	0	0	0	0	**20**
7:00 AM	0	15	6	0	6	0	0	0	0	1	0	0	0	**28**
8:00 AM	0	24	13	0	8	1	0	0	0	1	0	0	0	**47**
9:00 AM	0	28	18	0	9	0	0	0	1	1	0	0	1	**58**
10:00 AM	0	65	39	0	26	0	0	0	1	1	0	0	0	**132**
11:00 AM	0	71	49	0	31	0	0	0	0	0	0	0	0	**151**
12:00 PM	0	79	60	0	36	0	0	0	0	1	0	0	0	**176**
1:00 PM	0	77	48	1	30	0	0	0	2	0	0	0	1	**159**
2:00 PM	0	88	47	0	19	0	0	0	1	0	0	0	0	**155**
3:00 PM	0	94	42	0	34	0	0	0	1	0	0	0	0	**171**
4:00 PM	0	90	42	0	27	0	0	1	0	1	0	0	0	**161**
5:00 PM	0	97	43	0	40	0	0	0	1	3	0	0	1	**185**
6:00 PM	0	71	30	0	32	0	0	1	0	0	0	0	0	**134**
7:00 PM	0	68	37	0	30	0	0	0	0	0	0	0	1	**136**
8:00 PM	0	32	5	0	16	0	0	0	1	0	0	0	0	**54**
9:00 PM	0	25	9	0	5	0	0	0	1	0	0	0	0	**40**
10:00 PM	0	19	8	0	9	0	0	0	0	1	0	0	0	**37**
11:00 PM	0	9	8	0	1	0	0	0	0	0	0	0	0	**18**
Total	**0**	**1,011**	**521**	**1**	**394**	**1**	**0**	**2**	**9**	**13**	**0**	**0**	**4**	**1,956**
Percent	**0.0%**	**51.7%**	**26.6%**	**0.1%**	**20.1%**	**0.1%**	**0.0%**	**0.1%**	**0.5%**	**0.7%**	**0.0%**	**0.0%**	**0.2%**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	2	0	1	0	0	0	0	1	0	0	0	**12**
1:00 AM	0	4	2	0	1	0	0	0	0	1	0	0	0	**8**
2:00 AM	0	4	2	0	1	0	0	0	0	0	0	0	0	**7**
3:00 AM	0	5	2	0	1	0	0	0	1	2	0	0	0	**11**
4:00 AM	0	4	3	0	3	0	0	0	0	1	0	0	0	**11**
5:00 AM	0	21	9	0	17	0	0	0	0	0	0	0	0	**47**
6:00 AM	0	43	38	0	48	0	0	0	0	1	0	0	0	**130**
7:00 AM	0	62	34	0	31	0	0	0	1	1	0	0	0	**129**
8:00 AM	0	43	25	1	16	0	0	0	1	1	0	0	0	**87**
9:00 AM	0	36	22	1	17	0	0	0	2	1	0	0	1	**80**
10:00 AM	0	46	27	0	17	0	0	0	1	1	0	0	0	**92**
11:00 AM	0	56	31	1	19	1	0	0	1	1	0	0	1	**111**
12:00 PM	0	67	39	0	27	0	0	0	1	1	0	0	1	**136**
1:00 PM	0	72	36	1	24	0	0	0	2	2	0	0	1	**138**
2:00 PM	0	93	42	1	23	1	0	0	1	1	0	0	0	**162**
3:00 PM	0	110	50	1	28	0	0	0	2	1	0	0	0	**192**
4:00 PM	0	126	61	0	36	0	0	0	1	1	0	0	0	**225**
5:00 PM	0	136	66	0	42	0	0	0	1	1	0	0	0	**246**
6:00 PM	0	104	44	0	29	0	0	0	1	1	0	0	0	**179**
7:00 PM	0	74	37	0	19	0	0	0	0	0	0	0	0	**130**
8:00 PM	0	50	22	0	15	0	0	0	0	0	0	0	0	**87**
9:00 PM	0	37	19	0	10	0	0	0	1	1	0	0	0	**68**
10:00 PM	0	23	7	0	6	0	0	0	1	0	0	0	0	**37**
11:00 PM	0	10	5	0	3	0	0	0	0	0	0	0	0	**18**
Total	**0**	**1,234**	**625**	**6**	**434**	**2**	**0**	**0**	**18**	**20**	**0**	**0**	**4**	**2,343**
Percent	**0.0%**	**52.7%**	**26.7%**	**0.3%**	**18.5%**	**0.1%**	**0.0%**	**0.0%**	**0.8%**	**0.9%**	**0.0%**	**0.0%**	**0.2%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

3-Day (Tuesday - Thursday) Average
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

3-Day (Tuesday - Thursday) Average
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	7	0	0	0	0	0	0	1	2	0	0	0	**10**
1:00 AM	0	6	3	0	1	0	0	0	0	2	0	0	0	**12**
2:00 AM	0	5	2	0	1	0	0	0	1	1	0	0	0	**10**
3:00 AM	0	5	2	0	1	0	0	0	1	3	0	0	0	**12**
4:00 AM	0	4	4	0	4	0	0	0	0	2	0	0	0	**14**
5:00 AM	0	30	14	0	20	0	0	0	0	1	0	0	0	**64**
6:00 AM	0	66	57	0	69	0	0	0	1	2	0	0	0	**195**
7:00 AM	0	97	47	0	42	0	0	0	2	1	0	0	0	**190**
8:00 AM	0	58	34	1	22	0	0	0	2	2	0	0	1	**120**
9:00 AM	0	44	26	1	21	0	0	0	2	1	0	0	1	**97**
10:00 AM	0	53	28	1	20	0	0	0	2	1	0	0	0	**105**
11:00 AM	0	60	34	1	19	2	0	0	2	1	0	0	1	**119**
12:00 PM	0	76	39	1	27	0	0	0	1	1	0	0	0	**145**
1:00 PM	0	82	43	2	27	1	0	1	2	2	0	0	1	**161**
2:00 PM	0	115	50	1	28	1	0	0	2	2	0	0	1	**199**
3:00 PM	1	139	61	1	31	1	0	1	2	1	0	0	0	**237**
4:00 PM	0	162	97	0	52	0	0	0	1	1	0	0	0	**313**
5:00 PM	0	187	93	1	59	0	0	0	1	1	0	0	0	**342**
6:00 PM	0	125	58	0	38	0	0	0	1	1	0	0	0	**224**
7:00 PM	0	92	53	0	23	0	0	0	0	0	0	0	0	**168**
8:00 PM	0	72	32	0	22	0	0	0	1	1	0	0	0	**127**
9:00 PM	1	51	26	0	13	0	0	0	2	1	0	0	0	**95**
10:00 PM	0	24	10	0	7	0	0	0	0	0	0	0	0	**41**
11:00 PM	0	10	5	0	4	0	0	0	0	1	0	0	0	**20**
Total	**2**	**1,570**	**817**	**12**	**549**	**6**	**0**	**3**	**25**	**30**	**0**	**0**	**6**	**3,021**
Percent	**0.1%**	**52.0%**	**27.0%**	**0.4%**	**18.2%**	**0.2%**	**0.0%**	**0.1%**	**0.8%**	**1.0%**	**0.0%**	**0.0%**	**0.2%**	

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Vehicle Speed Report Summary

Location: I-94 WB Ramp E/O Mandan Ave

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 11

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	4	1	4	14	36	172	897	3,104	5,614	4,502	1,727	328	56	13	4	0	0	16,476
Percent	0.0%	0.0%	0.0%	0.1%	0.2%	1.0%	5.4%	18.8%	34.1%	27.3%	10.5%	2.0%	0.3%	0.1%	0.0%	0.0%	0.0%	100%
Total	4	1	4	14	36	172	897	3,104	5,614	4,502	1,727	328	56	13	4	0	0	16,476
Percent	0.0%	0.0%	0.0%	0.1%	0.2%	1.0%	5.4%	18.8%	34.1%	27.3%	10.5%	2.0%	0.3%	0.1%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%
Westbound			**Westbound**		
50th Percentile (Median)	48.5	mph	Mean (Average) Speed	48.6	mph
85th Percentile	54.5	mph	10 mph Pace	43.7 - 53.7	mph
95th Percentile	58.0	mph	Percent in Pace	63.0	%

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Monday, November 28, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	2	4	1	1	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	0	0	0	0	2	1	3	1	1	0	0	0	0	0	0	**8**
3:00 AM	0	0	0	0	0	1	2	3	8	1	1	0	0	0	0	0	0	**16**
4:00 AM	0	0	0	0	0	3	2	5	5	3	1	0	0	0	0	0	0	**19**
5:00 AM	0	0	0	0	0	0	6	17	20	17	6	0	0	0	0	0	0	**66**
6:00 AM	0	0	0	0	0	0	20	61	62	22	7	3	0	0	0	0	0	**175**
7:00 AM	0	0	0	0	0	0	9	36	70	31	6	4	0	1	0	0	0	**157**
8:00 AM	0	0	0	0	1	1	10	22	51	35	11	1	0	0	0	0	0	**132**
9:00 AM	0	0	0	1	2	3	14	24	35	19	6	2	0	0	0	0	0	**106**
10:00 AM	0	0	0	0	0	0	10	23	35	22	8	0	0	0	0	0	0	**98**
11:00 AM	0	0	0	0	0	0	8	26	35	31	10	1	0	0	0	0	0	**111**
12:00 PM	0	0	0	0	0	3	13	35	50	36	6	1	0	0	0	0	0	**144**
1:00 PM	0	0	0	0	2	2	13	38	47	41	7	0	0	0	0	0	0	**150**
2:00 PM	0	0	3	4	4	2	10	30	59	48	24	1	0	0	0	0	0	**185**
3:00 PM	0	0	0	0	0	4	17	51	107	60	16	1	0	0	0	0	0	**256**
4:00 PM	0	0	0	0	0	3	16	50	116	77	20	3	0	0	0	0	0	**285**
5:00 PM	0	0	0	0	2	3	17	98	123	62	13	4	0	0	0	0	0	**322**
6:00 PM	0	0	0	0	1	1	9	43	82	38	3	1	0	0	0	0	0	**178**
7:00 PM	0	0	0	0	1	1	8	43	43	23	5	0	0	0	0	0	0	**124**
8:00 PM	0	0	0	0	0	0	10	34	43	22	3	0	0	0	0	0	0	**112**
9:00 PM	0	0	0	0	0	2	9	23	19	8	3	0	0	0	0	0	0	**64**
10:00 PM	0	0	0	1	3	2	3	13	12	4	1	0	0	0	0	0	0	**39**
11:00 PM	0	0	0	0	0	2	2	7	4	4	0	0	0	0	0	0	0	**19**
Total	**0**	**0**	**3**	**6**	**16**	**33**	**215**	**688**	**1,031**	**607**	**158**	**22**	**0**	**1**	**0**	**0**	**0**	**2,780**
Percent	**0.0%**	**0.0%**	**0.1%**	**0.2%**	**0.6%**	**1.2%**	**7.7%**	**24.7%**	**37.1%**	**21.8%**	**5.7%**	**0.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	47.0	mph	Mean (Average) Speed	46.9	mph
85th Percentile	52.4	mph	10 mph Pace	42.6 - 52.6	mph
95th Percentile	55.8	mph	Percent in Pace	65.61	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Tuesday, November 29, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	3	2	4	0	1	0	0	0	0	0	0	**10**
1:00 AM	0	0	0	1	0	2	2	3	1	0	0	0	0	0	0	0	0	**9**
2:00 AM	0	0	0	0	0	1	0	4	2	2	0	0	0	0	0	0	0	**9**
3:00 AM	0	0	0	0	0	0	6	2	1	2	0	1	0	0	0	0	0	**12**
4:00 AM	0	0	0	0	0	0	3	7	3	4	1	1	0	0	0	0	0	**19**
5:00 AM	0	0	0	0	0	0	3	17	20	13	6	0	1	0	0	0	0	**60**
6:00 AM	0	0	0	0	0	2	11	54	86	39	6	1	0	0	0	0	0	**199**
7:00 AM	0	0	0	0	1	1	13	36	78	45	14	3	1	0	0	0	0	**192**
8:00 AM	1	0	0	0	2	2	6	28	52	26	6	0	1	0	0	0	0	**124**
9:00 AM	0	0	0	0	1	1	7	24	31	21	8	1	0	0	0	0	0	**94**
10:00 AM	0	0	0	0	0	0	11	26	44	22	5	1	0	0	0	0	0	**109**
11:00 AM	0	0	0	0	1	2	5	34	40	36	10	2	0	0	0	0	0	**130**
12:00 PM	0	0	0	0	0	0	5	26	60	46	15	2	0	0	0	0	0	**154**
1:00 PM	0	0	0	0	0	4	13	37	55	41	8	3	0	0	0	0	0	**161**
2:00 PM	0	0	0	1	0	4	21	52	70	35	8	0	0	0	0	0	0	**191**
3:00 PM	0	0	0	0	0	5	12	49	74	59	22	1	0	0	0	0	0	**222**
4:00 PM	0	0	0	0	0	0	13	47	101	76	24	5	1	0	0	0	0	**267**
5:00 PM	0	0	0	0	0	7	21	78	119	69	14	1	0	0	0	0	0	**309**
6:00 PM	0	0	0	0	0	5	17	66	91	38	7	2	0	0	0	0	0	**226**
7:00 PM	0	0	0	0	0	1	8	43	44	20	4	0	0	0	0	0	0	**120**
8:00 PM	0	0	0	0	0	0	9	35	48	24	5	2	0	0	0	0	0	**123**
9:00 PM	0	0	0	0	1	6	9	20	23	16	6	0	0	0	0	0	0	**81**
10:00 PM	0	0	0	0	0	0	8	9	18	5	2	0	0	0	0	0	0	**42**
11:00 PM	0	0	0	0	1	0	0	5	5	1	3	1	0	0	0	0	0	**16**
Total	**1**	**0**	**0**	**2**	**7**	**43**	**206**	**704**	**1,070**	**640**	**175**	**27**	**4**	**0**	**0**	**0**	**0**	**2,879**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.2%**	**1.5%**	**7.2%**	**24.5%**	**37.2%**	**22.2%**	**6.1%**	**0.9%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	47.2	mph	Mean (Average) Speed	47.1	mph
85th Percentile	52.6	mph	10 mph Pace	42.5 - 52.5	mph
95th Percentile	56.3	mph	Percent in Pace	67.04	%

TJ Wethington
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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Wednesday, November 30, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	0	3	5	1	2	0	0	0	0	0	0	0	0	**13**
1:00 AM	0	0	0	0	1	0	3	3	2	1	0	0	0	0	0	0	0	**10**
2:00 AM	0	0	0	0	0	1	2	5	2	1	0	0	0	0	0	0	0	**11**
3:00 AM	0	0	0	0	0	1	2	2	3	3	1	0	0	0	0	0	0	**12**
4:00 AM	0	0	0	0	0	0	0	3	8	0	0	0	0	0	0	0	0	**11**
5:00 AM	0	0	0	0	0	0	5	21	19	14	4	1	0	0	0	0	0	**64**
6:00 AM	0	0	0	0	0	1	19	53	71	43	9	2	2	1	0	0	0	**201**
7:00 AM	0	0	0	0	0	1	7	39	69	53	10	2	0	0	0	0	0	**181**
8:00 AM	0	0	0	0	0	3	5	27	58	24	6	3	1	0	0	0	0	**127**
9:00 AM	0	0	0	0	0	2	11	13	37	23	7	1	1	0	0	0	0	**95**
10:00 AM	0	0	0	0	0	3	8	19	30	30	8	2	0	0	0	0	0	**100**
11:00 AM	0	0	0	0	0	0	3	25	32	34	11	2	0	0	0	0	0	**107**
12:00 PM	0	0	0	0	0	2	13	23	48	41	12	0	0	0	0	0	0	**139**
1:00 PM	0	0	0	0	0	1	10	27	58	47	20	2	0	0	0	0	0	**165**
2:00 PM	0	0	0	2	0	1	11	35	69	58	16	2	0	0	0	0	0	**194**
3:00 PM	0	0	0	0	0	1	1	23	92	77	35	2	0	0	0	0	0	**231**
4:00 PM	0	0	0	0	0	0	6	27	79	114	37	4	3	0	0	0	0	**270**
5:00 PM	0	0	0	0	0	3	26	66	137	78	28	3	0	0	0	0	0	**341**
6:00 PM	0	0	0	1	2	1	13	46	83	40	15	2	0	0	0	0	0	**203**
7:00 PM	0	0	0	0	0	1	13	38	43	40	10	3	1	0	0	0	0	**149**
8:00 PM	0	0	0	0	0	3	4	41	41	31	6	0	0	0	0	0	0	**126**
9:00 PM	0	0	0	0	0	2	8	22	24	14	2	1	0	0	0	0	0	**73**
10:00 PM	0	0	0	0	0	2	2	9	11	4	4	1	0	0	0	0	0	**33**
11:00 PM	0	0	0	0	0	0	3	3	8	4	2	0	0	0	0	0	0	**20**
Total	**0**	**0**	**0**	**5**	**3**	**32**	**180**	**571**	**1,026**	**774**	**243**	**33**	**8**	**1**	**0**	**0**	**0**	**2,876**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.1%**	**1.1%**	**6.3%**	**19.9%**	**35.7%**	**26.9%**	**8.4%**	**1.1%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	48.1	mph	Mean (Average) Speed	48.1	mph
85th Percentile	53.7	mph	10 mph Pace	43.6 - 53.6	mph
95th Percentile	56.9	mph	Percent in Pace	64.67	%

TJ Wethington
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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Thursday, December 1, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	5	1	2	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	0	0	1	1	2	3	8	0	1	0	0	0	0	0	**16**
2:00 AM	0	0	0	0	1	1	2	1	2	1	0	0	0	1	0	0	0	**9**
3:00 AM	0	0	0	0	0	0	2	2	4	2	3	0	0	0	0	0	0	**13**
4:00 AM	0	0	0	0	0	1	0	3	2	4	1	0	0	0	0	0	0	**11**
5:00 AM	0	0	0	0	0	0	1	16	21	20	4	3	2	0	0	0	0	**67**
6:00 AM	0	0	0	0	0	3	13	27	66	48	25	3	0	0	0	0	0	**185**
7:00 AM	0	0	0	0	0	0	5	40	64	66	18	4	0	0	1	0	0	**198**
8:00 AM	0	0	0	0	0	0	4	21	38	29	12	1	3	0	0	0	0	**108**
9:00 AM	0	0	0	0	0	4	3	13	36	24	19	3	1	0	0	0	0	**103**
10:00 AM	0	0	0	0	0	1	6	19	35	31	12	2	0	0	0	0	0	**106**
11:00 AM	0	0	0	0	0	1	3	24	34	41	14	4	0	0	0	0	0	**121**
12:00 PM	0	0	0	0	0	0	5	12	46	48	22	9	0	0	0	0	0	**142**
1:00 PM	0	0	0	0	0	1	7	15	51	48	27	7	1	0	0	0	0	**157**
2:00 PM	0	0	0	0	0	1	6	19	83	67	34	1	2	0	0	0	0	**213**
3:00 PM	2	0	0	0	1	2	9	31	82	95	31	5	0	1	0	0	0	**259**
4:00 PM	0	0	0	0	0	0	7	40	113	152	65	21	3	1	0	0	0	**402**
5:00 PM	0	0	0	0	0	3	11	52	113	135	52	10	1	0	0	0	0	**377**
6:00 PM	0	0	0	0	0	3	13	28	79	76	32	11	0	0	0	0	0	**242**
7:00 PM	0	0	0	0	0	1	10	38	84	71	29	0	1	1	0	0	0	**235**
8:00 PM	0	0	0	0	1	2	4	23	45	34	18	4	1	0	0	0	0	**132**
9:00 PM	0	0	0	0	0	0	6	30	31	39	19	3	1	0	1	0	0	**130**
10:00 PM	0	0	0	0	0	0	2	9	17	11	8	0	2	0	0	0	0	**49**
11:00 PM	0	0	0	0	0	1	1	5	6	8	2	1	0	0	0	0	0	**24**
Total	**2**	**0**	**0**	**0**	**3**	**26**	**121**	**475**	**1,056**	**1,060**	**447**	**93**	**18**	**4**	**2**	**0**	**0**	**3,307**
Percent	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.8%**	**3.7%**	**14.4%**	**31.9%**	**32.1%**	**13.5%**	**2.8%**	**0.5%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.9	mph	Mean (Average) Speed	49.8	mph
85th Percentile	55.6	mph	10 mph Pace	44.5 - 54.5	mph
95th Percentile	58.8	mph	Percent in Pace	64.5	%

TJ Wethington
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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Friday, December 2, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	0	4	3	8	3	1	0	0	0	0	0	**20**
1:00 AM	0	0	0	0	0	0	0	2	4	2	0	0	0	0	0	0	0	**8**
2:00 AM	0	0	0	0	0	0	2	0	2	2	0	0	0	0	0	0	0	**6**
3:00 AM	0	0	0	0	0	1	3	0	5	1	2	0	0	0	0	0	0	**12**
4:00 AM	0	0	0	0	0	0	1	2	2	6	1	0	0	0	1	0	0	**13**
5:00 AM	0	0	0	0	0	0	4	9	20	10	7	2	0	0	0	0	0	**52**
6:00 AM	0	0	0	0	0	0	5	23	39	43	18	5	1	0	0	0	0	**134**
7:00 AM	0	0	0	0	0	2	7	20	43	51	21	3	2	0	0	0	0	**149**
8:00 AM	0	1	0	0	0	0	5	20	24	20	8	2	1	0	0	0	0	**81**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**1**	**0**	**0**	**0**	**4**	**27**	**80**	**142**	**143**	**60**	**13**	**4**	**0**	**1**	**0**	**0**	**475**
Percent	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.8%**	**5.7%**	**16.8%**	**29.9%**	**30.1%**	**12.6%**	**2.7%**	**0.8%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.1	mph	Mean (Average) Speed	49.2	mph
85th Percentile	55.3	mph	10 mph Pace	43.4 - 53.4	mph
95th Percentile	58.7	mph	Percent in Pace	60.42	%

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Saturday, December 3, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	1	0	0	0	0	1	1	6	15	46	18	6	1	0	0	0	0	**95**
10:00 AM	0	0	0	0	0	0	2	10	40	35	13	2	2	0	0	0	0	**104**
11:00 AM	0	0	0	0	0	1	6	15	48	52	24	6	0	0	0	0	0	**152**
12:00 PM	0	0	0	0	0	0	2	19	49	58	55	9	4	0	0	0	0	**196**
1:00 PM	0	0	0	0	0	3	5	22	51	49	41	10	0	0	0	0	0	**181**
2:00 PM	0	0	0	0	0	0	5	14	58	62	41	8	5	1	1	0	0	**195**
3:00 PM	0	0	0	1	1	3	4	21	50	78	41	8	2	0	0	0	0	**209**
4:00 PM	0	0	0	0	0	0	5	23	57	65	33	12	1	1	0	0	0	**197**
5:00 PM	0	0	0	0	0	0	4	31	71	53	30	1	3	0	0	0	0	**193**
6:00 PM	0	0	0	0	0	2	22	53	94	76	24	3	0	0	0	0	0	**274**
7:00 PM	0	0	0	0	0	1	10	23	59	42	13	4	0	0	0	0	0	**152**
8:00 PM	0	0	0	0	0	2	5	25	18	15	4	0	0	0	0	0	0	**69**
9:00 PM	0	0	0	0	1	1	4	20	39	14	8	0	0	0	0	0	0	**87**
10:00 PM	0	0	0	0	2	0	9	13	24	9	3	1	0	0	0	0	0	**61**
11:00 PM	0	0	0	0	1	0	2	13	11	7	2	2	0	0	0	0	0	**38**
Total	**1**	**0**	**0**	**1**	**5**	**14**	**86**	**308**	**684**	**661**	**350**	**72**	**18**	**2**	**1**	**0**	**0**	**2,203**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.6%**	**3.9%**	**14.0%**	**31.0%**	**30.0%**	**15.9%**	**3.3%**	**0.8%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	50.0	mph	Mean (Average) Speed	50.1	mph
85th Percentile	56.1	mph	10 mph Pace	45.1 - 55.1	mph
95th Percentile	59.5	mph	Percent in Pace	60.87	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Sunday, December 4, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	2	1	8	6	4	1	1	0	1	0	0	0	**24**
1:00 AM	0	0	0	0	0	0	3	4	3	1	1	0	0	0	0	0	0	**12**
2:00 AM	0	0	0	0	0	1	0	8	4	0	1	0	0	0	0	0	0	**14**
3:00 AM	0	0	0	0	0	1	1	4	0	3	0	0	0	0	0	0	0	**9**
4:00 AM	0	0	0	0	0	1	1	5	2	2	0	0	0	0	0	0	0	**11**
5:00 AM	0	0	0	0	0	0	1	5	6	9	2	1	0	0	0	0	0	**24**
6:00 AM	0	0	0	0	0	0	1	2	7	6	3	1	0	0	0	0	0	**20**
7:00 AM	0	0	0	0	0	1	3	3	10	8	2	1	0	0	0	0	0	**28**
8:00 AM	0	0	0	0	0	1	1	6	16	15	5	3	0	0	0	0	0	**47**
9:00 AM	0	0	0	0	0	1	1	7	21	19	9	0	0	0	0	0	0	**58**
10:00 AM	0	0	0	0	0	0	4	21	35	47	22	2	1	0	0	0	0	**132**
11:00 AM	0	0	0	0	0	1	3	21	40	48	34	4	0	0	0	0	0	**151**
12:00 PM	0	0	0	0	0	0	2	18	63	44	37	11	0	1	0	0	0	**176**
1:00 PM	0	0	0	0	0	3	3	10	37	63	31	11	0	1	0	0	0	**159**
2:00 PM	0	0	1	0	0	0	3	12	51	63	19	5	0	1	0	0	0	**155**
3:00 PM	0	0	0	0	0	0	2	17	48	66	29	9	0	0	0	0	0	**171**
4:00 PM	0	0	0	0	0	0	2	15	41	63	33	6	1	0	0	0	0	**161**
5:00 PM	0	0	0	0	0	0	9	33	58	57	18	9	1	0	0	0	0	**185**
6:00 PM	0	0	0	0	1	1	3	23	53	35	15	2	1	0	0	0	0	**134**
7:00 PM	0	0	0	0	0	0	7	28	46	39	14	2	0	0	0	0	0	**136**
8:00 PM	0	0	0	0	0	2	4	11	20	9	8	0	0	0	0	0	0	**54**
9:00 PM	0	0	0	0	1	0	2	8	17	6	5	0	0	1	0	0	0	**40**
10:00 PM	0	0	0	0	0	3	5	5	15	6	3	0	0	0	0	0	0	**37**
11:00 PM	0	0	0	0	0	2	0	4	6	4	2	0	0	0	0	0	0	**18**
Total	**0**	**0**	**1**	**0**	**2**	**20**	**62**	**278**	**605**	**617**	**294**	**68**	**4**	**5**	**0**	**0**	**0**	**1,956**
Percent	**0.0%**	**0.0%**	**0.1%**	**0.0%**	**0.1%**	**1.0%**	**3.2%**	**14.2%**	**30.9%**	**31.5%**	**15.0%**	**3.5%**	**0.2%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	50.1	mph	Mean (Average) Speed	50	mph
85th Percentile	55.9	mph	10 mph Pace	44.9 - 54.9	mph
95th Percentile	59.4	mph	Percent in Pace	62.37	%

TJ Wethington
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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 to 12/4/2022
Site Code: 11

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	2	3	2	2	1	0	0	0	0	0	0	**11**
1:00 AM	0	0	0	0	0	0	2	2	2	2	0	0	0	0	0	0	0	**8**
2:00 AM	0	0	0	0	0	1	1	3	2	1	0	0	0	0	0	0	0	**8**
3:00 AM	0	0	0	0	0	1	2	2	3	2	1	0	0	0	0	0	0	**11**
4:00 AM	0	0	0	0	0	1	1	4	3	3	1	0	0	0	0	0	0	**13**
5:00 AM	0	0	0	0	0	0	3	12	15	12	4	1	0	0	0	0	0	**47**
6:00 AM	0	0	0	0	0	1	10	31	47	29	10	2	0	0	0	0	0	**130**
7:00 AM	0	0	0	0	0	1	6	25	48	36	10	2	0	0	0	0	0	**128**
8:00 AM	0	0	0	0	0	1	4	18	34	21	7	1	1	0	0	0	0	**87**
9:00 AM	0	0	0	0	0	2	5	12	25	22	10	2	0	0	0	0	0	**78**
10:00 AM	0	0	0	0	0	1	6	17	31	27	10	1	0	0	0	0	0	**93**
11:00 AM	0	0	0	0	0	1	4	21	33	35	15	3	0	0	0	0	0	**112**
12:00 PM	0	0	0	0	0	1	6	19	45	39	21	5	1	0	0	0	0	**137**
1:00 PM	0	0	0	0	0	2	7	21	43	41	19	5	0	0	0	0	0	**138**
2:00 PM	0	0	1	1	1	1	8	23	56	48	20	2	1	0	0	0	0	**162**
3:00 PM	0	0	0	0	0	2	6	27	65	62	25	4	0	0	0	0	0	**191**
4:00 PM	0	0	0	0	0	0	7	29	72	78	30	7	1	0	0	0	0	**224**
5:00 PM	0	0	0	0	0	2	13	51	89	65	22	4	1	0	0	0	0	**247**
6:00 PM	0	0	0	0	1	2	11	37	69	43	14	3	0	0	0	0	0	**180**
7:00 PM	0	0	0	0	0	1	8	30	46	34	11	1	0	0	0	0	0	**131**
8:00 PM	0	0	0	0	0	1	5	24	31	19	6	1	0	0	0	0	0	**87**
9:00 PM	0	0	0	0	0	2	5	18	22	14	6	1	0	0	0	0	0	**68**
10:00 PM	0	0	0	0	1	1	4	8	14	6	3	0	0	0	0	0	0	**37**
11:00 PM	0	0	0	0	0	1	1	5	6	4	2	1	0	0	0	0	0	**20**
Total	**0**	**0**	**1**	**1**	**3**	**27**	**127**	**442**	**803**	**645**	**248**	**46**	**5**	**0**	**0**	**0**	**0**	**2,348**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**1.1%**	**5.4%**	**18.8%**	**34.2%**	**27.5%**	**10.6%**	**2.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	48.5	mph	Mean (Average) Speed	48.6	mph
85th Percentile	54.5	mph	10 mph Pace	43.7 - 53.7	mph
95th Percentile	58.0	mph	Percent in Pace	63.0	%

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Location: I-94 WB Ramp E/O Mandan Ave
Date Range: 11/28/2022 - 12/4/2022
Site Code: 11

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	8	8	0	10	10	0	13	13	0	8	8	0	20	20	0	0	0	0	24	24	0	10	10
1:00 AM	0	6	6	0	9	9	0	10	10	0	16	16	0	8	8	0	0	0	0	12	12	0	12	12
2:00 AM	0	8	8	0	9	9	0	11	11	0	9	9	0	6	6	0	0	0	0	14	14	0	10	10
3:00 AM	0	16	16	0	12	12	0	12	12	0	13	13	0	12	12	0	0	0	0	9	9	0	12	12
4:00 AM	0	19	19	0	19	19	0	11	11	0	11	11	0	13	13	0	0	0	0	11	11	0	14	14
5:00 AM	0	66	66	0	60	60	0	64	64	0	67	67	0	52	52	0	0	0	0	24	24	0	64	64
6:00 AM	0	175	175	0	199	199	0	201	201	0	185	185	0	134	134	0	0	0	0	20	20	0	195	195
7:00 AM	0	157	157	0	192	192	0	181	181	0	198	198	0	149	149	0	0	0	0	28	28	0	190	190
8:00 AM	0	132	132	0	124	124	0	127	127	0	108	108	0	81	81	0	0	0	0	47	47	0	120	120
9:00 AM	0	106	106	0	94	94	0	95	95	0	103	103	0	0	0	0	95	95	0	58	58	0	97	97
10:00 AM	0	98	98	0	109	109	0	100	100	0	106	106	0	0	0	0	104	104	0	132	132	0	105	105
11:00 AM	0	111	111	0	130	130	0	107	107	0	121	121	0	0	0	0	152	152	0	151	151	0	119	119
12:00 PM	0	144	144	0	154	154	0	139	139	0	142	142	0	0	0	0	196	196	0	176	176	0	145	145
1:00 PM	0	150	150	0	161	161	0	165	165	0	157	157	0	0	0	0	181	181	0	159	159	0	161	161
2:00 PM	0	185	185	0	191	191	0	194	194	0	213	213	0	0	0	0	195	195	0	155	155	0	199	199
3:00 PM	0	256	256	0	222	222	0	231	231	0	259	259	0	0	0	0	209	209	0	171	171	0	237	237
4:00 PM	0	285	285	0	267	267	0	270	270	0	402	402	0	0	0	0	197	197	0	161	161	0	313	313
5:00 PM	0	322	322	0	309	309	0	341	341	0	377	377	0	0	0	0	193	193	0	185	185	0	342	342
6:00 PM	0	178	178	0	226	226	0	203	203	0	242	242	0	0	0	0	274	274	0	134	134	0	224	224
7:00 PM	0	124	124	0	120	120	0	149	149	0	235	235	0	0	0	0	152	152	0	136	136	0	168	168
8:00 PM	0	112	112	0	123	123	0	126	126	0	132	132	0	0	0	0	69	69	0	54	54	0	127	127
9:00 PM	0	64	64	0	81	81	0	73	73	0	130	130	0	0	0	0	87	87	0	40	40	0	95	95
10:00 PM	0	39	39	0	42	42	0	33	33	0	49	49	0	0	0	0	61	61	0	37	37	0	41	41
11:00 PM	0	19	19	0	16	16	0	20	20	0	24	24	0	0	0	0	38	38	0	18	18	0	20	20
Total	-	**2,780**	**2,780**	-	**2,879**	**2,879**	-	**2,876**	**2,876**	-	**3,307**	**3,307**	-	**475**	**475**	-	**2,203**	**2,203**	-	**1,956**	**1,956**	-	**3,021**	**3,021**
Percent	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I-94 EB Ramp W/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 12

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	129	749	605	156	583	236	0	38	586	28	9	4	37	3,160
Percent	4.1%	23.7%	19.1%	4.9%	18.4%	7.5%	0.0%	1.2%	18.5%	0.9%	0.3%	0.1%	1.2%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	129	749	605	156	583	236	0	38	586	28	9	4	37	3,160
Percent	4.1%	23.7%	19.1%	4.9%	18.4%	7.5%	0.0%	1.2%	18.5%	0.9%	0.3%	0.1%	1.2%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

TJ Wethington
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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Monday, November 28, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	2	1	0	1	1	0	0	1	0	0	0	0	**6**
1:00 AM	1	1	3	0	0	1	0	0	1	1	0	0	0	**8**
2:00 AM	0	0	1	0	2	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	1	2	0	0	2	1	0	0	1	0	0	0	0	**7**
5:00 AM	0	2	3	0	2	0	0	0	1	0	0	0	0	**8**
6:00 AM	0	9	0	0	7	0	0	0	0	0	0	0	0	**16**
7:00 AM	0	15	3	0	8	1	0	0	2	0	0	0	0	**29**
8:00 AM	0	9	4	1	5	0	0	0	3	0	0	0	0	**22**
9:00 AM	1	11	3	2	2	4	0	0	2	0	0	0	0	**25**
10:00 AM	0	4	10	0	7	0	0	0	3	0	0	0	0	**24**
11:00 AM	0	6	11	1	13	1	0	2	4	0	0	0	0	**38**
12:00 PM	1	9	9	1	10	1	0	0	4	0	0	0	0	**35**
1:00 PM	2	4	5	3	4	3	0	1	9	1	0	0	0	**32**
2:00 PM	1	6	6	1	5	5	0	1	1	0	1	0	0	**27**
3:00 PM	3	7	7	0	8	4	0	1	2	0	0	0	0	**32**
4:00 PM	1	13	5	1	5	2	0	0	1	0	0	0	1	**29**
5:00 PM	1	14	5	2	11	3	0	0	7	1	0	0	0	**44**
6:00 PM	1	6	6	5	3	6	0	0	4	1	0	0	0	**32**
7:00 PM	1	6	9	0	4	2	0	0	5	0	0	0	0	**27**
8:00 PM	0	4	1	0	2	0	0	0	6	0	0	0	0	**13**
9:00 PM	2	3	4	1	0	1	0	1	3	0	0	0	0	**15**
10:00 PM	0	2	3	1	0	0	0	0	3	0	0	0	0	**9**
11:00 PM	0	1	2	0	0	1	0	0	5	0	0	0	0	**9**
Total	**16**	**137**	**101**	**19**	**101**	**37**	**0**	**6**	**68**	**4**	**1**	**0**	**1**	**491**
Percent	**3.3%**	**27.9%**	**20.6%**	**3.9%**	**20.6%**	**7.5%**	**0.0%**	**1.2%**	**13.8%**	**0.8%**	**0.2%**	**0.0%**	**0.2%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

DATA SOLUTIONS

Tuesday, November 29, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	1	0	0	0	0	0	1	0	0	0	0	**2**
1:00 AM	0	1	1	0	3	0	0	0	2	0	0	0	0	**7**
2:00 AM	0	1	0	0	2	0	0	0	1	0	0	0	0	**4**
3:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	2	**4**
4:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	**2**
5:00 AM	0	2	0	0	0	0	0	0	4	0	0	0	0	**6**
6:00 AM	0	9	1	0	6	0	0	0	5	0	0	0	1	**22**
7:00 AM	0	13	5	1	3	1	0	0	1	0	0	0	0	**24**
8:00 AM	0	7	4	0	3	0	0	0	5	0	0	0	1	**20**
9:00 AM	0	8	7	2	2	3	0	0	5	0	0	0	3	**30**
10:00 AM	1	11	4	0	3	3	0	1	8	1	0	0	1	**33**
11:00 AM	2	9	4	1	5	3	0	0	6	1	0	0	0	**31**
12:00 PM	1	4	4	3	4	1	0	1	3	0	0	0	0	**21**
1:00 PM	1	6	5	4	4	2	0	0	7	1	0	0	0	**30**
2:00 PM	1	5	5	2	8	3	0	0	1	4	0	0	3	**32**
3:00 PM	2	7	6	4	6	2	0	2	4	0	0	0	0	**33**
4:00 PM	2	16	13	3	12	4	0	0	5	0	0	0	1	**56**
5:00 PM	1	13	4	3	8	3	0	0	8	0	0	0	0	**40**
6:00 PM	1	6	4	2	4	4	0	0	6	1	0	0	0	**28**
7:00 PM	0	7	5	1	3	1	0	1	5	0	0	0	0	**23**
8:00 PM	1	4	2	0	2	2	0	0	1	1	0	0	0	**13**
9:00 PM	1	3	3	1	1	1	0	0	7	0	0	0	0	**17**
10:00 PM	0	0	1	0	0	0	0	0	5	0	0	0	1	**7**
11:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
Total	**14**	**132**	**80**	**27**	**80**	**33**	**0**	**5**	**91**	**9**	**2**	**0**	**13**	**486**
Percent	**2.9%**	**27.2%**	**16.5%**	**5.6%**	**16.5%**	**6.8%**	**0.0%**	**1.0%**	**18.7%**	**1.9%**	**0.4%**	**0.0%**	**2.7%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

DATA SOLUTIONS

Wednesday, November 30, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	1	0	0	0	0	0	5	0	0	0	0	**6**
1:00 AM	1	3	0	0	0	1	0	0	3	0	0	0	0	**8**
2:00 AM	0	2	2	0	3	0	0	0	1	0	0	0	1	**9**
3:00 AM	0	3	0	0	0	1	0	0	5	0	0	0	1	**10**
4:00 AM	0	0	4	0	1	1	0	0	2	0	0	0	0	**8**
5:00 AM	1	3	1	0	1	0	0	0	2	0	0	0	0	**8**
6:00 AM	0	10	3	0	5	0	0	0	2	0	0	0	1	**21**
7:00 AM	1	12	7	2	4	2	0	1	2	0	0	0	1	**32**
8:00 AM	4	7	6	1	2	3	0	0	1	1	0	0	1	**26**
9:00 AM	1	6	5	3	4	4	0	0	4	0	0	1	0	**28**
10:00 AM	1	3	7	3	7	4	0	0	5	0	0	0	0	**30**
11:00 AM	1	3	5	0	9	1	0	2	7	1	0	0	0	**29**
12:00 PM	1	7	2	1	6	2	0	0	9	0	0	0	0	**28**
1:00 PM	4	8	5	3	10	8	0	0	5	1	0	0	2	**46**
2:00 PM	0	9	9	5	10	5	0	0	8	0	0	0	0	**46**
3:00 PM	0	4	11	1	5	2	0	0	10	0	0	0	0	**33**
4:00 PM	3	10	12	4	6	5	0	2	10	1	0	0	0	**53**
5:00 PM	2	11	2	3	12	2	0	0	10	0	1	0	0	**43**
6:00 PM	0	9	5	0	4	2	0	0	6	0	0	0	0	**26**
7:00 PM	0	8	0	0	5	0	0	0	8	0	0	0	0	**21**
8:00 PM	1	6	1	1	1	0	0	0	5	0	0	0	1	**16**
9:00 PM	3	1	1	1	2	2	0	1	7	1	0	0	1	**20**
10:00 PM	1	1	1	1	2	1	0	0	3	0	0	0	1	**11**
11:00 PM	0	0	3	0	2	0	0	0	6	0	0	0	0	**11**
Total	**25**	**126**	**93**	**29**	**101**	**46**	**0**	**6**	**126**	**5**	**1**	**1**	**10**	**569**
Percent	**4.4%**	**22.1%**	**16.3%**	**5.1%**	**17.8%**	**8.1%**	**0.0%**	**1.1%**	**22.1%**	**0.9%**	**0.2%**	**0.2%**	**1.8%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

DATA SOLUTIONS

Thursday, December 1, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	1	0	0	1	0	0	0	2	0	0	0	1	**5**
1:00 AM	0	4	1	0	1	0	0	0	2	0	0	0	0	**8**
2:00 AM	1	2	0	1	2	3	0	0	1	0	0	0	2	**12**
3:00 AM	0	3	0	0	0	2	0	0	1	0	0	0	0	**6**
4:00 AM	0	1	2	0	1	0	0	0	0	0	0	0	0	**4**
5:00 AM	1	2	2	1	0	1	0	0	1	1	0	0	0	**9**
6:00 AM	0	6	5	0	4	0	0	0	3	0	0	0	0	**18**
7:00 AM	0	15	5	1	6	1	0	0	2	0	0	0	0	**30**
8:00 AM	0	8	2	0	6	0	0	1	3	1	0	0	0	**21**
9:00 AM	0	6	8	1	2	0	0	0	3	0	0	0	1	**21**
10:00 AM	0	6	7	3	11	7	0	0	5	0	0	0	0	**39**
11:00 AM	0	8	8	2	5	2	0	0	4	0	0	0	1	**30**
12:00 PM	2	7	6	1	12	2	0	1	3	2	0	0	0	**36**
1:00 PM	1	4	7	2	8	4	0	0	5	0	0	0	0	**31**
2:00 PM	1	7	5	2	19	3	0	1	5	0	0	0	0	**43**
3:00 PM	0	7	15	3	16	3	0	0	6	0	0	0	0	**50**
4:00 PM	2	11	11	3	13	5	0	2	5	0	0	0	0	**52**
5:00 PM	0	15	11	4	7	2	0	1	2	0	0	0	1	**43**
6:00 PM	1	8	7	3	12	1	0	0	5	1	0	0	0	**38**
7:00 PM	0	2	3	1	3	2	0	1	5	0	0	0	0	**17**
8:00 PM	3	5	11	4	6	3	0	1	2	0	0	0	0	**35**
9:00 PM	0	3	4	0	3	0	0	0	7	0	0	0	0	**17**
10:00 PM	0	4	1	0	2	0	0	0	3	0	0	0	0	**10**
11:00 PM	1	1	3	1	2	1	0	0	2	0	0	0	0	**11**
Total	**13**	**136**	**124**	**33**	**142**	**42**	**0**	**8**	**77**	**5**	**0**	**0**	**6**	**586**
Percent	**2.2%**	**23.2%**	**21.2%**	**5.6%**	**24.2%**	**7.2%**	**0.0%**	**1.4%**	**13.1%**	**0.9%**	**0.0%**	**0.0%**	**1.0%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Friday, December 2, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	2	2	2	1	2	0	0	1	0	0	0	0	**10**
1:00 AM	1	1	0	0	0	1	0	0	1	0	1	0	0	**5**
2:00 AM	1	3	0	1	1	0	0	0	1	0	1	1	0	**9**
3:00 AM	0	0	0	1	0	1	0	0	3	0	0	0	0	**5**
4:00 AM	1	0	4	0	0	1	0	0	1	0	0	0	0	**7**
5:00 AM	2	2	2	2	0	0	0	0	0	0	0	0	0	**8**
6:00 AM	0	6	4	0	4	0	0	1	2	0	1	0	0	**18**
7:00 AM	1	5	4	2	6	1	0	0	1	0	0	0	0	**20**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**6**	**19**	**16**	**8**	**12**	**6**	**0**	**1**	**10**	**0**	**3**	**1**	**0**	**82**
Percent	**7.3%**	**23.2%**	**19.5%**	**9.8%**	**14.6%**	**7.3%**	**0.0%**	**1.2%**	**12.2%**	**0.0%**	**3.7%**	**1.2%**	**0.0%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Saturday, December 3, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	1	2	2	0	2	0	0	0	1	0	0	0	0	**8**
10:00 AM	2	12	6	1	4	2	0	0	10	0	0	0	0	**37**
11:00 AM	3	11	12	2	8	2	0	2	6	0	0	0	0	**46**
12:00 PM	4	12	6	3	11	3	0	2	5	0	0	0	0	**46**
1:00 PM	3	7	7	2	9	3	0	0	10	0	0	0	0	**41**
2:00 PM	3	4	6	1	6	5	0	1	8	0	0	0	1	**35**
3:00 PM	4	8	8	1	4	3	0	0	6	0	0	0	0	**34**
4:00 PM	0	3	6	0	4	4	0	0	3	0	0	0	0	**20**
5:00 PM	5	7	5	1	3	5	0	0	11	0	0	0	1	**38**
6:00 PM	0	9	3	1	7	2	0	1	6	0	0	0	0	**29**
7:00 PM	3	6	6	0	6	4	0	0	13	2	0	0	0	**40**
8:00 PM	2	5	4	2	3	0	0	0	8	0	0	0	0	**24**
9:00 PM	1	2	6	1	2	3	0	0	8	0	1	0	0	**24**
10:00 PM	2	1	2	2	2	0	0	0	6	0	0	0	0	**15**
11:00 PM	0	4	2	0	0	1	0	0	7	0	0	0	0	**14**
Total	**33**	**93**	**81**	**17**	**71**	**37**	**0**	**6**	**108**	**2**	**1**	**0**	**2**	**451**
Percent	**7.3%**	**20.6%**	**18.0%**	**3.8%**	**15.7%**	**8.2%**	**0.0%**	**1.3%**	**23.9%**	**0.4%**	**0.2%**	**0.0%**	**0.4%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Sunday, December 4, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	2	2	1	1	1	0	0	1	0	0	0	0	**8**
1:00 AM	0	2	2	0	2	2	0	0	3	0	0	0	0	**11**
2:00 AM	0	0	1	0	1	0	0	1	1	0	0	1	0	**5**
3:00 AM	0	1	2	1	1	0	0	0	1	0	0	0	2	**8**
4:00 AM	0	2	0	0	0	0	0	0	2	0	1	0	0	**5**
5:00 AM	1	1	0	0	0	1	0	0	2	0	0	0	0	**5**
6:00 AM	0	1	4	0	2	0	0	0	3	0	0	0	0	**10**
7:00 AM	0	2	3	1	1	0	0	0	3	0	0	0	0	**10**
8:00 AM	2	3	4	0	2	3	0	0	3	0	0	0	0	**17**
9:00 AM	0	6	10	0	5	2	0	0	3	0	0	0	0	**26**
10:00 AM	3	7	3	0	8	4	0	0	8	0	0	0	0	**33**
11:00 AM	3	3	9	2	9	3	0	1	6	0	0	0	0	**36**
12:00 PM	1	9	8	2	6	2	0	0	8	1	0	1	0	**38**
1:00 PM	3	12	6	1	4	6	0	0	7	0	0	0	1	**40**
2:00 PM	2	7	12	2	8	1	0	1	6	0	0	0	0	**39**
3:00 PM	1	12	12	3	4	0	0	0	5	1	0	0	1	**39**
4:00 PM	2	4	11	1	6	4	0	1	6	0	0	0	0	**35**
5:00 PM	1	10	5	3	5	1	0	0	8	0	0	0	0	**33**
6:00 PM	1	9	5	3	3	2	0	2	3	0	0	0	0	**28**
7:00 PM	0	5	3	1	4	0	0	0	9	0	0	0	0	**22**
8:00 PM	1	2	6	1	1	2	0	0	5	0	0	0	0	**18**
9:00 PM	0	3	2	0	2	1	0	0	2	1	0	0	0	**11**
10:00 PM	0	3	0	0	1	0	0	0	6	0	0	0	0	**10**
11:00 PM	1	0	0	1	0	0	0	0	5	0	0	0	1	**8**
Total	**22**	**106**	**110**	**23**	**76**	**35**	**0**	**6**	**106**	**3**	**1**	**2**	**5**	**495**
Percent	**4.4%**	**21.4%**	**22.2%**	**4.6%**	**15.4%**	**7.1%**	**0.0%**	**1.2%**	**21.4%**	**0.6%**	**0.2%**	**0.4%**	**1.0%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	1	0	1	1	0	0	2	0	0	0	0	**6**
1:00 AM	0	2	1	0	1	1	0	0	2	0	0	0	0	**7**
2:00 AM	0	1	1	0	2	0	0	0	1	0	0	0	0	**5**
3:00 AM	0	1	0	0	0	1	0	0	1	0	0	0	1	**4**
4:00 AM	0	1	1	0	1	0	0	0	1	0	0	0	0	**4**
5:00 AM	1	2	1	0	0	0	0	0	1	0	0	0	0	**5**
6:00 AM	0	6	2	0	4	0	0	0	2	0	0	0	0	**14**
7:00 AM	0	9	4	1	4	1	0	0	2	0	0	0	0	**21**
8:00 AM	1	5	3	0	3	1	0	0	2	0	0	0	0	**15**
9:00 AM	0	6	5	1	2	2	0	0	3	0	0	0	1	**20**
10:00 AM	1	6	5	1	6	3	0	0	6	0	0	0	0	**28**
11:00 AM	1	6	7	1	7	2	0	1	5	0	0	0	0	**30**
12:00 PM	1	7	5	2	7	2	0	1	5	0	0	0	0	**30**
1:00 PM	2	6	5	2	6	4	0	0	6	0	0	0	0	**31**
2:00 PM	1	5	6	2	8	3	0	1	4	1	0	0	1	**32**
3:00 PM	1	6	8	2	6	2	0	0	5	0	0	0	0	**30**
4:00 PM	1	8	8	2	7	3	0	1	4	0	0	0	0	**34**
5:00 PM	1	10	5	2	7	2	0	0	7	0	0	0	0	**34**
6:00 PM	1	7	4	2	5	2	0	0	4	0	0	0	0	**25**
7:00 PM	1	5	4	0	4	1	0	0	6	0	0	0	0	**21**
8:00 PM	1	4	4	1	2	1	0	0	4	0	0	0	0	**17**
9:00 PM	1	2	3	1	1	1	0	0	5	0	0	0	0	**14**
10:00 PM	0	2	1	1	1	0	0	0	4	0	0	0	0	**9**
11:00 PM	0	1	1	0	1	0	0	0	4	0	0	0	0	**7**
Total	**15**	**109**	**85**	**21**	**86**	**33**	**0**	**4**	**86**	**1**	**0**	**0**	**3**	**443**
Percent	**3.4%**	**24.6%**	**19.2%**	**4.7%**	**19.4%**	**7.4%**	**0.0%**	**0.9%**	**19.4%**	**0.2%**	**0.0%**	**0.0%**	**0.7%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

DATA SOLUTIONS

3-Day (Tuesday - Thursday) Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	1	0	0	0	0	0	3	0	0	0	0	**4**
1:00 AM	0	3	1	0	1	0	0	0	2	0	0	0	0	**8**
2:00 AM	0	2	1	0	2	1	0	0	1	0	0	0	1	**8**
3:00 AM	0	2	0	0	0	1	0	0	2	0	0	0	1	**7**
4:00 AM	0	0	2	0	1	0	0	0	1	0	0	0	0	**5**
5:00 AM	1	2	1	0	0	0	0	0	2	0	0	0	0	**8**
6:00 AM	0	8	3	0	5	0	0	0	3	0	0	0	1	**20**
7:00 AM	0	13	6	1	4	1	0	0	2	0	0	0	0	**29**
8:00 AM	1	7	4	0	4	1	0	0	3	1	0	0	1	**22**
9:00 AM	0	7	7	2	3	2	0	0	4	0	0	0	1	**26**
10:00 AM	1	7	6	2	7	5	0	0	6	0	0	0	0	**34**
11:00 AM	1	7	6	1	6	2	0	1	6	1	0	0	0	**30**
12:00 PM	1	6	4	2	7	2	0	1	5	1	0	0	0	**28**
1:00 PM	2	6	6	3	7	5	0	0	6	1	0	0	1	**36**
2:00 PM	1	7	6	3	12	4	0	0	5	1	0	0	1	**40**
3:00 PM	1	6	11	3	9	2	0	1	7	0	0	0	0	**39**
4:00 PM	2	12	12	3	10	5	0	1	7	0	0	0	0	**54**
5:00 PM	1	13	6	3	9	2	0	0	7	0	0	0	0	**42**
6:00 PM	1	8	5	2	7	2	0	0	6	1	0	0	0	**31**
7:00 PM	0	6	3	1	4	1	0	1	6	0	0	0	0	**20**
8:00 PM	2	5	5	2	3	2	0	0	3	0	0	0	0	**21**
9:00 PM	1	2	3	1	2	1	0	0	7	0	0	0	0	**18**
10:00 PM	0	2	1	0	1	0	0	0	4	0	0	0	1	**9**
11:00 PM	0	0	2	0	2	0	0	0	3	0	0	0	0	**8**
Total	**17**	**131**	**99**	**30**	**108**	**40**	**0**	**6**	**98**	**6**	**1**	**0**	**10**	**547**
Percent	**3.2%**	**24.0%**	**18.1%**	**5.4%**	**19.7%**	**7.4%**	**0.0%**	**1.2%**	**17.9%**	**1.2%**	**0.2%**	**0.1%**	**1.8%**	

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Vehicle Speed Report Summary

Location: I-94 EB Ramp W/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 12

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	2	6	28	140	323	530	659	753	491	188	36	3	1	0	0	0	0	3,160
Percent	0.1%	0.2%	0.9%	4.4%	10.2%	16.8%	20.9%	23.8%	15.5%	5.9%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	6	28	140	323	530	659	753	491	188	36	3	1	0	0	0	0	3,160
Percent	0.1%	0.2%	0.9%	4.4%	10.2%	16.8%	20.9%	23.8%	15.5%	5.9%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	39.3	mph	Mean (Average) Speed	38.6	mph
85th Percentile	47.1	mph	10 mph Pace	34.9 - 44.9	mph
95th Percentile	51.3	mph	Percent in Pace	44.7	%
Westbound			**Westbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Monday, November 28, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	0	4	0	0	1	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	1	3	2	2	0	0	0	0	0	0	0	0	0	**8**
2:00 AM	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	**3**
3:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	0	0	0	1	1	3	2	0	0	0	0	0	0	0	0	0	**7**
5:00 AM	0	0	0	1	0	2	2	2	0	1	0	0	0	0	0	0	0	**8**
6:00 AM	0	0	0	0	1	3	3	6	1	2	0	0	0	0	0	0	0	**16**
7:00 AM	0	0	0	1	0	2	5	10	7	2	2	0	0	0	0	0	0	**29**
8:00 AM	0	0	0	0	0	3	3	5	8	2	1	0	0	0	0	0	0	**22**
9:00 AM	0	0	0	2	1	10	5	2	4	1	0	0	0	0	0	0	0	**25**
10:00 AM	0	0	0	2	0	3	3	7	6	2	1	0	0	0	0	0	0	**24**
11:00 AM	0	0	1	2	3	0	6	14	9	2	1	0	0	0	0	0	0	**38**
12:00 PM	0	0	0	1	1	7	8	7	9	0	1	1	0	0	0	0	0	**35**
1:00 PM	0	0	0	1	3	5	9	8	2	4	0	0	0	0	0	0	0	**32**
2:00 PM	0	0	0	2	2	4	5	7	5	1	0	0	1	0	0	0	0	**27**
3:00 PM	0	0	0	0	5	6	4	9	5	3	0	0	0	0	0	0	0	**32**
4:00 PM	0	0	0	1	3	7	4	9	4	1	0	0	0	0	0	0	0	**29**
5:00 PM	0	0	1	2	5	8	10	6	10	2	0	0	0	0	0	0	0	**44**
6:00 PM	0	0	0	2	8	12	5	2	3	0	0	0	0	0	0	0	0	**32**
7:00 PM	0	2	3	2	2	7	3	6	2	0	0	0	0	0	0	0	0	**27**
8:00 PM	0	0	0	0	2	1	2	5	2	1	0	0	0	0	0	0	0	**13**
9:00 PM	0	0	1	1	3	2	4	4	0	0	0	0	0	0	0	0	0	**15**
10:00 PM	0	0	0	2	2	3	1	1	0	0	0	0	0	0	0	0	0	**9**
11:00 PM	0	0	0	0	3	2	3	1	0	0	0	0	0	0	0	0	0	**9**
Total	**0**	**2**	**6**	**22**	**47**	**93**	**94**	**117**	**77**	**25**	**6**	**1**	**1**	**0**	**0**	**0**	**0**	**491**
Percent	**0.0%**	**0.4%**	**1.2%**	**4.5%**	**9.6%**	**18.9%**	**19.1%**	**23.8%**	**15.7%**	**5.1%**	**1.2%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.1	mph	Mean (Average) Speed	38.5	mph
85th Percentile	47.6	mph	10 mph Pace	34.7 - 44.7	mph
95th Percentile	50.9	mph	Percent in Pace	43.4	%

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Tuesday, November 29, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
1:00 AM	0	0	0	0	1	1	3	1	0	1	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	0	2	1	2	0	0	0	1	0	0	0	0	0	0	**6**
6:00 AM	0	0	0	2	1	5	6	6	2	0	0	0	0	0	0	0	0	**22**
7:00 AM	0	0	0	0	0	4	2	12	3	3	0	0	0	0	0	0	0	**24**
8:00 AM	0	0	0	1	1	1	3	5	5	4	0	0	0	0	0	0	0	**20**
9:00 AM	0	0	0	1	1	3	2	12	8	3	0	0	0	0	0	0	0	**30**
10:00 AM	0	0	0	2	0	5	6	9	8	1	2	0	0	0	0	0	0	**33**
11:00 AM	0	0	0	2	6	5	5	6	2	5	0	0	0	0	0	0	0	**31**
12:00 PM	0	0	0	2	1	4	5	3	4	2	0	0	0	0	0	0	0	**21**
1:00 PM	0	0	0	0	1	7	7	2	11	2	0	0	0	0	0	0	0	**30**
2:00 PM	0	0	0	1	0	8	7	9	5	1	1	0	0	0	0	0	0	**32**
3:00 PM	1	0	1	0	3	6	9	7	5	1	0	0	0	0	0	0	0	**33**
4:00 PM	0	0	1	2	9	9	10	13	9	3	0	0	0	0	0	0	0	**56**
5:00 PM	0	0	0	1	5	7	7	10	6	4	0	0	0	0	0	0	0	**40**
6:00 PM	0	0	1	7	6	5	1	6	2	0	0	0	0	0	0	0	0	**28**
7:00 PM	0	0	0	3	5	5	3	1	5	1	0	0	0	0	0	0	0	**23**
8:00 PM	0	0	0	1	2	4	1	2	2	1	0	0	0	0	0	0	0	**13**
9:00 PM	0	0	0	3	1	6	2	3	2	0	0	0	0	0	0	0	0	**17**
10:00 PM	0	0	0	0	2	3	2	0	0	0	0	0	0	0	0	0	0	**7**
11:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
Total	**1**	**0**	**3**	**29**	**49**	**91**	**87**	**109**	**81**	**32**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**486**
Percent	**0.2%**	**0.0%**	**0.6%**	**6.0%**	**10.1%**	**18.7%**	**17.9%**	**22.4%**	**16.7%**	**6.6%**	**0.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.0	mph	Mean (Average) Speed	38.4	mph
85th Percentile	47.0	mph	10 mph Pace	34.6 - 44.6	mph
95th Percentile	51.1	mph	Percent in Pace	43.2	%

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Wednesday, November 30, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	2	0	1	1	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	1	1	5	1	0	0	0	0	0	0	0	0	0	0	0	**8**
2:00 AM	0	0	0	0	0	1	4	1	2	1	0	0	0	0	0	0	0	**9**
3:00 AM	0	0	0	1	2	4	2	1	0	0	0	0	0	0	0	0	0	**10**
4:00 AM	0	0	0	0	0	1	5	1	1	0	0	0	0	0	0	0	0	**8**
5:00 AM	0	0	1	0	0	3	2	2	0	0	0	0	0	0	0	0	0	**8**
6:00 AM	0	0	0	0	1	2	11	5	0	2	0	0	0	0	0	0	0	**21**
7:00 AM	0	0	0	2	1	1	4	15	7	1	1	0	0	0	0	0	0	**32**
8:00 AM	0	0	0	0	6	4	2	4	4	5	1	0	0	0	0	0	0	**26**
9:00 AM	0	0	0	0	1	4	7	7	3	6	0	0	0	0	0	0	0	**28**
10:00 AM	0	0	0	0	0	5	6	8	4	5	1	1	0	0	0	0	0	**30**
11:00 AM	0	0	0	0	1	2	7	10	7	1	1	0	0	0	0	0	0	**29**
12:00 PM	0	0	0	0	0	2	4	11	7	2	2	0	0	0	0	0	0	**28**
1:00 PM	0	0	0	0	4	9	9	12	9	3	0	0	0	0	0	0	0	**46**
2:00 PM	0	0	1	0	2	8	7	15	8	2	2	1	0	0	0	0	0	**46**
3:00 PM	0	0	0	0	6	6	6	10	4	1	0	0	0	0	0	0	0	**33**
4:00 PM	0	0	0	0	5	11	14	12	7	2	2	0	0	0	0	0	0	**53**
5:00 PM	0	0	1	2	3	10	10	7	8	1	1	0	0	0	0	0	0	**43**
6:00 PM	0	0	0	2	4	4	7	4	3	2	0	0	0	0	0	0	0	**26**
7:00 PM	0	0	0	0	1	2	7	6	4	1	0	0	0	0	0	0	0	**21**
8:00 PM	0	0	0	2	3	2	4	2	2	1	0	0	0	0	0	0	0	**16**
9:00 PM	0	0	0	0	7	4	4	4	0	1	0	0	0	0	0	0	0	**20**
10:00 PM	0	0	0	0	2	1	5	2	1	0	0	0	0	0	0	0	0	**11**
11:00 PM	0	0	0	3	5	0	2	1	0	0	0	0	0	0	0	0	0	**11**
Total	**0**	**0**	**4**	**13**	**61**	**89**	**129**	**141**	**82**	**37**	**11**	**2**	**0**	**0**	**0**	**0**	**0**	**569**
Percent	**0.0%**	**0.0%**	**0.7%**	**2.3%**	**10.7%**	**15.6%**	**22.7%**	**24.8%**	**14.4%**	**6.5%**	**1.9%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.5	mph	Mean (Average) Speed	39.3	mph
85th Percentile	47.8	mph	10 mph Pace	35.7 - 45.7	mph
95th Percentile	52.1	mph	Percent in Pace	48.5	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Thursday, December 1, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	0	2	1	0	0	1	0	0	0	0	0	0	0	**5**
1:00 AM	0	0	0	0	0	0	4	2	0	2	0	0	0	0	0	0	0	**8**
2:00 AM	0	0	0	2	2	2	1	4	0	1	0	0	0	0	0	0	0	**12**
3:00 AM	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	0	0	2	1	2	3	1	0	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	0	0	0	0	3	7	2	5	0	1	0	0	0	0	0	0	**18**
7:00 AM	0	0	0	0	2	4	4	10	6	3	1	0	0	0	0	0	0	**30**
8:00 AM	0	0	0	0	1	1	4	8	7	0	0	0	0	0	0	0	0	**21**
9:00 AM	0	0	0	0	1	1	7	6	6	0	0	0	0	0	0	0	0	**21**
10:00 AM	0	0	0	4	7	10	3	6	7	2	0	0	0	0	0	0	0	**39**
11:00 AM	0	0	0	0	0	5	6	10	6	2	1	0	0	0	0	0	0	**30**
12:00 PM	0	0	0	0	0	4	11	14	7	0	0	0	0	0	0	0	0	**36**
1:00 PM	0	0	0	3	2	3	6	11	1	4	1	0	0	0	0	0	0	**31**
2:00 PM	0	0	0	3	3	10	9	4	9	5	0	0	0	0	0	0	0	**43**
3:00 PM	0	0	1	1	6	10	7	15	8	2	0	0	0	0	0	0	0	**50**
4:00 PM	0	0	0	3	4	8	11	11	8	7	0	0	0	0	0	0	0	**52**
5:00 PM	0	0	1	1	4	3	7	13	11	1	2	0	0	0	0	0	0	**43**
6:00 PM	0	0	0	2	4	11	9	8	4	0	0	0	0	0	0	0	0	**38**
7:00 PM	0	0	0	1	3	4	6	2	1	0	0	0	0	0	0	0	0	**17**
8:00 PM	0	0	1	7	9	8	3	5	0	1	1	0	0	0	0	0	0	**35**
9:00 PM	0	0	0	0	4	0	5	7	1	0	0	0	0	0	0	0	0	**17**
10:00 PM	0	0	0	1	1	2	4	2	0	0	0	0	0	0	0	0	0	**10**
11:00 PM	0	1	2	0	3	3	0	2	0	0	0	0	0	0	0	0	0	**11**
Total	**0**	**1**	**5**	**31**	**60**	**97**	**123**	**144**	**87**	**31**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**586**
Percent	**0.0%**	**0.2%**	**0.9%**	**5.3%**	**10.2%**	**16.6%**	**21.0%**	**24.6%**	**14.8%**	**5.3%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.1	mph	Mean (Average) Speed	38.5	mph
85th Percentile	46.9	mph	10 mph Pace	37.2 - 47.2	mph
95th Percentile	51.1	mph	Percent in Pace	45.9	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Friday, December 2, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	2	2	2	1	1	0	0	0	0	0	0	0	0	**10**
1:00 AM	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	0	0	1	1	1	3	3	0	0	0	0	0	0	0	0	0	**9**
3:00 AM	0	0	2	0	1	1	0	1	0	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	2	1	2	0	1	1	0	0	0	0	0	0	0	0	**7**
5:00 AM	0	0	0	2	0	1	0	1	3	0	1	0	0	0	0	0	0	**8**
6:00 AM	0	0	0	0	0	3	2	9	3	1	0	0	0	0	0	0	0	**18**
7:00 AM	0	0	0	2	2	2	2	6	5	1	0	0	0	0	0	0	0	**20**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**2**	**9**	**7**	**13**	**11**	**23**	**14**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**82**
Percent	**0.0%**	**0.0%**	**2.4%**	**11.0%**	**8.5%**	**15.9%**	**13.4%**	**28.0%**	**17.1%**	**2.4%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.8	mph	Mean (Average) Speed	37.2	mph
85th Percentile	45.6	mph	10 mph Pace	37.4 - 47.4	mph
95th Percentile	49.4	mph	Percent in Pace	50.0	%

TJ Wethington
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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Saturday, December 3, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	1	0	0	0	0	0	0	4	2	1	0	0	0	0	0	0	0	**8**
10:00 AM	0	0	0	0	1	5	10	11	9	1	0	0	0	0	0	0	0	**37**
11:00 AM	0	0	0	2	7	7	8	9	7	5	1	0	0	0	0	0	0	**46**
12:00 PM	0	0	0	0	6	7	10	6	11	6	0	0	0	0	0	0	0	**46**
1:00 PM	0	0	0	0	2	5	10	12	9	3	0	0	0	0	0	0	0	**41**
2:00 PM	0	0	0	2	5	3	5	8	6	4	2	0	0	0	0	0	0	**35**
3:00 PM	0	1	0	2	2	4	8	5	11	1	0	0	0	0	0	0	0	**34**
4:00 PM	0	0	0	0	0	6	4	4	4	2	0	0	0	0	0	0	0	**20**
5:00 PM	0	2	5	3	2	5	12	6	2	1	0	0	0	0	0	0	0	**38**
6:00 PM	0	0	2	1	3	7	3	6	6	1	0	0	0	0	0	0	0	**29**
7:00 PM	0	0	0	3	10	5	11	8	3	0	0	0	0	0	0	0	0	**40**
8:00 PM	0	0	0	0	6	6	5	7	0	0	0	0	0	0	0	0	0	**24**
9:00 PM	0	0	1	1	2	9	7	2	2	0	0	0	0	0	0	0	0	**24**
10:00 PM	0	0	0	0	2	3	6	3	1	0	0	0	0	0	0	0	0	**15**
11:00 PM	0	0	0	0	2	7	2	3	0	0	0	0	0	0	0	0	0	**14**
Total	**1**	**3**	**8**	**14**	**50**	**79**	**101**	**94**	**73**	**25**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**451**
Percent	**0.2%**	**0.7%**	**1.8%**	**3.1%**	**11.1%**	**17.5%**	**22.4%**	**20.8%**	**16.2%**	**5.5%**	**0.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	38.7	mph	Mean (Average) Speed	38.1	mph
85th Percentile	46.8	mph	10 mph Pace	37.0 - 47.0	mph
95th Percentile	51.3	mph	Percent in Pace	44.6	%

TJ Wethington
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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Sunday, December 4, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	1	0	3	2	0	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	1	3	2	3	2	0	0	0	0	0	0	0	0	0	**11**
2:00 AM	0	0	0	0	0	1	3	0	1	0	0	0	0	0	0	0	0	**5**
3:00 AM	0	0	0	2	2	0	2	1	0	1	0	0	0	0	0	0	0	**8**
4:00 AM	0	0	0	1	0	2	2	0	0	0	0	0	0	0	0	0	0	**5**
5:00 AM	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	**5**
6:00 AM	0	0	0	0	1	1	3	0	5	0	0	0	0	0	0	0	0	**10**
7:00 AM	0	0	0	2	1	0	2	3	2	0	0	0	0	0	0	0	0	**10**
8:00 AM	0	0	0	0	3	3	6	3	0	1	1	0	0	0	0	0	0	**17**
9:00 AM	0	0	0	0	0	2	4	9	6	5	0	0	0	0	0	0	0	**26**
10:00 AM	0	0	0	0	0	3	7	15	4	3	1	0	0	0	0	0	0	**33**
11:00 AM	0	0	0	3	5	4	6	8	6	3	1	0	0	0	0	0	0	**36**
12:00 PM	0	0	0	0	1	3	8	13	9	4	0	0	0	0	0	0	0	**38**
1:00 PM	0	0	0	1	2	8	7	10	7	4	1	0	0	0	0	0	0	**40**
2:00 PM	0	0	0	0	4	5	7	8	9	6	0	0	0	0	0	0	0	**39**
3:00 PM	0	0	0	1	2	8	9	7	9	3	0	0	0	0	0	0	0	**39**
4:00 PM	0	0	0	0	2	2	9	13	5	4	0	0	0	0	0	0	0	**35**
5:00 PM	0	0	0	0	4	2	12	10	3	2	0	0	0	0	0	0	0	**33**
6:00 PM	0	0	0	6	4	4	5	4	5	0	0	0	0	0	0	0	0	**28**
7:00 PM	0	0	0	2	3	5	8	3	1	0	0	0	0	0	0	0	0	**22**
8:00 PM	0	0	0	1	1	9	3	3	1	0	0	0	0	0	0	0	0	**18**
9:00 PM	0	0	0	1	2	0	3	5	0	0	0	0	0	0	0	0	0	**11**
10:00 PM	0	0	0	0	2	1	1	5	1	0	0	0	0	0	0	0	0	**10**
11:00 PM	0	0	0	1	3	2	1	0	1	0	0	0	0	0	0	0	0	**8**
Total	**0**	**0**	**0**	**22**	**49**	**68**	**114**	**125**	**77**	**36**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**495**
Percent	**0.0%**	**0.0%**	**0.0%**	**4.4%**	**9.9%**	**13.7%**	**23.0%**	**25.3%**	**15.6%**	**7.3%**	**0.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.8	mph	Mean (Average) Speed	39.2	mph
85th Percentile	47.0	mph	10 mph Pace	34.1 - 44.1	mph
95th Percentile	51.6	mph	Percent in Pace	48.5	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	0	**6**
3:00 AM	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	**5**
5:00 AM	0	0	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	**6**
6:00 AM	0	0	0	0	1	2	5	4	2	1	0	0	0	0	0	0	0	**15**
7:00 AM	0	0	0	1	1	2	3	8	4	1	1	0	0	0	0	0	0	**21**
8:00 AM	0	0	0	0	2	2	3	4	3	2	0	0	0	0	0	0	0	**16**
9:00 AM	0	0	0	0	1	3	4	6	4	2	0	0	0	0	0	0	0	**20**
10:00 AM	0	0	0	1	1	4	5	8	5	2	1	0	0	0	0	0	0	**27**
11:00 AM	0	0	0	1	3	3	5	8	5	3	1	0	0	0	0	0	0	**29**
12:00 PM	0	0	0	0	1	4	7	8	7	2	0	0	0	0	0	0	0	**29**
1:00 PM	0	0	0	1	2	5	7	8	6	3	0	0	0	0	0	0	0	**32**
2:00 PM	0	0	0	1	2	5	6	7	6	3	1	0	0	0	0	0	0	**31**
3:00 PM	0	0	0	1	3	6	6	8	6	2	0	0	0	0	0	0	0	**32**
4:00 PM	0	0	0	1	3	6	7	9	5	3	0	0	0	0	0	0	0	**34**
5:00 PM	0	0	1	1	3	5	8	7	6	2	0	0	0	0	0	0	0	**33**
6:00 PM	0	0	0	3	4	6	4	4	3	0	0	0	0	0	0	0	0	**24**
7:00 PM	0	0	0	2	3	4	5	4	2	0	0	0	0	0	0	0	0	**20**
8:00 PM	0	0	0	2	3	4	3	3	1	1	0	0	0	0	0	0	0	**17**
9:00 PM	0	0	0	1	3	3	4	4	1	0	0	0	0	0	0	0	0	**16**
10:00 PM	0	0	0	0	2	2	3	2	0	0	0	0	0	0	0	0	0	**9**
11:00 PM	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	0	0	**7**
Total	**0**	**0**	**1**	**19**	**46**	**74**	**97**	**109**	**68**	**27**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**445**
Percent	**0.0%**	**0.0%**	**0.2%**	**4.3%**	**10.3%**	**16.6%**	**21.8%**	**24.5%**	**15.3%**	**6.1%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	39.3	mph	Mean (Average) Speed	38.6	mph
85th Percentile	47.1	mph	10 mph Pace	34.9 - 44.9	mph
95th Percentile	51.3	mph	Percent in Pace	44.7	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 12

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I-94 EB Ramp W/O Hwy 25
Date Range: 11/28/2022 - 12/4/2022
Site Code: 12

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	6	0	6	2	0	2	6	0	6	5	0	5	10	0	10	0	0	0	8	0	8	4	0	4
1:00 AM	8	0	8	7	0	7	8	0	8	8	0	8	5	0	5	0	0	0	11	0	11	8	0	8
2:00 AM	3	0	3	4	0	4	9	0	9	12	0	12	9	0	9	0	0	0	5	0	5	8	0	8
3:00 AM	1	0	1	4	0	4	10	0	10	6	0	6	5	0	5	0	0	0	8	0	8	7	0	7
4:00 AM	7	0	7	2	0	2	8	0	8	4	0	4	7	0	7	0	0	0	5	0	5	5	0	5
5:00 AM	8	0	8	6	0	6	8	0	8	9	0	9	8	0	8	0	0	0	5	0	5	8	0	8
6:00 AM	16	0	16	22	0	22	21	0	21	18	0	18	18	0	18	0	0	0	10	0	10	20	0	20
7:00 AM	29	0	29	24	0	24	32	0	32	30	0	30	20	0	20	0	0	0	10	0	10	29	0	29
8:00 AM	22	0	22	20	0	20	26	0	26	21	0	21	0	0	0	0	0	0	17	0	17	22	0	22
9:00 AM	25	0	25	30	0	30	28	0	28	21	0	21	0	0	0	8	0	8	26	0	26	26	0	26
10:00 AM	24	0	24	33	0	33	30	0	30	39	0	39	0	0	0	37	0	37	33	0	33	34	0	34
11:00 AM	38	0	38	31	0	31	29	0	29	30	0	30	0	0	0	46	0	46	36	0	36	30	0	30
12:00 PM	35	0	35	21	0	21	28	0	28	36	0	36	0	0	0	46	0	46	38	0	38	28	0	28
1:00 PM	32	0	32	30	0	30	46	0	46	31	0	31	0	0	0	41	0	41	40	0	40	36	0	36
2:00 PM	27	0	27	32	0	32	46	0	46	43	0	43	0	0	0	35	0	35	39	0	39	40	0	40
3:00 PM	32	0	32	33	0	33	33	0	33	50	0	50	0	0	0	34	0	34	39	0	39	39	0	39
4:00 PM	29	0	29	56	0	56	53	0	53	52	0	52	0	0	0	20	0	20	35	0	35	54	0	54
5:00 PM	44	0	44	40	0	40	43	0	43	43	0	43	0	0	0	38	0	38	33	0	33	42	0	42
6:00 PM	32	0	32	28	0	28	26	0	26	38	0	38	0	0	0	29	0	29	28	0	28	31	0	31
7:00 PM	27	0	27	23	0	23	21	0	21	17	0	17	0	0	0	40	0	40	22	0	22	20	0	20
8:00 PM	13	0	13	13	0	13	16	0	16	35	0	35	0	0	0	24	0	24	18	0	18	21	0	21
9:00 PM	15	0	15	17	0	17	20	0	20	17	0	17	0	0	0	24	0	24	11	0	11	18	0	18
10:00 PM	9	0	9	7	0	7	11	0	11	10	0	10	0	0	0	15	0	15	10	0	10	9	0	9
11:00 PM	9	0	9	1	0	1	11	0	11	11	0	11	0	0	0	14	0	14	8	0	8	8	0	8
Total	**491**	-	**491**	**486**	-	**486**	**569**	-	**569**	**586**	-	**586**	**82**	-	**82**	**451**	-	**451**	**495**	-	**495**	**547**	-	**547**
Percent	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I-94 EB Ramp E/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 13

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	10	4,085	2,067	46	2,045	59	0	52	902	80	14	7	60	9,427
Percent	0.1%	43.3%	21.9%	0.5%	21.7%	0.6%	0.0%	0.6%	9.6%	0.8%	0.1%	0.1%	0.6%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	10	4,085	2,067	46	2,045	59	0	52	902	80	14	7	60	9,427
Percent	0.1%	43.3%	21.9%	0.5%	21.7%	0.6%	0.0%	0.6%	9.6%	0.8%	0.1%	0.1%	0.6%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Monday, November 28, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	2	0	0	1	0	0	1	2	0	0	0	**14**
1:00 AM	0	3	1	0	2	0	0	0	3	0	0	0	0	**9**
2:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	1	**4**
3:00 AM	0	2	2	0	1	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	8	1	0	3	0	0	0	2	0	0	0	0	**14**
5:00 AM	0	23	8	0	16	0	0	0	4	0	0	0	0	**51**
6:00 AM	0	61	18	0	23	0	0	0	12	2	0	0	1	**117**
7:00 AM	0	128	50	1	37	0	0	0	9	0	0	0	0	**225**
8:00 AM	0	57	29	0	23	1	0	0	5	1	0	0	0	**116**
9:00 AM	0	42	18	0	13	0	0	0	5	5	0	0	1	**84**
10:00 AM	0	39	24	0	24	0	0	0	9	4	0	0	2	**102**
11:00 AM	0	32	15	1	25	1	0	1	4	0	0	0	0	**79**
12:00 PM	0	29	13	0	17	2	0	1	7	0	0	0	0	**69**
1:00 PM	0	24	26	0	16	0	0	0	9	0	0	0	0	**75**
2:00 PM	0	33	25	0	13	1	0	2	8	1	1	0	0	**84**
3:00 PM	0	43	14	0	19	0	0	1	2	0	0	0	0	**79**
4:00 PM	0	74	19	0	33	0	0	1	9	0	0	0	1	**137**
5:00 PM	0	63	23	0	33	1	0	0	3	1	0	0	1	**125**
6:00 PM	0	37	14	1	24	1	0	0	7	2	0	0	0	**86**
7:00 PM	0	24	8	0	13	0	0	0	5	0	0	0	0	**50**
8:00 PM	0	13	6	0	6	0	0	0	3	0	0	0	1	**29**
9:00 PM	0	12	0	0	2	0	0	0	1	1	0	0	0	**16**
10:00 PM	0	11	5	0	0	0	0	1	1	0	0	1	0	**19**
11:00 PM	0	5	0	1	0	1	0	0	2	0	0	0	0	**9**
Total	**0**	**772**	**322**	**4**	**344**	**9**	**0**	**7**	**111**	**19**	**1**	**1**	**8**	**1,598**
Percent	**0.0%**	**48.3%**	**20.2%**	**0.3%**	**21.5%**	**0.6%**	**0.0%**	**0.4%**	**6.9%**	**1.2%**	**0.1%**	**0.1%**	**0.5%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Tuesday, November 29, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	4	1	0	1	0	0	0	2	0	0	0	0	**8**
1:00 AM	0	9	0	0	0	0	0	0	1	0	0	0	0	**10**
2:00 AM	0	3	1	0	0	0	0	0	1	0	0	0	0	**5**
3:00 AM	0	4	1	0	1	0	0	0	3	0	1	0	3	**13**
4:00 AM	0	13	1	0	4	1	0	0	3	0	1	0	0	**23**
5:00 AM	0	16	5	0	13	0	0	0	10	0	0	0	0	**44**
6:00 AM	0	52	18	0	14	0	0	1	5	0	0	0	0	**90**
7:00 AM	0	127	48	0	47	1	0	0	13	1	0	0	0	**237**
8:00 AM	0	50	27	1	19	0	0	0	5	0	0	0	0	**102**
9:00 AM	0	48	22	0	15	0	0	1	10	0	0	0	2	**98**
10:00 AM	0	35	22	0	10	2	0	0	11	0	0	0	0	**80**
11:00 AM	0	35	12	0	25	2	0	1	10	2	0	0	1	**88**
12:00 PM	0	31	21	0	19	0	0	1	10	0	0	0	0	**82**
1:00 PM	0	37	19	2	17	1	0	0	7	0	0	0	0	**83**
2:00 PM	0	31	19	3	21	0	0	1	8	2	0	0	0	**85**
3:00 PM	0	45	19	0	17	1	0	3	8	1	0	0	1	**95**
4:00 PM	0	51	41	0	36	0	0	0	7	2	0	0	0	**137**
5:00 PM	1	72	38	1	33	0	0	0	11	1	0	0	1	**158**
6:00 PM	0	24	18	1	22	0	0	0	3	1	0	0	0	**69**
7:00 PM	0	17	13	1	13	1	0	1	6	0	0	0	1	**53**
8:00 PM	0	7	10	0	2	0	0	0	1	1	0	0	0	**21**
9:00 PM	0	5	4	0	2	0	0	0	4	0	0	0	0	**15**
10:00 PM	0	11	1	0	2	0	0	0	2	0	0	0	0	**16**
11:00 PM	0	7	1	0	2	0	0	0	0	0	0	0	1	**11**
Total	**1**	**734**	**362**	**9**	**335**	**9**	**0**	**9**	**141**	**11**	**2**	**0**	**10**	**1,623**
Percent	**0.1%**	**45.2%**	**22.3%**	**0.6%**	**20.6%**	**0.6%**	**0.0%**	**0.6%**	**8.7%**	**0.7%**	**0.1%**	**0.0%**	**0.6%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Wednesday, November 30, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	0	0	0	0	2	0	0	0	0	**4**
1:00 AM	0	9	1	0	0	0	0	0	4	0	0	0	0	**14**
2:00 AM	0	4	2	0	2	0	0	0	1	0	0	0	1	**10**
3:00 AM	0	1	2	0	3	0	0	0	3	0	0	0	2	**11**
4:00 AM	0	7	4	0	4	0	0	0	2	0	0	0	2	**19**
5:00 AM	0	16	8	1	16	0	0	0	7	1	0	0	0	**49**
6:00 AM	0	45	32	2	26	0	0	0	4	0	0	0	1	**110**
7:00 AM	4	104	53	4	51	2	0	0	9	0	1	0	1	**229**
8:00 AM	0	53	33	0	18	0	0	1	12	2	0	0	0	**119**
9:00 AM	0	43	22	0	19	0	0	1	10	4	0	0	0	**99**
10:00 AM	1	35	26	2	22	1	0	1	7	2	0	1	1	**99**
11:00 AM	0	23	17	0	23	0	0	1	13	1	0	0	0	**78**
12:00 PM	0	22	19	1	27	0	0	2	11	0	0	0	0	**82**
1:00 PM	0	37	24	0	22	2	0	0	9	0	0	0	0	**94**
2:00 PM	0	32	19	2	12	2	0	0	14	1	0	0	0	**82**
3:00 PM	0	38	27	0	21	1	0	0	9	1	0	0	0	**97**
4:00 PM	0	52	31	0	38	1	0	0	9	1	0	0	1	**133**
5:00 PM	0	70	37	0	36	2	0	2	12	1	1	1	0	**162**
6:00 PM	0	46	19	1	28	0	0	0	8	0	0	0	1	**103**
7:00 PM	0	19	8	0	11	0	0	0	4	0	0	0	0	**42**
8:00 PM	0	9	2	0	7	0	0	0	6	0	0	0	0	**24**
9:00 PM	0	9	4	0	3	0	0	0	4	0	0	0	0	**20**
10:00 PM	0	10	4	0	5	0	0	0	4	1	0	0	1	**25**
11:00 PM	0	6	4	0	7	0	0	0	3	0	0	0	1	**21**
Total	**5**	**692**	**398**	**13**	**401**	**11**	**0**	**8**	**167**	**15**	**2**	**2**	**12**	**1,726**
Percent	**0.3%**	**40.1%**	**23.1%**	**0.8%**	**23.2%**	**0.6%**	**0.0%**	**0.5%**	**9.7%**	**0.9%**	**0.1%**	**0.1%**	**0.7%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Thursday, December 1, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	5	0	0	0	0	0	0	0	1	0	0	2	**8**
1:00 AM	0	9	6	0	1	0	0	0	4	0	0	0	0	**20**
2:00 AM	0	4	2	0	3	0	0	0	2	0	0	0	1	**12**
3:00 AM	0	1	0	0	1	0	0	0	3	1	0	0	1	**7**
4:00 AM	0	8	4	0	4	0	0	0	5	2	0	0	2	**25**
5:00 AM	0	21	8	0	12	0	0	0	9	0	0	0	1	**51**
6:00 AM	0	44	29	1	26	0	0	0	9	1	0	0	1	**111**
7:00 AM	1	102	62	1	42	2	0	0	2	0	0	0	0	**212**
8:00 AM	0	51	24	1	30	1	0	1	5	0	0	0	0	**113**
9:00 AM	0	42	20	2	18	1	0	0	11	4	0	0	1	**99**
10:00 AM	0	32	18	1	22	2	0	0	15	1	0	0	2	**93**
11:00 AM	0	25	24	0	20	0	0	1	4	5	0	0	1	**80**
12:00 PM	0	32	24	1	18	1	0	1	6	4	0	0	0	**87**
1:00 PM	0	25	16	0	26	1	0	1	15	0	0	0	0	**84**
2:00 PM	0	33	25	2	29	0	0	0	7	0	1	0	0	**97**
3:00 PM	0	48	27	1	28	0	0	0	11	0	0	0	2	**117**
4:00 PM	2	74	38	1	36	2	0	2	10	1	1	0	1	**168**
5:00 PM	0	78	39	1	35	0	0	2	9	0	0	1	0	**165**
6:00 PM	0	43	22	0	35	1	0	0	4	0	0	0	0	**105**
7:00 PM	0	16	7	0	15	1	0	1	5	1	0	0	0	**46**
8:00 PM	0	7	9	1	11	0	0	0	4	0	0	0	0	**32**
9:00 PM	0	7	9	0	3	0	0	0	1	0	0	0	0	**20**
10:00 PM	0	10	8	0	2	1	0	0	0	0	0	0	1	**22**
11:00 PM	0	7	1	0	2	0	0	0	2	0	0	1	0	**13**
Total	**3**	**724**	**422**	**13**	**419**	**13**	**0**	**9**	**143**	**21**	**2**	**2**	**16**	**1,787**
Percent	**0.2%**	**40.5%**	**23.6%**	**0.7%**	**23.4%**	**0.7%**	**0.0%**	**0.5%**	**8.0%**	**1.2%**	**0.1%**	**0.1%**	**0.9%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Friday, December 2, 2022
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	0	0	1	0	0	0	3	0	0	0	0	**6**
1:00 AM	0	8	4	0	0	0	0	0	2	0	1	0	0	**15**
2:00 AM	0	5	1	0	2	0	0	0	1	0	0	0	0	**9**
3:00 AM	0	2	0	0	2	0	0	0	3	0	1	1	0	**9**
4:00 AM	0	7	3	0	1	0	0	0	6	1	0	0	1	**19**
5:00 AM	0	21	8	0	11	0	0	0	2	0	0	0	0	**42**
6:00 AM	0	58	24	0	20	2	0	2	8	1	1	0	0	**116**
7:00 AM	0	91	41	0	49	0	0	0	16	0	0	0	0	**197**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**194**	**81**	**0**	**86**	**2**	**0**	**2**	**41**	**2**	**3**	**1**	**1**	**413**
Percent	**0.0%**	**47.0%**	**19.6%**	**0.0%**	**20.8%**	**0.5%**	**0.0%**	**0.5%**	**9.9%**	**0.5%**	**0.7%**	**0.2%**	**0.2%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Saturday, December 3, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	20	10	0	3	0	0	0	2	0	0	0	0	**35**
10:00 AM	0	59	29	2	21	2	0	0	15	0	0	0	1	**129**
11:00 AM	0	45	30	0	19	0	0	0	11	0	0	0	1	**106**
12:00 PM	0	48	24	0	23	1	0	3	14	0	0	0	0	**113**
1:00 PM	0	51	18	0	13	1	0	0	15	0	0	0	0	**98**
2:00 PM	0	38	20	1	17	0	0	1	11	0	0	0	0	**88**
3:00 PM	0	41	18	0	25	2	0	0	13	1	1	0	1	**102**
4:00 PM	0	43	19	0	19	0	0	0	6	0	1	0	0	**88**
5:00 PM	0	37	15	0	20	1	0	0	7	0	0	0	0	**80**
6:00 PM	0	26	13	0	19	1	0	0	5	0	0	0	0	**64**
7:00 PM	0	23	3	1	14	0	0	0	5	1	0	0	0	**47**
8:00 PM	1	8	1	0	8	1	0	0	7	0	0	0	1	**27**
9:00 PM	0	9	3	0	4	0	0	0	6	0	1	0	0	**23**
10:00 PM	0	9	4	0	5	0	0	0	2	0	0	0	0	**20**
11:00 PM	0	7	4	0	4	0	0	0	6	0	0	0	0	**21**
Total	**1**	**464**	**211**	**4**	**214**	**9**	**0**	**4**	**125**	**2**	**3**	**0**	**4**	**1,041**
Percent	**0.1%**	**44.6%**	**20.3%**	**0.4%**	**20.6%**	**0.9%**	**0.0%**	**0.4%**	**12.0%**	**0.2%**	**0.3%**	**0.0%**	**0.4%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Sunday, December 4, 2022
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	3	5	0	4	0	0	0	0	0	0	0	0	**12**
1:00 AM	0	4	0	0	3	0	0	0	3	0	0	0	0	**10**
2:00 AM	0	5	2	0	1	1	0	0	5	0	0	0	0	**14**
3:00 AM	0	1	4	0	1	0	0	0	4	0	0	0	0	**10**
4:00 AM	0	8	1	0	1	0	0	0	3	0	0	0	0	**13**
5:00 AM	0	10	4	0	2	1	0	0	5	0	1	0	2	**25**
6:00 AM	0	12	3	0	3	0	0	0	10	1	0	0	0	**29**
7:00 AM	0	20	10	0	3	0	0	0	13	0	0	0	1	**47**
8:00 AM	0	20	20	1	11	0	0	1	12	1	0	0	1	**67**
9:00 AM	0	40	16	0	15	0	0	0	7	0	0	0	0	**78**
10:00 AM	0	46	18	0	21	0	0	0	15	0	0	0	0	**100**
11:00 AM	0	45	23	1	22	1	0	2	16	1	0	0	0	**111**
12:00 PM	0	48	17	0	27	1	0	0	10	0	0	1	1	**105**
1:00 PM	0	40	20	0	21	0	0	1	13	1	0	0	1	**97**
2:00 PM	0	43	28	0	14	0	0	2	12	1	0	0	0	**100**
3:00 PM	0	30	22	0	15	1	0	3	7	0	0	0	1	**79**
4:00 PM	0	25	17	0	28	0	0	1	8	2	0	0	1	**82**
5:00 PM	0	41	22	0	16	0	0	1	5	1	0	0	1	**87**
6:00 PM	0	17	14	0	19	1	0	1	4	0	0	0	0	**56**
7:00 PM	0	22	12	0	10	0	0	1	3	2	0	0	0	**50**
8:00 PM	0	12	7	0	5	0	0	0	4	0	0	0	0	**28**
9:00 PM	0	6	5	0	2	0	0	0	6	0	0	0	0	**19**
10:00 PM	0	5	0	1	0	0	0	0	2	0	0	0	0	**8**
11:00 PM	0	2	1	0	2	0	0	0	7	0	0	0	0	**12**
Total	**0**	**505**	**271**	**3**	**246**	**6**	**0**	**13**	**174**	**10**	**1**	**1**	**9**	**1,239**
Percent	**0.0%**	**40.8%**	**21.9%**	**0.2%**	**19.9%**	**0.5%**	**0.0%**	**1.0%**	**14.0%**	**0.8%**	**0.1%**	**0.1%**	**0.7%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

idax DATA SOLUTIONS

Total Study Average
Eastbound

	FHWA Vehicle Classification													Total
Time	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**Volume**
12:00 AM	0	3	1	0	1	0	0	0	1	0	0	0	0	**6**
1:00 AM	0	6	2	0	1	0	0	0	2	0	0	0	0	**11**
2:00 AM	0	3	1	0	1	0	0	0	1	0	0	0	0	**6**
3:00 AM	0	2	1	0	1	0	0	0	2	0	0	0	1	**7**
4:00 AM	0	7	2	0	2	0	0	0	3	0	0	0	1	**15**
5:00 AM	0	15	6	0	10	0	0	0	5	0	0	0	0	**36**
6:00 AM	0	39	18	0	16	0	0	0	7	1	0	0	0	**81**
7:00 AM	1	82	38	1	33	1	0	0	9	0	0	0	0	**165**
8:00 AM	0	33	19	0	14	0	0	0	6	1	0	0	0	**73**
9:00 AM	0	34	15	0	12	0	0	0	6	2	0	0	1	**70**
10:00 AM	0	35	20	1	17	1	0	0	10	1	0	0	1	**86**
11:00 AM	0	29	17	0	19	1	0	1	8	1	0	0	0	**76**
12:00 PM	0	30	17	0	19	1	0	1	8	1	0	0	0	**77**
1:00 PM	0	31	18	0	16	1	0	0	10	0	0	0	0	**76**
2:00 PM	0	30	19	1	15	0	0	1	9	1	0	0	0	**76**
3:00 PM	0	35	18	0	18	1	0	1	7	0	0	0	1	**81**
4:00 PM	0	46	24	0	27	0	0	1	7	1	0	0	1	**107**
5:00 PM	0	52	25	0	25	1	0	1	7	1	0	0	0	**112**
6:00 PM	0	28	14	0	21	1	0	0	4	0	0	0	0	**68**
7:00 PM	0	17	7	0	11	0	0	0	4	1	0	0	0	**40**
8:00 PM	0	8	5	0	6	0	0	0	4	0	0	0	0	**23**
9:00 PM	0	7	4	0	2	0	0	0	3	0	0	0	0	**16**
10:00 PM	0	8	3	0	2	0	0	0	2	0	0	0	0	**15**
11:00 PM	0	5	2	0	2	0	0	0	3	0	0	0	0	**12**
Total	**1**	**585**	**296**	**3**	**291**	**8**	**0**	**6**	**128**	**11**	**0**	**0**	**6**	**1,335**
Percent	**0.1%**	**43.8%**	**22.2%**	**0.2%**	**21.8%**	**0.6%**	**0.0%**	**0.4%**	**9.6%**	**0.8%**	**0.0%**	**0.0%**	**0.4%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

idax DATA SOLUTIONS

3-Day (Tuesday - Thursday) Average
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	4	0	0	0	0	0	0	1	0	0	0	1	**7**
1:00 AM	0	9	2	0	0	0	0	0	3	0	0	0	0	**15**
2:00 AM	0	4	2	0	2	0	0	0	1	0	0	0	1	**9**
3:00 AM	0	2	1	0	2	0	0	0	3	0	0	0	2	**10**
4:00 AM	0	9	3	0	4	0	0	0	3	1	0	0	1	**22**
5:00 AM	0	18	7	0	14	0	0	0	9	0	0	0	0	**48**
6:00 AM	0	47	26	1	22	0	0	0	6	0	0	0	1	**104**
7:00 AM	2	111	54	2	47	2	0	0	8	0	0	0	0	**226**
8:00 AM	0	51	28	1	22	0	0	1	7	1	0	0	0	**111**
9:00 AM	0	44	21	1	17	0	0	1	10	3	0	0	1	**99**
10:00 AM	0	34	22	1	18	2	0	0	11	1	0	0	1	**91**
11:00 AM	0	28	18	0	23	1	0	1	9	3	0	0	1	**82**
12:00 PM	0	28	21	1	21	0	0	1	9	1	0	0	0	**84**
1:00 PM	0	33	20	1	22	1	0	0	10	0	0	0	0	**87**
2:00 PM	0	32	21	2	21	1	0	0	10	1	0	0	0	**88**
3:00 PM	0	44	24	0	22	1	0	1	9	1	0	0	1	**103**
4:00 PM	1	59	37	0	37	1	0	1	9	1	0	0	1	**146**
5:00 PM	0	73	38	1	35	1	0	1	11	1	0	1	0	**162**
6:00 PM	0	38	20	1	28	0	0	0	5	0	0	0	0	**92**
7:00 PM	0	17	9	0	13	1	0	1	5	0	0	0	0	**47**
8:00 PM	0	8	7	0	7	0	0	0	4	0	0	0	0	**26**
9:00 PM	0	7	6	0	3	0	0	0	3	0	0	0	0	**18**
10:00 PM	0	10	4	0	3	0	0	0	2	0	0	0	1	**21**
11:00 PM	0	7	2	0	4	0	0	0	2	0	0	0	1	**15**
Total	**3**	**717**	**394**	**12**	**385**	**11**	**0**	**9**	**150**	**16**	**2**	**1**	**13**	**1,712**
Percent	**0.2%**	**41.9%**	**23.0%**	**0.7%**	**22.5%**	**0.6%**	**0.0%**	**0.5%**	**8.8%**	**0.9%**	**0.1%**	**0.1%**	**0.7%**	

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Vehicle Speed Report Summary

Location: I-94 EB Ramp E/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 13

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	3	2	0	16	84	399	900	1,324	2,523	2,575	1,161	318	90	26	6	0	0	9,427
Percent	0.0%	0.0%	0.0%	0.2%	0.9%	4.2%	9.5%	14.0%	26.8%	27.3%	12.3%	3.4%	1.0%	0.3%	0.1%	0.0%	0.0%	100%
Westbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	2	0	16	84	399	900	1,324	2,523	2,575	1,161	318	90	26	6	0	0	9,427
Percent	0.0%	0.0%	0.0%	0.2%	0.9%	4.2%	9.5%	14.0%	26.8%	27.3%	12.3%	3.4%	1.0%	0.3%	0.1%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	49.1	mph	Mean (Average) Speed	48.4	mph
85th Percentile	55.5	mph	10 mph Pace	45.2 - 55.2	mph
95th Percentile	59.7	mph	Percent in Pace	54.0	%
Westbound			**Westbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

TJ Wethington
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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Monday, November 28, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	1	0	0	0	2	0	2	2	4	1	2	0	0	0	0	0	0	**14**
1:00 AM	0	0	0	0	0	1	2	2	1	2	1	0	0	0	0	0	0	**9**
2:00 AM	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	**4**
3:00 AM	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	0	0	2	3	3	4	2	0	0	0	0	0	0	**14**
5:00 AM	0	0	0	0	0	2	5	4	16	20	4	0	0	0	0	0	0	**51**
6:00 AM	0	0	0	0	7	7	12	19	29	25	16	1	1	0	0	0	0	**117**
7:00 AM	0	0	0	0	0	2	12	28	66	84	26	6	1	0	0	0	0	**225**
8:00 AM	0	0	0	1	1	1	7	13	39	33	18	3	0	0	0	0	0	**116**
9:00 AM	0	0	0	1	1	9	12	16	29	12	2	1	1	0	0	0	0	**84**
10:00 AM	0	0	0	2	2	5	14	20	23	25	8	1	2	0	0	0	0	**102**
11:00 AM	0	0	0	0	0	2	9	9	22	26	11	0	0	0	0	0	0	**79**
12:00 PM	0	0	0	0	0	3	8	9	18	19	10	2	0	0	0	0	0	**69**
1:00 PM	0	0	0	0	0	4	5	10	21	20	9	4	2	0	0	0	0	**75**
2:00 PM	0	0	0	0	1	4	9	11	19	23	9	6	2	0	0	0	0	**84**
3:00 PM	0	0	0	0	1	0	0	15	19	32	8	4	0	0	0	0	0	**79**
4:00 PM	0	0	0	2	1	9	7	13	32	43	18	11	1	0	0	0	0	**137**
5:00 PM	0	0	0	0	0	1	4	11	37	41	20	9	2	0	0	0	0	**125**
6:00 PM	0	0	0	0	0	3	9	18	19	25	10	1	1	0	0	0	0	**86**
7:00 PM	0	0	0	0	1	2	2	8	14	15	5	3	0	0	0	0	0	**50**
8:00 PM	0	0	0	0	2	3	2	4	8	6	2	0	1	1	0	0	0	**29**
9:00 PM	0	0	0	0	1	0	1	2	5	4	2	0	1	0	0	0	0	**16**
10:00 PM	0	0	0	0	0	1	2	2	6	5	1	1	1	0	0	0	0	**19**
11:00 PM	0	0	0	0	0	0	0	2	3	3	1	0	0	0	0	0	0	**9**
Total	**1**	**0**	**0**	**6**	**20**	**60**	**128**	**225**	**434**	**469**	**185**	**53**	**16**	**1**	**0**	**0**	**0**	**1,598**
Percent	**0.1%**	**0.0%**	**0.0%**	**0.4%**	**1.3%**	**3.8%**	**8.0%**	**14.1%**	**27.2%**	**29.3%**	**11.6%**	**3.3%**	**1.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.3	mph	Mean (Average) Speed	48.4	mph
85th Percentile	55.3	mph	10 mph Pace	45.1 - 55.1	mph
95th Percentile	59.5	mph	Percent in Pace	56.5	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Tuesday, November 29, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	2	0	2	4	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	0	0	0	0	1	5	2	2	0	0	0	0	0	0	**10**
2:00 AM	0	0	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	**5**
3:00 AM	0	0	0	0	0	2	4	4	1	1	1	0	0	0	0	0	0	**13**
4:00 AM	0	0	0	0	0	2	1	6	8	5	1	0	0	0	0	0	0	**23**
5:00 AM	0	0	0	0	0	6	4	8	12	9	5	0	0	0	0	0	0	**44**
6:00 AM	0	0	0	0	0	2	3	12	31	26	11	2	3	0	0	0	0	**90**
7:00 AM	0	0	0	1	2	8	18	27	76	70	26	6	3	0	0	0	0	**237**
8:00 AM	0	0	0	0	0	1	7	10	37	25	19	1	2	0	0	0	0	**102**
9:00 AM	0	0	0	0	0	5	9	17	34	20	8	3	1	1	0	0	0	**98**
10:00 AM	0	0	0	0	0	7	11	18	14	16	10	4	0	0	0	0	0	**80**
11:00 AM	0	0	0	0	0	3	14	7	30	20	13	0	1	0	0	0	0	**88**
12:00 PM	0	0	0	0	0	3	12	14	19	18	12	2	2	0	0	0	0	**82**
1:00 PM	0	0	0	0	0	2	8	15	29	19	4	4	1	1	0	0	0	**83**
2:00 PM	0	0	0	2	0	2	13	18	24	19	4	3	0	0	0	0	0	**85**
3:00 PM	0	0	0	0	1	3	11	13	23	25	13	4	1	1	0	0	0	**95**
4:00 PM	0	0	0	0	0	3	10	20	26	43	26	5	3	0	1	0	0	**137**
5:00 PM	0	0	0	0	1	2	12	12	32	54	33	10	2	0	0	0	0	**158**
6:00 PM	0	0	0	0	0	1	4	9	17	27	9	2	0	0	0	0	0	**69**
7:00 PM	0	0	0	0	2	3	7	14	13	6	5	2	1	0	0	0	0	**53**
8:00 PM	0	0	0	0	0	1	2	1	7	7	0	1	1	1	0	0	0	**21**
9:00 PM	0	0	0	0	0	2	1	2	5	5	0	0	0	0	0	0	0	**15**
10:00 PM	0	0	0	0	0	0	2	3	5	2	3	0	0	1	0	0	0	**16**
11:00 PM	0	0	0	0	0	0	0	1	5	3	1	1	0	0	0	0	0	**11**
Total	**0**	**0**	**0**	**3**	**6**	**58**	**156**	**233**	**456**	**426**	**207**	**51**	**21**	**5**	**1**	**0**	**0**	**1,623**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.4%**	**3.6%**	**9.6%**	**14.4%**	**28.1%**	**26.2%**	**12.8%**	**3.1%**	**1.3%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.1	mph	Mean (Average) Speed	48.6	mph
85th Percentile	55.7	mph	10 mph Pace	44.4 - 54.4	mph
95th Percentile	59.7	mph	Percent in Pace	54.8	%

TJ Wethington
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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Wednesday, November 30, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	0	1	2	1	2	7	1	0	0	0	0	0	0	**14**
2:00 AM	0	0	0	0	0	0	1	1	4	2	2	0	0	0	0	0	0	**10**
3:00 AM	0	0	0	0	0	2	4	2	1	1	1	0	0	0	0	0	0	**11**
4:00 AM	0	0	0	0	0	0	3	3	8	2	2	1	0	0	0	0	0	**19**
5:00 AM	0	0	0	0	0	2	5	8	14	13	6	1	0	0	0	0	0	**49**
6:00 AM	0	0	0	0	0	4	8	4	28	44	16	5	1	0	0	0	0	**110**
7:00 AM	0	0	0	0	0	4	9	21	60	89	33	11	1	1	0	0	0	**229**
8:00 AM	0	0	0	0	1	6	7	15	31	32	23	3	1	0	0	0	0	**119**
9:00 AM	0	0	0	0	1	5	14	15	25	20	14	3	0	2	0	0	0	**99**
10:00 AM	0	0	0	0	4	2	6	14	29	25	10	6	1	2	0	0	0	**99**
11:00 AM	0	0	0	0	1	2	13	14	16	18	11	2	0	1	0	0	0	**78**
12:00 PM	0	0	0	0	0	7	13	10	21	15	10	5	1	0	0	0	0	**82**
1:00 PM	0	0	0	0	0	1	6	14	22	29	15	5	1	1	0	0	0	**94**
2:00 PM	0	0	0	0	1	4	7	16	20	17	11	2	3	1	0	0	0	**82**
3:00 PM	0	0	0	2	0	0	10	10	18	33	19	3	2	0	0	0	0	**97**
4:00 PM	0	0	0	0	2	3	12	8	26	48	21	8	5	0	0	0	0	**133**
5:00 PM	0	0	0	0	0	1	15	18	40	53	21	12	1	1	0	0	0	**162**
6:00 PM	0	2	0	0	1	4	6	15	22	33	13	4	3	0	0	0	0	**103**
7:00 PM	0	0	0	0	0	2	2	11	10	9	5	0	3	0	0	0	0	**42**
8:00 PM	0	0	0	0	0	1	3	6	5	4	2	3	0	0	0	0	0	**24**
9:00 PM	0	0	0	0	0	2	1	5	3	2	6	1	0	0	0	0	0	**20**
10:00 PM	0	0	0	1	0	1	4	6	6	2	3	1	0	0	1	0	0	**25**
11:00 PM	0	0	0	0	0	2	1	4	6	3	5	0	0	0	0	0	0	**21**
Total	**0**	**2**	**0**	**4**	**12**	**56**	**152**	**222**	**417**	**502**	**250**	**76**	**23**	**9**	**1**	**0**	**0**	**1,726**
Percent	**0.0%**	**0.1%**	**0.0%**	**0.2%**	**0.7%**	**3.2%**	**8.8%**	**12.9%**	**24.2%**	**29.1%**	**14.5%**	**4.4%**	**1.3%**	**0.5%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.9	mph	Mean (Average) Speed	49.3	mph
85th Percentile	56.5	mph	10 mph Pace	45.7 - 55.7	mph
95th Percentile	61.1	mph	Percent in Pace	53.6	%

TJ Wethington
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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Thursday, December 1, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	2	0	3	1	1	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	0	0	2	1	2	3	10	1	1	0	0	0	0	0	**20**
2:00 AM	0	0	0	0	0	1	0	3	4	2	1	1	0	0	0	0	0	**12**
3:00 AM	0	0	0	0	0	1	2	3	1	0	0	0	0	0	0	0	0	**7**
4:00 AM	0	0	0	0	0	1	3	11	7	3	0	0	0	0	0	0	0	**25**
5:00 AM	0	0	0	0	1	4	7	3	19	12	3	1	1	0	0	0	0	**51**
6:00 AM	0	0	0	0	0	3	8	11	31	38	18	1	0	1	0	0	0	**111**
7:00 AM	0	0	0	0	0	3	7	9	54	72	50	11	6	0	0	0	0	**212**
8:00 AM	0	0	0	0	1	1	3	17	29	37	22	3	0	0	0	0	0	**113**
9:00 AM	0	0	0	0	0	5	11	13	35	24	9	1	1	0	0	0	0	**99**
10:00 AM	0	0	0	1	2	6	10	14	24	24	11	1	0	0	0	0	0	**93**
11:00 AM	0	0	0	0	0	1	10	11	20	24	8	2	3	1	0	0	0	**80**
12:00 PM	0	0	0	0	0	4	12	10	25	21	9	6	0	0	0	0	0	**87**
1:00 PM	0	0	0	0	0	5	10	14	20	17	14	3	0	1	0	0	0	**84**
2:00 PM	0	0	0	0	0	2	5	12	32	27	12	6	0	1	0	0	0	**97**
3:00 PM	0	0	0	0	2	2	9	13	29	38	14	9	0	0	1	0	0	**117**
4:00 PM	2	0	0	0	1	9	19	18	32	42	36	7	2	0	0	0	0	**168**
5:00 PM	0	0	0	0	0	2	12	27	47	44	23	9	0	1	0	0	0	**165**
6:00 PM	0	0	0	0	0	1	7	10	32	33	20	2	0	0	0	0	0	**105**
7:00 PM	0	0	0	0	0	0	6	10	15	11	3	1	0	0	0	0	0	**46**
8:00 PM	0	0	0	0	0	1	4	3	13	5	4	0	1	1	0	0	0	**32**
9:00 PM	0	0	0	0	0	1	4	8	5	0	0	2	0	0	0	0	0	**20**
10:00 PM	0	0	0	0	0	0	3	1	6	7	3	1	1	0	0	0	0	**22**
11:00 PM	0	0	0	0	0	0	2	4	3	3	1	0	0	0	0	0	0	**13**
Total	**2**	**0**	**0**	**1**	**7**	**56**	**157**	**227**	**489**	**495**	**263**	**68**	**15**	**6**	**1**	**0**	**0**	**1,787**
Percent	**0.1%**	**0.0%**	**0.0%**	**0.1%**	**0.4%**	**3.1%**	**8.8%**	**12.7%**	**27.4%**	**27.7%**	**14.7%**	**3.8%**	**0.8%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.7	mph	Mean (Average) Speed	49.1	mph
85th Percentile	56.1	mph	10 mph Pace	45.9 - 55.9	mph
95th Percentile	60.1	mph	Percent in Pace	55.7	%

TJ Wethington
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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

idax DATA SOLUTIONS

Friday, December 2, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	1	2	1	1	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	0	0	1	1	5	6	2	0	0	0	0	0	0	**15**
2:00 AM	0	0	0	0	1	0	0	2	3	2	1	0	0	0	0	0	0	**9**
3:00 AM	0	0	0	0	1	0	3	2	0	1	2	0	0	0	0	0	0	**9**
4:00 AM	0	0	0	0	0	3	6	3	3	3	1	0	0	0	0	0	0	**19**
5:00 AM	0	0	0	0	0	0	4	6	16	12	3	0	0	0	1	0	0	**42**
6:00 AM	0	0	0	0	0	3	12	13	36	33	15	3	1	0	0	0	0	**116**
7:00 AM	0	0	0	0	1	3	16	30	63	61	17	5	1	0	0	0	0	**197**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**3**	**10**	**43**	**59**	**127**	**119**	**41**	**8**	**2**	**0**	**1**	**0**	**0**	**413**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.7%**	**2.4%**	**10.4%**	**14.3%**	**30.8%**	**28.8%**	**9.9%**	**1.9%**	**0.5%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	48.8	mph	Mean (Average) Speed	48.2	mph
85th Percentile	54.6	mph	10 mph Pace	44.9 - 54.9	mph
95th Percentile	58.3	mph	Percent in Pace	60.1	%

TJ Wethington
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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Saturday, December 3, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	2	0	6	14	9	4	0	0	0	0	0	0	**35**
10:00 AM	0	0	0	0	1	16	14	30	34	26	7	1	0	0	0	0	0	**129**
11:00 AM	0	0	0	0	0	11	8	14	40	28	5	0	0	0	0	0	0	**106**
12:00 PM	0	0	0	0	2	9	7	23	32	34	4	2	0	0	0	0	0	**113**
1:00 PM	0	0	0	0	2	6	13	18	25	22	9	2	0	0	1	0	0	**98**
2:00 PM	0	0	0	0	3	4	8	17	29	18	6	3	0	0	0	0	0	**88**
3:00 PM	0	0	0	0	1	7	15	13	24	30	5	6	1	0	0	0	0	**102**
4:00 PM	0	0	0	0	0	2	7	9	31	24	12	2	1	0	0	0	0	**88**
5:00 PM	0	0	0	0	0	4	6	14	27	16	8	2	3	0	0	0	0	**80**
6:00 PM	0	0	0	0	0	5	6	10	21	14	6	2	0	0	0	0	0	**64**
7:00 PM	0	0	0	0	0	5	8	5	17	11	1	0	0	0	0	0	0	**47**
8:00 PM	0	0	0	1	1	2	7	2	9	2	3	0	0	0	0	0	0	**27**
9:00 PM	0	0	0	0	0	4	3	2	6	7	1	0	0	0	0	0	0	**23**
10:00 PM	0	0	0	1	0	0	3	4	5	5	2	0	0	0	0	0	0	**20**
11:00 PM	0	0	0	0	0	2	4	5	6	3	0	1	0	0	0	0	0	**21**
Total	**0**	**0**	**0**	**2**	**10**	**79**	**109**	**172**	**320**	**249**	**73**	**21**	**5**	**0**	**1**	**0**	**0**	**1,041**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**1.0%**	**7.6%**	**10.5%**	**16.5%**	**30.7%**	**23.9%**	**7.0%**	**2.0%**	**0.5%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	47.4	mph	Mean (Average) Speed	46.6	mph
85th Percentile	53.5	mph	10 mph Pace	43.6 - 53.6	mph
95th Percentile	57.6	mph	Percent in Pace	55.4	%

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Sunday, December 4, 2022
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	2	1	5	3	0	0	0	0	0	0	**12**
1:00 AM	0	0	0	0	0	1	1	3	1	3	1	0	0	0	0	0	0	**10**
2:00 AM	0	0	0	0	5	1	1	5	1	1	0	0	0	0	0	0	0	**14**
3:00 AM	0	0	0	0	0	4	3	1	0	1	1	0	0	0	0	0	0	**10**
4:00 AM	0	0	0	0	2	0	1	2	4	3	1	0	0	0	0	0	0	**13**
5:00 AM	0	0	0	0	3	3	5	7	6	1	0	0	0	0	0	0	0	**25**
6:00 AM	0	0	0	0	0	9	3	2	5	7	2	0	0	1	0	0	0	**29**
7:00 AM	0	0	0	0	1	4	11	6	15	8	1	1	0	0	0	0	0	**47**
8:00 AM	0	0	0	0	5	12	9	10	12	16	3	0	0	0	0	0	0	**67**
9:00 AM	0	0	0	0	1	2	7	13	18	23	10	3	1	0	0	0	0	**78**
10:00 AM	0	0	0	0	2	3	12	14	21	23	13	10	1	0	1	0	0	**100**
11:00 AM	0	0	0	0	0	12	13	19	26	27	12	1	1	0	0	0	0	**111**
12:00 PM	0	0	0	0	3	7	14	15	24	31	9	1	1	0	0	0	0	**105**
1:00 PM	0	0	0	0	2	3	12	12	30	21	10	6	1	0	0	0	0	**97**
2:00 PM	0	0	0	0	0	1	16	11	22	26	20	3	0	1	0	0	0	**100**
3:00 PM	0	0	0	0	0	3	6	9	15	33	9	4	0	0	0	0	0	**79**
4:00 PM	0	0	0	0	0	3	8	10	9	30	18	4	0	0	0	0	0	**82**
5:00 PM	0	0	0	0	0	2	9	20	22	19	11	1	3	0	0	0	0	**87**
6:00 PM	0	0	0	0	0	3	5	11	14	15	6	2	0	0	0	0	0	**56**
7:00 PM	0	0	0	0	2	2	2	7	18	9	5	4	0	1	0	0	0	**50**
8:00 PM	0	0	0	0	0	0	4	2	9	8	3	0	0	2	0	0	0	**28**
9:00 PM	0	0	0	0	0	3	4	3	4	3	2	0	0	0	0	0	0	**19**
10:00 PM	0	0	0	0	0	0	2	2	3	0	1	0	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	0	2	6	0	0	2	1	1	0	0	0	0	0	**12**
Total	**0**	**0**	**0**	**0**	**26**	**80**	**155**	**186**	**280**	**315**	**142**	**41**	**8**	**5**	**1**	**0**	**0**	**1,239**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.1%**	**6.5%**	**12.5%**	**15.0%**	**22.6%**	**25.4%**	**11.5%**	**3.3%**	**0.6%**	**0.4%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	48.3	mph	Mean (Average) Speed	47.3	mph
85th Percentile	55.1	mph	10 mph Pace	45.5 - 55.5	mph
95th Percentile	59.5	mph	Percent in Pace	48.5	%

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	1	1	2	2	1	0	0	0	0	0	0	**7**
1:00 AM	0	0	0	0	0	1	1	1	2	4	1	0	0	0	0	0	0	**10**
2:00 AM	0	0	0	0	1	0	1	2	2	1	1	0	0	0	0	0	0	**8**
3:00 AM	0	0	0	0	0	1	2	2	1	1	1	0	0	0	0	0	0	**8**
4:00 AM	0	0	0	0	0	1	2	4	5	3	1	0	0	0	0	0	0	**16**
5:00 AM	0	0	0	0	1	2	4	5	12	10	3	0	0	0	0	0	0	**37**
6:00 AM	0	0	0	0	1	4	7	9	23	25	11	2	1	0	0	0	0	**83**
7:00 AM	0	0	0	0	1	3	10	17	48	55	22	6	2	0	0	0	0	**164**
8:00 AM	0	0	0	0	1	3	5	9	21	20	12	1	0	0	0	0	0	**72**
9:00 AM	0	0	0	0	0	4	8	11	22	15	7	2	1	0	0	0	0	**70**
10:00 AM	0	0	0	0	2	6	10	16	21	20	8	3	1	0	0	0	0	**87**
11:00 AM	0	0	0	0	0	4	10	11	22	20	9	1	1	0	0	0	0	**78**
12:00 PM	0	0	0	0	1	5	9	12	20	20	8	3	1	0	0	0	0	**79**
1:00 PM	0	0	0	0	1	3	8	12	21	18	9	3	1	0	0	0	0	**76**
2:00 PM	0	0	0	0	1	2	8	12	21	19	9	3	1	0	0	0	0	**76**
3:00 PM	0	0	0	0	1	2	7	10	18	27	10	4	1	0	0	0	0	**80**
4:00 PM	0	0	0	0	1	4	9	11	22	33	19	5	2	0	0	0	0	**106**
5:00 PM	0	0	0	0	0	2	8	15	29	32	17	6	2	0	0	0	0	**111**
6:00 PM	0	0	0	0	0	2	5	10	18	21	9	2	1	0	0	0	0	**68**
7:00 PM	0	0	0	0	1	2	4	8	12	9	3	1	1	0	0	0	0	**41**
8:00 PM	0	0	0	0	0	1	3	3	7	5	2	1	0	1	0	0	0	**23**
9:00 PM	0	0	0	0	0	2	2	3	4	3	2	0	0	0	0	0	0	**16**
10:00 PM	0	0	0	0	0	0	2	3	4	3	2	0	0	0	0	0	0	**14**
11:00 PM	0	0	0	0	0	1	2	2	3	2	1	0	0	0	0	0	0	**11**
Total	**0**	**0**	**0**	**0**	**13**	**55**	**128**	**189**	**360**	**368**	**168**	**43**	**16**	**1**	**0**	**0**	**0**	**1,341**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.0%**	**4.1%**	**9.5%**	**14.1%**	**26.8%**	**27.4%**	**12.5%**	**3.2%**	**1.2%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	49.1	mph	Mean (Average) Speed	48.4	mph
85th Percentile	55.5	mph	10 mph Pace	45.2 - 55.2	mph
95th Percentile	59.7	mph	Percent in Pace	54.0	%

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 13

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I-94 EB Ramp E/O Hwy 25
Date Range: 11/28/2022 - 12/4/2022
Site Code: 13

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	14	0	14	8	0	8	4	0	4	8	0	8	6	0	6	0	0	0	12	0	12	7	0	7
1:00 AM	9	0	9	10	0	10	14	0	14	20	0	20	15	0	15	0	0	0	10	0	10	15	0	15
2:00 AM	4	0	4	5	0	5	10	0	10	12	0	12	9	0	9	0	0	0	14	0	14	9	0	9
3:00 AM	5	0	5	13	0	13	11	0	11	7	0	7	9	0	9	0	0	0	10	0	10	10	0	10
4:00 AM	14	0	14	23	0	23	19	0	19	25	0	25	19	0	19	0	0	0	13	0	13	22	0	22
5:00 AM	51	0	51	44	0	44	49	0	49	51	0	51	42	0	42	0	0	0	25	0	25	48	0	48
6:00 AM	117	0	117	90	0	90	110	0	110	111	0	111	116	0	116	0	0	0	29	0	29	104	0	104
7:00 AM	225	0	225	237	0	237	229	0	229	212	0	212	197	0	197	0	0	0	47	0	47	226	0	226
8:00 AM	116	0	116	102	0	102	119	0	119	113	0	113	0	0	0	0	0	0	67	0	67	111	0	111
9:00 AM	84	0	84	98	0	98	99	0	99	99	0	99	0	0	0	35	0	35	78	0	78	99	0	99
10:00 AM	102	0	102	80	0	80	99	0	99	93	0	93	0	0	0	129	0	129	100	0	100	91	0	91
11:00 AM	79	0	79	88	0	88	78	0	78	80	0	80	0	0	0	106	0	106	111	0	111	82	0	82
12:00 PM	69	0	69	82	0	82	82	0	82	87	0	87	0	0	0	113	0	113	105	0	105	84	0	84
1:00 PM	75	0	75	83	0	83	94	0	94	84	0	84	0	0	0	98	0	98	97	0	97	87	0	87
2:00 PM	84	0	84	85	0	85	82	0	82	97	0	97	0	0	0	88	0	88	100	0	100	88	0	88
3:00 PM	79	0	79	95	0	95	97	0	97	117	0	117	0	0	0	102	0	102	79	0	79	103	0	103
4:00 PM	137	0	137	137	0	137	133	0	133	168	0	168	0	0	0	88	0	88	82	0	82	146	0	146
5:00 PM	125	0	125	158	0	158	162	0	162	165	0	165	0	0	0	80	0	80	87	0	87	162	0	162
6:00 PM	86	0	86	69	0	69	103	0	103	105	0	105	0	0	0	64	0	64	56	0	56	92	0	92
7:00 PM	50	0	50	53	0	53	42	0	42	46	0	46	0	0	0	47	0	47	50	0	50	47	0	47
8:00 PM	29	0	29	21	0	21	24	0	24	32	0	32	0	0	0	27	0	27	28	0	28	26	0	26
9:00 PM	16	0	16	15	0	15	20	0	20	20	0	20	0	0	0	23	0	23	19	0	19	18	0	18
10:00 PM	19	0	19	16	0	16	25	0	25	22	0	22	0	0	0	20	0	20	8	0	8	21	0	21
11:00 PM	9	0	9	11	0	11	21	0	21	13	0	13	0	0	0	21	0	21	12	0	12	15	0	15
Total	**1,598**	-	**1,598**	**1,623**	-	**1,623**	**1,726**	-	**1,726**	**1,787**	-	**1,787**	**413**	-	**413**	**1,041**	-	**1,041**	**1,239**	-	**1,239**	**1,712**	-	**1,712**
Percent	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-

1. Mid-week average includes data between Tuesday and Thursday.

TJ Wethington
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Vehicle Classification Report Summary

Location: I-94 WB Ramp E/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 14

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	21	4,992	2,138	59	1,668	142	0	59	663	70	10	1	94	9,917
Percent	0.2%	50.3%	21.6%	0.6%	16.8%	1.4%	0.0%	0.6%	6.7%	0.7%	0.1%	0.0%	0.9%	100%
Total	21	4,992	2,138	59	1,668	142	0	59	663	70	10	1	94	9,917
Percent	0.2%	50.3%	21.6%	0.6%	16.8%	1.4%	0.0%	0.6%	6.7%	0.7%	0.1%	0.0%	0.9%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Monday, November 28, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	3	0	0	0	0	0	0	1	0	0	1	**8**
1:00 AM	0	2	1	0	1	0	0	1	1	0	0	0	0	**6**
2:00 AM	0	4	0	0	0	0	0	0	1	0	1	0	1	**7**
3:00 AM	0	8	1	0	1	1	0	0	0	0	0	0	0	**11**
4:00 AM	0	17	6	0	7	0	0	0	1	0	0	0	0	**31**
5:00 AM	0	67	20	0	16	0	0	0	0	3	0	0	1	**107**
6:00 AM	0	63	16	0	22	1	0	1	1	0	0	0	2	**106**
7:00 AM	0	29	24	0	19	0	0	1	4	0	0	0	1	**78**
8:00 AM	0	33	16	2	23	2	0	3	6	3	1	0	0	**89**
9:00 AM	1	22	17	1	15	2	0	1	9	2	0	0	1	**71**
10:00 AM	0	22	8	1	14	2	0	0	5	0	0	0	0	**52**
11:00 AM	0	24	14	0	18	2	0	0	4	1	0	0	1	**64**
12:00 PM	0	35	23	0	15	3	0	0	6	0	0	0	2	**84**
1:00 PM	0	30	16	0	14	0	0	0	2	0	0	0	0	**62**
2:00 PM	0	67	25	0	14	1	0	0	7	2	0	0	1	**117**
3:00 PM	0	64	23	0	15	1	0	1	7	1	0	0	0	**112**
4:00 PM	0	126	35	1	24	0	0	1	11	1	0	0	2	**201**
5:00 PM	0	118	34	1	23	2	0	0	8	2	0	0	0	**188**
6:00 PM	0	59	32	1	20	2	0	1	14	1	0	0	0	**130**
7:00 PM	0	49	11	0	9	0	0	0	8	0	0	0	0	**77**
8:00 PM	0	19	7	0	6	1	0	0	1	1	0	0	1	**36**
9:00 PM	0	17	8	1	6	1	0	0	4	0	0	0	0	**37**
10:00 PM	0	10	5	0	3	1	0	0	1	1	1	0	1	**23**
11:00 PM	0	10	5	1	1	0	0	0	2	0	0	0	0	**19**
Total	**1**	**898**	**350**	**9**	**286**	**22**	**0**	**10**	**103**	**19**	**3**	**0**	**15**	**1,716**
Percent	**0.1%**	**52.3%**	**20.4%**	**0.5%**	**16.7%**	**1.3%**	**0.0%**	**0.6%**	**6.0%**	**1.1%**	**0.2%**	**0.0%**	**0.9%**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Tuesday, November 29, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	0	0	2	0	0	0	2	0	0	0	0	**7**
1:00 AM	0	4	3	0	0	0	0	0	8	0	0	0	0	**15**
2:00 AM	0	0	0	0	2	0	0	0	5	0	0	0	0	**7**
3:00 AM	0	12	0	0	0	0	0	0	2	0	0	0	1	**15**
4:00 AM	0	16	2	0	6	0	0	0	2	0	0	0	1	**27**
5:00 AM	0	65	15	0	14	1	0	0	2	0	0	0	0	**97**
6:00 AM	1	64	20	0	23	4	0	0	5	0	0	0	1	**118**
7:00 AM	0	46	13	1	16	1	0	2	6	0	0	0	2	**87**
8:00 AM	0	32	20	0	13	0	0	2	9	0	0	0	1	**77**
9:00 AM	2	19	22	0	13	0	0	0	7	3	0	0	0	**66**
10:00 AM	0	24	13	0	15	4	0	1	6	1	0	0	1	**65**
11:00 AM	0	38	17	1	13	0	0	1	10	3	0	0	1	**84**
12:00 PM	0	32	19	1	10	1	0	0	5	2	0	0	1	**71**
1:00 PM	1	44	21	1	17	1	0	1	7	1	0	0	1	**95**
2:00 PM	0	59	27	0	9	1	0	0	6	0	0	0	1	**103**
3:00 PM	1	55	27	1	19	1	0	0	11	1	0	0	2	**118**
4:00 PM	1	96	51	3	26	2	0	2	7	1	0	0	1	**190**
5:00 PM	4	119	44	1	26	3	0	0	7	1	1	0	1	**207**
6:00 PM	1	71	28	1	12	3	0	1	8	0	0	0	0	**125**
7:00 PM	0	45	24	0	10	3	0	0	4	0	0	0	1	**87**
8:00 PM	0	35	14	1	9	0	0	0	4	0	0	0	0	**63**
9:00 PM	0	20	13	0	9	0	0	1	4	0	0	0	0	**47**
10:00 PM	0	11	11	1	1	1	0	0	1	0	0	0	1	**27**
11:00 PM	0	9	5	0	3	1	0	0	1	0	0	0	0	**19**
Total	**11**	**919**	**409**	**12**	**268**	**27**	**0**	**11**	**129**	**13**	**1**	**0**	**17**	**1,817**
Percent	**0.6%**	**50.6%**	**22.5%**	**0.7%**	**14.7%**	**1.5%**	**0.0%**	**0.6%**	**7.1%**	**0.7%**	**0.1%**	**0.0%**	**0.9%**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

DATA SOLUTIONS

Wednesday, November 30, 2022
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	5	1	0	0	0	0	0	2	1	1	0	0	**10**
1:00 AM	0	3	0	0	1	0	0	0	2	1	1	0	0	**8**
2:00 AM	0	3	1	0	0	0	0	0	1	0	0	0	0	**5**
3:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	2	**7**
4:00 AM	0	14	4	0	2	0	0	0	3	0	0	0	0	**23**
5:00 AM	0	62	13	0	8	1	0	0	1	1	0	0	1	**87**
6:00 AM	0	60	29	1	32	1	0	2	6	0	0	0	2	**133**
7:00 AM	0	27	19	0	15	2	0	2	6	1	0	0	1	**73**
8:00 AM	1	39	20	1	15	1	0	1	5	3	0	0	2	**88**
9:00 AM	0	23	13	0	6	0	0	1	7	2	0	0	1	**53**
10:00 AM	0	29	15	0	16	2	0	2	6	1	0	0	2	**73**
11:00 AM	0	34	23	1	5	0	0	0	3	0	0	0	1	**67**
12:00 PM	0	34	22	0	22	1	0	0	4	1	0	0	1	**85**
1:00 PM	0	37	16	2	19	0	0	0	6	1	0	0	1	**82**
2:00 PM	0	58	27	0	17	1	0	0	5	0	0	0	0	**108**
3:00 PM	0	52	28	1	20	3	0	2	2	1	0	0	0	**109**
4:00 PM	1	115	38	2	36	4	0	0	7	0	0	0	0	**203**
5:00 PM	0	122	36	0	27	2	0	0	5	0	0	0	0	**192**
6:00 PM	0	35	29	0	22	2	0	1	8	0	0	0	1	**98**
7:00 PM	0	45	22	1	19	2	0	0	3	0	0	0	0	**92**
8:00 PM	0	37	21	1	10	0	0	1	4	0	0	0	0	**74**
9:00 PM	0	27	11	0	3	1	0	1	5	2	0	0	1	**51**
10:00 PM	0	8	9	0	3	1	0	0	2	0	0	0	3	**26**
11:00 PM	0	10	5	0	3	0	0	0	2	0	0	0	2	**22**
Total	**2**	**883**	**403**	**10**	**301**	**24**	**0**	**13**	**95**	**15**	**2**	**0**	**21**	**1,769**
Percent	**0.1%**	**49.9%**	**22.8%**	**0.6%**	**17.0%**	**1.4%**	**0.0%**	**0.7%**	**5.4%**	**0.8%**	**0.1%**	**0.0%**	**1.2%**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Thursday, December 1, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	8	5	0	1	0	0	0	2	0	1	0	0	**17**
1:00 AM	0	4	1	0	3	0	0	0	1	0	0	0	0	**9**
2:00 AM	0	2	2	0	0	1	0	0	1	0	0	0	1	**7**
3:00 AM	0	6	1	1	4	1	0	0	0	0	0	0	1	**14**
4:00 AM	0	18	1	1	8	1	0	0	1	0	0	0	0	**30**
5:00 AM	0	60	12	0	12	2	0	1	0	0	0	0	2	**89**
6:00 AM	0	63	21	0	29	3	0	0	0	0	0	0	1	**117**
7:00 AM	0	19	15	1	22	3	0	0	2	1	0	0	1	**64**
8:00 AM	0	24	25	2	26	1	0	0	6	1	0	0	1	**86**
9:00 AM	0	19	14	2	14	1	0	0	7	0	0	0	1	**58**
10:00 AM	0	22	23	1	12	3	0	0	4	1	0	0	3	**69**
11:00 AM	1	37	16	2	18	2	0	1	6	0	0	0	0	**83**
12:00 PM	0	29	16	2	19	2	0	0	6	0	0	0	0	**74**
1:00 PM	0	46	11	0	16	2	0	0	4	0	0	0	2	**81**
2:00 PM	0	59	20	0	27	3	0	1	6	0	0	0	0	**116**
3:00 PM	0	48	24	0	24	2	0	1	7	0	0	0	3	**109**
4:00 PM	0	104	32	1	33	1	0	0	6	0	0	0	0	**177**
5:00 PM	1	143	39	2	43	1	0	2	11	2	0	0	1	**245**
6:00 PM	0	55	36	2	17	3	0	0	7	2	0	0	1	**123**
7:00 PM	0	44	26	1	16	3	0	0	3	0	0	0	0	**93**
8:00 PM	0	30	16	0	13	0	0	0	7	0	0	0	0	**66**
9:00 PM	2	32	5	1	8	3	0	0	2	0	0	0	0	**53**
10:00 PM	0	15	7	0	5	0	0	0	4	2	1	0	0	**34**
11:00 PM	0	12	2	0	2	1	0	0	2	1	1	0	0	**21**
Total	**4**	**899**	**370**	**19**	**372**	**39**	**0**	**6**	**95**	**10**	**3**	**0**	**18**	**1,835**
Percent	**0.2%**	**49.0%**	**20.2%**	**1.0%**	**20.3%**	**2.1%**	**0.0%**	**0.3%**	**5.2%**	**0.5%**	**0.2%**	**0.0%**	**1.0%**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Friday, December 2, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	3	1	3	1	0	0	2	0	0	0	2	**18**
1:00 AM	0	3	0	0	3	0	0	0	2	0	0	0	0	**8**
2:00 AM	0	4	0	0	1	0	0	0	3	0	0	0	0	**8**
3:00 AM	0	2	1	0	1	0	0	0	3	0	0	0	1	**8**
4:00 AM	0	16	2	0	5	0	0	0	2	0	0	0	1	**26**
5:00 AM	0	53	9	0	16	0	0	1	2	0	0	0	1	**82**
6:00 AM	0	42	20	0	19	2	0	0	2	0	0	0	0	**85**
7:00 AM	1	14	4	2	9	1	0	0	3	0	0	0	0	**34**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**1**	**140**	**39**	**3**	**57**	**4**	**0**	**1**	**19**	**0**	**0**	**0**	**5**	**269**
Percent	**0.4%**	**52.0%**	**14.5%**	**1.1%**	**21.2%**	**1.5%**	**0.0%**	**0.4%**	**7.1%**	**0.0%**	**0.0%**	**0.0%**	**1.9%**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

DATA SOLUTIONS

Saturday, December 3, 2022
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	2	7	9	0	2	0	0	0	2	0	0	0	1	**23**
10:00 AM	0	31	20	0	13	1	0	0	6	1	0	0	0	**72**
11:00 AM	0	36	13	0	8	1	0	0	8	0	0	0	0	**66**
12:00 PM	0	34	18	0	16	0	0	0	11	0	0	0	1	**80**
1:00 PM	0	45	14	1	16	0	0	1	8	1	0	0	1	**87**
2:00 PM	0	48	14	1	13	1	0	3	13	0	0	0	2	**95**
3:00 PM	0	64	17	0	16	0	0	0	5	1	0	0	0	**103**
4:00 PM	0	48	36	0	26	4	0	1	7	0	0	0	2	**124**
5:00 PM	0	67	37	0	16	1	0	1	6	0	0	0	0	**128**
6:00 PM	0	61	23	1	17	4	0	0	3	0	0	0	2	**111**
7:00 PM	0	37	25	0	12	1	0	0	6	0	0	0	0	**81**
8:00 PM	0	28	16	1	12	0	0	0	6	0	0	0	1	**64**
9:00 PM	0	20	8	0	4	0	0	0	5	1	0	0	0	**38**
10:00 PM	0	27	11	0	5	0	0	1	6	0	0	0	0	**50**
11:00 PM	0	15	8	0	2	0	0	0	4	0	0	0	0	**29**
Total	**2**	**568**	**269**	**4**	**178**	**13**	**0**	**7**	**96**	**4**	**0**	**0**	**10**	**1,151**
Percent	**0.2%**	**49.3%**	**23.4%**	**0.3%**	**15.5%**	**1.1%**	**0.0%**	**0.6%**	**8.3%**	**0.3%**	**0.0%**	**0.0%**	**0.9%**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Sunday, December 4, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	14	3	0	2	0	0	0	5	0	0	0	1	**25**
1:00 AM	0	6	3	0	1	0	0	0	3	0	0	0	0	**13**
2:00 AM	0	8	3	0	2	0	0	0	3	0	0	0	0	**16**
3:00 AM	0	5	2	0	0	1	0	0	1	0	0	0	1	**10**
4:00 AM	0	8	3	0	4	0	0	0	1	0	0	0	0	**16**
5:00 AM	0	11	6	0	3	1	0	0	1	0	0	0	0	**22**
6:00 AM	0	17	5	0	6	0	0	0	2	0	0	0	2	**32**
7:00 AM	0	11	9	0	5	2	0	0	3	1	0	0	0	**31**
8:00 AM	0	10	6	0	2	0	0	1	3	0	0	0	0	**22**
9:00 AM	0	26	15	1	11	0	0	1	10	0	0	0	0	**64**
10:00 AM	0	30	9	0	16	1	0	1	5	1	0	1	0	**64**
11:00 AM	0	49	19	0	14	0	0	1	8	0	0	0	1	**92**
12:00 PM	0	44	25	0	19	0	0	0	14	0	0	0	1	**103**
1:00 PM	0	58	27	0	21	2	0	1	8	0	0	0	0	**117**
2:00 PM	0	54	21	0	18	2	0	0	10	0	0	0	1	**106**
3:00 PM	0	59	23	0	13	1	0	1	14	0	0	0	0	**111**
4:00 PM	0	65	42	0	20	1	0	0	6	1	0	0	0	**135**
5:00 PM	0	60	21	0	15	2	0	1	6	1	0	0	0	**106**
6:00 PM	0	45	24	1	16	0	0	3	13	3	0	0	1	**106**
7:00 PM	0	35	11	0	4	0	0	0	4	0	0	0	0	**54**
8:00 PM	0	31	9	0	5	0	0	1	3	0	0	0	0	**49**
9:00 PM	0	15	8	0	4	0	0	0	2	0	1	0	0	**30**
10:00 PM	0	16	3	0	2	0	0	0	0	0	0	0	0	**21**
11:00 PM	0	8	1	0	3	0	0	0	1	2	0	0	0	**15**
Total	**0**	**685**	**298**	**2**	**206**	**13**	**0**	**11**	**126**	**9**	**1**	**1**	**8**	**1,360**
Percent	**0.0%**	**50.4%**	**21.9%**	**0.1%**	**15.1%**	**1.0%**	**0.0%**	**0.8%**	**9.3%**	**0.7%**	**0.1%**	**0.1%**	**0.6%**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

TJ Wethington
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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	6	2	0	1	0	0	0	2	0	0	0	1	**12**
1:00 AM	0	3	1	0	1	0	0	0	2	0	0	0	0	**7**
2:00 AM	0	3	1	0	1	0	0	0	2	0	0	0	0	**7**
3:00 AM	0	5	1	0	1	0	0	0	1	0	0	0	1	**9**
4:00 AM	0	13	3	0	5	0	0	0	1	0	0	0	0	**22**
5:00 AM	0	45	11	0	10	1	0	0	1	1	0	0	1	**70**
6:00 AM	0	44	16	0	19	2	0	0	2	0	0	0	1	**84**
7:00 AM	0	21	12	1	12	1	0	1	3	0	0	0	1	**52**
8:00 AM	0	20	12	1	11	1	0	1	4	1	0	0	1	**52**
9:00 AM	1	17	13	1	9	0	0	0	6	1	0	0	1	**49**
10:00 AM	0	23	13	0	12	2	0	1	5	1	0	0	1	**58**
11:00 AM	0	31	15	1	11	1	0	0	6	1	0	0	1	**67**
12:00 PM	0	30	18	0	14	1	0	0	7	0	0	0	1	**71**
1:00 PM	0	37	15	1	15	1	0	0	5	0	0	0	1	**75**
2:00 PM	0	49	19	0	14	1	0	1	7	0	0	0	1	**92**
3:00 PM	0	49	20	0	15	1	0	1	7	1	0	0	1	**95**
4:00 PM	0	79	33	1	24	2	0	1	6	0	0	0	1	**147**
5:00 PM	1	90	30	1	21	2	0	1	6	1	0	0	0	**153**
6:00 PM	0	47	25	1	15	2	0	1	8	1	0	0	1	**101**
7:00 PM	0	36	17	0	10	1	0	0	4	0	0	0	0	**68**
8:00 PM	0	26	12	0	8	0	0	0	4	0	0	0	0	**50**
9:00 PM	0	19	8	0	5	1	0	0	3	0	0	0	0	**36**
10:00 PM	0	12	7	0	3	0	0	0	2	0	0	0	1	**25**
11:00 PM	0	9	4	0	2	0	0	0	2	0	0	0	0	**17**
Total	**2**	**714**	**308**	**8**	**239**	**20**	**0**	**8**	**96**	**8**	**0**	**0**	**16**	**1,419**
Percent	**0.1%**	**50.3%**	**21.7%**	**0.6%**	**16.8%**	**1.4%**	**0.0%**	**0.6%**	**6.8%**	**0.6%**	**0.0%**	**0.0%**	**1.1%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

3-Day (Tuesday - Thursday) Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

idax DATA SOLUTIONS

3-Day (Tuesday - Thursday) Average
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	5	2	0	1	0	0	0	2	0	1	0	0	**11**
1:00 AM	0	4	1	0	1	0	0	0	4	0	0	0	0	**11**
2:00 AM	0	2	1	0	1	0	0	0	2	0	0	0	0	**6**
3:00 AM	0	7	1	0	1	0	0	0	1	0	0	0	1	**12**
4:00 AM	0	16	2	0	5	0	0	0	2	0	0	0	0	**27**
5:00 AM	0	62	13	0	11	1	0	0	1	0	0	0	1	**91**
6:00 AM	0	62	23	0	28	3	0	1	4	0	0	0	1	**123**
7:00 AM	0	31	16	1	18	2	0	1	5	1	0	0	1	**75**
8:00 AM	0	32	22	1	18	1	0	1	7	1	0	0	1	**84**
9:00 AM	1	20	16	1	11	0	0	0	7	2	0	0	1	**59**
10:00 AM	0	25	17	0	14	3	0	1	5	1	0	0	2	**69**
11:00 AM	0	36	19	1	12	1	0	1	6	1	0	0	1	**78**
12:00 PM	0	32	19	1	17	1	0	0	5	1	0	0	1	**77**
1:00 PM	0	42	16	1	17	1	0	0	6	1	0	0	1	**86**
2:00 PM	0	59	25	0	18	2	0	0	6	0	0	0	0	**109**
3:00 PM	0	52	26	1	21	2	0	1	7	1	0	0	2	**112**
4:00 PM	1	105	40	2	32	2	0	1	7	0	0	0	0	**190**
5:00 PM	2	128	40	1	32	2	0	1	8	1	0	0	1	**215**
6:00 PM	0	54	31	1	17	3	0	1	8	1	0	0	1	**115**
7:00 PM	0	45	24	1	15	3	0	0	3	0	0	0	0	**91**
8:00 PM	0	34	17	1	11	0	0	0	5	0	0	0	0	**68**
9:00 PM	1	26	10	0	7	1	0	1	4	1	0	0	0	**50**
10:00 PM	0	11	9	0	3	1	0	0	2	1	0	0	1	**29**
11:00 PM	0	10	4	0	3	1	0	0	2	0	0	0	1	**21**
Total	**6**	**900**	**394**	**14**	**314**	**30**	**0**	**10**	**106**	**13**	**2**	**0**	**19**	**1,807**
Percent	**0.3%**	**49.8%**	**21.8%**	**0.8%**	**17.4%**	**1.7%**	**0.0%**	**0.6%**	**5.9%**	**0.7%**	**0.1%**	**0.0%**	**1.0%**	

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Vehicle Speed Report Summary

Location: I-94 WB Ramp E/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 14

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	3	3	9	28	86	295	766	1,455	2,454	2,519	1,577	583	121	15	3	0	0	9,917
Percent	0.0%	0.0%	0.1%	0.3%	0.9%	3.0%	7.7%	14.7%	24.7%	25.4%	15.9%	5.9%	1.2%	0.2%	0.0%	0.0%	0.0%	100%
Total	3	3	9	28	86	295	766	1,455	2,454	2,519	1,577	583	121	15	3	0	0	9,917
Percent	0.0%	0.0%	0.1%	0.3%	0.9%	3.0%	7.7%	14.7%	24.7%	25.4%	15.9%	5.9%	1.2%	0.2%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%
Westbound			**Westbound**		
50th Percentile (Median)	49.8	mph	Mean (Average) Speed	49.3	mph
85th Percentile	57.0	mph	10 mph Pace	46.1 - 56.1	mph
95th Percentile	61.3	mph	Percent in Pace	50.3	%

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Monday, November 28, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	0	3	2	0	1	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	0	1	0	0	2	2	0	1	1	0	0	0	0	0	0	**7**
3:00 AM	0	0	0	0	0	0	0	3	4	4	0	0	0	0	0	0	0	**11**
4:00 AM	0	0	0	0	0	0	1	6	7	11	6	0	0	0	0	0	0	**31**
5:00 AM	0	0	0	0	1	7	5	14	25	37	9	7	2	0	0	0	0	**107**
6:00 AM	0	0	0	0	0	5	6	13	32	28	16	4	2	0	0	0	0	**106**
7:00 AM	0	0	0	0	0	0	6	16	25	20	6	5	0	0	0	0	0	**78**
8:00 AM	0	0	0	1	0	2	12	15	23	24	11	1	0	0	0	0	0	**89**
9:00 AM	0	0	0	0	0	2	11	18	19	12	9	0	0	0	0	0	0	**71**
10:00 AM	0	0	0	0	0	4	3	5	7	20	10	2	1	0	0	0	0	**52**
11:00 AM	0	0	0	0	1	0	7	9	17	17	9	4	0	0	0	0	0	**64**
12:00 PM	0	0	1	0	2	3	21	17	16	16	5	3	0	0	0	0	0	**84**
1:00 PM	0	0	1	0	0	3	12	13	21	10	2	0	0	0	0	0	0	**62**
2:00 PM	0	0	0	0	0	4	6	17	33	30	15	9	2	1	0	0	0	**117**
3:00 PM	0	0	0	0	0	2	3	17	37	33	17	1	2	0	0	0	0	**112**
4:00 PM	0	0	0	0	0	2	11	33	63	59	25	7	1	0	0	0	0	**201**
5:00 PM	0	0	0	4	6	3	5	24	48	62	26	8	1	1	0	0	0	**188**
6:00 PM	0	0	0	1	3	4	20	38	29	23	8	4	0	0	0	0	0	**130**
7:00 PM	0	0	0	1	0	2	9	19	20	18	5	3	0	0	0	0	0	**77**
8:00 PM	0	0	0	0	0	2	4	10	12	6	1	1	0	0	0	0	0	**36**
9:00 PM	0	0	0	0	1	0	6	9	11	9	1	0	0	0	0	0	0	**37**
10:00 PM	0	0	0	0	0	1	4	7	5	5	1	0	0	0	0	0	0	**23**
11:00 PM	0	0	0	0	0	4	1	4	6	2	2	0	0	0	0	0	0	**19**
Total	**0**	**0**	**2**	**8**	**16**	**52**	**156**	**315**	**462**	**447**	**186**	**59**	**11**	**2**	**0**	**0**	**0**	**1,716**
Percent	**0.0%**	**0.0%**	**0.1%**	**0.5%**	**0.9%**	**3.0%**	**9.1%**	**18.4%**	**26.9%**	**26.0%**	**10.8%**	**3.4%**	**0.6%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	48.5	mph	Mean (Average) Speed	47.9	mph
85th Percentile	55.0	mph	10 mph Pace	43.5 - 53.5	mph
95th Percentile	59.2	mph	Percent in Pace	53.79	%

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Tuesday, November 29, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	0	0	1	2	1	0	1	0	0	0	0	0	**7**
1:00 AM	0	0	0	0	2	1	5	2	3	1	1	0	0	0	0	0	0	**15**
2:00 AM	0	0	0	0	1	2	2	0	1	0	1	0	0	0	0	0	0	**7**
3:00 AM	0	0	0	0	0	0	2	2	7	2	2	0	0	0	0	0	0	**15**
4:00 AM	0	0	0	0	1	1	1	4	7	7	4	2	0	0	0	0	0	**27**
5:00 AM	0	0	0	0	0	2	3	10	27	33	18	4	0	0	0	0	0	**97**
6:00 AM	0	0	0	0	0	7	11	16	39	27	12	5	1	0	0	0	0	**118**
7:00 AM	0	0	0	0	0	4	10	20	18	31	4	0	0	0	0	0	0	**87**
8:00 AM	0	0	0	0	0	0	4	15	29	17	10	2	0	0	0	0	0	**77**
9:00 AM	0	0	3	1	0	2	4	9	25	12	9	1	0	0	0	0	0	**66**
10:00 AM	0	0	0	1	0	0	9	16	17	13	6	3	0	0	0	0	0	**65**
11:00 AM	0	0	0	0	1	3	10	14	20	20	9	5	2	0	0	0	0	**84**
12:00 PM	0	0	0	1	1	1	4	10	18	24	10	2	0	0	0	0	0	**71**
1:00 PM	0	0	0	0	0	6	10	13	34	15	15	1	0	1	0	0	0	**95**
2:00 PM	0	0	0	0	0	3	10	20	24	25	17	3	1	0	0	0	0	**103**
3:00 PM	0	0	0	0	0	5	11	18	37	27	13	6	1	0	0	0	0	**118**
4:00 PM	0	0	0	0	8	11	14	25	51	54	21	4	1	1	0	0	0	**190**
5:00 PM	0	0	0	1	5	11	23	36	63	40	22	6	0	0	0	0	0	**207**
6:00 PM	0	0	0	1	6	11	14	27	40	15	9	2	0	0	0	0	0	**125**
7:00 PM	0	0	0	0	1	5	20	16	23	17	4	1	0	0	0	0	0	**87**
8:00 PM	0	0	0	0	0	7	10	10	18	11	5	2	0	0	0	0	0	**63**
9:00 PM	0	0	0	0	1	2	11	13	12	4	3	1	0	0	0	0	0	**47**
10:00 PM	0	0	2	0	1	2	4	9	5	3	1	0	0	0	0	0	0	**27**
11:00 PM	0	0	0	0	0	2	5	4	3	2	3	0	0	0	0	0	0	**19**
Total	**0**	**0**	**5**	**5**	**30**	**88**	**197**	**310**	**523**	**401**	**199**	**51**	**6**	**2**	**0**	**0**	**0**	**1,817**
Percent	**0.0%**	**0.0%**	**0.3%**	**0.3%**	**1.7%**	**4.8%**	**10.8%**	**17.1%**	**28.8%**	**22.1%**	**11.0%**	**2.8%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	47.6	mph	Mean (Average) Speed	47.1	mph
85th Percentile	54.8	mph	10 mph Pace	43.1 - 53.1	mph
95th Percentile	58.5	mph	Percent in Pace	51.51	%

TJ Wethington
720-646-1008
tj.wethington@idaxdata.com

Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Wednesday, November 30, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	3	0	0	4	3	0	0	0	0	0	0	0	0	**10**
1:00 AM	0	0	0	0	0	2	4	1	0	1	0	0	0	0	0	0	0	**8**
2:00 AM	0	0	0	0	0	0	3	1	1	0	0	0	0	0	0	0	0	**5**
3:00 AM	0	0	0	0	0	1	2	1	1	1	1	0	0	0	0	0	0	**7**
4:00 AM	0	0	0	0	0	1	1	5	3	8	5	0	0	0	0	0	0	**23**
5:00 AM	0	0	0	0	1	2	4	12	27	24	12	3	2	0	0	0	0	**87**
6:00 AM	0	0	0	0	4	6	8	36	34	34	7	2	2	0	0	0	0	**133**
7:00 AM	0	0	0	0	1	1	8	13	19	24	7	0	0	0	0	0	0	**73**
8:00 AM	0	0	0	0	0	4	13	12	27	20	9	2	0	1	0	0	0	**88**
9:00 AM	0	0	0	0	1	2	4	12	17	10	5	2	0	0	0	0	0	**53**
10:00 AM	0	0	0	0	0	1	6	11	23	13	17	2	0	0	0	0	0	**73**
11:00 AM	0	0	0	0	0	0	7	2	13	28	10	7	0	0	0	0	0	**67**
12:00 PM	0	0	0	0	0	3	5	8	14	23	19	9	4	0	0	0	0	**85**
1:00 PM	0	0	0	0	1	1	3	8	17	25	21	6	0	0	0	0	0	**82**
2:00 PM	0	0	0	0	0	0	1	8	27	33	23	15	1	0	0	0	0	**108**
3:00 PM	0	0	0	1	1	0	2	7	16	29	36	13	4	0	0	0	0	**109**
4:00 PM	0	0	0	0	0	0	3	16	36	59	52	31	5	0	1	0	0	**203**
5:00 PM	0	0	0	0	0	1	3	15	41	52	63	15	2	0	0	0	0	**192**
6:00 PM	0	0	0	0	0	4	8	12	27	23	19	5	0	0	0	0	0	**98**
7:00 PM	0	0	0	0	1	3	9	9	27	22	13	7	1	0	0	0	0	**92**
8:00 PM	0	0	0	0	0	2	11	13	20	13	8	6	1	0	0	0	0	**74**
9:00 PM	0	0	0	0	1	3	9	11	14	4	7	2	0	0	0	0	0	**51**
10:00 PM	0	0	0	0	0	3	3	6	7	4	3	0	0	0	0	0	0	**26**
11:00 PM	0	0	0	0	0	2	3	2	7	6	2	0	0	0	0	0	0	**22**
Total	**0**	**0**	**0**	**1**	**14**	**42**	**120**	**225**	**421**	**456**	**339**	**127**	**22**	**1**	**1**	**0**	**0**	**1,769**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.8%**	**2.4%**	**6.8%**	**12.7%**	**23.8%**	**25.8%**	**19.2%**	**7.2%**	**1.2%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	50.8	mph	Mean (Average) Speed	50.2	mph
85th Percentile	57.7	mph	10 mph Pace	46.4 - 56.4	mph
95th Percentile	62.0	mph	Percent in Pace	52.01	%

TJ Wethington
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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Thursday, December 1, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	3	2	1	2	6	0	2	1	0	0	0	0	**17**
1:00 AM	0	0	0	0	0	0	0	3	2	3	1	0	0	0	0	0	0	**9**
2:00 AM	0	0	0	0	0	2	1	0	3	0	0	1	0	0	0	0	0	**7**
3:00 AM	0	0	0	1	0	0	3	4	1	3	2	0	0	0	0	0	0	**14**
4:00 AM	0	0	0	0	2	0	1	2	7	6	2	5	5	0	0	0	0	**30**
5:00 AM	0	0	0	0	0	0	2	3	12	24	35	10	2	1	0	0	0	**89**
6:00 AM	0	0	0	0	1	3	3	8	23	28	30	13	7	1	0	0	0	**117**
7:00 AM	0	0	0	0	0	1	8	8	15	15	14	2	1	0	0	0	0	**64**
8:00 AM	0	0	0	0	0	1	1	10	25	24	16	7	2	0	0	0	0	**86**
9:00 AM	0	0	0	0	0	2	5	8	11	15	11	6	0	0	0	0	0	**58**
10:00 AM	0	0	0	0	0	3	2	7	18	21	8	9	1	0	0	0	0	**69**
11:00 AM	0	0	0	0	0	1	7	6	14	26	20	8	1	0	0	0	0	**83**
12:00 PM	0	0	0	0	0	1	5	7	17	23	18	2	0	1	0	0	0	**74**
1:00 PM	0	0	0	0	0	0	3	8	21	18	18	8	3	2	0	0	0	**81**
2:00 PM	0	0	0	0	0	1	2	9	15	31	38	15	4	1	0	0	0	**116**
3:00 PM	0	0	0	0	0	0	8	15	21	27	19	17	2	0	0	0	0	**109**
4:00 PM	0	0	0	0	0	0	6	9	22	51	47	33	7	2	0	0	0	**177**
5:00 PM	0	1	2	8	1	3	9	33	46	56	58	21	7	0	0	0	0	**245**
6:00 PM	0	0	0	0	0	7	20	16	30	24	20	3	3	0	0	0	0	**123**
7:00 PM	1	0	0	1	0	7	4	15	14	31	10	7	3	0	0	0	0	**93**
8:00 PM	0	0	0	0	1	3	9	9	16	14	12	2	0	0	0	0	0	**66**
9:00 PM	0	2	0	0	0	4	3	9	7	20	7	1	0	0	0	0	0	**53**
10:00 PM	0	0	0	0	1	1	2	9	6	9	4	1	1	0	0	0	0	**34**
11:00 PM	0	0	0	0	0	0	3	6	6	2	2	2	0	0	0	0	0	**21**
Total	**1**	**3**	**2**	**10**	**6**	**43**	**109**	**205**	**354**	**477**	**392**	**175**	**50**	**8**	**0**	**0**	**0**	**1,835**
Percent	**0.1%**	**0.2%**	**0.1%**	**0.5%**	**0.3%**	**2.3%**	**5.9%**	**11.2%**	**19.3%**	**26.0%**	**21.4%**	**9.5%**	**2.7%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	51.8	mph	Mean (Average) Speed	51.2	mph
85th Percentile	59.5	mph	10 mph Pace	46.9 - 56.9	mph
95th Percentile	63.5	mph	Percent in Pace	48.61	%

TJ Wethington
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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Friday, December 2, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	2	2	3	4	4	1	0	0	0	0	0	0	**18**
1:00 AM	0	0	0	0	0	1	2	1	1	1	1	0	1	0	0	0	0	**8**
2:00 AM	0	0	0	0	0	2	0	1	3	0	1	1	0	0	0	0	0	**8**
3:00 AM	0	0	0	0	0	0	1	6	1	0	0	0	0	0	0	0	0	**8**
4:00 AM	0	0	0	0	0	0	3	4	1	7	5	6	0	0	0	0	0	**26**
5:00 AM	0	0	0	0	0	1	4	6	14	30	19	7	1	0	0	0	0	**82**
6:00 AM	0	0	0	0	0	0	1	9	17	27	22	6	3	0	0	0	0	**85**
7:00 AM	0	0	0	1	0	0	5	4	6	6	9	3	0	0	0	0	0	**34**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**1**	**2**	**6**	**18**	**34**	**47**	**75**	**58**	**23**	**5**	**0**	**0**	**0**	**0**	**269**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.4%**	**0.7%**	**2.2%**	**6.7%**	**12.6%**	**17.5%**	**27.9%**	**21.6%**	**8.6%**	**1.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	51.4	mph	Mean (Average) Speed	50.7	mph
85th Percentile	58.3	mph	10 mph Pace	47.4 - 57.4	mph
95th Percentile	62.5	mph	Percent in Pace	52.42	%

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Saturday, December 3, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	2	0	0	0	0	0	0	4	7	7	2	1	0	0	0	0	0	**23**
10:00 AM	0	0	0	0	0	0	2	2	25	28	8	5	1	0	1	0	0	**72**
11:00 AM	0	0	0	0	0	0	3	8	7	22	14	9	3	0	0	0	0	**66**
12:00 PM	0	0	0	0	0	2	2	12	21	21	14	7	0	1	0	0	0	**80**
1:00 PM	0	0	0	0	0	0	3	9	23	23	21	8	0	0	0	0	0	**87**
2:00 PM	0	0	0	0	0	1	6	15	23	25	20	5	0	0	0	0	0	**95**
3:00 PM	0	0	0	0	0	2	2	7	20	36	22	10	4	0	0	0	0	**103**
4:00 PM	0	0	0	0	0	3	6	8	22	44	32	6	3	0	0	0	0	**124**
5:00 PM	0	0	0	0	0	1	9	30	34	32	18	4	0	0	0	0	0	**128**
6:00 PM	0	0	0	0	2	3	9	19	35	23	13	6	1	0	0	0	0	**111**
7:00 PM	0	0	0	0	1	6	12	18	21	12	8	2	1	0	0	0	0	**81**
8:00 PM	0	0	0	0	1	2	6	17	18	14	5	1	0	0	0	0	0	**64**
9:00 PM	0	0	0	0	0	0	7	5	15	5	6	0	0	0	0	0	0	**38**
10:00 PM	0	0	0	0	0	8	5	17	8	9	3	0	0	0	0	0	0	**50**
11:00 PM	0	0	0	0	2	1	0	9	9	6	2	0	0	0	0	0	0	**29**
Total	**2**	**0**	**0**	**0**	**6**	**29**	**72**	**180**	**288**	**307**	**188**	**64**	**13**	**1**	**1**	**0**	**0**	**1,151**
Percent	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.5%**	**2.5%**	**6.3%**	**15.6%**	**25.0%**	**26.7%**	**16.3%**	**5.6%**	**1.1%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	50.0	mph	Mean (Average) Speed	49.7	mph
85th Percentile	57.0	mph	10 mph Pace	46.2 - 56.2	mph
95th Percentile	61.0	mph	Percent in Pace	52.74	%

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Sunday, December 4, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	5	3	8	5	1	1	0	0	0	0	0	**25**
1:00 AM	0	0	0	1	0	4	0	3	3	1	1	0	0	0	0	0	0	**13**
2:00 AM	0	0	0	0	0	1	3	7	3	2	0	0	0	0	0	0	0	**16**
3:00 AM	0	0	0	0	1	0	2	2	3	1	1	0	0	0	0	0	0	**10**
4:00 AM	0	0	0	0	0	1	1	2	4	5	2	0	1	0	0	0	0	**16**
5:00 AM	0	0	0	0	0	0	2	3	7	7	1	2	0	0	0	0	0	**22**
6:00 AM	0	0	0	0	1	4	2	4	9	7	3	2	0	0	0	0	0	**32**
7:00 AM	0	0	0	1	1	4	0	3	9	9	4	0	0	0	0	0	0	**31**
8:00 AM	0	0	0	0	0	0	1	3	3	10	2	3	0	0	0	0	0	**22**
9:00 AM	0	0	0	0	0	0	3	16	13	13	12	7	0	0	0	0	0	**64**
10:00 AM	0	0	0	0	0	1	1	6	17	19	13	5	2	0	0	0	0	**64**
11:00 AM	0	0	0	0	0	0	2	5	28	34	12	11	0	0	0	0	0	**92**
12:00 PM	0	0	0	0	0	1	6	14	31	27	17	6	0	0	1	0	0	**103**
1:00 PM	0	0	0	0	0	2	6	15	29	37	20	8	0	0	0	0	0	**117**
2:00 PM	0	0	0	0	0	0	8	14	22	32	22	5	3	0	0	0	0	**106**
3:00 PM	0	0	0	0	0	0	3	16	27	34	16	12	3	0	0	0	0	**111**
4:00 PM	0	0	0	0	0	0	8	4	23	44	41	12	3	0	0	0	0	**135**
5:00 PM	0	0	0	0	0	4	5	12	33	21	21	7	2	1	0	0	0	**106**
6:00 PM	0	0	0	0	6	9	13	23	27	13	13	2	0	0	0	0	0	**106**
7:00 PM	0	0	0	0	1	1	4	6	26	11	5	0	0	0	0	0	0	**54**
8:00 PM	0	0	0	0	1	2	6	11	17	8	4	0	0	0	0	0	0	**49**
9:00 PM	0	0	0	0	0	0	8	6	8	6	1	1	0	0	0	0	0	**30**
10:00 PM	0	0	0	0	0	0	1	5	5	9	1	0	0	0	0	0	0	**21**
11:00 PM	0	0	0	1	0	0	4	3	4	1	2	0	0	0	0	0	0	**15**
Total	**0**	**0**	**0**	**3**	**12**	**35**	**94**	**186**	**359**	**356**	**215**	**84**	**14**	**1**	**1**	**0**	**0**	**1,360**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.9%**	**2.6%**	**6.9%**	**13.7%**	**26.4%**	**26.2%**	**15.8%**	**6.2%**	**1.0%**	**0.1%**	**0.1%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	49.9	mph	Mean (Average) Speed	49.5	mph
85th Percentile	57.2	mph	10 mph Pace	45.3 - 55.3	mph
95th Percentile	61.2	mph	Percent in Pace	52.65	%

TJ Wethington
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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

TJ Wethington
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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 14

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	1	2	3	2	0	1	0	0	0	0	0	**11**
1:00 AM	0	0	0	0	0	1	2	2	1	1	1	0	0	0	0	0	0	**8**
2:00 AM	0	0	0	0	0	1	2	2	2	0	0	0	0	0	0	0	0	**7**
3:00 AM	0	0	0	0	0	0	1	3	2	2	1	0	0	0	0	0	0	**9**
4:00 AM	0	0	0	0	0	0	1	3	4	6	3	2	1	0	0	0	0	**20**
5:00 AM	0	0	0	0	0	2	3	7	16	22	13	5	1	0	0	0	0	**69**
6:00 AM	0	0	0	0	1	4	4	12	22	22	13	5	2	0	0	0	0	**85**
7:00 AM	0	0	0	0	0	1	5	9	13	15	6	1	0	0	0	0	0	**50**
8:00 AM	0	0	0	0	0	1	4	8	15	14	7	2	0	0	0	0	0	**51**
9:00 AM	0	0	0	0	0	1	4	10	13	10	7	2	0	0	0	0	0	**47**
10:00 AM	0	0	0	0	0	1	3	7	15	16	9	4	1	0	0	0	0	**56**
11:00 AM	0	0	0	0	0	1	5	6	14	21	11	6	1	0	0	0	0	**65**
12:00 PM	0	0	0	0	0	2	6	10	17	19	12	4	1	0	0	0	0	**71**
1:00 PM	0	0	0	0	0	2	5	9	21	18	14	4	0	0	0	0	0	**73**
2:00 PM	0	0	0	0	0	1	5	12	21	25	19	7	2	0	0	0	0	**92**
3:00 PM	0	0	0	0	0	1	4	11	23	27	18	8	2	0	0	0	0	**94**
4:00 PM	0	0	0	0	1	2	7	14	31	44	31	13	3	0	0	0	0	**146**
5:00 PM	0	0	0	2	2	3	8	21	38	38	30	9	2	0	0	0	0	**153**
6:00 PM	0	0	0	0	2	5	12	19	27	17	12	3	1	0	0	0	0	**98**
7:00 PM	0	0	0	0	1	3	8	12	19	16	6	3	1	0	0	0	0	**69**
8:00 PM	0	0	0	0	0	3	7	10	14	9	5	2	0	0	0	0	0	**50**
9:00 PM	0	0	0	0	0	1	6	8	10	7	4	1	0	0	0	0	0	**37**
10:00 PM	0	0	0	0	0	2	3	8	5	6	2	0	0	0	0	0	0	**26**
11:00 PM	0	0	0	0	0	1	2	4	5	3	2	0	0	0	0	0	0	**17**
Total	**0**	**0**	**0**	**2**	**8**	**40**	**108**	**209**	**351**	**360**	**226**	**82**	**18**	**0**	**0**	**0**	**0**	**1,404**
Percent	**0.0%**	**0.0%**	**0.0%**	**0.1%**	**0.6%**	**2.8%**	**7.7%**	**14.9%**	**25.0%**	**25.6%**	**16.1%**	**5.8%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	49.8	mph	Mean (Average) Speed	49.3	mph
85th Percentile	57.0	mph	10 mph Pace	46.1 - 56.1	mph
95th Percentile	61.3	mph	Percent in Pace	50.3	%

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Location: I-94 WB Ramp E/O Hwy 25
Date Range: 11/28/2022 - 12/4/2022
Site Code: 14

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	8	8	0	7	7	0	10	10	0	17	17	0	18	18	0	0	0	0	25	25	0	11	11
1:00 AM	0	6	6	0	15	15	0	8	8	0	9	9	0	8	8	0	0	0	0	13	13	0	11	11
2:00 AM	0	7	7	0	7	7	0	5	5	0	7	7	0	8	8	0	0	0	0	16	16	0	6	6
3:00 AM	0	11	11	0	15	15	0	7	7	0	14	14	0	8	8	0	0	0	0	10	10	0	12	12
4:00 AM	0	31	31	0	27	27	0	23	23	0	30	30	0	26	26	0	0	0	0	16	16	0	27	27
5:00 AM	0	107	107	0	97	97	0	87	87	0	89	89	0	82	82	0	0	0	0	22	22	0	91	91
6:00 AM	0	106	106	0	118	118	0	133	133	0	117	117	0	85	85	0	0	0	0	32	32	0	123	123
7:00 AM	0	78	78	0	87	87	0	73	73	0	64	64	0	34	34	0	0	0	0	31	31	0	75	75
8:00 AM	0	89	89	0	77	77	0	88	88	0	86	86	0	0	0	0	0	0	0	22	22	0	84	84
9:00 AM	0	71	71	0	66	66	0	53	53	0	58	58	0	0	0	0	23	23	0	64	64	0	59	59
10:00 AM	0	52	52	0	65	65	0	73	73	0	69	69	0	0	0	0	72	72	0	64	64	0	69	69
11:00 AM	0	64	64	0	84	84	0	67	67	0	83	83	0	0	0	0	66	66	0	92	92	0	78	78
12:00 PM	0	84	84	0	71	71	0	85	85	0	74	74	0	0	0	0	80	80	0	103	103	0	77	77
1:00 PM	0	62	62	0	95	95	0	82	82	0	81	81	0	0	0	0	87	87	0	117	117	0	86	86
2:00 PM	0	117	117	0	103	103	0	108	108	0	116	116	0	0	0	0	95	95	0	106	106	0	109	109
3:00 PM	0	112	112	0	118	118	0	109	109	0	109	109	0	0	0	0	103	103	0	111	111	0	112	112
4:00 PM	0	201	201	0	190	190	0	203	203	0	177	177	0	0	0	0	124	124	0	135	135	0	190	190
5:00 PM	0	188	188	0	207	207	0	192	192	0	245	245	0	0	0	0	128	128	0	106	106	0	215	215
6:00 PM	0	130	130	0	125	125	0	98	98	0	123	123	0	0	0	0	111	111	0	106	106	0	115	115
7:00 PM	0	77	77	0	87	87	0	92	92	0	93	93	0	0	0	0	81	81	0	54	54	0	91	91
8:00 PM	0	36	36	0	63	63	0	74	74	0	66	66	0	0	0	0	64	64	0	49	49	0	68	68
9:00 PM	0	37	37	0	47	47	0	51	51	0	53	53	0	0	0	0	38	38	0	30	30	0	50	50
10:00 PM	0	23	23	0	27	27	0	26	26	0	34	34	0	0	0	0	50	50	0	21	21	0	29	29
11:00 PM	0	19	19	0	19	19	0	22	22	0	21	21	0	0	0	0	29	29	0	15	15	0	21	21
Total	-	**1,716**	**1,716**	-	**1,817**	**1,817**	-	**1,769**	**1,769**	-	**1,835**	**1,835**	-	**269**	**269**	-	**1,151**	**1,151**	-	**1,360**	**1,360**	-	**1,807**	**1,807**
Percent	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-

1. Mid-week average includes data between Tuesday and Thursday.

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Vehicle Classification Report Summary

Location: I-94 WB Ramp W/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 15

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	18	983	864	50	904	84	0	53	599	87	5	0	79	3,726
Percent	0.5%	26.4%	23.2%	1.3%	24.3%	2.3%	0.0%	1.4%	16.1%	2.3%	0.1%	0.0%	2.1%	100%
Total	18	983	864	50	904	84	0	53	599	87	5	0	79	3,726
Percent	0.5%	26.4%	23.2%	1.3%	24.3%	2.3%	0.0%	1.4%	16.1%	2.3%	0.1%	0.0%	2.1%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Monday, November 28, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	1	0	1	0	0	0	2	0	0	0	0	**5**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
2:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	**2**
3:00 AM	0	2	2	0	1	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	13	5	0	2	1	0	0	1	0	0	0	0	**22**
5:00 AM	0	13	7	0	8	0	0	0	2	3	0	0	0	**33**
6:00 AM	0	9	5	2	9	0	0	2	4	1	0	0	2	**34**
7:00 AM	0	13	8	1	25	1	0	3	6	0	0	0	4	**61**
8:00 AM	0	10	10	1	13	0	0	2	6	0	1	0	2	**45**
9:00 AM	0	12	11	3	12	1	0	2	6	2	0	0	0	**49**
10:00 AM	0	2	8	0	9	2	0	0	6	0	0	0	2	**29**
11:00 AM	0	7	10	0	6	0	0	1	2	0	0	0	1	**27**
12:00 PM	0	8	13	0	13	3	0	0	5	3	0	0	1	**46**
1:00 PM	0	8	10	0	7	3	0	0	3	0	0	0	0	**31**
2:00 PM	0	16	6	0	11	0	0	1	3	2	0	0	3	**42**
3:00 PM	0	10	8	0	6	1	0	0	4	0	0	0	1	**30**
4:00 PM	0	28	14	0	10	2	0	1	8	1	0	0	0	**64**
5:00 PM	0	15	16	0	9	2	0	0	4	0	0	0	0	**46**
6:00 PM	1	7	6	1	5	1	0	0	5	0	0	0	1	**27**
7:00 PM	0	4	9	2	7	0	0	1	5	2	0	0	0	**30**
8:00 PM	0	6	3	1	3	0	0	0	3	0	0	0	1	**17**
9:00 PM	0	3	1	0	2	0	0	0	1	0	0	0	0	**7**
10:00 PM	0	6	0	0	4	0	0	0	2	0	0	0	0	**12**
11:00 PM	0	2	2	0	2	0	0	0	0	0	0	0	1	**7**
Total	**1**	**195**	**155**	**11**	**166**	**17**	**0**	**13**	**79**	**14**	**1**	**0**	**20**	**672**
Percent	**0.1%**	**29.0%**	**23.1%**	**1.6%**	**24.7%**	**2.5%**	**0.0%**	**1.9%**	**11.8%**	**2.1%**	**0.1%**	**0.0%**	**3.0%**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Tuesday, November 29, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	1	0	0	2	0	0	0	2	0	0	0	0	**5**
1:00 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	**4**
2:00 AM	0	0	1	0	0	0	0	0	4	0	0	0	0	**5**
3:00 AM	0	1	1	0	0	0	0	0	3	0	0	0	0	**5**
4:00 AM	0	11	3	0	3	0	0	0	2	0	0	0	0	**19**
5:00 AM	1	10	5	0	4	1	0	0	7	0	0	0	1	**29**
6:00 AM	0	7	6	1	10	0	0	0	4	1	0	0	1	**30**
7:00 AM	0	12	3	1	22	1	0	1	9	0	0	0	2	**51**
8:00 AM	1	15	7	0	15	0	0	2	12	0	0	0	3	**55**
9:00 AM	0	6	11	0	10	0	0	1	8	1	0	0	1	**38**
10:00 AM	0	6	6	0	10	0	0	0	10	2	0	0	2	**36**
11:00 AM	0	8	7	1	4	3	0	1	6	2	0	0	0	**32**
12:00 PM	0	8	11	1	6	1	0	0	6	3	0	0	1	**37**
1:00 PM	0	11	6	2	12	1	0	0	3	0	0	0	1	**36**
2:00 PM	0	8	7	0	5	0	0	0	4	0	0	0	2	**26**
3:00 PM	0	12	9	0	10	0	0	0	8	0	0	0	1	**40**
4:00 PM	0	19	14	1	11	0	0	1	10	2	0	0	1	**59**
5:00 PM	0	13	13	0	9	0	0	0	4	1	0	0	1	**41**
6:00 PM	2	10	9	2	10	2	0	1	6	1	0	0	0	**43**
7:00 PM	0	4	6	2	5	2	0	0	3	1	0	0	0	**23**
8:00 PM	0	3	4	0	3	0	0	0	2	1	0	0	1	**14**
9:00 PM	0	2	2	0	8	0	0	1	1	0	0	0	0	**14**
10:00 PM	0	1	1	0	1	0	0	0	3	1	0	0	0	**7**
11:00 PM	0	0	2	0	0	0	0	0	2	0	0	0	0	**4**
Total	**4**	**168**	**134**	**11**	**160**	**11**	**0**	**8**	**123**	**16**	**0**	**0**	**18**	**653**
Percent	**0.6%**	**25.7%**	**20.5%**	**1.7%**	**24.5%**	**1.7%**	**0.0%**	**1.2%**	**18.8%**	**2.5%**	**0.0%**	**0.0%**	**2.8%**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Wednesday, November 30, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	1	0	1	0	0	0	0	0	0	0	0	**5**
1:00 AM	0	1	0	0	3	0	0	1	1	0	1	0	0	**7**
2:00 AM	0	0	1	0	0	0	0	0	1	0	0	0	0	**2**
3:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	9	5	1	1	0	0	0	0	1	0	0	0	**17**
5:00 AM	0	13	6	0	2	0	0	0	4	0	0	0	0	**25**
6:00 AM	0	2	9	1	14	1	0	1	5	1	0	0	1	**35**
7:00 AM	1	11	6	1	16	0	0	2	4	3	0	0	3	**47**
8:00 AM	1	11	6	1	17	0	0	1	7	3	0	0	2	**49**
9:00 AM	0	3	12	0	12	2	0	1	12	3	0	0	1	**46**
10:00 AM	0	7	4	1	6	0	0	1	7	0	0	0	5	**31**
11:00 AM	0	11	6	1	5	2	0	0	5	2	0	0	2	**34**
12:00 PM	0	6	10	0	8	0	0	1	4	1	0	0	0	**30**
1:00 PM	0	14	7	1	3	0	0	1	4	0	0	0	1	**31**
2:00 PM	0	10	7	0	11	2	0	1	3	1	0	0	1	**36**
3:00 PM	0	8	7	0	8	0	0	0	3	0	0	0	1	**27**
4:00 PM	0	18	18	1	15	1	0	0	3	0	0	0	0	**56**
5:00 PM	0	7	11	0	12	0	0	0	2	0	0	0	0	**32**
6:00 PM	0	5	5	0	5	0	0	1	2	0	0	0	1	**19**
7:00 PM	0	6	4	1	5	3	0	0	2	0	0	0	1	**22**
8:00 PM	0	5	3	0	5	0	0	1	3	0	0	0	0	**17**
9:00 PM	0	1	2	0	1	1	0	1	2	1	0	0	0	**9**
10:00 PM	0	6	4	0	3	0	0	0	1	1	0	0	0	**15**
11:00 PM	0	4	0	0	2	0	0	0	0	0	0	0	0	**6**
Total	**2**	**162**	**135**	**9**	**156**	**12**	**0**	**13**	**75**	**17**	**1**	**0**	**19**	**601**
Percent	**0.3%**	**27.0%**	**22.5%**	**1.5%**	**26.0%**	**2.0%**	**0.0%**	**2.2%**	**12.5%**	**2.8%**	**0.2%**	**0.0%**	**3.2%**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

DATA SOLUTIONS

Thursday, December 1, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	2	0	2	0	0	0	0	0	1	0	0	**7**
1:00 AM	0	2	1	0	1	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	**2**
3:00 AM	0	0	0	0	2	0	0	0	1	0	0	0	0	**3**
4:00 AM	0	9	1	0	2	0	0	0	0	1	0	0	0	**13**
5:00 AM	0	11	6	0	3	1	0	0	5	0	0	0	0	**26**
6:00 AM	0	5	6	0	11	0	0	0	5	1	0	0	1	**29**
7:00 AM	0	5	4	1	14	2	0	0	7	0	1	0	1	**35**
8:00 AM	1	8	12	0	15	2	0	1	8	2	0	0	2	**51**
9:00 AM	0	4	8	2	16	0	0	0	9	2	0	0	0	**41**
10:00 AM	0	6	7	0	10	0	0	1	6	2	0	0	0	**32**
11:00 AM	0	10	7	1	4	3	0	0	6	1	0	0	1	**33**
12:00 PM	0	7	4	0	2	2	0	0	5	0	0	0	0	**20**
1:00 PM	0	5	5	0	8	0	0	1	7	2	0	0	0	**28**
2:00 PM	0	9	11	0	10	0	0	0	4	1	0	0	1	**36**
3:00 PM	1	9	10	0	13	2	0	1	4	0	0	0	0	**40**
4:00 PM	1	21	22	1	14	0	0	0	4	0	0	0	0	**63**
5:00 PM	0	13	10	0	16	0	0	0	8	3	0	0	1	**51**
6:00 PM	1	11	6	0	3	0	0	1	8	1	0	0	2	**33**
7:00 PM	0	5	4	2	4	0	0	0	5	2	0	0	0	**22**
8:00 PM	0	3	7	0	6	1	0	0	3	2	0	0	0	**22**
9:00 PM	0	4	2	0	3	1	0	0	1	1	0	0	0	**12**
10:00 PM	0	1	4	0	5	0	0	0	0	1	0	0	0	**11**
11:00 PM	1	4	2	0	2	1	0	0	3	1	0	0	0	**14**
Total	**5**	**154**	**141**	**7**	**166**	**15**	**0**	**5**	**101**	**23**	**2**	**0**	**9**	**628**
Percent	**0.8%**	**24.5%**	**22.5%**	**1.1%**	**26.4%**	**2.4%**	**0.0%**	**0.8%**	**16.1%**	**3.7%**	**0.3%**	**0.0%**	**1.4%**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

DATA SOLUTIONS

Friday, December 2, 2022
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	3	0	0	1	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	2	0	2	1	0	0	3	2	0	0	1	**11**
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	1	0	1	0	0	3	0	0	0	0	**5**
4:00 AM	0	10	2	0	2	0	0	0	3	2	0	0	0	**19**
5:00 AM	0	12	6	0	1	3	0	0	6	1	0	0	3	**32**
6:00 AM	0	5	3	0	5	0	0	1	3	0	0	0	0	**17**
7:00 AM	0	7	3	1	4	0	0	0	4	1	0	0	0	**20**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**37**	**16**	**2**	**16**	**5**	**0**	**1**	**22**	**6**	**0**	**0**	**4**	**109**
Percent	**0.0%**	**33.9%**	**14.7%**	**1.8%**	**14.7%**	**4.6%**	**0.0%**	**0.9%**	**20.2%**	**5.5%**	**0.0%**	**0.0%**	**3.7%**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

DATA SOLUTIONS

Saturday, December 3, 2022
Westbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	4	0	0	7	0	0	0	4	0	0	0	0	**15**
10:00 AM	0	6	4	0	5	1	0	0	8	1	0	0	1	**26**
11:00 AM	0	6	4	0	9	0	0	0	6	2	0	0	0	**27**
12:00 PM	1	6	8	2	10	1	0	0	9	0	0	0	0	**37**
1:00 PM	0	6	8	1	6	1	0	0	10	0	0	0	1	**33**
2:00 PM	0	12	8	1	5	0	0	3	11	1	0	0	0	**41**
3:00 PM	0	10	13	0	13	1	0	0	7	1	0	0	0	**45**
4:00 PM	0	10	21	0	14	2	0	0	4	1	0	0	0	**52**
5:00 PM	0	15	14	0	10	0	0	0	6	0	0	0	0	**45**
6:00 PM	1	8	13	0	10	1	0	0	3	0	0	0	0	**36**
7:00 PM	0	3	8	0	5	0	0	0	4	1	0	0	0	**21**
8:00 PM	0	8	13	0	7	1	0	0	2	0	0	0	0	**31**
9:00 PM	0	4	1	0	5	0	0	0	2	0	0	0	0	**12**
10:00 PM	0	5	6	0	8	0	0	0	3	0	0	0	0	**22**
11:00 PM	1	2	3	0	3	1	0	0	4	1	0	0	0	**15**
Total	**3**	**105**	**124**	**4**	**117**	**9**	**0**	**3**	**83**	**8**	**0**	**0**	**2**	**458**
Percent	**0.7%**	**22.9%**	**27.1%**	**0.9%**	**25.5%**	**2.0%**	**0.0%**	**0.7%**	**18.1%**	**1.7%**	**0.0%**	**0.0%**	**0.4%**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

DATA SOLUTIONS

Sunday, December 4, 2022
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	3	2	0	1	0	0	0	2	0	0	0	0	**8**
1:00 AM	0	3	1	0	0	0	0	0	3	0	0	0	0	**7**
2:00 AM	0	2	0	0	2	0	0	0	2	0	0	0	0	**6**
3:00 AM	0	1	0	0	0	0	0	0	5	0	0	0	0	**6**
4:00 AM	0	2	4	0	1	0	0	0	1	0	0	0	0	**8**
5:00 AM	0	2	0	1	2	0	0	1	3	0	0	0	2	**11**
6:00 AM	0	2	3	0	2	0	0	0	5	0	0	0	2	**14**
7:00 AM	0	1	5	1	3	2	0	0	5	0	0	0	0	**17**
8:00 AM	1	0	12	0	6	2	0	0	9	0	0	0	0	**30**
9:00 AM	1	13	9	0	8	1	0	1	7	1	0	0	0	**41**
10:00 AM	0	11	9	0	9	1	0	2	10	1	0	0	0	**43**
11:00 AM	0	14	8	0	6	0	0	1	12	0	0	0	1	**42**
12:00 PM	0	11	14	0	5	0	0	0	6	0	0	0	1	**37**
1:00 PM	0	11	11	0	12	2	0	1	11	0	0	0	0	**48**
2:00 PM	0	8	13	0	13	1	0	0	6	0	0	0	0	**41**
3:00 PM	1	16	9	1	11	1	0	0	8	0	0	0	0	**47**
4:00 PM	0	20	16	1	13	3	0	1	6	0	0	0	1	**61**
5:00 PM	0	21	10	0	8	0	0	1	1	0	0	0	0	**41**
6:00 PM	0	5	15	0	7	1	0	1	6	0	0	0	0	**35**
7:00 PM	0	6	7	2	3	1	0	0	6	1	0	0	0	**26**
8:00 PM	0	2	5	0	3	0	0	1	0	0	0	0	0	**11**
9:00 PM	0	6	2	0	4	0	0	0	1	0	0	0	0	**13**
10:00 PM	0	2	2	0	3	0	0	0	0	0	1	0	0	**8**
11:00 PM	0	0	2	0	1	0	0	0	1	0	0	0	0	**4**
Total	**3**	**162**	**159**	**6**	**123**	**15**	**0**	**10**	**116**	**3**	**1**	**0**	**7**	**605**
Percent	**0.5%**	**26.8%**	**26.3%**	**1.0%**	**20.3%**	**2.5%**	**0.0%**	**1.7%**	**19.2%**	**0.5%**	**0.2%**	**0.0%**	**1.2%**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Total Study Average
Eastbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Total Study Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	1	0	1	0	0	0	1	0	0	0	0	**5**
1:00 AM	0	1	1	0	1	0	0	0	2	0	0	0	0	**5**
2:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	**2**
3:00 AM	0	1	1	0	1	0	0	0	2	0	0	0	0	**5**
4:00 AM	0	8	3	0	2	0	0	0	1	1	0	0	0	**15**
5:00 AM	0	9	4	0	3	1	0	0	4	1	0	0	1	**23**
6:00 AM	0	4	5	1	7	0	0	1	4	1	0	0	1	**24**
7:00 AM	0	7	4	1	12	1	0	1	5	1	0	0	1	**33**
8:00 AM	1	6	7	0	9	1	0	1	6	1	0	0	1	**33**
9:00 AM	0	6	7	1	9	1	0	1	7	1	0	0	0	**33**
10:00 AM	0	5	5	0	7	1	0	1	7	1	0	0	1	**28**
11:00 AM	0	8	6	0	5	1	0	0	5	1	0	0	1	**27**
12:00 PM	0	7	9	0	6	1	0	0	5	1	0	0	0	**29**
1:00 PM	0	8	7	1	7	1	0	0	5	0	0	0	0	**29**
2:00 PM	0	9	7	0	8	0	0	1	4	1	0	0	1	**31**
3:00 PM	0	9	8	0	9	1	0	0	5	0	0	0	0	**32**
4:00 PM	0	17	15	1	11	1	0	0	5	1	0	0	0	**51**
5:00 PM	0	12	11	0	9	0	0	0	4	1	0	0	0	**37**
6:00 PM	1	7	8	0	6	1	0	1	4	0	0	0	1	**29**
7:00 PM	0	4	5	1	4	1	0	0	4	1	0	0	0	**20**
8:00 PM	0	4	5	0	4	0	0	0	2	0	0	0	0	**15**
9:00 PM	0	3	1	0	3	0	0	0	1	0	0	0	0	**8**
10:00 PM	0	3	2	0	3	0	0	0	1	0	0	0	0	**9**
11:00 PM	0	2	2	0	1	0	0	0	1	0	0	0	0	**6**
Total	**2**	**142**	**124**	**6**	**129**	**12**	**0**	**7**	**86**	**13**	**0**	**0**	**8**	**529**
Percent	**0.4%**	**26.8%**	**23.4%**	**1.1%**	**24.4%**	**2.3%**	**0.0%**	**1.3%**	**16.3%**	**2.5%**	**0.0%**	**0.0%**	**1.5%**	

Note: Average only condsidered on days with 24-hours of data.

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

3-Day (Tuesday - Thursday) Average
Eastbound

	FHWA Vehicle Classification													Total
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
7:00 AM	0	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	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	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	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

3-Day (Tuesday - Thursday) Average
Westbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	2	1	0	2	0	0	0	1	0	0	0	0	**6**
1:00 AM	0	1	0	0	1	0	0	0	2	0	0	0	0	**5**
2:00 AM	0	0	1	0	0	0	0	0	2	0	0	0	0	**3**
3:00 AM	0	1	1	0	1	0	0	0	1	0	0	0	0	**4**
4:00 AM	0	10	3	0	2	0	0	0	1	1	0	0	0	**16**
5:00 AM	0	11	6	0	3	1	0	0	5	0	0	0	0	**27**
6:00 AM	0	5	7	1	12	0	0	0	5	1	0	0	1	**31**
7:00 AM	0	9	4	1	17	1	0	1	7	1	0	0	2	**44**
8:00 AM	1	11	8	0	16	1	0	1	9	2	0	0	2	**52**
9:00 AM	0	4	10	1	13	1	0	1	10	2	0	0	1	**42**
10:00 AM	0	6	6	0	9	0	0	1	8	1	0	0	2	**33**
11:00 AM	0	10	7	1	4	3	0	0	6	2	0	0	1	**33**
12:00 PM	0	7	8	0	5	1	0	0	5	1	0	0	0	**29**
1:00 PM	0	10	6	1	8	0	0	1	5	1	0	0	1	**32**
2:00 PM	0	9	8	0	9	1	0	0	4	1	0	0	1	**33**
3:00 PM	0	10	9	0	10	1	0	0	5	0	0	0	1	**36**
4:00 PM	0	19	18	1	13	0	0	0	6	1	0	0	0	**59**
5:00 PM	0	11	11	0	12	0	0	0	5	1	0	0	1	**41**
6:00 PM	1	9	7	1	6	1	0	1	5	1	0	0	1	**32**
7:00 PM	0	5	5	2	5	2	0	0	3	1	0	0	0	**22**
8:00 PM	0	4	5	0	5	0	0	0	3	1	0	0	0	**18**
9:00 PM	0	2	2	0	4	1	0	1	1	1	0	0	0	**12**
10:00 PM	0	3	3	0	3	0	0	0	1	1	0	0	0	**11**
11:00 PM	0	3	1	0	1	0	0	0	2	0	0	0	0	**8**
Total	**4**	**161**	**137**	**9**	**161**	**13**	**0**	**9**	**100**	**19**	**1**	**0**	**15**	**627**
Percent	**0.6%**	**25.7%**	**21.8%**	**1.4%**	**25.6%**	**2.0%**	**0.0%**	**1.4%**	**15.9%**	**3.0%**	**0.2%**	**0.0%**	**2.4%**	

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Vehicle Speed Report Summary

Location: I-94 WB Ramp W/O Hwy 25

Count Direction: Eastbound / Westbound

Date Range: 11/28/2022 to 12/4/2022

Site Code: 15

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westbound	2	4	15	81	345	633	527	724	784	440	135	29	4	3	0	0	0	3,726
Percent	0.1%	0.1%	0.4%	2.2%	9.3%	17.0%	14.1%	19.4%	21.0%	11.8%	3.6%	0.8%	0.1%	0.1%	0.0%	0.0%	0.0%	100%
Total	2	4	15	81	345	633	527	724	784	440	135	29	4	3	0	0	0	3,726
Percent	0.1%	0.1%	0.4%	2.2%	9.3%	17.0%	14.1%	19.4%	21.0%	11.8%	3.6%	0.8%	0.1%	0.1%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%
Westbound			**Westbound**		
50th Percentile (Median)	41.9	mph	Mean (Average) Speed	41.1	mph
85th Percentile	50.4	mph	10 mph Pace	40.3 - 50.3	mph
95th Percentile	54.8	mph	Percent in Pace	40.3	%

TJ Wethington
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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Monday, November 28, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	0	0	2	0	1	0	0	0	0	0	0	0	0	**5**
1:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	1	1	2	7	8	2	1	0	0	0	0	0	0	**22**
5:00 AM	0	0	0	0	2	5	4	9	6	6	1	0	0	0	0	0	0	**33**
6:00 AM	0	0	0	0	3	6	9	7	7	2	0	0	0	0	0	0	0	**34**
7:00 AM	0	0	0	1	3	10	8	15	13	10	0	1	0	0	0	0	0	**61**
8:00 AM	0	0	0	2	5	11	7	11	5	3	1	0	0	0	0	0	0	**45**
9:00 AM	0	0	0	1	4	13	7	10	6	5	3	0	0	0	0	0	0	**49**
10:00 AM	0	1	1	0	1	8	5	4	6	0	2	0	0	1	0	0	0	**29**
11:00 AM	0	0	0	0	1	2	6	3	8	5	2	0	0	0	0	0	0	**27**
12:00 PM	0	0	1	0	3	6	8	10	8	6	4	0	0	0	0	0	0	**46**
1:00 PM	0	0	0	0	0	6	6	13	3	2	1	0	0	0	0	0	0	**31**
2:00 PM	0	0	0	0	3	5	7	14	6	5	2	0	0	0	0	0	0	**42**
3:00 PM	0	0	0	1	3	1	7	4	7	6	1	0	0	0	0	0	0	**30**
4:00 PM	0	0	0	0	7	6	6	15	13	14	2	1	0	0	0	0	0	**64**
5:00 PM	0	0	0	0	3	5	4	16	14	3	0	1	0	0	0	0	0	**46**
6:00 PM	0	0	0	3	2	5	2	5	7	2	1	0	0	0	0	0	0	**27**
7:00 PM	0	1	0	3	5	6	7	3	3	2	0	0	0	0	0	0	0	**30**
8:00 PM	0	0	0	0	4	2	0	4	4	2	1	0	0	0	0	0	0	**17**
9:00 PM	0	0	0	0	0	0	2	3	1	1	0	0	0	0	0	0	0	**7**
10:00 PM	0	0	0	0	1	3	0	4	3	1	0	0	0	0	0	0	0	**12**
11:00 PM	0	0	0	0	1	1	0	0	3	1	0	1	0	0	0	0	0	**7**
Total	**0**	**2**	**2**	**13**	**55**	**103**	**100**	**157**	**133**	**79**	**23**	**4**	**0**	**1**	**0**	**0**	**0**	**672**
Percent	**0.0%**	**0.3%**	**0.3%**	**1.9%**	**8.2%**	**15.3%**	**14.9%**	**23.4%**	**19.8%**	**11.8%**	**3.4%**	**0.6%**	**0.0%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.1	mph	Mean (Average) Speed	41.3	mph
85th Percentile	50.2	mph	10 mph Pace	39.3 - 49.3	mph
95th Percentile	54.3	mph	Percent in Pace	43.9	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Tuesday, November 29, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	1	0	0	0	0	**5**
1:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	**5**
3:00 AM	0	0	0	1	1	1	0	0	1	0	1	0	0	0	0	0	0	**5**
4:00 AM	0	0	0	0	1	0	5	2	9	2	0	0	0	0	0	0	0	**19**
5:00 AM	0	0	0	3	3	6	4	4	5	2	2	0	0	0	0	0	0	**29**
6:00 AM	0	0	0	2	5	4	3	5	8	2	0	1	0	0	0	0	0	**30**
7:00 AM	0	0	0	1	10	7	8	9	9	4	3	0	0	0	0	0	0	**51**
8:00 AM	0	0	1	0	8	11	3	13	9	7	2	1	0	0	0	0	0	**55**
9:00 AM	0	0	0	1	0	8	9	7	9	2	1	1	0	0	0	0	0	**38**
10:00 AM	0	0	2	2	4	9	6	5	5	3	0	0	0	0	0	0	0	**36**
11:00 AM	0	0	0	1	3	5	5	5	8	4	1	0	0	0	0	0	0	**32**
12:00 PM	0	0	0	1	5	6	5	5	7	6	2	0	0	0	0	0	0	**37**
1:00 PM	0	0	0	2	4	5	3	6	6	6	3	1	0	0	0	0	0	**36**
2:00 PM	0	0	0	0	5	4	3	9	4	0	1	0	0	0	0	0	0	**26**
3:00 PM	0	0	0	0	3	6	3	7	12	5	4	0	0	0	0	0	0	**40**
4:00 PM	0	0	0	0	5	9	10	6	14	11	3	1	0	0	0	0	0	**59**
5:00 PM	0	0	0	2	2	4	10	4	8	6	5	0	0	0	0	0	0	**41**
6:00 PM	0	1	3	1	1	10	11	7	6	3	0	0	0	0	0	0	0	**43**
7:00 PM	0	0	1	1	6	3	7	4	1	0	0	0	0	0	0	0	0	**23**
8:00 PM	0	0	0	0	1	7	2	2	1	1	0	0	0	0	0	0	0	**14**
9:00 PM	0	0	0	0	1	0	4	5	3	1	0	0	0	0	0	0	0	**14**
10:00 PM	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**
11:00 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	**4**
Total	**0**	**1**	**7**	**18**	**72**	**120**	**105**	**106**	**125**	**65**	**28**	**5**	**1**	**0**	**0**	**0**	**0**	**653**
Percent	**0.0%**	**0.2%**	**1.1%**	**2.8%**	**11.0%**	**18.4%**	**16.1%**	**16.2%**	**19.1%**	**10.0%**	**4.3%**	**0.8%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	40.3	mph	Mean (Average) Speed	40.1	mph
85th Percentile	50.2	mph	10 mph Pace	38.9 - 48.9	mph
95th Percentile	55.2	mph	Percent in Pace	35.99	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Wednesday, November 30, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0	0	**5**
1:00 AM	0	0	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	2	1	3	2	6	3	0	0	0	0	0	0	0	**17**
5:00 AM	0	0	0	2	3	4	3	4	7	1	1	0	0	0	0	0	0	**25**
6:00 AM	0	0	0	1	6	4	9	8	4	3	0	0	0	0	0	0	0	**35**
7:00 AM	0	0	0	3	7	12	6	4	11	4	0	0	0	0	0	0	0	**47**
8:00 AM	0	0	1	2	5	7	7	6	12	9	0	0	0	0	0	0	0	**49**
9:00 AM	0	0	1	2	5	11	9	6	5	5	2	0	0	0	0	0	0	**46**
10:00 AM	0	0	0	1	4	7	3	10	4	2	0	0	0	0	0	0	0	**31**
11:00 AM	0	0	0	2	5	6	3	8	5	4	1	0	0	0	0	0	0	**34**
12:00 PM	0	0	0	0	0	4	2	8	10	5	1	0	0	0	0	0	0	**30**
1:00 PM	0	0	0	0	1	3	6	11	7	2	1	0	0	0	0	0	0	**31**
2:00 PM	0	0	0	0	6	6	0	12	5	6	1	0	0	0	0	0	0	**36**
3:00 PM	0	0	0	0	1	4	4	7	5	5	1	0	0	0	0	0	0	**27**
4:00 PM	0	0	1	0	1	3	5	10	19	14	3	0	0	0	0	0	0	**56**
5:00 PM	0	0	0	0	0	2	3	3	10	11	3	0	0	0	0	0	0	**32**
6:00 PM	0	0	0	0	2	3	2	6	4	1	1	0	0	0	0	0	0	**19**
7:00 PM	0	0	0	2	0	4	3	2	6	5	0	0	0	0	0	0	0	**22**
8:00 PM	0	0	0	1	0	6	2	4	3	0	1	0	0	0	0	0	0	**17**
9:00 PM	0	0	0	1	1	3	0	2	0	2	0	0	0	0	0	0	0	**9**
10:00 PM	0	0	0	0	2	8	3	1	1	0	0	0	0	0	0	0	0	**15**
11:00 PM	0	0	0	0	0	3	1	0	1	1	0	0	0	0	0	0	0	**6**
Total	**0**	**0**	**3**	**17**	**52**	**106**	**77**	**116**	**128**	**84**	**18**	**0**	**0**	**0**	**0**	**0**	**0**	**601**
Percent	**0.0%**	**0.0%**	**0.5%**	**2.8%**	**8.7%**	**17.6%**	**12.8%**	**19.3%**	**21.3%**	**14.0%**	**3.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.2	mph	Mean (Average) Speed	41	mph
85th Percentile	50.6	mph	10 mph Pace	42.6 - 52.6	mph
95th Percentile	53.9	mph	Percent in Pace	41.76	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Thursday, December 1, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	1	2	1	1	1	0	0	0	0	0	0	**7**
1:00 AM	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	0	0	2	1	5	4	1	0	0	0	0	0	0	**13**
5:00 AM	0	0	0	0	2	2	4	5	7	3	3	0	0	0	0	0	0	**26**
6:00 AM	0	0	0	1	5	3	3	4	9	3	0	1	0	0	0	0	0	**29**
7:00 AM	0	0	0	0	4	6	5	8	8	2	2	0	0	0	0	0	0	**35**
8:00 AM	0	0	0	4	3	7	9	4	18	4	2	0	0	0	0	0	0	**51**
9:00 AM	0	0	0	1	1	11	6	8	7	5	1	1	0	0	0	0	0	**41**
10:00 AM	0	0	0	1	3	7	3	5	10	0	2	1	0	0	0	0	0	**32**
11:00 AM	0	0	0	0	1	6	9	5	5	6	1	0	0	0	0	0	0	**33**
12:00 PM	0	0	0	0	2	4	7	3	4	0	0	0	0	0	0	0	0	**20**
1:00 PM	0	0	0	0	2	6	3	5	6	5	1	0	0	0	0	0	0	**28**
2:00 PM	0	0	0	0	4	4	2	6	11	6	2	1	0	0	0	0	0	**36**
3:00 PM	0	0	0	0	1	4	4	11	11	6	3	0	0	0	0	0	0	**40**
4:00 PM	1	0	0	0	3	4	4	14	20	12	4	1	0	0	0	0	0	**63**
5:00 PM	0	0	0	0	1	7	11	10	11	8	1	2	0	0	0	0	0	**51**
6:00 PM	0	0	1	1	6	3	6	6	7	1	2	0	0	0	0	0	0	**33**
7:00 PM	0	0	0	0	2	6	6	4	1	1	2	0	0	0	0	0	0	**22**
8:00 PM	0	0	0	1	4	4	1	5	6	1	0	0	0	0	0	0	0	**22**
9:00 PM	0	0	0	0	0	2	3	2	4	0	0	0	0	1	0	0	0	**12**
10:00 PM	0	0	0	0	0	1	2	3	3	1	0	1	0	0	0	0	0	**11**
11:00 PM	0	0	0	1	4	6	1	1	0	1	0	0	0	0	0	0	0	**14**
Total	**1**	**0**	**1**	**10**	**48**	**97**	**93**	**114**	**155**	**72**	**28**	**8**	**0**	**1**	**0**	**0**	**0**	**628**
Percent	**0.2%**	**0.0%**	**0.2%**	**1.6%**	**7.6%**	**15.4%**	**14.8%**	**18.2%**	**24.7%**	**11.5%**	**4.5%**	**1.3%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	42.7	mph	Mean (Average) Speed	41.9	mph
85th Percentile	50.6	mph	10 mph Pace	41.4 - 51.4	mph
95th Percentile	55.8	mph	Percent in Pace	42.99	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Friday, December 2, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	0	3	4	2	1	1	0	0	0	0	0	0	0	0	**11**
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	**5**
4:00 AM	0	0	1	0	3	1	3	2	8	1	0	0	0	0	0	0	0	**19**
5:00 AM	0	0	0	0	6	9	5	7	2	3	0	0	0	0	0	0	0	**32**
6:00 AM	0	0	0	0	0	3	2	4	5	2	0	1	0	0	0	0	0	**17**
7:00 AM	0	0	0	1	3	6	1	1	5	2	1	0	0	0	0	0	0	**20**
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**1**	**1**	**18**	**25**	**16**	**15**	**21**	**10**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**109**
Percent	**0.0%**	**0.0%**	**0.9%**	**0.9%**	**16.5%**	**22.9%**	**14.7%**	**13.8%**	**19.3%**	**9.2%**	**0.9%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	37.9	mph	Mean (Average) Speed	38.7	mph
85th Percentile	48.8	mph	10 mph Pace	27.1 - 37.1	mph
95th Percentile	53.4	mph	Percent in Pace	42.2	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Saturday, December 3, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	2	4	4	0	1	2	2	0	0	0	0	0	0	**15**
10:00 AM	0	0	0	0	5	6	2	6	3	3	1	0	0	0	0	0	0	**26**
11:00 AM	0	0	0	0	5	2	5	3	7	4	1	0	0	0	0	0	0	**27**
12:00 PM	0	0	0	1	5	8	0	4	11	7	1	0	0	0	0	0	0	**37**
1:00 PM	0	0	0	2	4	6	2	7	6	2	4	0	0	0	0	0	0	**33**
2:00 PM	0	0	0	0	5	8	6	9	8	5	0	0	0	0	0	0	0	**41**
3:00 PM	0	0	0	0	3	8	7	10	10	5	2	0	0	0	0	0	0	**45**
4:00 PM	0	0	0	1	5	5	6	8	16	7	3	0	1	0	0	0	0	**52**
5:00 PM	0	0	0	0	2	5	11	8	11	5	2	1	0	0	0	0	0	**45**
6:00 PM	0	0	0	2	4	1	3	10	9	4	0	3	0	0	0	0	0	**36**
7:00 PM	0	0	0	2	1	2	2	6	3	3	1	0	1	0	0	0	0	**21**
8:00 PM	0	0	0	0	2	2	3	9	9	4	2	0	0	0	0	0	0	**31**
9:00 PM	0	0	0	0	3	0	1	2	4	2	0	0	0	0	0	0	0	**12**
10:00 PM	0	0	0	0	0	4	3	7	6	2	0	0	0	0	0	0	0	**22**
11:00 PM	1	1	1	0	2	2	4	2	1	1	0	0	0	0	0	0	0	**15**
Total	**1**	**1**	**1**	**8**	**48**	**63**	**59**	**91**	**105**	**56**	**19**	**4**	**2**	**0**	**0**	**0**	**0**	**458**
Percent	**0.2%**	**0.2%**	**0.2%**	**1.7%**	**10.5%**	**13.8%**	**12.9%**	**19.9%**	**22.9%**	**12.2%**	**4.1%**	**0.9%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	43.0	mph	Mean (Average) Speed	41.6	mph
85th Percentile	50.8	mph	10 mph Pace	41.9 - 51.9	mph
95th Percentile	55.4	mph	Percent in Pace	43.67	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Sunday, December 4, 2022
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	1	0	3	2	1	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	1	1	4	1	0	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	1	0	1	1	1	0	1	1	0	0	0	0	0	0	**6**
3:00 AM	0	0	0	1	1	3	0	0	1	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	0	0	0	1	1	0	1	5	0	0	0	0	0	0	0	0	**8**
5:00 AM	0	0	0	1	1	4	0	2	1	2	0	0	0	0	0	0	0	**11**
6:00 AM	0	0	0	0	1	6	3	1	2	1	0	0	0	0	0	0	0	**14**
7:00 AM	0	0	0	0	4	7	3	2	0	1	0	0	0	0	0	0	0	**17**
8:00 AM	0	0	0	3	3	7	6	5	4	2	0	0	0	0	0	0	0	**30**
9:00 AM	0	0	0	2	6	5	3	13	6	5	0	0	1	0	0	0	0	**41**
10:00 AM	0	0	0	0	2	13	4	8	11	3	1	1	0	0	0	0	0	**43**
11:00 AM	0	0	0	0	6	10	6	6	6	6	2	0	0	0	0	0	0	**42**
12:00 PM	0	0	0	0	2	6	7	7	6	5	2	2	0	0	0	0	0	**37**
1:00 PM	0	0	0	0	5	10	6	11	8	6	0	2	0	0	0	0	0	**48**
2:00 PM	0	0	0	0	2	6	5	6	12	7	3	0	0	0	0	0	0	**41**
3:00 PM	0	0	0	0	3	9	3	8	12	7	2	2	0	1	0	0	0	**47**
4:00 PM	0	0	0	1	4	4	7	15	15	12	3	0	0	0	0	0	0	**61**
5:00 PM	0	0	0	0	0	7	3	13	13	5	0	0	0	0	0	0	0	**41**
6:00 PM	0	0	0	1	5	6	5	7	4	6	1	0	0	0	0	0	0	**35**
7:00 PM	0	0	0	3	3	5	5	3	5	1	1	0	0	0	0	0	0	**26**
8:00 PM	0	0	0	0	1	1	3	3	3	0	0	0	0	0	0	0	0	**11**
9:00 PM	0	0	0	0	0	1	2	6	1	2	1	0	0	0	0	0	0	**13**
10:00 PM	0	0	0	0	0	1	2	4	0	1	0	0	0	0	0	0	0	**8**
11:00 PM	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0	0	**4**
Total	**0**	**0**	**0**	**14**	**52**	**119**	**77**	**125**	**117**	**74**	**18**	**7**	**1**	**1**	**0**	**0**	**0**	**605**
Percent	**0.0%**	**0.0%**	**0.0%**	**2.3%**	**8.6%**	**19.7%**	**12.7%**	**20.7%**	**19.3%**	**12.2%**	**3.0%**	**1.2%**	**0.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	41.9	mph	Mean (Average) Speed	41	mph
85th Percentile	50.3	mph	10 mph Pace	40.9 - 50.9	mph
95th Percentile	54.7	mph	Percent in Pace	40.99	%

TJ Wethington
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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
6:00 AM	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	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	0	0	0	0	**0**
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
10:00 AM	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**
12:00 PM	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**
2:00 PM	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**
4:00 PM	0	0	0	0	0	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	0	0	0	0	**0**
6:00 PM	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**
8:00 PM	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**
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	0.0	mph	Mean (Average) Speed	0.0	mph
85th Percentile	0.0	mph	10 mph Pace	.0 - 10.0	mph
95th Percentile	0.0	mph	Percent in Pace	0.0	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 to 12/4/2022
Site Code: 15

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	**5**
1:00 AM	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	1	1	2	2	6	2	0	0	0	0	0	0	0	**14**
5:00 AM	0	0	0	1	2	4	3	4	4	2	1	0	0	0	0	0	0	**21**
6:00 AM	0	0	0	1	3	4	4	4	5	2	0	0	0	0	0	0	0	**23**
7:00 AM	0	0	0	1	4	7	4	6	7	3	1	0	0	0	0	0	0	**33**
8:00 AM	0	0	0	2	3	6	5	6	7	4	1	0	0	0	0	0	0	**34**
9:00 AM	0	0	0	1	3	7	5	6	5	3	1	0	0	0	0	0	0	**31**
10:00 AM	0	0	0	1	3	7	3	5	6	2	1	0	0	0	0	0	0	**28**
11:00 AM	0	0	0	0	3	4	5	4	6	4	1	0	0	0	0	0	0	**27**
12:00 PM	0	0	0	0	2	5	4	5	7	4	1	0	0	0	0	0	0	**28**
1:00 PM	0	0	0	1	2	5	4	8	5	3	1	0	0	0	0	0	0	**29**
2:00 PM	0	0	0	0	4	5	3	8	7	4	1	0	0	0	0	0	0	**32**
3:00 PM	0	0	0	0	2	5	4	7	8	5	2	0	0	0	0	0	0	**33**
4:00 PM	0	0	0	0	4	4	5	10	14	10	3	0	0	0	0	0	0	**50**
5:00 PM	0	0	0	0	1	4	6	8	10	5	2	1	0	0	0	0	0	**37**
6:00 PM	0	0	1	1	3	4	4	6	5	2	1	0	0	0	0	0	0	**27**
7:00 PM	0	0	0	2	2	4	4	3	3	2	1	0	0	0	0	0	0	**21**
8:00 PM	0	0	0	0	2	3	2	4	4	1	1	0	0	0	0	0	0	**17**
9:00 PM	0	0	0	0	1	1	2	3	2	1	0	0	0	0	0	0	0	**10**
10:00 PM	0	0	0	0	0	3	2	3	2	1	0	0	0	0	0	0	0	**11**
11:00 PM	0	0	0	0	1	2	1	0	1	1	0	0	0	0	0	0	0	**6**
Total	**0**	**0**	**1**	**11**	**48**	**90**	**75**	**103**	**116**	**62**	**19**	**1**	**0**	**0**	**0**	**0**	**0**	**526**
Percent	**0.0%**	**0.0%**	**0.2%**	**2.1%**	**9.1%**	**17.1%**	**14.3%**	**19.6%**	**22.1%**	**11.8%**	**3.6%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	41.9	mph	Mean (Average) Speed	41.1	mph
85th Percentile	50.4	mph	10 mph Pace	40.3 - 50.3	mph
95th Percentile	54.8	mph	Percent in Pace	40.3	%

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Location: I-94 WB Ramp W/O Hwy 25
Date Range: 11/28/2022 - 12/4/2022
Site Code: 15

	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	11/28/2022			11/29/2022			11/30/2022			12/1/2022			12/2/2022			12/3/2022			12/4/2022					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	5	5	0	5	5	0	5	5	0	7	7	0	4	4	0	0	0	0	8	8	0	6	6
1:00 AM	0	1	1	0	4	4	0	7	7	0	4	4	0	11	11	0	0	0	0	7	7	0	5	5
2:00 AM	0	2	2	0	5	5	0	2	2	0	2	2	0	1	1	0	0	0	0	6	6	0	3	3
3:00 AM	0	5	5	0	5	5	0	3	3	0	3	3	0	5	5	0	0	0	0	6	6	0	4	4
4:00 AM	0	22	22	0	19	19	0	17	17	0	13	13	0	19	19	0	0	0	0	8	8	0	16	16
5:00 AM	0	33	33	0	29	29	0	25	25	0	26	26	0	32	32	0	0	0	0	11	11	0	27	27
6:00 AM	0	34	34	0	30	30	0	35	35	0	29	29	0	17	17	0	0	0	0	14	14	0	31	31
7:00 AM	0	61	61	0	51	51	0	47	47	0	35	35	0	20	20	0	0	0	0	17	17	0	44	44
8:00 AM	0	45	45	0	55	55	0	49	49	0	51	51	0	0	0	0	0	0	0	30	30	0	52	52
9:00 AM	0	49	49	0	38	38	0	46	46	0	41	41	0	0	0	0	15	15	0	41	41	0	42	42
10:00 AM	0	29	29	0	36	36	0	31	31	0	32	32	0	0	0	0	26	26	0	43	43	0	33	33
11:00 AM	0	27	27	0	32	32	0	34	34	0	33	33	0	0	0	0	27	27	0	42	42	0	33	33
12:00 PM	0	46	46	0	37	37	0	30	30	0	20	20	0	0	0	0	37	37	0	37	37	0	29	29
1:00 PM	0	31	31	0	36	36	0	31	31	0	28	28	0	0	0	0	33	33	0	48	48	0	32	32
2:00 PM	0	42	42	0	26	26	0	36	36	0	36	36	0	0	0	0	41	41	0	41	41	0	33	33
3:00 PM	0	30	30	0	40	40	0	27	27	0	40	40	0	0	0	0	45	45	0	47	47	0	36	36
4:00 PM	0	64	64	0	59	59	0	56	56	0	63	63	0	0	0	0	52	52	0	61	61	0	59	59
5:00 PM	0	46	46	0	41	41	0	32	32	0	51	51	0	0	0	0	45	45	0	41	41	0	41	41
6:00 PM	0	27	27	0	43	43	0	19	19	0	33	33	0	0	0	0	36	36	0	35	35	0	32	32
7:00 PM	0	30	30	0	23	23	0	22	22	0	22	22	0	0	0	0	21	21	0	26	26	0	22	22
8:00 PM	0	17	17	0	14	14	0	17	17	0	22	22	0	0	0	0	31	31	0	11	11	0	18	18
9:00 PM	0	7	7	0	14	14	0	9	9	0	12	12	0	0	0	0	12	12	0	13	13	0	12	12
10:00 PM	0	12	12	0	7	7	0	15	15	0	11	11	0	0	0	0	22	22	0	8	8	0	11	11
11:00 PM	0	7	7	0	4	4	0	6	6	0	14	14	0	0	0	0	15	15	0	4	4	0	8	8
Total	-	**672**	**672**	-	**653**	**653**	-	**601**	**601**	-	**628**	**628**	-	**109**	**109**	-	**458**	**458**	-	**605**	**605**	-	**627**	**627**
Percent	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-	-	**100%**	-

1. Mid-week average includes data between Tuesday and Thursday.

TJ Wethington
720-646-1008
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Location: I-94 W/O Sunset Dr
Date: 11/28/2022
Count Duration: 24 HRS
Site Code: 2

Time	Monday, November 28, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	6	5	4	5	
0:15	4	5	5	2	65
0:30	2	3	1	3	
0:45	3	11	5	1	
1:00	5	5	2	3	
1:15	3	7	1	3	53
1:30	1	4	2	2	
1:45	6	6	2	1	
2:00	1	3	2	1	
2:15	2	2	5	0	37
2:30	2	4	4	3	
2:45	2	4	1	1	
3:00	3	3	4	1	
3:15	2	3	2	0	61
3:30	8	8	2	1	
3:45	13	1	8	2	
4:00	8	2	3	3	
4:15	16	7	3	3	130
4:30	21	3	5	3	
4:45	27	9	12	5	
5:00	33	10	6	3	
5:15	42	18	7	3	296
5:30	45	29	4	6	
5:45	57	21	9	3	
6:00	67	34	6	7	
6:15	59	44	8	8	480
6:30	41	57	11	6	
6:45	48	67	13	4	
7:00	51	89	15	3	
7:15	53	96	12	3	679
7:30	52	108	13	9	
7:45	43	107	17	8	
8:00	48	93	16	7	
8:15	58	75	25	4	663
8:30	52	93	13	16	
8:45	58	81	20	4	
9:00	48	54	24	10	
9:15	44	71	17	6	571
9:30	48	94	18	10	
9:45	46	62	13	6	
10:00	36	98	16	10	
10:15	40	90	11	15	635
10:30	52	84	18	12	
10:45	38	86	10	19	
11:00	49	79	17	15	
11:15	59	77	17	14	670
11:30	58	89	23	11	
11:45	63	74	12	13	
12:00	56	77	10	8	
12:15	66	75	19	15	651
12:30	58	67	16	13	
12:45	62	71	26	12	
13:00	68	67	15	7	
13:15	50	53	7	18	610
13:30	69	65	10	15	
13:45	76	61	10	19	
14:00	82	56	15	16	
14:15	71	60	12	15	689
14:30	103	63	10	13	
14:45	85	59	11	18	
15:00	77	58	16	15	
15:15	62	63	10	16	730
15:30	80	91	22	20	
15:45	87	83	15	15	

Time	Monday, November 28, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	
0:15	0	0	0
0:30	0	0	
0:45	0	0	
1:00	0	0	
1:15	0	0	0
1:30	0	0	
1:45	0	0	
2:00	0	0	
2:15	0	0	0
2:30	0	0	
2:45	0	0	
3:00	0	0	
3:15	0	0	0
3:30	0	0	
3:45	0	0	
4:00	0	0	
4:15	0	0	0
4:30	0	0	
4:45	0	0	
5:00	0	0	
5:15	0	0	0
5:30	0	0	
5:45	0	0	
6:00	0	0	
6:15	0	0	0
6:30	0	0	
6:45	0	0	
7:00	0	0	
7:15	0	0	0
7:30	0	0	
7:45	0	0	
8:00	0	0	
8:15	0	0	0
8:30	0	0	
8:45	0	0	
9:00	0	0	
9:15	0	0	0
9:30	0	0	
9:45	0	0	
10:00	0	0	
10:15	0	0	0
10:30	0	0	
10:45	0	0	
11:00	0	0	
11:15	0	0	0
11:30	0	0	
11:45	0	0	
12:00	0	0	
12:15	0	0	0
12:30	0	0	
12:45	0	0	
13:00	0	0	
13:15	0	0	0
13:30	0	0	
13:45	0	0	
14:00	0	0	
14:15	0	0	0
14:30	0	0	
14:45	0	0	
15:00	0	0	
15:15	0	0	0
15:30	0	0	
15:45	0	0	

16:00	131	86	12	13	**969**				16:00	0	0	**0**
16:15	113	107	12	12					16:15	0	0	
16:30	133	86	15	12					16:30	0	0	
16:45	126	85	11	15					16:45	0	0	
17:00	124	67	13	9	**836**				17:00	0	0	**0**
17:15	118	78	10	11					17:15	0	0	
17:30	108	68	14	16					17:30	0	0	
17:45	94	85	11	10					17:45	0	0	
18:00	63	58	11	11	**586**				18:00	0	0	**0**
18:15	91	60	14	8					18:15	0	0	
18:30	56	72	16	16					18:30	0	0	
18:45	54	36	12	8					18:45	0	0	
19:00	49	46	8	10	**411**				19:00	0	0	**0**
19:15	56	39	5	9					19:15	0	0	
19:30	48	40	12	7					19:30	0	0	
19:45	42	26	6	8					19:45	0	0	
20:00	34	26	8	9	**232**				20:00	0	0	**0**
20:15	28	21	3	6					20:15	0	0	
20:30	22	16	5	9					20:30	0	0	
20:45	20	12	6	7					20:45	0	0	
21:00	24	18	5	3	**196**				21:00	0	0	**0**
21:15	29	14	12	4					21:15	0	0	
21:30	31	12	6	8					21:30	0	0	
21:45	12	10	4	4					21:45	0	0	
22:00	11	19	6	7	**124**				22:00	0	0	**0**
22:15	12	9	4	2					22:15	0	0	
22:30	10	11	3	4					22:30	0	0	
22:45	7	10	4	5					22:45	0	0	
23:00	8	8	2	4	**105**				23:00	0	0	**0**
23:15	12	9	8	6					23:15	0	0	
23:30	15	3	3	3					23:30	0	0	
23:45	5	4	9	6		**WB**	**EB**		23:45	0	0	
24-HOUR TOTAL	**4361**	**4385**	**958**	**775**	**10479**	**5319**	**5160**		**24-HOUR TOTAL**	**0**	**0**	**0**

Location: I-94 W/O Sunset Dr
Date: 11/29/2022
Count Duration: 24 HRS
Site Code: 2

Time	Tuesday, November 29, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	3	4	5	2	**66**
0:15	5	8	3	5	
0:30	3	4	4	3	
0:45	4	6	6	1	
1:00	3	1	3	4	**47**
1:15	3	2	4	1	
1:30	1	4	5	1	
1:45	3	5	4	3	
2:00	2	7	4	3	**49**
2:15	1	3	6	4	
2:30	3	1	0	1	
2:45	2	4	5	3	
3:00	1	4	4	0	**64**
3:15	2	3	2	5	
3:30	4	4	6	7	
3:45	12	2	5	3	
4:00	8	3	2	3	**124**
4:15	20	2	5	5	
4:30	15	9	7	3	
4:45	20	9	7	6	
5:00	43	16	5	6	**280**
5:15	35	14	6	3	
5:30	32	27	8	6	
5:45	57	13	6	3	
6:00	51	26	11	6	**430**
6:15	52	39	12	0	
6:30	31	54	8	5	
6:45	51	61	17	6	
7:00	38	80	14	9	**725**
7:15	49	112	16	15	
7:30	55	115	13	8	
7:45	44	123	23	11	
8:00	49	99	19	5	**593**
8:15	61	66	17	8	
8:30	53	69	11	6	
8:45	49	57	19	5	
9:00	45	76	28	7	**582**
9:15	49	73	20	11	
9:30	47	64	18	9	
9:45	40	66	20	9	
10:00	44	77	23	15	**597**
10:15	43	70	17	23	
10:30	36	71	16	17	
10:45	40	77	21	7	
11:00	51	74	19	15	**585**
11:15	56	61	10	11	
11:30	46	75	19	12	
11:45	37	65	20	14	
12:00	55	72	20	16	**593**
12:15	54	64	16	16	
12:30	34	70	16	17	
12:45	48	57	18	20	
13:00	64	62	9	15	**613**
13:15	53	75	21	12	
13:30	75	73	8	14	
13:45	52	54	9	17	
14:00	68	63	15	23	**696**
14:15	82	60	17	11	
14:30	70	70	12	21	
14:45	78	71	12	23	

Time	Tuesday, November 29, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	**0**
0:15	0	0	
0:30	0	0	
0:45	0	0	
1:00	0	0	**0**
1:15	0	0	
1:30	0	0	
1:45	0	0	
2:00	0	0	**0**
2:15	0	0	
2:30	0	0	
2:45	0	0	
3:00	0	0	**0**
3:15	0	0	
3:30	0	0	
3:45	0	0	
4:00	0	0	**0**
4:15	0	0	
4:30	0	0	
4:45	0	0	
5:00	0	0	**0**
5:15	0	0	
5:30	0	0	
5:45	0	0	
6:00	0	0	**0**
6:15	0	0	
6:30	0	0	
6:45	0	0	
7:00	0	0	**0**
7:15	0	0	
7:30	0	0	
7:45	0	0	
8:00	0	0	**0**
8:15	0	0	
8:30	0	0	
8:45	0	0	
9:00	0	0	**0**
9:15	0	0	
9:30	0	0	
9:45	0	0	
10:00	0	0	**0**
10:15	0	0	
10:30	0	0	
10:45	0	0	
11:00	0	0	**0**
11:15	0	0	
11:30	0	0	
11:45	0	0	
12:00	0	0	**0**
12:15	0	0	
12:30	0	0	
12:45	0	0	
13:00	0	0	**0**
13:15	0	0	
13:30	0	0	
13:45	0	0	
14:00	0	0	**0**
14:15	0	0	
14:30	0	0	
14:45	0	0	

15:00	69	79	11	10	**687**		
15:15	63	60	19	11			
15:30	74	65	12	13			
15:45	102	67	8	24			
16:00	106	83	19	17	**911**		
16:15	119	96	10	19			
16:30	99	105	4	17			
16:45	119	66	16	16			
17:00	143	95	17	17	**945**		
17:15	130	76	16	21			
17:30	103	91	9	17			
17:45	93	96	10	11			
18:00	93	62	15	26	**641**		
18:15	75	59	14	15			
18:30	55	59	8	12			
18:45	65	58	12	13			
19:00	53	39	10	16	**398**		
19:15	52	38	14	11			
19:30	35	30	4	13			
19:45	42	22	9	10			
20:00	43	21	13	8	**288**		
20:15	30	23	10	15			
20:30	26	24	4	11			
20:45	33	15	2	10			
21:00	27	17	5	11	**206**		
21:15	27	13	7	5			
21:30	28	12	10	9			
21:45	11	15	4	5			
22:00	13	8	11	6	**139**		
22:15	17	15	7	9			
22:30	7	11	4	3			
22:45	13	7	4	4			
23:00	6	8	10	2	**93**		
23:15	8	8	4	3			
23:30	11	10	6	2			
23:45	2	7	2	4		**WB**	**EB**
24-HOUR TOTAL	**4124**	**4256**	**1036**	**936**	**10352**	**5160**	**5192**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 W/O Sunset Dr
Date: 11/30/2022
Count Duration: 24 HRS
Site Code: 2

Time	Wednesday, November 30, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	4	5	4	2	
0:15	4	9	3	3	72
0:30	6	6	5	6	
0:45	3	3	6	3	
1:00	2	3	5	6	
1:15	1	2	7	6	55
1:30	1	1	4	3	
1:45	2	6	5	1	
2:00	2	8	3	5	
2:15	3	1	5	9	60
2:30	2	2	3	6	
2:45	3	6	0	2	
3:00	4	3	2	3	
3:15	2	4	2	4	64
3:30	7	3	3	4	
3:45	8	4	6	5	
4:00	5	2	3	5	
4:15	10	6	1	3	117
4:30	28	5	4	4	
4:45	19	8	6	8	
5:00	46	11	6	6	
5:15	30	13	5	5	271
5:30	28	26	7	5	
5:45	50	15	6	12	
6:00	58	30	15	5	
6:15	62	43	15	7	490
6:30	36	59	19	11	
6:45	54	61	10	5	
7:00	49	76	10	7	
7:15	41	102	13	21	710
7:30	48	116	14	13	
7:45	50	125	15	10	
8:00	61	86	19	10	
8:15	47	90	14	15	655
8:30	53	74	16	8	
8:45	52	65	25	20	
9:00	41	68	23	12	
9:15	36	89	19	10	559
9:30	40	58	15	18	
9:45	38	70	16	6	
10:00	48	89	15	15	
10:15	44	87	18	16	639
10:30	46	82	17	18	
10:45	32	76	19	17	
11:00	34	69	21	14	
11:15	50	72	9	18	557
11:30	34	61	15	23	
11:45	41	56	18	22	
12:00	54	77	9	9	
12:15	58	73	19	19	609
12:30	44	68	13	21	
12:45	58	62	11	14	
13:00	53	66	19	24	
13:15	46	71	15	17	620
13:30	63	72	14	28	
13:45	54	52	11	15	
14:00	80	52	18	18	
14:15	71	59	13	14	668
14:30	69	50	8	27	
14:45	77	72	13	27	
15:00	79	63	6	21	
15:15	75	74	16	7	743
15:30	90	73	20	13	
15:45	111	66	9	20	
16:00	106	84	11	20	

Time	Wednesday, November 30, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	
0:15	0	0	0
0:30	0	0	
0:45	0	0	
1:00	0	0	
1:15	0	0	0
1:30	0	0	
1:45	0	0	
2:00	0	0	
2:15	0	0	0
2:30	0	0	
2:45	0	0	
3:00	0	0	
3:15	0	0	0
3:30	0	0	
3:45	0	0	
4:00	0	0	
4:15	0	0	0
4:30	0	0	
4:45	0	0	
5:00	0	0	
5:15	0	0	0
5:30	0	0	
5:45	0	0	
6:00	0	0	
6:15	0	0	0
6:30	0	0	
6:45	0	0	
7:00	0	0	
7:15	0	0	0
7:30	0	0	
7:45	0	0	
8:00	0	0	
8:15	0	0	0
8:30	0	0	
8:45	0	0	
9:00	0	0	
9:15	0	0	0
9:30	0	0	
9:45	0	0	
10:00	0	0	
10:15	0	0	0
10:30	0	0	
10:45	0	0	
11:00	0	0	
11:15	0	0	0
11:30	0	0	
11:45	0	0	
12:00	0	0	
12:15	0	0	0
12:30	0	0	
12:45	0	0	
13:00	0	0	
13:15	0	0	0
13:30	0	0	
13:45	0	0	
14:00	0	0	
14:15	0	0	0
14:30	0	0	
14:45	0	0	
15:00	0	0	
15:15	0	0	0
15:30	0	0	
15:45	0	0	
16:00	0	0	

16:15	133	88	11	15	**969**		
16:30	125	105	13	18			
16:45	118	79	17	26			
17:00	144	80	11	23	**963**		
17:15	135	79	16	18			
17:30	124	81	10	21			
17:45	79	114	11	17			
18:00	73	74	13	12	**617**		
18:15	64	73	8	20			
18:30	55	62	7	20			
18:45	52	54	14	16			
19:00	61	41	7	16	**440**		
19:15	57	42	14	12			
19:30	43	35	3	13			
19:45	44	31	8	13			
20:00	43	29	6	16	**324**		
20:15	38	25	9	11			
20:30	47	13	8	13			
20:45	30	19	6	11			
21:00	39	21	11	13	**247**		
21:15	24	10	13	10			
21:30	19	16	9	8			
21:45	21	22	9	2			
22:00	14	15	4	4	**144**		
22:15	18	8	5	4			
22:30	10	12	8	6			
22:45	10	13	5	8			
23:00	7	8	3	4	**83**		
23:15	9	7	5	4			
23:30	5	6	3	6			
23:45	2	7	6	1		**WB**	**EB**
24-HOUR TOTAL	**4196**	**4359**	**989**	**1132**	**10676**	**5185**	**5491**

16:15	0	0	**0**
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 W/O Sunset Dr
Date: 12/1/2022
Count Duration: 24 HRS
Site Code: 2

Time	Thursday, December 01, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	6	3	2	10	
0:15	8	3	2	3	64
0:30	6	3	4	4	
0:45	3	2	2	3	
1:00	4	2	3	4	
1:15	6	4	1	4	61
1:30	5	3	3	3	
1:45	5	7	5	2	
2:00	2	9	1	5	
2:15	1	1	3	3	52
2:30	5	1	2	4	
2:45	2	7	2	4	
3:00	1	5	3	4	
3:15	3	3	9	5	61
3:30	5	2	3	2	
3:45	7	1	6	2	
4:00	8	3	3	2	
4:15	15	7	8	5	134
4:30	25	6	1	4	
4:45	28	8	7	4	
5:00	34	12	4	5	
5:15	26	15	4	5	272
5:30	30	27	9	3	
5:45	46	19	25	8	
6:00	56	24	18	4	
6:15	54	38	7	9	466
6:30	48	58	13	6	
6:45	47	69	6	9	
7:00	39	85	9	3	
7:15	52	92	12	2	684
7:30	65	129	12	6	
7:45	48	103	17	10	
8:00	56	98	16	11	
8:15	59	54	13	4	609
8:30	52	80	18	10	
8:45	53	59	16	10	
9:00	43	60	18	14	
9:15	48	69	26	19	613
9:30	52	97	21	9	
9:45	35	75	16	11	
10:00	40	87	6	14	
10:15	46	92	15	19	621
10:30	37	71	26	13	
10:45	45	79	10	21	
11:00	42	72	18	16	
11:15	49	83	21	20	632
11:30	42	68	22	17	
11:45	49	81	19	13	
12:00	62	72	9	8	
12:15	47	87	16	24	643
12:30	54	74	23	15	
12:45	51	72	18	11	
13:00	62	76	14	12	
13:15	52	76	8	20	653
13:30	65	61	11	18	
13:45	64	74	10	30	
14:00	67	70	15	26	
14:15	89	72	11	25	751
14:30	74	75	16	20	
14:45	82	71	13	25	

Time	Thursday, December 01, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	
0:15	0	0	0
0:30	0	0	
0:45	0	0	
1:00	0	0	
1:15	0	0	0
1:30	0	0	
1:45	0	0	
2:00	0	0	
2:15	0	0	0
2:30	0	0	
2:45	0	0	
3:00	0	0	
3:15	0	0	0
3:30	0	0	
3:45	0	0	
4:00	0	0	
4:15	0	0	0
4:30	0	0	
4:45	0	0	
5:00	0	0	
5:15	0	0	0
5:30	0	0	
5:45	0	0	
6:00	0	0	
6:15	0	0	0
6:30	0	0	
6:45	0	0	
7:00	0	0	
7:15	0	0	0
7:30	0	0	
7:45	0	0	
8:00	0	0	
8:15	0	0	0
8:30	0	0	
8:45	0	0	
9:00	0	0	
9:15	0	0	0
9:30	0	0	
9:45	0	0	
10:00	0	0	
10:15	0	0	0
10:30	0	0	
10:45	0	0	
11:00	0	0	
11:15	0	0	0
11:30	0	0	
11:45	0	0	
12:00	0	0	
12:15	0	0	0
12:30	0	0	
12:45	0	0	
13:00	0	0	
13:15	0	0	0
13:30	0	0	
13:45	0	0	
14:00	0	0	
14:15	0	0	0
14:30	0	0	
14:45	0	0	

15:00	73	64	9	16	**784**		
15:15	66	82	17	24			
15:30	90	75	15	17			
15:45	119	86	15	16			
16:00	113	102	11	16	**983**		
16:15	100	90	16	18			
16:30	119	124	14	12			
16:45	114	103	13	18			
17:00	139	98	23	16	**1031**		
17:15	132	87	23	17			
17:30	122	96	10	16			
17:45	104	120	12	16			
18:00	90	87	7	20	**679**		
18:15	77	76	15	11			
18:30	59	71	7	16			
18:45	52	69	12	10			
19:00	60	55	9	13	**440**		
19:15	50	44	6	11			
19:30	40	35	9	7			
19:45	52	33	7	9			
20:00	53	46	8	8	**380**		
20:15	56	24	8	5			
20:30	45	41	5	8			
20:45	35	20	8	10			
21:00	41	19	6	6	**251**		
21:15	30	22	8	8			
21:30	25	13	3	8			
21:45	28	19	6	9			
22:00	18	21	9	5	**190**		
22:15	26	21	7	5			
22:30	20	12	5	4			
22:45	17	9	8	3			
23:00	8	13	2	4	**108**		
23:15	14	5	5	2			
23:30	10	8	8	5			
23:45	8	9	6	1		**WB**	**EB**
24-HOUR TOTAL	**4412**	**4755**	**1003**	**992**	**11162**	**5415**	**5747**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 W/O Sunset Dr
Date: 12/2/2022
Count Duration: 24 HRS
Site Code: 2

Time	Friday, December 02, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	9	8	3	6	
0:15	6	4	7	2	76
0:30	5	4	1	5	
0:45	4	3	5	4	
1:00	8	2	2	2	
1:15	1	1	4	3	51
1:30	4	1	3	3	
1:45	2	8	0	7	
2:00	4	7	4	5	
2:15	2	2	7	4	56
2:30	0	2	1	3	
2:45	4	5	5	1	
3:00	5	5	6	4	
3:15	1	5	1	2	62
3:30	4	7	4	5	
3:45	6	1	3	3	
4:00	9	3	0	5	
4:15	14	1	2	7	101
4:30	14	7	3	4	
4:45	17	4	7	4	
5:00	32	17	6	0	
5:15	29	13	5	3	232
5:30	28	23	11	2	
5:45	43	9	8	3	
6:00	42	26	10	8	
6:15	38	35	6	4	376
6:30	30	49	9	5	
6:45	37	66	8	3	
7:00	25	78	9	5	
7:15	31	75	11	8	579
7:30	29	107	9	7	
7:45	38	122	10	15	
8:00	33	84	11	7	
8:15	35	60	9	7	505
8:30	35	77	17	7	
8:45	45	61	11	6	
9:00	40	60	9	7	
9:15	41	77	12	6	512
9:30	28	64	17	15	
9:45	34	78	16	8	
10:00	41	66	14	13	
10:15	37	63	31	14	562
10:30	37	89	12	20	
10:45	27	69	13	16	
11:00	37	77	11	12	
11:15	45	63	14	16	520
11:30	41	57	11	14	
11:45	40	55	16	11	
12:00	45	73	11	13	
12:15	48	64	13	13	569
12:30	54	58	13	19	
12:45	55	62	11	17	
13:00	48	65	6	13	
13:15	59	66	14	15	598
13:30	61	66	8	13	
13:45	68	64	16	16	
14:00	72	64	10	12	
14:15	71	58	9	13	671
14:30	88	78	14	13	
14:45	66	74	16	13	

Time	Friday, December 02, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	
0:15	0	0	0
0:30	0	0	
0:45	0	0	
1:00	0	0	
1:15	0	0	0
1:30	0	0	
1:45	0	0	
2:00	0	0	
2:15	0	0	0
2:30	0	0	
2:45	0	0	
3:00	0	0	
3:15	0	0	0
3:30	0	0	
3:45	0	0	
4:00	0	0	
4:15	0	0	0
4:30	0	0	
4:45	0	0	
5:00	0	0	
5:15	0	0	0
5:30	0	0	
5:45	0	0	
6:00	0	0	
6:15	0	0	0
6:30	0	0	
6:45	0	0	
7:00	0	0	
7:15	0	0	0
7:30	0	0	
7:45	0	0	
8:00	0	0	
8:15	0	0	0
8:30	0	0	
8:45	0	0	
9:00	0	0	
9:15	0	0	0
9:30	0	0	
9:45	0	0	
10:00	0	0	
10:15	0	0	0
10:30	0	0	
10:45	0	0	
11:00	0	0	
11:15	0	0	0
11:30	0	0	
11:45	0	0	
12:00	0	0	
12:15	0	0	0
12:30	0	0	
12:45	0	0	
13:00	0	0	
13:15	0	0	0
13:30	0	0	
13:45	0	0	
14:00	0	0	
14:15	0	0	0
14:30	0	0	
14:45	0	0	

15:00	69	54	10	14	**700**		
15:15	70	77	11	15			
15:30	81	69	11	24			
15:45	82	88	9	16			
16:00	101	70	14	11	**812**		
16:15	103	99	7	13			
16:30	102	84	0	10			
16:45	87	83	14	14			
17:00	102	81	6	7	**737**		
17:15	96	52	7	13			
17:30	91	80	12	14			
17:45	74	74	11	17			
18:00	70	69	6	13	**556**		
18:15	52	65	16	10			
18:30	56	54	5	7			
18:45	53	64	9	7			
19:00	46	32	6	9	**410**		
19:15	56	51	8	9			
19:30	53	38	6	4			
19:45	38	41	4	9			
20:00	37	22	5	5	**313**		
20:15	42	23	8	8			
20:30	38	35	8	3			
20:45	44	25	4	6			
21:00	32	22	5	4	**284**		
21:15	48	22	5	9			
21:30	38	12	5	8			
21:45	44	21	4	5			
22:00	21	17	8	7	**180**		
22:15	30	17	4	5			
22:30	16	12	4	6			
22:45	14	13	4	2			
23:00	14	10	5	1	**112**		
23:15	13	8	7	7			
23:30	13	5	6	0			
23:45	9	7	4	3		**WB**	**EB**
24-HOUR TOTAL	**3787**	**4188**	**793**	**806**	**9574**	**4580**	**4994**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0		**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 W/O Sunset Dr
Date: 12/3/2022
Count Duration: 24 HRS
Site Code: 2

Time	Saturday, December 03, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	5	11	6	4	**95**
0:15	13	12	4	2	
0:30	10	5	4	7	
0:45	2	5	2	3	
1:00	9	3	2	6	**66**
1:15	5	3	4	2	
1:30	2	3	4	1	
1:45	5	10	2	5	
2:00	3	9	4	2	**66**
2:15	7	3	1	5	
2:30	5	4	7	3	
2:45	2	5	4	2	
3:00	1	1	1	5	**60**
3:15	4	3	4	8	
3:30	4	4	1	4	
3:45	5	4	4	7	
4:00	12	3	0	3	**86**
4:15	9	4	5	5	
4:30	9	3	2	1	
4:45	14	6	6	4	
5:00	16	8	3	1	**139**
5:15	9	10	3	2	
5:30	16	16	5	6	
5:45	22	11	8	3	
6:00	25	14	5	0	**182**
6:15	23	11	3	3	
6:30	15	16	6	6	
6:45	23	25	5	2	
7:00	25	21	6	5	**257**
7:15	15	30	9	10	
7:30	26	35	5	3	
7:45	22	28	4	13	
8:00	24	30	5	6	**330**
8:15	29	31	3	9	
8:30	24	45	14	6	
8:45	32	52	12	8	
9:00	31	70	7	9	**554**
9:15	45	79	12	11	
9:30	39	94	9	5	
9:45	29	95	8	11	
10:00	43	75	17	6	**676**
10:15	56	105	12	11	
10:30	53	101	8	12	
10:45	45	107	9	16	
11:00	51	99	13	19	**742**
11:15	39	117	10	12	
11:30	53	104	14	13	
11:45	60	118	8	12	
12:00	60	112	14	12	**742**
12:15	56	91	17	20	
12:30	64	96	14	16	
12:45	65	77	9	19	
13:00	57	81	11	14	**686**
13:15	70	75	17	18	
13:30	61	84	13	11	
13:45	62	91	9	12	
14:00	64	70	14	7	**673**
14:15	62	75	22	11	
14:30	65	82	10	16	
14:45	81	63	19	12	

Time	Saturday, December 03, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	**0**
0:15	0	0	
0:30	0	0	
0:45	0	0	
1:00	0	0	**0**
1:15	0	0	
1:30	0	0	
1:45	0	0	
2:00	0	0	**0**
2:15	0	0	
2:30	0	0	
2:45	0	0	
3:00	0	0	**0**
3:15	0	0	
3:30	0	0	
3:45	0	0	
4:00	0	0	**0**
4:15	0	0	
4:30	0	0	
4:45	0	0	
5:00	0	0	**0**
5:15	0	0	
5:30	0	0	
5:45	0	0	
6:00	0	0	**0**
6:15	0	0	
6:30	0	0	
6:45	0	0	
7:00	0	0	**0**
7:15	0	0	
7:30	0	0	
7:45	0	0	
8:00	0	0	**0**
8:15	0	0	
8:30	0	0	
8:45	0	0	
9:00	0	0	**0**
9:15	0	0	
9:30	0	0	
9:45	0	0	
10:00	0	0	**0**
10:15	0	0	
10:30	0	0	
10:45	0	0	
11:00	0	0	**0**
11:15	0	0	
11:30	0	0	
11:45	0	0	
12:00	0	0	**0**
12:15	0	0	
12:30	0	0	
12:45	0	0	
13:00	0	0	**0**
13:15	0	0	
13:30	0	0	
13:45	0	0	
14:00	0	0	**0**
14:15	0	0	
14:30	0	0	
14:45	0	0	

15:00	78	68	13	12	**759**		
15:15	91	89	10	17			
15:30	85	63	21	15			
15:45	97	74	15	11			
16:00	93	67	17	12	**743**		
16:15	103	59	20	8			
16:30	94	53	19	13			
16:45	89	73	10	13			
17:00	90	45	9	8	**661**		
17:15	81	62	15	10			
17:30	104	56	10	9			
17:45	85	58	8	11			
18:00	75	54	9	9	**560**		
18:15	78	49	10	12			
18:30	84	38	8	13			
18:45	62	43	9	7			
19:00	68	40	14	7	**450**		
19:15	72	35	13	10			
19:30	45	34	10	9			
19:45	53	28	3	9			
20:00	46	28	9	12	**366**		
20:15	54	28	7	6			
20:30	56	30	8	5			
20:45	47	14	8	8			
21:00	42	23	8	6	**297**		
21:15	38	19	6	8			
21:30	41	20	12	3			
21:45	41	17	7	6			
22:00	28	14	9	6	**218**		
22:15	26	15	7	7			
22:30	34	15	6	6			
22:45	23	12	4	6			
23:00	20	19	2	4	**137**		
23:15	17	9	5	4			
23:30	12	4	3	6			
23:45	12	10	2	8		**WB**	**EB**
24-HOUR TOTAL	**3947**	**4010**	**805**	**783**	**9545**	**4752**	**4793**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 W/O Sunset Dr
Date: 12/4/2022
Count Duration: 24 HRS
Site Code: 2

Time	Sunday, December 04, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	13	5	2	2	
0:15	10	9	7	0	85
0:30	9	11	3	0	
0:45	4	4	4	2	
1:00	7	6	4	5	
1:15	6	3	4	1	60
1:30	3	6	1	4	
1:45	4	4	1	1	
2:00	6	4	2	5	
2:15	5	5	2	1	53
2:30	5	5	1	2	
2:45	2	4	1	3	
3:00	7	2	4	2	
3:15	2	4	2	5	58
3:30	5	5	3	3	
3:45	4	3	3	4	
4:00	6	2	5	1	
4:15	10	2	1	1	62
4:30	10	5	3	1	
4:45	7	2	5	1	
5:00	6	5	2	4	
5:15	8	6	1	3	75
5:30	10	10	0	1	
5:45	9	5	0	5	
6:00	17	4	5	5	
6:15	19	10	8	6	143
6:30	11	7	7	1	
6:45	11	23	2	7	
7:00	16	16	4	5	
7:15	16	18	4	7	199
7:30	26	20	9	7	
7:45	21	18	6	6	
8:00	19	27	4	6	
8:15	26	25	8	9	269
8:30	15	36	7	8	
8:45	25	35	9	10	
9:00	39	50	10	9	
9:15	24	35	5	8	404
9:30	34	47	8	10	
9:45	49	58	9	9	
10:00	45	65	6	10	
10:15	56	63	13	15	549
10:30	45	60	13	13	
10:45	57	67	10	11	
11:00	57	78	7	11	
11:15	52	73	12	9	639
11:30	54	95	12	13	
11:45	61	78	12	15	
12:00	66	97	11	14	
12:15	56	95	16	13	758
12:30	84	85	16	14	
12:45	70	93	11	17	
13:00	93	81	12	16	
13:15	74	83	10	12	736
13:30	92	68	6	11	
13:45	82	73	8	15	
14:00	79	73	17	16	
14:15	70	76	14	11	693
14:30	74	75	8	12	
14:45	71	76	9	12	

Time	Sunday, December 04, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	
0:15	0	0	0
0:30	0	0	
0:45	0	0	
1:00	0	0	
1:15	0	0	0
1:30	0	0	
1:45	0	0	
2:00	0	0	
2:15	0	0	0
2:30	0	0	
2:45	0	0	
3:00	0	0	
3:15	0	0	0
3:30	0	0	
3:45	0	0	
4:00	0	0	
4:15	0	0	0
4:30	0	0	
4:45	0	0	
5:00	0	0	
5:15	0	0	0
5:30	0	0	
5:45	0	0	
6:00	0	0	
6:15	0	0	0
6:30	0	0	
6:45	0	0	
7:00	0	0	
7:15	0	0	0
7:30	0	0	
7:45	0	0	
8:00	0	0	
8:15	0	0	0
8:30	0	0	
8:45	0	0	
9:00	0	0	
9:15	0	0	0
9:30	0	0	
9:45	0	0	
10:00	0	0	
10:15	0	0	0
10:30	0	0	
10:45	0	0	
11:00	0	0	
11:15	0	0	0
11:30	0	0	
11:45	0	0	
12:00	0	0	
12:15	0	0	0
12:30	0	0	
12:45	0	0	
13:00	0	0	
13:15	0	0	0
13:30	0	0	
13:45	0	0	
14:00	0	0	
14:15	0	0	0
14:30	0	0	
14:45	0	0	

15:00	74	66	18	11	**744**		
15:15	79	69	12	13			
15:30	108	82	15	13			
15:45	98	69	6	11			
16:00	75	64	11	15	**712**		
16:15	90	82	8	12			
16:30	90	75	7	9			
16:45	94	57	7	16			
17:00	90	82	12	7	**695**		
17:15	73	71	8	7			
17:30	87	77	5	12			
17:45	69	73	12	10			
18:00	74	54	9	6	**563**		
18:15	70	60	7	11			
18:30	78	45	13	19			
18:45	60	46	7	4			
19:00	52	61	5	12	**400**		
19:15	36	39	6	6			
19:30	38	35	7	5			
19:45	46	40	8	4			
20:00	48	27	8	5	**295**		
20:15	38	28	5	7			
20:30	28	25	6	8			
20:45	24	29	4	5			
21:00	26	20	2	5	**178**		
21:15	21	13	5	9			
21:30	12	13	6	6			
21:45	12	15	5	8			
22:00	15	16	1	6	**134**		
22:15	7	8	3	5			
22:30	13	8	8	5			
22:45	16	11	6	6			
23:00	6	6	4	1	**83**		
23:15	10	11	2	6			
23:30	8	4	3	7			
23:45	6	2	2	5		**WB**	**EB**
24-HOUR TOTAL	**3635**	**3583**	**642**	**727**	**8587**	**4277**	**4310**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 BTWN Sunset Dr & Mandan Ave
Date: 11/28/2022
Count Duration: 24 HRS
Site Code: 3

Time	Monday, November 28, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	13	8	4	5	**93**
0:15	12	8	6	3	
0:30	2	8	2	3	
0:45	5	10	3	1	
1:00	7	7	2	5	**79**
1:15	7	6	2	4	
1:30	5	6	2	2	
1:45	10	11	2	1	
2:00	2	4	2	2	**54**
2:15	2	4	4	0	
2:30	6	6	4	3	
2:45	6	5	2	2	
3:00	2	3	3	1	**78**
3:15	5	5	4	1	
3:30	9	9	3	1	
3:45	17	7	5	3	
4:00	19	17	4	4	**224**
4:15	32	15	5	5	
4:30	28	13	6	5	
4:45	35	18	10	8	
5:00	49	25	6	3	**475**
5:15	58	33	5	3	
5:30	62	67	5	6	
5:45	89	50	9	5	
6:00	85	65	6	7	**900**
6:15	94	103	11	11	
6:30	86	146	10	8	
6:45	103	145	13	7	
7:00	95	182	13	4	**1714**
7:15	156	196	10	6	
7:30	197	273	13	7	
7:45	254	275	22	11	
8:00	203	241	21	11	**1488**
8:15	137	208	20	11	
8:30	118	178	11	18	
8:45	139	138	26	8	
9:00	96	100	23	9	**951**
9:15	85	121	24	8	
9:30	93	137	16	10	
9:45	88	118	12	11	
10:00	94	151	13	15	**1041**
10:15	83	138	12	15	
10:30	92	136	18	17	
10:45	75	141	19	22	
11:00	87	140	18	16	**1137**
11:15	123	132	11	15	
11:30	139	135	24	11	
11:45	120	141	11	14	
12:00	125	150	16	10	**1218**
12:15	120	157	24	14	
12:30	113	145	14	16	
12:45	127	148	27	12	
13:00	148	144	16	8	**1223**
13:15	121	134	8	17	
13:30	145	126	14	17	
13:45	157	141	12	15	
14:00	149	144	17	19	**1313**
14:15	145	140	15	18	
14:30	157	140	11	12	
14:45	188	123	15	20	

Time	Monday, November 28, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	**0**
0:15	0	0	
0:30	0	0	
0:45	0	0	
1:00	0	0	**0**
1:15	0	0	
1:30	0	0	
1:45	0	0	
2:00	0	0	**0**
2:15	0	0	
2:30	0	0	
2:45	0	0	
3:00	0	0	**0**
3:15	0	0	
3:30	0	0	
3:45	0	0	
4:00	0	0	**0**
4:15	0	0	
4:30	0	0	
4:45	0	0	
5:00	0	0	**0**
5:15	0	0	
5:30	0	0	
5:45	0	0	
6:00	0	0	**0**
6:15	0	0	
6:30	0	0	
6:45	0	0	
7:00	0	0	**0**
7:15	0	0	
7:30	0	0	
7:45	0	0	
8:00	0	0	**0**
8:15	0	0	
8:30	0	0	
8:45	0	0	
9:00	0	0	**0**
9:15	0	0	
9:30	0	0	
9:45	0	0	
10:00	0	0	**0**
10:15	0	0	
10:30	0	0	
10:45	0	0	
11:00	0	0	**0**
11:15	0	0	
11:30	0	0	
11:45	0	0	
12:00	0	0	**0**
12:15	0	0	
12:30	0	0	
12:45	0	0	
13:00	0	0	**0**
13:15	0	0	
13:30	0	0	
13:45	0	0	
14:00	0	0	**0**
14:15	0	0	
14:30	0	0	
14:45	0	0	

15:00	143	166	23	19	**1630**		
15:15	169	157	12	15			
15:30	161	239	22	20			
15:45	228	218	17	21			
16:00	238	223	17	17	**1946**		
16:15	224	193	13	18			
16:30	235	231	20	20			
16:45	275	199	10	13			
17:00	283	215	13	9	**1934**		
17:15	316	201	11	9			
17:30	243	170	17	19			
17:45	224	184	11	9			
18:00	168	152	13	15	**1220**		
18:15	151	154	14	8			
18:30	133	139	14	14			
18:45	135	90	12	8			
19:00	114	115	7	11	**785**		
19:15	114	95	6	9			
19:30	78	64	14	8			
19:45	87	50	5	8			
20:00	83	53	10	9	**501**		
20:15	56	54	3	6			
20:30	70	39	5	9			
20:45	53	39	6	6			
21:00	63	61	5	3	**426**		
21:15	57	35	11	6			
21:30	56	38	7	6			
21:45	33	33	5	7			
22:00	29	38	4	5	**248**		
22:15	32	28	5	3			
22:30	24	23	2	3			
22:45	20	21	5	6			
23:00	19	19	3	4	**182**		
23:15	24	20	7	4			
23:30	20	13	4	3			
23:45	13	16	8	5		**WB**	**EB**
24-HOUR TOTAL	**9390**	**9562**	**1027**	**881**	**20860**	**10417**	**10443**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 BTWN Sunset Dr & Mandan Ave
Date: 11/29/2022
Count Duration: 24 HRS
Site Code: 3

Time	Tuesday, November 29, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	11	23	4	2	**122**
0:15	12	16	4	5	
0:30	10	8	4	2	
0:45	10	5	5	1	
1:00	7	8	3	4	**69**
1:15	5	5	4	1	
1:30	4	6	6	1	
1:45	5	5	3	2	
2:00	4	11	4	3	**73**
2:15	5	6	6	3	
2:30	3	4	0	2	
2:45	4	8	7	3	
3:00	4	7	3	0	**94**
3:15	7	6	3	5	
3:30	4	10	5	8	
3:45	16	9	5	2	
4:00	14	10	3	5	**230**
4:15	34	12	4	5	
4:30	33	25	7	6	
4:45	36	22	6	8	
5:00	54	30	8	5	**481**
5:15	45	37	6	3	
5:30	61	63	9	6	
5:45	82	57	8	7	
6:00	75	62	16	4	**866**
6:15	71	104	13	0	
6:30	73	158	11	9	
6:45	112	135	15	8	
7:00	88	173	13	10	**1908**
7:15	155	245	18	19	
7:30	223	312	17	6	
7:45	284	301	28	16	
8:00	218	224	23	7	**1548**
8:15	156	208	22	20	
8:30	152	186	15	11	
8:45	123	153	22	8	
9:00	95	119	27	7	**1021**
9:15	97	121	23	12	
9:30	116	129	17	14	
9:45	98	113	19	14	
10:00	97	139	28	21	**1056**
10:15	87	118	22	23	
10:30	98	115	17	24	
10:45	93	133	27	14	
11:00	116	138	18	22	**1127**
11:15	108	136	12	19	
11:30	112	132	23	14	
11:45	95	142	21	19	
12:00	121	159	20	14	**1183**
12:15	116	150	16	17	
12:30	104	146	22	17	
12:45	104	138	18	21	
13:00	131	124	12	16	**1191**
13:15	123	140	18	16	
13:30	149	155	9	13	
13:45	123	131	13	18	
14:00	131	150	19	22	**1364**
14:15	151	142	17	13	
14:30	150	151	16	24	
14:45	173	164	18	23	

Time	Tuesday, November 29, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	**0**
0:15	0	0	
0:30	0	0	
0:45	0	0	
1:00	0	0	**0**
1:15	0	0	
1:30	0	0	
1:45	0	0	
2:00	0	0	**0**
2:15	0	0	
2:30	0	0	
2:45	0	0	
3:00	0	0	**0**
3:15	0	0	
3:30	0	0	
3:45	0	0	
4:00	0	0	**0**
4:15	0	0	
4:30	0	0	
4:45	0	0	
5:00	0	0	**0**
5:15	0	0	
5:30	0	0	
5:45	0	0	
6:00	0	0	**0**
6:15	0	0	
6:30	0	0	
6:45	0	0	
7:00	0	0	**0**
7:15	0	0	
7:30	0	0	
7:45	0	0	
8:00	0	0	**0**
8:15	0	0	
8:30	0	0	
8:45	0	0	
9:00	0	0	**0**
9:15	0	0	
9:30	0	0	
9:45	0	0	
10:00	0	0	**0**
10:15	0	0	
10:30	0	0	
10:45	0	0	
11:00	0	0	**0**
11:15	0	0	
11:30	0	0	
11:45	0	0	
12:00	0	0	**0**
12:15	0	0	
12:30	0	0	
12:45	0	0	
13:00	0	0	**0**
13:15	0	0	
13:30	0	0	
13:45	0	0	
14:00	0	0	**0**
14:15	0	0	
14:30	0	0	
14:45	0	0	

15:00	140	170	15	12	**1577**		
15:15	169	168	24	13			
15:30	181	219	15	17			
15:45	206	188	13	27			
16:00	229	228	19	18	**1927**		
16:15	224	210	13	21			
16:30	231	275	8	18			
16:45	214	183	16	20			
17:00	268	218	17	19	**1933**		
17:15	340	173	19	21			
17:30	239	196	10	17			
17:45	194	178	12	12			
18:00	171	137	13	24	**1217**		
18:15	141	133	12	15			
18:30	130	125	10	13			
18:45	152	111	14	16			
19:00	122	129	6	11	**797**		
19:15	99	83	12	13			
19:30	81	80	3	13			
19:45	77	45	13	10			
20:00	97	55	12	7	**589**		
20:15	68	55	8	15			
20:30	71	56	4	13			
20:45	48	66	3	11			
21:00	51	38	5	8	**398**		
21:15	61	32	5	8			
21:30	50	38	9	8			
21:45	43	34	5	3			
22:00	33	23	11	8	**273**		
22:15	42	21	8	8			
22:30	26	23	3	5			
22:45	33	20	5	4			
23:00	15	7	8	3	**160**		
23:15	16	18	5	3			
23:30	15	24	4	1			
23:45	18	15	3	5		**WB**	**EB**
24-HOUR TOTAL	**9283**	**9713**	**1144**	**1064**	**21204**	**10427**	**10777**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 BTWN Sunset Dr & Mandan Ave
Date: 11/30/2022
Count Duration: 24 HRS
Site Code: 3

Time	Wednesday, November 30, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	14	13	4	2	
0:15	7	23	3	4	121
0:30	10	9	7	5	
0:45	6	6	4	4	
1:00	6	7	4	7	
1:15	8	5	7	6	90
1:30	6	6	4	2	
1:45	6	9	5	2	
2:00	3	11	3	4	
2:15	4	2	4	8	68
2:30	4	2	2	5	
2:45	3	10	0	3	
3:00	5	6	2	3	
3:15	3	4	2	5	86
3:30	7	9	5	4	
3:45	13	10	5	3	
4:00	14	17	2	8	
4:15	29	12	1	6	225
4:30	37	17	4	4	
4:45	31	25	7	11	
5:00	52	23	8	8	
5:15	49	33	6	6	478
5:30	47	63	6	8	
5:45	87	59	5	18	
6:00	79	67	14	6	
6:15	87	95	15	6	921
6:30	88	158	19	11	
6:45	115	143	13	5	
7:00	104	172	10	15	
7:15	137	225	13	16	1870
7:30	222	312	19	19	
7:45	283	293	18	12	
8:00	232	234	21	18	
8:15	160	219	16	21	1573
8:30	114	189	13	16	
8:45	143	135	24	18	
9:00	102	145	28	13	
9:15	99	147	14	13	1002
9:30	77	107	12	19	
9:45	77	122	17	10	
10:00	106	126	13	18	
10:15	73	120	16	19	1037
10:30	82	139	18	20	
10:45	92	150	22	23	
11:00	86	138	24	14	
11:15	109	136	9	22	1137
11:30	125	144	20	25	
11:45	113	128	16	28	
12:00	118	138	15	10	
12:15	139	142	19	23	1175
12:30	111	146	13	23	
12:45	128	117	14	19	
13:00	118	136	19	26	
13:15	109	135	15	20	1190
13:30	115	168	15	23	
13:45	136	124	16	15	
14:00	147	123	14	20	
14:15	144	173	16	16	1298
14:30	129	141	11	25	
14:45	154	145	16	24	

Time	Wednesday, November 30, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	
0:15	0	0	0
0:30	0	0	
0:45	0	0	
1:00	0	0	
1:15	0	0	0
1:30	0	0	
1:45	0	0	
2:00	0	0	
2:15	0	0	0
2:30	0	0	
2:45	0	0	
3:00	0	0	
3:15	0	0	0
3:30	0	0	
3:45	0	0	
4:00	0	0	
4:15	0	0	0
4:30	0	0	
4:45	0	0	
5:00	0	0	
5:15	0	0	0
5:30	0	0	
5:45	0	0	
6:00	0	0	
6:15	0	0	0
6:30	0	0	
6:45	0	0	
7:00	0	0	
7:15	0	0	0
7:30	0	0	
7:45	0	0	
8:00	0	0	
8:15	0	0	0
8:30	0	0	
8:45	0	0	
9:00	0	0	
9:15	0	0	0
9:30	0	0	
9:45	0	0	
10:00	0	0	
10:15	0	0	0
10:30	0	0	
10:45	0	0	
11:00	0	0	
11:15	0	0	0
11:30	0	0	
11:45	0	0	
12:00	0	0	
12:15	0	0	0
12:30	0	0	
12:45	0	0	
13:00	0	0	
13:15	0	0	0
13:30	0	0	
13:45	0	0	
14:00	0	0	
14:15	0	0	0
14:30	0	0	
14:45	0	0	

15:00	148	186	9	25	**1696**		
15:15	204	176	19	7			
15:30	166	252	20	16			
15:45	225	207	14	22			
16:00	197	205	12	24	**2005**		
16:15	242	201	15	14			
16:30	224	293	17	22			
16:45	277	221	19	22			
17:00	266	237	15	27	**1947**		
17:15	304	180	16	20			
17:30	251	185	13	25			
17:45	194	188	10	16			
18:00	194	158	15	19	**1276**		
18:15	152	144	7	21			
18:30	138	116	8	22			
18:45	137	114	15	16			
19:00	125	101	10	20	**857**		
19:15	108	91	14	11			
19:30	82	81	5	16			
19:45	94	78	7	14			
20:00	101	69	6	17	**651**		
20:15	85	62	12	11			
20:30	76	70	8	15			
20:45	56	43	7	13			
21:00	72	52	15	12	**504**		
21:15	70	31	9	9			
21:30	57	62	9	10			
21:45	39	41	13	3			
22:00	45	29	2	3	**269**		
22:15	41	24	6	4			
22:30	23	25	8	5			
22:45	23	17	5	9			
23:00	18	20	3	5	**166**		
23:15	17	15	5	4			
23:30	18	17	4	6			
23:45	14	14	5	1		**WB**	**EB**
24-HOUR TOTAL	**9387**	**9918**	**1064**	**1273**	**21642**	**10451**	**11191**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 BTWN Sunset Dr & Mandan Ave
Date: 12/1/2022
Count Duration: 24 HRS
Site Code: 3

Time	Thursday, December 01, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	12	12	2	8	130
0:15	16	14	2	4	
0:30	11	15	3	5	
0:45	9	12	2	3	
1:00	8	6	3	4	89
1:15	11	9	1	4	
1:30	10	5	2	3	
1:45	5	10	6	2	
2:00	6	17	2	5	84
2:15	5	6	2	2	
2:30	7	4	2	6	
2:45	4	12	2	2	
3:00	5	8	3	5	96
3:15	6	3	7	6	
3:30	10	6	5	2	
3:45	10	11	4	5	
4:00	15	16	3	2	224
4:15	31	14	9	5	
4:30	28	18	1	5	
4:45	40	23	6	8	
5:00	48	24	5	5	444
5:15	38	36	5	6	
5:30	43	59	11	5	
5:45	87	56	9	7	
6:00	71	59	12	9	881
6:15	72	100	10	8	
6:30	89	157	15	9	
6:45	105	151	5	9	
7:00	93	164	9	4	1713
7:15	135	206	13	6	
7:30	232	290	16	8	
7:45	216	282	22	17	
8:00	208	199	22	14	1480
8:15	171	215	16	12	
8:30	109	177	25	16	
8:45	115	142	24	15	
9:00	81	119	22	17	1052
9:15	98	134	17	27	
9:30	98	152	21	13	
9:45	85	127	21	20	
10:00	82	134	7	17	1084
10:15	92	151	19	25	
10:30	87	128	31	18	
10:45	99	159	13	22	
11:00	88	127	22	17	1192
11:15	117	158	21	27	
11:30	131	142	23	20	
11:45	122	137	23	17	
12:00	115	146	9	10	1192
12:15	111	158	14	26	
12:30	127	149	12	18	
12:45	124	141	20	12	
13:00	116	149	14	10	1205
13:15	114	151	8	19	
13:30	129	144	10	19	
13:45	146	136	13	27	
14:00	160	168	15	25	1481
14:15	151	177	21	25	
14:30	166	153	19	18	
14:45	178	164	12	29	

Time	Thursday, December 01, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	0
0:15	0	0	
0:30	0	0	
0:45	0	0	
1:00	0	0	0
1:15	0	0	
1:30	0	0	
1:45	0	0	
2:00	0	0	0
2:15	0	0	
2:30	0	0	
2:45	0	0	
3:00	0	0	0
3:15	0	0	
3:30	0	0	
3:45	0	0	
4:00	0	0	0
4:15	0	0	
4:30	0	0	
4:45	0	0	
5:00	0	0	0
5:15	0	0	
5:30	0	0	
5:45	0	0	
6:00	0	0	0
6:15	0	0	
6:30	0	0	
6:45	0	0	
7:00	0	0	0
7:15	0	0	
7:30	0	0	
7:45	0	0	
8:00	0	0	0
8:15	0	0	
8:30	0	0	
8:45	0	0	
9:00	0	0	0
9:15	0	0	
9:30	0	0	
9:45	0	0	
10:00	0	0	0
10:15	0	0	
10:30	0	0	
10:45	0	0	
11:00	0	0	0
11:15	0	0	
11:30	0	0	
11:45	0	0	
12:00	0	0	0
12:15	0	0	
12:30	0	0	
12:45	0	0	
13:00	0	0	0
13:15	0	0	
13:30	0	0	
13:45	0	0	
14:00	0	0	0
14:15	0	0	
14:30	0	0	
14:45	0	0	

15:00	175	179	12	18	**1821**		
15:15	169	203	20	25			
15:30	213	227	13	14			
15:45	246	266	18	23			
16:00	235	234	13	19	**2059**		
16:15	240	223	17	26			
16:30	238	260	15	18			
16:45	263	223	13	22			
17:00	318	218	23	23	**2135**		
17:15	392	209	21	13			
17:30	254	181	10	15			
17:45	211	216	12	19			
18:00	161	159	8	19	**1263**		
18:15	153	158	16	18			
18:30	115	165	8	15			
18:45	114	137	9	8			
19:00	139	102	12	15	**936**		
19:15	117	102	4	8			
19:30	87	107	9	10			
19:45	122	86	7	9			
20:00	123	155	11	9	**806**		
20:15	105	60	6	5			
20:30	88	83	6	8			
20:45	73	56	8	10			
21:00	71	36	7	7	**480**		
21:15	63	55	6	8			
21:30	58	43	3	8			
21:45	47	52	7	9			
22:00	40	45	7	5	**335**		
22:15	41	39	7	5			
22:30	38	28	6	4			
22:45	29	29	8	4			
23:00	20	19	4	4	**185**		
23:15	25	13	4	2			
23:30	21	21	7	5			
23:45	25	11	4	0		**WB**	**EB**
24-HOUR TOTAL	**9727**	**10442**	**1054**	**1144**	**22367**	**10781**	**11586**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 BTWN Sunset Dr & Mandan Ave
Date: 12/2/2022
Count Duration: 24 HRS
Site Code: 3

Time	Friday, December 02, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	16	13	2	6	
0:15	15	22	7	3	
0:30	10	13	1	3	138
0:45	9	8	5	5	
1:00	17	5	0	2	
1:15	8	2	4	2	
1:30	3	6	3	3	77
1:45	4	11	1	6	
2:00	7	11	4	5	
2:15	5	3	6	4	
2:30	2	7	1	4	75
2:45	4	6	5	1	
3:00	5	11	6	5	
3:15	3	8	2	4	
3:30	11	13	4	4	102
3:45	11	8	3	4	
4:00	14	11	1	5	
4:15	26	6	3	9	
4:30	24	21	2	6	188
4:45	32	17	5	6	
5:00	48	24	7	2	
5:15	41	30	8	3	
5:30	44	53	10	3	392
5:45	61	46	9	3	
6:00	58	41	11	10	
6:15	51	80	6	5	
6:30	63	124	11	8	703
6:45	81	141	11	2	
7:00	71	158	7	7	
7:15	107	190	9	10	
7:30	152	292	13	9	1589
7:45	253	280	15	16	
8:00	182	204	10	11	
8:15	121	190	11	14	
8:30	78	155	17	12	1239
8:45	94	120	15	5	
9:00	74	124	13	7	
9:15	83	138	13	8	
9:30	73	110	19	16	900
9:45	84	110	18	10	
10:00	100	96	13	11	
10:15	83	125	23	16	
10:30	64	156	11	22	951
10:45	76	122	20	13	
11:00	101	153	15	12	
11:15	108	128	14	14	
11:30	94	125	15	15	1042
11:45	93	127	18	10	
12:00	136	132	15	15	
12:15	123	137	16	15	
12:30	109	106	10	23	1116
12:45	115	132	16	16	
13:00	105	140	8	16	
13:15	128	128	15	15	
13:30	117	129	9	12	1101
13:45	120	125	17	17	
14:00	146	132	10	16	
14:15	160	129	12	14	
14:30	156	138	20	14	1294
14:45	179	141	14	13	

Time	Friday, December 02, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	
0:15	0	0	
0:30	0	0	0
0:45	0	0	
1:00	0	0	
1:15	0	0	
1:30	0	0	0
1:45	0	0	
2:00	0	0	
2:15	0	0	
2:30	0	0	0
2:45	0	0	
3:00	0	0	
3:15	0	0	
3:30	0	0	0
3:45	0	0	
4:00	0	0	
4:15	0	0	
4:30	0	0	0
4:45	0	0	
5:00	0	0	
5:15	0	0	
5:30	0	0	0
5:45	0	0	
6:00	0	0	
6:15	0	0	
6:30	0	0	0
6:45	0	0	
7:00	0	0	
7:15	0	0	
7:30	0	0	0
7:45	0	0	
8:00	0	0	
8:15	0	0	
8:30	0	0	0
8:45	0	0	
9:00	0	0	
9:15	0	0	
9:30	0	0	0
9:45	0	0	
10:00	0	0	
10:15	0	0	
10:30	0	0	0
10:45	0	0	
11:00	0	0	
11:15	0	0	
11:30	0	0	0
11:45	0	0	
12:00	0	0	
12:15	0	0	
12:30	0	0	0
12:45	0	0	
13:00	0	0	
13:15	0	0	
13:30	0	0	0
13:45	0	0	
14:00	0	0	
14:15	0	0	
14:30	0	0	0
14:45	0	0	

15:00	192	140	10	16	**1696**		
15:15	210	176	15	18			
15:30	198	206	15	21			
15:45	224	226	10	19			
16:00	214	216	16	13	**1644**		
16:15	214	190	8	11			
16:30	167	201	2	14			
16:45	181	170	16	11			
17:00	222	175	7	10	**1511**		
17:15	217	132	6	13			
17:30	190	159	12	12			
17:45	183	147	8	18			
18:00	160	132	8	13	**1128**		
18:15	133	140	14	11			
18:30	125	119	6	9			
18:45	108	138	6	6			
19:00	116	187	4	10	**982**		
19:15	114	151	9	6			
19:30	80	101	8	8			
19:45	94	84	4	6			
20:00	93	61	7	7	**642**		
20:15	82	67	7	9			
20:30	70	67	9	3			
20:45	85	66	4	5			
21:00	77	90	5	4	**676**		
21:15	93	98	5	10			
21:30	90	68	4	8			
21:45	69	45	4	6			
22:00	59	54	11	8	**397**		
22:15	65	35	3	6			
22:30	44	29	5	5			
22:45	32	39	0	2			
23:00	37	37	5	1	**261**		
23:15	26	26	6	5			
23:30	30	28	7	1			
23:45	23	23	3	3		**WB**	**EB**
24-HOUR TOTAL	**8675**	**9436**	**858**	**875**	**19844**	**9533**	**10311**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 BTWN Sunset Dr & Mandan Ave
Date: 12/3/2022
Count Duration: 24 HRS
Site Code: 3

Time	Saturday, December 03, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	27	28	3	2	**202**
0:15	29	26	4	4	
0:30	15	25	4	6	
0:45	7	17	2	3	
1:00	14	15	1	6	**136**
1:15	11	16	3	1	
1:30	8	9	4	1	
1:45	16	22	3	6	
2:00	11	10	3	2	**88**
2:15	10	9	1	4	
2:30	8	3	8	3	
2:45	5	6	3	2	
3:00	10	4	1	4	**101**
3:15	6	9	4	7	
3:30	11	8	0	7	
3:45	12	9	3	6	
4:00	12	10	0	3	**129**
4:15	21	8	5	6	
4:30	13	8	2	4	
4:45	19	10	4	4	
5:00	21	12	4	1	**256**
5:15	16	18	2	1	
5:30	30	35	8	5	
5:45	64	28	8	3	
6:00	76	27	5	1	**421**
6:15	59	35	6	3	
6:30	43	49	6	8	
6:45	49	50	4	0	
7:00	48	50	7	6	**487**
7:15	38	51	7	9	
7:30	54	65	5	4	
7:45	78	49	5	11	
8:00	95	63	5	7	**801**
8:15	97	78	3	9	
8:30	89	102	14	7	
8:45	104	109	11	8	
9:00	92	118	9	9	**1144**
9:15	124	130	11	10	
9:30	158	141	7	4	
9:45	158	153	11	9	
10:00	116	133	18	6	**1244**
10:15	130	167	13	11	
10:30	141	177	8	13	
10:45	102	185	10	14	
11:00	124	201	11	22	**1373**
11:15	120	204	10	11	
11:30	117	191	15	13	
11:45	126	190	8	10	
12:00	132	216	15	11	**1315**
12:15	108	168	19	9	
12:30	112	177	14	16	
12:45	122	170	7	19	
13:00	111	177	13	15	**1374**
13:15	134	198	18	14	
13:30	135	175	12	10	
13:45	158	181	10	13	
14:00	136	122	17	7	**1256**
14:15	144	142	22	12	
14:30	151	145	8	15	
14:45	169	136	19	11	

Time	Saturday, December 03, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	**0**
0:15	0	0	
0:30	0	0	
0:45	0	0	
1:00	0	0	**0**
1:15	0	0	
1:30	0	0	
1:45	0	0	
2:00	0	0	**0**
2:15	0	0	
2:30	0	0	
2:45	0	0	
3:00	0	0	**0**
3:15	0	0	
3:30	0	0	
3:45	0	0	
4:00	0	0	**0**
4:15	0	0	
4:30	0	0	
4:45	0	0	
5:00	0	0	**0**
5:15	0	0	
5:30	0	0	
5:45	0	0	
6:00	0	0	**0**
6:15	0	0	
6:30	0	0	
6:45	0	0	
7:00	0	0	**0**
7:15	0	0	
7:30	0	0	
7:45	0	0	
8:00	0	0	**0**
8:15	0	0	
8:30	0	0	
8:45	0	0	
9:00	0	0	**0**
9:15	0	0	
9:30	0	0	
9:45	0	0	
10:00	0	0	**0**
10:15	0	0	
10:30	0	0	
10:45	0	0	
11:00	0	0	**0**
11:15	0	0	
11:30	0	0	
11:45	0	0	
12:00	0	0	**0**
12:15	0	0	
12:30	0	0	
12:45	0	0	
13:00	0	0	**0**
13:15	0	0	
13:30	0	0	
13:45	0	0	
14:00	0	0	**0**
14:15	0	0	
14:30	0	0	
14:45	0	0	

15:00	160	127	11	13	**1335**		
15:15	166	139	13	18			
15:30	155	153	21	15			
15:45	169	151	12	12			
16:00	164	171	16	14	**1452**		
16:15	158	178	16	7			
16:30	155	183	23	15			
16:45	138	194	6	14			
17:00	144	173	10	10	**1242**		
17:15	147	133	14	12			
17:30	158	139	12	9			
17:45	144	119	7	11			
18:00	149	112	9	9	**1045**		
18:15	151	125	10	13			
18:30	139	97	4	11			
18:45	114	88	9	5			
19:00	111	71	17	9	**758**		
19:15	106	83	13	10			
19:30	84	70	11	8			
19:45	89	64	3	9			
20:00	95	55	9	10	**646**		
20:15	90	73	8	7			
20:30	71	64	7	5			
20:45	92	42	10	8			
21:00	80	57	8	4	**556**		
21:15	73	53	4	7			
21:30	81	51	11	2			
21:45	73	39	6	7			
22:00	55	39	8	5	**442**		
22:15	55	49	7	6			
22:30	64	42	8	6			
22:45	55	35	2	6			
23:00	33	40	2	4	**273**		
23:15	34	24	5	5			
23:30	34	17	5	5			
23:45	31	24	2	8		**WB**	**EB**
24-HOUR TOTAL	**8163**	**8344**	**802**	**767**	**18076**	**8965**	**9111**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

Location: I-94 BTWN Sunset Dr & Mandan Ave
Date: 12/4/2022
Count Duration: 24 HRS
Site Code: 3

Time	Sunday, December 04, 2022				
	Light Vehicles		Heavy Vehicles		Total
	Volume		Volume		
	WB	EB	WB	EB	
0:00	31	19	4	2	**206**
0:15	23	31	7	0	
0:30	26	20	3	0	
0:45	13	22	4	1	
1:00	23	17	3	6	**126**
1:15	15	10	4	1	
1:30	9	13	1	4	
1:45	10	8	1	1	
2:00	10	9	2	5	**83**
2:15	9	7	2	0	
2:30	8	7	1	1	
2:45	8	11	1	2	
3:00	6	6	4	2	**84**
3:15	4	8	4	3	
3:30	9	13	1	2	
3:45	8	6	4	4	
4:00	8	8	4	1	**83**
4:15	15	1	1	1	
4:30	8	7	3	2	
4:45	17	3	3	1	
5:00	9	9	1	3	**129**
5:15	12	10	1	4	
5:30	13	26	1	2	
5:45	16	16	0	6	
6:00	23	5	5	6	**207**
6:15	20	17	5	6	
6:30	20	21	7	1	
6:45	26	33	4	8	
7:00	21	32	4	6	**310**
7:15	29	49	3	7	
7:30	40	31	7	7	
7:45	31	31	6	6	
8:00	34	51	2	7	**435**
8:15	35	44	9	9	
8:30	26	73	6	8	
8:45	50	64	8	9	
9:00	48	80	10	8	**680**
9:15	54	67	6	9	
9:30	70	91	9	9	
9:45	105	97	7	10	
10:00	88	109	8	13	**945**
10:15	100	112	12	14	
10:30	99	119	11	15	
10:45	102	121	10	12	
11:00	107	120	7	13	**1071**
11:15	98	147	12	7	
11:30	106	144	10	14	
11:45	113	147	11	15	
12:00	109	148	10	14	**1209**
12:15	115	151	16	15	
12:30	155	136	16	13	
12:45	119	158	11	23	
13:00	136	138	14	16	**1179**
13:15	120	159	9	13	
13:30	130	117	6	10	
13:45	138	148	7	18	
14:00	137	144	17	16	**1226**
14:15	123	149	15	11	
14:30	143	141	10	12	
14:45	144	143	8	13	

Time	Sunday, December 04, 2022		
	Bikes on Road		Total
	Volume		
	WB	EB	
0:00	0	0	**0**
0:15	0	0	
0:30	0	0	
0:45	0	0	
1:00	0	0	**0**
1:15	0	0	
1:30	0	0	
1:45	0	0	
2:00	0	0	**0**
2:15	0	0	
2:30	0	0	
2:45	0	0	
3:00	0	0	**0**
3:15	0	0	
3:30	0	0	
3:45	0	0	
4:00	0	0	**0**
4:15	0	0	
4:30	0	0	
4:45	0	0	
5:00	0	0	**0**
5:15	0	0	
5:30	0	0	
5:45	0	0	
6:00	0	0	**0**
6:15	0	0	
6:30	0	0	
6:45	0	0	
7:00	0	0	**0**
7:15	0	0	
7:30	0	0	
7:45	0	0	
8:00	0	0	**0**
8:15	0	0	
8:30	0	0	
8:45	0	0	
9:00	0	0	**0**
9:15	0	0	
9:30	0	0	
9:45	0	0	
10:00	0	0	**0**
10:15	0	0	
10:30	0	0	
10:45	0	0	
11:00	0	0	**0**
11:15	0	0	
11:30	0	0	
11:45	0	0	
12:00	0	0	**0**
12:15	0	0	
12:30	0	0	
12:45	0	0	
13:00	0	0	**0**
13:15	0	0	
13:30	0	0	
13:45	0	0	
14:00	0	0	**0**
14:15	0	0	
14:30	0	0	
14:45	0	0	

15:00	124	144	18	11	**1285**		
15:15	138	122	14	14			
15:30	201	143	14	11			
15:45	179	133	7	12			
16:00	151	126	12	17	**1174**		
16:15	136	142	7	15			
16:30	141	144	8	12			
16:45	126	117	6	14			
17:00	141	134	11	5	**1112**		
17:15	125	92	10	10			
17:30	153	141	3	12			
17:45	122	132	12	9			
18:00	122	98	8	11	**945**		
18:15	127	95	8	8			
18:30	119	128	11	21			
18:45	102	76	6	5			
19:00	76	92	4	10	**675**		
19:15	77	69	7	5			
19:30	82	68	10	6			
19:45	75	85	6	3			
20:00	67	50	7	5	**459**		
20:15	75	47	5	7			
20:30	45	44	6	7			
20:45	49	38	3	4			
21:00	47	48	3	6	**337**		
21:15	44	30	4	9			
21:30	27	27	7	8			
21:45	34	31	5	7			
22:00	34	25	2	6	**247**		
22:15	22	18	2	6			
22:30	25	27	7	5			
22:45	33	23	6	6			
23:00	15	16	5	1	**141**		
23:15	16	20	2	5			
23:30	14	10	4	8			
23:45	14	5	2	4		**WB**	**EB**
24-HOUR TOTAL	**6402**	**6564**	**630**	**752**	**14348**	**7032**	**7316**

15:00	0	0	**0**
15:15	0	0	
15:30	0	0	
15:45	0	0	
16:00	0	0	**0**
16:15	0	0	
16:30	0	0	
16:45	0	0	
17:00	0	0	**0**
17:15	0	0	
17:30	0	0	
17:45	0	0	
18:00	0	0	**0**
18:15	0	0	
18:30	0	0	
18:45	0	0	
19:00	0	0	**0**
19:15	0	0	
19:30	0	0	
19:45	0	0	
20:00	0	0	**0**
20:15	0	0	
20:30	0	0	
20:45	0	0	
21:00	0	0	**0**
21:15	0	0	
21:30	0	0	
21:45	0	0	
22:00	0	0	**0**
22:15	0	0	
22:30	0	0	
22:45	0	0	
23:00	0	0	**0**
23:15	0	0	
23:30	0	0	
23:45	0	0	
24-HOUR TOTAL	**0**	**0**	**0**

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix B: Crash Data

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 1 (Sorted by Date)
City: West Mandan
Location: I-94 BL (CR 139) & Lyons Rd
Start - End Date: 12/1/2017 - 11/30/2022 (5 Years)

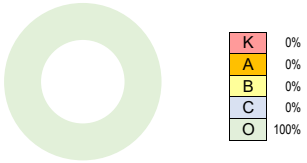
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	0
Possible Injury	C	0
Property Damage Only	O	1
		1



EPDO Score = 1

Under Construction

Yes =	0	0%

Day of Week

Monday =	0	0%
Tuesday =	1	100%
Wednesday =	0	0%
Thursday =	0	0%
Friday =	0	0%
Saturday =	0	0%
Sunday =	0	0%
	1	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	100%	0	0	0	0	1
Rear End	0	0%	0	0	0	0	0
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	0	0%	0	0	0	0	0
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	1	100%	0	0	0	0	1

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	1	100%	0	0	0	0	1
Wet	0	0%	0	0	0	0	0
Ice / Snow	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	1	100%	0	0	0	0	1

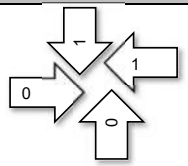
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	0	0%	0	0	0	0	0
Daylight	1	100%	0	0	0	0	1
Dark	0	0%	0	0	0	0	0
Dark (lighted)	0	0%	0	0	0	0	0
Unknown	0	0%	0	0	0	0	0
	1	100%	0	0	0	0	1

V1 and V2 Configuration*

Passenger Car =	0
PU / Van / Utility =	2
Truck =	0
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



NB =	0
SB =	1
EB =	0
WB =	1

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	0	0	0
21-24	0	0	0
25-34	0	0	0
35-44	0	0	0
45-54	0	0	0
55-64	1	0	1
65-74	0	0	0
75+	1	0	1
	2	0	2

Month

Military Time	1 Jan	2 Feb	3 Mar	4 Apr	5 May	6 Jun	7 Jul	8 Aug	9 Sept	10 Oct	11 Nov	12 Dec	
0													0
1													0
2													0
3													0
4													0
5													0
6													0
7													0
8													0
9													0
10													0
11													0
12													0
13													0
14													0
15													0
16													0
17													0
18								■					1
19													0
20													0
21													0
22													0
23													0
Total	0	0	0	0	0	0	0	1	0	0	0	0	1

Year	Start Date	End Date	Manner of Collsion: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	12/1/17	11/30/18																									0								
2	12/1/18	11/30/19				1	1																				1				1	1			
3	12/1/19	11/30/20																									0								
4	12/1/20	11/30/21																									0								
5	12/1/21	11/30/22																									0								
						1	1																				1				1	1			

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 1 (Sorted by Date)
City: West Mandan
Location: I-94 BL (CR 139) & Lyons Rd
Start - End Date: 12/1/2017 - 11/30/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
1	1083239	PDO 08/27/19 Tuesday Dry Clear Daylight 6:16 PM	Angle	① 77M MANDAN ND Pickup - Van - Utility SB Turning Left (Stop) Failed to Yield	② 57M NEW SALEM ND Pickup - Van - Utility WB Turning Right			↓ ←
2								
3								
4								
5								
6								
7								
8								
9								
10								

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 4 (Sorted by Longitude)
City: West Mandan
Location: I-94 WB Ramps & BL I-94/26th Ave (ND 25)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	1
Possible Injury	C	0
Property Damage Only	O	3
		4

EPDO Score = 20

Under Construction

Yes =	0	0%

Day of Week

Monday =	0	0%
Tuesday =	1	25%
Wednesday =	1	25%
Thursday =	2	50%
Friday =	0	0%
Saturday =	0	0%
Sunday =	0	0%
	4	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	25%	0	0	1	0	0
Rear End	1	25%	0	0	0	0	1
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	2	50%	0	0	0	0	2
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	4	100%	0	0	1	0	3

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	3	75%	0	0	1	0	2
Wet	0	0%	0	0	0	0	0
Ice / Snow	1	25%	0	0	0	0	1
Other	0	0%	0	0	0	0	0
	4	100%	0	0	1	0	3

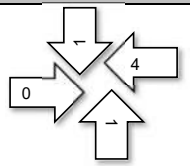
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	0	0%	0	0	0	0	0
Daylight	2	50%	0	0	1	0	1
Dark	2	50%	0	0	0	0	2
Dark (lighted)	0	0%	0	0	0	0	0
Unknown	0	0%	0	0	0	0	0
	4	100%	0	0	1	0	3

V1 and V2 Configuration*

Passenger Car =	0
PU / Van / Utility =	3
Truck =	2
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



NB =	1
SB =	1
EB =	0
WB =	4

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	0	0	0
21-24	0	1	1
25-34	0	0	0
35-44	2	0	2
45-54	0	0	0
55-64	1	0	1
65-74	1	0	1
75+	0	0	0
	4	1	5

Month

Military Time	1 Jan	2 Feb	3 Mar	4 Apr	5 May	6 Jun	7 Jul	8 Aug	9 Sept	10 Oct	11 Nov	12 Dec	
0													0
1													0
2													0
3													0
4													0
5													0
6													0
7													0
8						■							1
9													0
10													0
11	■												1
12													0
13													0
14													0
15													0
16													0
17													0
18	■												1
19													0
20		■											1
21													0
22													0
23													0
Total	2	1	0	0	0	1	0	0	0	0	0	0	4

Year	Start Date	End Date	Manner of Collsion: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18																									0								
2	11/1/18	10/31/19								1	1														1		2				2	1		1	
3	11/1/19	10/31/20																									0								
4	11/1/20	10/31/21																							1		1				1	1			
5	11/1/21	10/31/22				1	1																				1		1			1			
						1	1			1	1														2		4		1		3	3		1	

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 4 (Sorted by Longitude)
City: West Mandan
Location: I-94 WB Ramps & BL I-94/26th Ave (ND 25)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative		Diagram
1	1103241	PDO 01/14/21 Thursday Dry Severe Wind Daylight 11:00 AM	Single Veh. (Overturn / Rollover)	① 35M MANDAN ND Single Unit Truck WB Going Straight Weather Overturn / Rollover			X←
2	1073073	PDO 02/19/19 Tuesday Ice / Snow Blowing Snow ❄ Dark 8:30 PM	Single Veh. (Guardrail Face)	① 56M MANDAN ND Pickup - Van - Utility NB Turning Right Guardrail Face			X ↑
3	1124461	▶ Non-incapacitating injury 06/23/22 Thursday Dry Clear Daylight 8:50 AM	Angle	① 67M MANDAN ND 3+ Axle SB Going Straight (Stop) ② 36M GILLETTE WY Pickup - Van - Utility WB Going Straight (Stop) Failed to Yield			↓ ←
4	1069981	PDO 01/16/19 Wednesday Dry Clear Dark 6:22 PM	Rear End	① U Hit and Run WB Other Action on Roadway (Stop) ② 24F MANDAN ND Pickup - Van - Utility WB Stopped (Stop)			←←
5							
6							
7							
8							
9							
10							

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 1 (Sorted by Date)
City: West Mandan
Location: ND 25 & 36th St (CR 139A)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

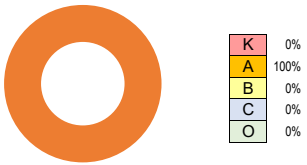
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	1
Non-incapacitating Injury	B	0
Possible Injury	C	0
Property Damage Only	O	0
		1



EPDO Score = 55

Under Construction

Yes =	0	0%

Day of Week

Monday =	0	0%
Tuesday =	0	0%
Wednesday =	0	0%
Thursday =	0	0%
Friday =	0	0%
Saturday =	0	0%
Sunday =	1	100%
	1	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	100%	0	1	0	0	0
Rear End	0	0%	0	0	0	0	0
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	0	0%	0	0	0	0	0
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	1	100%	0	1	0	0	0

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	0	0%	0	0	0	0	0
Wet	1	100%	0	1	0	0	0
Ice / Snow	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	1	100%	0	1	0	0	0

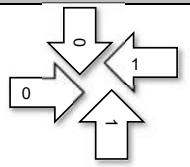
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	0	0%	0	0	0	0	0
Daylight	0	0%	0	0	0	0	0
Dark	0	0%	0	0	0	0	0
Dark (lighted)	1	100%	0	1	0	0	0
Unknown	0	0%	0	0	0	0	0
	1	100%	0	1	0	0	0

V1 and V2 Configuration*

Passenger Car =	1
PU / Van / Utility =	1
Truck =	0
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



NB =	1
SB =	0
EB =	0
WB =	1

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 1

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	0	0	0
21-24	0	0	0
25-34	0	0	0
35-44	1	0	1
45-54	0	1	1
55-64	0	0	0
65-74	0	0	0
75+	0	0	0
	1	1	2

Month

Military Time	1 Jan	2 Feb	3 Mar	4 Apr	5 May	6 Jun	7 Jul	8 Aug	9 Sept	10 Oct	11 Nov	12 Dec	
0													0
1													0
2													0
3													0
4													0
5													0
6													0
7													0
8													0
9													0
10													0
11													0
12													0
13													0
14													0
15													0
16													0
17													0
18													0
19													0
20													0
21													0
22													0
23										■			1
Total	0	0	0	0	0	0	0	0	0	1	0	0	1

Year	Start Date	End Date	Manner of Collision: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18																									0								
2	11/1/18	10/31/19		1			1																				1		1				1		
3	11/1/19	10/31/20																									0								
4	11/1/20	10/31/21																									0								
5	11/1/21	10/31/22																									0								
			1				1																				1		1				1		

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 1 (Sorted by Date)
City: West Mandan
Location: ND 25 & 36th St (CR 139A)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
▶ *Fatal*
▶ *Incapacitating Injury*
▶ *Non-Incapacitating Injury*
▷ *Possible Injury*
♦ *Wet surface*
❄ *Snow, Ice, Slush, Frost*
▲ *Crash related to work zone*
① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
1	1085970 ▶	Incapacitating Injury 10/20/19 Sunday Wet Cloudy Dark(L) 11:01 PM	♦	Angle	① 54F MANDAN ND Pickup - Van - Utility WB Going Straight (Stop) Failed to Yield*	② 37M WASHBURN ND Passenger Car NB Going Straight Weather	V1 was WB and failed to yield to V2 (SB).		← ↑
2									
3									
4									
5									
6									
7									
8									
9									
10									

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 37 (Sorted by Date)
City: Mandan
Location: Sunset Dr & Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

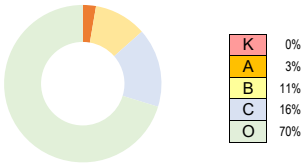
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	1
Non-incapacitating Injury	B	4
Possible Injury	C	6
Property Damage Only	O	26
		37



EPDO Score = 215

Under Construction

Yes =	0	0%

Day of Week

Monday =	5	14%
Tuesday =	7	19%
Wednesday =	9	24%
Thursday =	6	16%
Friday =	4	11%
Saturday =	2	5%
Sunday =	4	11%
	37	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	6	16%	0	1	1	0	4
Rear End	24	65%	0	0	2	5	17
Left Turn	4	11%	0	0	1	1	2
Sideswipe (same dir.)	2	5%	0	0	0	0	2
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	1	3%	0	0	0	0	1
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	37	100%	0	1	4	6	26

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	26	70%	0	1	3	4	18
Wet	2	5%	0	0	0	2	0
Ice / Snow	9	24%	0	0	1	0	8
Other	0	0%	0	0	0	0	0
	37	100%	0	1	4	6	26

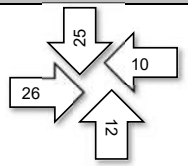
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	2	5%	0	0	0	0	2
Daylight	33	89%	0	1	4	6	22
Dark	0	0%	0	0	0	0	0
Dark (lighted)	2	5%	0	0	0	0	2
Unknown	0	0%	0	0	0	0	0
	37	100%	0	1	4	6	26

V1 and V2 Configuration*

Passenger Car =	28
PU / Van / Utility =	41
Truck =	1
Bus / Motorhome =	0
Motorcycle + Moped =	1
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



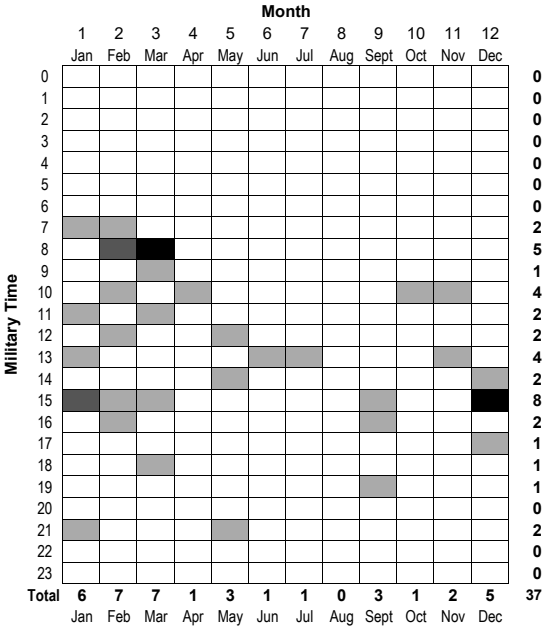
NB =	12
SB =	25
EB =	26
WB =	10

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	3	2	5
18-20	3	2	5
21-24	4	3	7
25-34	6	5	11
35-44	3	7	10
45-54	11	3	14
55-64	4	3	7
65-74	4	1	5
75+	2	4	6
	40	30	70



Year	Start Date	End Date	Manner of Collision: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18	1	1			**2**	1	1	4	1	**7**				2	**2**								**1**		*12*				1	11	7		5	
2	11/1/18	10/31/19							5	1	1	**7**															*7*			1	2	4	7			
3	11/1/19	10/31/20								2		**2**				1	**1**										*3*			1		2			3	
4	11/1/20	10/31/21	2			1	**3**	1	3	1		**5**									1	**1**					*9*			2	2	5	8	1		
5	11/1/21	10/31/22	1				**1**		2	1		**3**		1			**1**	1				**1**					*6*		1		1	4	4	1	1	
			4	1	1		6	2	11	9	2	24	1			3	4	1			1	2			1		37		1	4	6	26	26	2	9	

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 37 (Sorted by Date)
City: Mandan
Location: Sunset Dr & Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
1	1043516	PDO 11/07/17 Tuesday Dry Clear Daylight 1:40 PM		Rear End	① 41M BISMARCK ND Pickup - Van - Utility WB Turning Right (Beacon)	② U Hit and Run WB Going Straight (Beacon)			←←
2	1047197	PDO 01/03/18 Wednesday Slush Clear Daylight 3:05 PM	❄	Rear End	① 22M BISMARCK ND Passenger Car EB Turning Right (Beacon) Following too Close	② 59F MANDAN ND Pickup - Van - Utility EB Turning Right (Beacon)			→→
3	1047198	PDO 01/03/18 Wednesday Slush Clear Daylight 3:35 PM	❄	Rear End	① 58M BISMARCK ND Pickup - Van - Utility NB Turning Right (Beacon) Following too Close	② 78F MANDAN ND Passenger Car NB Turning Right (Beacon) Weather			↑ ↑
4	1048735	PDO 01/24/18 Wednesday Dry Clear Dark(L) 9:27 PM		Left Turn	① 21M LINCOLN ND Passenger Car WB Turning Left (Signal) Failed to Yield	② 25M MANDAN ND Passenger Car EB Going Straight (Signal)			→←
5	1049121	PDO 02/01/18 Thursday Dry Clear Daylight 4:24 PM		Rear End	① 54F BISMARCK ND Pickup - Van - Utility EB Turning Right (Signal) Careless/Reckless Driving	② 57F MANDAN ND Pickup - Van - Utility EB Turning Right (Signal)			→→
6	1050243	PDO 02/16/18 Friday Snow Clear Daylight 12:00 PM	❄	Rear End	① 40M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal) Following too Close	② 28M MANDAN ND Passenger Car SB Stopped (Signal)			↓ ↓
7	1051017 ▷	Possible Injury 02/28/18 Wednesday Dry Clear Daylight 8:30 AM		Rear End	① 45M MANDAN ND Pickup - Van - Utility EB Turning Right (Signal)	② 65M MANDAN ND Pickup - Van - Utility EB Turning Right (Signal)			→→
8	1051546	PDO 03/04/18 Sunday Dry Cloudy Daylight 9:00 AM		Angle	① 65M MANDAN ND Passenger Car WB Going Straight (Signal)	② 83M MANDAN ND Pickup - Van - Utility NB Going Straight (Signal) Ran Red Light			← ↑
9	1051574	PDO 03/07/18 Wednesday Snow Clear Dusk 6:30 PM	❄	Left Turn	① 21M CARSON ND Passenger Car WB Turning Left (Signal) Careless/Reckless Driving	② 32F MANDAN ND Pickup - Van - Utility EB Going Straight (Signal)			→←
10	1052947	PDO 03/30/18 Friday Ice / Snow Cloudy Daylight 8:08 AM	❄	Single Veh. (Traffic Signal Support)	① 17F BISMARCK ND Pickup - Van - Utility SB Turning Right (Signal) Weather Traffic Signal Support				↓ X

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 37 (Sorted by Date)
City: Mandan
Location: Sunset Dr & Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]			Shortened Narrative		Diagram
11	1055724	PDO 05/22/18 Tuesday Dry Clear Daylight 12:08 PM	Rear End	① 63F MANDAN ND Pickup - Van - Utility EB Turning Right (Yield)	② 52M BISMARCK ND Passenger Car EB Turning Right				→→
12	1061929	PDO 09/13/18 Thursday Dry Clear Daylight 3:40 PM	Angle	① 73M MANDAN ND Pickup - Van - Utility EB Going Straight (Signal)	② 58M MANDAN ND Pickup - Van - Utility NB Going Straight (Signal)				→ ↑
13	1067199 ▷	Possible Injury 12/04/18 Tuesday Dry Cloudy Daylight 2:37 PM	Rear End	① 37F MANDAN ND Passenger Car EB Turning Right (Signal)	② 18F MANDAN ND Passenger Car EB Turning Right (Signal)				→→
14	1067479	PDO 12/12/18 Wednesday Dry Cloudy Daylight 3:48 PM	Rear End	① 50M FARGO ND Pickup - Van - Utility SB Turning Right (Signal)	② 39F BISMARCK ND Passenger Car SB Turning Right (Signal)				↓ ↓
15	1069495 ▷	Possible Injury 01/14/19 Monday Dry Clear Daylight 7:49 AM	Rear End	① 23F MANDAN ND Passenger Car SB Going Straight (Oth) Care Required	② 51M MANDAN ND Passenger Car SB Going Straight (Oth)	③ 34F BISMARCK ND Pickup - Van - Utility SB Going Straight (Oth)			↓ ↓
16	1074260	PDO 03/05/19 Tuesday Dry Clear Daylight 8:43 AM	Rear End	① 21F MANDAN ND Passenger Car SB Turning Right (Signal) Following too Close	② 38F MANDAN ND Pickup - Van - Utility SB Turning Right (Signal)				↓ ↓
17	1075863	PDO 03/29/19 Friday Dry Clear Daylight 11:10 AM	Rear End	① 38F BISMARCK ND Passenger Car SB Stopped Care Required	② 88M MANDAN ND Passenger Car SB Stopped (Signal)				↓ ↓
18	1081038	PDO 07/14/19 Sunday Dry Clear Daylight 1:30 PM	Rear End	① 19M MANDAN ND Passenger Car SB Turning Right (Signal) Following too Close	② <Null> Pickup - Van - Utility SB Turning Right (Signal)				↓ ↓
19	1083425 ▶	Non-incapacitating injury 09/02/19 Monday Dry Clear Daylight 7:50 PM	Rear End	① 27F RAPID CITY ND Pickup - Van - Utility WB Going Straight (Signal) Other	② 51M BISMARCK ND Motorcycle WB Going Straight (Signal) Other				←←
20	1089457 ▶	Non-incapacitating injury 12/30/19 Monday Slush Clear ❄ Daylight 3:00 PM	Left Turn	① 16F MANDAN DC Pickup - Van - Utility EB Going Straight (Signal)	② 18F GLEN ULLIN ND Passenger Car WB Turning Left (Signal)				→←

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 37 (Sorted by Date)
City: Mandan
Location: Sunset Dr & Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]			Shortened Narrative		Diagram
21	1090248	PDO 01/17/20 Friday Ice / Snow Cloudy Daylight 11:53 AM	❄	Rear End	① 19M NAPOLEON ND Passenger Car EB Turning Right (Signal)	② 62M BISMARCK ND Pickup - Van - Utility EB Turning Right (Signal)				→→
22	1091885	PDO 02/18/20 Tuesday Snow Clear Daylight 8:14 AM	❄	Rear End	① 17M MANDAN ND Pickup - Van - Utility EB Turning Right (Signal)	② 53M MANDAN ND Pickup - Van - Utility EB Turning Right (Signal)				→→
23	1101896	▷ Possible Injury 12/10/20 Thursday Dry Clear Daylight 3:36 PM		Rear End	① 48M MANDAN ND Pickup - Van - Utility EB Turning Right (Signal) Following too Close	② 33F MANDAN ND Pickup - Van - Utility EB Turning Right (Signal)				→→
24	1104169	▶ Non-incapacitating injury 02/06/21 Saturday Dry Clear Daylight 3:00 PM		Angle	① 67M MANDAN ND Passenger Car EB Going Straight (Signal) Ran Red Light	② 31M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal)	③ 59M MANDAN ND Pickup - Van - Utility NB Stopped (Signal)			↓ →
25	1104239	PDO 02/09/21 Tuesday Dry Clear Daylight 7:40 AM		Rear End	① 15M MANDAN ND Pickup - Van - Utility SB Turning Right (Signal)	② 16M MANDAN ND Pickup - Van - Utility SB Turning Right (Signal) Following too Close				↓ ↓
26	1105877	PDO 03/22/21 Monday Dry Clear Daylight 3:53 PM		Rear End	① 67F MANDAN ND Pickup - Van - Utility SB Going Straight (Signal) Following too Close	② 42F MANDAN ND Pickup - Van - Utility SB Going Straight (Signal)				↓ ↓
27	1106172	PDO 03/31/21 Wednesday Dry Clear Daylight 8:30 AM		Angle	① 53M MANDAN ND Pickup - Van - Utility EB Turning Left (Signal)	② 84F MANDAN ND Pickup - Van - Utility NB Going Straight (Signal)				→ ↑
28	1106370	▷ Possible Injury 04/11/21 Sunday Wet Clear Daylight 10:57 AM	♦	Rear End	① 49F OSSEO WI Passenger Car NB Turning Right (Yield) Following too Close	② 40F MANDAN ND Passenger Car NB Turning Right (Yield)				↑ ↑
29	1107260	PDO 05/01/21 Saturday Dry Clear Dark(L) 9:38 PM		Angle	① U Hit and Run EB Other Action on Roadway (Signal	② 19M BISMARCK ND Passenger Car NB Going Straight (Signal)				→ ↑
30	1107674	PDO 05/09/21 Sunday Dry Clear Daylight 2:10 PM		Sideswipe (Same Dir.)	① 32F BISMARCK ND Passenger Car WB Other Action on Roadway (Signa Improper Turning	② 39M MANDAN ND Pickup - Van - Utility WB Going Straight (Signal)				← ←

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 37 (Sorted by Date)
City: Mandan
Location: Sunset Dr & Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
31 1108438	▶ Non-incapacitating injury 06/01/21 Tuesday Dry Clear Daylight 1:50 PM	Rear End	① 25M BISMARCK ND Pickup - Van - Utility SB Other Action on Roadway (Signal Careless/Reckless Driving	② 33F MANDAN ND Pickup - Van - Utility SB Turning Right (Signal)			↓ ↓
32 1114592	▷ Possible Injury 11/11/21 Thursday Wet Snow ♦ Daylight 10:14 AM	Left Turn	① 24F BISMARCK ND Passenger Car NB Going Straight (Signal) No Insurance	② 41F MANDAN ND Pickup - Van - Utility SB Turning Left (Signal) Failed to Yield			↓ ↑
33 1118389	PDO 01/20/22 Thursday Dry Clear Daylight 1:25 PM	Rear End	① 51M MANDAN ND Pickup - Van - Utility SB Turning Right (Signal) Careless/Reckless Driving	② 48F MANDAN ND Pickup - Van - Utility SB Stopped (Signal)			↓ ↓
34 1120354	▶ Incapacitating Injury 02/16/22 Wednesday Dry Clear Daylight 10:07 AM	Angle	① 80F BISMARCK ND Pickup - Van - Utility EB Other Action on Roadway (Signal Failed to Yield	② 63M MANDAN ND Pickup - Van - Utility NB Other Action on Roadway (Signa	V1 failed to stop at the red light and struck V2.		→ ↑
35 1127729	PDO 09/21/22 Wednesday Dry Clear Daylight 4:50 PM	Rear End	① 75F MANDAN ND Passenger Car EB Turning Right (Signal) Careless/Reckless Driving	② 33M MANDAN ND Pickup - Van - Utility EB Turning Right (Signal)			→→
36 1129117	PDO 10/27/22 Thursday Dry Clear Daylight 10:13 AM	Sideswipe (Same Dir.)	① 48M BISMARCK ND Pickup - Van - Utility NB Turning Right (Signal) Improper Overtaking	② 47M BISMARCK ND Truck Tractor NB Turning Right (Signal)			↑↑
37 1116884	PDO 12/27/21 Monday Snow Cloudy ❄ Dusk 5:00 PM	Rear End	① 33M MANDAN ND Passenger Car SB Going Straight (Signal) To Fast for Conditions	② 24M WILTON ND Passenger Car SB Stopped (Signal) Weather			↓ ↓
38							
39							
40							

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 18 (Sorted by Longitude)
City: Mandan
Location: I-94 WB Ramps & Sunset Dr
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

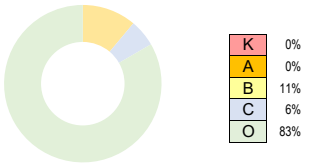
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	2
Possible Injury	C	1
Property Damage Only	O	15
		18



EPDO Score = 60

Under Construction

Yes =	1	6%

Day of Week

Monday =	4	22%
Tuesday =	1	6%
Wednesday =	2	11%
Thursday =	2	11%
Friday =	3	17%
Saturday =	2	11%
Sunday =	4	22%
	18	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	6	33%	0	0	0	1	5
Rear End	7	39%	0	0	1	0	6
Left Turn	1	6%	0	0	0	0	1
Sideswipe (same dir.)	2	11%	0	0	0	0	2
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	2	11%	0	0	1	0	1
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	18	100%	0	0	2	1	15

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	11	61%	0	0	1	0	10
Wet	2	11%	0	0	1	0	1
Ice / Snow	5	28%	0	0	0	1	4
Other	0	0%	0	0	0	0	0
	18	100%	0	0	2	1	15

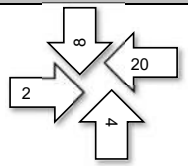
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	1	6%	0	0	1	0	0
Daylight	12	67%	0	0	1	1	10
Dark	1	6%	0	0	0	0	1
Dark (lighted)	4	22%	0	0	0	0	4
Unknown	0	0%	0	0	0	0	0
	18	100%	0	0	2	1	15

V1 and V2 Configuration*

Passenger Car =	11
PU / Van / Utility =	22
Truck =	0
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



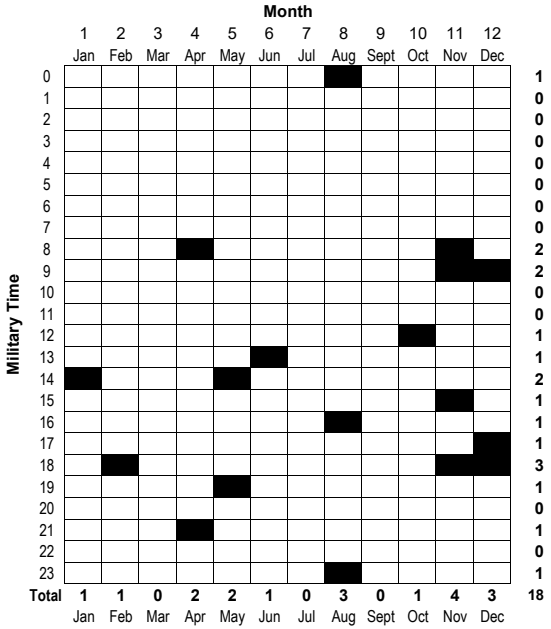
NB =	4
SB =	8
EB =	2
WB =	20

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 1

D1 and D2 Age/Sex

Age	M	F	Total
0-17	3	2	5
18-20	2	3	5
21-24	1	0	1
25-34	2	1	3
35-44	4	0	4
45-54	4	3	7
55-64	4	0	4
65-74	0	3	3
75+	0	0	0
	20	12	32



Year	Start Date	End Date	Manner of Collision: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18		1			1			2		2						1				1			1		5				1	4	2	1	2	
2	11/1/18	10/31/19				2	2			2		2								1	1	1			1		6			1		5	3	1	2	
3	11/1/19	10/31/20							1			1				1	1										2					2	1		1	
4	11/1/20	10/31/21		1			1			1		1															2			1		1	2			1
5	11/1/21	10/31/22				2	2		1			1															3					3	3			
				2		4	6		2	5		7				1	1	1		1	2				2		18			2	1	15	11	2	5	1

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 18 (Sorted by Longitude)
City: Mandan
Location: I-94 WB Ramps & Sunset Dr
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

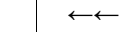
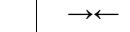
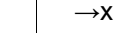
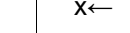
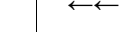
23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]			Shortened Narrative		Diagram
1	1110950	▶ Non-incapacitating injury 08/09/21 Monday Dry Clear Daylight 4:52 PM	▲	Rear End	① 57M MANDAN ND Pickup - Van - Utility WB Going Straight (Oth) To Fast for Conditions	② 53F DICKINSON ND Pickup - Van - Utility WB Turning Right	③ 51M BISMARCK ND Passenger Car WB Stopped			
2	1094815	PDO 05/29/20 Friday Dry Clear Daylight 2:59 PM		Left Turn	① 21M MCCLUSKY ND Passenger Car EB Going Straight (Signal)	② 20F CAVALIER ND Passenger Car WB Turning Left (Signal) Failed to Yield				
3	1065004	▶ Non-incapacitating injury 11/03/18 Saturday Wet Rain Dusk 6:30 PM	♦	Single Veh. (Traffic Signal Support)	① 18M MANDAN ND Pickup - Van - Utility EB Going Straight (Signal) Weather Traffic Signal Support					
4	1046369	▷ Possible Injury 12/25/17 Monday Ice / Snow Clear Daylight 9:44 AM	❄	Angle	① 31F MANDAN ND Pickup - Van - Utility NB Going Straight	② 45F STERLING ND Pickup - Van - Utility WB Turning Left (Signal) Ran Red Light				
5	1128696	PDO 10/16/22 Sunday Dry Cloudy Daylight 12:39 PM		Rear End	① 18M MANDAN ND Passenger Car SB Going Straight (Signal) Careless/Reckless Driving	② 54M BISMARCK ND Pickup - Van - Utility SB Stopped (Signal)				
6	1046093	PDO 12/21/17 Thursday Ice / Snow Clear Daylight 5:00 PM	❄	Single Veh. (Curb)	① 38M BISMARCK ND Pickup - Van - Utility WB Turning Left (Signal) Other Curb					
7	1123807	PDO 06/03/22 Friday Dry Clear Daylight 1:00 PM		Angle	① 68F MANDAN ND Pickup - Van - Utility SB Going Straight (Signal) Careless/Reckless Driving	② 45M MANDAN ND Pickup - Van - Utility WB Turning Left (Signal)				
8	1070193	PDO 01/18/19 Friday Snow Snow Daylight 2:53 PM	❄	Rear End	① 68F BISMARCK ND Passenger Car WB Going Straight (Signal) Weather	② 64M MANDAN ND Pickup - Van - Utility WB Going Straight (Signal) Weather				
9	1092230	PDO 02/16/20 Sunday Snow Snow Dark(L) 6:49 PM	❄	Rear End	① 50M BISMARCK ND Pickup - Van - Utility SB Going Straight (Signal) Weather	② 45M MANDAN ND Passenger Car SB Stopped (Signal) Weather				
10	1077506	PDO 05/01/19 Wednesday Dry Clear Daylight 7:20 PM		Angle	① U Hit and Run WB Turning Left (Oth)	② U Pickup - Van - Utility SB Going Straight (Signal)				

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 18 (Sorted by Longitude)
City: Mandan
Location: I-94 WB Ramps & Sunset Dr
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
11	1065984	PDO 11/18/18 Sunday Snow Clear Daylight 9:30 AM	❄	Angle	① 38M MANDAN ND Pickup - Van - Utility WB Going Straight (Signal)	② 58M BEULAH ND Pickup - Van - Utility SB Going Straight (Signal)			↓ ←
12	1114482	PDO 11/09/21 Tuesday Dry Clear Daylight 8:10 AM		Angle	① 71F BERTHOLD ND Pickup - Van - Utility SB Going Straight (Beacon)	② 17M MANDAN ND Pickup - Van - Utility WB Turning Left (Beacon)			↓ ←
13	1053278	PDO 04/02/18 Monday Dry Clear Dark(L) 9:22 PM		Sideswipe (Same Dir.)	① 19F BISMARCK ND Pickup - Van - Utility NB Changing Lanes (Signal) Failed to Yield	② 18F MANDAN ND Passenger Car NB Turning Right (Signal)			↑↑
14	1059561	PDO 08/04/18 Saturday Wet Rain Dark(L) 12:40 AM	♦	Rear End	① 26M MANDAN ND Passenger Car WB Turning Left (Signal) Weather*	② 57M MANDAN ND Pickup - Van - Utility WB Turning Left (Signal)			←←
15	1102388	PDO 12/21/20 Monday Dry Clear Dark(L) 6:38 PM		Angle	① 15M MANDAN ND Passenger Car NB Going Straight (Signal) Ran Red Light	② 38M MANDAN DC Pickup - Van - Utility WB Turning Left (Signal)			← ↑
16	1075994	PDO 04/03/19 Wednesday Dry Clear Daylight 8:46 AM		Rear End	① 37M MANDAN ND Pickup - Van - Utility WB Going Straight Careless Driving	② 31M BISMARCK ND Passenger Car WB Stopped (Stop)			←←
17	1066929	PDO 11/29/18 Thursday Dry Clear Daylight 3:07 PM		Sideswipe (Same Dir.)	① 16F MANDAN ND Passenger Car WB Turning Right Other	② 49F NEW SALEM ND Pickup - Van - Utility WB Turning Right			← ←
18	1060480	PDO 08/12/18 Sunday Dry Clear Dark 11:40 PM		Rear End	① 17M MANDAN ND Pickup - Van - Utility WB Going Straight Following too Close	② 15F LINCOLN ND Passenger Car WB Slowing/Stopping Improper License			←←
19									
20									

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 19 (Sorted by Longitude)
City: Mandan
Location: I-94 EB Ramps & Sunset Dr
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	2
Possible Injury	C	4
Property Damage Only	O	13
		19

EPDO Score = 91

Under Construction

Yes =	3	16%

Day of Week

Monday =	3	16%
Tuesday =	3	16%
Wednesday =	5	26%
Thursday =	2	11%
Friday =	2	11%
Saturday =	1	5%
Sunday =	3	16%
	19	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	5%	0	0	0	0	1
Rear End	14	74%	0	0	1	3	10
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	1	5%	0	0	0	0	1
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	3	16%	0	0	1	1	1
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	19	100%	0	0	2	4	13

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	12	63%	0	0	2	4	6
Wet	1	5%	0	0	0	0	1
Ice / Snow	6	32%	0	0	0	0	6
Other	0	0%	0	0	0	0	0
	19	100%	0	0	2	4	13

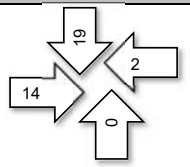
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	2	11%	0	0	0	0	2
Daylight	14	74%	0	0	1	4	9
Dark	0	0%	0	0	0	0	0
Dark (lighted)	3	16%	0	0	1	0	2
Unknown	0	0%	0	0	0	0	0
	19	100%	0	0	2	4	13

V1 and V2 Configuration*

Passenger Car =	11
PU / Van / Utility =	22
Truck =	0
Bus / Motorhome =	0
Motorcycle + Moped =	1
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



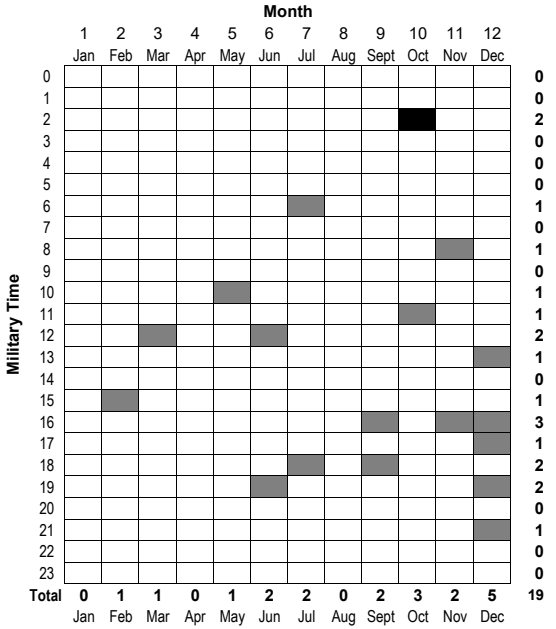
NB =	0
SB =	19
EB =	14
WB =	2

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 1

D1 and D2 Age/Sex

Age	M	F	Total
0-17	2	0	2
18-20	1	1	2
21-24	5	0	5
25-34	9	4	13
35-44	2	3	5
45-54	2	1	3
55-64	1	0	1
65-74	1	0	1
75+	0	0	0
	23	9	32



Year	Start Date	End Date	Manner of Collision: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	A	B	C	O	Surface Cond. Dry	Wet	Ice/Snow	Construction?
1	11/1/17	10/31/18							2			2														2				2	2			
2	11/1/18	10/31/19							5	2		7													1		8				1	7	4		4	2
3	11/1/19	10/31/20				1	1		1	1		2													1		4				1	3	3		1	1
4	11/1/20	10/31/21								2		2								1	1				1		4			2		2	3	1		
5	11/1/21	10/31/22							1			1															1					1			1	
					1		1		9	5		14								1	1				3		19			2	4	13	12	1	6	3

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 19 (Sorted by Longitude)
City: Mandan
Location: I-94 EB Ramps & Sunset Dr
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
1	1095934	▷ Possible Injury 06/24/20 Wednesday Dry Clear Daylight 7:10 PM		Single Veh. (Post)	① 26M MANDAN ND Passenger Car EB Going Straight Speed Post				→X
2	1067527	PDO 12/04/18 Tuesday Dry Clear Dusk 7:13 PM		Rear End	① 17M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal) Other	② 49M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal)			↓ ↓
3	1116884	PDO 12/27/21 Monday Snow Cloudy Dusk 5:00 PM	❄	Rear End	① 33M MANDAN ND Passenger Car SB Going Straight (Signal) To Fast for Conditions	② 24M WILTON ND Passenger Car SB Stopped (Signal) Weather			↓ ↓
4	1088753	PDO 12/20/19 Friday Dry Clear Daylight 4:03 PM		Rear End	① 28M MANDAN ND Passenger Car SB Going Straight	② 30F MANDAN ND Pickup - Van - Utility SB Going Straight			↓ ↓
5	1072333	PDO 02/13/19 Wednesday Snow Clear Daylight 3:22 PM	❄	Rear End	① 25M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal)	② 41F BISMARCK ND Pickup - Van - Utility SB Going Straight (Signal)			↓ ↓
6	1061547	▷ Possible Injury 09/10/18 Monday Dry Clear Daylight 4:16 PM		Rear End	① 30M BISMARCK ND Pickup - Van - Utility SB Going Straight Following too Close	② 29F BISMARCK ND Passenger Car SB Going Straight			↓ ↓
7	1094752	PDO 05/27/20 Wednesday Dry Clear Daylight 10:18 AM	▲	Rear End	① 40F HANNOVER ND Pickup - Van - Utility EB Turning Right (Beacon) Careless/Reckless Driving	② 67M NEW SALEM ND Passenger Car EB Turning Right (Signal)			→→
8	1074060	PDO 03/02/19 Saturday Snow Clear Daylight 12:25 PM	❄	Rear End	① 33F BISMARCK ND Pickup - Van - Utility SB Going Straight (Signal)	② 20F MANDAN ND Passenger Car SB Going Straight (Signal)			↓ ↓
9	1068123	PDO 12/23/18 Sunday Dry Clear Daylight 1:35 PM		Rear End	① 16M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal) No Insurance	② <Null> Pickup - Van - Utility SB Going Straight (Signal)			↓ ↓
10	1065890	PDO 11/16/18 Friday Snow Snow Daylight 4:08 PM	❄	Rear End	① 39F MANDAN ND Pickup - Van - Utility SB Turning Left (Signal) Following too Close	② 20M MANDAN DC Pickup - Van - Utility SB Turning Left (Signal) Weather			↓ ↓

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 19 (Sorted by Longitude)
City: Mandan
Location: I-94 EB Ramps & Sunset Dr
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
11	1088088	PDO 12/09/19 Monday Ice / Snow Clear Dark(L) 9:57 PM	❄	Angle	① 42M BISMARCK ND Passenger Car SB Turning Left (Signal) To Fast for Conditions	② 23M BASTROP LA Pickup - Van - Utility EB Turning Left (Signal)			↓ →
12	1061371 ▷	Possible Injury 09/04/18 Tuesday Dry Clear Daylight 6:10 PM		Rear End	① 54M BISMARCK ND Pickup - Van - Utility SB Going Straight (Signal) Following too Close	② 31M MANDAN ND Passenger Car SB Going Straight (Signal) Other			↓ ↓
13	1113649 ▶	Non-incapacitating injury 10/17/21 Sunday Dry Clear Dark(L) 2:50 AM		Single Veh. (Overturn / Rollover)	① 30M MANDAN NDY Motorcycle EB Merging/Diverging Other Overturn / Rollover				→X
14	1067583	PDO 11/14/18 Wednesday Ice / Snow Clear Daylight 8:15 AM	❄	Single Veh. (Post)	① 45F ELGIN ND Pickup - Van - Utility EB Going Straight Over Correct/Steering Post				→X
15	1113650	PDO 10/17/21 Sunday Dry Clear Dark(L) 2:50 AM		Rear End	① 24M BISMARCK ND Pickup - Van - Utility EB Merging/Diverging D.U.I. (Alcohol)*	② <Null> Pickup - Van - Utility EB Driverless (Stopped) Parked MV			→→
16	1079442 ▷	Possible Injury 06/13/19 Thursday Dry Clear Daylight 12:36 PM	▲	Rear End	① 28M MANDAN ND Passenger Car EB Going Straight (Yield) Following too Close	② 63M MANDAN ND Pickup - Van - Utility EB Slowing/Stopping (Yield)			→→
17	1109796 ▶	Non-incapacitating injury 07/06/21 Tuesday Dry Clear Daylight 6:30 AM		Rear End	① 22M MANDAN ND Pickup - Van - Utility EB Merging/Diverging To Fast for Conditions	② 24M MANDAN ND Pickup - Van - Utility EB Merging/Diverging Failed to Yield			→→
18	1113475	PDO 10/13/21 Wednesday Wet Rain Daylight 11:15 AM	♦	Sideswipe (Same Dir.)	① U Hit and Run WB Other Action on Roadway	② 29F GLENDIVE MT Pickup - Van - Utility WB Going Straight			← ←
19	1080540	PDO 07/04/19 Thursday Dry Clear Daylight 6:37 PM	▲	Rear End	① 30M NEWELL SD Passenger Car EB Going Straight	② 38M BISMARCK ND Pickup - Van - Utility EB Merging/Diverging (Yield) Careless/Reckless Driving			→→
20									

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 10 (Sorted by Date)
City: Mandan
Location: Sunset Dr & Boundary St NW
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

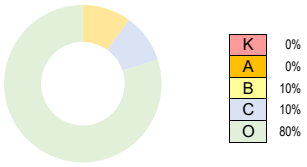
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	1
Possible Injury	C	1
Property Damage Only	O	8
		10



EPDO Score = 36

Under Construction

Yes = 0 0%

Day of Week

Monday =	2	20%
Tuesday =	2	20%
Wednesday =	3	30%
Thursday =	0	0%
Friday =	1	10%
Saturday =	2	20%
Sunday =	0	0%
	10	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	2	20%	0	0	1	1	0
Rear End	5	50%	0	0	0	0	5
Left Turn	2	20%	0	0	0	0	2
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	0	0%	0	0	0	0	0
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	1	10%	0	0	0	0	1
Other	0	0%	0	0	0	0	0
	10	100%	0	0	1	1	8

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	6	60%	0	0	0	1	5
Wet	2	20%	0	0	1	0	1
Ice / Snow	2	20%	0	0	0	0	2
Other	0	0%	0	0	0	0	0
	10	100%	0	0	1	1	8

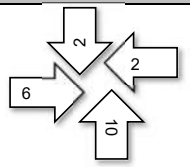
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	0	0%	0	0	0	0	0
Daylight	8	80%	0	0	1	0	7
Dark	0	0%	0	0	0	0	0
Dark (lighted)	2	20%	0	0	0	1	1
Unknown	0	0%	0	0	0	0	0
	10	100%	0	0	1	1	8

V1 and V2 Configuration*

Passenger Car =	5
PU / Van / Utility =	13
Truck =	1
Bus / Motorhome =	0
Motorcycle + Moped =	1
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



NB = 10
SB = 2
EB = 6
WB = 2

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	1	1	2
18-20	1	1	2
21-24	0	0	0
25-34	1	1	2
35-44	1	4	5
45-54	3	2	5
55-64	0	0	0
65-74	1	1	2
75+	0	2	2
	8	12	20

Month

Military Time	1 Jan	2 Feb	3 Mar	4 Apr	5 May	6 Jun	7 Jul	8 Aug	9 Sept	10 Oct	11 Nov	12 Dec	
0													0
1													0
2													0
3													0
4													0
5													0
6													0
7													0
8													0
9													0
10													0
11													0
12													1
13													3
14													0
15													3
16													0
17													1
18													0
19													1
20													0
21													0
22													0
23													1
Total	1	0	2	0	0	0	1	1	2	0	3	0	10

Year	Start Date	End Date	Manner of Collision: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18								1		1	1				1										2					2	1	1		
2	11/1/18	10/31/19						3				3			1		1										4					4	2		2	
3	11/1/19	10/31/20				1	1																1				2			1	1	2			
4	11/1/20	10/31/21																									0								
5	11/1/21	10/31/22	1				1	1				1															2			1	1	1	1		
			1			1	2	4		1		5	1		1		2						1				10			1	1	8	6	2	2	

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 10 (Sorted by Date)
City: Mandan
Location: Sunset Dr & Boundary St NW
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
1	1043623	PDO 11/03/17 Friday Wet Snow Daylight 3:40 PM	♦	Left Turn	① 18F MANDAN ND Passenger Car NB Turning Left Weather	② 36M BISMARCK ND Single Unit Truck SB Going Straight			↓ ↑
2	1060195	PDO 08/14/18 Tuesday Dry Clear Daylight 1:10 PM		Rear End	① 34F MANDAN ND Passenger Car EB Going Straight (Stop) Careless/Reckless Driving	② 49M MANDAN ND Pickup - Van - Utility EB Going Straight (Stop)			→→
3	1069857	PDO 01/21/19 Monday Snow Clear Dark(L) 7:22 PM	❄	Rear End	① 18M MANDAN ND Passenger Car NB Going Straight To Fast for Conditions	② 47F MANDAN ND Pickup - Van - Utility NB Turning Right			↑ ↑
4	1074820	PDO 03/11/19 Monday Ice / Snow Clear Daylight 5:45 PM	❄	Left Turn	① 74F MANDAN ND Pickup - Van - Utility EB Turning Left Improper Turn	② 35F MANDAN ND Pickup - Van - Utility WB Stopped (Stop)			→←
5	1075742	PDO 03/27/19 Wednesday Dry Clear Daylight 12:26 PM		Rear End	① 17F MANDAN ND Passenger Car NB Going Straight Careless/Reckless Driving	② 53M MANDAN ND Pickup - Van - Utility NB Going Straight			↑ ↑
6	1084158	PDO 09/24/19 Tuesday Dry Cloudy Daylight 3:33 PM		Rear End	① 16M MANDAN ND Pickup - Van - Utility NB Going Straight (Signal) Careless/Reckless Driving	② 38F BISMARCK ND Pickup - Van - Utility NB Going Straight (Signal)			↑ ↑
7	1087111	PDO 11/23/19 Saturday Dry Clear Daylight 1:15 PM		Backing	① 31M BISMARCK ND Pickup - Van - Utility EB Backing (Stop) Improper Backing/Turning	② 47M MANDAN ND Pickup - Van - Utility EB Going Straight (Stop)			No Diagram
8	1096707	▷ Possible Injury 07/22/20 Wednesday Dry Clear Dark(L) 11:47 PM		Angle	① 41F LINCOLN ND Motorcycle SB Passing Improper Overtaking	② 52F MANDAN ND Pickup - Van - Utility WB Turning Left			↓ ←
9	1114935	▶ Non-incapacitating injury 11/13/21 Saturday Wet Clear Daylight 1:05 PM	♦	Angle	① 78F MANDAN ND Pickup - Van - Utility EB Going Straight (Stop)	② 80F MANDAN ND Passenger Car NB Going Straight			→ ↑
10	1128019	PDO 09/28/22 Wednesday Dry Clear Daylight 3:14 PM		Rear End	① 40F MANDAN ND Pickup - Van - Utility NB Going Straight Careless/Reckless Driving	② 68M MANDAN ND Pickup - Van - Utility NB Going Straight			↑ ↑

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 3 (Sorted by Date)
City: Mandan
Location: Mandan Ave & Marathon Refinery Entrance
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

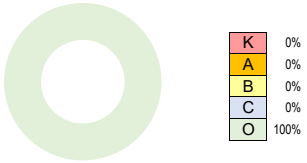
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	0
Possible Injury	C	0
Property Damage Only	O	3
		3



EPDO Score = 3

Under Construction

Yes =	0	0%

Day of Week

Monday =	2	67%
Tuesday =	0	0%
Wednesday =	0	0%
Thursday =	0	0%
Friday =	1	33%
Saturday =	0	0%
Sunday =	0	0%
	3	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	33%	0	0	0	0	1
Rear End	1	33%	0	0	0	0	1
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	1	33%	0	0	0	0	1
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	3	100%	0	0	0	0	3

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	2	67%	0	0	0	0	2
Wet	0	0%	0	0	0	0	0
Ice / Snow	1	33%	0	0	0	0	1
Other	0	0%	0	0	0	0	0
	3	100%	0	0	0	0	3

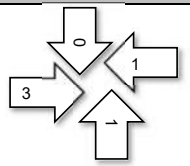
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	1	33%	0	0	0	0	1
Daylight	1	33%	0	0	0	0	1
Dark	0	0%	0	0	0	0	0
Dark (lighted)	1	33%	0	0	0	0	1
Unknown	0	0%	0	0	0	0	0
	3	100%	0	0	0	0	3

V1 and V2 Configuration*

Passenger Car =	1
PU / Van / Utility =	3
Truck =	1
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



NB =	1
SB =	0
EB =	3
WB =	1

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	0	0	0
21-24	0	0	0
25-34	2	1	3
35-44	1	0	1
45-54	0	0	0
55-64	1	0	1
65-74	0	0	0
75+	0	0	0
	4	1	5

Month

Military Time	1 Jan	2 Feb	3 Mar	4 Apr	5 May	6 Jun	7 Jul	8 Aug	9 Sept	10 Oct	11 Nov	12 Dec	
0													0
1													0
2													0
3													0
4													0
5													0
6										■			1
7											■		1
8													0
9													0
10													0
11													0
12													0
13													0
14											■		1
15													0
16													0
17													0
18													0
19													0
20													0
21													0
22													0
23													0
Total	0	0	0	0	0	0	0	0	0	1	2	0	3
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	

			Manner of Collsion																						Severity					Surface Cond.			
			Angle					Rear End					Left Turn					Sideswipe Same Dir.																	
Year	Start Date	End Date	NB+EB	NB+WB	SB+EB	SB+WB	Subtotal	NB	SB	EB	WB	Subtotal	NB to WB	SB to EB	EB to NB	WB to SB	Subtotal	NB	SB	EB	WB	Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	K	A	B	C	O	Dry	Wet	Ice/Snow	Construction?
1	11/1/17	10/31/18																									*0*								
2	11/1/18	10/31/19		1			**1**																				*1*				1	1			
3	11/1/19	10/31/20								1		**1**													**1**		*2*				2	1		1	
4	11/1/20	10/31/21																									*0*								
5	11/1/21	10/31/22																									*0*								
			1				1			1		1													1		3				3	2		1	

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 3 (Sorted by Date)
City: Mandan
Location: Mandan Ave & Marathon Refinery Entrance
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
1	1085772	PDO 10/28/19 Monday Dry Clear Dark(L) 6:25 AM	Angle	① 58M MANDAN ND Passenger Car WB Going Straight	② 25M DAYTON TX Pickup - Van - Utility NB Going Straight (Stop) Failed to Yield			← ↑
2	1086262	PDO 11/01/19 Friday Dry Cloudy Daylight 2:14 PM	Single Veh. (Fence)	① 41M BISMARCK ND Unknown Heavy Truck EB Turning Left Improper Turn Fence				→X
3	1086539	PDO 11/04/19 Monday Snow Snow ❄ Dawn 7:02 AM	Rear End	① 25F MANDAN ND Pickup - Van - Utility EB Going Straight Weather	② 33M MANDAN ND Pickup - Van - Utility EB Turning Left Weather			→→
4								
5								
6								
7								
8								
9								
10								

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 9 (Sorted by Longitude)
City: Mandan
Location: I-94 WB Ramps & Mandan Ave (ND 1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

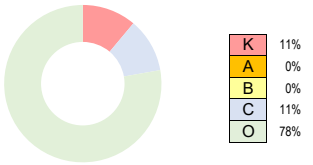
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	1
Incapacitating Injury	A	0
Non-incapacitating Injury	B	0
Possible Injury	C	1
Property Damage Only	O	7
		9



EPDO Score = 118

Under Construction

Yes = 2 22%

Day of Week

Monday =	0	0%
Tuesday =	1	11%
Wednesday =	2	22%
Thursday =	1	11%
Friday =	2	22%
Saturday =	2	22%
Sunday =	1	11%
	9	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	11%	0	0	0	0	1
Rear End	2	22%	0	0	0	0	2
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	1	11%	0	0	0	1	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	5	56%	1	0	0	0	4
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	9	100%	1	0	0	1	7

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	8	89%	1	0	0	1	6
Wet	0	0%	0	0	0	0	0
Ice / Snow	1	11%	0	0	0	0	1
Other	0	0%	0	0	0	0	0
	9	100%	1	0	0	1	7

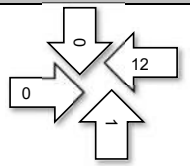
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	1	11%	0	0	0	0	1
Daylight	6	67%	1	0	0	1	4
Dark	0	0%	0	0	0	0	0
Dark (lighted)	2	22%	0	0	0	0	2
Unknown	0	0%	0	0	0	0	0
	9	100%	1	0	0	1	7

V1 and V2 Configuration*

Passenger Car =	3
PU / Van / Utility =	9
Truck =	1
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



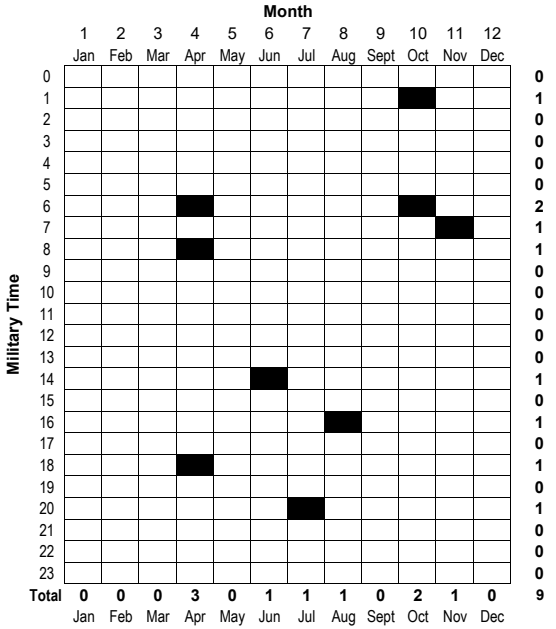
NB =	1
SB =	0
EB =	0
WB =	12

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 2

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	2	1	3
21-24	1	1	2
25-34	1	0	1
35-44	1	1	2
45-54	1	1	2
55-64	1	1	2
65-74	0	0	0
75+	1	0	1
	8	5	13



Year	Start Date	End Date	Manner of Collision: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18									1	1														1					1	1			
2	11/1/18	10/31/19		1			1				1	1								1	1				2	5				1	4	4		1	2
3	11/1/19	10/31/20																								0									
4	11/1/20	10/31/21																							2	2					2	2			
5	11/1/21	10/31/22																							1	1	1					1			
			1				1				2	2								1	1				5	9	1			1	7	8		1	2

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 9 (Sorted by Longitude)
City: Mandan
Location: I-94 WB Ramps & Mandan Ave (ND 1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative		Diagram
1	1113637	PDO 10/17/21 Sunday Dry Clear Dark(L) 1:01 AM	Single Veh. (Post)	① 49F MANDAN ND Pickup - Van - Utility WB Negotiating Curve Fail Keep in Proper Lane* Post			X←
2	1124102 ▶	Fatal 06/11/22 Saturday Dry Clear Daylight 2:00 PM	Single Veh. (Embankment)	① 75M MANDAN NDY Pickup - Van - Utility WB Going Straight (Stop) Embankment	V1 reportedly was errant on I-94 and exited the highway on the WB ramp at a high rate of speed. V1 failed to stop at the stop sign crossing the road and entering the ditch. V1 impacted an embankment and D1 was ejected.		X←
3	1077429	PDO 04/25/19 Thursday Dry Clear Dawn 6:49 AM	▲ Angle	① 52M BISMARCK ND Single Unit Truck WB Going Straight ② 24M MANDAN ND Pickup - Van - Utility NB Going Straight (Stop) Disregard Traffic Signs			← ↑
4	1076853 ▷	Possible Injury 04/19/19 Friday Dry Clear Daylight 8:50 AM	▲ Sideswipe (Same Dir.)	① 22F MANDAN ND Pickup - Van - Utility WB Turning Right (Stop) Speed ② 43F BISMARCK ND Pickup - Van - Utility WB Going Straight (Stop)			← ←
5	1060503	PDO 08/14/18 Tuesday Dry Clear Daylight 4:10 PM	Rear End	① 19M MANDAN ND Passenger Car WB Going Straight (Stop) ② 60F MANDAN ND Pickup - Van - Utility WB Stopped (Stop)			←←
6	1067303	PDO 11/24/18 Saturday Snow Snow ❄ Daylight 7:56 AM	Single Veh. (Other Object (Not Fixed))	① 18M MCMINNVILLE OR Pickup - Van - Utility WB Turning Left (Stop) Weather Other Object (Not Fixed)			X←
7	1084502	PDO 10/02/19 Wednesday Dry Cloudy Dark(L) 6:30 AM	Rear End	① 59M BISMARCK ND Pickup - Van - Utility WB Turning Right (Stop) Careless/Reckless Driving ② 41M BISMARCK ND Pickup - Van - Utility WB Turning Right (Stop)			←←
8	1081250	PDO 07/19/19 Friday Dry Clear Daylight 8:44 PM	Single Veh. (Post)	① 20F BISMARCK ND Passenger Car WB Other Action on Roadway D.U.I. (Alcohol)* Post			X←
9	1106895	PDO 04/21/21 Wednesday Dry Clear Daylight 6:23 PM	Single Veh. (Guardrail Face)	① 28M NEW SALEM ND Passenger Car WB Going Straight Guardrail Face			X←
10							

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 17 (Sorted by Longitude)
City: Mandan
Location: I-94 EB Ramps & Mandan Ave (ND 1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

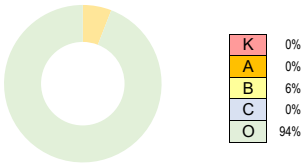
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	1
Possible Injury	C	0
Property Damage Only	O	16
		17



EPDO Score = 33

Under Construction

Yes = 9 53%

Day of Week

Monday =	3	18%
Tuesday =	2	12%
Wednesday =	2	12%
Thursday =	2	12%
Friday =	3	18%
Saturday =	4	24%
Sunday =	1	6%
	17	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	0	0%	0	0	0	0	0
Rear End	10	59%	0	0	1	0	9
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	6	35%	0	0	0	0	6
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	1	6%	0	0	0	0	1
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	17	100%	0	0	1	0	16

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	13	76%	0	0	1	0	12
Wet	1	6%	0	0	0	0	1
Ice / Snow	3	18%	0	0	0	0	3
Other	0	0%	0	0	0	0	0
	17	100%	0	0	1	0	16

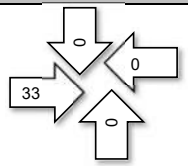
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	0	0%	0	0	0	0	0
Daylight	15	88%	0	0	1	0	14
Dark	0	0%	0	0	0	0	0
Dark (lighted)	2	12%	0	0	0	0	2
Unknown	0	0%	0	0	0	0	0
	17	100%	0	0	1	0	16

V1 and V2 Configuration*

Passenger Car =	10
PU / Van / Utility =	17
Truck =	4
Bus / Motorhome =	0
Motorcycle + Moped =	2
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



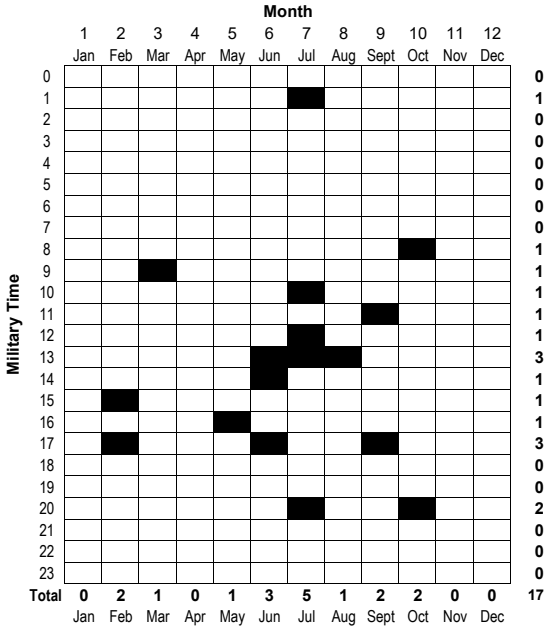
NB =	0
SB =	0
EB =	33
WB =	0

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	1	1	2
18-20	2	0	2
21-24	1	0	1
25-34	4	2	6
35-44	6	4	10
45-54	2	4	6
55-64	2	3	5
65-74	0	0	0
75+	0	0	0
	18	14	32



Year	Start Date	End Date	Manner of Collision: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18																									*0*								
2	11/1/18	10/31/19								9		**9**								3		**3**			**1**		*13*			1	12	12		1	9
3	11/1/19	10/31/20																		2		**2**					*2*				2	1		1	
4	11/1/20	10/31/21																		1		**1**					*1*				1			1	
5	11/1/21	10/31/22								1		**1**															*1*				1		1		
										10		10								6		6			1		17			1	16	13	1	3	9

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 17 (Sorted by Longitude)
City: Mandan
Location: I-94 EB Ramps & Mandan Ave (ND 1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
1	1072083	PDO 02/11/19 Monday Snow Snow Daylight 5:44 PM	❄	Rear End	① 31M MANDAN ND Passenger Car EB Turning Right (Stop) Weather	② 44M NEW SALEM ND Pickup - Van - Utility EB Going Straight (Stop) To Fast for Conditions			→→
2	1072613	PDO 02/15/19 Friday Dry Clear Daylight 3:53 PM		Rear End	① 25M GRAND FORKS ND Pickup - Van - Utility EB Other Action on Roadway (Stop) Following too Close	② 31M MANDAN ND Passenger Car EB Stopped (Stop)			→→
3	1124794	PDO 07/04/22 Monday Wet Rain Dark(L) 1:33 AM	♦	Rear End	① 17M MANDAN ND Pickup - Van - Utility EB Turning Left Careless/Reckless Driving Parked MV	② <Null> Truck Tractor EB Driverless (Stopped) Parked MV			→→
4	1081481	PDO 07/26/19 Friday Dry Clear Daylight 12:14 PM		Rear End	① 44M BISMARCK ND Pickup - Van - Utility EB Turning Right (Stop) Careless/Reckless Driving	② 38F BISMARCK ND Pickup - Van - Utility EB Turning Right (Stop)			→→
5	1079670	▶ Non-incapacitating injury 06/09/19 Sunday Dry Clear Daylight 2:17 PM	▲	Rear End	① 20M MENOKEN ND Passenger Car EB Going Straight Following too Close	② 52M DICKINSON NDY Motorcycle EB Stopped			→→
6	1081554	PDO 07/27/19 Saturday Dry Clear Daylight 1:29 PM	▲	Rear End	① 36M MANDAN ND Pickup - Van - Utility EB Going Straight (Yield) Following too Close	② 63F MANDAN ND Passenger Car EB Stopped (Yield)			→→
7	1078596	PDO 05/22/19 Wednesday Dry Cloudy Daylight 4:52 PM	▲	Rear End	① 44F BISMARCK ND Pickup - Van - Utility EB Going Straight Following too Close	② 35F BISMARCK ND Pickup - Van - Utility EB Stopped			→→
8	1078891	PDO 06/01/19 Saturday Dry Clear Daylight 5:45 PM	▲	Single Veh. (Other Traffic Barrier)	① 62F BISMARCK ND Passenger Car EB Going Straight (Yield) Other Traffic Barrier				→X
9	1079158	PDO 06/07/19 Friday Dry Clear Daylight 1:05 PM	▲	Rear End	① 16F MANDAN ND Passenger Car EB Merging/Diverging Following too Close	② 58M BISMARCK ND Motorcycle EB Merging/Diverging			→→
10	1099532	PDO 10/08/20 Thursday Dry Clear Daylight 8:06 AM		Sideswipe (Same Dir.)	① 25F MANDAN ND Pickup - Van - Utility EB Changing Lanes Failed to Yield	② 49F MANDAN ND Pickup - Van - Utility EB Going Straight			→ →

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 17 (Sorted by Longitude)
City: Mandan
Location: I-94 EB Ramps & Mandan Ave (ND 1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]			Shortened Narrative		Diagram
11	1105892	PDO 03/27/21 Saturday Snow Snow Daylight 9:52 AM	❄	Sideswipe (Same Dir.)	① 54F BISMARCK ND Passenger Car EB Merging/Diverging Fail Keep in Proper Lane	② 59F DICKINSON ND Pickup - Van - Utility EB Going Straight Weather	③ U Hit and Run EB Merging/Diverging Weather			→ →
12	1084430	PDO 09/30/19 Monday Dry Cloudy Daylight 11:10 AM	▲	Sideswipe (Same Dir.)	① 42M NELSONVILLE OH Truck Tractor EB Going Straight	② 41M MANDAN ND Passenger Car EB Merging/Diverging (Yield) Failed to Yield				→ →
13	1084022	PDO 09/21/19 Saturday Dry Clear Daylight 5:59 PM		Rear End	① 27F MANDAN ND Pickup - Van - Utility EB Merging/Diverging (Oth) Following too Close	② 48F BISMARCK ND Passenger Car EB Merging/Diverging (Yield)				→→
14	1100228	PDO 10/22/20 Thursday Ice / Snow Clear Dark(L) 8:35 PM	❄	Sideswipe (Same Dir.)	① 40F MANDAN ND Pickup - Van - Utility EB Merging/Diverging Fail Keep in Proper Lane	② 24M BISMARCK ND Pickup - Van - Utility EB Merging/Diverging Following too Close				→ →
15	1081265	PDO 07/16/19 Tuesday Dry Clear Daylight 10:50 AM	▲	Sideswipe (Same Dir.)	① 19M MANDAN ND Pickup - Van - Utility EB Merging/Diverging (Yield) Failed to Yield	② 48M BISMARCK ND Truck Tractor EB Going Straight				→ →
16	1082646	PDO 08/21/19 Wednesday Dry Clear Daylight 1:43 PM	▲	Rear End	① 40M CARVER MN Truck Tractor EB Going Straight	② 48F MANDAN ND Passenger Car EB Going Straight Failed to Yield				→→
17	1080328	PDO 07/02/19 Tuesday Dry Clear Daylight 8:08 PM	▲	Sideswipe (Same Dir.)	① 32M ALMONT ND Pickup - Van - Utility EB Merging/Diverging (Yield) Failed to Yield	② 60M BISMARCK ND Pickup - Van - Utility EB Going Straight				→ →
18										
19										
20										

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 44 (Sorted by Date)
City: Mandan
Location: E Main St (I-94 BL) & Mandan Ave (ND 1804)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

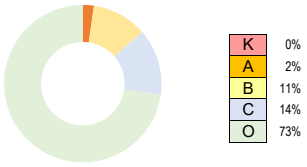
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	1
Non-incapacitating Injury	B	5
Possible Injury	C	6
Property Damage Only	O	32
		44



EPDO Score = 238

Under Construction

Yes =	1	2%

Day of Week

Monday =	5	11%
Tuesday =	5	11%
Wednesday =	6	14%
Thursday =	7	16%
Friday =	14	32%
Saturday =	2	5%
Sunday =	5	11%
	44	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	7	16%	0	0	1	1	5
Rear End	25	57%	0	0	0	4	21
Left Turn	6	14%	0	1	0	0	5
Sideswipe (same dir.)	1	2%	0	0	0	0	1
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	4	9%	0	0	4	0	0
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	1	2%	0	0	0	1	0
	44	100%	0	1	5	6	32

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	27	61%	0	1	4	4	18
Wet	2	5%	0	0	0	1	1
Ice / Snow	15	34%	0	0	1	1	13
Other	0	0%	0	0	0	0	0
	44	100%	0	1	5	6	32

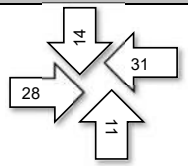
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	3	7%	0	1	1	0	1
Daylight	32	73%	0	0	2	6	24
Dark	0	0%	0	0	0	0	0
Dark (lighted)	8	18%	0	0	2	0	6
Unknown	1	2%	0	0	0	0	1
	44	100%	0	1	5	6	32

V1 and V2 Configuration*

Passenger Car =	33
PU / Van / Utility =	44
Truck =	3
Bus / Motorhome =	0
Motorcycle + Moped =	2
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



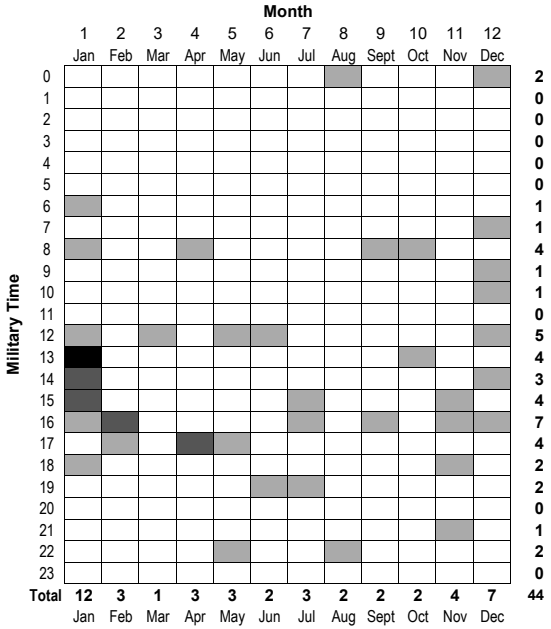
NB =	11
SB =	14
EB =	28
WB =	31

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 3

D1 and D2 Age/Sex

Age	M	F	Total
0-17	1	2	3
18-20	4	3	7
21-24	2	4	6
25-34	6	8	14
35-44	11	3	14
45-54	9	4	13
55-64	10	4	14
65-74	5	2	7
75+	2	2	4
	50	32	82



Year	Start Date	End Date	Manner of Collsion: Angle NB+EB	NB+WB	SB+EB	SB+WB	Subtotal	Rear End NB	SB	EB	WB	Subtotal	Left Turn NB to WB	SB to EB	EB to NB	WB to SB	Subtotal	Sideswipe Same Dir. NB	SB	EB	WB	Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	A	B	C	O	Surface Cond. Dry	Wet	Ice/Snow	Construction?
1	11/1/17	10/31/18							2	3	3	**8**		1		1	**2**								**2**		*12*			2	2	8	8	1	3	
2	11/1/18	10/31/19		2	2		**4**	2		2	3	**7**			1	1	**2**									**1**	*14*			1	3	10	7		7	
3	11/1/19	10/31/20	1				**1**		1	1		**2**													**1**	*4*			1		3	4			
4	11/1/20	10/31/21		1			**1**			2		**2**													**1**	*4*			1		3	3	1		1
5	11/1/21	10/31/22				1	**1**		2	1	3	**6**				2	**2**			1		**1**				*10*		1		1	8	5		5	
			1	3	2	1	7	2	5	9	9	25		1	1	4	6			1		1			4	1	44		1	5	6	32	27	2	15	1

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 44 (Sorted by Date)
City: Mandan
Location: E Main St (I-94 BL) & Mandan Ave (ND 1804)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]			Shortened Narrative		Diagram
1	1043991	PDO 11/16/17 Thursday Dry Clear Dark(L) 4:58 PM	Left Turn	① 29F BISMARCK ND Passenger Car SB Turning Left (Beacon)	② 42M MANDAN ND Pickup - Van - Utility NB Going Straight (Beacon) Ran Red Light				↓ ↑
2	1045523	PDO 12/13/17 Wednesday Dry Clear Daylight 12:15 PM	Rear End	① U Hit and Run EB Turning Right (Beacon)	② 61F MANDAN ND Passenger Car EB Turning Right (Beacon)				→→
3	1047922	PDO 01/12/18 Friday Ice / Snow Clear ❄ Daylight 8:50 AM	Rear End	① 20F MANDAN ND Pickup - Van - Utility WB Going Straight (Signal) To Fast for Conditions	② 19M BISMARCK ND Pickup - Van - Utility WB Going Straight (Signal)	③ 44F MANDAN ND Pickup - Van - Utility WB Going Straight (Signal)			←←
4	1047976	PDO 01/12/18 Friday Ice / Snow Clear ❄ Daylight 1:10 PM	Rear End	① 53M MANDAN ND Pickup - Van - Utility EB Going Straight (Signal) To Fast for Conditions	② 17F MANDAN ND Passenger Car EB Going Straight (Signal)				→→
5	1048275	PDO 01/14/18 Sunday Ice / Snow Cloudy ❄ Daylight 1:39 PM	Left Turn	① 54M BISMARCK ND Pickup - Van - Utility EB Going Straight (Signal) To Fast for Conditions	② 20M WATFORD CITY ND Pickup - Van - Utility WB Turning Left (Signal)				→←
6	1048317 ▷	Possible Injury 01/17/18 Wednesday Wet Clear ♦ Daylight 2:44 PM	Rear End	① 42M BISMARCK ND Passenger Car SB Going Straight To Fast for Conditions	② 55M MANDAN ND Pickup - Van - Utility SB Going Straight				↓ ↓
7	1048806	PDO 01/18/18 Thursday Dry Clear Daylight 4:00 PM	Rear End	① 90F MANDAN ND Pickup - Van - Utility SB Going Straight (Signal) Improper Overtaking	② 31M MANDAN ND Passenger Car SB Going Straight (Signal)				↓ ↓
8	1053895 ▷	Possible Injury 04/05/18 Thursday Dry Clear Daylight 5:00 PM	Rear End	① 41M MANDAN ND Pickup - Van - Utility WB Going Straight Following	② 36M BEULAH ND Pickup - Van - Utility WB Going Straight				←←
9	1054735	PDO 05/02/18 Wednesday Dry Clear Daylight 5:10 PM	Rear End	① 41M MANDAN ND Pickup - Van - Utility WB Going Straight (Signal) Other	② 64M MANDAN ND Pickup - Van - Utility WB Stopped (Signal)	③ 29F MANDAN ND Passenger Car WB Going Straight (Signal)			←←
10	1056980 ▶	Non-incapacitating injury 06/15/18 Friday Dry Clear Daylight 7:15 PM	Single Veh. (Impact Attenuator)	① 39M BISMARCK ND Motorcycle WB Turning Left (Signal) Impact Attenuator					X←

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 44 (Sorted by Date)
City: Mandan
Location: E Main St (I-94 BL) & Mandan Ave (ND 1804)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
11	1058224	PDO 07/09/18 Monday Dry Clear Daylight 7:26 PM		Rear End	① 55M BISMARCK ND Pickup - Van - Utility EB Going Straight (Signal)	② 67M LAS CRUCES NM Motor Home / RV EB Going Straight (Signal) Parked MV			→→
12	1060614	▶ Non-incapacitating injury 08/16/18 Thursday Dry Clear Dark(L) 12:35 AM		Single Veh. (Utility Post)	① 25M BISMARCK ND Pickup - Van - Utility WB Going Straight (Signal) Careless/Reckless Driving* Utility Post				X←
13	1066422	PDO 11/24/18 Saturday Snow Snow Daylight 3:15 PM	❄	Left Turn	① 78F MANDAN ND Passenger Car WB Turning Left (Signal) Weather	② 55M MANDAN ND Pickup - Van - Utility EB Going Straight (Signal) Weather			→←
14	1066896	PDO 12/02/18 Sunday Dry Clear Unknown 12:00 AM		Angle	① 36F BISMARCK ND Passenger Car WB Going Straight (Signal)	② 57M MANDAN ND Pickup - Van - Utility NB Going Straight (Signal)			← ↑
15	1068607	PDO 12/26/18 Wednesday Snow Cloudy Dark(L) 7:51 AM	❄	Left Turn	① 51M LINCOLN ND Pickup - Van - Utility WB Going Straight (Signal) Weather	② 61M BISMARCK ND Truck Tractor EB Turning Left (Signal) Failed to Yield			→←
16	1068413	PDO 12/28/18 Friday Snow Clear Daylight 9:45 AM	❄	Rear End	① 18F MANDAN ND Pickup - Van - Utility NB Going Straight (Signal) Weather Parked MV	② U Mandan ND Pickup - Van - Utility NB Going Straight (Signal) Parked MV			↑ ↑
17	1068626	PDO 12/31/18 Monday Dry Clear Daylight 10:30 AM		Rear End	① 24M MANDAN ND Passenger Car EB Turning Left (Signal) Careless/Reckless Driving	② 52M MANDAN ND Pickup - Van - Utility EB Turning Left (Signal)			→→
18	1069337	PDO 01/11/19 Friday Dry Clear Daylight 12:42 PM		Rear End	① 38M MANDAN ND Passenger Car NB Turning Right (Oth) Following too Close	② 77M MANDAN ND Passenger Car NB Turning Right (Signal)			↑ ↑
19	1069609	PDO 01/17/19 Thursday Dry Clear Dark(L) 6:42 PM		Rear End	① 61M MANDAN ND Passenger Car WB Going Straight (Signal) Careless/Reckless Driving	② 60F MANDAN ND Pickup - Van - Utility WB Going Straight (Signal)			←←
20	1069686	PDO 01/18/19 Friday Snow Snow Daylight 1:00 PM	❄	Rear End	① 21F BISMARCK ND Pickup - Van - Utility WB Going Straight (Signal) Following too Close	② 53F MANDAN ND Pickup - Van - Utility WB Going Straight (Signal) Weather			←←

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 44 (Sorted by Date)
City: Mandan
Location: E Main St (I-94 BL) & Mandan Ave (ND 1804)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

Crash No.	Crash Severity / Date, Day / Surface Conditions, Weather / Lighting, Time	Type of Collision	① AGE SEX CITY STATE / Unit Configuration / Movement (traffic control) / Contributing Factor[1] / Most Harmful Event[2]		Shortened Narrative		Diagram
21 1069655	▷ Possible Injury 01/18/19 Friday Snow Snow ❄ Daylight 3:16 PM	Angle	① 56M MANDAN ND Pickup - Van - Utility WB Slowing/Stopping (Signal) To Fast for Conditions	② 53F MANDAN ND Passenger Car NB Going Straight (Signal) Weather			← ↑
22 1069817	▶ Non-incapacitating injury 01/21/19 Monday Snow Snow ❄ Dark(L) 6:48 AM	Angle	① 29M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal)	② 57F MANDAN ND Passenger Car EB Going Straight (Signal) Ran Red Light			↓ →
23 1073206	PDO 02/22/19 Friday Snow Clear ❄ Daylight 4:01 PM	Rear End	① 51M FLASHER ND Pickup - Van - Utility WB Going Straight (Signal) Care Required	② 64M MANDAN ND Passenger Car WB Stopped (Signal)			←←
24 1077140	▷ Possible Injury 04/26/19 Friday Dry Clear Daylight 8:15 AM	Rear End	① 22F WILTON ND Pickup - Van - Utility EB Turning Right (Oth) Following too Close	② 23F BOTTINEAU ND Passenger Car EB Turning Right (Oth)			→→
25 1081962	▷ Possible Injury 07/23/19 Tuesday Dry Clear Daylight 4:03 PM	Other	① 34F BISMARCK ND Passenger Car NB Going Straight (Signal) Other Object (Not Fixed)	② 48M DICKINSON ND Motorcycle NB Going Straight (Signal) Other Object (Not Fixed)	V1 and V2 were stopped at a red light. A trailer on another vehicle hit the back of V2 which then struck V1.		No Diagram
26 1081833	PDO 08/01/19 Thursday Dry Clear Dark(L) 10:18 PM	Angle	① 32F BISMARCK ND Passenger Car SB Going Straight (Stop) Careless/Reckless Driving	② 18M MANDAN ND Passenger Car EB Going Straight			↓ →
27 1086351	PDO 11/05/19 Tuesday Dry Clear Dark(L) 6:00 PM	Rear End	① 18M MANDAN ND Passenger Car SB Going Straight (Signal) Following too Close	② 31M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal)			↓ ↓
28 1092652	PDO 03/07/20 Saturday Dry Clear Daylight 12:10 PM	Rear End	① 17M MANDAN ND Passenger Car EB Going Straight (Signal) Following too Close	② 51F MANDAN ND Pickup - Van - Utility EB Slowing/Stopping (Signal)			→→
29 1099093	PDO 09/25/20 Friday Dry Clear Daylight 4:59 PM	Angle	① 37M KILLDEER ND Pickup - Van - Utility EB Going Straight (Signal) D.U.I. (Alcohol)*	② 65M BISMARCK DC Passenger Car NB Turning Left (Signal)			→ ↑
30 1099374	▶ Non-incapacitating injury 10/02/20 Friday Dry Clear Dawn 8:17 AM	Single Veh. (Traffic Signal Support)	① 95M MANDAN ND Pickup - Van - Utility WB Other Action on Roadway (Signa Traffic Signal Support				X←

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 44 (Sorted by Date)
City: Mandan
Location: E Main St (I-94 BL) & Mandan Ave (ND 1804)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]			Shortened Narrative		Diagram
31	1102289	PDO 12/20/20 Sunday Wet Rain Daylight 2:45 PM	♦	Rear End	① 36F MANDAN ND Pickup - Van - Utility EB Going Straight (Signal)	② 24M MANDAN ND Pickup - Van - Utility EB Slowing/Stopping (Signal)				→→
32	1107302	▶ Non-incapacitating injury 04/16/21 Friday Dry Cloudy Daylight 5:30 PM		Single Veh. (Traffic Signal Support)	① 26M MANDAN ND Passenger Car WB Going Straight (Signal) D.U.I. (Alcohol)* Traffic Signal Support					X←
33	1107791	PDO 05/14/21 Friday Dry Clear Daylight 12:20 PM	▲	Rear End	① 50M MANDAN ND Pickup - Van - Utility EB Going Straight (Signal) Following too Close	② 30F BISMARCK ND Pickup - Van - Utility EB Stopped (Signal)	③ 78M ELGIN ND Pickup - Van - Utility EB Stopped (Signal)			→→
34	1109999	PDO 07/13/21 Tuesday Dry Clear Daylight 3:54 PM		Angle	① 71M BISMARCK ND Passenger Car WB Going Straight (Signal)	② 45F MANDAN ND Passenger Car NB Turning Left (Signal)				← ↑
35	1114799	PDO 11/12/21 Friday Dry Clear Dark(L) 9:14 PM		Sideswipe (Same Dir.)	① 15F MANDAN ND Passenger Car EB Turning Left Fail Keep in Proper Lane	② 37F MANDAN ND Passenger Car EB Going Straight				→ →
36	1116824	PDO 12/26/21 Sunday Ice / Snow Snow Dusk 4:45 PM	❄	Angle	① 25F MINOT ND Passenger Car WB Going Straight (Signal) Careless/Reckless Driving	② 32F MANDAN ND Passenger Car SB Going Straight (Signal) Weather				↓ ←
37	1117311	PDO 01/03/22 Monday Slush Cloudy Daylight 2:04 PM	❄	Rear End	① 49M BISMARCK ND Pickup - Van - Utility SB Turning Right (Signal) To Fast for Conditions	② 62F MANDAN ND Pickup - Van - Utility SB Turning Right (Signal) Weather				↓ ↓
38	1118970	PDO 01/27/22 Thursday Snow Clear Daylight 3:10 PM	❄	Rear End	① 44M LINCOLN ND Pickup - Van - Utility EB Turning Right (Signal)	② 72F HANNAFORD ND Passenger Car EB Turning Right (Signal)				→→
39	1120185	PDO 02/21/22 Monday Snow Cloudy Daylight 4:01 PM	❄	Rear End	① 20F MANDAN ND Pickup - Van - Utility WB Slowing/Stopping (Signal) Weather	② 37M MANDAN ND Pickup - Van - Utility WB Going Straight (Signal) Weather				←←
40	1120513	PDO 02/23/22 Wednesday Ice / Snow Clear Daylight 5:00 PM	❄	Rear End	① 48M WILTON ND 2-Axle WB Going Straight (Signal)	② 26M BISMARCK ND Passenger Car WB Going Straight (Signal)				←←

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 44 (Sorted by Date)
City: Mandan
Location: E Main St (I-94 BL) & Mandan Ave (ND 1804)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative		Diagram
41	1123048 ▶	Incapacitating Injury 05/11/22 Wednesday Dry Clear Dusk 10:12 PM	Left Turn	① 33F BISMARCK ND Pickup - Van - Utility WB Turning Left (Signal) Failed to Yield	② 68M BISMARCK ND Pickup - Van - Utility EB Going Straight (Signal)	V1 was WB turning left and failed to yield to oncoming traffic and was struck by V2 that was EB.		→←
42	1124393 ▷	Possible Injury 06/21/22 Tuesday Dry Clear Daylight 12:46 PM	Rear End	① 33F BISMARCK DC Pickup - Van - Utility SB Stopped (Beacon)	② 42M MANDAN DC Passenger Car SB Going Straight (Beacon) Other			↓ ↓
43	1127948	PDO 09/27/22 Tuesday Dry Clear Daylight 8:29 AM	Left Turn	① 74F BISMARCK ND Passenger Car WB Turning Left (Signal) Failed to Yield	② 72M BISMARCK ND Truck Tractor EB Going Straight (Signal)			→←
44	1128976	PDO 10/23/22 Sunday Dry Clear Daylight 1:45 PM	Rear End	① 56M STEELE ND Passenger Car WB Stopped (Signal)	② 22F MANDAN ND Pickup - Van - Utility WB Going Straight (Signal) Careless/Reckless Driving			←←
45								
46								
47								
48								
49								
50								

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 1 (Sorted by Latitude)
City: West Mandan
Location: I-94 BL & ND 25, south of I-94 to 38th St (CR 139A)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

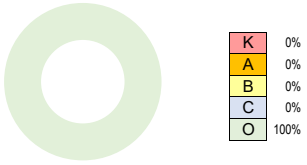
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	0
Possible Injury	C	0
Property Damage Only	O	1
		1



EPDO Score = 1

Under Construction

Yes =	0	0%

Day of Week

Monday =	0	0%
Tuesday =	0	0%
Wednesday =	0	0%
Thursday =	0	0%
Friday =	0	0%
Saturday =	1	100%
Sunday =	0	0%
	1	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	0	0%	0	0	0	0	0
Rear End	0	0%	0	0	0	0	0
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	0	0%	0	0	0	0	0
Ped/Bike	0	0%	0	0	0	0	0
Head On	1	100%	0	0	0	0	1
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	1	100%	0	0	0	0	1

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	0	0%	0	0	0	0	0
Wet	0	0%	0	0	0	0	0
Ice / Snow	1	100%	0	0	0	0	1
Other	0	0%	0	0	0	0	0
	1	100%	0	0	0	0	1

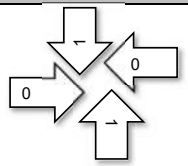
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	0	0%	0	0	0	0	0
Daylight	1	100%	0	0	0	0	1
Dark	0	0%	0	0	0	0	0
Dark (lighted)	0	0%	0	0	0	0	0
Unknown	0	0%	0	0	0	0	0
	1	100%	0	0	0	0	1

V1 and V2 Configuration*

Passenger Car =	1
PU / Van / Utility =	0
Truck =	1
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



NB =	1
SB =	1
EB =	0
WB =	0

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	0	0	0
21-24	0	0	0
25-34	0	0	0
35-44	1	0	1
45-54	0	0	0
55-64	0	0	0
65-74	0	0	0
75+	0	0	0
	1	0	1

Month

Military Time	1 Jan	2 Feb	3 Mar	4 Apr	5 May	6 Jun	7 Jul	8 Aug	9 Sept	10 Oct	11 Nov	12 Dec	
0													0
1													0
2													0
3													0
4													0
5													0
6													0
7													0
8													0
9													0
10													0
11													0
12													0
13													0
14		■											1
15													0
16													0
17													0
18													0
19													0
20													0
21													0
22													0
23													0
Total	0	1	0	0	0	0	0	0	0	0	0	0	1

Year	Start Date	End Date	Manner of Collision: Angle NB+EB	NB+WB	SB+EB	SB+WB	Subtotal	Rear End NB	SB	EB	WB	Subtotal	Left Turn NB to WB	SB to EB	EB to NB	WB to SB	Subtotal	Sideswipe Same Dir. NB	SB	EB	WB	Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	A	B	C	O	Surface Cond. Dry	Wet	Ice/Snow	Construction?
1	11/1/17	10/31/18																							**1**	*1*					1			1	
2	11/1/18	10/31/19																								*0*									
3	11/1/19	10/31/20																								*0*									
4	11/1/20	10/31/21																								*0*									
5	11/1/21	10/31/22																								*0*									
																									1	1				1			1	

Rural Segment Crash Summary Sheets

Total Crashes: 1 (Sorted by Latitude)
City: West Mandan
Location: I-94 BL & ND 25, south of I-94 to 38th St (CR 139A)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
1	1049965 94 147.333	PDO 02/03/18 Saturday Snow Clear ❄ Daylight 2:30 PM Straight (on Level) Non-junction	Head on	① 40M MANDAN ND Passenger Car SB Turning Right To Fast for Conditions ② <Null> Truck Tractor NB Driverless (Stopped) Weather Parked MV		I-94 BL & Flying J Truck Stop Approach	↓ ↑
2							
3							
4							
5							
6							
7							
8							
9							
10							

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 9 (Sorted by Latitude)
City: Mandan
Location: Sunset Dr from Boundary St to Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

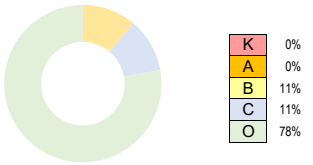
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	1
Possible Injury	C	1
Property Damage Only	O	7
		9



EPDO Score = 35

Under Construction

Yes =	0	0%

Day of Week

Monday =	3	33%
Tuesday =	0	0%
Wednesday =	2	22%
Thursday =	1	11%
Friday =	3	33%
Saturday =	0	0%
Sunday =	0	0%
	9	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	0	0%	0	0	0	0	0
Rear End	6	67%	0	0	0	1	5
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	1	11%	0	0	0	0	1
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	0	0%	0	0	0	0	0
Other	2	22%	0	0	1	0	1
	9	100%	0	0	1	1	7

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	5	56%	0	0	1	1	3
Wet	0	0%	0	0	0	0	0
Ice / Snow	4	44%	0	0	0	0	4
Other	0	0%	0	0	0	0	0
	9	100%	0	0	1	1	7

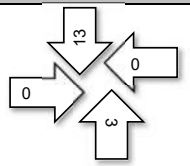
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	1	11%	0	0	0	0	1
Daylight	8	89%	0	0	1	1	6
Dark	0	0%	0	0	0	0	0
Dark (lighted)	0	0%	0	0	0	0	0
Unknown	0	0%	0	0	0	0	0
	9	100%	0	0	1	1	7

V1 and V2 Configuration*

Passenger Car =	5
PU / Van / Utility =	8
Truck =	3
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



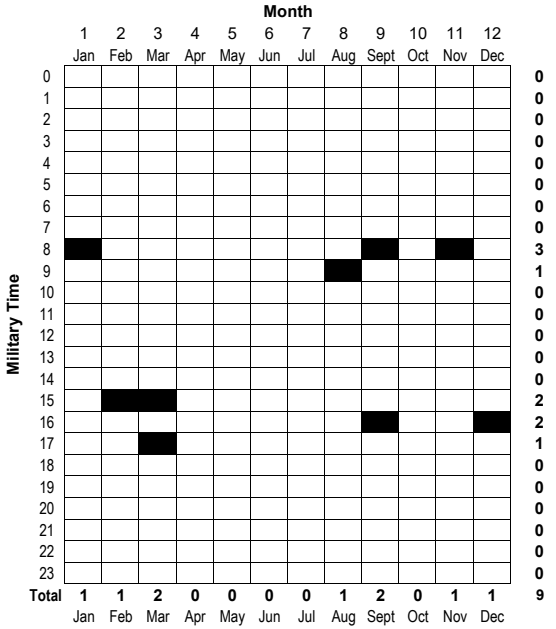
NB =	3
SB =	13
EB =	0
WB =	0

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 0

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	0	2	2
21-24	1	0	1
25-34	5	3	8
35-44	0	2	2
45-54	2	0	2
55-64	1	0	1
65-74	0	0	0
75+	0	0	0
	9	7	16



			Manner of Collsion: Angle NB+EB	NB+WB	SB+EB	SB+WB	Subtotal	Rear End NB	SB	EB	WB	Subtotal	Left Turn NB to WB	SB to EB	EB to NB	WB to SB	Subtotal	Sideswipe Same Dir. NB	SB	EB	WB	Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	A	B	C	O	Surface Cond. Dry	Wet	Ice/Snow	Construction?
Year	Start Date	End Date																																	
1	11/1/17	10/31/18							1			**1**													**1**	*2*				1	1	2			
2	11/1/18	10/31/19							3			**3**														*3*					3			3	
3	11/1/19	10/31/20							1			**1**													**1**	*2*			1		1	2			
4	11/1/20	10/31/21							1			**1**														*1*					1			1	
5	11/1/21	10/31/22																							**1**	*1*					1	1			
								6				6													1	2	9			1	1	7	5		4	

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 9 (Sorted by Latitude)
City: Mandan
Location: Sunset Dr from Boundary St to Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative		Diagram
1	1065695	PDO 11/16/18 Friday Ice / Snow Clear ❄ Daylight 8:58 AM	Rear End	① 28F MANDAN ND Passenger Car SB Going Straight (Signal) No Insurance ② 32M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal)			↓ ↓
2	1074819	PDO 03/11/19 Monday Ice / Snow Clear ❄ Daylight 5:30 PM	Rear End	① 35F BISMARCK ND Pickup - Van - Utility SB Going Straight Following too Close ② 19F MANDAN ND Passenger Car SB Stopped ③ 22M BISMARCK ND Pickup - Van - Utility SB Stopped			↓ ↓
3	1061547 ▷	Possible Injury 09/10/18 Monday Dry Clear Daylight 4:16 PM	Rear End	① 30M BISMARCK ND Pickup - Van - Utility SB Going Straight Following too Close ② 29F BISMARCK ND Passenger Car SB Going Straight			↓ ↓
4	1088753	PDO 12/20/19 Friday Dry Clear Daylight 4:03 PM	Rear End	① 28M MANDAN ND Passenger Car SB Going Straight ② 30F MANDAN ND Pickup - Van - Utility SB Going Straight			↓ ↓
5	1072333	PDO 02/13/19 Wednesday Snow Clear ❄ Daylight 3:22 PM	Rear End	① 25M MANDAN ND Pickup - Van - Utility SB Going Straight (Signal) ② 41F BISMARCK ND Pickup - Van - Utility SB Going Straight (Signal)			↓ ↓
6	1052355	PDO 03/19/18 Monday Dry Clear Daylight 3:40 PM	Other	① 54M EVANSVILLE WY Truck Tractor NB Going Straight Other Bridge Overhead Structure	V1 was pulling large containers that got wedged under the bridge.		No Diagram
7	1126905	PDO 09/01/22 Thursday Dry Clear Daylight 8:30 AM	Single Veh. (Bridge Overhead Structure)	① 31M DICKINSON ND Truck Tractor NB Going Straight Disregard Traffic Signs Bridge Overhead Structure			x ↑
8	1097651 ▶	Non-incapacitating injury 08/14/20 Friday Dry Clear Daylight 9:05 AM	Other	① 45M BISMARCK ND 3+ Axle SB Going Straight Other Bridge Overhead Structure ② 57M MANDAN ND Pickup - Van - Utility NB Going Straight Cargo Loss or Shift	V1 was SB hauling a metal tower that struck the overhead bridge and fell off the vehicle striking V2 that was NB.		↓ ↑
9	1103367	PDO 01/13/21 Wednesday Ice / Snow Cloudy ❄ Dawn 8:00 AM	Rear End	① 20F BISMARCK ND Passenger Car SB Going Straight Following too Close ② 23M LAMOURE ND Pickup - Van - Utility SB Going Straight			↓ ↓
10							

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 11 (Sorted by Longitude)
City: Mandan
Location: Old Red Trail from Sunset Dr to Mandan Ave (1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

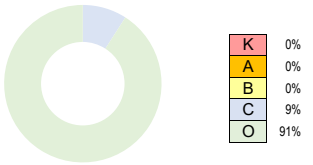
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	0
Possible Injury	C	1
Property Damage Only	O	10
		11



EPDO Score = 21

Under Construction

Yes =	0	0%

Day of Week

Monday =	2	18%
Tuesday =	3	27%
Wednesday =	0	0%
Thursday =	2	18%
Friday =	1	9%
Saturday =	1	9%
Sunday =	2	18%
	11	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	9%	0	0	0	0	1
Rear End	4	36%	0	0	0	0	4
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	0	0%	0	0	0	0	0
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	3	27%	0	0	0	1	2
Ped/Bike	0	0%	0	0	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	3	27%	0	0	0	0	3
Other	0	0%	0	0	0	0	0
	11	100%	0	0	0	1	10

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	7	64%	0	0	0	1	6
Wet	0	0%	0	0	0	0	0
Ice / Snow	4	36%	0	0	0	0	4
Other	0	0%	0	0	0	0	0
	11	100%	0	0	0	1	10

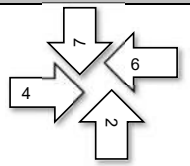
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	1	9%	0	0	0	0	1
Daylight	9	82%	0	0	0	1	8
Dark	0	0%	0	0	0	0	0
Dark (lighted)	1	9%	0	0	0	0	1
Unknown	0	0%	0	0	0	0	0
	11	100%	0	0	0	1	10

V1 and V2 Configuration*

Passenger Car =	6
PU / Van / Utility =	12
Truck =	0
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

V1 and V2 Directions



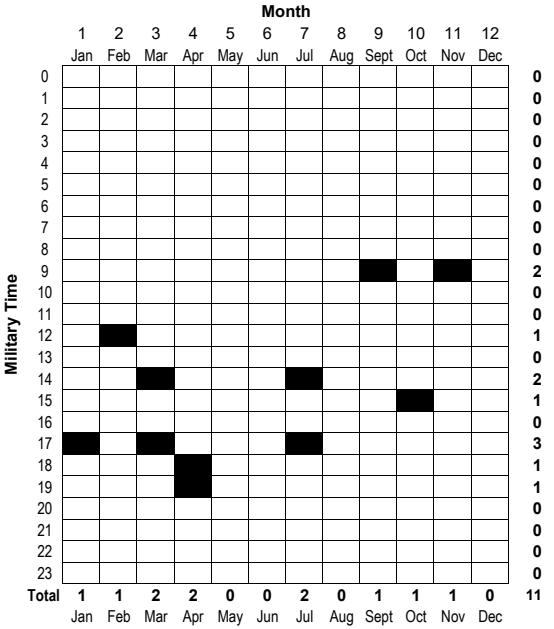
NB =	2
SB =	7
EB =	4
WB =	6

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 1

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	0	0
18-20	2	0	2
21-24	0	1	1
25-34	2	1	3
35-44	0	0	0
45-54	2	2	4
55-64	3	1	4
65-74	0	0	0
75+	2	1	3
	11	6	17



Year	Start Date	End Date	Manner of Collsion: Angle NB+EB	Angle NB+WB	Angle SB+EB	Angle SB+WB	Angle Subtotal	Rear End NB	Rear End SB	Rear End EB	Rear End WB	Rear End Subtotal	Left Turn NB to WB	Left Turn SB to EB	Left Turn EB to NB	Left Turn WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	Sideswipe Same Dir. SB	Sideswipe Same Dir. EB	Sideswipe Same Dir. WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	Severity A	Severity B	Severity C	Severity O	Surface Cond. Dry	Surface Cond. Wet	Surface Cond. Ice/Snow	Construction?
1	11/1/17	10/31/18								1		1														2					2	1		1	
2	11/1/18	10/31/19							1		1	2											1		1	4					4	2		2	
3	11/1/19	10/31/20									1	1											1		1	3				1	2	2		1	
4	11/1/20	10/31/21																								0									
5	11/1/21	10/31/22			1		1																1			2					2	2			
					1		1		1	1	2	4											3		3	11				1	10	7		4	

Rural Segment Crash Summary Sheets

Total Crashes: 11 (Sorted by Longitude)
City: Mandan
Location: Old Red Trail from Sunset Dr to Mandan Ave (1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
1	1076416	PDO 04/11/19 Thursday Snow Snow ❄ Dusk 7:25 PM Straight (on Grade) Non-junction	Single Veh. (Post)	① 26M MANDAN ND Pickup - Van - Utility NB Other Action on Roadway Weather Post			
2	1079782	PDO 07/02/19 Tuesday Dry Clear Daylight 2:00 PM Straight (on Level) Alley/Driveway	Backing	① 52F BISMARCK ND Pickup - Van - Utility NB Backing ② 56M MANDAN ND Pickup - Van - Utility SB Backing		Old Red Trail & Walmart Prkg Lot Appr	
3	1092117	PDO 02/22/20 Saturday Dry Clear Daylight 12:15 PM Straight (on Level) Non-junction	Backing	① 77F MANDAN ND Pickup - Van - Utility SB Backing Improper Backing/Turning ② 50M MANDAN ND Pickup - Van - Utility WB Going Straight			
4	1066771	PDO 11/30/18 Friday Ice / Snow Clear ❄ Daylight 9:38 AM Straight (on Grade) Non-junction	Rear End	① 20M MANDAN ND Passenger Car WB Going Straight ② 75M MANDAN ND Passenger Car WB Going Straight			
5	1085361	PDO 10/15/19 Tuesday Dry Clear Daylight 3:35 PM Straight (on Level) Non-junction	Rear End	① 56M MANDAN ND Pickup - Van - Utility SB Going Straight (Stop) Careless/Reckless Driving ② 63M MANDAN ND Passenger Car SB Going Straight (Stop)			
6	1122498	PDO 04/25/22 Monday Dry Clear Daylight 6:58 PM Straight (on Level) Non-junction	Backing	① 45M MANDAN ND Pickup - Van - Utility SB Backing ② 32F MANDAN ND Pickup - Van - Utility SB Backing			No Diagram
7	1096450 ▷	Possible Injury 07/16/20 Thursday Dry Clear Daylight 5:19 PM Straight (on Grade) Interchange	Single Veh. (Ditch)	① 29M BISMARCK ND Passenger Car EB Merging/Diverging (Stop) Speed * Ditch			
8	1089883	PDO 01/14/20 Tuesday Snow Clear ❄ Dark(L) 5:46 PM Straight (on Level) Non-junction	Rear End	① 58F MANDAN ND Passenger Car WB Going Straight ② U Hit and Run WB Stopped			
9	1121708	PDO 03/27/22 Sunday Dry Clear Daylight 2:28 PM Straight (on Grade) Intersection	Angle	① 82M MANDAN ND Pickup - Van - Utility SB Turning Left (Stop) Failed to Yield ② 21F MANDAN ND Pickup - Van - Utility EB Going Straight		Old Red Trail & 8th Ave NW	
10	1052333	PDO 03/19/18 Monday Slush Snow ❄ Daylight 5:49 PM Straight (on Level) Non-junction	Rear End	① 19M MANDAN ND Passenger Car EB Going Straight Following too Close ② 52F MANDAN ND Pickup - Van - Utility EB Going Straight			

Rural Segment Crash Summary Sheets

Total Crashes: 11 (Sorted by Longitude)
City: Mandan
Location: Old Red Trail from Sunset Dr to Mandan Ave (1806)
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
▶ *Fatal*
▶ *Incapacitating Injury*
▶ *Non-Incapacitating Injury*
▷ *Possible Injury*
♦ *Wet surface*
❄ *Snow, Ice, Slush, Frost*
▲ *Crash related to work zone*
① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
11	1062347	PDO 09/16/18 Sunday Dry Clear Daylight 9:35 AM Straight (on Grade) Non-junction	Single Veh. (Light Support)	① U Pickup - Van - Utility WB Going Straight Light Support			X←
12							
13							
14							
15							
16							
17							
18							
19							
20							

Intersection and/or Urban Crash Summary Sheets

Total Crashes: 34 (Sorted by Latitude)
City: Mandan
Location: Mandan Ave (ND 1805, Main St to Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

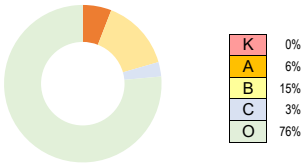
Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	2
Non-incapacitating Injury	B	5
Possible Injury	C	1
Property Damage Only	O	26
		34



EPDO Score = 232

Under Construction

Yes =	0	0%

Day of Week

Monday =	4	12%
Tuesday =	3	9%
Wednesday =	5	15%
Thursday =	5	15%
Friday =	5	15%
Saturday =	3	9%
Sunday =	9	26%
	34	

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	1	3%	0	0	0	0	1
Rear End	11	32%	0	0	1	1	9
Left Turn	2	6%	0	1	0	0	1
Sideswipe (same dir.)	4	12%	0	0	0	0	4
Sideswipe (opp dir.)	1	3%	0	0	1	0	0
Single Vehicle	13	38%	0	0	3	0	10
Ped/Bike	1	3%	0	1	0	0	0
Head On	0	0%	0	0	0	0	0
Backing	1	3%	0	0	0	0	1
Other	0	0%	0	0	0	0	0
	34	100%	0	2	5	1	26

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	16	47%	0	1	4	1	10
Wet	4	12%	0	1	0	0	3
Ice / Snow	14	41%	0	0	1	0	13
Other	0	0%	0	0	0	0	0
	34	100%	0	2	5	1	26

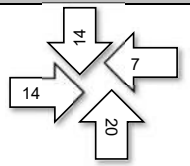
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	2	6%	0	0	0	0	2
Daylight	24	71%	0	1	4	1	18
Dark	0	0%	0	0	0	0	0
Dark (lighted)	8	24%	0	1	1	0	6
Unknown	0	0%	0	0	0	0	0
	34	100%	0	2	5	1	26

V1 and V2 Configuration*

Passenger Car =	15
PU / Van / Utility =	29
Truck =	2
Bus / Motorhome =	1
Motorcycle + Moped =	2
Ped or Bike =	1

These are only the most popular choices.

V1 and V2 Directions



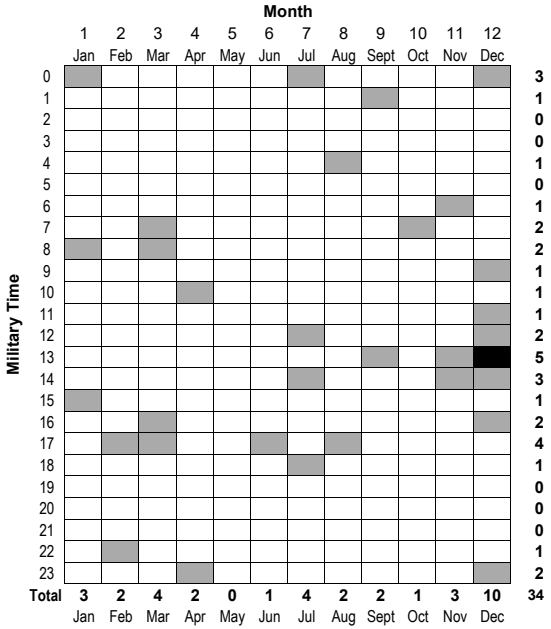
NB =	20
SB =	14
EB =	14
WB =	7

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 6

D1 and D2 Age/Sex

Age	M	F	Total
0-17	0	1	1
18-20	3	1	4
21-24	4	1	5
25-34	9	6	15
35-44	2	3	5
45-54	4	1	5
55-64	2	4	6
65-74	3	1	4
75+	0	2	2
	27	20	47



Year	Start Date	End Date	Manner of Collsion: Angle NB+EB	NB+WB	SB+EB	SB+WB	Angle Subtotal	Rear End NB	SB	EB	WB	Rear End Subtotal	Left Turn NB to WB	SB to EB	EB to NB	WB to SB	Left Turn Subtotal	Sideswipe Same Dir. NB	SB	EB	WB	Sideswipe Same Dir. Subtotal	Backing	Ped/Bike	Single Veh.	Head-on/other	Total	Severity K	A	B	C	O	Surface Cond. Dry	Wet	Ice/Snow	Construction?
1	11/1/17	10/31/18			1		1	1			1	2						1				1	1		3		8			1	1	6	7	1		
2	11/1/18	10/31/19						2	1	2		5						1				1			4		10			1		9	2	1	7	
3	11/1/19	10/31/20							1			1													4		5			1		4	2		3	
4	11/1/20	10/31/21								1		1				1	1							1	1	5		1	2		2	3	1	1	
5	11/1/21	10/31/22						1	1			2	1				1		1	1		2			1		6		1			5	2	1	3	
					1		1	4	3	3	1	11	1			1	2	2	1	1		4	1	1	13	1	34		2	5	1	26	16	4	14	

Rural Segment Crash Summary Sheets

Total Crashes: 34 (Sorted by Latitude)
City: Mandan
Location: Mandan Ave (ND 1805, Main St to Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative	Name of Intersection	Diagram
1	1099432	PDO 09/13/20 Sunday Dry Clear Daylight 1:00 PM Unknown Non-junction	Single Veh. (Utility Post)	① U Hit and Run NB Other Action on Roadway Utility Post				
2	1122687 ▶	Incapacitating Injury 04/21/22 Thursday Wet Rain ♦ Dark(L) 11:42 PM Straight (on Level) Alley/Driveway	Left Turn	① 31F MANDAN ND Passenger Car NB Turning Left Weather	② 35M BISMARCK NDY Motorcycle SB Going Straight Weather	V2 was SB and struck by V1 (NB) as it turned left into Burger King.	Mandan Ave & Burger King Appr	
3	1043513 1806 71.41	PDO 11/10/17 Friday Dry Clear Daylight 1:30 PM Straight (on Level) Non-junction	Single Veh. (Traffic Sign Post)	① 90F MANDAN ND Passenger Car SB Other Action on Roadway Care Required Traffic Sign Post				
4	1068415 1806 69.77	PDO 12/28/18 Friday Snow Clear ❄ Daylight 9:44 AM Straight (on Level) Alley/Driveway	Sideswipe (Same Dir.)	① 66F CARSON ND Pickup - Van - Utility NB Going Straight Following too Close	② 69M MANDAN ND Pickup - Van - Utility NB Turning Right Weather		Mandan Ave & Sanford Health Clinic Appr	
5	1075379	PDO 03/20/19 Wednesday Ice / Snow Clear ❄ Daylight 7:22 AM Straight (on Level) Intersection	Rear End	① 26M MANDAN ND Passenger Car EB Slowing/Stopping (Stop)	② 27M MANDAN DC Pickup - Van - Utility EB Slowing/Stopping (Stop)		Mandan Ave & 1st St NE	
6	1067531 1806 71.37	PDO 12/13/18 Thursday Dry Clear Daylight 2:58 PM Straight (on Level) Intersection	Rear End	① 61F MANDAN ND Passenger Car EB Turning Right (Stop) Careless/Reckless Driving	② 82F MANDAN ND Pickup - Van - Utility EB Turning Right (Stop)		Mandan Ave & 1st St NE	
7	1059334 1806 71.37	PDO 07/30/18 Monday Dry Clear Daylight 2:50 PM Straight (on Level) Intersection	Angle	① U Hit and Run EB Turning Left	② 59F LINCOLN NE Pickup - Van - Utility SB Going Straight		Mandan Ave & 1st St NE	
8	1121356 1806 71.37	PDO 03/25/22 Friday Dry Clear Daylight 5:00 PM Straight (on Level) Intersection	Rear End	① 30M MANDAN ND Passenger Car SB Going Straight (Signal)	② 31M BISMARCK ND Bus SB Going Straight (Signal)		Mandan Ave & Main St (I-94 BL)	
9	1103239	PDO 01/13/21 Wednesday Wet Rain ♦ Daylight 3:47 PM Straight (on Level) Intersection	Left Turn	① 28M MANDAN ND Pickup - Van - Utility WB Turning Left Failed to Yield	② <Null> Pickup - Van - Utility EB Going Straight Weather		Mandan Ave & 1st St NE	
10	1110120 ▶	Incapacitating Injury 07/09/21 Friday Dry Clear Daylight 6:52 PM Straight (on Level) Intersection	Ped / Bike	① 38F MANDAN ND Passenger Car EB Turning Right (Stop) Pedalcycle	② <Null> MANDAN ND Pedalcycle EB Crossing (Stop) Pedalcycle	D1 was EB and did not see P2 crossing NB. V1 struck P2 as it was turning right.	Mandan Ave & 1st St NE	No Diagram

Total Crashes: 34 (Sorted by Latitude)
City: Mandan
Location: Mandan Ave (ND 1805, Main St to Old Red Trail
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
▶ *Fatal*
▶ *Incapacitating Injury*
▶ *Non-Incapacitating Injury*
▷ *Possible Injury*
♦ *Wet surface*
❄ *Snow, Ice, Slush, Frost*
▲ *Crash related to work zone*
① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative	Name of Intersection	Diagram
11	1054706	PDO 1806 04/21/18 Saturday 71.29 Dry Clear Daylight 10:11 AM Straight (on Level) Intersection	Backing	① 59F BISMARCK ND Passenger Car SB Backing	② 28F BALDWIN ND Passenger Car WB Going Straight		Mandan Ave & 2nd St NE	↓ ←
12	1052701	PDO 1806 03/21/18 Wednesday 71.28 Dry Clear Daylight 8:39 AM Straight (on Grade) Non-junction	Rear End	① 48M MANDAN ND Single Unit Truck NB Turning Right	② 19F MANDAN ND Passenger Car NB Going Straight Following too Close			↑ ↑
13	1109719	PDO 07/04/21 Sunday Dry Clear Daylight 12:00 PM Straight (on Level) Intersection	Rear End	① 32M BISMARCK ND Pickup - Van - Utility EB Turning Right (Stop) Following too Close	② 42M MANDAN DC Passenger Car EB Turning Left (Stop)		Mandan Ave & 3rd St NE	→→
14	1097825	▶ Non-incapacitating injury 08/23/20 Sunday Dry Clear Dark(L) 4:09 AM Curve (on Grade) Non-junction	Single Veh. (Other Object (Not Fixed))	① 20M MANDAN ND Pickup - Van - Utility NB Going Straight Other* Other Object (Not Fixed)				X ↑
15	1060510	▶ Non-incapacitating injury 1806 08/22/18 Wednesday 71.09 Dry Clear Daylight 5:43 PM Straight (on Grade) Non-junction	Single Veh. (Overturned)	① 20M MANDAN NDY Motorcycle SB Going Straight Speed Overturned				↓ X
16	1102833	▶ Non-incapacitating injury 12/29/20 Tuesday Ice / Snow Blowing Snow ❄ Daylight 12:25 PM Straight (on Level) Non-junction	Single Veh. (Bridge / Pier / Abutment)	① 47F MANDAN ND Pickup - Van - Utility SB Going Straight Weather Bridge / Pier / Abutment				↓ X
17	1066861	PDO 1806 12/01/18 Saturday 71.43 Ice / Snow Cloudy ❄ Dark(L) 12:23 AM Curve (on Level) Non-junction	Single Veh. (Curb)	① 27M MANDAN ND Pickup - Van - Utility WB Negotiating Curve To Fast for Conditions* Curb				X←
18	1066973	▶ Non-incapacitating injury 1806 12/03/18 Monday 71.43 Dry Clear Daylight 4:28 PM Straight (on Level) Intersection	Rear End	① 68M BISMARCK ND Pickup - Van - Utility NB Going Straight Careless/Reckless Driving	② 43F DICKINSON ND Pickup - Van - Utility NB Going Straight		Mandan Ave & 16th ST NE	↑ ↑
19	1046373	PDO 1806 12/20/17 Wednesday 72.43 Dry Clear Daylight 11:55 AM Straight (on Level) Non-junction	Sideswipe (Same Dir.)	① U Hit and Run NB Passing	② 52M MANDAN ND Pickup - Van - Utility NB Going Straight			↑↑
20	1115939	PDO 12/05/21 Sunday Snow Cloudy ❄ Daylight 1:56 PM Curve (on Level) Intersection	Sideswipe (Same Dir.)	① 56M MANDAN ND Pickup - Van - Utility SB Negotiating Curve Weather	② U Hit and Run SB Merging/Diverging Weather		Mandan Ave & Old Red Trail (RAB)	↓↓

Total Crashes: 34 (Sorted by Latitude)
City: Mandan
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Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
▶ *Fatal*
▶ *Incapacitating Injury*
▶ *Non-Incapacitating Injury*
▷ *Possible Injury*
♦ *Wet surface*
❄ *Snow, Ice, Slush, Frost*
▲ *Crash related to work zone*
① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative	Name of Intersection	Diagram
21	1086114	PDO 11/04/19 Monday Ice / Snow Snow Dawn 6:48 AM Straight (on Level) Intersection	❄	Rear End	① 64M MANDAN ND Pickup - Van - Utility SB Stopped (Stop) Weather	② 21F MANDAN ND Pickup - Van - Utility SB Slowing/Stopping (Stop) To Fast for Conditions		Mandan Ave & Old Red Trail	↓ ↓
22	1084917	PDO 10/10/19 Thursday Snow Clear Daylight 7:18 AM Straight (on Level) Intersection	❄	Rear End	① 32F MANDAN ND Pickup - Van - Utility SB Going Straight (Stop)	② 31F MANDAN ND Pickup - Van - Utility SB Going Straight (Stop)		Mandan Ave & Old Red Trail	↓ ↓
23	1057371 1806 72.34	▷ Possible Injury 06/14/18 Thursday Dry Clear Daylight 5:25 PM Straight (on Level) Intersection		Rear End	① 71M GLENN ULLIN ND Passenger Car WB Stopped (Stop)	② U Hit and Run WB Going Straight (Stop)		Mandan Ave & Old Red Trail	←←
24	1121686	PDO 03/31/22 Thursday Dry Clear Daylight 4:00 PM Curve (on Level) Intersection		Sideswipe (Same Dir.)	① 15F MANDAN ND Pickup - Van - Utility EB Merging/Diverging (Yield) Failed to Yield	② 22M MANDAN ND Passenger Car EB Turning Left		Mandan Ave & Old Red Trail (RAB)	→ →
25	1116442	PDO 12/19/21 Sunday Ice / Snow Clear Daylight 1:20 PM Unknown Non-junction	❄	Rear End	① 62F MANDAN ND Pickup - Van - Utility NB Going Straight (Stop) To Fast for Conditions	② 31F BISMARCK ND Pickup - Van - Utility NB Going Straight (Stop) Weather			↑ ↑
26	1100596	▶ Non-incapacitating injury 11/03/20 Tuesday Dry Clear Daylight 2:30 PM Straight (on Grade) Non-junction		Sideswipe (Opp. Dir.)	① 24M MANDAN ND Pickup - Van - Utility EB Going Straight Fail Keep in Proper Lane	② 51M BISMARCK ND 3+ Axle WB Going Straight			→←
27	1071792	PDO 02/08/19 Friday Snow Snow Dark(L) 10:55 PM Curve (on Level) Non-junction	❄	Single Veh. (Ditch)	① 37F MANDAN ND Pickup - Van - Utility NB Turning Left Disregard Traffic Signs* Ditch				X ↑
28	1070443	PDO 01/27/19 Sunday Snow Clear Dark(L) 12:00 AM Curve (on Level) Non-junction	❄	Single Veh. (Other Object (Not Fixed))	① 25M MANDAN ND Pickup - Van - Utility NB Going Straight Defective Equipment Other Object (Not Fixed)				X ↑
29	1089477	PDO 01/05/20 Sunday Snow Clear Daylight 8:50 AM Curve (on Level) Non-junction	❄	Single Veh. (Post)	① 28F MANDAN ND Passenger Car NB Going Straight To Fast for Conditions* Post				X ↑
30	1059083 1806 72.33	PDO 07/22/18 Sunday Wet Cloudy Dark(L) 12:12 AM Curve (on Level) Non-Junction	♦	Single Veh. (Curb)	① 21M MANDAN ND Passenger Car EB Turning Right To Fast for Conditions* Curb				→X

Rural Segment Crash Summary Sheets

Total Crashes: 34 (Sorted by Latitude)
City: Mandan
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Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
31	1116761	PDO 12/25/21 Saturday Snow Snow Daylight 1:20 PM Straight (on Grade) Non-junction	❄	Single Veh. (Curb)	① 20M BISMARCK ND Pickup - Van - Utility WB Negotiating Curve Weather Curb			X←
32	1072165	PDO 02/11/19 Monday Snow Snow Dusk 5:45 PM Straight (on Grade) Non-junction	❄	Rear End	① 31M MANDAN ND Pickup - Van - Utility NB Going Straight Weather ② 48M MANDAN ND Pickup - Van - Utility NB Going Straight Weather			↑ ↑
33	1083441 1806 72.31	PDO 09/08/19 Sunday Wet Rain Dark(L) 1:45 AM Curve (on Level) Non-junction	♦	Single Veh. (Fence)	① 23M CHINOOK MT Pickup - Van - Utility NB Going Straight Other* Fence			X ↑
34	1089341 1806 72.3	PDO 12/24/19 Tuesday Ice / Snow Clear Dark(L) 11:56 PM Curve (on Level) Non-junction	❄	Single Veh. (Fence)	① U Passenger Car NB Negotiating Curve Weather Fence			X ↑
35								
36								
37								
38								
39								
40								

Rural Segment Crash Summary Sheets

Total Crashes: 71 (Sorted by Longitude)
Location: I-94 from west Jct ND 25/I-94B to east Mandan Ave
Reference Points: 146.683-154.488
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

Notes: Non-injury animal crashes were not included.

23 USC § 407 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Total Crashes

Crash Severity	Letter Code	No. of Crashes
Fatal	K	0
Incapacitating Injury	A	0
Non-incapacitating Injury	B	9
Possible Injury	C	5
Property Damage Only	O	57
		71

K	0%
A	0%
B	13%
C	7%
O	80%

EPDO Score = 265

Manner of Collision			Breakdown by Severity K	A	B	C	O
Angle	0	0%	0	0	0	0	0
Rear End	21	30%	0	0	4	2	15
Left Turn	0	0%	0	0	0	0	0
Sideswipe (same dir.)	7	10%	0	0	1	1	5
Sideswipe (opp dir.)	0	0%	0	0	0	0	0
Single Vehicle	42	59%	0	0	4	2	36
Ped/Bike	0	0%	0	0	0	0	0
Head On	1	1%	0	0	0	0	1
Backing	0	0%	0	0	0	0	0
Other	0	0%	0	0	0	0	0
	71	100%	0	0	9	5	57

Surface Conditions			Breakdown by Severity K	A	B	C	O
Dry	38	54%	0	0	9	4	25
Wet	3	4%	0	0	0	0	3
Ice / Snow	30	42%	0	0	0	1	29
Other	0	0%	0	0	0	0	0
	71	100%	0	0	9	5	57

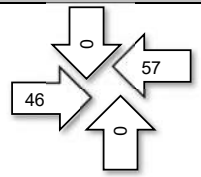
Lighting Conditions			Breakdown by Severity K	A	B	C	O
Dawn/Dusk	5	7%	0	0	0	0	5
Daylight	47	66%	0	0	6	5	36
Dark	10	14%	0	0	2	0	8
Dark (lighted)	9	13%	0	0	1	0	8
Unknown	0	0%	0	0	0	0	0
	71	100%	0	0	9	5	57

Roadway Geometrics		
Straight (on level) =	30	42%
Straight (on grade) =	26	37%
Curve (on level) =	1	1%
Curve (on grade) =	14	20%
Hill Crest =	0	0%
Unknown =	0	0%
	71	

V1 and V2 Configuration*	
Passenger Car =	27
PU / Van / Utility =	58
Truck =	12
Bus / Motorhome =	0
Motorcycle + Moped =	0
Ped or Bike =	0

These are only the most popular choices.

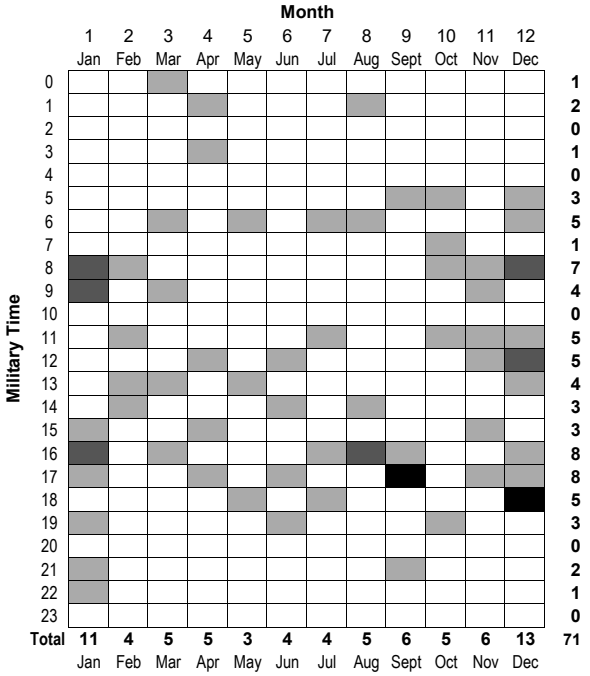
V1 and V2 Directions



NB = 0
SB = 0
EB = 46
WB = 57

D1 and D2 Alcohol / Drugs*

Yes (alcohol or drugs present) = 5



Under Construction

Yes = 13 18%

D1 and D2 Contr. Factors*

Attention Distracted =	0
Weather =	14
Speed =	4
Too Fast for Conditions =	24
Fail to Yield =	1
Improper Backing/Turning =	0

These are only the most popular choices.

First Harmful Event		
Motor Vehicle in Transport =	29	41%
Animal =	0	0%
Jackknife =	4	6%
Ran Off Roadway (not including below crashes) =	15	21%
Guardrail + Concrete Barrier + Bridge Rail =	13	18%
Bridge / Pier / Abutment / Overhead Structure =	0	0%
Poles / Posts / Trees / Overhead Sign Supports =	2	3%

These are only the most popular choices.

Day of Week		
Monday =	9	13%
Tuesday =	12	17%
Wednesday =	14	20%
Thursday =	12	17%
Friday =	11	15%
Saturday =	8	11%
Sunday =	5	7%
	71	

Relation to Junction		
Non-Junction =	64	90%
Intersection + Intersection-Related =	0	0%
Alley / Driveway Access =	0	0%
Interchange Area + Exit / Entrance Ramp =	0	0%

These are only the most popular choices.

D1 or D2 Ejected*

Yes (partially or fully) = 1

**This info is not available for all units.*

D1 and D2 Age/Sex

Age	M	F	Total
0-17	2	2	4
18-20	7	0	7
21-24	7	3	10
25-34	19	10	29
35-44	16	2	18
45-54	7	4	11
55-64	10	0	10
65-74	5	1	6
75+	0	0	0
	73	22	95

Yr	Start Date	End Date	Intersection? YES (or Alley / Drvwy)	NO Single Veh	NO Mult. Veh	Total	Severity K	A	B	C	O	Surface Conditions Dry	Wet	Ice/Snow	Work Zone
1	11/1/17	10/31/18		9	4	13			1		12	7		6	
2	11/1/18	10/31/19		16	10	26				2	24	11	1	14	9
3	11/1/19	10/31/20		7	2	9			1	1	7	4		5	
4	11/1/20	10/31/21		4	7	11			5	2	4	9	1	1	4
5	11/1/21	10/31/22		6	6	12			2		10	7	1	4	
			0 (0.0%)	42 (59.2%)	29 (40.8%)	**71**			9	5	57	38	3	30	13

Vision Zero Emphasis Areas

34	Lane Departure Crashes
0	Intersection Crashes
5	Alcohol and/or Drug Related Crashes
7	Unbelted Vehicle Occupant Crashes
28	Speed Related Crashes
11	Young Driver Crashes

Rural Segment Crash Summary Sheets

Total Crashes: 71 (Sorted by Longitude)
Location: I-94 from west Jct ND 25/I-94B to east Mandan Ave
Reference Points: 146.683-154.488
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

Notes: Non-injury animal crashes were not included.

23 USC § 409 Documents
NDDOT Reserves All Objections

VISION ZERO

Statistics for Intersection-Related Crashes ONLY

Crash Severity

K =	0	#DIV/0!
A =	0	#DIV/0!
B =	0	#DIV/0!
C =	0	#DIV/0!
O =	0	#DIV/0!
	0	

Surface Conditions

Dry =	0	#DIV/0!
Wet =	0	#DIV/0!
Ice / Snow =	0	#DIV/0!
Other =	0	#DIV/0!

Lighting Conditions

Dawn =	0	#DIV/0!
Daylight =	0	#DIV/0!
Dusk =	0	#DIV/0!
Dark =	0	#DIV/0!
Dark (lighted) =	0	#DIV/0!

Under Construction

Yes =	0	#DIV/0!

Relation to Junction

Intersection + Intersection-Related =	0	#DIV/0!
Alley / Driveway Access =	0	#DIV/0!

Manner of Collision

Angle =	0	#DIV/0!
Rear End =	0	#DIV/0!
Left Turn =	0	#DIV/0!
Sideswipe (same direction) =	0	#DIV/0!
Single Vehicle =	0	#DIV/0!
Ped / Bike =	0	#DIV/0!
Other =	0	#DIV/0!

D1 and D2 Contributing Factors*

Attention Distracted =	0
Weather =	0
Speed =	0
Too Fast for Conditions =	0
Fail to Yield =	0
Improper Backing / Turning =	0

These are only the most popular choices.

D1 and D2 Alcohol / Drugs Present*

Yes (alcohol or drugs) =	0

V1 and V2 Unit Config.*

Passenger Car =	0
PU / Van / Utility =	0
Truck =	0
Bus / Motorhome =	0
Motorcycle + Moped =	0

These are only the most popular choices.

V1 and V2 Traffic Control

	V1	V2
Signal =	1	0
Stop =	0	0
Beacon =	0	1

These are only the most popular choices.

**This info is not available for all units.*

Statistics for Non-Intersection Crashes ONLY

Multiple Vehicle Crashes ONLY

Crash Severity

K =	0	0%
A =	0	0%
B =	5	17%
C =	3	10%
O =	21	72%
	29	

Surface Conditions

Dry =	21	72%
Wet =	3	10%
Ice / Snow =	5	17%
Other =	0	0%

Lighting Conditions

Dawn =	2	7%
Daylight =	22	76%
Dusk =	1	3%
Dark =	2	7%
Dark (lighted) =	2	7%

Road Geometrics

Straight (on level) =	16	55%
Straight (on grade) =	11	38%
Curve (on level) =	0	0%
Curve (on grade) =	2	7%
Hill Crest =	0	0%

Under Construction

Yes =	8	28%

D1 or D2 Ejected*

Yes =	1

Manner of Collision

Angle =	0	0%
Rear End =	21	72%
Left Turn =	0	0%
Sideswipe (same direction) =	7	24%
Head-On + Sideswipe (opp direction) =	1	3%
Other =	0	0%

D1 and D2 Alcohol/Drugs Present*

Yes (alcohol or drugs) =	4

V1 and V2 Unit Config.*

Passenger Car =	0	
PU / Van / Utility =	0	
Truck =	0	
Bus / Motorhome =	0	
Motorcycle + Moped =	0	

These are only the most popular choices.

Non-Collision with Motor Vehicle (a.k.a. Single Vehicle) Crashes ONLY

Crash Severity

K =	0	0%
A =	0	0%
B =	4	10%
C =	2	5%
O =	36	86%
	42	

Surface Conditions

Dry =	17	40%
Wet =	0	0%
Ice / Snow =	25	60%
Other =	0	0%

Lighting Conditions

Dawn =	2	5%
Daylight =	25	60%
Dusk =	0	0%
Dark =	8	19%
Dark (lighted) =	7	17%

Road Geometrics

Straight (on level) =	14	33%
Straight (on grade) =	15	36%
Curve (on level) =	1	2%
Curve (on grade) =	12	29%
Hill Crest =	0	0%

Under Construction

Yes =	5	12%

D1 Ejected*

Yes (partially or fully) =	0	0%

D1 Alcohol / Drugs Present*

Yes (alcohol or drugs) =	1	2%

V1 Unit Config.*

Passenger Car =	12	29%
PU / Van / Utility =	26	62%
Truck =	5	12%
Bus / Motorhome =	0	0%
Motorcycle + Moped =	0	0%

These are only the most popular choices.

D1 Most Harmful Event*

Motor Vehicle in Transport =	0	0%
Animal =	0	0%
Jackknife =	4	10%
Ran Off Roadway (not including below crashes) =	15	36%
Guardrail + Concrete Barrier + Bridge Rail =	13	31%
Bridge / Pier / Abutment / Overhead Structure =	0	0%
Poles / Posts / Trees / Overhead Sign Supports =	2	5%

These are only the most popular choices.

**This info is not available for all units.*

Rural Segment Crash Summary Sheets

Total Crashes: 71 (Sorted by Longitude)
City: Mandan
Location: I-94 from west Jct ND 25/I-94B to east Mandan Ave
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	② AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
1	1091035 94 146.69	PDO 01/25/20 Saturday Ice / Snow Sleet/Hail/Freezing Rai ❄ Dark 10:40 PM Straight (on Grade) Non-junction	Single Veh. (Overturn / Rollover)	① 30M SURRY BC Truck Tractor EB Going Straight To Fast for Conditions Overturn / Rollover				→X
2	1101094 94 146.76	PDO 11/16/20 Monday Ice / Snow Clear ❄ Daylight 9:00 AM Straight (on Grade) Non-junction	Single Veh. (Overturn / Rollover)	① 38M KINDRED ND Pickup - Van - Utility WB Going Straight To Fast for Conditions Overturn / Rollover				X←
3	1089008 94 146.85	PDO 12/19/19 Thursday Dry Clear Dark 6:05 AM Straight (on Level) Non-junction	Rear End	① 25M BISMARCK ND Passenger Car WB Going Straight Speed Other Non-Collision	② 40M BISMARCK ND Pickup - Van - Utility WB Going Straight			←←
4	1116746 94 147.01	PDO 12/25/21 Saturday Ice / Snow Blowing Snow ❄ Daylight 11:20 AM Straight (on Grade) Non-junction	Rear End	① 29M GLADSTONE OR Passenger Car EB Going Straight To Fast for Conditions	② 61M ROLETTE ND Pickup - Van - Utility EB Slowing/Stopping Weather			→→
5	1105198 94 147.15	▶ Non-incapacitating injury 02/24/21 Wednesday Dry Clear Daylight 2:06 PM Straight (on Level) Non-junction	Rear End	① 31F MANDAN NDY Pickup - Van - Utility WB Passing Speed	② 57M DICKINSON ND Pickup - Van - Utility WB Going Straight			←←
6	1042865 94 0.01	PDO 11/03/17 Friday Snow Snow ❄ Daylight 11:25 AM Straight (on Level) Other Cossings	Single Veh. (Guardrail Face)	① 20M GOLDEN MS Pickup - Van - Utility WB Going Straight To Fast for Conditions Guardrail Face				X←
7	1122452 94 147.3	PDO 04/24/22 Sunday Wet Rain ♦ Dark(L) 1:13 AM Straight (on Level) Non-junction	Head on	① 23M MANDAN ND Passenger Car WB Going Straight (Oth) To Fast for Conditions*	② 34M BISMARCK ND Pickup - Van - Utility EB Driverless (Stopped) Weather Parked MV			→←
8	1070561 94 147.683	PDO 01/23/19 Wednesday Ice / Snow Blowing Snow ❄ Daylight 4:31 PM Straight (on Level) Non-junction	Single Veh. (Jackknife)	① 67M ODESSA MO Truck Tractor WB Going Straight To Fast for Conditions Jackknife				X←
9	1079665 94 148.22	PDO 06/18/19 Tuesday Dry Clear ▲ Daylight 2:45 PM Straight (on Grade) Non-junction	Single Veh. (Other Object (Not Fixed))	① 73M MOORHEAD MN Pickup - Van - Utility EB Going Straight Speed Other Object (Not Fixed)				→X
10	1075111 94 148.5	PDO 03/10/19 Sunday Ice / Snow Clear ❄ Dark 6:38 AM Straight (on Level) Non-junction	Single Veh. (Overturn / Rollover)	① 44M BISMARCK ND Pickup - Van - Utility EB Going Straight To Fast for Conditions Overturn / Rollover				→X

Total Crashes: 71 (Sorted by Longitude)
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Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative	Name of Intersection	Diagram
11	1070199	PDO			① 28M WATSONTOWN PA				
	94	01/23/19 Wednesday			Pickup - Van - Utility				
	148.54	Ice / Snow Blowing Snow	❄	Single Veh. (Overturn / Rollover)	WB Going Straight To Fast for Conditions* Overturn / Rollover				X←
12	1062134	PDO			① 20M WATFORD CITY ND	② 67F MOTT ND			
	94	09/14/18 Friday			Passenger Car	Pickup - Van - Utility			
	148.66	Dry Clear		Rear End	WB Going Straight	WB Going Straight			←←
		Daylight 5:20 PM			Careless/Reckless Driving				
		Straight (on Level) Non-junction							
13	1089004	▶ Non-incapacitating injury			① 36M GLEN ULLIN ND	② 73M MANDAN ND			
	94	12/24/19 Tuesday			Passenger Car	Pickup - Van - Utility			←
	148.89	Dry Fog / Smoke / Dust		Sideswipe (Same Dir.)	WB Going Straight	WB Going Straight			←
		Dark 6:05 PM			Fail Keep in Proper Lane*				
		Straight (on Level) Non-junction			Other Non-Collision				
14	1070274	PDO			① 32M KENT WA				
	94	01/23/19 Wednesday			Pickup - Van - Utility				
	148.94	Ice / Snow Blowing Snow	❄	Single Veh. (Jackknife)	WB Going Straight To Fast for Conditions				X←
		Dark 7:00 PM			Jackknife				
		Straight (on Grade) Non-junction							
15	1116445	PDO			① 15F NEW SALEM ND	② 22M BISMARCK ND			
	94	12/19/21 Sunday			Pickup - Van - Utility	Pickup - Van - Utility			
	149	Dry Clear		Single Veh. (Cargo Loss or Shift)	WB Going Straight	WB Going Straight Other			X←
		Daylight 4:55 PM							
		Straight (on Level) Non-junction			Cargo Loss or Shift	Cargo Loss or Shift			
16	1045658	PDO			① 29M SPEARFISH SD				
		12/11/17 Monday			Pickup - Van - Utility				
		Dry Clear		Single Veh. (Other Non-Collision)	WB Passing				X←
		Dark 6:38 PM							
		Straight (on Level) Non-junction			Other Non-Collision				
17	1083019	PDO			① 28M BISMARCK ND				
	94	08/30/19 Friday			Pickup - Van - Utility				
	149.07	Dry Clear	▲	Single Veh. (Post)	EB Going Straight Other				→X
		Dawn 6:55 AM			Post				
		Straight (on Grade) Non-junction							
18	1075112	PDO			① 23M MANDAN ND				
	94	03/14/19 Thursday			Passenger Car				
	149.27	Snow Blowing Snow	❄	Single Veh. (Overturn / Rollover)	WB Going Straight To Fast for Conditions				X←
		Daylight 1:15 PM			Overturn / Rollover				
		Curve (on Grade) Non-junction							
19	1074707	PDO			① 31F BILLINGS MT	② <Null>			
	94	03/09/19 Saturday			Pickup - Van - Utility	Single Unit Truck			
	149.39	Ice / Snow Clear	❄	Rear End	WB Going Straight (Signal)	WB Driverless (Stopped) (Beacon)			←←
		Daylight 4:58 PM			To Fast for Conditions	Weather			
		Straight (on Grade) Non-junction			Parked MV				
20	1075110	PDO			① 38M WEST PALM BEACH FL				
	94	03/09/19 Saturday			Truck Tractor				
	149.5	Snow Cloudy	❄	Single Veh. (Overturn / Rollover)	WB Going Straight To Fast for Conditions				X←
		Daylight 9:34 AM			Overturn / Rollover				
		Straight (on Grade) Non-junction							

Rural Segment Crash Summary Sheets

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23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
▶ *Fatal*
▶ *Incapacitating Injury*
▶ *Non-Incapacitating Injury*
▷ *Possible Injury*
♦ *Wet surface*
❄ *Snow, Ice, Slush, Frost*
▲ *Crash related to work zone*
① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
21	1117012	PDO 12/28/21 Tuesday Dry Clear Dark 6:16 PM Straight (on Grade) Non-junction	Single Veh. (Cargo Loss or Shift)	① 34M GLEN ULLIN ND Pickup - Van - Utility WB Going Straight Weather Cargo Loss or Shift ② 56M NEW SALE ND Passenger Car WB Going Straight			X←
22	1097612	PDO 08/06/20 Thursday Dry Clear Daylight 4:20 PM Curve (on Grade) Non-junction	Single Veh. (Jackknife)	① 59M WALKER MN Pickup - Van - Utility WB Going Straight Jackknife			X←
23	1061772	PDO 09/14/18 Friday Dry Clear Dusk 9:30 PM Straight (on Level) Non-junction	Rear End	① 34M DICKINSON ND Pickup - Van - Utility WB Going Straight Careless/Reckless Driving* ② 35F BEEVILLE TX Pickup - Van - Utility WB Going Straight			←←
24	1114762	PDO 94 11/13/21 Saturday 150.04 Ice / Snow Sleet/Hail/Freezing Rai ❄ Daylight 8:30 AM Straight (on Level) Non-junction	Rear End	① 38U BISMARCK ND Passenger Car WB Going Straight To Fast for Conditions ② 59M YAKIMA WA Truck Tractor WB Going Straight			←←
25	1099932	PDO 94 10/19/20 Monday 150.81 Ice / Snow Snow ❄ Dawn 8:30 AM Straight (on Grade) Non-junction	Single Veh. (Overturn / Rollover)	① 20M MANDAN ND Pickup - Van - Utility EB Going Straight To Fast for Conditions Overturn / Rollover			→X
26	1070438	PDO 94 01/22/19 Tuesday 150.99 Snow Cloudy ❄ Daylight 9:15 AM Straight (on Level) Non-junction	Single Veh. (Ditch)	① 23F BEULAH ND Passenger Car EB Passing Weather Ditch			→X
27	1055269	PDO 05/10/18 Thursday Dry Clear Daylight 6:40 PM Straight (on Level) Non-junction	Sideswipe (Same Dir.)	① U Hit and Run EB Other Action on Roadway ② 32M LINCOLN ND 2-Axle EB Going Straight			→ →
28	1110950	▶ Non-incapacitating injury 94 08/09/21 Monday 151.85 Dry Clear ▲ Daylight 4:52 PM Straight (on Level) Non-junction	Rear End	① 57M MANDAN ND Pickup - Van - Utility WB Going Straight (Oth) To Fast for Conditions ② 53F DICKINSON ND Pickup - Van - Utility WB Turning Right ③ 51M BISMARCK ND Passenger Car WB Stopped			←←
29	1095934	▷ Possible Injury 94 06/24/20 Wednesday 152.03 Dry Clear Daylight 7:10 PM Curve (on Grade) Ramp	Single Veh. (Post)	① 26M MANDAN ND Passenger Car EB Going Straight Speed Post			→X
30	1077122	PDO 94 04/23/19 Tuesday 152.07 Dry Severe Wind Daylight 12:27 PM Curve (on Grade) Non-junction	Single Veh. (Overturn / Rollover)	① 64M LONG PRAIRIE MN Unknown Heavy Truck WB Going Straight To Fast for Conditions Overturn / Rollover			X←

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LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
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2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative	Name of Intersection	Diagram
31	1110795 ▷	Possible Injury			① 49M BISMARCK ND	② 37M MANDAN ND			
	94	08/06/21 Friday			Single Unit Truck	Pickup - Van - Utility			←
	152.17	Dry Clear		▲ Sideswipe (Same Dir.)	WB Going Straight	WB Going Straight			←
		Daylight 2:30 PM			Fail Keep in Proper Lane				
		Straight (on Level) Non-junction							
32	1118588	PDO			① 40M BISMARCK ND				
	94	01/22/22 Saturday			Pickup - Van - Utility				
	152.18	Ice / Snow Cloudy	❄	Single Veh.	WB Going Straight				X←
		Daylight 3:00 PM		(Other Traffic Barrier)	Weather				
		Curve (on Grade) Non-junction			Other Traffic Barrier				
33	1068411	PDO			① 35M GREENSBORO NC				
	94	12/27/18 Thursday			Pickup - Van - Utility				
	152.32	Snow Blowing Snow	❄	Single Veh.	EB Going Straight				→X
		Daylight 1:50 PM		(Concrete Traffic Barrier)	Weather				
		Straight (on Grade) Non-junction			Concrete Traffic Barrier				
34	1101119 ▶	Non-incapacitating injury			① 57M BISMARCK ND	② U			
	94	11/08/20 Sunday			Pickup - Van - Utility	Hit and Run			
	152.4	Dry Clear		Single Veh.	EB Going Straight	EB Going Straight			→X
		Daylight 3:00 PM		(Cargo Loss or Shift)					
		Straight (on Grade) Non-junction			Cargo Loss or Shift	Cargo Loss or Shift			
35	1070560	PDO			① 44M HAZEN ND	② 19M BISMARCK ND			
	94	01/23/19 Wednesday			Pickup - Van - Utility	Passenger Car			
	152.4	Ice / Snow Blowing Snow	❄	Rear End	EB Going Straight	EB Going Straight			→→
		Dark(L) 9:56 PM			To Fast for Conditions*	Improper License			
		Straight (on Grade) Non-junction							
36	1083991	PDO			① 25F GLEN ULLIN ND	② 44M BOWMAN ND			
	94	09/20/19 Friday			Passenger Car	Pickup - Van - Utility			
	152.44	Wet Rain	♦ ▲	Rear End	EB Going Straight	EB Going Straight			→→
		Daylight 5:00 PM			Following too Close	Weather			
		Straight (on Level) Non-junction							
37	1081124 ▷	Possible Injury			① 21M WILLISTON ND	② 17M MANDAN ND			
	94	07/08/19 Monday			Passenger Car	Pickup - Van - Utility			
	152.49	Dry Cloudy	▲	Rear End	EB Going Straight	EB Going Straight			→→
		Daylight 4:00 PM			To Fast for Conditions				
		Curve (on Grade) Non-junction							
38	1109796 ▶	Non-incapacitating injury			① 22M MANDAN ND	② 24M MANDAN ND			
	94	07/06/21 Tuesday			Pickup - Van - Utility	Pickup - Van - Utility			
	152.58	Dry Clear		Rear End	EB Merging/Diverging	EB Merging/Diverging			→→
		Daylight 6:30 AM			To Fast for Conditions	Failed to Yield			
		Straight (on Grade) Ramp							
39	1113475	PDO			① U	② 29F GLENDIVE MT			
	94	10/13/21 Wednesday			Hit and Run	Pickup - Van - Utility			←
	152.58	Wet Rain	♦	Sideswipe (Same Dir.)	WB Other Action on Roadway	WB Going Straight			←
		Daylight 11:15 AM							
		Curve (on Grade) Non-junction							
40	1080540	PDO			① 30M NEWELL SD	② 38M BISMARCK ND			
	94	07/04/19 Thursday			Passenger Car	Pickup - Van - Utility			
	152.58	Dry Clear		▲ Rear End	EB Going Straight	EB Merging/Diverging (Yield)			→→
		Daylight 6:37 PM				Careless/Reckless Driving			
		Straight (on Grade) Ramp							

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LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative	Name of Intersection	Diagram
41	1115249	PDO 11/19/21 Friday Dry Clear Daylight 12:22 PM Straight (on Grade) Non-junction		Sideswipe (Same Dir.)	① U Hit and Run WB Going Straight	② 43M BISMARCK ND Truck Tractor WB Going Straight			← ←
42	1069447	PDO 01/14/19 Monday Dry Clear Dawn 8:00 AM Straight (on Grade) Non-junction		Rear End	① 50F BISMARCK ND Pickup - Van - Utility WB Going Straight Following too Close	② 62M BISMARCK ND Pickup - Van - Utility WB Going Straight			←←
43	1069344	PDO 01/08/19 Tuesday Dry Clear Daylight 8:45 AM Straight (on Level) Non-junction		Rear End	① 32F MANDAN ND Pickup - Van - Utility WB Going Straight Care Required	② <Null> Pickup - Van - Utility WB Driverless (Stopped) Parked MV			←←
44	1108370	PDO 06/04/21 Friday Dry Clear Daylight 5:21 PM Straight (on Level) Non-junction	▲	Rear End	① 16F CENTER ND Passenger Car WB Going Straight Following	② 30F MANDAN ND Passenger Car WB Going Straight			←←
45	1084885	PDO 10/10/19 Thursday Ice / Snow Snow Dark 5:15 AM Straight (on Grade) Non-junction	❄	Single Veh. (Other Traffic Barrier)	① 29M MANDAN ND Pickup - Van - Utility WB Going Straight (Oth) To Fast for Conditions Other Traffic Barrier				X←
46	1123593	PDO 05/26/22 Thursday Dry Clear Daylight 1:18 PM Straight (on Level) Non-junction		Sideswipe (Same Dir.)	① U Hit and Run EB Other Action on Roadway	② 26F BISMARCK ND Pickup - Van - Utility EB Going Straight Improper License			→ →
47	1117318	PDO 12/27/21 Monday Snow Cloudy Dark(L) 5:25 PM Straight (on Grade) Non-junction	❄	Single Veh. (Other Traffic Barrier)	① 19M MANDAN ND Passenger Car WB Passing To Fast for Conditions Other Traffic Barrier				X←
48	1051144	PDO 02/20/18 Tuesday Ice / Snow Clear Daylight 8:30 AM Straight (on Level) Non-junction	❄	Single Veh. (Post)	① 30F MANDAN ND Passenger Car WB Going Straight To Fast for Conditions Post				X←
49	1073369 ▷	Possible Injury 02/11/19 Monday Snow Sleet/Hail/Freezing Rain Daylight 1:40 PM Straight (on Grade) Non-junction	❄	Rear End	① 53M WADENA MN 2-Axle WB Going Straight Weather	② 65M BISMARCK ND Passenger Car WB Merging/Diverging Weather			←←
50	1091191	PDO 01/31/20 Friday Ice / Snow Clear Daylight 9:05 AM Straight (on Level) Non-junction	❄	Single Veh. (Guardrail End)	① 25F PICK CITY ND Pickup - Van - Utility EB Going Straight To Fast for Conditions Guardrail End				→X

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LEGEND
▶ *Fatal*
▶ *Incapacitating Injury*
▶ *Non-Incapacitating Injury*
▷ *Possible Injury*
♦ *Wet surface*
❄ *Snow, Ice, Slush, Frost*
▲ *Crash related to work zone*
① *Unit number*

1. Contributing Factor
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VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
51	1047139	PDO		① 34M GLADSTONE ND			
	94	12/29/17 Friday		Pickup - Van - Utility			
	153.03	Slush Clear ❄	Single Veh.	WB Going Straight			X←
		Daylight 12:05 PM	(Guardrail Face)	Care Required			
		Curve (on Grade) Non-junction		Guardrail Face			
52	1050023	PDO		① 20M MANDAN ND			
	94	02/14/18 Wednesday		Pickup - Van - Utility			
	153.07	Dry Clear	Single Veh.	EB Going Straight			→X
		Daylight 11:20 AM	(Jackknife)				
		Straight (on Grade) Non-junction		Jackknife			
53	1093594	PDO		① 22F BISMARCK ND			
	94	04/02/20 Thursday		Passenger Car			
	153.07	Ice / Snow Cloudy ❄	Single Veh.	EB Going Straight			→X
		Daylight 3:27 PM	(Guardrail Face)	Weather			
		Straight (on Level) Non-junction		Guardrail Face			
54	1106548 ▷	Possible Injury		① 46M MANDAN ND			
	94	04/14/21 Wednesday		Pickup - Van - Utility			
	153.13	Dry Clear ▲	Single Veh.	EB Going Straight			→X
		Daylight 5:15 PM	(Other Fixed Object)	Other			
		Straight (on Level) Non-junction		Other Fixed Object			
55	1127400 ▶	Non-incapacitating injury		① 69M BISMARCK ND / ② 41M MANDAN ND			
	94	09/13/22 Tuesday		Passenger Car / Pickup - Van - Utility			
	153.31	Dry Clear	Rear End	EB Going Straight / EB Going Straight			→→
		Daylight 4:29 PM		Following too Close / Careless/Reckless Driving			
		Straight (on Grade) Non-junction					
56	1122879 ▶	Non-incapacitating injury		① 46F DICKINSON ND			
	94	05/07/22 Saturday		Pickup - Van - Utility			
	153.48	Dry Clear	Single Veh.	EB Going Straight			→X
		Daylight 6:34 AM	(Overturn / Rollover)	Other			
		Straight (on Grade) Non-junction		Overturn / Rollover			
57	1083900	PDO		① 32M BALDWIN ND / ② 54M BISMARCK ND			
		09/18/19 Wednesday		Pickup - Van - Utility / Pickup - Van - Utility			
		Dry Clear ▲	Rear End	EB Going Straight / EB Going Straight			→→
		Daylight 5:19 PM		Following too Close			
		Straight (on Level) Non-junction					
58	1103524	PDO		① 37F DAVIS TUCKER WV / ② 37M HOTSPRINGS SD			
	94	01/20/21 Wednesday		Pickup - Van - Utility / Truck Tractor			←
	153.57	Dry Clear	Sideswipe (Same Dir.)	WB Changing Lanes / WB Passing			←
		Daylight 4:38 PM		Improper Overtaking			
		Straight (on Grade) Non-junction					
59	1127174	PDO		① 17M MANDAN ND			
	94	09/08/22 Thursday		Passenger Car			
	153.76	Dry Clear	Single Veh.	EB Going Straight			→X
		Dark(L) 5:43 AM	(Ditch)	Careless/Reckless Driving			
		Straight (on Grade) Non-junction		Ditch			
60	1100239	PDO		① 20M BISMARCK ND			
	94	10/22/20 Thursday		Pickup - Van - Utility			
	154	Ice / Snow Snow ❄	Single Veh.	WB Going Straight			X←
		Dark(L) 7:10 PM	(Guardrail End)	Weather			
		Straight (on Level) Non-junction		Guardrail End			

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▶ *Incapacitating Injury*
▶ *Non-Incapacitating Injury*
▷ *Possible Injury*
♦ *Wet surface*
❄ *Snow, Ice, Slush, Frost*
▲ *Crash related to work zone*
① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct		Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]		Shortened Narrative	Name of Intersection	Diagram
61	1064651	PDO			① 54M RICHARDTON ND	② 46M MANDAN ND			
	94	10/30/18 Tuesday			Passenger Car	Pickup - Van - Utility			
	153.97	Dry Clear		Rear End	EB Going Straight	EB Going Straight			→→
		Dawn 7:38 AM			Following	Careless/Reckless Driving			
		Straight (on Grade) Non-junction							
62	1074704	PDO			① 45M MANDAN ND				
	94	03/10/19 Sunday			Pickup - Van - Utility				
	154.008	Ice / Snow Blowing Snow	❄	Single Veh.	WB Going Straight				X←
		Dark(L) 12:03 AM		(Guardrail Face)	To Fast for Conditions				
		Curve (on Grade) Non-junction			Guardrail Face				
63	1111193	▶ Non-incapacitating injury			① 34M BISMARCK ND				
	94	08/17/21 Tuesday			Low Speed Vehicle				
	154.008	Dry Clear		Single Veh.	EB Going Straight				→X
		Dark(L) 1:10 AM		(Guardrail Face)	Other				
		Straight (on Level) Non-junction			Guardrail Face				
64	1081185	PDO			① 40M MANDAN ND	② 56M NEW SALEM ND			
	94	07/20/19 Saturday			Pickup - Van - Utility	Pickup - Van - Utility			
	154.04	Dry Clear	▲	Rear End	EB Going Straight (Oth)	EB Stopped (Oth)			→→
		Daylight 11:15 AM			Following too Close				
		Straight (on Level) Non-junction							
65	1077135	PDO			① 32M BISMARCK ND				
	94	04/26/19 Friday			Passenger Car				
	154.25	Dry Clear	▲	Single Veh.	WB Going Straight				X←
		Dark(L) 3:17 AM		(Impact Attenuator)	Other				
		Curve (on Level) Non-junction			Impact Attenuator				
66	1080130	PDO			① 30M BISMARCK ND				
	94	06/25/19 Tuesday			Unknown Heavy Truck				
	154.23	Dry Clear	▲	Single Veh.	WB Going Straight (Oth)				X←
		Daylight 12:59 PM		(Bridge Rail)	Disregard Traffic Signs				
		Straight (on Level) Non-junction			Bridge Rail				
67	1046686	PDO			① 53F MANDAN ND				
	94	12/27/17 Wednesday			Pickup - Van - Utility				
	154.24	Ice / Snow Unkown	❄	Single Veh.	EB Merging/Diverging				→X
		Daylight 8:30 AM		(Ran Off Roadway)	Weather				
		Curve (on Grade) Ramp			Ran Off Roadway				
68	1046685	PDO			① 21M MANDAN ND				
	94	12/27/17 Wednesday			Pickup - Van - Utility				
	154.24	Ice / Snow Unkown	❄	Single Veh.	EB Merging/Diverging				→X
		Daylight 8:50 AM		(Ran Off Roadway)	Weather				
		Curve (on Grade) Ramp			Ran Off Roadway				
69	1046955	PDO			① 39M MANDAN ND				
	94	12/28/17 Thursday			Passenger Car				
	154.25	Ice / Snow Unkown	❄	Single Veh.	EB Going Straight				→X
		Dark(L) 5:00 AM		(Fence)	Care Required				
		Curve (on Grade) Ramp			Fence				
70	1044600	▶ Non-incapacitating injury			① 26F MANDAN ND				
	94	11/27/17 Monday			Passenger Car				
	154.44	Dry Clear		Single Veh.	WB Negotiating Curve				X←
		Dark 5:35 PM		(Fence)	Careless/Reckless Driving				
		Curve (on Grade) Non-junction			Fence				

Rural Segment Crash Summary Sheets

Total Crashes: 71 (Sorted by Longitude)
City: Mandan
Location: I-94 from west Jct ND 25/I-94B to east Mandan Ave
Start - End Date: 11/1/2017 - 10/31/2022 (5 Years)

23 USC § 407 Documents
NDDOT Reserves All Objections

LEGEND
- ▶ *Fatal*
- ▶ *Incapacitating Injury*
- ▶ *Non-Incapacitating Injury*
- ▷ *Possible Injury*
- ♦ *Wet surface*
- ❄ *Snow, Ice, Slush, Frost*
- ▲ *Crash related to work zone*
- ① *Unit number*

1. Contributing Factor
** = alcohol or drugs involved*

2. Most Harmful Event
For single vehicle crashes, the most harmful event is shown in parentheses in the "Type of Collision" column

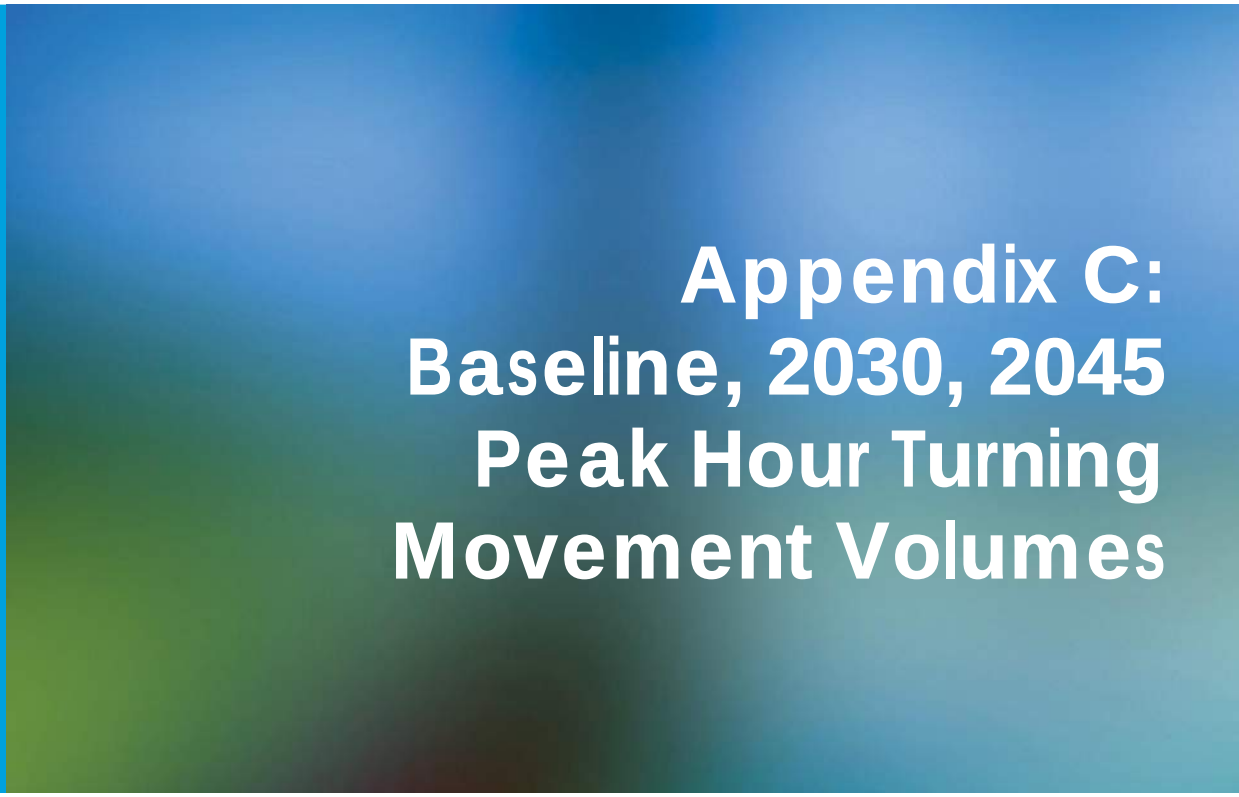
VISION ZERO

	Crash No.	Crash Severity Date, Day Surface Conditions, Weather Lighting, Time Road Geometrics, Relation to Jct	Type of Collision	① AGE SEX CITY STATE Unit Configuration Movement (traffic control) Contributing Factor[1] Most Harmful Event[2]	Shortened Narrative	Name of Intersection	Diagram
71	1068604	PDO		① 21F MANDAN ND			
	94	12/26/18 Wednesday		Passenger Car			
	154.44	Snow Snow ❄	Single Veh.	EB Going Straight			→X
		Daylight 12:00 PM	(Ditch)	Fail Keep in Proper Lane			
		Curve (on Grade) Non-junction		Ditch			
72							
73							
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78							
79							
80							

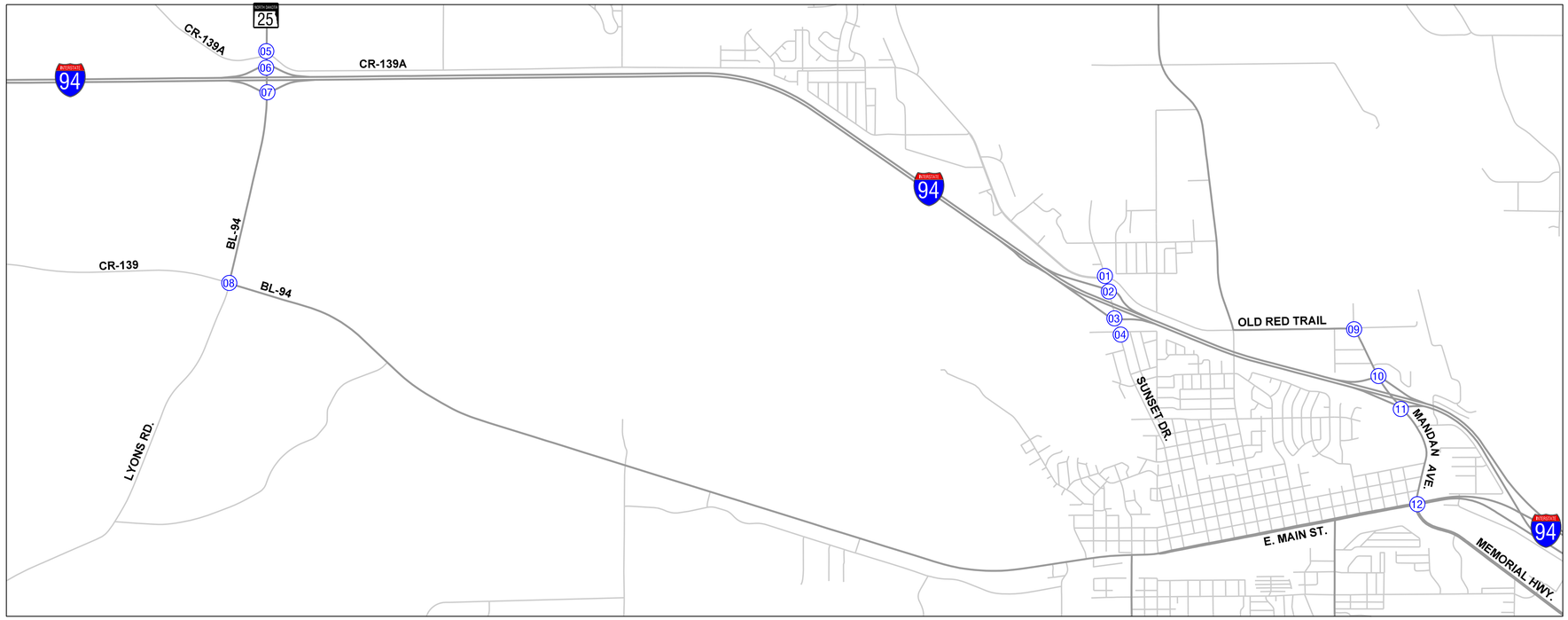
PREPARED BY

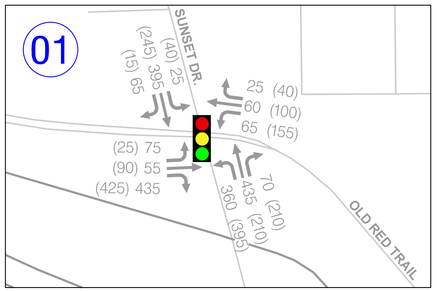
Mead & Hunt

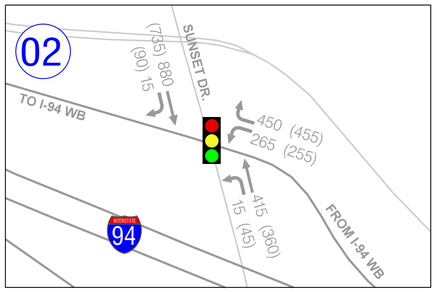
I-94 at Sunset Dr Interchange

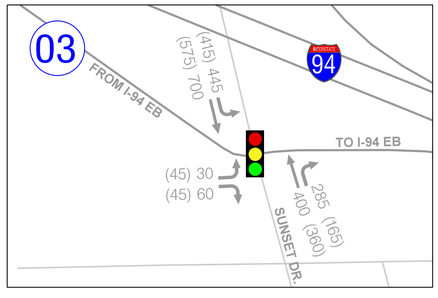


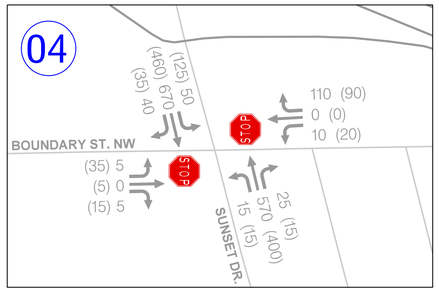
Appendix C: Baseline, 2030, 2045 Peak Hour Turning Movement Volumes

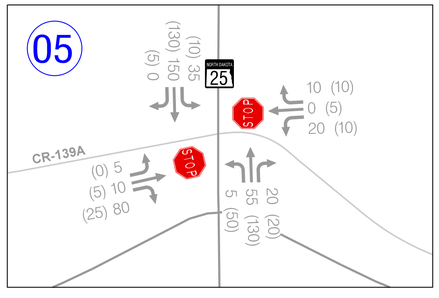


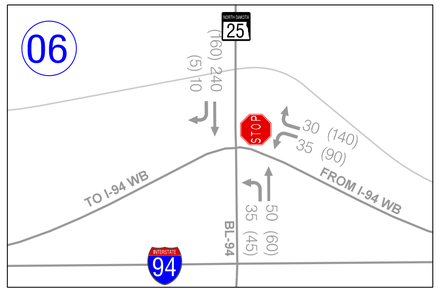


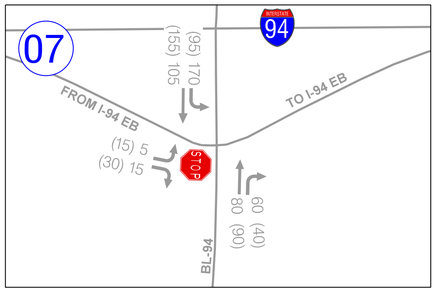


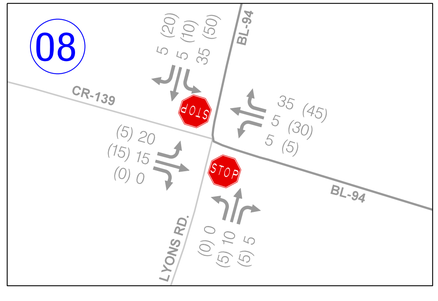


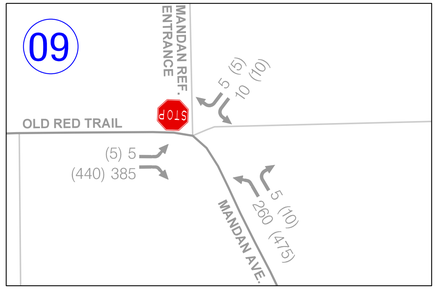


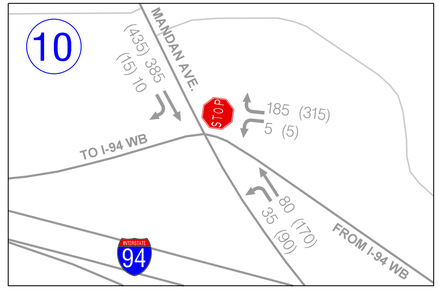


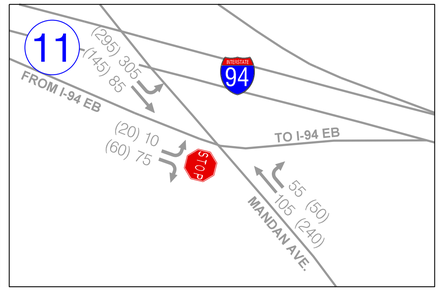


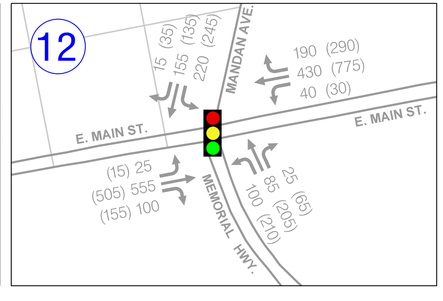












LEGEND:

ROADWAY

STOP CONTROL

TRAFFIC SIGNAL

VEHICLE MOVEMENT

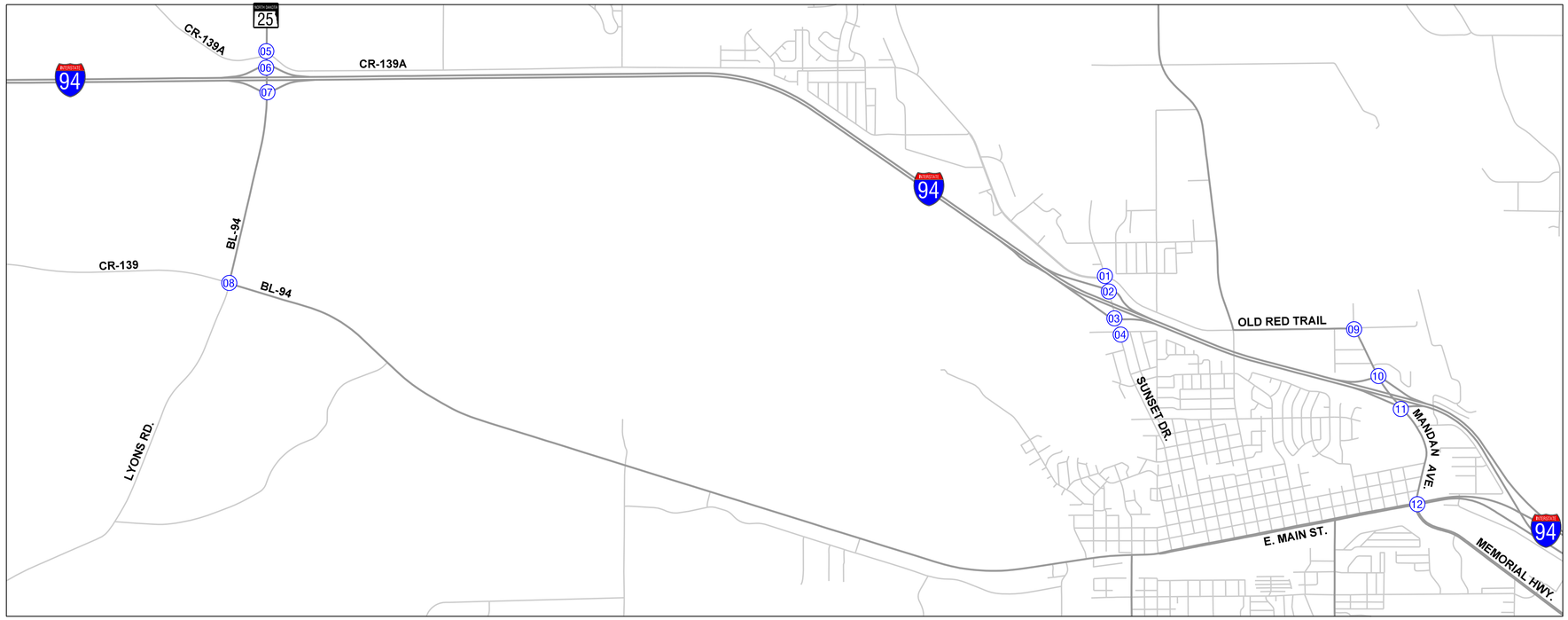
PEAK VOLUMES AM (PM)

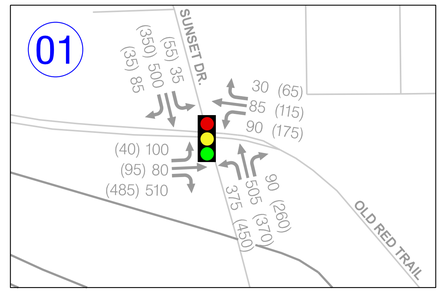
Mead & Hunt

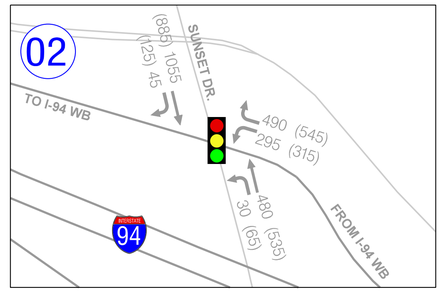
I–94 at Sunset Drive Interchange: Volume Diagram 2023 Existing

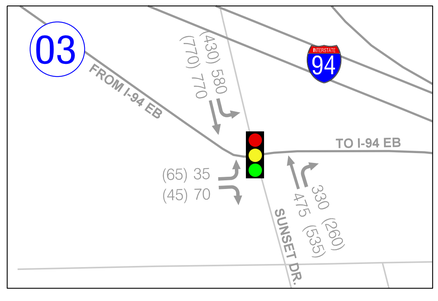
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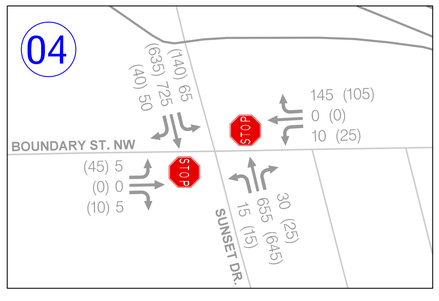
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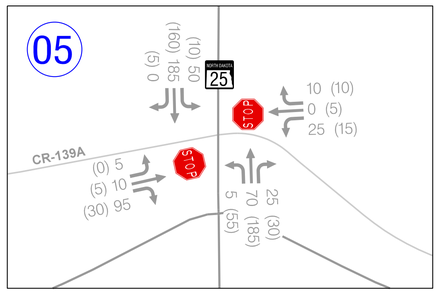


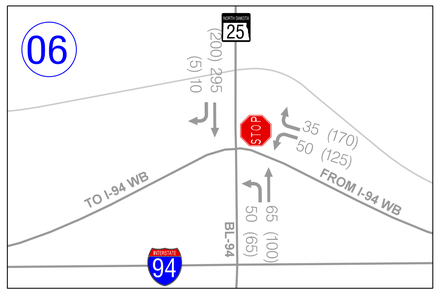


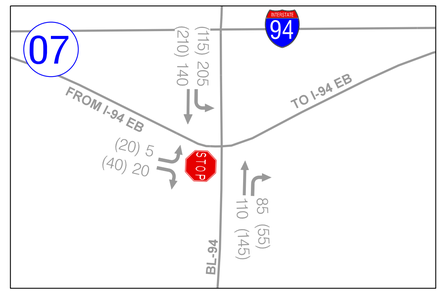


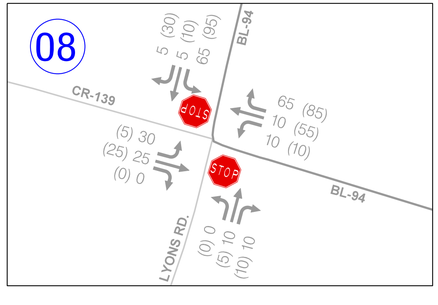


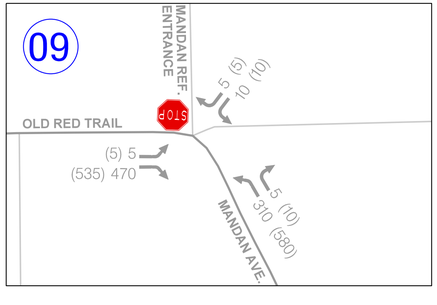


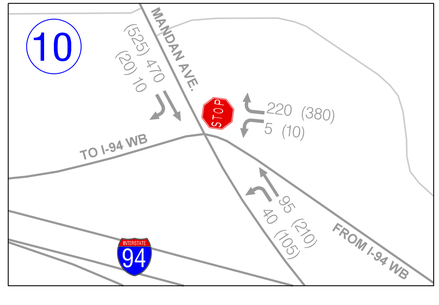


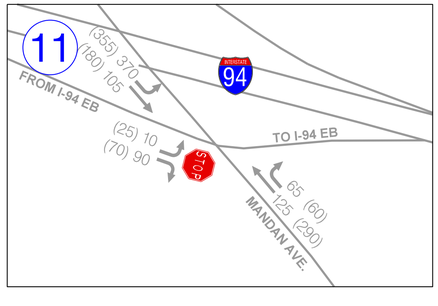


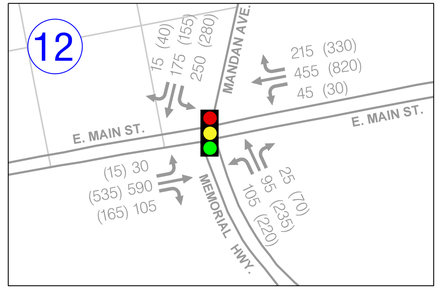


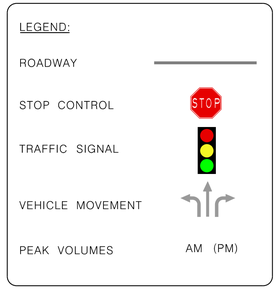








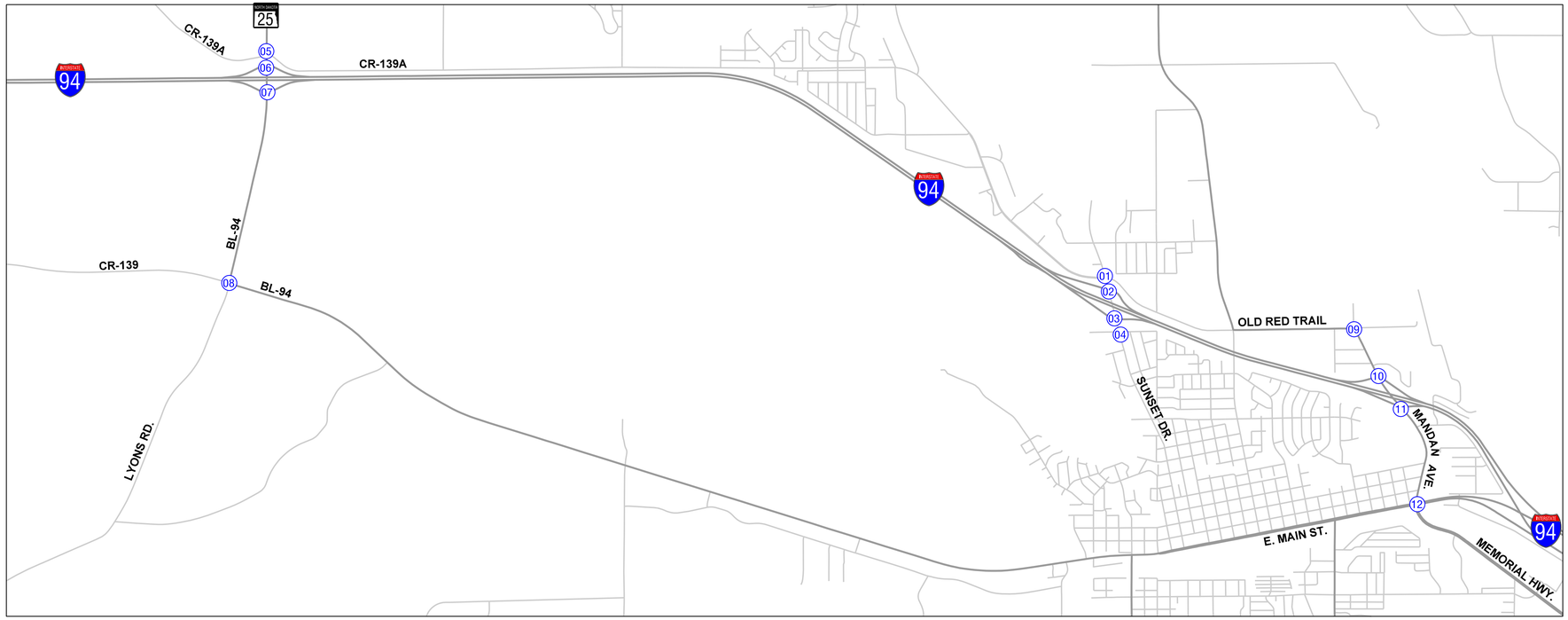


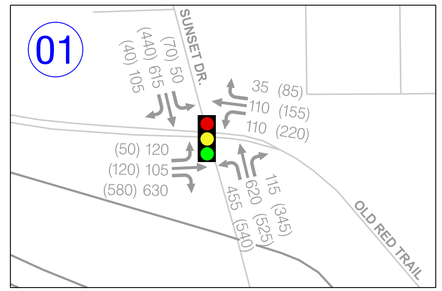


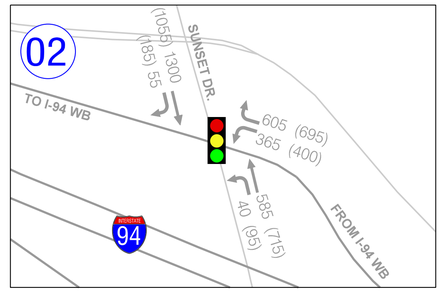
Mead & Hunt

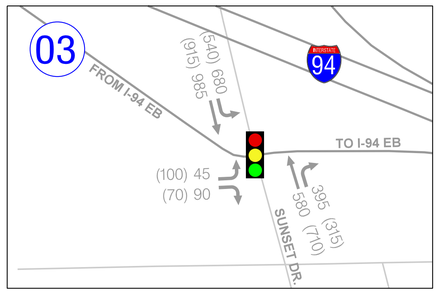
I–94 at Sunset Drive Interchange: Volume Diagram 2030 No Build

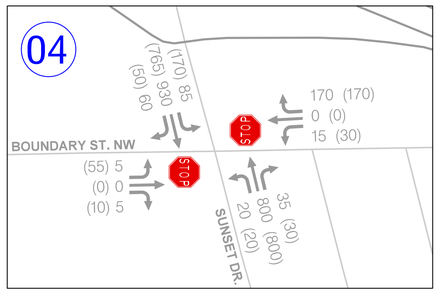
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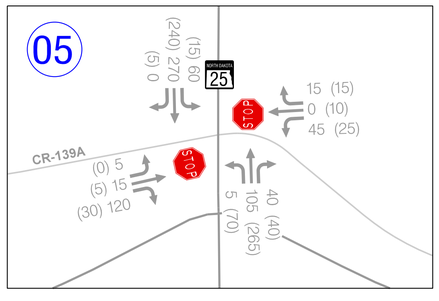


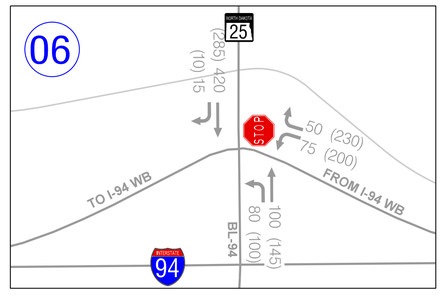


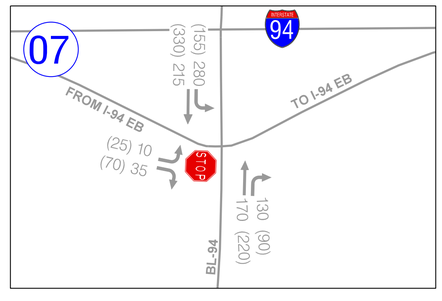


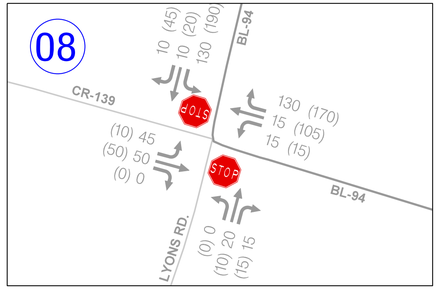


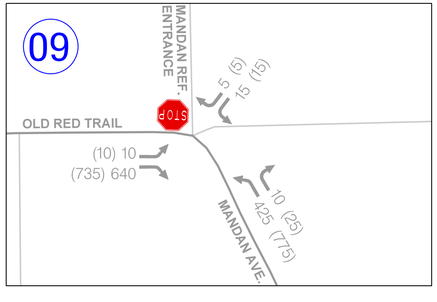


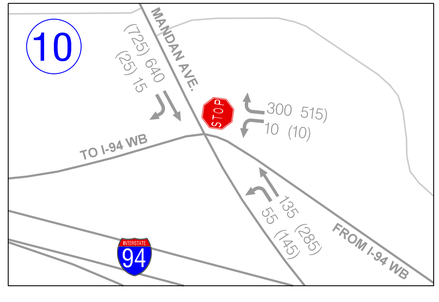


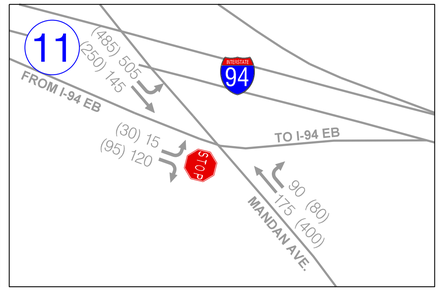


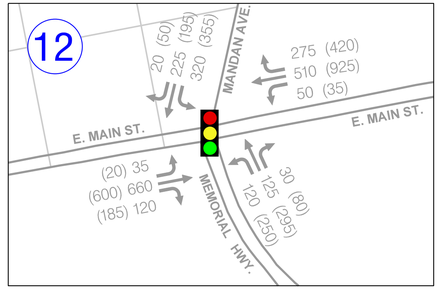


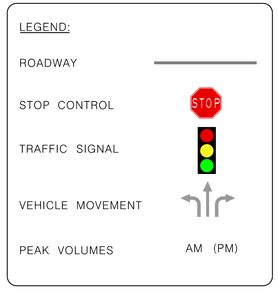












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I–94 at Sunset Drive Interchange: Volume Diagram 2045 No Build

OPERATOR02430 – PLOTTED: 4/4/2023
FILE NAMES: \Columbia\Shared\Josh Hartsock\Volume_Diagrams.dgn

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix D: Volume Development Memo

Technical Memorandum

To:	Mr. Miguel Andrews, P.E.
From:	Chris Rossmiller, P.E.
Date:	March 20, 2023
Subject:	Interstate 94 and Sunset Drive Interchange Preliminary Engineering & Feasibility Study: Volume Development Methodology

Dear Mr. Andrews,

The following memorandum presents the proposed volume development methodology for the Interstate 94 and Sunset Drive Interchange Preliminary Engineering & Feasibility Study for review and approval.

Background

The Sunset Drive corridor has two ongoing independent studies. North Dakota Department of Transportation is leading the *Interstate 94 and Sunset Drive Interchange Preliminary Engineering & Feasibility Study* (this study), which focuses on interchange improvements / reconfigurations. The Bismarck-Mandan Metropolitan Planning Organization along with the City of Mandan are studying Sunset Drive in Mandan for potential traffic and safety improvements as part of the *Sunset Drive Corridor Study*. Although these studies are independent, it was suggested that the traffic volume development between the two studies be coordinated to maintain consistency between the two studies. The *Sunset Drive Corridor Study* volume development preceded the volume development for the *Interstate 94 and Sunset Drive Interchange Preliminary Engineering Study.* Therefore, as part of this study, the *Sunset Drive Corridor Study* volumes were reviewed, and any proposed adjustments are noted in this memo.

Study Area Limits

The I-94 study area encompasses the I-94/Sunset Drive interchange and the Sunset Drive intersections adjacent to the ramp terminals. The modeling limits also include the first interchange east and west of Sunset Drive to meet IJR/IMR requirements, as shown in Figure *1*. This memorandum primarily focuses on the Sunset Drive intersections / interchange, where the two studies overlap.

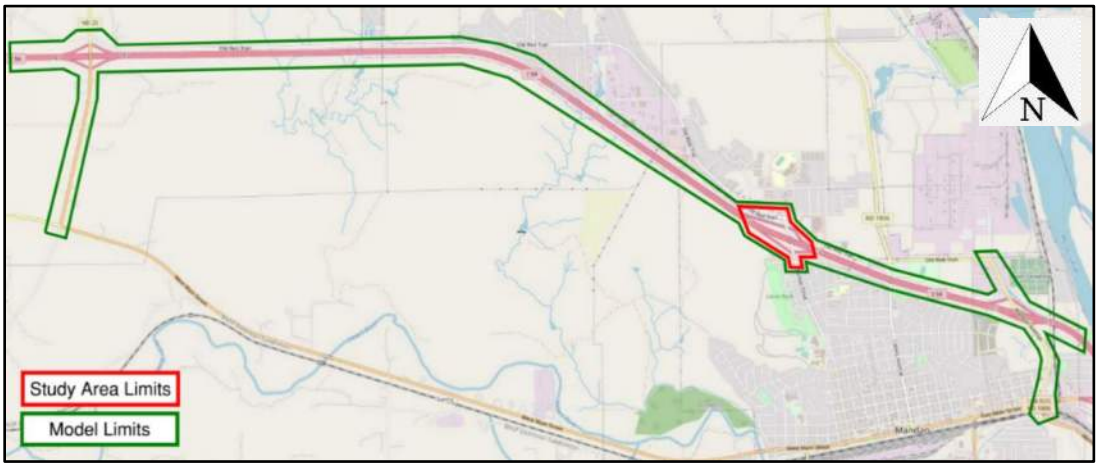


Figure 1: Map of Study Area and Modeled Area

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Base Year (2023) Volume Development

24-hour Turning Movement Counts (TMCs) and Average Daily Traffic (ADT) tube counts were conducted in December 2022 for all 12 study intersections and interchange ramps within the model limits. The newly collected turning movement counts were compared to the *Sunset Drive Corridor Study* turning movement counts. While the general volume trends were fairly consistent in both studies, notable turning movement variations of 50-100 vehicles were observed (see Figure 2 to Figure 4). Volume differences in the PM peak hour volumes can be attributed in part to different peak hours selected. A 3 PM peak hour was selected for the *Sunset Drive Corridor Study* PM peak hour (likely selected due to the nearby school); however; the December 2022 counts show higher volumes during the traditional PM peak hour time frame (i.e., 4-6 PM), which was selected as the PM peak hour of this study.

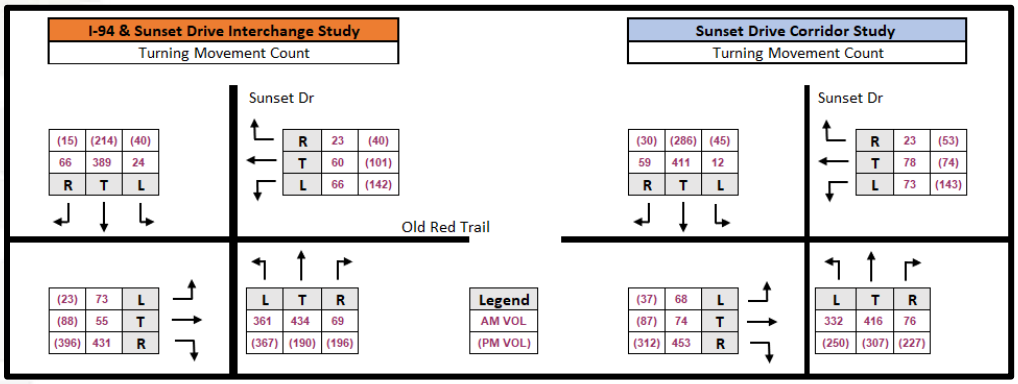


Figure 2: Turning Movement Count Comparison – Sunset Drive & Old Red Trail

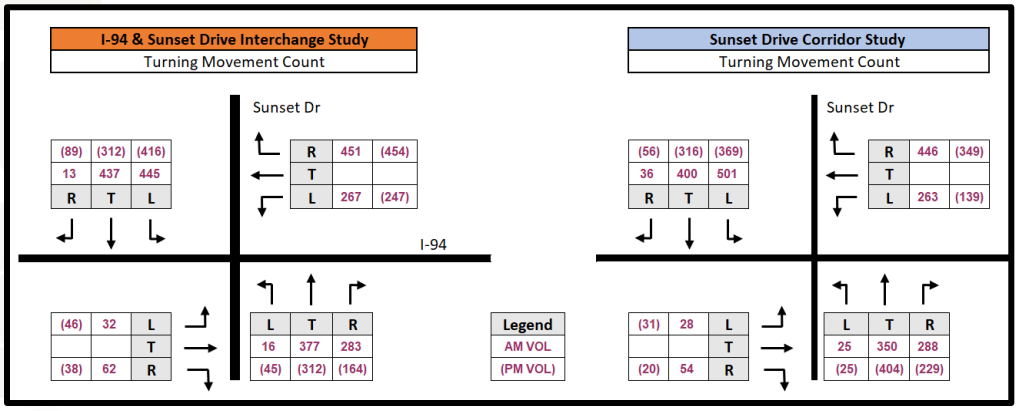


Figure 3: Turning Movement Count Comparison – Sunset Drive & I-94 Ramp Terminals

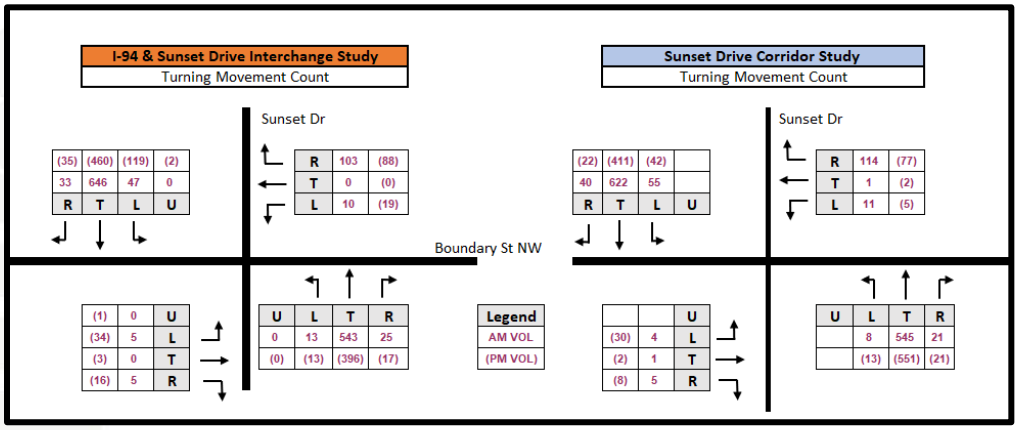


Figure 4: Turning Movement Count Comparison – Sunset Drive & Boundary Street NW

The newly collected counts were used to develop base year (2023) morning and evening peak hour volumes, which will be used for the Existing Conditions analysis in this study. Intersection peak hour volumes were rounded to the nearest five and conservatively balanced to zero. Imbalances were preserved at a few key locations to account for sources and sinks at unsignalized intersections and driveways.

Future Volume Development

To keep traffic forecasting assumptions consistent between the two studies, the future conditions volumes were developed based on the 2030 and 2045 ADT and TMC volumes established in the *Sunset Drive Corridor Study*. Below is an overview of the *Sunset Drive Corridor Study* volume development process:

1. Annual traffic volume growth rates were developed from the Bismarck Mandan Metropolitan Organization Travel Demand Model (TDM) using base year (2015) and future year (2030) ADT outputs. The Sunset Drive extension to 38th Street was included in the 2030 model.
2. Forecasted 2022 ADTs were developed using the 2015 ADTs from the TDM and the annual growth rates. These forecasted ADTs were compared to 2022 historical ADT counts and found to be approximately 20% too low.
3. To compensate, the 2030 ADTs from the TDM were increased/adjusted by 20%. The 2015 to 2030 growth rates were recalculated and used to develop 2030 peak hour turning movement volumes from the baseline turning movement counts.
4. 2045 peak hour turning movement volumes were then developed from the 2030 peak hour turning movement volumes using the growth trend of the TDM.

The adjusted ADTs used to grow the base year turning movement counts are shown below in Figure 5.

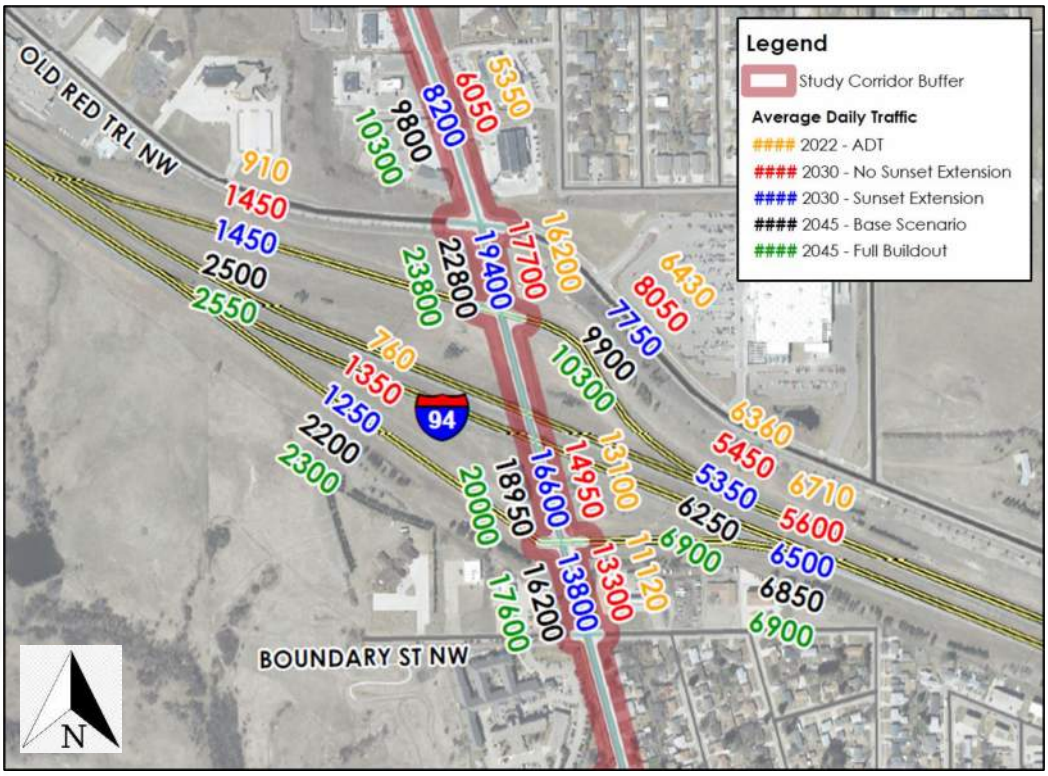


Figure 5: Sunset Drive Corridor Study - Adjusted ADTs

A comparison of the 2023 base year traffic volumes developed for this study and the 2030/2045 peak hour volumes from the *Sunset Drive Corridor Study* showed that several turning movement volumes are higher in 2023 than in 2030 and 2045. To address this discrepancy, these movements were adjusted following the methodology described in the subsequent sections.

2030 Volume Adjustments

All movements with higher 2023 volumes than the *Sunset Drive Corridor Study* 2030 volumes were highlighted yellow, as shown in Figure 6 to Figure 8. These movements were then adjusted by growing the 2023 volumes using growth rates based on the *Sunset Drive Corridor Study* adjusted ADTs (see Figure 5, and Figures 15-17). The 2030 volumes were then rounded to the nearest five and rebalanced. A comparison of the unadjusted *Sunset Drive Corridor Study* 2030 volumes and the adjusted 2030 volumes is presented below in **Error! Reference source not found.** to **Error! Reference source not found.**.

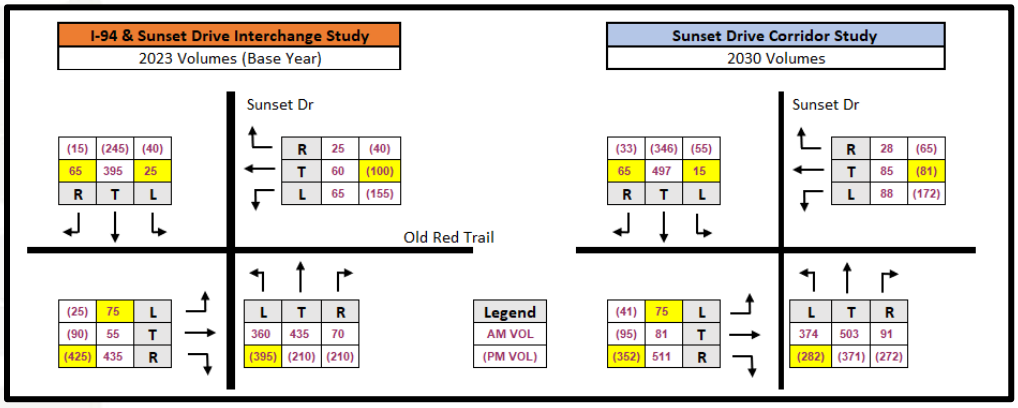


Figure 6: Sunset Drive & Old Red Trail – Turning Movements to be Adjusted

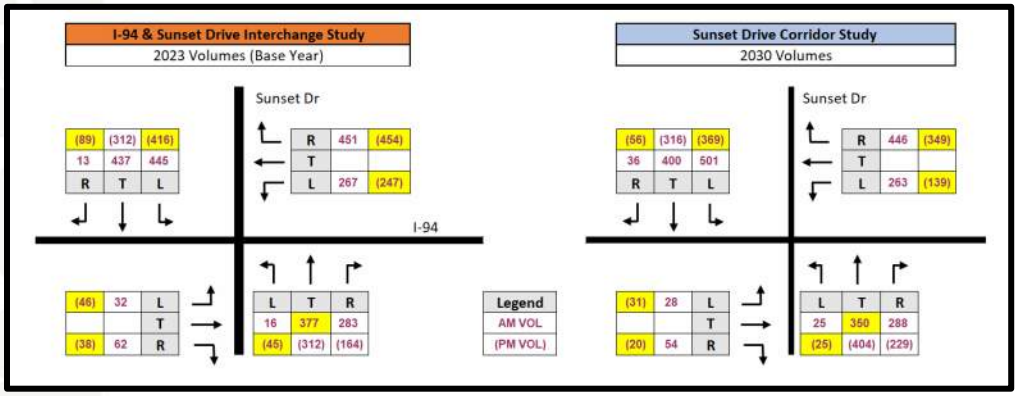


Figure 7: Sunset Drive & I-94 Ramp Terminals – Turning Movements to be Adjusted

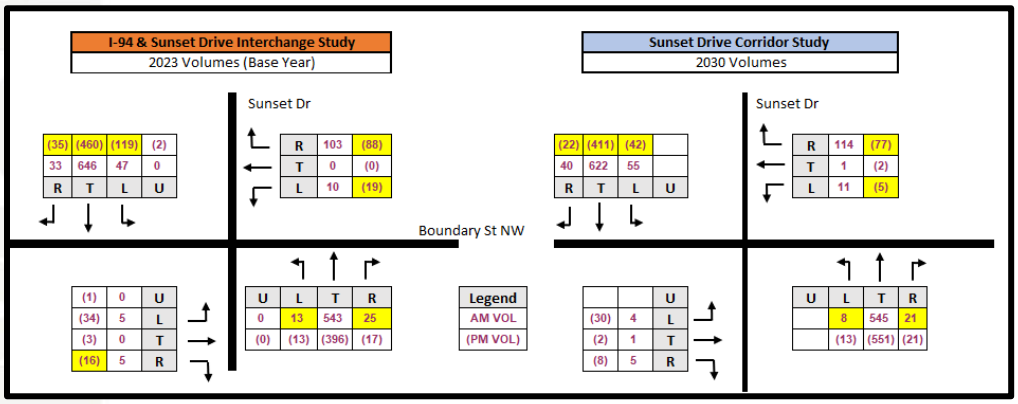


Figure 8: Sunset Drive & Boundary Street NW – Turning Movements to be Adjusted

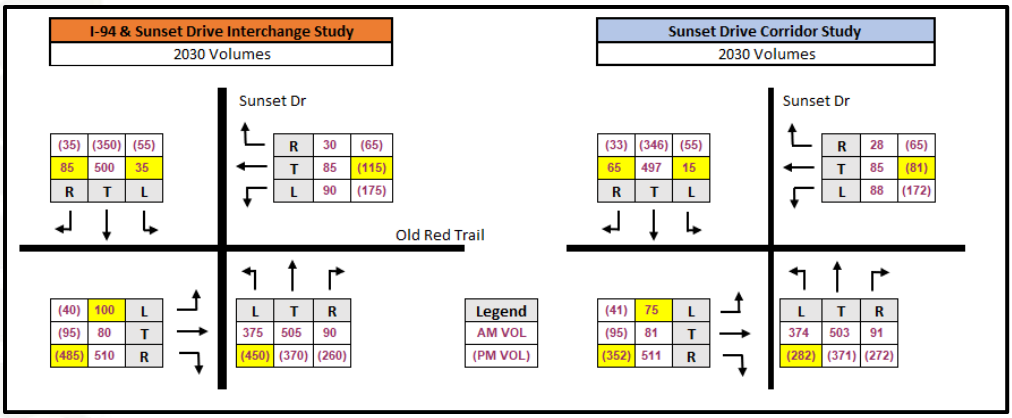


Figure 9: 2030 Adjusted vs Unadjusted Volumes - Sunset Drive & Old Red Trail

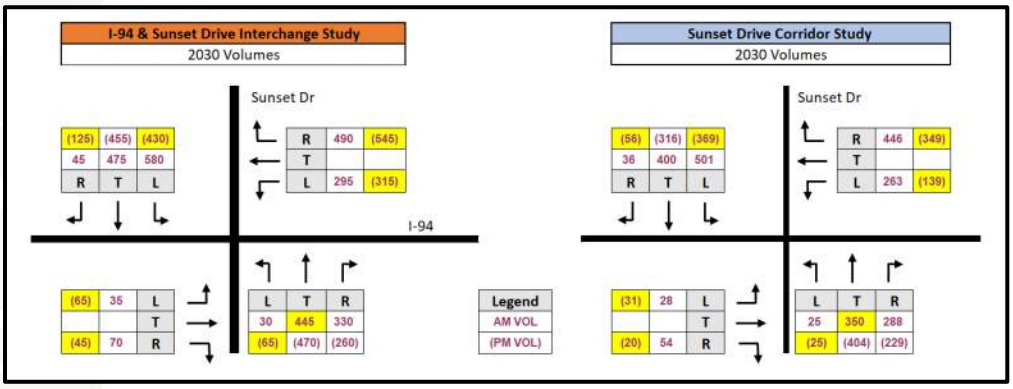


Figure 10: 2030 Adjusted vs Unadjusted Volumes - Sunset Drive & I-94 Ramp Terminals

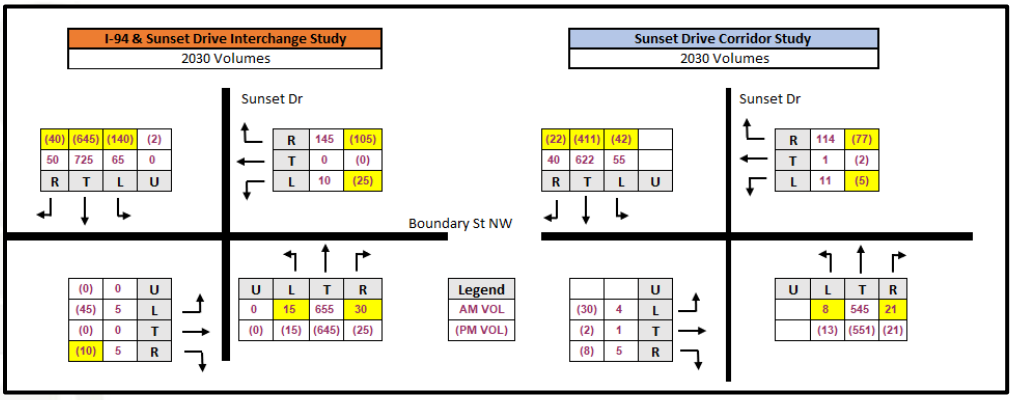


Figure 11: 2030 Adjusted vs Unadjusted Volumes - Sunset Drive & Boundary Street NW

2045 Volume Adjustments

All movements adjusted for 2030 were similarly adjusted for 2045 to ensure that all volume sets remain consistent with one another. The adjusted 2030 movements were grown to 2045 using growth rates based on the *Sunset Drive Corridor Study* adjusted ADTs (see Figure 5, and Figures 15-17). A comparison of the unadjusted *Sunset Drive Corridor Study* 2045 volumes and the adjusted 2045 volumes is presented below in Figure to Figure .

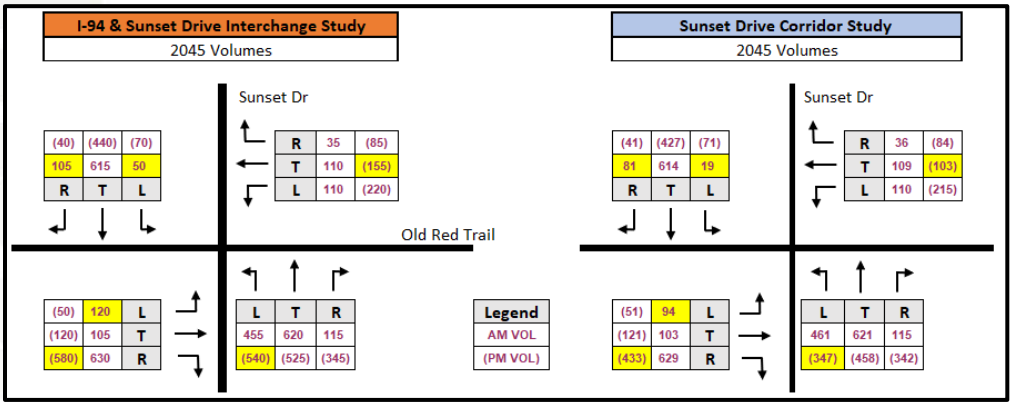


Figure 12: 2045 Adjusted vs. Unadjusted Volumes – Sunset Drive & Old Red Trail

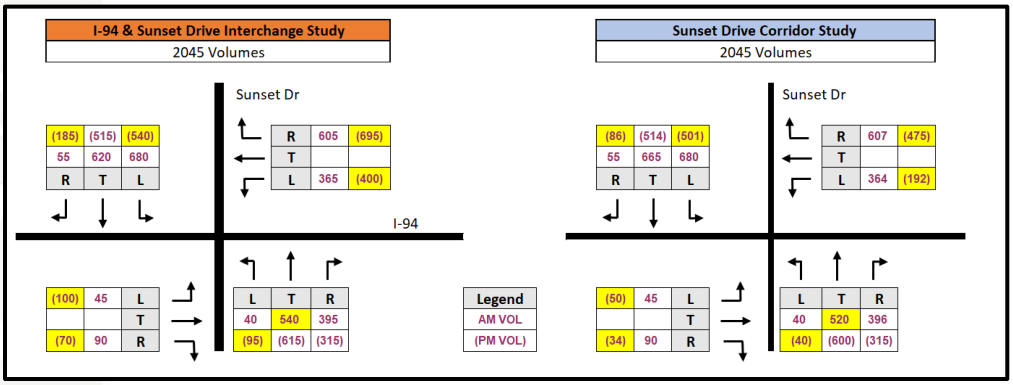


Figure 13: 2045 Adjusted vs. Unadjusted Volumes – Sunset Drive. & I-94 Ramp Terminals

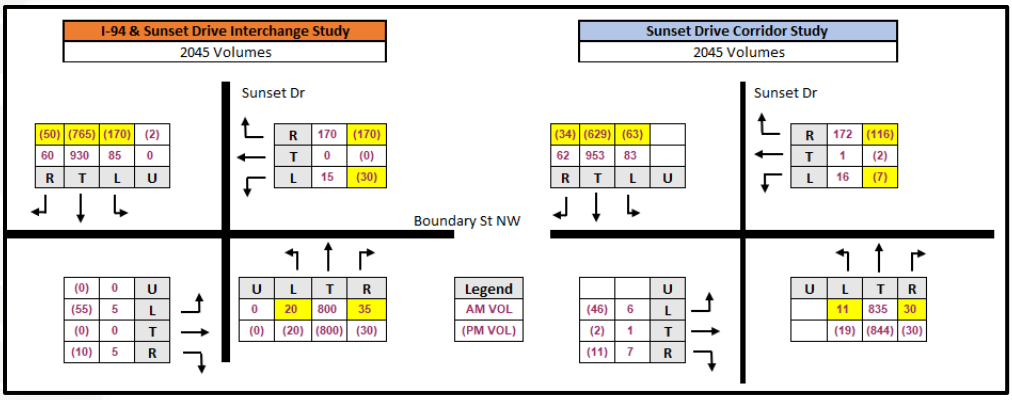


Figure 14: 2045 Adjusted vs. Unadjusted Volumes – Sunset Drive & Boundary Street NW

Growth Rates Used for the 2030 and 2045 Volume Adjustments

All movements that were identified within the study to be adjusted were grown using the growth rates depicted in Figures 15, 16, & 17. When applying at the movement level, the entering and exiting growth rates were averaged, and the resulting growth rate was used to grow the identified volumes. A simple growth calculation was utilized, and the deficient volumes were grown for 7 years in the 2030 growth scenario. The resulting 2030 volumes were then grown again using simple growth for another 15 years using the rates depicted in the 2045 scenario.

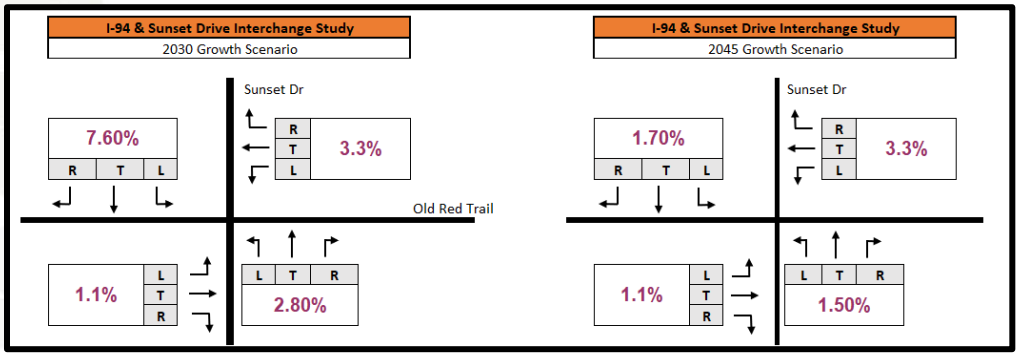


Figure 15: Growth Rates for Sunset Dr & Old Red Trail

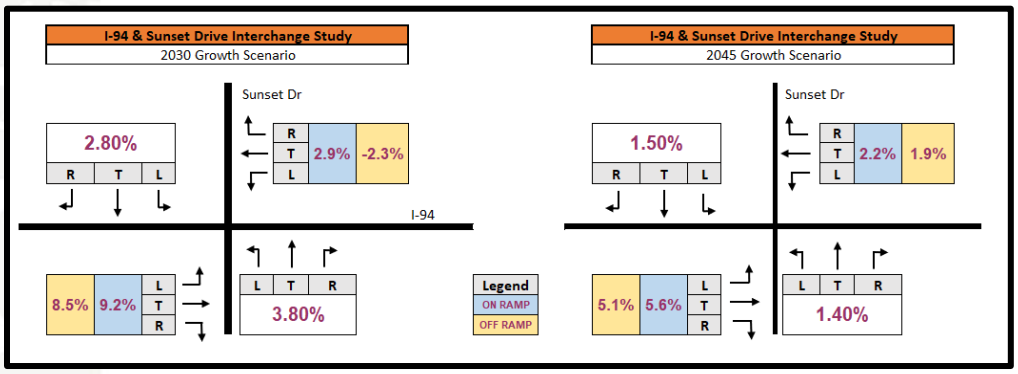


Figure 16: Growth Rates for Sunset Dr & I-94 Ramp Terminals

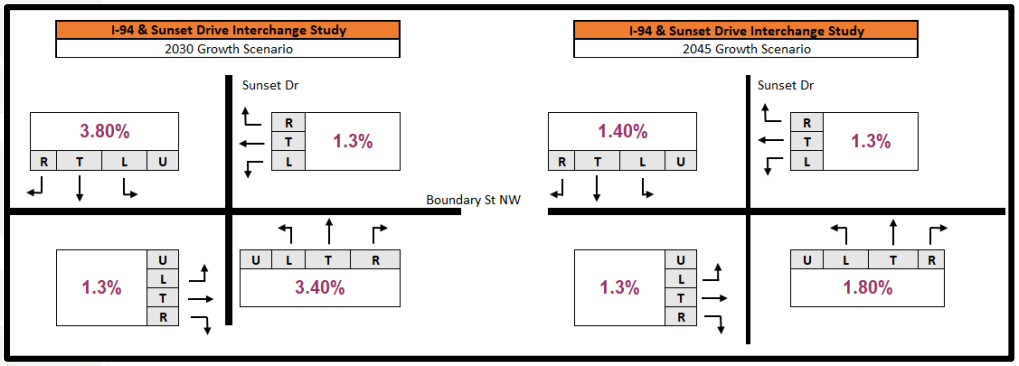


Figure 17: Growth Rates for Sunset Dr & Boundary Street NW

Additional Notes

Both this study and the *Sunset Drive Corridor Study* deviate from the traffic projections published by the Advanced Traffic Analysis Center (ATAC) at North Dakota State University (NDSU). The updated forecasts consider the following:

- Change in travel patterns due to the vacation of the current Mandan High school, and recent construction of the new Mandan High school. Motorists who previously wanted to access the high school in its previous location south of the proposed interchange, will instead travel to its new location northwest of the interchange. These updated travel patterns of local motorists have been incorporated in all future volume scenarios.
- The approved Master Plan for Mandan details development and growth along Sunset Drive as Sunset Drive will be extended past its current terminus of 31st Street to 38th Street. This development has been accounted for in all future volume scenarios.

Memorandum

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix **E:**
Signal Timing Sheets

Mandan Sunset Dr Coordination Timings (intended to be printed on 11x17 paper)

23 USC § 407 Documents
NDDOT Reserves All Objections

Day 1 Time of Day Plan		
Pattern	**Nickname**	**Start Time**
100	FREE	0:00
1	AM Peak	7:00
100	FREE	9:00
2	Off-Peak	11:30
3	PM Peak	14:30
2	Off-Peak	18:00
100	FREE	19:30

Day 1 = Weekdays (Monday → Friday)

Day 2 Time of Day Plan		
Patt.	**Nickname**	**Start Time**
100	FREE	0:00
2	Off-Peak	10:00
100	FREE	19:30

Day 2 = Weekends (Sat + Sun)

Notes: -Updated 10/5/2022.

Intersection Name = Sunset Dr & Old Red Trail												
Coord Plan Pattern	**Cycle Length**	**Coord Offset**	**Phase Splits (sec)**								**Lagging L.T. for which Phases**	**Notes**
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**		
			←	↓	↰	→	↳	↑	↱	←		
1	90	0	25	40	---	25	---	65	---	25	---	
2	70	0	20	25	---	25	---	45	---	25	---	
3	90	0	25	30	---	35	---	55	---	35	---	
Coordinated Phases:				X				X				

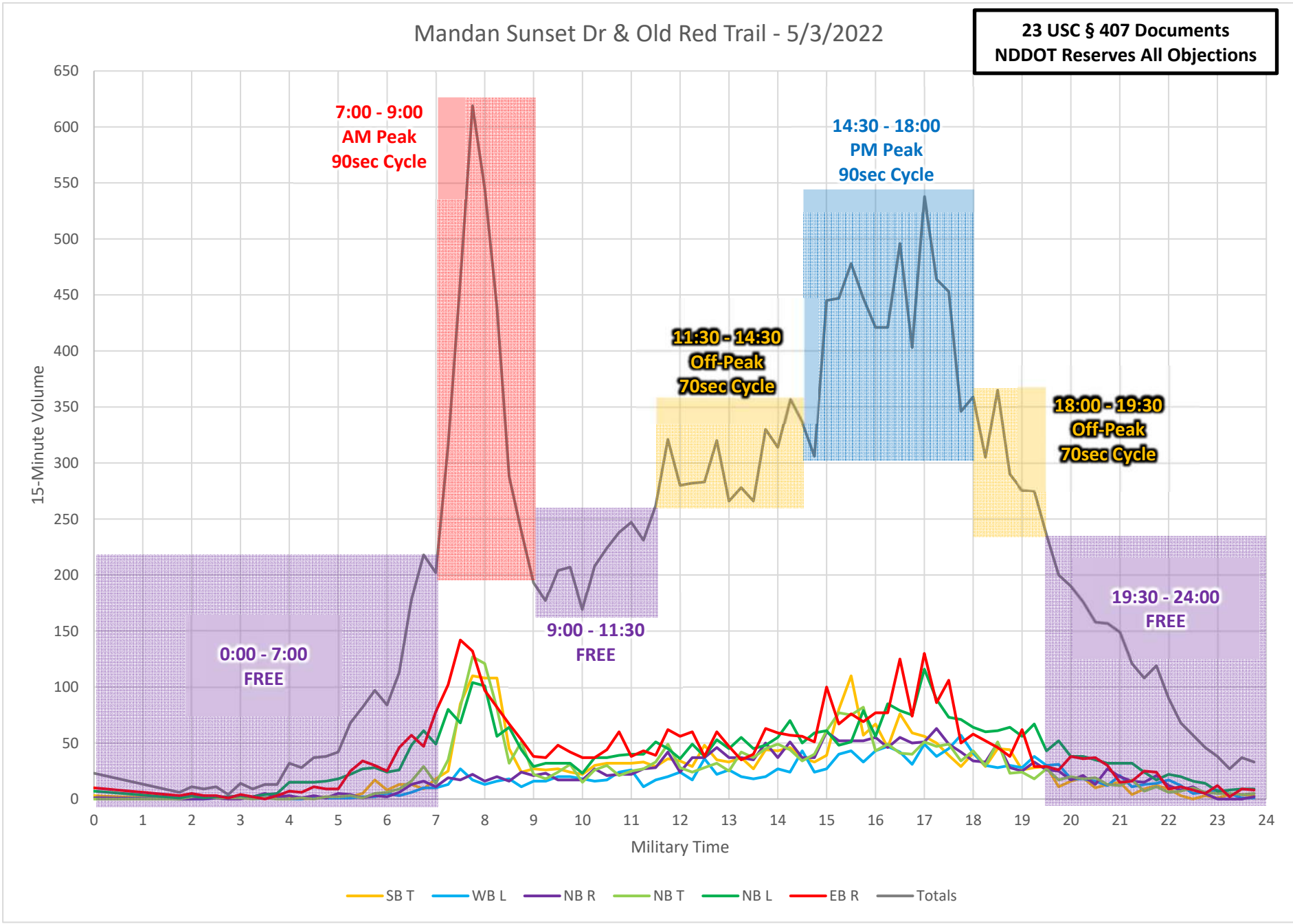
*Note, with the existing signals **NEVER** lag NB L, else SB to EB left turners will have a left turn trap (their ball will turn red while NB T still has a green).

Intersection Name = Sunset Dr & I-94 WB Ramps												
Coord Plan Pattern	**Cycle Length**	**Coord Offset**	**Phase Splits (sec)**								**Lagging L.T. for which Phases**	**Notes**
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**		
			←	↓	↰	→	↳	↑	↱	←		
1	90	20	0	55	---	~~35~~	---	55	---	35	---	
2	70	10	0	45	---	~~25~~	---	45	---	25	---	
3	90	10	0	55	---	~~35~~	---	55	---	35	---	
Coordinated Phases:				X				X				

*Note, Phase 1 is omitted in Action Plan 100 (FREE operations).

Intersection Name = Sunset Dr & I-94 EB Ramps												
Coord Plan Pattern	**Cycle Length**	**Coord Offset**	**Phase Splits (sec)**								**Lagging L.T. for which Phases**	**Notes**
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**		
			←	↓	↰	→	↳	↑	↱	←		
1	90	50	---	70	---	20	40	30	---	~~20~~	---	
2	70	45	---	50	---	20	25	25	---	~~20~~	---	
3	90	40	---	70	---	20	40	30	---	~~20~~	---	
Coordinated Phases:				X				X				

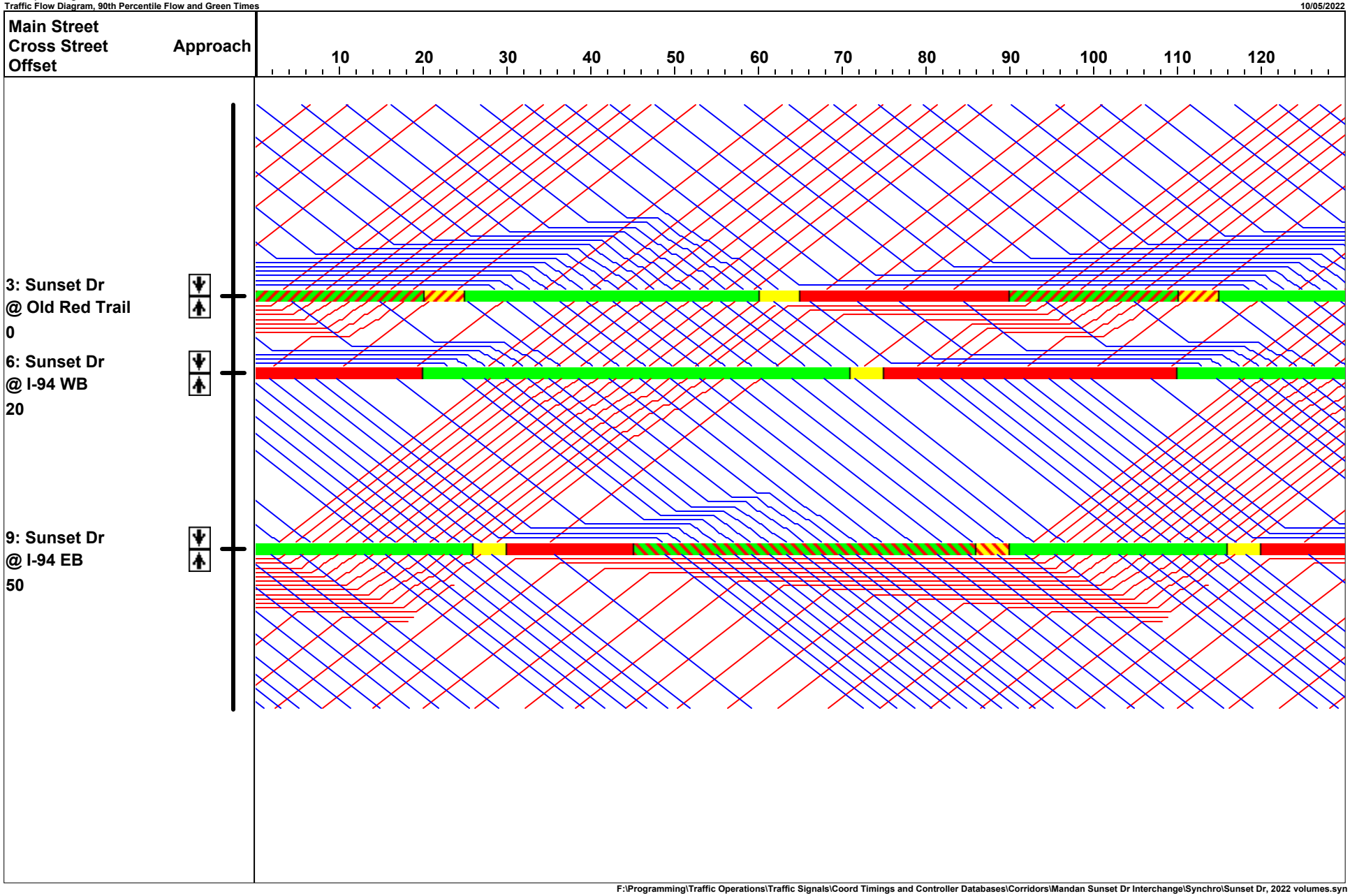
*Note, Phase 5 is omitted in Action Plan 100 (FREE operations).


Mandan Sunset Dr & Old Red Trail - 5/3/2022
23 USC § 407 Documents
NDDOT Reserves All Objections
7:00 - 9:00
AM Peak
90sec Cycle
14:30 - 18:00
PM Peak
90sec Cycle
11:30 - 14:30
Off-Peak
70sec Cycle
18:00 - 19:30
Off-Peak
70sec Cycle
0:00 - 7:00
FREE
9:00 - 11:30
FREE
19:30 - 24:00
FREE
15-Minute Volume
Military Time
SB T
WB L
NB R
NB T
NB L
EB R
Totals

Pattern 1 - AM Peak (90s Cycle)

Time-Space Diagram - Sunset Dr
Traffic Flow Diagram, 90th Percentile Flow and Green Times

10/05/2022

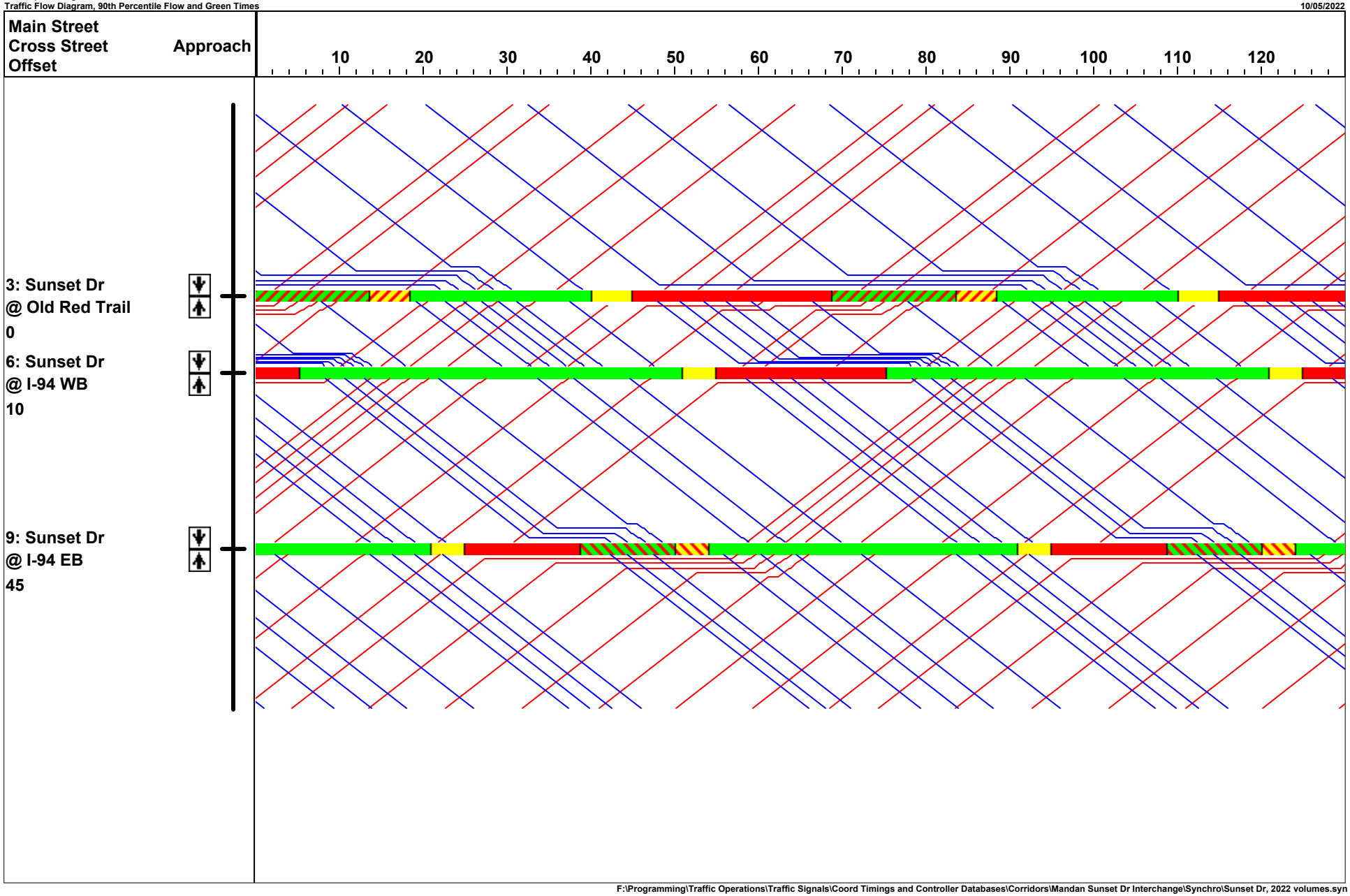


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Pattern 2 - Off Peak (70s Cycle)

Time-Space Diagram - Sunset Dr
Traffic Flow Diagram, 90th Percentile Flow and Green Times

10/05/2022

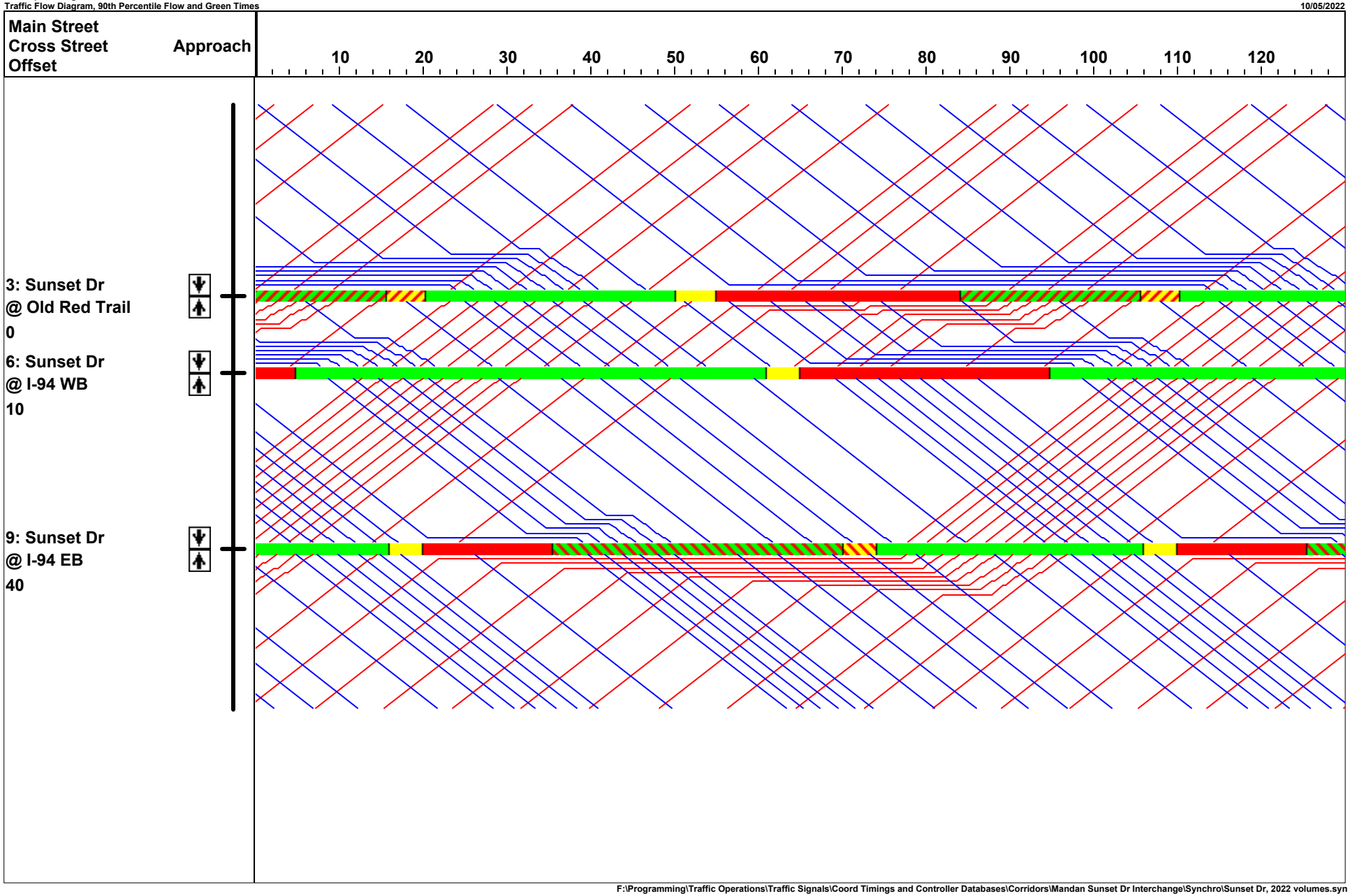


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Pattern 3 - PM Peak (90s Cycle)

Time-Space Diagram - Sunset Dr
Traffic Flow Diagram, 90th Percentile Flow and Green Times

10/05/2022



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Basic Timings for McCain ATC Controllers

City: Mandan | Intersection: Main St & Mandan Ave / Memorial Hwy

Controller Brand: McCain ATC eX | Video Detection Brand: Autoscope Solo Pro II

Phase	1	2	3	4	5	6	7	8
Movement		→	↳	↑		←	↰	↓
Phase Timings (2.1)								
Minimum Green		15	5	5		15	5	5
Passage/10		50	30	30		50	30	30
Max Green (Max 1)		45	30	30		45	30	30
Yellow/10		32	30	30		32	30	30
Red/10		30	27	19		30	27	19
Ped WALK						7		7
Ped Clearance						29		29
Time Before (TBR)		25				25		
Time To Reduce (TTR)		5				5		
Minimum Gap/10		30				30		
Recall		Min				Min		

23 USC § 407 Documents
NDDOT Reserves All Objections

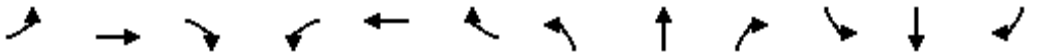
PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange

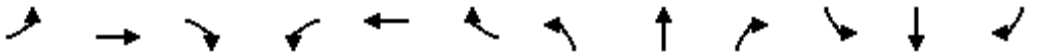


Appendix **F:**
HCM Reports



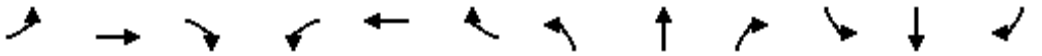
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	55	435	65	60	25	360	435	70	25	395	65
Future Volume (vph)	75	55	435	65	60	25	360	435	70	25	395	65
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		5.4	5.4		5.4		4.8	4.8		4.8	4.8	4.0
Lane Util. Factor		1.00	1.00		0.95		0.97	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.97		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1645	1430		3098		3101	1666		1646	1699	1417
Flt Permitted		0.72	1.00		0.74		0.95	1.00		0.43	1.00	1.00
Satd. Flow (perm)		1215	1430		2346		3101	1666		753	1699	1417
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)	90	66	524	78	72	30	434	524	84	30	476	78
RTOR Reduction (vph)	0	0	121	0	19	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	156	403	0	161	0	434	602	0	30	476	78
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Perm	NA	Free
Protected Phases		4	4 1		8		1	6			2	
Permitted Phases	4			8						2		Free
Actuated Green, G (s)		17.9	41.0		17.9		17.7	61.9		39.4	39.4	90.0
Effective Green, g (s)		17.9	41.0		17.9		17.7	61.9		39.4	39.4	90.0
Actuated g/C Ratio		0.20	0.46		0.20		0.20	0.69		0.44	0.44	1.00
Clearance Time (s)		5.4			5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		241	651		466		609	1145		329	743	1417
v/s Ratio Prot			c0.28				c0.14	0.36			c0.28	
v/s Ratio Perm		0.13			0.07					0.04		0.06
v/c Ratio		0.65	0.62		0.35		0.71	0.53		0.09	0.64	0.06
Uniform Delay, d1		33.1	18.6		31.0		33.8	6.9		14.8	19.8	0.0
Progression Factor		1.00	1.00		1.00		1.26	0.67		1.00	1.00	1.00
Incremental Delay, d2		5.9	1.8		0.4		3.6	1.6		0.5	4.2	0.1
Delay (s)		39.0	20.3		31.5		46.1	6.2		15.4	24.0	0.1
Level of Service		D	C		C		D	A		B	C	A
Approach Delay (s)		24.6			31.5			22.8			20.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



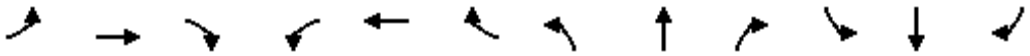
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	265	0	450	15	415	0	0	880	15
Future Volume (vph)	0	0	0	265	0	450	15	415	0	0	880	15
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			1.00	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3218	
Flt Permitted				0.95		1.00	0.21	1.00			1.00	
Satd. Flow (perm)				1646		2542	360	1683			3218	
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)	0	0	0	323	0	549	18	506	0	0	1073	18
RTOR Reduction (vph)	0	0	0	0	0	406	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	323	0	143	18	506	0	0	1090	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Prot		Perm	Perm	NA			NA	
Protected Phases				8				6			2	
Permitted Phases						8	6					
Actuated Green, G (s)				23.5		23.5	58.0	58.0			58.0	
Effective Green, g (s)				23.5		23.5	58.0	58.0			58.0	
Actuated g/C Ratio				0.26		0.26	0.64	0.64			0.64	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				429		663	232	1084			2073	
v/s Ratio Prot				c0.20				0.30			c0.34	
v/s Ratio Perm						0.06	0.05					
v/c Ratio				0.75		0.22	0.08	0.47			0.53	
Uniform Delay, d1				30.6		26.0	6.0	8.1			8.6	
Progression Factor				1.00		1.00	0.07	0.36			1.02	
Incremental Delay, d2				7.3		0.2	0.6	1.3			0.7	
Delay (s)				37.9		26.2	1.0	4.2			9.6	
Level of Service				D		C	A	A			A	
Approach Delay (s)		0.0			30.5			4.1			9.6	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	63.8%	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 (vph)	30	0	60	0	0	0	0	400	285	445	700	0
Future Volume (vph)	30	0	60	0	0	0	0	400	285	445	700	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
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	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1498		1488					1699	1473	1599	1716	
Flt Permitted	0.95		1.00					1.00	1.00	0.32	1.00	
Satd. Flow (perm)	1498		1488					1699	1473	539	1716	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	35	0	71	0	0	0	0	471	335	524	824	0
RTOR Reduction (vph)	0	0	66	0	0	0	0	0	116	0	0	0
Lane Group Flow (vph)	35	0	5	0	0	0	0	471	219	524	824	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm	pm+pt	NA	
Protected Phases	4							6		5	2	
Permitted Phases			4						6	2		
Actuated Green, G (s)	6.6		6.6					43.3	43.3	74.4	74.4	
Effective Green, g (s)	6.6		6.6					43.3	43.3	74.4	74.4	
Actuated g/C Ratio	0.07		0.07					0.48	0.48	0.83	0.83	
Clearance Time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	109		109					817	708	764	1418	
v/s Ratio Prot	c0.02							0.28		c0.21	0.48	
v/s Ratio Perm			0.00						0.15	c0.36		
v/c Ratio	0.32		0.05					0.58	0.31	0.69	0.58	
Uniform Delay, d1	39.6		38.8					16.8	14.2	6.1	2.6	
Progression Factor	1.00		1.00					1.00	1.00	0.47	0.90	
Incremental Delay, d2	1.7		0.2					3.0	1.1	2.2	1.5	
Delay (s)	41.3		39.0					19.7	15.4	5.1	3.8	
Level of Service	D		D					B	B	A	A	
Approach Delay (s)		39.7			0.0			17.9			4.3	
Approach LOS		D			A			B			A	

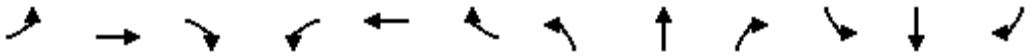
Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	10	0	110	15	570	25	50	670	40
Future Volume (Veh/h)	5	0	5	10	0	110	15	570	25	50	670	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	0	5	11	0	118	16	613	27	54	720	43
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											355	
pX, platoon unblocked	0.83	0.83	0.83	0.83	0.83		0.83					
vC, conflicting volume	1626	1522	742	1513	1530	626	763			640		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1651	1526	591	1516	1535	626	617			640		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	100	99	86	100	76	98			94		
cM capacity (veh/h)	47	91	423	76	90	484	804			944		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	10	129	656	817
Volume Left	5	11	16	54
Volume Right	5	118	27	43
cSH	84	332	804	944
Volume to Capacity	0.12	0.39	0.02	0.06
Queue Length 95th (ft)	10	45	2	5
Control Delay (s)	53.4	22.6	0.5	1.5
Lane LOS	F	C	A	A
Approach Delay (s)	53.4	22.6	0.5	1.5
Approach LOS	F	C		

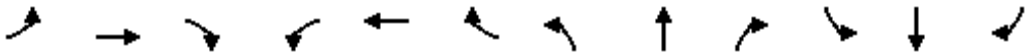
Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	82.2%	ICU Level of Service	E	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	10	80	20	0	10	5	55	20	35	150	0
Future Volume (Veh/h)	5	10	80	20	0	10	5	55	20	35	150	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	11	86	22	0	11	5	59	22	38	161	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	328	328	161	408	317	70	161			81		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	328	328	161	408	317	70	161			81		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	90	95	100	99	100			97		
cM capacity (veh/h)	605	574	884	481	582	993	1418			1517		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	102	33	86	199
Volume Left	5	22	5	38
Volume Right	86	11	22	0
cSH	818	581	1418	1517
Volume to Capacity	0.12	0.06	0.00	0.03
Queue Length 95th (ft)	11	5	0	2
Control Delay (s)	10.0	11.6	0.5	1.6
Lane LOS	B	B	A	A
Approach Delay (s)	10.0	11.6	0.5	1.6
Approach LOS	B	B		

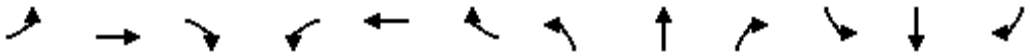
Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	32.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	35	0	30	35	50	0	0	240	10
Future Volume (Veh/h)	0	0	0	35	0	30	35	50	0	0	240	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	38	0	32	38	54	0	0	258	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	426	394	264	394	399	54	269			54		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	426	394	264	394	399	54	269			54		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	93	100	97	97			100		
cM capacity (veh/h)	510	527	775	553	523	1013	1295			1551		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	70	92	269
Volume Left	38	38	0
Volume Right	32	0	11
cSH	698	1295	1700
Volume to Capacity	0.10	0.03	0.16
Queue Length 95th (ft)	8	2	0
Control Delay (s)	10.7	3.4	0.0
Lane LOS	B	A	
Approach Delay (s)	10.7	3.4	0.0
Approach LOS	B		

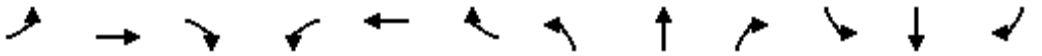
Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	33.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	15	0	0	0	0	80	60	170	105	0
Future Volume (Veh/h)	5	0	15	0	0	0	0	80	60	170	105	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	0	16	0	0	0	0	86	65	183	113	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	598	630	113	614	598	118	113			151		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	598	630	113	614	598	118	113			151		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	98	100	100	100	100			87		
cM capacity (veh/h)	374	348	940	358	363	933	1476			1430		

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	21	151	296
Volume Left	5	0	183
Volume Right	16	65	0
cSH	691	1700	1430
Volume to Capacity	0.03	0.09	0.13
Queue Length 95th (ft)	2	0	11
Control Delay (s)	10.4	0.0	5.3
Lane LOS	B		A
Approach Delay (s)	10.4	0.0	5.3
Approach LOS	B		

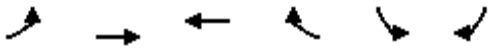
Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	38.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	15	0	5	5	35	0	10	5	35	5	5
Future Volume (Veh/h)	20	15	0	5	5	35	0	10	5	35	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	22	16	0	5	5	38	0	11	5	38	5	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	43			16			82	113	16	86	75	5
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	43			16			82	113	16	86	75	5
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	99	100	96	99	100
cM capacity (veh/h)	1566			1602			885	764	1063	875	801	1078

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1	SB 2
Volume Total	22	16	5	5	38	16	43	5
Volume Left	22	0	5	0	0	0	38	0
Volume Right	0	0	0	0	38	5	0	5
cSH	1566	1700	1602	1700	1700	838	866	1078
Volume to Capacity	0.01	0.01	0.00	0.00	0.02	0.02	0.05	0.00
Queue Length 95th (ft)	1	0	0	0	0	1	4	0
Control Delay (s)	7.3	0.0	7.3	0.0	0.0	9.4	9.4	8.4
Lane LOS	A		A			A	A	A
Approach Delay (s)	4.2		0.8			9.4	9.3	
Approach LOS						A	A	

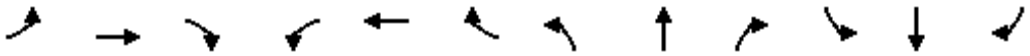
Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	23.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	385	260	5	10	5
Future Volume (Veh/h)	5	385	260	5	10	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	414	280	5	11	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	285				706	282
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	285				706	282
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	99
cM capacity (veh/h)	1277				400	756

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	419	285	16
Volume Left	5	0	11
Volume Right	0	5	5
cSH	1277	1700	469
Volume to Capacity	0.00	0.17	0.03
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.1	0.0	12.9
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.9
Approach LOS			B

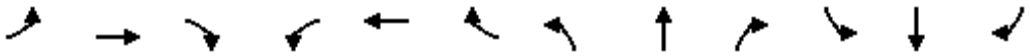
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	185	35	80	0	0	385	10
Future Volume (Veh/h)	0	0	0	5	0	185	35	80	0	0	385	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	5	0	199	38	86	0	0	414	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	780	582	420	582	587	86	425			86		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	780	582	420	582	587	86	425			86		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	80	97			100		
cM capacity (veh/h)	242	411	634	414	408	973	1134			1510		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	5	199	38	86	425
Volume Left	5	0	38	0	0
Volume Right	0	199	0	0	11
cSH	414	973	1134	1700	1700
Volume to Capacity	0.01	0.20	0.03	0.05	0.25
Queue Length 95th (ft)	1	19	3	0	0
Control Delay (s)	13.8	9.7	8.3	0.0	0.0
Lane LOS	B	A	A		
Approach Delay (s)	9.8		2.5		0.0
Approach LOS	A				

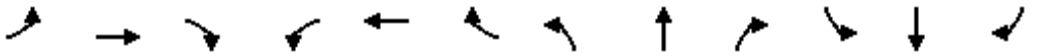
Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	41.3%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	75	0	0	0	0	105	55	305	85	0
Future Volume (Veh/h)	10	0	75	0	0	0	0	105	55	305	85	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	11	0	81	0	0	0	0	113	59	328	91	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	890	919	91	970	890	142	91			172		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	890	919	91	970	890	142	91			172		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	92	100	100	100	100			77		
cM capacity (veh/h)	216	208	967	175	216	905	1504			1405		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	11	81	172	328	91
Volume Left	11	0	0	328	0
Volume Right	0	81	59	0	0
cSH	216	967	1700	1405	1700
Volume to Capacity	0.05	0.08	0.10	0.23	0.05
Queue Length 95th (ft)	4	7	0	23	0
Control Delay (s)	22.5	9.1	0.0	8.3	0.0
Lane LOS	C	A		A	
Approach Delay (s)	10.7		0.0	6.5	
Approach LOS	B				

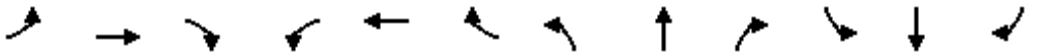
Intersection Summary				
Average Delay	5.4			
Intersection Capacity Utilization	41.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	555	100	40	430	190	100	85	25	220	155	15
Future Volume (vph)	25	555	100	40	430	190	100	85	25	220	155	15
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	0.97		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3260	1458	1630	3260	1458	1630	1657		1630	1693	
Flt Permitted	0.48	1.00	1.00	0.38	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	829	3260	1458	650	3260	1458	1630	1657		1630	1693	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	27	597	108	43	462	204	108	91	27	237	167	16
RTOR Reduction (vph)	0	0	71	0	0	134	0	11	0	0	3	0
Lane Group Flow (vph)	27	597	37	43	462	70	108	107	0	237	180	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2		2	6		6						
Actuated Green, G (s)	21.2	21.2	21.2	21.2	21.2	21.2	8.2	8.4		15.3	15.5	
Effective Green, g (s)	21.2	21.2	21.2	21.2	21.2	21.2	8.2	8.4		15.3	15.5	
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34	0.13	0.14		0.25	0.25	
Clearance Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	284	1120	500	223	1120	500	216	225		404	425	
v/s Ratio Prot		c0.18			0.14		0.07	0.06		c0.15	c0.11	
v/s Ratio Perm	0.03		0.03	0.07		0.05						
v/c Ratio	0.10	0.53	0.07	0.19	0.41	0.14	0.50	0.47		0.59	0.42	
Uniform Delay, d1	13.7	16.3	13.6	14.2	15.5	14.0	24.8	24.6		20.4	19.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.5	0.1	0.4	0.2	0.1	1.8	1.6		2.2	0.7	
Delay (s)	13.9	16.8	13.7	14.7	15.7	14.1	26.7	26.2		22.6	20.0	
Level of Service	B	B	B	B	B	B	C	C		C	C	
Approach Delay (s)		16.2			15.2			26.4			21.5	
Approach LOS		B			B			C			C	

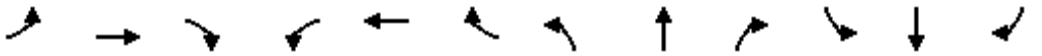
Intersection Summary			
HCM 2000 Control Delay	18.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	61.7	Sum of lost time (s)	16.8
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



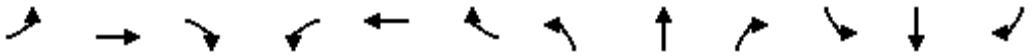
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	90	425	155	100	40	395	210	210	40	245	15
Future Volume (vph)	25	90	425	155	100	40	395	210	210	40	245	15
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		5.4	5.4		5.4		4.8	4.8		4.8	4.8	4.0
Lane Util. Factor		1.00	1.00		0.95		0.97	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.98		1.00	0.93		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.97		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1668	1430		3096		3101	1579		1646	1699	1417
Flt Permitted		0.86	1.00		0.75		0.95	1.00		0.49	1.00	1.00
Satd. Flow (perm)		1452	1430		2395		3101	1579		849	1699	1417
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	28	102	483	176	114	45	449	239	239	45	278	17
RTOR Reduction (vph)	0	0	158	0	16	0	0	29	0	0	0	0
Lane Group Flow (vph)	0	130	325	0	319	0	449	450	0	45	278	17
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Perm	NA	Free
Protected Phases		4	4 1		8		1	6			2	
Permitted Phases	4			8						2		Free
Actuated Green, G (s)		18.3	42.6		18.3		18.9	61.5		37.8	37.8	90.0
Effective Green, g (s)		18.3	42.6		18.3		18.9	61.5		37.8	37.8	90.0
Actuated g/C Ratio		0.20	0.47		0.20		0.21	0.68		0.42	0.42	1.00
Clearance Time (s)		5.4			5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		295	676		486		651	1078		356	713	1417
v/s Ratio Prot			0.23				c0.14	c0.28			0.16	
v/s Ratio Perm		0.09			c0.13					0.05		0.01
v/c Ratio		0.44	0.48		0.66		0.69	0.42		0.13	0.39	0.01
Uniform Delay, d1		31.4	16.2		33.0		32.8	6.3		16.0	18.1	0.0
Progression Factor		1.00	1.00		1.00		1.28	0.69		1.00	1.00	1.00
Incremental Delay, d2		1.1	0.5		3.2		2.9	1.1		0.7	1.6	0.0
Delay (s)		32.4	16.7		36.2		44.9	5.5		16.7	19.7	0.0
Level of Service		C	B		D		D	A		B	B	A
Approach Delay (s)		20.0			36.2			24.6			18.3	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



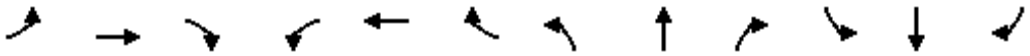
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	255	0	455	45	360	0	0	735	90
Future Volume (vph)	0	0	0	255	0	455	45	360	0	0	735	90
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.98	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3159	
Flt Permitted				0.95		1.00	0.27	1.00			1.00	
Satd. Flow (perm)				1646		2542	461	1683			3159	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	287	0	511	51	404	0	0	826	101
RTOR Reduction (vph)	0	0	0	0	0	388	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	287	0	123	51	404	0	0	919	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Prot		Perm	Perm	NA			NA	
Protected Phases				8				6			2	
Permitted Phases						8	6					
Actuated Green, G (s)				21.6		21.6	59.9	59.9			59.9	
Effective Green, g (s)				21.6		21.6	59.9	59.9			59.9	
Actuated g/C Ratio				0.24		0.24	0.67	0.67			0.67	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				395		610	306	1120			2102	
v/s Ratio Prot				c0.17				0.24			c0.29	
v/s Ratio Perm						0.05	0.11					
v/c Ratio				0.73		0.20	0.17	0.36			0.44	
Uniform Delay, d1				31.5		27.3	5.7	6.6			7.1	
Progression Factor				1.00		1.00	0.26	0.44			1.44	
Incremental Delay, d2				6.5		0.2	1.1	0.9			0.6	
Delay (s)				38.0		27.5	2.6	3.8			10.8	
Level of Service				D		C	A	A			B	
Approach Delay (s)		0.0			31.3			3.6			10.8	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	59.7%	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 (vph)	45	0	45	0	0	0	0	360	165	415	575	0
Future Volume (vph)	45	0	45	0	0	0	0	360	165	415	575	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
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	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1498		1488					1699	1473	1599	1716	
Flt Permitted	0.95		1.00					1.00	1.00	0.42	1.00	
Satd. Flow (perm)	1498		1488					1699	1473	707	1716	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	0	50	0	0	0	0	400	183	461	639	0
RTOR Reduction (vph)	0	0	46	0	0	0	0	0	62	0	0	0
Lane Group Flow (vph)	50	0	4	0	0	0	0	400	121	461	639	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm	pm+pt	NA	
Protected Phases	4							6		5	2	
Permitted Phases			4						6	2		
Actuated Green, G (s)	7.4		7.4					51.1	51.1	73.6	73.6	
Effective Green, g (s)	7.4		7.4					51.1	51.1	73.6	73.6	
Actuated g/C Ratio	0.08		0.08					0.57	0.57	0.82	0.82	
Clearance Time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	123		122					964	836	761	1403	
v/s Ratio Prot	c0.03							0.24		c0.12	0.37	
v/s Ratio Perm			0.00						0.08	c0.37		
v/c Ratio	0.41		0.03					0.41	0.14	0.61	0.46	
Uniform Delay, d1	39.2		38.0					11.0	9.2	3.5	2.4	
Progression Factor	1.00		1.00					1.00	1.00	1.24	0.98	
Incremental Delay, d2	2.2		0.1					1.3	0.4	1.3	1.0	
Delay (s)	41.4		38.1					12.3	9.5	5.6	3.3	
Level of Service	D		D					B	A	A	A	
Approach Delay (s)		39.8			0.0			11.4			4.3	
Approach LOS		D			A			B			A	

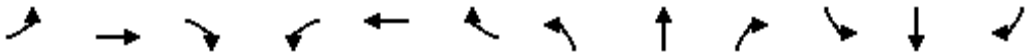
Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	5	15	20	0	90	15	400	15	125	460	35
Future Volume (Veh/h)	35	5	15	20	0	90	15	400	15	125	460	35
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	38	5	16	22	0	97	16	430	16	134	495	38
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											355	
pX, platoon unblocked	0.89	0.89	0.89	0.89	0.89		0.89					
vC, conflicting volume	1349	1260	514	1270	1271	438	533			446		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1331	1231	394	1243	1243	438	416			446		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	57	96	97	81	100	84	98			88		
cM capacity (veh/h)	89	137	584	115	135	619	1020			1114		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	59	119	462	667
Volume Left	38	22	16	134
Volume Right	16	97	16	38
cSH	120	341	1020	1114
Volume to Capacity	0.49	0.35	0.02	0.12
Queue Length 95th (ft)	56	38	1	10
Control Delay (s)	61.1	21.1	0.5	3.0
Lane LOS	F	C	A	A
Approach Delay (s)	61.1	21.1	0.5	3.0
Approach LOS	F	C		

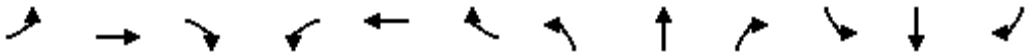
Intersection Summary				
Average Delay	6.4			
Intersection Capacity Utilization	80.2%	ICU Level of Service	D	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	5	25	10	5	10	50	130	20	10	130	5
Future Volume (Veh/h)	0	5	25	10	5	10	50	130	20	10	130	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	5	27	11	5	11	54	140	22	11	140	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	437	434	142	453	426	151	145			162		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	437	434	142	453	426	151	145			162		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	97	98	99	99	96			99		
cM capacity (veh/h)	501	492	905	481	497	895	1437			1417		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	32	27	216	156
Volume Left	0	11	54	11
Volume Right	27	11	22	5
cSH	800	597	1437	1417
Volume to Capacity	0.04	0.05	0.04	0.01
Queue Length 95th (ft)	3	4	3	1
Control Delay (s)	9.7	11.3	2.1	0.6
Lane LOS	A	B	A	A
Approach Delay (s)	9.7	11.3	2.1	0.6
Approach LOS	A	B		

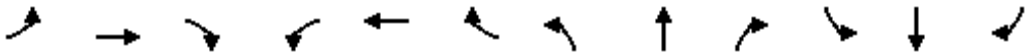
Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	90	0	140	45	60	0	0	160	5
Future Volume (Veh/h)	0	0	0	90	0	140	45	60	0	0	160	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	97	0	151	48	65	0	0	172	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	486	336	174	336	338	65	177			65		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	486	336	174	336	338	65	177			65		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	84	100	85	97			100		
cM capacity (veh/h)	406	565	869	602	563	999	1399			1537		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	248	113	177
Volume Left	97	48	0
Volume Right	151	0	5
cSH	794	1399	1700
Volume to Capacity	0.31	0.03	0.10
Queue Length 95th (ft)	33	3	0
Control Delay (s)	11.6	3.4	0.0
Lane LOS	B	A	
Approach Delay (s)	11.6	3.4	0.0
Approach LOS	B		

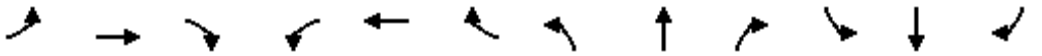
Intersection Summary				
Average Delay	6.1			
Intersection Capacity Utilization	40.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	30	0	0	0	0	90	40	95	155	0
Future Volume (Veh/h)	15	0	30	0	0	0	0	90	40	95	155	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	16	0	32	0	0	0	0	97	43	102	167	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	490	511	167	522	490	118	167			140		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	490	511	167	522	490	118	167			140		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	96	100	100	100	100			93		
cM capacity (veh/h)	463	433	877	424	445	933	1411			1443		

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	48	140	269
Volume Left	16	0	102
Volume Right	32	43	0
cSH	675	1700	1443
Volume to Capacity	0.07	0.08	0.07
Queue Length 95th (ft)	6	0	6
Control Delay (s)	10.7	0.0	3.3
Lane LOS	B		A
Approach Delay (s)	10.7	0.0	3.3
Approach LOS	B		

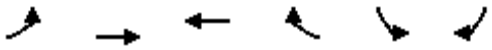
Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	35.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	15	0	5	30	45	0	5	5	50	10	20
Future Volume (Veh/h)	5	15	0	5	30	45	0	5	5	50	10	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	16	0	5	32	48	0	5	5	54	11	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	80			16			96	116	16	76	68	32
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	80			16			96	116	16	76	68	32
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	100	94	99	98
cM capacity (veh/h)	1518			1602			855	769	1063	901	817	1042

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1	SB 2
Volume Total	5	16	5	32	48	10	65	22
Volume Left	5	0	5	0	0	0	54	0
Volume Right	0	0	0	0	48	5	0	22
cSH	1518	1700	1602	1700	1700	893	886	1042
Volume to Capacity	0.00	0.01	0.00	0.02	0.03	0.01	0.07	0.02
Queue Length 95th (ft)	0	0	0	0	0	1	6	2
Control Delay (s)	7.4	0.0	7.3	0.0	0.0	9.1	9.4	8.5
Lane LOS	A		A			A	A	A
Approach Delay (s)	1.8		0.4			9.1	9.2	
Approach LOS						A	A	

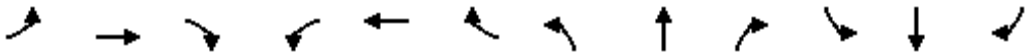
Intersection Summary				
Average Delay	4.7			
Intersection Capacity Utilization	21.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	440	475	10	10	5
Future Volume (Veh/h)	5	440	475	10	10	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	473	511	11	11	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	522				1000	516
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	522				1000	516
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				96	99
cM capacity (veh/h)	1044				268	559

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	478	522	16
Volume Left	5	0	11
Volume Right	0	11	5
cSH	1044	1700	320
Volume to Capacity	0.00	0.31	0.05
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.1	0.0	16.8
Lane LOS	A		C
Approach Delay (s)	0.1	0.0	16.8
Approach LOS			C

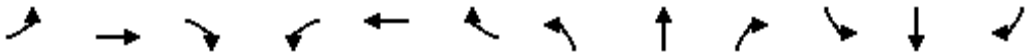
Intersection Summary			
Average Delay		0.3	
Intersection Capacity Utilization		39.5%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	315	90	170	0	0	435	15
Future Volume (Veh/h)	0	0	0	5	0	315	90	170	0	0	435	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	5	0	339	97	183	0	0	468	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1192	853	476	853	861	183	484			183		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1192	853	476	853	861	183	484			183		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	98	100	61	91			100		
cM capacity (veh/h)	92	270	589	260	267	859	1079			1392		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	5	339	97	183	484
Volume Left	5	0	97	0	0
Volume Right	0	339	0	0	16
cSH	260	859	1079	1700	1700
Volume to Capacity	0.02	0.39	0.09	0.11	0.28
Queue Length 95th (ft)	1	47	7	0	0
Control Delay (s)	19.1	11.9	8.7	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	12.0		3.0		0.0
Approach LOS	B				

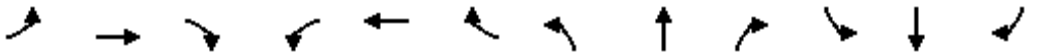
Intersection Summary				
Average Delay	4.5			
Intersection Capacity Utilization	48.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	60	0	0	0	0	240	50	295	145	0
Future Volume (Veh/h)	20	0	60	0	0	0	0	240	50	295	145	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	22	0	65	0	0	0	0	258	54	317	156	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1075	1102	156	1140	1075	285	156			312		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1075	1102	156	1140	1075	285	156			312		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	100	93	100	100	100	100			75		
cM capacity (veh/h)	159	158	890	133	164	754	1424			1248		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	22	65	312	317	156
Volume Left	22	0	0	317	0
Volume Right	0	65	54	0	0
cSH	159	890	1700	1248	1700
Volume to Capacity	0.14	0.07	0.18	0.25	0.09
Queue Length 95th (ft)	12	6	0	25	0
Control Delay (s)	31.3	9.4	0.0	8.9	0.0
Lane LOS	D	A		A	
Approach Delay (s)	14.9		0.0	5.9	
Approach LOS	B				

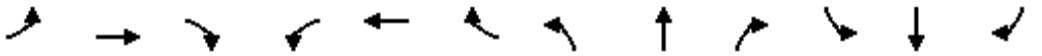
Intersection Summary				
Average Delay	4.7			
Intersection Capacity Utilization	48.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	505	155	30	775	290	210	205	65	245	135	35
Future Volume (vph)	15	505	155	30	775	290	210	205	65	245	135	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	0.96		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3260	1458	1630	3260	1458	1630	1654		1630	1662	
Flt Permitted	0.21	1.00	1.00	0.39	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	368	3260	1458	668	3260	1458	1630	1654		1630	1662	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	16	543	167	32	833	312	226	220	70	263	145	38
RTOR Reduction (vph)	0	0	106	0	0	198	0	11	0	0	9	0
Lane Group Flow (vph)	16	543	61	32	833	114	226	279	0	263	174	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2		2	6		6						
Actuated Green, G (s)	31.8	31.8	31.8	31.8	31.8	31.8	17.6	19.6		19.0	21.0	
Effective Green, g (s)	31.8	31.8	31.8	31.8	31.8	31.8	17.6	19.6		19.0	21.0	
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36	0.20	0.22		0.22	0.24	
Clearance Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	134	1188	531	243	1188	531	328	371		355	400	
v/s Ratio Prot		0.17			c0.26		0.14	c0.17		c0.16	0.10	
v/s Ratio Perm	0.04		0.04	0.05		0.08						
v/c Ratio	0.12	0.46	0.11	0.13	0.70	0.21	0.69	0.75		0.74	0.43	
Uniform Delay, d1	18.4	21.1	18.4	18.5	23.6	19.1	32.3	31.5		31.8	28.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.3	0.1	0.2	1.9	0.2	5.9	8.4		8.1	0.8	
Delay (s)	18.8	21.4	18.5	18.7	25.5	19.3	38.2	39.9		39.9	28.8	
Level of Service	B	C	B	B	C	B	D	D		D	C	
Approach Delay (s)		20.7			23.7			39.2			35.3	
Approach LOS		C			C			D			D	

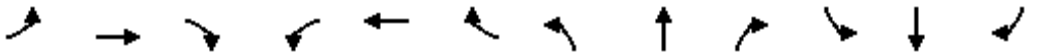
Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	87.2	Sum of lost time (s)	16.8
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



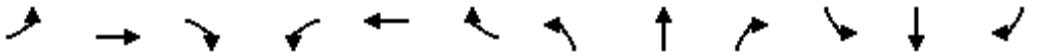
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	80	510	90	85	30	375	505	90	35	500	85
Future Volume (vph)	100	80	510	90	85	30	375	505	90	35	500	85
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		5.4	5.4		5.4		4.8	4.8		4.8	4.8	4.0
Lane Util. Factor		1.00	1.00		0.95		0.97	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1646	1430		3106		3101	1663		1646	1699	1417
Flt Permitted		0.69	1.00		0.67		0.95	1.00		0.39	1.00	1.00
Satd. Flow (perm)		1166	1430		2140		3101	1663		681	1699	1417
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)	120	96	614	108	102	36	452	608	108	42	602	102
RTOR Reduction (vph)	0	0	75	0	16	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	216	539	0	230	0	452	709	0	42	602	102
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Perm	NA	Free
Protected Phases		4	4 1		8		1	6			2	
Permitted Phases	4			8						2		Free
Actuated Green, G (s)		19.6	43.2		19.6		18.2	60.2		37.2	37.2	90.0
Effective Green, g (s)		19.6	43.2		19.6		18.2	60.2		37.2	37.2	90.0
Actuated g/C Ratio		0.22	0.48		0.22		0.20	0.67		0.41	0.41	1.00
Clearance Time (s)		5.4			5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		253	686		466		627	1112		281	702	1417
v/s Ratio Prot			c0.38				0.15	0.43			c0.35	
v/s Ratio Perm		0.19			0.11					0.06		0.07
v/c Ratio		0.85	0.79		0.49		0.72	0.64		0.15	0.86	0.07
Uniform Delay, d1		33.8	19.5		30.9		33.5	8.6		16.5	24.0	0.0
Progression Factor		1.00	1.00		1.00		1.16	0.79		1.00	1.00	1.00
Incremental Delay, d2		23.3	5.9		0.8		3.5	2.4		1.1	12.9	0.1
Delay (s)		57.1	25.5		31.7		42.6	9.2		17.6	36.8	0.1
Level of Service		E	C		C		D	A		B	D	A
Approach Delay (s)		33.7			31.7			22.1			30.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



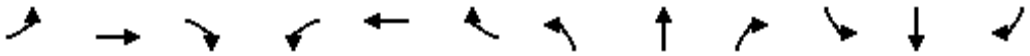
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	295	0	490	30	480	0	0	1055	45
Future Volume (vph)	0	0	0	295	0	490	30	480	0	0	1055	45
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.99	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3202	
Flt Permitted				0.95		1.00	0.14	1.00			1.00	
Satd. Flow (perm)				1646		2542	238	1683			3202	
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)	0	0	0	360	0	598	37	585	0	0	1287	55
RTOR Reduction (vph)	0	0	0	0	0	362	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	360	0	236	37	585	0	0	1339	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Prot		Perm	Perm	NA			NA	
Protected Phases				8				6			2	
Permitted Phases						8	6					
Actuated Green, G (s)				24.9		24.9	56.6	56.6			56.6	
Effective Green, g (s)				24.9		24.9	56.6	56.6			56.6	
Actuated g/C Ratio				0.28		0.28	0.63	0.63			0.63	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				455		703	149	1058			2013	
v/s Ratio Prot				c0.22				0.35			c0.42	
v/s Ratio Perm						0.09	0.16					
v/c Ratio				0.79		0.34	0.25	0.55			0.67	
Uniform Delay, d1				30.1		26.0	7.3	9.5			10.7	
Progression Factor				1.00		1.00	0.12	0.25			0.99	
Incremental Delay, d2				9.1		0.3	2.0	1.3			1.0	
Delay (s)				39.2		26.2	2.9	3.7			11.6	
Level of Service				D		C	A	A			B	
Approach Delay (s)		0.0			31.1			3.6			11.6	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
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)	35	0	70	0	0	0	0	475	330	580	770	0
Future Volume (vph)	35	0	70	0	0	0	0	475	330	580	770	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
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	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1498		1488					1699	1473	1599	1716	
Flt Permitted	0.95		1.00					1.00	1.00	0.13	1.00	
Satd. Flow (perm)	1498		1488					1699	1473	215	1716	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	41	0	82	0	0	0	0	559	388	682	906	0
RTOR Reduction (vph)	0	0	76	0	0	0	0	0	141	0	0	0
Lane Group Flow (vph)	41	0	6	0	0	0	0	559	247	682	906	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm	pm+pt	NA	
Protected Phases	4							6		5	2	
Permitted Phases	4		4						6	2		
Actuated Green, G (s)	6.9		6.9					32.2	32.2	74.1	74.1	
Effective Green, g (s)	6.9		6.9					32.2	32.2	74.1	74.1	
Actuated g/C Ratio	0.08		0.08					0.36	0.36	0.82	0.82	
Clearance Time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	114		114					607	527	759	1412	
v/s Ratio Prot	c0.03							0.33		c0.38	0.53	
v/s Ratio Perm			0.00						0.17	c0.36		
v/c Ratio	0.36		0.06					0.92	0.47	0.90	0.64	
Uniform Delay, d1	39.5		38.5					27.7	22.3	19.3	3.0	
Progression Factor	1.00		1.00					1.00	1.00	0.29	0.87	
Incremental Delay, d2	1.9		0.2					21.5	3.0	10.4	1.7	
Delay (s)	41.4		38.7					49.2	25.3	16.1	4.3	
Level of Service	D		D					D	C	B	A	
Approach Delay (s)		39.6			0.0			39.4			9.4	
Approach LOS		D			A			D			A	

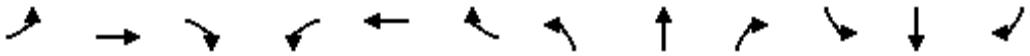
Intersection Summary			
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	10	0	145	15	655	30	65	725	50
Future Volume (Veh/h)	5	0	5	10	0	145	15	655	30	65	725	50
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	0	5	11	0	156	16	704	32	70	780	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											355	
pX, platoon unblocked	0.79	0.79	0.79	0.79	0.79		0.79					
vC, conflicting volume	1855	1715	807	1704	1726	720	834			736		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1951	1773	619	1759	1787	720	653			736		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	100	99	77	100	64	98			92		
cM capacity (veh/h)	22	59	384	47	57	428	734			870		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	10	167	752	904
Volume Left	5	11	16	70
Volume Right	5	156	32	54
cSH	42	280	734	870
Volume to Capacity	0.24	0.60	0.02	0.08
Queue Length 95th (ft)	20	89	2	7
Control Delay (s)	115.3	35.3	0.6	2.1
Lane LOS	F	E	A	A
Approach Delay (s)	115.3	35.3	0.6	2.1
Approach LOS	F	E		

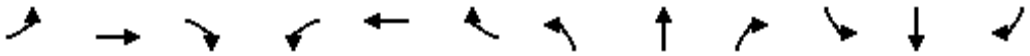
Intersection Summary				
Average Delay	5.1			
Intersection Capacity Utilization	98.6%	ICU Level of Service	F	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	10	95	25	0	10	5	70	25	50	185	0
Future Volume (Veh/h)	5	10	95	25	0	10	5	70	25	50	185	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	11	102	27	0	11	5	75	27	54	199	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	416	419	199	513	406	88	199			102		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	416	419	199	513	406	88	199			102		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	88	93	100	99	100			96		
cM capacity (veh/h)	524	504	842	395	513	970	1373			1490		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	118	38	107	253
Volume Left	5	27	5	54
Volume Right	102	11	27	0
cSH	774	477	1373	1490
Volume to Capacity	0.15	0.08	0.00	0.04
Queue Length 95th (ft)	13	6	0	3
Control Delay (s)	10.5	13.2	0.4	1.8
Lane LOS	B	B	A	A
Approach Delay (s)	10.5	13.2	0.4	1.8
Approach LOS	B	B		

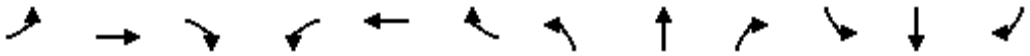
Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	35.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	50	0	35	50	65	0	0	295	10
Future Volume (Veh/h)	0	0	0	50	0	35	50	65	0	0	295	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	54	0	38	54	70	0	0	317	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	538	500	322	500	506	70	328			70		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	538	500	322	500	506	70	328			70		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	88	100	96	96			100		
cM capacity (veh/h)	422	452	718	465	448	993	1232			1531		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	92	124	328
Volume Left	54	54	0
Volume Right	38	0	11
cSH	596	1232	1700
Volume to Capacity	0.15	0.04	0.19
Queue Length 95th (ft)	14	3	0
Control Delay (s)	12.1	3.7	0.0
Lane LOS	B	A	
Approach Delay (s)	12.1	3.7	0.0
Approach LOS	B		

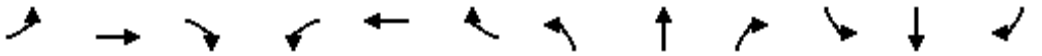
Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	39.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	20	0	0	0	0	110	85	205	140	0
Future Volume (Veh/h)	5	0	20	0	0	0	0	110	85	205	140	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	0	22	0	0	0	0	118	91	220	151	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	754	800	151	776	754	164	151			209		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	754	800	151	776	754	164	151			209		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	98	100	100	100	100			84		
cM capacity (veh/h)	285	267	895	269	283	881	1430			1362		

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	27	209	371
Volume Left	5	0	220
Volume Right	22	91	0
cSH	641	1700	1362
Volume to Capacity	0.04	0.12	0.16
Queue Length 95th (ft)	3	0	14
Control Delay (s)	10.9	0.0	5.4
Lane LOS	B		A
Approach Delay (s)	10.9	0.0	5.4
Approach LOS	B		

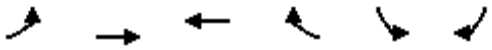
Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	45.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	25	0	10	10	65	0	10	10	65	5	5
Future Volume (Veh/h)	30	25	0	10	10	65	0	10	10	65	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	32	27	0	11	11	70	0	11	11	70	5	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												3
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	81			27			129	194	27	140	124	11
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	81			27			129	194	27	140	124	11
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			100	98	99	91	99	100
cM capacity (veh/h)	1517			1587			818	682	1048	793	745	1070

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	32	27	11	11	70	22	80
Volume Left	32	0	11	0	0	0	70
Volume Right	0	0	0	0	70	11	5
cSH	1517	1700	1587	1700	1700	826	843
Volume to Capacity	0.02	0.02	0.01	0.01	0.04	0.03	0.09
Queue Length 95th (ft)	2	0	1	0	0	2	8
Control Delay (s)	7.4	0.0	7.3	0.0	0.0	9.5	9.9
Lane LOS	A		A			A	A
Approach Delay (s)	4.0		0.9			9.5	9.9
Approach LOS						A	A

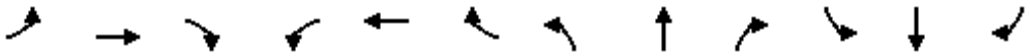
Intersection Summary				
Average Delay	5.2			
Intersection Capacity Utilization	26.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	470	310	5	10	5
Future Volume (Veh/h)	5	470	310	5	10	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	505	333	5	11	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	338				850	336
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	338				850	336
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	99
cM capacity (veh/h)	1221				329	706

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	510	338	16
Volume Left	5	0	11
Volume Right	0	5	5
cSH	1221	1700	395
Volume to Capacity	0.00	0.20	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.1	0.0	14.5
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	14.5
Approach LOS			B

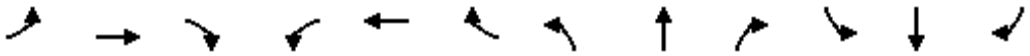
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	220	40	95	0	0	470	10
Future Volume (Veh/h)	0	0	0	5	0	220	40	95	0	0	470	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	5	0	237	43	102	0	0	505	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	936	698	510	698	704	102	516			102		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	936	698	510	698	704	102	516			102		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	99	100	75	96			100		
cM capacity (veh/h)	179	349	563	344	347	953	1050			1490		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	5	237	43	102	516
Volume Left	5	0	43	0	0
Volume Right	0	237	0	0	11
cSH	344	953	1050	1700	1700
Volume to Capacity	0.01	0.25	0.04	0.06	0.30
Queue Length 95th (ft)	1	25	3	0	0
Control Delay (s)	15.6	10.0	8.6	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	10.1		2.5		0.0
Approach LOS	B				

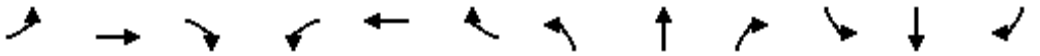
Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	47.0%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	90	0	0	0	0	125	65	370	105	0
Future Volume (Veh/h)	10	0	90	0	0	0	0	125	65	370	105	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	11	0	97	0	0	0	0	134	70	398	113	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1078	1113	113	1175	1078	169	113			204		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1078	1113	113	1175	1078	169	113			204		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	90	100	100	100	100			71		
cM capacity (veh/h)	152	148	940	117	155	875	1476			1368		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	11	97	204	398	113
Volume Left	11	0	0	398	0
Volume Right	0	97	70	0	0
cSH	152	940	1700	1368	1700
Volume to Capacity	0.07	0.10	0.12	0.29	0.07
Queue Length 95th (ft)	6	9	0	30	0
Control Delay (s)	30.5	9.3	0.0	8.7	0.0
Lane LOS	D	A		A	
Approach Delay (s)	11.4		0.0	6.8	
Approach LOS	B				

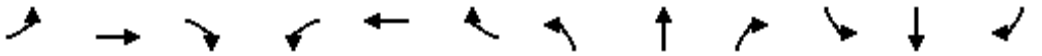
Intersection Summary				
Average Delay	5.7			
Intersection Capacity Utilization	47.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	590	105	45	455	215	105	95	25	250	175	15
Future Volume (vph)	30	590	105	45	455	215	105	95	25	250	175	15
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	0.97		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3260	1458	1630	3260	1458	1630	1662		1630	1696	
Flt Permitted	0.45	1.00	1.00	0.35	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	779	3260	1458	595	3260	1458	1630	1662		1630	1696	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	32	634	113	48	489	231	113	102	27	269	188	16
RTOR Reduction (vph)	0	0	74	0	0	151	0	10	0	0	3	0
Lane Group Flow (vph)	32	634	39	48	489	80	113	119	0	269	201	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2		2	6		6						
Actuated Green, G (s)	22.6	22.6	22.6	22.6	22.6	22.6	8.5	8.9		17.1	17.5	
Effective Green, g (s)	22.6	22.6	22.6	22.6	22.6	22.6	8.5	8.9		17.1	17.5	
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.35	0.35	0.13	0.14		0.26	0.27	
Clearance Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	269	1126	503	205	1126	503	211	226		426	453	
v/s Ratio Prot		c0.19			0.15		0.07	0.07		c0.17	c0.12	
v/s Ratio Perm	0.04		0.03	0.08		0.05						
v/c Ratio	0.12	0.56	0.08	0.23	0.43	0.16	0.54	0.52		0.63	0.44	
Uniform Delay, d1	14.6	17.4	14.4	15.2	16.5	14.8	26.6	26.3		21.4	19.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.6	0.1	0.6	0.3	0.1	2.6	2.2		3.0	0.7	
Delay (s)	14.8	18.0	14.5	15.8	16.7	15.0	29.2	28.5		24.4	20.6	
Level of Service	B	B	B	B	B	B	C	C		C	C	
Approach Delay (s)		17.4			16.2			28.8			22.8	
Approach LOS		B			B			C			C	

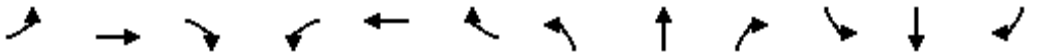
Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	65.4	Sum of lost time (s)	16.8
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



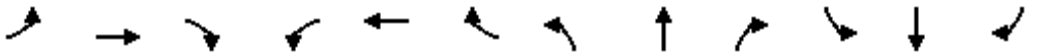
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	95	485	175	115	65	450	370	260	55	350	35
Future Volume (vph)	40	95	485	175	115	65	450	370	260	55	350	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		5.4	5.4		5.4		4.8	4.8		4.8	4.8	4.0
Lane Util. Factor		1.00	1.00		0.95		0.97	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.97		1.00	0.94		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1663	1430		3079		3101	1600		1646	1699	1417
Flt Permitted		0.79	1.00		0.74		0.95	1.00		0.39	1.00	1.00
Satd. Flow (perm)		1339	1430		2339		3101	1600		682	1699	1417
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	45	108	551	199	131	74	511	420	295	62	398	40
RTOR Reduction (vph)	0	0	77	0	23	0	0	25	0	0	0	0
Lane Group Flow (vph)	0	153	474	0	381	0	511	690	0	63	398	40
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Perm	NA	Free
Protected Phases		4	4 1		8		1	6			2	
Permitted Phases	4			8						2		Free
Actuated Green, G (s)		24.4	49.0		24.4		19.2	55.4		31.4	31.4	90.0
Effective Green, g (s)		24.4	49.0		24.4		19.2	55.4		31.4	31.4	90.0
Actuated g/C Ratio		0.27	0.54		0.27		0.21	0.62		0.35	0.35	1.00
Clearance Time (s)		5.4			5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		363	778		634		661	984		237	592	1417
v/s Ratio Prot			c0.33				0.16	c0.43			0.23	
v/s Ratio Perm		0.11			0.16					0.09		0.03
v/c Ratio		0.42	0.61		0.60		0.77	0.70		0.27	0.67	0.03
Uniform Delay, d1		27.0	14.0		28.6		33.3	11.7		21.0	24.9	0.0
Progression Factor		1.00	1.00		1.00		1.26	0.77		1.00	1.00	1.00
Incremental Delay, d2		0.8	1.4		1.6		4.8	3.6		2.7	6.0	0.0
Delay (s)		27.8	15.3		30.2		46.8	12.6		23.8	30.9	0.0
Level of Service		C	B		C		D	B		C	C	A
Approach Delay (s)		18.0			30.2			26.9			27.6	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



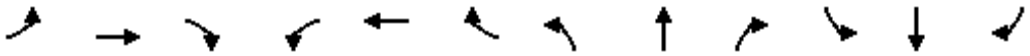
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	315	0	545	65	535	0	0	885	125
Future Volume (vph)	0	0	0	315	0	545	65	535	0	0	885	125
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.98	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3149	
Flt Permitted				0.95		1.00	0.20	1.00			1.00	
Satd. Flow (perm)				1646		2542	333	1683			3149	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	354	0	612	73	601	0	0	994	140
RTOR Reduction (vph)	0	0	0	0	0	350	0	0	0	0	10	0
Lane Group Flow (vph)	0	0	0	354	0	262	73	601	0	0	1124	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Prot		Perm	Perm	NA			NA	
Protected Phases				8				6			2	
Permitted Phases						8	6					
Actuated Green, G (s)				24.7		24.7	56.8	56.8			56.8	
Effective Green, g (s)				24.7		24.7	56.8	56.8			56.8	
Actuated g/C Ratio				0.27		0.27	0.63	0.63			0.63	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				451		697	210	1062			1987	
v/s Ratio Prot				c0.22				c0.36			0.36	
v/s Ratio Perm						0.10	0.22					
v/c Ratio				0.78		0.38	0.35	0.57			0.57	
Uniform Delay, d1				30.2		26.4	7.8	9.5			9.5	
Progression Factor				1.00		1.00	0.26	0.38			1.31	
Incremental Delay, d2				8.7		0.3	3.3	1.7			0.9	
Delay (s)				38.9		26.8	5.4	5.3			13.4	
Level of Service				D		C	A	A			B	
Approach Delay (s)		0.0			31.2			5.3			13.4	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
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	0	45	0	0	0	0	535	260	430	770	0
Future Volume (vph)	65	0	45	0	0	0	0	535	260	430	770	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
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	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1498		1488					1699	1473	1599	1716	
Flt Permitted	0.95		1.00					1.00	1.00	0.23	1.00	
Satd. Flow (perm)	1498		1488					1699	1473	393	1716	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	0	50	0	0	0	0	594	289	478	856	0
RTOR Reduction (vph)	0	0	45	0	0	0	0	0	78	0	0	0
Lane Group Flow (vph)	72	0	5	0	0	0	0	594	211	478	856	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm	pm+pt	NA	
Protected Phases	4							6		5	2	
Permitted Phases			4						6	2		
Actuated Green, G (s)	8.5		8.5					44.1	44.1	72.5	72.5	
Effective Green, g (s)	8.5		8.5					44.1	44.1	72.5	72.5	
Actuated g/C Ratio	0.09		0.09					0.49	0.49	0.81	0.81	
Clearance Time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	141		140					832	721	643	1382	
v/s Ratio Prot	c0.05							0.35		c0.20	0.50	
v/s Ratio Perm			0.00						0.14	c0.40		
v/c Ratio	0.51		0.03					0.71	0.29	0.74	0.62	
Uniform Delay, d1	38.8		37.0					18.0	13.7	12.2	3.4	
Progression Factor	1.00		1.00					1.00	1.00	0.45	1.02	
Incremental Delay, d2	3.1		0.1					5.2	1.0	3.9	1.7	
Delay (s)	41.9		37.1					23.2	14.7	9.4	5.2	
Level of Service	D		D					C	B	A	A	
Approach Delay (s)		39.9			0.0			20.4			6.7	
Approach LOS		D			A			C			A	

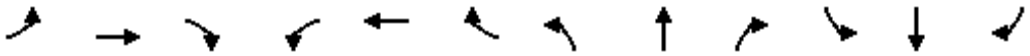
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	0	10	25	0	105	15	645	25	140	635	40
Future Volume (Veh/h)	45	0	10	25	0	105	15	645	25	140	635	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	48	0	11	27	0	113	16	694	27	151	683	43
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											355	
pX, platoon unblocked	0.78	0.78	0.78	0.78	0.78		0.78					
vC, conflicting volume	1859	1760	704	1757	1768	708	726			721		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1958	1831	484	1828	1842	708	512			721		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	98	30	100	74	98			83		
cM capacity (veh/h)	24	49	456	39	48	435	825			881		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	59	140	737	877
Volume Left	48	27	16	151
Volume Right	11	113	27	43
cSH	29	146	825	881
Volume to Capacity	2.05	0.96	0.02	0.17
Queue Length 95th (ft)	174	172	1	15
Control Delay (s)	780.3	123.9	0.5	4.2
Lane LOS	F	F	A	A
Approach Delay (s)	780.3	123.9	0.5	4.2
Approach LOS	F	F		

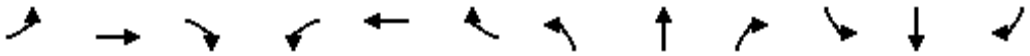
Intersection Summary				
Average Delay	37.2			
Intersection Capacity Utilization	106.8%	ICU Level of Service	G	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	5	30	15	5	10	55	185	30	10	160	5
Future Volume (Veh/h)	0	5	30	15	5	10	55	185	30	10	160	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	5	32	16	5	11	59	199	32	11	172	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	543	546	174	564	532	215	177			231		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	543	546	174	564	532	215	177			231		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	96	96	99	99	96			99		
cM capacity (veh/h)	424	423	869	401	431	825	1399			1337		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	37	32	290	188
Volume Left	0	16	59	11
Volume Right	32	11	32	5
cSH	761	493	1399	1337
Volume to Capacity	0.05	0.06	0.04	0.01
Queue Length 95th (ft)	4	5	3	1
Control Delay (s)	10.0	12.8	1.9	0.5
Lane LOS	A	B	A	A
Approach Delay (s)	10.0	12.8	1.9	0.5
Approach LOS	A	B		

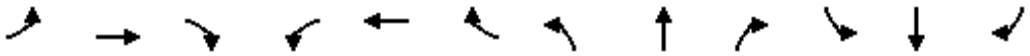
Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	44.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	0	170	65	100	0	0	200	5
Future Volume (Veh/h)	0	0	0	125	0	170	65	100	0	0	200	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	134	0	183	70	108	0	0	215	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	648	466	218	466	468	108	220			108		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	648	466	218	466	468	108	220			108		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	72	100	81	95			100		
cM capacity (veh/h)	297	469	822	487	467	946	1349			1483		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	317	178	220
Volume Left	134	70	0
Volume Right	183	0	5
cSH	677	1349	1700
Volume to Capacity	0.47	0.05	0.13
Queue Length 95th (ft)	63	4	0
Control Delay (s)	14.9	3.3	0.0
Lane LOS	B	A	
Approach Delay (s)	14.9	3.3	0.0
Approach LOS	B		

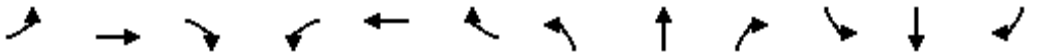
Intersection Summary				
Average Delay	7.4			
Intersection Capacity Utilization	50.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	40	0	0	0	0	145	55	115	210	0
Future Volume (Veh/h)	20	0	40	0	0	0	0	145	55	115	210	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	22	0	43	0	0	0	0	156	59	124	226	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	660	689	226	702	660	186	226			215		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	660	689	226	702	660	186	226			215		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	100	95	100	100	100	100			91		
cM capacity (veh/h)	350	335	813	310	348	857	1342			1355		

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	65	215	350
Volume Left	22	0	124
Volume Right	43	59	0
cSH	562	1700	1355
Volume to Capacity	0.12	0.13	0.09
Queue Length 95th (ft)	10	0	8
Control Delay (s)	12.2	0.0	3.3
Lane LOS	B		A
Approach Delay (s)	12.2	0.0	3.3
Approach LOS	B		

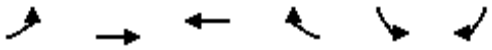
Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	44.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	25	0	10	55	85	0	5	10	95	10	30
Future Volume (Veh/h)	5	25	0	10	55	85	0	5	10	95	10	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	27	0	11	59	91	0	5	11	102	11	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												3
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	150			27			140	209	27	132	118	59
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	150			27			140	209	27	132	118	59
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	99	99	88	99	97
cM capacity (veh/h)	1431			1587			789	681	1048	821	764	1007

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	5	27	11	59	91	16	145
Volume Left	5	0	11	0	0	0	102
Volume Right	0	0	0	0	91	11	32
cSH	1431	1700	1587	1700	1700	897	1046
Volume to Capacity	0.00	0.02	0.01	0.03	0.05	0.02	0.14
Queue Length 95th (ft)	0	0	1	0	0	1	12
Control Delay (s)	7.5	0.0	7.3	0.0	0.0	9.1	9.8
Lane LOS	A		A			A	A
Approach Delay (s)	1.2		0.5			9.1	9.8
Approach LOS						A	A

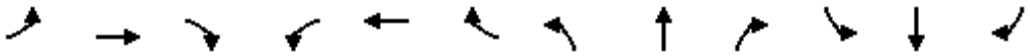
Intersection Summary				
Average Delay	4.8			
Intersection Capacity Utilization	26.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	535	580	10	10	5
Future Volume (Veh/h)	5	535	580	10	10	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	575	624	11	11	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	635				1214	630
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	635				1214	630
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	99
cM capacity (veh/h)	948				199	482

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	580	635	16
Volume Left	5	0	11
Volume Right	0	11	5
cSH	948	1700	244
Volume to Capacity	0.01	0.37	0.07
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.1	0.0	20.8
Lane LOS	A		C
Approach Delay (s)	0.1	0.0	20.8
Approach LOS			C

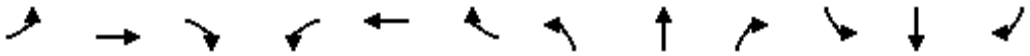
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	380	105	210	0	0	525	20
Future Volume (Veh/h)	0	0	0	10	0	380	105	210	0	0	525	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	11	0	409	113	226	0	0	565	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1437	1028	576	1028	1039	226	587			226		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1437	1028	576	1028	1039	226	587			226		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	94	100	50	89			100		
cM capacity (veh/h)	50	207	517	194	204	813	988			1342		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	11	409	113	226	587
Volume Left	11	0	113	0	0
Volume Right	0	409	0	0	22
cSH	194	813	988	1700	1700
Volume to Capacity	0.06	0.50	0.11	0.13	0.35
Queue Length 95th (ft)	4	72	10	0	0
Control Delay (s)	24.7	13.8	9.1	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	14.1		3.0		0.0
Approach LOS	B				

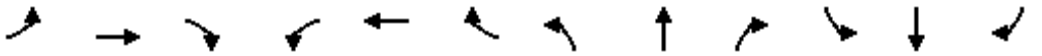
Intersection Summary				
Average Delay	5.2			
Intersection Capacity Utilization	55.2%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	70	0	0	0	0	290	60	355	180	0
Future Volume (Veh/h)	25	0	70	0	0	0	0	290	60	355	180	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	27	0	75	0	0	0	0	312	65	382	194	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1302	1335	194	1378	1302	344	194			377		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1302	1335	194	1378	1302	344	194			377		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	100	91	100	100	100	100			68		
cM capacity (veh/h)	103	104	847	83	109	698	1379			1181		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	27	75	377	382	194
Volume Left	27	0	0	382	0
Volume Right	0	75	65	0	0
cSH	103	847	1700	1181	1700
Volume to Capacity	0.26	0.09	0.22	0.32	0.11
Queue Length 95th (ft)	24	7	0	35	0
Control Delay (s)	51.9	9.7	0.0	9.5	0.0
Lane LOS	F	A		A	
Approach Delay (s)	20.8		0.0	6.3	
Approach LOS	C				

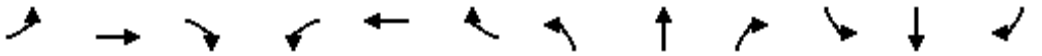
Intersection Summary				
Average Delay	5.5			
Intersection Capacity Utilization	55.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	535	165	30	820	330	220	235	70	280	155	40
Future Volume (vph)	15	535	165	30	820	330	220	235	70	280	155	40
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	0.97		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3260	1458	1630	3260	1458	1630	1657		1630	1663	
Flt Permitted	0.18	1.00	1.00	0.36	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	316	3260	1458	618	3260	1458	1630	1657		1630	1663	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	16	575	177	32	882	355	237	253	75	301	167	43
RTOR Reduction (vph)	0	0	113	0	0	226	0	10	0	0	9	0
Lane Group Flow (vph)	16	575	64	32	882	129	237	318	0	301	201	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2		2	6		6						
Actuated Green, G (s)	34.1	34.1	34.1	34.1	34.1	34.1	18.6	21.8		21.2	24.4	
Effective Green, g (s)	34.1	34.1	34.1	34.1	34.1	34.1	18.6	21.8		21.2	24.4	
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36	0.20	0.23		0.23	0.26	
Clearance Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	114	1183	529	224	1183	529	322	384		368	432	
v/s Ratio Prot		0.18			c0.27		0.15	c0.19		c0.18	c0.12	
v/s Ratio Perm	0.05		0.04	0.05		0.09						
v/c Ratio	0.14	0.49	0.12	0.14	0.75	0.24	0.74	0.83		0.82	0.47	
Uniform Delay, d1	20.1	23.1	19.9	20.1	26.1	20.9	35.3	34.3		34.5	29.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.3	0.1	0.3	2.6	0.2	8.5	13.7		13.2	0.8	
Delay (s)	20.6	23.4	20.0	20.4	28.7	21.1	43.8	47.9		47.7	30.1	
Level of Service	C	C	C	C	C	C	D	D		D	C	
Approach Delay (s)		22.6			26.4			46.2			40.4	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	93.9	Sum of lost time (s)	16.8
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

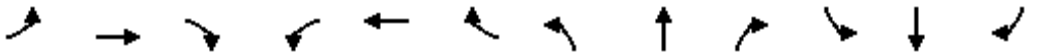


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	105	630	110	110	35	455	620	115	50	615	105
Future Volume (vph)	120	105	630	110	110	35	455	620	115	50	615	105
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		5.4	5.4		5.4		4.8	4.8		4.8	4.8	4.0
Lane Util. Factor		1.00	1.00		0.95		0.97	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1647	1430		3112		3101	1662		1646	1699	1417
Flt Permitted		0.62	1.00		0.61		0.95	1.00		0.34	1.00	1.00
Satd. Flow (perm)		1041	1430		1954		3101	1662		581	1699	1417
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)	145	127	759	133	133	42	548	747	139	60	741	127
RTOR Reduction (vph)	0	0	44	0	14	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	272	715	0	294	0	548	879	0	60	741	127
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Perm	NA	Free
Protected Phases		4	4 1		8		1	6			2	
Permitted Phases	4			8						2		Free
Actuated Green, G (s)		19.6	45.2		19.6		20.2	60.2		35.2	35.2	90.0
Effective Green, g (s)		19.6	45.2		19.6		20.2	60.2		35.2	35.2	90.0
Actuated g/C Ratio		0.22	0.50		0.22		0.22	0.67		0.39	0.39	1.00
Clearance Time (s)		5.4			5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		226	718		425		696	1111		227	664	1417
v/s Ratio Prot			c0.50				0.18	0.53			c0.44	
v/s Ratio Perm		c0.26			0.15					0.10		0.09
v/c Ratio		1.20	1.00		0.87dl		0.79	0.79		0.26	1.12	0.09
Uniform Delay, d1		35.2	22.3		32.4		32.9	10.5		18.6	27.4	0.0
Progression Factor		1.00	1.00		1.00		0.98	0.96		1.00	1.00	1.00
Incremental Delay, d2		125.9	32.4		4.8		4.3	4.2		2.8	71.3	0.1
Delay (s)		161.1	54.7		37.2		36.6	14.2		21.4	98.7	0.1
Level of Service		F	D		D		D	B		C	F	A
Approach Delay (s)		82.8			37.2			22.8			80.2	
Approach LOS		F			D			C			F	

Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		

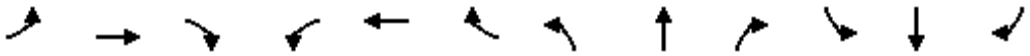
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



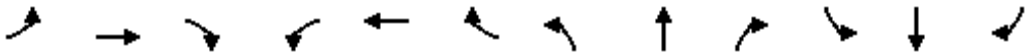
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	365	0	605	40	585	0	0	1300	55
Future Volume (vph)	0	0	0	365	0	605	40	585	0	0	1300	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.99	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3202	
Flt Permitted				0.95		1.00	0.08	1.00			1.00	
Satd. Flow (perm)				1646		2542	128	1683			3202	
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)	0	0	0	445	0	738	49	713	0	0	1585	67
RTOR Reduction (vph)	0	0	0	0	0	254	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	445	0	484	49	713	0	0	1649	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Perm		Perm	Perm	NA			NA	
Protected Phases								6			2	
Permitted Phases				8		8	6					
Actuated Green, G (s)				28.3		28.3	53.2	53.2			53.2	
Effective Green, g (s)				28.3		28.3	53.2	53.2			53.2	
Actuated g/C Ratio				0.31		0.31	0.59	0.59			0.59	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				517		799	75	994			1892	
v/s Ratio Prot								0.42			c0.51	
v/s Ratio Perm				c0.27		0.19	0.38					
v/c Ratio				0.86		0.61	0.65	0.72			0.87	
Uniform Delay, d1				29.0		26.1	12.3	13.1			15.5	
Progression Factor				1.00		1.00	0.60	0.35			0.94	
Incremental Delay, d2				13.7		1.3	4.0	0.4			0.6	
Delay (s)				42.7		27.4	11.3	5.0			15.2	
Level of Service				D		C	B	A			B	
Approach Delay (s)		0.0			33.2			5.4			15.2	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
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)	45	0	90	0	0	0	0	580	395	680	985	0
Future Volume (vph)	45	0	90	0	0	0	0	580	395	680	985	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
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	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1498		1488					1699	1473	1599	1716	
Flt Permitted	0.95		1.00					1.00	1.00	0.14	1.00	
Satd. Flow (perm)	1498		1488					1699	1473	232	1716	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	53	0	106	0	0	0	0	682	465	800	1159	0
RTOR Reduction (vph)	0	0	97	0	0	0	0	0	155	0	0	0
Lane Group Flow (vph)	53	0	9	0	0	0	0	682	310	800	1159	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm	pm+pt	NA	
Protected Phases	4							6		5	2	
Permitted Phases			4						6	2		
Actuated Green, G (s)	7.5		7.5					25.0	25.0	73.5	73.5	
Effective Green, g (s)	7.5		7.5					25.0	25.0	73.5	73.5	
Actuated g/C Ratio	0.08		0.08					0.28	0.28	0.82	0.82	
Clearance Time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	124		124					471	409	865	1401	
v/s Ratio Prot	c0.04							c0.40		c0.46	0.68	
v/s Ratio Perm			0.01						0.21	0.30		
v/c Ratio	0.43		0.07					1.45	0.76	0.92	0.83	
Uniform Delay, d1	39.2		38.0					32.5	29.7	17.4	4.7	
Progression Factor	1.00		1.00					1.00	1.00	0.26	0.86	
Incremental Delay, d2	2.4		0.2					213.3	12.3	8.4	3.0	
Delay (s)	41.6		38.3					245.8	42.1	12.8	7.0	
Level of Service	D		D					F	D	B	A	
Approach Delay (s)		39.4			0.0			163.2			9.4	
Approach LOS		D			A			F			A	

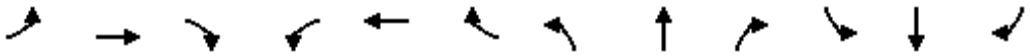
Intersection Summary			
HCM 2000 Control Delay	64.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	15	0	170	20	800	35	85	930	60
Future Volume (Veh/h)	5	0	5	15	0	170	20	800	35	85	930	60
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	0	5	16	0	183	22	860	38	91	1000	65
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											355	
pX, platoon unblocked	0.22	0.22	0.22	0.22	0.22		0.22					
vC, conflicting volume	2320	2156	1032	2142	2170	879	1065			898		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	5266	4513	0	4449	4575	879	0			898		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	98	0	100	47	94			88		
cM capacity (veh/h)	0	0	236	0	0	347	354			756		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	10	199	920	1156
Volume Left	5	16	22	91
Volume Right	5	183	38	65
cSH	0	2	354	756
Volume to Capacity	353.57	127.98	0.06	0.12
Queue Length 95th (ft)	Err	Err	5	10
Control Delay (s)	Err	Err	2.4	3.9
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	2.4	3.9
Approach LOS	F	F		

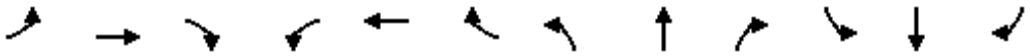
Intersection Summary				
Average Delay	917.5			
Intersection Capacity Utilization	122.8%	ICU Level of Service	H	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	15	120	45	0	15	5	105	40	60	270	0
Future Volume (Veh/h)	5	15	120	45	0	15	5	105	40	60	270	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	5	16	129	48	0	16	5	113	43	65	290	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	580	586	290	702	564	134	290			156		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	580	586	290	702	564	134	290			156		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	96	83	82	100	98	100			95		
cM capacity (veh/h)	402	401	749	273	413	914	1272			1424		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	150	64	161	355
Volume Left	5	48	5	65
Volume Right	129	16	43	0
cSH	668	331	1272	1424
Volume to Capacity	0.22	0.19	0.00	0.05
Queue Length 95th (ft)	21	18	0	4
Control Delay (s)	11.9	18.5	0.3	1.7
Lane LOS	B	C	A	A
Approach Delay (s)	11.9	18.5	0.3	1.7
Approach LOS	B	C		

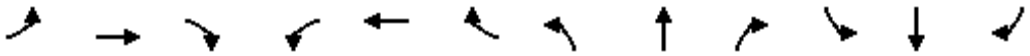
Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	54.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	75	0	50	80	100	0	0	420	15
Future Volume (Veh/h)	0	0	0	75	0	50	80	100	0	0	420	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	81	0	54	86	108	0	0	452	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	794	740	460	740	748	108	468			108		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	794	740	460	740	748	108	468			108		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	74	100	94	92			100		
cM capacity (veh/h)	271	317	601	313	314	946	1094			1483		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	135	194	468
Volume Left	81	86	0
Volume Right	54	0	16
cSH	427	1094	1700
Volume to Capacity	0.32	0.08	0.28
Queue Length 95th (ft)	33	6	0
Control Delay (s)	17.3	4.2	0.0
Lane LOS	C	A	
Approach Delay (s)	17.3	4.2	0.0
Approach LOS	C		

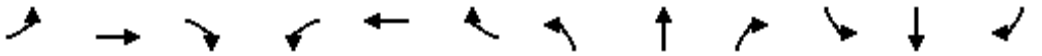
Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	53.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	35	0	0	0	0	170	130	280	215	0
Future Volume (Veh/h)	10	0	35	0	0	0	0	170	130	280	215	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	11	0	38	0	0	0	0	183	140	301	231	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1086	1156	231	1124	1086	253	231			323		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1086	1156	231	1124	1086	253	231			323		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	95	100	100	100	100			76		
cM capacity (veh/h)	157	149	808	141	164	786	1337			1237		

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	49	323	532
Volume Left	11	0	301
Volume Right	38	140	0
cSH	419	1700	1237
Volume to Capacity	0.12	0.19	0.24
Queue Length 95th (ft)	10	0	24
Control Delay (s)	14.7	0.0	6.1
Lane LOS	B		A
Approach Delay (s)	14.7	0.0	6.1
Approach LOS	B		

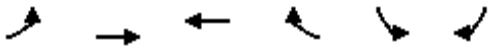
Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	60.8%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	50	0	15	15	130	0	20	15	130	10	10
Future Volume (Veh/h)	45	50	0	15	15	130	0	20	15	130	10	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	48	54	0	16	16	140	0	22	16	140	11	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												3
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	156			54			209	338	54	225	198	16
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	156			54			209	338	54	225	198	16
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			100	96	98	79	98	99
cM capacity (veh/h)	1424			1551			707	558	1013	674	667	1063

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	48	54	16	16	140	38	162
Volume Left	48	0	16	0	0	0	140
Volume Right	0	0	0	0	140	16	11
cSH	1424	1700	1551	1700	1700	688	723
Volume to Capacity	0.03	0.03	0.01	0.01	0.08	0.06	0.22
Queue Length 95th (ft)	3	0	1	0	0	4	21
Control Delay (s)	7.6	0.0	7.3	0.0	0.0	10.5	11.6
Lane LOS	A		A			B	B
Approach Delay (s)	3.6		0.7			10.5	11.6
Approach LOS						B	B

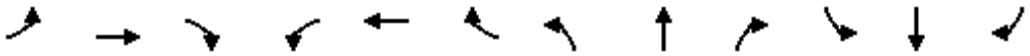
Intersection Summary				
Average Delay	5.8			
Intersection Capacity Utilization	31.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	640	425	10	15	5
Future Volume (Veh/h)	10	640	425	10	15	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	11	688	457	11	16	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	468				1172	462
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	468				1172	462
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	99
cM capacity (veh/h)	1094				210	599

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	699	468	21
Volume Left	11	0	16
Volume Right	0	11	5
cSH	1094	1700	249
Volume to Capacity	0.01	0.28	0.08
Queue Length 95th (ft)	1	0	7
Control Delay (s)	0.3	0.0	20.8
Lane LOS	A		C
Approach Delay (s)	0.3	0.0	20.8
Approach LOS			C

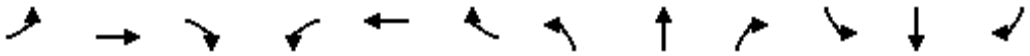
Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		55.3%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	300	55	135	0	0	640	15
Future Volume (Veh/h)	0	0	0	10	0	300	55	135	0	0	640	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	11	0	323	59	145	0	0	688	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1282	959	696	959	967	145	704			145		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1282	959	696	959	967	145	704			145		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	95	100	64	93			100		
cM capacity (veh/h)	87	240	442	225	237	902	894			1437		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	11	323	59	145	704
Volume Left	11	0	59	0	0
Volume Right	0	323	0	0	16
cSH	225	902	894	1700	1700
Volume to Capacity	0.05	0.36	0.07	0.09	0.41
Queue Length 95th (ft)	4	41	5	0	0
Control Delay (s)	21.8	11.2	9.3	0.0	0.0
Lane LOS	C	B	A		
Approach Delay (s)	11.5		2.7		0.0
Approach LOS	B				

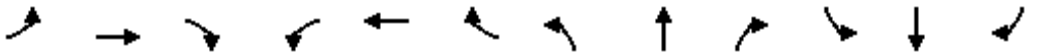
Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	59.7%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	120	0	0	0	0	175	90	505	145	0
Future Volume (Veh/h)	15	0	120	0	0	0	0	175	90	505	145	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	16	0	129	0	0	0	0	188	97	543	156	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1478	1527	156	1608	1478	236	156			285		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1478	1527	156	1608	1478	236	156			285		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	77	100	85	100	100	100	100			57		
cM capacity (veh/h)	69	68	890	48	72	802	1424			1277		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	16	129	285	543	156
Volume Left	16	0	0	543	0
Volume Right	0	129	97	0	0
cSH	69	890	1700	1277	1700
Volume to Capacity	0.23	0.15	0.17	0.43	0.09
Queue Length 95th (ft)	20	13	0	54	0
Control Delay (s)	71.8	9.7	0.0	9.9	0.0
Lane LOS	F	A		A	
Approach Delay (s)	16.6		0.0	7.7	
Approach LOS	C				

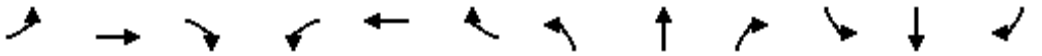
Intersection Summary				
Average Delay	6.9			
Intersection Capacity Utilization	59.7%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	660	120	50	510	275	120	125	30	320	225	20
Future Volume (vph)	35	660	120	50	510	275	120	125	30	320	225	20
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	0.97		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3260	1458	1630	3260	1458	1630	1666		1630	1694	
Flt Permitted	0.38	1.00	1.00	0.27	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	656	3260	1458	466	3260	1458	1630	1666		1630	1694	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	38	710	129	54	548	296	129	134	32	344	242	22
RTOR Reduction (vph)	0	0	86	0	0	198	0	9	0	0	3	0
Lane Group Flow (vph)	38	710	43	54	548	98	129	157	0	344	261	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2		2	6		6						
Actuated Green, G (s)	25.8	25.8	25.8	25.8	25.8	25.8	12.0	13.1		22.2	23.3	
Effective Green, g (s)	25.8	25.8	25.8	25.8	25.8	25.8	12.0	13.1		22.2	23.3	
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33	0.33	0.15	0.17		0.28	0.30	
Clearance Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	1079	482	154	1079	482	251	280		464	506	
v/s Ratio Prot		c0.22			0.17		0.08	0.09		c0.21	c0.15	
v/s Ratio Perm	0.06		0.03	0.12		0.07						
v/c Ratio	0.18	0.66	0.09	0.35	0.51	0.20	0.51	0.56		0.74	0.52	
Uniform Delay, d1	18.5	22.3	17.9	19.7	20.9	18.7	30.3	29.8		25.2	22.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	1.5	0.1	1.4	0.4	0.2	1.8	2.6		6.3	0.9	
Delay (s)	18.9	23.7	18.0	21.1	21.3	18.9	32.0	32.3		31.5	23.5	
Level of Service	B	C	B	C	C	B	C	C		C	C	
Approach Delay (s)		22.7			20.5			32.2			28.1	
Approach LOS		C			C			C			C	

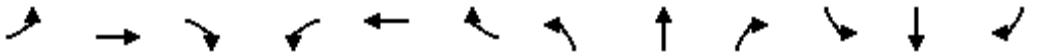
Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	77.9	Sum of lost time (s)	16.8
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



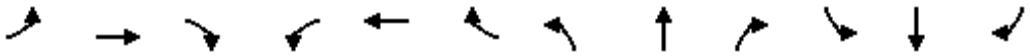
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	120	580	220	155	85	540	525	345	70	440	40
Future Volume (vph)	50	120	580	220	155	85	540	525	345	70	440	40
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		5.4	5.4		5.4		4.8	4.8		4.8	4.8	4.0
Lane Util. Factor		1.00	1.00		0.95		0.97	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.97		1.00	0.94		1.00	1.00	0.85
Flt Protected		0.99	1.00		0.98		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1663	1430		3081		3101	1604		1646	1699	1417
Flt Permitted		0.71	1.00		0.71		0.95	1.00		0.15	1.00	1.00
Satd. Flow (perm)		1194	1430		2249		3101	1604		260	1699	1417
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	57	136	659	250	176	97	614	597	392	80	500	45
RTOR Reduction (vph)	0	0	41	0	22	0	0	25	0	0	0	0
Lane Group Flow (vph)	0	193	618	0	501	0	614	964	0	80	500	45
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Perm	NA	Free
Protected Phases		4	4 1		8		1	6			2	
Permitted Phases	4			8						2		Free
Actuated Green, G (s)		28.0	53.7		28.0		20.3	51.8		26.7	26.7	90.0
Effective Green, g (s)		28.0	53.7		28.0		20.3	51.8		26.7	26.7	90.0
Actuated g/C Ratio		0.31	0.60		0.31		0.23	0.58		0.30	0.30	1.00
Clearance Time (s)		5.4			5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		371	853		699		699	923		77	504	1417
v/s Ratio Prot			c0.43				0.20	c0.60			0.29	
v/s Ratio Perm		0.16			0.22					0.31		0.03
v/c Ratio		0.52	0.72		0.72		0.88	1.04		1.04	0.99	0.03
Uniform Delay, d1		25.5	12.9		27.5		33.7	19.1		31.6	31.5	0.0
Progression Factor		1.00	1.00		1.00		1.12	0.89		1.00	1.00	1.00
Incremental Delay, d2		1.3	3.1		3.5		8.0	35.9		113.7	38.2	0.0
Delay (s)		26.8	16.0		31.0		45.6	52.9		145.3	69.7	0.0
Level of Service		C	B		C		D	D		F	E	A
Approach Delay (s)		18.4			31.0			50.1			74.4	
Approach LOS		B			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	98.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



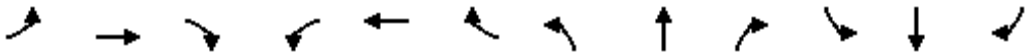
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	400	0	695	95	715	0	0	1055	185
Future Volume (vph)	0	0	0	400	0	695	95	715	0	0	1055	185
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.98	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3133	
Flt Permitted				0.95		1.00	0.12	1.00			1.00	
Satd. Flow (perm)				1646		2542	196	1683			3133	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	449	0	781	107	803	0	0	1185	208
RTOR Reduction (vph)	0	0	0	0	0	204	0	0	0	0	15	0
Lane Group Flow (vph)	0	0	0	449	0	577	107	803	0	0	1378	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Prot		Perm	Perm	NA			NA	
Protected Phases				8				6			2	
Permitted Phases						8	6					
Actuated Green, G (s)				28.4		28.4	53.1	53.1			53.1	
Effective Green, g (s)				28.4		28.4	53.1	53.1			53.1	
Actuated g/C Ratio				0.32		0.32	0.59	0.59			0.59	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				519		802	115	992			1848	
v/s Ratio Prot				c0.27				0.48			0.44	
v/s Ratio Perm						0.23	c0.55					
v/c Ratio				0.87		0.72	0.93	0.81			0.75	
Uniform Delay, d1				29.0		27.3	16.8	14.5			13.5	
Progression Factor				1.00		1.00	0.64	0.44			1.15	
Incremental Delay, d2				14.0		3.1	13.2	0.7			1.5	
Delay (s)				43.0		30.4	24.0	7.0			17.0	
Level of Service				D		C	C	A			B	
Approach Delay (s)		0.0			35.0			9.0			17.0	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
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)	100	0	70	0	0	0	0	710	315	540	915	0
Future Volume (vph)	100	0	70	0	0	0	0	710	315	540	915	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
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	1.00	
Flt Protected	0.95		1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1498		1488					1699	1473	1599	1716	
Flt Permitted	0.95		1.00					1.00	1.00	0.11	1.00	
Satd. Flow (perm)	1498		1488					1699	1473	178	1716	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	111	0	78	0	0	0	0	789	350	600	1017	0
RTOR Reduction (vph)	0	0	68	0	0	0	0	0	87	0	0	0
Lane Group Flow (vph)	111	0	10	0	0	0	0	789	263	600	1017	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm	pm+pt	NA	
Protected Phases	4							6		5	2	
Permitted Phases			4						6	2		
Actuated Green, G (s)	11.5		11.5					33.9	33.9	69.5	69.5	
Effective Green, g (s)	11.5		11.5					33.9	33.9	69.5	69.5	
Actuated g/C Ratio	0.13		0.13					0.38	0.38	0.77	0.77	
Clearance Time (s)	5.0		5.0					4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	191		190					639	554	636	1325	
v/s Ratio Prot	c0.07							c0.46		c0.33	0.59	
v/s Ratio Perm			0.01						0.18	0.40		
v/c Ratio	0.58		0.05					1.23	0.47	0.94	0.77	
Uniform Delay, d1	37.0		34.5					28.1	21.3	23.6	5.7	
Progression Factor	1.00		1.00					1.00	1.00	0.48	1.01	
Incremental Delay, d2	4.4		0.1					118.8	2.9	16.6	2.7	
Delay (s)	41.4		34.6					146.9	24.2	28.0	8.5	
Level of Service	D		C					F	C	C	A	
Approach Delay (s)		38.6			0.0			109.2			15.7	
Approach LOS		D			A			F			B	

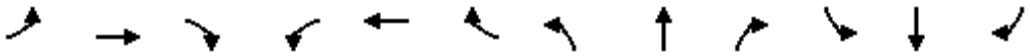
Intersection Summary			
HCM 2000 Control Delay	53.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	0	10	30	0	170	20	800	30	170	765	50
Future Volume (Veh/h)	55	0	10	30	0	170	20	800	30	170	765	50
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	59	0	11	32	0	183	22	860	32	183	823	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											355	
pX, platoon unblocked	0.57	0.57	0.57	0.57	0.57		0.57					
vC, conflicting volume	2319	2152	850	2147	2163	876	877			892		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2948	2653	351	2644	2672	876	398			892		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	97	0	100	47	97			76		
cM capacity (veh/h)	2	10	392	7	9	348	656			760		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	70	215	914	1060
Volume Left	59	32	22	183
Volume Right	11	183	32	54
cSH	2	41	656	760
Volume to Capacity	30.22	5.31	0.03	0.24
Queue Length 95th (ft)	Err	Err	3	23
Control Delay (s)	Err	Err	1.0	6.6
Lane LOS	F	F	A	A
Approach Delay (s)	Err	Err	1.0	6.6
Approach LOS	F	F		

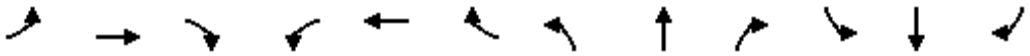
Intersection Summary				
Average Delay	1265.0			
Intersection Capacity Utilization	132.0%	ICU Level of Service	H	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	5	30	25	10	15	70	265	40	15	240	5
Future Volume (Veh/h)	0	5	30	25	10	15	70	265	40	15	240	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	5	32	27	11	16	75	285	43	16	258	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	770	770	260	784	752	306	263			328		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	770	770	260	784	752	306	263			328		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	96	90	97	98	94			99		
cM capacity (veh/h)	286	308	778	279	316	733	1301			1232		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	37	54	403	279
Volume Left	0	27	75	16
Volume Right	32	16	43	5
cSH	645	352	1301	1232
Volume to Capacity	0.06	0.15	0.06	0.01
Queue Length 95th (ft)	5	13	5	1
Control Delay (s)	10.9	17.1	1.9	0.6
Lane LOS	B	C	A	A
Approach Delay (s)	10.9	17.1	1.9	0.6
Approach LOS	B	C		

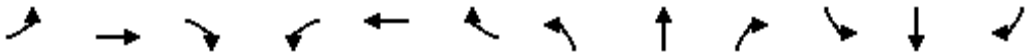
Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	56.7%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	200	0	230	100	145	0	0	285	10
Future Volume (Veh/h)	0	0	0	200	0	230	100	145	0	0	285	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	215	0	247	108	156	0	0	306	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	930	684	312	684	689	156	317			156		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	930	684	312	684	689	156	317			156		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	37	100	72	91			100		
cM capacity (veh/h)	167	339	729	339	337	890	1243			1424		

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	462	264	317
Volume Left	215	108	0
Volume Right	247	0	11
cSH	507	1243	1700
Volume to Capacity	0.91	0.09	0.19
Queue Length 95th (ft)	267	7	0
Control Delay (s)	49.8	3.8	0.0
Lane LOS	E	A	
Approach Delay (s)	49.8	3.8	0.0
Approach LOS	E		

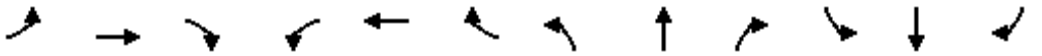
Intersection Summary				
Average Delay	23.0			
Intersection Capacity Utilization	68.6%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	70	0	0	0	0	220	90	155	330	0
Future Volume (Veh/h)	25	0	70	0	0	0	0	220	90	155	330	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	27	0	75	0	0	0	0	237	97	167	355	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	974	1023	355	1050	974	286	355			334		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	974	1023	355	1050	974	286	355			334		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	100	89	100	100	100	100			86		
cM capacity (veh/h)	207	204	689	164	217	754	1204			1225		

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	102	334	522
Volume Left	27	0	167
Volume Right	75	97	0
cSH	426	1700	1225
Volume to Capacity	0.24	0.20	0.14
Queue Length 95th (ft)	23	0	12
Control Delay (s)	16.1	0.0	3.7
Lane LOS	C		A
Approach Delay (s)	16.1	0.0	3.7
Approach LOS	C		

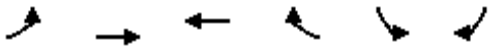
Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	62.9%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	50	0	15	105	170	0	10	15	190	20	45
Future Volume (Veh/h)	10	50	0	15	105	170	0	10	15	190	20	45
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	11	54	0	16	113	183	0	11	16	204	22	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												3
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	296			54			256	404	54	242	221	113
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	296			54			256	404	54	242	221	113
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			100	98	98	70	97	95
cM capacity (veh/h)	1265			1551			636	525	1013	679	665	940

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	11	54	16	113	183	27	274
Volume Left	11	0	16	0	0	0	204
Volume Right	0	0	0	0	183	16	48
cSH	1265	1700	1551	1700	1700	735	822
Volume to Capacity	0.01	0.03	0.01	0.07	0.11	0.04	0.33
Queue Length 95th (ft)	1	0	1	0	0	3	37
Control Delay (s)	7.9	0.0	7.3	0.0	0.0	10.1	12.3
Lane LOS	A		A			B	B
Approach Delay (s)	1.3		0.4			10.1	12.3
Approach LOS						B	B

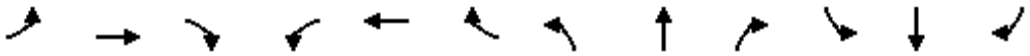
Intersection Summary				
Average Delay	5.7			
Intersection Capacity Utilization	33.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	735	775	25	15	5
Future Volume (Veh/h)	10	735	775	25	15	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	11	790	833	27	16	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	860				1658	846
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	860				1658	846
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				85	99
cM capacity (veh/h)	781				106	362

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	801	860	21
Volume Left	11	0	16
Volume Right	0	27	5
cSH	781	1700	127
Volume to Capacity	0.01	0.51	0.16
Queue Length 95th (ft)	1	0	14
Control Delay (s)	0.4	0.0	38.8
Lane LOS	A		E
Approach Delay (s)	0.4	0.0	38.8
Approach LOS			E

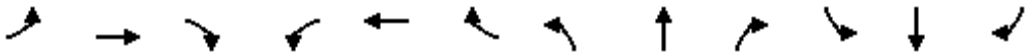
Intersection Summary			
Average Delay		0.7	
Intersection Capacity Utilization		60.7%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	515	145	285	0	0	725	25
Future Volume (Veh/h)	0	0	0	10	0	515	145	285	0	0	725	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	0	0	0	11	0	554	156	306	0	0	780	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1966	1412	794	1412	1425	306	807			306		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1966	1412	794	1412	1425	306	807			306		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	89	100	25	81			100		
cM capacity (veh/h)	10	112	388	99	110	734	818			1255		

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	11	554	156	306	807
Volume Left	11	0	156	0	0
Volume Right	0	554	0	0	27
cSH	99	734	818	1700	1700
Volume to Capacity	0.11	0.75	0.19	0.18	0.47
Queue Length 95th (ft)	9	176	18	0	0
Control Delay (s)	46.0	23.4	10.4	0.0	0.0
Lane LOS	E	C	B		
Approach Delay (s)	23.8		3.5		0.0
Approach LOS	C				

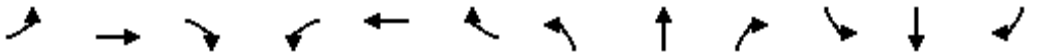
Intersection Summary				
Average Delay	8.2			
Intersection Capacity Utilization	70.6%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	0	95	0	0	0	0	400	80	485	250	0
Future Volume (Veh/h)	30	0	95	0	0	0	0	400	80	485	250	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	32	0	102	0	0	0	0	430	86	522	269	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1786	1829	269	1888	1786	473	269			516		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1786	1829	269	1888	1786	473	269			516		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	17	100	87	100	100	100	100			50		
cM capacity (veh/h)	39	38	770	28	41	591	1295			1050		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	32	102	516	522	269
Volume Left	32	0	0	522	0
Volume Right	0	102	86	0	0
cSH	39	770	1700	1050	1700
Volume to Capacity	0.83	0.13	0.30	0.50	0.16
Queue Length 95th (ft)	77	11	0	71	0
Control Delay (s)	251.3	10.4	0.0	11.8	0.0
Lane LOS	F	B		B	
Approach Delay (s)	67.9		0.0	7.8	
Approach LOS	F				

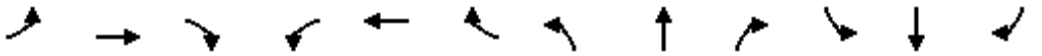
Intersection Summary				
Average Delay	10.6			
Intersection Capacity Utilization	70.6%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	600	185	35	925	420	250	295	80	355	195	50
Future Volume (vph)	20	600	185	35	925	420	250	295	80	355	195	50
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	0.97		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3260	1458	1630	3260	1458	1630	1661		1630	1663	
Flt Permitted	0.13	1.00	1.00	0.31	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	218	3260	1458	527	3260	1458	1630	1661		1630	1663	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	22	645	199	38	995	452	269	317	86	382	210	54
RTOR Reduction (vph)	0	0	127	0	0	289	0	9	0	0	9	0
Lane Group Flow (vph)	22	645	72	38	995	163	269	394	0	382	255	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2		2	6		6						
Actuated Green, G (s)	37.5	37.5	37.5	37.5	37.5	37.5	20.9	25.1		24.3	28.5	
Effective Green, g (s)	37.5	37.5	37.5	37.5	37.5	37.5	20.9	25.1		24.3	28.5	
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36	0.20	0.24		0.23	0.27	
Clearance Time (s)	6.2	6.2	6.2	6.2	6.2	6.2	5.7	4.9		5.7	4.9	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	78	1178	527	190	1178	527	328	402		381	457	
v/s Ratio Prot		0.20			c0.31		0.17	c0.24		c0.23	c0.15	
v/s Ratio Perm	0.10		0.05	0.07		0.11						
v/c Ratio	0.28	0.55	0.14	0.20	0.84	0.31	0.82	0.98		1.00	0.56	
Uniform Delay, d1	23.5	26.3	22.2	22.8	30.4	23.8	39.6	39.0		39.7	32.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.0	0.5	0.1	0.5	5.7	0.3	15.0	39.1		46.8	1.5	
Delay (s)	25.5	26.9	22.3	23.3	36.1	24.1	54.6	78.1		86.5	33.7	
Level of Service	C	C	C	C	D	C	D	E		F	C	
Approach Delay (s)		25.8			32.2			68.7			64.9	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	43.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	103.7	Sum of lost time (s)	16.8
Intersection Capacity Utilization	88.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



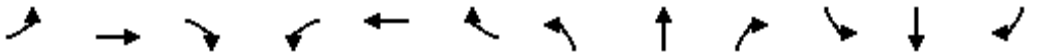
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	80	490	380	285	280	215	250	45	35	480	85
Future Volume (vph)	100	80	490	380	285	280	215	250	45	35	480	85
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.4	4.8	4.8	5.4	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	0.97	0.95		0.97	1.00		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	3131	3017		3101	1663		1646	3146	
Flt Permitted	0.29	1.00	1.00	0.95	1.00		0.95	1.00		0.55	1.00	
Satd. Flow (perm)	490	1683	2517	3131	3017		3101	1663		951	3146	
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)	120	96	590	458	343	337	259	301	54	42	578	102
RTOR Reduction (vph)	0	0	51	0	221	0	0	6	0	0	15	0
Lane Group Flow (vph)	120	96	539	458	459	0	259	349	0	42	665	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	4 1	3	8		1	6			2	
Permitted Phases	4									2		
Actuated Green, G (s)	29.2	21.0	37.7	13.6	26.4		11.9	40.4		23.7	23.7	
Effective Green, g (s)	29.2	21.0	37.7	13.6	26.4		11.9	40.4		23.7	23.7	
Actuated g/C Ratio	0.32	0.23	0.42	0.15	0.29		0.13	0.45		0.26	0.26	
Clearance Time (s)	5.4	4.8		5.4	4.8		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	261	392	1054	473	884		410	746		250	828	
v/s Ratio Prot	0.04	0.06	0.21	c0.15	c0.15		c0.08	0.21			c0.21	
v/s Ratio Perm	0.11									0.04		
v/c Ratio	0.46	0.24	0.51	0.97	0.52		0.63	0.47		0.17	0.80	
Uniform Delay, d1	22.4	28.1	19.3	38.0	26.5		37.0	17.3		25.6	31.0	
Progression Factor	1.00	1.00	1.00	1.31	0.84		0.79	1.68		1.00	1.00	
Incremental Delay, d2	1.3	0.3	0.4	31.1	0.5		1.7	0.3		1.4	8.1	
Delay (s)	23.7	28.4	19.8	80.7	22.6		30.8	29.3		27.0	39.1	
Level of Service	C	C	B	F	C		C	C		C	D	
Approach Delay (s)		21.4			46.0			30.0			38.4	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	35.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.8
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	670	20	55	530	0	0
Future Volume (Veh/h)	670	20	55	530	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	720	22	59	570	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume			742		1134	371
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			742		1134	371
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		100	100
cM capacity (veh/h)			861		183	626

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3
Volume Total	480	262	59	285	285
Volume Left	0	0	59	0	0
Volume Right	0	22	0	0	0
cSH	1700	1700	861	1700	1700
Volume to Capacity	0.28	0.15	0.07	0.17	0.17
Queue Length 95th (ft)	0	0	6	0	0
Control Delay (s)	0.0	0.0	9.5	0.0	0.0
Lane LOS			A		
Approach Delay (s)	0.0		0.9		
Approach LOS					

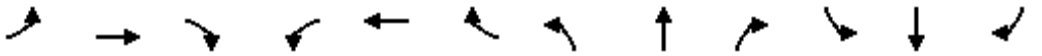
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	30.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	120	0	0	170	40	740	10	45	30	0	35
Future Volume (vph)	40	120	0	0	170	40	740	10	45	30	0	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Lane Util. Factor	1.00	1.00			1.00		0.97	1.00		1.00		1.00
Frt	1.00	1.00			0.97		1.00	0.88		1.00		0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (prot)	1630	1716			1672		3162	1506		1630		1458
Flt Permitted	0.57	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (perm)	984	1716			1672		3162	1506		1630		1458
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	43	129	0	0	183	43	796	11	48	32	0	38
RTOR Reduction (vph)	0	0	0	0	8	0	0	31	0	0	0	36
Lane Group Flow (vph)	43	129	0	0	218	0	796	28	0	32	0	2
Turn Type	Perm	NA			NA		Split	NA		Prot		Prot
Protected Phases		4			8		2	2		6		6
Permitted Phases	4											
Actuated Green, G (s)	37.9	37.9			37.9		31.2	31.2		5.9		5.9
Effective Green, g (s)	37.9	37.9			37.9		31.2	31.2		5.9		5.9
Actuated g/C Ratio	0.42	0.42			0.42		0.35	0.35		0.07		0.07
Clearance Time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	414	722			704		1096	522		106		95
v/s Ratio Prot		0.08			c0.13		c0.25	0.02		c0.02		0.00
v/s Ratio Perm	0.04											
v/c Ratio	0.10	0.18			0.31		0.73	0.05		0.30		0.03
Uniform Delay, d1	15.8	16.3			17.3		25.7	19.6		40.1		39.4
Progression Factor	0.75	0.75			1.00		1.00	1.00		1.00		1.00
Incremental Delay, d2	0.5	0.5			0.3		2.4	0.0		1.6		0.1
Delay (s)	12.3	12.8			17.6		28.1	19.6		41.7		39.5
Level of Service	B	B			B		C	B		D		D
Approach Delay (s)		12.7			17.6			27.5			40.5	
Approach LOS		B			B			C			D	

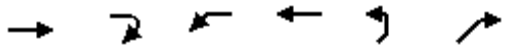
Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	95	310	315	380	225	275	180	120	55	320	85
Future Volume (vph)	40	95	310	315	380	225	275	180	120	55	320	85
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.4	4.8	4.8	5.4	4.8		5.4	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	0.97	0.95		0.97	1.00		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.94		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	3131	3078		3101	1604		1646	3114	
Flt Permitted	0.39	1.00	1.00	0.95	1.00		0.95	1.00		0.56	1.00	
Satd. Flow (perm)	661	1683	2517	3131	3078		3101	1604		963	3114	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	45	108	352	358	432	256	312	205	136	62	364	97
RTOR Reduction (vph)	0	0	96	0	111	0	0	22	0	0	23	0
Lane Group Flow (vph)	45	108	256	358	577	0	313	319	0	63	438	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	4 1	3	8		1	6			2	
Permitted Phases	4									2		
Actuated Green, G (s)	17.6	15.1	34.1	13.7	26.3		14.2	46.2		26.6	26.6	
Effective Green, g (s)	17.6	15.1	34.1	13.7	26.3		14.2	46.2		26.6	26.6	
Actuated g/C Ratio	0.20	0.17	0.38	0.15	0.29		0.16	0.51		0.30	0.30	
Clearance Time (s)	5.4	4.8		5.4	4.8		5.4	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	155	282	953	476	899		489	823		284	920	
v/s Ratio Prot	0.01	0.06	0.10	c0.11	c0.19		c0.10	0.20			c0.14	
v/s Ratio Perm	0.05									0.07		
v/c Ratio	0.29	0.38	0.27	0.75	0.64		0.64	0.39		0.22	0.48	
Uniform Delay, d1	30.0	33.3	19.3	36.5	27.7		35.5	13.3		23.9	26.0	
Progression Factor	1.00	1.00	1.00	1.32	0.80		1.43	1.17		1.00	1.00	
Incremental Delay, d2	1.0	0.9	0.2	5.7	1.3		2.3	1.1		1.8	1.8	
Delay (s)	31.0	34.2	19.5	54.0	23.6		52.9	16.7		25.7	27.7	
Level of Service	C	C	B	D	C		D	B		C	C	
Approach Delay (s)		23.7			34.0			34.0			27.5	
Approach LOS		C			C			C			C	

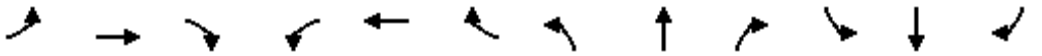
Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.4
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	445	50	140	600	0	0
Future Volume (Veh/h)	445	50	140	600	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	478	54	151	645	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume			532		1130	266
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			532		1130	266
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			85		100	100
cM capacity (veh/h)			1032		169	732

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3
Volume Total	319	213	151	322	322
Volume Left	0	0	151	0	0
Volume Right	0	54	0	0	0
cSH	1700	1700	1032	1700	1700
Volume to Capacity	0.19	0.13	0.15	0.19	0.19
Queue Length 95th (ft)	0	0	13	0	0
Control Delay (s)	0.0	0.0	9.1	0.0	0.0
Lane LOS			A		
Approach Delay (s)	0.0		1.7		
Approach LOS					

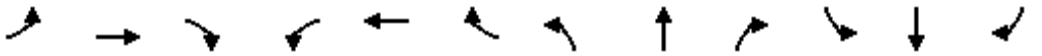
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	185	0	0	280	75	565	30	140	90	0	75
Future Volume (vph)	85	185	0	0	280	75	565	30	140	90	0	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Lane Util. Factor	1.00	1.00			1.00		0.97	1.00		1.00		1.00
Frt	1.00	1.00			0.97		1.00	0.88		1.00		0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (prot)	1630	1716			1667		3162	1503		1630		1458
Flt Permitted	0.43	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (perm)	745	1716			1667		3162	1503		1630		1458
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	91	199	0	0	301	81	608	32	151	97	0	81
RTOR Reduction (vph)	0	0	0	0	9	0	0	112	0	0	0	73
Lane Group Flow (vph)	91	199	0	0	373	0	608	71	0	97	0	8
Turn Type	Perm	NA			NA		Split	NA		Prot		Prot
Protected Phases		4			8		2	2		6		6
Permitted Phases	4											
Actuated Green, G (s)	42.4	42.4			42.4		23.3	23.3		9.3		9.3
Effective Green, g (s)	42.4	42.4			42.4		23.3	23.3		9.3		9.3
Actuated g/C Ratio	0.47	0.47			0.47		0.26	0.26		0.10		0.10
Clearance Time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	350	808			785		818	389		168		150
v/s Ratio Prot		0.12			c0.22		c0.19	0.05		c0.06		0.01
v/s Ratio Perm	0.12											
v/c Ratio	0.26	0.25			0.48		0.74	0.18		0.58		0.06
Uniform Delay, d1	14.3	14.2			16.2		30.6	25.9		38.5		36.4
Progression Factor	0.67	0.66			1.00		1.00	1.00		1.00		1.00
Incremental Delay, d2	1.7	0.7			0.5		3.7	0.2		4.7		0.2
Delay (s)	11.3	10.2			16.7		34.3	26.2		43.2		36.5
Level of Service	B	B			B		C	C		D		D
Approach Delay (s)		10.5			16.7			32.4			40.2	
Approach LOS		B			B			C			D	

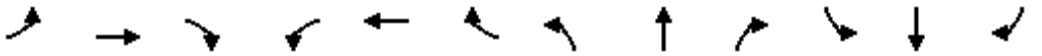
Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	80	510	90	85	30	375	505	90	35	500	85
Future Volume (vph)	100	80	510	90	85	30	375	505	90	35	500	85
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	5.4	5.4	4.8	5.4		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	1614	1649		3101	3160		1646	3149	
Flt Permitted	0.52	1.00	1.00	0.69	1.00		0.95	1.00		0.38	1.00	
Satd. Flow (perm)	888	1683	2517	1181	1649		3101	3160		657	3149	
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)	120	96	614	108	102	36	452	608	108	42	602	102
RTOR Reduction (vph)	0	0	126	0	17	0	0	13	0	0	14	0
Lane Group Flow (vph)	120	96	488	108	121	0	452	703	0	42	690	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	4 1	3	8		1	6			2	
Permitted Phases	4			8						2		
Actuated Green, G (s)	25.4	18.7	43.0	18.8	15.4		18.9	52.9		29.2	29.2	
Effective Green, g (s)	25.4	18.7	43.0	18.8	15.4		18.9	52.9		29.2	29.2	
Actuated g/C Ratio	0.28	0.21	0.48	0.21	0.17		0.21	0.59		0.32	0.32	
Clearance Time (s)	4.8	5.4		4.8	5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	304	349	1202	263	282		651	1857		213	1021	
v/s Ratio Prot	c0.03	0.06	c0.19	0.02	0.07		c0.15	0.22			c0.22	
v/s Ratio Perm	0.08			0.07						0.06		
v/c Ratio	0.39	0.28	0.41	0.41	0.43		0.69	0.38		0.20	0.68	
Uniform Delay, d1	25.2	30.0	15.2	30.3	33.4		32.9	9.8		21.9	26.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.03	1.45		1.00	1.00	
Incremental Delay, d2	0.8	0.4	0.2	1.0	1.1		2.8	0.5		2.1	3.6	
Delay (s)	26.0	30.4	15.5	31.3	34.4		36.5	14.7		24.0	29.9	
Level of Service	C	C	B	C	C		D	B		C	C	
Approach Delay (s)		18.7			33.1			23.2			29.6	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.8
Intersection Capacity Utilization	55.2%	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 (vph)	40	95	485	175	115	65	450	370	260	55	350	35
Future Volume (vph)	40	95	485	175	115	65	450	370	260	55	350	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	5.4	5.4	4.8	5.4		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	1614	1623		3101	3041		1646	3178	
Flt Permitted	0.59	1.00	1.00	0.59	1.00		0.95	1.00		0.38	1.00	
Satd. Flow (perm)	1004	1683	2517	1004	1623		3101	3041		658	3178	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	45	108	551	199	131	74	511	420	295	62	398	40
RTOR Reduction (vph)	0	0	131	0	26	0	0	107	0	0	8	0
Lane Group Flow (vph)	45	108	420	199	179	0	511	608	0	63	430	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	4 1	3	8		1	6			2	
Permitted Phases	4			8						2		
Actuated Green, G (s)	19.0	16.5	43.1	24.4	19.2		21.2	53.3		27.3	27.3	
Effective Green, g (s)	19.0	16.5	43.1	24.4	19.2		21.2	53.3		27.3	27.3	
Actuated g/C Ratio	0.21	0.18	0.48	0.27	0.21		0.24	0.59		0.30	0.30	
Clearance Time (s)	4.8	5.4		4.8	5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	228	308	1205	307	346		730	1800		199	963	
v/s Ratio Prot	0.01	0.06	0.17	c0.04	0.11		c0.16	0.20			c0.14	
v/s Ratio Perm	0.04			c0.14						0.10		
v/c Ratio	0.20	0.35	0.35	0.65	0.52		0.70	0.34		0.32	0.45	
Uniform Delay, d1	28.8	32.1	14.7	28.6	31.3		31.5	9.4		24.2	25.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.20	1.05		1.00	1.00	
Incremental Delay, d2	0.4	0.7	0.2	4.7	1.3		2.5	0.4		4.1	1.5	
Delay (s)	29.2	32.8	14.8	33.3	32.6		40.3	10.3		28.3	26.8	
Level of Service	C	C	B	C	C		D	B		C	C	
Approach Delay (s)		18.5			33.0			22.8			27.0	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.8
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Sunset Dr NB													
Lane 1	408	3.0	1107	0.368	74[5]	7.0	LOS A	1.9	48.2	Full	1600	0.0	0.0
Lane 2[d]	549	3.0	1107	0.496	100	8.9	LOS A	2.9	75.4	Full	1600	0.0	0.0
Lane 3	98	3.0	1226	0.080	100	3.6	LOS A	0.3	8.1	Short	40	0.0	NA
Approach	1054	3.0		0.496		7.7	LOS A	2.9	75.4				
East: Old Red Tr WB													
Lane 1	104	3.0	478	0.218	100	10.7	LOS B	0.8	19.3	Full	1600	0.0	0.0
Lane 2[d]	118	3.0	543	0.218	100	9.6	LOS A	0.8	19.2	Full	1600	0.0	0.0
Approach	223	3.0		0.218		10.1	LOS B	0.8	19.3				
North: Sunset Dr SB													
Lane 1	321	3.0	744	0.432	100	10.6	LOS B	2.3	59.5	Full	1600	0.0	0.0
Lane 2[d]	353	3.0	817	0.432	100	9.9	LOS A	2.3	59.3	Short	400	0.0	NA
Approach	674	3.0		0.432		10.2	LOS B	2.3	59.5				
West: Old Red Tr EB													
Lane 1	356	3.0	689	0.518	100	13.3	LOS B	3.2	82.5	Full	1600	0.0	0.0
Lane 2[d]	394	3.0	761	0.518	100	12.3	LOS B	3.3	83.6	Full	1600	0.0	0.0
Approach	750	3.0		0.518		12.8	LOS B	3.3	83.6				
Intersection	2701	3.0		0.518		9.9	LOS A	3.3	83.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Sunset Dr NB

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	408	-	-	408	3.0	1107	0.368	74[5]	NA	NA
Lane 2	-	549	-	549	3.0	1107	0.496	100	NA	NA
Lane 3	-	-	98	98	3.0	1226	0.080	100	0.0	2
Approach	408	549	98	1054	3.0		0.496			

East: Old Red Tr WB

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From E To Exit:	S	W	N			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	98	7	-	104	3.0	478	0.218	100	NA	NA
Lane 2	-	86	33	118	3.0	543	0.218	100	NA	NA
Approach	98	92	33	223	3.0		0.218			
North: Sunset Dr SB										
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	38	283	-	321	3.0	744	0.432	100	NA	NA
Lane 2	-	260	92	353	3.0	817	0.432	100	0.0	1
Approach	38	543	92	674	3.0		0.432			
West: Old Red Tr EB										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	109	87	161	356	3.0	689	0.518	100	NA	NA
Lane 2	-	-	394	394	3.0	761	0.518	100	NA	NA
Approach	109	87	554	750	3.0		0.518			

	Total	%HV	Deg.Satn (v/c)
Intersection	2701	3.0	0.518

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Sunset Dr NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Old Red Tr WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Sunset Dr SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
West Exit: Old Red Tr EB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Sunset Dr NB														
3	L2	375	3.0	408	3.0	0.368	7.0	LOS A	1.9	48.2	0.45	0.33	0.45	23.3
8	T1	505	3.0	549	3.0	0.496	8.9	LOS A	2.9	75.4	0.53	0.40	0.53	23.6
18	R2	90	3.0	98	3.0	0.080	3.6	LOS A	0.3	8.1	0.25	0.12	0.25	24.1
Approach		970	3.0	1054	3.0	0.496	7.7	LOS A	2.9	75.4	0.47	0.35	0.47	23.5
East: Old Red Tr WB														
1	L2	90	3.0	98	3.0	0.218	10.7	LOS B	0.8	19.3	0.69	0.69	0.69	22.5
6	T1	85	3.0	92	3.0	0.218	9.7	LOS A	0.8	19.3	0.66	0.66	0.66	23.3
16	R2	30	3.0	33	3.0	0.218	9.6	LOS A	0.8	19.2	0.66	0.66	0.66	22.8
Approach		205	3.0	223	3.0	0.218	10.1	LOS B	0.8	19.3	0.67	0.67	0.67	22.9
North: Sunset Dr SB														
7	L2	35	3.0	38	3.0	0.432	10.6	LOS B	2.3	59.5	0.66	0.76	0.86	23.5
4	T1	500	3.0	543	3.0	0.432	10.3	LOS B	2.3	59.5	0.65	0.75	0.85	23.2
14	R2	85	3.0	92	3.0	0.432	9.9	LOS A	2.3	59.3	0.64	0.74	0.83	22.7
Approach		620	3.0	674	3.0	0.432	10.2	LOS B	2.3	59.5	0.65	0.75	0.85	23.1
West: Old Red Tr EB														
5	L2	100	3.0	109	3.0	0.518	13.3	LOS B	3.2	82.5	0.72	0.91	1.11	22.5
2	T1	80	3.0	87	3.0	0.518	13.3	LOS B	3.2	82.5	0.72	0.91	1.11	22.1
12	R2	510	3.0	554	3.0	0.518	12.6	LOS B	3.3	83.6	0.71	0.89	1.09	21.9
Approach		690	3.0	750	3.0	0.518	12.8	LOS B	3.3	83.6	0.71	0.90	1.10	22.0
All Vehicles		2485	3.0	2701	3.0	0.518	9.9	LOS A	3.3	83.6	0.60	0.63	0.75	22.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Sunset Dr NB													
Lane 1	446	3.0	1136	0.392	100	7.2	LOS A	2.1	53.5	Full	1600	0.0	0.0
Lane 2[d]	446	3.0	1136	0.392	100	7.2	LOS A	2.1	53.5	Full	1600	0.0	0.0
Lane 3	283	3.0	1183	0.239	100	5.2	LOS A	1.1	28.1	Short	40	0.0	NA
Approach	1174	3.0		0.392		6.7	LOS A	2.1	53.5				
East: Old Red Tr WB													
Lane 1	190	3.0	541	0.352	100	12.0	LOS B	1.5	37.8	Full	1600	0.0	0.0
Lane 2[d]	196	3.0	608	0.322	91[5]	10.3	LOS B	1.3	32.8	Full	1600	0.0	0.0
Approach	386	3.0		0.352		11.1	LOS B	1.5	37.8				
North: Sunset Dr SB													
Lane 1	226	3.0	612	0.370	100	11.1	LOS B	1.7	42.3	Full	1600	0.0	0.0
Lane 2[d]	252	3.0	682	0.370	100	10.2	LOS B	1.6	42.2	Short	400	0.0	NA
Approach	478	3.0		0.370		10.6	LOS B	1.7	42.3				
West: Old Red Tr EB													
Lane 1	321	3.0	721	0.445	100	11.2	LOS B	2.4	62.5	Full	1600	0.0	0.0
Lane 2[d]	353	3.0	794	0.445	100	10.3	LOS B	2.4	62.5	Full	1600	0.0	0.0
Approach	674	3.0		0.445		10.7	LOS B	2.4	62.5				
Intersection	2712	3.0		0.445		9.0	LOS A	2.4	62.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Sunset Dr NB

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	446	-	-	446	3.0	1136	0.392	100	NA	NA
Lane 2	43	402	-	446	3.0	1136	0.392	100	NA	NA
Lane 3	-	-	283	283	3.0	1183	0.239	100	0.0	2
Approach	489	402	283	1174	3.0		0.392			

East: Old Red Tr WB

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From E To Exit:	S	W	N			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	190	-	-	190	3.0	541	0.352	100	NA	NA
Lane 2	-	125	71	196	3.0	608	0.322	91[5]	NA	NA
Approach	190	125	71	386	3.0		0.352			
North: Sunset Dr SB										
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	60	166	-	226	3.0	612	0.370	100	NA	NA
Lane 2	-	214	38	252	3.0	682	0.370	100	0.0	1
Approach	60	380	38	478	3.0		0.370			
West: Old Red Tr EB										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	43	103	174	321	3.0	721	0.445	100	NA	NA
Lane 2	-	-	353	353	3.0	794	0.445	100	NA	NA
Approach	43	103	527	674	3.0		0.445			

	Total	%HV	Deg.Satn (v/c)
Intersection	2712	3.0	0.445

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Sunset Dr NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Old Red Tr WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Sunset Dr SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
West Exit: Old Red Tr EB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

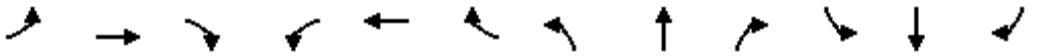
New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Sunset Dr NB														
3	L2	450	3.0	489	3.0	0.392	7.2	LOS A	2.1	53.5	0.44	0.31	0.44	23.4
8	T1	370	3.0	402	3.0	0.392	7.2	LOS A	2.1	53.5	0.44	0.31	0.44	23.9
18	R2	260	3.0	283	3.0	0.239	5.2	LOS A	1.1	28.1	0.33	0.21	0.33	23.6
Approach		1080	3.0	1174	3.0	0.392	6.7	LOS A	2.1	53.5	0.41	0.29	0.41	23.6
East: Old Red Tr WB														
1	L2	175	3.0	190	3.0	0.352	12.0	LOS B	1.5	37.8	0.69	0.77	0.86	22.2
6	T1	115	3.0	125	3.0	0.322	10.3	LOS B	1.3	32.8	0.66	0.71	0.77	23.2
16	R2	65	3.0	71	3.0	0.322	10.3	LOS B	1.3	32.8	0.66	0.71	0.77	22.6
Approach		355	3.0	386	3.0	0.352	11.1	LOS B	1.5	37.8	0.68	0.74	0.82	22.6
North: Sunset Dr SB														
7	L2	55	3.0	60	3.0	0.370	11.1	LOS B	1.7	42.3	0.68	0.75	0.85	23.2
4	T1	350	3.0	380	3.0	0.370	10.6	LOS B	1.7	42.3	0.67	0.74	0.83	23.0
14	R2	35	3.0	38	3.0	0.370	10.2	LOS B	1.6	42.2	0.66	0.73	0.82	22.7
Approach		440	3.0	478	3.0	0.370	10.6	LOS B	1.7	42.3	0.67	0.74	0.83	23.0
West: Old Red Tr EB														
5	L2	40	3.0	43	3.0	0.445	11.2	LOS B	2.4	62.5	0.67	0.79	0.92	23.2
2	T1	95	3.0	103	3.0	0.445	11.2	LOS B	2.4	62.5	0.67	0.79	0.92	22.7
12	R2	485	3.0	527	3.0	0.445	10.6	LOS B	2.4	62.5	0.66	0.78	0.89	22.3
Approach		620	3.0	674	3.0	0.445	10.7	LOS B	2.4	62.5	0.66	0.78	0.90	22.4
All Vehicles		2495	3.0	2712	3.0	0.445	9.0	LOS A	2.4	62.5	0.56	0.55	0.67	23.1

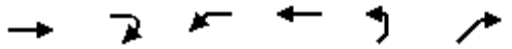
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
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Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	105	605	470	350	345	265	305	55	50	590	105
Future Volume (vph)	95	105	605	470	350	345	265	305	55	50	590	105
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.4	4.8	4.8	5.4	4.8		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	0.97	0.95		0.97	1.00		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.93		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	3131	3017		3101	1663		1646	3146	
Flt Permitted	0.26	1.00	1.00	0.95	1.00		0.95	1.00		0.51	1.00	
Satd. Flow (perm)	448	1683	2517	3131	3017		3101	1663		885	3146	
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)	114	127	729	566	422	416	319	367	66	60	711	127
RTOR Reduction (vph)	0	0	88	0	196	0	0	7	0	0	17	0
Lane Group Flow (vph)	114	127	641	566	642	0	319	426	0	60	821	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	4 1	3	8		1	6			2	
Permitted Phases	4									2		
Actuated Green, G (s)	28.7	23.1	38.1	14.6	32.1		10.2	37.3		22.3	22.3	
Effective Green, g (s)	28.7	23.1	38.1	14.6	32.1		10.2	37.3		22.3	22.3	
Actuated g/C Ratio	0.32	0.26	0.42	0.16	0.36		0.11	0.41		0.25	0.25	
Clearance Time (s)	5.4	4.8		5.4	4.8		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	215	431	1065	507	1076		351	689		219	779	
v/s Ratio Prot	0.03	0.08	c0.25	c0.18	0.21		c0.10	0.26			c0.26	
v/s Ratio Perm	0.14									0.07		
v/c Ratio	0.53	0.29	0.60	1.12	0.60		0.91	0.62		0.27	1.05	
Uniform Delay, d1	22.6	26.9	20.1	37.7	23.7		39.4	20.7		27.3	33.9	
Progression Factor	1.00	1.00	1.00	1.38	0.24		1.10	2.27		1.00	1.00	
Incremental Delay, d2	2.5	0.4	1.0	72.8	0.7		3.6	0.4		3.1	47.6	
Delay (s)	25.1	27.3	21.0	124.7	6.4		46.8	47.4		30.4	81.4	
Level of Service	C	C	C	F	A		D	D		C	F	
Approach Delay (s)		22.3			54.1			47.1			78.0	
Approach LOS		C			D			D			E	

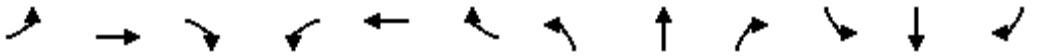
Intersection Summary			
HCM 2000 Control Delay	50.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.8
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	805	25	70	650	0	0
Future Volume (Veh/h)	805	25	70	650	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	866	27	75	699	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume			893		1379	446
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			893		1379	446
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		100	100
cM capacity (veh/h)			755		122	559

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3
Volume Total	577	316	75	350	350
Volume Left	0	0	75	0	0
Volume Right	0	27	0	0	0
cSH	1700	1700	755	1700	1700
Volume to Capacity	0.34	0.19	0.10	0.21	0.21
Queue Length 95th (ft)	0	0	8	0	0
Control Delay (s)	0.0	0.0	10.3	0.0	0.0
Lane LOS			B		
Approach Delay (s)	0.0		1.0		
Approach LOS					

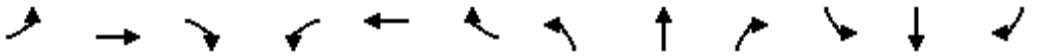
Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	170	0	0	220	40	910	10	60	30	0	35
Future Volume (vph)	40	170	0	0	220	40	910	10	60	30	0	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Lane Util. Factor	1.00	1.00			1.00		0.97	1.00		1.00		1.00
Frt	1.00	1.00			0.98		1.00	0.87		1.00		0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (prot)	1630	1716			1680		3162	1496		1630		1458
Flt Permitted	0.49	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (perm)	842	1716			1680		3162	1496		1630		1458
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	43	183	0	0	237	43	978	11	65	32	0	38
RTOR Reduction (vph)	0	0	0	0	7	0	0	39	0	0	0	36
Lane Group Flow (vph)	43	183	0	0	273	0	978	37	0	32	0	2
Turn Type	Perm	NA			NA		Split	NA		Prot		Prot
Protected Phases		4			8		2	2		6		6
Permitted Phases	4											
Actuated Green, G (s)	33.7	33.7			33.7		36.0	36.0		5.3		5.3
Effective Green, g (s)	33.7	33.7			33.7		36.0	36.0		5.3		5.3
Actuated g/C Ratio	0.37	0.37			0.37		0.40	0.40		0.06		0.06
Clearance Time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	315	642			629		1264	598		95		85
v/s Ratio Prot		0.11			c0.16		c0.31	0.02		c0.02		0.00
v/s Ratio Perm	0.05											
v/c Ratio	0.14	0.29			0.43		0.77	0.06		0.34		0.03
Uniform Delay, d1	18.6	19.7			21.0		23.5	16.6		40.7		39.9
Progression Factor	0.71	0.67			1.00		1.00	1.00		1.00		1.00
Incremental Delay, d2	0.9	1.1			0.5		3.0	0.0		2.1		0.1
Delay (s)	14.1	14.3			21.5		26.5	16.7		42.8		40.0
Level of Service	B	B			C		C	B		D		D
Approach Delay (s)		14.2			21.5			25.8			41.3	
Approach LOS		B			C			C			D	

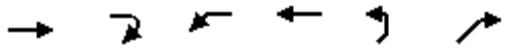
Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	120	350	400	450	335	370	270	170	70	430	105
Future Volume (vph)	50	120	350	400	450	335	370	270	170	70	430	105
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.4	4.8	4.8	5.4	4.8		5.4	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	0.97	0.95		0.97	1.00		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.94		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	3131	3051		3101	1607		1646	3122	
Flt Permitted	0.22	1.00	1.00	0.95	1.00		0.95	1.00		0.48	1.00	
Satd. Flow (perm)	374	1683	2517	3131	3051		3101	1607		832	3122	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	57	136	398	455	511	381	420	307	193	80	489	119
RTOR Reduction (vph)	0	0	87	0	163	0	0	23	0	0	23	0
Lane Group Flow (vph)	57	136	311	455	729	0	420	477	0	80	585	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	4 1	3	8		1	6			2	
Permitted Phases	4									2		
Actuated Green, G (s)	21.7	18.4	39.0	14.2	29.3		15.8	42.4		21.2	21.2	
Effective Green, g (s)	21.7	18.4	39.0	14.2	29.3		15.8	42.4		21.2	21.2	
Actuated g/C Ratio	0.24	0.20	0.43	0.16	0.33		0.18	0.47		0.24	0.24	
Clearance Time (s)	5.4	4.8		5.4	4.8		5.4	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	135	344	1090	494	993		544	757		195	735	
v/s Ratio Prot	0.02	0.08	0.12	c0.15	c0.24		c0.14	0.30			c0.19	
v/s Ratio Perm	0.09									0.10		
v/c Ratio	0.42	0.40	0.29	0.92	0.73		0.77	0.63		0.41	0.80	
Uniform Delay, d1	27.1	31.0	16.5	37.3	26.9		35.4	17.9		29.1	32.4	
Progression Factor	1.00	1.00	1.00	1.30	0.63		1.50	1.39		1.00	1.00	
Incremental Delay, d2	2.1	0.8	0.1	17.0	1.9		0.6	0.4		6.3	8.7	
Delay (s)	29.2	31.7	16.6	65.5	18.9		53.7	25.3		35.4	41.1	
Level of Service	C	C	B	E	B		D	C		D	D	
Approach Delay (s)		21.3			34.7			38.3			40.4	
Approach LOS		C			C			D			D	

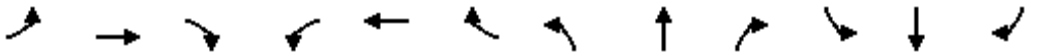
Intersection Summary					
HCM 2000 Control Delay	34.5	HCM 2000 Level of Service	C		
HCM 2000 Volume to Capacity ratio	0.83				
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.4		
Intersection Capacity Utilization	75.9%	ICU Level of Service	D		
Analysis Period (min)	15				
c Critical Lane Group					



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	520	85	190	735	0	0
Future Volume (Veh/h)	520	85	190	735	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	559	91	204	790	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume			650		1408	325
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			650		1408	325
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			78		100	100
cM capacity (veh/h)			932		101	671

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3
Volume Total	373	277	204	395	395
Volume Left	0	0	204	0	0
Volume Right	0	91	0	0	0
cSH	1700	1700	932	1700	1700
Volume to Capacity	0.22	0.16	0.22	0.23	0.23
Queue Length 95th (ft)	0	0	21	0	0
Control Delay (s)	0.0	0.0	9.9	0.0	0.0
Lane LOS			A		
Approach Delay (s)	0.0		2.0		
Approach LOS					

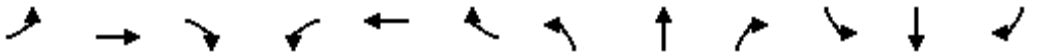
Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	36.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	275	0	0	350	75	760	30	170	90	0	75
Future Volume (vph)	85	275	0	0	350	75	760	30	170	90	0	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Lane Util. Factor	1.00	1.00			1.00		0.97	1.00		1.00		1.00
Frt	1.00	1.00			0.98		1.00	0.87		1.00		0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (prot)	1630	1716			1675		3162	1497		1630		1458
Flt Permitted	0.35	1.00			1.00		0.95	1.00		0.95		1.00
Satd. Flow (perm)	594	1716			1675		3162	1497		1630		1458
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	91	296	0	0	376	81	817	32	183	97	0	81
RTOR Reduction (vph)	0	0	0	0	8	0	0	131	0	0	0	73
Lane Group Flow (vph)	91	296	0	0	449	0	817	84	0	97	0	8
Turn Type	Perm	NA			NA		Split	NA		Prot		Prot
Protected Phases		4			8		2	2		6		6
Permitted Phases	4											
Actuated Green, G (s)	39.9	39.9			39.9		25.8	25.8		9.3		9.3
Effective Green, g (s)	39.9	39.9			39.9		25.8	25.8		9.3		9.3
Actuated g/C Ratio	0.44	0.44			0.44		0.29	0.29		0.10		0.10
Clearance Time (s)	4.8	4.8			4.8		4.8	4.8		5.4		5.4
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0		3.0
Lane Grp Cap (vph)	263	760			742		906	429		168		150
v/s Ratio Prot		0.17			c0.27		c0.26	0.06		c0.06		0.01
v/s Ratio Perm	0.15											
v/c Ratio	0.35	0.39			0.61		0.90	0.20		0.58		0.06
Uniform Delay, d1	16.5	16.9			19.1		30.9	24.3		38.5		36.4
Progression Factor	0.60	0.61			1.00		1.00	1.00		1.00		1.00
Incremental Delay, d2	3.2	1.3			1.4		12.0	0.2		4.7		0.2
Delay (s)	13.2	11.6			20.5		42.9	24.5		43.2		36.5
Level of Service	B	B			C		D	C		D		D
Approach Delay (s)		12.0			20.5			39.1			40.2	
Approach LOS		B			C			D			D	

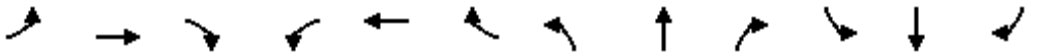
Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	105	630	110	110	35	455	620	115	50	615	105
Future Volume (vph)	120	105	630	110	110	35	455	620	115	50	615	105
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	5.4	4.8	4.8	5.4		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.96		1.00	0.98		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	1614	1654		3101	3157		1646	3148	
Flt Permitted	0.41	1.00	1.00	0.68	1.00		0.95	1.00		0.32	1.00	
Satd. Flow (perm)	704	1683	2517	1148	1654		3101	3157		556	3148	
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)	145	127	759	133	133	42	548	747	139	60	741	127
RTOR Reduction (vph)	0	0	477	0	14	0	0	13	0	0	15	0
Lane Group Flow (vph)	145	127	282	133	161	0	548	873	0	60	853	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	Over	pm+pt	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	1	3	8		1	6			2	
Permitted Phases	4			8						2		
Actuated Green, G (s)	25.0	17.5	23.6	18.0	14.0		23.6	53.5		25.1	25.1	
Effective Green, g (s)	25.0	17.5	23.6	18.0	14.0		23.6	53.5		25.1	25.1	
Actuated g/C Ratio	0.28	0.19	0.26	0.20	0.16		0.26	0.59		0.28	0.28	
Clearance Time (s)	4.8	5.4	4.8	4.8	5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	271	327	660	250	257		813	1876		155	877	
v/s Ratio Prot	c0.04	0.08	0.11	0.02	0.10		c0.18	0.28			c0.27	
v/s Ratio Perm	c0.10			0.08						0.11		
v/c Ratio	0.54	0.39	0.43	0.53	0.63		0.67	0.47		0.39	0.97	
Uniform Delay, d1	26.0	31.6	27.6	31.6	35.5		29.8	10.2		26.2	32.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00		0.88	1.34		1.00	1.00	
Incremental Delay, d2	2.0	0.8	0.4	2.2	4.7		1.6	0.6		7.1	24.4	
Delay (s)	28.1	32.4	28.0	33.7	40.2		27.9	14.3		33.4	56.5	
Level of Service	C	C	C	C	D		C	B		C	E	
Approach Delay (s)		28.6			37.4			19.5			55.0	
Approach LOS		C			D			B			E	

Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.8
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
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)	50	120	580	220	155	85	540	525	345	70	440	40
Future Volume (vph)	50	120	580	220	155	85	540	525	345	70	440	40
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.8	5.4	4.8	4.8	5.4		4.8	4.8		4.8	4.8	
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00		0.97	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	1683	2517	1614	1624		3101	3048		1646	3183	
Flt Permitted	0.40	1.00	1.00	0.62	1.00		0.95	1.00		0.29	1.00	
Satd. Flow (perm)	682	1683	2517	1052	1624		3101	3048		502	3183	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	57	136	659	250	176	97	614	597	392	80	500	45
RTOR Reduction (vph)	0	0	401	0	25	0	0	98	0	0	7	0
Lane Group Flow (vph)	57	136	258	250	248	0	614	891	0	80	538	0
Heavy Vehicles (%)	3%	4%	4%	3%	2%	2%	4%	3%	2%	1%	3%	5%
Turn Type	pm+pt	NA	Over	pm+pt	NA		Prot	NA		Perm	NA	
Protected Phases	7	4	1	3	8		1	6			2	
Permitted Phases	4			8						2		
Actuated Green, G (s)	22.1	18.8	23.4	24.3	19.9		23.4	51.8		23.6	23.6	
Effective Green, g (s)	22.1	18.8	23.4	24.3	19.9		23.4	51.8		23.6	23.6	
Actuated g/C Ratio	0.25	0.21	0.26	0.27	0.22		0.26	0.58		0.26	0.26	
Clearance Time (s)	4.8	5.4	4.8	4.8	5.4		4.8	4.8		4.8	4.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	351	654	311	359		806	1754		131	834	
v/s Ratio Prot	0.01	0.08	0.10	c0.04	0.15		c0.20	0.29			c0.17	
v/s Ratio Perm	0.06			c0.18						0.16		
v/c Ratio	0.28	0.39	0.39	0.80	0.69		0.76	0.51		0.61	0.65	
Uniform Delay, d1	26.8	30.6	27.5	30.2	32.2		30.7	11.5		29.2	29.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.05	1.04		1.00	1.00	
Incremental Delay, d2	0.8	0.7	0.4	13.9	5.6		2.7	0.7		19.4	3.8	
Delay (s)	27.5	31.4	27.9	44.2	37.9		35.0	12.6		48.6	33.3	
Level of Service	C	C	C	D	D		C	B		D	C	
Approach Delay (s)		28.4			40.9			21.2			35.3	
Approach LOS		C			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.8
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Sunset Dr NB													
Lane 1	495	3.0	1042	0.475	73[5]	8.9	LOS A	2.6	67.4	Full	1600	0.0	0.0
Lane 2[d]	674	3.0	1042	0.647	100	12.8	LOS B	7.8	199.6	Full	1600	0.0	0.0
Lane 3	125	3.0	1177	0.106	100	4.0	LOS A	0.4	10.9	Short	40	0.0	NA
Approach	1293	3.0		0.647		10.5	LOS B	7.8	199.6				
East: Old Red Tr WB													
Lane 1	129	3.0	383	0.336	100	15.8	LOS C	1.3	32.2	Full	1600	0.0	0.0
Lane 2[d]	149	3.0	442	0.336	100	13.9	LOS B	1.3	32.4	Full	1600	0.0	0.0
Approach	277	3.0		0.336		14.8	LOS B	1.3	32.4				
North: Sunset Dr SB													
Lane 1	397	3.0	654	0.607	100	16.7	LOS C	4.4	111.6	Full	1600	0.0	0.0
Lane 2[d]	440	3.0	725	0.607	100	15.4	LOS C	4.5	114.2	Short	400	0.0	NA
Approach	837	3.0		0.607		16.0	LOS C	4.5	114.2				
West: Old Red Tr EB													
Lane 1	439	3.0	590	0.744	100	25.4	LOS D	6.6	168.6	Full	1600	0.0	0.0
Lane 2[d]	491	3.0	659	0.744	100	23.3	LOS C	6.9	175.4	Full	1600	0.0	0.0
Approach	929	3.0		0.744		24.3	LOS C	6.9	175.4				
Intersection	3337	3.0		0.744		16.1	LOS C	7.8	199.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Sunset Dr NB

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	495	-	-	495	3.0	1042	0.475	73[5]	NA	NA
Lane 2	-	674	-	674	3.0	1042	0.647	100	NA	NA
Lane 3	-	-	125	125	3.0	1177	0.106	100	0.0	2
Approach	495	674	125	1293	3.0		0.647			

East: Old Red Tr WB

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From E To Exit:	S	W	N			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	120	9	-	129	3.0	383	0.336	100	NA	NA
Lane 2	-	111	38	149	3.0	442	0.336	100	NA	NA
Approach	120	120	38	277	3.0		0.336			
North: Sunset Dr SB										
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	54	343	-	397	3.0	654	0.607	100	NA	NA
Lane 2	-	326	114	440	3.0	725	0.607	100	0.0	1
Approach	54	668	114	837	3.0		0.607			
West: Old Red Tr EB										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	130	114	194	439	3.0	590	0.744	100	NA	NA
Lane 2	-	-	491	491	3.0	659	0.744	100	NA	NA
Approach	130	114	685	929	3.0		0.744			

	Total	%HV	Deg.Satn (v/c)
Intersection	3337	3.0	0.744

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Sunset Dr NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Old Red Tr WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Sunset Dr SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
West Exit: Old Red Tr EB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Sunset Dr NB														
3	L2	455	3.0	495	3.0	0.475	8.9	LOS A	2.6	67.4	0.56	0.47	0.56	22.9
8	T1	620	3.0	674	3.0	0.647	12.8	LOS B	7.8	199.6	0.70	0.85	1.07	22.7
18	R2	115	3.0	125	3.0	0.106	4.0	LOS A	0.4	10.9	0.30	0.17	0.30	24.0
Approach		1190	3.0	1293	3.0	0.647	10.5	LOS B	7.8	199.6	0.61	0.64	0.80	22.9
East: Old Red Tr WB														
1	L2	110	3.0	120	3.0	0.336	15.8	LOS C	1.3	32.2	0.78	0.86	0.99	21.5
6	T1	110	3.0	120	3.0	0.336	14.0	LOS B	1.3	32.4	0.76	0.84	0.96	22.3
16	R2	35	3.0	38	3.0	0.336	13.9	LOS B	1.3	32.4	0.76	0.84	0.96	21.8
Approach		255	3.0	277	3.0	0.336	14.8	LOS B	1.3	32.4	0.77	0.85	0.97	21.9
North: Sunset Dr SB														
7	L2	50	3.0	54	3.0	0.607	16.7	LOS C	4.4	111.6	0.77	1.05	1.36	22.1
4	T1	615	3.0	668	3.0	0.607	16.0	LOS C	4.5	114.2	0.76	1.04	1.35	21.9
14	R2	105	3.0	114	3.0	0.607	15.4	LOS C	4.5	114.2	0.76	1.04	1.34	21.5
Approach		770	3.0	837	3.0	0.607	16.0	LOS C	4.5	114.2	0.76	1.04	1.35	21.8
West: Old Red Tr EB														
5	L2	120	3.0	130	3.0	0.744	25.4	LOS D	6.6	168.6	0.85	1.32	1.89	20.1
2	T1	105	3.0	114	3.0	0.744	25.4	LOS D	6.6	168.6	0.85	1.32	1.89	19.8
12	R2	630	3.0	685	3.0	0.744	23.9	LOS C	6.9	175.4	0.84	1.32	1.88	19.7
Approach		855	3.0	929	3.0	0.744	24.3	LOS C	6.9	175.4	0.84	1.32	1.88	19.8
All Vehicles		3070	3.0	3337	3.0	0.744	16.1	LOS C	7.8	199.6	0.73	0.95	1.26	21.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Sunset Dr NB														
3	L2	540	3.0	587	3.0	0.536	9.8	LOS A	3.6	93.2	0.58	0.49	0.62	22.7
8	T1	525	3.0	571	3.0	0.536	9.8	LOS A	3.6	93.2	0.58	0.49	0.62	23.4
18	R2	345	3.0	375	3.0	0.330	6.4	LOS A	1.6	42.0	0.41	0.29	0.41	23.3
Approach		1410	3.0	1533	3.0	0.536	9.0	LOS A	3.6	93.2	0.54	0.44	0.57	23.1
East: Old Red Tr WB														
1	L2	220	3.0	239	3.0	0.575	22.6	LOS C	2.9	75.0	0.83	1.07	1.43	20.2
6	T1	155	3.0	168	3.0	0.547	19.0	LOS C	2.7	70.3	0.80	1.02	1.34	21.3
16	R2	85	3.0	92	3.0	0.547	19.0	LOS C	2.7	70.3	0.80	1.02	1.34	20.8
Approach		460	3.0	500	3.0	0.575	20.7	LOS C	2.9	75.0	0.81	1.04	1.38	20.6
North: Sunset Dr SB														
7	L2	70	3.0	76	3.0	0.550	18.1	LOS C	3.0	77.1	0.77	0.99	1.29	21.7
4	T1	440	3.0	478	3.0	0.550	17.1	LOS C	3.1	78.9	0.76	0.98	1.28	21.6
14	R2	40	3.0	43	3.0	0.550	16.3	LOS C	3.1	78.9	0.75	0.98	1.27	21.4
Approach		550	3.0	598	3.0	0.550	17.1	LOS C	3.1	78.9	0.76	0.98	1.28	21.6
West: Old Red Tr EB														
5	L2	50	3.0	54	3.0	0.624	18.1	LOS C	4.4	113.5	0.78	1.08	1.43	21.6
2	T1	120	3.0	130	3.0	0.624	18.1	LOS C	4.4	113.5	0.78	1.08	1.43	21.3
12	R2	580	3.0	630	3.0	0.624	17.1	LOS C	4.6	116.5	0.78	1.08	1.42	21.0
Approach		750	3.0	815	3.0	0.624	17.3	LOS C	4.6	116.5	0.78	1.08	1.42	21.1
All Vehicles		3170	3.0	3446	3.0	0.624	14.1	LOS B	4.6	116.5	0.67	0.77	1.01	22.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Sunset Dr NB													
Lane 1	579	3.0	1080	0.536	100	9.8	LOS A	3.6	93.2	Full	1600	0.0	0.0
Lane 2[d]	579	3.0	1080	0.536	100	9.8	LOS A	3.6	93.2	Full	1600	0.0	0.0
Lane 3	375	3.0	1136	0.330	100	6.4	LOS A	1.6	42.0	Short	40	0.0	NA
Approach	1533	3.0		0.536		9.0	LOS A	3.6	93.2				
East: Old Red Tr WB													
Lane 1	239	3.0	416	0.575	100	22.6	LOS C	2.9	75.0	Full	1600	0.0	0.0
Lane 2[d]	261	3.0	477	0.547	95[5]	19.0	LOS C	2.7	70.3	Full	1600	0.0	0.0
Approach	500	3.0		0.575		20.7	LOS C	2.9	75.0				
North: Sunset Dr SB													
Lane 1	281	3.0	511	0.550	100	18.1	LOS C	3.0	77.1	Full	1600	0.0	0.0
Lane 2[d]	317	3.0	577	0.550	100	16.3	LOS C	3.1	78.9	Short	400	0.0	NA
Approach	598	3.0		0.550		17.1	LOS C	3.1	78.9				
West: Old Red Tr EB													
Lane 1	386	3.0	618	0.624	100	18.1	LOS C	4.4	113.5	Full	1600	0.0	0.0
Lane 2[d]	430	3.0	688	0.624	100	16.6	LOS C	4.6	116.5	Full	1600	0.0	0.0
Approach	815	3.0		0.624		17.3	LOS C	4.6	116.5				
Intersection	3446	3.0		0.624		14.1	LOS B	4.6	116.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

5 Lane under-utilisation found by the program
d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: Sunset Dr NB

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	579	-	-	579	3.0	1080	0.536	100	NA	NA
Lane 2	8	571	-	579	3.0	1080	0.536	100	NA	NA
Lane 3	-	-	375	375	3.0	1136	0.330	100	6.4	2
Approach	587	571	375	1533	3.0		0.536			

East: Old Red Tr WB

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From E To Exit:	S	W	N			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	239	-	-	239	3.0	416	0.575	100	NA	NA
Lane 2	-	168	92	261	3.0	477	0.547	95[5]	NA	NA
Approach	239	168	92	500	3.0		0.575			
North: Sunset Dr SB										
Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	76	205	-	281	3.0	511	0.550	100	NA	NA
Lane 2	-	274	43	317	3.0	577	0.550	100	0.0	1
Approach	76	478	43	598	3.0		0.550			
West: Old Red Tr EB										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	54	130	201	386	3.0	618	0.624	100	NA	NA
Lane 2	-	-	430	430	3.0	688	0.624	100	NA	NA
Approach	54	130	630	815	3.0		0.624			

	Total	%HV	Deg.Satn (v/c)
Intersection	3446	3.0	0.624

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

5 Lane under-utilisation found by the program

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: Sunset Dr NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: Old Red Tr WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: Sunset Dr SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
West Exit: Old Red Tr EB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										



Movement	WBL2	WBR	NBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	295	490	480	1055	45
Future Volume (vph)	295	490	480	1055	45
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0
Lane Util. Factor	1.00	0.88	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1646	2542	3260	3296	1377
Flt Permitted	0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1646	2542	3260	3296	1377
Peak-hour factor, PHF	0.82	0.82	0.93	0.82	0.82
Adj. Flow (vph)	360	598	516	1287	55
RTOR Reduction (vph)	36	100	0	0	0
Lane Group Flow (vph)	324	498	516	1287	55
Heavy Vehicles (%)	1%	3%	2%	3%	8%
Turn Type	Prot	Prot	NA	Prot	Free
Protected Phases	4	2	4	2	
Permitted Phases					Free
Actuated Green, G (s)	26.9	54.1	26.9	54.1	90.0
Effective Green, g (s)	26.9	54.1	26.9	54.1	90.0
Actuated g/C Ratio	0.30	0.60	0.30	0.60	1.00
Clearance Time (s)	5.0	4.0	5.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	491	1528	974	1981	1377
v/s Ratio Prot	c0.20	0.20	0.16	c0.39	
v/s Ratio Perm					0.04
v/c Ratio	0.66	0.33	0.53	0.65	0.04
Uniform Delay, d1	27.5	8.9	26.3	11.7	0.0
Progression Factor	1.00	1.00	1.82	1.11	1.00
Incremental Delay, d2	3.2	0.6	0.5	1.0	0.0
Delay (s)	30.7	9.5	48.2	14.1	0.0
Level of Service	C	A	D	B	A
Approach Delay (s)			48.2		
Approach LOS			D		

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL2	EBR	NBL	NBR	SBT
Lane Configurations					
Traffic Volume (vph)	35	70	475	330	770
Future Volume (vph)	35	70	475	330	770
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0	5.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.97	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1630	1488	3328	1473	3260
Flt Permitted	0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1630	1488	3328	1473	3260
Peak-hour factor, PHF	0.93	0.85	0.93	0.85	0.85
Adj. Flow (vph)	38	82	511	388	906
RTOR Reduction (vph)	15	57	0	0	0
Lane Group Flow (vph)	23	25	511	388	906
Heavy Vehicles (%)	2%	0%	2%	1%	2%
Turn Type	Prot	Prot	Prot	Free	NA
Protected Phases	2	4	4		2
Permitted Phases				Free	
Actuated Green, G (s)	54.1	26.9	26.9	90.0	54.1
Effective Green, g (s)	54.1	26.9	26.9	90.0	54.1
Actuated g/C Ratio	0.60	0.30	0.30	1.00	0.60
Clearance Time (s)	4.0	5.0	5.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	979	444	994	1473	1959
v/s Ratio Prot	0.01	0.02	c0.15		c0.28
v/s Ratio Perm				0.26	
v/c Ratio	0.02	0.06	0.51	0.26	0.46
Uniform Delay, d1	7.3	22.5	26.1	0.0	9.9
Progression Factor	1.00	1.00	1.00	1.00	0.86
Incremental Delay, d2	0.0	0.1	0.5	0.4	0.7
Delay (s)	7.3	22.5	26.6	0.4	9.2
Level of Service	A	C	C	A	A
Approach Delay (s)					9.2
Approach LOS					A

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



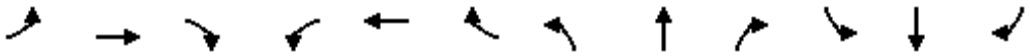
Movement	WBL2	WBR	NBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	315	545	535	885	125
Future Volume (vph)	315	545	535	885	125
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0
Lane Util. Factor	1.00	0.88	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1646	2542	3260	3296	1377
Flt Permitted	0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1646	2542	3260	3296	1377
Peak-hour factor, PHF	0.89	0.89	0.93	0.89	0.89
Adj. Flow (vph)	354	612	575	994	140
RTOR Reduction (vph)	112	28	0	0	0
Lane Group Flow (vph)	242	584	575	994	140
Heavy Vehicles (%)	1%	3%	2%	3%	8%
Turn Type	Prot	Prot	NA	Prot	Free
Protected Phases	4	2	4	2	
Permitted Phases					Free
Actuated Green, G (s)	21.6	59.4	21.6	59.4	90.0
Effective Green, g (s)	21.6	59.4	21.6	59.4	90.0
Actuated g/C Ratio	0.24	0.66	0.24	0.66	1.00
Clearance Time (s)	5.0	4.0	5.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	395	1677	782	2175	1377
v/s Ratio Prot	0.15	0.23	c0.18	c0.30	
v/s Ratio Perm					0.10
v/c Ratio	0.61	0.35	0.74	0.46	0.10
Uniform Delay, d1	30.5	6.8	31.6	7.4	0.0
Progression Factor	1.00	1.00	1.90	1.38	1.00
Incremental Delay, d2	2.8	0.6	2.8	0.5	0.1
Delay (s)	33.3	7.3	62.7	10.8	0.1
Level of Service	C	A	E	B	A
Approach Delay (s)			62.7		
Approach LOS			E		

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



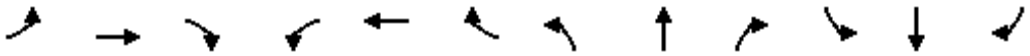
Movement	EBL2	EBR	NBL	NBR	SBT
Lane Configurations					
Traffic Volume (vph)	65	45	535	260	770
Future Volume (vph)	65	45	535	260	770
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0	5.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.97	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1630	1488	3328	1473	3260
Flt Permitted	0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1630	1488	3328	1473	3260
Peak-hour factor, PHF	0.93	0.90	0.93	0.90	0.90
Adj. Flow (vph)	70	50	575	289	856
RTOR Reduction (vph)	16	38	0	0	0
Lane Group Flow (vph)	54	12	575	289	856
Heavy Vehicles (%)	2%	0%	2%	1%	2%
Turn Type	Prot	Prot	Prot	Free	NA
Protected Phases	2	4	4		2
Permitted Phases				Free	
Actuated Green, G (s)	59.4	21.6	21.6	90.0	59.4
Effective Green, g (s)	59.4	21.6	21.6	90.0	59.4
Actuated g/C Ratio	0.66	0.24	0.24	1.00	0.66
Clearance Time (s)	4.0	5.0	5.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	1075	357	798	1473	2151
v/s Ratio Prot	0.03	0.01	c0.17		c0.26
v/s Ratio Perm				0.20	
v/c Ratio	0.05	0.03	0.72	0.20	0.40
Uniform Delay, d1	5.4	26.2	31.4	0.0	7.1
Progression Factor	1.00	1.00	1.00	1.00	0.89
Incremental Delay, d2	0.1	0.0	3.2	0.3	0.5
Delay (s)	5.5	26.2	34.6	0.3	6.8
Level of Service	A	C	C	A	A
Approach Delay (s)					6.8
Approach LOS					A

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



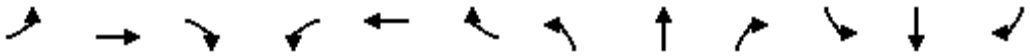
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	295	0	490	30	480	0	0	1055	45
Future Volume (vph)	0	0	0	295	0	490	30	480	0	0	1055	45
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.99	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3202	
Flt Permitted				0.95		1.00	0.14	1.00			1.00	
Satd. Flow (perm)				1646		2542	235	1683			3202	
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)	0	0	0	360	0	598	37	585	0	0	1287	55
RTOR Reduction (vph)	0	0	0	0	0	340	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	360	0	258	37	585	0	0	1339	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Perm		Perm	Perm	NA			NA	
Protected Phases								6			2	
Permitted Phases				8		8	6					
Actuated Green, G (s)				25.4		25.4	56.1	56.1			56.1	
Effective Green, g (s)				25.4		25.4	56.1	56.1			56.1	
Actuated g/C Ratio				0.28		0.28	0.62	0.62			0.62	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				464		717	146	1049			1995	
v/s Ratio Prot								0.35			c0.42	
v/s Ratio Perm				c0.22		0.10	0.16					
v/c Ratio				0.78		0.36	0.25	0.56			0.67	
Uniform Delay, d1				29.7		25.8	7.6	9.8			11.0	
Progression Factor				1.00		1.00	1.26	1.26			0.95	
Incremental Delay, d2				7.9		0.3	4.0	2.1			1.1	
Delay (s)				37.6		26.1	13.5	14.3			11.6	
Level of Service				D		C	B	B			B	
Approach Delay (s)		0.0			30.4			14.3			11.6	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



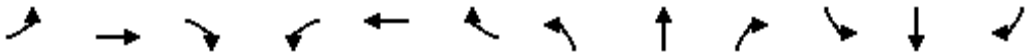
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	0	70	0	0	0	0	475	330	0	770	0
Future Volume (vph)	35	0	70	0	0	0	0	475	330	0	770	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0		4.0	
Lane Util. Factor	1.00		1.00					1.00	1.00		1.00	
Frt	1.00		0.85					1.00	0.85		1.00	
Flt Protected	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1498		1488					1699	1473		1716	
Flt Permitted	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1498		1488					1699	1473		1716	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	41	0	82	0	0	0	0	559	388	0	906	0
RTOR Reduction (vph)	0	0	76	0	0	0	0	0	65	0	0	0
Lane Group Flow (vph)	41	0	6	0	0	0	0	559	323	0	906	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Perm		Perm					NA	Perm		NA	
Protected Phases								6			2	
Permitted Phases	4		4						6			
Actuated Green, G (s)	6.1		6.1					74.9	74.9		74.9	
Effective Green, g (s)	6.1		6.1					74.9	74.9		74.9	
Actuated g/C Ratio	0.07		0.07					0.83	0.83		0.83	
Clearance Time (s)	5.0		5.0					4.0	4.0		4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0		3.0	
Lane Grp Cap (vph)	101		100					1413	1225		1428	
v/s Ratio Prot								0.33			c0.53	
v/s Ratio Perm	c0.03		0.00						0.22			
v/c Ratio	0.41		0.06					0.40	0.26		0.63	
Uniform Delay, d1	40.2		39.3					1.9	1.6		2.7	
Progression Factor	1.00		1.00					1.00	1.00		1.45	
Incremental Delay, d2	2.7		0.2					0.8	0.5		1.7	
Delay (s)	42.9		39.5					2.7	2.1		5.6	
Level of Service	D		D					A	A		A	
Approach Delay (s)		40.6			0.0			2.5			5.6	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
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)	0	0	0	315	0	545	65	535	0	0	885	125
Future Volume (vph)	0	0	0	315	0	545	65	535	0	0	885	125
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.98	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3149	
Flt Permitted				0.95		1.00	0.20	1.00			1.00	
Satd. Flow (perm)				1646		2542	333	1683			3149	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	354	0	612	73	601	0	0	994	140
RTOR Reduction (vph)	0	0	0	0	0	350	0	0	0	0	10	0
Lane Group Flow (vph)	0	0	0	354	0	262	73	601	0	0	1124	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Prot		Perm	Perm	NA			NA	
Protected Phases				8				6			2	
Permitted Phases						8	6					
Actuated Green, G (s)				24.7		24.7	56.8	56.8			56.8	
Effective Green, g (s)				24.7		24.7	56.8	56.8			56.8	
Actuated g/C Ratio				0.27		0.27	0.63	0.63			0.63	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				451		697	210	1062			1987	
v/s Ratio Prot				c0.22				c0.36			0.36	
v/s Ratio Perm						0.10	0.22					
v/c Ratio				0.78		0.38	0.35	0.57			0.57	
Uniform Delay, d1				30.2		26.4	7.8	9.5			9.5	
Progression Factor				1.00		1.00	1.35	1.32			1.31	
Incremental Delay, d2				8.7		0.3	4.2	2.0			0.9	
Delay (s)				38.9		26.8	14.8	14.6			13.4	
Level of Service				D		C	B	B			B	
Approach Delay (s)		0.0			31.2			14.6			13.4	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
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 (vph)	65	0	45	0	0	0	0	535	260	0	770	0
Future Volume (vph)	65	0	45	0	0	0	0	535	260	0	770	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0		4.0	
Lane Util. Factor	1.00		1.00					1.00	1.00		1.00	
Frt	1.00		0.85					1.00	0.85		1.00	
Flt Protected	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1498		1488					1699	1473		1716	
Flt Permitted	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1498		1488					1699	1473		1716	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	0	50	0	0	0	0	594	289	0	856	0
RTOR Reduction (vph)	0	0	46	0	0	0	0	0	51	0	0	0
Lane Group Flow (vph)	72	0	4	0	0	0	0	594	238	0	856	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm		NA	
Protected Phases	4							6			2	
Permitted Phases			4						6			
Actuated Green, G (s)	7.0		7.0					74.0	74.0		74.0	
Effective Green, g (s)	7.0		7.0					74.0	74.0		74.0	
Actuated g/C Ratio	0.08		0.08					0.82	0.82		0.82	
Clearance Time (s)	5.0		5.0					4.0	4.0		4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0		3.0	
Lane Grp Cap (vph)	116		115					1396	1211		1410	
v/s Ratio Prot	c0.05							0.35			c0.50	
v/s Ratio Perm			0.00						0.16			
v/c Ratio	0.62		0.03					0.43	0.20		0.61	
Uniform Delay, d1	40.2		38.4					2.2	1.7		2.8	
Progression Factor	1.00		1.00					1.00	1.00		1.30	
Incremental Delay, d2	9.9		0.1					1.0	0.4		1.6	
Delay (s)	50.1		38.5					3.1	2.1		5.3	
Level of Service	D		D					A	A		A	
Approach Delay (s)		45.3			0.0			2.8			5.3	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR2	WBL	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR2
Lane Configurations										
Traffic Volume (vph)	35	70	295	490	30	445	330	580	475	45
Future Volume (vph)	35	70	295	490	30	445	330	580	475	45
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Lane Util. Factor	1.00	1.00	0.97	0.88	1.00	0.95	1.00	*0.62	0.95	
Frt	1.00	0.85	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1630	1458	3162	2567	1630	3260	1458	2021	3218	
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1630	1458	3162	2567	1630	3260	1458	2021	3218	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	38	75	317	527	32	478	355	624	511	48
RTOR Reduction (vph)	0	71	0	336	0	0	264	0	69	0
Lane Group Flow (vph)	38	4	317	191	32	478	91	624	490	0
Turn Type	Prot	Prot	Prot	Prot	Prot	NA	Perm	Prot	NA	
Protected Phases	8	5	4	1	5	2		1	6	
Permitted Phases							2			
Actuated Green, G (s)	12.4	4.8	12.4	32.6	4.8	23.0	23.0	32.6	50.8	
Effective Green, g (s)	12.4	4.8	12.4	32.6	4.8	23.0	23.0	32.6	50.8	
Actuated g/C Ratio	0.14	0.05	0.14	0.36	0.05	0.26	0.26	0.36	0.56	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	224	77	435	929	86	833	372	732	1816	
v/s Ratio Prot	0.02	0.00	c0.10	0.07	0.02	c0.15		c0.31	0.15	
v/s Ratio Perm							0.06			
v/c Ratio	0.17	0.05	0.73	0.21	0.37	0.57	0.24	0.85	0.27	
Uniform Delay, d1	34.3	40.4	37.2	19.8	41.1	29.2	26.6	26.5	10.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	1.03	
Incremental Delay, d2	0.4	0.3	6.0	0.1	2.7	2.9	1.6	5.8	0.2	
Delay (s)	34.6	40.7	43.2	19.9	43.8	32.1	28.2	30.3	10.6	
Level of Service	C	D	D	B	D	C	C	C	B	
Approach Delay (s)						30.9			21.0	
Approach LOS						C			C	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR2	WBL	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR2
Lane Configurations										
Traffic Volume (vph)	65	45	315	545	65	470	260	430	455	125
Future Volume (vph)	65	45	315	545	65	470	260	430	455	125
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Lane Util. Factor	1.00	1.00	0.97	0.88	1.00	0.95	1.00	*0.62	0.95	
Frt	1.00	0.85	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1630	1458	3162	2567	1630	3260	1458	2021	3155	
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1630	1458	3162	2567	1630	3260	1458	2021	3155	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	70	48	339	586	70	505	280	462	489	134
RTOR Reduction (vph)	0	44	0	375	0	0	192	0	75	0
Lane Group Flow (vph)	70	4	339	211	70	505	88	462	548	0
Turn Type	Prot	Prot	Prot	Prot	Prot	NA	Perm	Prot	NA	
Protected Phases	8	5	4	1	5	2		1	6	
Permitted Phases							2			
Actuated Green, G (s)	13.7	7.0	13.7	26.0	7.0	28.3	28.3	26.0	47.3	
Effective Green, g (s)	13.7	7.0	13.7	26.0	7.0	28.3	28.3	26.0	47.3	
Actuated g/C Ratio	0.15	0.08	0.15	0.29	0.08	0.31	0.31	0.29	0.53	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	248	113	481	741	126	1025	458	583	1658	
v/s Ratio Prot	0.04	0.00	c0.11	0.08	0.04	c0.15		c0.23	0.17	
v/s Ratio Perm							0.06			
v/c Ratio	0.28	0.03	0.70	0.29	0.56	0.49	0.19	0.79	0.33	
Uniform Delay, d1	33.8	38.4	36.2	24.8	40.0	25.0	22.5	29.5	12.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.88	
Incremental Delay, d2	0.6	0.1	4.7	0.2	5.2	1.7	0.9	5.7	0.4	
Delay (s)	34.4	38.5	40.9	25.0	45.2	26.7	23.4	33.1	11.2	
Level of Service	C	D	D	C	D	C	C	C	B	
Approach Delay (s)						27.2			20.5	
Approach LOS						C			C	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	277	3.0	1379	0.201	100	4.3	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	277	3.0	1379	0.201	100	4.3	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	554	3.0		0.201		4.3	LOS A	0.0	0.0				
East: WB													
Lane 1	407	3.0	775	0.526	100	12.3	LOS B	3.6	92.2	Full	1600	0.0	0.0
Lane 2[d]	446	3.0	849	0.526	100	11.5	LOS B	3.6	92.9	Short	350	0.0	NA
Approach	853	3.0		0.526		11.9	LOS B	3.6	92.9				
North: SB													
Lane 1	598	3.0	990	0.604	100	12.0	LOS B	6.0	154.9	Full	1600	0.0	0.0
Lane 2[d]	598	3.0	990	0.604	100	12.0	LOS B	6.0	154.9	Full	1600	0.0	0.0
Approach	1196	3.0		0.604		12.0	LOS B	6.0	154.9				
Intersection	2603	3.0		0.604		10.3	LOS B	6.0	154.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	33	245	277	3.0	1379	0.201	100	NA	NA
Lane 2	-	277	277	3.0	1379	0.201	100	NA	NA
Approach	33	522	554	3.0		0.201			

East: WB

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	321	87	407	3.0	775	0.526	100	NA	NA
Lane 2	-	446	446	3.0	849	0.526	100	0.0	1
Approach	321	533	853	3.0		0.526			

North: SB

Mov.	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	S	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	598	-	598	3.0	990	0.604	100	NA	NA
Lane 2	549	49	598	3.0	990	0.604	100	NA	NA
Approach	1147	49	1196	3.0		0.604			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2603	3.0		0.604					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate sec	Capacity veh/h	Deg. Satn veh/h	Min. Delay v/c	Merge Delay sec	sec
South Exit: NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: RoadName Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
3	L2	30	3.0	33	3.0	0.201	4.3	LOS A	0.0	0.0	0.00	0.00	0.00	26.5
8	T1	480	3.0	522	3.0	0.201	4.3	LOS A	0.0	0.0	0.00	0.00	0.00	26.0
Approach		510	3.0	554	3.0	0.201	4.3	LOS A	0.0	0.0	0.00	0.00	0.00	26.1
East: WB														
1	L2	295	3.0	321	3.0	0.526	12.3	LOS B	3.6	92.2	0.70	0.88	1.05	22.4
16	R2	490	3.0	533	3.0	0.526	11.6	LOS B	3.6	92.9	0.68	0.86	1.03	22.1
Approach		785	3.0	853	3.0	0.526	11.9	LOS B	3.6	92.9	0.69	0.87	1.04	22.2
North: SB														
4	T1	1055	3.0	1147	3.0	0.604	12.0	LOS B	6.0	154.9	0.69	0.84	1.04	23.0
14	R2	45	3.0	49	3.0	0.604	12.0	LOS B	6.0	154.9	0.69	0.84	1.04	22.4
Approach		1100	3.0	1196	3.0	0.604	12.0	LOS B	6.0	154.9	0.69	0.84	1.04	22.9
All Vehicles		2395	3.0	2603	3.0	0.604	10.3	LOS B	6.0	154.9	0.54	0.67	0.82	23.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	326	3.0	1379	0.237	100	4.6	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	326	3.0	1379	0.237	100	4.6	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	652	3.0		0.237		4.6	LOS A	0.0	0.0				
East: WB													
Lane 1	445	3.0	706	0.629	100	16.5	LOS C	5.1	129.9	Full	1600	0.0	0.0
Lane 2[d]	490	3.0	779	0.629	100	15.3	LOS C	5.2	133.0	Short	350	0.0	NA
Approach	935	3.0		0.629		15.9	LOS C	5.2	133.0				
North: SB													
Lane 1	549	3.0	936	0.586	100	12.1	LOS B	5.4	137.1	Full	1600	0.0	0.0
Lane 2[d]	549	3.0	936	0.586	100	12.1	LOS B	5.4	137.1	Full	1600	0.0	0.0
Approach	1098	3.0		0.586		12.1	LOS B	5.4	137.1				
Intersection	2685	3.0		0.629		11.6	LOS B	5.4	137.1				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	71	255	326	3.0	1379	0.237	100	NA	NA
Lane 2	-	326	326	3.0	1379	0.237	100	NA	NA
Approach	71	582	652	3.0		0.237			

East: WB

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	342	102	445	3.0	706	0.629	100	NA	NA
Lane 2	-	490	490	3.0	779	0.629	100	0.0	1
Approach	342	592	935	3.0		0.629			

North: SB

Mov.	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	S	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	549	-	549	3.0	936	0.586	100	NA	NA
Lane 2	413	136	549	3.0	936	0.586	100	NA	NA
Approach	962	136	1098	3.0		0.586			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2685	3.0		0.629					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate sec veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
North Exit: SB Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
West Exit: RoadName Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
3	L2	65	3.0	71	3.0	0.237	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	26.4
8	T1	535	3.0	582	3.0	0.237	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	26.0
Approach		600	3.0	652	3.0	0.237	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	26.0
East: WB														
1	L2	315	3.0	342	3.0	0.629	16.5	LOS C	5.1	129.9	0.77	1.08	1.40	21.6
16	R2	545	3.0	592	3.0	0.629	15.5	LOS C	5.2	133.0	0.76	1.07	1.38	21.3
Approach		860	3.0	935	3.0	0.629	15.9	LOS C	5.2	133.0	0.77	1.07	1.39	21.4
North: SB														
4	T1	885	3.0	962	3.0	0.586	12.1	LOS B	5.4	137.1	0.70	0.89	1.07	22.9
14	R2	125	3.0	136	3.0	0.586	12.1	LOS B	5.4	137.1	0.70	0.89	1.07	22.3
Approach		1010	3.0	1098	3.0	0.586	12.1	LOS B	5.4	137.1	0.70	0.89	1.07	22.8
All Vehicles		2470	3.0	2685	3.0	0.629	11.6	LOS B	5.4	137.1	0.55	0.74	0.92	23.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	258	3.0	737	0.350	100	9.3	LOS A	1.6	40.4	Full	1600	0.0	0.0
Lane 2[d]	258	3.0	737	0.350	100	9.3	LOS A	1.6	40.4	Full	1600	0.0	0.0
Lane 3	359	3.0	764	0.470	100	11.2	LOS B	2.8	71.7	Short	150	0.0	NA
Approach	875	3.0		0.470		10.0	LOS B	2.8	71.7				
North: SB													
Lane 1	630	3.0	1379	0.457	100	7.1	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	837	3.0	1379	0.607	100	9.6	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1467	3.0		0.607		8.5	LOS A	0.0	0.0				
West: EB													
Lane 1	38	3.0	326	0.117	100	13.1	LOS B	0.4	9.3	Short	300	0.0	NA
Lane 2[d]	76	3.0	382	0.199	100	12.8	LOS B	0.6	16.3	Full	1600	0.0	0.0
Approach	114	3.0		0.199		12.9	LOS B	0.6	16.3				
Intersection	2457	3.0		0.607		9.3	LOS A	2.8	71.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	258	-	258	3.0	737	0.350	100	NA	NA
Lane 2	258	-	258	3.0	737	0.350	100	NA	NA
Lane 3	-	359	359	3.0	764	0.470	100	0.0	2
Approach	516	359	875	3.0		0.470			

North: SB

Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	630	-	630	3.0	1379	0.457	100	NA	NA
Lane 2	-	837	837	3.0	1379	0.607	100	NA	NA
Approach	630	837	1467	3.0		0.607			

West: EB									
Mov. From W To Exit:	L2 N	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	38	-	38	3.0	326	0.117	100	0.0	2
Lane 2	-	76	76	3.0	382	0.199	100	NA	NA
Approach	38	76	114	3.0		0.199			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2457	3.0		0.607					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
8	T1	475	3.0	516	3.0	0.350	9.3	LOS A	1.6	40.4	0.65	0.68	0.72	23.6
18	R2	330	3.0	359	3.0	0.470	11.2	LOS B	2.8	71.7	0.69	0.83	0.97	22.3
Approach		805	3.0	875	3.0	0.470	10.0	LOS B	2.8	71.7	0.67	0.74	0.82	23.1
North: SB														
7	L2	580	3.0	630	3.0	0.457	7.1	LOS A	0.0	0.0	0.00	0.00	0.00	25.2
4	T1	770	3.0	837	3.0	0.607	9.6	LOS A	0.0	0.0	0.00	0.00	0.00	26.1
Approach		1350	3.0	1467	3.0	0.607	8.5	LOS A	0.0	0.0	0.00	0.00	0.00	25.7
West: EB														
5	L2	35	3.0	38	3.0	0.117	13.1	LOS B	0.4	9.3	0.77	0.77	0.77	22.1
12	R2	70	3.0	76	3.0	0.199	12.8	LOS B	0.6	16.3	0.76	0.76	0.76	21.9
Approach		105	3.0	114	3.0	0.199	12.9	LOS B	0.6	16.3	0.77	0.77	0.77	22.0
All Vehicles		2260	3.0	2457	3.0	0.607	9.3	LOS A	2.8	71.7	0.27	0.30	0.33	24.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	291	3.0	833	0.349	100	8.4	LOS A	1.5	39.5	Full	1600	0.0	0.0
Lane 2[d]	291	3.0	833	0.349	100	8.4	LOS A	1.5	39.5	Full	1600	0.0	0.0
Lane 3	283	3.0	890	0.318	100	7.5	LOS A	1.4	36.0	Short	150	0.0	NA
Approach	864	3.0		0.349		8.1	LOS A	1.5	39.5				
North: SB													
Lane 1	467	3.0	1379	0.339	100	5.6	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	837	3.0	1379	0.607	100	9.6	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1304	3.0		0.607		8.2	LOS A	0.0	0.0				
West: EB													
Lane 1[d]	71	3.0	440	0.161	100	10.5	LOS B	0.5	13.3	Short	300	0.0	NA
Lane 2	49	3.0	381	0.128	100	11.5	LOS B	0.4	10.5	Full	1600	0.0	0.0
Approach	120	3.0		0.161		10.9	LOS B	0.5	13.3				
Intersection	2288	3.0		0.607		8.3	LOS A	1.5	39.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	291	-	291	3.0	833	0.349	100	NA	NA
Lane 2	291	-	291	3.0	833	0.349	100	NA	NA
Lane 3	-	283	283	3.0	890	0.318	100	0.0	2
Approach	582	283	864	3.0		0.349			

North: SB

Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	467	-	467	3.0	1379	0.339	100	NA	NA
Lane 2	-	837	837	3.0	1379	0.607	100	NA	NA
Approach	467	837	1304	3.0		0.607			

West: EB									
Mov. From W To Exit:	L2 N	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	71	-	71	3.0	440	0.161	100	0.0	2
Lane 2	-	49	49	3.0	381	0.128	100	NA	NA
Approach	71	49	120	3.0		0.161			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2288	3.0		0.607					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
8	T1	535	3.0	582	3.0	0.349	8.4	LOS A	1.5	39.5	0.61	0.60	0.61	23.8
18	R2	260	3.0	283	3.0	0.318	7.5	LOS A	1.4	36.0	0.57	0.53	0.57	23.2
Approach		795	3.0	864	3.0	0.349	8.1	LOS A	1.5	39.5	0.59	0.58	0.59	23.6
North: SB														
7	L2	430	3.0	467	3.0	0.339	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	25.2
4	T1	770	3.0	837	3.0	0.607	9.6	LOS A	0.0	0.0	0.00	0.00	0.00	26.1
Approach		1200	3.0	1304	3.0	0.607	8.2	LOS A	0.0	0.0	0.00	0.00	0.00	25.8
West: EB														
5	L2	65	3.0	71	3.0	0.161	10.5	LOS B	0.5	13.3	0.72	0.72	0.72	22.6
12	R2	45	3.0	49	3.0	0.128	11.5	LOS B	0.4	10.5	0.74	0.74	0.74	22.2
Approach		110	3.0	120	3.0	0.161	10.9	LOS B	0.5	13.3	0.72	0.72	0.72	22.5
All Vehicles		2105	3.0	2288	3.0	0.607	8.3	LOS A	1.5	39.5	0.26	0.26	0.26	24.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Movement	WBL2	WBR	NBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	365	605	585	1300	55
Future Volume (vph)	365	605	585	1300	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0
Lane Util. Factor	1.00	0.88	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1646	2542	3260	3131	1377
Flt Permitted	0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1646	2542	3260	3131	1377
Peak-hour factor, PHF	0.82	0.82	0.93	0.82	0.82
Adj. Flow (vph)	445	738	629	1585	67
RTOR Reduction (vph)	35	17	0	0	0
Lane Group Flow (vph)	411	721	629	1585	67
Heavy Vehicles (%)	1%	3%	2%	3%	8%
Turn Type	Prot	Prot	NA	Prot	Free
Protected Phases	4	2	4	2	
Permitted Phases					Free
Actuated Green, G (s)	21.0	60.0	21.0	60.0	90.0
Effective Green, g (s)	21.0	60.0	21.0	60.0	90.0
Actuated g/C Ratio	0.23	0.67	0.23	0.67	1.00
Clearance Time (s)	5.0	4.0	5.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	384	1694	760	2087	1377
v/s Ratio Prot	c0.25	0.28	0.19	c0.51	
v/s Ratio Perm					0.05
v/c Ratio	1.07	0.43	0.83	0.76	0.05
Uniform Delay, d1	34.5	7.0	32.8	10.1	0.0
Progression Factor	1.00	1.00	1.88	1.03	1.00
Incremental Delay, d2	65.5	0.8	4.7	0.2	0.0
Delay (s)	100.0	7.8	66.2	10.7	0.0
Level of Service	F	A	E	B	A
Approach Delay (s)			66.2		
Approach LOS			E		

Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL2	EBR	NBT	NBR2	SWL
Lane Configurations					
Traffic Volume (vph)	45	90	580	395	985
Future Volume (vph)	45	90	580	395	985
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0	5.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	0.97
Frt	1.00	0.85	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1630	1488	3260	1473	3328
Flt Permitted	0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1630	1488	3260	1473	3328
Peak-hour factor, PHF	0.93	0.85	0.93	0.85	0.85
Adj. Flow (vph)	48	106	624	465	1159
RTOR Reduction (vph)	10	81	0	0	0
Lane Group Flow (vph)	38	25	624	465	1159
Heavy Vehicles (%)	2%	0%	2%	1%	2%
Turn Type	Prot	Prot	NA	Free	Prot
Protected Phases	2	4	4		2
Permitted Phases				Free	
Actuated Green, G (s)	60.0	21.0	21.0	90.0	60.0
Effective Green, g (s)	60.0	21.0	21.0	90.0	60.0
Actuated g/C Ratio	0.67	0.23	0.23	1.00	0.67
Clearance Time (s)	4.0	5.0	5.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	1086	347	760	1473	2218
v/s Ratio Prot	0.02	0.02	c0.19		c0.35
v/s Ratio Perm				0.32	
v/c Ratio	0.04	0.07	0.82	0.32	0.52
Uniform Delay, d1	5.1	26.9	32.7	0.0	7.7
Progression Factor	1.00	1.00	1.00	1.00	0.88
Incremental Delay, d2	0.1	0.1	7.1	0.6	0.6
Delay (s)	5.2	27.0	39.8	0.6	7.4
Level of Service	A	C	D	A	A
Approach Delay (s)			23.1		7.4
Approach LOS			C		A

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



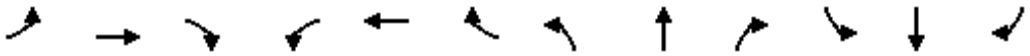
Movement	WBL2	WBR	NBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	400	695	715	1055	185
Future Volume (vph)	400	695	715	1055	185
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	5.0	4.0	5.0	4.0	4.0
Lane Util. Factor	1.00	0.88	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1646	2542	3260	3131	1377
Flt Permitted	0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1646	2542	3260	3131	1377
Peak-hour factor, PHF	0.89	0.89	0.93	0.89	0.89
Adj. Flow (vph)	449	781	769	1185	208
RTOR Reduction (vph)	63	17	0	0	0
Lane Group Flow (vph)	386	764	769	1185	208
Heavy Vehicles (%)	1%	3%	2%	3%	8%
Turn Type	Prot	Prot	NA	Prot	Free
Protected Phases	4	2	4	2	
Permitted Phases					Free
Actuated Green, G (s)	25.0	56.0	25.0	56.0	90.0
Effective Green, g (s)	25.0	56.0	25.0	56.0	90.0
Actuated g/C Ratio	0.28	0.62	0.28	0.62	1.00
Clearance Time (s)	5.0	4.0	5.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	457	1581	905	1948	1377
v/s Ratio Prot	0.23	0.30	c0.24	c0.38	
v/s Ratio Perm					0.15
v/c Ratio	0.85	0.48	0.85	0.61	0.15
Uniform Delay, d1	30.7	9.2	30.7	10.3	0.0
Progression Factor	1.00	1.00	1.94	1.24	1.00
Incremental Delay, d2	13.4	1.1	5.0	0.8	0.1
Delay (s)	44.1	10.2	64.4	13.5	0.1
Level of Service	D	B	E	B	A
Approach Delay (s)			64.4		
Approach LOS			E		

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



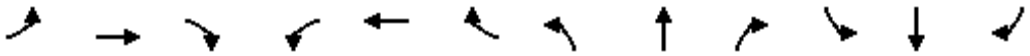
Movement	EBL2	EBR	NBT	NBR2	SWL
Lane Configurations					
Traffic Volume (vph)	100	70	710	315	915
Future Volume (vph)	100	70	710	315	915
Ideal Flow (vphpl)	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0	5.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	0.97
Frt	1.00	0.85	1.00	0.85	1.00
Flt Protected	0.95	1.00	1.00	1.00	1.00
Satd. Flow (prot)	1630	1488	3260	1473	3328
Flt Permitted	0.95	1.00	1.00	1.00	1.00
Satd. Flow (perm)	1630	1488	3260	1473	3328
Peak-hour factor, PHF	0.93	0.90	0.93	0.90	0.90
Adj. Flow (vph)	108	78	763	350	1017
RTOR Reduction (vph)	10	56	0	0	0
Lane Group Flow (vph)	98	22	763	350	1017
Heavy Vehicles (%)	2%	0%	2%	1%	2%
Turn Type	Prot	Prot	NA	Free	Prot
Protected Phases	2	4	4		2
Permitted Phases				Free	
Actuated Green, G (s)	56.0	25.0	25.0	90.0	56.0
Effective Green, g (s)	56.0	25.0	25.0	90.0	56.0
Actuated g/C Ratio	0.62	0.28	0.28	1.00	0.62
Clearance Time (s)	4.0	5.0	5.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	1014	413	905	1473	2070
v/s Ratio Prot	0.06	0.01	c0.23		c0.31
v/s Ratio Perm				0.24	
v/c Ratio	0.10	0.05	0.84	0.24	0.49
Uniform Delay, d1	6.8	23.8	30.7	0.0	9.2
Progression Factor	1.00	1.00	1.00	1.00	0.74
Incremental Delay, d2	0.2	0.1	7.2	0.4	0.6
Delay (s)	7.0	23.9	37.9	0.4	7.5
Level of Service	A	C	D	A	A
Approach Delay (s)			26.1		7.5
Approach LOS			C		A

Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



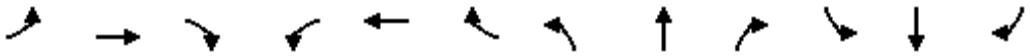
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	365	0	605	40	585	0	0	1300	55
Future Volume (vph)	0	0	0	365	0	605	40	585	0	0	1300	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.99	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3202	
Flt Permitted				0.95		1.00	0.08	1.00			1.00	
Satd. Flow (perm)				1646		2542	128	1683			3202	
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)	0	0	0	445	0	738	49	713	0	0	1585	67
RTOR Reduction (vph)	0	0	0	0	0	254	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	445	0	484	49	713	0	0	1649	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Perm		Perm	Perm	NA			NA	
Protected Phases								6			2	
Permitted Phases				8		8	6					
Actuated Green, G (s)				28.3		28.3	53.2	53.2			53.2	
Effective Green, g (s)				28.3		28.3	53.2	53.2			53.2	
Actuated g/C Ratio				0.31		0.31	0.59	0.59			0.59	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				517		799	75	994			1892	
v/s Ratio Prot								0.42			c0.51	
v/s Ratio Perm				c0.27		0.19	0.38					
v/c Ratio				0.86		0.61	0.65	0.72			0.87	
Uniform Delay, d1				29.0		26.1	12.3	13.1			15.5	
Progression Factor				1.00		1.00	1.26	1.24			0.94	
Incremental Delay, d2				13.7		1.3	34.4	4.1			0.6	
Delay (s)				42.7		27.4	49.8	20.3			15.2	
Level of Service				D		C	D	C			B	
Approach Delay (s)		0.0			33.2			22.2			15.2	
Approach LOS		A			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	69.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



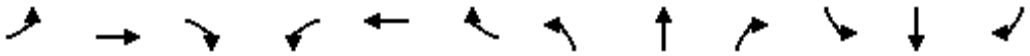
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	0	90	0	0	0	0	580	395	0	985	0
Future Volume (vph)	45	0	90	0	0	0	0	580	395	0	985	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0		4.0	
Lane Util. Factor	1.00		1.00					1.00	1.00		1.00	
Frt	1.00		0.85					1.00	0.85		1.00	
Flt Protected	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1498		1488					1699	1473		1716	
Flt Permitted	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1498		1488					1699	1473		1716	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	53	0	106	0	0	0	0	682	465	0	1159	0
RTOR Reduction (vph)	0	0	100	0	0	0	0	0	71	0	0	0
Lane Group Flow (vph)	53	0	6	0	0	0	0	682	394	0	1159	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Perm		Perm					NA	Perm		NA	
Protected Phases								6			2	
Permitted Phases	4		4						6			
Actuated Green, G (s)	4.8		4.8					76.2	76.2		76.2	
Effective Green, g (s)	4.8		4.8					76.2	76.2		76.2	
Actuated g/C Ratio	0.05		0.05					0.85	0.85		0.85	
Clearance Time (s)	5.0		5.0					4.0	4.0		4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0		3.0	
Lane Grp Cap (vph)	79		79					1438	1247		1452	
v/s Ratio Prot								0.40			c0.68	
v/s Ratio Perm	c0.04		0.00						0.27			
v/c Ratio	0.67		0.07					0.47	0.32		0.80	
Uniform Delay, d1	41.8		40.5					1.8	1.4		3.3	
Progression Factor	1.00		1.00					1.00	1.00		1.35	
Incremental Delay, d2	20.1		0.4					1.1	0.7		2.9	
Delay (s)	61.9		40.9					2.9	2.1		7.3	
Level of Service	E		D					A	A		A	
Approach Delay (s)		47.9			0.0			2.6			7.3	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	106.3%	ICU Level of Service	G
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)	0	0	0	400	0	695	95	715	0	0	1055	185
Future Volume (vph)	0	0	0	400	0	695	95	715	0	0	1055	185
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)				4.5		4.5	4.0	4.0			4.0	
Lane Util. Factor				1.00		0.88	1.00	1.00			0.95	
Frt				1.00		0.85	1.00	1.00			0.98	
Flt Protected				0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)				1646		2542	1614	1683			3133	
Flt Permitted				0.95		1.00	0.12	1.00			1.00	
Satd. Flow (perm)				1646		2542	196	1683			3133	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	449	0	781	107	803	0	0	1185	208
RTOR Reduction (vph)	0	0	0	0	0	204	0	0	0	0	15	0
Lane Group Flow (vph)	0	0	0	449	0	577	107	803	0	0	1378	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	3%	3%	4%	0%	0%	3%	8%
Turn Type				Prot		Perm	Perm	NA			NA	
Protected Phases				8				6			2	
Permitted Phases						8	6					
Actuated Green, G (s)				28.4		28.4	53.1	53.1			53.1	
Effective Green, g (s)				28.4		28.4	53.1	53.1			53.1	
Actuated g/C Ratio				0.32		0.32	0.59	0.59			0.59	
Clearance Time (s)				4.5		4.5	4.0	4.0			4.0	
Vehicle Extension (s)				3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)				519		802	115	992			1848	
v/s Ratio Prot				c0.27				0.48			0.44	
v/s Ratio Perm						0.23	c0.55					
v/c Ratio				0.87		0.72	0.93	0.81			0.75	
Uniform Delay, d1				29.0		27.3	16.8	14.5			13.5	
Progression Factor				1.00		1.00	1.30	1.31			1.15	
Incremental Delay, d2				14.0		3.1	59.8	6.0			1.5	
Delay (s)				43.0		30.4	81.6	25.0			17.0	
Level of Service				D		C	F	C			B	
Approach Delay (s)		0.0			35.0			31.6			17.0	
Approach LOS		A			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
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)	100	0	70	0	0	0	0	710	315	0	915	0
Future Volume (vph)	100	0	70	0	0	0	0	710	315	0	915	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	5.0		5.0					4.0	4.0		4.0	
Lane Util. Factor	1.00		1.00					1.00	1.00		1.00	
Frt	1.00		0.85					1.00	0.85		1.00	
Flt Protected	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1498		1488					1699	1473		1716	
Flt Permitted	0.95		1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1498		1488					1699	1473		1716	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	111	0	78	0	0	0	0	789	350	0	1017	0
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	74	0	0	0
Lane Group Flow (vph)	111	0	9	0	0	0	0	789	276	0	1017	0
Heavy Vehicles (%)	11%	0%	0%	0%	0%	0%	0%	3%	1%	4%	2%	0%
Turn Type	Prot		Perm					NA	Perm		NA	
Protected Phases	4							6			2	
Permitted Phases			4						6			
Actuated Green, G (s)	10.1		10.1					70.9	70.9		70.9	
Effective Green, g (s)	10.1		10.1					70.9	70.9		70.9	
Actuated g/C Ratio	0.11		0.11					0.79	0.79		0.79	
Clearance Time (s)	5.0		5.0					4.0	4.0		4.0	
Vehicle Extension (s)	3.0		3.0					3.0	3.0		3.0	
Lane Grp Cap (vph)	168		166					1338	1160		1351	
v/s Ratio Prot	c0.07							0.46			c0.59	
v/s Ratio Perm			0.01						0.19			
v/c Ratio	0.66		0.05					0.59	0.24		0.75	
Uniform Delay, d1	38.3		35.7					3.8	2.5		5.0	
Progression Factor	1.00		1.00					1.00	1.00		1.09	
Incremental Delay, d2	9.4		0.1					1.9	0.5		2.6	
Delay (s)	47.7		35.8					5.7	3.0		8.0	
Level of Service	D		D					A	A		A	
Approach Delay (s)		42.8			0.0			4.9			8.0	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	109.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR2	WBL	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR2
Lane Configurations										
Traffic Volume (vph)	45	90	365	605	40	540	395	680	620	55
Future Volume (vph)	45	90	365	605	40	540	395	680	620	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Lane Util. Factor	1.00	1.00	0.97	0.88	1.00	0.95	1.00	*0.62	0.95	
Frt	1.00	0.85	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1630	1458	3162	2567	1630	3260	1458	2021	3220	
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1630	1458	3162	2567	1630	3260	1458	2021	3220	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	48	97	392	651	43	581	425	731	667	59
RTOR Reduction (vph)	0	91	0	299	0	0	303	0	69	0
Lane Group Flow (vph)	48	6	392	352	43	581	122	731	657	0
Turn Type	Prot	Prot	Prot	Prot	Prot	NA	Perm	Prot	NA	
Protected Phases	8	5	4	1	5	2		1	6	
Permitted Phases							2			
Actuated Green, G (s)	12.0	5.5	12.0	35.0	5.5	21.0	21.0	35.0	50.5	
Effective Green, g (s)	12.0	5.5	12.0	35.0	5.5	21.0	21.0	35.0	50.5	
Actuated g/C Ratio	0.13	0.06	0.13	0.39	0.06	0.23	0.23	0.39	0.56	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	217	89	421	998	99	760	340	785	1806	
v/s Ratio Prot	0.03	0.00	c0.12	0.14	0.03	c0.18		c0.36	0.20	
v/s Ratio Perm							0.08			
v/c Ratio	0.22	0.07	0.93	0.35	0.43	0.76	0.36	0.93	0.36	
Uniform Delay, d1	34.8	39.8	38.6	19.5	40.7	32.2	28.9	26.3	10.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.30	
Incremental Delay, d2	0.5	0.3	27.3	0.2	3.0	7.2	2.9	2.3	0.1	
Delay (s)	35.3	40.1	65.9	19.7	43.8	39.4	31.8	25.6	14.2	
Level of Service	D	D	E	B	D	D	C	C	B	
Approach Delay (s)						36.5			19.9	
Approach LOS						D			B	

Intersection Summary			
HCM 2000 Control Delay	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR2	WBL	WBR2	NBL	NBT	NBR2	SBL	SBT	SBR2
Lane Configurations										
Traffic Volume (vph)	100	70	400	695	95	615	315	540	515	185
Future Volume (vph)	100	70	400	695	95	615	315	540	515	185
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Lane Util. Factor	1.00	1.00	0.97	0.88	1.00	0.95	1.00	*0.62	0.95	
Frt	1.00	0.85	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1630	1458	3162	2567	1630	3260	1458	2021	3131	
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1630	1458	3162	2567	1630	3260	1458	2021	3131	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	108	75	430	747	102	661	339	581	554	199
RTOR Reduction (vph)	0	68	0	246	0	0	249	0	80	0
Lane Group Flow (vph)	108	7	430	501	102	661	90	581	673	0
Turn Type	Prot	Prot	Prot	Prot	Prot	NA	Perm	Prot	NA	
Protected Phases	8	5	4	1	5	2		1	6	
Permitted Phases							2			
Actuated Green, G (s)	14.6	8.8	14.6	29.4	8.8	24.0	24.0	29.4	44.6	
Effective Green, g (s)	14.6	8.8	14.6	29.4	8.8	24.0	24.0	29.4	44.6	
Actuated g/C Ratio	0.16	0.10	0.16	0.33	0.10	0.27	0.27	0.33	0.50	
Clearance Time (s)	8.0	8.0	8.0	8.0	8.0	6.0	6.0	8.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	264	142	512	838	159	869	388	660	1551	
v/s Ratio Prot	0.07	0.01	c0.14	0.20	0.06	c0.20		c0.29	0.22	
v/s Ratio Perm							0.06			
v/c Ratio	0.41	0.05	0.84	0.60	0.64	0.76	0.23	0.88	0.43	
Uniform Delay, d1	33.8	36.8	36.6	25.3	39.1	30.4	25.8	28.6	14.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.66	
Incremental Delay, d2	1.0	0.2	11.6	1.2	8.5	6.2	1.4	7.8	0.5	
Delay (s)	34.9	37.0	48.1	26.5	47.6	36.6	27.2	37.9	10.1	
Level of Service	C	D	D	C	D	D	C	D	B	
Approach Delay (s)						34.7			22.2	
Approach LOS						C			C	

Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	340	3.0	1379	0.246	100	4.7	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	340	3.0	1379	0.246	100	4.7	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	679	3.0		0.246		4.7	LOS A	0.0	0.0				
East: WB													
Lane 1	501	3.0	689	0.728	100	21.5	LOS C	7.2	185.5	Full	1600	0.0	0.0
Lane 2[d]	553	3.0	761	0.728	100	19.9	LOS C	7.5	192.2	Short	350	0.0	NA
Approach	1054	3.0		0.728		20.7	LOS C	7.5	192.2				
North: SB													
Lane 1	736	3.0	913	0.807	100	22.2	LOS C	14.6	374.5	Full	1600	0.0	0.0
Lane 2[d]	736	3.0	913	0.807	100	22.2	LOS C	14.6	374.5	Full	1600	0.0	0.0
Approach	1473	3.0		0.807		22.2	LOS C	14.6	374.5				
Intersection	3207	3.0		0.807		18.0	LOS C	14.6	374.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	43	296	340	3.0	1379	0.246	100	NA	NA
Lane 2	-	340	340	3.0	1379	0.246	100	NA	NA
Approach	43	636	679	3.0		0.246			

East: WB

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	397	104	501	3.0	689	0.728	100	NA	NA
Lane 2	-	553	553	3.0	761	0.728	100	0.0	1
Approach	397	658	1054	3.0		0.728			

North: SB

Mov.	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	S	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	736	-	736	3.0	913	0.807	100	NA	NA
Lane 2	677	60	736	3.0	913	0.807	100	NA	NA
Approach	1413	60	1473	3.0		0.807			
	Total	%HV	Deg.Satn (v/c)						
Intersection	3207	3.0		0.807					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate sec	Capacity veh/h	Deg. Satn veh/h	Min. Delay v/c	Merge Delay sec	sec
South Exit: NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: RoadName Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
3	L2	40	3.0	43	3.0	0.246	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	26.5
8	T1	585	3.0	636	3.0	0.246	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	26.0
Approach		625	3.0	679	3.0	0.246	4.7	LOS A	0.0	0.0	0.00	0.00	0.00	26.1
East: WB														
1	L2	365	3.0	397	3.0	0.728	21.5	LOS C	7.2	185.5	0.84	1.29	1.78	20.6
16	R2	605	3.0	658	3.0	0.728	20.2	LOS C	7.5	192.2	0.83	1.29	1.76	20.4
Approach		970	3.0	1054	3.0	0.728	20.7	LOS C	7.5	192.2	0.83	1.29	1.77	20.5
North: SB														
4	T1	1300	3.0	1413	3.0	0.807	22.2	LOS C	14.6	374.5	0.92	1.58	2.08	20.8
14	R2	55	3.0	60	3.0	0.807	22.2	LOS C	14.6	374.5	0.92	1.58	2.08	20.3
Approach		1355	3.0	1473	3.0	0.807	22.2	LOS C	14.6	374.5	0.92	1.58	2.08	20.8
All Vehicles		2950	3.0	3207	3.0	0.807	18.0	LOS C	14.6	374.5	0.70	1.15	1.54	21.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	440	3.0	1379	0.319	100	5.4	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	440	3.0	1379	0.319	100	5.4	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	880	3.0		0.319		5.4	LOS A	0.0	0.0				
East: WB													
Lane 1	561	3.0	569	0.986	100	61.2	LOS F	19.5	500.2	Full	1600	0.0	0.0
Lane 2[d]	629	3.0	638	0.986	100	57.6	LOS F	21.1	539.0	Short	350	0.0	NA
Approach	1190	3.0		0.986		59.3	LOS F	21.1	539.0				
North: SB													
Lane 1	674	3.0	833	0.809	100	23.9	LOS C	12.8	327.3	Full	1600	0.0	0.0
Lane 2[d]	674	3.0	833	0.809	100	23.9	LOS C	12.8	327.3	Full	1600	0.0	0.0
Approach	1348	3.0		0.809		23.9	LOS C	12.8	327.3				
Intersection	3418	3.0		0.986		31.5	LOS D	21.1	539.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	L2 W	T1 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	103	337	440	3.0	1379	0.319	100	NA	NA
Lane 2	-	440	440	3.0	1379	0.319	100	NA	NA
Approach	103	777	880	3.0		0.319			

East: WB

Mov. From E To Exit:	L2 S	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	435	126	561	3.0	569	0.986	100	NA	NA
Lane 2	-	629	629	3.0	638	0.986	100	19.7	1
Approach	435	755	1190	3.0		0.986			

North: SB

Mov.	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	S	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	674	-	674	3.0	833	0.809	100	NA	NA
Lane 2	473	201	674	3.0	833	0.809	100	NA	NA
Approach	1147	201	1348	3.0		0.809			
	Total	%HV	Deg.Satn (v/c)						
Intersection	3418	3.0		0.986					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate sec veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
North Exit: SB Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
West Exit: RoadName Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
3	L2	95	3.0	103	3.0	0.319	5.4	LOS A	0.0	0.0	0.00	0.00	0.00	26.3
8	T1	715	3.0	777	3.0	0.319	5.4	LOS A	0.0	0.0	0.00	0.00	0.00	26.0
Approach		810	3.0	880	3.0	0.319	5.4	LOS A	0.0	0.0	0.00	0.00	0.00	26.0
East: WB														
1	L2	400	3.0	435	3.0	0.986	61.2	LOS F	19.5	500.2	0.99	2.44	4.26	15.2
16	R2	695	3.0	755	3.0	0.986	58.2	LOS F	21.1	539.0	1.00	2.51	4.36	15.1
Approach		1095	3.0	1190	3.0	0.986	59.3	LOS F	21.1	539.0	1.00	2.48	4.32	15.2
North: SB														
4	T1	1055	3.0	1147	3.0	0.809	23.9	LOS C	12.8	327.3	0.92	1.59	2.17	20.5
14	R2	185	3.0	201	3.0	0.809	23.9	LOS C	12.8	327.3	0.92	1.59	2.17	20.0
Approach		1240	3.0	1348	3.0	0.809	23.9	LOS C	12.8	327.3	0.92	1.59	2.17	20.4
All Vehicles		3145	3.0	3418	3.0	0.986	31.5	LOS D	21.1	539.0	0.71	1.49	2.36	19.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	315	3.0	659	0.479	100	12.8	LOS B	2.7	68.9	Full	1600	0.0	0.0
Lane 2[d]	315	3.0	659	0.479	100	12.8	LOS B	2.7	68.9	Full	1600	0.0	0.0
Lane 3	429	3.0	690	0.623	100	16.6	LOS C	4.8	122.0	Short	150	0.0	NA
Approach	1060	3.0		0.623		14.3	LOS B	4.8	122.0				
North: SB													
Lane 1	739	3.0	1379	0.536	100	8.3	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	1071	3.0	1379	0.777	100	14.9	LOS B	0.0	0.0	Full	1600	0.0	0.0
Approach	1810	3.0		0.777		12.2	LOS B	0.0	0.0				
West: EB													
Lane 1	49	3.0	236	0.207	100	20.2	LOS C	0.6	16.1	Short	300	0.0	NA
Lane 2[d]	98	3.0	283	0.346	100	21.1	LOS C	1.2	30.2	Full	1600	0.0	0.0
Approach	147	3.0		0.346		20.8	LOS C	1.2	30.2				
Intersection	3016	3.0		0.777		13.3	LOS B	4.8	122.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	315	-	315	3.0	659	0.479	100	NA	NA
Lane 2	315	-	315	3.0	659	0.479	100	NA	NA
Lane 3	-	429	429	3.0	690	0.623	100	0.0	2
Approach	630	429	1060	3.0		0.623			

North: SB

Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	739	-	739	3.0	1379	0.536	100	NA	NA
Lane 2	-	1071	1071	3.0	1379	0.777	100	NA	NA
Approach	739	1071	1810	3.0		0.777			

West: EB									
Mov. From W To Exit:	L2 N	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	49	-	49	3.0	236	0.207	100	0.0	2
Lane 2	-	98	98	3.0	283	0.346	100	NA	NA
Approach	49	98	147	3.0		0.346			
	Total	%HV	Deg.Satn (v/c)						
Intersection	3016	3.0		0.777					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
8	T1	580	3.0	630	3.0	0.479	12.8	LOS B	2.7	68.9	0.72	0.88	1.07	22.8
18	R2	395	3.0	429	3.0	0.623	16.6	LOS C	4.8	122.0	0.79	1.09	1.41	21.2
Approach		975	3.0	1060	3.0	0.623	14.3	LOS B	4.8	122.0	0.75	0.97	1.21	22.1
North: SB														
7	L2	680	3.0	739	3.0	0.536	8.3	LOS A	0.0	0.0	0.00	0.00	0.00	25.2
4	T1	985	3.0	1071	3.0	0.777	14.9	LOS B	0.0	0.0	0.00	0.00	0.00	26.1
Approach		1665	3.0	1810	3.0	0.777	12.2	LOS B	0.0	0.0	0.00	0.00	0.00	25.7
West: EB														
5	L2	45	3.0	49	3.0	0.207	20.2	LOS C	0.6	16.1	0.85	0.85	0.86	20.7
12	R2	90	3.0	98	3.0	0.346	21.1	LOS C	1.2	30.2	0.85	0.95	1.11	20.3
Approach		135	3.0	147	3.0	0.346	20.8	LOS C	1.2	30.2	0.85	0.92	1.03	20.4
All Vehicles		2775	3.0	3016	3.0	0.777	13.3	LOS B	4.8	122.0	0.31	0.38	0.47	24.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB													
Lane 1	386	3.0	718	0.537	100	13.4	LOS B	3.6	91.2	Full	1600	0.0	0.0
Lane 2[d]	386	3.0	718	0.537	100	13.4	LOS B	3.6	91.2	Full	1600	0.0	0.0
Lane 3	342	3.0	795	0.431	100	10.1	LOS B	2.4	60.9	Short	150	0.0	NA
Approach	1114	3.0		0.537		12.3	LOS B	3.6	91.2				
North: SB													
Lane 1	587	3.0	1379	0.426	100	6.7	LOS A	0.0	0.0	Full	1600	0.0	0.0
Lane 2[d]	995	3.0	1379	0.721	100	12.7	LOS B	0.0	0.0	Full	1600	0.0	0.0
Approach	1582	3.0		0.721		10.4	LOS B	0.0	0.0				
West: EB													
Lane 1[d]	109	3.0	345	0.315	100	16.7	LOS C	1.1	28.0	Short	300	0.0	NA
Lane 2	76	3.0	293	0.260	100	17.9	LOS C	0.9	21.8	Full	1600	0.0	0.0
Approach	185	3.0		0.315		17.2	LOS C	1.1	28.0				
Intersection	2880	3.0		0.721		11.6	LOS B	3.6	91.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB

Mov. From S To Exit:	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	386	-	386	3.0	718	0.537	100	NA	NA
Lane 2	386	-	386	3.0	718	0.537	100	NA	NA
Lane 3	-	342	342	3.0	795	0.431	100	0.0	2
Approach	772	342	1114	3.0		0.537			

North: SB

Mov. From N To Exit:	L2 E	T1 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	587	-	587	3.0	1379	0.426	100	NA	NA
Lane 2	-	995	995	3.0	1379	0.721	100	NA	NA
Approach	587	995	1582	3.0		0.721			

West: EB									
Mov. From W To Exit:	L2 N	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	109	-	109	3.0	345	0.315	100	0.0	2
Lane 2	-	76	76	3.0	293	0.260	100	NA	NA
Approach	109	76	185	3.0		0.315			
	Total	%HV	Deg.Satn (v/c)						
Intersection	2880	3.0		0.721					

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: WB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
North Exit: SB Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

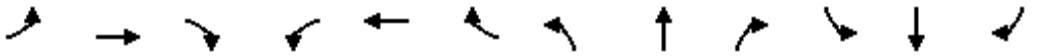
New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: NB														
8	T1	710	3.0	772	3.0	0.537	13.4	LOS B	3.6	91.2	0.74	0.95	1.16	22.7
18	R2	315	3.0	342	3.0	0.431	10.1	LOS B	2.4	60.9	0.66	0.76	0.84	22.6
Approach		1025	3.0	1114	3.0	0.537	12.3	LOS B	3.6	91.2	0.71	0.89	1.06	22.6
North: SB														
7	L2	540	3.0	587	3.0	0.426	6.7	LOS A	0.0	0.0	0.00	0.00	0.00	25.2
4	T1	915	3.0	995	3.0	0.721	12.7	LOS B	0.0	0.0	0.00	0.00	0.00	26.1
Approach		1455	3.0	1582	3.0	0.721	10.4	LOS B	0.0	0.0	0.00	0.00	0.00	25.8
West: EB														
5	L2	100	3.0	109	3.0	0.315	16.7	LOS C	1.1	28.0	0.81	0.88	1.01	21.4
12	R2	70	3.0	76	3.0	0.260	17.9	LOS C	0.9	21.8	0.82	0.86	0.93	20.9
Approach		170	3.0	185	3.0	0.315	17.2	LOS C	1.1	28.0	0.82	0.88	0.97	21.2
All Vehicles		2650	3.0	2880	3.0	0.721	11.6	LOS B	3.6	91.2	0.33	0.40	0.47	24.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

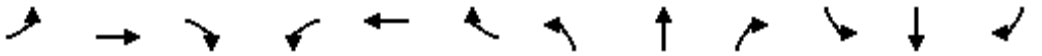
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	5	10	0	145	15	655	30	65	725	50
Future Volume (vph)	5	0	5	10	0	145	15	655	30	65	725	50
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5			4.5			4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.93			0.87			0.99		1.00	0.99	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1561			1494			1704		1630	1699	
Flt Permitted		0.62			0.98			0.98		0.39	1.00	
Satd. Flow (perm)		991			1465			1672		670	1699	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	5	0	5	11	0	156	16	704	32	70	780	54
RTOR Reduction (vph)	0	9	0	0	143	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	1	0	0	24	0	0	751	0	70	832	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.7			7.7			73.3		73.3	73.3	
Effective Green, g (s)		7.7			7.7			73.3		73.3	73.3	
Actuated g/C Ratio		0.09			0.09			0.81		0.81	0.81	
Clearance Time (s)		4.5			4.5			4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		84			125			1361		545	1383	
v/s Ratio Prot											c0.49	
v/s Ratio Perm		0.00			c0.02			0.45		0.10		
v/c Ratio		0.01			0.19			0.55		0.13	0.60	
Uniform Delay, d1		37.7			38.3			2.8		1.7	3.0	
Progression Factor		1.00			1.00			1.00		0.67	1.29	
Incremental Delay, d2		0.0			0.8			1.6		0.4	1.6	
Delay (s)		37.7			39.0			4.4		1.5	5.5	
Level of Service		D			D			A		A	A	
Approach Delay (s)		37.7			39.0			4.4			5.2	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
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)	45	0	10	25	0	105	15	645	25	140	635	40
Future Volume (vph)	45	0	10	25	0	105	15	645	25	140	635	40
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5			4.5			4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.97			0.89			1.00		1.00	0.99	
Flt Protected		0.96			0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1607			1514			1705		1630	1700	
Flt Permitted		0.48			0.94			0.98		0.39	1.00	
Satd. Flow (perm)		802			1431			1678		674	1700	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	48	0	11	27	0	113	16	694	27	151	683	43
RTOR Reduction (vph)	0	16	0	0	101	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	43	0	0	39	0	0	736	0	151	724	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.2			9.2			71.8		71.8	71.8	
Effective Green, g (s)		9.2			9.2			71.8		71.8	71.8	
Actuated g/C Ratio		0.10			0.10			0.80		0.80	0.80	
Clearance Time (s)		4.5			4.5			4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		81			146			1338		537	1356	
v/s Ratio Prot											0.43	
v/s Ratio Perm		c0.05			0.03			c0.44		0.22		
v/c Ratio		0.53			0.26			0.55		0.28	0.53	
Uniform Delay, d1		38.3			37.3			3.3		2.4	3.2	
Progression Factor		1.00			1.00			1.00		1.28	1.17	
Incremental Delay, d2		6.1			1.0			1.6		1.1	1.2	
Delay (s)		44.5			38.2			4.9		4.1	5.0	
Level of Service		D			D			A		A	A	
Approach Delay (s)		44.5			38.2			4.9			4.8	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: nb													
Lane 1	380	2.0	1296	0.294	100	5.4	LOS A	1.5	38.2	Full	1600	0.0	0.0
Lane 2[d]	380	2.0	1296	0.294	100	5.4	LOS A	1.5	38.2	Short	300	0.0	NA
Approach	761	2.0		0.294		5.4	LOS A	1.5	38.2				
East: wb													
Lane 1[d]	170	2.0	737	0.230	100	7.5	LOS A	0.9	21.9	Full	1600	0.0	0.0
Approach	170	2.0		0.230		7.5	LOS A	0.9	21.9				
North: sb													
Lane 1[d]	913	2.0	1314	0.695	100	12.2	LOS B	8.4	213.8	Full	1600	0.0	0.0
Approach	913	2.0		0.695		12.2	LOS B	8.4	213.8				
West: eb													
Lane 1[d]	12	1.8	548	0.022	100	6.8	LOS A	0.1	2.0	Full	1600	0.0	0.0
Approach	12	1.8		0.022		6.8	LOS A	0.1	2.0				
Intersection	1855	2.0		0.695		8.9	LOS A	8.4	213.8				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: nb

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	364	-	380	2.0	1296	0.294	100	NA	NA
Lane 2	-	348	33	380	2.0	1296	0.294	100	0.0	1
Approach	16	712	33	761	2.0		0.294			

East: wb

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	11	1	158	170	2.0	737	0.230	100	NA	NA
Approach	11	1	158	170	2.0		0.230			

North: sb

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	E	S	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	71	788	54	913	2.0	1314	0.695	100	NA	NA
Approach	71	788	54	913	2.0		0.695			
West: eb										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	1	5	12	1.8	548	0.022	100	NA	NA
Approach	5	1	5	12	1.8		0.022			

	Total	%HV	Deg.Satn (v/c)
Intersection	1855	2.0	0.695

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: nb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: wb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: sb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: eb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: nb														
3	L2	15	2.0	16	2.0	0.294	5.4	LOS A	1.5	38.2	0.24	0.11	0.24	25.0
8	T1	655	2.0	712	2.0	0.294	5.4	LOS A	1.5	38.2	0.24	0.11	0.24	24.5
18	R2	30	2.0	33	2.0	0.294	5.4	LOS A	1.5	38.2	0.24	0.11	0.24	23.9
Approach		700	2.0	761	2.0	0.294	5.4	LOS A	1.5	38.2	0.24	0.11	0.24	24.4
East: wb														
1	L2	10	2.0	11	2.0	0.230	7.5	LOS A	0.9	21.9	0.59	0.59	0.59	33.7
6	T1	1	0.0	1	0.0	0.230	7.4	LOS A	0.9	21.9	0.59	0.59	0.59	33.7
16	R2	145	2.0	158	2.0	0.230	7.5	LOS A	0.9	21.9	0.59	0.59	0.59	32.7
Approach		156	2.0	170	2.0	0.230	7.5	LOS A	0.9	21.9	0.59	0.59	0.59	32.8
North: sb														
7	L2	65	2.0	71	2.0	0.695	12.2	LOS B	8.4	213.8	0.32	0.11	0.32	31.6
4	T1	725	2.0	788	2.0	0.695	12.2	LOS B	8.4	213.8	0.32	0.11	0.32	31.5
14	R2	50	2.0	54	2.0	0.695	12.2	LOS B	8.4	213.8	0.32	0.11	0.32	30.7
Approach		840	2.0	913	2.0	0.695	12.2	LOS B	8.4	213.8	0.32	0.11	0.32	31.5
West: eb														
5	L2	5	2.0	5	2.0	0.022	6.8	LOS A	0.1	2.0	0.62	0.55	0.62	33.0
2	T1	1	0.0	1	0.0	0.022	6.7	LOS A	0.1	2.0	0.62	0.55	0.62	33.0
12	R2	5	2.0	5	2.0	0.022	6.8	LOS A	0.1	2.0	0.62	0.55	0.62	32.1
Approach		11	1.8	12	1.8	0.022	6.8	LOS A	0.1	2.0	0.62	0.55	0.62	32.6
All Vehicles		1707	2.0	1855	2.0	0.695	8.9	LOS A	8.4	213.8	0.31	0.16	0.31	28.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: nb													
Lane 1	372	2.0	1154	0.323	100	6.2	LOS A	1.6	41.0	Full	1600	0.0	0.0
Lane 2[d]	372	2.0	1154	0.323	100	6.2	LOS A	1.6	41.0	Short	200	0.0	NA
Approach	745	2.0		0.323		6.2	LOS A	1.6	41.0				
East: wb													
Lane 1[d]	142	2.0	716	0.199	100	7.3	LOS A	0.7	18.4	Full	1600	0.0	0.0
Approach	142	2.0		0.199		7.3	LOS A	0.7	18.4				
North: sb													
Lane 1[d]	886	2.0	1292	0.686	100	12.1	LOS B	7.8	198.9	Full	1600	0.0	0.0
Approach	886	2.0		0.686		12.1	LOS B	7.8	198.9				
West: eb													
Lane 1[d]	61	2.0	548	0.111	100	7.9	LOS A	0.4	10.6	Full	1600	0.0	0.0
Approach	61	2.0		0.111		7.9	LOS A	0.4	10.6				
Intersection	1834	2.0		0.686		9.2	LOS A	7.8	198.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: nb

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	356	-	372	2.0	1154	0.323	100	NA	NA
Lane 2	-	345	27	372	2.0	1154	0.323	100	0.0	1
Approach	16	701	27	745	2.0		0.323			

East: wb

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	27	1	114	142	2.0	716	0.199	100	NA	NA
Approach	27	1	114	142	2.0		0.199			

North: sb

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	E	S	W			Cap. veh/h	Satn v/c	Util. %	SL Ov. %	Lane No.
Lane 1	152	690	43	886	2.0	1292	0.686	100	NA	NA
Approach	152	690	43	886	2.0		0.686			
West: eb										
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	49	1	11	61	2.0	548	0.111	100	NA	NA
Approach	49	1	11	61	2.0		0.111			

	Total	%HV	Deg.Satn (v/c)
Intersection	1834	2.0	0.686

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: nb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: wb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: sb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: eb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

MOVEMENT SUMMARY

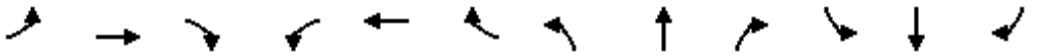
Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: nb														
3	L2	15	2.0	16	2.0	0.323	6.2	LOS A	1.6	41.0	0.40	0.28	0.40	24.7
8	T1	645	2.0	701	2.0	0.323	6.2	LOS A	1.6	41.0	0.40	0.28	0.40	24.2
18	R2	25	2.0	27	2.0	0.323	6.2	LOS A	1.6	41.0	0.40	0.28	0.40	23.7
Approach		685	2.0	745	2.0	0.323	6.2	LOS A	1.6	41.0	0.40	0.28	0.40	24.2
East: wb														
1	L2	25	2.0	27	2.0	0.199	7.3	LOS A	0.7	18.4	0.59	0.59	0.59	33.5
6	T1	1	0.0	1	0.0	0.199	7.2	LOS A	0.7	18.4	0.59	0.59	0.59	33.5
16	R2	105	2.0	114	2.0	0.199	7.3	LOS A	0.7	18.4	0.59	0.59	0.59	32.5
Approach		131	2.0	142	2.0	0.199	7.3	LOS A	0.7	18.4	0.59	0.59	0.59	32.7
North: sb														
7	L2	140	2.0	152	2.0	0.686	12.1	LOS B	7.8	198.9	0.39	0.16	0.39	31.4
4	T1	635	2.0	690	2.0	0.686	12.1	LOS B	7.8	198.9	0.39	0.16	0.39	31.4
14	R2	40	2.0	43	2.0	0.686	12.1	LOS B	7.8	198.9	0.39	0.16	0.39	30.5
Approach		815	2.0	886	2.0	0.686	12.1	LOS B	7.8	198.9	0.39	0.16	0.39	31.3
West: eb														
5	L2	45	2.0	49	2.0	0.111	8.0	LOS A	0.4	10.6	0.65	0.65	0.65	31.7
2	T1	1	0.0	1	0.0	0.111	7.8	LOS A	0.4	10.6	0.65	0.65	0.65	31.6
12	R2	10	2.0	11	2.0	0.111	8.0	LOS A	0.4	10.6	0.65	0.65	0.65	30.8
Approach		56	2.0	61	2.0	0.111	7.9	LOS A	0.4	10.6	0.65	0.65	0.65	31.5
All Vehicles		1687	2.0	1834	2.0	0.686	9.2	LOS A	7.8	198.9	0.42	0.26	0.42	28.1

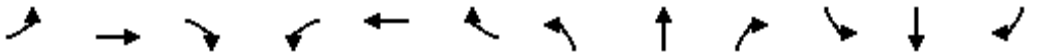
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	5	15	0	170	20	800	35	85	930	60
Future Volume (vph)	5	0	5	15	0	170	20	800	35	85	930	60
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5			4.5			4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.93			0.88			0.99		1.00	0.99	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1561			1497			1704		1630	1700	
Flt Permitted		0.64			0.97			0.97		0.33	1.00	
Satd. Flow (perm)		1023			1460			1649		568	1700	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	5	0	5	16	0	183	22	860	38	91	1000	65
RTOR Reduction (vph)	0	9	0	0	166	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	1	0	0	33	0	0	919	0	91	1063	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.3			8.3			72.7		72.7	72.7	
Effective Green, g (s)		8.3			8.3			72.7		72.7	72.7	
Actuated g/C Ratio		0.09			0.09			0.81		0.81	0.81	
Clearance Time (s)		4.5			4.5			4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		94			134			1332		458	1373	
v/s Ratio Prot											c0.63	
v/s Ratio Perm		0.00			c0.02			0.56		0.16		
v/c Ratio		0.01			0.25			0.69		0.20	0.77	
Uniform Delay, d1		37.1			37.9			3.8		2.0	4.4	
Progression Factor		1.00			1.00			1.00		0.20	0.21	
Incremental Delay, d2		0.0			1.0			2.9		0.6	2.7	
Delay (s)		37.2			38.9			6.7		1.0	3.6	
Level of Service		D			D			A		A	A	
Approach Delay (s)		37.2			38.9			6.7			3.4	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
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)	55	0	10	30	0	170	20	800	30	170	765	50
Future Volume (vph)	55	0	10	30	0	170	20	800	30	170	765	50
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.5			4.5			4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.89			1.00		1.00	0.99	
Flt Protected		0.96			0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1611			1507			1706		1630	1700	
Flt Permitted		0.32			0.95			0.97		0.33	1.00	
Satd. Flow (perm)		543			1440			1662		558	1700	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	59	0	11	32	0	183	22	860	32	183	823	54
RTOR Reduction (vph)	0	16	0	0	160	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	54	0	0	55	0	0	913	0	183	875	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.4			11.4			69.6		69.6	69.6	
Effective Green, g (s)		11.4			11.4			69.6		69.6	69.6	
Actuated g/C Ratio		0.13			0.13			0.77		0.77	0.77	
Clearance Time (s)		4.5			4.5			4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		68			182			1285		431	1314	
v/s Ratio Prot											0.51	
v/s Ratio Perm		c0.10			0.04			c0.55		0.33		
v/c Ratio		0.80			0.30			0.71		0.42	0.67	
Uniform Delay, d1		38.2			35.7			5.1		3.4	4.8	
Progression Factor		1.00			1.00			1.00		0.11	0.10	
Incremental Delay, d2		46.2			0.9			3.3		2.0	1.8	
Delay (s)		84.4			36.6			8.5		2.4	2.3	
Level of Service		F			D			A		A	A	
Approach Delay (s)		84.4			36.6			8.5			2.3	
Approach LOS		F			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	123.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: nb													
Lane 1	465	2.0	1270	0.366	100	6.3	LOS A	2.0	51.6	Full	1600	0.0	0.0
Lane 2[d]	465	2.0	1270	0.366	100	6.3	LOS A	2.0	51.6	Short	300	0.0	NA
Approach	929	2.0		0.366		6.3	LOS A	2.0	51.6				
East: wb													
Lane 1[d]	202	2.0	640	0.316	100	9.8	LOS A	1.3	32.2	Full	1600	0.0	0.0
Approach	202	2.0		0.316		9.8	LOS A	1.3	32.2				
North: sb													
Lane 1[d]	1168	2.0	1299	0.900	100	25.1	LOS D	24.0	609.9	Full	1600	0.0	0.0
Approach	1168	2.0		0.900		25.1	LOS D	24.0	609.9				
West: eb													
Lane 1[d]	12	1.8	423	0.028	100	8.9	LOS A	0.1	2.5	Full	1600	0.0	0.0
Approach	12	1.8		0.028		8.9	LOS A	0.1	2.5				
Intersection	2312	2.0		0.900		16.1	LOS C	24.0	609.9				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: nb

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	22	443	-	465	2.0	1270	0.366	100	NA	NA
Lane 2	-	427	38	465	2.0	1270	0.366	100	0.0	1
Approach	22	870	38	929	2.0		0.366			

East: wb

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	16	1	185	202	2.0	640	0.316	100	NA	NA
Approach	16	1	185	202	2.0		0.316			

North: sb

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	E	S	W			Cap. veh/h	Satn v/c	Util. %	SL %	Ov. %	Lane No.
Lane 1	92	1011	65	1168	2.0	1299	0.900	100	NA		NA
Approach	92	1011	65	1168	2.0		0.900				
West: eb											
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Ov. %	Ov. Lane No.
Lane 1	5	1	5	12	1.8	423	0.028	100	NA		NA
Approach	5	1	5	12	1.8		0.028				

	Total	%HV	Deg.Satn (v/c)
Intersection	2312	2.0	0.900

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: nb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: wb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: sb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: eb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: nb														
3	L2	20	2.0	22	2.0	0.366	6.3	LOS A	2.0	51.6	0.30	0.16	0.30	24.7
8	T1	800	2.0	870	2.0	0.366	6.3	LOS A	2.0	51.6	0.30	0.16	0.30	24.2
18	R2	35	2.0	38	2.0	0.366	6.3	LOS A	2.0	51.6	0.30	0.16	0.30	23.6
Approach		855	2.0	929	2.0	0.366	6.3	LOS A	2.0	51.6	0.30	0.16	0.30	24.2
East: wb														
1	L2	15	2.0	16	2.0	0.316	9.8	LOS A	1.3	32.2	0.66	0.68	0.74	32.5
6	T1	1	0.0	1	0.0	0.316	9.7	LOS A	1.3	32.2	0.66	0.68	0.74	32.5
16	R2	170	2.0	185	2.0	0.316	9.8	LOS A	1.3	32.2	0.66	0.68	0.74	31.6
Approach		186	2.0	202	2.0	0.316	9.8	LOS A	1.3	32.2	0.66	0.68	0.74	31.7
North: sb														
7	L2	85	2.0	92	2.0	0.900	25.1	LOS D	24.0	609.9	0.84	0.35	0.84	26.8
4	T1	930	2.0	1011	2.0	0.900	25.1	LOS D	24.0	609.9	0.84	0.35	0.84	26.8
14	R2	60	2.0	65	2.0	0.900	25.1	LOS D	24.0	609.9	0.84	0.35	0.84	26.2
Approach		1075	2.0	1168	2.0	0.900	25.1	LOS D	24.0	609.9	0.84	0.35	0.84	26.7
West: eb														
5	L2	5	2.0	5	2.0	0.028	8.9	LOS A	0.1	2.5	0.69	0.67	0.69	32.1
2	T1	1	0.0	1	0.0	0.028	8.8	LOS A	0.1	2.5	0.69	0.67	0.69	32.0
12	R2	5	2.0	5	2.0	0.028	8.9	LOS A	0.1	2.5	0.69	0.67	0.69	31.1
Approach		11	1.8	12	1.8	0.028	8.9	LOS A	0.1	2.5	0.69	0.67	0.69	31.6
All Vehicles		2127	2.0	2312	2.0	0.900	16.1	LOS C	24.0	609.9	0.61	0.30	0.61	26.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

LANE SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: nb													
Lane 1	462	2.0	1104	0.418	100	7.7	LOS A	2.3	57.9	Full	1600	0.0	0.0
Lane 2[d]	462	2.0	1104	0.418	100	7.7	LOS A	2.3	57.9	Short	300	0.0	NA
Approach	924	2.0		0.418		7.7	LOS A	2.3	57.9				
East: wb													
Lane 1[d]	218	2.0	610	0.358	100	10.9	LOS B	1.5	38.9	Full	1600	0.0	0.0
Approach	218	2.0		0.358		10.9	LOS B	1.5	38.9				
North: sb													
Lane 1[d]	1071	2.0	1277	0.838	100	19.5	LOS C	15.3	387.7	Full	1600	0.0	0.0
Approach	1071	2.0		0.838		19.5	LOS C	15.3	387.7				
West: eb													
Lane 1[d]	76	1.9	455	0.167	100	10.3	LOS B	0.6	15.6	Full	1600	0.0	0.0
Approach	76	1.9		0.167		10.3	LOS B	0.6	15.6				
Intersection	2289	2.0		0.838		13.6	LOS B	15.3	387.7				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: nb

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	22	440	-	462	2.0	1104	0.418	100	NA	NA
Lane 2	-	429	33	462	2.0	1104	0.418	100	0.0	1
Approach	22	870	33	924	2.0		0.418			

East: wb

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	33	1	185	218	2.0	610	0.358	100	NA	NA
Approach	33	1	185	218	2.0		0.358			

North: sb

Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.

From N To Exit:	E	S	W			Cap. veh/h	Satn v/c	Util. %	SL %	Ov. %	Lane No.
Lane 1	185	832	54	1071	2.0	1277	0.838	100	NA		NA
Approach	185	832	54	1071	2.0		0.838				
West: eb											
Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL %	Ov. Ov. %	Ov. Lane No.
Lane 1	60	5	11	76	1.9	455	0.167	100	NA		NA
Approach	60	5	11	76	1.9		0.167				

	Total	%HV	Deg.Satn (v/c)
Intersection	2289	2.0	0.838

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: nb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
East Exit: wb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: sb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: eb Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

MOVEMENT SUMMARY

Site: 101 [Site1 (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: nb														
3	L2	20	2.0	22	2.0	0.418	7.7	LOS A	2.3	57.9	0.49	0.38	0.49	24.3
8	T1	800	2.0	870	2.0	0.418	7.7	LOS A	2.3	57.9	0.49	0.38	0.49	23.9
18	R2	30	2.0	33	2.0	0.418	7.7	LOS A	2.3	57.9	0.49	0.38	0.49	23.3
Approach		850	2.0	924	2.0	0.418	7.7	LOS A	2.3	57.9	0.49	0.38	0.49	23.9
East: wb														
1	L2	30	2.0	33	2.0	0.358	10.9	LOS B	1.5	38.9	0.68	0.73	0.85	31.8
6	T1	1	0.0	1	0.0	0.358	10.8	LOS B	1.5	38.9	0.68	0.73	0.85	31.8
16	R2	170	2.0	185	2.0	0.358	10.9	LOS B	1.5	38.9	0.68	0.73	0.85	30.9
Approach		201	2.0	218	2.0	0.358	10.9	LOS B	1.5	38.9	0.68	0.73	0.85	31.1
North: sb														
7	L2	170	2.0	185	2.0	0.838	19.5	LOS C	15.3	387.7	0.71	0.33	0.71	28.5
4	T1	765	2.0	832	2.0	0.838	19.5	LOS C	15.3	387.7	0.71	0.33	0.71	28.5
14	R2	50	2.0	54	2.0	0.838	19.5	LOS C	15.3	387.7	0.71	0.33	0.71	27.8
Approach		985	2.0	1071	2.0	0.838	19.5	LOS C	15.3	387.7	0.71	0.33	0.71	28.4
West: eb														
5	L2	55	2.0	60	2.0	0.167	10.3	LOS B	0.6	15.6	0.70	0.70	0.70	30.7
2	T1	5	0.0	5	0.0	0.167	10.2	LOS B	0.6	15.6	0.70	0.70	0.70	30.7
12	R2	10	2.0	11	2.0	0.167	10.3	LOS B	0.6	15.6	0.70	0.70	0.70	29.9
Approach		70	1.9	76	1.9	0.167	10.3	LOS B	0.6	15.6	0.70	0.70	0.70	30.6
All Vehicles		2106	2.0	2289	2.0	0.838	13.6	LOS B	15.3	387.7	0.62	0.40	0.63	26.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix **G**: **Intersection Capacity Analysis**

I-94 at Sunset Dr Interchange - Full Study Area Existing and No Build

ID	Intersection	Approach	Movement	Existing				2030 No Build				2045 No Build			
				Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue
1	Sunset Dr & Old Red Trail	**Control Type**		**Signal**				**Signal**				**Signal**			
		Overall		**23.3 (24.1)**	**C (C)**	**0.68 (0.56)**		**28.3 (25.3)**	**C (C)**	**0.88 (0.74)**		**55.1 (44.1)**	**E (D)**	**1.14 (1.02)**	
		Eastbound	Left-Through	39.0 (32.4)	D (C)	0.65 (0.44)	150 (125)	57.1 (27.8)	E (C)	0.85 (0.42)	225* (125)	161.1 (26.8)	F (C)	1.20 (0.52)	325* (150)
			Right	20.3 (16.7)	C (B)	0.62 (0.48)	200 (100)	25.5 (15.3)	C (B)	0.79 (0.61)	325 (200)	54.7 (16.0)	D (B)	1.00 (0.72)	575* (350)
		Westbound	Left-Through-Right	31.5 (36.2)	C (D)	0.35 (0.66)	75 (125)	31.7 (30.2)	C (C)	0.49 (0.60)	100 (150)	37.2 (31.0)	D (C)	0.87dl (0.72)	125 (200)
		Northbound	Left	46.1 (44.9)	D (D)	0.71 (0.69)	175 (175)	42.6 (46.8)	D (D)	0.72 (0.77)	175 (200)	36.6 (45.6)	D (D)	0.79 (0.88)	200 (275)*m
			Through-Right	6.2 (5.5)	A (A)	0.53 (0.42)	175 (125)	9.2 (12.6)	A (B)	0.64 (0.70)	275 (325)	14.2 (52.9)	B (D)	0.79 (1.04)	400 (825)*
		Southbound	Left	15.4 (16.7)	B (B)	0.09 (0.13)	25 (50)	17.6 (23.8)	B (C)	0.15 (0.27)	50 (75)	21.4 (145.3)	C (F)	0.26 (1.04)	50 (150)*
			Through	24.0 (19.7)	C (B)	0.64 (0.39)	300 (225)	36.8 (30.9)	D (C)	0.86 (0.67)	475* (375)*	98.7 (69.7)	F (E)	1.12 (0.99)	625* (500)*
			Right	0.1 (0.0)	A (A)	0.06 (0.01)	0 (0)	0.1 (0.0)	A (A)	0.07 (0.03)	0 (0)	0.1 (0.0)	A (A)	0.09 (0.03)	0 (0)
2	Sunset Dr & I-94 WB	**Control Type**		**Signal**				**Signal**				**Signal**			
		Overall		**15.8 (16.8)**	**B (B)**	**0.59 (0.51)**		**16.3 (17.6)**	**B (B)**	**0.70 (0.63)**		**19.0 (21.2)**	**B (C)**	**0.87 (0.90)**	
		Westbound	Left	37.9 (38.0)	D (D)	0.75 (0.73)	225 (225)	39.2 (38.9)	D (D)	0.79 (0.78)	250 (275)	42.7 (43.0)	D (D)	0.86 (0.87)	300 (375)*
			Right	26.2 (27.5)	C (C)	0.22 (0.20)	25 (50)	26.2 (26.8)	C (C)	0.34 (0.38)	50 (75)	27.4 (30.4)	C (C)	0.61 (0.72)	150 (225)
		Northbound	Left	1.0 (2.6)	A (A)	0.08 (0.17)	0* (0)	2.9 (5.4)	A (A)	0.25 (0.35)	0 (0)	11.3 (24.0)	B (C)	0.65 (0.93)	0 (25)m
			Through	4.2 (3.8)	A (A)	0.47 (0.36)	25 (0)	3.7 (5.3)	A (A)	0.55 (0.57)	50m (100)	5.0 (7.0)	A (A)	0.72 (0.81)	25m (75)m
		Southbound	Through-Right	9.6 (10.8)	A (B)	0.53 (0.44)	200 (200)	11.6 (13.4)	B (B)	0.67 (0.57)	250 (275)	15.2 (17.0)	B (B)	0.87 (0.75)	325m (325)m
3	Sunset Dr & I-94 EB	**Control Type**		**Signal**				**Signal**				**Signal**			
		Overall		**10.8 (8.6)**	**B (A)**	**0.68 (0.61)**		**21.5 (13.6)**	**C (B)**	**0.88 (0.74)**		**64.9 (53.3)**	**E (D)**	**1.05 (1.02)**	
		Eastbound	Left	41.3 (41.4)	D (D)	0.32 (0.41)	50 (75)	41.4 (41.9)	D (D)	0.36 (0.51)	50 (75)	41.6 (41.4)	D (D)	0.43 (0.58)	75 (125)
			Right	39.0 (38.1)	D (D)	0.05 (0.03)	50 (25)	38.7 (37.1)	D (D)	0.06 (0.03)	50 (25)	38.3 (34.6)	D (C)	0.07 (0.05)	50 (50)
		Northbound	Through	19.7 (12.3)	B (B)	0.58 (0.41)	400 (300)	49.2 (23.2)	D (C)	0.92 (0.71)	525* (625)	245.8 (146.9)	F (F)	1.45 (1.23)	675* (875)
			Right	15.4 (9.5)	B (A)	0.31 (0.14)	125 (75)	25.3 (14.7)	C (B)	0.47 (0.29)	175 (150)	42.1 (24.2)	D (C)	0.76 (0.47)	250* (225)
		Southbound	Left	5.1 (5.6)	A (A)	0.69 (0.61)	25 (25)	16.1 (9.4)	B (A)	0.90 (0.74)	75* (25)	12.8 (28.0)	B (C)	0.92 (0.94)	575*m (450)
			Through	3.8 (3.3)	A (A)	0.58 (0.46)	175 (150)	4.3 (5.2)	A (A)	0.64 (0.62)	250 (375)	7.0 (8.5)	A (A)	0.83 (0.77)	650 (575)
4	Susnet Dr & Boundary St NW	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**53.4 (61.1)**	**F (F)**	**0.12 (0.49)**		**115.3 (>300)**	**F (F)**	**0.24 (>2.00)**		**>300 (>300)**	**F (F)**	**>2.00 (>2.00)**	**- (-)**
		Eastbound	Left-Through-Right	53.4 (61.1)	F (F)	0.12 (0.49)	25 (75)	115.3 (>300)	F (F)	0.24 (>2.00)	25 (175)	>300 (>300)	F (F)	>2.00 (>2.00)	>1500 (>1500)
		Westbound	Left-Through-Right	22.6 (21.1)	C (C)	0.39 (0.35)	50 (50)	35.3 (123.9)	E (F)	0.60 (0.96)	100 (175)	>300 (>300)	F (F)	>2.00 (>2.00)	>1500 (>1500)
		Northbound	Left-Through-Right	0.5 (0.5)	A (A)	0.02 (0.02)	25 (0)	0.6 (0.5)	A (A)	0.02 (0.02)	25 (25)	2.4 (1.0)	A (A)	0.06 (0.03)	25 (25)
		Southbound	Left-Through-Right	1.5 (3.0)	A (A)	0.06 (0.12)	25 (25)	2.1 (4.2)	A (A)	0.08 (0.17)	25 (25)	3.9 (6.6)	A (A)	0.12 (0.24)	25 (25)
5	Hwy 25 & CR 139A	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**10.0 (9.7)**	**B (A)**	**0.12 (0.04)**		**10.5 (10.0)**	**B (A)**	**0.15 (0.05)**		**11.9 (10.9)**	**B (B)**	**0.22 (0.06)**	
		Eastbound	Left-Through-Right	10.0 (9.7)	B (A)	0.12 (0.04)	25 (25)	10.5 (10.0)	B (A)	0.15 (0.05)	25 (25)	11.9 (10.9)	B (B)	0.22 (0.06)	25 (25)
		Westbound	Left-Through-Right	11.6 (11.3)	B (B)	0.06 (0.05)	25 (25)	13.2 (12.8)	B (B)	0.08 (0.06)	25 (25)	18.5 (17.1)	C (C)	0.19 (0.15)	25 (25)
		Northbound	Left-Through-Right	0.5 (2.1)	A (A)	0.00 (0.04)	0 (25)	0.4 (1.9)	A (A)	0.00 (0.04)	0 (0)	0.3 (1.9)	A (A)	0.00 (0.06)	0 (25)
		Southbound	Left-Through-Right	1.6 (0.6)	A (A)	0.03 (0.01)	25 (0)	1.8 (0.5)	A (A)	0.04 (0.01)	0 (0)	1.7 (0.6)	A (A)	0.05 (0.01)	25 (0)
6	Hwy 25 & I-94 WB On Ramp/I-94 WB Off Ramp	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**10.7 (11.6)**	**B (B)**	**0.10 (0.31)**		**12.1 (14.9)**	**B (B)**	**0.15 (0.47)**		**17.3 (49.8)**	**C (E)**	**0.32 (0.91)**	
		Westbound	Left-Through-Right	10.7 (11.6)	B (B)	0.10 (0.31)	25 (50)	12.1 (14.9)	B (B)	0.15 (0.47)	25 (75)	17.3 (49.8)	C (E)	0.32 (0.91)	50 (275)
		Northbound	Left-Through	3.4 (3.4)	A (A)	0.03 (0.03)	25 (25)	3.7 (3.3)	A (A)	0.04 (0.05)	0 (25)	4.2 (3.8)	A (A)	0.08 (0.09)	25 (25)
		Southbound	Through-Right	0.0 (0.0)	A (A)	0.16 (0.10)	0 (0)	0.0 (0.0)	A (A)	0.19 (0.13)	0 (0)	0.0 (0.0)	A (A)	0.28 (0.19)	0 (0)
ID	**Intersection**	**Approach**	**Movement**	**Existing**				**2030 No Build**				**2045 No Build**			
				Delay	**LOS**	**V/C**	**95th % Queue**	**Delay**	**LOS**	**V/C**	**95th % Queue**	**Delay**	**LOS**	**V/C**	**95th % Queue**
7	Hwy 25 & I-94 EB Off Ramp/I-94 EB On Ramp	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**10.4 (10.7)**	**B (B)**	**0.03 (0.07)**		**10.9 (12.2)**	**B (B)**	**0.04 (0.12)**		**14.7 (16.1)**	**B (C)**	**0.12 (0.24)**	
		Eastbound	Left-Through-Right	10.4 (10.7)	B (B)	0.03 (0.07)	25 (25)	10.9 (12.2)	B (B)	0.04 (0.12)	0 (25)	14.7 (16.1)	B (C)	0.12 (0.24)	25 (25)
		Northbound	Through-Right	0.0 (0.0)	A (A)	0.09 (0.08)	0 (0)	0.0 (0.0)	A (A)	0.12 (0.13)	0 (0)	0.0 (0.0)	A (A)	0.19 (0.20)	0 (0)
		Southbound	Left-Through	5.3 (3.3)	A (A)	0.13 (0.07)	25 (25)	5.4 (3.3)	A (A)	0.16 (0.09)	25 (25)	6.1 (3.7)	A (A)	0.24 (0.14)	25 (25)
8	Hwy 25 & CR 139/I-94 BL	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**9.4 (9.4)**	**A (A)**	**0.05 (0.07)**		**9.9 (9.8)**	**A (A)**	**0.09 (0.14)**		**11.6 (12.3)**	**B (B)**	**0.22 (0.33)**	
		Eastbound	Left	7.3 (7.4)	A (A)	0.01 (0.00)	0 (0)	7.4 (7.5)	A (A)	0.02 (0.00)	0 (0)	7.6 (7.9)	A (A)	0.03 (0.01)	0 (0)
			Through-Right	0.0 (0.0)	A (A)	0.00 (0.01)	0 (0)	0 (0)	A (A)	0.02 (0.02)	0 (0)	0.0 (0.0)	A (A)	0.03 (0.03)	0 (0)
		Westbound	Left	7.3 (7.3)	A (A)	0.00 (0.00)	0 (0)	7.3 (7.3)	A (A)	0.01 (0.01)	0 (0)	7.3 (7.3)	A (A)	0.01 (0.01)	0 (0)
			Through	0.0 (0.0)	A (A)	0.00 (0.02)	0 (0)	0 (0)	A (A)	0.01 (0.03)	0 (0)	0.0 (0.0)	A (A)	0.01 (0.07)	0 (0)
			Right	0.0 (0.0)	A (A)	0.00 (0.03)	0 (0)	0 (0)	A (A)	0.04 (0.05)	0 (0)	0.0 (0.0)	A (A)	0.08 (0.11)	0 (0)
		Northbound	Left-Through-Right	9.4 (9.1)	A (A)	0.02 (0.01)	0 (0)	9.5 (9.1)	A (A)	0.03 (0.02)	0 (0)	10.5 (10.1)	B (B)	0.06 (0.04)	0 (0)
		Southbound	Left-Through	9.4 (9.4)	A (A)	0.05 (0.07)	25 (25)	9.9 (9.8)	A (A)	0.09 (0.14)	0 (0)	11.6 (12.3)	B (B)	0.22 (0.33)	25 (50)
			Right	8.4 (8.5)	A (A)	0.00 (0.02)	0 (0)	0.0 (0)	A (A)	0.00 (0.00)	25 (25)	0.0 (0.0)	A (A)	0.00 (0.00)	- (-)
9	Old Red Trail & Mandan Ave	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**12.9 (16.8)**	**B (C)**	**0.03 (0.05)**		**14.5 (20.8)**	**B (C)**	**0.04 (0.07)**		**20.8 (38.8)**	**C (E)**	**0.08 (0.16)**	
		Eastbound	Left-Through	0.1 (0.1)	A (A)	0.00 (0.00)	0 (0)	0.1 (0.1)	A (A)	0.00 (0.01)	0 (0)	0.3 (0.4)	A (A)	0.01 (0.01)	0 (0)
		Westbound	Through-Right	0.0 (0.0)	A (A)	0.17 (0.31)	0 (0)	0.0 (0.0)	A (A)	0.20 (0.37)	0 (0)	0.0 (0.0)	A (A)	0.28 (0.51)	0 (0)
		Southbound	Left	12.9 (16.8)	B (C)	0.03 (0.05)	25 (25)	14.5 (20.8)	B (C)	0.04 (0.07)	0 (25)	20.8 (38.8)	C (E)	0.08 (0.16)	25 (25)
10	Mandan Ave & I-94 WB On Ramp/I-94 WB Off Ramp	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**13.8 (19.1)**	**B (C)**	**0.01 (0.02)**		**15.6 (24.7)**	**C (C)**	**0.01 (0.06)**		**21.8 (46.0)**	**C (E)**	**0.05 (0.11)**	
		Westbound	Left	13.8 (19.1)	B (C)	0.01 (0.02)	0 (0)	15.6 (24.7)	C (C)	0.01 (0.06)	0 (25)	21.8 (46.0)	C (E)	0.05 (0.11)	25 (25)
			Right	9.7 (11.9)	A (B)	0.20 (0.39)	25 (50)	10.0 (13.8)	B (B)	0.25 (0.50)	25 (75)	11.2 (23.4)	B (C)	0.36 (0.75)	50 (175)
		Northbound	Left	8.3 (8.7)	A (A)	0.03 (0.09)	25 (25)	8.6 (9.1)	A (A)	0.04 (0.11)	0 (25)	9.3 (10.4)	A (B)	0.07 (0.19)	25 (25)
			Through	0.0 (0.0)	A (A)	0.05 (0.11)	0 (0)	0.0 (0.0)	A (A)	0.06 (0.13)	0 (0)	0.0 (0.0)	A (A)	0.09 (0.18)	0 (0)
		Southbound	Through-Right	0.0 (0.0)	A (A)	0.25 (0.28)	0 (0)	0.0 (0.0)	A (A)	0.30 (0.35)	0 (0)	0.0 (0.0)	A (A)	0.41 (0.47)	0 (0)
11	Mandan Ave & I-94 EB Off Ramp	**Control Type**		**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**				**Stop (2 - Way)[2]**			
		Worst Approach		**22.5 (31.3)**	**C (D)**	**0.05 (0.14)**		**30.5 (51.9)**	**D (F)**	**0.07 (0.26)**		**71.8 (251.3)**	**F (F)**	**0.23 (0.83)**	
		Eastbound	Left	22.5 (31.3)	C (D)	0.05 (0.14)	25 (25)	30.5 (51.9)	D (F)	0.07 (0.26)	25 (25)	71.8 (251.3)	F (F)	0.23 (0.83)	25 (75)
			Right	9.1 (9.4)	A (A)	0.08 (0.07)	25 (25)	9.3 (9.7)	A (A)	0.10 (0.09)	25 (25)	9.7 (10.4)	A (B)	0.15 (0.13)	25 (25)
		Northbound	Through-Right	0.0 (0.0)	A (A)	0.10 (0.18)	0 (0)	0.0 (0.0)	A (A)	0.12 (0.22)	0 (0)	0.0 (0.0)	A (A)	0.17 (0.30)	0 (0)
		Southbound	Left	8.3 (8.9)	A (A)	0.23 (0.25)	25 (25)	8.7 (9.5)	A (A)	0.29 (0.32)	50 (50)	9.9 (11.8)	A (B)	0.43 (0.50)	75 (75)
			Through	0.0 (0.0)	A (A)	0.05 (0.09)	0 (0)	0.0 (0.0)	A (A)	0.07 (0.11)	0 (0)	0.0 (0.0)	A (A)	0.09 (0.16)	0 (0)
12	Mandan Ave & Main St	**Control Type**		**Signal**				**Signal**				**Signal**			
		Worst Approach		**18.0 (27.5)**	**B (C)**	**0.55 (0.73)**		**19.3 (31.4)**	**B (C)**	**0.59 (0.79)**		**24.2 (43.1)**	**C (D)**	**0.68 (0.93)**	
		Eastbound	Left	13.9 (18.8)	B (B)	0.10 (0.12)	25 (25)	14.8 (20.6)	B (C)	0.12 (0.14)	50 (25)	18.9 (25.5)	B (C)	0.18 (0.28)	50 (50)
			Through	16.8 (21.4)	B (C)	0.53 (0.46)	200 (200)	18.0 (23.4)	B (C)	0.56 (0.49)	200 (225)	23.7 (26.9)	C (C)	0.66 (0.55)	250 (250)
			Right	13.7 (18.5)	B (B)	0.07 (0.11)	50 (50)	14.5 (20.0)	B (C)	0.08 (0.12)	50 (50)	18.0 (22.3)	B (C)	0.09 (0.14)	50 (50)
		Westbound	Left	14.7 (18.7)	B (B)	0.19 (0.13)	50 (50)	15.8 (20.4)	B (C)	0.23 (0.14)	50 (50)	21.1 (23.3)	C (C)	0.35 (0.20)	75 (50)
			Through	15.7 (25.5)	B (C)	0.41 (0.70)	150 (325)	16.7 (28.7)	B (C)	0.43 (0.75)	150 (350)	21.3 (36.1)	C (D)	0.51 (0.84)	200 (400)
			Right	14.1 (19.3)	B (B)	0.14 (0.21)	50 (75)	15.0 (21.1)	B (C)	0.16 (0.24)	50 (75)	18.9 (24.1)	B (C)	0.20 (0.31)	50 (75)
		Northbound	Left	26.7 (38.2)	C (D)	0.50 (0.69)	100 (225)	29.2 (43.8)	C (D)	0.54 (0.74)	125 (250)	32.0 (54.6)	C (D)	0.51 (0.82)	150 (275)
			Through-Right	26.2 (39.9)	C (D)	0.47 (0.75)	100 (275)	28.5 (47.9)	C (D)	0.52 (0.83)	125 (350)	32.3 (78.1)	C (E)	0.56 (0.98)	150 (475)
		Southbound	Left	22.6 (39.9)	C (D)	0.59 (0.74)	200 (275)	24.4 (47.7)	C (D)	0.63 (0.82)	225 (350)	31.5 (86.5)	C (F)	0.74 (1.00)	375 (475)
			Through-Right	20.0 (28.8)	C (C)	0.42 (0.43)	150 (175)	20.6 (30.1)	C (C)	0.44 (0.47)	175 (200)	23.5 (33.7)	C (C)	0.52 (0.56)	250 (250)

[2]Worst Approach Reported for Stop controlled intersections
***95th Percentile Volume Exceeds Capacity, Queue May be Longer**
m: Volume for 95th Percentile Queue is metered by upstream signal

I-94 at Sunset Dr Interchange - Sunset Dr at Old Red Trail Alternatives

ID	Intersection	Approach	Movement	Existing				2030 No Build				2030 Ramp Tie-ins				2030 Roundabout[1]				2030 Sunset Old Red Turn Lanes			
				Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue
1	Sunset Dr & Old Red Trail	**Control Type**		**Signal**				**Signal**				**Signal**				**Roundabout**				**Signal**			
		Overall		**23.3 (24.1)**	**C (C)**	**0.68 (0.56)**	**- (-)**	**28.3 (25.3)**	**C (C)**	**0.88 (0.74)**	**- (-)**	**35.3 (30.8)**	**D (C)**	**0.73 (0.62)**	**- (-)**	**9.9 (9.0)**	**A (A)**	**0.52 (0.45)**	**- (-)**	**24.3 (23.9)**	**C (C)**	**0.63 (0.61)**	**- (-)**
		Eastbound	Left	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	23.7 (31.0)	C (C)	0.46 (0.29)	75 (50)	- (-)	- (-)	- (-)	- (-)	26.0 (29.2)	C (C)	0.39 (0.20)	75 (50)
			Left-Through	39.0 (32.4)	D (C)	0.65 (0.44)	150 (125)	57.1 (27.8)	E (C)	0.85 (0.42)	225* (125)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
			Left-Through-Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	13.3 (11.2)	B (B)	0.52 (0.45)	100 (75)	- (-)	- (-)	- (-)	- (-)
			Through	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	28.4 (34.2)	C (C)	0.24 (0.38)	75 (100)	- (-)	- (-)	- (-)	- (-)	30.4 (32.8)	C (C)	0.28 (0.35)	75 (100)
			Right	20.3 (16.7)	C (B)	0.62 (0.48)	200 (100)	25.5 (15.3)	C (B)	0.79 (0.61)	325 (200)	19.8 (19.5)	B (B)	0.51 (0.27)	150 (75)	12.3 (10.3)	B (B)	0.52 (0.45)	100 (75)	15.5 (14.8)	B (B)	0.41 (0.35)	100 (75)
		Westbound	Left	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	80.7 (54.0)	F (D)	0.97 (0.75)	225* (150)	- (-)	- (-)	- (-)	- (-)	31.3 (33.3)	C (C)	0.41 (0.65)	75 (150)
			Left-Through-Right	31.5 (36.2)	C (D)	0.35 (0.66)	75 (125)	31.7 (30.2)	C (C)	0.49 (0.60)	100 (150)	- (-)	- (-)	- (-)	- (-)	10.1 (11.1)	B (B)	0.22 (0.35)	25 (50)	- (-)	- (-)	- (-)	- (-)
			Through-Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	22.6 (23.6)	C (C)	0.52 (0.64)	50 (100)	- (-)	- (-)	- (-)	- (-)	34.4 (32.6)	C (C)	0.43 (0.52)	100 (150)
		Northbound	Left	46.1 (44.9)	D (D)	0.71 (0.69)	175 (175)	42.5 (46.8)	D (D)	0.72 (0.77)	175 (200)	30.8 (52.9)	C (D)	0.63 (0.64)	100*m (150)	7.0 (7.2)	A (A)	0.37 (0.40)	50 (75)	36.5 (40.3)	D (D)	0.69 (0.70)	175 (200)
			Left-Through	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	8.9 (7.2)	A (A)	0.50 (0.40)	75 (75)	- (-)	- (-)	- (-)	- (-)
			Through-Right	6.2 (5.5)	A (A)	0.53 (0.42)	175 (125)	9.3 (12.6)	A (B)	0.64 (0.70)	275 (325)	29.3 (16.7)	C (B)	0.47 (0.39)	225m (175)	- (-)	- (-)	- (-)	- (-)	14.7 (10.3)	B (B)	0.38 (0.34)	200 (150)
			Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	3.6 (5.2)	A (A)	0.08 (0.24)	25 (50)	- (-)	- (-)	- (-)	- (-)
		Southbound	Left	15.4 (16.7)	B (B)	0.09 (0.13)	25 (50)	17.6 (23.8)	B (C)	0.15 (0.27)	50 (75)	27.0 (25.7)	C (C)	0.17 (0.22)	50 (75)	- (-)	- (-)	- (-)	- (-)	24.0 (28.3)	C (C)	0.20 (0.32)	50 (75)
			Through	24.0 (19.7)	C (B)	0.64 (0.39)	300 (225)	36.8 (30.9)	D (C)	0.86 (0.67)	475* (375)*	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
			Left-Through-Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	10.2 (10.6)	B (B)	0.43 (0.37)	75 (50)	- (-)	- (-)	- (-)	- (-)
			Through-Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	39.1 (27.7)	D (C)	0.80 (0.48)	275* (175)	- (-)	- (-)	- (-)	- (-)	29.9 (26.8)	C (C)	0.68 (0.45)	250* (175)
			Right	0.1 (0.0)	A (A)	0.06 (0.01)	0 (0)	0.1 (0.0)	A (A)	0.07 (0.03)	0 (0)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
14	Old Red Trail & I-94 WB On Ramp	**Control Type**		**Intersection Does Not Exist Under This Alternative**				**Intersection Does Not Exist Under This Alternative**				**Stop (T-Int)[2]**				**Intersection Does Not Exist Under This Alternative**				**Intersection Does Not Exist Under This Alternative**			
		Worst Approach										**9.5 (9.1)**	**A (A)**	**0.07 (0.15)**	**- (-)**								
		Eastbound	Through-Right									0.0 (0.0)	A (A)	0.28 (0.19)	0 (0)								
		Westbound	Left									9.5 (9.1)	A (A)	0.07 (0.15)	0 (0)								
			Through									0.0 (0.0)	A (A)	0.17 (0.19)	25 (25)								
15	Old Red Trail & I-94 WB Off Ramp and Walmart Entrance	**Control Type**		**Intersection Does Not Exist Under This Alternative**				**Intersection Does Not Exist Under This Alternative**				**Signal**				**Intersection Does Not Exist Under This Alternative**				**Intersection Does Not Exist Under This Alternative**			
		Overall										**24.6 (25.7)**	**C (C)**	**0.48 (0.57)**	**- (-)**								
		Eastbound	Left									12.3 (11.3)	B (B)	0.10 (0.26)	50m (75)								
			Through									12.8 (10.2)	B (B)	0.18 (0.25)	75 (100)								
		Westbound	Through-Right									17.6 (16.7)	B (B)	0.31 (0.48)	175 (275)								
		Nortbound	Left									28.1 (34.3)	C (C)	0.73 (0.74)	250 (225)								
			Through-Right									19.6 (26.2)	B (C)	0.05 (0.18)	25 (75)								
		Southbound	Left									41.7 (43.2)	D (D)	0.30 (0.58)	50 (100)								
			Right									39.5 (36.5)	D (D)	0.03 (0.06)	25 (50)								

ID	Intersection	Approach	Movement	2045 No Build				2045 Ramp Tie-ins				2045 Sunset Old Red Turn Lanes				2045 Roundabout[1]			
				Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue
1	Sunset Dr & Old Red Trail	**Control Type**		**Signal**				**Signal**				**Signal**				**Roundabout**			
		Overall		**55.1 (44.1)**	**E (D)**	**1.14 (1.02)**	**- (-)**	**50.5 (34.5)**	**D (C)**	**0.92 (0.83)**	**- (-)**	**32.4 (28.2)**	**C (C)**	**0.76 (0.75)**	**- (-)**	**16.1 (14.1)**	**C (B)**	**0.74 (0.62)**	**- (-)**
		Eastbound	Left	- (-)	- (-)	- (-)	- (-)	25.1 (29.2)	C (C)	0.53 (0.42)	75 (50)	28.1 (27.5)	C (C)	0.54 (0.28)	100 (50)	- (-)	- (-)	- (-)	- (-)
			Left-Through	161.1 (26.8)	F (C)	1.20 (0.52)	325* (150)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
			Left-Through-Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	25.4 (18.1)	D (C)	0.74 (0.62)	175 (125)
			Through	- (-)	- (-)	- (-)	- (-)	27.3 (31.7)	C (C)	0.29 (0.40)	100 (125)	32.4 (31.4)	C (C)	0.39 (0.39)	100 (125)	- (-)	- (-)	- (-)	- (-)
			Right	54.7 (16.0)	D (B)	1.00 (0.72)	575* (350)	21.0 (16.6)	C (B)	0.60 (0.29)	200 (75)	28.0 (27.9)	C (C)	0.43 (0.39)	75 (100)	23.3 (16.6)	C (C)	0.74 (0.62)	175 (125)
		Westbound	Left	- (-)	- (-)	- (-)	- (-)	124.7 (65.5)	F (E)	1.12 (0.92)	275* (200)*m	33.7 (44.2)	C (D)	0.53 (0.80)	100 (175)	- (-)	- (-)	- (-)	- (-)
			Left-Through-Right	37.2 (31.0)	D (C)	0.87dl (0.72)	125 (200)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	14.8 (20.7)	B (C)	0.34 (0.58)	50 (75)
			Through-Right	- (-)	- (-)	- (-)	- (-)	6.4 (18.9)	A (B)	0.60 (0.73)	50 (100)m	40.2 (37.9)	D (D)	0.63 (0.69)	125 (200)	- (-)	- (-)	- (-)	- (-)
		Northbound	Left	36.6 (45.6)	D (D)	0.79 (0.88)	200 (275)*m	46.8 (53.7)	D (D)	0.91 (0.77)	100m (125)m	27.9 (35.0)	C (C)	0.67 (0.76)	200 (275)*m	8.9 (9.8)	A (A)	0.48 (0.54)	75 (100)
			Left-Through	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	12.8 (9.8)	B (B)	0.65 (0.54)	200 (100)
			Through-Right	14.2 (52.9)	B (D)	0.79 (1.04)	400 (825)*	47.4 (25.3)	D (C)	0.62 (0.63)	200m (175)m	14.3 (12.6)	B (B)	0.47 (0.51)	225 (250)	- (-)	- (-)	- (-)	- (-)
			Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	4.0 (6.4)	A (A)	0.11 (0.33)	25 (50)
		Southbound	Left	21.4 (145.3)	C (F)	0.26 (1.04)	50 (150)*	30.4 (35.4)	C (D)	0.27 (0.41)	75 (100)	33.4 (48.6)	C (D)	0.39 (0.61)	75 (125)*	- (-)	- (-)	- (-)	- (-)
			Through	98.7 (69.7)	F (E)	1.12 (0.99)	625* (500)*	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
			Left-Through-Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	16.0 (17.1)	C (C)	0.61 (0.55)	125 (100)
			Through-Right	- (-)	- (-)	- (-)	- (-)	81.4 (41.1)	F (D)	1.05 (0.80)	350* (275)*	56.5 (33.3)	E (C)	0.97 (0.65)	375* (225)*	- (-)	- (-)	- (-)	- (-)
			Right	0.1 (0.0)	A (A)	0.09 (0.03)	0 (0)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
14	Old Red Trail & I-94 WB On Ramp	**Control Type**		**Intersection Does Not Exist Under This Alternative**				**Stop (T-Int)[2]**				**Intersection Does Not Exist Under This Alternative**				**Intersection Does Not Exist Under This Alternative**			
		Worst Approach						**10.3 (9.9)**	**B (A)**	**0.10 (0.22)**	**- (-)**								
		Eastbound	Through-Right					0.0 (0.0)	A (A)	0.34 (0.22)	0 (0)								
		Westbound	Left					10.3 (9.9)	B (A)	0.10 (0.22)	0 (0)								
			Through					0.0 (0.0)	A (A)	0.21 (0.23)	25 (25)								
15	Old Red Trail & I-94 WB Off Ramp and Walmart Entrance	**Control Type**		**Intersection Does Not Exist Under This Alternative**				**Signal**				**Intersection Does Not Exist Under This Alternative**				**Intersection Does Not Exist Under This Alternative**			
		Overall						**24.1 (29.9)**	**C (C)**	**0.59 (0.70)**	**- (-)**								
		Eastbound	Left					14.1 (13.2)	B (B)	0.14 (0.35)	50m (50)m								
			Through					14.3 (11.6)	B (B)	0.29 (0.39)	125 (125)								
		Westbound	Through-Right					21.5 (20.5)	C (C)	0.43 (0.61)	200 (325)								
		Nortbound	Left					26.5 (43.9)	C (D)	0.77 (0.90)	300 (350)*								
			Through-Right					16.7 (34.5)	B (C)	0.06 (0.20)	25 (75)								
		Southbound	Left					42.8 (43.2)	D (D)	0.34 (0.58)	50 (100)								
			Right					40.0 (36.5)	D (D)	0.03 (0.06)	25 (50)								

[1]HCM 6th Edition Methodology
[2]Worst Approach Reported for Stop controlled intersections
*95th Percentile Volume Exceeds Capacity, Queue May be Longer
m: Volume for 95th Percentile Queue is metered by upstream signal

I-94 at Sunset Dr Interchange - Interchange Alternatives

ID	Intersection	Approach	Movement	Existing				2030 No Build				2030 Parclo				2030 DDI				2030 SPUI				2030 Roundabout[1]			
				Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue
2	Sunset Dr & I-94 WB	Control Type		Signal				Signal				Signal				Signal				Does Not Exist Under This Alternative				Roundabout			
		Overall		**15.8 (16.8)**	**B (B)**	**0.59 (0.51)**	**- (-)**	**16.3 (17.6)**	**B (B)**	**0.70 (0.63)**	**- (-)**	**18.3 (19.9)**	**B (B)**	**0.70 (0.63)**	**- (-)**	**21.2 (23.6)**	**C (C)**	**0.65 (0.53)**	**- (-)**					**10.3 (11.6)**	**B (B)**	**0.60 (0.63)**	**- (-)**
		Westbound	Left	37.9 (38.0)	D (D)	0.75 (0.73)	225 (225)	39.2 (38.9)	D (D)	0.79 (0.78)	250 (275)	37.6 (38.9)	D (D)	0.78 (0.78)	225 (275)	30.7 (33.3)	C (C)	0.66 (0.61)	225 (200)					12.3 (16.5)	B (C)	0.53 (0.63)	100 (150)
			Right	26.2 (27.5)	C (C)	0.22 (0.20)	25 (50)	26.2 (26.8)	C (C)	0.34 (0.38)	50 (75)	26.1 (26.8)	C (C)	0.36 (0.38)	50 (75)	9.5 (7.3)	A (A)	0.33 (0.35)	75 (100)					11.5 (15.3)	B (C)	0.53 (0.63)	100 (150)
		Northbound	Left	1.0 (2.6)	A (A)	0.08 (0.17)	0 (0)	2.9 (5.4)	A (A)	0.25 (0.35)	0 (0)	13.5 (14.8)	B (B)	0.25 (0.35)	50 (75)	- (-)	- (-)	- (-)	- (-)					- (-)	- (-)	- (-)	- (-)
			Left-Through	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)					4.3 (4.6)	A (A)	0.20 (0.24)	0 (0)
			Through	4.2 (3.8)	A (A)	0.47 (0.36)	25 (0)	3.7 (5.3)	A (A)	0.55 (0.57)	50m (100)	14.3 (14.6)	B (B)	0.56 (0.57)	325 (375)	48.2 (62.7)	D (E)	0.53 (0.74)	175 (250)					- (-)	- (-)	- (-)	- (-)
		Southbound	Through	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	14.1 (10.8)	B (B)	0.65 (0.46)	300 (200)					- (-)	- (-)	- (-)	- (-)
			Through-Right	9.6 (10.8)	A (B)	0.53 (0.44)	200 (200)	11.6 (13.4)	B (B)	0.67 (0.57)	250 (250)	11.6 (13.4)	B (B)	0.67 (0.57)	250 (250)	- (-)	- (-)	- (-)	- (-)					12.0 (12.1)	B (B)	0.60 (0.59)	175 (150)
			Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.0 (0.1)	A (A)	0.04 (0.10)	0 (0)					- (-)	- (-)	- (-)	- (-)
3	Sunset Dr & I-94 EB	Control Type		Signal				Signal				Signal				Signal				Does Not Exist Under This Alternative				Roundabout			
		Overall		**10.8 (8.6)**	**B (A)**	**0.68 (0.61)**	**- (-)**	**21.5 (13.6)**	**C (B)**	**0.88 (0.74)**	**- (-)**	**6.3 (6.8)**	**A (A)**	**0.62 (0.61)**	**- (-)**	**12.6 (15.0)**	**B (B)**	**0.48 (0.48)**	**- (-)**					**9.3 (8.3)**	**A (A)**	**0.61 (0.61)**	**- (-)**
		Eastbound	Left	41.3 (41.4)	D (D)	0.32 (0.41)	50 (75)	41.4 (41.9)	D (D)	0.36 (0.51)	50 (75)	42.9 (50.1)	D (D)	0.41 (0.62)	50 (100)	7.3 (5.5)	A (A)	0.02 (0.05)	0 (25)					13.1 (10.5)	B (B)	0.12 (0.16)	25 (25)
			Right	39.0 (38.1)	D (D)	0.05 (0.03)	50 (25)	38.7 (37.1)	D (D)	0.06 (0.03)	50 (25)	39.5 (38.5)	D (D)	0.06 (0.03)	50 (50)	22.5 (26.2)	C (C)	0.06 (0.03)	25 (0)					12.8 (11.5)	B (B)	0.20 (0.13)	25 (25)
		Northbound	Through	19.7 (12.3)	B (B)	0.58 (0.41)	400* (300)	49.2 (23.2)	D (C)	0.92 (0.71)	525* (625)	2.7 (0.1)	A (A)	0.40 (0.43)	100 (125)	26.6 (34.6)	C (C)	0.51 (0.72)	175 (225)					9.3 (8.4)	B (B)	0.35 (0.35)	50 (50)
			Right	15.4 (9.5)	B (A)	0.31 (0.14)	125 (75)	25.3 (14.7)	C (B)	0.47 (0.29)	175 (150)	2.1 (2.1)	A (A)	0.26 (0.20)	25 (25)	0.4 (0.3)	A (A)	0.26 (0.20)	0 (0)					11.2 (7.5)	B (A)	0.47 (0.32)	75 (50)
		Southbound	Left	5.1 (5.6)	A (A)	0.69 (0.61)	25 (25)	16.1 (9.4)	B (A)	0.90 (0.74)	75* (25)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)					7.1 (5.6)	A (A)	0.46 (0.34)	0 (0)
			Through	3.8 (3.3)	A (A)	0.58 (0.46)	175 (150)	4.3 (5.2)	A (A)	0.64 (0.62)	250 (375)	5.7 (5.3)	A (A)	0.63 (0.61)	125 (375)	9.2 (6.8)	A (A)	0.46 (0.40)	125 (125)					9.6 (9.6)	A (A)	0.61 (0.61)	0 (0)
14	Sunset Dr & I-94 Ramps	Control Type		Does Not Exist Under This Alternative				Does Not Exist Under This Alternative				Does Not Exist Under This Alternative				Does Not Exist Under This Alternative				Signal				Does Not Exist Under This Alternative			
		Overall																		**26.7 (26.2)**	**C (C)**	**0.74 (0.65)**	**- (-)**				
		Eastbound	Left																	34.6 (34.4)	C (C)	0.17 (0.28)	50 (75)				
			Right																	40.7 (38.5)	D (D)	0.05 (0.03)	0 (0)				
		Westbound	Left																	43.2 (40.9)	D (D)	0.73 (0.70)	150 (150)				
			Right																	19.9 (25.0)	B (C)	0.21 (0.29)	50 (50)				
		Northbound	Left																	43.8 (45.2)	D (D)	0.37 (0.56)	50 (100)				
			Through																	32.1 (26.7)	C (C)	0.57 (0.49)	200 (200)				
			Right																	28.2 (23.4)	C (C)	0.24 (0.19)	75 (75)				
		Southbound	Left																	30.3 (33.1)	C (C)	0.85 (0.79)	325m (250)				
			Through																	10.6 (11.2)	B (B)	0.27 (0.33)	100m (100)				

ID	Intersection	Approach	Movement	2045 No Build				2045 Parclo				2045 DDI				2045 SPUI				2045 Roundabout[1]			
				Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue
2	Sunset Dr & I-94 WB	Control Type		Signal				Signal				Signal				Does Not Exist Under This Alternative				Roundabout			
		Overall		**19.0 (21.2)**	**B (C)**	**0.87 (0.90)**	**- (-)**	**22.6 (27.0)**	**C (C)**	**0.87 (0.90)**	**- (-)**	**31.4 (27.5)**	**C (C)**	**0.84 (0.68)**	**- (-)**					**18.0 (31.5)**	**C (D)**	**0.81 (0.99)**	**- (-)**
		Westbound	Left	42.7 (43.0)	D (D)	0.86 (0.87)	300 (375)*	42.7 (43.0)	D (D)	0.86 (0.87)	300 (375)*	100.0 (44.1)	F (D)	1.07 (0.85)	400* (375)*					21.5 (61.2)	C (F)	0.73 (0.99)	200 (500)
			Right	27.4 (30.4)	C (C)	0.61 (0.72)	150 (225)	27.4 (30.4)	C (C)	0.61 (0.72)	150 (225)	7.8 (10.2)	A (B)	0.43 (0.48)	125 (175)					19.9 (57.6)	C (F)	0.73 (0.99)	200 (550)
		Northbound	Left	11.3 (24.0)	B (C)	0.65 (0.93)	0 (125)m	49.8 (81.6)	D (F)	0.65 (0.93)	75*m (150)*m	- (-)	- (-)	- (-)	- (-)					- (-)	- (-)	- (-)	- (-)
			Left-Through	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)					4.7 (5.4)	A (A)	0.25 (0.32)	0 (0)
			Through	5.0 (7.0)	A (A)	0.72 (0.81)	25m (75)m	20.3 (25.0)	C (C)	0.72 (0.81)	425 (625)*	66.2 (64.4)	E (E)	0.83 (0.85)	275*m (325)*m					- (-)	- (-)	- (-)	- (-)
		Southbound	Through	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	10.7 (13.5)	B (B)	0.76 (0.61)	275m (250)m					- (-)	- (-)	- (-)	- (-)
			Through-Right	15.2 (17.0)	B (B)	0.87 (0.75)	325m (325)m	15.2 (17.0)	B (B)	0.94 (0.75)	325m (325)m	- (-)	- (-)	- (-)	- (-)					22.2 (23.9)	C (C)	0.81 (0.81)	375 (325)
			Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.0 (0.1)	A (A)	0.05 (0.15)	0 (0)					- (-)	- (-)	- (-)	- (-)
3	Sunset Dr & I-94 EB	Control Type		Signal				Signal				Signal				Does Not Exist Under This Alternative				Roundabout			
		Overall		**64.9 (53.3)**	**E (D)**	**1.05 (1.02)**	**- (-)**	**7.7 (9.3)**	**A (A)**	**0.79 (0.75)**	**- (-)**	**15.3 (17.0)**	**B (B)**	**0.60 (0.60)**	**- (-)**					**13.3 (11.6)**	**B (B)**	**0.78 (0.72)**	
		Eastbound	Left	41.6 (41.4)	D (D)	0.43 (0.58)	75 (125)	61.9 (47.7)	E (D)	0.67 (0.66)	75* (125)*	5.2 (7.0)	A (A)	0.04 (0.10)	25 (50)					20.2 (16.7)	C (C)	0.21 (0.32)	25 (25)
			Right	38.3 (34.6)	D (C)	0.07 (0.05)	50 (50)	40.9 (35.8)	D (D)	0.07 (0.05)	50 (50)	27.0 (23.9)	C (C)	0.07 (0.05)	50 (25)					21.1 (17.9)	C (C)	0.35 (0.26)	50 (25)
		Northbound	Through	245.8 (146.9)	F (F)	1.45 (1.23)	675* (875)	2.9 (5.7)	A (A)	0.47 (0.59)	100 (225)	39.8 (37.9)	D (D)	0.82 (0.84)	275* (325)*					12.8 (13.4)	B (B)	0.48 (0.54)	75 (100)
			Right	42.1 (24.2)	D (C)	0.76 (0.47)	250* (225)	2.1 (3.0)	A (A)	0.32 (0.24)	25 (25)	0.6 (0.4)	A (A)	0.32 (0.24)	0 (0)					16.6 (10.1)	C (B)	0.62 (0.43)	125 (75)
		Southbound	Left	12.8 (28.0)	B (C)	0.92 (0.94)	575*m (450)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)					8.3 (6.7)	A (A)	0.54 (0.43)	0 (0)
			Through	7.0 (8.5)	A (A)	0.83 (0.77)	650 (575)	7.3 (8.1)	A (A)	0.80 (0.75)	650 (625)	7.4 (7.5)	A (A)	0.52 (0.49)	125m (125)m					14.9 (12.7)	B (B)	0.78 (0.72)	0 (0)
14	Sunset Dr & I-94 Ramps	Control Type		Does Not Exist Under This Alternative				Does Not Exist Under This Alternative				Does Not Exist Under This Alternative				Signal				Does Not Exist Under This Alternative			
		Overall														**30.2 (30.3)**	**C (C)**	**0.88 (0.83)**	**- (-)**				
		Eastbound	Left													35.3 (34.9)	D (C)	0.22 (0.41)	75 (125)				
			Right													40.1 (37.0)	D (D)	0.07 (0.05)	0 (0)				
		Westbound	Left													65.9 (48.1)	E (D)	0.93 (0.84)	200* (200)*				
			Right													19.7 (26.5)	B (C)	0.35 (0.60)	75 (175)				
		Northbound	Left													43.8 (47.6)	D (D)	0.43 (0.64)	75 (125)				
			Through													39.4 (36.6)	D (D)	0.76 (0.76)	250* (275)*				
			Right													31.8 (27.2)	C (C)	0.36 (0.23)	125 (75)				
		Southbound	Left													25.6 (37.9)	C (D)	0.93 (0.88)	300m (325)m				
			Through													14.2 (10.1)	B (B)	0.36 (0.43)	100m (125)m				

[1] HCM 6th Edition Methodology
*95th Percentile Volume Exceeds Capacity, Queue May be Longer
m: Volume for 95th Percentile Queue is metered by upstream signal

I-94 at Sunset Dr Interchange - Sunset Dr at Boundary St NW Alternatives

ID	Intersection	Approach	Movement	Existing				2030 No Build				2030 Roundabout				2030 Boundary St Signal			
				Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue
4	Sunset Dr & Boundary St NW	Control Type		Stop (2 - Way)[2]				Stop (2 - Way)[2]				Roundabout[1]				Signal			
		Overall		**53.4 (61.1)**	**F (F)**	**0.12 (0.49)**	- (-)	**115.3 (>300)**	**F (F)**	**0.24 (>2.00)**	- (-)	**8.9 (9.2)**	**A (A)**	**0.70 (0.69)**	- (-)	**8.1 (8.7)**	**A (A)**	**0.56 (0.55)**	- (-)
		Eastbound	Left-Through-Right	53.4 (61.1)	F (F)	0.12 (0.49)	25 (75)	115.3 (>300)	F (F)	0.24 (>2.00)	25 (175)	6.8 (7.9)	A (A)	0.02 (0.11)	25 (25)	37.7 (44.5)	D (D)	0.01 (0.53)	25 (75)
		Westbound	Left-Through-Right	22.6 (21.1)	C (C)	0.39 (0.35)	50 (50)	35.3 (123.9)	E (F)	0.60 (0.96)	100 (175)	7.5 (7.3)	A (A)	0.23 (0.20)	25 (25)	39.0 (38.2)	D (D)	0.19 (0.26)	75 (75)
		Northbound	Left-Through-Right	0.5 (0.5)	A (A)	0.02 (0.02)	25 (25)	0.6 (0.5)	A (A)	0.02 (0.02)	25 (25)	5.4 (6.2)	A (A)	0.29 (0.32)	50 (50)	4.4 (4.9)	A (A)	0.55 (0.55)	225 (250)
		Southbound	Left	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	1.5 (4.1)	A (A)	0.13 (0.28)	25m (75)m
			Left-Through-Right	1.5 (3.0)	A (A)	0.06 (0.12)	25 (25)	2.1 (4.2)	A (A)	0.08 (0.17)	25 (25)	12.2 (12.1)	B (B)	0.70 (0.69)	225 (200)	- (-)	- (-)	- (-)	- (-)
			Through-Right	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	5.5 (5.0)	A (A)	0.60 (0.53)	450 (350)

ID	Intersection	Approach	Movement	2045 No Build				2045 Boundary St Signal				2045 Roundabout			
				Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue	Delay	LOS	V/C	95th % Queue
4	Sunset Dr & Boundary St NW	Control Type		Stop (2 - Way)[2]				Signal				Roundabout[1]			
		Overall		**>300 (>300)**	**F (F)**	**>2.00 (>2.00)**	- (-)	**8.0 (10.6)**	**A (B)**	**0.72 (0.72)**	- (-)	**16.1 (13.6)**	**C (B)**	**0.90 (0.84)**	- (-)
		Eastbound	Left-Through-Right	>300 (>300)	F (F)	>2.00 (>2.00)	>1500 (>1500)	37.2 (84.4)	D (F)	0.01 (0.80)	25 (100)*	8.9 (10.3)	A (B)	0.03 (0.17)	25 (25)
		Westbound	Left-Through-Right	>300 (>300)	F (F)	>2.00 (>2.00)	>1500 (>1500)	38.9 (36.6)	D (D)	0.25 (0.30)	75 (100)	9.8 (10.9)	A (B)	0.32 (0.36)	50 (50)
		Northbound	Left-Through-Right	2.4 (1.0)	A (A)	0.06 (0.03)	25 (25)	6.7 (8.5)	A (A)	0.69 (0.71)	425 (375)	6.3 (7.7)	A (A)	0.37 (0.42)	50 (75)
		Southbound	Left	- (-)	- (-)	- (-)	- (-)	1.0 (2.4)	A (A)	0.20 (0.42)	25m (25)m	- (-)	- (-)	- (-)	- (-)
			Left-Through-Right	3.9 (6.6)	A (A)	0.12 (0.24)	25 (25)	- (-)	- (-)	- (-)	- (-)	25.1 (19.5)	D (C)	0.90 (0.84)	625 (400)
			Through-Right	- (-)	- (-)	- (-)	- (-)	3.6 (2.3)	A (A)	0.77 (0.67)	50* (25)	- (-)	- (-)	- (-)	- (-)

[1]HCM 6th Edition Methodology

[2]Worst Approach Reported for Stop controlled intersections

***95th Percentile Volume Exceeds Capacity, Queue May be Longer**

m: Volume for 95th Percentile Queue is metered by upstream signal

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Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix **H:**
CAP-X Analysis

Capacity Analysis for Planning of Junctions

Summary Report

Project Name:	I-94 Sunset Dr Interchange
Project Number:	3260700-221670.01
Location:	Mandan, North Dakota
Date:	2045 PM
Number of Intersection Legs:	
Major Street Direction	East-West

Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn	**Left**	**Thru**	**Right**	Heavy Vehicles	Volume Growth
Eastbound	0	100	670	70	2.00%	0.00%
Westbound	0	400	710	695	2.00%	0.00%
Southbound	0	540	515	185	2.00%	0.00%
Northbound	0	95	615	315	2.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	**0.80**	**0.95**		**0.85**		

Truck to PCE Factor		**Suggested = 2.00**	2.00
Multimodal Activity Level		**Low**	
Critical Lane Volume Threshold	2-phase signal	**Suggested = 1800 (Urban), 1650 (Rural)**	**1800**
	3-phase signal	**Suggested = 1750 (Urban), 1600 (Rural)**	**1750**
	4-phase signal	**Suggested = 1700 (Urban), 1550 (Rural)**	**1700**

Capacity Analysis for Planning of Junctions

Summary Report

# # # # # # # # # # # # #

TYPE OF INTERSECTION	Overall v/c Ratio	V/C Ranking	Pedestrian Accommodations	Bicycle Accommodations
Single Point N-S	0.48	1	Good	Excellent
Partial Cloverleaf B N-S	0.52	2	Good	Excellent
Partial Cloverleaf A N-S	0.54	3	Good	Excellent
Diverging Diamond Interchange N-S	0.54	3	Good	Excellent
Contraflow Left Interchange N-S	0.61	5	Good	Excellent
Displaced Left Turn (Interchange) N-S	0.97	6	Good	Excellent

Single Point Interchange (N-S)

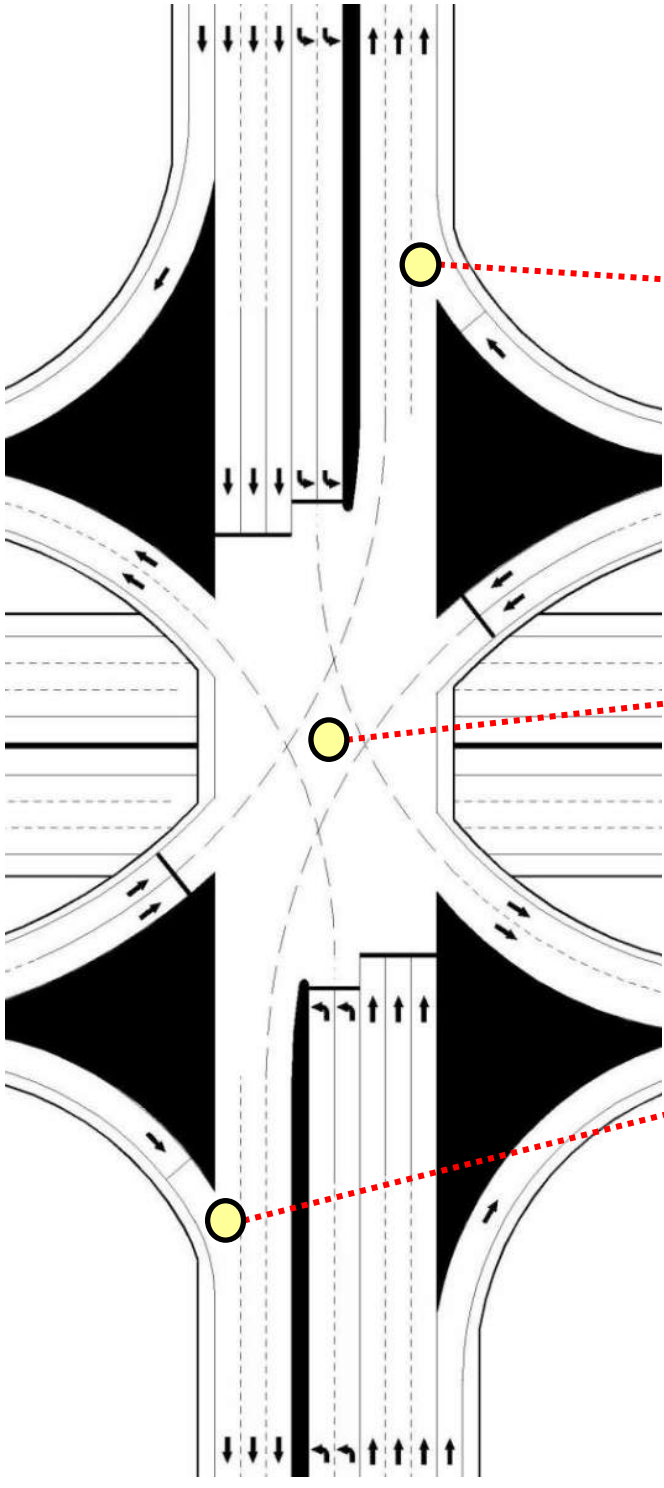
Design and Results

Project Name:	*I-94 Sunset Dr Interchange*
Project Number:	*3260700-221670.01*
Location	*Mandan, North Dakota*
Date	2045 PM

Volume-to-Capacity Ratio

< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00

VOLUME / CAPACITY RATIO: **0.48**



Zone 1

CLV	V/C	MAX
782	0.43	1800

2 Phases

Zone 3

CLV	V/C	MAX
818	0.48	1700

4 Phases

Zone 6

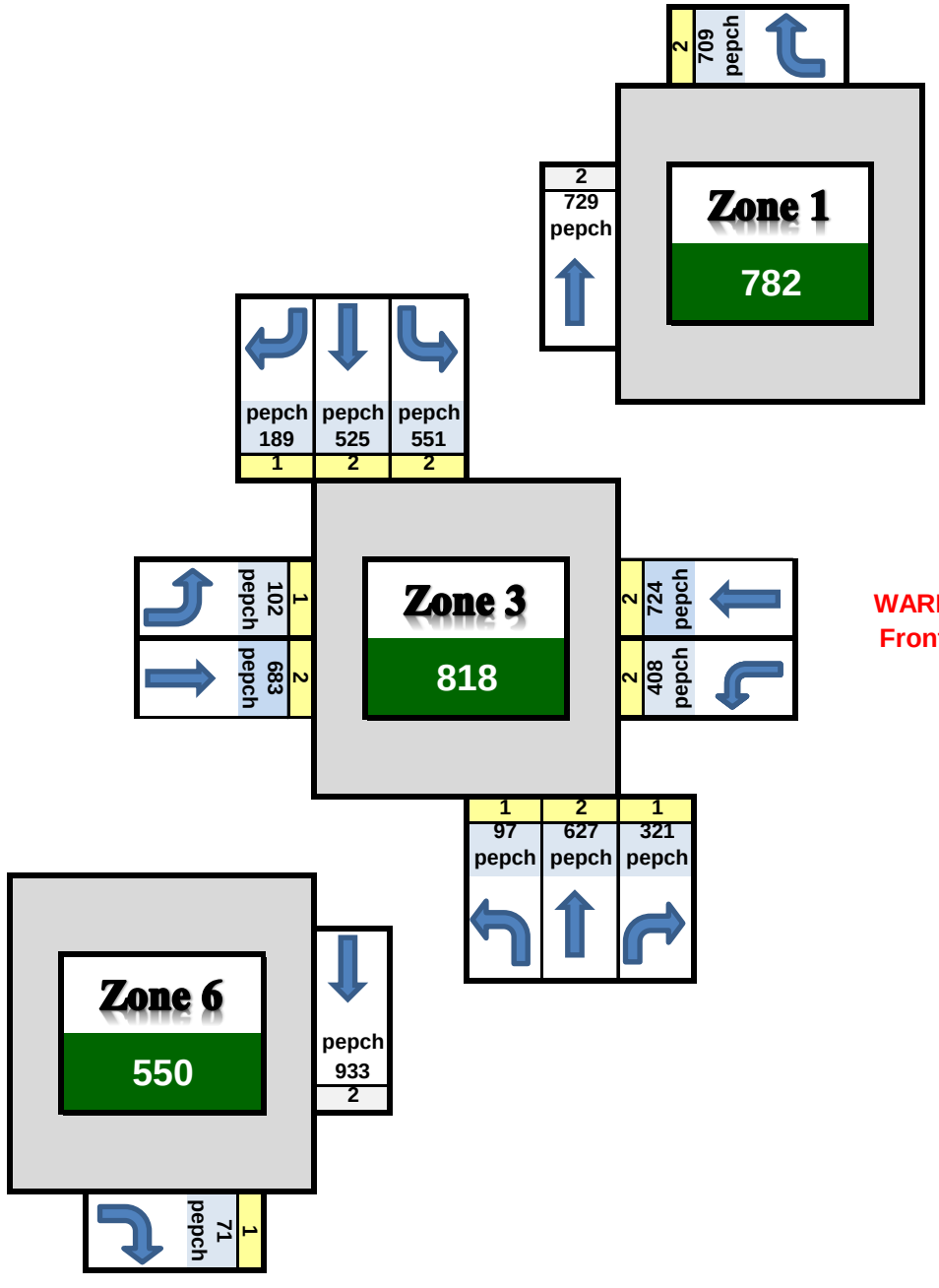
CLV	V/C	MAX
550	0.31	1800

2 Phases

Single Point Interchange (N-S)

Data Input and Configuration

Multimodal Capacity Adjustment Factor	1.00



WARNING: Includes Frontage Roads on Ramps

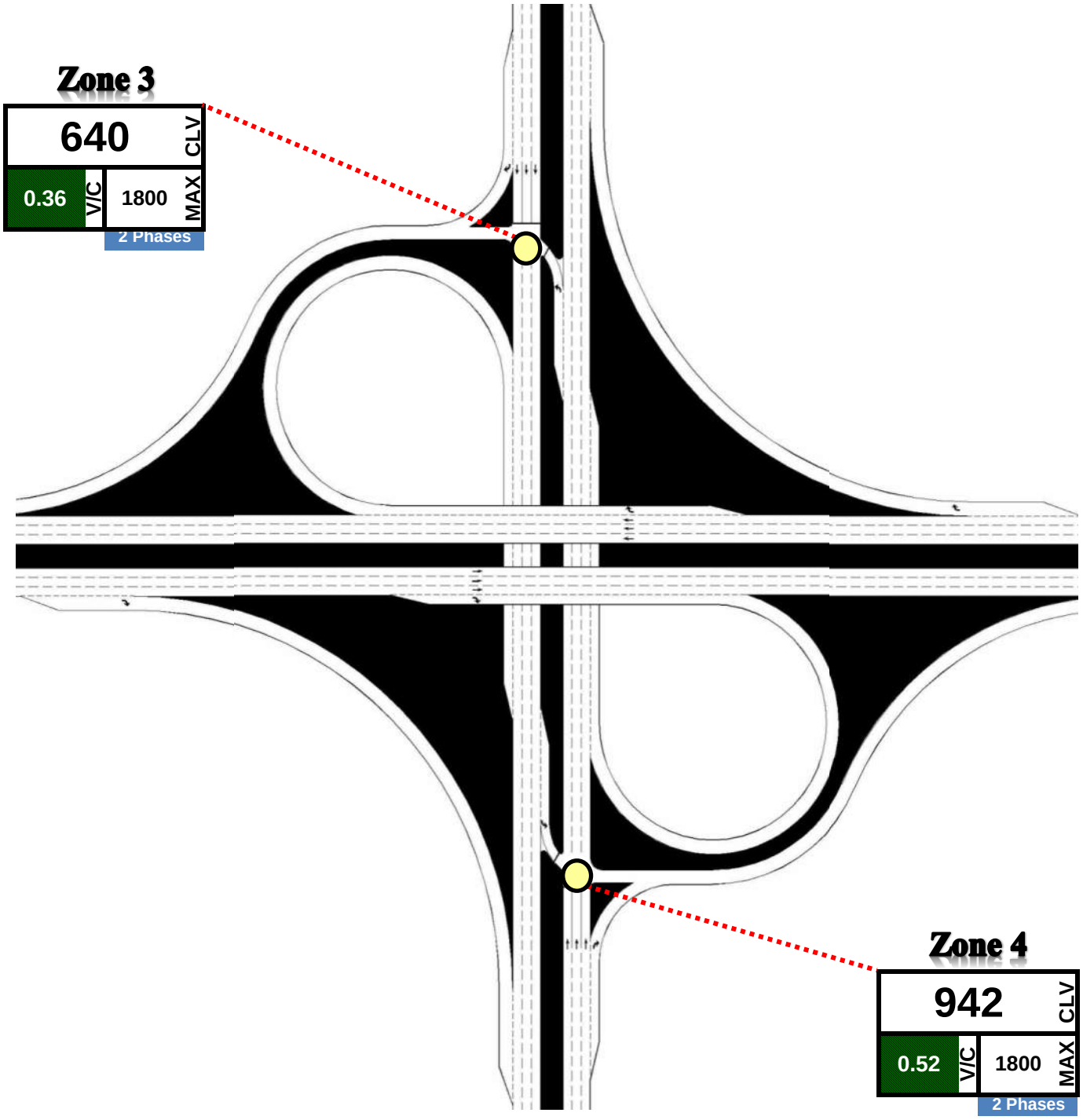
Back to Results

Partial Cloverleaf B (N-S)

Design and Results

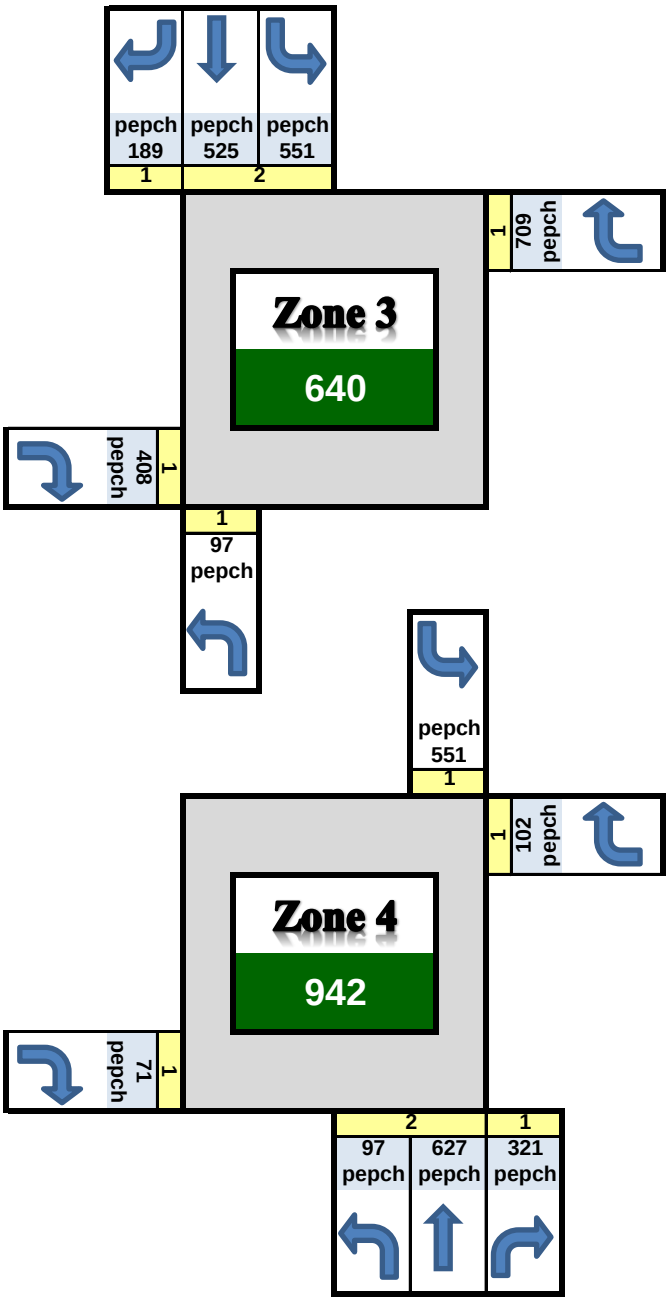
Project Name:	*I-94 Sunset Dr Interchange*
Project Number:	*3260700-221670.01*
Location	*Mandan, North Dakota*
Date	2045 PM

Volume-to-Capacity Ratio			
< 0.750	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
VOLUME / CAPACITY RATIO:		**0.52**	



Partial Cloverleaf B (N-S)

Data Input and Configuration



Back to Results

Partial Cloverleaf A (N-S)

Design and Results

Project Name:	*I-94 Sunset Dr Interchange*
Project Number:	*3260700-221670.01*
Location	*Mandan, North Dakota*
Date	2045 PM

Volume-to-Capacity Ratio

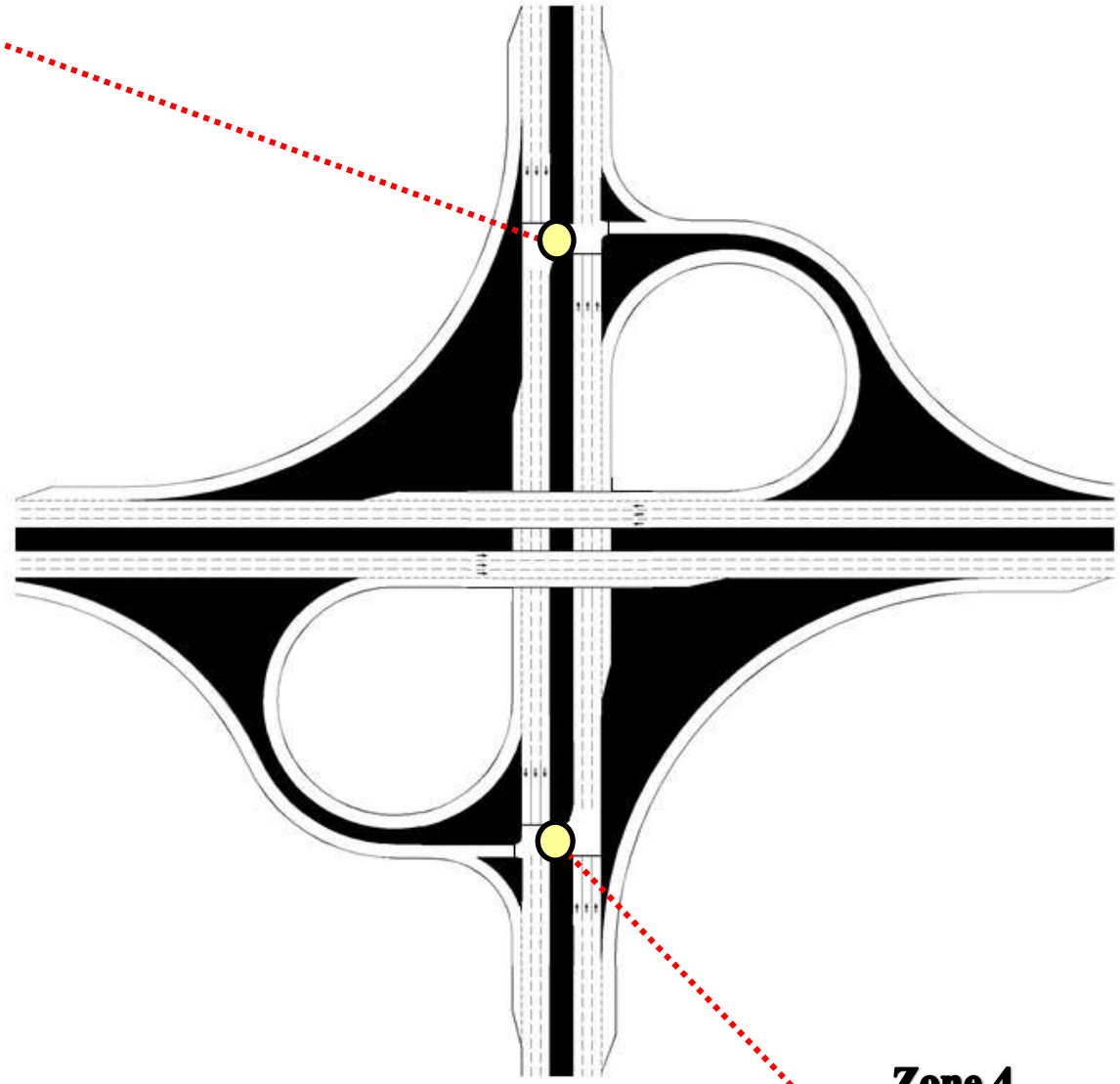
< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00

VOLUME / CAPACITY RATIO: **0.54**

Zone 3

967	CLV
0.54 V/C	1800 MAX

2 Phases



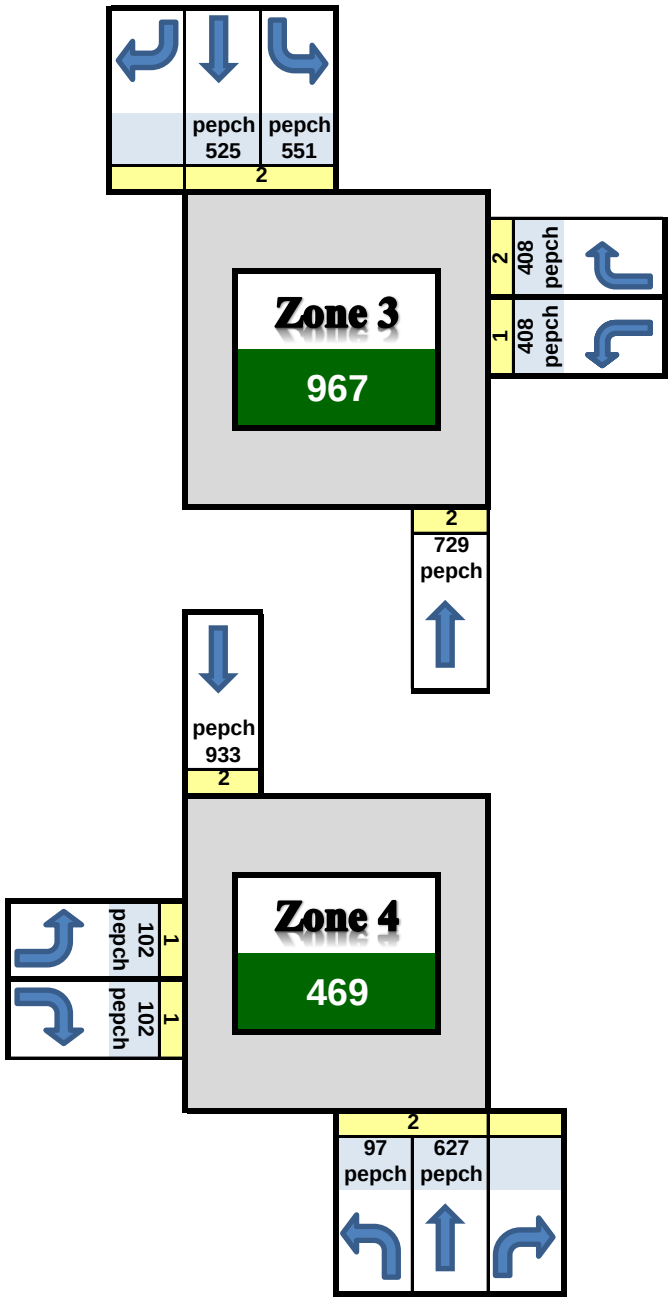
Zone 4

469	CLV
0.26 V/C	1800 MAX

2 Phases

Partial Cloverleaf A (N-S)

Data Input and Configuration



Back to Results

Diverging Diamond Interchange (N-S)

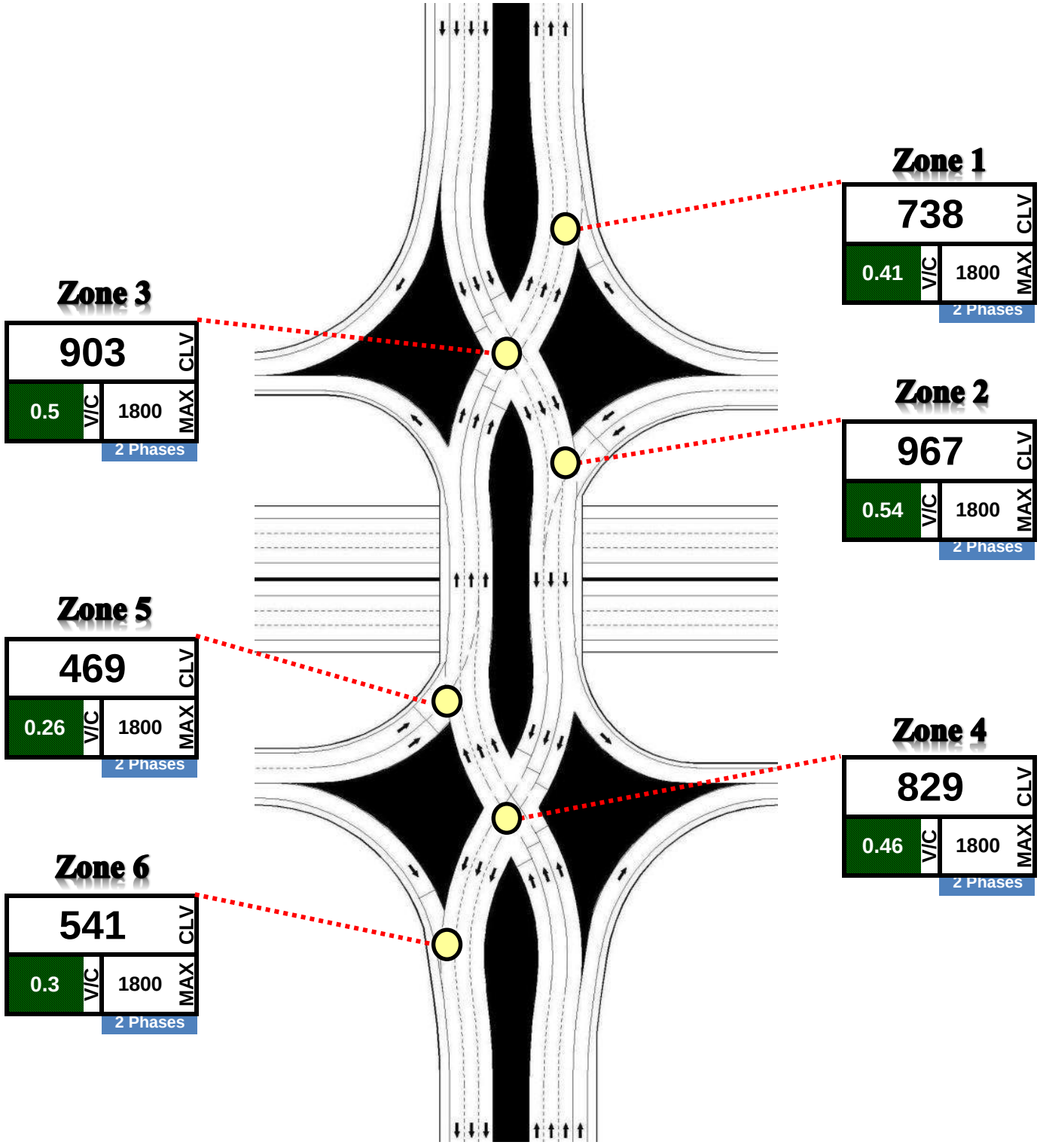
Design and Results

Project Name:	*I-94 Sunset Dr Interchange*
Project Number:	*3260700-221670.01*
Location	*Mandan, North Dakota*
Date	2045 PM

Volume-to-Capacity Ratio

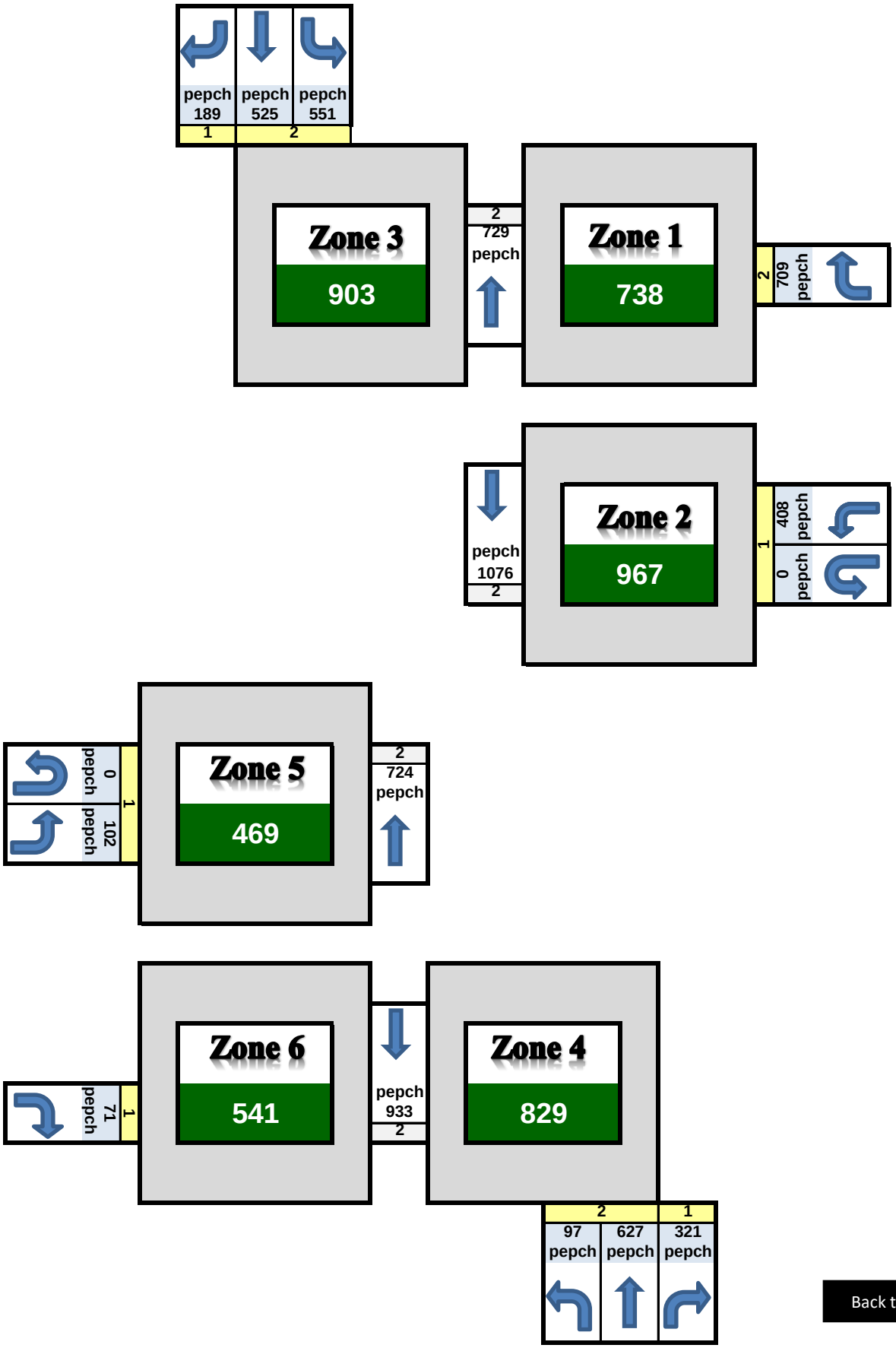
< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00

VOLUME / CAPACITY RATIO: **0.54**



Diverging Diamond Interchange (N-S)

Data Input and Configuration



Back to Results

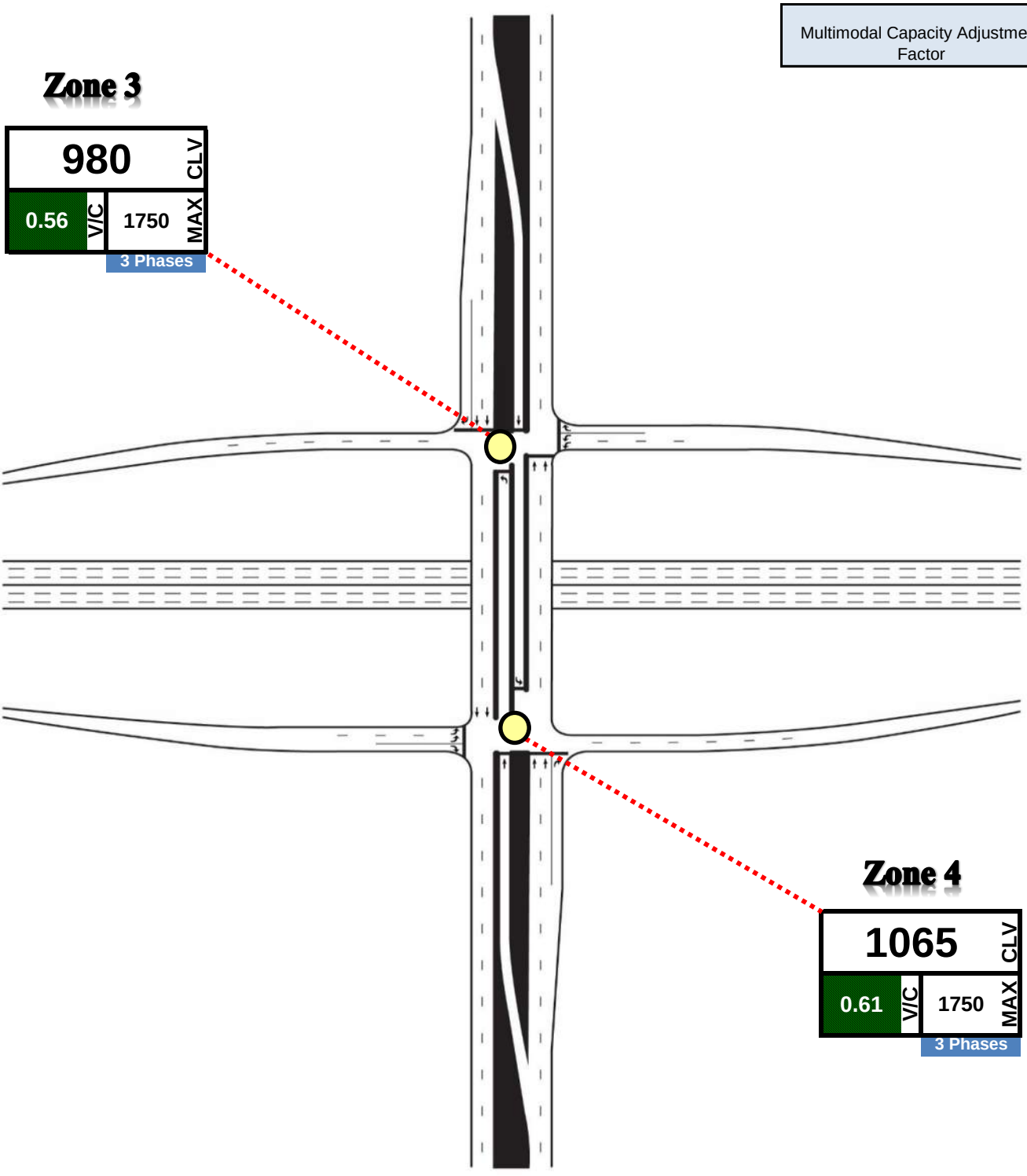
Contraflow Left (N-S)

Design and Results

Project Name:	*I-94 Sunset Dr Interchange*
Project Number:	*3260700-221670.01*
Location	*Mandan, North Dakota*
Date	2045 PM

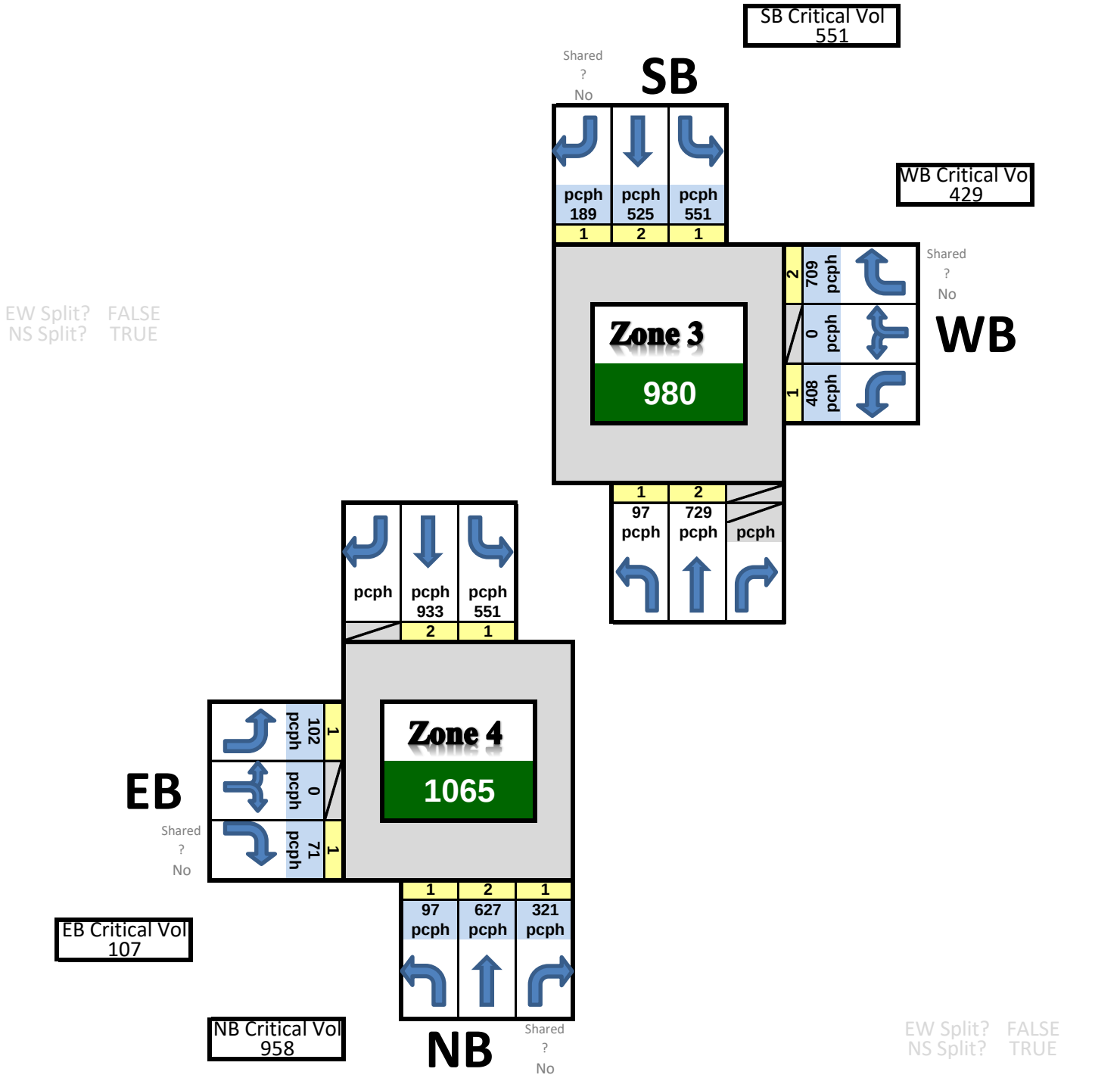
Volume-to-Capacity Ratio			
< 0.750	**0.750 - 0.875**	**0.875 - 1.00**	**≥ 1.00**
VOLUME / CAPACITY RATIO:		**0.61**	

Multimodal Capacity Adjustment Factor	1.00



Contraflow Left (N-S)

Data Input and Configuration

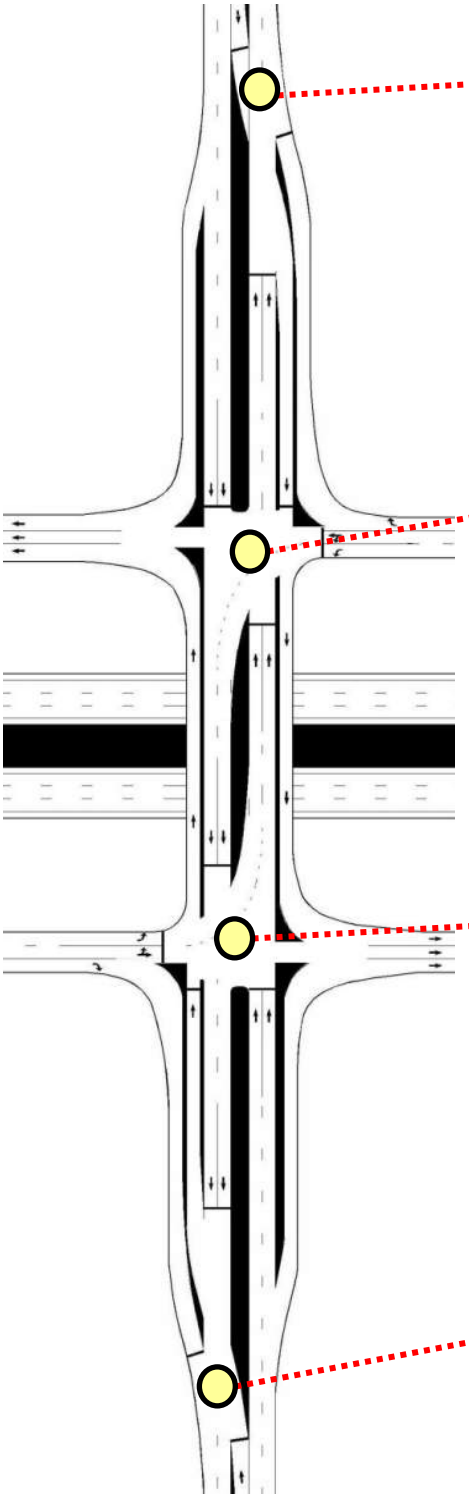


Back to Results

Displaced Left Turn Interchange (N-S)

Design and Results

		Volume-to-Capacity Ratio			
Project Name:	*I-94 Sunset Dr Interchange*	< 0.750	0.750 - 0.875	0.875 - 1.00	≥ 1.00
Project Number:	*3260700-221670.01*				
Location	*Mandan, North Dakota*	**VOLUME / CAPACITY RATIO:**		**0.97**	
Date	2045 PM				



Zone 1

1111	CLV
0.62 V/C	1800 MAX

2 Phases

Zone 3

1750	CLV
0.97 V/C	1800 MAX

2 Phases

Zone 4

1287	CLV
0.72 V/C	1800 MAX

2 Phases

Zone 6

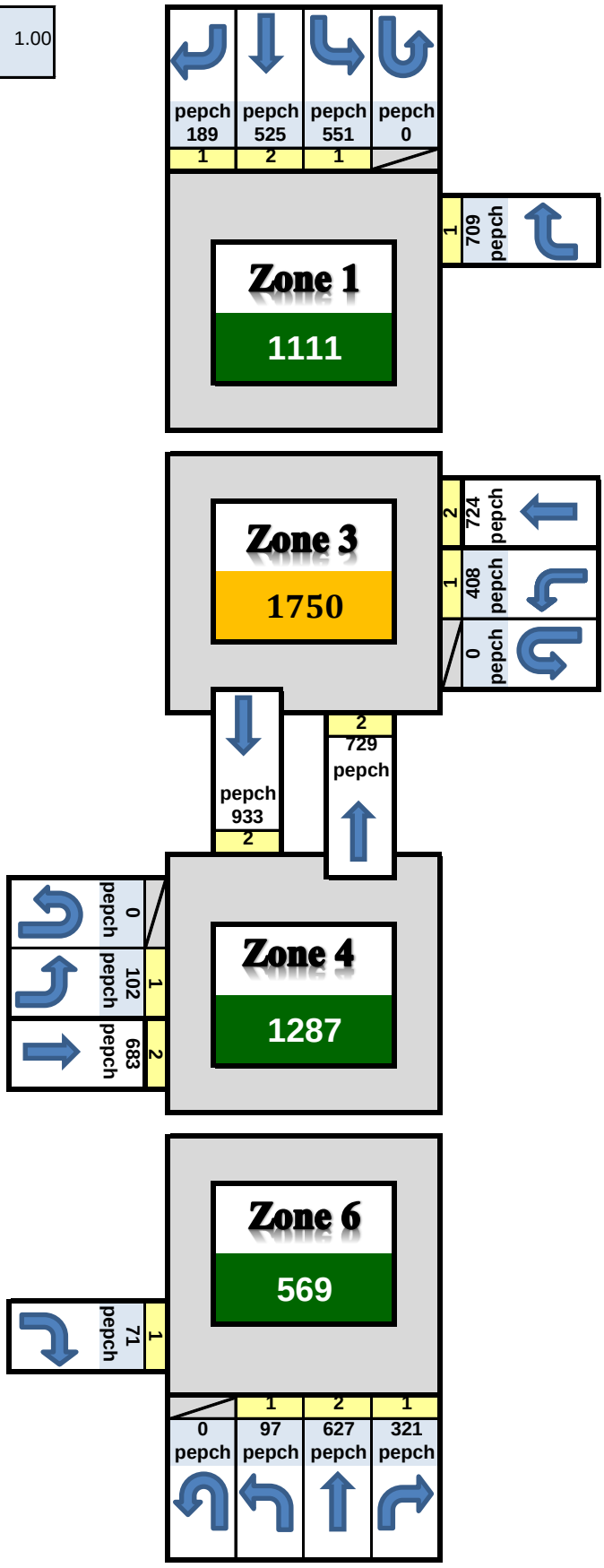
569	CLV
0.32 V/C	1800 MAX

2 Phases

Displaced Left Turn Interchange (N-S)

Data Input and Configuration

Multimodal Capacity Adjustment Factor	1.00



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Appendix I: Interchange Alt Concepts


Alternative 1 - SPUI
762
© 2023 Microsoft Corporation © 2023 Maxar ©CNES (2023) Distribution Airbus DS Earthstar Geographics SIO

Alternative 2 - DDI

763

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Alternative 3 - Parclo A
764
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Alternative 4 - Roundabouts
765
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I-94 at Sunset Dr Interchange



Appendix J: VISSIM Calibration Methodology Memo

Technical Memorandum

To:	Mr. Miguel Andrews, P.E.
From:	Chris Rossmiller, P.E.
Date:	February 2, 2023
Subject:	VISSIM Model Calibration Methodology

Dear Mr. Andrews,

The following memorandum outlines Mead & Hunt's proposed calibration methodology for the I-94 Sunset Dr Interchange study for NDDOT approval.

Study Area Limits

The limits of the I-94 study area extend from the BUS I-94/Hwy 25 interchange (Exit 147) to the west to the Mandan Ave interchange (Exit 153) to the east. The interchanges adjacent to Sunset Dr are included for IJR/IMR requirements and extending the model limits ensures that any congestion on the interstate which may affect the primary interchange at Sunset Dr is captured. All interchange ramp terminals are to be coded, as well as one intersection to the north and south. The list of intersections in the study area is shown in Table 1.

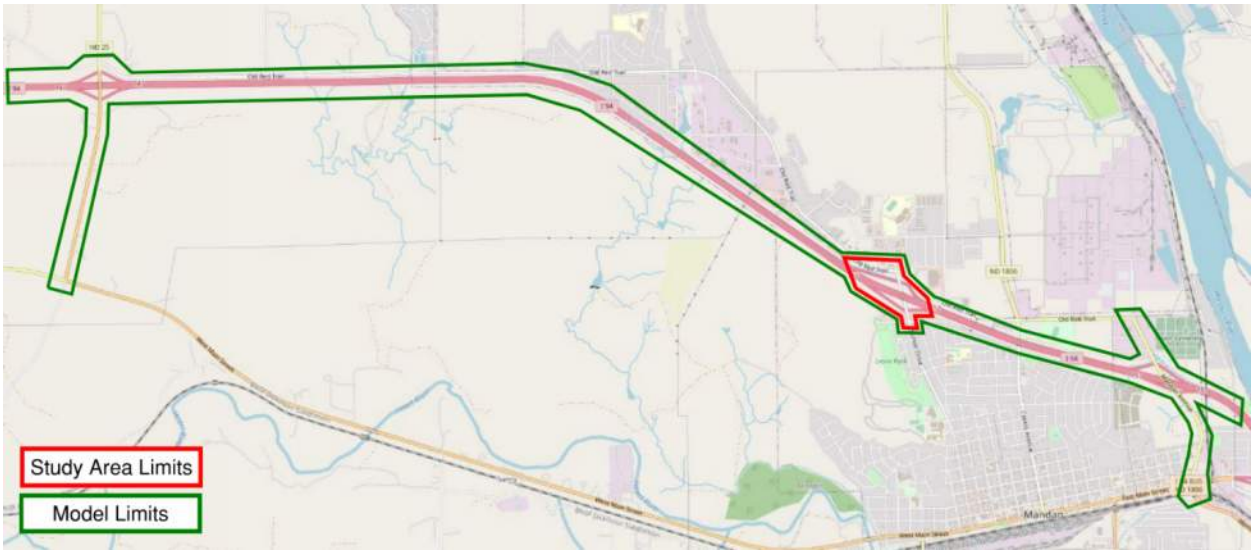


Figure 1: Map of Study Area and Modelled Area

Model Version and Model Development Guidance

Mead & Hunt will code the model in VISSIM Version 2022 (SP 08). The network will be developed following internal VISSIM model development processes consistent with multiple state agency guidelines, such as Virginia DOT Traffic Operations and Safety Analysis Manual (VDOT TOSAM), and Maryland DOT State Highway Administration's (MDOT SHA) VISSIM Modeling Guidance.

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Data Collection

Mead & Hunt collected intersection turning movements counts at each study intersection and ADTs on mainline I-94 and I-94 interchange ramps during the first week of December 2022.

Field observations will be conducted on January 18-19th, during the AM and PM peak periods, approximately 7-9 AM and 4-6 PM. Observations will note any operational or safety related issues, including turn-bay spillover, cycle failures, queueing spillbacks between intersections or onto mainline I-94, unsafe driving behaviors, et cetera. Observations will also be conducted on Sunset Dr during the 3 o'clock hour to capture any operational impacts caused by the Mandan Middle School dismissal.

Maximum queues will be collected for all movements at signalized intersections and at unsignalized I-94 ramp terminals for the mainline left turns and stop controlled left turns. Queues will be collected during at least 5 signal cycles during the peak hour of the intersection, and over a 15-minute period at unsignalized intersections. These measurements will serve as calibration targets for VISSIM model.

Origin-destination data will be collected on Sunset Dr, specifically concerning the paths of vehicles from the I-94 WB off ramp through the intersection of Sunset Dr at Old Red Trail so any potential weaving and merging conflicts with vehicles northbound on Sunset Dr can be accurately reflected in the VISSIM model.

Simulation Duration and Intervals

Mead & Hunt proposes to simulate a 90-minute period in each the AM and PM peak, split into a 15-minute network seeding interval, 60-minute evaluation interval, and 15-minute cool down interval. Table 1 and Figure 2 show the AM and PM peak hour start times for each study intersection.

Table 1: Study Intersection Peak Hour Start Times

Intersection Name	AM Peak	PM Peak
Hwy 25 & I-94 EB Ramps	7:00 AM	4:15 PM
Hwy 25 & I-94 WB Ramps	7:15 AM	5:00 PM
Hwy 25 & BUS I-94	7:15 AM	4:15 PM
Hwy 25 & CR 139A	7:15 AM	5:00 PM
Sunset Dr & Boundary St	7:30 AM	4:45 PM*
Sunset Dr & I-94 EB Ramps	7:30 AM	4:30 PM
Sunset Dr & I-94 WB Ramps	7:30 AM	4:45 PM
Sunset Dr & Old Red Trail	7:30 AM	4:30 PM
Mandan Ave & I-94 EB Ramps	7:15 AM	4:45 PM
Mandan Ave & I-94 WB Ramps	7:15 AM	4:45 PM
Mandan Ave & Old Red Trail	7:15 AM	4:45 PM
Mandan Ave & Main St	7:30 AM	4:30 PM
I-94 West of Sunset Dr	7:15 AM	4:30 PM
I-94 East of Sunset Dr	7:15 AM	4:30 PM

*Secondary peak hour, highest hour in afternoon was 3:15 PM, likely due to school bell schedule

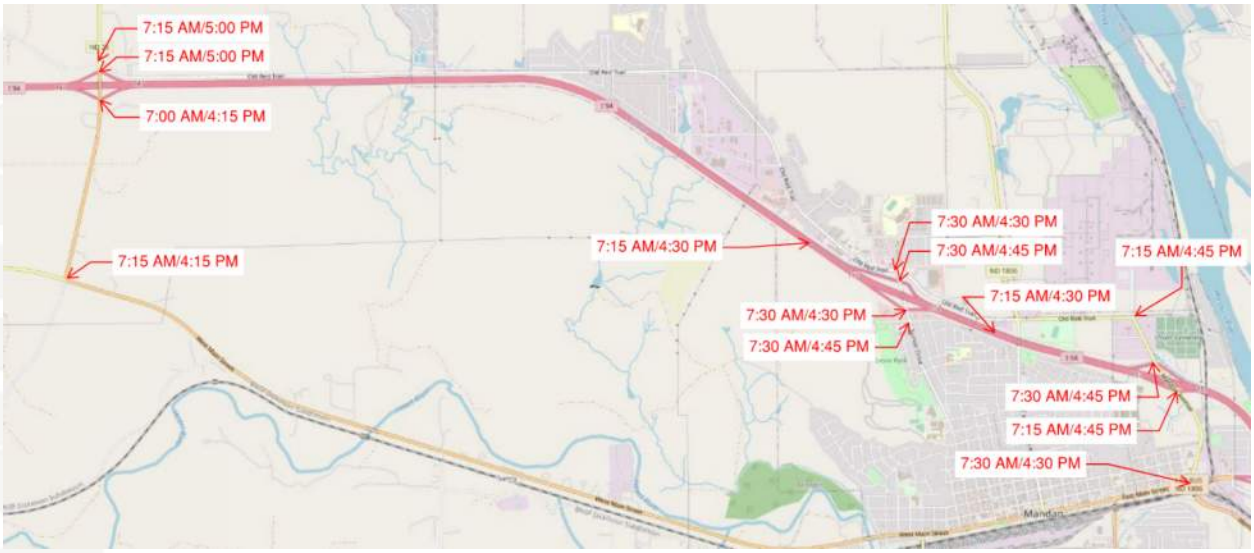


Figure 2: Intersection Peak Hour Start Times

The above table indicates that the intersections on Sunset Dr, at the primary interchange, all share the same AM peak hour and have PM peak hours beginning within 15 minutes of each other. Peak hours at the other interchanges and on mainline I-94 are also generally within 15 minutes of the Sunset Drive interchange peaks. It should also be noted that all counts were not collected on the same day. Therefore, individual intersection peak hour volumes were used to develop a conservative balanced volume set for the VISSIM model. Given that the primary area of focus is on Sunset Dr, Mead & Hunt proposes to calibrate a 1-hour period for each peak, beginning at 7:30 AM and 4:30 PM in the AM and PM, respectively.

To accurately model traffic operations within the peak hour of the study network, Mead & Hunt will develop and input volumes from traffic counts conducted in December 2022. Table 2 below summarizes the proposed calibration and seeding time periods.

Table 2: Model Simulation Periods

Simulation Durations			
Peak	Seeding Interval	Recording Interval	Cool Down Interval
AM	7:15 - 7:30 AM	7:30 - 8:30 AM	8:30 - 8:45 AM
PM	4:15 - 4:30 PM	4:30 - 5:30 PM	5:30 - 5:45 PM

Calibration Targets

Mead & Hunt will draw on its national experience in traffic modelling to set calibration metrics and targets. Mead & Hunt proposes to calibrate to three metrics: vehicle throughput, average vehicle travel time, and maximum queue lengths. Calibration targets summarized in Table 3 and described below.

Table 3: Calibration Targets Summary

Calibration Targets		
Metric	Target Range	Data Source
Vehicle Throughput	±10% OR GEH≤5.0 At 85th Percentile of Movements	December 2022 Turning Movement Counts
Average Travel Time: Freeway Segments	±10% Each Segment ±5% Full Corridor	INRIX NPMRDS Speed Data
Average Travel Time: Signalized Segments	±10% Each Segment ±5% OR ±15 sec Full Corridor	INRIX NPMRDS Speed Data Floating Car Travel Time Runs
Maximum Queue Lengths	Field Measured Queue Lengths At 85th Percentile of Movements	Field Counted Queue Lengths

Simulated vehicle throughputs will be calibrated at the top 85th percentile of turning movements at all signalized intersections on Sunset Dr, as well as all I-94 ramp terminals at all three interchanges. The simulated volumes must fall within ±10% of counted vehicle volumes, or to a GEH≤5. GEH is a statistic to compare two sets of traffic volumes, and normalizes the variance between multiple comparisons, where comparison by percentage may be misleading. For example: a simulated volume of 13 with a counted volume of 15 at movement A yields a 13% difference, but a GEH=0.5, and a simulated volume of 5500 with a counted volume of 6000 at movement B yields an 8% difference, but a GEH=6.6. If only the percent difference were considered, movement A would fall outside the calibration target, but by supplementing the comparison with a GEH, it ends up falling within the calibration target, and the converse is true for movement B.

Average travel times will be calculated using INRIX NPMRDS data, using average speeds from each peak hour shown in Table 2. The travel times will be segmented by signalized intersections and/or ramps on freeways. Each segment must fall within ±10% of the measured travel times, and each full corridor must fall within ±5% of the measured travel time on freeway segments, and ±5% or ±15 seconds for signalized corridors.

Maximum queue lengths will be calibrated at the top 85th percentile of maximum queue lengths (defined as the back of queue) at the signalized intersections on Sunset Dr and at the intersection of Mandan Ave/Memorial Hwy and E Main St as well as the unsignalized ramp terminals, and will be calibrated to queue lengths measured from field observations.

Simulation sample size will be determined by a statistical analysis of the network-wide average vehicle speed from an initial 10-run simulation of the uncalibrated network. A T-test will be performed to determine if the average speed and its standard deviation fall within the FHWA recommended 95th percentile confidence level and 10% tolerance. Equation 1 below will determine the number of runs necessary. The value of N, or 10, whichever is greater, will be the number of simulation runs performed for model evaluation.

Equation 1: Sample Size Determination

$$N = \frac{(Z)^2(S_s)^2}{(E)^2}$$

- Where:
  - N = Necessary Sample Size
  - Z = Number of Standard Deviations away from the mean (corresponding to the confidence interval)
  - S_s = Standard Deviation of the Sample
  - E = Tolerance

From the calibrated model(s), the following measures of effectiveness will be reported from the simulation:

- Freeway segment Level of Service (LOS)
- Merge/Diverge/Weave Segment LOS
- Average Vehicle Travel Time
- Average Vehicle Speed
- Vehicle Throughput
- Network Delay
- Intersection LOS
- Intersection Delay
- Intersection V/C Ratio
- 95th Percentile Queue Lengths

The MOEs to be reported are consistent with the required analysis results for an IJR/IMR. Furthermore, all model outputs and accompanying documentation included in the analysis report will meet IJR/IMR requirements.

Calibration Adjustment Parameters

The VISSIM parameters which may be adjusted for model calibration and a generally acceptable range of values are summarized in the tables below. Table 4 displays car following parameter ranges for Wiedmann 74 and 99 following models.

Table 4: Car Following Adjustment Parameters

	Car Following Parameters		
	Parameter	Potential Range	
		Basic	Merge/Diverge/Weave
Wiedmann 99 Car Following Model	CC0 - Standstill Distance	4.5-5.5 ft	>4.92 ft
	CC1 - Headway Time	0.85-1.05 s	0.8-1.5 s
	CC2 - Following Variation	6.56-22.97 ft	13.12-39.27 ft
	CC3 - CC9 - Following and Acceleration	Use Default	
Wiedmann 74 Car Following Model	Ax - Average Standstill Distance	3.28-6.56 ft	
	Bx_{ADD} - Additive Part of Safety	2.00-2.20	
	Bx_{MULT} - Multiplicative Part of Safety	2.80-3.30	
General Following	Behavior During Recovery from Speed Breakdown - Safety Distance	50-150%	

Table 5 displays lane change parameter ranges. Safety distance reduction factor values will remain default unless all other listed parameters have been adjusted and the model is not yet calibrated.

Table 5: Lane Change Adjustment Parameters

Lane Change Parameters		
Lane Change	Own	Trailing Vehicle
Max Deceleration	-15 to -12 ft/s^2	-15 to -8 ft/s^2
-1 ft/s^2 per distance	328-820 ft	328-820 ft
Accepted Deceleration	-12 to -2.5 ft/s^2	-12 to -1.5 ft/s^2
Min Headway - front/rear		1.5-2 ft
To slower lane if collision time above		0-0.5 s
Safety Distance Reduction Factor		Use Default*
Waiting Time Before Diffusion		60 s
Max Deceleration for Cooperative Braking		-8 to -20 ft/s^2
*Remain default unless all other parameters have been exhausted		

Next Steps

Mead & Hunt will code and calibrate existing conditions VISSIM models and begin preliminary identification of build alternatives.

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I-94 at Sunset Dr Interchange



Appendix K: VISSIM Calibration Summary Tables

Throughputs Summary

AM Peak

Node	Movement	Count Volume	Simulated Volume	Percent Difference	GEH	Fail?
1	EBL	75	74	-1.3%	0.12	
1	EBT	55	55	0.0%	0.00	
1	EBR	435	439	0.9%	0.19	
1	WBL	65	64	-1.5%	0.12	
1	WBT	60	62	3.3%	0.26	
1	WBR	25	26	4.0%	0.20	
1	NBL	360	361	0.3%	0.05	
1	NBT	435	433	-0.5%	0.10	
1	NBR	70	70	0.0%	0.00	
1	SBL	25	23	-8.0%	0.41	
1	SBT	395	401	1.5%	0.30	
1	SBR	65	63	-3.1%	0.25	
2	WBL	265	261	-1.5%	0.25	
2	WBR	450	448	-0.4%	0.09	
2	NBL	15	16	6.7%	0.25	
2	NBT	415	414	-0.2%	0.05	
2	SBT	880	891	1.3%	0.37	
2	SBR	15	14	-6.7%	0.26	
3	EBL	30	30	0.0%	0.00	
3	EBR	60	59	-1.7%	0.13	
3	NBT	385	401	4.2%	0.81	
3	NBR	285	293	2.8%	0.47	
3	SBL	445	442	-0.7%	0.14	
3	SBT	700	709	1.3%	0.34	
4	EBL	5	6	20.0%	0.43	
4	EBR	5	5	0.0%	0.00	
4	WBL	10	11	10.0%	0.31	
4	WBR	110	112	1.8%	0.19	
4	NBL	15	15	0.0%	0.00	
4	NBT	570	575	0.9%	0.21	
4	NBR	25	25	0.0%	0.00	
4	SBL	50	50	0.0%	0.00	
4	SBT	670	676	0.9%	0.23	
4	SBR	40	41	2.5%	0.16	
5	EBL	5	5	0.0%	0.00	
5	EBT	10	10	0.0%	0.00	
5	EBR	80	81	1.3%	0.11	
5	WBL	20	21	5.0%	0.22	
5	WBR	10	10	0.0%	0.00	
5	NBL	5	4	-20.0%	0.47	
5	NBT	55	56	1.8%	0.13	
5	NBR	20	18	-10.0%	0.46	
5	SBL	35	34	-2.9%	0.17	
5	SBT	150	154	2.7%	0.32	
6	WBL	35	36	2.9%	0.17	
6	WBR	30	26	-13.3%	0.76	
6	NBL	35	35	0.0%	0.00	
6	NBT	45	52	15.6%	1.01	
6	SBT	240	247	2.9%	0.45	
6	SBR	10	9	-10.0%	0.32	
7	EBL	5	6	20.0%	0.43	
7	EBR	15	15	0.0%	0.00	
7	NBT	80	81	1.3%	0.11	
7	NBR	60	63	5.0%	0.38	
7	SBL	170	175	2.9%	0.38	
7	SBT	105	108	2.9%	0.29	
8	EBL	20	22	10.0%	0.44	
8	EBT	15	15	0.0%	0.00	
8	WBL	5	5	0.0%	0.00	
8	WBT	5	6	20.0%	0.43	
8	WBR	35	36	2.9%	0.17	
8	NBT	10	10	0.0%	0.00	
8	NBR	5	5	0.0%	0.00	
8	SBL	35	24	-31.4%	2.03	
8	SBT	5	4	-20.0%	0.47	
8	SBR	5	4	-20.0%	0.47	
9	WBL	10	10	0.0%	0.00	
9	WBR	5	5	0.0%	0.00	
9	NBT	260	264	1.5%	0.25	
9	NBR	5	6	20.0%	0.43	
9	SBL	5	5	0.0%	0.00	
9	SBT	385	390	1.3%	0.25	
10	WBL	5	4	-20.0%	0.47	
10	WBR	185	191	3.2%	0.44	
10	NBL	35	32	-8.6%	0.52	
10	NBT	80	79	-1.3%	0.11	
10	SBT	385	391	1.6%	0.30	
10	SBR	10	10	0.0%	0.00	
11	EBL	10	8	-20.0%	0.67	
11	EBR	75	76	1.3%	0.12	
11	NBT	70	103	47.1%	3.55	
11	SBT	390	395	1.3%	0.25	
12	NBT	105	103	-1.9%	0.20	
12	NBR	55	58	5.5%	0.40	
12	SBL	305	311	2.0%	0.34	
12	SBT	160	160	0.0%	0.00	
13	EBL	25	25	0.0%	0.00	
13	EBT	555	563	1.4%	0.34	
13	EBR	100	98	-2.0%	0.20	
13	WBL	40	42	5.0%	0.31	
13	WBT	430	436	1.4%	0.29	
13	WBR	190	188	-1.1%	0.15	
13	NBL	100	100	0.0%	0.00	
13	NBT	85	87	2.4%	0.22	
13	NBR	25	26	4.0%	0.20	
13	SBL	220	223	1.4%	0.20	
13	SBT	155	155	0.0%	0.00	
13	SBR	15	15	0.0%	0.00	

Total	
Movements	98
Failing	0
% Met	100%

PM Peak

Node	Movement	Count Volume	Simulated Volume	Percent Difference	GEH	Fail?
1	EBL	25	27	8.0%	0.39	
1	EBT	90	87	-3.3%	0.32	
1	EBR	425	430	1.2%	0.24	
1	WBL	115	113	-1.7%	0.19	
1	WBT	100	104	4.0%	0.40	
1	WBR	40	42	5.0%	0.31	
1	NBL	395	402	1.8%	0.35	
1	NBT	210	205	-2.4%	0.35	
1	NBR	210	209	-0.5%	0.07	
1	SBL	40	38	-5.0%	0.32	
1	SBT	245	249	1.6%	0.25	
1	SBR	15	17	13.3%	0.50	
2	WBL	255	252	-1.2%	0.19	
2	WBR	455	454	-0.2%	0.05	
2	NBL	45	45	0.0%	0.00	
2	NBT	360	362	0.6%	0.11	
2	SBT	735	706	-3.9%	1.08	
2	SBR	90	87	-3.3%	0.32	
3	EBL	45	47	4.4%	0.29	
3	EBR	45	44	-2.2%	0.15	
3	NBT	360	360	0.0%	0.00	
3	NBR	165	168	1.8%	0.23	
3	SBL	415	394	-5.1%	1.04	
3	SBT	575	564	-1.9%	0.46	
4	EBL	35	35	0.0%	0.00	
4	EBT	5	4	-20.0%	0.47	
4	EBR	15	15	0.0%	0.00	
4	WBL	20	19	-5.0%	0.23	
4	WBR	90	93	3.3%	0.31	
4	NBL	15	16	6.7%	0.25	
4	NBT	395	399	1.0%	0.20	
4	NBR	15	14	-6.7%	0.26	
4	SBL	125	121	-3.2%	0.36	
4	SBT	460	453	-1.5%	0.33	
4	SBR	35	35	0.0%	0.00	
5	EBL	0	0	-	-	-
5	EBT	5	5	0.0%	0.00	
5	EBR	25	26	4.0%	0.20	
5	WBL	10	9	-10.0%	0.32	
5	WBT	5	7	40.0%	0.82	
5	WBR	10	10	0.0%	0.00	
5	NBL	50	51	2.0%	0.14	
5	NBT	145	146	0.7%	0.08	
5	NBR	20	18	-10.0%	0.46	
5	SBL	10	9	-10.0%	0.32	
5	SBT	130	135	3.8%	0.43	
5	SBR	5	5	0.0%	0.00	
6	WBL	90	87	-3.3%	0.32	
6	WBR	140	139	-0.7%	0.08	
6	NBL	45	45	0.0%	0.00	
6	NBT	75	76	1.3%	0.12	
6	SBT	160	165	3.1%	0.39	
6	SBR	5	5	0.0%	0.00	
7	EBL	15	15	0.0%	0.00	
7	EBR	30	31	3.3%	0.18	
7	NBT	105	106	1.0%	0.10	
7	NBR	40	43	7.5%	0.47	
7	SBL	95	99	4.2%	0.41	
7	SBT	155	153	-1.3%	0.16	
8	EBL	5	7	40.0%	0.82	
8	EBT	15	15	0.0%	0.00	
8	WBL	5	5	0.0%	0.00	
8	WBT	30	32	6.7%	0.36	
8	WBR	45	46	2.2%	0.15	
8	NBT	5	5	0.0%	0.00	
8	NBR	5	6	20.0%	0.43	
8	SBL	50	46	-8.0%	0.58	
8	SBT	10	12	20.0%	0.60	
8	SBR	20	22	10.0%	0.44	
9	WBL	10	10	0.0%	0.00	
9	WBR	5	5	0.0%	0.00	
9	NBT	475	488	2.7%	0.59	
9	NBR	5	5	0.0%	0.00	
9	SBL	5	5	0.0%	0.00	
9	SBT	440	445	1.1%	0.24	
10	WBL	5	4	-20.0%	0.47	
10	WBR	315	321	1.9%	0.34	
10	NBL	90	87	-3.3%	0.32	
10	NBT	170	173	1.8%	0.23	
10	SBT	435	439	0.9%	0.19	
10	SBR	15	17	13.3%	0.50	
11	EBL	20	18	-10.0%	0.46	
11	EBR	60	60	0.0%	0.00	
11	NBT	240	241	0.4%	0.06	
11	SBT	440	444	0.9%	0.19	
12	NBT	240	241	0.4%	0.06	
12	NBR	50	54	8.0%	0.55	
12	SBL	295	303	2.7%	0.46	
12	SBT	205	200	-2.4%	0.35	
13	EBL	15	15	0.0%	0.00	
13	EBT	505	516	2.2%	0.49	
13	EBR	155	149	-3.9%	0.49	
13	WBL	30	31	3.3%	0.18	
13	WBT	775	781	0.8%	0.22	
13	WBR	290	285	-1.7%	0.29	
13	NBL	210	206	-1.9%	0.28	
13	NBT	205	214	4.4%	0.62	
13	NBR	65	66	1.5%	0.12	
13	SBL	245	245	0.0%	0.00	
13	SBT	135	133	-1.5%	0.17	
13	SBR	35	35	0.0%	0.00	

Total	
Movements	101
Failing	0
% Met	100%

Queueing Summary

AM Peak

Node	Movement	Field Queue Length	Simulated Queue Length	Difference (vehicles)	Fail?
1	EBT	250	200	2	
1	EBR	325	250	3	
1	WBT	125	150	1	
1	NBL	225	225	0	
1	NBT	225	225	0	
1	SBT	350	375	1	
2	WBL	375	350	1	
2	WBR	175	150	1	
2	NBL	25	50	1	
2	NBT	275	275	0	
2	SBT	200	250	2	
3	EBL	50	100	2	
3	EBR	25	75	2	
3	NBT	350	225	5	Fail
3	SBT	250	250	0	
4	EBT	25	75	2	
4	WBT	175	125	2	
5	EBT	75	100	1	
5	WBT	50	100	2	
6	WBL	75	100	1	
6	NBL	25	50	1	
7	EBL	25	75	2	
7	SBL	50	75	1	
10	WBL	125	50	3	
10	NBL	50	50	0	
11	EBL	50	50	0	
12	SBL	25	125	4	Fail
13	EBL	25	50	1	
13	EBT	450	175	11	Fail
13	WBL	25	75	2	
13	WBT	225	150	3	
13	NBT	175	150	1	
13	SBL	225	200	1	
13	SBT	200	200	0	

Total	
Movements	34
Failing	3
% Met	91%

PM Peak

Node	Movement	Field Queue Length	Simulated Queue Length	Difference (vehicles)	Fail?
1	EBT	150	150	0	
1	EBR	100	175	3	
1	WBT	200	200	0	
1	NBL	200	225	1	
1	NBT	125	150	1	
1	SBT	150	225	3	
2	WBL	200	300	4	Fail
2	WBR	75	150	3	
2	NBL	50	75	1	
2	NBT	75	275	8	Fail
2	SBT	175	225	2	
3	EBL	50	125	3	
3	EBR	50	75	1	
3	NBT	100	250	6	Fail
3	SBT	150	225	3	
4	EBT	50	100	2	
4	WBT	75	125	2	
5	EBT	25	100	3	
5	WBT	50	75	1	
6	WBL	100	125	1	
6	NBL	25	25	0	
7	EBL	50	75	1	
7	SBL	75	50	1	
10	WBL	75	50	1	
10	NBL	75	75	0	
11	EBL	50	75	1	
12	SBL	75	125	2	
13	EBL	50	50	0	
13	EBT	150	225	3	
13	WBL	100	75	1	
13	WBT	500	350	6	Fail
13	NBT	225	325	4	Fail
13	SBL	250	225	1	
13	SBT	175	225	2	

Total	
Movements	34
Failing	5
% Met	85%

Peak	Direction	Name	Segment	INRIX Time	Simulated Time	Percent Difference	Numerical Difference
AM	Eastbound	I-94	SR 25 to Sunset Dr	256	252	-1.7%	-4
			Sunset Dr to Mandan Ave	93	95	2.3%	2
			Total	**349**	**347**	**-0.6%**	**-2**
	Westbound		Mandan Ave to Sunset Dr	94	95	0.8%	1
			Sunset Dr to SR 25	261	253	-3.0%	-8
			Total	**355**	**348**	**-2.0%**	**-7**
	Northbound	Sunset Dr	I-94 WB Ramps to I-94 EB Ramps	44	36	-17.8%	-8
	Southbound			33	41	25.1%	8
PM	Eastbound	I-94	SR 25 to Sunset Dr	253	252	-0.3%	-1
			Sunset Dr to Mandan Ave	91	95	4.6%	4
			Total	**344**	**347**	**1.0%**	**3**
	Westbound		Mandan Ave to Sunset Dr	91	95	4.8%	4
			Sunset Dr to SR 25	253	255	0.7%	2
			Total	**344**	**350**	**1.8%**	**6**
	Northbound	Sunset Dr	I-94 WB Ramps to I-94 EB Ramps	45	34	-24.9%	-11
	Southbound			34	36	6.3%	2

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Appendix **L:**
Freeway Density & LOS Summary

Direction	Segment	Name	Type	Existing Conditions				2030 No Build				2030 Roundabouts				2030 Parclo				2030 SPUI				2030 DDI			
				Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS	
				AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)
Eastbound	A	West of SR 25	Diverge	1.52	(2.27)	A	(A)	1.97	(2.94)	A	(A)	1.97	(2.94)	A	(A)	1.97	(1.97)	A	(A)	1.97	(2.94)	A	(A)	1.97	(2.94)	A	(A)
	B	Through SR 25 Interchange	Basic	1.45	(2.04)	A	(A)	1.88	(2.63)	A	(A)	1.88	(2.63)	A	(A)	1.88	(1.88)	A	(A)	1.88	(2.63)	A	(A)	1.88	(2.63)	A	(A)
	C	East of SR 25	Merge	2.73	(2.67)	A	(A)	3.48	(3.40)	A	(A)	3.48	(3.40)	A	(A)	3.48	(3.48)	A	(A)	3.48	(3.40)	A	(A)	3.48	(3.40)	A	(A)
	D	SR 25 to Sunset Dr	Basic	3.11	(3.08)	A	(A)	3.95	(3.92)	A	(A)	3.95	(3.92)	A	(A)	3.95	(2.28)	A	(A)	3.95	(3.92)	A	(A)	3.95	(3.92)	A	(A)
	E	West of Sunset Dr	Diverge	2.92	(2.88)	A	(A)	3.72	(3.69)	A	(A)	3.72	(3.69)	A	(A)	3.72	(3.91)	A	(A)	3.72	(3.69)	A	(A)	3.72	(3.69)	A	(A)
	F	Between EB Off and On Ramp	Basic	2.95	(2.89)	A	(A)	3.84	(3.75)	A	(A)	3.84	(3.76)	A	(A)	3.84	(3.91)	A	(A)	3.84	(3.75)	A	(A)	3.84	(3.75)	A	(A)
	FF	East of EB Loop Ramp	Merge	-	(-)	-	(-)	-	(-)	-	(-)	-	(-)	-	(-)	5.74	(24.13)	A	(C)	-	(-)	-	(-)	-	(-)	-	(-)
	G	East of Sunset Dr	Merge	8.73	(7.26)	A	(A)	11.16	(9.20)	B	(A)	11.17	(9.17)	B	(A)	8.45	(7.48)	A	(A)	11.29	(9.23)	B	(A)	11.24	(9.25)	B	(A)
	H	Sunset Dr to Mandan Ave	Basic	8.82	(7.38)	A	(A)	11.23	(9.32)	B	(A)	11.23	(9.31)	B	(A)	11.24	(2.46)	B	(A)	11.28	(9.33)	B	(A)	11.28	(9.32)	B	(A)
	I	West of Mandan Ave	Diverge	8.25	(6.93)	A	(A)	10.52	(8.73)	B	(A)	10.52	(8.72)	B	(A)	10.52	(2.63)	B	(A)	10.57	(8.75)	B	(A)	10.57	(8.74)	B	(A)
	J	Through Mandan Ave Interchange	Basic	8.17	(6.76)	A	(A)	10.44	(8.57)	A	(A)	10.45	(8.57)	A	(A)	10.43	(10.43)	A	(A)	10.48	(8.59)	A	(A)	10.48	(8.58)	A	(A)
	K	East of Mandan Ave	Merge	8.71	(7.55)	A	(A)	11.00	(9.43)	B	(A)	11.03	(9.43)	B	(A)	11.01	(11.01)	B	(B)	11.04	(9.43)	B	(A)	11.05	(9.42)	B	(A)
Westbound	L	East of Mandan Ave	Diverge	7.76	(9.83)	A	(A)	9.09	(11.96)	A	(B)	9.09	(11.96)	A	(B)	9.09	(10.72)	A	(B)	9.09	(11.97)	A	(B)	9.09	(11.97)	A	(B)
	M	Through Mandan Ave Interchange	Basic	7.08	(8.31)	A	(A)	8.27	(10.10)	A	(A)	8.27	(10.10)	A	(A)	8.27	(8.27)	A	(A)	8.27	(10.10)	A	(A)	8.27	(10.10)	A	(A)
	N	West of Mandan Ave	Merge	6.57	(8.11)	A	(A)	7.63	(9.87)	A	(A)	7.63	(9.86)	A	(A)	7.63	(7.63)	A	(A)	7.63	(9.86)	A	(A)	7.63	(9.86)	A	(A)
	O	Sunset Dr to Mandan Ave	Basic	7.46	(9.18)	A	(A)	8.66	(11.17)	A	(B)	8.66	(11.17)	A	(B)	8.66	(8.94)	A	(A)	8.66	(11.17)	A	(B)	8.66	(11.17)	A	(B)
	P	East of Sunset Dr	Diverge	7.22	(8.80)	A	(A)	8.38	(10.79)	A	(B)	8.38	(10.81)	A	(B)	8.38	(10.19)	A	(B)	8.38	(10.79)	A	(B)	8.37	(10.80)	A	(B)
	Q	Through Sunset Dr Interchange	Basic	1.74	(3.45)	A	(A)	2.38	(4.18)	A	(A)	2.38	(4.18)	A	(A)	2.38	(2.38)	A	(A)	2.38	(4.18)	A	(A)	2.38	(4.18)	A	(A)
	R	West of Sunset Dr	Merge	1.74	(3.99)	A	(A)	2.65	(5.09)	A	(A)	2.65	(5.09)	A	(A)	2.65	(2.65)	A	(A)	2.65	(5.10)	A	(A)	2.65	(5.10)	A	(A)
	S	SR 25 to Sunset Dr	Basic	1.66	(3.81)	A	(A)	2.54	(4.84)	A	(A)	2.54	(4.84)	A	(A)	2.55	(8.66)	A	(A)	2.54	(4.84)	A	(A)	2.54	(4.84)	A	(A)
	T	East of SR 25	Diverge	1.53	(3.56)	A	(A)	2.32	(4.54)	A	(A)	2.32	(4.54)	A	(A)	2.31	(11.12)	A	(B)	2.32	(4.54)	A	(A)	2.31	(4.54)	A	(A)
	U	Through SR 25 Interchange	Basic	1.19	(2.17)	A	(A)	1.88	(2.71)	A	(A)	1.88	(2.72)	A	(A)	1.89	(1.89)	A	(A)	1.88	(2.71)	A	(A)	1.88	(2.71)	A	(A)
	V	West of SR 25	Merge	1.27	(2.13)	A	(A)	1.95	(2.70)	A	(A)	1.95	(2.70)	A	(A)	1.95	(1.95)	A	(A)	1.95	(2.70)	A	(A)	1.95	(2.70)	A	(A)

Direction	Segment	Name	Type	Existing Conditions				2045 No Build				2045 Roundabouts				2045 Parclo				2045 SPUI				2045 DDI			
				Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS		Density (pc/ln/mi)		LOS	
				AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)
Eastbound	A	West of SR 25	Diverge	1.52	(2.27)	A	(A)	2.95	(4.35)	A	(A)	2.95	(4.35)	A	(A)	2.95	(4.35)	A	(A)	2.95	(4.35)	A	(A)	2.95	(4.35)	A	(A)
	B	Through SR 25 Interchange	Basic	1.45	(2.04)	A	(A)	2.76	(3.84)	A	(A)	2.76	(3.84)	A	(A)	2.76	(3.84)	A	(A)	2.76	(3.84)	A	(A)	2.76	(3.84)	A	(A)
	C	East of SR 25	Merge	2.73	(2.67)	A	(A)	5.04	(4.95)	A	(A)	5.04	(4.95)	A	(A)	5.04	(4.95)	A	(A)	5.04	(4.95)	A	(A)	5.04	(4.95)	A	(A)
	D	SR 25 to Sunset Dr	Basic	3.11	(3.08)	A	(A)	5.71	(5.73)	A	(A)	5.71	(5.73)	A	(A)	5.71	(5.73)	A	(A)	5.71	(5.73)	A	(A)	5.72	(5.73)	A	(A)
	E	West of Sunset Dr	Diverge	2.92	(2.88)	A	(A)	5.38	(5.41)	A	(A)	5.39	(5.41)	A	(A)	5.38	(5.41)	A	(A)	5.38	(5.42)	A	(A)	5.38	(5.41)	A	(A)
	F	Between EB Off and On Ramp	Basic	2.95	(2.89)	A	(A)	5.68	(5.41)	A	(A)	5.69	(5.42)	A	(A)	5.69	(5.42)	A	(A)	5.69	(5.41)	A	(A)	5.69	(5.42)	A	(A)
	FF	East of EB Loop Ramp	Merge	-	(-)	-	(-)	-	(-)	-	(-)	-	(-)	-	(-)	7.5004	(6.53)	A	(A)	-	(-)	-	(-)	-	(-)	-	(-)
	G	East of Sunset Dr	Merge	8.73	(7.26)	A	(A)	13.57	(12.21)	B	(B)	14.18	(12.13)	B	(B)	11.05	(8.91)	B	(A)	14.82	(12.48)	B	(B)	14.77	(12.40)	B	(B)
	H	Sunset Dr to Mandan Ave	Basic	8.82	(7.38)	A	(A)	13.54	(12.25)	B	(B)	14.12	(12.17)	B	(B)	14.46	(12.34)	B	(B)	14.50	(12.37)	B	(B)	14.48	(12.34)	B	(B)
	I	West of Mandan Ave	Diverge	8.25	(6.93)	A	(A)	12.68	(11.49)	B	(B)	13.23	(11.41)	B	(B)	13.55	(11.57)	B	(B)	13.61	(11.60)	B	(B)	13.58	(11.58)	B	(B)
	J	Through Mandan Ave Interchange	Basic	8.17	(6.76)	A	(A)	12.54	(11.25)	B	(B)	13.06	(11.19)	B	(B)	13.36	(11.32)	B	(B)	13.40	(11.35)	B	(B)	13.38	(11.34)	B	(B)
	K	East of Mandan Ave	Merge	8.71	(7.55)	A	(A)	13.73	(12.58)	B	(B)	14.17	(12.52)	B	(B)	14.42	(12.62)	B	(B)	14.46	(12.63)	B	(B)	14.44	(12.62)	B	(B)
Westbound	L	East of Mandan Ave	Diverge	7.76	(9.83)	A	(A)	11.95	(15.78)	B	(B)	11.95	(15.78)	B	(B)	11.95	(15.78)	B	(B)	11.95	(15.78)	B	(B)	11.95	(15.78)	B	(B)
	M	Through Mandan Ave Interchange	Basic	7.08	(8.31)	A	(A)	10.75	(13.15)	A	(B)	10.75	(13.15)	A	(B)	10.75	(13.15)	A	(B)	10.75	(13.15)	A	(B)	10.75	(13.15)	A	(B)
	N	West of Mandan Ave	Merge	6.57	(8.11)	A	(A)	10.41	(12.95)	B	(B)	9.99	(12.95)	A	(B)	9.98	(12.96)	A	(B)	9.99	(12.93)	A	(B)	9.99	(12.96)	A	(B)
	O	Sunset Dr to Mandan Ave	Basic	7.46	(9.18)	A	(A)	26.96	(14.62)	D	(B)	11.34	(14.74)	B	(B)	11.34	(14.62)	B	(B)	11.34	(14.62)	B	(B)	11.34	(14.62)	B	(B)
	P	East of Sunset Dr	Diverge	7.22	(8.80)	A	(A)	71.79	(14.32)	E	(B)	11.11	(21.81)	B	(C)	11.10	(14.34)	B	(B)	11.79	(17.10)	B	(B)	11.13	(14.34)	B	(B)
	Q	Through Sunset Dr Interchange	Basic	1.74	(3.45)	A	(A)	3.26	(5.68)	A	(A)	3.48	(5.74)	A	(A)	3.48	(5.69)	A	(A)	3.48	(5.72)	A	(A)	3.47	(5.69)	A	(A)
	R	West of Sunset Dr	Merge	1.74	(3.99)	A	(A)	3.40	(7.06)	A	(A)	3.75	(7.03)	A	(A)	3.78	(7.13)	A	(A)	3.79	(7.11)	A	(A)	3.78	(7.09)	A	(A)
	S	SR 25 to Sunset Dr	Basic	1.66	(3.81)	A	(A)	3.26	(6.72)	A	(A)	3.57	(6.69)	A	(A)	3.61	(6.78)	A	(A)	3.60	(6.75)	A	(A)	3.60	(6.75)	A	(A)
	T	East of SR 25	Diverge	1.53	(3.56)	A	(A)	3.00	(6.35)	A	(A)	3.26	(6.32)	A	(A)	3.28	(6.37)	A	(A)	3.29	(6.37)	A	(A)	3.29	(6.36)	A	(A)
	U	Through SR 25 Interchange	Basic	1.19	(2.17)	A	(A)	2.42	(3.61)	A	(A)	2.62	(3.60)	A	(A)	2.66	(3.65)	A	(A)	2.65	(3.62)	A	(A)	2.65	(3.61)	A	(A)
	V	West of SR 25	Merge	1.27	(2.13)	A	(A)	2.61	(3.70)	A	(A)	2.78	(3.69)	A	(A)	2.80	(3.71)	A	(A)	2.80	(3.70)	A	(A)	2.80	(3.71)	A	(A)

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange

Appendix M: VISSIM Travel Time, Queueing, Throughput, and Network Delay Summary Tables

Direction	Segment	Distance (mi)	Existing Conditions				2030 No Build				2030 Roundabouts				2030 Parclo				2030 SPUI				2030 DDI			
			Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)	
			AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)
SB	Old Red Trail to Boundary St NW	0.31	55	(55)	20	(21)	58	(60)	20	(19)	61	(61)	18	(18)	60	(60)	19	(19)	64	(67)	17	(17)	72	(67)	16	(17)
NB	Boundary St NW to Old Red Trail	0.31	84	(84)	14	(14)	87	(94)	14	(13)	68	(63)	17	(18)	79	(83)	15	(14)	99	(95)	11	(12)	116	(137)	10	(8)
Direction	Segment	Distance (mi)	Existing Conditions				2045 No Build				2045 Roundabouts				2045 Parclo				2045 SPUI				2045 DDI			
			Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)		Average Travel Time (sec)		Average Speed (MPH)	
			AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)				
SB	Old Red Trail to Boundary St NW	0.31	55	(55)	20	(21)	107	(80)	10	(14)	72	(70)	16	(16)	65	(65)	17	(17)	69	(72)	16	(16)	75	(88)	15	(13)
NB	Boundary St NW to Old Red Trail	0.31	84	(84)	14	(14)	94	(111)	13	(10)	82	(72)	14	(16)	86	(95)	13	(12)	100	(101)	11	(12)	150	(135)	7	(8)

Node	Intersection	Movement	Max Queue Length (ft)																														
			Existing Conditions			2030 No Build			2030 Roundabouts			2030 Parclo			2030 SPUI			2030 DDI			2045 No Build			2045 Roundabouts			2045 Parclo			2045 SPUI			2045 DDI		
			Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)	Storage Length (ft)	AM	(PM)
1	Sunset Dr at Old Red Trail	EBL	>1000	200	(150)	>1000	250	(150)	>1000	150	(125)	150	150	(100)	>1000	150	(75)	>1000	150	(100)	>1000	775	(175)	>1000	250	(175)	150	150	(75)	>1000	150	(75)	>1000	150	(75)
		EBT	>1000	200	(150)	>1000	250	(150)	>1000	150	(125)	>1000	125	(150)	>1000	125	(150)	>1000	125	(150)	>1000	775	(175)	>1000	250	(175)	>1000	150	(150)	>1000	150	(175)	>1000	175	(175)
		EBR	>1000	250	(175)	>1000	325	(250)	>1000	150	(125)	>1000	0	(100)	>1000	125	(100)	>1000	125	(100)	>1000	1600	(300)	>1000	250	(175)	>1000	0	(125)	>1000	150	(125)	>1000	125	(125)
		WBL	275	150	(200)	275	175	(275)	275	75	(100)	275	125	(200)	275	125	(200)	275	125	(200)	275	200	(400)	275	100	(150)	275	150	(275)	275	150	(275)	275	150	(275)
		WBT	>1000	150	(200)	>1000	175	(275)	>1000	75	(100)	>1000	175	(225)	>1000	175	(250)	>1000	175	(225)	>1000	200	(400)	>1000	100	(150)	>1000	200	(325)	>1000	200	(325)	>1000	200	(300)
		WBR	>1000	100	(150)	>1000	125	(175)	>1000	75	(100)	>1000	200	(250)	>1000	200	(275)	>1000	200	(250)	>1000	150	(200)	>1000	100	(150)	>1000	225	(350)	>1000	225	(350)	>1000	225	(325)
		NBL	275	225	(225)	275	250	(275)	350	250	(150)	275	250	(250)	300	225	(225)	300	300	(325)	275	325	(350)	350	375	(250)	275	325	(300)	300	275	(300)	300	375	(350)
		NBT	275	225	(150)	275	225	(250)	350	250	(150)	275	325	(200)	625	325	(225)	475	225	(150)	275	250	(250)	350	375	(250)	275	450	(375)	625	425	(300)	475	225	(275)
		NBR	275	75	(100)	275	100	(200)	350	300	(250)	275	50	(100)	625	125	(100)	275	50	(125)	275	175	(275)	350	450	(450)	275	50	(150)	625	150	(150)	275	75	(150)
		SBL	125	50	(75)	125	75	(75)	>1000	150	(150)	125	75	(100)	125	75	(100)	125	75	(100)	125	75	(100)	>1000	300	(275)	125	100	(100)	125	75	(100)	125	100	(100)
		SBT	>1000	375	(225)	>1000	600	(375)	>1000	150	(150)	>1000	250	(200)	>1000	250	(200)	>1000	250	(175)	>1000	1100	(675)	>1000	300	(275)	>1000	350	(250)	>1000	375	(275)	>1000	325	(250)
		SBR	125	75	(25)	125	50	(50)	400	150	(150)	300	225	(175)	300	225	(175)	300	0	(50)	125	50	(50)	400	300	(275)	300	300	(225)	300	275	(225)	300	75	(50)
2	Sunset Dr at I-94 WB Ramps	WBL	325	350	(300)	325	300	(375)	>1000	250	(400)	325	325	(375)	-	-	(-)	450	250	(325)	325	1475	(575)	>1000	800	(1350)	325	650	(550)	-	-	(-)	450	625	(550)
		WBR	>1000	150	(150)	>1000	175	(200)	300	250	(400)	>1000	175	(175)	-	-	(-)	>1000	200	(225)	>1000	300	(300)	300	800	(1350)	>1000	250	(225)	-	-	(-)	>1000	250	(275)
		NBL	225	50	(75)	225	50	(75)	625	25	(25)	225	50	(100)	-	-	(-)	515	0	(275)	225	75	(100)	625	50	(50)	225	75	(250)	-	-	(-)	515	350	(375)
		NBT	925	275	(275)	925	375	(400)	625	25	(25)	925	300	(350)	-	-	(-)	515	200	(450)	925	550	(725)	625	50	(50)	925	500	(600)	-	-	(-)	515	550	(575)
		SBT	275	250	(225)	275	275	(300)	625	300	(275)	275	350	(275)	-	-	(-)	515	300	(250)	275	375	(375)	625	450	(450)	275	400	(375)	-	-	(-)	515	350	(325)
		SBR	275	175	(200)	275	200	(275)	625	300	(275)	275	300	(275)	-	-	(-)	515	150	(100)	275	325	(325)	625	450	(450)	275	350	(325)	-	-	(-)	515	125	(150)
3	Sunset Dr at I-94 EB Ramps	EBL	300	100	(125)	300	100	(125)	300	75	(100)	300	100	(125)	-	-	(-)	400	50	(75)	300	100	(175)	300	150	(250)	300	100	(175)	-	-	(-)	400	50	(125)
		EBR	>1000	75	(75)	>1000	75	(75)	>1000	175	(75)	>1000	100	(100)	-	-	(-)	>1000	75	(75)	>1000	150	(275)	>1000	475	(125)	>1000	125	(100)	-	-	(-)	>1000	100	(100)
		NBT	360	225	(250)	360	275	(350)	300	275	(150)	360	150	(200)	-	-	(-)	480	350	(375)	360	350	(400)	300	475	(325)	360	175	(275)	-	-	(-)	480	525	(475)
		NBR	115	125	(75)	115	325	(150)	300	525	(275)	115	50	(75)	-	-	(-)	265	75	(100)	115	375	(250)	300	925	(525)	115	50	(150)	-	-	(-)	265	250	(175)
		SBL	925	275	(225)	925	625	(275)	625	100	(100)	-	-	(-)	-	-	(-)	515	75	(25)	925	950	(625)	625	475	(275)	-	-	(-)	-	-	(-)	515	125	(75)
		SBT	925	250	(225)	925	325	(325)	625	100	(100)	925	375	(325)	-	-	(-)	515	200	(175)	925	925	(800)	625	475	(275)	925	475	(0)	-	-	(-)	515	200	(250)
		SBR	-	-	(-)	-	-	(-)	-	-	(-)	825	225	(175)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	825	325	(250)	-	-	(-)	-	-	(-)
4	Sunset Dr at Boundary St NW	EBL	800	75	(100)	800	75	(100)	800	50	(75)	800	50	(100)	800	50	(100)	800	50	(100)	800	75	(100)	800	50	(100)	800	50	(100)	800	50	(100)	800	50	(100)
		EBT	800	75	(100)	800	75	(100)	800	50	(75)	800	50	(100)	800	50	(100)	800	50	(100)	800	75	(100)	800	50	(100)	800	50	(100)	800	50	(100)	800	50	(100)
		EBR	800	75	(100)	800	75	(100)	800	50	(75)	800	50	(125)	800	50	(125)	800	50	(125)	800	75	(100)	800	50	(100)	800	75	(125)	800	75	(125)	800	75	(125)
		WBL	>1000	125	(125)	>1000	175	(150)	>1000	125	(100)	>1000	150	(175)	>1000	150	(175)	>1000	150	(200)	>1000	200	(500)	>1000	175	(150)	>1000	200	(225)	>1000	200	(225)	>1000	200	(225)
		WBT	>1000	125	(125)	>1000	175	(150)	>1000	125	(100)	>1000	150	(175)	>1000	150	(175)	>1000	150	(200)	>1000	200	(500)	>1000	175	(150)	>1000	200	(225)	>1000	200	(225)	>1000	200	(225)
		WBR	>1000	125	(125)	>1000	175	(150)	>1000	125	(100)	>1000	175	(200)	>1000	175	(200)	>1000	175	(200)	>1000	200	(500)	>1000	175	(150)	>1000	225	(225)	>1000	225	(250)	>1000	225	(250)
		NBL	>1000	150	(75)	>1000	225	(300)	>1000	100	(125)	>1000	425	(300)	>1000	350	(350)	>1000	300	(350)	>1000	850	(1350)	>1000	200	(125)	>1000	775	(450)	>1000	575	(800)	>1000	575	(725)
		NBT	>1000	125	(50)	>1000	175	(275)	>1000	100	(125)	>1000	425	(300)	>1000	350	(350)	>1000	300	(350)	>1000	800	(1300)	>1000	200	(125)	>1000	775	(450)	>1000	575	(800)	>1000	575	(725)
		NBR	>1000	125	(50)	>1000	175	(275)	>1000	100	(125)	>1000	450	(325)	>1000	375	(375)	>1000	325	(375)	>1000	800	(1300)	>1000	200	(125)	>1000	800	(450)	>1000	600	(825)	>1000	600	(750)
		SBL	360	250	(200)	360	350	(425)	300	350	(400)	360	50	(100)	625	125	(150)	475	250	(300)	360	425	(475)	300	475	(475)	360	100	(200)	625	150	(250)	475	375	(500)
		SBT	360	225	(175)	360	325	(400)	300	350	(400)	360	375	(275)	625	300	(175)	475	275	(300)	360	400	(450)	300	475	(475)	360	500	(350)	625	475	(400)	475	375	(500)
		SBR	360	225	(175)	360	325	(400)	300	350	(400)	360	375	(300)	625	300	(175)	475	300	(325)	360	400	(450)	300	475	(475)	360	525	(375)	625	475	(425)	475	400	(500)
5	Sunset Dr at I-94 Ramps SPUI	EBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(125)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(175)	-	-	(-)
		EBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	>1000	100	(75)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	>1000	100	(100)	-	-	(-)
		WBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	175	(200)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	250	(250)	-	-	(-)
		WBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	200	(275)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	425	275	(275)	-	-	(-)
		NBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(125)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	250	100	(150)	-	-	(-)
		NBT	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	250	(225)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	300	(300)	-	-	(-)
		NBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	215	300	(200)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	215	350	(225)	-	-	(-)
		SBL	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	325	275	(250)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	325	300	(275)	-	-	(-)
		SBT	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	175	(175)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	625	200	(175)	-	-	(-)
		SBR	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	150	25	(0)	-	-	(-)	-	-	(-)	-	-	(-)	-	-	(-)	150	25	(0)	-	-	(-)

Segment	Direction	Name	Vehicle Throughput (veh/hr)																			
			Existing Conditions		2030 No Build		2030 Roundabouts		2030 Parclo		2030 SPUI		2030 DDI		2045 No Build		2045 Roundabouts		2045 Parclo		2045 SPUI		2045 DDI	
			AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)
1	NB	Sunset Dr - North of Old Red Trail	534	(273)	635	(472)	636	(472)	636	(636)	637	(473)	636	(474)	735	(646)	777	(643)	778	(654)	778	(654)	775	(655)
2	NB	Sunset Dr - Between Old Red Trail and I-94 WB Ramps	844	(773)	948	(1032)	968	(1083)	969	(30)	958	(1071)	970	(1087)	1067	(1320)	1186	(1383)	1188	(1408)	1175	(1391)	1190	(1410)
3	NB	Sunset Dr - Between I-94 WB Ramps and I-94 EB Ramps	431	(407)	513	(603)	514	(603)	514	(514)	-	(-)	(513)	(604)	628	(793)	629	(812)	630	(813)	-	(-)	(630)	(812)
4	NB	Sunset Dr - Between I-94 EB Ramps and Boundary St NW	689	(526)	810	(802)	811	(802)	814	(814)	814	(806)	(812)	(804)	974	(995)	978	(1021)	982	(1029)	982	(1030)	(981)	(1029)
5	NB	Sunset Dr - South of Boundary St	615	(430)	707	(691)	707	(691)	707	(707)	707	(691)	(707)	(691)	859	(849)	859	(854)	859	(855)	859	(855)	(859)	(855)
6	EB	Old Red Trail - West of Sunset Dr	567	(542)	695	(625)	694	(625)	695	(695)	694	(625)	(695)	(625)	829	(755)	858	(755)	858	(755)	858	(755)	(858)	(755)
7	EB	Old Red Trail - East of Susnet Dr	137	(302)	189	(367)	203	(407)	189	(189)	189	(368)	(189)	(368)	223	(473)	265	(528)	246	(479)	247	(479)	(248)	(479)
1	SB	Sunset Dr - North of Old Red Trail	485	(303)	623	(443)	624	(444)	624	(102)	624	(444)	624	(444)	623	(551)	774	(552)	774	(552)	774	(552)	(774)	(552)
2	SB	Sunset Dr - Between Old Red Trail and I-94 WB Ramps	891	(760)	1087	(974)	1112	(1018)	1104	(1104)	1097	(1006)	(1093)	(1002)	1152	(1181)	1366	(1245)	1358	(1239)	1349	(1230)	(1345)	(1220)
3	SB	Sunset Dr - Between I-94 WB Ramps and I-94 EB Ramps	1151	(957)	1354	(1203)	1356	(1201)	1355	(1355)	-	(-)	(1351)	(1201)	1415	(1451)	1675	(1438)	1674	(1449)	-	(-)	(1668)	(1447)
4	SB	Sunset Dr - Between I-94 EB Ramps and Boundary St NW	759	(601)	830	(810)	836	(818)	837	(837)	836	(818)	(834)	(815)	910	(970)	1073	(967)	1078	(979)	1077	(981)	(1072)	(976)
5	SB	Sunset Dr - South of Boundary St	693	(487)	745	(668)	743	(667)	742	(742)	745	(666)	(745)	(666)	824	(805)	958	(800)	957	(811)	959	(811)	(958)	(809)
6	WB	Old Red Trail - West of Sunset Dr	482	(520)	543	(612)	547	(615)	545	(545)	540	(612)	(529)	(607)	598	(738)	671	(739)	669	(748)	662	(748)	(652)	(743)
7	WB	Old Red Trail - East of Susnet Dr	153	(258)	208	(359)	208	(359)	208	(208)	208	(359)	(208)	(358)	258	(461)	258	(461)	258	(461)	258	(461)	(257)	(460)

Network Wide Statistic	Existing Conditions		2030 No Build		2030 Roundabouts		2030 Parclo		2030 SPUI		2030 DDI	
	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)
Total Delay (hr)[1]	38.0	47.3	53.0	68.8	32.6	48.4	44.7	79.1	54.3	69.7	52.5	73.1
Average Delay (s/veh)	21.8	23.9	25.7	28.7	15.8	20.2	21.7	32.8	26.3	29.0	25.4	30.5
Total Travel Time (hr)	294.0	345.4	368.2	439.1	351.6	423.2	361.9	477.2	369.2	439.6	364.7	440.5
Network Wide Statistic	Existing Conditions		2045 No Build		2045 Roundabouts		2045 Parclo		2045 SPUI		2045 DDI	
	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)	AM	(PM)
Total Delay (hr)[1]	38.0	47.3	288.6	267.2	64.8	127.9	70.7	110.4	82.3	117.6	87.2	126.9
Average Delay (s/veh)	21.8	23.9	93.6	83.4	24.7	41.6	26.9	35.9	31.3	38.2	33.2	41.2
Total Travel Time (hr)	294.0	345.4	639.4	732.2	485.8	625.0	489.4	605.5	498.4	610.4	500.1	616.5

[1]Total network delay plus latent (unserved) delay

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix N: Predictive Safety Analysis (IHSDM) Reports

Interactive Highway Safety Design Model

Crash Prediction Evaluation Report

March 23, 2023

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Existing/ No Build

Report Overview

Report Generated: Mar 23, 2023 11:35 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 17 10:49:28 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Freeway Segments
Site Set Comment: Created Tue Feb 21 09:17:27 MST 2023
Site Set Version: v15

Evaluation Title: Existing
Evaluation Comment: Created Fri Mar 17 10:48:31 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Freeway Segments
Crash History Siteset Comment: Created Tue Feb 21 09:17:27 MST 2023
Crash History Siteset Version: 15
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Freeway Segment Site Set CPM Evaluation

Site Type

Type: Freeway
Calibration Factor: FI_MV=1.0, PDO_MV=1.0, FI_SV=1.0, PDO_SV=1.0

Table 1. Observed Crashes Used in the Evaluation (Freeway)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	0	0	0	0	0
2018	1	1	0	0	1
2019	7	7	1	0	6
2020	2	2	2	0	0
2021	6	6	3	0	3
2022	1	1	0	0	1
All Years	17 [1]	17	6	0	11

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Freeway Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Four-lane Freeway	CSD:I-94	0.25 mi decreasing from the beginning of site 2	0.2500	2017-2022: 10725
1	Four-lane Freeway	I-94	0.25 mi decreasing from the beginning of site 2	0.2500	2023-2028: 10725
2	Four-lane Freeway	CSD:I-94	End of site 1 increasing to scenic overlook exit ramp gore	0.0500	2017-2022: 10725
2	Four-lane Freeway	I-94	End of site 1 increasing to scenic overlook exit ramp gore	0.0500	2023-2028: 10725
3	Four-lane Freeway	CSD:I-94	End of site 2 increasing to end of I-94 WB on ramp	0.1000	2017-2022: 10665
3	Four-lane Freeway	I-94	End of site 2 increasing to end of I-94 WB on ramp	0.1000	2023-2028: 10665
4	Four-lane Freeway	CSD:I-94	End of site 3 increasing to scenic overlook entrance ramp gore	0.0800	2017-2022: 10665
4	Four-lane Freeway	I-94	End of site 3 increasing to scenic overlook entrance ramp gore	0.0800	2023-2028: 10665
5	Five-lane Freeway	CSD:I-94	End of site 4 increasing to I-94 WB on ramp gore	0.0500	2017-2022: 10725
5	Five-lane Freeway	I-94	End of site 4 increasing to I-94 WB on ramp gore	0.0500	2023-2028: 10725
6	Five-lane Freeway	CSD:I-94	End of site 5 increasing to I-94 EB off ramp gore	0.1300	2017-2022: 9860
6	Five-lane Freeway	I-94	End of site 5 increasing to I-94 EB off ramp gore	0.1300	2023-2028: 9860
7	Four-lane Freeway	CSD:I-94	End of site 6 increasing to I-94 WB off ramp gore	0.4400	2017-2022: 9160
7	Four-lane Freeway	I-94	End of site 6 increasing to I-94 WB off ramp gore	0.4400	2023-2028: 9160
8	Four-lane Freeway	CSD:I-94	End of site 7 increasing to I-94 on ramp gore	0.0800	2017-2022: 15330
8	Four-lane Freeway	I-94	End of site 7 increasing to I-94 on ramp gore	0.0800	2023-2028: 15330
9	Four-lane Freeway	CSD:I-94	End of site 8 increasing to end of I-94 on ramp	0.1300	2017-2022: 21855
9	Four-lane Freeway	I-94	End of site 8 increasing to end of I-94 on ramp	0.1300	2023-2028: 21855
10	Four-lane Freeway	CSD:I-94	0.25 mi increasing from the end of site 9	0.2500	2017-2022: 21855
10	Four-lane Freeway	I-94	0.25 mi increasing from the end of site 9	0.2500	2023-2028: 21855

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Crash Rate (crashes/mi/yr)	Expected Travel Crash Rate (crashes/million veh-mi)
1	Four-lane Freeway	I-94	0.25 mi decreasing from the beginning of site 2	0.2500	2.108	2.442	0.3513	0.1409	0.2104	0.4070	0.1521	0.2549	-0.0556	-0.0111	-0.0445	1.4053	0.36
2	Four-lane Freeway	I-94	End of site 1 increasing to scenic overlook exit ramp gore	0.0000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3	Four-lane Freeway	I-94	End of site 2 increasing to end of I-94 WB on ramp	0.1000	0.837	0.970	0.1395	0.0570	0.0824	0.1617	0.0617	0.0999	-0.0222	-0.0047	-0.0175	1.3948	0.36
4	Four-lane Freeway	I-94	End of site 3 increasing to scenic overlook entrance ramp gore	0.0000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
5	Five-lane Freeway	I-94	End of site 4 increasing to I-94 WB on ramp gore	0.0000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
6	Five-lane Freeway	I-94	End of site 5 increasing to I-94 EB off ramp gore	0.0000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
7	Four-lane Freeway	I-94	End of site 6 increasing to I-94 WB off ramp gore	0.4400	4.081	3.829	0.6801	0.2435	0.4366	0.6382	0.2402	0.3979	0.0419	0.0033	0.0387	1.5457	0.46
8	Four-lane Freeway	I-94	End of site 7 increasing to I-94 on ramp gore	0.0000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
9	Four-lane Freeway	I-94	End of site 8 increasing to end of I-94 on ramp	0.0000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
10	Four-lane Freeway	I-94	0.25 mi increasing from the end of site 9	0.2500	4.260	5.115	0.7099	0.2490	0.4609	0.8525	0.2848	0.5678	-0.1426	-0.0358	-0.1068	2.8397	0.36
		Total	Total	1.0400	11.285	12.356	1.8808	0.6905	1.1903	2.0593	0.7388	1.3205	-0.1785	-0.0483	-0.1302	1.8085	

Table 4. Predicted Crash Frequencies by Year (Freeway)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.06	0.74	35.875	1.32	64.125
2024	2.06	0.74	35.875	1.32	64.125
2025	2.06	0.74	35.875	1.32	64.125
2026	2.06	0.74	35.875	1.32	64.125
2027	2.06	0.74	35.875	1.32	64.125
2028	2.06	0.74	35.875	1.32	64.125
Total	12.36	4.43	35.875	7.92	64.125
Average	2.06	0.74	35.875	1.32	64.125

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (Freeway)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.88	0.69	36.712	1.19	63.288
2024	1.88	0.69	36.712	1.19	63.288
2025	1.88	0.69	36.712	1.19	63.288
2026	1.88	0.69	36.712	1.19	63.288
2027	1.88	0.69	36.712	1.19	63.288
2028	1.88	0.69	36.712	1.19	63.288
Total	11.29	4.14	36.712	7.14	63.288
Average	1.88	0.69	36.712	1.19	63.288

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (Freeway)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	12.36	4.43	35.875	7.92	64.125
Expected	11.29	4.14	36.712	7.14	63.288
Expected - Predicted	-1.07	-0.29		-0.78	
Percent Difference	-9.49	-6.99		-10.94	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected Freeway Sites Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0178	0.0443	0.2988	0.4847	1.2623
2	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0072	0.0179	0.1210	0.1962	0.4946
4	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0268	0.0704	0.4807	0.8832	2.6195
8	0.0000	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0277	0.0708	0.4949	0.9005	2.7655
Total	0.0795	0.2034	1.3954	2.4646	7.1420

Table 8. Expected Freeway Site Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.01	0.1	0.12	1.0	0.13	1.1
Highway Segment	Collision with Fixed Object	2.07	18.3	3.85	34.1	5.92	52.4
Highway Segment	Collision with Other Object	0.15	1.3	0.75	6.6	0.89	7.9
Highway Segment	Other Single-vehicle Collision	0.59	5.3	0.57	5.1	1.17	10.4
Highway Segment	Collision with Parked Vehicle	0.04	0.4	0.09	0.8	0.13	1.1
Highway Segment	Total Single Vehicle Crashes	2.86	25.4	5.38	47.6	8.24	73.0
Highway Segment	Right-Angle Collision	0.04	0.4	0.03	0.3	0.07	0.6
Highway Segment	Head-on Collision	0.01	0.1	0.00	0.0	0.01	0.1
Highway Segment	Other Multi-vehicle Collision	0.04	0.4	0.04	0.4	0.08	0.7
Highway Segment	Rear-end Collision	0.96	8.5	1.22	10.8	2.18	19.3
Highway Segment	Sideswipe, Same Direction Collision	0.23	2.0	0.47	4.2	0.70	6.2
Highway Segment	Total Multiple Vehicle Crashes	1.28	11.3	1.77	15.6	3.05	27.0
Highway Segment	Total Highway Segment Crashes	4.14	36.7	7.14	63.3	11.29	100.0
	Total Crashes	4.14	36.7	7.14	63.3	11.29	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 9. Evaluation Message

Message
Information: SiteFRE_SEG :Site number 5 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway
Information: SiteFRE_SEG :Site number 6 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway

Report Overview

Report Generated: Mar 23, 2023 11:38 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 17 10:53:50 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Entrance Ramps
Site Set Comment: Created Mon Mar 13 14:25:38 MDT 2023
Site Set Version: v5

Evaluation Title: Existing
Evaluation Comment: Created Fri Mar 17 10:53:25 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Entrance Ramps
Crash History Siteset Comment: Created Mon Mar 13 14:25:38 MDT 2023
Crash History Siteset Version: 5
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Entrance
Calibration Factor: ENT_RAMP_MV_FI=1.0, ENT_RAMP_MV_PDO=1.0, ENT_RAMP_SV_FI=1.0, ENT_RAMP_SV_PDO=1.0

Table 1. Observed Crashes Used in the Evaluation (Ramp Entrance)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	0	0	0	0	0
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	0 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Entrance	CSD:I-94	I-94 WB On Ramp	0.3500	2017-2022: 865
1	One-lane Ramp Entrance	I-94	I-94 WB On Ramp	0.3500	2023-2028: 865
2	One-lane Ramp Entrance	CSD:I-94	I-94 EB On Ramp	0.1800	2017-2022: 6525
2	One-lane Ramp Entrance	I-94	I-94 EB On Ramp	0.1800	2023-2028: 6525
3	One-lane Ramp Entrance	CSD:I-94	Scenic Overlook On Ramp	0.0700	2017-2022: 60
3	One-lane Ramp Entrance	I-94	Scenic Overlook On Ramp	0.0700	2023-2028: 60

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Crash Rate (crashes/mi/yr)	Expected Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Entrance	I-94	I-94 WB On Ramp	0.3500	0.711	0.777	0.1185	0.0583	0.0602	0.1295	0.0636	0.0658	-0.0110	-0.0054	-0.0056	0.3385	1.07
2	One-lane Ramp Entrance	I-94	I-94 EB On Ramp	0.1800	1.372	1.855	0.2286	0.1024	0.1262	0.3092	0.1414	0.1679	-0.0806	-0.0389	-0.0417	1.2701	0.53
3	One-lane Ramp Entrance	I-94	Scenic Overlook On Ramp	0.0700	0.027	0.027	0.0045	0.0022	0.0022	0.0045	0.0023	0.0023	-0.0001	-0.0000	-0.0000	0.0636	2.91
		Total	Total	0.6000	2.109	2.659	0.3515	0.1629	0.1886	0.4432	0.2072	0.2360	-0.0917	-0.0443	-0.0473	0.5859	0.65

Table 4. Predicted Crash Frequencies by Year (Ramp Entrance)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.44	0.21	46.762	0.24	53.238
2024	0.44	0.21	46.762	0.24	53.238
2025	0.44	0.21	46.762	0.24	53.238
2026	0.44	0.21	46.762	0.24	53.238
2027	0.44	0.21	46.762	0.24	53.238
2028	0.44	0.21	46.762	0.24	53.238
Total	2.66	1.24	46.762	1.42	53.238
Average	0.44	0.21	46.762	0.24	53.238

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (Ramp Entrance)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.35	0.16	46.346	0.19	53.654
2024	0.35	0.16	46.346	0.19	53.654
2025	0.35	0.16	46.346	0.19	53.654
2026	0.35	0.16	46.346	0.19	53.654
2027	0.35	0.16	46.346	0.19	53.654
2028	0.35	0.16	46.346	0.19	53.654
Total	2.11	0.98	46.346	1.13	53.654
Average	0.35	0.16	46.346	0.19	53.654

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (Ramp Entrance)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	2.66	1.24	46.762	1.42	53.238
Expected	2.11	0.98	46.346	1.13	53.654
Expected - Predicted	-0.55	-0.27		-0.28	
Percent Difference	-26.08	-27.21		-25.10	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected Entrance Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0075	0.0226	0.1439	0.1756	0.3612
2	0.0131	0.0397	0.2530	0.3087	0.7572
3	0.0003	0.0009	0.0055	0.0068	0.0133
Total	0.0208	0.0632	0.4024	0.4910	1.1317

Table 8. Expected Entrance Ramp Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.00	0.1	0.02	0.9	0.02	1.0
Highway Segment	Collision with Fixed Object	0.54	25.8	0.62	29.2	1.16	55.0
Highway Segment	Collision with Other Object	0.04	1.8	0.12	5.7	0.16	7.5
Highway Segment	Other Single-vehicle Collision	0.16	7.4	0.09	4.4	0.25	11.8
Highway Segment	Collision with Parked Vehicle	0.01	0.5	0.01	0.7	0.03	1.2
Highway Segment	Total Single Vehicle Crashes	0.75	35.7	0.86	40.8	1.61	76.5
Highway Segment	Right-Angle Collision	0.01	0.3	0.01	0.2	0.01	0.6
Highway Segment	Head-on Collision	0.00	0.1	0.00	0.0	0.00	0.1
Highway Segment	Other Multi-vehicle Collision	0.01	0.3	0.01	0.3	0.01	0.6
Highway Segment	Rear-end Collision	0.17	8.0	0.19	8.9	0.36	16.9
Highway Segment	Sideswipe, Same Direction Collision	0.04	1.9	0.07	3.4	0.11	5.3
Highway Segment	Total Multiple Vehicle Crashes	0.23	10.7	0.27	12.9	0.50	23.5
Highway Segment	Total Highway Segment Crashes	0.98	46.3	1.13	53.7	2.11	100.0
	Total Crashes	0.98	46.3	1.13	53.7	2.11	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Mar 23, 2023 11:36 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 17 10:50:17 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Entrance Speed Change Lanes
Site Set Comment: Created Fri Mar 10 11:33:51 MST 2023
Site Set Version: v9

Evaluation Title: Existing
Evaluation Comment: Created Fri Mar 17 10:49:58 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Entrance Speed Change Lanes
Crash History Siteset Comment: Created Fri Mar 10 11:33:51 MST 2023
Crash History Siteset Version: 9
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

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Section Types

Freeway Speed Change Site Set CPM Evaluation

Site Type

Type: Ramp Entrance Speed Change
Calibration Factor: FI_EN=1.0, PDO_EN=1.0

Table 1. Observed Crashes Used in the Evaluation (Ramp Entrance Speed Change)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	0	0	0	0	0
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	0 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Speed Change Lanes - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Five-lane Freeway Speed Change	CSD:I-94	I-94 WB On Ramp from Sunset Dr	0.0800	2017-2022: 10725
1	Five-lane Freeway Speed Change	I-94	I-94 WB On Ramp from Sunset Dr	0.0800	2023-2028: 10725
3	Four-lane Freeway Speed Change	CSD:I-94	I-94 WB On Ramp from Sunset Dr (2)	0.0500	2017-2022: 10725
3	Four-lane Freeway Speed Change	I-94	I-94 WB On Ramp from Sunset Dr (2)	0.0500	2023-2028: 10725
4	Four-lane Freeway Speed Change	CSD:I-94	I-94 EB On Ramp from Sunset Dr	0.1300	2017-2022: 21855
4	Four-lane Freeway Speed Change	I-94	I-94 EB On Ramp from Sunset Dr	0.1300	2023-2028: 21855

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Crash Rate (crashes/mi/yr)	Expected Travel Crash Rate (crashes/million veh-mi)
1	Five-lane Freeway Speed Change	I-94	I-94 WB On Ramp from Sunset Dr	0.0800	0.337	0.370	0.0561	0.0155	0.0406	0.0618	0.0165	0.0452	-0.0056	-0.0010	-0.0046	0.7014	0.36
3	Four-lane Freeway Speed Change	I-94	I-94 WB On Ramp from Sunset Dr (2)	0.0500	0.228	0.255	0.0379	0.0110	0.0269	0.0426	0.0116	0.0310	-0.0046	-0.0006	-0.0040	0.7590	0.39
4	Four-lane Freeway Speed Change	I-94	I-94 EB On Ramp from Sunset Dr	0.1300	1.372	1.770	0.2287	0.0875	0.1413	0.2951	0.1035	0.1916	-0.0664	-0.0160	-0.0504	1.7593	0.44
		Total	Total	0.2600	1.937	2.397	0.3228	0.1140	0.2088	0.3994	0.1316	0.2678	-0.0766	-0.0176	-0.0590	1.2414	0.42

Table 4. Predicted Crash Frequencies by Year (Ramp Entrance Speed Change)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.40	0.13	32.941	0.27	67.059
2024	0.40	0.13	32.941	0.27	67.059
2025	0.40	0.13	32.941	0.27	67.059
2026	0.40	0.13	32.941	0.27	67.059
2027	0.40	0.13	32.941	0.27	67.059
2028	0.40	0.13	32.941	0.27	67.059
Total	2.40	0.79	32.941	1.61	67.059
Average	0.40	0.13	32.941	0.27	67.059

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (Ramp Entrance Speed Change)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.32	0.11	35.306	0.21	64.694
2024	0.32	0.11	35.306	0.21	64.694
2025	0.32	0.11	35.306	0.21	64.694
2026	0.32	0.11	35.306	0.21	64.694
2027	0.32	0.11	35.306	0.21	64.694
2028	0.32	0.11	35.306	0.21	64.694
Total	1.94	0.68	35.306	1.25	64.694
Average	0.32	0.11	35.306	0.21	64.694

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (Ramp Entrance Speed Change)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	2.40	0.79	32.941	1.61	67.059
Expected	1.94	0.68	35.306	1.25	64.694
Expected - Predicted	-0.46	-0.11		-0.35	
Percent Difference	-23.74	-15.46		-28.27	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected Entrance Speed Change Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0017	0.0045	0.0310	0.0556	0.2438
3	0.0013	0.0032	0.0221	0.0396	0.1615
4	0.0099	0.0257	0.1756	0.3135	0.8476
Total	0.0129	0.0334	0.2286	0.4087	1.2529

Table 8. Expected Entrance Speed Change Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.00	0.0	0.00	0.1	0.00	0.1
Highway Segment	Collision with Fixed Object	0.13	6.8	0.16	8.3	0.29	15.2
Highway Segment	Collision with Other Object	0.01	0.7	0.04	2.3	0.06	3.0
Highway Segment	Other Single-vehicle Collision	0.05	2.4	0.02	1.0	0.07	3.4
Highway Segment	Collision with Parked Vehicle	0.00	0.1	0.00	0.2	0.01	0.3
Highway Segment	Total Single Vehicle Crashes	0.19	10.0	0.23	12.0	0.43	22.1
Highway Segment	Right-Angle Collision	0.01	0.7	0.02	1.0	0.03	1.7
Highway Segment	Head-on Collision	0.00	0.1	0.00	0.1	0.00	0.2
Highway Segment	Other Multi-vehicle Collision	0.01	0.6	0.02	1.0	0.03	1.6
Highway Segment	Rear-end Collision	0.37	19.2	0.66	34.3	1.03	53.5
Highway Segment	Sideswipe, Same Direction Collision	0.09	4.7	0.32	16.3	0.41	21.0
Highway Segment	Total Multiple Vehicle Crashes	0.49	25.3	1.02	52.7	1.51	77.9
Highway Segment	Total Highway Segment Crashes	0.68	35.3	1.25	64.7	1.94	100.0
	Total Crashes	0.68	35.3	1.25	64.7	1.94	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 9. Evaluation Message

Message
Information: SiteFRE_SC_EN :Site number 1 - Freeway Speed Change Segment of type Five-lane Freeway Speed Change is using unbalanced lane processing with types Four-lane Freeway Speed Change and Six-lane Freeway Speed Change

Report Overview

Report Generated: Mar 23, 2023 11:39 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Thu Mar 23 11:14:18 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Exit Ramps
Site Set Comment: Created Mon Mar 13 14:26:16 MDT 2023
Site Set Version: v6

Evaluation Title: Existing
Evaluation Comment: Created Thu Mar 23 11:14:05 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Exit Ramps
Crash History Siteset Comment: Created Mon Mar 13 14:26:16 MDT 2023
Crash History Siteset Version: 6
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Exit
Calibration Factor: EX_RAMP_MV_FI=1.0, EX_RAMP_MV_PDO=1.0, EX_RAMP_SV_FI=1.0, EX_RAMP_SV_PDO=1.0

Table 1. Observed Crashes Used in the Evaluation (Ramp Exit)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	0	0	0	0	0
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	0 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Two-lane Ramp Exit	CSD:I-94	I-94 WB Off Ramp	0.2000	2017-2022: 6170
1	Two-lane Ramp Exit	I-94	I-94 WB Off Ramp	0.2000	2023-2028: 6170
2	Two-lane Ramp Exit	CSD:I-94	I-94 EB Off Ramp	0.3500	2017-2022: 700
2	Two-lane Ramp Exit	I-94	I-94 EB Off Ramp	0.3500	2023-2028: 700
3	Two-lane Ramp Exit	CSD:I-94	Mandan Scenic Overlook Off Ramp	0.0600	2017-2022: 60
3	Two-lane Ramp Exit	I-94	Mandan Scenic Overlook Off Ramp	0.0600	2023-2028: 60

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Crash Rate (crashes/mi/yr)	Expected Travel Crash Rate (crashes/million veh-mi)
1	Two-lane Ramp Exit	I-94	I-94 WB Off Ramp	0.2000	1.875	3.240	0.3125	0.1204	0.1921	0.5400	0.1997	0.3403	-0.2275	-0.0793	-0.1482	1.5625	0.69
2	Two-lane Ramp Exit	I-94	I-94 EB Off Ramp	0.3500	0.833	0.947	0.1388	0.0587	0.0802	0.1579	0.0660	0.0918	-0.0190	-0.0073	-0.0117	0.3967	1.55
3	Two-lane Ramp Exit	I-94	Mandan Scenic Overlook Off Ramp	0.0600	0.031	0.032	0.0052	0.0022	0.0030	0.0054	0.0022	0.0031	-0.0001	-0.0001	-0.0001	0.0869	3.97
		Total	Total	0.6100	2.739	4.219	0.4566	0.1813	0.2753	0.7032	0.2680	0.4352	-0.2467	-0.0867	-0.1600	0.7485	0.84

Table 4. Predicted Crash Frequencies by Year (Ramp Exit)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.70	0.27	38.107	0.43	61.893
2024	0.70	0.27	38.107	0.43	61.893
2025	0.70	0.27	38.107	0.43	61.893
2026	0.70	0.27	38.107	0.43	61.893
2027	0.70	0.27	38.107	0.43	61.893
2028	0.70	0.27	38.107	0.43	61.893
Total	4.22	1.61	38.107	2.61	61.893
Average	0.70	0.27	38.107	0.43	61.893

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (Ramp Exit)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.46	0.18	39.703	0.28	60.297
2024	0.46	0.18	39.703	0.28	60.297
2025	0.46	0.18	39.703	0.28	60.297
2026	0.46	0.18	39.703	0.28	60.297
2027	0.46	0.18	39.703	0.28	60.297
2028	0.46	0.18	39.703	0.28	60.297
Total	2.74	1.09	39.703	1.65	60.297
Average	0.46	0.18	39.703	0.28	60.297

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (Ramp Exit)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	4.22	1.61	38.107	2.61	61.893
Expected	2.74	1.09	39.703	1.65	60.297
Expected - Predicted	-1.48	-0.52		-0.96	
Percent Difference	-54.03	-47.84		-58.10	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected Exit Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0215	0.0652	0.2203	0.4154	1.1526
2	0.0105	0.0318	0.1074	0.2025	0.4809
3	0.0004	0.0012	0.0040	0.0075	0.0182
Total	0.0324	0.0981	0.3317	0.6254	1.6518

Table 8. Expected Exit Ramp Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.00	0.1	0.03	1.1	0.04	1.3
Highway Segment	Collision with Fixed Object	0.72	26.4	1.01	36.9	1.73	63.3
Highway Segment	Collision with Other Object	0.05	1.9	0.20	7.2	0.25	9.0
Highway Segment	Other Single-vehicle Collision	0.21	7.6	0.15	5.5	0.36	13.1
Highway Segment	Collision with Parked Vehicle	0.01	0.5	0.02	0.8	0.04	1.4
Highway Segment	Total Single Vehicle Crashes	1.00	36.5	1.41	51.6	2.41	88.1
Highway Segment	Right-Angle Collision	0.00	0.1	0.00	0.2	0.01	0.3
Highway Segment	Head-on Collision	0.00	0.0	0.00	0.0	0.00	0.0
Highway Segment	Other Multi-vehicle Collision	0.00	0.1	0.01	0.2	0.01	0.3
Highway Segment	Rear-end Collision	0.07	2.4	0.17	6.0	0.23	8.4
Highway Segment	Sideswipe, Same Direction Collision	0.02	0.6	0.06	2.3	0.08	2.9
Highway Segment	Total Multiple Vehicle Crashes	0.09	3.2	0.24	8.7	0.33	11.9
Highway Segment	Total Highway Segment Crashes	1.09	39.7	1.65	60.3	2.74	100.0
	Total Crashes	1.09	39.7	1.65	60.3	2.74	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Mar 23, 2023 11:37 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 17 10:51:07 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Exit Speed Change Lanes
Site Set Comment: Created Fri Mar 10 13:23:31 MST 2023
Site Set Version: v7

Evaluation Title: Existing
Evaluation Comment: Created Fri Mar 17 10:50:49 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Exit Speed Change Lanes
Crash History Siteset Comment: Created Fri Mar 10 13:23:31 MST 2023
Crash History Siteset Version: 7
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

Disclaimer Regarding Crash Prediction Method

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Section Types

Freeway Speed Change Site Set CPM Evaluation

Site Type

Type: Ramp Exit Speed Change
Calibration Factor: FI_EX=1.0, PDO_EX=1.0

Table 1. Observed Crashes Used in the Evaluation (Ramp Exit Speed Change)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	0	0	0	0	0
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	0 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Speed Change Lanes - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Four-lane Freeway Speed Change	CSD:I-94	I-94 WB Off Ramp to Sunset Dr	0.0776	2017-2022: 21855
1	Four-lane Freeway Speed Change	I-94	I-94 WB Off Ramp to Sunset Dr	0.0776	2023-2028: 21855
3	Four-lane Freeway Speed Change	CSD:I-94	I-94 EB Scenic Overlook Off Ramp	0.0511	2017-2022: 10725
3	Four-lane Freeway Speed Change	I-94	I-94 EB Scenic Overlook Off Ramp	0.0511	2023-2028: 10725

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Crash Rate (crashes/mi/yr)	Expected Travel Crash Rate (crashes/million veh-mi)
1	Four-lane Freeway Speed Change	I-94	I-94 WB Off Ramp to Sunset Dr	0.0776	0.866	1.240	0.1444	0.0505	0.0938	0.2067	0.0609	0.1458	-0.0623	-0.0104	-0.0520	1.8606	0.47
3	Four-lane Freeway Speed Change	I-94	I-94 EB Scenic Overlook Off Ramp	0.0511	0.371	0.426	0.0618	0.0209	0.0409	0.0709	0.0225	0.0484	-0.0091	-0.0016	-0.0075	1.2100	0.62
		Total	Total	0.1287	1.237	1.666	0.2062	0.0715	0.1347	0.2777	0.0835	0.1942	-0.0714	-0.0120	-0.0595	1.6023	0.50

Table 4. Predicted Crash Frequencies by Year (Ramp Exit Speed Change)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.28	0.08	30.056	0.19	69.944
2024	0.28	0.08	30.056	0.19	69.944
2025	0.28	0.08	30.056	0.19	69.944
2026	0.28	0.08	30.056	0.19	69.944
2027	0.28	0.08	30.056	0.19	69.944
2028	0.28	0.08	30.056	0.19	69.944
Total	1.67	0.50	30.056	1.17	69.944
Average	0.28	0.08	30.056	0.19	69.944

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (Ramp Exit Speed Change)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.21	0.07	34.664	0.14	65.336
2024	0.21	0.07	34.664	0.14	65.336
2025	0.21	0.07	34.664	0.14	65.336
2026	0.21	0.07	34.664	0.14	65.336
2027	0.21	0.07	34.664	0.14	65.336
2028	0.21	0.07	34.664	0.14	65.336
Total	1.24	0.43	34.664	0.81	65.336
Average	0.21	0.07	34.664	0.14	65.336

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (Ramp Exit Speed Change)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	1.67	0.50	30.056	1.17	69.944
Expected	1.24	0.43	34.664	0.81	65.336
Expected - Predicted	-0.43	-0.07		-0.36	
Percent Difference	-34.64	-16.74		-44.14	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected Exit Speed Change Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0062	0.0162	0.1048	0.1761	0.5630
3	0.0024	0.0062	0.0421	0.0750	0.2453
Total	0.0085	0.0223	0.1469	0.2511	0.8084

Table 8. Expected Exit Speed Change Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.00	0.0	0.01	0.5	0.01	0.5
Highway Segment	Collision with Fixed Object	0.08	6.8	0.17	13.5	0.25	20.3
Highway Segment	Collision with Other Object	0.01	0.6	0.02	2.0	0.03	2.5
Highway Segment	Other Single-vehicle Collision	0.02	1.7	0.02	1.5	0.04	3.2
Highway Segment	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Highway Segment	Total Single Vehicle Crashes	0.11	9.0	0.22	17.4	0.33	26.5
Highway Segment	Right-Angle Collision	0.01	0.4	0.01	0.8	0.01	1.2
Highway Segment	Head-on Collision	0.00	0.2	0.00	0.1	0.00	0.3
Highway Segment	Other Multi-vehicle Collision	0.01	0.6	0.01	1.0	0.02	1.6
Highway Segment	Rear-end Collision	0.23	19.0	0.46	36.9	0.69	55.9
Highway Segment	Sideswipe, Same Direction Collision	0.07	5.5	0.11	9.0	0.18	14.5
Highway Segment	Total Multiple Vehicle Crashes	0.32	25.6	0.59	47.9	0.91	73.5
Highway Segment	Total Highway Segment Crashes	0.43	34.7	0.81	65.3	1.24	100.0
	Total Crashes	0.43	34.7	0.81	65.3	1.24	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Mar 23, 2023 11:37 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 17 10:53:00 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Ramp Terminals
Site Set Comment: Created Fri Mar 10 13:59:05 MST 2023
Site Set Version: v9

Evaluation Title: Existing
Evaluation Comment: Created Fri Mar 17 10:52:41 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Ramp Terminals
Crash History Siteset Comment: Created Fri Mar 10 13:59:05 MST 2023
Crash History Siteset Version: 9
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Freeway Ramp Terminal Site Set CPM Evaluation

Site Type

Type: Ramp Terminal
Calibration Factor: RT_ST_FI=1.0, RT_ST_PDO=1.0, RT_SG_FI=1.0, RT_SG_PDO=1.0

Table 1. Observed Crashes Used in the Evaluation (Ramp Terminal)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	2	2	1	0	1
2018	12	12	2	0	10
2019	9	9	1	0	8
2020	5	5	1	0	4
2021	7	7	3	0	4
2022	2	2	0	0	2
All Years	37 [1]	37	8	0	29

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Ramp Terminal - Homogeneous Sites

Site No.	Type	Ramp Terminal	Site Description	Area Type	Traffic Control	AADT
1	D4 - Four-Leg with Diagonal Ramps	CSD:I-94	WB Ramp Terminal	Urban	Signalized	Inside: 2017-2022: 3760; Outside: 2017-2022: 9800 :: Entrance: 2017-2022: 865; Exit: 2017-2022: 6170
1	D4 - Four-Leg with Diagonal Ramps	I-94	WB Ramp Terminal	Urban	Signalized	Inside: 2023-2028: 3760; Outside: 2023-2028: 9800 :: Entrance: 2023-2028: 865; Exit: 2023-2028: 6170
2	D4 - Four-Leg with Diagonal Ramps	CSD:I-94	EB Ramp Terminal	Urban	Signalized	Inside: 2017-2022: 8935; Outside: 2017-2022: 10285 :: Entrance: 2017-2022: 6525; Exit: 2017-2022: 700
2	D4 - Four-Leg with Diagonal Ramps	I-94	EB Ramp Terminal	Urban	Signalized	Inside: 2023-2028: 8935; Outside: 2023-2028: 10285 :: Entrance: 2023-2028: 6525; Exit: 2023-2028: 700

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Ramp Terminal	Site Description	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	D4 - Four-Leg with Diagonal Ramps	I-94	WB Ramp Terminal	14.964	11.417	2.4940	0.6711	1.8229	1.9029	0.7369	1.1659	0.5912	-0.0658	0.6570	0.66	2.4940
2	D4 - Four-Leg with Diagonal Ramps	I-94	EB Ramp Terminal	16.246	13.194	2.7077	0.7838	1.9239	2.1990	0.7641	1.4349	0.5087	0.0197	0.4889	0.56	2.7077
		Total	Total	31.210	24.611	5.2017	1.4549	3.7468	4.1019	1.5010	2.6009	1.0999	-0.0460	1.1459	0.61	5.2017

Table 4. Predicted Crash Frequencies by Year (Ramp Terminal)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	4.10	1.50	36.593	2.60	63.407
2024	4.10	1.50	36.593	2.60	63.407
2025	4.10	1.50	36.593	2.60	63.407
2026	4.10	1.50	36.593	2.60	63.407
2027	4.10	1.50	36.593	2.60	63.407
2028	4.10	1.50	36.593	2.60	63.407
Total	24.61	9.01	36.593	15.61	63.407
Average	4.10	1.50	36.593	2.60	63.407

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (Ramp Terminal)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	5.20	1.46	27.970	3.75	72.030
2024	5.20	1.46	27.970	3.75	72.030
2025	5.20	1.46	27.970	3.75	72.030
2026	5.20	1.46	27.970	3.75	72.030
2027	5.20	1.46	27.970	3.75	72.030
2028	5.20	1.46	27.970	3.75	72.030
Total	31.21	8.73	27.970	22.48	72.030
Average	5.20	1.46	27.970	3.75	72.030

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (Ramp Terminal)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	24.61	9.01	36.593	15.61	63.407
Expected	31.21	8.73	27.970	22.48	72.030
Expected - Predicted	6.60	-0.28		6.88	
Percent Difference	21.14	-3.17		30.58	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected Ramp Terminal Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0047	0.1184	0.7057	3.1978	10.9375
2	0.0055	0.1383	0.8242	3.7348	11.5433
Total	0.0103	0.2567	1.5300	6.9327	22.4807

Table 8. Expected Ramp Terminal Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Ramp Terminal	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Ramp Terminal	Collision with Fixed Object	0.29	0.9	1.12	3.6	1.41	4.5
Ramp Terminal	Collision with Other Object	0.01	0.0	0.04	0.1	0.05	0.2
Ramp Terminal	Other Single-vehicle Collision	0.16	0.5	0.16	0.5	0.31	1.0
Ramp Terminal	Collision with Parked Vehicle	0.01	0.0	0.04	0.1	0.05	0.2
Ramp Terminal	Total Single Vehicle Crashes	0.46	1.5	1.37	4.4	1.83	5.9
Ramp Terminal	Right-Angle Collision	2.27	7.3	4.95	15.8	7.21	23.1
Ramp Terminal	Head-on Collision	0.10	0.3	0.16	0.5	0.25	0.8
Ramp Terminal	Other Multi-vehicle Collision	0.08	0.3	0.45	1.4	0.53	1.7
Ramp Terminal	Rear-end Collision	5.46	17.5	12.21	39.1	17.66	56.6
Ramp Terminal	Sideswipe, Same Direction Collision	0.37	1.2	3.35	10.7	3.72	11.9
Ramp Terminal	Total Multiple Vehicle Crashes	8.27	26.5	21.11	67.6	29.38	94.1
Ramp Terminal	Total Ramp Terminal Crashes	8.73	28.0	22.48	72.0	31.21	100.0
	Total Crashes	8.73	28.0	22.48	72.0	31.21	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Mar 23, 2023 11:42 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 17 10:55:59 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Boundary St
Site Set Comment: Created Tue Mar 14 08:23:57 MDT 2023
Site Set Version: v3

Evaluation Title: Existing
Evaluation Comment: Created Fri Mar 17 10:55:43 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Boundary St
Crash History Siteset Comment: Created Tue Mar 14 08:23:57 MDT 2023
Crash History Siteset Version: 3
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

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Section Types

Urban Arterial Site Set CPM Evaluation

Site Type

Type: 4aST
Calibration Factor: 1

Table 1. Observed Crashes Used in the Evaluation (4aST)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	1	1	0	0	1
2018	1	1	0	0	1
2019	5	5	0	0	5
2020	1	1	1	0	0
2021	1	1	1	0	0
2022	1	1	0	0	1
All Years	10 [1]	10	2	0	8

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Intersection Sites

Site No.	Type	Highway	Site Description	Major AADT	Minor AADT	Presence of Lighting
1	4aST2x2le5	CSD:Sunset Dr	Sunset Dr & Boundary St	2017-2022: 12695	2017-2022: 3000	yes
1	4aST2x2le5	Sunset Dr	Sunset Dr & Boundary St	2023-2028: 12695	2023-2028: 3000	yes

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	4aST	Sunset Dr	Sunset Dr & Boundary St	10.739	11.637	1.7898	0.4657	1.3241	1.9396	0.6703	1.2692	-0.1498	-0.2046	0.0549	0.31	1.7898
		Total	Total	10.739	11.637	1.7898	0.4657	1.3241	1.9396	0.6703	1.2692	-0.1498	-0.2046	0.0549	0.31	1.7898

Table 4. Predicted Crash Frequencies by Year (4aST)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.94	0.67	34.561	1.27	65.439
2024	1.94	0.67	34.561	1.27	65.439
2025	1.94	0.67	34.561	1.27	65.439
2026	1.94	0.67	34.561	1.27	65.439
2027	1.94	0.67	34.561	1.27	65.439
2028	1.94	0.67	34.561	1.27	65.439
Total	11.64	4.02	34.561	7.62	65.439
Average	1.94	0.67	34.561	1.27	65.439

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (4aST)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.79	0.47	26.019	1.32	73.981
2024	1.79	0.47	26.019	1.32	73.981
2025	1.79	0.47	26.019	1.32	73.981
2026	1.79	0.47	26.019	1.32	73.981
2027	1.79	0.47	26.019	1.32	73.981
2028	1.79	0.47	26.019	1.32	73.981
Total	10.74	2.79	26.019	7.95	73.981
Average	1.79	0.47	26.019	1.32	73.981

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (4aST)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	11.64	4.02	34.561	7.62	65.439
Expected	10.74	2.79	26.019	7.95	73.981
Expected - Predicted	-0.90	-1.23		0.33	
Percent Difference	-8.37	-43.95		4.14	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected 4aST Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Bicycle	0.12	1.2	0.00	0.0	0.12	1.2
Intersection	Non-Collision	0.01	0.1	0.01	0.1	0.02	0.2
Intersection	Other Single-vehicle Collision	0.20	1.8	0.64	6.0	0.84	7.8
Intersection	Collision with Pedestrian	0.17	1.6	0.00	0.0	0.17	1.6
Intersection	Total Intersection Single Vehicle Crashes	0.50	4.7	0.65	6.1	1.15	10.7
Intersection	Angle Collision	1.34	12.5	3.82	35.6	5.16	48.0
Intersection	Head-on Collision	0.03	0.3	0.03	0.3	0.06	0.6
Intersection	Other Multi-vehicle Collision	0.31	2.9	0.68	6.3	0.98	9.2
Intersection	Rear-end Collision	0.58	5.4	2.40	22.3	2.98	27.8
Intersection	Sideswipe	0.04	0.3	0.36	3.4	0.40	3.8
Intersection	Total Intersection Multiple Vehicle Crashes	2.30	21.4	7.29	67.9	9.59	89.3
Intersection	Total Intersection Crashes	2.80	26.0	7.95	74.0	10.74	100.0
	Total Crashes	2.80	26.0	7.95	74.0	10.74	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Mar 23, 2023 11:41 AM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 17 10:55:18 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Old Red Trail
Site Set Comment: Created Tue Mar 14 07:53:46 MDT 2023
Site Set Version: v4

Evaluation Title: Existing
Evaluation Comment: Created Fri Mar 17 10:55:02 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2028
Empirical-Bayes Analysis: Site-Specific
Crash History Siteset: Old Red Trail
Crash History Siteset Comment: Created Tue Mar 14 07:53:46 MDT 2023
Crash History Siteset Version: 4
First Year of Observed Crashes: 2017
Last Year of Observed Crashes: 2022

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

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Section Types

Urban Arterial Site Set CPM Evaluation

Site Type

Type: 4SG
Calibration Factor: 1

Table 1. Observed Crashes Used in the Evaluation (4SG)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2017	1	1	0	0	1
2018	13	13	2	0	11
2019	6	6	3	0	3
2020	3	3	1	0	2
2021	9	9	4	0	5
2022	5	5	1	0	4
All Years	37 [1]	37	11	0	26

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation and Crash Data (CSD) (if applicable) Intersection Sites

Site No.	Type	Highway	Site Description	Major AADT	Minor AADT	Number of Approaches with Left-Turn Lanes	Number of Approaches with Right-Turn Lanes	Presence of Lighting	Number of Approaches with Permissive Left-Turn Phasing	Number of Approaches with Permissive/Protected or Protected/Permissive Left-Turn Phasing	Number of Approaches with Protected Left-Turn Phasing	Number of Approaches on which Right Turn on Red is Prohibited	Presence of Red-Light Cameras	Pedestrian Volumes Crossing all Intersection Legs (crossings/day)	Max. Number of Lanes Crossed by Pedestrians	Number of Bus Stops within 1000 ft of Intersection	Number of Schools within 1000 ft of Intersection	Number of Alcohol Sales Establishments within 1000 ft of Intersection
1	4SG2x2le5	CSD:Sunset Dr	Sunset Dr & Old Red Trail	2017-2022: 12695	2017-2022: 7750	2	2	yes	3	0	1	0	yes	50	4	0	0	0
1	4SG2x2le5	Sunset Dr	Sunset Dr & Old Red Trail	2023-2028: 12695	2023-2028: 7750	2	2	yes	3	0	1	0	yes	50	4	0	0	0

Table 3. Expected Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	4SG	Sunset Dr	Sunset Dr & Old Red Trail	33.377	13.942	5.5629	1.5360	4.0269	2.3237	0.7635	1.5602	3.2392	0.7725	2.4668	0.75	5.5629
		Total	Total	33.377	13.942	5.5629	1.5360	4.0269	2.3237	0.7635	1.5602	3.2392	0.7725	2.4668	0.75	5.5629

Table 4. Predicted Crash Frequencies by Year (4SG)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.32	0.76	32.857	1.56	67.143
2024	2.32	0.76	32.857	1.56	67.143
2025	2.32	0.76	32.857	1.56	67.143
2026	2.32	0.76	32.857	1.56	67.143
2027	2.32	0.76	32.857	1.56	67.143
2028	2.32	0.76	32.857	1.56	67.143
Total	13.94	4.58	32.857	9.36	67.143
Average	2.32	0.76	32.857	1.56	67.143

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Expected Crash Frequencies by Year (4SG)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	5.56	1.54	27.611	4.03	72.389
2024	5.56	1.54	27.611	4.03	72.389
2025	5.56	1.54	27.611	4.03	72.389
2026	5.56	1.54	27.611	4.03	72.389
2027	5.56	1.54	27.611	4.03	72.389
2028	5.56	1.54	27.611	4.03	72.389
Total	33.38	9.22	27.611	24.16	72.389
Average	5.56	1.54	27.611	4.03	72.389

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Comparing Predicted and Expected Crashes for the Evaluation Period (4SG)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	13.94	4.58	32.857	9.36	67.143
Expected	33.38	9.22	27.611	24.16	72.389
Expected - Predicted	19.43	4.63		14.80	
Percent Difference	58.23	50.29		61.26	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Expected 4SG Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Bicycle	0.20	0.6	0.00	0.0	0.20	0.6
Intersection	Collision with Fixed Object	0.20	0.6	0.63	1.9	0.83	2.5
Intersection	Non-Collision	0.04	0.1	0.03	0.1	0.06	0.2
Intersection	Collision with Other Object	0.02	0.1	0.05	0.2	0.07	0.2
Intersection	Other Single-vehicle Collision	0.01	0.0	0.02	0.1	0.03	0.1
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.13	0.4	0.00	0.0	0.13	0.4
Intersection	Total Intersection Single Vehicle Crashes	0.61	1.8	0.72	2.2	1.33	4.0
Intersection	Angle Collision	2.99	8.9	5.72	17.1	8.71	26.1
Intersection	Head-on Collision	0.42	1.3	0.70	2.1	1.12	3.4
Intersection	Other Multi-vehicle Collision	0.47	1.4	4.95	14.8	5.42	16.2
Intersection	Rear-end Collision	3.87	11.6	11.32	33.9	15.20	45.5
Intersection	Sideswipe	0.85	2.6	0.75	2.2	1.60	4.8
Intersection	Total Intersection Multiple Vehicle Crashes	8.61	25.8	23.44	70.2	32.05	96.0
Intersection	Total Intersection Crashes	9.22	27.6	24.16	72.4	33.38	100.0
	Total Crashes	9.22	27.6	24.16	72.4	33.38	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Single Point Urban Interchange (SPUI)

Report Overview

Report Generated: Apr 4, 2023 7:32 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:38:41 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: SPUI
Project Comment: Created Mon Mar 20 09:45:04 MDT 2023
Project Unit System: U.S. Customary

Site Set: Entrance Ramps
Site Set Comment: Created Mon Mar 20 15:21:48 MDT 2023
Site Set Version: v3

Evaluation Title: SPUI Entrance Ramps
Evaluation Comment: Created Tue Apr 04 14:38:25 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

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- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

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The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Entrance
Calibration Factor: ENT_RAMP_MV_FI=1.0, ENT_RAMP_MV_PDO=1.0, ENT_RAMP_SV_FI=1.0, ENT_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Entrance	I-94	I-94 WB On Ramp from Sunset Dr	0.3811	2023-2027: 865
2	One-lane Ramp Entrance	I-94	I-94 EB On Ramp from Sunset Dr	0.2174	2023-2027: 6525

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Entrance	I-94	I-94 WB On Ramp from Sunset Dr	0.3811	0.722	0.1443	0.0707	0.0737	0.3787	1.20
2	One-lane Ramp Entrance	I-94	I-94 EB On Ramp from Sunset Dr	0.2174	2.094	0.4188	0.2025	0.2163	1.9266	0.81
		Total	Total	0.5985	2.816	0.5632	0.2732	0.2900	0.9410	0.88

Table 3. Predicted Crash Frequencies by Year (Ramp Entrance)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.56	0.27	48.509	0.29	51.491
2024	0.56	0.27	48.509	0.29	51.491
2025	0.56	0.27	48.509	0.29	51.491
2026	0.56	0.27	48.509	0.29	51.491
2027	0.56	0.27	48.509	0.29	51.491
Total	2.82	1.37	48.509	1.45	51.491
Average	0.56	0.27	48.509	0.29	51.491

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Entrance Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0075	0.0228	0.1454	0.1775	0.3684
2	0.0216	0.0655	0.4169	0.5087	1.0815
Total	0.0291	0.0883	0.5623	0.6862	1.4499

Table 5. Predicted Entrance Ramp Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.00	0.2	0.03	0.9	0.03	1.1
Highway Segment	Collision with Fixed Object	0.81	28.6	0.82	29.2	1.63	57.9
Highway Segment	Collision with Other Object	0.06	2.0	0.16	5.7	0.22	7.7
Highway Segment	Other Single-vehicle Collision	0.23	8.2	0.12	4.4	0.35	12.6
Highway Segment	Collision with Parked Vehicle	0.02	0.6	0.02	0.7	0.04	1.2
Highway Segment	Total Single Vehicle Crashes	1.12	39.6	1.15	40.9	2.27	80.5
Highway Segment	Right-Angle Collision	0.01	0.3	0.01	0.2	0.01	0.5
Highway Segment	Head-on Collision	0.00	0.1	0.00	0.0	0.00	0.1
Highway Segment	Other Multi-vehicle Collision	0.01	0.3	0.01	0.3	0.01	0.5
Highway Segment	Rear-end Collision	0.19	6.7	0.21	7.3	0.39	14.0
Highway Segment	Sideswipe, Same Direction Collision	0.04	1.6	0.08	2.8	0.12	4.4
Highway Segment	Total Multiple Vehicle Crashes	0.25	8.9	0.30	10.6	0.55	19.5
Highway Segment	Total Highway Segment Crashes	1.37	48.5	1.45	51.5	2.82	100.0
	Total Crashes	1.37	48.5	1.45	51.5	2.82	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:33 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:38:58 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: SPUI
Project Comment: Created Mon Mar 20 09:45:04 MDT 2023
Project Unit System: U.S. Customary

Site Set: Exit Ramps
Site Set Comment: Created Mon Mar 20 15:44:08 MDT 2023
Site Set Version: v5

Evaluation Title: SPUI Exit Ramps
Evaluation Comment: Created Tue Apr 04 14:38:49 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Exit
Calibration Factor: EX_RAMP_MV_FI=1.0, EX_RAMP_MV_PDO=1.0, EX_RAMP_SV_FI=1.0, EX_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Exit	I-94	I-94 WB Off Ramp to Sunset Dr	0.1566	2023-2027: 6170
2	One-lane Ramp Exit	I-94	I-94 EB Off Ramp to Sunset Dr	0.2860	2023-2027: 700

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Exit	I-94	I-94 WB Off Ramp to Sunset Dr	0.1566	2.881	0.5763	0.2565	0.3198	3.6800	1.63
2	One-lane Ramp Exit	I-94	I-94 EB Off Ramp to Sunset Dr	0.2860	0.723	0.1446	0.0678	0.0769	0.5057	1.98
		Total	Total	0.4426	3.605	0.7209	0.3242	0.3967	1.6288	1.69

Table 3. Predicted Crash Frequencies by Year (Ramp Exit)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.72	0.32	44.976	0.40	55.024
2024	0.72	0.32	44.976	0.40	55.024
2025	0.72	0.32	44.976	0.40	55.024
2026	0.72	0.32	44.976	0.40	55.024
2027	0.72	0.32	44.976	0.40	55.024
Total	3.60	1.62	44.976	1.98	55.024
Average	0.72	0.32	44.976	0.40	55.024

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Exit Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0400	0.1214	0.5049	0.6160	1.5991
2	0.0106	0.0321	0.1334	0.1628	0.3844
Total	0.0506	0.1535	0.6383	0.7788	1.9834

Table 5. Predicted Exit Ramp Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.01	0.2	0.04	1.2	0.05	1.3
Highway Segment	Collision with Fixed Object	1.14	31.6	1.36	37.7	2.50	69.3
Highway Segment	Collision with Other Object	0.08	2.2	0.26	7.3	0.34	9.6
Highway Segment	Other Single-vehicle Collision	0.33	9.1	0.20	5.6	0.53	14.7
Highway Segment	Collision with Parked Vehicle	0.02	0.7	0.03	0.8	0.05	1.5
Highway Segment	Total Single Vehicle Crashes	1.58	43.8	1.90	52.7	3.48	96.5
Highway Segment	Right-Angle Collision	0.00	0.0	0.00	0.0	0.00	0.1
Highway Segment	Head-on Collision	0.00	0.0	0.00	0.0	0.00	0.0
Highway Segment	Other Multi-vehicle Collision	0.00	0.0	0.00	0.1	0.00	0.1
Highway Segment	Rear-end Collision	0.03	0.9	0.06	1.6	0.09	2.5
Highway Segment	Sideswipe, Same Direction Collision	0.01	0.2	0.02	0.6	0.03	0.8
Highway Segment	Total Multiple Vehicle Crashes	0.04	1.2	0.09	2.4	0.13	3.5
Highway Segment	Total Highway Segment Crashes	1.62	45.0	1.98	55.0	3.60	100.0
	Total Crashes	1.62	45.0	1.98	55.0	3.60	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:32 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:37:35 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: SPUI
Project Comment: Created Mon Mar 20 09:45:04 MDT 2023
Project Unit System: U.S. Customary

Site Set: Ramp Terminals
Site Set Comment: Created Mon Mar 20 09:45:12 MDT 2023
Site Set Version: v3

Evaluation Title: SPUI Ramp Terminals
Evaluation Comment: Created Tue Apr 04 14:37:22 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National

Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

Diamond Interchange Site Set CPM Evaluation

Site Type

Type: Single-point Diamond Interchange
Calibration Factor: SPDI_FI=1.0, SPDI_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Diamond Interchange - Homogeneous Sites

Site No.	Type	Diamond Interchange	Site Description	AADT
1	SPDI	I-94	I-94 and Sunset Dr	Crossroad: 2023-2027: 12695 :: Sum of Ramps: 2023-2027: 14260

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Diamond Interchange	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	SPDI	I-94	I-94 and Sunset Dr	6.426	1.2851	0.3206	0.9645	0.26	1.2851
		Total	Total	6.426	1.2851	0.3206	0.9645	0.26	1.2851

Table 3. Predicted Crash Frequencies by Year (Single-point Diamond Interchange)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.28	0.32	24.948	0.96	75.052
2024	1.28	0.32	24.948	0.96	75.052
2025	1.28	0.32	24.948	0.96	75.052
2026	1.28	0.32	24.948	0.96	75.052
2027	1.28	0.32	24.948	0.96	75.052
Total	6.43	1.60	24.948	4.82	75.052
Average	1.28	0.32	24.948	0.96	75.052

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Single-point Diamond Interchange Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0096	0.0753	0.4457	1.0724	4.8225
Total	0.0096	0.0753	0.4457	1.0724	4.8225

Table 5. Predicted Single-point Diamond Interchange Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Diamond Interchange	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Diamond Interchange	Collision with Fixed Object	0.07	1.1	0.22	3.5	0.30	4.6
Diamond Interchange	Collision with Other Object	0.00	0.1	0.01	0.1	0.01	0.1
Diamond Interchange	Other Single-vehicle Collision	0.02	0.3	0.02	0.4	0.04	0.7
Diamond Interchange	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Diamond Interchange	Total Single Vehicle Crashes	0.10	1.5	0.25	3.9	0.35	5.4
Diamond Interchange	Right-Angle Collision	0.21	3.2	0.39	6.0	0.59	9.2
Diamond Interchange	Head-on Collision	0.06	0.8	0.03	0.5	0.08	1.3
Diamond Interchange	Other Multi-vehicle Collision	0.02	0.3	0.03	0.5	0.05	0.7
Diamond Interchange	Rear-end Collision	1.06	16.5	3.59	55.8	4.65	72.4
Diamond Interchange	Sideswipe, Same Direction Collision	0.06	1.0	0.54	8.4	0.60	9.4
Diamond Interchange	Total Multiple Vehicle Crashes	1.40	21.9	4.57	71.1	5.98	93.0
Diamond Interchange	Collision with Bicycle	0.07	1.0	0.00	0.0	0.07	1.0
Diamond Interchange	Collision with Pedestrian	0.03	0.5	0.00	0.0	0.03	0.5
Diamond Interchange	Total Non-Motorized Crashes	0.10	1.6	0.00	0.0	0.10	1.6
Diamond Interchange	Total Diamond Interchange Crashes	1.60	24.9	4.82	75.1	6.43	100.0
	Total Crashes	1.60	24.9	4.82	75.1	6.43	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Partial Cloverleaf (Parclo)

Report Overview

Report Generated: Apr 4, 2023 7:30 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:35:20 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Parclo A
Project Comment: Created Mon Mar 20 09:12:59 MDT 2023
Project Unit System: U.S. Customary

Site Set: Freeway Segments
Site Set Comment: Created Tue Mar 21 11:13:27 MDT 2023
Site Set Version: v3

Evaluation Title: Parclo Freeway Segments
Evaluation Comment: Created Tue Apr 04 14:35:08 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Section Types

Freeway Segment Site Set CPM Evaluation

Site Type

Type: Freeway
Calibration Factor: FI_MV=1.0, PDO_MV=1.0, FI_SV=1.0, PDO_SV=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Freeway Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Four-lane Freeway	I-94	0.25 mi decreasing from the beginning of site 2	0.2500	2023-2027: 10725
2	Four-lane Freeway	I-94	End of site 1 increasing to scenic overlook exit ramp gore	0.0500	2023-2027: 10725
3	Four-lane Freeway	I-94	End of site 2 increasing to end of I-94 WB On ramp	0.1000	2023-2027: 10665
4	Four-lane Freeway	I-94	End of site 3 increasing to scenic overlook entrance ramp gore	0.0800	2023-2027: 10665
5	Five-lane Freeway	I-94	End of site 4 increasing to I-94 WB on ramp gore	0.0500	2023-2027: 10725
6	Five-lane Freeway	I-94	End of site 5 increasing to I-94 EB off ramp gore	0.1300	2023-2027: 9860
7	Four-lane Freeway	I-94	End of site 6 increasing to I-94 EB (SB Sunset) on ramp gore	0.2600	2023-2027: 9160
8	Five-lane Freeway	I-94	End of site 7 increasing to I-94 WB off ramp gore	0.1800	2023-2027: 11335
9	Five-lane Freeway	I-94	End of site 8 increasing to I-94 EB (NB sunset) on ramp gore	0.0800	2023-2027: 17505
10	Five-lane Freeway	I-94	End of site 9 increasing toend of I-94 EB (NB sunset) on ramp	0.1300	2023-2027: 21855
11	Five-lane Freeway	I-94	End of site 10 increasing to lane drop	0.0700	2023-2027: 21855
12	Four-lane Freeway	I-94	End of site 11 increasing to 0.25 mi downstream	0.2500	2023-2027: 21855

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	Four-lane Freeway	I-94	0.25 mi decreasing from the beginning of site 2	0.2500	2.035	0.4070	0.1521	0.2549	1.6278	0.42
2	Four-lane Freeway	I-94	End of site 1 increasing to scenic overlook exit ramp gore	0.0000	0.000	0.0000	0.0000	0.0000		
3	Four-lane Freeway	I-94	End of site 2 increasing to end of I-94 WB On ramp	0.1000	0.809	0.1619	0.0619	0.1000	1.6190	0.42
4	Four-lane Freeway	I-94	End of site 3 increasing to scenic overlook entrance ramp gore	0.0000	0.000	0.0000	0.0000	0.0000		
5	Five-lane Freeway	I-94	End of site 4 increasing to I-94 WB on ramp gore	0.0000	0.000	0.0000	0.0000	0.0000		
6	Five-lane Freeway	I-94	End of site 5 increasing to I-94 EB off ramp gore	0.0000	0.000	0.0000	0.0000	0.0000		
7	Four-lane Freeway	I-94	End of site 6 increasing to I-94 EB (SB Sunset) on ramp gore	0.2600	1.829	0.3659	0.1365	0.2294	1.4073	0.42
8	Five-lane Freeway	I-94	End of site 7 increasing to I-94 WB off ramp gore	0.1800	1.726	0.3453	0.1356	0.2097	1.9184	0.46
9	Five-lane Freeway	I-94	End of site 8 increasing to I-94 EB (NB sunset) on ramp gore	0.0000	0.000	0.0000	0.0000	0.0000		
10	Five-lane Freeway	I-94	End of site 9 increasing toend of I-94 EB (NB sunset) on ramp	0.0000	0.000	0.0000	0.0000	0.0000		
11	Five-lane Freeway	I-94	End of site 10 increasing to lane drop	0.0700	1.175	0.2349	0.0811	0.1538	3.3560	0.42
12	Four-lane Freeway	I-94	End of site 11 increasing to 0.25 mi downstream	0.2500	4.262	0.8524	0.2838	0.5686	3.4097	0.43
		Total	Total	1.1100	11.837	2.3674	0.8510	1.5164	2.1328	

Table 3. Predicted Crash Frequencies by Year (Freeway)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.37	0.85	35.948	1.52	64.052
2024	2.37	0.85	35.948	1.52	64.052
2025	2.37	0.85	35.948	1.52	64.052
2026	2.37	0.85	35.948	1.52	64.052
2027	2.37	0.85	35.948	1.52	64.052
Total	11.84	4.25	35.948	7.58	64.052
Average	2.37	0.85	35.948	1.52	64.052

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Freeway Sites Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0160	0.0398	0.2687	0.4358	1.2745
2	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0065	0.0162	0.1093	0.1773	0.5002
4	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000	0.0000
7	0.0137	0.0358	0.2345	0.3988	1.1468
8	0.0114	0.0298	0.2135	0.4235	1.0483
9	0.0000	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000	0.0000
11	0.0074	0.0191	0.1335	0.2454	0.7692
12	0.0260	0.0667	0.4674	0.8591	2.8429
Total	0.0810	0.2073	1.4269	2.5399	7.5819

Table 5. Predicted Freeway Site Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.01	0.1	0.13	1.1	0.14	1.2
Highway Segment	Collision with Fixed Object	2.07	17.5	4.32	36.5	6.38	53.9
Highway Segment	Collision with Other Object	0.15	1.2	0.84	7.1	0.98	8.3
Highway Segment	Other Single-vehicle Collision	0.60	5.0	0.65	5.5	1.24	10.5
Highway Segment	Collision with Parked Vehicle	0.04	0.4	0.10	0.8	0.14	1.2
Highway Segment	Total Single Vehicle Crashes	2.87	24.2	6.03	50.9	8.89	75.1
Highway Segment	Right-Angle Collision	0.04	0.4	0.03	0.2	0.07	0.6
Highway Segment	Head-on Collision	0.01	0.1	0.00	0.0	0.01	0.1
Highway Segment	Other Multi-vehicle Collision	0.04	0.4	0.04	0.3	0.08	0.7
Highway Segment	Rear-end Collision	1.04	8.8	1.07	9.1	2.11	17.9
Highway Segment	Sideswipe, Same Direction Collision	0.25	2.1	0.41	3.5	0.66	5.6
Highway Segment	Total Multiple Vehicle Crashes	1.39	11.7	1.55	13.1	2.94	24.9
Highway Segment	Total Highway Segment Crashes	4.25	35.9	7.58	64.1	11.84	100.0
	Total Crashes	4.25	35.9	7.58	64.1	11.84	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Evaluation Message

Message
Information: SiteFRE_SEG :Site number 5 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway
Information: SiteFRE_SEG :Site number 6 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway
Information: SiteFRE_SEG :Site number 8 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway
Information: SiteFRE_SEG :Site number 9 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway
Information: SiteFRE_SEG :Site number 10 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway
Information: SiteFRE_SEG :Site number 11 - Freeway Segment of type Five-lane Freeway is using unbalanced lane processing with types Four-lane Freeway and Six-lane Freeway

Report Overview

Report Generated: Apr 4, 2023 7:29 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:33:59 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Parclo A
Project Comment: Created Mon Mar 20 09:12:59 MDT 2023
Project Unit System: U.S. Customary

Site Set: Entrance Ramps
Site Set Comment: Created Tue Mar 21 10:53:36 MDT 2023
Site Set Version: v3

Evaluation Title: Parclo Entrance Ramps
Evaluation Comment: Created Tue Apr 04 14:33:37 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

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- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
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However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

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Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Entrance
Calibration Factor: ENT_RAMP_MV_FI=1.0, ENT_RAMP_MV_PDO=1.0, ENT_RAMP_SV_FI=1.0, ENT_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Entrance	I-94	I-94 WB from Sunset Dr	0.2687	2023-2027: 865
2	One-lane Ramp Entrance	I-94	I-94 EB from NB Sunset Dr	0.1782	2023-2027: 2175
3	One-lane Ramp Entrance	I-94	I-94 EB from SB Sunset Dr	0.2693	2023-2027: 4350

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Entrance	I-94	I-94 WB from Sunset Dr	0.2687	0.511	0.1022	0.0500	0.0522	0.3802	1.20
2	One-lane Ramp Entrance	I-94	I-94 EB from NB Sunset Dr	0.1782	1.790	0.3581	0.1569	0.2012	2.0096	2.53
3	One-lane Ramp Entrance	I-94	I-94 EB from SB Sunset Dr	0.2693	4.686	0.9371	0.4070	0.5301	3.4798	2.19
		Total	Total	0.7163	6.987	1.3974	0.6139	0.7835	1.9510	2.14

Table 3. Predicted Crash Frequencies by Year (Ramp Entrance)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.40	0.61	43.933	0.78	56.067
2024	1.40	0.61	43.933	0.78	56.067
2025	1.40	0.61	43.933	0.78	56.067
2026	1.40	0.61	43.933	0.78	56.067
2027	1.40	0.61	43.933	0.78	56.067
Total	6.99	3.07	43.933	3.92	56.067
Average	1.40	0.61	43.933	0.78	56.067

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Entrance Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0053	0.0162	0.1029	0.1256	0.2610
2	0.0167	0.0507	0.3230	0.3942	1.0059
3	0.0434	0.1316	0.8377	1.0222	2.6506
Total	0.0655	0.1985	1.2637	1.5419	3.9174

Table 5. Predicted Entrance Ramp Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.01	0.2	0.08	1.1	0.09	1.3
Highway Segment	Collision with Fixed Object	1.96	28.1	2.54	36.3	4.50	64.4
Highway Segment	Collision with Other Object	0.14	2.0	0.49	7.0	0.63	9.0
Highway Segment	Other Single-vehicle Collision	0.56	8.1	0.38	5.4	0.94	13.5
Highway Segment	Collision with Parked Vehicle	0.04	0.6	0.06	0.8	0.10	1.4
Highway Segment	Total Single Vehicle Crashes	2.72	38.9	3.54	50.7	6.26	89.6
Highway Segment	Right-Angle Collision	0.01	0.2	0.01	0.1	0.02	0.3
Highway Segment	Head-on Collision	0.00	0.0	0.00	0.0	0.00	0.1
Highway Segment	Other Multi-vehicle Collision	0.01	0.2	0.01	0.1	0.02	0.3
Highway Segment	Rear-end Collision	0.27	3.8	0.26	3.7	0.52	7.5
Highway Segment	Sideswipe, Same Direction Collision	0.06	0.9	0.10	1.4	0.16	2.3
Highway Segment	Total Multiple Vehicle Crashes	0.35	5.1	0.38	5.4	0.73	10.4
Highway Segment	Total Highway Segment Crashes	3.07	43.9	3.92	56.1	6.99	100.0
	Total Crashes	3.07	43.9	3.92	56.1	6.99	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:30 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:36:02 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Parclo A
Project Comment: Created Mon Mar 20 09:12:59 MDT 2023
Project Unit System: U.S. Customary

Site Set: Entrance SCL
Site Set Comment: Created Tue Mar 21 11:20:40 MDT 2023
Site Set Version: v3

Evaluation Title: Parclo Entrance SCL
Evaluation Comment: Created Tue Apr 04 14:35:35 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Section Types

Freeway Speed Change Site Set CPM Evaluation

Site Type

Type: Ramp Entrance Speed Change
Calibration Factor: FI_EN=1.0, PDO_EN=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Speed Change Lanes - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Five-lane Freeway Speed Change	I-94	I-94 WB On Ramp SCL (1)	0.0800	2023-2027: 10725
2	Four-lane Freeway Speed Change	I-94	I-94 WB On Ramp SCL (2)	0.0500	2023-2027: 10725
3	Five-lane Freeway Speed Change	I-94	I-94 EB On Ramp SCL	0.1300	2023-2027: 21855

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	Five-lane Freeway Speed Change	I-94	I-94 WB On Ramp SCL (1)	0.0800	0.309	0.0618	0.0165	0.0452	0.7719	0.39
2	Four-lane Freeway Speed Change	I-94	I-94 WB On Ramp SCL (2)	0.0500	0.213	0.0426	0.0116	0.0310	0.8514	0.43
3	Five-lane Freeway Speed Change	I-94	I-94 EB On Ramp SCL	0.1300	1.239	0.2478	0.0737	0.1741	1.9062	0.48
		Total	Total	0.2600	1.761	0.3521	0.1018	0.2503	1.3544	0.46

Table 3. Predicted Crash Frequencies by Year (Ramp Entrance Speed Change)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.35	0.10	28.915	0.25	71.085
2024	0.35	0.10	28.915	0.25	71.085
2025	0.35	0.10	28.915	0.25	71.085
2026	0.35	0.10	28.915	0.25	71.085
2027	0.35	0.10	28.915	0.25	71.085
Total	1.76	0.51	28.915	1.25	71.085
Average	0.35	0.10	28.915	0.25	71.085

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Entrance Speed Change Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0016	0.0040	0.0275	0.0494	0.2262
2	0.0011	0.0028	0.0194	0.0347	0.1548
3	0.0070	0.0180	0.1233	0.2202	0.8706
Total	0.0096	0.0249	0.1702	0.3044	1.2516

Table 5. Predicted Entrance Speed Change Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.00	0.0	0.00	0.1	0.00	0.1
Highway Segment	Collision with Fixed Object	0.10	5.6	0.16	9.2	0.26	14.8
Highway Segment	Collision with Other Object	0.01	0.5	0.04	2.6	0.06	3.1
Highway Segment	Other Single-vehicle Collision	0.03	1.9	0.02	1.1	0.05	3.1
Highway Segment	Collision with Parked Vehicle	0.00	0.1	0.00	0.2	0.01	0.3
Highway Segment	Total Single Vehicle Crashes	0.14	8.2	0.23	13.2	0.38	21.4
Highway Segment	Right-Angle Collision	0.01	0.5	0.02	1.1	0.03	1.7
Highway Segment	Head-on Collision	0.00	0.1	0.00	0.1	0.00	0.2
Highway Segment	Other Multi-vehicle Collision	0.01	0.5	0.02	1.1	0.03	1.6
Highway Segment	Rear-end Collision	0.28	15.7	0.66	37.7	0.94	53.4
Highway Segment	Sideswipe, Same Direction Collision	0.07	3.8	0.32	17.9	0.38	21.8
Highway Segment	Total Multiple Vehicle Crashes	0.36	20.7	1.02	57.9	1.38	78.6
Highway Segment	Total Highway Segment Crashes	0.51	28.9	1.25	71.1	1.76	100.0
	Total Crashes	0.51	28.9	1.25	71.1	1.76	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Evaluation Message

Message
Information: SiteFRE_SC_EN :Site number 1 - Freeway Speed Change Segment of type Five-lane Freeway Speed Change is using unbalanced lane processing with types Four-lane Freeway Speed Change and Six-lane Freeway Speed Change
Information: SiteFRE_SC_EN :Site number 3 - Freeway Speed Change Segment of type Five-lane Freeway Speed Change is using unbalanced lane processing with types Four-lane Freeway Speed Change and Six-lane Freeway Speed Change

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IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Parclo A
Project Comment: Created Mon Mar 20 09:12:59 MDT 2023
Project Unit System: U.S. Customary

Site Set: Exit Ramps
Site Set Comment: Created Tue Mar 21 10:53:55 MDT 2023
Site Set Version: v3

Evaluation Title: Parclo Exit Ramps
Evaluation Comment: Created Tue Apr 04 14:34:07 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Exit
Calibration Factor: EX_RAMP_MV_FI=1.0, EX_RAMP_MV_PDO=1.0, EX_RAMP_SV_FI=1.0, EX_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Exit	I-94	I-94 WB to Sunset Dr	0.1987	2023-2027: 6170
2	One-lane Ramp Exit	I-94	I-94 EB to Sunset Dr	0.3528	2023-2027: 700

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Exit	I-94	I-94 WB to Sunset Dr	0.1987	2.821	0.5643	0.2572	0.3070	2.8399	1.26
2	One-lane Ramp Exit	I-94	I-94 EB to Sunset Dr	0.3528	0.679	0.1358	0.0658	0.0700	0.3850	1.51
		Total	Total	0.5515	3.501	0.7001	0.3231	0.3771	1.2695	1.30

Table 3. Predicted Crash Frequencies by Year (Ramp Exit)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.70	0.32	46.145	0.38	53.855
2024	0.70	0.32	46.145	0.38	53.855
2025	0.70	0.32	46.145	0.38	53.855
2026	0.70	0.32	46.145	0.38	53.855
2027	0.70	0.32	46.145	0.38	53.855
Total	3.50	1.61	46.145	1.89	53.855
Average	0.70	0.32	46.145	0.38	53.855

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Exit Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0402	0.1218	0.5064	0.6179	1.5352
2	0.0103	0.0312	0.1296	0.1581	0.3500
Total	0.0504	0.1530	0.6360	0.7760	1.8853

Table 5. Predicted Exit Ramp Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.01	0.2	0.04	1.1	0.05	1.3
Highway Segment	Collision with Fixed Object	1.13	32.3	1.28	36.5	2.41	68.9
Highway Segment	Collision with Other Object	0.08	2.3	0.25	7.1	0.33	9.4
Highway Segment	Other Single-vehicle Collision	0.33	9.3	0.19	5.5	0.52	14.8
Highway Segment	Collision with Parked Vehicle	0.02	0.7	0.03	0.8	0.05	1.5
Highway Segment	Total Single Vehicle Crashes	1.57	44.8	1.79	51.0	3.35	95.8
Highway Segment	Right-Angle Collision	0.00	0.0	0.00	0.1	0.00	0.1
Highway Segment	Head-on Collision	0.00	0.0	0.00	0.0	0.00	0.0
Highway Segment	Other Multi-vehicle Collision	0.00	0.0	0.00	0.1	0.00	0.1
Highway Segment	Rear-end Collision	0.04	1.0	0.07	1.9	0.10	3.0
Highway Segment	Sideswipe, Same Direction Collision	0.01	0.2	0.03	0.8	0.04	1.0
Highway Segment	Total Multiple Vehicle Crashes	0.05	1.4	0.10	2.8	0.15	4.2
Highway Segment	Total Highway Segment Crashes	1.61	46.1	1.89	53.9	3.50	100.0
	Total Crashes	1.61	46.1	1.89	53.9	3.50	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:31 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:36:18 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Parclo A
Project Comment: Created Mon Mar 20 09:12:59 MDT 2023
Project Unit System: U.S. Customary

Site Set: Exit SCL
Site Set Comment: Created Tue Mar 21 11:20:54 MDT 2023
Site Set Version: v3

Evaluation Title: Parclo Exit SCL
Evaluation Comment: Created Tue Apr 04 14:36:07 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

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- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

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Section Types

Freeway Speed Change Site Set CPM Evaluation

Site Type

Type: Ramp Exit Speed Change
Calibration Factor: FI_EX=1.0, PDO_EX=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Speed Change Lanes - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Five-lane Freeway Speed Change	I-94	I-94 WB Off Ramp SCL	0.0776	2023-2027: 21855

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	Five-lane Freeway Speed Change	I-94	I-94 WB Off Ramp SCL	0.0776	1.034	0.2067	0.0609	0.1458	2.6638	0.67
		Total	Total	0.0776	1.034	0.2067	0.0609	0.1458	2.6638	0.67

Table 3. Predicted Crash Frequencies by Year (Ramp Exit Speed Change)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.21	0.06	29.471	0.15	70.529
2024	0.21	0.06	29.471	0.15	70.529
2025	0.21	0.06	29.471	0.15	70.529
2026	0.21	0.06	29.471	0.15	70.529
2027	0.21	0.06	29.471	0.15	70.529
Total	1.03	0.30	29.471	0.73	70.529
Average	0.21	0.06	29.471	0.15	70.529

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Exit Speed Change Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0062	0.0162	0.1053	0.1769	0.7290
Total	0.0062	0.0162	0.1053	0.1769	0.7290

Table 5. Predicted Exit Speed Change Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.00	0.0	0.01	0.5	0.01	0.5
Highway Segment	Collision with Fixed Object	0.06	5.8	0.15	14.6	0.21	20.4
Highway Segment	Collision with Other Object	0.01	0.5	0.02	2.1	0.03	2.6
Highway Segment	Other Single-vehicle Collision	0.01	1.4	0.02	1.6	0.03	3.1
Highway Segment	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Highway Segment	Total Single Vehicle Crashes	0.08	7.7	0.20	18.8	0.27	26.5
Highway Segment	Right-Angle Collision	0.00	0.3	0.01	0.8	0.01	1.2
Highway Segment	Head-on Collision	0.00	0.1	0.00	0.1	0.00	0.3
Highway Segment	Other Multi-vehicle Collision	0.01	0.5	0.01	1.1	0.02	1.6
Highway Segment	Rear-end Collision	0.17	16.2	0.41	39.8	0.58	56.0
Highway Segment	Sideswipe, Same Direction Collision	0.05	4.7	0.10	9.7	0.15	14.4
Highway Segment	Total Multiple Vehicle Crashes	0.23	21.8	0.53	51.7	0.76	73.5
Highway Segment	Total Highway Segment Crashes	0.30	29.5	0.73	70.5	1.03	100.0
	Total Crashes	0.30	29.5	0.73	70.5	1.03	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the

distribution of these three crashes had been derived independently.

Table 6. Evaluation Message

Message
Information: SiteFRE_SC_EX :Site number 1 - Freeway Speed Change Segment of type Five-lane Freeway Speed Change is using unbalanced lane processing with types Four-lane Freeway Speed Change and Six-lane Freeway Speed Change

Report Overview

Report Generated: Apr 4, 2023 2:40 PM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 14:33:26 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Parclo A
Project Comment: Created Mon Mar 20 09:12:59 MDT 2023
Project Unit System: U.S. Customary

Site Set: Ramp Terminals
Site Set Comment: Created Mon Mar 20 09:13:15 MDT 2023
Site Set Version: v7

Evaluation Title: Parclo Ramp Terminals
Evaluation Comment: Created Tue Apr 04 14:33:11 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

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Section Types

Freeway Ramp Terminal Site Set CPM Evaluation

Site Type

Type: Ramp Terminal
Calibration Factor: RT_ST_FI=1.0, RT_ST_PDO=1.0, RT_SG_FI=1.0, RT_SG_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Terminal - Homogeneous Sites

Site No.	Type	Ramp Terminal	Site Description	Area Type	Traffic Control	AADT
1	D4 - Four-Leg with Diagonal Ramps	I-94	Sunset Dr & I-94 WB	Urban	Signalized	Inside: 2023-2027: 3760; Outside: 2023-2027: 9800 :: Entrance: 2023-2027: 865; Exit: 2023-2027: 6170
2	A4 - Four-Leg at Four-Quadrant Parclo A	I-94	Sunset Dr & I-94 EB	Urban	Signalized	Inside: 2023-2027: 8935; Outside: 2023-2027: 10285 :: Entrance: 2023-2027: 6525; Exit: 2023-2027: 700

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Ramp Terminal	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	D4 - Four-Leg with Diagonal Ramps	I-94	Sunset Dr & I-94 WB	9.737	1.9475	0.7216	1.2259	0.52	1.9475
2	A4 - Four-Leg at Four-Quadrant Parclo A	I-94	Sunset Dr & I-94 EB	8.485	1.6970	0.7935	0.9035	0.35	1.6970
		Total	Total	18.222	3.6445	1.5151	2.1293	0.42	3.6445

Table 3. Predicted Crash Frequencies by Year (Ramp Terminal)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	3.64	1.51	41.574	2.13	58.426
2024	3.64	1.51	41.574	2.13	58.426
2025	3.64	1.51	41.574	2.13	58.426
2026	3.64	1.51	41.574	2.13	58.426
2027	3.64	1.51	41.574	2.13	58.426
Total	18.22	7.58	41.574	10.65	58.426
Average	3.64	1.51	41.574	2.13	58.426

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Ramp Terminal Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0042	0.1061	0.6323	2.8653	6.1293
2	0.0047	0.1167	0.6954	3.1510	4.5174
Total	0.0089	0.2227	1.3277	6.0163	10.6466

Table 5. Predicted Ramp Terminal Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Ramp Terminal	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Ramp Terminal	Collision with Fixed Object	0.25	1.4	0.53	2.9	0.78	4.3
Ramp Terminal	Collision with Other Object	0.01	0.0	0.02	0.1	0.03	0.2
Ramp Terminal	Other Single-vehicle Collision	0.14	0.7	0.07	0.4	0.21	1.2
Ramp Terminal	Collision with Parked Vehicle	0.01	0.0	0.02	0.1	0.03	0.2
Ramp Terminal	Total Single Vehicle Crashes	0.40	2.2	0.65	3.6	1.05	5.8
Ramp Terminal	Right-Angle Collision	1.97	10.8	2.34	12.9	4.31	23.7
Ramp Terminal	Head-on Collision	0.08	0.5	0.07	0.4	0.16	0.9
Ramp Terminal	Other Multi-vehicle Collision	0.07	0.4	0.21	1.2	0.28	1.5
Ramp Terminal	Rear-end Collision	4.74	26.0	5.78	31.7	10.52	57.7
Ramp Terminal	Sideswipe, Same Direction Collision	0.32	1.7	1.59	8.7	1.91	10.5
Ramp Terminal	Total Multiple Vehicle Crashes	7.17	39.4	10.00	54.9	17.17	94.2
Ramp Terminal	Total Ramp Terminal Crashes	7.58	41.6	10.65	58.4	18.22	100.0
	Total Crashes	7.58	41.6	10.65	58.4	18.22	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Diverging Diamond Interchange (DDI)

Report Overview

Report Generated: Apr 4, 2023 8:06 PM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 20:05:06 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Entrance Ramps (DDI)
Site Set Comment: Copied from Entrance Ramps (v5)
Site Set Version: v2

Evaluation Title: DDI Entrance Ramps
Evaluation Comment: Created Tue Apr 04 20:04:48 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

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Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Entrance
Calibration Factor: ENT_RAMP_MV_FI=1.0, ENT_RAMP_MV_PDO=1.0, ENT_RAMP_SV_FI=1.0, ENT_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Entrance	I-94	I-94 WB On Ramp	0.3500	2023-2027: 865
2	One-lane Ramp Entrance	I-94	I-94 EB On Ramp	0.1800	2023-2027: 6525
3	One-lane Ramp Entrance	I-94	Scenic Overlook On Ramp	0.0700	2023-2027: 60

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Entrance	I-94	I-94 WB On Ramp	0.3500	1.178	0.2356	0.1076	0.1280	0.6731	2.13
2	One-lane Ramp Entrance	I-94	I-94 EB On Ramp	0.1800	2.855	0.5710	0.2510	0.3200	3.1721	1.33
3	One-lane Ramp Entrance	I-94	Scenic Overlook On Ramp	0.0700	0.023	0.0045	0.0023	0.0023	0.0647	2.96
		Total	Total	0.6000	4.055	0.8111	0.3608	0.4503	1.3518	1.50

Table 3. Predicted Crash Frequencies by Year (Ramp Entrance)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.81	0.36	44.483	0.45	55.517
2024	0.81	0.36	44.483	0.45	55.517
2025	0.81	0.36	44.483	0.45	55.517
2026	0.81	0.36	44.483	0.45	55.517
2027	0.81	0.36	44.483	0.45	55.517
Total	4.05	1.80	44.483	2.25	55.517
Average	0.81	0.36	44.483	0.45	55.517

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Entrance Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0115	0.0348	0.2214	0.2702	0.6401
2	0.0268	0.0811	0.5166	0.6303	1.6001
3	0.0002	0.0007	0.0047	0.0057	0.0113
Total	0.0385	0.1167	0.7427	0.9062	2.2514

Table 5. Predicted Entrance Ramp Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.01	0.2	0.04	1.1	0.05	1.2
Highway Segment	Collision with Fixed Object	1.12	27.7	1.40	34.5	2.52	62.1
Highway Segment	Collision with Other Object	0.08	2.0	0.27	6.7	0.35	8.6
Highway Segment	Other Single-vehicle Collision	0.32	8.0	0.21	5.2	0.53	13.1
Highway Segment	Collision with Parked Vehicle	0.02	0.6	0.03	0.8	0.06	1.3
Highway Segment	Total Single Vehicle Crashes	1.55	38.3	1.95	48.2	3.51	86.5
Highway Segment	Right-Angle Collision	0.01	0.2	0.01	0.1	0.01	0.3
Highway Segment	Head-on Collision	0.00	0.0	0.00	0.0	0.00	0.1
Highway Segment	Other Multi-vehicle Collision	0.01	0.2	0.01	0.2	0.01	0.4
Highway Segment	Rear-end Collision	0.19	4.6	0.21	5.1	0.39	9.7
Highway Segment	Sideswipe, Same Direction Collision	0.04	1.1	0.08	2.0	0.12	3.1
Highway Segment	Total Multiple Vehicle Crashes	0.25	6.2	0.30	7.4	0.55	13.5
Highway Segment	Total Highway Segment Crashes	1.80	44.5	2.25	55.5	4.05	100.0
	Total Crashes	1.80	44.5	2.25	55.5	4.05	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 8:06 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 20:05:28 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Exit Ramps (DDI)
Site Set Comment: Copied from Exit Ramps (v6)
Site Set Version: v2

Evaluation Title: DDI Exit Ramps
Evaluation Comment: Created Tue Apr 04 20:05:13 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

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- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

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Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Exit
Calibration Factor: EX_RAMP_MV_FI=1.0, EX_RAMP_MV_PDO=1.0, EX_RAMP_SV_FI=1.0, EX_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	Two-lane Ramp Exit	I-94	I-94 WB Off Ramp	0.2000	2023-2027: 6170
2	Two-lane Ramp Exit	I-94	I-94 EB Off Ramp	0.3500	2023-2027: 700
3	Two-lane Ramp Exit	I-94	Mandan Scenic Overlook Off Ramp	0.0600	2023-2027: 60

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	Two-lane Ramp Exit	I-94	I-94 WB Off Ramp	0.2000	6.321	1.2642	0.4446	0.8196	6.3212	2.81
2	Two-lane Ramp Exit	I-94	I-94 EB Off Ramp	0.3500	1.748	0.3496	0.1340	0.2156	0.9987	3.91
3	Two-lane Ramp Exit	I-94	Mandan Scenic Overlook Off Ramp	0.0600	0.027	0.0054	0.0022	0.0031	0.0894	4.08
		Total	Total	0.6100	8.096	1.6191	0.5808	1.0383	2.6543	2.99

Table 3. Predicted Crash Frequencies by Year (Ramp Exit)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.62	0.58	35.873	1.04	64.127
2024	1.62	0.58	35.873	1.04	64.127
2025	1.62	0.58	35.873	1.04	64.127
2026	1.62	0.58	35.873	1.04	64.127
2027	1.62	0.58	35.873	1.04	64.127
Total	8.10	2.90	35.873	5.19	64.127
Average	1.62	0.58	35.873	1.04	64.127

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Exit Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0662	0.2006	0.6781	1.2783	4.0980
2	0.0199	0.0604	0.2043	0.3852	1.0779
3	0.0003	0.0010	0.0034	0.0064	0.0157
Total	0.0864	0.2620	0.8858	1.6699	5.1916

Table 5. Predicted Exit Ramp Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Highway Segment	Collision with Animal	0.01	0.1	0.11	1.3	0.12	1.5
Highway Segment	Collision with Fixed Object	2.02	24.9	3.51	43.4	5.53	68.3
Highway Segment	Collision with Other Object	0.14	1.8	0.68	8.4	0.82	10.2
Highway Segment	Other Single-vehicle Collision	0.58	7.2	0.53	6.5	1.11	13.7
Highway Segment	Collision with Parked Vehicle	0.04	0.5	0.08	1.0	0.12	1.5
Highway Segment	Total Single Vehicle Crashes	2.80	34.6	4.90	60.6	7.70	95.1
Highway Segment	Right-Angle Collision	0.00	0.0	0.01	0.1	0.01	0.1
Highway Segment	Head-on Collision	0.00	0.0	0.00	0.0	0.00	0.0
Highway Segment	Other Multi-vehicle Collision	0.00	0.0	0.01	0.1	0.01	0.1
Highway Segment	Rear-end Collision	0.08	1.0	0.20	2.5	0.28	3.4
Highway Segment	Sideswipe, Same Direction Collision	0.02	0.2	0.08	0.9	0.10	1.2
Highway Segment	Total Multiple Vehicle Crashes	0.11	1.3	0.29	3.6	0.40	4.9
Highway Segment	Total Highway Segment Crashes	2.90	35.9	5.19	64.1	8.10	100.0
	Total Crashes	2.90	35.9	5.19	64.1	8.10	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 8:05 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 20:04:41 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Ramp Terminals (DDI)
Site Set Comment: Copied from Ramp Terminals (v9)
Site Set Version: v2

Evaluation Title: DDI Ramp Terminals
Evaluation Comment: Created Tue Apr 04 20:04:20 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

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Section Types

Freeway Ramp Terminal Site Set CPM Evaluation

Site Type

Type: Ramp Terminal
Calibration Factor: RT_ST_FI=1.0, RT_ST_PDO=1.0, RT_SG_FI=1.0, RT_SG_PDO=1.0

Table 1. User Defined CMF Used in the Intersection CPM Evaluation (SSCPMFreewayRampTerminal)

Site No.	Name	Description	Severity	CMF Value
1	I-94 WB Terminal CMF	Convert diamond interchange to DDI	Total	0.6700
2	I-94 EB Terminal CMF	Convert diamond interchange to DDI	Total	0.6700

Table 2. Evaluation and Crash Data (CSD) (if applicable) Ramp Terminal - Homogeneous Sites

Site No.	Type	Ramp Terminal	Site Description	Area Type	Traffic Control	AADT
1	D4 - Four-Leg with Diagonal Ramps	I-94	WB Ramp Terminal	Urban	Signalized	Inside: 2023-2027: 3760; Outside: 2023-2027: 9800 :: Entrance: 2023-2027: 865; Exit: 2023-2027: 6170
2	D4 - Four-Leg with Diagonal Ramps	I-94	EB Ramp Terminal	Urban	Signalized	Inside: 2023-2027: 8935; Outside: 2023-2027: 10285 :: Entrance: 2023-2027: 6525; Exit: 2023-2027: 700

Table 3. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Ramp Terminal	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	D4 - Four-Leg with Diagonal Ramps	I-94	WB Ramp Terminal	6.375	1.2749	0.4937	0.7812	0.34	1.2749
2	D4 - Four-Leg with Diagonal Ramps	I-94	EB Ramp Terminal	7.367	1.4733	0.5119	0.9614	0.31	1.4733
		Total	Total	13.741	2.7482	1.0057	1.7426	0.32	2.7482

Table 4. Predicted Crash Frequencies by Year (Ramp Terminal)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.75	1.01	36.593	1.74	63.407
2024	2.75	1.01	36.593	1.74	63.407
2025	2.75	1.01	36.593	1.74	63.407
2026	2.75	1.01	36.593	1.74	63.407
2027	2.75	1.01	36.593	1.74	63.407
Total	13.74	5.03	36.593	8.71	63.407
Average	2.75	1.01	36.593	1.74	63.407

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Predicted Ramp Terminal Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0029	0.0726	0.4327	1.9605	3.9059
2	0.0030	0.0753	0.4486	2.0328	4.8070
Total	0.0059	0.1478	0.8813	3.9932	8.7130

Table 6. Predicted Ramp Terminal Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Ramp Terminal	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Ramp Terminal	Collision with Fixed Object	0.17	1.2	0.44	3.2	0.60	4.4
Ramp Terminal	Collision with Other Object	0.01	0.0	0.02	0.1	0.02	0.2
Ramp Terminal	Other Single-vehicle Collision	0.09	0.7	0.06	0.4	0.15	1.1
Ramp Terminal	Collision with Parked Vehicle	0.01	0.0	0.02	0.1	0.02	0.2
Ramp Terminal	Total Single Vehicle Crashes	0.27	1.9	0.53	3.9	0.80	5.8
Ramp Terminal	Right-Angle Collision	1.31	9.5	1.92	13.9	3.22	23.5
Ramp Terminal	Head-on Collision	0.06	0.4	0.06	0.4	0.12	0.8
Ramp Terminal	Other Multi-vehicle Collision	0.04	0.3	0.17	1.3	0.22	1.6
Ramp Terminal	Rear-end Collision	3.14	22.9	4.73	34.4	7.87	57.3
Ramp Terminal	Sideswipe, Same Direction Collision	0.21	1.5	1.30	9.4	1.51	11.0
Ramp Terminal	Total Multiple Vehicle Crashes	4.76	34.7	8.18	59.5	12.94	94.2
Ramp Terminal	Total Ramp Terminal Crashes	5.03	36.6	8.71	63.4	13.74	100.0
	Total Crashes	5.03	36.6	8.71	63.4	13.74	100.0

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Ramp Terminal Roundabouts

Report Overview

Report Generated: Apr 4, 2023 7:35 PM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 19:33:42 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Ramp Terminal Roundabouts
Project Comment: Created Tue Mar 21 07:52:13 MDT 2023
Project Unit System: U.S. Customary

Site Set: Entrance Ramps
Site Set Comment: Created Tue Mar 21 09:21:14 MDT 2023
Site Set Version: v2

Evaluation Title: RTR Entrance Ramps
Evaluation Comment: Created Tue Apr 04 19:33:27 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Entrance
Calibration Factor: ENT_RAMP_MV_FI=1.0, ENT_RAMP_MV_PDO=1.0, ENT_RAMP_SV_FI=1.0, ENT_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Entrance	I-94	I-94 WB from Sunset Dr	0.3578	2023-2027: 865
2	One-lane Ramp Entrance	I-94	I-94 EB from Sunset Dr	0.1771	2023-2027: 6525

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Entrance	I-94	I-94 WB from Sunset Dr	0.3578	0.817	0.1635	0.0779	0.0855	0.4568	1.45
2	One-lane Ramp Entrance	I-94	I-94 EB from Sunset Dr	0.1771	1.522	0.3044	0.1391	0.1652	1.7185	0.72
		Total	Total	0.5349	2.339	0.4678	0.2170	0.2508	0.8746	0.88

Table 3. Predicted Crash Frequencies by Year (Ramp Entrance)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.47	0.22	46.396	0.25	53.604
2024	0.47	0.22	46.396	0.25	53.604
2025	0.47	0.22	46.396	0.25	53.604
2026	0.47	0.22	46.396	0.25	53.604
2027	0.47	0.22	46.396	0.25	53.604
Total	2.34	1.08	46.396	1.25	53.604
Average	0.47	0.22	46.396	0.25	53.604

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Entrance Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0083	0.0252	0.1604	0.1957	0.4277
2	0.0148	0.0450	0.2864	0.3495	0.8261
Total	0.0231	0.0702	0.4468	0.5451	1.2538

Table 5. Predicted Entrance Ramp Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.00	0.2	0.02	0.9	0.03	1.1
Highway Segment	Collision with Fixed Object	0.64	27.4	0.72	30.8	1.36	58.2
Highway Segment	Collision with Other Object	0.04	1.9	0.14	6.0	0.18	7.9
Highway Segment	Other Single-vehicle Collision	0.18	7.9	0.11	4.6	0.29	12.5
Highway Segment	Collision with Parked Vehicle	0.01	0.6	0.02	0.7	0.03	1.3
Highway Segment	Total Single Vehicle Crashes	0.89	38.0	1.01	43.0	1.90	81.0
Highway Segment	Right-Angle Collision	0.01	0.3	0.00	0.2	0.01	0.5
Highway Segment	Head-on Collision	0.00	0.1	0.00	0.0	0.00	0.1
Highway Segment	Other Multi-vehicle Collision	0.01	0.3	0.01	0.3	0.01	0.5
Highway Segment	Rear-end Collision	0.15	6.3	0.17	7.3	0.32	13.6
Highway Segment	Sideswipe, Same Direction Collision	0.04	1.5	0.07	2.8	0.10	4.3
Highway Segment	Total Multiple Vehicle Crashes	0.20	8.4	0.25	10.6	0.44	19.0
Highway Segment	Total Highway Segment Crashes	1.08	46.4	1.25	53.6	2.34	100.0
	Total Crashes	1.08	46.4	1.25	53.6	2.34	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:36 PM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 19:33:59 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Ramp Terminal Roundabouts
Project Comment: Created Tue Mar 21 07:52:13 MDT 2023
Project Unit System: U.S. Customary

Site Set: Exit Ramps
Site Set Comment: Created Tue Mar 21 09:26:45 MDT 2023
Site Set Version: v2

Evaluation Title: RTR Exit Ramps
Evaluation Comment: Created Tue Apr 04 19:33:49 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

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- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

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Section Types

Freeway Ramp Site Set CPM Evaluation

Site Type

Type: Ramp Exit
Calibration Factor: EX_RAMP_MV_FI=1.0, EX_RAMP_MV_PDO=1.0, EX_RAMP_SV_FI=1.0, EX_RAMP_SV_PDO=1.0

Table 1. Evaluation and Crash Data (CSD) (if applicable) Ramp Segment - Homogeneous Sites

Site No.	Type	Highway	Site Description	Length (mi)	AADT
1	One-lane Ramp Exit	I-94	I-94 WB to Sunset Dr	0.1850	2023-2027: 6170
2	One-lane Ramp Exit	I-94	I-94 EB to Sunset Dr	0.3394	2023-2027: 700

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Effective Length (mi)	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Crash Rate (crashes/mi/yr)	Predicted Travel Crash Rate (crashes/million veh-mi)
1	One-lane Ramp Exit	I-94	I-94 WB to Sunset Dr	0.1850	2.396	0.4791	0.2286	0.2505	2.5899	1.15
2	One-lane Ramp Exit	I-94	I-94 EB to Sunset Dr	0.3394	0.621	0.1242	0.0615	0.0627	0.3659	1.43
		Total	Total	0.5244	3.017	0.6033	0.2901	0.3132	1.1505	1.20

Table 3. Predicted Crash Frequencies by Year (Ramp Exit)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.60	0.29	48.089	0.31	51.911
2024	0.60	0.29	48.089	0.31	51.911
2025	0.60	0.29	48.089	0.31	51.911
2026	0.60	0.29	48.089	0.31	51.911
2027	0.60	0.29	48.089	0.31	51.911
Total	3.02	1.45	48.089	1.57	51.911
Average	0.60	0.29	48.089	0.31	51.911

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted Exit Ramp Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0357	0.1082	0.4500	0.5491	1.2525
2	0.0096	0.0291	0.1211	0.1477	0.3134
Total	0.0453	0.1374	0.5711	0.6969	1.5659

Table 5. Predicted Exit Ramp Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Highway Segment	Collision with Animal	0.01	0.2	0.03	1.1	0.04	1.3
Highway Segment	Collision with Fixed Object	1.01	33.6	1.06	35.1	2.07	68.7
Highway Segment	Collision with Other Object	0.07	2.4	0.20	6.8	0.28	9.2
Highway Segment	Other Single-vehicle Collision	0.29	9.7	0.16	5.2	0.45	14.9
Highway Segment	Collision with Parked Vehicle	0.02	0.7	0.02	0.8	0.04	1.5
Highway Segment	Total Single Vehicle Crashes	1.41	46.6	1.48	49.0	2.88	95.5
Highway Segment	Right-Angle Collision	0.00	0.0	0.00	0.1	0.00	0.1
Highway Segment	Head-on Collision	0.00	0.0	0.00	0.0	0.00	0.0
Highway Segment	Other Multi-vehicle Collision	0.00	0.0	0.00	0.1	0.00	0.1
Highway Segment	Rear-end Collision	0.03	1.1	0.06	2.0	0.10	3.2
Highway Segment	Sideswipe, Same Direction Collision	0.01	0.3	0.02	0.8	0.03	1.1
Highway Segment	Total Multiple Vehicle Crashes	0.05	1.5	0.09	3.0	0.14	4.5
Highway Segment	Total Highway Segment Crashes	1.45	48.1	1.57	51.9	3.02	100.0
	Total Crashes	1.45	48.1	1.57	51.9	3.02	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:37 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Fri Mar 24 10:38:59 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Ramp Terminals - Roundabouts
Site Set Comment: Copied from Ramp Terminals (v9)
Site Set Version: v2

Evaluation Title: Proposed - Ramp Terminal Roundabouts
Evaluation Comment: Created Fri Mar 24 10:38:40 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

Disclaimer Regarding Crash Prediction Method

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Section Types

Freeway Ramp Terminal Site Set CPM Evaluation

Site Type

Type: Ramp Terminal
Calibration Factor: RT_ST_FI=1.0, RT_ST_PDO=1.0, RT_SG_FI=1.0, RT_SG_PDO=1.0

Table 1. User Defined CMF Used in the Intersection CPM Evaluation (SSCPMFreewayRampTerminal)

Site No.	Name	Description	Severity	CMF Value
1	Signal to roundabout	Convert signalized intersection to roundabout	Total	0.5200
2	Signal to roundabout	Convert signalized intersection to roundabout	Total	0.5200

Table 2. Evaluation and Crash Data (CSD) (if applicable) Ramp Terminal - Homogeneous Sites

Site No.	Type	Ramp Terminal	Site Description	Area Type	Traffic Control	AADT
1	D4 - Four-Leg with Diagonal Ramps	I-94	WB Ramp Terminal	Urban	Signalized	Inside: 2023-2027: 3760; Outside: 2023-2027: 9800 :: Entrance: 2023-2027: 865; Exit: 2023-2027: 6170
2	D4 - Four-Leg with Diagonal Ramps	I-94	EB Ramp Terminal	Urban	Signalized	Inside: 2023-2027: 8935; Outside: 2023-2027: 10285 :: Entrance: 2023-2027: 6525; Exit: 2023-2027: 700

Table 3. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Ramp Terminal	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	D4 - Four-Leg with Diagonal Ramps	I-94	WB Ramp Terminal	4.947	0.9895	0.3832	0.6063	0.26	0.9895
2	D4 - Four-Leg with Diagonal Ramps	I-94	EB Ramp Terminal	5.717	1.1435	0.3973	0.7462	0.24	1.1435
		Total	Total	10.665	2.1330	0.7805	1.3525	0.25	2.1330

Table 4. Predicted Crash Frequencies by Year (Ramp Terminal)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.13	0.78	36.593	1.35	63.407
2024	2.13	0.78	36.593	1.35	63.407
2025	2.13	0.78	36.593	1.35	63.407
2026	2.13	0.78	36.593	1.35	63.407
2027	2.13	0.78	36.593	1.35	63.407
Total	10.66	3.90	36.593	6.76	63.407
Average	2.13	0.78	36.593	1.35	63.407

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Predicted Ramp Terminal Crash Severity

Site No.	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	0.0023	0.0563	0.3358	1.5216	3.0315
2	0.0023	0.0584	0.3482	1.5777	3.7308
Total	0.0046	0.1147	0.6840	3.0992	6.7623

Table 6. Predicted Ramp Terminal Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Ramp Terminal	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Ramp Terminal	Collision with Fixed Object	0.13	1.2	0.34	3.2	0.47	4.4
Ramp Terminal	Collision with Other Object	0.00	0.0	0.01	0.1	0.02	0.2
Ramp Terminal	Other Single-vehicle Collision	0.07	0.7	0.05	0.4	0.12	1.1
Ramp Terminal	Collision with Parked Vehicle	0.00	0.0	0.01	0.1	0.02	0.2
Ramp Terminal	Total Single Vehicle Crashes	0.21	1.9	0.41	3.9	0.62	5.8
Ramp Terminal	Right-Angle Collision	1.01	9.5	1.49	13.9	2.50	23.5
Ramp Terminal	Head-on Collision	0.04	0.4	0.05	0.4	0.09	0.8
Ramp Terminal	Other Multi-vehicle Collision	0.04	0.3	0.14	1.3	0.17	1.6
Ramp Terminal	Rear-end Collision	2.44	22.9	3.67	34.4	6.11	57.3
Ramp Terminal	Sideswipe, Same Direction Collision	0.16	1.5	1.01	9.4	1.17	11.0
Ramp Terminal	Total Multiple Vehicle Crashes	3.70	34.7	6.35	59.5	10.04	94.2
Ramp Terminal	Total Ramp Terminal Crashes	3.90	36.6	6.76	63.4	10.66	100.0
	Total Crashes	3.90	36.6	6.76	63.4	10.66	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Intersection Alternatives

Report Overview

Report Generated: Apr 4, 2023 7:56 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 19:55:42 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Old Red Trail - Roundabout
Site Set Comment: Copied from Old Red Trail (v6)
Site Set Version: v2

Evaluation Title: Old Red Trail - Roundabout
Evaluation Comment: Created Tue Apr 04 19:55:30 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Section Types

Urban Arterial Site Set CPM Evaluation

Site Type

Type: 4SG
Calibration Factor: 1

Table 1. User Defined CMF Used in the Intersection CPM Evaluation (SSCPMUrbanArterial)

Site No.	Name	Description	Severity	CMF Value
1	Roundabout CMF	Convert signalized intersection to roundabout	Total	0.5200

Table 2. Evaluation and Crash Data (CSD) (if applicable) Intersection Sites

Site No.	Type	Highway	Site Description	Major AADT	Minor AADT	Number of Approaches with Left-Turn Lanes	Number of Approaches with Right-Turn Lanes	Presence of Lighting	Number of Approaches with Permissive Left-Turn Phasing	Number of Approaches with Permissive/Protected or Protected/Permissive Left-Turn Phasing	Number of Approaches with Protected Left-Turn Phasing	Number of Approaches on which Right Turn on Red is Prohibited	Presence of Red-Light Cameras	Pedestrian Volumes Crossing all Intersection Legs (crossings/day)	Max. Number of Lanes Crossed by Pedestrians	Number of Bus Stops within 1000 ft of Intersection	Number of Schools within 1000 ft of Intersection	Number of Alcohol Sales Establishments within 1000 ft of Intersection
1	4SG2x2le5	Sunset Dr	Sunset Dr & Old Red Trail	2023-2027: 12695	2023-2027: 7750	2	2	yes	3	0	1	0	yes	50	4	0	0	0

Table 3. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	4SG	Sunset Dr	Sunset Dr & Old Red Trail	6.042	1.2083	0.3970	0.8113	0.16	1.2083
		Total	Total	6.042	1.2083	0.3970	0.8113	0.16	1.2083

Table 4. Predicted Crash Frequencies by Year (4SG)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.21	0.40	32.857	0.81	67.143
2024	1.21	0.40	32.857	0.81	67.143
2025	1.21	0.40	32.857	0.81	67.143
2026	1.21	0.40	32.857	0.81	67.143
2027	1.21	0.40	32.857	0.81	67.143
Total	6.04	1.99	32.857	4.06	67.143
Average	1.21	0.40	32.857	0.81	67.143

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Predicted 4SG Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Intersection	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Bicycle	0.09	1.5	0.00	0.0	0.09	1.5
Intersection	Collision with Fixed Object	0.10	1.6	0.26	4.3	0.36	5.9
Intersection	Non-Collision	0.02	0.3	0.01	0.2	0.03	0.5
Intersection	Collision with Other Object	0.01	0.2	0.02	0.3	0.03	0.5
Intersection	Other Single-vehicle Collision	0.01	0.1	0.01	0.1	0.01	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.06	1.0	0.00	0.0	0.06	1.0
Intersection	Total Intersection Single Vehicle Crashes	0.28	4.6	0.30	5.0	0.58	9.5
Intersection	Angle Collision	0.59	9.8	0.92	15.2	1.51	25.0
Intersection	Head-on Collision	0.08	1.4	0.11	1.9	0.20	3.3
Intersection	Other Multi-vehicle Collision	0.09	1.6	0.79	13.1	0.89	14.7
Intersection	Rear-end Collision	0.77	12.7	1.81	30.0	2.58	42.8
Intersection	Sideswipe	0.17	2.8	0.12	2.0	0.29	4.8
Intersection	Total Intersection Multiple Vehicle Crashes	1.71	28.3	3.76	62.2	5.46	90.5
Intersection	Total Intersection Crashes	1.99	32.9	4.06	67.1	6.04	100.0
	Total Crashes	1.99	32.9	4.06	67.1	6.04	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:57 PM
Report Template: System: Multi-Page [System] (sscpm2, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 19:56:12 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Old Red Trail Alternatives
Project Comment: Created Fri Mar 17 09:12:57 MDT 2023
Project Unit System: U.S. Customary

Site Set: Additional Turn Lanes
Site Set Comment: Created Fri Mar 17 09:14:09 MDT 2023
Site Set Version: v3

Evaluation Title: Old Red Trail - Additional Turn Lanes
Evaluation Comment: Created Tue Apr 04 19:55:57 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

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Section Types

Urban Arterial Site Set CPM Evaluation

Site Type

Type: 4SG
Calibration Factor: 1

Table 1. Evaluation and Crash Data (CSD) (if applicable) Intersection Sites

Site No.	Type	Highway	Site Description	Major AADT	Minor AADT	Number of Approaches with Left-Turn Lanes	Number of Approaches with Right-Turn Lanes	Presence of Lighting	Number of Approaches with Permissive Left-Turn Phasing	Number of Approaches with Permissive/Protected or Protected/Permissive Left-Turn Phasing	Number of Approaches with Protected Left-Turn Phasing	Number of Approaches on which Right Turn on Red is Prohibited	Presence of Red-Light Cameras	Pedestrian Volumes Crossing all Intersection Legs (crossings/day)	Max. Number of Lanes Crossed by Pedestrians	Number of Bus Stops within 1000 ft of Intersection	Number of Schools within 1000 ft of Intersection	Number of Alcohol Sales Establishments within 1000 ft of Intersection
1	4SG2x2le5	Sunset Dr	Sunset Dr at Old Red Trail	2023-2027: 12695	2023-2027: 7750	4	1	yes	1	2	1	0	yes	50	6	0	0	0

Table 2. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	4SG	Sunset Dr	Sunset Dr at Old Red Trail	9.711	1.9421	0.6420	1.3001	0.26	1.9421
		Total	Total	9.711	1.9421	0.6420	1.3001	0.26	1.9421

Table 3. Predicted Crash Frequencies by Year (4SG)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.94	0.64	33.056	1.30	66.944
2024	1.94	0.64	33.056	1.30	66.944
2025	1.94	0.64	33.056	1.30	66.944
2026	1.94	0.64	33.056	1.30	66.944
2027	1.94	0.64	33.056	1.30	66.944
Total	9.71	3.21	33.056	6.50	66.944
Average	1.94	0.64	33.056	1.30	66.944

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 4. Predicted 4SG Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Intersection	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Bicycle	0.14	1.5	0.00	0.0	0.14	1.5
Intersection	Collision with Fixed Object	0.15	1.6	0.42	4.3	0.57	5.9
Intersection	Non-Collision	0.03	0.3	0.02	0.2	0.04	0.5
Intersection	Collision with Other Object	0.01	0.2	0.03	0.3	0.05	0.5
Intersection	Other Single-vehicle Collision	0.01	0.1	0.01	0.1	0.02	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.12	1.3	0.00	0.0	0.12	1.3
Intersection	Total Intersection Single Vehicle Crashes	0.47	4.8	0.48	5.0	0.95	9.8
Intersection	Angle Collision	0.95	9.8	1.47	15.1	2.42	24.9
Intersection	Head-on Collision	0.13	1.4	0.18	1.9	0.32	3.2
Intersection	Other Multi-vehicle Collision	0.15	1.6	1.27	13.1	1.42	14.6
Intersection	Rear-end Collision	1.23	12.7	2.91	29.9	4.14	42.6
Intersection	Sideswipe	0.27	2.8	0.19	2.0	0.46	4.8
Intersection	Total Intersection Multiple Vehicle Crashes	2.74	28.2	6.02	62.0	8.76	90.2
Intersection	Total Intersection Crashes	3.21	33.1	6.50	66.9	9.71	100.0
	Total Crashes	3.21	33.1	6.50	66.9	9.71	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2023 7:58 PM
Report Template: System: Multi-Page, 508 Compliant [System] (sscpm4, Dec 6, 2022 10:30 AM)

Evaluation Date: Tue Apr 04 19:55:03 MDT 2023
IHSDM Version: v17.0.0 (Sep 22, 2021)
Site Set Crash Prediction Module: v|ModuleInfo.moduleVersion| (|ModuleInfo.moduleDate|)

User Name: 02446
Organization Name:
Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Boundary St - Roundabout
Site Set Comment: Copied from Boundary St (v3)
Site Set Version: v2

Evaluation Title: Boundary - Roundabout
Evaluation Comment: Created Tue Apr 04 19:54:50 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Section Types

Urban Arterial Site Set CPM Evaluation

Site Type

Type: 4aST
Calibration Factor: 1

Table 1. User Defined CMF Used in the Intersection CPM Evaluation (SSCPMUrbanArterial)

Site No.	Name	Description	Severity	CMF Value
1	Roundabout	Convert unsignalized intersection to roundabout	Total	0.5600

Table 2. Evaluation and Crash Data (CSD) (if applicable) Intersection Sites

Site No.	Type	Highway	Site Description	Major AADT	Minor AADT	Presence of Lighting
1	4aST2x2le5	Sunset Dr	Sunset Dr & Boundary St	2023-2027: 12695	2023-2027: 3000	yes

Table 3. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	4aST	Sunset Dr	Sunset Dr & Boundary St	5.431	1.0862	0.3754	0.7108	0.19	1.0862
		Total	Total	5.431	1.0862	0.3754	0.7108	0.19	1.0862

Table 4. Predicted Crash Frequencies by Year (4aST)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.09	0.38	34.561	0.71	65.439
2024	1.09	0.38	34.561	0.71	65.439
2025	1.09	0.38	34.561	0.71	65.439
2026	1.09	0.38	34.561	0.71	65.439
2027	1.09	0.38	34.561	0.71	65.439
Total	5.43	1.88	34.561	3.55	65.439
Average	1.09	0.38	34.561	0.71	65.439

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Predicted 4aST Crash Type Distribution

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Bicycle	0.06	1.1	0.00	0.0	0.06	1.1
Intersection	Non-Collision	0.01	0.1	0.00	0.1	0.01	0.2
Intersection	Other Single-vehicle Collision	0.14	2.5	0.29	5.3	0.42	7.8
Intersection	Collision with Pedestrian	0.08	1.5	0.00	0.0	0.08	1.5
Intersection	Total Intersection Single Vehicle Crashes	0.28	5.2	0.29	5.4	0.57	10.5
Intersection	Angle Collision	0.93	17.2	1.71	31.5	2.64	48.6
Intersection	Head-on Collision	0.02	0.4	0.01	0.3	0.03	0.6
Intersection	Other Multi-vehicle Collision	0.22	4.0	0.30	5.6	0.52	9.5
Intersection	Rear-end Collision	0.41	7.5	1.07	19.8	1.48	27.2
Intersection	Sideswipe	0.03	0.5	0.16	3.0	0.19	3.5
Intersection	Total Intersection Multiple Vehicle Crashes	1.60	29.4	3.26	60.1	4.86	89.5
Intersection	Total Intersection Crashes	1.88	34.6	3.55	65.4	5.43	100.0
	Total Crashes	1.88	34.6	3.55	65.4	5.43	100.0

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User Name: 02446
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Phone:
E-Mail:

Project Title: Sunset Dr Interchange
Project Comment: Created Tue Feb 21 09:17:17 MST 2023
Project Unit System: U.S. Customary

Site Set: Boundary St - Signalized
Site Set Comment: Copied from Boundary St (v3)
Site Set Version: v2

Evaluation Title: Boundary - Signal
Evaluation Comment: Created Tue Apr 04 19:55:10 MDT 2023
Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2027
Empirical-Bayes Analysis: None

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Urban Arterial Site Set CPM Evaluation

Site Type

Type: 4aST
Calibration Factor: 1

Table 1. User Defined CMF Used in the Intersection CPM Evaluation (SSCPMUrbanArterial)

Site No.	Name	Description	Severity	CMF Value
1	Signalization	Convert stop-controlled intersection to signalized	Total	0.6390

Table 2. Evaluation and Crash Data (CSD) (if applicable) Intersection Sites

Site No.	Type	Highway	Site Description	Major AADT	Minor AADT	Presence of Lighting
1	4aST2x2le5	Sunset Dr	Sunset Dr & Boundary St	2023-2027: 12695	2023-2027: 3000	yes

Table 3. Predicted Crash Frequencies and Rates by Site

Site No.	Type	Highway	Site Description	Total Predicted Crashes for Evaluation Period	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	Predicted Intersection Travel Crash Rate (crashes/million veh)	Intersection Crash Rate (crashes/yr)
1	4aST	Sunset Dr	Sunset Dr & Boundary St	6.197	1.2394	0.4283	0.8110	0.22	1.2394
		Total	Total	6.197	1.2394	0.4283	0.8110	0.22	1.2394

Table 4. Predicted Crash Frequencies by Year (4aST)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.24	0.43	34.561	0.81	65.439
2024	1.24	0.43	34.561	0.81	65.439
2025	1.24	0.43	34.561	0.81	65.439
2026	1.24	0.43	34.561	0.81	65.439
2027	1.24	0.43	34.561	0.81	65.439
Total	6.20	2.14	34.561	4.05	65.439
Average	1.24	0.43	34.561	0.81	65.439

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 5. Predicted 4aST Crash Type Distribution

Element Type	Crash Type	Fatal and Injury		Property Damage Only		Total	
		Crashes	Crashes (%)	Crashes	Crashes (%)	Crashes	Crashes (%)
Intersection	Collision with Bicycle	0.07	1.1	0.00	0.0	0.07	1.1
Intersection	Non-Collision	0.01	0.1	0.00	0.1	0.01	0.2
Intersection	Other Single-vehicle Collision	0.15	2.5	0.33	5.3	0.48	7.8
Intersection	Collision with Pedestrian	0.09	1.5	0.00	0.0	0.09	1.5
Intersection	Total Intersection Single Vehicle Crashes	0.32	5.2	0.33	5.4	0.65	10.5
Intersection	Angle Collision	1.06	17.2	1.95	31.5	3.01	48.6
Intersection	Head-on Collision	0.02	0.4	0.02	0.3	0.04	0.6
Intersection	Other Multi-vehicle Collision	0.25	4.0	0.34	5.6	0.59	9.5
Intersection	Rear-end Collision	0.46	7.5	1.23	19.8	1.69	27.2
Intersection	Sideswipe	0.03	0.5	0.19	3.0	0.22	3.5
Intersection	Total Intersection Multiple Vehicle Crashes	1.82	29.4	3.72	60.1	5.55	89.5
Intersection	Total Intersection Crashes	2.14	34.6	4.05	65.4	6.20	100.0
	Total Crashes	2.14	34.6	4.05	65.4	6.20	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix **O**: **Sensitivity Analysis Results Discussion**

Mead & Hunt | EXPERIENCE EXCEPTIONAL



Interstate 94 and Sunset Drive Interchange

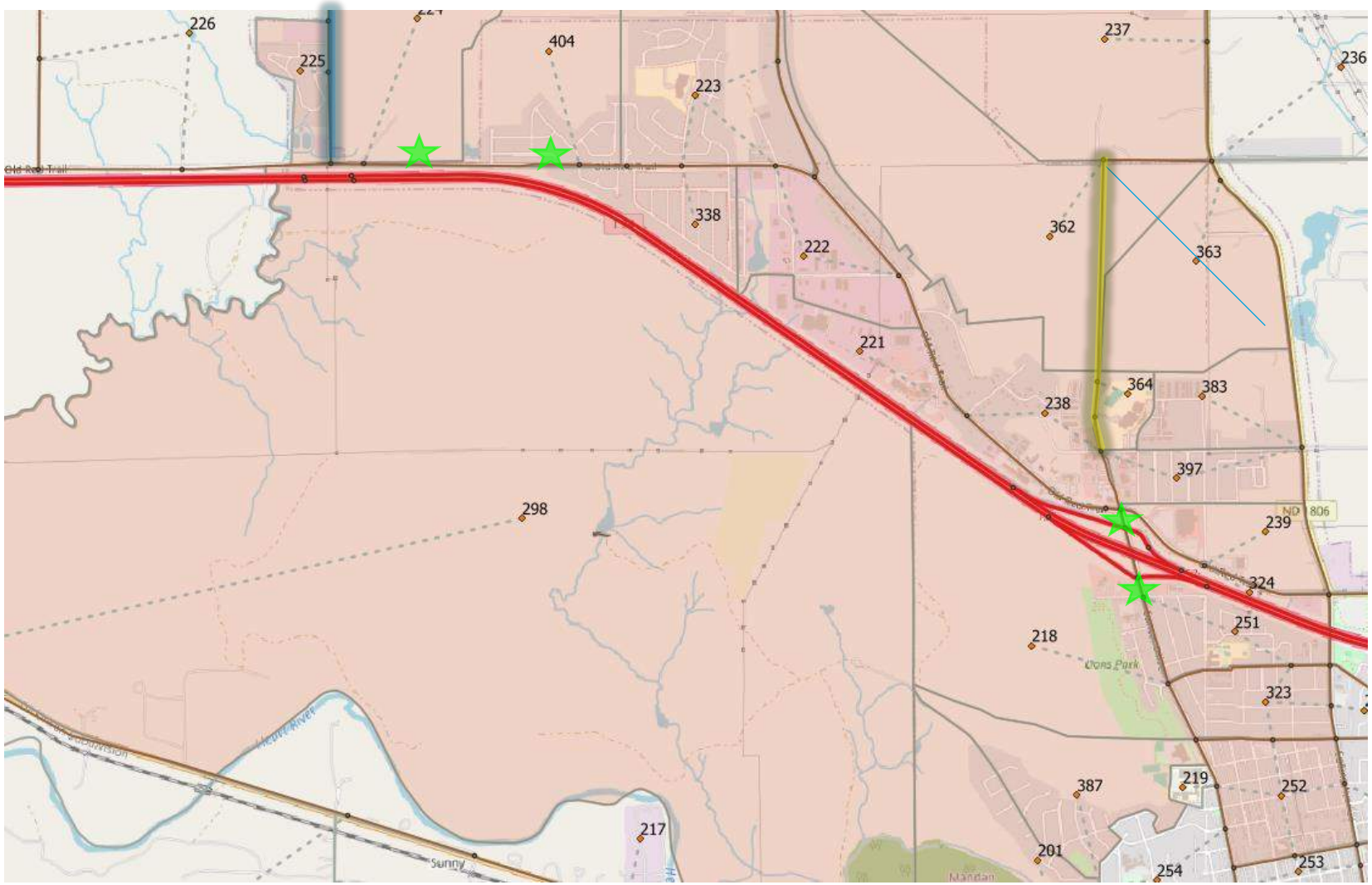
56th Ave. I-94 Interchange Sensitivity Analysis

March 2023

56th Ave. I-94 Interchange Sensitivity Analysis

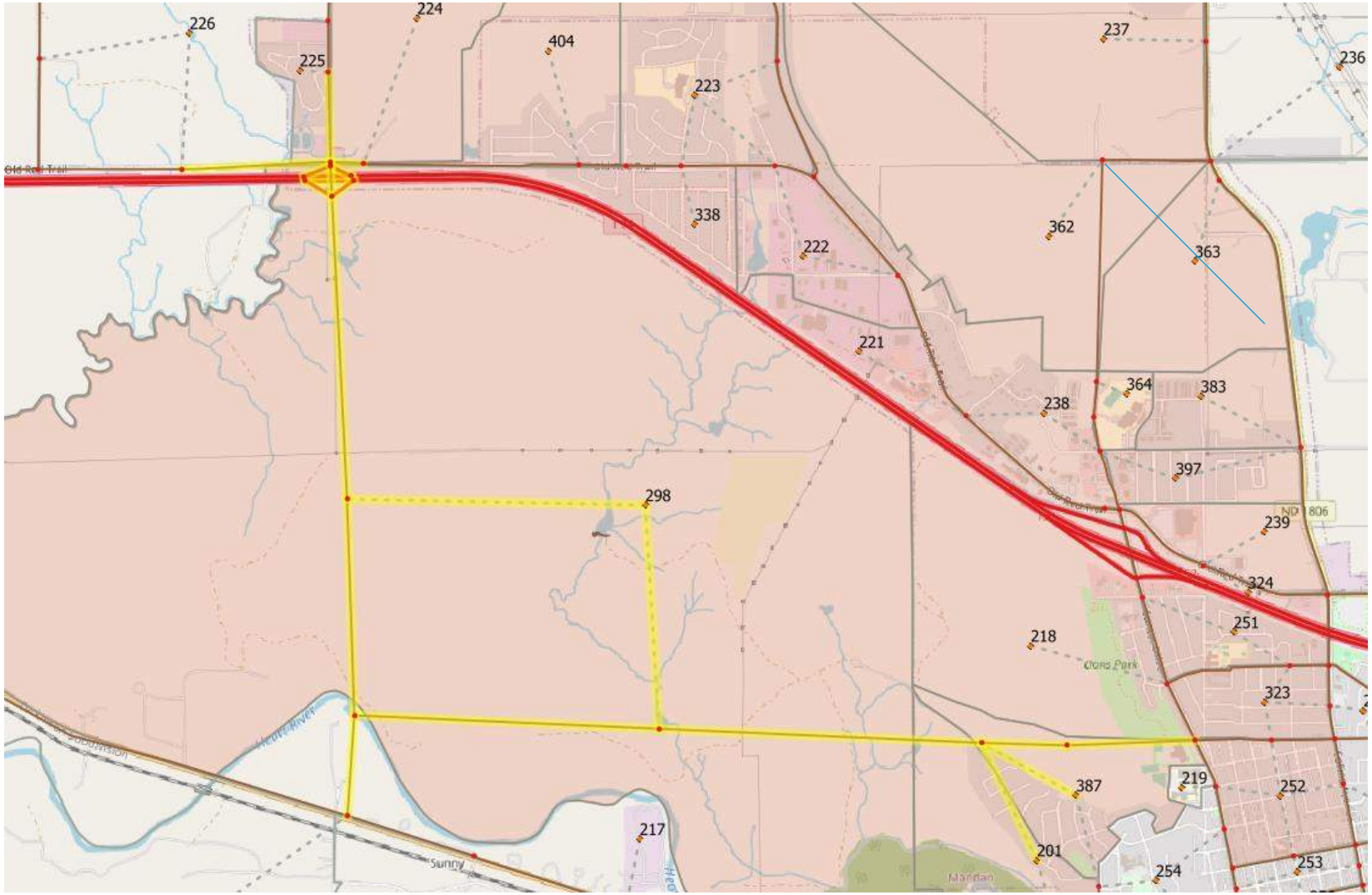
- Purpose: Test the impact of adding the 56th Ave. Interchange and connecting network on the I-94 and Sunset Dr. long range demand.
- Comparison of the MPO 2045 Constrained Long Range Plan (without the interchange) and the test Scenario 5 2045 MTP scenario with the interchange found too many additional network changes to provide an accurate assessment (e.g., extension of Sunset Dr. from Old Red Trail to 38th Street.
- Carried out a controlled sensitivity analysis using the Bismarck Mandan Travel Demand Forecasting Model and scenario data obtained from the North Dakota State University ATAC center
  - Adjusted. This is needed for a Sensitivity Analysis. The original model provided for day-to-day variation. parameters to fix the stochastic assignment random seed so run to run results of the same scenario produce consistent outputs
  - Base Case: MPO 2045 Constrained Long Range Plan scenario network and land use (without the interchange)
  - Sensitivity Analysis: MPO 2045 Constrained Long Range Plan scenario with the 56th Avenue interchange and connecting network transferred from the Scenario 5 2045 MTP scenario.
  - All other network and demographics remained the same.

Base 2045:
Envision 2045 – Constrained Long Range Plan Scenario



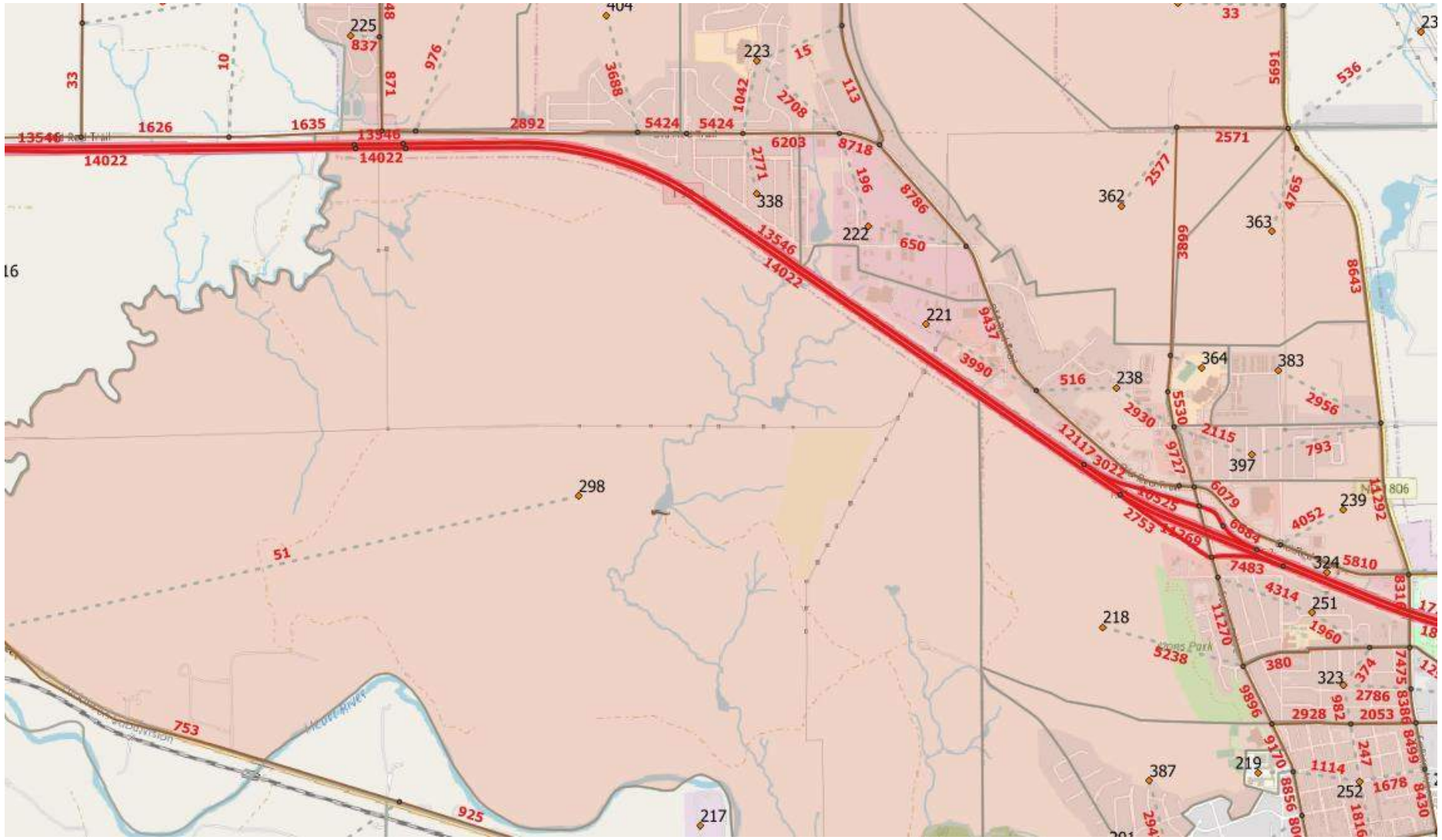
- Changes from 2015
  - New Road
  - Higher speeds on 56th Ave. (30 to 40 mph)
  - Intersection Turns along Old Red Trail & Sunset Dr.

Base 2045:
Envision 2045 – Constrained Long Range Plan Scenario



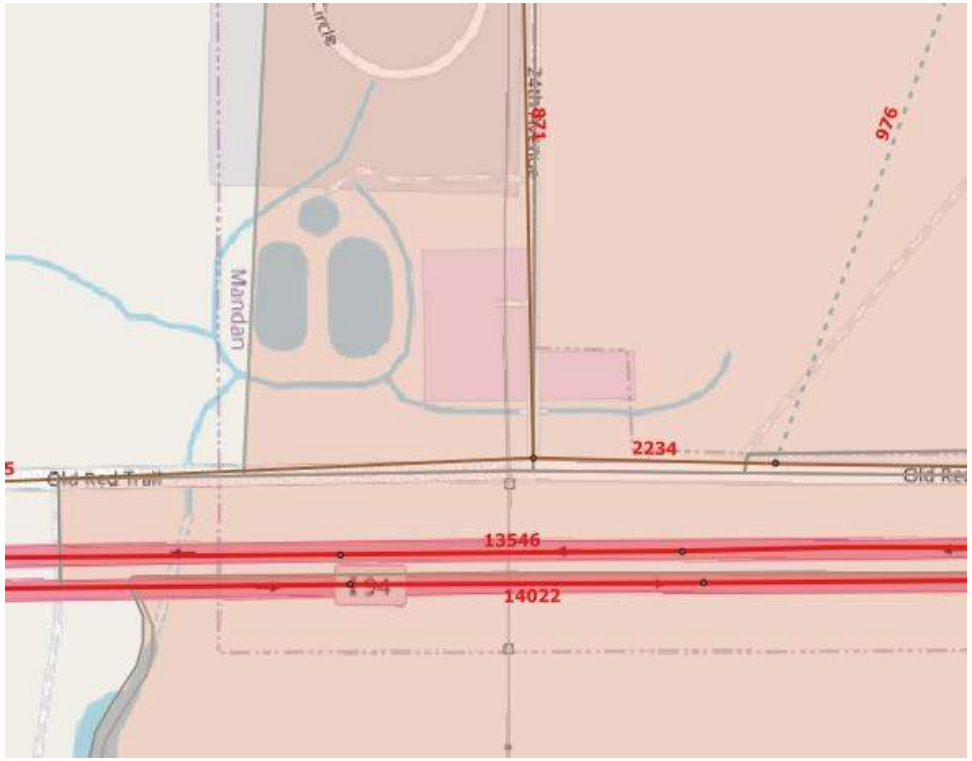
- Updates rom LRP test scenario: Scenario5_2045MTP
  - New I-94 & 56th Ave. Interchange
  - Extension of 56th Ave. to West Main St.
  - Extension of Division St from Sunset Dr to 56th Ave.
  - Centroid connector updates to/from TAZs 298, 387, & 201

Base 2045 Average Daily Traffic Subarea

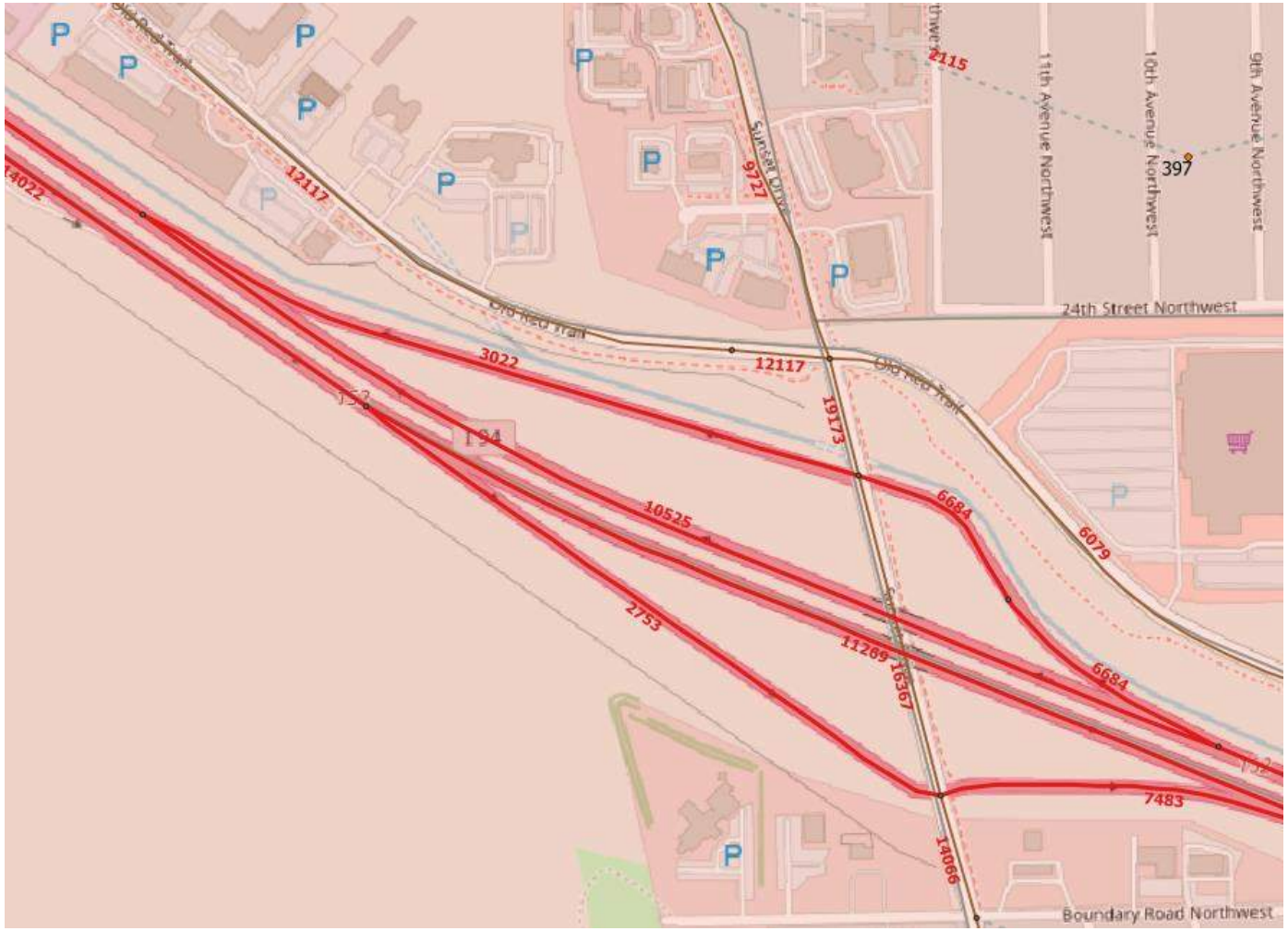


Base 2045 Average Daily Traffic I-94 Interchanges

I-94 & 56th Avenue

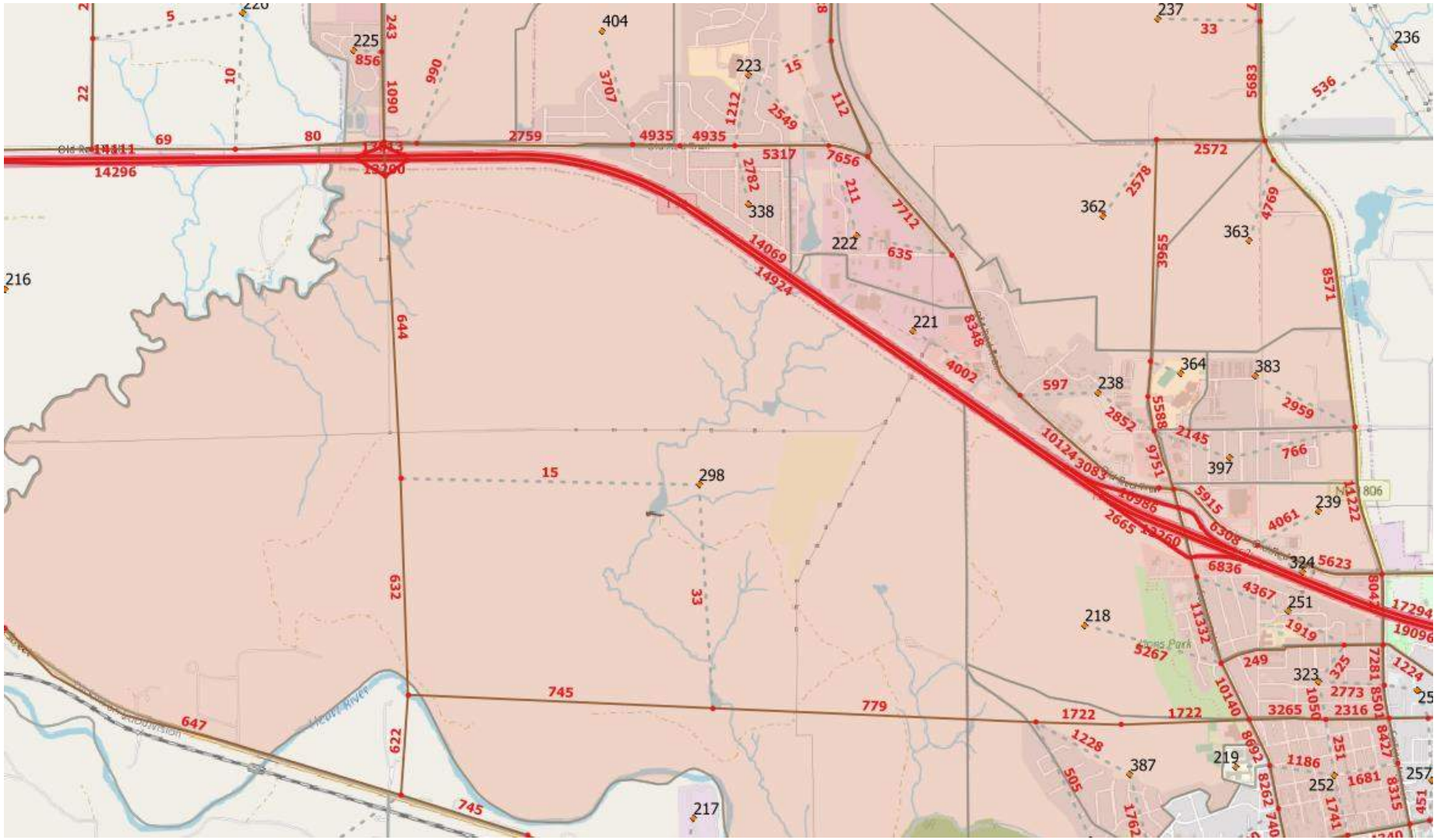


I-94 & Sunset Avenue



Mead&Hunt

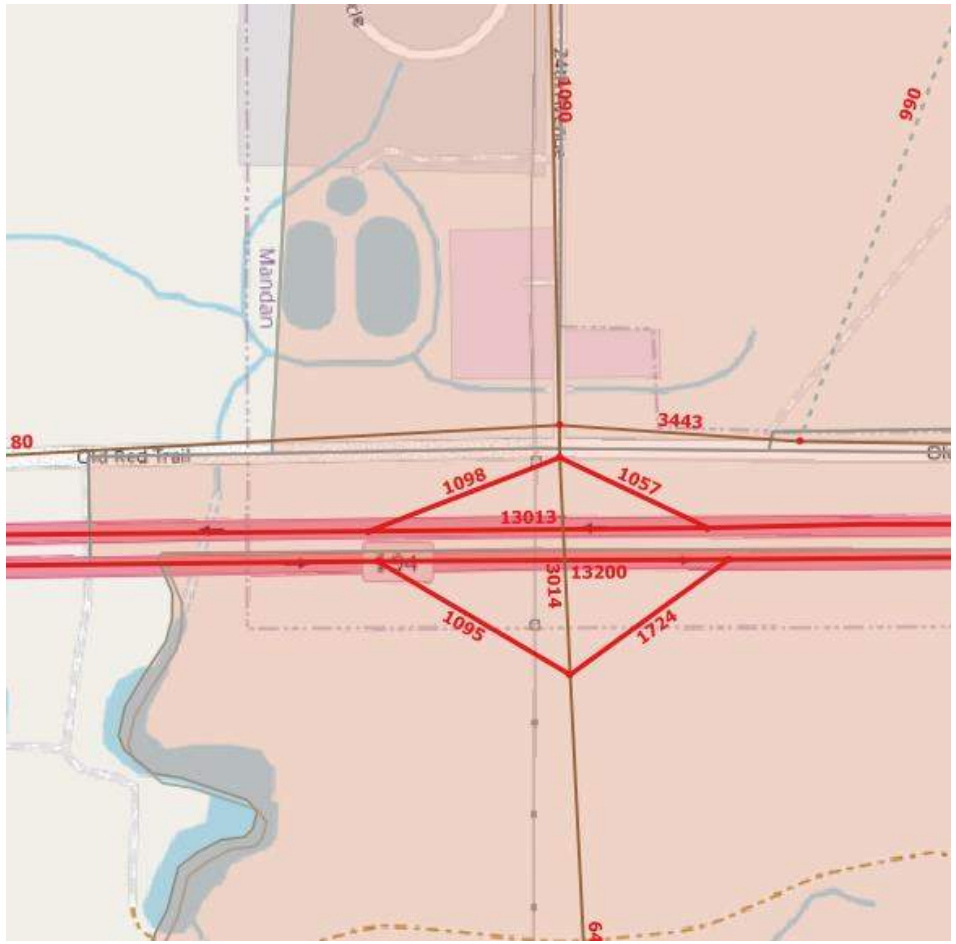
Sensitivity Analysis 2045 Average Daily Traffic Subarea



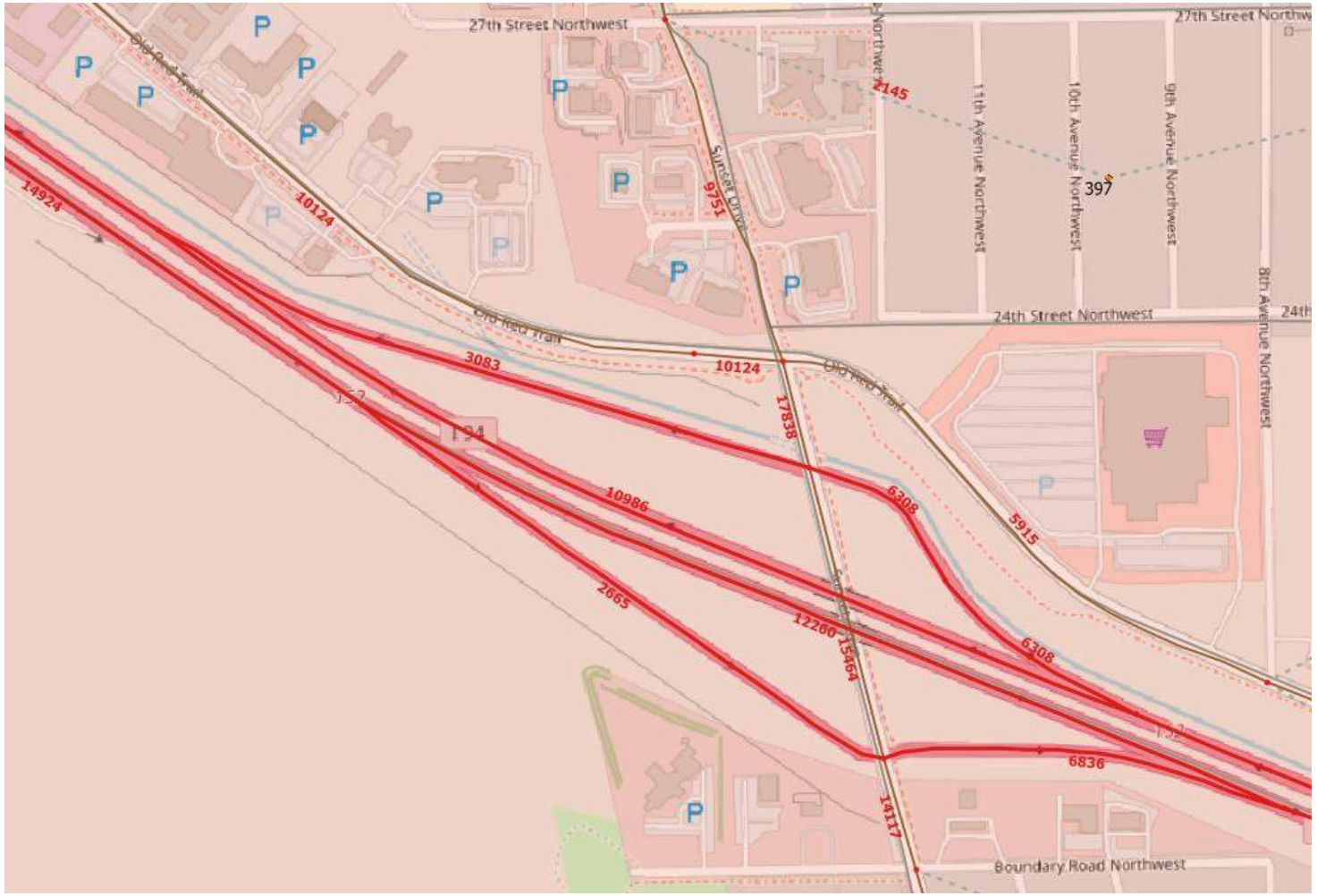
Mead&Hunt

Sensitivity Analysis 2045 Average Daily Traffic I-94 Interchanges

I-94 & 56th Avenue



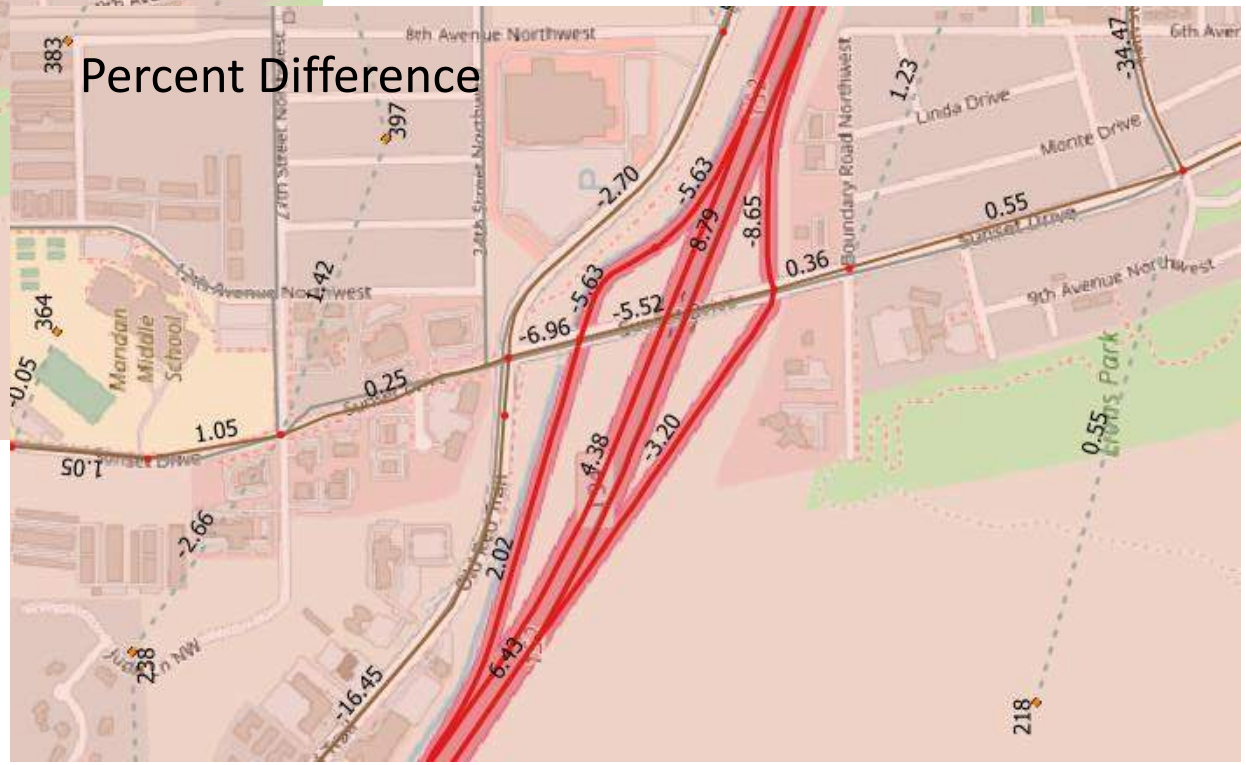
I-94 & Sunset Avenue



Mead&Hunt

Sensitivity Analysis 2045 Average Daily Traffic Difference & Percent Difference Along Sunset Avenue





Mead&Hunt

Sensitivity Analysis Impacts Along Sunset Dr. (North to South)

From To	A	B	BASE 2045 ADT	Analyis 2045 ADT	Difference	Percent Difference
Mandan Middle Sch to 27th St NW	1925	483	5530	5588	58	1.049
27th St NW to Old Red Trail	483	614	9727	9751	24	0.247
Old Red Trail to West Bound Ramps	614	616	19173	17838	-1335	-6.963
West Bound Rams to East Bound Ramps	616	619	16367	15464	-903	-5.517
East Bound Ramps to Boundary Rd NW	619	1725	14066	14117	51	0.363
Boundary Rd NW to Division St NW	1725	600	11270	11332	62	0.550
Division St. NW to 8th St. NW	600	642	9896	10140	244	2.466

- Largest Drop is 1,300 from the West Bound Ramps to Old Red Trail
- Drops 900 between the ramps in the interchange
- Some traffic shifts to Division but largest change is along Old Red Trail
- Around 1,000 per day enter and exit each ramp at 56th Ave.

PREPARED BY

Mead & Hunt

I-94 at Sunset Dr Interchange



Appendix **P**: **Signal Warrant Analyses**

TRAFFIC CONTROL STUDY - WARRANTS FOR TRAFFIC SIGNALS

North Dakota Department of Transportation, Programming
SFN 7924 (3-2023)

23 USC § 407 Documents
NDDOT Reserves All Objections

Date	Prepared by	City	Analysis Year
05/10/2023	Mead & Hunt	Mandan	2030

Major Road	Speed Limit (mph)	Number of Lanes
Sunset Drive	25	4

Minor Road	Speed Limit (mph)	Number of Lanes
Old Red Trail	25	2

Minor road right-turn traffic excluded from the analysis because there is an exclusive right-turn lane and right-turn traffic enters the Major Road with minimal conflict: ☒ Yes ☐ No

1. Posted or 85th-percentile speed of major road traffic is > 40 mph: ☐ Yes ☒ No

2. In built-up area of isolated community < 10,000 population: ☐ Yes ☒ No

If question 1 or 2 is answered yes, then use 70% volume criteria: ☐ 70% ☒ 100%

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Requirements: Either Condition A (Minimum Vehicular Volume) or Condition B (Interruption of Continuous Traffic) is satisfied to 100% of the stated volumes for each of any 8 hours of an average day.
Or: Both Condition A and Condition B are satisfied to 80% of the stated volumes for each of any 8 hours of an average day.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

8 Highest Hour Volumes								
	1	2	3	4	5	6	7	8
Both Approaches Major Road	1,265	1,233	1,220	1,213	1,163	877	868	758
Highest Approach Minor Road	174	119	139	119	120	72	74	68

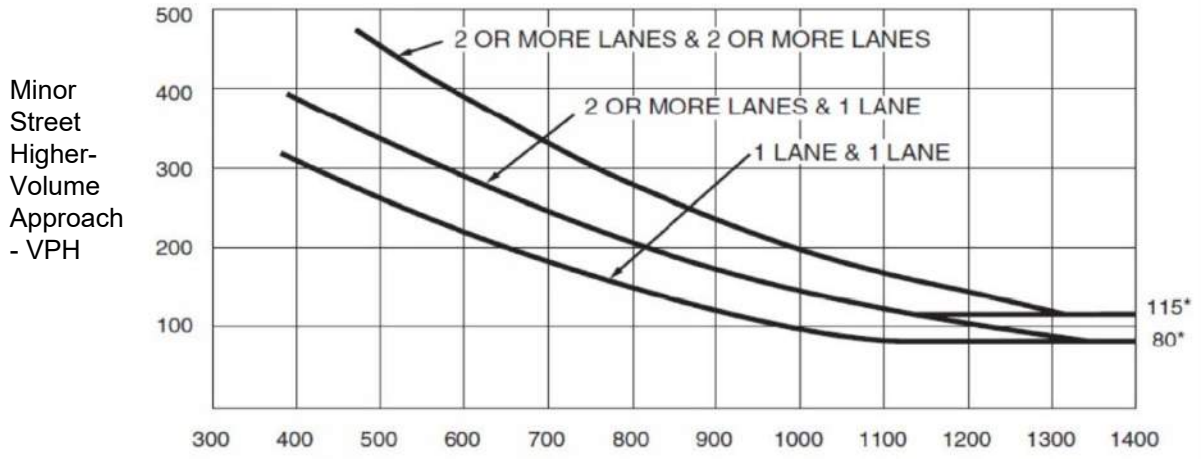
Warrant 1 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

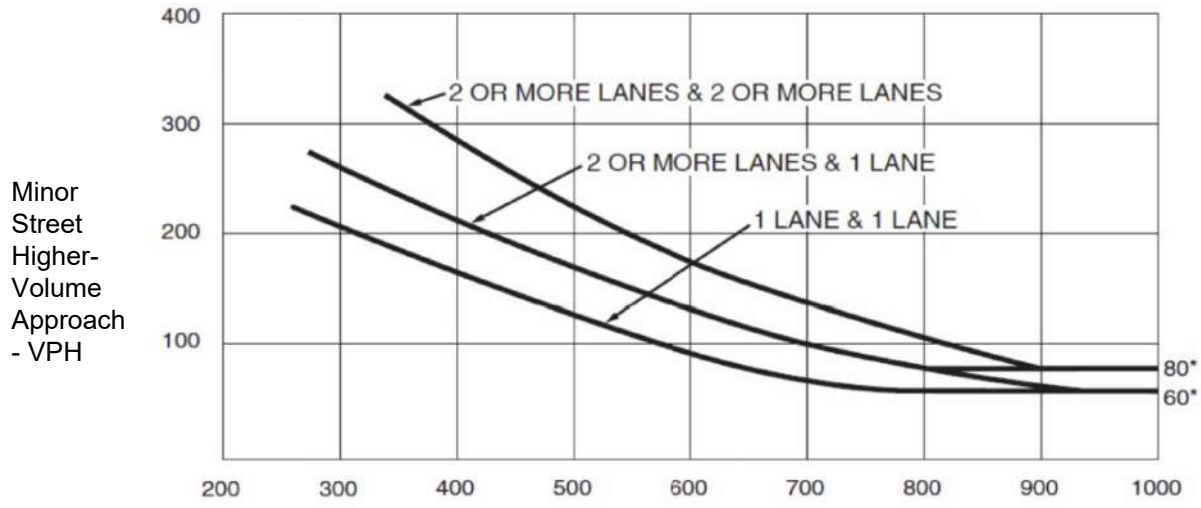
Requirements: Plot four highest hour volumes on the applicable figure below. If four points lie above the applicable curve then the warrant is satisfied.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 2 Met? ☒ Yes ☐ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 3, PEAK HOUR

Requirements: This signal warrant shall only be applied in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Unusual Condition
None

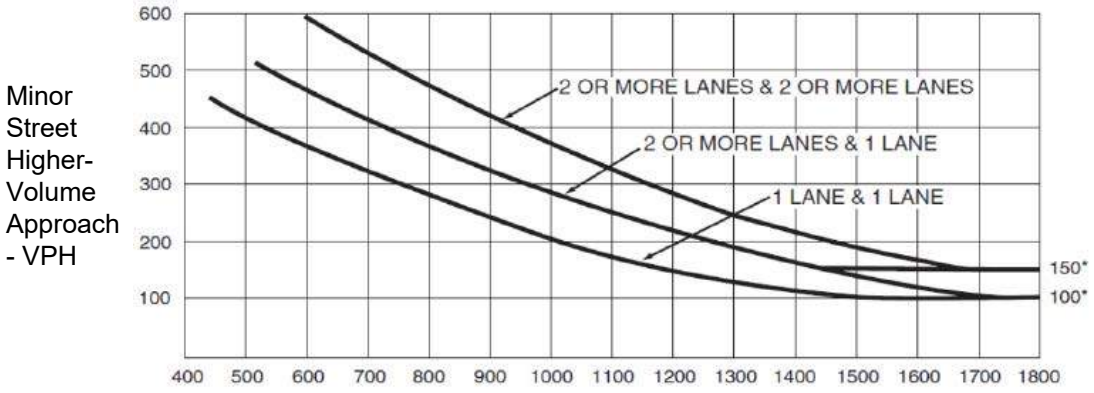
Either Condition A or Condition B is satisfied.

Condition A: The condition is satisfied if all three of the criteria are satisfied.

Criteria	Criteria Met if	Peak-Hour Value	Satisfied? Yes	Satisfied? No
Delay on Minor Approach (veh-hr)	4 veh-hr for 1 lane approach or 5 veh-hr for two-lane approach		☐	☐
Volume on Minor Approach (veh/hr)	100 veh/hr for one moving lane of traffic, or 150 veh/hr for two lanes		☐	☐
Total Entering Volume (veh/hr)	650 veh/hr for 3 approaches or 800 veh/hr for 4 or more		☐	☐

Condition B: Plot peak hour volumes on the applicable figure below. These conditions exist for the same 1 hour (and four consecutive, 15-minute periods) of an average day. If the point is above the appropriate line, then the warrant is satisfied.

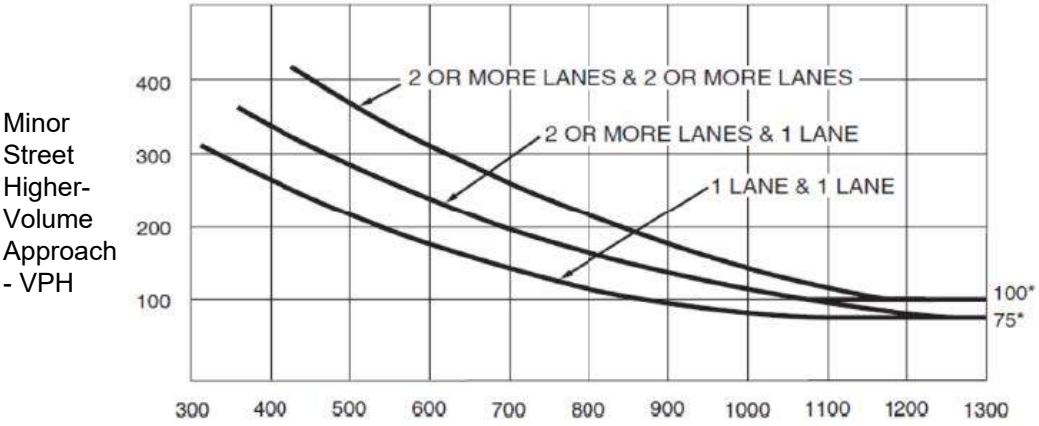
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

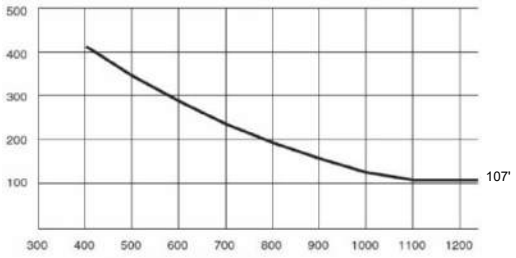
WARRANT 4, PEDESTRIAN VOLUME

Requirements: This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It shall not be applied at locations where the distance to the nearest traffic signal or stop sign controlling the street that pedestrians desire to cross is less than 300 feet.

Either criterion A or criterion B is satisfied.

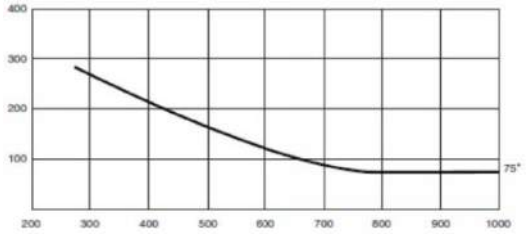
A: For each of any 4 hours of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

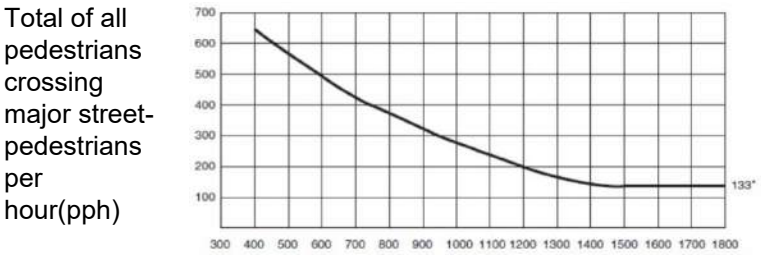
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

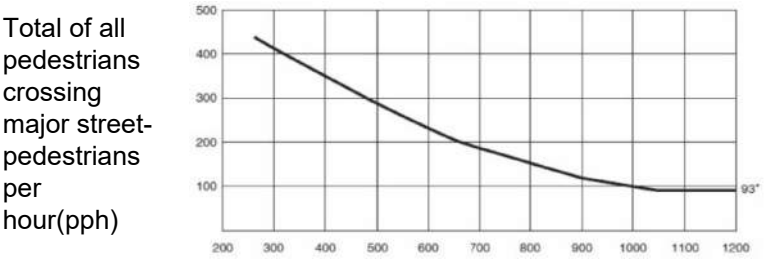
B: For 1 hour (any four consecutive 15-minute periods) of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-7.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

If the speed on major street exceeds 40 mph, or if population is less than 10,000, Figure 4C-6 or 4C-8 may be used.

Warrant 4 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 5, SCHOOL CROSSING

Requirements: This warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

The warrant is satisfied if all three of the criteria are satisfied.

Criteria	Satisfied? Yes	No
During the time period when schoolchildren are using the crossing: Gaps < Number of minutes	☐	☐
There are a minimum of 20 schoolchildren during the highest crossing hour	☐	☐
The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	☐	☐

Warrant 5 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 6, COORDINATED SIGNAL SYSTEM

Requirements: This warrant is satisfied if either criteria is satisfied. This warrant should not be applied when the resulting signal spacing would be less than 1000 ft.

Criteria	Satisfied? Yes	No
On a one-way street or a street that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicular platooning.	☐	☐
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	☐	☐

Warrant 6 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 7, CRASH EXPERIENCE

Requirements: The warrant is satisfied if all three of the criteria are satisfied.

Criteria		Hour	Satisfied? Yes	No
One of the warrants to the right is met:	Warrant 4.1at 80% of volume requirements: 80 ped/hr for 4 hrs or 152 ped/hr for 1 hr		☐	☒
	Warrant 1, Condition A (80% satisfied)		☐	☒
	Warrant 1, Condition B (80% satisfied)		☐	☒
Adequate trial of other remedial measures has failed to reduce crash frequency.		Measures Tried Current Signalization	☒	☐
Five or more reported crashes, of types susceptible to correction by signal control, have occurred within a 12 month period.		Number of Crashes 4	☐	☒

Warrant 7 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 8, ROADWAY NETWORK

Requirements: A "major route" as used in this signal warrant shall have at least one of the following characteristics:

Characteristics of a Major Route	Satisfied? Yes	No
Part of the street or highway system that serves as a principal roadway network for through traffic flow.	☐	☐
Rural or suburban highway outside of, entering, or traversing a city.	☐	☐
Appears as a major route on an official plan.	☐	☐

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

Criteria			Satisfied Yes	No
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during typical weekday peak hour.	Entering Volume:	☐	☐
	b. Five-year projected volumes that satisfy one or more of Warrants 1,2, or 3.	Warrant(s) satisfied:	☐	☐
2. Total entering volume of at least 1,000 veh/hr for each of any 5 hours of a non-normal business day (Sat. or Sun.)		Hour / Volume	☐	☐

Warrant 8 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 9, INTERSECTION NEAR A GRADE CROSSING

Requirements: This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal.

Both condition A and condition B are satisfied.

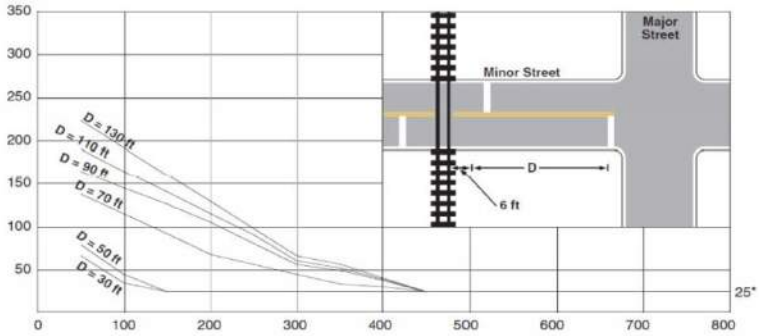
Criteria	Satisfied? Yes	No
A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach.	☐	☐
B. During the highest traffic volume hour during which rail traffic use the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.	☐	☐

Warrant 9 Continued on next page

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 9, CONTINUED

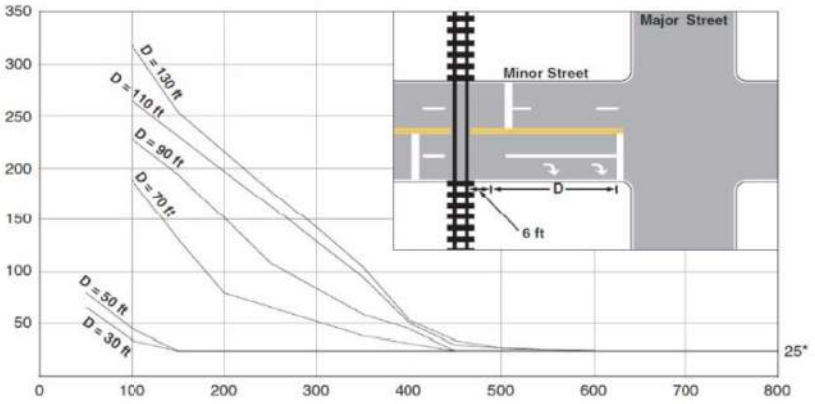
Figure 4C-9. Warrant 9, Intersection near a Grade Crossing (one Approach Lane at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Figure 4C-10. Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Warrant 9 Met? ☐ Yes ☐ No ☒ Does not apply

CONCLUSION

Warrants Satisfied
Warrant 2: Four-Hour Volume

Signal Warranted ☒ Yes ☐ No

Remarks
The intersection of Sunset Dr at Old Red Trail is analyzed under the lane configuration under the 2030 Build Opening Year configuration. The intersection meets warrant 2, therefore at full color traffic signal IS WARRANTED.

TRAFFIC CONTROL STUDY - WARRANTS FOR TRAFFIC SIGNALS

North Dakota Department of Transportation, Programming
SFN 7924 (3-2023)

23 USC § 407 Documents
NDDOT Reserves All Objections

Date	Prepared by	City	Analysis Year
05/10/2023	Mead & Hunt	Mandan	2030

Major Road	Speed Limit (mph)	Number of Lanes
Sunset Drive	25	1

Minor Road	Speed Limit (mph)	Number of Lanes
I-94 Westbound Ramp Terminals	25	3

Minor road right-turn traffic excluded from the analysis because there is an exclusive right-turn lane and right-turn traffic enters the Major Road with minimal conflict: ☐ Yes ☒ No

1. Posted or 85th-percentile speed of major road traffic is > 40 mph: ☐ Yes ☒ No

2. In built-up area of isolated community < 10,000 population: ☐ Yes ☒ No

If question 1 or 2 is answered yes, then use 70% volume criteria: ☐ 70% ☒ 100%

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Requirements: Either Condition A (Minimum Vehicular Volume) or Condition B (Interruption of Continuous Traffic) is satisfied to 100% of the stated volumes for each of any 8 hours of an average day.
Or: Both Condition A and Condition B are satisfied to 80% of the stated volumes for each of any 8 hours of an average day.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

8 Highest Hour Volumes								
	1	2	3	4	5	6	7	8
Both Approaches Major Road	1,340	1,293	1,285	1,220	1,204	895	868	813
Highest Approach Minor Road	564	892	694	746	594	467	479	370

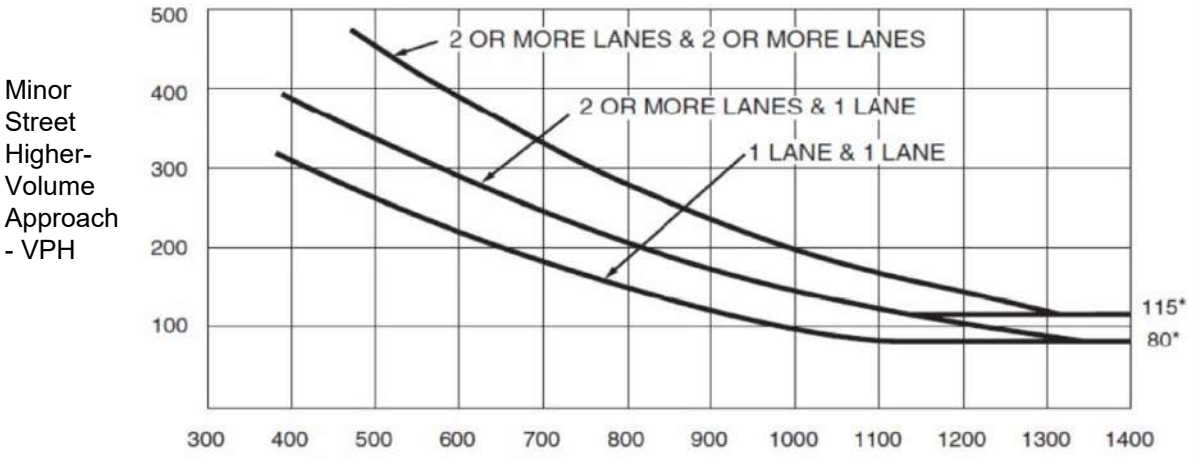
Warrant 1 Met? ☒ Yes ☐ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

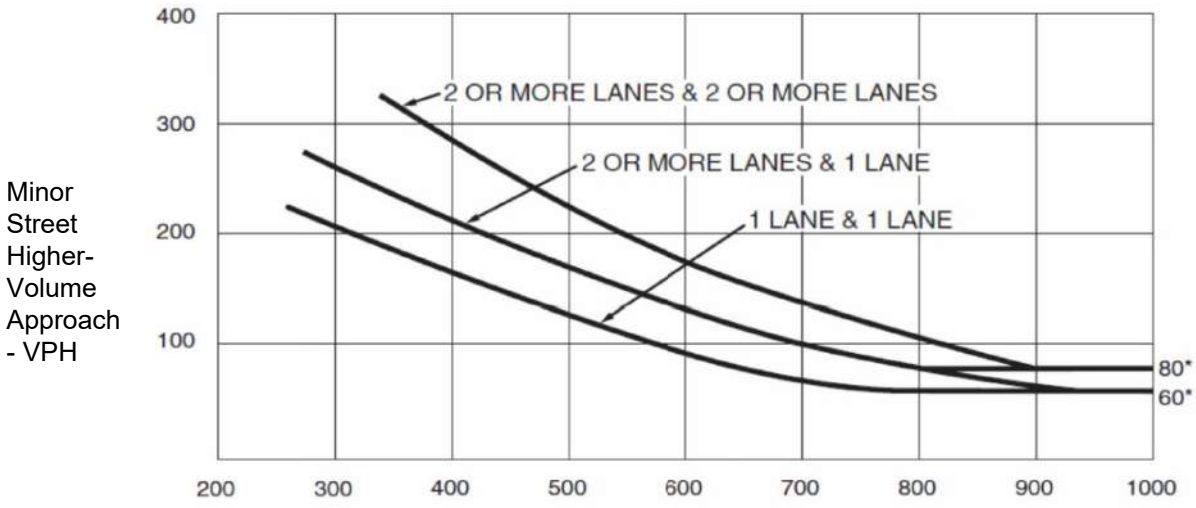
Requirements: Plot four highest hour volumes on the applicable figure below. If four points lie above the applicable curve then the warrant is satisfied.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 2 Met? ☒ Yes ☐ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 3, PEAK HOUR

Requirements: This signal warrant shall only be applied in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Unusual Condition
None

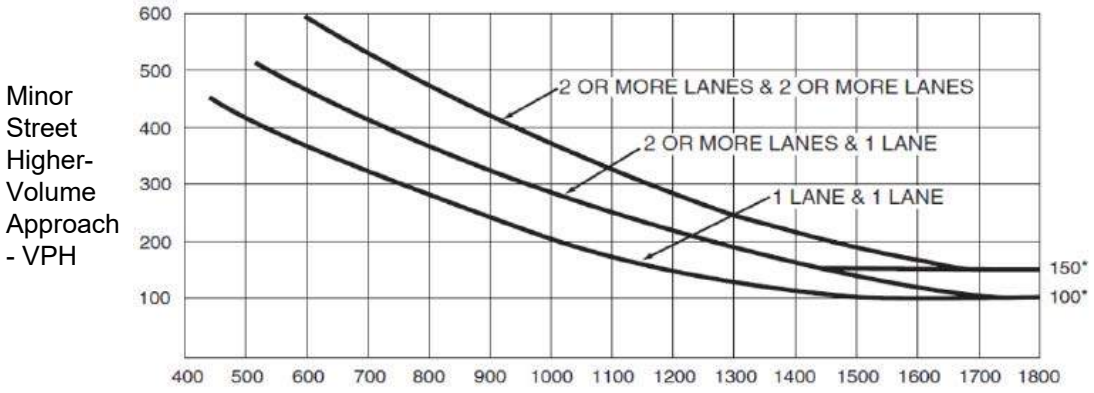
Either Condition A or Condition B is satisfied.

Condition A: The condition is satisfied if all three of the criteria are satisfied.

Criteria	Criteria Met if	Peak-Hour Value	Satisfied? Yes	Satisfied? No
Delay on Minor Approach (veh-hr)	4 veh-hr for 1 lane approach or 5 veh-hr for two-lane approach		☐	☐
Volume on Minor Approach (veh/hr)	100 veh/hr for one moving lane of traffic, or 150 veh/hr for two lanes		☐	☐
Total Entering Volume (veh/hr)	650 veh/hr for 3 approaches or 800 veh/hr for 4 or more		☐	☐

Condition B: Plot peak hour volumes on the applicable figure below. These conditions exist for the same 1 hour (and four consecutive, 15-minute periods) of an average day. If the point is above the appropriate line, then the warrant is satisfied.

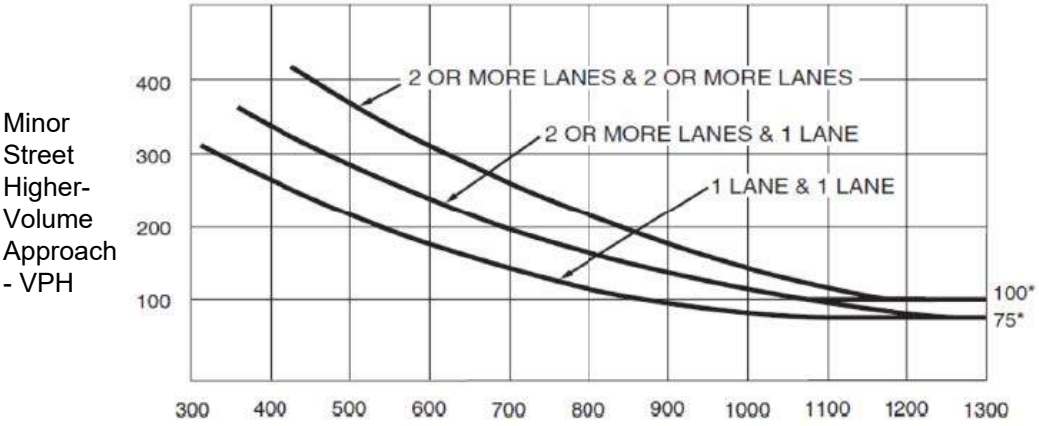
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

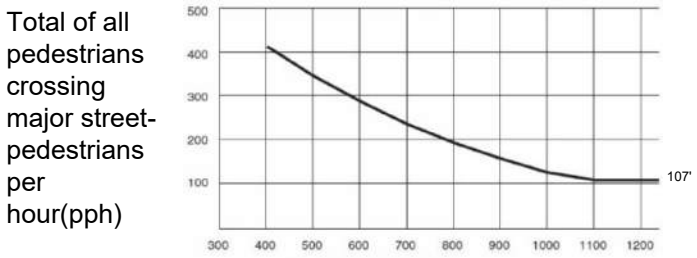
WARRANT 4, PEDESTRIAN VOLUME

Requirements: This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It shall not be applied at locations where the distance to the nearest traffic signal or stop sign controlling the street that pedestrians desire to cross is less than 300 feet.

Either criterion A or criterion B is satisfied.

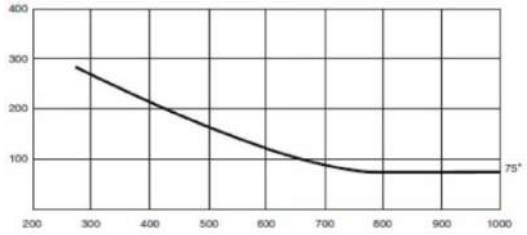
A: For each of any 4 hours of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

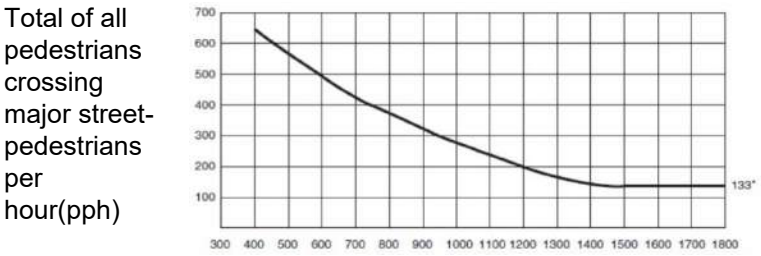
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

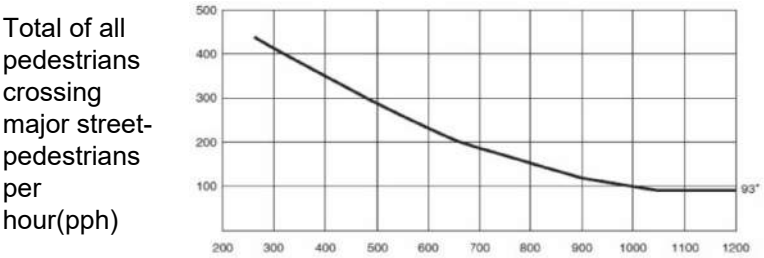
B: For 1 hour (any four consecutive 15-minute periods) of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-7.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

If the speed on major street exceeds 40 mph, or if population is less than 10,000, Figure 4C-6 or 4C-8 may be used.

Warrant 4 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 5, SCHOOL CROSSING

Requirements: This warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

The warrant is satisfied if all three of the criteria are satisfied.

Criteria	Satisfied? Yes	No
During the time period when schoolchildren are using the crossing: Gaps < Number of minutes	☐	☐
There are a minimum of 20 schoolchildren during the highest crossing hour	☐	☐
The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	☐	☐

Warrant 5 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 6, COORDINATED SIGNAL SYSTEM

Requirements: This warrant is satisfied if either criteria is satisfied. This warrant should not be applied when the resulting signal spacing would be less than 1000 ft.

Criteria	Satisfied? Yes	No
On a one-way street or a street that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicular platooning.	☐	☐
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	☐	☐

Warrant 6 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 7, CRASH EXPERIENCE

Requirements: The warrant is satisfied if all three of the criteria are satisfied.

Criteria		Hour	Satisfied? Yes	No
One of the warrants to the right is met:	Warrant 4.1at 80% of volume requirements: 80 ped/hr for 4 hrs or 152 ped/hr for 1 hr		☐	☒
	Warrant 1, Condition A (80% satisfied)		☒	☐
	Warrant 1, Condition B (80% satisfied)		☒	☐
Adequate trial of other remedial measures has failed to reduce crash frequency.		Measures Tried Current Signalization	☒	☐
Five or more reported crashes, of types susceptible to correction by signal control, have occurred within a 12 month period.		Number of Crashes 3	☐	☒

Warrant 7 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 8, ROADWAY NETWORK

Requirements: A "major route" as used in this signal warrant shall have at least one of the following characteristics:

Characteristics of a Major Route	Satisfied? Yes	No
Part of the street or highway system that serves as a principal roadway network for through traffic flow.	☐	☐
Rural or suburban highway outside of, entering, or traversing a city.	☐	☐
Appears as a major route on an official plan.	☐	☐

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

Criteria			Satisfied Yes	No
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during typical weekday peak hour.	Entering Volume:	☐	☐
	b. Five-year projected volumes that satisfy one or more of Warrants 1,2, or 3.	Warrant(s) satisfied:	☐	☐
2. Total entering volume of at least 1,000 veh/hr for each of any 5 hours of a non-normal business day (Sat. or Sun.)		Hour / Volume	☐	☐

Warrant 8 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 9, INTERSECTION NEAR A GRADE CROSSING

Requirements: This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal.

Both condition A and condition B are satisfied.

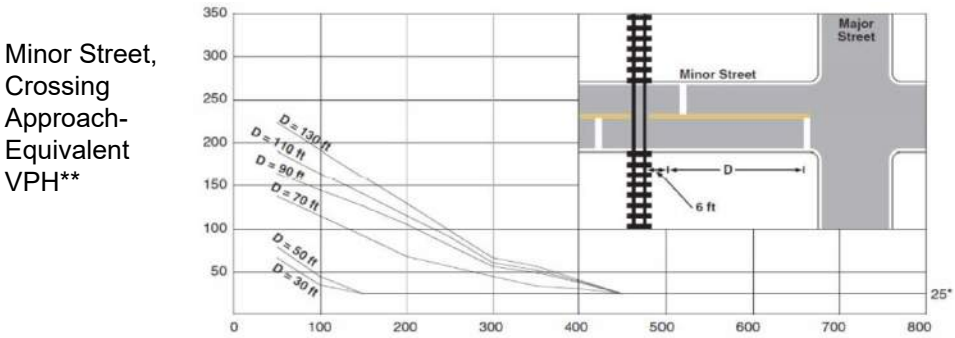
Criteria	Satisfied? Yes	No
A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach.	☐	☐
B. During the highest traffic volume hour during which rail traffic use the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.	☐	☐

Warrant 9 Continued on next page

23 USC § 407 Documents
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WARRANT 9, CONTINUED

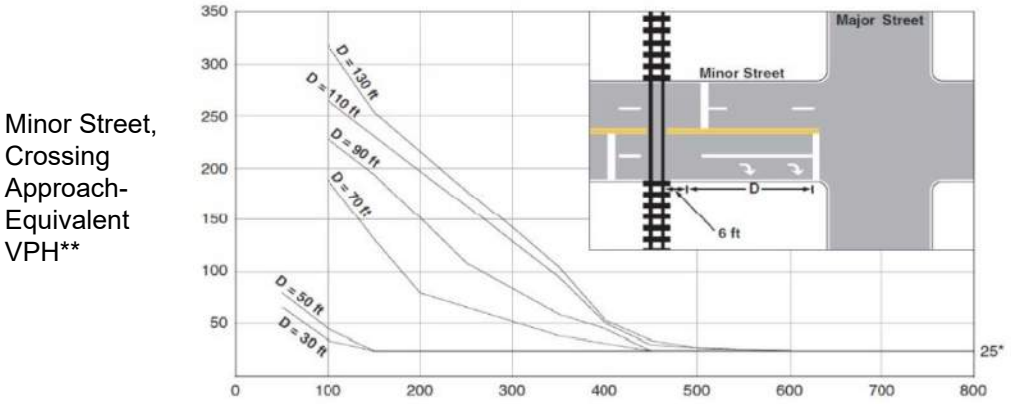
Figure 4C-9. Warrant 9, Intersection near a Grade Crossing (one Approach Lane at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Figure 4C-10. Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Warrant 9 Met? ☐ Yes ☐ No ☒ Does not apply

CONCLUSION

Warrants Satisfied
Warrant 1: Eight-Hour Volume
Warrant 2: Four-Hour Volume

Signal Warranted ☒ Yes ☐ No

Remarks
The signal warrant analysis was performed under the lane configuration proposed under a Partial Cloverleaf A alternative. The intersection configuration does not change from existing configuration under this alternative. The intersection satisfied warrants 1 and 2 under the 2030 Build Opening Year volumes, therefore a full color traffic signal IS WARRANTED.

TRAFFIC CONTROL STUDY - WARRANTS FOR TRAFFIC SIGNALS

North Dakota Department of Transportation, Programming
SFN 7924 (3-2023)

23 USC § 407 Documents
NDDOT Reserves All Objections

Date	Prepared by	City	Analysis Year
05/11/2023	Mead & Hunt	Mandan	2030

Major Road	Speed Limit (mph)	Number of Lanes
Sunset Drive - Southbound	25	2

Minor Road	Speed Limit (mph)	Number of Lanes
Sunset Drive - Northbound	25	2

Minor road right-turn traffic excluded from the analysis because there is an exclusive right-turn lane and right-turn traffic enters the Major Road with minimal conflict: ☒ Yes ☐ No

1. Posted or 85th-percentile speed of major road traffic is > 40 mph: ☐ Yes ☒ No

2. In built-up area of isolated community < 10,000 population: ☐ Yes ☒ No

If question 1 or 2 is answered yes, then use 70% volume criteria: ☐ 70% ☒ 100%

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Requirements: Either Condition A (Minimum Vehicular Volume) or Condition B (Interruption of Continuous Traffic) is satisfied to 100% of the stated volumes for each of any 8 hours of an average day.
Or: Both Condition A and Condition B are satisfied to 80% of the stated volumes for each of any 8 hours of an average day.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

8 Highest Hour Volumes								
	1	2	3	4	5	6	7	8
Both Approaches Major Road	878	838	802	794	754	539	426	516
Highest Approach Minor Road	303	329	465	342	420	270	238	280

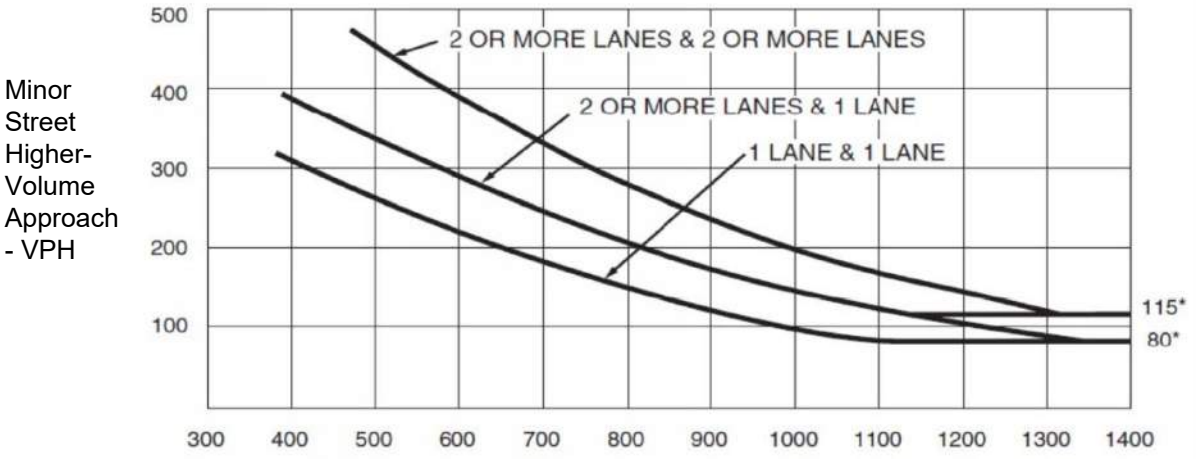
Warrant 1 Met? ☐ Yes ☒ No ☐ Does not apply

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WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

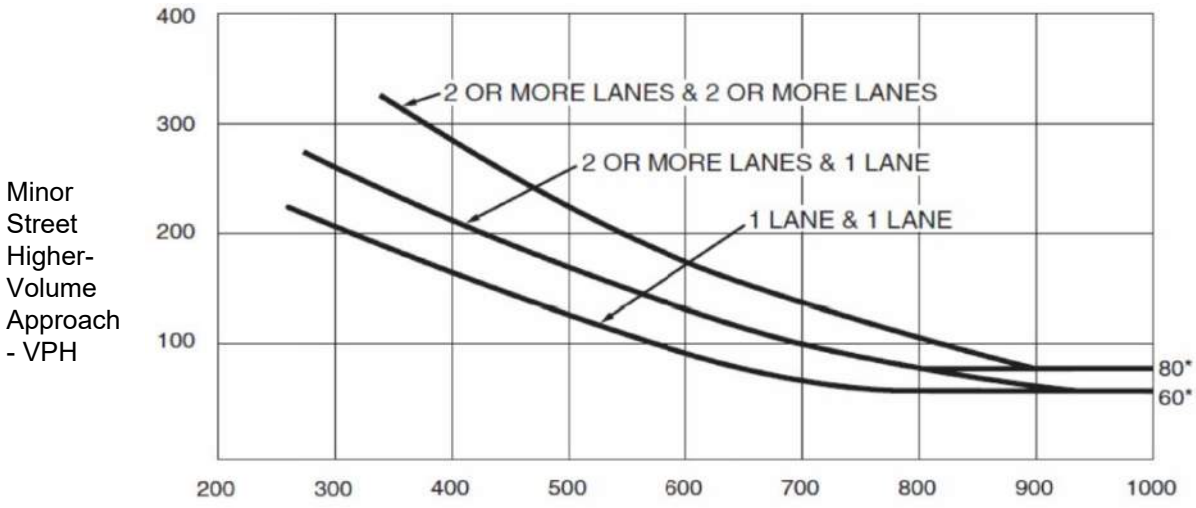
Requirements: Plot four highest hour volumes on the applicable figure below. If four points lie above the applicable curve then the warrant is satisfied.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 2 Met? ☒ Yes ☐ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 3, PEAK HOUR

Requirements: This signal warrant shall only be applied in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Unusual Condition
None

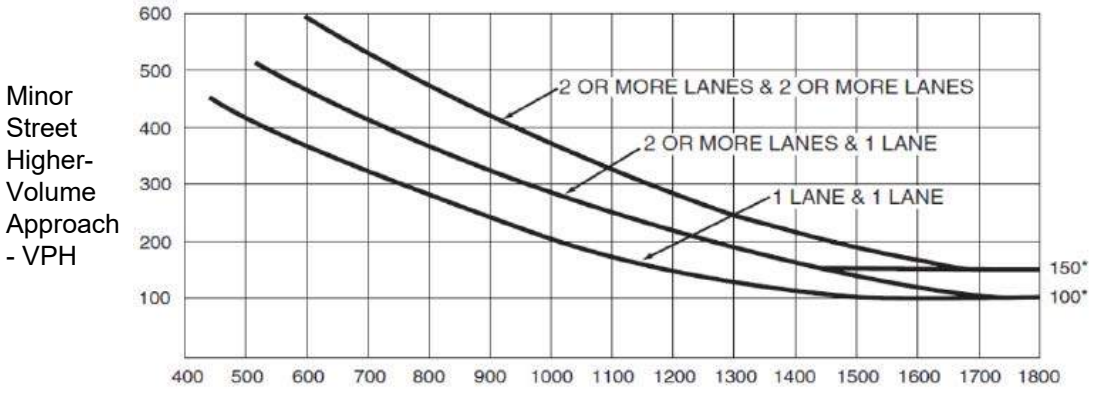
Either Condition A or Condition B is satisfied.

Condition A: The condition is satisfied if all three of the criteria are satisfied.

Criteria	Criteria Met if	Peak-Hour Value	Satisfied? Yes	Satisfied? No
Delay on Minor Approach (veh-hr)	4 veh-hr for 1 lane approach or 5 veh-hr for two-lane approach		☐	☐
Volume on Minor Approach (veh/hr)	100 veh/hr for one moving lane of traffic, or 150 veh/hr for two lanes		☐	☐
Total Entering Volume (veh/hr)	650 veh/hr for 3 approaches or 800 veh/hr for 4 or more		☐	☐

Condition B: Plot peak hour volumes on the applicable figure below. These conditions exist for the same 1 hour (and four consecutive, 15-minute periods) of an average day. If the point is above the appropriate line, then the warrant is satisfied.

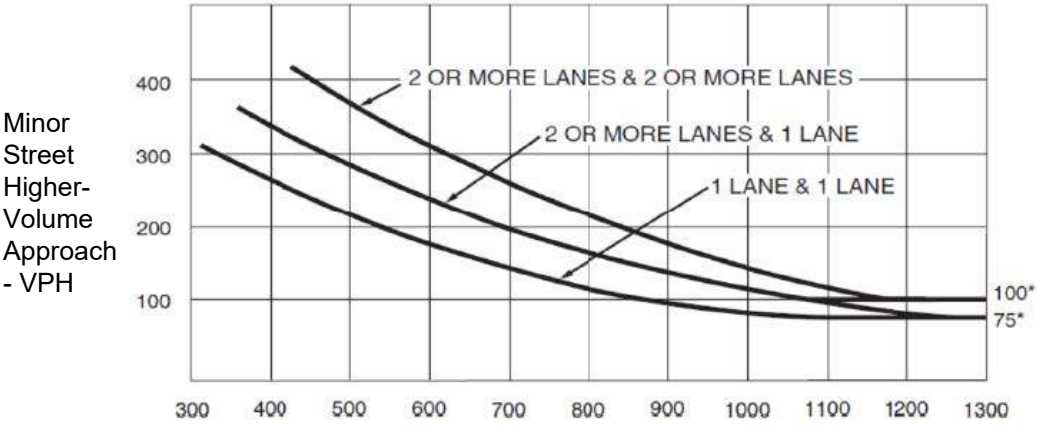
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

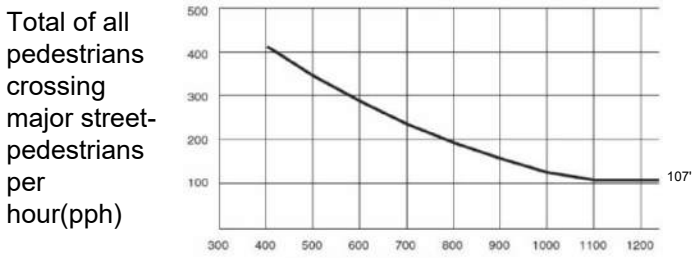
WARRANT 4, PEDESTRIAN VOLUME

Requirements: This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It shall not be applied at locations where the distance to the nearest traffic signal or stop sign controlling the street that pedestrians desire to cross is less than 300 feet.

Either criterion A or criterion B is satisfied.

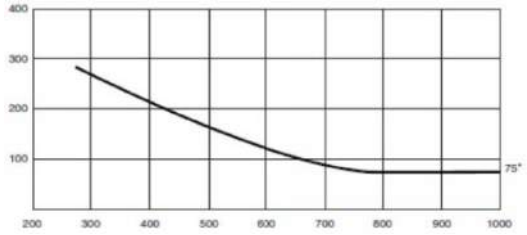
A: For each of any 4 hours of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

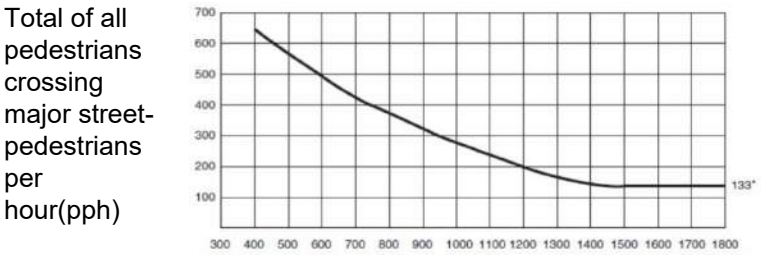
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

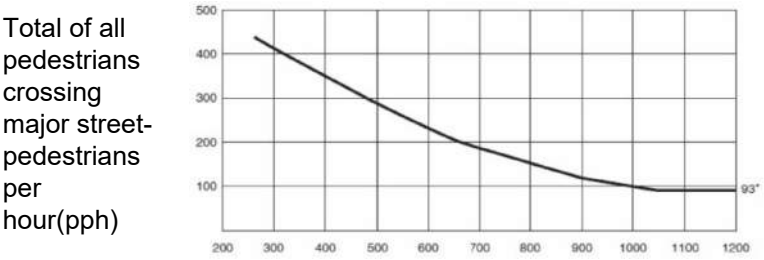
B: For 1 hour (any four consecutive 15-minute periods) of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-7.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

If the speed on major street exceeds 40 mph, or if population is less than 10,000, Figure 4C-6 or 4C-8 may be used.

Warrant 4 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 5, SCHOOL CROSSING

Requirements: This warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

The warrant is satisfied if all three of the criteria are satisfied.

Criteria	Satisfied? Yes	No
During the time period when schoolchildren are using the crossing: Gaps < Number of minutes	☐	☐
There are a minimum of 20 schoolchildren during the highest crossing hour	☐	☐
The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	☐	☐

Warrant 5 Met? ☐ Yes ☐ No ☐ Does not apply

WARRANT 6, COORDINATED SIGNAL SYSTEM

Requirements: This warrant is satisfied if either criteria is satisfied. This warrant should not be applied when the resulting signal spacing would be less than 1000 ft.

Criteria	Satisfied? Yes	No
On a one-way street or a street that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicular platooning.	☐	☐
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	☐	☐

Warrant 6 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 7, CRASH EXPERIENCE

Requirements: The warrant is satisfied if all three of the criteria are satisfied.

Criteria		Hour	Satisfied? Yes	No
One of the warrants to the right is met:	Warrant 4.1at 80% of volume requirements: 80 ped/hr for 4 hrs or 152 ped/hr for 1 hr		☐	☐
	Warrant 1, Condition A (80% satisfied)		☐	☐
	Warrant 1, Condition B (80% satisfied)		☐	☐
Adequate trial of other remedial measures has failed to reduce crash frequency.		Measures Tried	☐	☐
Five or more reported crashes, of types susceptible to correction by signal control, have occurred within a 12 month period.		Number of Crashes	☐	☐

Warrant 7 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 8, ROADWAY NETWORK

Requirements: A "major route" as used in this signal warrant shall have at least one of the following characteristics:

Characteristics of a Major Route	Satisfied? Yes	No
Part of the street or highway system that serves as a principal roadway network for through traffic flow.	☐	☐
Rural or suburban highway outside of, entering, or traversing a city.	☐	☐
Appears as a major route on an official plan.	☐	☐

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

Criteria			Satisfied Yes	No
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during typical weekday peak hour.	Entering Volume:	☐	☐
	b. Five-year projected volumes that satisfy one or more of Warrants 1,2, or 3.	Warrant(s) satisfied:	☐	☐
2. Total entering volume of at least 1,000 veh/hr for each of any 5 hours of a non-normal business day (Sat. or Sun.)		Hour / Volume	☐	☐

Warrant 8 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 9, INTERSECTION NEAR A GRADE CROSSING

Requirements: This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal.

Both condition A and condition B are satisfied.

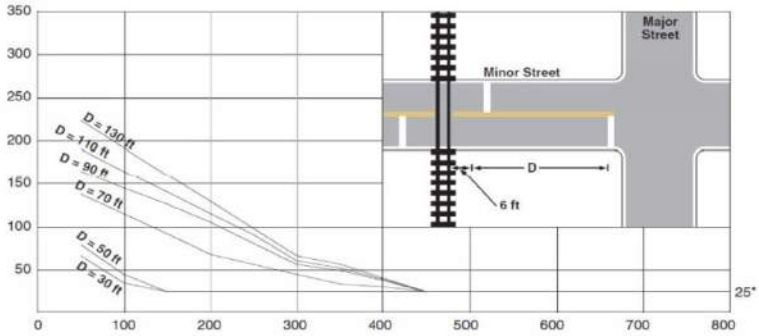
Criteria	Satisfied? Yes	No
A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach.	☐	☐
B. During the highest traffic volume hour during which rail traffic use the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.	☐	☐

Warrant 9 Continued on next page

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 9, CONTINUED

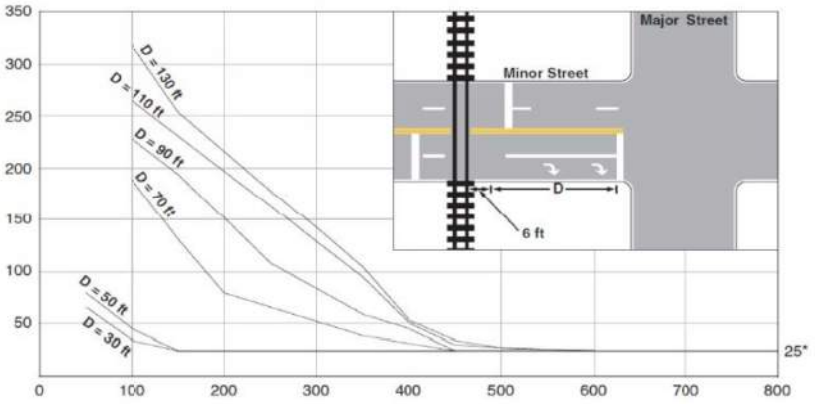
Figure 4C-9. Warrant 9, Intersection near a Grade Crossing (one Approach Lane at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Figure 4C-10. Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Warrant 9 Met? ☐ Yes ☐ No ☒ Does not apply

CONCLUSION

Warrants Satisfied
Warrant 2: Four-Hour Volume

Signal Warranted ☒ Yes ☐ No

Remarks
The intersection is analyzed assuming a configuration proposed under a Diverging Diamond Interchange alternative. The southbound through movement was considered the major approach, and the northbound the minor, as the through movements conflict with each other. The right turning movements were omitted. Warrant 2 is satisfied, therefore a full color traffic signal IS WARRANTED in the 2030 Build Opening Year.

TRAFFIC CONTROL STUDY - WARRANTS FOR TRAFFIC SIGNALS

North Dakota Department of Transportation, Programming
SFN 7924 (3-2023)

23 USC § 407 Documents
NDDOT Reserves All Objections

Date	Prepared by	City	Analysis Year
05/10/2023	Mead & Hunt	Mandan	2030

Major Road	Speed Limit (mph)	Number of Lanes
Sunset Drive	25	1

Minor Road	Speed Limit (mph)	Number of Lanes
I-94 Eastbound Ramp Terminals	25	1

Minor road right-turn traffic excluded from the analysis because there is an exclusive right-turn lane and right-turn traffic enters the Major Road with minimal conflict: ☒ Yes ☐ No

1. Posted or 85th-percentile speed of major road traffic is > 40 mph: ☐ Yes ☒ No

2. In built-up area of isolated community < 10,000 population: ☐ Yes ☒ No

If question 1 or 2 is answered yes, then use 70% volume criteria: ☐ 70% ☒ 100%

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Requirements: Either Condition A (Minimum Vehicular Volume) or Condition B (Interruption of Continuous Traffic) is satisfied to 100% of the stated volumes for each of any 8 hours of an average day.
Or: Both Condition A and Condition B are satisfied to 80% of the stated volumes for each of any 8 hours of an average day.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

8 Highest Hour Volumes								
	1	2	3	4	5	6	7	8
Both Approaches Major Road	1247	1172	1024	894	816	703	702	678
Highest Approach Minor Road	34	35	61	25	37	20	36	22

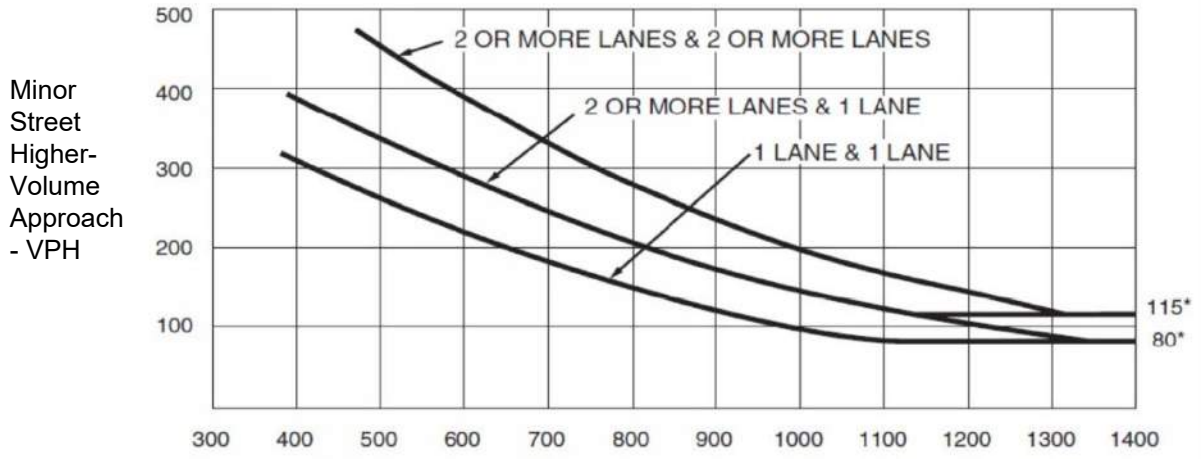
Warrant 1 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

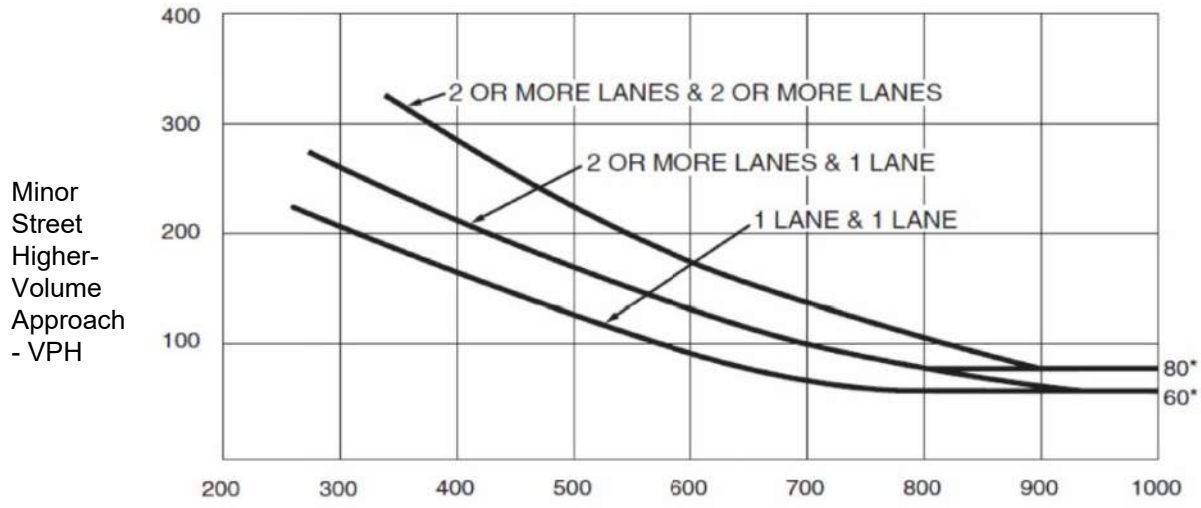
Requirements: Plot four highest hour volumes on the applicable figure below. If four points lie above the applicable curve then the warrant is satisfied.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 2 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 3, PEAK HOUR

Requirements: This signal warrant shall only be applied in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Unusual Condition
None

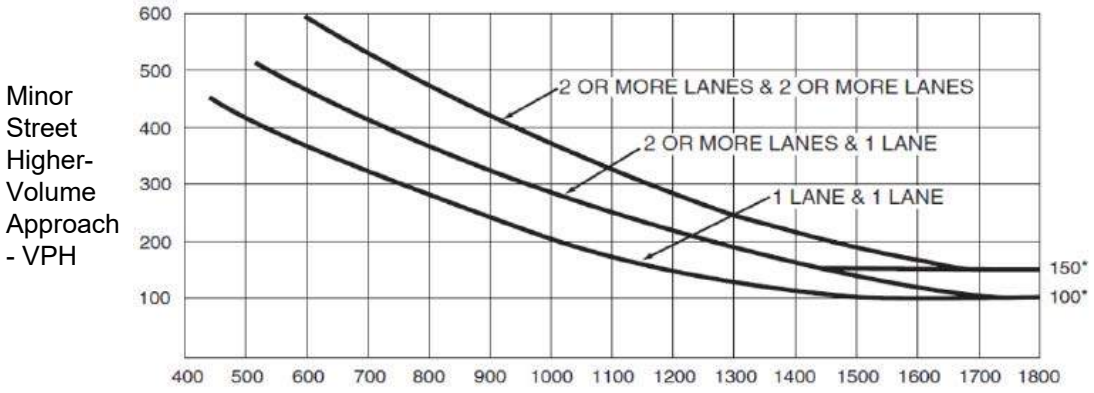
Either Condition A or Condition B is satisfied.

Condition A: The condition is satisfied if all three of the criteria are satisfied.

Criteria	Criteria Met if	Peak-Hour Value	Satisfied? Yes	Satisfied? No
Delay on Minor Approach (veh-hr)	4 veh-hr for 1 lane approach or 5 veh-hr for two-lane approach		☐	☐
Volume on Minor Approach (veh/hr)	100 veh/hr for one moving lane of traffic, or 150 veh/hr for two lanes		☐	☐
Total Entering Volume (veh/hr)	650 veh/hr for 3 approaches or 800 veh/hr for 4 or more		☐	☐

Condition B: Plot peak hour volumes on the applicable figure below. These conditions exist for the same 1 hour (and four consecutive, 15-minute periods) of an average day. If the point is above the appropriate line, then the warrant is satisfied.

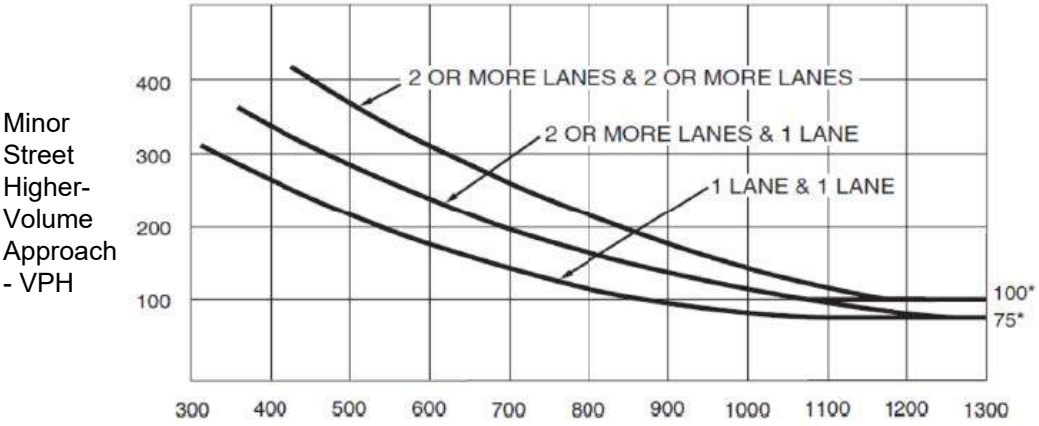
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

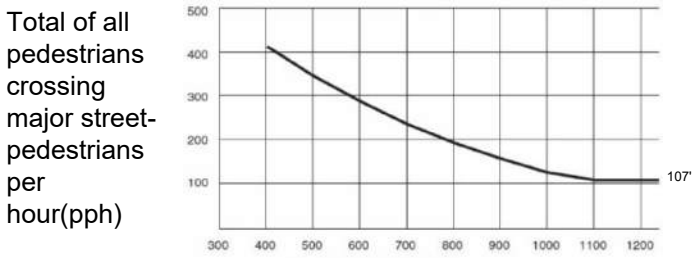
WARRANT 4, PEDESTRIAN VOLUME

Requirements: This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It shall not be applied at locations where the distance to the nearest traffic signal or stop sign controlling the street that pedestrians desire to cross is less than 300 feet.

Either criterion A or criterion B is satisfied.

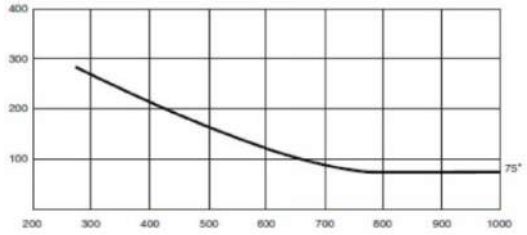
A: For each of any 4 hours of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

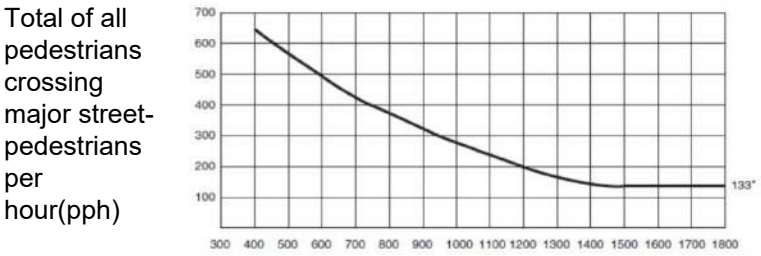
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

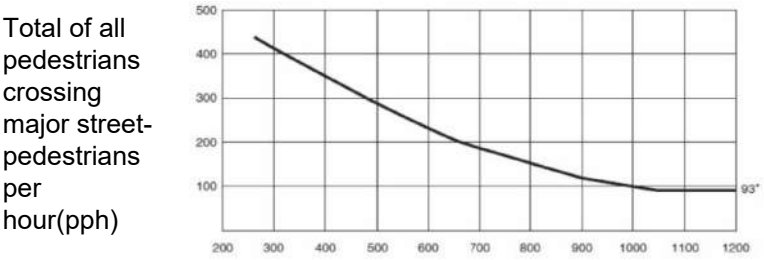
B: For 1 hour (any four consecutive 15-minute periods) of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-7.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

If the speed on major street exceeds 40 mph, or if population is less than 10,000, Figure 4C-6 or 4C-8 may be used.

Warrant 4 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 5, SCHOOL CROSSING

Requirements: This warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

The warrant is satisfied if all three of the criteria are satisfied.

Criteria	Satisfied? Yes	No
During the time period when schoolchildren are using the crossing: Gaps < Number of minutes	☐	☐
There are a minimum of 20 schoolchildren during the highest crossing hour	☐	☐
The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	☐	☐

Warrant 5 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 6, COORDINATED SIGNAL SYSTEM

Requirements: This warrant is satisfied if either criteria is satisfied. This warrant should not be applied when the resulting signal spacing would be less than 1000 ft.

Criteria	Satisfied? Yes	No
On a one-way street or a street that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicular platooning.	☐	☐
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	☐	☐

Warrant 6 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 7, CRASH EXPERIENCE

Requirements: The warrant is satisfied if all three of the criteria are satisfied.

Criteria		Hour	Satisfied? Yes	No
One of the warrants to the right is met:	Warrant 4.1at 80% of volume requirements: 80 ped/hr for 4 hrs or 152 ped/hr for 1 hr		☐	☒
	Warrant 1, Condition A (80% satisfied)		☐	☒
	Warrant 1, Condition B (80% satisfied)		☐	☒
Adequate trial of other remedial measures has failed to reduce crash frequency.		Measures Tried None	☐	☒
Five or more reported crashes, of types susceptible to correction by signal control, have occurred within a 12 month period.		Number of Crashes 1	☐	☒

Warrant 7 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 8, ROADWAY NETWORK

Requirements: A "major route" as used in this signal warrant shall have at least one of the following characteristics:

Characteristics of a Major Route	Satisfied? Yes	No
Part of the street or highway system that serves as a principal roadway network for through traffic flow.	☐	☐
Rural or suburban highway outside of, entering, or traversing a city.	☐	☐
Appears as a major route on an official plan.	☐	☐

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

Criteria			Satisfied Yes	No
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during typical weekday peak hour.	Entering Volume:	☐	☐
	b. Five-year projected volumes that satisfy one or more of Warrants 1,2, or 3.	Warrant(s) satisfied:	☐	☐
2. Total entering volume of at least 1,000 veh/hr for each of any 5 hours of a non-normal business day (Sat. or Sun.)		Hour / Volume	☐	☐

Warrant 8 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 9, INTERSECTION NEAR A GRADE CROSSING

Requirements: This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal.

Both condition A and condition B are satisfied.

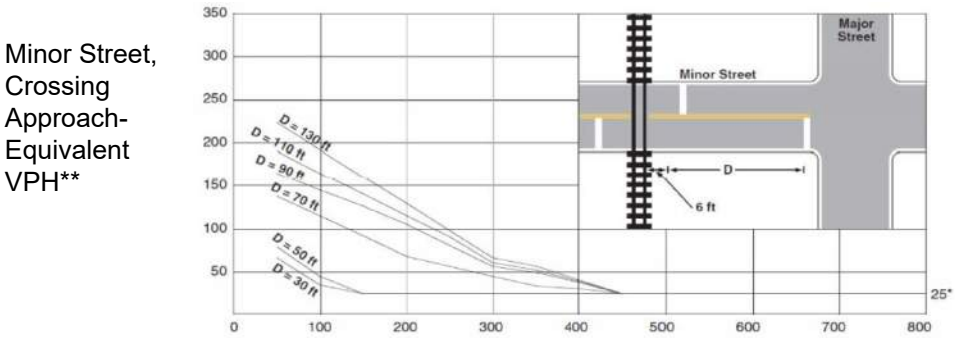
Criteria	Satisfied? Yes	No
A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach.	☐	☐
B. During the highest traffic volume hour during which rail traffic use the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.	☐	☐

Warrant 9 Continued on next page

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 9, CONTINUED

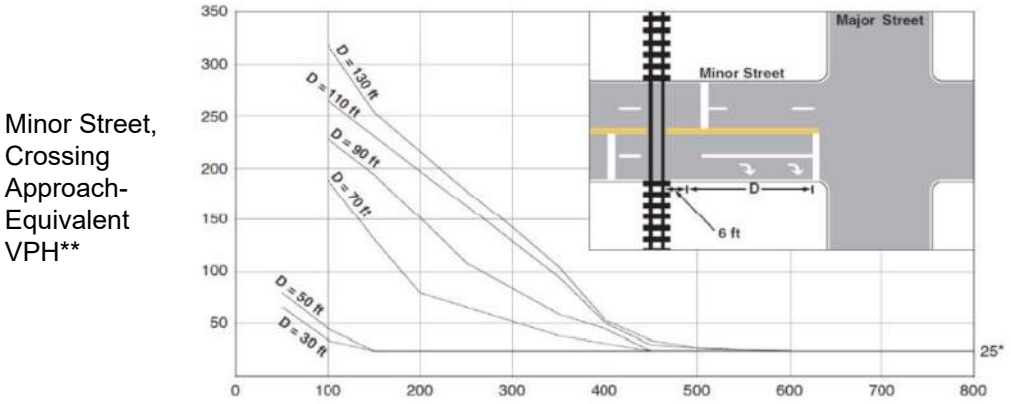
Figure 4C-9. Warrant 9, Intersection near a Grade Crossing (one Approach Lane at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Figure 4C-10. Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Warrant 9 Met? ☐ Yes ☐ No ☒ Does not apply

CONCLUSION

Warrants Satisfied
None

Signal Warranted ☐ Yes ☒ No

Remarks
The signal warrant analysis assumes an intersection configuration proposed under a Partial Cloverleaf A alternative, in which the southbound lefts bound for I-94 EB would be removed from the intersection. The intersection under this configuration does not satisfy any warrants under 2030 Build Opening Year volumes.

TRAFFIC CONTROL STUDY - WARRANTS FOR TRAFFIC SIGNALS

North Dakota Department of Transportation, Programming
SFN 7924 (3-2023)

23 USC § 407 Documents
NDDOT Reserves All Objections

Date	Prepared by	City	Analysis Year
05/11/2023	Mead & Hunt	Mandan	2030

Major Road	Speed Limit (mph)	Number of Lanes
Sunset Drive - Southbound	25	2

Minor Road	Speed Limit (mph)	Number of Lanes
Sunset Drive - Northbound	25	2

Minor road right-turn traffic excluded from the analysis because there is an exclusive right-turn lane and right-turn traffic enters the Major Road with minimal conflict: ☒ Yes ☐ No

1. Posted or 85th-percentile speed of major road traffic is > 40 mph: ☐ Yes ☒ No

2. In built-up area of isolated community < 10,000 population: ☐ Yes ☒ No

If question 1 or 2 is answered yes, then use 70% volume criteria: ☐ 70% ☒ 100%

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Requirements: Either Condition A (Minimum Vehicular Volume) or Condition B (Interruption of Continuous Traffic) is satisfied to 100% of the stated volumes for each of any 8 hours of an average day.
Or: Both Condition A and Condition B are satisfied to 80% of the stated volumes for each of any 8 hours of an average day.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

8 Highest Hour Volumes								
	1	2	3	4	5	6	7	8
Both Approaches Major Road	724	681	603	557	520	391	382	376
Highest Approach Minor Road	447	566	421	337	296	312	296	326

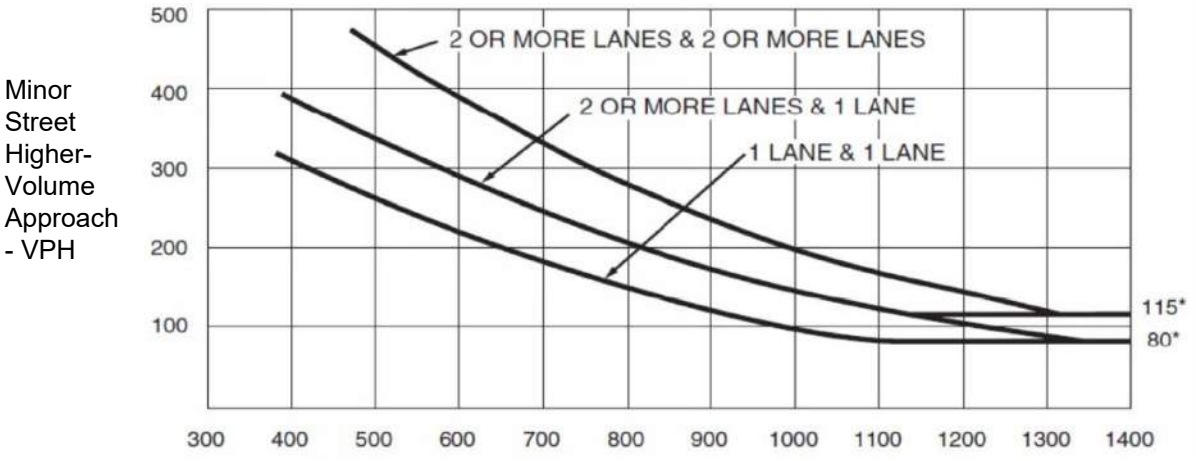
Warrant 1 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

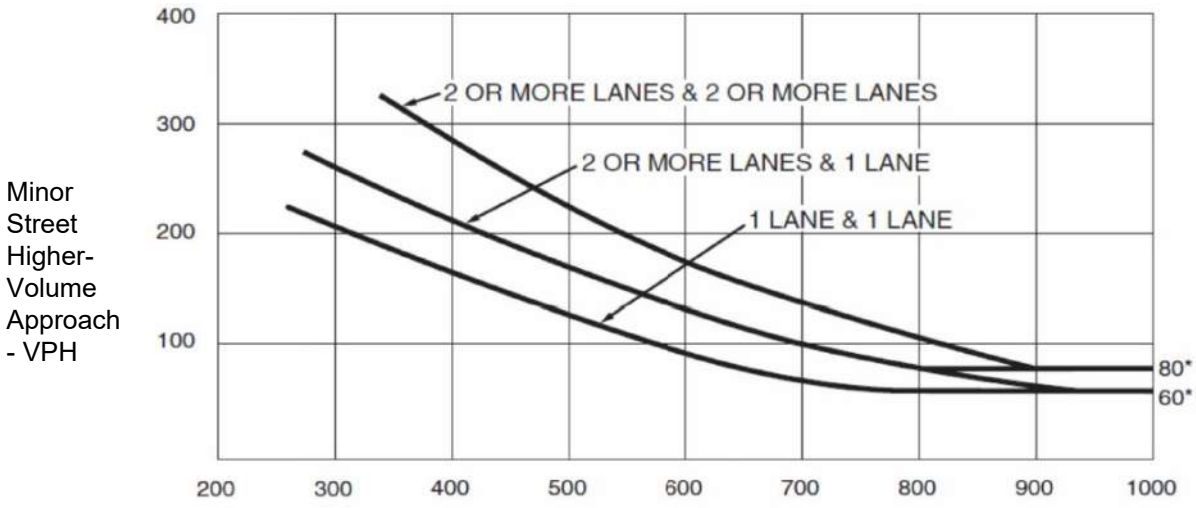
Requirements: Plot four highest hour volumes on the applicable figure below. If four points lie above the applicable curve then the warrant is satisfied.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 2 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 3, PEAK HOUR

Requirements: This signal warrant shall only be applied in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Unusual Condition
None

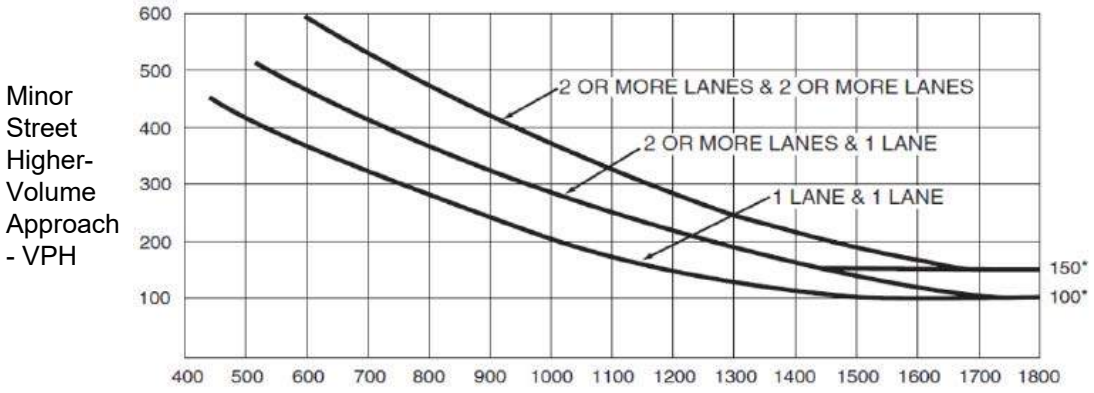
Either Condition A or Condition B is satisfied.

Condition A: The condition is satisfied if all three of the criteria are satisfied.

Criteria	Criteria Met if	Peak-Hour Value	Satisfied? Yes	Satisfied? No
Delay on Minor Approach (veh-hr)	4 veh-hr for 1 lane approach or 5 veh-hr for two-lane approach		☐	☐
Volume on Minor Approach (veh/hr)	100 veh/hr for one moving lane of traffic, or 150 veh/hr for two lanes		☐	☐
Total Entering Volume (veh/hr)	650 veh/hr for 3 approaches or 800 veh/hr for 4 or more		☐	☐

Condition B: Plot peak hour volumes on the applicable figure below. These conditions exist for the same 1 hour (and four consecutive, 15-minute periods) of an average day. If the point is above the appropriate line, then the warrant is satisfied.

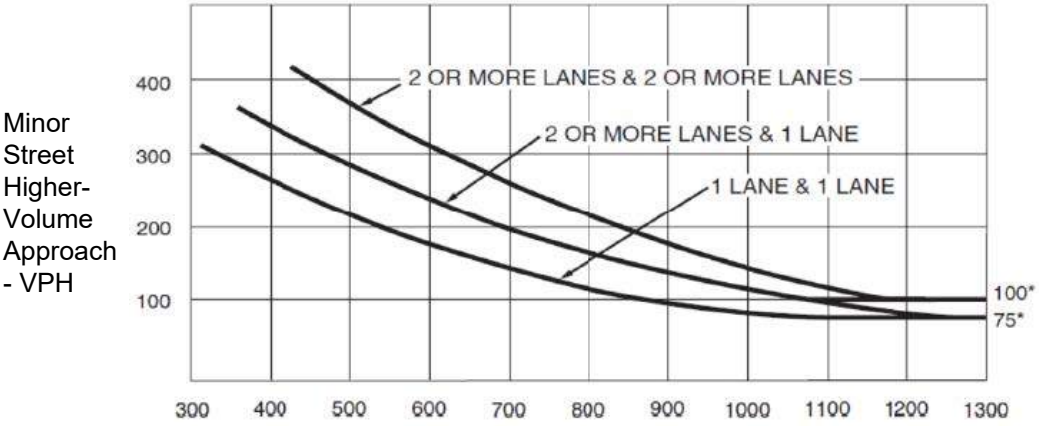
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

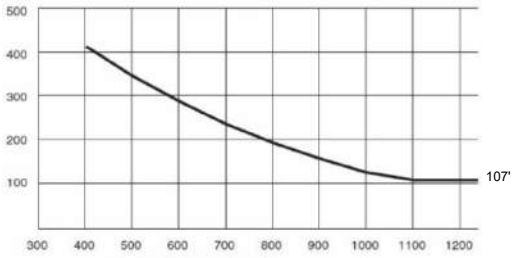
WARRANT 4, PEDESTRIAN VOLUME

Requirements: This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It shall not be applied at locations where the distance to the nearest traffic signal or stop sign controlling the street that pedestrians desire to cross is less than 300 feet.

Either criterion A or criterion B is satisfied.

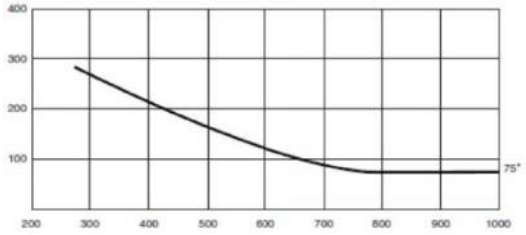
A: For each of any 4 hours of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

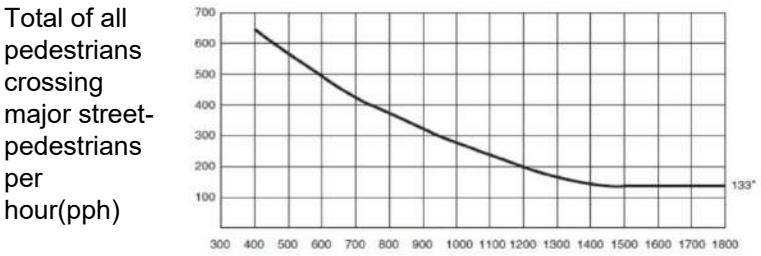
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

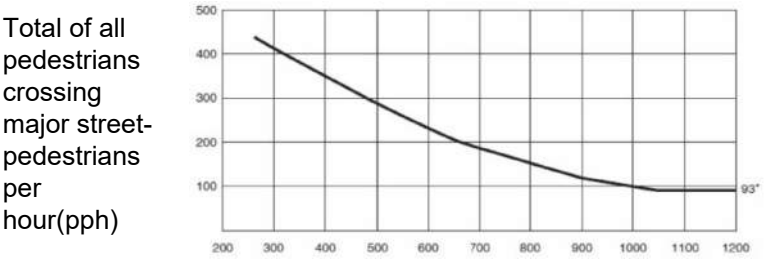
B: For 1 hour (any four consecutive 15-minute periods) of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-7.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

If the speed on major street exceeds 40 mph, or if population is less than 10,000, Figure 4C-6 or 4C-8 may be used.

Warrant 4 Met? ☐ Yes ☒ No ☐ Does not apply

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23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 5, SCHOOL CROSSING

Requirements: This warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

The warrant is satisfied if all three of the criteria are satisfied.

Criteria	Satisfied? Yes	No
During the time period when schoolchildren are using the crossing: Gaps < Number of minutes	☐	☐
There are a minimum of 20 schoolchildren during the highest crossing hour	☐	☐
The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	☐	☐

Warrant 5 Met? ☐ Yes ☐ No ☐ Does not apply

WARRANT 6, COORDINATED SIGNAL SYSTEM

Requirements: This warrant is satisfied if either criteria is satisfied. This warrant should not be applied when the resulting signal spacing would be less than 1000 ft.

Criteria	Satisfied? Yes	No
On a one-way street or a street that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicular platooning.	☐	☐
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	☐	☐

Warrant 6 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 7, CRASH EXPERIENCE

Requirements: The warrant is satisfied if all three of the criteria are satisfied.

Criteria		Hour	Satisfied? Yes	No
One of the warrants to the right is met:	Warrant 4.1at 80% of volume requirements: 80 ped/hr for 4 hrs or 152 ped/hr for 1 hr		☐	☐
	Warrant 1, Condition A (80% satisfied)		☐	☐
	Warrant 1, Condition B (80% satisfied)		☐	☐
Adequate trial of other remedial measures has failed to reduce crash frequency.		Measures Tried	☐	☐
Five or more reported crashes, of types susceptible to correction by signal control, have occurred within a 12 month period.		Number of Crashes	☐	☐

Warrant 7 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 8, ROADWAY NETWORK

Requirements: A "major route" as used in this signal warrant shall have at least one of the following characteristics:

Characteristics of a Major Route	Satisfied? Yes	No
Part of the street or highway system that serves as a principal roadway network for through traffic flow.	☐	☐
Rural or suburban highway outside of, entering, or traversing a city.	☐	☐
Appears as a major route on an official plan.	☐	☐

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

Criteria			Satisfied Yes	No
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during typical weekday peak hour.	Entering Volume:	☐	☐
	b. Five-year projected volumes that satisfy one or more of Warrants 1,2, or 3.	Warrant(s) satisfied:	☐	☐
2. Total entering volume of at least 1,000 veh/hr for each of any 5 hours of a non-normal business day (Sat. or Sun.)		Hour / Volume	☐	☐

Warrant 8 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 9, INTERSECTION NEAR A GRADE CROSSING

Requirements: This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal.

Both condition A and condition B are satisfied.

Criteria	Satisfied? Yes	No
A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach.	☐	☐
B. During the highest traffic volume hour during which rail traffic use the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.	☐	☐

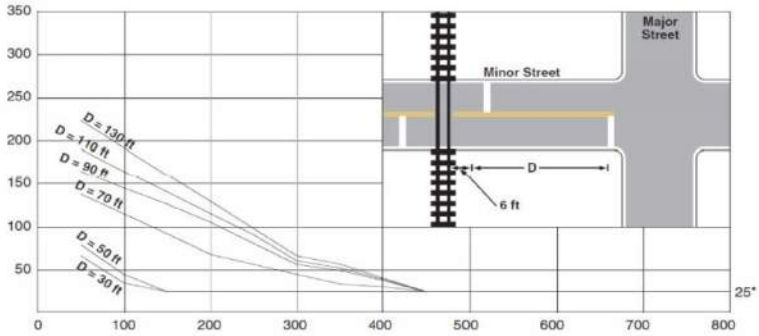
Warrant 9 Continued on next page

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 9, CONTINUED

Figure 4C-9. Warrant 9, Intersection near a Grade Crossing (one Approach Lane at the Track Crossing)

Minor Street, Crossing Approach-Equivalent VPH**

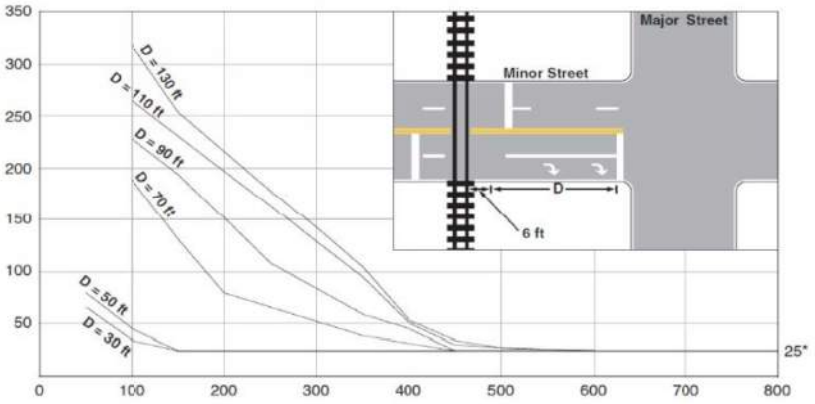


MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Figure 4C-10. Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)

Minor Street, Crossing Approach-Equivalent VPH**



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Warrant 9 Met? ☐ Yes ☐ No ☒ Does not apply

CONCLUSION

Warrants Satisfied
None

Signal Warranted ☐ Yes ☒ No

Remarks
The intersection of Sunset Dr at I-94 EB ramp terminals is analyzed assuming a configuration proposed under a Diverging Diamond Interchange alternative. The southbound through plus the eastbound left movements were considered the major approach, and the northbound the minor, as the through movements conflict with each other. The right turning movements were omitted. The intersection does not satisfy any warrants, and by numerical standards a traffic signal IS NOT WARRANTED. However, signalization may be required for proper operation of diverging diamond interchange.

TRAFFIC CONTROL STUDY - WARRANTS FOR TRAFFIC SIGNALS

North Dakota Department of Transportation, Programming
SFN 7924 (3-2023)

23 USC § 407 Documents
NDDOT Reserves All Objections

Date	Prepared by	City	Analysis Year
05/10/2023	Mead & Hunt	Mandan	2030

Major Road	Speed Limit (mph)	Number of Lanes
Sunset Drive	25	4

Minor Road	Speed Limit (mph)	Number of Lanes
I-94 Ramp Terminals	25	4

Minor road right-turn traffic excluded from the analysis because there is an exclusive right-turn lane and right-turn traffic enters the Major Road with minimal conflict: ☐ Yes ☒ No

1. Posted or 85th-percentile speed of major road traffic is > 40 mph: ☐ Yes ☒ No

2. In built-up area of isolated community < 10,000 population: ☐ Yes ☒ No

If question 1 or 2 is answered yes, then use 70% volume criteria: ☐ 70% ☒ 100%

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Requirements: Either Condition A (Minimum Vehicular Volume) or Condition B (Interruption of Continuous Traffic) is satisfied to 100% of the stated volumes for each of any 8 hours of an average day.
Or: Both Condition A and Condition B are satisfied to 80% of the stated volumes for each of any 8 hours of an average day.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

8 Highest Hour Volumes								
	1	2	3	4	5	6	7	8
Both Approaches Major Road	2,216	2,133	2,021	1,991	1,757	1,432	1,441	1,304
Highest Approach Minor Road	564	694	746	892	594	479	467	362

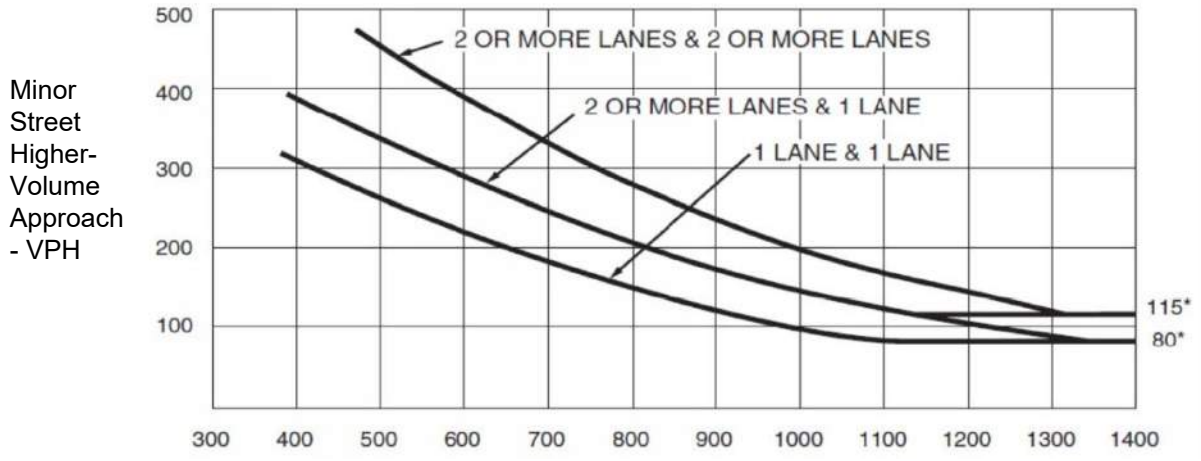
Warrant 1 Met? ☒ Yes ☐ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

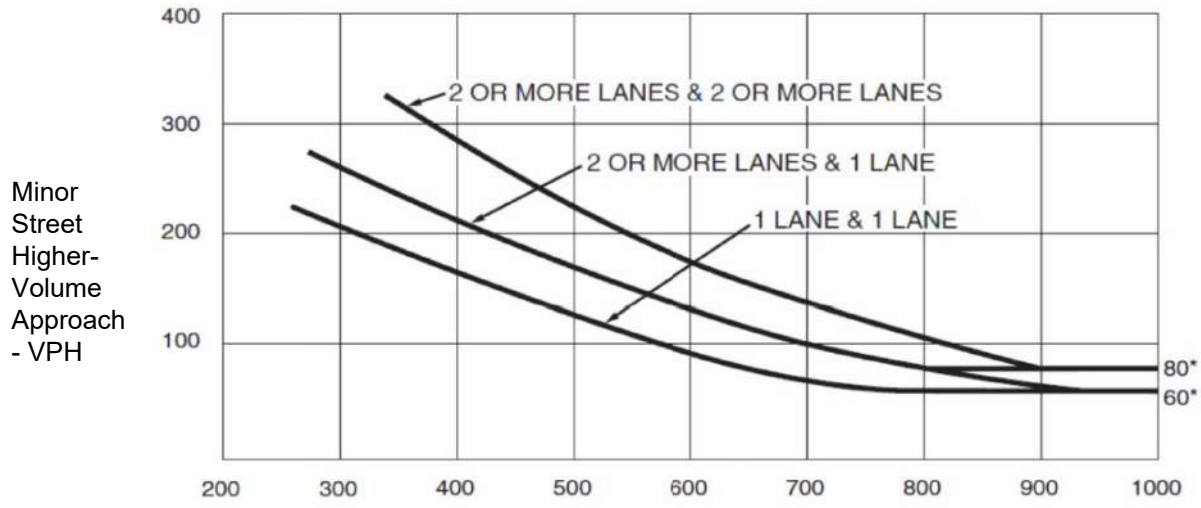
Requirements: Plot four highest hour volumes on the applicable figure below. If four points lie above the applicable curve then the warrant is satisfied.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 2 Met? ☒ Yes ☐ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 3, PEAK HOUR

Requirements: This signal warrant shall only be applied in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Unusual Condition
None

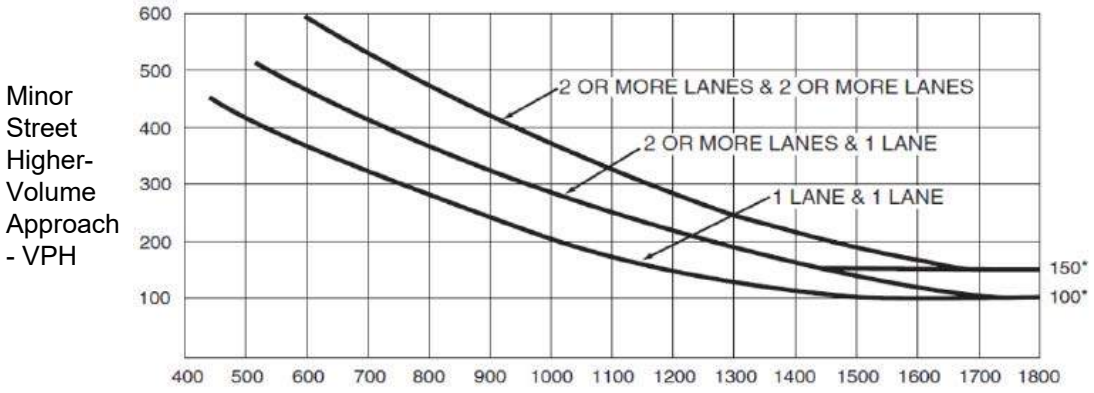
Either Condition A or Condition B is satisfied.

Condition A: The condition is satisfied if all three of the criteria are satisfied.

Criteria	Criteria Met if	Peak-Hour Value	Satisfied? Yes	Satisfied? No
Delay on Minor Approach (veh-hr)	4 veh-hr for 1 lane approach or 5 veh-hr for two-lane approach		☐	☐
Volume on Minor Approach (veh/hr)	100 veh/hr for one moving lane of traffic, or 150 veh/hr for two lanes		☐	☐
Total Entering Volume (veh/hr)	650 veh/hr for 3 approaches or 800 veh/hr for 4 or more		☐	☐

Condition B: Plot peak hour volumes on the applicable figure below. These conditions exist for the same 1 hour (and four consecutive, 15-minute periods) of an average day. If the point is above the appropriate line, then the warrant is satisfied.

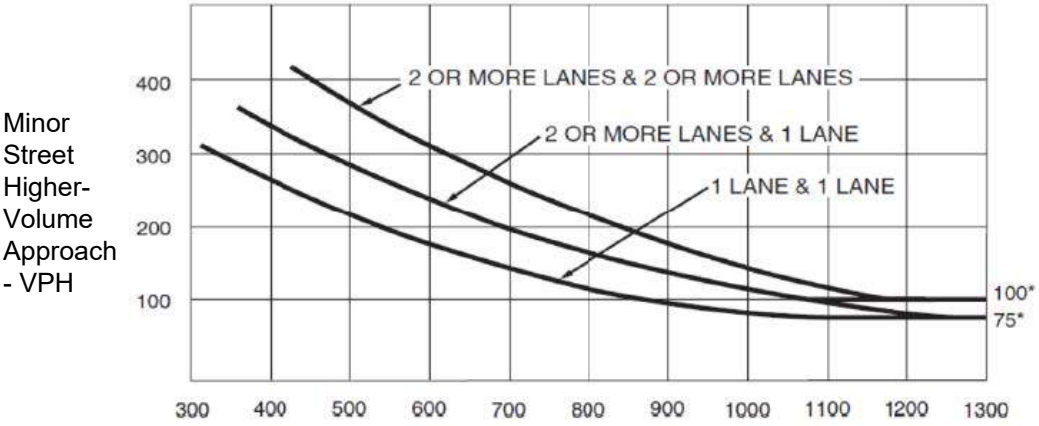
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

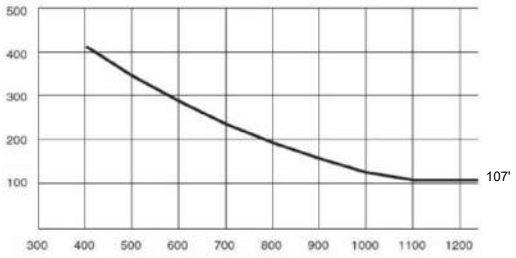
WARRANT 4, PEDESTRIAN VOLUME

Requirements: This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It shall not be applied at locations where the distance to the nearest traffic signal or stop sign controlling the street that pedestrians desire to cross is less than 300 feet.

Either criterion A or criterion B is satisfied.

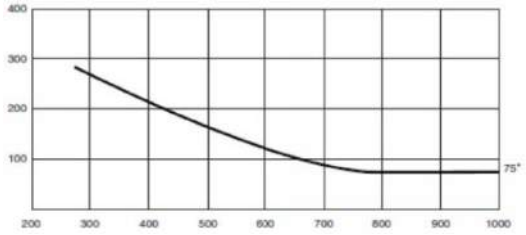
A: For each of any 4 hours of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

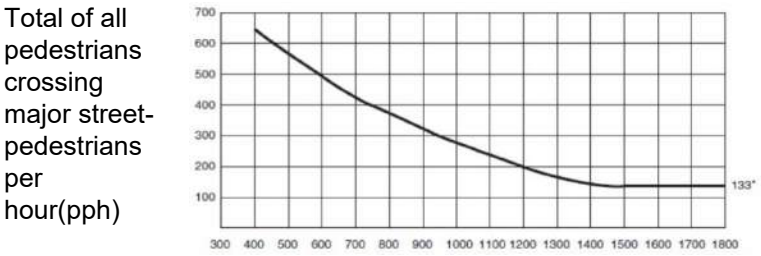
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

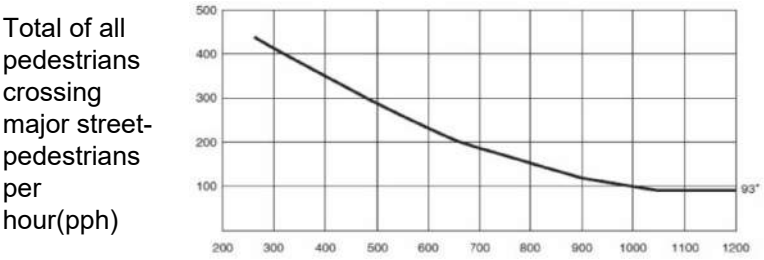
B: For 1 hour (any four consecutive 15-minute periods) of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-7.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

If the speed on major street exceeds 40 mph, or if population is less than 10,000, Figure 4C-6 or 4C-8 may be used.

Warrant 4 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 5, SCHOOL CROSSING

Requirements: This warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

The warrant is satisfied if all three of the criteria are satisfied.

Criteria	Satisfied? Yes	No
During the time period when schoolchildren are using the crossing: Gaps < Number of minutes	☐	☐
There are a minimum of 20 schoolchildren during the highest crossing hour	☐	☐
The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	☐	☐

Warrant 5 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 6, COORDINATED SIGNAL SYSTEM

Requirements: This warrant is satisfied if either criteria is satisfied. This warrant should not be applied when the resulting signal spacing would be less than 1000 ft.

Criteria	Satisfied? Yes	No
On a one-way street or a street that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicular platooning.	☐	☐
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	☐	☐

Warrant 6 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 7, CRASH EXPERIENCE

Requirements: The warrant is satisfied if all three of the criteria are satisfied.

Criteria		Hour	Satisfied? Yes	No
One of the warrants to the right is met:	Warrant 4.1at 80% of volume requirements: 80 ped/hr for 4 hrs or 152 ped/hr for 1 hr		☐	☒
	Warrant 1, Condition A (80% satisfied)		☒	☐
	Warrant 1, Condition B (80% satisfied)		☒	☐
Adequate trial of other remedial measures has failed to reduce crash frequency.		Measures Tried N/A	☐	☒
Five or more reported crashes, of types susceptible to correction by signal control, have occurred within a 12 month period.		Number of Crashes N/A	☐	☒

Warrant 7 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 8, ROADWAY NETWORK

Requirements: A "major route" as used in this signal warrant shall have at least one of the following characteristics:

Characteristics of a Major Route	Satisfied? Yes	No
Part of the street or highway system that serves as a principal roadway network for through traffic flow.	☐	☐
Rural or suburban highway outside of, entering, or traversing a city.	☐	☐
Appears as a major route on an official plan.	☐	☐

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

Criteria			Satisfied Yes	No
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during typical weekday peak hour.	Entering Volume:	☐	☐
	b. Five-year projected volumes that satisfy one or more of Warrants 1,2, or 3.	Warrant(s) satisfied:	☐	☐
2. Total entering volume of at least 1,000 veh/hr for each of any 5 hours of a non-normal business day (Sat. or Sun.)		Hour / Volume	☐	☐

Warrant 8 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 9, INTERSECTION NEAR A GRADE CROSSING

Requirements: This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal.

Both condition A and condition B are satisfied.

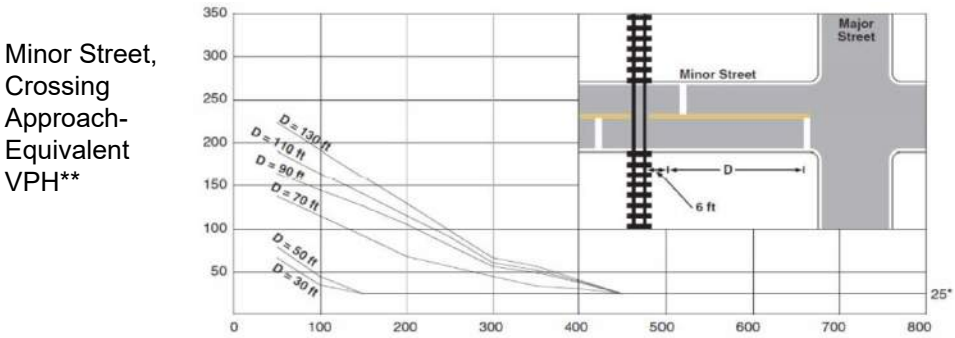
Criteria	Satisfied? Yes	No
A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach.	☐	☐
B. During the highest traffic volume hour during which rail traffic use the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.	☐	☐

Warrant 9 Continued on next page

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 9, CONTINUED

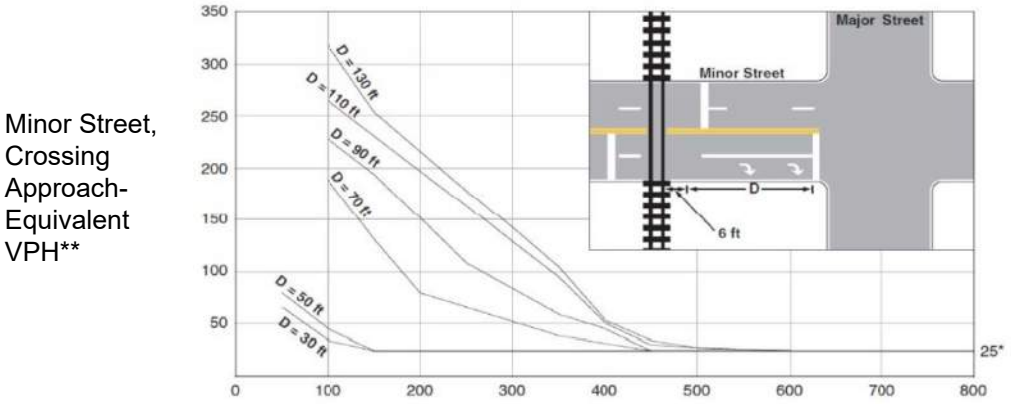
Figure 4C-9. Warrant 9, Intersection near a Grade Crossing (one Approach Lane at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Figure 4C-10. Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



MAJOR STREET -- TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)

*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Warrant 9 Met? ☐ Yes ☐ No ☒ Does not apply

CONCLUSION

Warrants Satisfied
Warrant 1: Eight-Hour Volume
Warrant 2: Four-Hour Volume

Signal Warranted ☒ Yes ☐ No

Remarks
The signal warrant analysis assumed a lane configuration proposed under a Single Point Interchange alternative. Warrant 7 was considered non-applicable as the intersection does not currently exist. The intersection satisfies warrants 1 and 2 under 030 Build Opening Year volumes, therefore a full color traffic signal IS WARRANTED.

TRAFFIC CONTROL STUDY - WARRANTS FOR TRAFFIC SIGNALS

North Dakota Department of Transportation, Programming
SFN 7924 (3-2023)

23 USC § 407 Documents
NDDOT Reserves All Objections

Date	Prepared by	City	Analysis Year
05/10/2023	Mead & Hunt	Mandan	2030

Major Road	Speed Limit (mph)	Number of Lanes
Sunset Drive	25	1

Minor Road	Speed Limit (mph)	Number of Lanes
Boundary Street NW	25	1

Minor road right-turn traffic excluded from the analysis because there is an exclusive right-turn lane and right-turn traffic enters the Major Road with minimal conflict: ☐ Yes ☒ No

1. Posted or 85th-percentile speed of major road traffic is > 40 mph: ☐ Yes ☒ No

2. In built-up area of isolated community < 10,000 population: ☐ Yes ☒ No

If question 1 or 2 is answered yes, then use 70% volume criteria: ☐ 70% ☒ 100%

WARRANT 1, EIGHT-HOUR VEHICULAR VOLUME

Requirements: Either Condition A (Minimum Vehicular Volume) or Condition B (Interruption of Continuous Traffic) is satisfied to 100% of the stated volumes for each of any 8 hours of an average day.
Or: Both Condition A and Condition B are satisfied to 80% of the stated volumes for each of any 8 hours of an average day.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A - Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B - Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

8 Highest Hour Volumes								
	1	2	3	4	5	6	7	8
Both Approaches Major Road	1446	1265	1207	1129	1117	893	843	802
Highest Approach Minor Road	150	119	144	86	117	72	70	64

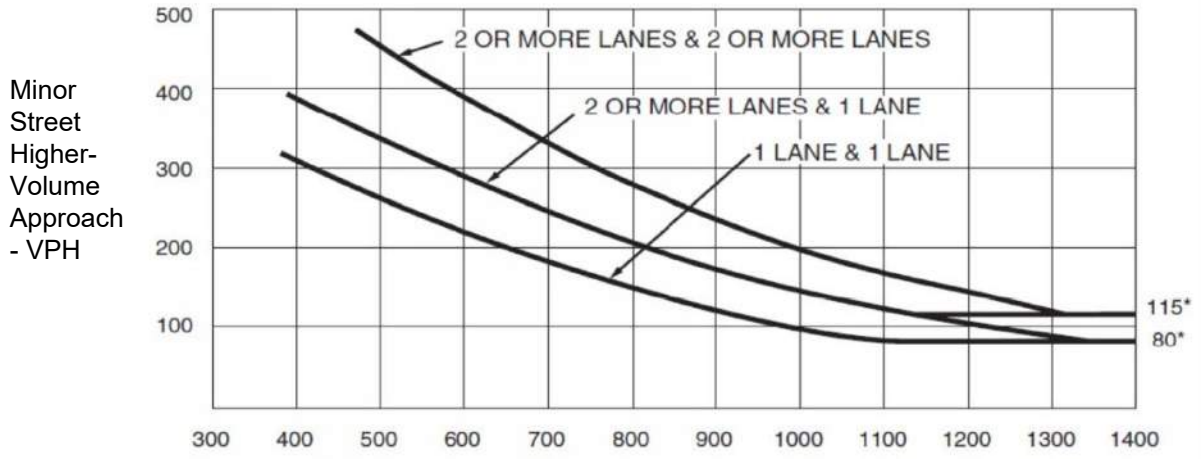
Warrant 1 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 2, FOUR-HOUR VEHICULAR VOLUME

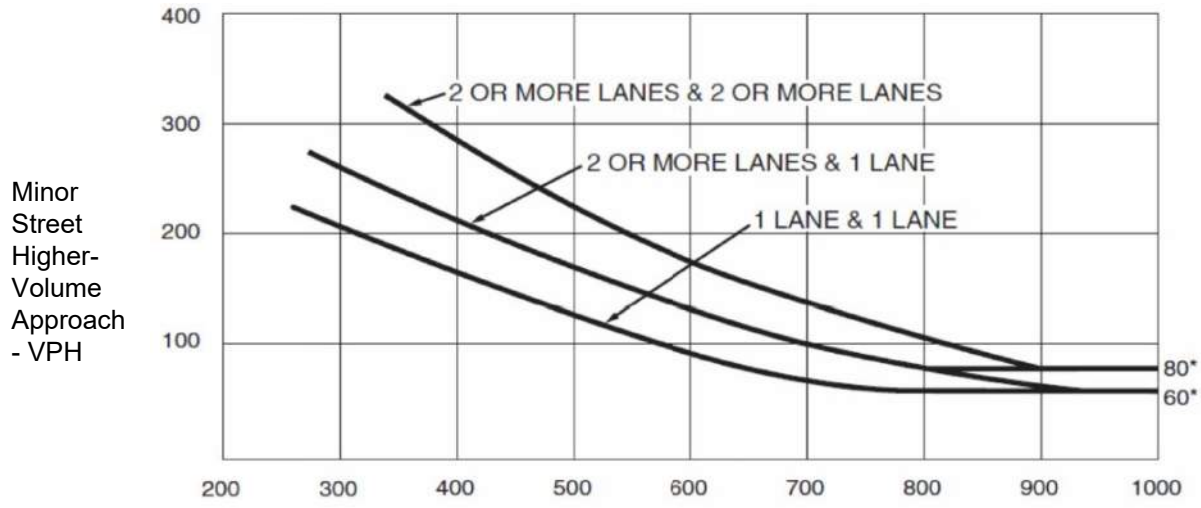
Requirements: Plot four highest hour volumes on the applicable figure below. If four points lie above the applicable curve then the warrant is satisfied.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 2 Met? ☒ Yes ☐ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 3, PEAK HOUR

Requirements: This signal warrant shall only be applied in unusual cases. Such cases include, but are not limited to, office complexes, manufacturing plants, industrial complexes, or high occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.

Unusual Condition
None

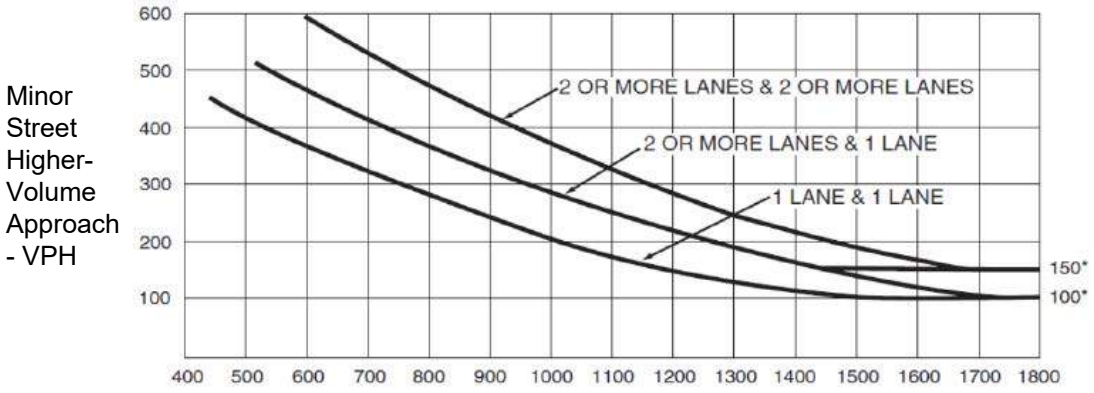
Either Condition A or Condition B is satisfied.

Condition A: The condition is satisfied if all three of the criteria are satisfied.

Criteria	Criteria Met if	Peak-Hour Value	Satisfied? Yes	Satisfied? No
Delay on Minor Approach (veh-hr)	4 veh-hr for 1 lane approach or 5 veh-hr for two-lane approach		☐	☐
Volume on Minor Approach (veh/hr)	100 veh/hr for one moving lane of traffic, or 150 veh/hr for two lanes		☐	☐
Total Entering Volume (veh/hr)	650 veh/hr for 3 approaches or 800 veh/hr for 4 or more		☐	☐

Condition B: Plot peak hour volumes on the applicable figure below. These conditions exist for the same 1 hour (and four consecutive, 15-minute periods) of an average day. If the point is above the appropriate line, then the warrant is satisfied.

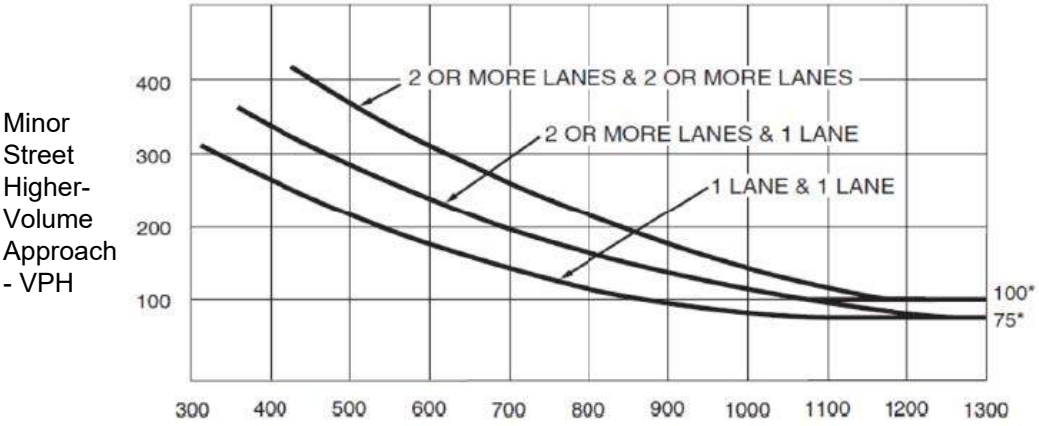
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(Community Less than 10,000 Population or Above 40 MPH on Major Street)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Warrant 3 Met? ☐ Yes ☐ No ☒ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

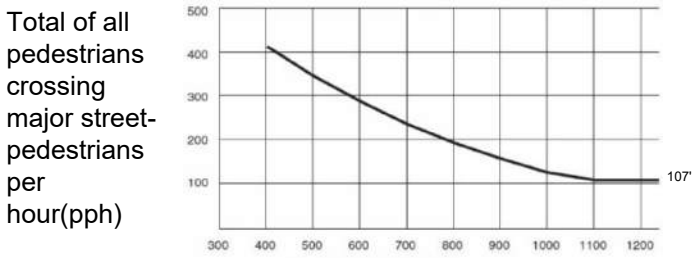
WARRANT 4, PEDESTRIAN VOLUME

Requirements: This warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It shall not be applied at locations where the distance to the nearest traffic signal or stop sign controlling the street that pedestrians desire to cross is less than 300 feet.

Either criterion A or criterion B is satisfied.

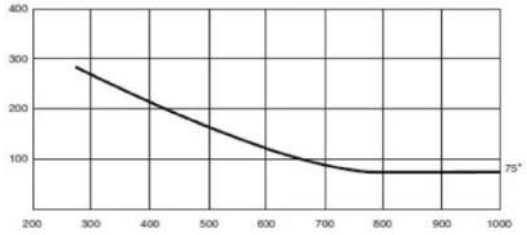
A: For each of any 4 hours of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

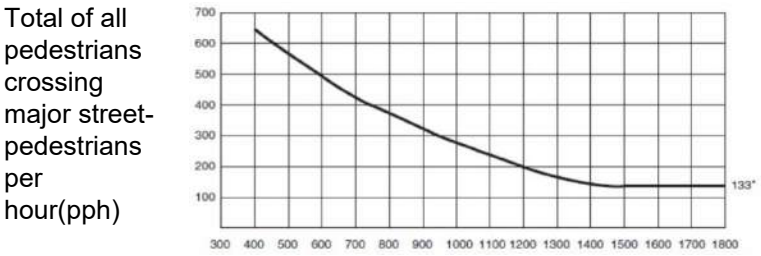
Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

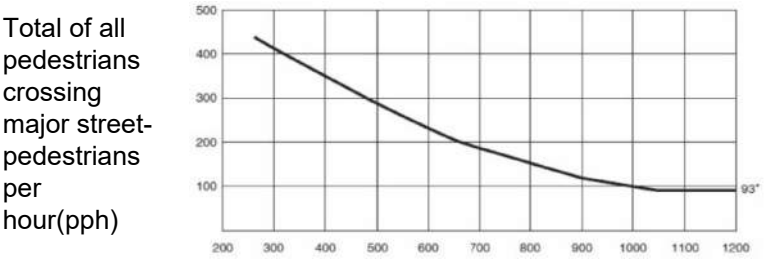
B: For 1 hour (any four consecutive 15-minute periods) of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-7.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

If the speed on major street exceeds 40 mph, or if population is less than 10,000, Figure 4C-6 or 4C-8 may be used.

Warrant 4 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 5, SCHOOL CROSSING

Requirements: This warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

The warrant is satisfied if all three of the criteria are satisfied.

Criteria	Satisfied? Yes	No
During the time period when schoolchildren are using the crossing: Gaps < Number of minutes	☐	☐
There are a minimum of 20 schoolchildren during the highest crossing hour	☐	☐
The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	☐	☐

Warrant 5 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 6, COORDINATED SIGNAL SYSTEM

Requirements: This warrant is satisfied if either criteria is satisfied. This warrant should not be applied when the resulting signal spacing would be less than 1000 ft.

Criteria	Satisfied? Yes	No
On a one-way street or a street that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicular platooning.	☐	☐
On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.	☐	☐

Warrant 6 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 7, CRASH EXPERIENCE

Requirements: The warrant is satisfied if all three of the criteria are satisfied.

Criteria		Hour	Satisfied? Yes	No
One of the warrants to the right is met:	Warrant 4.1at 80% of volume requirements: 80 ped/hr for 4 hrs or 152 ped/hr for 1 hr		☐	☒
	Warrant 1, Condition A (80% satisfied)		☐	☒
	Warrant 1, Condition B (80% satisfied)		☐	☒
Adequate trial of other remedial measures has failed to reduce crash frequency.		Measures Tried None	☐	☒
Five or more reported crashes, of types susceptible to correction by signal control, have occurred within a 12 month period.		Number of Crashes 4	☐	☒

Warrant 7 Met? ☐ Yes ☒ No ☐ Does not apply

23 USC § 407 Documents
NDDOT Reserves All Objections

WARRANT 8, ROADWAY NETWORK

Requirements: A "major route" as used in this signal warrant shall have at least one of the following characteristics:

Characteristics of a Major Route	Satisfied? Yes	No
Part of the street or highway system that serves as a principal roadway network for through traffic flow.	☐	☐
Rural or suburban highway outside of, entering, or traversing a city.	☐	☐
Appears as a major route on an official plan.	☐	☐

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

Criteria			Satisfied Yes	No
1. Both of the criteria to the right are met.	a. Total entering volume of at least 1,000 veh/hr during typical weekday peak hour.	Entering Volume:	☐	☐
	b. Five-year projected volumes that satisfy one or more of Warrants 1,2, or 3.	Warrant(s) satisfied:	☐	☐
2. Total entering volume of at least 1,000 veh/hr for each of any 5 hours of a non-normal business day (Sat. or Sun.)		Hour / Volume	☐	☐

Warrant 8 Met? ☐ Yes ☐ No ☒ Does not apply

WARRANT 9, INTERSECTION NEAR A GRADE CROSSING

Requirements: This warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic signal.

Both condition A and condition B are satisfied.

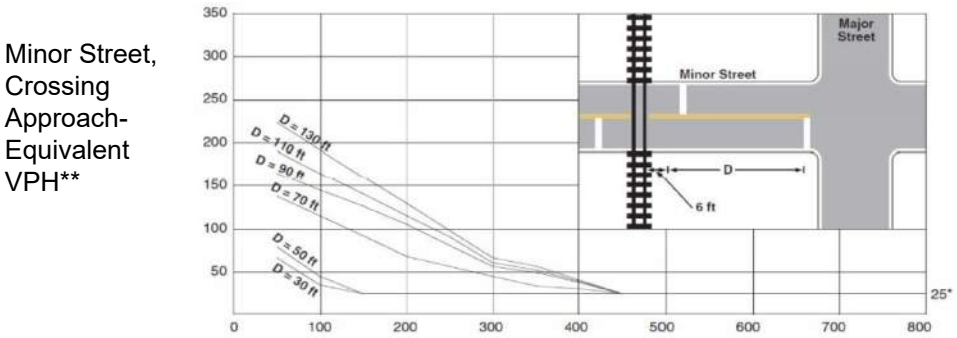
Criteria	Satisfied? Yes	No
A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach.	☐	☐
B. During the highest traffic volume hour during which rail traffic use the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.	☐	☐

Warrant 9 Continued on next page

23 USC § 407 Documents
NDDOT Reserves All Objections

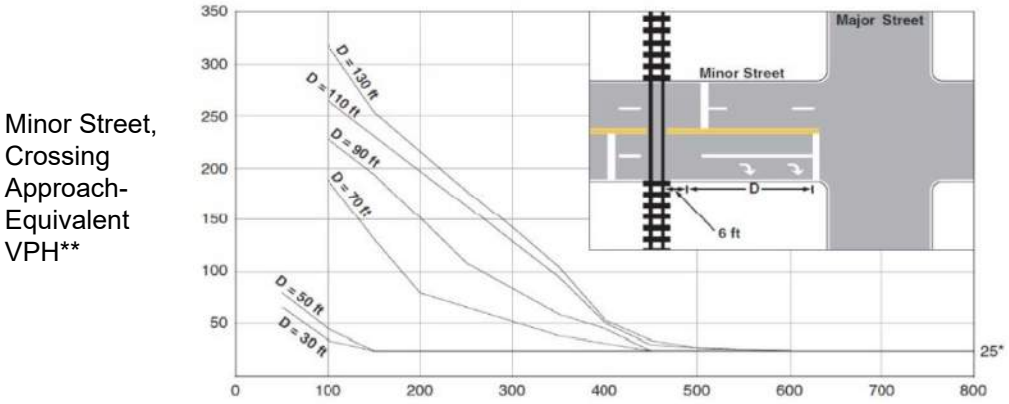
WARRANT 9, CONTINUED

Figure 4C-9. Warrant 9, Intersection near a Grade Crossing (one Approach Lane at the Track Crossing)



*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Figure 4C-10. Warrant 9, Intersection near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



*Note: 25 vph applies as the lower threshold volume.
**Note: VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate.

Warrant 9 Met? ☐ Yes ☐ No ☒ Does not apply

CONCLUSION

Warrants Satisfied
Warrant 2: Four-Hour Volume

Signal Warranted ☒ Yes ☐ No

Remarks
Warrant 2 is satisfied under 2030 Build Opening Year volumes, therefore a full color traffic signal IS WARRANTED at the intersection of Sunset Dr at Boundary St NW.