TRAFFIC IMPACT STUDY

For

Blue Sky Prairie
Weld County, Colorado

January 2024

Prepared for:

COLA, LLC
555 Middle Creek Parkway, Suite 500
Colorado Springs, CO 80921

Prepared by:

SM ROCHA, LLC
TRAFFIC AND TRANSPORTATION CONSULTANTS

8700 Turnpike Drive, Suite 240
Westminster, Colorado 80031
(303) 458-9798

6 South Tejon Street, Suite 618
Colorado Springs, Colorado 80903
(719) 203-6639

Project Manager:
Stephen Simon, EIT
Project Engineer:
Megan Bock, EIT

Engineer in Responsible Charge:
Fred Lantz, PE

24-122074

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I. Introduction

Project Overview

This traffic impact study is provided as a planning document and addresses the capacity, geometric, and control requirements associated with the development entitled Blue Sky Prairie.

This proposed development consists of a residential subdivision including a mix of single-family and multifamily housing. The development is located on the south side of E County Road 14 and east of High Plains Boulevard in Weld County, Colorado.

Study Area

The study area to be examined in this analysis encompasses High Plains Boulevard between E County Road 14 and State Highway 60, and E Count Road 14 from I-25 Frontage Road to High Plains Boulevard, as well as the proposed site access drives.

Figure 1 illustrates location of the site and study intersections.

Site Description

Land for the development is currently vacant and surrounded by a mix of residential, agricultural, and open space land uses. The proposed development is understood to entail the new construction of a residential subdivision supporting as many as 226 multifamily dwelling units, and 401 single-family detached dwelling units.

Proposed access to the development is primarily provided at the following locations: one full-movement access onto High Plains Boulevard (referred to as Access A), and one full-movement access onto E County Road 14 (referred to as Access B). Additional access to the development area also includes connection to Onyx Place via extension of River Rock Drive, as well as future connection to the east. However, for analysis purposes said access locations were not directly analyzed given their internal nature to the overall residential development area and the conceptual nature of the site plan. Internal access operations are expected to provide levels of service equal to or better than those of the adjacent major study intersections.

For purposes of this study, it is anticipated that development construction would be completed by end of Year 2026. General site and access locations are shown on Figure 1. A conceptual site plan, as prepared by Henry Design Group, is shown on Figure 2. This plan is provided for illustrative purposes only.


North
Not to Scale
I-25 Frontage Road
Interstate 25
E County Road 14
Development Site
Brunner Boulevard
River Rock Drive
High Plains Boulevard
State Highway 60


NOTE:
1. THIS IS AN ILLUSTRATIVE CONCEPTUAL PLAN TO SHOW HOW THE PROPERTY COULD DEVELOP, AS WELL AS INDICATE THE CURRENT OWNERS INTENT. ALL DETAILS SHOWN ARE CONCEPTUAL ONLY AND MORE DETAILED PLANS AND ENGINEERING ARE REQUIRED TO ENSURE COMPLIANCE WITH TOWN CODES, REGULATIONS AND STANDARDS.
2. DIMENSIONS BETWEEN ACCESS POINTS ARE CONCEPTUAL. EXACT SPACING TO BE DETERMINED AT PLATTING.
North
Not to Scale
VETERANS PARKWAY
DETENTION
SMALL LOT COMMUNITY
22.59 ACRES
MAX. 12 DU/AC MAX. 271 LOTS
PROJECTING 10 DU/AC AND 226 LOTS
Access B
60' ROW LOCAL
80' ROW COLLECTOR
40' BUFFER
40' LANDSCAPE BUFFER
50' ABANDONED WELL SETBACK
PARK
OIL & GAS FACILITY
HIGH PLAINS BOULEVARD
WATER BIRCH AVENUE (Access A)
90' ROW COLLECTOR
60' ROW DEDICATION
30' BUFFER
ONYX PLACE
Rock River Drive

Existing and Committed Surface Transportation Network

Within the study area, High Plains Boulevard is the primary roadway that will accommodate traffic to and from the proposed development. The secondary roadways include E County Road 14, State Highway 60, Brunner Boulevard, I-25 Frontage Road, and River Rock Drive.

High Plains Boulevard is a north-south arterial roadway having between two to four through lanes (one to two lanes in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. High Plains Boulevard provides a posted speed limit of 35 MPH. High Plains Boulevard currently ends at E County Road 14 and is anticipated to be extended north of E County Road 14 upon continued area development.

E County Road 14 is an east-west arterial roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersections within the study area. E County Road 14 provides a posted speed limit of 55 MPH. E County Road 14 becomes State Highway 60 west of I-25 Frontage Road.

State Highway 60 is an east-west state roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. The Colorado Department of Transportation (CDOT) categorizes State Highway 60 as a Non-Rural Principal Highway (NR-A) and provides a posted speed limit of 55 MPH.

Brunner Boulevard is an east-west collector roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Brunner Boulevard provides a posted speed limit of 25 MPH.

I-25 Frontage Road is a north-south state roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. I-25 Frontage Road provides a posted speed limit of 55 MPH. I-25 Frontage Road is currently closed between E County Road 14 and State Highway 60 pursuant to CDOT's I-25 North Express Lanes Berthoud to Johnstown Project and is not anticipated to reopen in the future.

River Rock Drive is a north-south local roadway having two through lanes (one lane in each direction) with shared turn lanes at intersections within the existing adjacent subdivision. River Rock Drive does not provide a posted speed limit. However, based on the roadway classification, it is assumed to provide a posted speed limit of 25 MPH.

All study intersections operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more "STOP" signs.

Pursuant to the North I-25 Parallel Arterial Study (NIPA)[1], High Plains Boulevard is expected to be widened to a four-lane arterial roadway upon full build-out. However, the NIPA study does not indicate when this improvement may occur, and it is anticipated that ongoing area development will serve as the primary factor in determining when construction of specific sections of High Plains Boulevard will be necessary. For purposes of this analysis, it is assumed this improvement will be completed by Year 2044. Completion of additional extensions to High Plains Boulevard both north of E County Road 14 and south of State Highway 60 are expected to be completed pursuant to ongoing adjacent development plans. Further details regarding known planned development within the area is provided in Section III.

Additionally, pursuant to adjacent development plans, it is anticipated that State Highway 60 will also be widened to a four-lane cross section. However, no specific timing plans for implementation are known. Therefore, this improvement is also assumed to be completed by Year 2044.

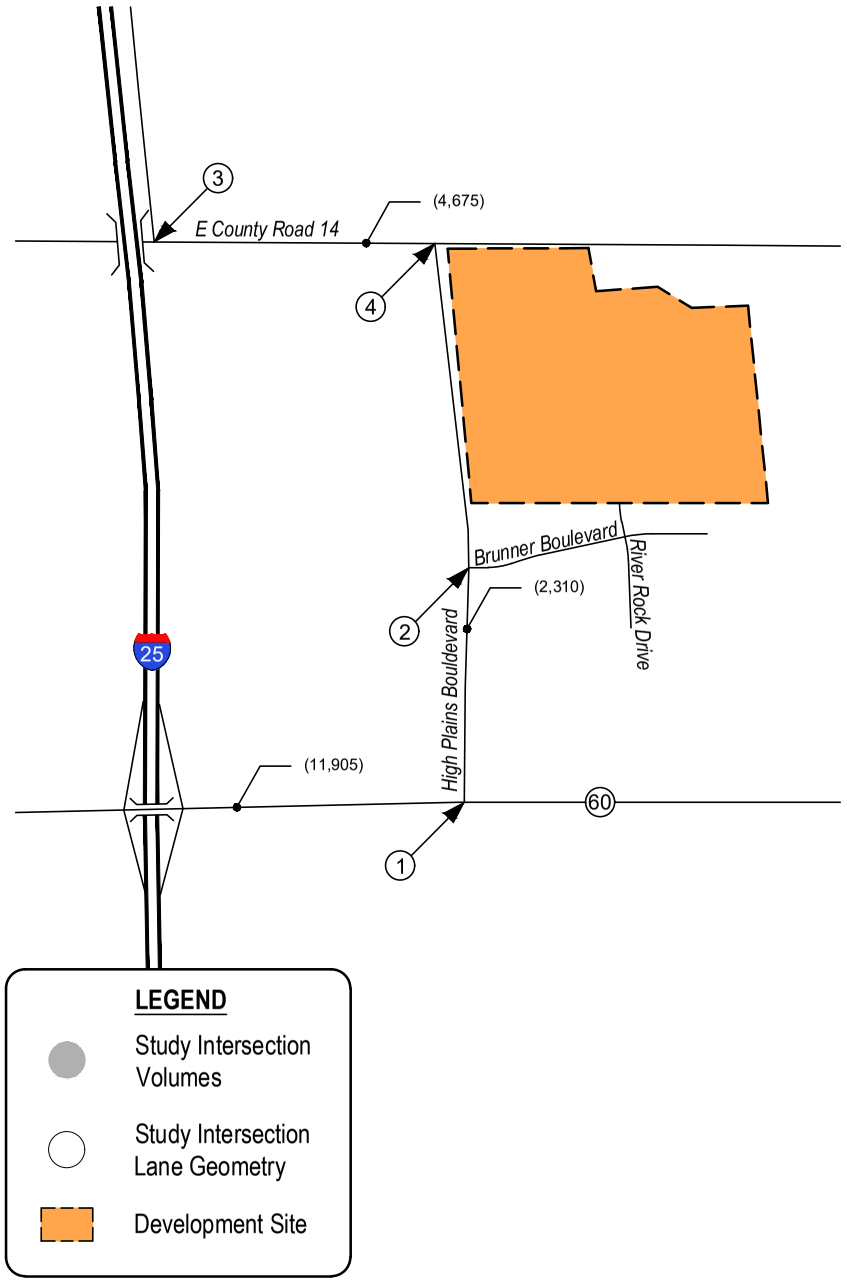
No other improvements for the above-described roadways are known to be planned or committed at this time, and it is anticipated that additional improvements will be site dependent as area development continues to provide a need for specific mitigation measures.

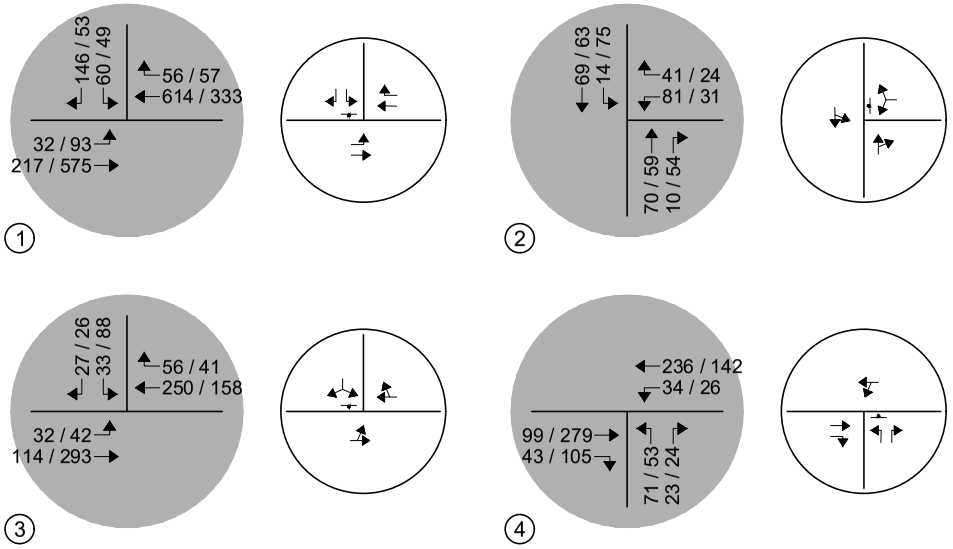
[1] North I-25 Parallel Arterial Study, Cambridge Systematics, Inc., April 2020.

II. Existing Traffic Conditions

Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the intersections of High Plains Boulevard with State Highway 60, Brunner Boulevard, and E County Road 14, as well as the E County Road 14 intersection with I-25 Frontage Road. Average daily traffic (ADT) volumes were collected over a 24-hour period on High Plains Boulevard, State Highway 60, and E County Road 14. Counts were collected on Wednesday, January 10, 2024, with AM peak hour counts being collected during the period of 7:00 a.m. to 9:00 a.m. and PM peak hour counts being collected during the period of 4:00 p.m. to 6:00 p.m.

Existing volumes and intersection geometry are shown on Figure 3. Traffic count data is included for reference in Appendix A.





North

Not to Scale

Figure 3
EXISTING TRAFFIC
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

Peak Hour Intersection Levels of Service – Existing Traffic

The Signalized and Unsignalized Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM), 6th Edition, by the Transportation Research Board and as incorporated into the SYNCHRO computer program, were used to analyze the study intersections for existing and future traffic conditions. These nationally accepted techniques allow for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement.

Level of service is a method of measurement used by transportation professionals to quantify a driver's perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from "A" which indicates little, if any, vehicle delay, to "F" which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix B and have been used throughout this study.

The level of service analyses results for existing conditions are summarized in Table 1.

Intersection capacity worksheets developed for this study are provided in Appendix C.

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic

INTERSECTION	LEVEL OF SERVICE	
LANE GROUPS	AM PEAK HOUR	PM PEAK HOUR
SH 60 / High Plains Boulevard (Stop-Controlled)		
Eastbound Left	A	A
Southbound Left	C	D
Sounthbound Right	C	B
High Plains Boulevard / Brunner Boulevard (Stop-Controlled)		
Westbound Left and Right	B	B
Southbound Left and Through	A	A
E County Road 14 / I-25 Frontage Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	B	B
E County Road 14 / High Plains Boulevard (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left	B	B
Northbound Right	A	B

Key: Stop-Controlled Intersection: Level of Service

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that the unsignalized intersection of State Highway 60 with High Plains Boulevard has turning movement operations at or better than LOS C during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour.

The unsignalized intersection of High Plains Boulevard with Brunner Boulevard has turning movement operations at LOS B or better during both the morning and afternoon peak traffic hours.

The unsignalized intersection of E County Road 14 with I-25 Frontage Road has turning movement operations at LOS B or better during both the morning and afternoon peak traffic hours.

The unsignalized intersection of E County Road 14 with High Plains Boulevard has turning movement operations at LOS B or better during both the morning and afternoon peak traffic hours.

III. Future Traffic Conditions Without Proposed Development

Background traffic is the traffic projected to be on area roadways without consideration of the proposed development. Background traffic includes traffic generated by development of vacant parcels in the area.

To account for projected increases in background traffic for Years 2026 and 2044, a compounded annual growth rate was determined using historical traffic data provided by CDOT's Online Transportation Information System (OTIS) along the adjacent segment of State Highway 60, which anticipates a 20-year growth rate of approximately two percent. Therefore, a growth rate of two percent was applied to existing traffic volumes. This annual growth rate provides for a conservative analysis and is assumed to account for regional growth projections and the level of in-fill development expected within the area.

To account for projected traffic from adjacent developments not yet built, trip generations from the following traffic studies were added to background traffic volumes:

- Revere at Johnstown, Filing No. 1[2]
- Revere North[3]
- Ledge Rock Center[4]

Additionally, preliminary trip generation estimates for the future Vista Commons development, as provided by Rollins Consult LLC, were also added to background traffic volumes. Vista Commons trip generation used is included for reference in Appendix E.

Pursuant to the area roadway improvements discussed in Section I, Year 2026 background traffic conditions assume the extension of High Plains Boulevard south of State Highway 60 as well as the extension of I-25 Frontage Road south of E County Road 14 as part of the adjacent developments. Additionally, High Plains Boulevard and State Highway 60 assume four-lane cross sections by Year 2044, and the extension of High Plains Boulevard north of E County Road 14 as part of the adjacent Revere North development. These assumptions are considered to be consistent with the adjacent traffic studies.

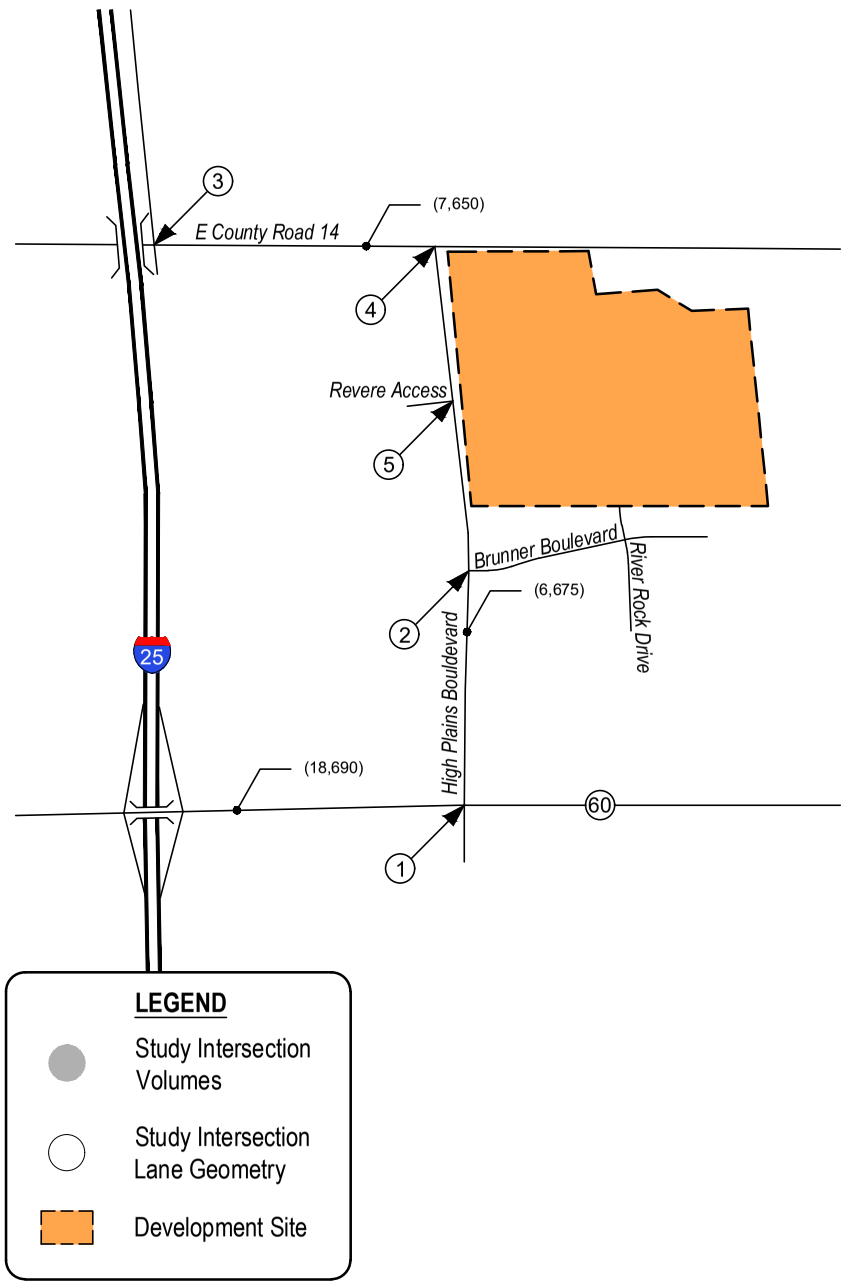
[2] Revere at Johnstown, Filing No. 1 Transportation Impact Study, Delich Associates, September 2020.
[3] Revere North Transportation Impact Study, Delich Associates, April 2022.
[4] Ledge Rock Center Traffic Impact Study, Sustainable Traffic Solutions, Inc., October 13, 2021.

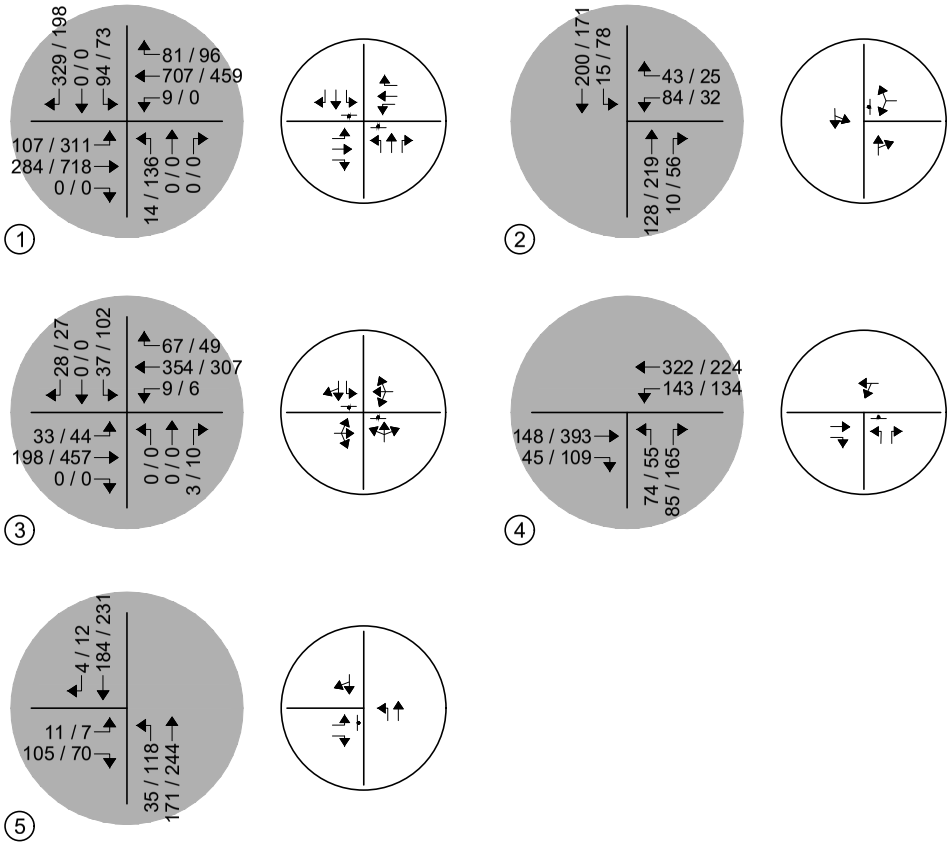
Background Traffic Signal Warrant

A signal warrant analysis, using Year 2026 and 2044 background traffic volumes, was conducted for the State Highway 60 intersection with High Plains Boulevard in order to review potential for traffic signal control. Year 2026 Analysis results conclude that the study intersection was found to be above the minimum vehicle volumes required to meet Warrant 3 – Peak Hour, from the Manual on Uniform Traffic Control Devices (MUTCD), for the installation of a traffic signal. It is noted however that warrants performed in previous traffic studies for adjacent developments did not anticipate signalization by Year 2026 and it is considered likely that actual timing for signal installation will be dependent on the various ongoing adjacent developments in addition to Blue Sky Prairie. As such, the State Highway 60 and High Plains Boulevard intersection analysis remained a stop-controlled condition for Year 2026 but is assumed to be signalized by Year 2044. Warrant study worksheets are provided for reference in Appendix D.

Warrant 3 is intended for use at locations where traffic conditions are such that for a minimum of one hour on an average day, the minor-street (High Plains Boulevard) traffic suffers undue delay when entering or crossing the major street (State Highway 60). This assumption provides for a conservative analysis. Said study intersection should be monitored further by CDOT and County Staff as area development occurs to determine when signalization installation is appropriate.

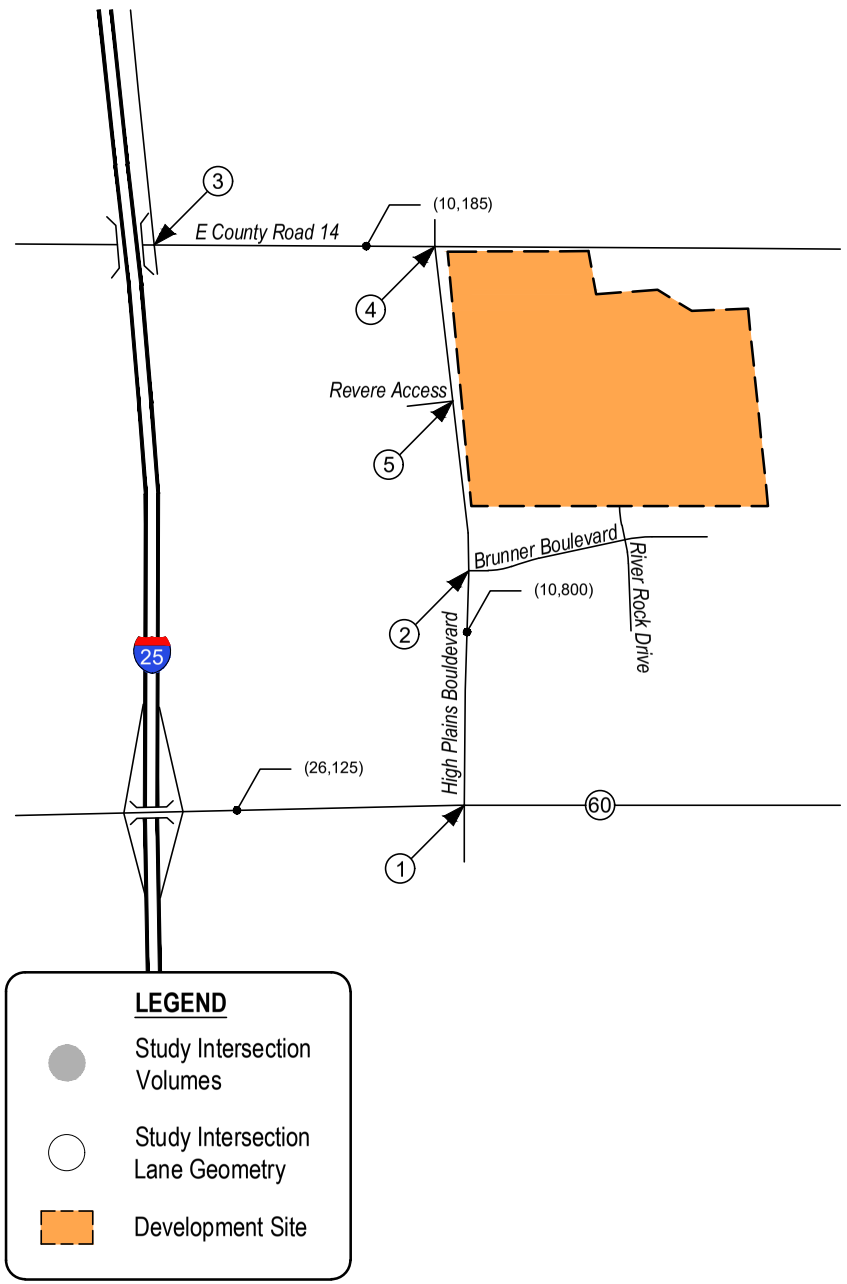
Projected background traffic volumes and intersection geometry for Years 2026 and 2044 are shown on Figure 4 and Figure 5, respectively.





North
Not to Scale

Figure 4
BACKGROUND TRAFFIC - YEAR 2026
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic



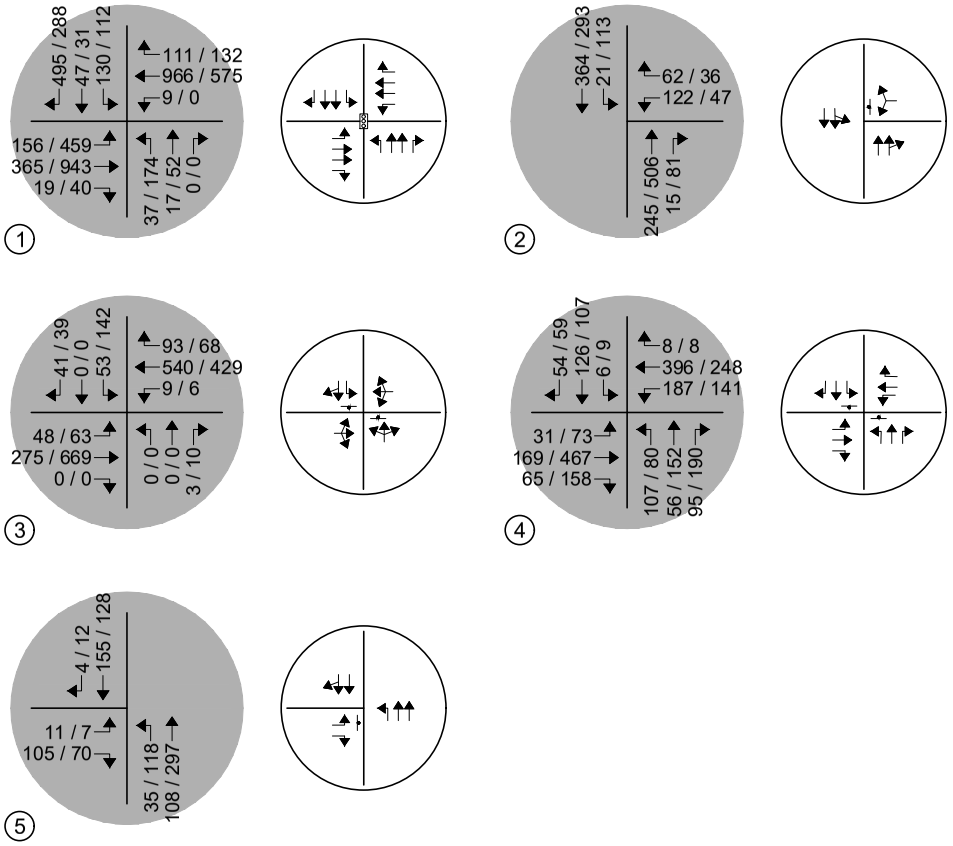


Figure 5
BACKGROUND TRAFFIC - YEAR 2044
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

Peak Hour Intersection Levels of Service – Background Traffic

As with existing traffic conditions, the operations of study intersections were analyzed under background conditions, without the proposed development, using the SYNCHRO computer program.

Background traffic level of service analysis results for Year 2026 are listed in Table 2. Year 2044 operational results are summarized in Table 3.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2026

INTERSECTION	LEVEL OF SERVICE	
LANE GROUPS	AM PEAK HOUR	PM PEAK HOUR
SH 60 / High Plains Boulevard (Stop-Controlled)		
Eastbound Left	B	B
Westbound Left	A	A
Northbound Left	F	F
Northbound Through	A	A
Northbound Right	A	A
Southbound Left	F	F
Southbound Through	A	A
Sounthbound Right	F	C
High Plains Boulevard / Brunner Boulevard (Stop-Controlled)		
Westbound Left and Right	B	B
Southbound Left and Through	A	A
E County Road 14 / I-25 Frontage Road (Stop-Controlled)		
Eastbound Left, Through, and Right	A	A
Westbound Left, Through, and Right	A	A
Northbound Left, Through, and Right	A	B
Southbound Left	C	E
Southbound Through and Right	B	B
E County Road 14 / High Plains Boulevard (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left	C	D
Northbound Right	A	B
High Plains Boulevard / Access Drive (Stop-Controlled)		
Eastbound Left	B	C
Eastbound Right	B	B
Northbound Left	A	A

Key: Stop-Controlled Intersection: Level of Service

Background Traffic Analysis Results – Year 2026

Year 2026 background traffic analysis indicates that the unsignalized intersection of State Highway 60 with High Plains Boulevard has turning movement operations at or better than LOS B during the AM peak traffic hour and LOS C or better during the PM peak traffic hour. Exceptions include the northbound left and southbound left and right turning movements which operate at LOS F during both peak traffic hours. The LOS F operations are attributed to the high through traffic volumes along State Highway 60 and the stop-controlled nature of the intersection. Pursuant to the performed signal warrant analyses, it is anticipated that future signalization of the intersection will mitigate the projected LOS F operations shown under stop-controlled conditions.

The unsignalized intersection of High Plains Boulevard with Brunner Boulevard has turning movement operations at LOS B or better during the AM and PM peak traffic hours.

The unsignalized intersection of E County Road 14 with I-25 Frontage Road has turning movement operations at or better than LOS C during the AM peak traffic hour and LOS B or better during the PM peak traffic hour. Exceptions include the southbound left turning movement which operates at LOS E during the PM peak traffic hour. The LOS E operation is attributed to the through traffic volume along E County Road 14 and the stop-controlled nature of the intersection.

The unsignalized intersection of E County Road 14 with High Plains Boulevard has turning movement operations at LOS C or better during the AM peak traffic hour and LOS D or better during the PM peak traffic hour.

The unsignalized intersection of High Plains Boulevard with Access Drive has turning movement operations at LOS B or better during the AM peak traffic hour and LOS C or better during the PM peak traffic hour.

Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2044

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
SH 60 / High Plains Boulevard (Signalized)	C (25.8)	B (17.5)
High Plains Boulevard / Brunner Boulevard (Stop-Controlled)		
Westbound Left and Right	B	C
Southbound Left and Through	A	A
E County Road 14 / I-25 Frontage Road (Stop-Controlled)		
Eastbound Left, Through, and Right	A	A
Westbound Left, Through, and Right	A	A
Northbound Left, Through, and Right	A	B
Southbound Left	D	F
Southbound Through and Right	B	B
E County Road 14 / High Plains Boulevard (Stop-Controlled)		
Eastbound Left	A	A
Westbound Left	A	A
Northbound Left	F	F
Northbound Through	E	F
Northbound Right	A	C
Southbound Left	E	F
Southbound Through	F	F
Southbound Right	B	B
High Plains Boulevard / Access Drive (Stop-Controlled)		
Eastbound Left	B	B
Eastbound Right	A	A
Northbound Left	A	A

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service

Background Traffic Analysis Results – Year 2044

By Year 2044 and without the proposed development, the study intersection of State Highway 60 with High Plains Boulevard experiences LOS C operations during the AM peak traffic hour and LOS B operations during the PM peak traffic hour.

The study intersection of High Plains Boulevard with Brunner Boulevard experiences LOS B operations during the AM peak traffic hour and LOS C operations during the PM peak traffic hour.

The study intersection of E County Road 14 with I-25 Frontage Road experiences LOS D or better operations during the AM peak traffic hour and LOS B or better operations during the PM peak traffic hour. Exceptions include the southbound left turning movement which operates at LOS F during the PM peak traffic hour. The LOS F operation is attributed to the through traffic volume along E County Road 14 and the stop-controlled nature of the intersection.

The study intersection of E County Road 14 with High Plains Boulevard experiences LOS B or better operations during the AM peak traffic hour and LOS C or better operations during the PM peak traffic hour. Exceptions include the northbound and southbound left and through movements which operate at LOS E and F during their respective peak traffic hour. The LOS E and F operations are attributed to the through traffic volume along E County Road 14 and the stop-controlled nature of the intersection. It is noted that future improvements are expected at the E County Road 14 and High Plains Boulevard intersection in order to mitigate these projected LOS E and F operations pursuant to ongoing adjacent development to the north. Mitigation measures may include signalization or roundabout installation and are expected to occur concurrent with the extension of High Plains Boulevard to the north, however no specific plans are known. It is recommended that Town Staff continue to monitor the study intersection as area development occurs in order to determine when specific mitigation measures become necessary.

The study intersection of High Plains Boulevard with Access Drive experiences LOS B or better operations during both the AM and PM peak traffic hours.

IV. Proposed Project Traffic

Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the proposed land use in order to estimate average daily traffic (ADT), AM Peak Hour, and PM Peak Hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

The ITE land use codes 210 (Single-Family Detached Housing) and 220 (Multifamily Housing (Low-Rise)) were used for estimating trip generation because of their best fit to the proposed land use descriptions.

Trip generation rates used in this study are presented in Table 4.

Table 4 – Trip Generation Rates

ITE			TRIP GENERATION RATES						
			24	AM PEAK HOUR			PM PEAK HOUR		
CODE	LAND USE	UNIT	HOUR	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
220	Multifamily Housing (Low-Rise)	DU	6.74	0.10	0.30	0.40	0.32	0.19	0.51

Key: DU = Dwelling Units.

Table 5 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out.

Table 5 – Trip Generation Summary

ITE			TOTAL TRIPS GENERATED						
			24	AM PEAK HOUR			PM PEAK HOUR		
CODE	LAND USE	SIZE	HOUR	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	401 DU	3,781	73	208	281	237	139	377
220	Multifamily Housing (Low-Rise)	226 DU	1,523	22	69	90	73	43	115
		Total:	*5,305*	*95*	*276*	*371*	*310*	*182*	*492*

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 5 illustrates that the proposed development has the potential to generate approximately 5,305 daily vehicle trips with 371 of those occurring during the morning peak hour and 492 during the afternoon peak hour.

Adjustments to Trip Generation Rates

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction was taken in this analysis.

Trip Distribution

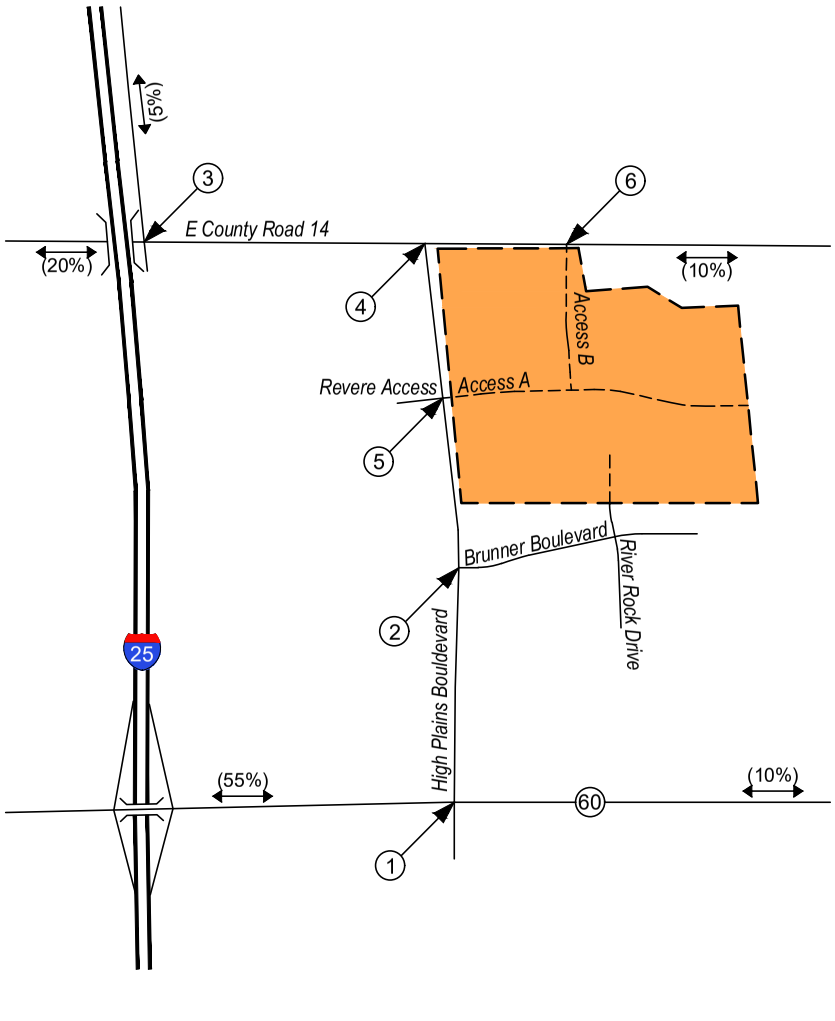
The overall directional distribution of site-generated traffic was determined based on the location of development site within the County, proposed and existing area land uses, allowed turning movements, available roadway network, and in reference to distribution patterns assumed in the previously prepared traffic study for the adjacent development.

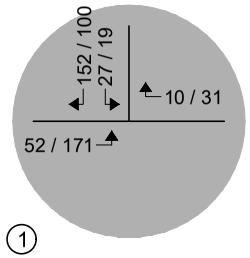
Overall trip distribution patterns for the development are shown on Figure 6.

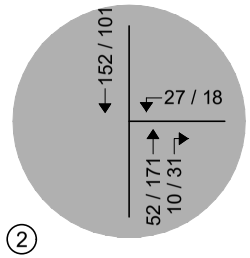
Trip Assignment

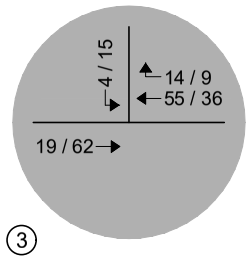
Traffic assignment is how generated and distributed vehicle trips are expected to be loaded onto the available roadway network.

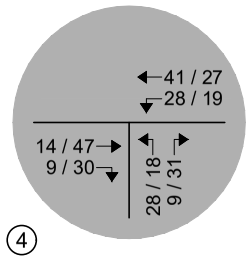
Applying trip distribution patterns to site-generated traffic provides the overall site-generated trip assignments shown on Figure 6.

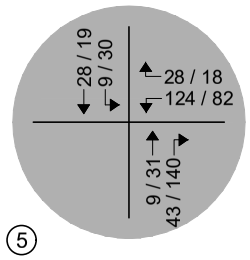


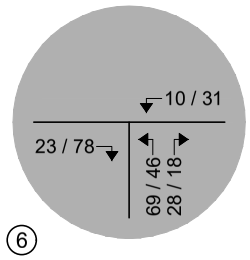












LEGEND

Study Intersection Volumes

Development Site

North

Not to Scale

Figure 6
SITE DEVELOPMENT DISTRIBUTION
(%) : Overall
SITE-GENERATED
AM / PM Peak Hour

V. Future Traffic Conditions With Proposed Developments

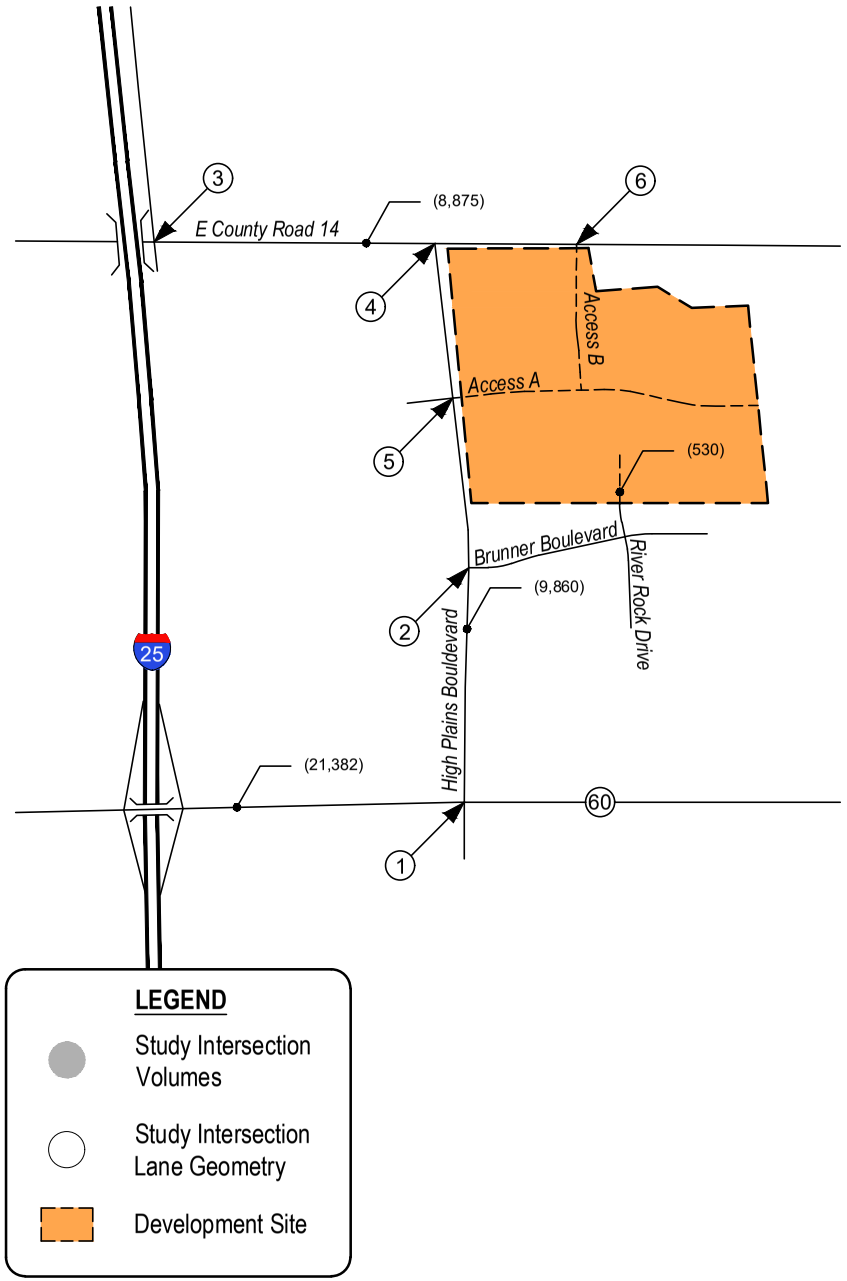
Total traffic is the traffic projected to be on area roadways with consideration of the proposed development. Total traffic includes background traffic projections for Years 2026 and 2044 with consideration of site-generated traffic. For analysis purposes, it was assumed that development construction would be completed by end of Year 2026.

Pursuant to area roadway improvement discussions provided in Section III, Year 2026 and Year 2044 total traffic conditions assume no additional roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency.

As previously discussed in Section III, Year 2026 and Year 2044 background traffic conditions indicate that the State Highway 60 and High Plains Boulevard intersection was found to be above the minimum vehicle volumes required to meet Warrant 3 – Peak Hour, from the MUTCD, for the installation of a traffic signal. To be consistent with background traffic assumptions, it is expected that signalization will have occurred after Year 2026. As such, the intersection was analyzed under a stop-controlled condition for Year 2026 and with traffic signal control by Year 2044.

Projected Year 2026 total traffic volumes and intersection geometry are shown in Figure 7.

Figure 8 shows projected total traffic volumes and intersection geometry for Year 2044.



North

Not to Scale

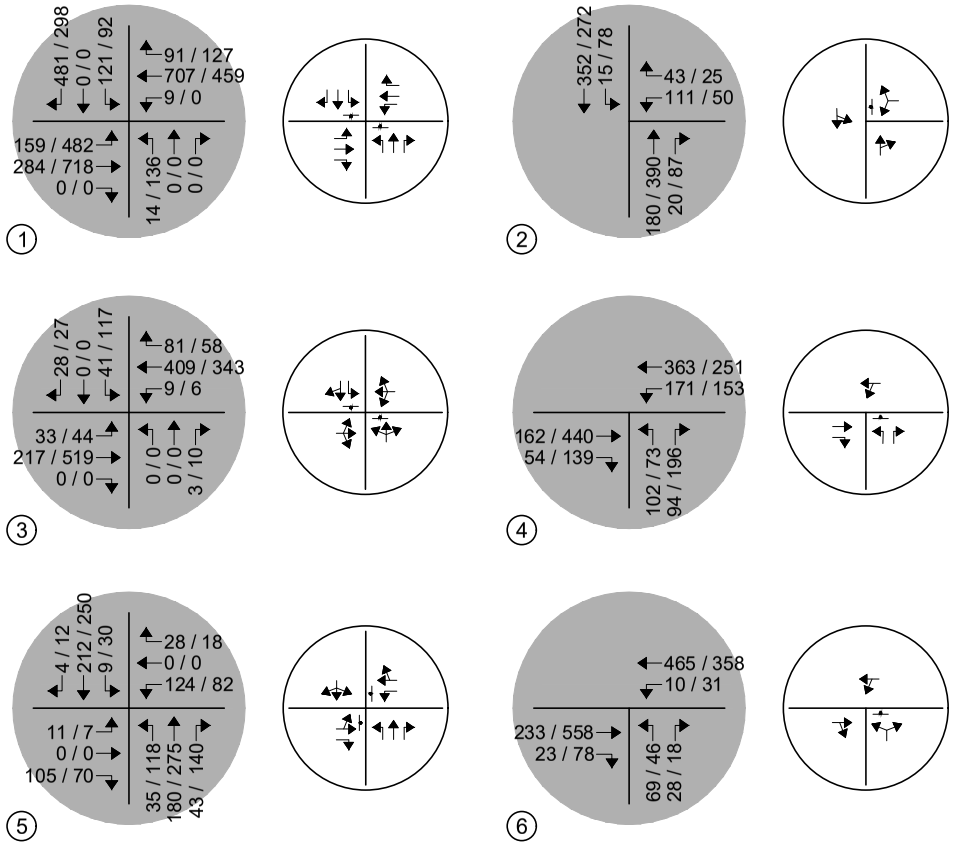
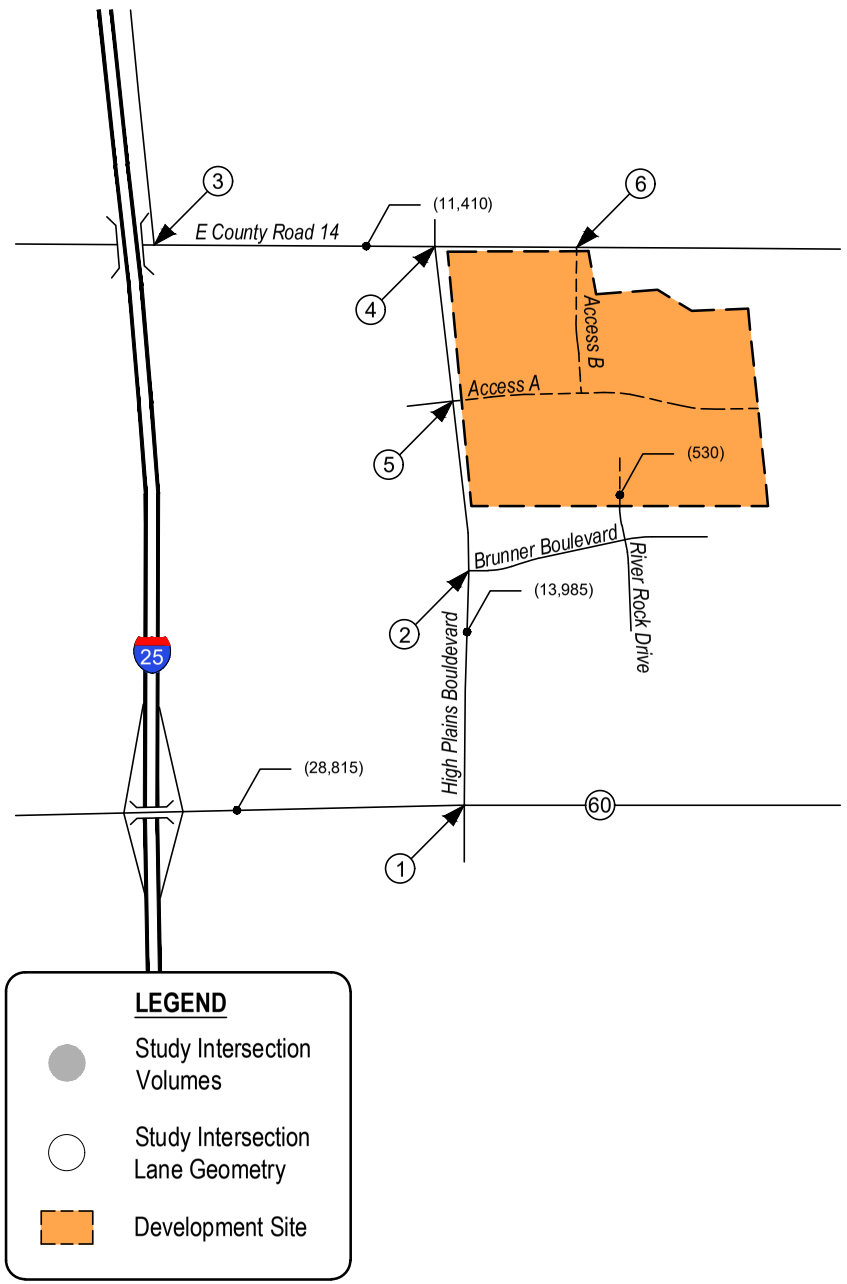


Figure 7
TOTAL TRAFFIC - YEAR 2026
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic



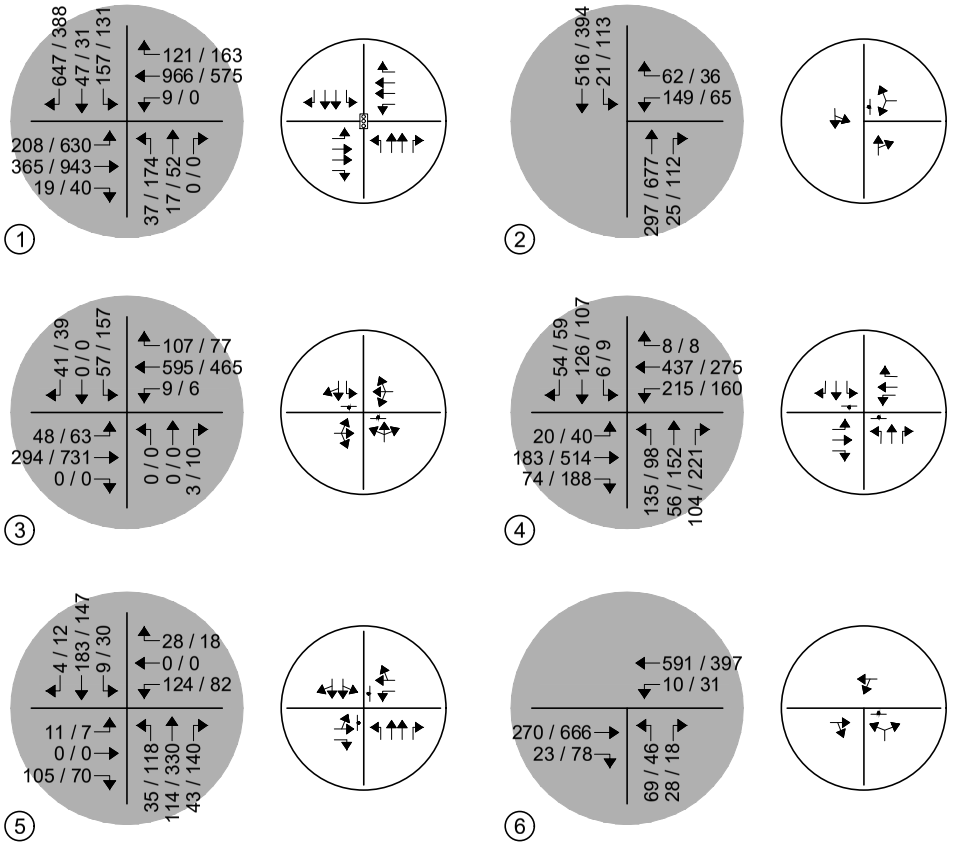


Figure 8
TOTAL TRAFFIC - YEAR 2044
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

VI. Project Impacts

The analyses and procedures described in this study were performed in accordance with the latest HCM and are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

Peak Hour Intersection Levels of Service – Total Traffic

As with background traffic, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. Total traffic level of service analysis results for Years 2026 and 2044 are summarized in Table 6 and Table 7, respectively.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 6 – Intersection Capacity Analysis Summary – Total Traffic – Year 2026

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
SH 60 / High Plains Boulevard (Stop-Controlled)		
Eastbound Left	B	B
Westbound Left	A	A
Northbound Left	F	F
Northbound Through	A	A
Northbound Right	A	A
Southbound Left	F	F
Southbound Through	A	A
Sounthbound Right	F	C
High Plains Boulevard / Brunner Boulevard (Stop-Controlled)		
Westbound Left and Right	C	C
Southbound Left and Through	A	A
E County Road 14 / I-25 Frontage Road (Stop-Controlled)		
Eastbound Left, Through, and Right	A	A
Westbound Left, Through, and Right	A	A
Northbound Left, Through, and Right	A	B
Southbound Left	C	F
Southbound Through and Right	B	B
E County Road 14 / High Plains Boulevard (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left	D	E
Northbound Right	A	B
High Plains Boulevard / Access A (Stop-Controlled)		
Eastbound Left and Through	B	C
Eastbound Right	B	B
Westbound Left	C	E
Westbound Through and Right	A	B
Northbound Left	A	A
Southbound Left, Through and Right	A	A
E County Road 14 / Access B (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	C	C

Key: Stop-Controlled Intersection: Level of Service

Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2044

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
SH 60 / High Plains Boulevard (Signalized)	D (37.7)	C (22.8)
High Plains Boulevard / Brunner Boulevard (Stop-Controlled)		
Westbound Left and Right	C	F
Southbound Left and Through	A	B
E County Road 14 / I-25 Frontage Road (Stop-Controlled)		
Eastbound Left, Through, and Right	A	A
Westbound Left, Through, and Right	A	A
Northbound Left, Through, and Right	B	B
Southbound Left	E	F
Southbound Through and Right	B	B
E County Road 14 / High Plains Boulevard (Stop-Controlled)		
Eastbound Left	A	A
Westbound Left	A	B
Northbound Left	F	F
Northbound Through	E	F
Northbound Right	A	C
Southbound Left	F	F
Southbound Through	F	F
Southbound Right	B	B
High Plains Boulevard / Access A (Stop-Controlled)		
Eastbound Left and Through	B	C
Eastbound Right	A	A
Westbound Left	B	D
Westbound Through and Right	A	A
Northbound Left	A	A
Southbound Left, Through and Right	A	A
E County Road 14 / Access B (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	C	D

Key: Signalized Intersection: Level of Service (Control Delay in sec/veh)
Stop-Controlled Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out

Table 7 illustrates how, by Year 2044 and upon development build-out, the signalized intersection of State Highway 60 with High Plains Boulevard shows an overall LOS D operation during the morning peak traffic hour and LOS C operation during the afternoon peak traffic hour.

The stop-controlled intersection of High Plains Boulevard with Brunner Boulevard is projected to have turning movement operations at LOS C or better during the AM peak traffic hour and LOS B for the PM peak traffic hour. Exceptions include the westbound turning movement which operates at LOS F during the PM peak traffic hour. The LOS F operation is attributed to the through traffic volume along High Plains Boulevard and the stop-controlled nature of the intersection.

The stop-controlled intersection of E County Road 14 with I-25 Frontage Road is projected to have turning movement operations at LOS B or better for the morning and afternoon peak traffic hours. Exceptions would include the southbound left turning movement which operates at LOS E and F during the AM and PM peak traffic hours, respectively. The LOS E and F operations are attributed to the high through traffic volumes along E County Road 14 and the stop-controlled nature of the intersection.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is recommended that CDOT and County Staff continue to monitor the E County Road 14 and I-25 Frontage Road intersection as area development occurs to determine when mitigation measures may be most appropriate.

The stop-controlled intersection of E County Road 14 with High Plains Boulevard is projected to have turning movement operations at LOS B or better for during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions continue to include the northbound and southbound left and through movements which operate at LOS E and F during their respective peak traffic hour. The LOS E and F operations are attributed to the through traffic volume along E County Road 14 and the stop-controlled nature of the intersection. As with background conditions, it is anticipated that future control improvements performed by adjacent developments will provide mitigation to the indicated poor operations. As such, actual future operations are expected to be better than shown.

The stop-controlled intersection of High Plains Boulevard with Access A is projected to have turning movement operations at LOS B or better for the morning peak traffic hour and LOS D or better for the afternoon peak traffic hour.

The stop-controlled intersection of E County Road 14 with Access B is projected to have turning movement operations at LOS C or better for the morning peak traffic hour and LOS D or better for the afternoon peak traffic hour.

These intersection operations are similar to background conditions.

As discussed in Section I, it is noted that proposed internal site access to the existing adjacent subdivision via River Rock Drive is anticipated to provide operations comparable to or better than the adjacent study intersections. Due to the acceptable operations shown at the intersection of High Plains Boulevard with Brunner Boulevard, no significant impacts to intersections along Brunner Boulevard or River Rock Drive are anticipated. Furthermore, projected average daily traffic volumes at the River Rock Drive access, as shown on Figures 7 and 8, are estimated to be approximately ten percent of total daily traffic volumes generated by the development and are considered to be minor.

Auxiliary Lane Analysis

Auxiliary lanes for site development accesses are to be based on County's Engineering and Construction Criteria (Criteria)[5], and CDOT's State Highway Access Code (SHAC)[6].

Considering development build-out, an evaluation of auxiliary lane requirements, pursuant to Section 8.7, Table 8-4 of the County's Criteria, as well as section 3.10 of the CDOT SHAC, reveals that left turn and right-turn deceleration lanes at Access A along High Plains Boulevard and Access B along E County Road 14 are required since the development's projected peak hour left turn and right turn ingress volumes exceed the County's thresholds of 10 and 25 vehicles per hour, respectively.

[5] Weld County Engineering and Construction Criteria, Atkins, January 2021.
[6] State Highway Access Code, State of Colorado, March 2002.

VII. Conclusion

This traffic impact study is provided as a planning document and addresses the capacity, geometric, and control requirements associated with the development entitled Blue Sky Prairie. This proposed development consists of a residential subdivision including a mix of single-family and multifamily housing. The development is located on the south side of E County Road 14 and west of High Plains Boulevard in Weld County, Colorado.

The study area examined in this analysis encompassed High Plains Boulevard between E County Road 14 and State Highway 60, and the proposed site access drives.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2026 and Year 2044 background traffic conditions, and Year 2026 and Year 2044 total traffic conditions.

Under existing conditions, operational analysis shows that the unsignalized study intersections generally experience turning movement operations at or better than LOS C during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour.

Year 2026 background traffic analysis indicates that the unsignalized intersection of State Highway 60 with High Plains Boulevard has turning movement operations at or better than LOS B during the AM peak traffic hour and LOS C or better during the PM peak traffic hour. Exceptions include the northbound left and southbound left and right turning movements which operate at LOS F during both peak traffic hours. The unsignalized intersection of High Plains Boulevard with Brunner Boulevard has turning movement operations at LOS B or better during the AM and PM peak traffic hours. The unsignalized intersection of E County Road 14 with I-25 Frontage Road has turning movement operations at or better than LOS C during the AM peak traffic hour and LOS B or better during the PM peak traffic hour. Exceptions include the southbound left turning movement which operates at LOS E during the PM peak traffic hour. The unsignalized intersection of E County Road 14 with High Plains Boulevard has turning movement operations at LOS C or better during the AM peak traffic hour and LOS D or better during the PM peak traffic hour. The unsignalized intersection of High Plains Boulevard with Access Drive has turning movement operations at LOS B or better during the AM peak traffic hour and LOS C or better during the PM peak traffic hour.

By Year 2044 and without the proposed development, the study intersection of State Highway 60 with High Plains Boulevard experiences LOS C operations during the AM peak traffic hour and LOS B operations during the PM peak traffic hour. The study intersection of High Plains Boulevard with Brunner Boulevard experiences LOS B operations during the AM peak traffic hour and LOS C operations during the PM peak traffic hour. The study intersection of E County Road 14 with I-25 Frontage Road experiences LOS D or better operations during the AM peak traffic hour and LOS B or better operations during the PM peak traffic hour. Exceptions include the southbound left turning movement which operates at LOS F during the PM peak traffic hour. The study intersection of E County Road 14 with High Plains Boulevard experiences LOS B or better operations during the AM peak traffic hour and LOS C or better operations during the PM peak traffic hour. Exceptions include the northbound and southbound left and through movements which operate at LOS E and F during their respective peak traffic hour. The study intersection of High Plains Boulevard with Access Drive experiences LOS B or better operations during both the AM and PM peak traffic hours.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create no negative impact to traffic operations for the existing and surrounding roadway system upon consideration of the various roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2044 background traffic conditions. Proposed site accesses have long-term operations at LOS D or better during peak traffic periods and upon build-out.

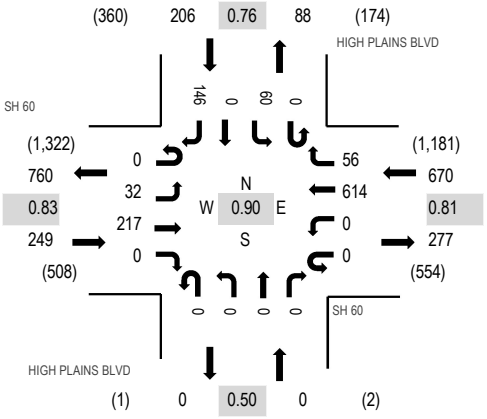
APPENDIX A

Traffic Count Data

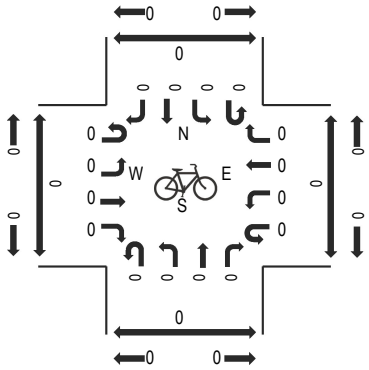
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 HIGH PLAINS BLVD & SH 60 AM
Date: Wednesday, January 10, 2024
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

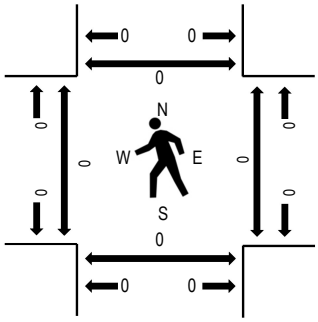
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

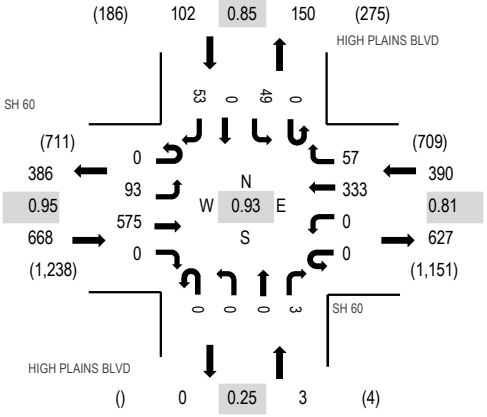
Traffic Counts - Motorized Vehicles

Interval Start Time	SH 60 Eastbound				SH 60 Westbound				HIGH PLAINS BLVD Northbound				HIGH PLAINS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	6	51	0	0	0	139	7	0	0	0	0	0	26	0	42	271	1,125	0	0	0	0
7:15 AM	0	7	47	0	0	0	165	14	0	0	0	0	0	14	0	29	276	1,078	0	0	0	0
7:30 AM	0	10	56	0	0	0	186	21	0	0	0	0	0	5	0	35	313	1,041	0	0	0	0
7:45 AM	0	9	63	0	0	0	124	14	0	0	0	0	0	15	0	40	265	991	0	0	0	0
8:00 AM	0	10	51	1	0	0	111	12	0	0	0	1	0	13	0	25	224	926	0	0	0	0
8:15 AM	0	6	50	0	0	0	128	15	0	1	0	0	0	18	0	21	239		0	0	0	0
8:30 AM	0	10	53	0	0	0	141	14	0	0	0	0	0	13	0	32	263		0	0	1	0
8:45 AM	0	14	64	0	0	0	85	5	0	0	0	0	0	14	0	18	200		0	0	1	0
Count Total	0	72	435	1	0	0	1,079	102	0	1	0	1	0	118	0	242	2,051		0	0	2	0
Peak Hour	0	32	217	0	0	0	614	56	0	0	0	0	0	60	0	146	1,125		0	0	0	0

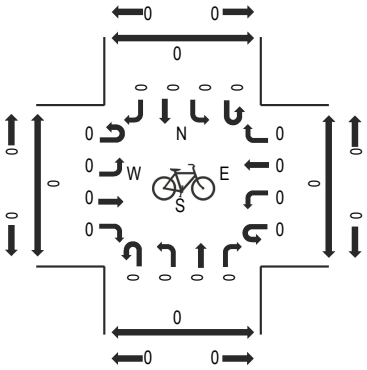
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 HIGH PLAINS BLVD & SH 60 PM
Date: Wednesday, January 10, 2024
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

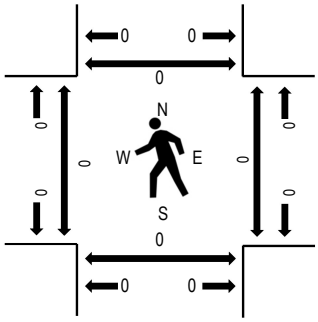
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

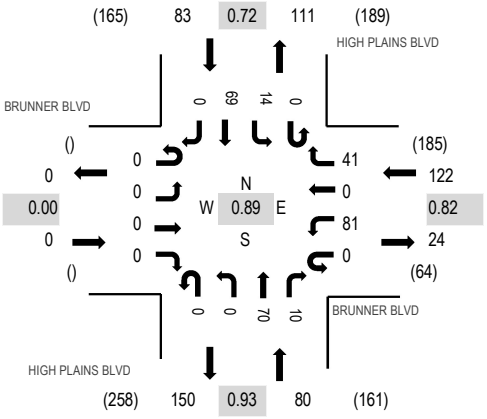
Traffic Counts - Motorized Vehicles

Interval Start Time	SH 60 Eastbound				SH 60 Westbound				HIGH PLAINS BLVD Northbound				HIGH PLAINS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	1	17	133	0	0	0	86	9	0	0	0	1	0	10	0	15	272	1,074	0	0	0	0
4:15 PM	0	23	129	0	0	0	61	11	0	0	0	0	0	8	0	12	244	1,098	0	0	0	0
4:30 PM	0	19	120	0	0	0	69	14	0	0	0	0	0	10	0	12	244	1,145	0	0	0	0
4:45 PM	0	18	156	0	0	0	106	14	0	0	0	0	0	11	0	9	314	1,163	0	0	0	0
5:00 PM	0	29	135	0	0	0	86	13	0	0	0	3	0	14	0	16	296	1,063	0	0	0	0
5:15 PM	0	31	144	0	0	0	71	16	0	0	0	0	0	12	0	17	291		0	0	0	0
5:30 PM	0	15	140	0	0	0	70	14	0	0	0	0	0	12	0	11	262		0	0	0	0
5:45 PM	0	23	105	0	0	0	60	9	0	0	0	0	0	8	0	9	214		0	0	0	0
Count Total	1	175	1,062	0	0	0	609	100	0	0	0	4	0	85	0	101	2,137		0	0	0	0
Peak Hour	0	93	575	0	0	0	333	57	0	0	0	3	0	49	0	53	1,163		0	0	0	0

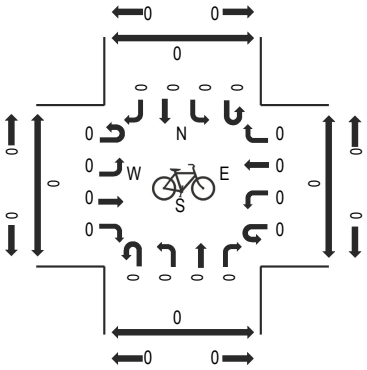
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 HIGH PLAINS BLVD & BRUNNER BLVD AM
Date: Wednesday, January 10, 2024
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

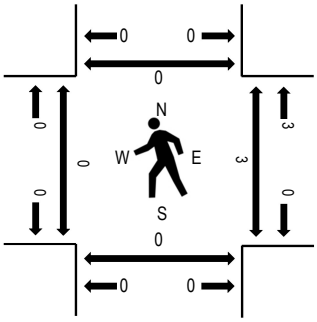
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

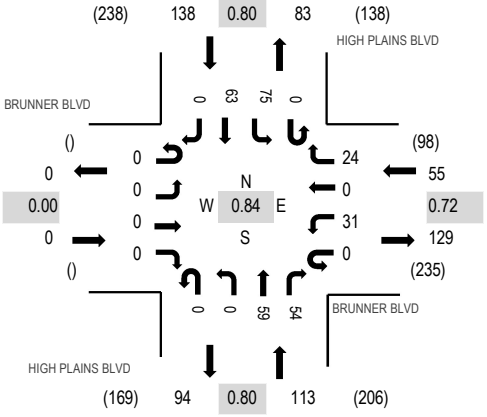
Traffic Counts - Motorized Vehicles

Interval Start Time	BRUNNER BLVD Eastbound				BRUNNER BLVD Westbound				HIGH PLAINS BLVD Northbound				HIGH PLAINS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	26	0	10	0	0	13	2	0	5	24	0	80	285	0	3	0	0
7:15 AM	0	0	0	0	0	13	0	9	0	0	21	2	0	1	13	0	59	261	0	0	0	0
7:30 AM	0	0	0	0	0	23	0	14	0	0	20	3	0	3	11	0	74	260	0	0	0	0
7:45 AM	0	0	0	0	0	19	0	8	0	0	16	3	0	5	21	0	72	244	0	0	0	0
8:00 AM	0	0	0	0	0	12	0	8	0	0	15	6	0	3	12	0	56	226	0	0	0	0
8:15 AM	0	0	0	0	0	11	0	7	0	0	14	6	0	2	18	0	58		0	0	0	0
8:30 AM	0	0	0	0	0	14	0	1	0	0	18	5	0	6	14	0	58		0	0	0	0
8:45 AM	0	0	0	0	0	7	0	3	0	0	12	5	0	7	20	0	54		0	0	0	0
Count Total	0	0	0	0	0	125	0	60	0	0	129	32	0	32	133	0	511		0	3	0	0
Peak Hour	0	0	0	0	0	81	0	41	0	0	70	10	0	14	69	0	285		0	3	0	0

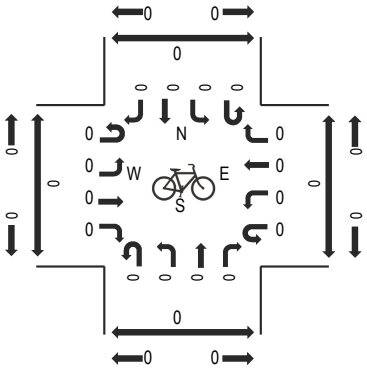
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 HIGH PLAINS BLVD & BRUNNER BLVD PM
Date: Wednesday, January 10, 2024
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

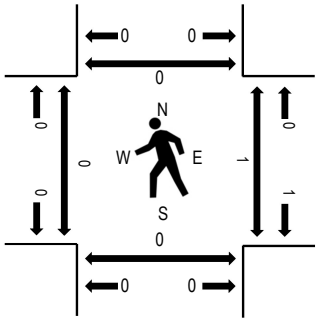
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

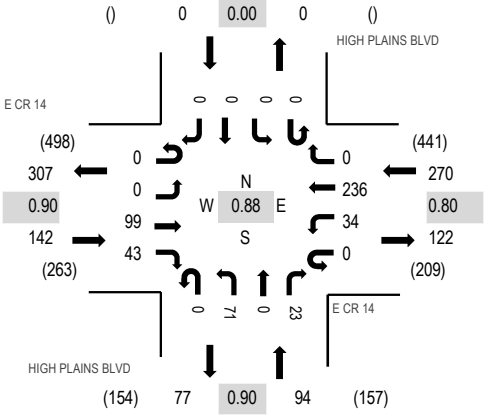
Traffic Counts - Motorized Vehicles

Interval Start Time	BRUNNER BLVD Eastbound				BRUNNER BLVD Westbound				HIGH PLAINS BLVD Northbound				HIGH PLAINS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	7	0	6	0	0	8	13	0	7	16	0	57	244	0	0	0	0
4:15 PM	0	0	0	0	0	3	0	6	0	0	10	16	0	11	13	0	59	271	0	1	0	0
4:30 PM	0	0	0	0	0	4	0	7	0	0	8	14	0	17	16	0	66	303	0	1	0	0
4:45 PM	0	0	0	0	0	5	0	5	0	0	13	9	0	17	13	0	62	306	0	0	0	0
5:00 PM	0	0	0	0	0	13	0	6	0	0	17	19	0	17	12	0	84	298	0	1	0	0
5:15 PM	0	0	0	0	0	9	0	4	0	0	17	18	0	22	21	0	91		0	0	0	0
5:30 PM	0	0	0	0	0	4	0	9	0	0	12	8	0	19	17	0	69		0	0	0	0
5:45 PM	0	0	0	0	0	6	0	4	0	0	6	18	0	10	10	0	54		0	0	0	0
Count Total	0	0	0	0	0	51	0	47	0	0	91	115	0	120	118	0	542		0	3	0	0
Peak Hour	0	0	0	0	0	31	0	24	0	0	59	54	0	75	63	0	306		0	1	0	0

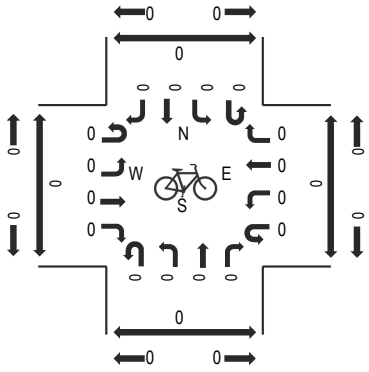
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 HIGH PLAINS BLVD & E CR 14 AM
Date: Wednesday, January 10, 2024
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

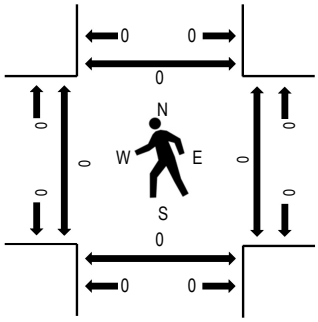
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E CR 14 Eastbound				E CR 14 Westbound				HIGH PLAINS BLVD Northbound				HIGH PLAINS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	17	11	0	15	43	0	0	16	0	5	0	0	0	0	107	506	0	0	0	0
7:15 AM	0	0	34	6	0	6	56	0	0	18	0	8	0	0	0	0	128	496	0	0	0	0
7:30 AM	0	0	28	7	0	6	78	0	0	18	0	7	0	0	0	0	144	456	0	0	0	0
7:45 AM	0	0	20	19	0	7	59	0	0	19	0	3	0	0	0	0	127	404	0	0	0	0
8:00 AM	0	0	21	9	0	6	43	0	0	15	0	3	0	0	0	0	97	355	0	0	0	0
8:15 AM	0	0	13	7	0	10	39	0	0	17	0	2	0	0	0	0	88		0	0	0	0
8:30 AM	0	0	23	15	0	3	36	0	0	11	0	4	0	0	0	0	92		0	0	0	0
8:45 AM	0	0	17	16	0	11	23	0	0	7	0	4	0	0	0	0	78		0	0	0	0
Count Total	0	0	173	90	0	64	377	0	0	121	0	36	0	0	0	0	861		0	0	0	0
Peak Hour	0	0	99	43	0	34	236	0	0	71	0	23	0	0	0	0	506		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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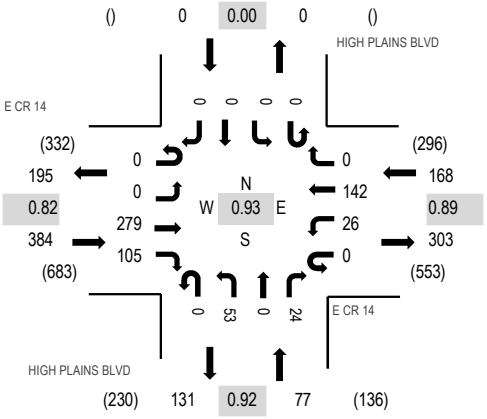
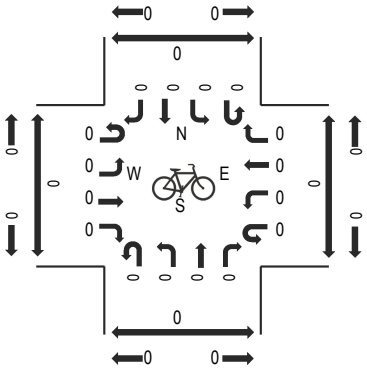
Location: 3 HIGH PLAINS BLVD & E CR 14 PM
Date: Wednesday, January 10, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

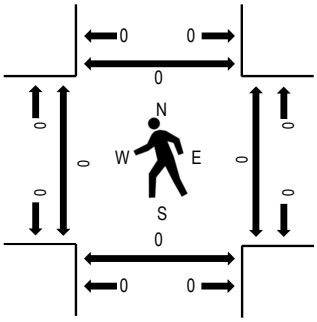
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

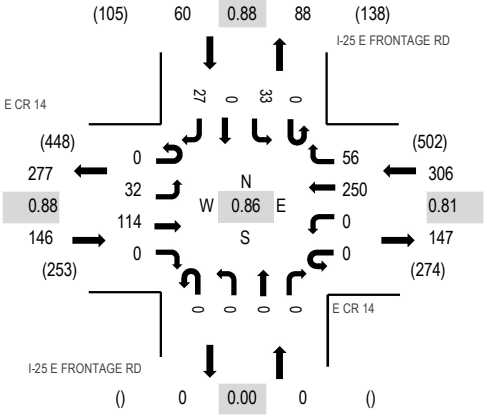
Traffic Counts - Motorized Vehicles

Interval Start Time	E CR 14 Eastbound				E CR 14 Westbound				HIGH PLAINS BLVD Northbound				HIGH PLAINS BLVD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	59	19	0	5	32	0	0	10	0	3	0	0	0	0	128	543	0	0	0	0
4:15 PM	0	0	56	13	0	10	22	0	0	8	0	6	0	0	0	0	115	575	0	0	0	0
4:30 PM	0	0	88	29	0	4	32	0	0	6	0	7	0	0	0	0	166	629	0	0	0	0
4:45 PM	0	0	52	21	0	8	32	0	0	16	0	5	0	0	0	0	134	596	0	0	0	0
5:00 PM	0	0	70	23	0	5	42	0	0	16	0	4	0	0	0	0	160	572	0	0	0	0
5:15 PM	0	0	69	32	0	9	36	0	0	15	0	8	0	0	0	0	169		0	0	0	0
5:30 PM	0	0	54	25	0	5	28	0	0	12	0	9	0	0	0	0	133		0	0	0	0
5:45 PM	0	0	59	14	0	8	18	0	0	7	0	4	0	0	0	0	110		0	0	0	0
Count Total	0	0	507	176	0	54	242	0	0	90	0	46	0	0	0	0	1,115		0	0	0	0
Peak Hour	0	0	279	105	0	26	142	0	0	53	0	24	0	0	0	0	629		0	0	0	0

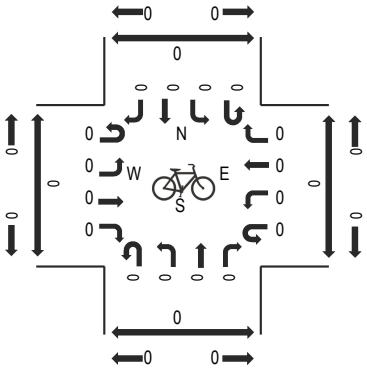
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 I-25 E FRONTAGE RD & E CR 14 AM
Date: Wednesday, January 10, 2024
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

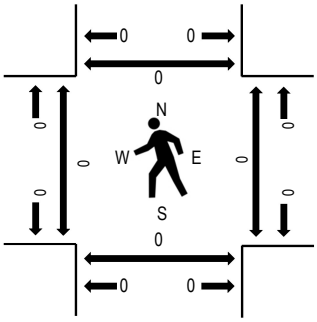
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

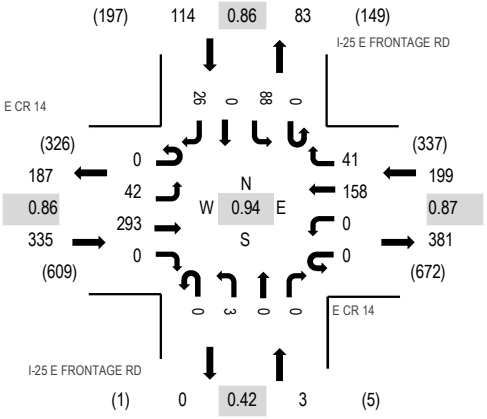
Traffic Counts - Motorized Vehicles

Interval Start Time	E CR 14 Eastbound				E CR 14 Westbound				I-25 E FRONTAGE RD Northbound				I-25 E FRONTAGE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	27	0	0	0	51	8	0	0	0	0	0	4	0	5	97	509	0	0	0	0
7:15 AM	0	8	27	0	0	0	55	17	0	0	0	0	0	11	0	6	124	512	0	0	0	0
7:30 AM	0	10	32	0	0	0	79	16	0	0	0	0	0	7	0	5	149	475	0	0	0	0
7:45 AM	0	11	31	0	0	0	67	15	0	0	0	0	0	7	0	8	139	425	0	0	0	0
8:00 AM	0	3	24	0	0	0	49	8	0	0	0	0	0	8	0	8	100	351	0	0	0	0
8:15 AM	0	3	17	0	0	0	46	13	0	0	0	0	0	6	0	2	87		0	0	0	0
8:30 AM	0	5	34	0	0	0	40	7	0	0	0	0	0	9	0	4	99		0	0	0	0
8:45 AM	0	0	19	0	0	0	19	12	0	0	0	0	0	11	0	4	65		0	0	0	0
Count Total	0	42	211	0	0	0	406	96	0	0	0	0	0	63	0	42	860		0	0	0	0
Peak Hour	0	32	114	0	0	0	250	56	0	0	0	0	0	33	0	27	512		0	0	0	0

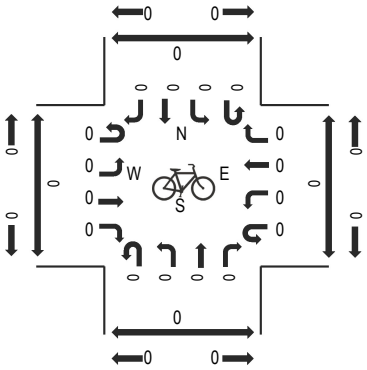
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 I-25 E FRONTAGE RD & E CR 14 PM
Date: Wednesday, January 10, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

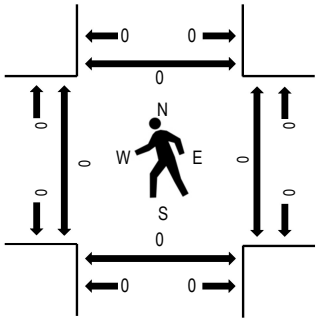
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E CR 14 Eastbound				E CR 14 Westbound				I-25 E FRONTAGE RD Northbound				I-25 E FRONTAGE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	7	58	0	0	0	35	8	0	0	2	0	0	14	1	10	135	568	0	0	0	0
4:15 PM	0	17	53	0	0	0	23	7	0	0	0	0	0	19	0	7	126	604	0	0	0	0
4:30 PM	0	10	87	0	0	0	30	8	0	3	0	0	0	18	0	7	163	651	0	0	0	0
4:45 PM	0	13	59	0	0	0	32	16	0	0	0	0	0	17	0	7	144	616	0	0	0	0
5:00 PM	0	11	71	0	0	0	51	5	0	0	0	0	0	27	0	6	171	580	0	0	0	0
5:15 PM	0	8	76	0	0	0	45	12	0	0	0	0	0	26	0	6	173		0	0	0	0
5:30 PM	0	8	61	0	0	0	30	4	0	0	0	0	0	16	0	9	128		0	0	0	0
5:45 PM	0	5	65	0	0	0	23	8	0	0	0	0	0	5	0	2	108		0	0	0	0
Count Total	0	79	530	0	0	0	269	68	0	3	2	0	0	142	1	54	1,148		0	0	0	0
Peak Hour	0	42	293	0	0	0	158	41	0	3	0	0	0	88	0	26	651		0	0	0	0

All Traffic Data Services

5VOL - SH 60 W.O. HIGH PLAINS BLVD

Time	EB	WB	Total
1/10/2024	7	2	9
1/10/2024 12:15:00 AM	8	0	8
1/10/2024 12:30:00 AM	4	4	8
1/10/2024 12:45:00 AM	11	2	13
1/10/2024 1:00:00 AM	7	2	9
1/10/2024 1:15:00 AM	5	1	6
1/10/2024 1:30:00 AM	2	3	5
1/10/2024 1:45:00 AM	1	1	2
1/10/2024 2:00:00 AM	3	4	7
1/10/2024 2:15:00 AM	5	3	8
1/10/2024 2:30:00 AM	3	4	7
1/10/2024 2:45:00 AM	2	1	3
1/10/2024 3:00:00 AM	2	7	9
1/10/2024 3:15:00 AM	7	10	17
1/10/2024 3:30:00 AM	1	11	12
1/10/2024 3:45:00 AM	5	15	20
1/10/2024 4:00:00 AM	1	12	13
1/10/2024 4:15:00 AM	2	28	30
1/10/2024 4:30:00 AM	7	42	49
1/10/2024 4:45:00 AM	6	71	77
1/10/2024 5:00:00 AM	2	68	70
1/10/2024 5:15:00 AM	9	90	99
1/10/2024 5:30:00 AM	14	133	147
1/10/2024 5:45:00 AM	20	105	125
1/10/2024 6:00:00 AM	42	130	172
1/10/2024 6:15:00 AM	48	149	197
1/10/2024 6:30:00 AM	58	169	227
1/10/2024 6:45:00 AM	91	182	273
1/10/2024 7:00:00 AM	57	181	238
1/10/2024 7:15:00 AM	54	194	248
1/10/2024 7:30:00 AM	66	221	287
1/10/2024 7:45:00 AM	72	164	236
1/10/2024 8:00:00 AM	62	136	198
1/10/2024 8:15:00 AM	56	150	206
1/10/2024 8:30:00 AM	63	173	236
1/10/2024 8:45:00 AM	78	103	181
1/10/2024 9:00:00 AM	53	95	148
1/10/2024 9:15:00 AM	54	115	169
1/10/2024 9:30:00 AM	54	121	175
1/10/2024 9:45:00 AM	55	101	156
1/10/2024 10:00:00 AM	56	112	168
1/10/2024 10:15:00 AM	48	69	117
1/10/2024 10:30:00 AM	57	91	148
1/10/2024 10:45:00 AM	76	78	154
1/10/2024 11:00:00 AM	64	98	162
1/10/2024 11:15:00 AM	67	77	144
1/10/2024 11:30:00 AM	63	65	128
1/10/2024 11:45:00 AM	64	90	154
Total	1,592	3,683	5,275
Percentage	30.2%	69.8%	
Peak Hour	10:45 AM	6:45 AM	6:45 AM
Volume	270	778	1,046
PHF	0.888	0.880	0.911

All Traffic Data Services

5VOL - SH 60 W.O. HIGH PLAINS BLVD

Time	EB	WB	Total
1/10/2024 12:00:00 PM	62	96	158
1/10/2024 12:15:00 PM	79	84	163
1/10/2024 12:30:00 PM	56	104	160
1/10/2024 12:45:00 PM	75	76	151
1/10/2024 1:00:00 PM	72	60	132
1/10/2024 1:15:00 PM	67	78	145
1/10/2024 1:30:00 PM	61	76	137
1/10/2024 1:45:00 PM	55	67	122
1/10/2024 2:00:00 PM	73	76	149
1/10/2024 2:15:00 PM	80	82	162
1/10/2024 2:30:00 PM	90	77	167
1/10/2024 2:45:00 PM	92	76	168
1/10/2024 3:00:00 PM	112	104	216
1/10/2024 3:15:00 PM	118	78	196
1/10/2024 3:30:00 PM	106	118	224
1/10/2024 3:45:00 PM	141	116	257
1/10/2024 4:00:00 PM	151	102	253
1/10/2024 4:15:00 PM	152	73	225
1/10/2024 4:30:00 PM	139	81	220
1/10/2024 4:45:00 PM	174	115	289
1/10/2024 5:00:00 PM	164	102	266
1/10/2024 5:15:00 PM	175	88	263
1/10/2024 5:30:00 PM	155	81	236
1/10/2024 5:45:00 PM	128	69	197
1/10/2024 6:00:00 PM	130	92	222
1/10/2024 6:15:00 PM	122	76	198
1/10/2024 6:30:00 PM	116	57	173
1/10/2024 6:45:00 PM	98	50	148
1/10/2024 7:00:00 PM	71	81	152
1/10/2024 7:15:00 PM	84	40	124
1/10/2024 7:30:00 PM	54	28	82
1/10/2024 7:45:00 PM	81	32	113
1/10/2024 8:00:00 PM	50	34	84
1/10/2024 8:15:00 PM	66	34	100
1/10/2024 8:30:00 PM	49	43	92
1/10/2024 8:45:00 PM	51	12	63
1/10/2024 9:00:00 PM	45	22	67
1/10/2024 9:15:00 PM	24	26	50
1/10/2024 9:30:00 PM	37	14	51
1/10/2024 9:45:00 PM	35	16	51
1/10/2024 10:00:00 PM	18	12	30
1/10/2024 10:15:00 PM	21	15	36
1/10/2024 10:30:00 PM	19	5	24
1/10/2024 10:45:00 PM	20	4	24
1/10/2024 11:00:00 PM	24	7	31
1/10/2024 11:15:00 PM	14	1	15
1/10/2024 11:30:00 PM	19	2	21
1/10/2024 11:45:00 PM	15	8	23
Total	3,840	2,790	6,630
Percentage	57.9%	42.1%	
Peak Hour	4:45 PM	3:00 PM	4:45 PM
Volume	668	416	1,054
PHF	0.954	0.881	0.912
Grand Total	5,432	6,473	11,905
Percentage	45.6%	54.4%	

All Traffic Data Services

6VOL - HIGH PLAINS BLVD S.O. BRUNNER BLVD

Time	NB	SB	Total
1/10/2024	0	2	2
1/10/2024 12:15:00 AM	0	0	0
1/10/2024 12:30:00 AM	1	1	2
1/10/2024 12:45:00 AM	0	2	2
1/10/2024 1:00:00 AM	2	1	3
1/10/2024 1:15:00 AM	0	0	0
1/10/2024 1:30:00 AM	0	0	0
1/10/2024 1:45:00 AM	0	0	0
1/10/2024 2:00:00 AM	2	1	3
1/10/2024 2:15:00 AM	0	0	0
1/10/2024 2:30:00 AM	0	0	0
1/10/2024 2:45:00 AM	1	0	1
1/10/2024 3:00:00 AM	0	0	0
1/10/2024 3:15:00 AM	1	0	1
1/10/2024 3:30:00 AM	0	1	1
1/10/2024 3:45:00 AM	2	2	4
1/10/2024 4:00:00 AM	0	0	0
1/10/2024 4:15:00 AM	0	3	3
1/10/2024 4:30:00 AM	1	2	3
1/10/2024 4:45:00 AM	6	4	10
1/10/2024 5:00:00 AM	4	7	11
1/10/2024 5:15:00 AM	0	13	13
1/10/2024 5:30:00 AM	5	14	19
1/10/2024 5:45:00 AM	4	23	27
1/10/2024 6:00:00 AM	9	20	29
1/10/2024 6:15:00 AM	3	22	25
1/10/2024 6:30:00 AM	11	28	39
1/10/2024 6:45:00 AM	16	37	53
1/10/2024 7:00:00 AM	15	50	65
1/10/2024 7:15:00 AM	23	26	49
1/10/2024 7:30:00 AM	23	34	57
1/10/2024 7:45:00 AM	19	40	59
1/10/2024 8:00:00 AM	21	24	45
1/10/2024 8:15:00 AM	20	29	49
1/10/2024 8:30:00 AM	23	28	51
1/10/2024 8:45:00 AM	17	27	44
1/10/2024 9:00:00 AM	8	21	29
1/10/2024 9:15:00 AM	14	17	31
1/10/2024 9:30:00 AM	12	19	31
1/10/2024 9:45:00 AM	11	24	35
1/10/2024 10:00:00 AM	13	19	32
1/10/2024 10:15:00 AM	17	20	37
1/10/2024 10:30:00 AM	12	19	31
1/10/2024 10:45:00 AM	23	15	38
1/10/2024 11:00:00 AM	10	10	20
1/10/2024 11:15:00 AM	14	18	32
1/10/2024 11:30:00 AM	11	11	22
1/10/2024 11:45:00 AM	14	19	33
Total	388	653	1,041
Percentage	37.3%	62.7%	
Peak Hour	7:15 AM	7:00 AM	7:00 AM
Volume	86	150	230
PHF	0.935	0.750	0.885

All Traffic Data Services

6VOL - HIGH PLAINS BLVD S.O. BRUNNER BLVD

Time	NB	SB	Total
1/10/2024 12:00:00 PM	14	30	44
1/10/2024 12:15:00 PM	16	16	32
1/10/2024 12:30:00 PM	17	27	44
1/10/2024 12:45:00 PM	15	13	28
1/10/2024 1:00:00 PM	16	9	25
1/10/2024 1:15:00 PM	17	16	33
1/10/2024 1:30:00 PM	14	19	33
1/10/2024 1:45:00 PM	5	18	23
1/10/2024 2:00:00 PM	16	20	36
1/10/2024 2:15:00 PM	10	22	32
1/10/2024 2:30:00 PM	25	20	45
1/10/2024 2:45:00 PM	19	26	45
1/10/2024 3:00:00 PM	18	14	32
1/10/2024 3:15:00 PM	21	17	38
1/10/2024 3:30:00 PM	29	15	44
1/10/2024 3:45:00 PM	21	30	51
1/10/2024 4:00:00 PM	21	23	44
1/10/2024 4:15:00 PM	26	16	42
1/10/2024 4:30:00 PM	22	20	42
1/10/2024 4:45:00 PM	22	18	40
1/10/2024 5:00:00 PM	36	25	61
1/10/2024 5:15:00 PM	35	30	65
1/10/2024 5:30:00 PM	20	21	41
1/10/2024 5:45:00 PM	24	16	40
1/10/2024 6:00:00 PM	19	22	41
1/10/2024 6:15:00 PM	15	14	29
1/10/2024 6:30:00 PM	13	8	21
1/10/2024 6:45:00 PM	14	12	26
1/10/2024 7:00:00 PM	9	2	11
1/10/2024 7:15:00 PM	10	4	14
1/10/2024 7:30:00 PM	10	8	18
1/10/2024 7:45:00 PM	10	4	14
1/10/2024 8:00:00 PM	11	4	15
1/10/2024 8:15:00 PM	12	7	19
1/10/2024 8:30:00 PM	9	10	19
1/10/2024 8:45:00 PM	9	5	14
1/10/2024 9:00:00 PM	2	6	8
1/10/2024 9:15:00 PM	3	5	8
1/10/2024 9:30:00 PM	4	4	8
1/10/2024 9:45:00 PM	6	2	8
1/10/2024 10:00:00 PM	2	9	11
1/10/2024 10:15:00 PM	1	6	7
1/10/2024 10:30:00 PM	1	2	3
1/10/2024 10:45:00 PM	0	3	3
1/10/2024 11:00:00 PM	5	2	7
1/10/2024 11:15:00 PM	1	0	1
1/10/2024 11:30:00 PM	2	1	3
1/10/2024 11:45:00 PM	1	1	2
Total	648	622	1,270
Percentage	51.0%	49.0%	
Peak Hour	4:30 PM	4:45 PM	4:30 PM
Volume	115	94	208
PHF	0.799	0.783	0.800
Grand Total	1,036	1,275	2,311
Percentage	44.8%	55.2%	

All Traffic Data Services

7VOL - E CR 14 W.O. HIGH PLAINS BLVD

Time	EB	WB	Total
1/10/2024	4	0	4
1/10/2024 12:15:00 AM	2	1	3
1/10/2024 12:30:00 AM	2	1	3
1/10/2024 12:45:00 AM	1	0	1
1/10/2024 1:00:00 AM	0	1	1
1/10/2024 1:15:00 AM	0	1	1
1/10/2024 1:30:00 AM	1	1	2
1/10/2024 1:45:00 AM	1	0	1
1/10/2024 2:00:00 AM	1	2	3
1/10/2024 2:15:00 AM	0	0	0
1/10/2024 2:30:00 AM	1	1	2
1/10/2024 2:45:00 AM	0	0	0
1/10/2024 3:00:00 AM	1	0	1
1/10/2024 3:15:00 AM	0	1	1
1/10/2024 3:30:00 AM	1	2	3
1/10/2024 3:45:00 AM	1	1	2
1/10/2024 4:00:00 AM	1	2	3
1/10/2024 4:15:00 AM	2	3	5
1/10/2024 4:30:00 AM	0	6	6
1/10/2024 4:45:00 AM	2	10	12
1/10/2024 5:00:00 AM	4	13	17
1/10/2024 5:15:00 AM	12	9	21
1/10/2024 5:30:00 AM	6	20	26
1/10/2024 5:45:00 AM	16	24	40
1/10/2024 6:00:00 AM	19	36	55
1/10/2024 6:15:00 AM	54	27	81
1/10/2024 6:30:00 AM	32	43	75
1/10/2024 6:45:00 AM	42	69	111
1/10/2024 7:00:00 AM	28	59	87
1/10/2024 7:15:00 AM	40	74	114
1/10/2024 7:30:00 AM	35	96	131
1/10/2024 7:45:00 AM	39	78	117
1/10/2024 8:00:00 AM	30	58	88
1/10/2024 8:15:00 AM	20	56	76
1/10/2024 8:30:00 AM	38	47	85
1/10/2024 8:45:00 AM	33	30	63
1/10/2024 9:00:00 AM	23	24	47
1/10/2024 9:15:00 AM	20	42	62
1/10/2024 9:30:00 AM	25	33	58
1/10/2024 9:45:00 AM	29	22	51
1/10/2024 10:00:00 AM	31	25	56
1/10/2024 10:15:00 AM	25	37	62
1/10/2024 10:30:00 AM	32	37	69
1/10/2024 10:45:00 AM	29	34	63
1/10/2024 11:00:00 AM	30	28	58
1/10/2024 11:15:00 AM	37	23	60
1/10/2024 11:30:00 AM	31	27	58
1/10/2024 11:45:00 AM	33	33	66
Total	814	1,137	1,951
Percentage	41.7%	58.3%	
Peak Hour	6:15 AM	7:00 AM	7:15 AM
Volume	156	307	450
PHF	0.722	0.799	0.859

All Traffic Data Services

7VOL - E CR 14 W.O. HIGH PLAINS BLVD

Time	EB	WB	Total
1/10/2024 12:00:00 PM	36	25	61
1/10/2024 12:15:00 PM	37	24	61
1/10/2024 12:30:00 PM	27	32	59
1/10/2024 12:45:00 PM	33	23	56
1/10/2024 1:00:00 PM	24	20	44
1/10/2024 1:15:00 PM	38	20	58
1/10/2024 1:30:00 PM	35	22	57
1/10/2024 1:45:00 PM	28	22	50
1/10/2024 2:00:00 PM	51	22	73
1/10/2024 2:15:00 PM	38	25	63
1/10/2024 2:30:00 PM	40	30	70
1/10/2024 2:45:00 PM	49	35	84
1/10/2024 3:00:00 PM	48	39	87
1/10/2024 3:15:00 PM	59	38	97
1/10/2024 3:30:00 PM	56	44	100
1/10/2024 3:45:00 PM	65	41	106
1/10/2024 4:00:00 PM	78	42	120
1/10/2024 4:15:00 PM	69	30	99
1/10/2024 4:30:00 PM	117	38	155
1/10/2024 4:45:00 PM	73	48	121
1/10/2024 5:00:00 PM	93	58	151
1/10/2024 5:15:00 PM	101	51	152
1/10/2024 5:30:00 PM	79	40	119
1/10/2024 5:45:00 PM	73	25	98
1/10/2024 6:00:00 PM	53	23	76
1/10/2024 6:15:00 PM	40	24	64
1/10/2024 6:30:00 PM	26	18	44
1/10/2024 6:45:00 PM	33	22	55
1/10/2024 7:00:00 PM	24	12	36
1/10/2024 7:15:00 PM	20	10	30
1/10/2024 7:30:00 PM	14	10	24
1/10/2024 7:45:00 PM	14	13	27
1/10/2024 8:00:00 PM	9	9	18
1/10/2024 8:15:00 PM	28	10	38
1/10/2024 8:30:00 PM	16	13	29
1/10/2024 8:45:00 PM	19	9	28
1/10/2024 9:00:00 PM	18	4	22
1/10/2024 9:15:00 PM	9	1	10
1/10/2024 9:30:00 PM	9	5	14
1/10/2024 9:45:00 PM	9	3	12
1/10/2024 10:00:00 PM	11	0	11
1/10/2024 10:15:00 PM	13	2	15
1/10/2024 10:30:00 PM	3	3	6
1/10/2024 10:45:00 PM	4	0	4
1/10/2024 11:00:00 PM	6	2	8
1/10/2024 11:15:00 PM	1	2	3
1/10/2024 11:30:00 PM	0	3	3
1/10/2024 11:45:00 PM	2	1	3
Total	1,728	993	2,721
Percentage	63.5%	36.5%	
Peak Hour	4:30 PM	4:45 PM	4:30 PM
Volume	384	197	579
PHF	0.821	0.849	0.934
Grand Total	2,542	2,130	4,672
Percentage	54.4%	45.6%	

APPENDIX B

Level of Service Definitions

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 6th Edition, Transportation Research Board, 2016: Chapter 19 – Signalized Intersections.

Motorized Vehicle Level of Service (LOS) for Signalized Intersections

Levels of service are defined to represent reasonable ranges in control delay.

LOS A Describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B Describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C Describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
≤ 10	A	F
> 10 – 20	B	F
> 20 – 35	C	F
> 35 – 55	D	F
> 55 – 80	E	F
> 80	F	F

Note: [a] For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 6th Edition, Transportation Research Board, 2016: Chapter 20 – Two-Way Stop-Controlled Intersections, Chapter 21 – All-Way Stop-Controlled Intersections, and Chapter 22 - Roundabouts.

Motorized Vehicle Level of Service (LOS) for Unsignalized & Roundabout Intersections

LOS is a quantitative stratification of performance measure(s) representing quality of service. Quality of service describes how well a transportation facility or service operates from a traveler's perspective. LOS is measured on an A – F scale, with LOS A representing the best operating conditions from a traveler's perspective.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
0 – 10	A	F
> 10 – 15	B	F
> 15 – 25	C	F
> 25 – 35	D	F
> 35 – 50	E	F
> 50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

[a] For approaches and intersectionwide assessment, LOS is defined solely by control delay.

APPENDIX C

Capacity Worksheets

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	217	614	56	60	146
Future Vol, veh/h	32	217	614	56	60	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	520	-	-	375	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	236	667	61	65	159

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	728	0	-	0	973	667
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	876	-	-	-	280	459
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	747	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	876	-	-	-	269	459
Mov Cap-2 Maneuver	-	-	-	-	269	-
Stage 1	-	-	-	-	490	-
Stage 2	-	-	-	-	747	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	18.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	876	-	-	-	269	459
HCM Lane V/C Ratio	0.04	-	-	-	0.242	0.346
HCM Control Delay (s)	9.3	-	-	-	22.6	16.9
HCM Lane LOS	A	-	-	-	C	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	1.5

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	81	41	70	10	14	69
Future Vol, veh/h	81	41	70	10	14	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	88	45	76	11	15	75

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	187	82	0	0	87	0
Stage 1	82	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	802	978	-	-	1509	-
Stage 1	941	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	794	978	-	-	1509	-
Mov Cap-2 Maneuver	794	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	848	1509	-
HCM Lane V/C Ratio	-	-	0.156	0.01	-
HCM Control Delay (s)	-	-	10	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	114	250	56	33	27
Future Vol, veh/h	32	114	250	56	33	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	124	272	61	36	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	333	0	-	0	497	303
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1226	-	-	-	532	737
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1226	-	-	-	516	737
Mov Cap-2 Maneuver	-	-	-	-	516	-
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	839	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1226	-	-	-	596
HCM Lane V/C Ratio	0.028	-	-	-	0.109
HCM Control Delay (s)	8	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	99	43	34	236	71	23
Future Vol, veh/h	99	43	34	236	71	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	610	-	-	280	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	47	37	257	77	25

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	155	0	439	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	331	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1425	-	575	946
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	728	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1425	-	558	946
Mov Cap-2 Maneuver	-	-	-	-	558	-
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	706	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	558	946	-	-	1425	-
HCM Lane V/C Ratio	0.138	0.026	-	-	0.026	-
HCM Control Delay (s)	12.5	8.9	-	-	7.6	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	93	575	333	57	49	53
Future Vol, veh/h	93	575	333	57	49	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	520	-	-	375	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	625	362	62	53	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	424	0	-	0	1189	362
Stage 1	-	-	-	-	362	-
Stage 2	-	-	-	-	827	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1135	-	-	-	208	683
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	430	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1135	-	-	-	189	683
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	430	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	20.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1135	-	-	-	189	683
HCM Lane V/C Ratio	0.089	-	-	-	0.282	0.084
HCM Control Delay (s)	8.5	-	-	-	31.4	10.8
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.1	0.3

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	24	59	54	75	63
Future Vol, veh/h	31	24	59	54	75	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	26	64	59	82	68

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	326	94	0	0	123	0
Stage 1	94	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	668	963	-	-	1464	-
Stage 1	930	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	629	963	-	-	1464	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	741	1464	-
HCM Lane V/C Ratio	-	-	0.081	0.056	-
HCM Control Delay (s)	-	-	10.3	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	293	158	41	88	26
Future Vol, veh/h	42	293	158	41	88	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	318	172	45	96	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	217	0	-	0	605	195
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	410	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1353	-	-	-	461	846
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1353	-	-	-	442	846
Mov Cap-2 Maneuver	-	-	-	-	442	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	670	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1353	-	-	-	496
HCM Lane V/C Ratio	0.034	-	-	-	0.25
HCM Control Delay (s)	7.8	0	-	-	14.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	279	105	26	142	53	24
Future Vol, veh/h	279	105	26	142	53	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	610	-	-	280	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	303	114	28	154	58	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	417	0	513	303
Stage 1	-	-	-	-	303	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1142	-	521	737
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	825	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1142	-	507	737
Mov Cap-2 Maneuver	-	-	-	-	507	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	507	737	-	-	1142	-
HCM Lane V/C Ratio	0.114	0.035	-	-	0.025	-
HCM Control Delay (s)	13	10.1	-	-	8.2	0
HCM Lane LOS	B	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	28.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	284	0	9	707	81	14	0	0	94	0	329
Future Vol, veh/h	107	284	0	9	707	81	14	0	0	94	0	329
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	0	0	-	375	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	116	309	0	10	768	88	15	0	0	102	0	358

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	856	0	0	309	0	0	1552	1417	309	1329	1329	768
Stage 1	-	-	-	-	-	-	541	541	-	788	788	-
Stage 2	-	-	-	-	-	-	1011	876	-	541	541	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	784	-	-	1252	-	-	92	137	731	132	155	402
Stage 1	-	-	-	-	-	-	525	521	-	384	402	-
Stage 2	-	-	-	-	-	-	289	367	-	525	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	784	-	-	1252	-	-	~ 9	116	731	116	131	402
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 9	116	-	116	131	-
Stage 1	-	-	-	-	-	-	447	444	-	327	399	-
Stage 2	-	-	-	-	-	-	32	364	-	447	444	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.1	$ 1133.6	69.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	9	-	-	784	-	-	1252	-	-	116	-	402
HCM Lane V/C Ratio	1.691	-	-	0.148	-	-	0.008	-	-	0.881	-	0.89
HCM Control Delay (s)	$ 1133.6	0	0	10.4	-	-	7.9	-	-	123.3	0	53.9
HCM Lane LOS	F	A	A	B	-	-	A	-	-	F	A	F
HCM 95th %tile Q(veh)	2.8	-	-	0.5	-	-	0	-	-	5.4	-	9.1

Notes

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

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	84	43	128	10	15	200
Future Vol, veh/h	84	43	128	10	15	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	91	47	139	11	16	217

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	394	145	0	0	150	0
Stage 1	145	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	611	902	-	-	1431	-
Stage 1	882	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	603	902	-	-	1431	-
Mov Cap-2 Maneuver	603	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	782	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	679	1431	-
HCM Lane V/C Ratio	-	-	0.203	0.011	-
HCM Control Delay (s)	-	-	11.7	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	33	198	0	9	354	67	0	0	3	37	0	28
Future Vol, veh/h	33	198	0	9	354	67	0	0	3	37	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	215	0	10	385	73	0	0	3	40	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	458	0	0	215	0	0	744	765	215	731	729	422
Stage 1	-	-	-	-	-	-	287	287	-	442	442	-
Stage 2	-	-	-	-	-	-	457	478	-	289	287	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1103	-	-	1355	-	-	331	333	825	337	350	632
Stage 1	-	-	-	-	-	-	720	674	-	594	576	-
Stage 2	-	-	-	-	-	-	583	556	-	719	674	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1103	-	-	1355	-	-	304	317	825	324	334	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	317	-	324	334	-
Stage 1	-	-	-	-	-	-	693	649	-	572	570	-
Stage 2	-	-	-	-	-	-	549	550	-	690	649	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.2	9.4	14.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	825	1103	-	-	1355	-	-	324	632
HCM Lane V/C Ratio	0.004	0.033	-	-	0.007	-	-	0.124	0.048
HCM Control Delay (s)	9.4	8.4	0	-	7.7	0	-	17.7	11
HCM Lane LOS	A	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.4	0.2

Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↲	↰	↱
Traffic Vol, veh/h	148	45	143	322	74	85
Future Vol, veh/h	148	45	143	322	74	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	610	-	-	280	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	49	155	350	80	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	210	0	821	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	660	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1361	-	344	884
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1361	-	295	884
Mov Cap-2 Maneuver	-	-	-	-	295	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	442	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	295	884	-	-	1361	-
HCM Lane V/C Ratio	0.273	0.105	-	-	0.114	-
HCM Control Delay (s)	21.7	9.5	-	-	8	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	1.1	0.3	-	-	0.4	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	105	35	171	184	4
Future Vol, veh/h	11	105	35	171	184	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	114	38	186	200	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	464	202	204	0	-	0
Stage 1	202	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	556	839	1368	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	782	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	540	839	1368	-	-	-
Mov Cap-2 Maneuver	540	-	-	-	-	-
Stage 1	809	-	-	-	-	-
Stage 2	782	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1368	-	540	839	-	-
HCM Lane V/C Ratio	0.028	-	0.022	0.136	-	-
HCM Control Delay (s)	7.7	-	11.8	10	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.5	-	-

Intersection	
Int Delay, s/veh	300.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	311	718	0	0	459	96	136	0	0	73	0	198
Future Vol, veh/h	311	718	0	0	459	96	136	0	0	73	0	198
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	0	0	-	375	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	338	780	0	0	499	104	148	0	0	79	0	215

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	603	0	0	780	0	0	2115	2059	780	1955	1955	499
Stage 1	-	-	-	-	-	-	1456	1456	-	499	499	-
Stage 2	-	-	-	-	-	-	659	603	-	1456	1456	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	975	-	-	837	-	-	~ 37	55	395	~ 48	64	572
Stage 1	-	-	-	-	-	-	161	194	-	554	544	-
Stage 2	-	-	-	-	-	-	453	488	-	161	194	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	975	-	-	837	-	-	~ 17	36	395	~ 35	42	572
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 17	36	-	~ 35	42	-
Stage 1	-	-	-	-	-	-	~ 105	127	-	362	544	-
Stage 2	-	-	-	-	-	-	283	488	-	105	127	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0	$ 3904.5	233.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	17	-	-	975	-	-	837	-	-	35	-	572
HCM Lane V/C Ratio	8.696	-	-	0.347	-	-	-	-	-	2.267	-	0.376
HCM Control Delay (s)	$ 3904.5	0	0	10.6	-	-	0	-	-	$ 824.5	0	15
HCM Lane LOS	F	A	A	B	-	-	A	-	-	F	A	C
HCM 95th %tile Q(veh)	19.2	-	-	1.6	-	-	0	-	-	8.9	-	1.7

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

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	25	219	56	78	171
Future Vol, veh/h	32	25	219	56	78	171
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	27	238	61	85	186

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	625	269	0	0	299	0
Stage 1	269	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	449	770	-	-	1262	-
Stage 1	776	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	415	770	-	-	1262	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	2.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	520	1262	-
HCM Lane V/C Ratio	-	-	0.119	0.067	-
HCM Control Delay (s)	-	-	12.9	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	44	457	0	6	307	49	0	0	10	102	0	27
Future Vol, veh/h	44	457	0	6	307	49	0	0	10	102	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	497	0	7	334	53	0	0	11	111	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	387	0	0	497	0	0	982	994	497	974	968	361
Stage 1	-	-	-	-	-	-	593	593	-	375	375	-
Stage 2	-	-	-	-	-	-	389	401	-	599	593	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1171	-	-	1067	-	-	228	245	573	231	254	684
Stage 1	-	-	-	-	-	-	492	493	-	646	617	-
Stage 2	-	-	-	-	-	-	635	601	-	488	493	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1171	-	-	1067	-	-	207	229	573	216	237	684
Mov Cap-2 Maneuver	-	-	-	-	-	-	207	229	-	216	237	-
Stage 1	-	-	-	-	-	-	464	465	-	609	612	-
Stage 2	-	-	-	-	-	-	603	596	-	451	465	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	11.4	32.2
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	573	1171	-	-	1067	-	-	216	684
HCM Lane V/C Ratio	0.019	0.041	-	-	0.006	-	-	0.513	0.043
HCM Control Delay (s)	11.4	8.2	0	-	8.4	0	-	38	10.5
HCM Lane LOS	B	A	A	-	A	A	-	E	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	2.6	0.1

Intersection	
Int Delay, s/veh	4.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	393	109	134	224	55	165
Future Vol, veh/h	393	109	134	224	55	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	610	-	-	280	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	427	118	146	243	60	179

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	545	0	962	427
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	535	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1024	-	284	628
Stage 1	-	-	-	-	658	-
Stage 2	-	-	-	-	587	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1024	-	237	628
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	658	-
Stage 2	-	-	-	-	490	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	237	628	-	-	1024	-
HCM Lane V/C Ratio	0.252	0.286	-	-	0.142	-
HCM Control Delay (s)	25.2	13	-	-	9.1	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	1	1.2	-	-	0.5	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	70	118	244	231	12
Future Vol, veh/h	7	70	118	244	231	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	76	128	265	251	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	779	258	264	0	-	0
Stage 1	258	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	364	781	1300	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	328	781	1300	-	-	-
Mov Cap-2 Maneuver	328	-	-	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	596	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1300	-	328	781	-	-
HCM Lane V/C Ratio	0.099	-	0.023	0.097	-	-
HCM Control Delay (s)	8.1	-	16.2	10.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	365	19	9	966	111	37	17	0	130	47	495
Future Volume (vph)	156	365	19	9	966	111	37	17	0	130	47	495
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1863	1770	3539	1583
Flt Permitted	0.130			0.518			0.722			0.563		
Satd. Flow (perm)	242	3539	1583	965	3539	1583	1345	3539	1863	1049	3539	1583
Satd. Flow (RTOR)			109			121						232
Lane Group Flow (vph)	170	397	21	10	1050	121	40	18	0	141	51	538
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0
Total Split (s)	13.0	46.0	46.0	9.0	42.0	42.0	9.0	36.0	36.0	9.0	36.0	36.0
Total Split (%)	13.0%	46.0%	46.0%	9.0%	42.0%	42.0%	9.0%	36.0%	36.0%	9.0%	36.0%	36.0%
Yellow Time (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	59.5	56.7	56.7	51.9	45.6	45.6	17.8	15.8		30.9	26.1	26.1
Actuated g/C Ratio	0.60	0.57	0.57	0.52	0.46	0.46	0.18	0.16		0.31	0.26	0.26
v/c Ratio	0.61	0.20	0.02	0.02	0.65	0.15	0.15	0.03		0.31	0.06	0.92
Control Delay	22.2	13.3	0.1	12.4	25.8	4.5	27.5	28.6		25.1	25.3	42.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	22.2	13.3	0.1	12.4	25.8	4.5	27.5	28.6		25.1	25.3	42.2
LOS	C	B	A	B	C	A	C	C		C	C	D
Approach Delay		15.4			23.6			27.8			37.7	
Approach LOS		B			C			C			D	
Queue Length 50th (ft)	53	68	0	3	310	0	25	5		59	12	195
Queue Length 95th (ft)	#114	122	0	11	394	36	36	12		98	25	#376
Internal Link Dist (ft)		1097			1210			566			815	
Turn Bay Length (ft)	520					375						
Base Capacity (vph)	287	2006	944	544	1613	787	260	1097		454	1097	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.59	0.20	0.02	0.02	0.65	0.15	0.15	0.02		0.31	0.05	0.83

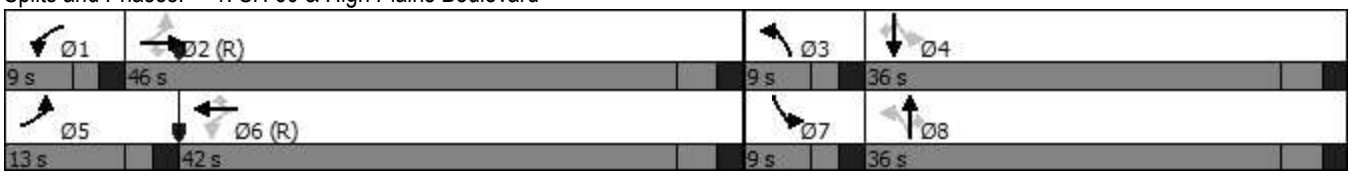
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 73.2%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: SH 60 & High Plains Boulevard



Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	122	62	245	15	21	364
Future Vol, veh/h	122	62	245	15	21	364
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	67	266	16	23	396

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	518	141	0	0	282	0
Stage 1	274	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	487	881	-	-	1277	-
Stage 1	747	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	476	881	-	-	1277	-
Mov Cap-2 Maneuver	476	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	756	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	563	1277	-
HCM Lane V/C Ratio	-	-	0.355	0.018	-
HCM Control Delay (s)	-	-	14.9	7.9	0.1
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0.1	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	48	275	0	9	540	93	0	0	3	53	0	41
Future Vol, veh/h	48	275	0	9	540	93	0	0	3	53	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	299	0	10	587	101	0	0	3	58	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	688	0	0	299	0	0	1083	1111	299	1063	1061	638
Stage 1	-	-	-	-	-	-	403	403	-	658	658	-
Stage 2	-	-	-	-	-	-	680	708	-	405	403	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	906	-	-	1262	-	-	195	209	741	201	224	477
Stage 1	-	-	-	-	-	-	624	600	-	453	461	-
Stage 2	-	-	-	-	-	-	441	438	-	622	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	906	-	-	1262	-	-	166	192	741	188	206	477
Mov Cap-2 Maneuver	-	-	-	-	-	-	166	192	-	188	206	-
Stage 1	-	-	-	-	-	-	581	559	-	422	455	-
Stage 2	-	-	-	-	-	-	395	432	-	577	559	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.1	9.9	24.1
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	741	906	-	-	1262	-	-	188	477
HCM Lane V/C Ratio	0.004	0.058	-	-	0.008	-	-	0.306	0.093
HCM Control Delay (s)	9.9	9.2	0	-	7.9	0	-	32.4	13.3
HCM Lane LOS	A	A	A	-	A	A	-	D	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	1.2	0.3

Intersection	
Int Delay, s/veh	111.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	169	65	187	396	8	107	56	95	6	126	54
Future Vol, veh/h	31	169	65	187	396	8	107	56	95	6	126	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	610	-	610	0	-	0	280	-	-	280	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	184	71	203	430	9	116	61	103	7	137	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	439	0	0	255	0	0	1191	1097	184	1206	1159	430
Stage 1	-	-	-	-	-	-	252	252	-	836	836	-
Stage 2	-	-	-	-	-	-	939	845	-	370	323	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1121	-	-	1310	-	-	164	213	858	160	196	625
Stage 1	-	-	-	-	-	-	752	698	-	362	382	-
Stage 2	-	-	-	-	-	-	317	379	-	650	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1121	-	-	1310	-	-	~ 37	175	858	89	161	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 37	175	-	89	161	-
Stage 1	-	-	-	-	-	-	729	677	-	351	323	-
Stage 2	-	-	-	-	-	-	140	320	-	505	631	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	2.6	$ 506.2	67.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	37	175	858	1121	-	-	1310	-	-	89	161	625
HCM Lane V/C Ratio	3.143	0.348	0.12	0.03	-	-	0.155	-	-	0.073	0.851	0.094
HCM Control Delay (s)	$ 1193	36.2	9.8	8.3	-	-	8.3	-	-	48.6	92.2	11.4
HCM Lane LOS	F	E	A	A	-	-	A	-	-	E	F	B
HCM 95th %tile Q(veh)	13.2	1.5	0.4	0.1	-	-	0.5	-	-	0.2	5.8	0.3

Notes

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

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	105	35	108	155	4
Future Vol, veh/h	11	105	35	108	155	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	114	38	117	168	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	305	86	172	0	-	0
Stage 1	170	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	663	956	1402	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	877	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	645	956	1402	-	-	-
Mov Cap-2 Maneuver	645	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1402	-	645	956	-	-
HCM Lane V/C Ratio	0.027	-	0.019	0.119	-	-
HCM Control Delay (s)	7.6	-	10.7	9.3	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.4	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	459	943	40	0	575	132	174	52	0	112	31	288
Future Volume (vph)	459	943	40	0	575	132	174	52	0	112	31	288
Satd. Flow (prot)	1770	3539	1583	1863	3539	1583	1770	3539	1863	1770	3539	1583
Flt Permitted	0.316						0.734			0.622		
Satd. Flow (perm)	589	3539	1583	1863	3539	1583	1367	3539	1863	1159	3539	1583
Satd. Flow (RTOR)			109			153						313
Lane Group Flow (vph)	499	1025	43	0	625	143	189	57	0	122	34	313
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0
Total Split (s)	36.0	59.0	59.0	9.0	32.0	32.0	11.0	22.0	22.0	10.0	21.0	21.0
Total Split (%)	36.0%	59.0%	59.0%	9.0%	32.0%	32.0%	11.0%	22.0%	22.0%	10.0%	21.0%	21.0%
Yellow Time (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	71.3	70.3	70.3		45.1	45.1	16.2	9.5		16.7	8.7	8.7
Actuated g/C Ratio	0.71	0.70	0.70		0.45	0.45	0.16	0.10		0.17	0.09	0.09
v/c Ratio	0.74	0.41	0.04		0.39	0.18	0.76	0.17		0.50	0.11	0.74
Control Delay	14.6	7.3	0.1		21.9	4.5	56.3	40.8		41.3	40.7	16.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.6	7.3	0.1		21.9	4.5	56.3	40.8		41.3	40.7	16.1
LOS	B	A	A		C	A	E	D		D	D	B
Approach Delay		9.4			18.7			52.7			24.4	
Approach LOS		A			B			D			C	
Queue Length 50th (ft)	99	113	0		127	0	111	18		69	11	0
Queue Length 95th (ft)	232	206	0		247	40	161	34		108	24	77
Internal Link Dist (ft)		1097			1210			566			815	
Turn Bay Length (ft)	520		520			375						
Base Capacity (vph)	798	2489	1145		1597	798	248	601		243	566	516
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.63	0.41	0.04		0.39	0.18	0.76	0.09		0.50	0.06	0.61

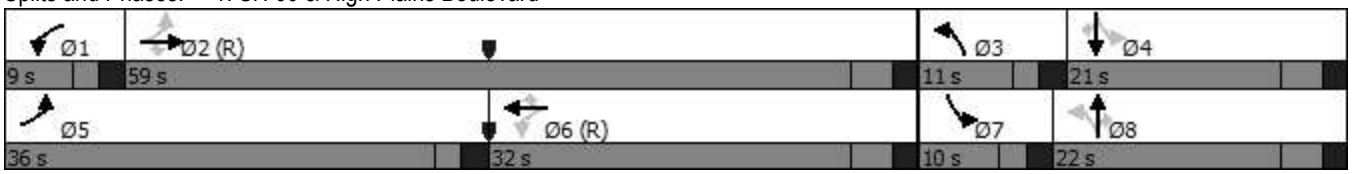
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: SH 60 & High Plains Boulevard



Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	47	36	506	81	113	293
Future Vol, veh/h	47	36	506	81	113	293
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	39	550	88	123	318

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	999	319	0	0	638	0
Stage 1	594	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	240	677	-	-	942	-
Stage 1	514	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	202	677	-	-	942	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.9	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	290	942	-
HCM Lane V/C Ratio	-	-	0.311	0.13	-
HCM Control Delay (s)	-	-	22.9	9.4	0.4
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.4	-

Intersection	
Int Delay, s/veh	33

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	63	669	0	6	429	68	0	0	10	142	0	39
Future Vol, veh/h	63	669	0	6	429	68	0	0	10	142	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	727	0	7	466	74	0	0	11	154	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	540	0	0	727	0	0	1401	1417	727	1386	1380	503
Stage 1	-	-	-	-	-	-	863	863	-	517	517	-
Stage 2	-	-	-	-	-	-	538	554	-	869	863	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1028	-	-	876	-	-	118	137	424	~ 120	144	569
Stage 1	-	-	-	-	-	-	349	372	-	541	534	-
Stage 2	-	-	-	-	-	-	527	514	-	347	372	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1028	-	-	876	-	-	99	120	424	~ 106	126	569
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	120	-	~ 106	126	-
Stage 1	-	-	-	-	-	-	310	331	-	481	528	-
Stage 2	-	-	-	-	-	-	482	508	-	301	331	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	13.7	255.7
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	424	1028	-	-	876	-	-	106	569
HCM Lane V/C Ratio	0.026	0.067	-	-	0.007	-	-	1.456	0.075
HCM Control Delay (s)	13.7	8.8	0	-	9.1	0	-	$ 322.7	11.8
HCM Lane LOS	B	A	A	-	A	A	-	F	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	11.2	0.2

Notes

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

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	467	158	141	248	8	80	152	190	9	107	59
Future Vol, veh/h	73	467	158	141	248	8	80	152	190	9	107	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	610	-	610	0	-	0	280	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	508	172	153	270	9	87	165	207	10	116	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	279	0	0	680	0	0	1337	1251	508	1514	1414	270
Stage 1	-	-	-	-	-	-	666	666	-	576	576	-
Stage 2	-	-	-	-	-	-	671	585	-	938	838	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1284	-	-	912	-	-	130	172	565	98	138	769
Stage 1	-	-	-	-	-	-	449	457	-	503	502	-
Stage 2	-	-	-	-	-	-	446	498	-	317	382	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1284	-	-	912	-	-	-	~ 134	565	-	~ 108	769
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 134	-	-	~ 108	-
Stage 1	-	-	-	-	-	-	421	429	-	472	418	-
Stage 2	-	-	-	-	-	-	246	414	-	116	358	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	3.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	134	565	1284	-	-	912	-	-	-	108	769
HCM Lane V/C Ratio	-	1.233	0.366	0.062	-	-	0.168	-	-	-	1.077	0.083
HCM Control Delay (s)	-	217.2	15	8	-	-	9.7	-	-	-	183.9	10.1
HCM Lane LOS	-	F	C	A	-	-	A	-	-	-	F	B
HCM 95th %tile Q(veh)	-	10.1	1.7	0.2	-	-	0.6	-	-	-	7.1	0.3

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

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	70	118	297	128	12
Future Vol, veh/h	7	70	118	297	128	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	76	128	323	139	13

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	564	76	152	0	-	0
Stage 1	146	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	456	970	1426	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	415	970	1426	-	-	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	632	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	2.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1426	-	415	970	-	-
HCM Lane V/C Ratio	0.09	-	0.018	0.078	-	-
HCM Control Delay (s)	7.8	-	13.8	9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.3	-	-

Intersection	
Int Delay, s/veh	69.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	159	284	0	9	707	91	14	0	0	121	0	481
Future Vol, veh/h	159	284	0	9	707	91	14	0	0	121	0	481
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	530	375	-	375	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	173	309	0	10	768	99	15	0	0	132	0	523

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	867	0	0	309	0	0	1754	1542	309	1443	1443	768
Stage 1	-	-	-	-	-	-	655	655	-	788	788	-
Stage 2	-	-	-	-	-	-	1099	887	-	655	655	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	777	-	-	1252	-	-	67	115	731	~ 110	132	~ 402
Stage 1	-	-	-	-	-	-	455	463	-	384	402	-
Stage 2	-	-	-	-	-	-	258	362	-	455	463	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	777	-	-	1252	-	-	-	89	731	~ 91	102	~ 402
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	89	-	~ 91	102	-
Stage 1	-	-	-	-	-	-	354	360	-	298	399	-
Stage 2	-	-	-	-	-	-	-	359	-	354	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.9	0.1		211.5
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	-	-	777	-	-	1252	-	-	91	-	402
HCM Lane V/C Ratio	-	-	-	0.222	-	-	0.008	-	-	1.445	-	1.301
HCM Control Delay (s)	-	0	0	11	-	-	7.9	-	-	$ 333.9	0	180.7
HCM Lane LOS	-	A	A	B	-	-	A	-	-	F	A	F
HCM 95th %tile Q(veh)	-	-	-	0.8	-	-	0	-	-	10	-	23.5

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

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	111	43	180	20	15	352
Future Vol, veh/h	111	43	180	20	15	352
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	47	196	22	16	383

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	622	207	0	0	218	0
Stage 1	207	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	450	833	-	-	1352	-
Stage 1	828	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	443	833	-	-	1352	-
Mov Cap-2 Maneuver	443	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	510	1352	-
HCM Lane V/C Ratio	-	-	0.328	0.012	-
HCM Control Delay (s)	-	-	15.5	7.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↕	
Traffic Vol, veh/h	33	217	0	9	409	81	0	0	3	41	0	28
Future Vol, veh/h	33	217	0	9	409	81	0	0	3	41	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	236	0	10	445	88	0	0	3	45	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	533	0	0	236	0	0	832	861	236	819	817	489
Stage 1	-	-	-	-	-	-	308	308	-	509	509	-
Stage 2	-	-	-	-	-	-	524	553	-	310	308	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1035	-	-	1331	-	-	288	293	803	294	311	579
Stage 1	-	-	-	-	-	-	702	660	-	547	538	-
Stage 2	-	-	-	-	-	-	537	514	-	700	660	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1035	-	-	1331	-	-	262	278	803	281	295	579
Mov Cap-2 Maneuver	-	-	-	-	-	-	262	278	-	281	295	-
Stage 1	-	-	-	-	-	-	674	634	-	525	532	-
Stage 2	-	-	-	-	-	-	503	508	-	669	634	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.1	9.5	16.7
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	803	1035	-	-	1331	-	-	281	579
HCM Lane V/C Ratio	0.004	0.035	-	-	0.007	-	-	0.159	0.053
HCM Control Delay (s)	9.5	8.6	0	-	7.7	0	-	20.2	11.6
HCM Lane LOS	A	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.6	0.2

Intersection	
Int Delay, s/veh	5.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱		↰	↰	↱
Traffic Vol, veh/h	162	54	171	363	102	94
Future Vol, veh/h	162	54	171	363	102	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	610	-	-	280	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	176	59	186	395	111	102

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	235	0	943	176
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	767	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1332	-	291	867
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	458	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1332	-	239	867
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	376	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	239	867	-	-	1332	-
HCM Lane V/C Ratio	0.464	0.118	-	-	0.14	-
HCM Control Delay (s)	32.5	9.7	-	-	8.1	0
HCM Lane LOS	D	A	-	-	A	A
HCM 95th %tile Q(veh)	2.3	0.4	-	-	0.5	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	105	124	0	28	35	180	43	9	212	4
Future Vol, veh/h	11	0	105	124	0	28	35	180	43	9	212	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	-	150	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	114	135	0	30	38	196	47	10	230	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	563	571	232	581	526	196	234	0	0	243	0	0
Stage 1	252	252	-	272	272	-	-	-	-	-	-	-
Stage 2	311	319	-	309	254	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	437	431	807	425	457	845	1333	-	-	1323	-	-
Stage 1	752	698	-	734	685	-	-	-	-	-	-	-
Stage 2	699	653	-	701	697	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	409	415	807	354	440	845	1333	-	-	1323	-	-
Mov Cap-2 Maneuver	409	415	-	354	440	-	-	-	-	-	-	-
Stage 1	730	692	-	713	665	-	-	-	-	-	-	-
Stage 2	655	634	-	596	691	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	19.1	1.1	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1333	-	-	409	807	354	845	1323	-	-
HCM Lane V/C Ratio	0.029	-	-	0.029	0.141	0.381	0.036	0.007	-	-
HCM Control Delay (s)	7.8	-	-	14.1	10.2	21.3	9.4	7.7	0	-
HCM Lane LOS	A	-	-	B	B	C	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.5	1.7	0.1	0	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	233	23	10	465	69	28
Future Vol, veh/h	233	23	10	465	69	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	253	25	11	505	75	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	278	0	793	266
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	527	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1285	-	358	773
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	592	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1285	-	354	773
Mov Cap-2 Maneuver	-	-	-	-	354	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	585	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	420	-	-	1285	-
HCM Lane V/C Ratio	0.251	-	-	0.008	-
HCM Control Delay (s)	16.4	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0	-

Intersection	
Int Delay, s/veh	1183.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	482	718	0	0	459	127	136	0	0	92	0	298
Future Vol, veh/h	482	718	0	0	459	127	136	0	0	92	0	298
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	520	-	530	375	-	375	0	-	0	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	524	780	0	0	499	138	148	0	0	100	0	324

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	637	0	0	780	0	0	2558	2465	780	2327	2327	499
Stage 1	-	-	-	-	-	-	1828	1828	-	499	499	-
Stage 2	-	-	-	-	-	-	730	637	-	1828	1828	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	947	-	-	837	-	-	~ 18	30	395	~ 26	37	572
Stage 1	-	-	-	-	-	-	~ 98	127	-	554	544	-
Stage 2	-	-	-	-	-	-	414	471	-	~ 98	127	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	947	-	-	837	-	-	~ 4	13	395	~ 15	17	572
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	13	-	~ 15	17	-
Stage 1	-	-	-	-	-	-	~ 44	57	-	248	544	-
Stage 2	-	-	-	-	-	-	180	471	-	~ 44	57	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.4	0	$ 17962.9	$ 734.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	4	-	-	947	-	-	837	-	-	15	-	572
HCM Lane V/C Ratio	36.957	-	-	0.553	-	-	-	-	-	6.667	-	0.566
HCM Control Delay (s)	$ 17962.9	0	0	13.4	-	-	0	-		$ 3051.5	0	19.2
HCM Lane LOS	F	A	A	B	-	-	A	-	-	F	A	C
HCM 95th %tile Q(veh)	20.7	-	-	3.5	-	-	0	-	-	13.4	-	3.5

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

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	25	390	87	78	272
Future Vol, veh/h	50	25	390	87	78	272
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	27	424	95	85	296

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	938	472	0	0	519	0
Stage 1	472	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	293	592	-	-	1047	-
Stage 1	628	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	265	592	-	-	1047	-
Mov Cap-2 Maneuver	265	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	571	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.7	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	325	1047	-
HCM Lane V/C Ratio	-	-	0.251	0.081	-
HCM Control Delay (s)	-	-	19.7	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1	0.3	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↕	
Traffic Vol, veh/h	44	519	0	6	343	58	0	0	10	117	0	27
Future Vol, veh/h	44	519	0	6	343	58	0	0	10	117	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	564	0	7	373	63	0	0	11	127	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	436	0	0	564	0	0	1093	1110	564	1085	1079	405
Stage 1	-	-	-	-	-	-	660	660	-	419	419	-
Stage 2	-	-	-	-	-	-	433	450	-	666	660	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1124	-	-	1008	-	-	192	209	525	194	218	646
Stage 1	-	-	-	-	-	-	452	460	-	612	590	-
Stage 2	-	-	-	-	-	-	601	572	-	449	460	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1124	-	-	1008	-	-	173	194	525	180	203	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	194	-	180	203	-
Stage 1	-	-	-	-	-	-	424	431	-	574	585	-
Stage 2	-	-	-	-	-	-	569	567	-	412	431	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	12	52.8
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	525	1124	-	-	1008	-	-	180	646
HCM Lane V/C Ratio	0.021	0.043	-	-	0.006	-	-	0.707	0.045
HCM Control Delay (s)	12	8.3	0	-	8.6	0	-	62.5	10.8
HCM Lane LOS	B	A	A	-	A	A	-	F	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	4.4	0.1

Intersection	
Int Delay, s/veh	5.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	440	139	153	251	73	196
Future Vol, veh/h	440	139	153	251	73	196
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	610	-	-	280	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	478	151	166	273	79	213

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	629	0	1083	478
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	953	-	240	587
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	545	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	953	-	191	587
Mov Cap-2 Maneuver	-	-	-	-	191	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	433	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.6	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	191	587	-	-	953	-
HCM Lane V/C Ratio	0.415	0.363	-	-	0.175	-
HCM Control Delay (s)	36.6	14.6	-	-	9.6	0
HCM Lane LOS	E	B	-	-	A	A
HCM 95th %tile Q(veh)	1.9	1.7	-	-	0.6	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	70	82	0	18	118	275	140	30	250	12
Future Vol, veh/h	7	0	70	82	0	18	118	275	140	30	250	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	-	150	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	76	89	0	20	128	299	152	33	272	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	986	1052	279	938	906	299	285	0	0	451	0	0
Stage 1	345	345	-	555	555	-	-	-	-	-	-	-
Stage 2	641	707	-	383	351	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	227	227	760	244	276	741	1277	-	-	1109	-	-
Stage 1	671	636	-	516	513	-	-	-	-	-	-	-
Stage 2	463	438	-	640	632	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	197	760	197	240	741	1277	-	-	1109	-	-
Mov Cap-2 Maneuver	199	197	-	197	240	-	-	-	-	-	-	-
Stage 1	604	614	-	464	462	-	-	-	-	-	-	-
Stage 2	406	394	-	556	610	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	32.6	1.8	0.9
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1277	-	-	199	760	197	741	1109	-	-
HCM Lane V/C Ratio	0.1	-	-	0.038	0.1	0.452	0.026	0.029	-	-
HCM Control Delay (s)	8.1	-	-	23.8	10.3	37.5	10	8.3	0	-
HCM Lane LOS	A	-	-	C	B	E	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	0.3	2.1	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	558	78	31	358	46	18
Future Vol, veh/h	558	78	31	358	46	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	607	85	34	389	50	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	692	0	1107	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	903	-	233	469
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	638	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	903	-	222	469
Mov Cap-2 Maneuver	-	-	-	-	222	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	607	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	23.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	261	-	-	903	-
HCM Lane V/C Ratio	0.267	-	-	0.037	-
HCM Control Delay (s)	23.7	-	-	9.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	365	19	9	966	121	37	17	0	157	47	647
Future Volume (vph)	208	365	19	9	966	121	37	17	0	157	47	647
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1863	1770	3539	1583
Flt Permitted	0.105			0.518			0.722			0.563		
Satd. Flow (perm)	196	3539	1583	965	3539	1583	1345	3539	1863	1049	3539	1583
Satd. Flow (RTOR)			109			132						232
Lane Group Flow (vph)	226	397	21	10	1050	132	40	18	0	171	51	703
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0
Total Split (s)	13.0	46.0	46.0	9.0	42.0	42.0	9.0	36.0	36.0	9.0	36.0	36.0
Total Split (%)	13.0%	46.0%	46.0%	9.0%	42.0%	42.0%	9.0%	36.0%	36.0%	9.0%	36.0%	36.0%
Yellow Time (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	51.0	48.2	48.2	43.0	37.0	37.0	17.8	15.8		39.4	34.6	34.6
Actuated g/C Ratio	0.51	0.48	0.48	0.43	0.37	0.37	0.18	0.16		0.39	0.35	0.35
v/c Ratio	0.94	0.23	0.03	0.02	0.80	0.20	0.15	0.03		0.28	0.04	1.01
Control Delay	66.4	16.1	0.1	12.6	33.9	4.6	27.5	28.6		22.0	23.7	59.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	66.4	16.1	0.1	12.6	33.9	4.6	27.5	28.6		22.0	23.7	59.8
LOS	E	B	A	B	C	A	C	C		C	C	E
Approach Delay		33.3			30.5			27.8			50.8	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	87	72	0	3	311	0	25	5		70	12	~394
Queue Length 95th (ft)	#234	122	0	11	394	37	36	12		117	25	#620
Internal Link Dist (ft)		1097			1210			357			484	
Turn Bay Length (ft)	520		520	375		375						
Base Capacity (vph)	241	1705	819	455	1309	668	260	1097		605	1224	699
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.94	0.23	0.03	0.02	0.80	0.20	0.15	0.02		0.28	0.04	1.01

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

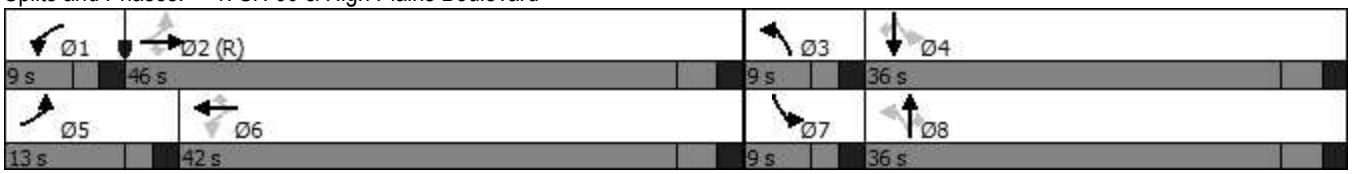
Maximum v/c Ratio: 1.01

Intersection Signal Delay: 37.7	Intersection LOS: D
Intersection Capacity Utilization 82.6%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: SH 60 & High Plains Boulevard



Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	149	62	297	25	21	516
Future Vol, veh/h	149	62	297	25	21	516
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	162	67	323	27	23	561

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	664	175	0	0	350	0
Stage 1	337	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	394	838	-	-	1206	-
Stage 1	695	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	383	838	-	-	1206	-
Mov Cap-2 Maneuver	383	-	-	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.6	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	456	1206	-
HCM Lane V/C Ratio	-	-	0.503	0.019	-
HCM Control Delay (s)	-	-	20.6	8	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.8	0.1	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	48	294	0	9	595	107	0	0	3	57	0	41
Future Vol, veh/h	48	294	0	9	595	107	0	0	3	57	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	320	0	10	647	116	0	0	3	62	0	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	763	0	0	320	0	0	1172	1207	320	1151	1149	705
Stage 1	-	-	-	-	-	-	424	424	-	725	725	-
Stage 2	-	-	-	-	-	-	748	783	-	426	424	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	850	-	-	1240	-	-	169	183	721	175	198	436
Stage 1	-	-	-	-	-	-	608	587	-	416	430	-
Stage 2	-	-	-	-	-	-	404	404	-	606	587	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	850	-	-	1240	-	-	142	167	721	163	181	436
Mov Cap-2 Maneuver	-	-	-	-	-	-	142	167	-	163	181	-
Stage 1	-	-	-	-	-	-	563	544	-	385	424	-
Stage 2	-	-	-	-	-	-	358	398	-	559	544	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.1	10	29.2
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	721	850	-	-	1240	-	-	163	436
HCM Lane V/C Ratio	0.005	0.061	-	-	0.008	-	-	0.38	0.102
HCM Control Delay (s)	10	9.5	0	-	7.9	0	-	40	14.2
HCM Lane LOS	B	A	A	-	A	A	-	E	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	1.6	0.3

Intersection	
Int Delay, s/veh	14.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	183	74	215	437	8	135	56	104	6	126	54
Future Vol, veh/h	20	183	74	215	437	8	135	56	104	6	126	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	610	-	610	200	-	200	280	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	199	80	234	475	9	147	61	113	7	137	59

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	484	0	0	279	0	0	1289	1195	199	1313	1266	475
Stage 1	-	-	-	-	-	-	243	243	-	943	943	-
Stage 2	-	-	-	-	-	-	1046	952	-	370	323	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1079	-	-	1284	-	-	~ 141	186	842	135	169	590
Stage 1	-	-	-	-	-	-	761	705	-	315	341	-
Stage 2	-	-	-	-	-	-	276	338	-	650	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1079	-	-	1284	-	-	-	149	842	68	~ 136	590
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	149	-	68	~ 136	-
Stage 1	-	-	-	-	-	-	746	691	-	309	279	-
Stage 2	-	-	-	-	-	-	~ 103	276	-	503	637	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.7		102.1
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	149	842	1079	-	-	1284	-	-	68	136	590
HCM Lane V/C Ratio	-	0.409	0.134	0.02	-	-	0.182	-	-	0.096	1.007	0.099
HCM Control Delay (s)	-	44.9	9.9	8.4	-	-	8.4	-	-	63.5	142.6	11.8
HCM Lane LOS	-	E	A	A	-	-	A	-	-	F	F	B
HCM 95th %tile Q(veh)	-	1.8	0.5	0.1	-	-	0.7	-	-	0.3	7.2	0.3

Notes

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

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	105	124	0	28	35	114	43	9	183	4
Future Vol, veh/h	11	0	105	124	0	28	35	114	43	9	183	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	-	150	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	114	135	0	30	38	124	47	10	199	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	359	468	102	320	423	62	203	0	0	171	0	0
Stage 1	221	221	-	200	200	-	-	-	-	-	-	-
Stage 2	138	247	-	120	223	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	572	491	933	609	521	990	1366	-	-	1404	-	-
Stage 1	761	719	-	783	735	-	-	-	-	-	-	-
Stage 2	851	701	-	872	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	539	473	933	520	502	990	1366	-	-	1404	-	-
Mov Cap-2 Maneuver	539	473	-	520	502	-	-	-	-	-	-	-
Stage 1	740	713	-	761	714	-	-	-	-	-	-	-
Stage 2	802	681	-	759	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	13.3	1.4	0.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1366	-	-	539	933	520	990	1404	-	-
HCM Lane V/C Ratio	0.028	-	-	0.022	0.122	0.259	0.031	0.007	-	-
HCM Control Delay (s)	7.7	-	-	11.8	9.4	14.3	8.8	7.6	0	-
HCM Lane LOS	A	-	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.4	1	0.1	0	-	-

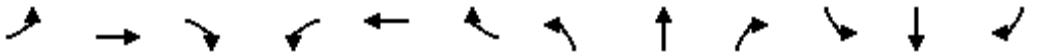
Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	270	23	10	591	69	28
Future Vol, veh/h	270	23	10	591	69	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	293	25	11	642	75	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	318	0	970	306
Stage 1	-	-	-	-	306	-
Stage 2	-	-	-	-	664	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1242	-	281	734
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1242	-	277	734
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	505	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	338	-	-	1242	-
HCM Lane V/C Ratio	0.312	-	-	0.009	-
HCM Control Delay (s)	20.4	-	-	7.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	630	943	40	0	575	163	174	52	0	131	31	388
Future Volume (vph)	630	943	40	0	575	163	174	52	0	131	31	388
Satd. Flow (prot)	1770	3539	1583	1863	3539	1583	1770	3539	1863	1770	3539	1583
Flt Permitted	0.232						0.734			0.624		
Satd. Flow (perm)	432	3539	1583	1863	3539	1583	1367	3539	1863	1162	3539	1583
Satd. Flow (RTOR)			109			177						422
Lane Group Flow (vph)	685	1025	43	0	625	177	189	57	0	142	34	422
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0	9.0	10.0	10.0
Total Split (s)	36.0	59.0	59.0	9.0	32.0	32.0	11.0	22.0	22.0	10.0	21.0	21.0
Total Split (%)	36.0%	59.0%	59.0%	9.0%	32.0%	32.0%	11.0%	22.0%	22.0%	10.0%	21.0%	21.0%
Yellow Time (s)	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0	2.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	71.1	70.1	70.1		30.4	30.4	16.4	9.7		16.9	8.9	8.9
Actuated g/C Ratio	0.71	0.70	0.70		0.30	0.30	0.16	0.10		0.17	0.09	0.09
v/c Ratio	0.87	0.41	0.04		0.58	0.29	0.75	0.17		0.57	0.11	0.80
Control Delay	30.5	7.4	0.1		32.9	5.8	54.8	40.3		44.1	40.2	16.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	30.5	7.4	0.1		32.9	5.8	54.8	40.3		44.1	40.2	16.7
LOS	C	A	A		C	A	D	D		D	D	B
Approach Delay		16.2			26.9			51.4			24.5	
Approach LOS		B			C			D			C	
Queue Length 50th (ft)	255	113	0		181	0	111	18		81	11	0
Queue Length 95th (ft)	#571	207	0		247	50	161	34		124	24	91
Internal Link Dist (ft)		1097			1210			357			346	
Turn Bay Length (ft)	520		520			375						
Base Capacity (vph)	783	2479	1141		1077	604	252	601		247	566	607
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	0.87	0.41	0.04		0.58	0.29	0.75	0.09		0.57	0.06	0.70

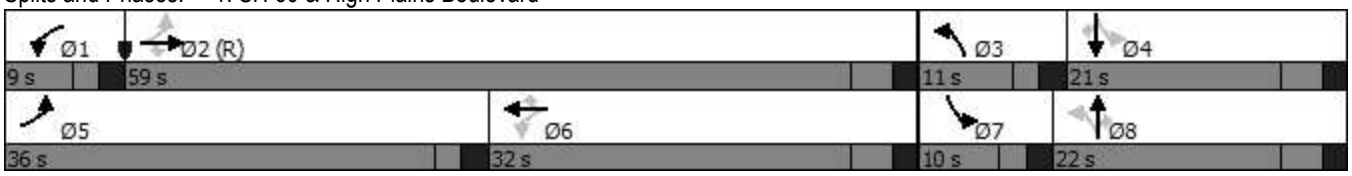
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: SH 60 & High Plains Boulevard



Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	36	677	112	113	394
Future Vol, veh/h	65	36	677	112	113	394
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	39	736	122	123	428

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1257	429	0	0	858	0
Stage 1	797	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	163	574	-	-	779	-
Stage 1	404	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	129	574	-	-	779	-
Mov Cap-2 Maneuver	129	-	-	-	-	-
Stage 1	404	-	-	-	-	-
Stage 2	477	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	53.2	0	2.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	178	779	-
HCM Lane V/C Ratio	-	-	0.617	0.158	-
HCM Control Delay (s)	-	-	53.2	10.5	0.7
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	3.4	0.6	-

Intersection	
Int Delay, s/veh	55.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↕	
Traffic Vol, veh/h	63	731	0	6	465	77	0	0	10	157	0	39
Future Vol, veh/h	63	731	0	6	465	77	0	0	10	157	0	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	795	0	7	505	84	0	0	11	171	0	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	589	0	0	795	0	0	1513	1534	795	1498	1492	547
Stage 1	-	-	-	-	-	-	931	931	-	561	561	-
Stage 2	-	-	-	-	-	-	582	603	-	937	931	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	986	-	-	826	-	-	98	116	388	~ 101	123	537
Stage 1	-	-	-	-	-	-	320	346	-	512	510	-
Stage 2	-	-	-	-	-	-	499	488	-	318	346	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	986	-	-	826	-	-	81	100	388	~ 88	107	537
Mov Cap-2 Maneuver	-	-	-	-	-	-	81	100	-	~ 88	107	-
Stage 1	-	-	-	-	-	-	281	303	-	449	503	-
Stage 2	-	-	-	-	-	-	454	482	-	271	303	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	14.5	$ 435.6
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	388	986	-	-	826	-	-	88	537
HCM Lane V/C Ratio	0.028	0.069	-	-	0.008	-	-	1.939	0.079
HCM Control Delay (s)	14.5	8.9	0	-	9.4	0	-	$ 540.7	12.3
HCM Lane LOS	B	A	A	-	A	A	-	F	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	14.7	0.3

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

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	514	188	160	275	8	98	152	221	9	107	59
Future Vol, veh/h	40	514	188	160	275	8	98	152	221	9	107	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	610	-	610	200	-	200	280	-	-	0	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	559	204	174	299	9	107	165	240	10	116	64

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	308	0	0	763	0	0	1387	1301	559	1597	1496	299
Stage 1	-	-	-	-	-	-	645	645	-	647	647	-
Stage 2	-	-	-	-	-	-	742	656	-	950	849	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1253	-	-	850	-	-	120	~ 161	529	86	123	741
Stage 1	-	-	-	-	-	-	461	467	-	460	467	-
Stage 2	-	-	-	-	-	-	408	462	-	312	377	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1253	-	-	850	-	-	-	~ 124	529	-	~ 94	741
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 124	-	-	~ 94	-
Stage 1	-	-	-	-	-	-	445	451	-	444	371	-
Stage 2	-	-	-	-	-	-	203	367	-	104	364	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	3.7		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	124	529	1253	-	-	850	-	-	-	94	741
HCM Lane V/C Ratio	-	1.332	0.454	0.035	-	-	0.205	-	-	-	1.237	0.087
HCM Control Delay (s)	-	260.5	17.3	8	-	-	10.3	-	-	-	252.2	10.3
HCM Lane LOS	-	F	C	A	-	-	B	-	-	-	F	B
HCM 95th %tile Q(veh)	-	10.9	2.3	0.1	-	-	0.8	-	-	-	8.1	0.3

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

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	70	82	0	18	118	330	140	30	147	12
Future Vol, veh/h	7	0	70	82	0	18	118	330	140	30	147	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	-	150	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	76	89	0	20	128	359	152	33	160	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	669	1000	87	761	854	180	173	0	0	511	0	0
Stage 1	233	233	-	615	615	-	-	-	-	-	-	-
Stage 2	436	767	-	146	239	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	343	242	954	295	294	832	1401	-	-	1050	-	-
Stage 1	749	711	-	445	480	-	-	-	-	-	-	-
Stage 2	569	410	-	842	706	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	303	212	954	246	258	832	1401	-	-	1050	-	-
Mov Cap-2 Maneuver	303	212	-	246	258	-	-	-	-	-	-	-
Stage 1	681	686	-	405	436	-	-	-	-	-	-	-
Stage 2	505	373	-	748	681	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	24.4	1.6	1.4
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1401	-	-	303	954	246	832	1050	-	-
HCM Lane V/C Ratio	0.092	-	-	0.025	0.08	0.362	0.024	0.031	-	-
HCM Control Delay (s)	7.8	-	-	17.2	9.1	27.7	9.4	8.5	0.1	-
HCM Lane LOS	A	-	-	C	A	D	A	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	0.3	1.6	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	666	78	31	397	46	18
Future Vol, veh/h	666	78	31	397	46	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	724	85	34	432	50	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	809	0	1267	767
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	817	-	186	402
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	817	-	176	402
Mov Cap-2 Maneuver	-	-	-	-	176	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	576	-

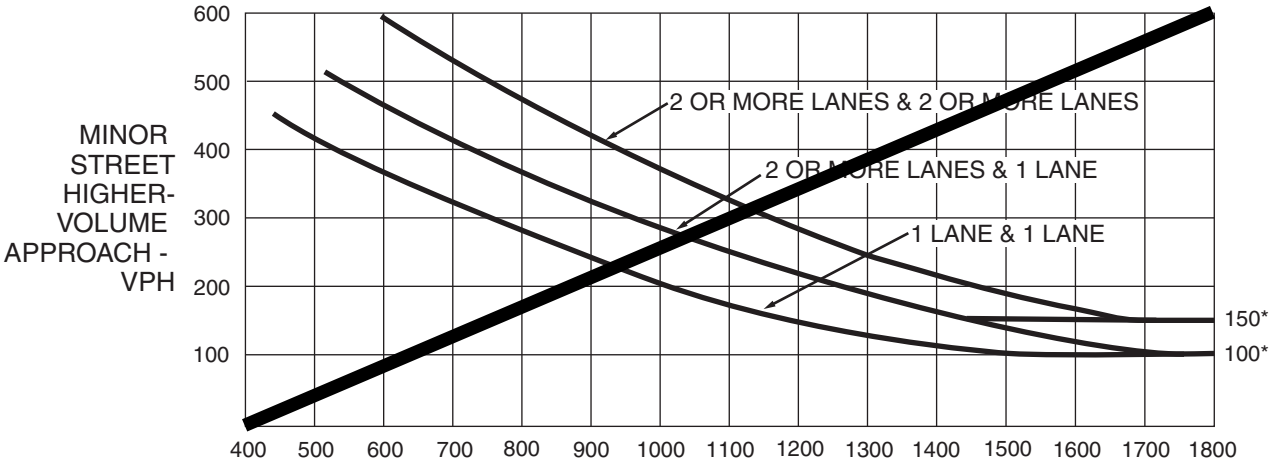
Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	30.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	209	-	-	817	-
HCM Lane V/C Ratio	0.333	-	-	0.041	-
HCM Control Delay (s)	30.6	-	-	9.6	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-

APPENDIX D

Warrant Analysis Forms

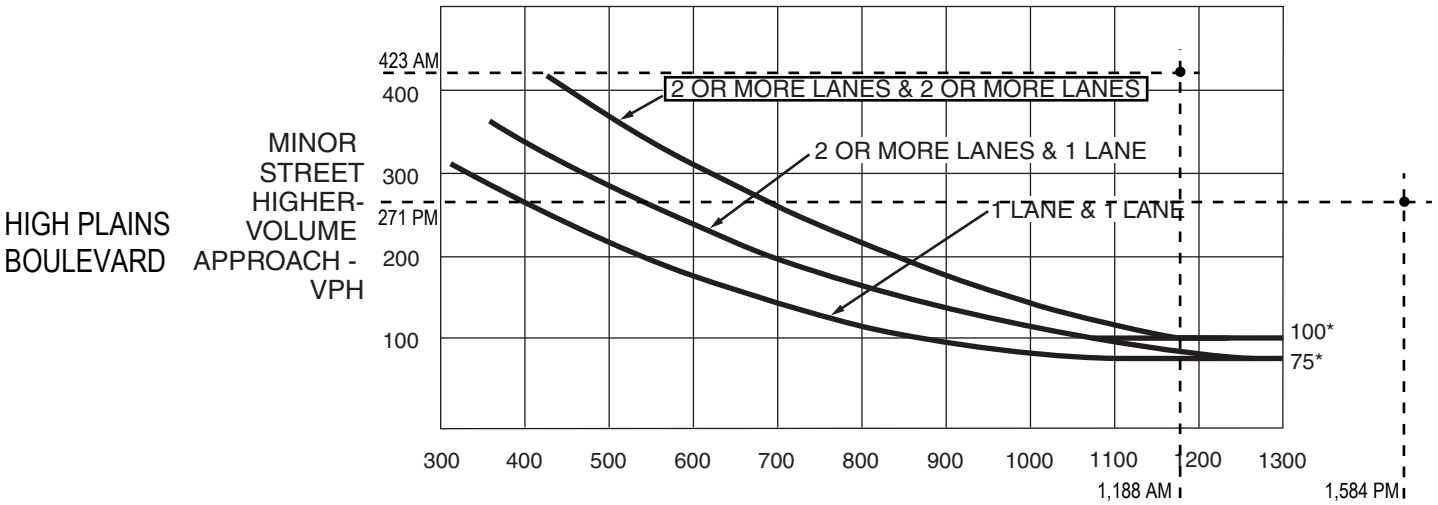
Figure 4C-3. Warrant 3, Peak Hour



*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)

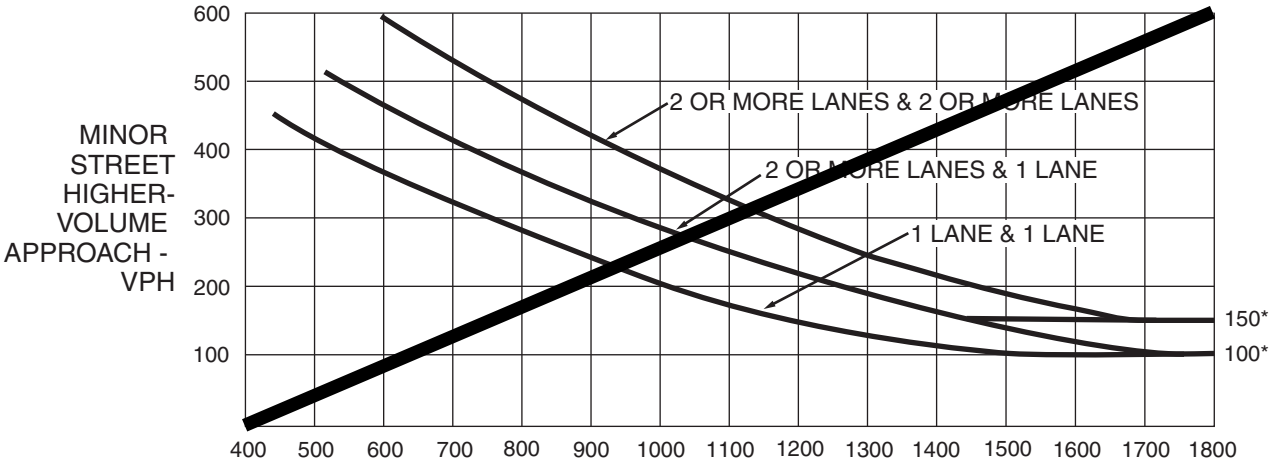
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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.

STATE HIGHWAY 60 (55 MPH)

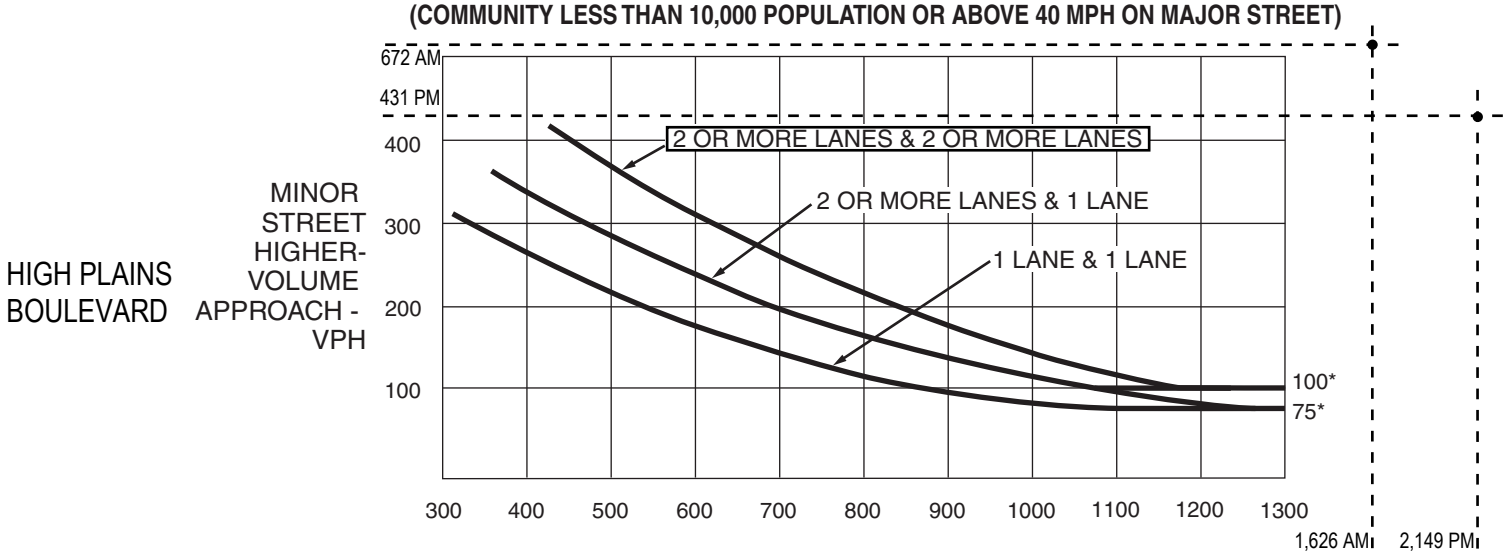
Figure 4C-3. Warrant 3, Peak Hour



*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.

STATE HIGHWAY 60 (55 MPH)

APPENDIX E

Vista Commons Preliminary Trip Generation

ITE Land Use Code & Rates		Project	Project Trip Generation						
Land Use	Land Use Code	DU/KSF	Daily	AM			PM		
				IN	Out	Total	IN	Out	Total
Single-Family Detached	210	146	1429	27	78	105	89	52	142
Single Family Attached (Duplex)	215	122	879	18	40	58	39	30	69
Multi-Family	220	455	2,992	39	125	164	136	80	216
Commercial - KSF	820	353	13,058	184	113	296	576	624	1,200
Business Hotel	312	200	804	28	44	72	34	28	62
Business Park	770	187	2,705	210	37	247	66	187	253
SUBTOTAL			21,868	506	436	942	941	1,001	1,942
Internal Trip Reducton			4,374	51	44	94	188	200	388
NET TOTAL			17,494	456	392	848	753	801	1,554