

Y. Traffic Impact Study

For

Williams Creek Generating Station

TRAFFIC IMPACT STUDY

For

Williams Creek Generation Station
El Paso County, Colorado

September 2026

Prepared for:

Vertex Consulting Services
5825 Delmonico Drive, Suite 320
Colorado Springs, Colorado 80919

Prepared by:

SM ROCHA, LLC
TRAFFIC & TRANSPORTATION ENGINEERING

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 Engineer:
Leo Ornelas, EIT

Engineer in Responsible Charge:
Brandon Wilson, PE

26-072701

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

Brandon Wilson

09/25/2026

Brandon Wilson, P.E. #68282 Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

_____ _____

Craig Dossey Date
Vertex Consulting Services
5825 Delmonico Drive
Colorado Springs, Colorado 80919

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In general, please refer to state highways as CO-XX. (For example CO-16, instead of SH-16).

I. Introduction

.....including the passenger vehicles and heavy vehicles. Please clarify.

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 Williams Creek Generation Station. This analysis is intended to reflect construction traffic only and was prepared in accordance with Appendix B of the County's Engineering Criteria Manual (ECM)[1].

This proposed development consists of a new Colorado Springs Utilities (CSU) power plant facility. The development is located east of Interstate 25, between Link Road and Hanover Road, in El Paso County, Colorado.

Study Area Boundaries

The study area to be examined in this analysis encompasses the areas bounded by the anticipated hauling routes during construction, which includes S Peyton Highway from State Highway 94 south to Squirrel Creek Road, Squirrel Creek Road from State Highway 94 west to Link Road, Interstate 25 from Mesa Ridge Parkway south to Old Pueblo Road, and Old Pueblo Road from Interstate 25 north to Birdsall Road.

Figures 1A and 1B illustrate location of the site and study intersections.

Site Description

Land for the development site is approximately 100 acres in size, currently vacant, and surrounded by a mix of open space and utility-related land uses.

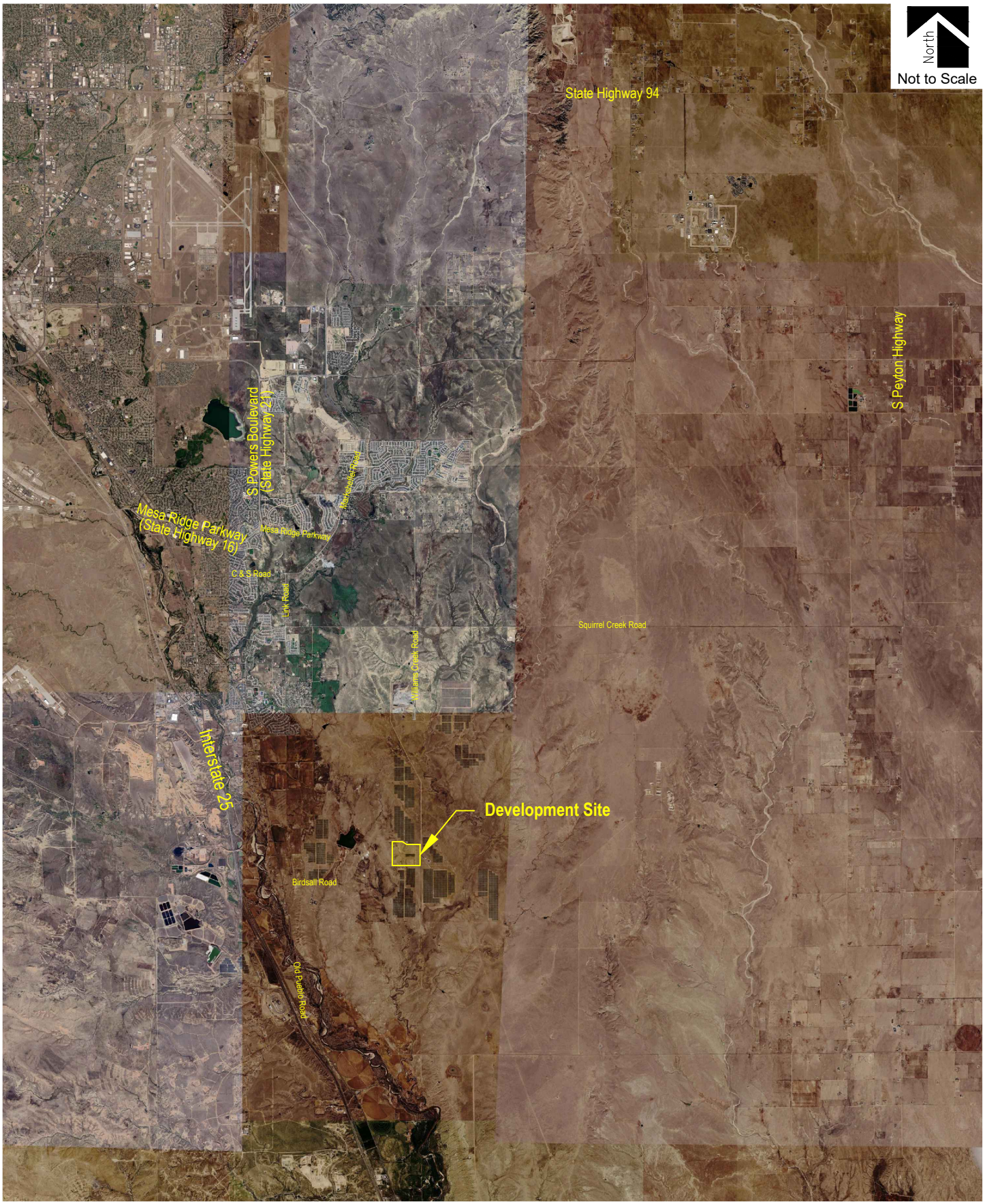
The proposed development is understood to entail the new construction of a CSU power plant facility and supporting ancillary uses, including but not limited to, a multi-use administrative control building, natural gas gate stations, raw water intake storage and distribution equipment, and a wastewater treatment facility.

Proposed access to the development is general and provided via the full-movement intersection of Squirrel Creek Road and Williams Creek Road, as well as the intersection of Birdsall Road and Old Pueblo Road. It is important to note that passenger vehicle trips are understood to utilize either Williams Creek Road or Birdsall Road, while all heavy vehicles will only utilize Birdsall Road to access the site.

[1] El Paso County Engineering Criteria Manual, El Paso County, January 2025.

For purposes of this study, it is anticipated that development construction would be occurring as its most demanding point during Year 2029. What month is construction anticipated to start, and how long will it last?

A conceptual exhibit, as prepared by Kiewit Corporation, is shown in Figure 2. This plan is provided for illustrative purposes only.


North
Not to Scale
State Highway 94
S Peyton Highway
S Powers Boulevard (State Highway 21)
Mesa Ridge Parkway (State Highway 16)
Mesa Ridge Parkway
Rockwell Road
C & S Road
Link Road
Squirrel Creek Road
Williams Creek Road
Interstate 25
Development Site
Birdsall Road
Old Pueblo Road


North
Not to Scale
Williams Creek Road
Development Site
Irradiance Road
Birdsall Road

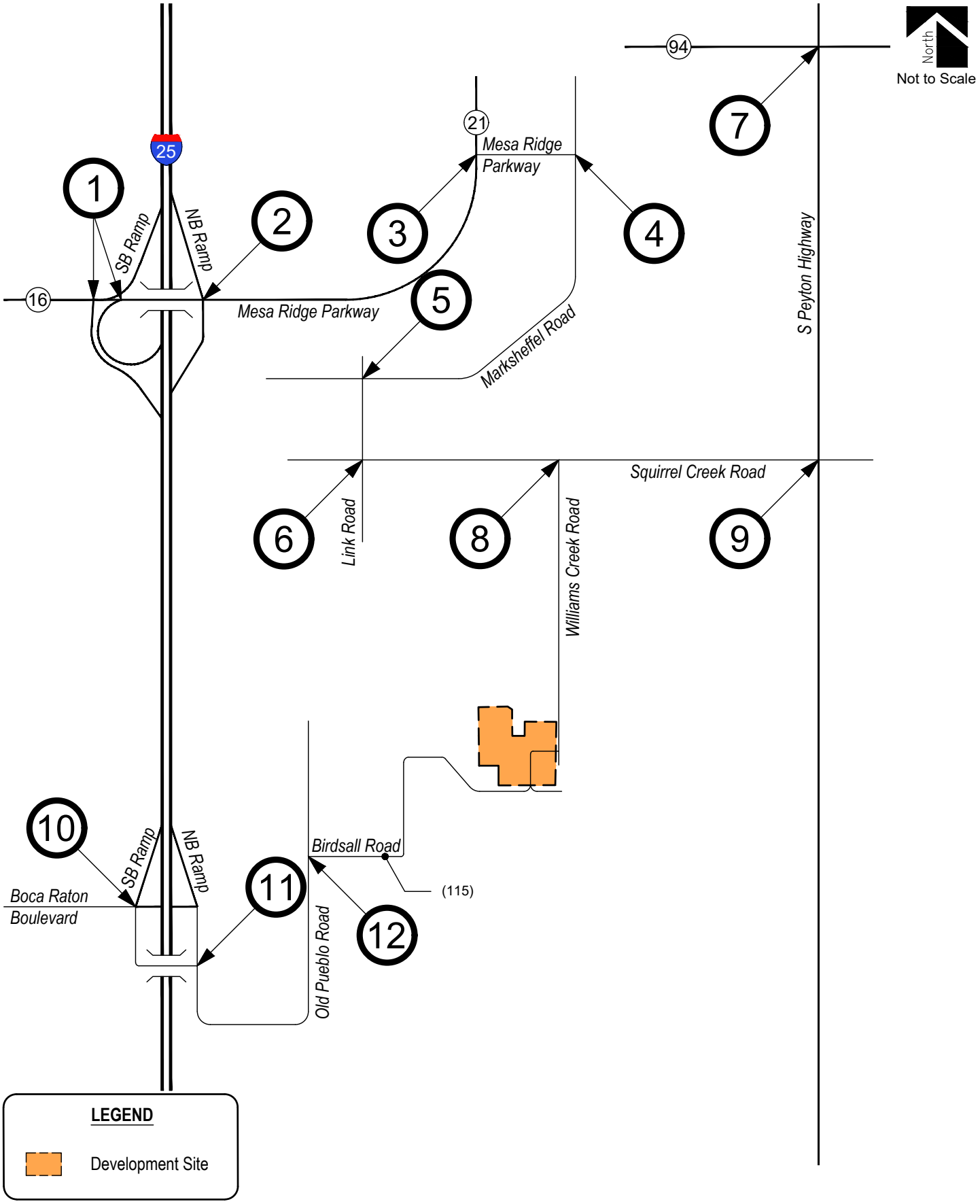


Figure 3
EXISTING TRAFFIC
(ADT) : Average Daily Traffic

Existing and Committed Surface Transportation Network

Within the study area, regional access to the proposed development area is provided by way of Interstate 25, Mesa Ridge Parkway, State Highway 94, and Marksheffel Road, while local access is provided by Link Road, Squirrel Creek Road, S Peyton Highway, Old Pueblo Road, and Birdsall Road. A brief description of each roadway, based on the County's Major Transportation Corridors Plan (MTCP)[2], the County's ECM, as well as the City of Fountain Transportation Master Plan 2022 (TMP 2022)[3], is provided below:

Clarify that F-W, NR-A, and E-X are ACCESS catergories.

Interstate 25 is a north-south freeway having four through lanes (two lanes in each direction) with Interstate 25 travelling below Mesa Ridge Parkway and Old Pueblo Road. The Colorado Department of Transportation (CDOT) categorizes the adjacent segment of Interstate 25 as an Interstate System, Freeway Facility (F-W) and provides a posted speed limit of 75 MPH.

Mesa Ridge Parkway is generally an east-west expressway roadway accommodating four through lanes (two lanes in each direction) with exclusive turn lanes at the intersections within the study area. CDOT categorizes the adjacent segment of Mesa Ridge Parkway (State Highway 16) as an Expressway, Major Bypass (E-X) west of Syracuse Street and a Non-Rural Principal Highway (NR-A) east of Syracuse Street. Mesa Ridge Parkway provides posted speed limits ranging between 45 and 55 MPH.

Mesa Ridge Parkway (State Highway 16) ends at S Powers Boulevard (State Highway 21) and continues east as Mesa Ridge Parkway (no CDOT designation), a principal arterial roadway supporting a 45 MPH posted speed limit.

State Roadway 94 is an east-west state roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersection within the study area. CDOT categorizes the adjacent segment of State Highway 94 as a Non-Rural Principal Highway (NR-A) and provides a posted speed limit of 65 MPH.

Marksheffel Road is generally a north-south principal arterial roadway accommodating a three-lane cross-section (one lane in each direction with a center two-way left-turn lane) with a combination of shared and exclusive turn lanes at the intersections within the study area. Marksheffel Road provides a posted speed limit of 45 MPH. Marksheffel Road ends at Link Road and continues west as C & S Road, a minor arterial roadway accommodating a two-lane cross-section and a posted speed limit of 40 MPH.

Link Road is a north-south minor arterial roadway having two through lanes (one lane in each direction) with exclusive turn lanes at the intersection within the study area. Link Road provides a posted speed limit of 40 MPH.

[2] El Paso County Major Transportation Corridors Plan, Felsburg Holt & Ullevig, July 18, 2024.
[3] City of Fountain Transportation Master Plan, Wilson & Company, February 22, 2022.

High left turn volume

Squirrel Creek Road is an east-west collector roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. Squirrel Creek Road provides posted speed limits ranging between 35 to 45 MPH.

S Peyton Highway is a north-south roadway accommodating a two-lane cross-section (one through lane in each direction) and a 55 MPH posted speed limit in either direction. North of Squirrel Creek Road, S Peyton Highway is classified as a rural major collector roadway, and a rural minor collector roadway south of Squirrel Creek Road.

Old Pueblo Road is a north-south rural minor collector roadway supporting two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersections within the study area. Old Pueblo Road provides a posted speed limit of 25 MPH.

Birdsall Road is an east-west roadway having two through lanes (one lane in each direction) with shared turn lanes at its intersection within the study area. Birdsall Road is unclassified in the governing jurisdictions' transportation plans. However, per its approximate right-of-way (ROW) width and connection to Old Pueblo Road, Birdsall Road is assumed to be classified as a rural local roadway with a posted speed limit of 30 MPH. Birdsall Road is a paved roadway for approximately three-quarters of a mile east of Old Denver Road and continues east as a gravel roadway.

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

In review of the 2050 Pikes Peak Region Long Range Transportation Plan[4], it is suggested that long-range transportation plans are currently being evaluated for the State Highway 94 corridor. However, in conjunction with six regional governments including the Pikes Peak Rural Transportation Authority (PPRTA), CDOT, El Paso County, and City of Colorado Springs, it is understood that PPACG's Metropolitan Planning Organization (MPO) is in the process of seeking funds through their Transportation Improvement Program (TIP) to implement the long-term plans being evaluated for State Highway 94. It is therefore unknown at this time what improvements are being planned for and their timelines (i.e., roadway upgrades, roadway widenings, intersection control improvements, etc.).

In further review of PPACG's 2050 Long Range Transportation Plan, Link Road has planned congestion and safety improvements including roadway widening improvements to accommodate a three-lane cross-section.

No other regional or specific improvements for the above-described roadways are known to be planned or committed at this time. The remaining study area roadways appear to be built to their ultimate cross-sections.

[4] Pikes Peak Region 2050 Long Range Transportation Plan, Pikes Peak Area Council of Governments, February 2025.

This table does not match the total number of passenger vehilces shown on Figure 10. Please revise Figure 10 and all the Synchro models to match.

II. Existing Traffic Conditions

Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the following intersections:

- Interstate 25 / Mesa Ridge Parkway
- Mesa Ridge Parkway (SH-16) / Mesa Ridge Parkway
- Mesa Ridge Parkway / Marksheffel Road
- Marksheffel Road / Link Road
- Link Road / Squirrel Creek Road
- Squirrel Creek Road / Williams Creek Road
- Interstate 25 / Old Pueblo Road
- Old Pueblo Road / Birdsall Road
- S Peyton Highway / State Highway 94
- S Peyton Highway / Squirrel Creek Road

Average daily traffic (ADT) volumes were collected over a 24-hour period on Birdsall Road. Counts were collected on Tuesday, September 1, 2026, 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.

The study area intersections and ADT volumes are shown on Figure 3. Newly collected intersection counts are shown in Figure 4. Existing intersection geometry is shown in Figure 5. Traffic count data is included for reference in Appendix A.

Existing signal timing parameters for Marksheffel Road and Mesa Ridge Parkway were obtained from the City of Colorado Springs and used throughout this study to the best extent possible in order to remain consistent with existing signal coordination plans. City signal timing information received is included for reference in Appendix A.

Existing signal timing parameters for the intersections of Mesa Ridge Parkway (SH 16) with Interstate 25 and Mesa Ridge Parkway as well as the intersections of Link Road with Marksheffel Road and Squirrel Creek Road were assumed based on the existing signal head configuration and allowable movements. Timings were used throughout this study to the best extent possible in order to remain consistent with typical jurisdictional signal coordination plans.

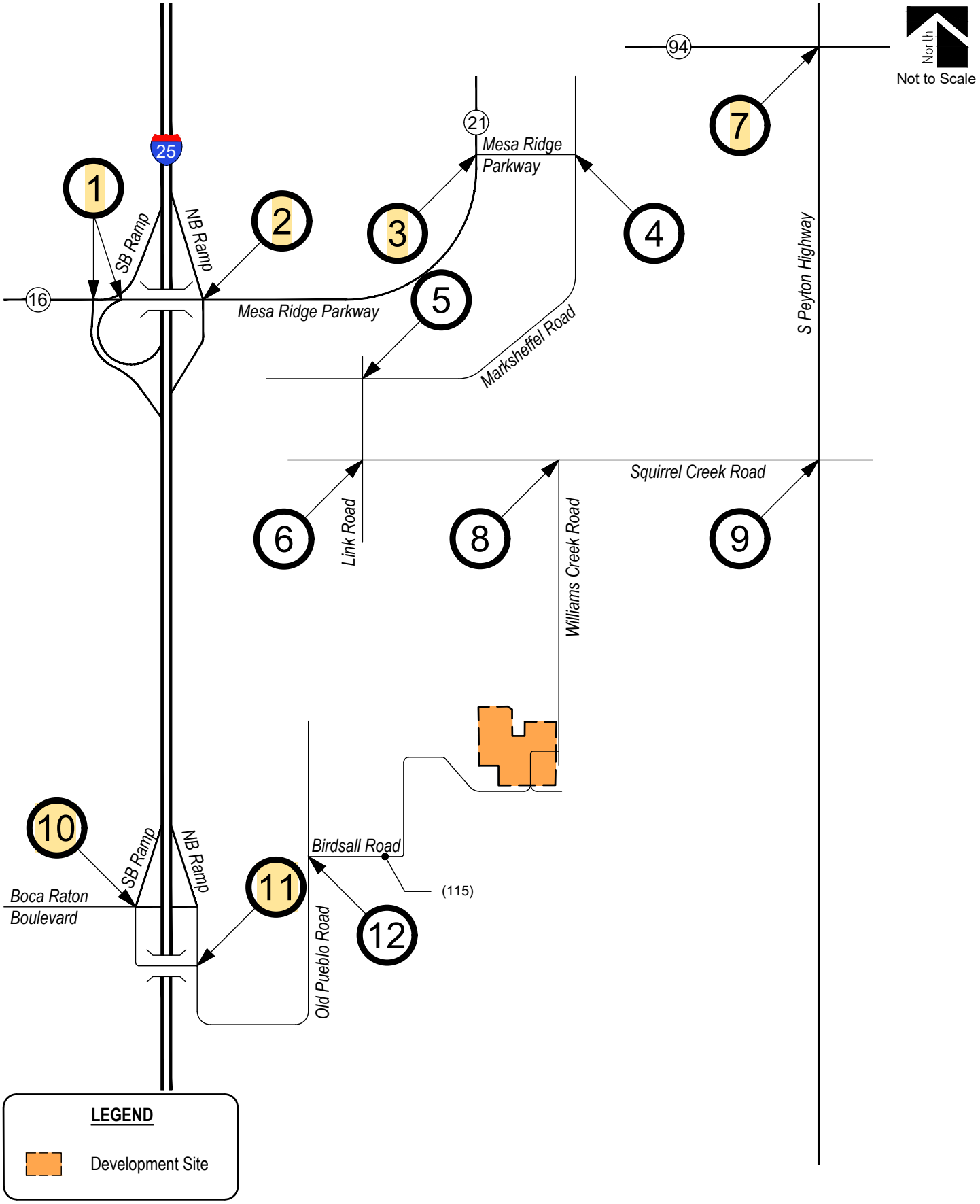
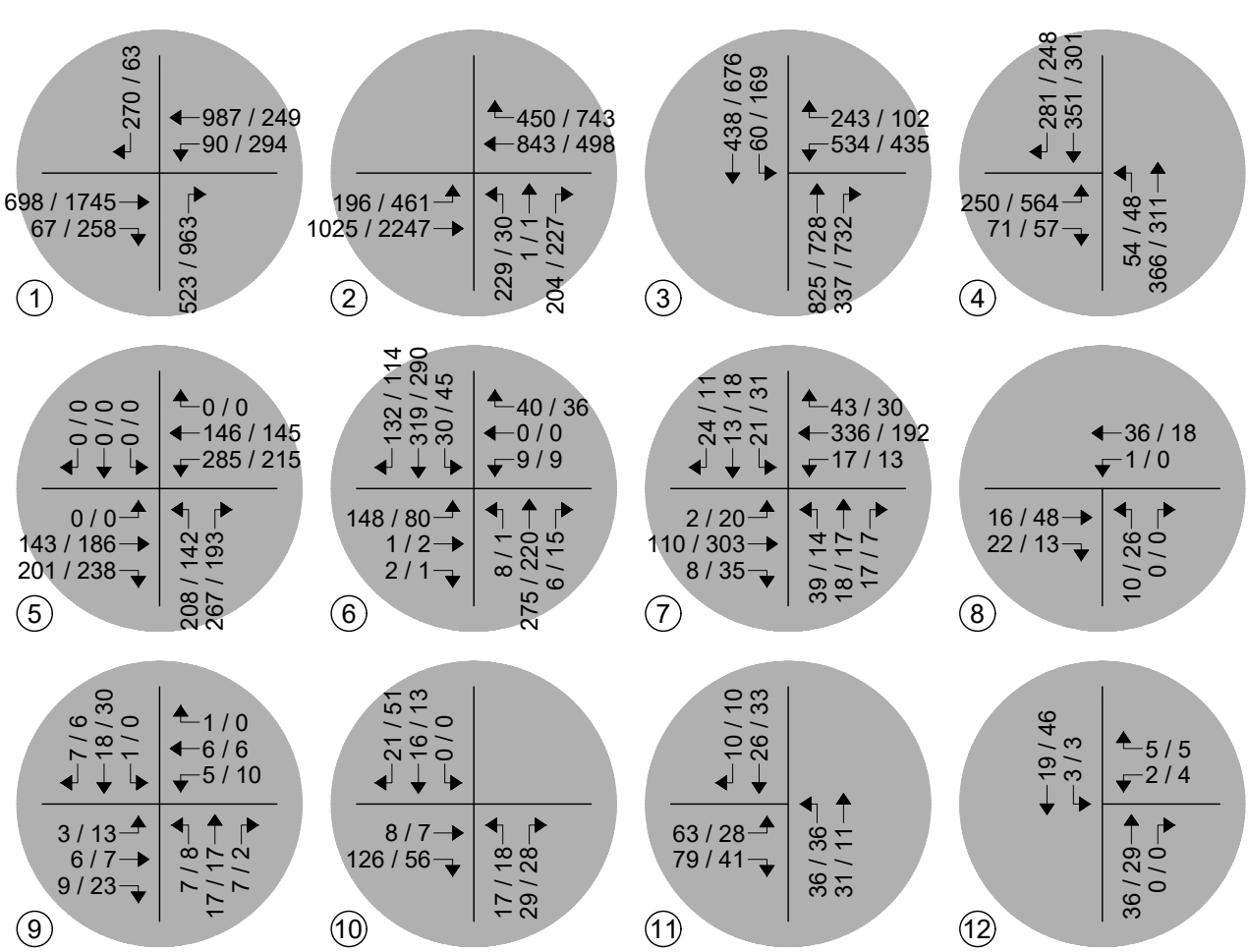


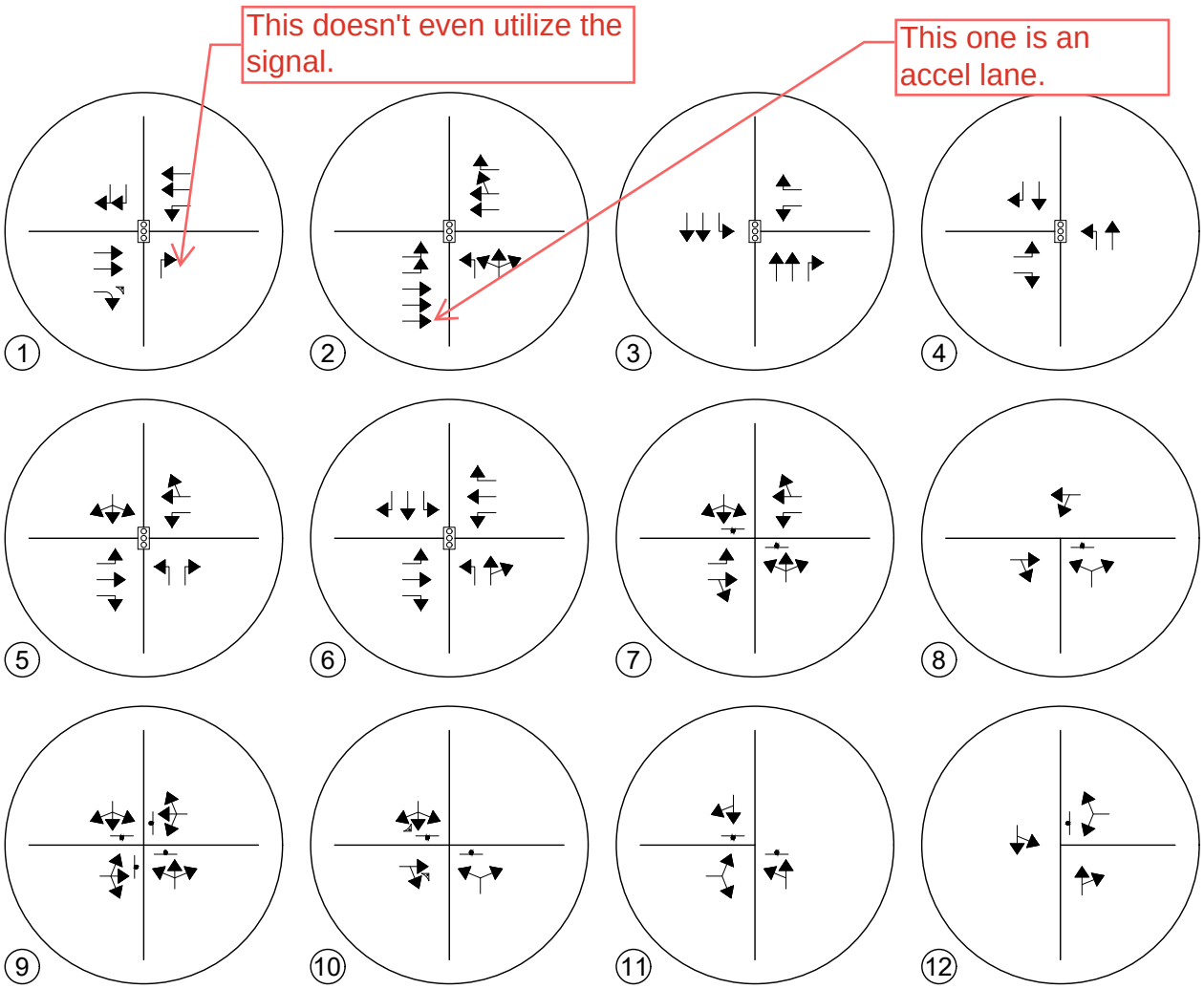
Figure 3
EXISTING TRAFFIC
(ADT) : Average Daily Traffic



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Study Intersection Volumes

Figure 4
EXISTING TRAFFIC
Volumes
AM / PM Peak Hour



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Study Intersection
Lane Geometry

Peak Hour Intersection Levels of Service – Existing Traffic

The Signalized and Unsignalized Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM), 7th 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 construction 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.

Pursuant to Section B.4.1.A of the County's ECM, the design objective for each scenario of this study shall be level of service "D". 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 LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Mesa Ridge Parkway (SH 16) / Interstate 25 SB Ramp (Signalized)	A (5.3)	C (47.6)
Mesa Ridge Parkway (SH 16) / Interstate 25 NB Ramp (Signalized)	B (17.3)	C (20.4)
Mesa Ridge Parkway (SH 16) / Mesa Ridge Parkway (Signalized)	C (24.6)	C (20.6)
Mesa Ridge Parkway / Marksheffel Road (Signalized)	B (14.2)	C (26.6)
Marksheffel Road / Link Road (Signalized)	B (17.7)	B (16.1)
Link Road / Squirrel Creek Road (Signalized)	B (15.4)	B (11.6)
State Highway 94 / S Peyton Highway (Stop-Controlled)		
Eastbound Left	A	A
Westbound Left	A	A
Northbound Left, Through, and Right	B	C
Southbound Left, Through, and Right	B	C
Squirrel Creek Road / Williams Creek Road (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	A	A
S Peyton Highway / Squirrel Creek Road (Stop-Controlled)		
Eastbound Left, Through, and Right	A	A
Westbound Left, Through, and Right	A	A
Northbound Left, Through, and Right	A	A
Southbound Left, Through, and Right	A	A
Interstate 25 SB Ramp / Boca Raton Boulevard (Stop-Controlled)		
Northbound Left and Right	A	A
Southbound Left, Through, and Right	A	A
Interstate 25 NB Ramp / Old Pueblo Road (Stop-Controlled)		
Eastbound Left and Right	A	A
Northbound Left and Right	B	A
Southbound Left and Right	B	A
Old Pueblo Road / Birdsall Road (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A

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

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that all signalized intersections within the study area have overall operations at LOS C or better during the morning and afternoon peak traffic hours.

All stop-controlled intersections within the study area have turn movement operations at or better than LOS B during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour.

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 Year 2029, a compounded annual growth rate was determined using historical traffic data for the surrounding area provided by CDOT's Online Transportation Information System (OTIS) along the adjacent segments of Interstate 25, State Highway 94, and Mesa Ridge Parkway (State Highway 16), which all report 20-year growth rates between one and 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.

It is important to note that ingress and egress traffic volumes at study area intersections along S Peyton Highway and Squirrel Creek Road are not subject to annual growth patterns since these roadways either do not provide connection to other roadways or do not anticipate much, if any, regional growth, therefore do not serve regional traffic.

Pursuant to the area roadway improvements discussed in Section I, Year 2029 background traffic conditions assume no roadway improvements to accommodate regional transportation demands. This assumption provides for a conservative analysis.

The study area intersections and projected background ADT volumes are shown on Figure 6. Projected background intersection traffic volumes and intersection geometry for Year 2029 are shown in Figure 7 and Figure 8, respectively.

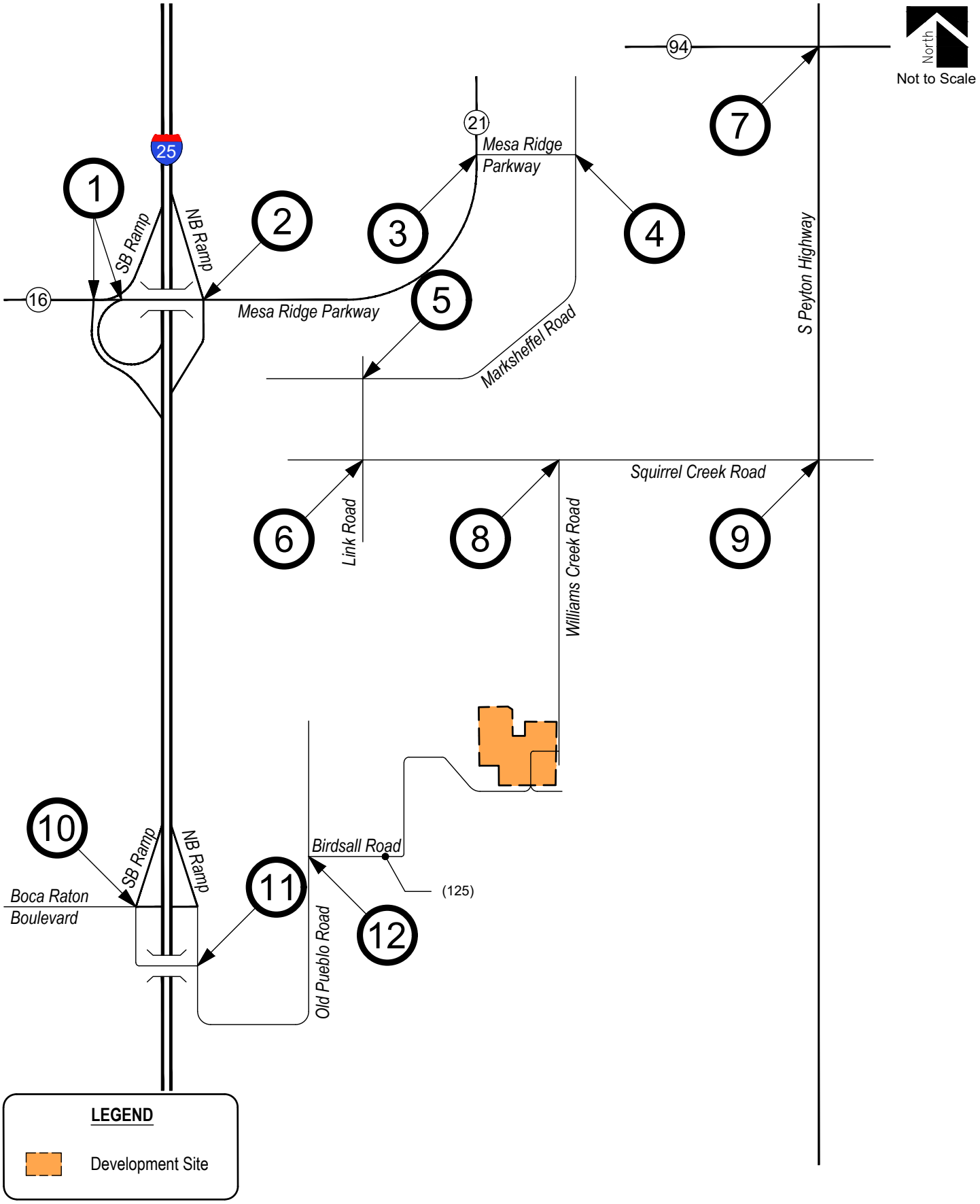


Figure 6
BACKGROUND TRAFFIC - YEAR 2029
(ADT) : Average Daily Traffic

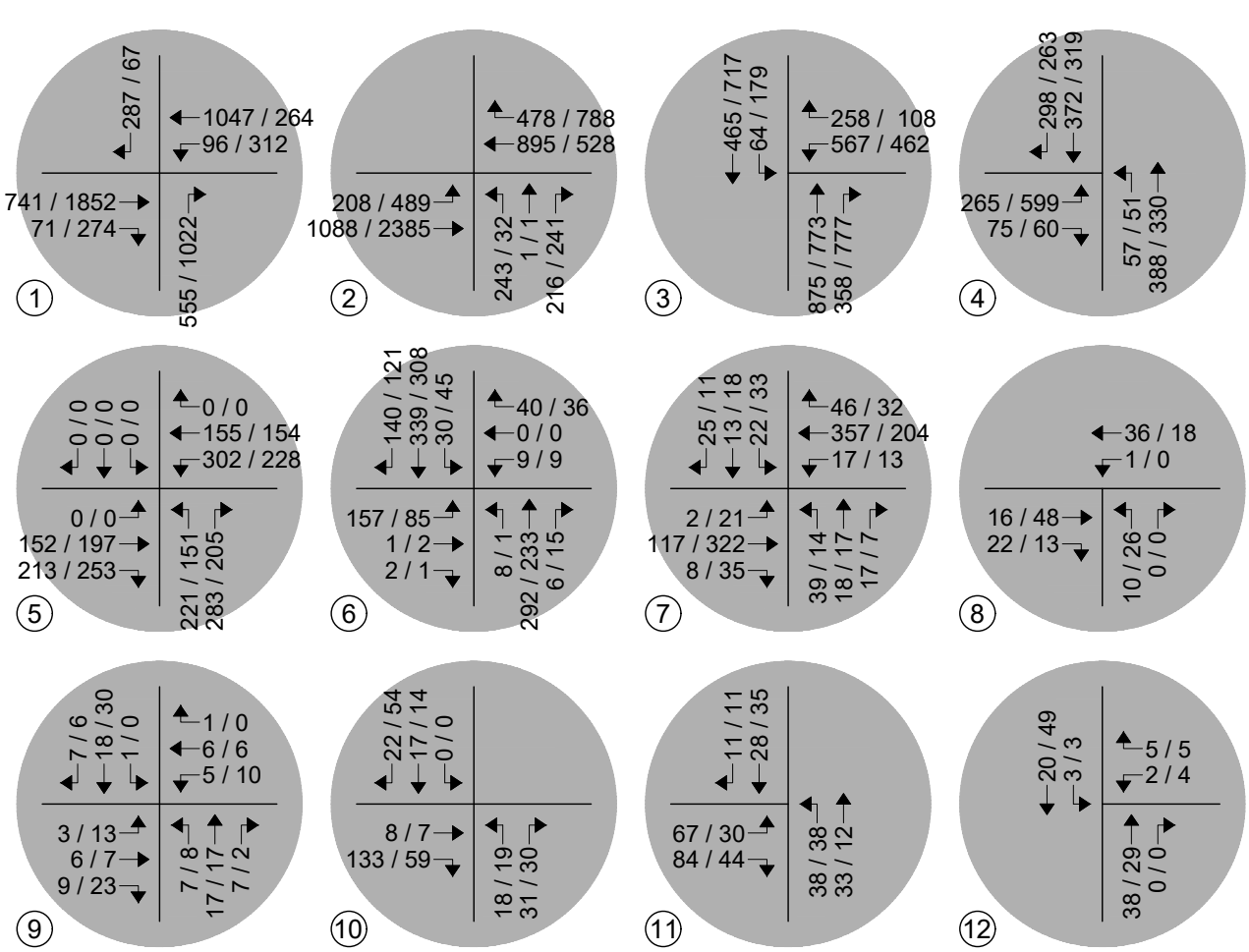
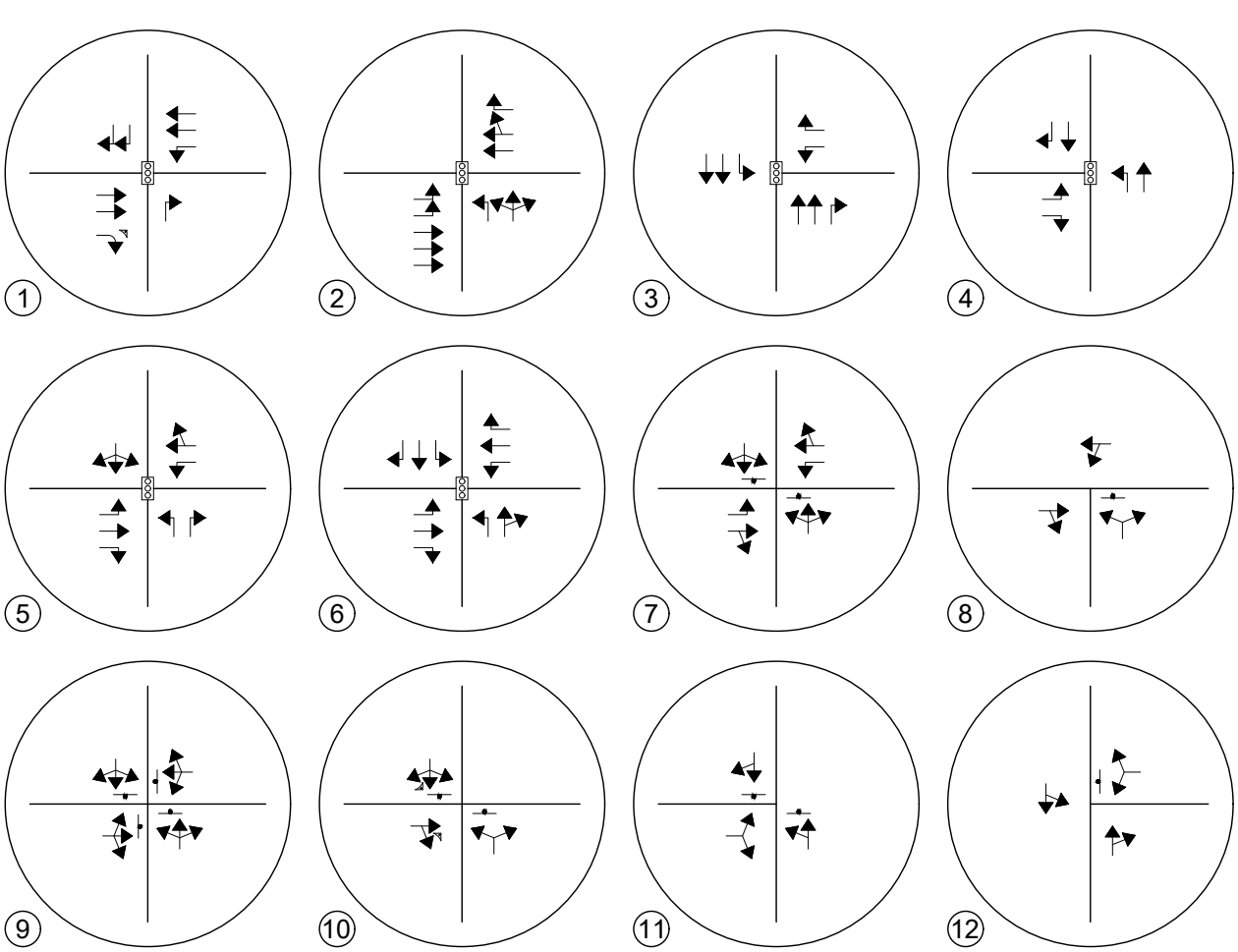


Figure 7
BACKGROUND TRAFFIC - YEAR 2029
Volumes
AM / PM Peak Hour



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Study Intersection Lane Geometry

Figure 8
BACKGROUND TRAFFIC - YEAR 2029
Intersection Geometry

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 2029 are listed in Table 2.

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 2029

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Mesa Ridge Parkway (SH 16) / Interstate 25 SB Ramp (Signalized)	A (6.0)	E (66.8)
Mesa Ridge Parkway (SH 16) / Interstate 25 NB Ramp (Signalized)	B (18.6)	C (23.3)
Mesa Ridge Parkway (SH 16) / Mesa Ridge Parkway (Signalized)	C (26.1)	C (22.6)
Mesa Ridge Parkway / Marksheffel Road (Signalized)	B (14.6)	C (31.5)
Marksheffel Road / Link Road (Signalized)	B (18.0)	B (16.4)
Link Road / Squirrel Creek Road (Signalized)	B (16.0)	B (11.9)
State Highway 94 / S Peyton Highway (Stop-Controlled)		
Eastbound Left	A	A
Westbound Left	A	A
Northbound Left, Through, and Right	B	C
Southbound Left, Through, and Right	B	C
Squirrel Creek Road / Williams Creek Road (Stop-Controlled)		
Westbound Left and Through	A	A
Northbound Left and Right	A	A
S Peyton Highway / Squirrel Creek Road (Stop-Controlled)		
Eastbound Left, Through, and Right	A	A
Westbound Left, Through, and Right	A	A
Northbound Left, Through, and Right	A	A
Southbound Left, Through, and Right	A	A
Interstate 25 SB Ramp / Boca Raton Boulevard (Stop-Controlled)		
Northbound Left and Right	A	A
Southbound Left, Through, and Right	A	A
Interstate 25 NB Ramp / Old Pueblo Road (Stop-Controlled)		
Eastbound Left and Right	A	A
Northbound Left and Right	B	A
Southbound Left and Right	B	A
Old Pueblo Road / Birdsall Road (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A

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

The # of passenger vehicles do no matcf

Background Traffic Analysis Results – Year 2029

Year 2029 background traffic analysis indicates that the signalized intersection of Mesa Ridge Parkway (SH 16) and Interstate 25 Southbound Ramp are projected to have overall operations at LOS A during the AM peak traffic hour and LOS E during the PM peak traffic hour. The LOS E operation anticipated during the afternoon peak traffic period is attributed to the eastbound through volume. To mitigate the anticipated LOS E, increasing the cycle length to 120 seconds with optimized split timing is a potential solution to the projected delay reported.

Mitigation

All other signalized intersections within the study area are anticipated to have overall operations at LOS C or better during both the morning and afternoon peak traffic hours.

All stop-controlled intersections within the study area are predicted to have turn movement operations at or better than LOS B during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour.

High left turn volume

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, 12th Edition, were considered for 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.

However, ITE's Trip Generation Manual does not provide traffic generation information for construction traffic associated with this particular land use. As such, trip estimates and hauling information were provided by the developers/contractors. Trip generation information was derived from the provided information using the conservative assumptions found below:

- Five operating days per week
- Standard operating hours from 9:00 a.m. to 5:00 p.m.
- Overlapping construction phases
- One person per vehicle (SOV rate of 1.0)
- All trips occur during peak traffic hours

Table 3 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out. Information used to help derive generated trips is provided in Appendix D.

Table 3 – Passenger Vehicle Trip Generation Summary

		TOTAL TRIPS GENERATED						
		24	AM PEAK HOUR			PM PEAK HOUR		
LAND USE	SIZE	HOUR	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Site Development - Black Eagle								
Trucks	119	6	1	1	3	1	1	3
Employees (On-Site)	3	6	3	0	3	0	3	3
Site Development - CSU								
Trucks	2,200	55	14	14	28	14	14	28
Employees (On-Site)	250	500	250	0	250	0	250	250
Site Development - Kiewit								
Trucks	2,556	64	16	16	32	16	16	32
Employees (On-Site)	148	296	148	0	148	0	148	148
Site Development - WattBridge								
Employees (On-Site)	125	250	125	0	125	0	125	125
	Total:	*1,177*	*557*	*31*	*588*	*31*	*557*	*588*

Note: All data and calculations above are subject to being rounded to nearest value.

This table does not match the total number of passenger vehilces shown on Figure 10. Please revise Figure 10 and all the Synchro models to match.

During peak construction, Table 3 illustrates that the proposed development has the potential to generate approximately 1,177 daily vehicle trips with 588 of those occurring during the morning and afternoon peak hours.

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, available hauling routes as provided by the developer (as shown in Appendix D), and in reference to historical traffic count data provided by CDOT's Traffic Count Database System (TCDS) [5].

Overall trip distribution patterns for the development's passenger vehicle trips and heavy vehicle trips are shown on Figure 9 and Figure 11, respectively.

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 passenger vehicle trips and heavy vehicle trips provides the site-generated trip assignments shown on Figure 10 and Figure 12, respectively.

[5] Transportation Data Management System, MS2, 2026.

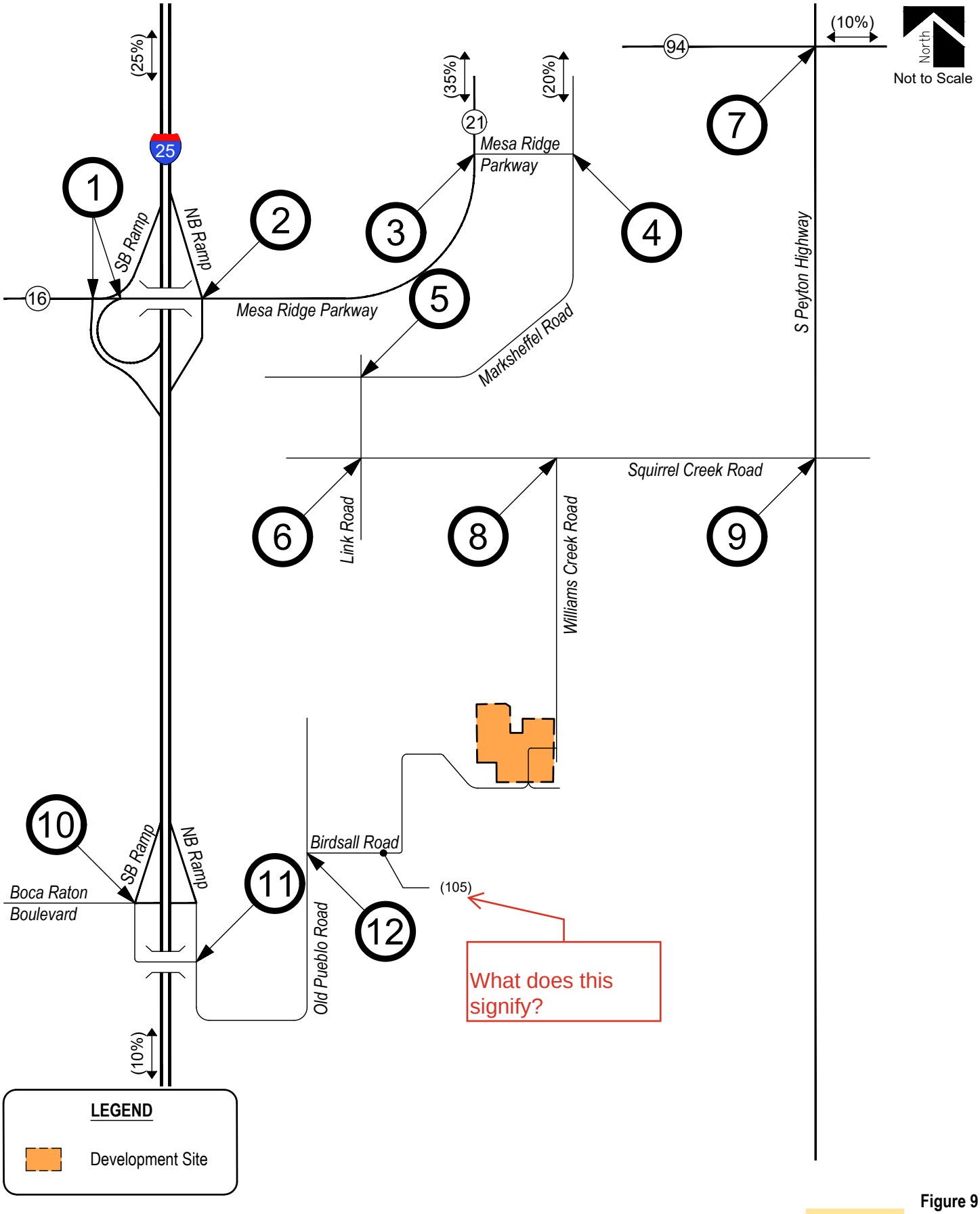
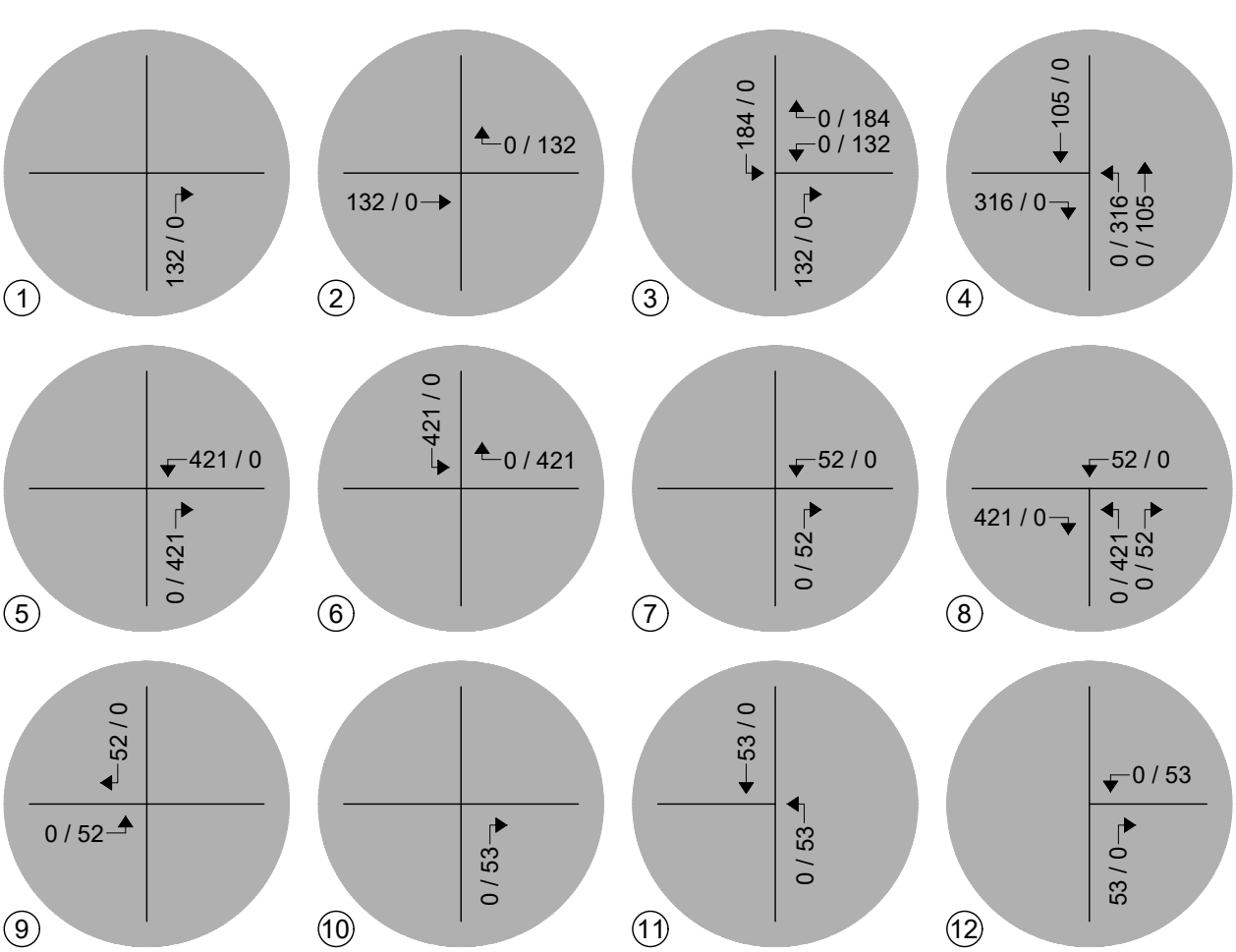


Figure 9
SITE DEVELOPMENT DISTRIBUTION - PASSENGER VEHICLES
(%) : Overall
(ADT) : Average Daily Traffic



LEGEND

Study Intersection Volumes

Figure 10
SITE-GENERATED TRIPS - PASSENGER VEHICLES
AM / PM Peak Hour

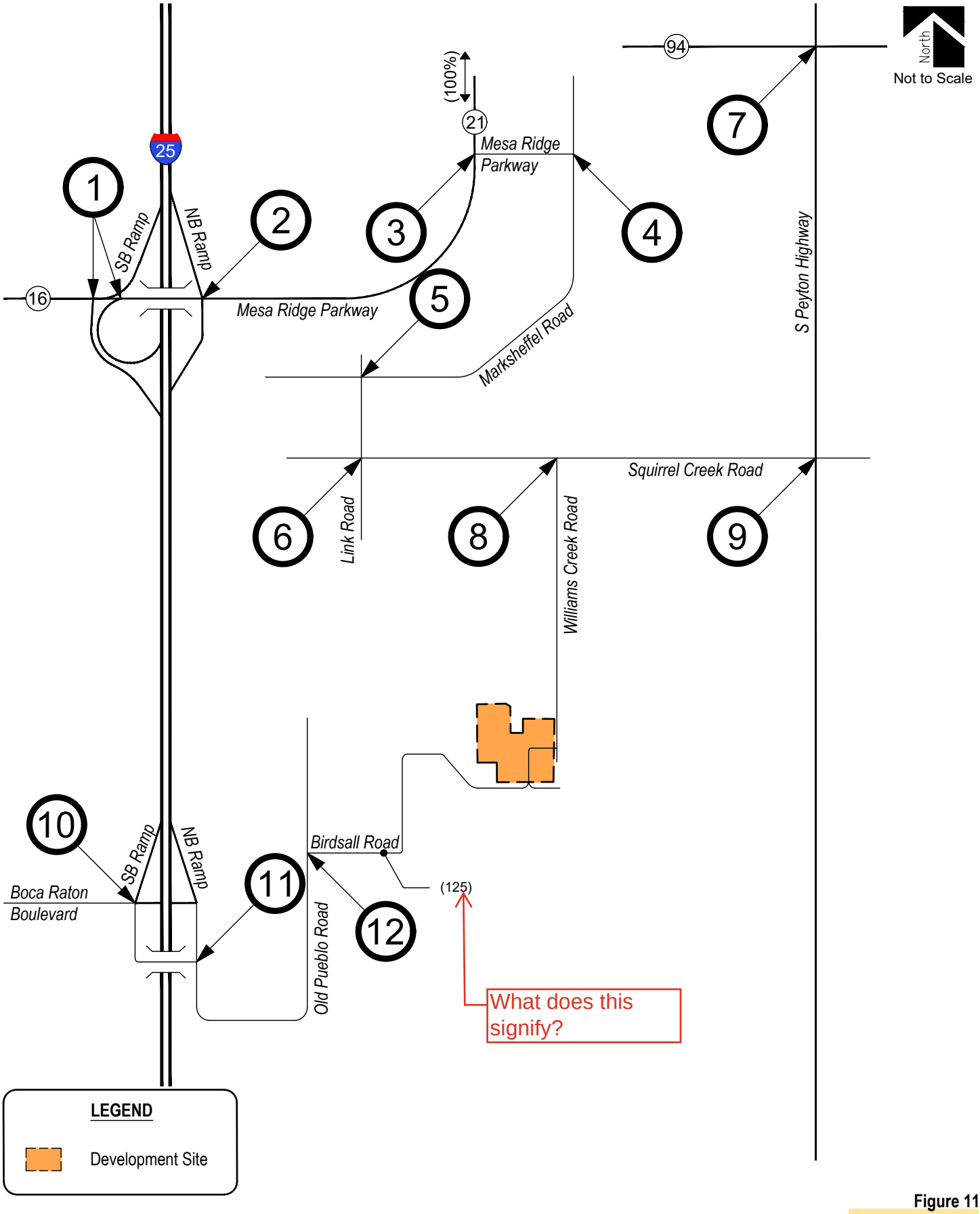
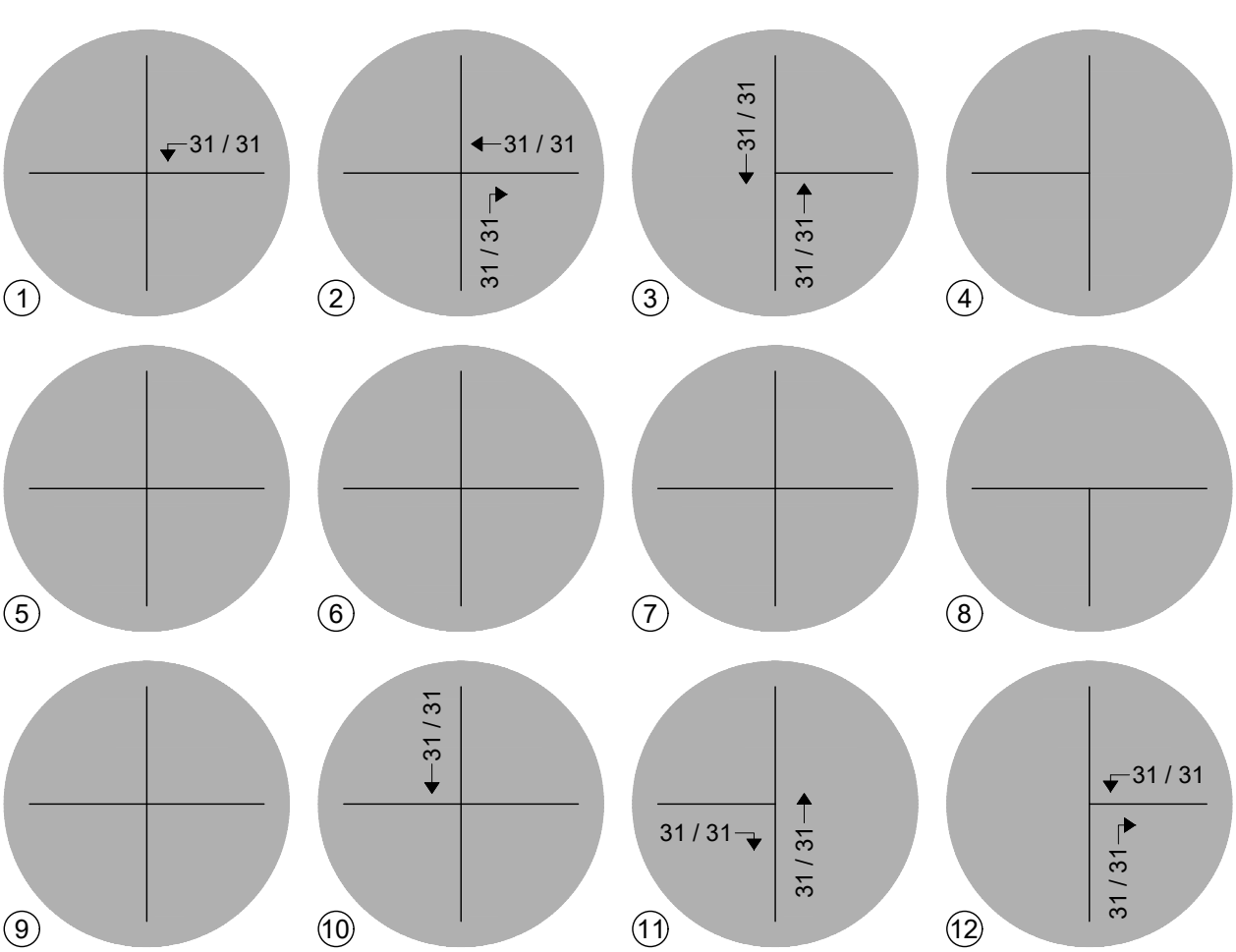


Figure 11
SITE DEVELOPMENT DISTRIBUTION - HEAVY VEHICLES
(%) : Overall
(ADT) : Average Daily Traffic



LEGEND

Study Intersection Volumes

V. Future Traffic Conditions With Proposed Development

Total traffic is the traffic projected to be on area roadways with consideration of the proposed development's construction traffic. Total traffic includes background traffic projections for Year 2029 with consideration of site-generated traffic during construction. For analysis purposes, it was assumed that development construction would be at its peak during Year 2029.

Pursuant to area roadway improvement discussions provided in Section III, Year 2029 total traffic conditions assume no roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development construction are expected to be limited to site access and frontage as required by the governing agency.

The study area intersections and projected total ADT volumes are shown in Figure 13. Projected Year 2029 total intersection traffic volumes and intersection geometry are shown in Figure 14 and Figure 15, respectively.

~~This figure is missing ADT volumes on most of the roadways. Please provide.~~

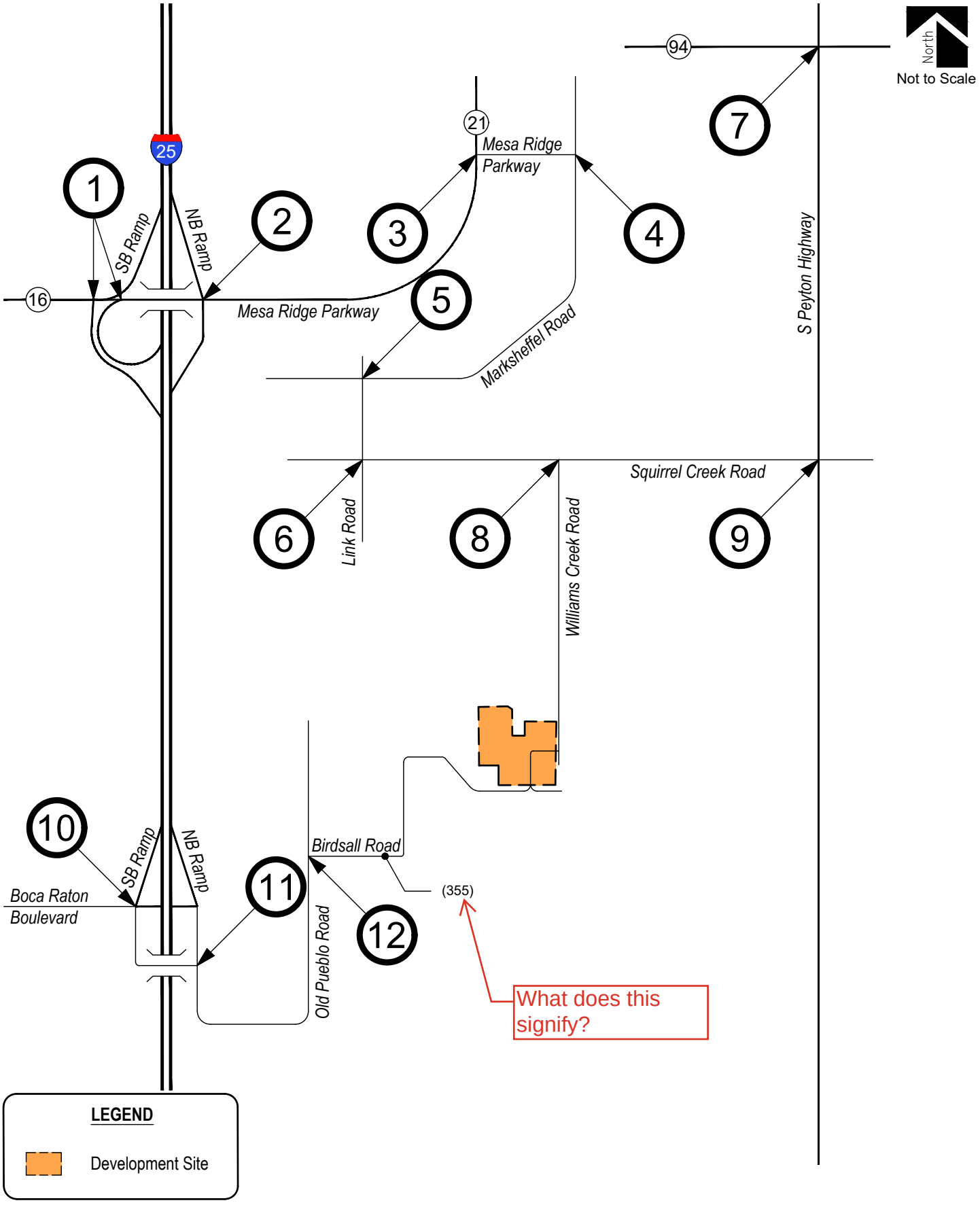
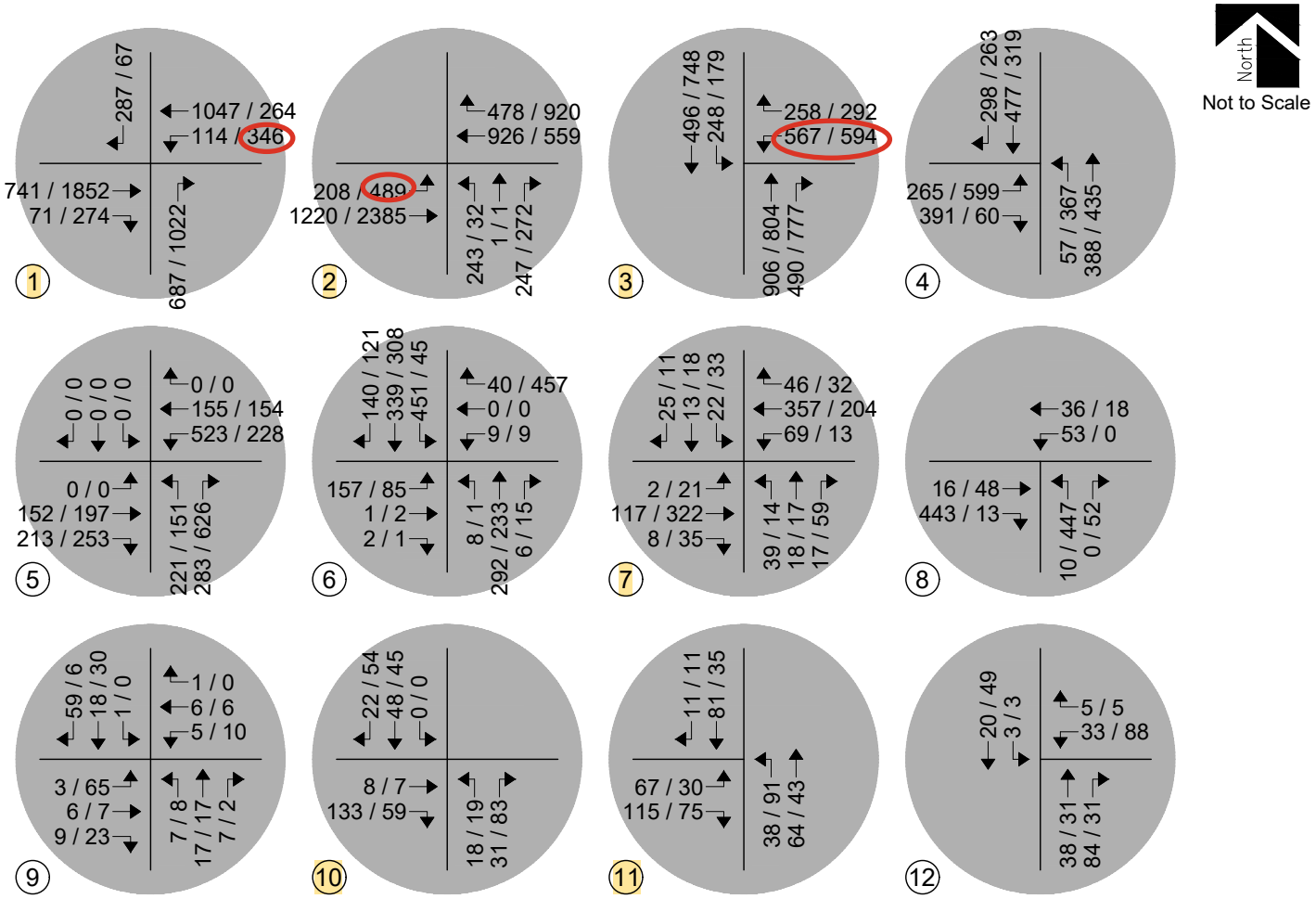


Figure 13
TOTAL TRAFFIC - YEAR 2029
(ADT) : Average Daily Traffic

High left turn volume

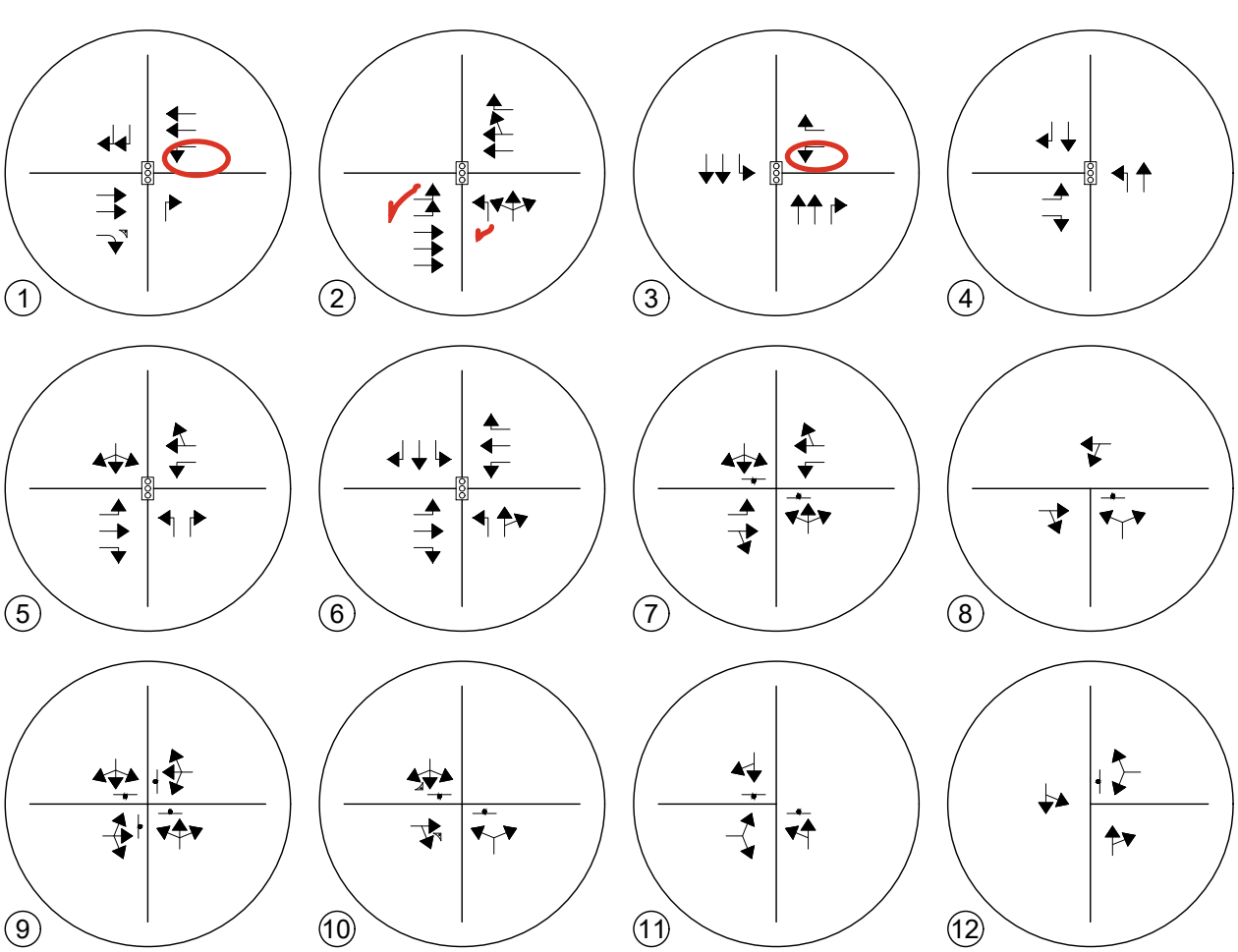


LEGEND

Study Intersection Volumes

Figure 14
TOTAL TRAFFIC - YEAR 2029
Volumes
AM / PM Peak Hour

This table does not match the total number of passenger vehilces shown on Figure 10. Please revise Figure 10 and all the Synchro models to match.



LEGEND

Study Intersection
Lane Geometry

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. The analyses and procedures were performed in accordance with the latest HCM and are based upon the worst-case conditions that occur during a typical weekday upon peak construction periods 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.

Total traffic level of service analysis results for Year 2029 are summarized in Table 4.

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

Table 4 – Intersection Capacity Analysis Summary – Total Traffic – Year 2029

	INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
#1	Mesa Ridge Parkway (SH 16) / Interstate 25 SB Ramp (Signalized)	A (6.1)	F (82.0)
	Mesa Ridge Parkway (SH 16) / Interstate 25 NB Ramp (Signalized)	B (20.5)	C (27.4)
#3	Mesa Ridge Parkway (SH 16) / Mesa Ridge Parkway (Signalized)	D (37.2)	C (33.0)
	Mesa Ridge Parkway / Marksheffel Road (Signalized)	B (15.1)	F (172.0)
	Marksheffel Road / Link Road (Signalized)	B (18.7)	B (15.6)
	Link Road / Squirrel Creek Road (Signalized)	B (19.8)	B (10.8)
	State Highway 94 / S Peyton Highway (Stop-Controlled)		
	Eastbound Left	A	A
	Westbound Left	A	A
	Northbound Left, Through, and Right	C	B
	Southbound Left, Through, and Right	C	C
	Squirrel Creek Road / Williams Creek Road (Stop-Controlled)		
	Westbound Left and Through	A	A
	Northbound Left and Right	B	B
	S Peyton Highway / Squirrel Creek Road (Stop-Controlled)		
	Eastbound Left, Through, and Right	A	A
	Westbound Left, Through, and Right	A	A
	Northbound Left, Through, and Right	A	A
	Southbound Left, Through, and Right	A	A
	Interstate 25 SB Ramp / Boca Raton Boulevard (Stop-Controlled)		
	Northbound Left and Right	A	A
	Southbound Left, Through, and Right	A	A
	Interstate 25 NB Ramp / Old Pueblo Road (Stop-Controlled)		
	Eastbound Left and Right	A	A
	Northbound Left and Right	B	B
	Southbound Left and Right	B	A
	Old Pueblo Road / Birdsall Road (Stop-Controlled)		
	Westbound Left and Right	A	B
	Southbound Left and Through	A	A

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 4 illustrates how, by Year 2029 and during peak construction periods, the signalized intersection of Mesa Ridge Parkway (SH 16) with Interstate 25 Southbound Ramp projects an overall LOS A operation during the morning peak traffic hour and LOS F operation during the afternoon peak traffic hour. To mitigate the projected LOS F, increasing the cycle length to 120 seconds with optimized split timing is a potential solution to the projected delay reported. mitigation

What would the LOS be if mitigated as proposed?

The signalized intersection of Mesa Ridge Parkway and Marksheffel Road is predicted to have overall operations at LOS B during the morning peak traffic hour and LOS F during the afternoon peak traffic hour. To mitigate the anticipated LOS F, increasing the cycle length to 120 seconds with optimized split timing is a potential solution to the projected delay reported.

All other signalized intersections are anticipated to provide overall operations at LOS D or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour.

All stop-controlled intersections are expected to have turn movement operations at LOS C or better during the morning and afternoon peak traffic hours.

VI. Project Impacts

It is emphasized that 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 peak construction periods 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.

Development Impacts

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create minimal negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis.

Recommended Improvements

Roadway and intersection improvement recommendations were assessed pursuant to roadway descriptions discussed in Section I, projected peak hour traffic volumes, level of service results, and per requirements defined within the County's ECM.

When considering Year 2029 total traffic conditions, no improvements to the study area roadways or intersections are recommended. Poor operations reported throughout this study occur either without the proposed development (Year 2029 background traffic conditions) or occur as a result of conservatively applying all construction trips to peak traffic periods. It is also emphasized that Year 2029 total traffic conditions are temporary as it reflects construction traffic.

even
OR
either with or
without

#1 PM: LOS E (background) vs LOS F (tot)
#3 AM: LOS C (background) vs LOS D (tot)

Even though you aren't recommending physical improvements, you should mention/recommend the proposed signal timing changes.

Show how the LOS will improve with proposed timing changes.

VII. Conclusion

This traffic impact study addressed the capacity, geometric, and control requirements associated with the development entitled Williams Creek Generation Station. This proposed development consists of a new Colorado Springs Utilities (CSU) power plant facility. The development is located east of Interstate 25, between Link Road and Hanover Road, in El Paso County, Colorado.

The study area ~~to be~~ examined in this analysis encompassed the areas bounded by the anticipated hauling routes during construction, which includes S Peyton Highway from State Highway 94 south to Squirrel Creek Road, Squirrel Creek Road from State Highway 94 to Link Road, Interstate 25 from Mesa Ridge Parkway south to Old Pueblo Road, and Old Pueblo Road from Interstate 25 north to Birdsall Road.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2029 background traffic conditions, and Year 2029 total traffic conditions.

Analysis of existing traffic conditions indicates that all signalized intersections operate under LOS C or better conditions during both peak hour periods, while all stop-controlled intersections operate with turn movements at or better than LOS C during their respective peak traffic periods.

Under Year 2029 background traffic conditions, operational analysis shows that all signalized intersections are projected to operate with LOS C or better operations during peak traffic periods. Exceptions include the intersection of Mesa Ridge Parkway (SH 16) and the Interstate 25 Southbound Ramp. All stop-controlled intersections anticipate turn movement operations at or better than LOS C during their respective peak traffic periods.

total

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create minimal negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis.

Go ahead and state what the LOSs are for the exceptions.

In general, address all movements that are level D or worse (and whether or not they are problematic). (Don't just address the overall LOS only).

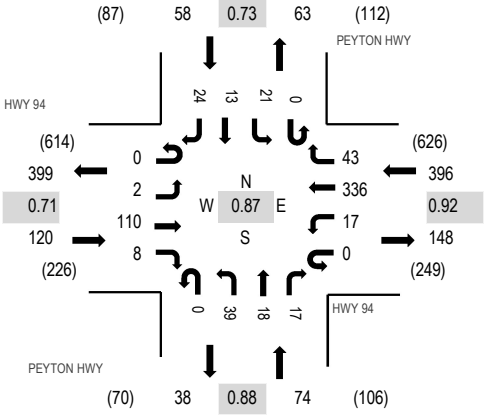
APPENDIX A

Traffic Count Data
Signal Timing Information

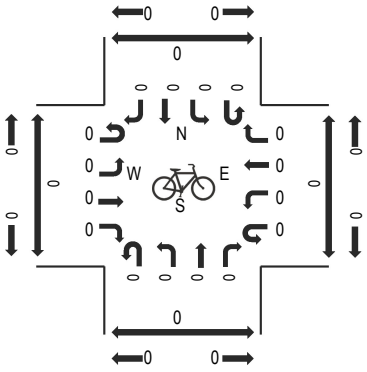
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 PEYTON HWY & HWY 94 AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

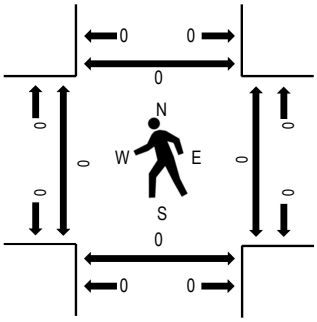
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

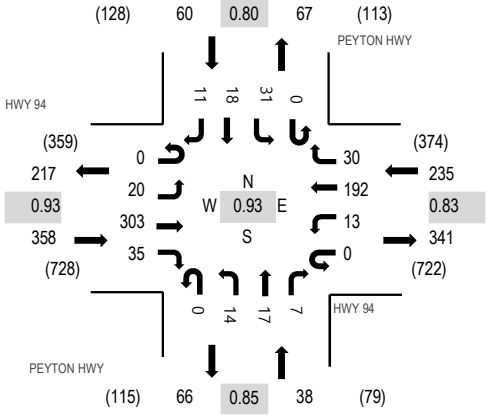
Traffic Counts - Motorized Vehicles

Interval Start Time	HWY 94 Eastbound				HWY 94 Westbound				PEYTON HWY Northbound				PEYTON HWY 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	28	2	0	3	79	10	0	9	3	8	0	3	2	5	152	648	0	0	0	0
7:15 AM	0	0	39	3	0	7	88	10	0	9	7	5	0	7	5	7	187	595	0	0	0	0
7:30 AM	0	1	28	1	0	4	93	11	0	12	5	3	0	10	2	8	178	519	0	0	0	0
7:45 AM	0	1	15	2	0	3	76	12	0	9	3	1	0	1	4	4	131	439	0	0	0	0
8:00 AM	0	4	14	2	0	2	55	11	0	5	0	1	0	2	0	3	99	397	0	0	0	0
8:15 AM	0	4	24	1	0	2	50	10	0	5	3	1	0	4	6	1	111		0	0	0	0
8:30 AM	0	3	18	3	0	4	47	7	0	7	0	2	0	6	1	0	98		0	0	0	0
8:45 AM	0	1	26	6	0	2	36	4	0	3	2	3	0	0	3	3	89		0	0	0	0
Count Total	0	14	192	20	0	27	524	75	0	59	23	24	0	33	23	31	1,045		0	0	0	0
Peak Hour	0	2	110	8	0	17	336	43	0	39	18	17	0	21	13	24	648		0	0	0	0

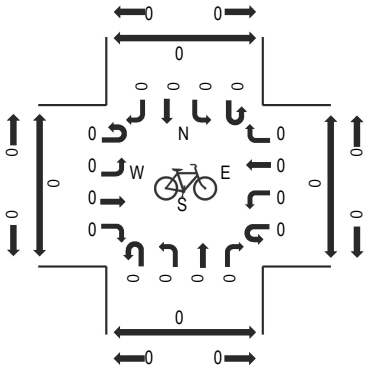
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 PEYTON HWY & HWY 94 PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:00 PM - 05:00 PM PM peak
Peak 15-Minutes: 04:30 PM - 04:45 PM

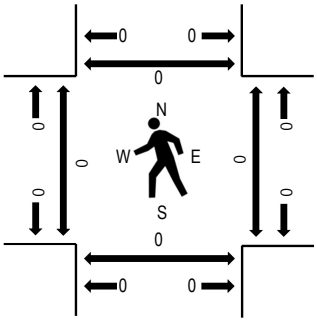
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

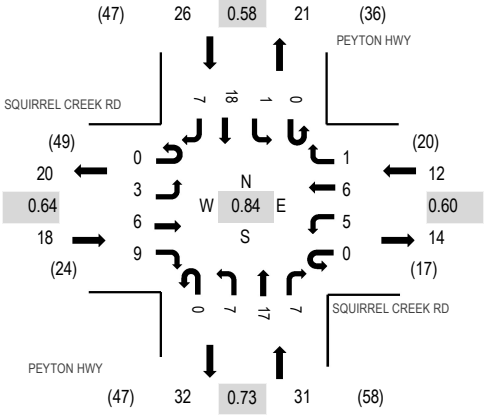
Traffic Counts - Motorized Vehicles

Interval Start Time	HWY 94 Eastbound				HWY 94 Westbound				PEYTON HWY Northbound				PEYTON HWY 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	5	65	5	0	9	50	10	0	8	4	1	0	5	4	2	168	691	0	0	0	0
4:15 PM	0	5	76	14	0	2	43	9	0	1	3	2	0	6	5	2	168	676	0	0	0	0
4:30 PM	0	4	82	5	0	1	64	6	0	3	5	3	0	8	4	0	185	659	0	0	0	0
4:45 PM	0	6	80	11	0	1	35	5	0	2	5	1	0	12	5	7	170	631	0	0	0	0
5:00 PM	0	4	75	5	0	0	36	4	0	5	1	3	0	12	7	1	153	618	0	0	0	0
5:15 PM	0	4	78	7	0	2	32	4	0	4	3	4	0	11	1	1	151		0	0	0	0
5:30 PM	0	7	84	8	0	1	25	3	0	4	2	3	0	13	4	3	157		0	0	0	0
5:45 PM	0	4	86	8	0	1	26	5	0	3	5	4	0	8	5	2	157		0	0	0	0
Count Total	0	39	626	63	0	17	311	46	0	30	28	21	0	75	35	18	1,309		0	0	0	0
Peak Hour	0	20	303	35	0	13	192	30	0	14	17	7	0	31	18	11	691		0	0	0	0

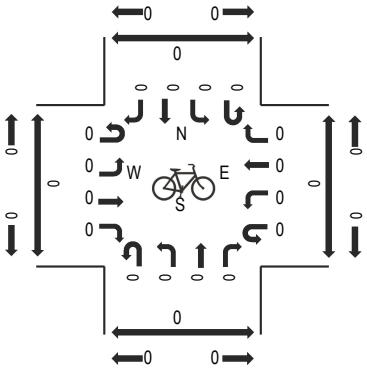
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 PEYTON HWY & SQUIRREL CREEK RD AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

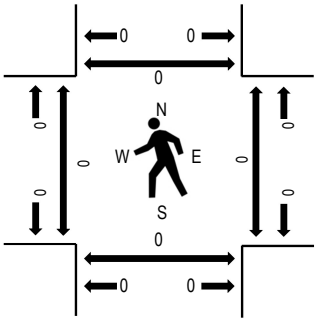
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

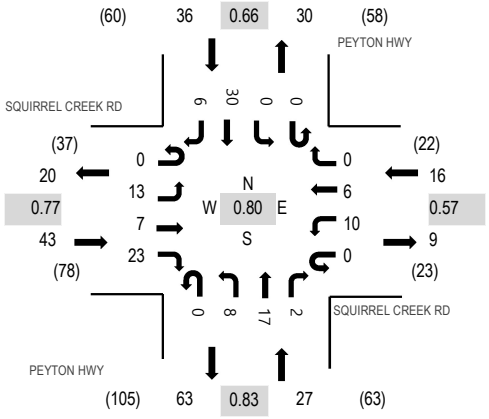
Traffic Counts - Motorized Vehicles

Interval Start Time	SQUIRREL CREEK RD Eastbound				SQUIRREL CREEK RD Westbound				PEYTON HWY Northbound				PEYTON HWY 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	1	0	0	0	0	3	0	0	2	2	1	0	0	4	3	16	80	0	0	0	0
7:15 AM	0	2	1	4	0	1	0	0	0	1	2	3	0	0	10	2	26	87	0	0	0	0
7:30 AM	0	1	1	1	0	1	2	0	0	2	7	2	0	1	4	1	23	76	0	0	0	0
7:45 AM	0	0	2	3	0	1	1	1	0	3	1	0	0	0	1	2	15	69	0	0	0	0
8:00 AM	0	0	2	1	0	2	3	0	0	1	7	2	0	0	3	2	23	69	0	0	0	0
8:15 AM	0	0	1	1	0	0	1	0	0	4	3	0	0	0	2	3	15		0	0	0	0
8:30 AM	0	1	1	0	0	1	1	0	0	2	5	0	0	0	4	1	16		0	0	0	0
8:45 AM	0	1	0	0	0	0	2	0	0	6	2	0	0	0	3	1	15		0	0	0	0
Count Total	0	6	8	10	0	6	13	1	0	21	29	8	0	1	31	15	149		0	0	0	0
Peak Hour	0	3	6	9	0	5	6	1	0	7	17	7	0	1	18	7	87		0	0	0	0

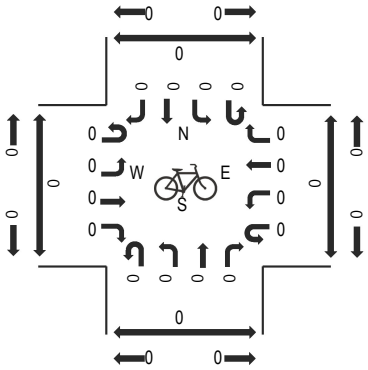
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 PEYTON HWY & SQUIRREL CREEK RD PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

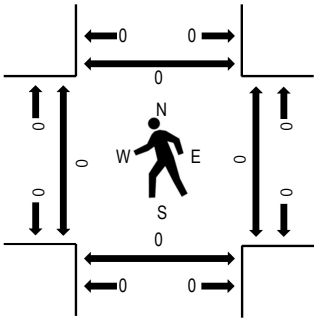
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

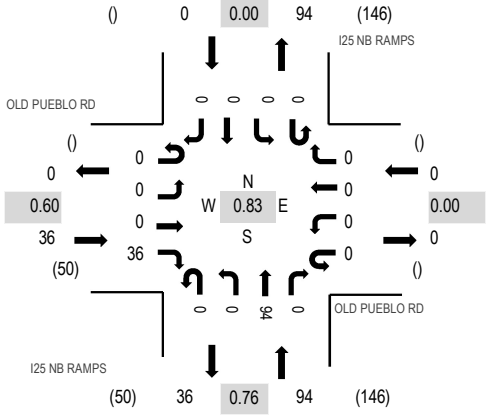
Traffic Counts - Motorized Vehicles

Interval Start Time	SQUIRREL CREEK RD Eastbound				SQUIRREL CREEK RD Westbound				PEYTON HWY Northbound				PEYTON HWY 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	2	1	3	0	1	1	0	0	3	5	0	0	0	5	2	23	122	0	0	0	0
4:15 PM	0	4	3	4	0	3	4	0	0	2	3	1	0	0	14	0	38	122	0	0	0	0
4:30 PM	0	2	2	8	0	4	1	0	0	1	1	0	0	0	6	4	29	108	0	0	0	0
4:45 PM	0	5	1	8	0	2	0	0	0	2	8	1	0	0	5	0	32	109	0	0	0	0
5:00 PM	0	2	0	4	0	1	1	0	0	0	5	2	0	0	8	0	23	101	0	0	0	0
5:15 PM	0	1	3	4	0	0	0	0	0	6	6	0	0	0	4	0	24		0	0	0	0
5:30 PM	0	3	2	5	0	1	2	0	0	3	5	2	0	0	5	2	30		0	0	0	0
5:45 PM	0	2	4	5	0	1	0	0	0	2	4	1	0	0	4	1	24		0	0	0	0
Count Total	0	21	16	41	0	13	9	0	0	19	37	7	0	0	51	9	223		0	0	0	0
Peak Hour	0	13	7	23	0	10	6	0	0	8	17	2	0	0	30	6	122		0	0	0	0

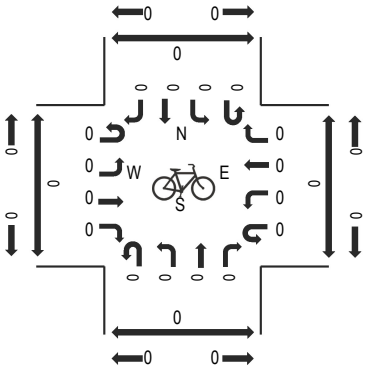
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 I25 NB RAMPS & OLD PUEBLO RD AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

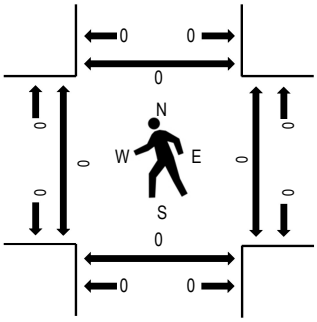
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

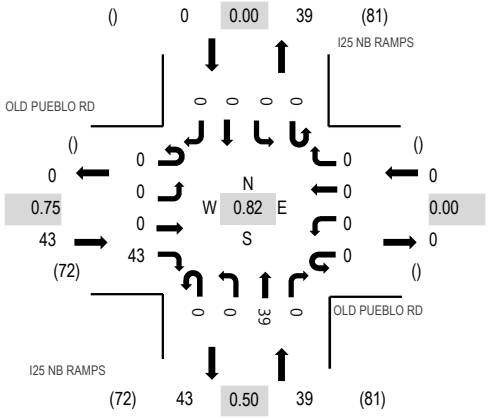
Traffic Counts - Motorized Vehicles

Interval Start Time	OLD PUEBLO RD Eastbound				OLD PUEBLO RD Westbound				I25 NB RAMPS Northbound				I25 NB RAMPS 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	15	0	0	0	0	0	0	24	0	0	0	0	0	39	130	0	0	0	0
7:15 AM	0	0	0	7	0	0	0	0	0	0	31	0	0	0	0	0	38	110	0	0	0	0
7:30 AM	0	0	0	8	0	0	0	0	0	0	25	0	0	0	0	0	33	93	0	0	0	0
7:45 AM	0	0	0	6	0	0	0	0	0	0	14	0	0	0	0	0	20	79	0	0	0	0
8:00 AM	0	0	0	4	0	0	0	0	0	0	15	0	0	0	0	0	19	66	0	0	0	0
8:15 AM	0	0	0	2	0	0	0	0	0	0	19	0	0	0	0	0	21		0	0	0	0
8:30 AM	0	0	0	4	0	0	0	0	0	0	15	0	0	0	0	0	19		0	0	0	0
8:45 AM	0	0	0	4	0	0	0	0	0	0	3	0	0	0	0	0	7		0	0	0	0
Count Total	0	0	0	50	0	0	0	0	0	0	146	0	0	0	0	0	196		0	0	0	0
Peak Hour	0	0	0	36	0	0	0	0	0	0	94	0	0	0	0	0	130		0	0	0	0

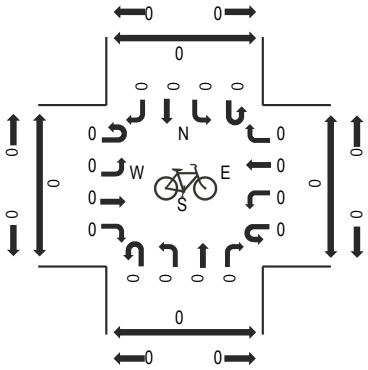
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 I25 NB RAMPS & OLD PUEBLO RD PM
Date: Tuesday, September 1, 2026
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

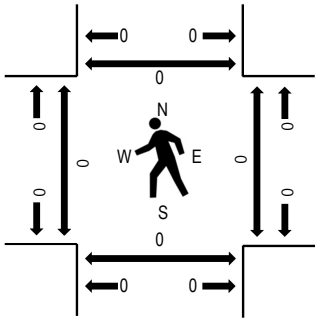
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

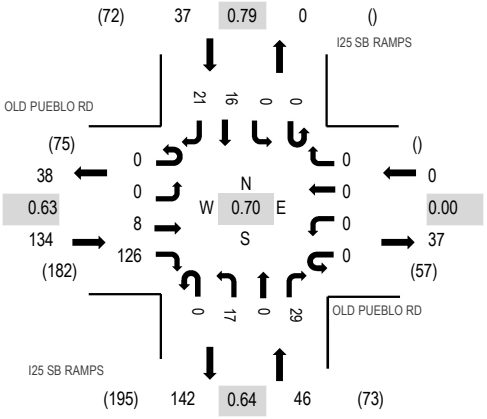
Traffic Counts - Motorized Vehicles

Interval Start Time	OLD PUEBLO RD Eastbound				OLD PUEBLO RD Westbound				I25 NB RAMPS Northbound				I25 NB RAMPS 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	6	0	0	0	0	0	0	21	0	0	0	0	0	27	71	0	0	0	0
4:15 PM	0	0	0	7	0	0	0	0	0	0	7	0	0	0	0	0	14	67	0	0	0	0
4:30 PM	0	0	0	7	0	0	0	0	0	0	9	0	0	0	0	0	16	70	0	0	0	0
4:45 PM	0	0	0	9	0	0	0	0	0	0	5	0	0	0	0	0	14	79	0	0	0	0
5:00 PM	0	0	0	15	0	0	0	0	0	0	8	0	0	0	0	0	23	82	0	0	0	0
5:15 PM	0	0	0	9	0	0	0	0	0	0	8	0	0	0	0	0	17		0	0	0	0
5:30 PM	0	0	0	12	0	0	0	0	0	0	13	0	0	0	0	0	25		0	0	0	0
5:45 PM	0	0	0	7	0	0	0	0	0	0	10	0	0	0	0	0	17		0	0	0	0
Count Total	0	0	0	72	0	0	0	0	0	0	81	0	0	0	0	0	153		0	0	0	0
Peak Hour	0	0	0	43	0	0	0	0	0	0	39	0	0	0	0	0	82		0	0	0	0

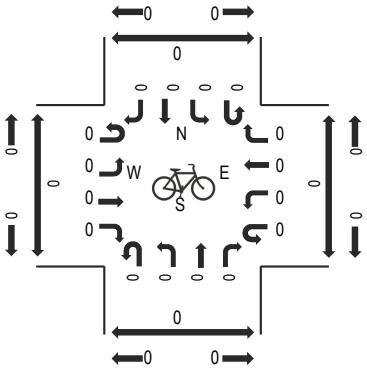
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 I25 SB RAMPS & OLD PUEBLO RD AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

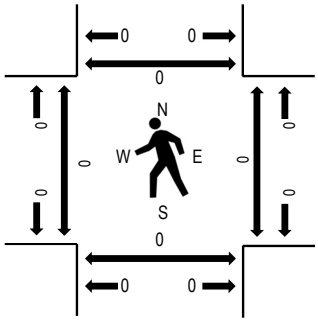
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

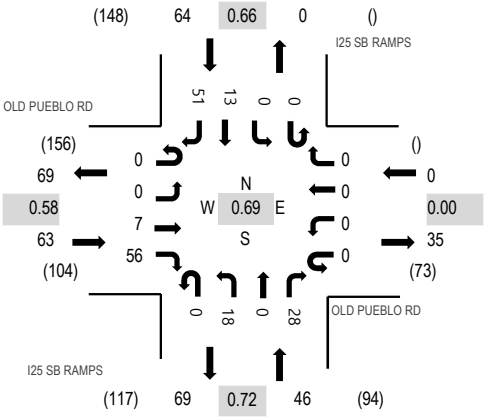
Traffic Counts - Motorized Vehicles

Interval Start Time	OLD PUEBLO RD Eastbound				OLD PUEBLO RD Westbound				I25 SB RAMPS Northbound				I25 SB RAMPS 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	1	40	0	0	0	0	0	1	0	4	0	0	7	0	53	217	0	0	0	0
7:15 AM	0	0	5	48	0	0	0	0	0	7	0	9	0	0	2	7	78	197	0	0	0	0
7:30 AM	0	0	2	26	0	0	0	0	0	4	0	3	0	0	4	5	44	150	0	0	0	0
7:45 AM	0	0	0	12	0	0	0	0	0	5	0	13	0	0	3	9	42	138	0	0	0	0
8:00 AM	0	0	1	13	0	0	0	0	0	3	0	2	0	0	1	13	33	110	0	0	0	0
8:15 AM	0	0	0	18	0	0	0	0	0	1	0	5	0	0	3	4	31		0	0	0	0
8:30 AM	0	0	1	12	0	0	0	0	0	3	0	5	0	0	3	8	32		0	0	0	0
8:45 AM	0	0	0	3	0	0	0	0	0	2	0	6	0	0	0	3	14		0	0	0	0
Count Total	0	0	10	172	0	0	0	0	0	26	0	47	0	0	23	49	327		0	0	0	0
Peak Hour	0	0	8	126	0	0	0	0	0	17	0	29	0	0	16	21	217		0	0	0	0

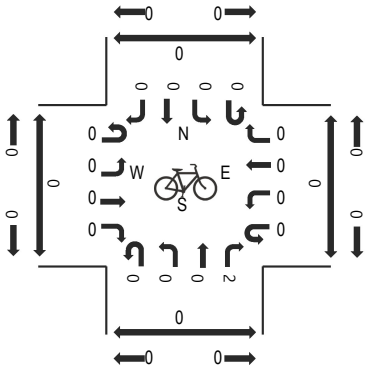
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 I25 SB RAMPS & OLD PUEBLO RD PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

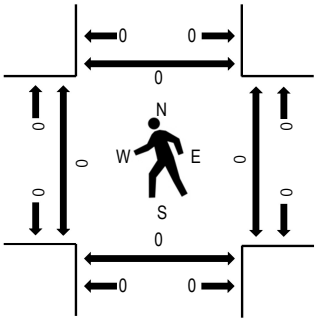
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

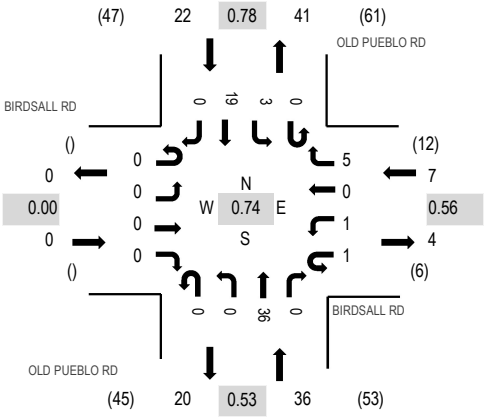
Traffic Counts - Motorized Vehicles

Interval Start Time	OLD PUEBLO RD Eastbound				OLD PUEBLO RD Westbound				I25 SB RAMPS Northbound				I25 SB RAMPS 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	1	26	0	0	0	0	0	6	0	9	0	0	4	17	63	173	0	0	0	0
4:15 PM	0	0	1	12	0	0	0	0	0	1	0	4	0	0	1	14	33	168	0	0	0	0
4:30 PM	0	0	5	11	0	0	0	0	0	2	0	12	0	0	3	13	46	165	0	0	0	0
4:45 PM	0	0	0	7	0	0	0	0	0	9	0	3	0	0	5	7	31	163	0	0	0	0
5:00 PM	0	0	2	6	0	0	0	0	0	7	0	11	0	0	8	24	58	173	0	0	0	0
5:15 PM	0	0	3	8	0	0	0	0	0	2	0	5	0	0	0	12	30		0	0	0	0
5:30 PM	0	0	1	13	0	0	0	0	0	6	0	9	0	0	5	10	44		0	0	0	0
5:45 PM	0	0	2	6	0	0	0	0	0	3	0	5	0	0	2	23	41		0	0	0	0
Count Total	0	0	15	89	0	0	0	0	0	36	0	58	0	0	28	120	346		0	0	0	0
Peak Hour	0	0	7	56	0	0	0	0	0	18	0	28	0	0	13	51	173		0	0	0	0

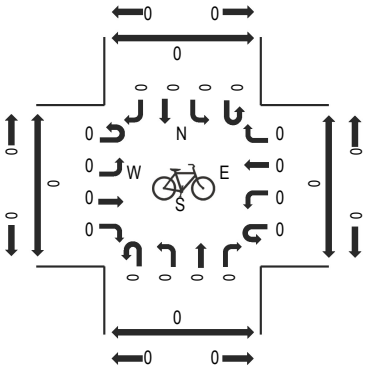
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 OLD PUEBLO RD & BIRDSALL RD AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM Type text here
Peak 15-Minutes: 07:00 AM - 07:15 AM

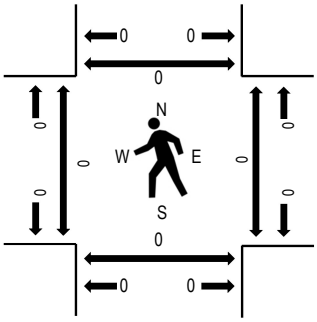
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

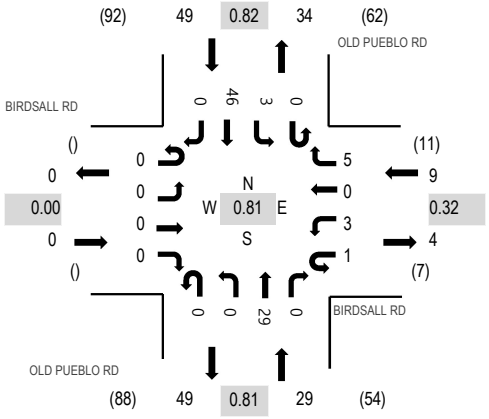
Traffic Counts - Motorized Vehicles

Interval Start Time	BIRDSALL RD Eastbound				BIRDSALL RD Westbound				OLD PUEBLO RD Northbound				OLD PUEBLO 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	0	0	0	0	1	0	1	0	0	17	0	0	1	2	0	22	65	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	3	0	0	6	0	0	1	8	0	19	60	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	7	0	0	0	3	0	11	46	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	1	6	0	13	45	0	0	0	0
8:00 AM	0	0	0	0	0	2	0	2	0	0	8	0	0	0	5	0	17	47	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	5		0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	7	0	10		0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	1	7	0	15		0	0	0	0
Count Total	0	0	0	0	1	3	0	8	0	0	53	0	0	5	42	0	112		0	0	0	0
Peak Hour	0	0	0	0	1	1	0	5	0	0	36	0	0	3	19	0	65		0	0	0	0

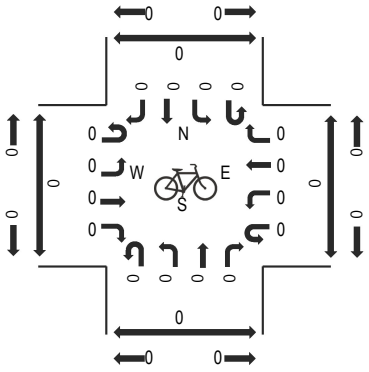
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 OLD PUEBLO RD & BIRDSALL RD PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

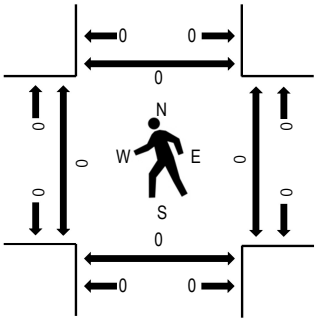
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

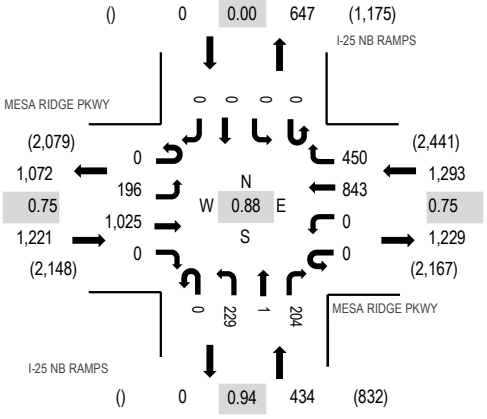
Traffic Counts - Motorized Vehicles

Interval Start Time	BIRDSALL RD Eastbound				BIRDSALL RD Westbound				OLD PUEBLO RD Northbound				OLD PUEBLO 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	0	0	0	0	0	0	1	0	0	3	0	0	1	14	0	19	84	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	9	0	0	1	6	0	17	87	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	9	0	0	0	17	0	27	86	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	17	0	21	81	0	0	0	0
5:00 PM	0	0	0	0	0	3	0	4	0	0	7	0	0	2	6	0	22	73	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	1	9	0	16		0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	9	0	0	1	11	0	22		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	7	0	1	0	5	0	13		0	0	0	0
Count Total	0	0	0	0	1	3	0	7	0	0	54	0	1	6	85	0	157		0	0	0	0
Peak Hour	0	0	0	0	1	3	0	5	0	0	29	0	0	3	46	0	87		0	0	0	0

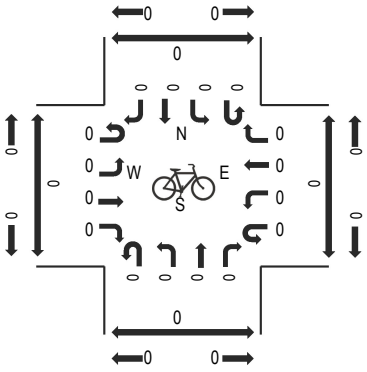
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 6 I-25 NB RAMPS & MESA RIDGE PKWY AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

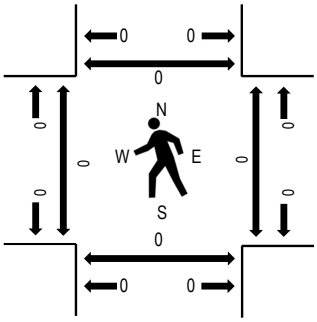
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

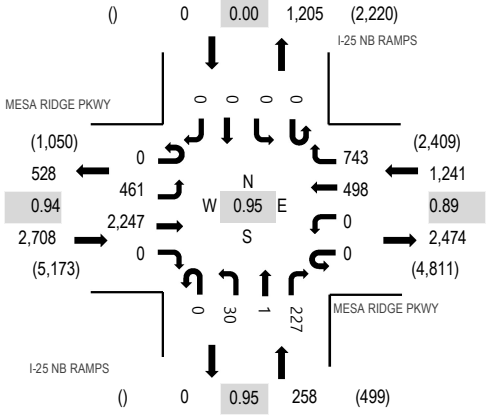
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				I-25 NB RAMPS Northbound				I-25 NB RAMPS 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	62	219	0	0	0	165	72	0	37	0	57	0	0	0	0	612	2,777	0	0	0	0
7:15 AM	1	64	254	0	0	0	170	66	0	48	0	49	0	0	0	0	652	2,823	0	0	0	0
7:30 AM	0	104	352	0	0	0	166	101	0	51	0	62	0	0	0	0	836	2,948	0	0	0	0
7:45 AM	0	54	265	0	0	0	167	85	0	48	0	58	0	0	0	0	677	2,767	0	0	0	0
8:00 AM	0	23	231	0	0	0	204	84	0	64	0	52	0	0	0	0	658	2,644	0	0	0	0
8:15 AM	0	15	177	0	0	0	306	180	0	66	1	32	0	0	0	0	777		0	0	0	0
8:30 AM	0	22	137	0	0	0	226	156	0	76	0	38	0	0	0	0	655		0	0	0	0
8:45 AM	0	16	152	0	0	0	223	70	0	61	0	32	0	0	0	0	554		0	0	0	0
Count Total	1	360	1,787	0	0	0	1,627	814	0	451	1	380	0	0	0	0	5,421		0	0	0	0
Peak Hour	0	196	1,025	0	0	0	843	450	0	229	1	204	0	0	0	0	2,948		0	0	0	0

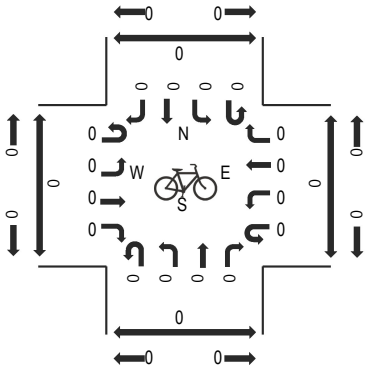
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 6 I-25 NB RAMPS & MESA RIDGE PKWY PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

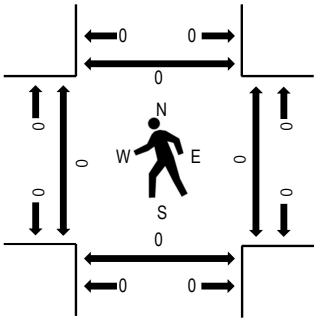
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

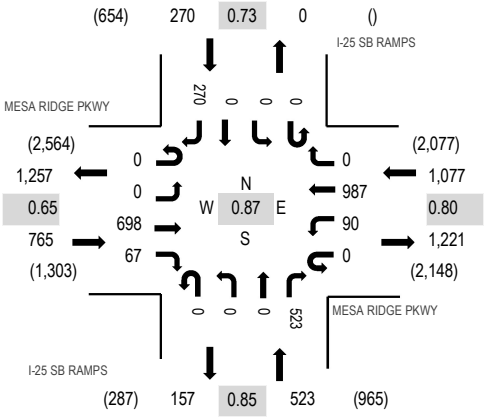
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				I-25 NB RAMPS Northbound				I-25 NB RAMPS 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	96	519	0	0	0	113	191	0	5	2	59	0	0	0	0	985	4,142	0	0	0	0
4:15 PM	0	121	603	0	0	0	124	190	0	6	0	59	0	0	0	0	1,103	4,207	0	0	0	0
4:30 PM	0	114	510	0	0	0	122	167	0	9	0	54	0	0	0	0	976	4,102	0	0	0	0
4:45 PM	0	128	593	0	0	0	120	168	0	7	0	62	0	0	0	0	1,078	4,137	0	0	0	0
5:00 PM	0	98	541	0	0	0	132	218	0	8	1	52	0	0	0	0	1,050	3,939	0	0	0	0
5:15 PM	0	100	547	0	0	0	133	159	0	6	0	53	0	0	0	0	998		0	0	0	0
5:30 PM	0	75	553	0	0	0	128	185	0	10	0	60	0	0	0	0	1,011		0	0	0	0
5:45 PM	0	69	506	0	0	0	122	137	0	5	1	40	0	0	0	0	880		0	0	0	0
Count Total	0	801	4,372	0	0	0	994	1,415	0	56	4	439	0	0	0	0	8,081		0	0	0	0
Peak Hour	0	461	2,247	0	0	0	498	743	0	30	1	227	0	0	0	0	4,207		0	0	0	0

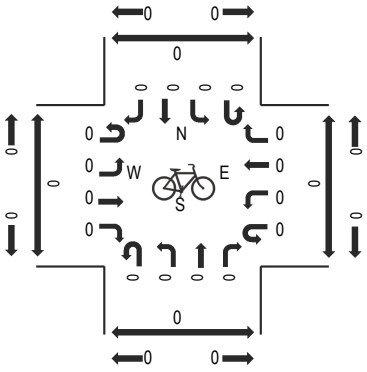
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 7 I-25 SB RAMPS & MESA RIDGE PKWY AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

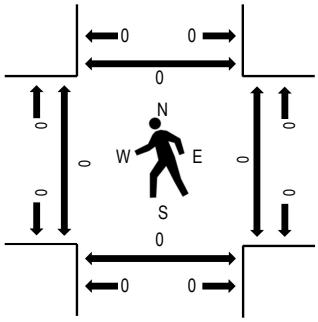
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

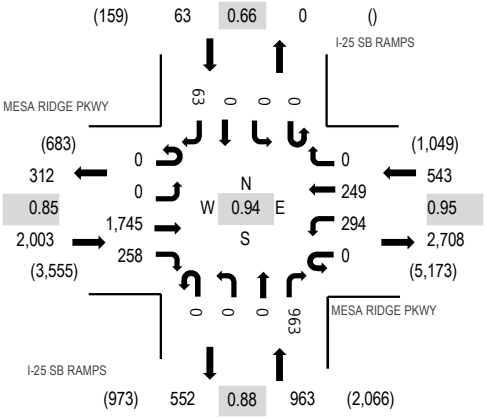
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				I-25 SB RAMPS Northbound				I-25 SB RAMPS 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	157	10	0	16	183	0	0	0	0	124	0	0	0	38	528	2,517	0	0	0	0
7:15 AM	0	0	215	28	0	24	194	0	0	0	0	104	0	0	0	51	616	2,583	0	0	0	0
7:30 AM	0	0	334	34	0	14	195	0	0	0	0	122	0	0	0	61	760	2,635	0	0	0	0
7:45 AM	0	0	165	16	0	23	201	0	0	0	0	154	0	0	0	54	613	2,495	0	0	0	0
8:00 AM	0	0	123	12	0	16	244	0	0	0	0	131	0	0	0	68	594	2,482	0	0	0	0
8:15 AM	0	0	76	5	0	37	347	0	0	0	0	116	0	0	0	87	668		0	0	0	0
8:30 AM	0	0	60	10	0	23	288	0	0	0	0	98	0	1	0	140	620		0	0	0	0
8:45 AM	0	0	52	6	0	13	259	0	0	0	0	116	0	0	0	154	600		0	0	0	0
Count Total	0	0	1,182	121	0	166	1,911	0	0	0	0	965	0	1	0	653	4,999		0	0	0	0
Peak Hour	0	0	698	67	0	90	987	0	0	0	0	523	0	0	0	270	2,635		0	0	0	0

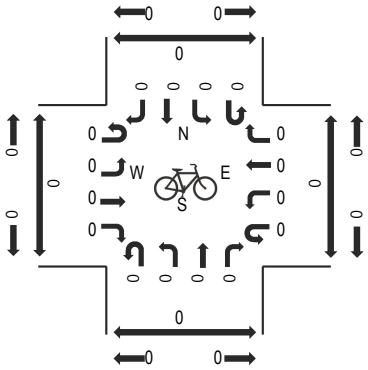
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 7 I-25 SB RAMPS & MESA RIDGE PKWY PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

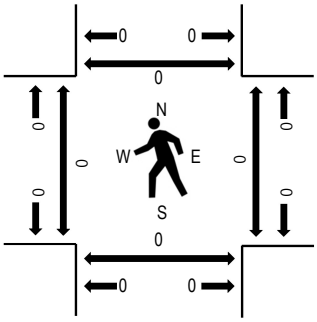
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

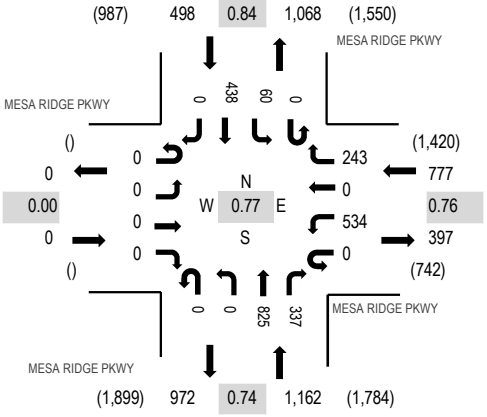
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				I-25 SB RAMPS Northbound				I-25 SB RAMPS 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	420	70	0	46	60	0	0	0	0	195	0	0	0	20	811	3,520	0	0	0	0
4:15 PM	0	0	515	83	0	80	52	0	0	0	0	209	0	0	0	14	953	3,572	0	0	0	0
4:30 PM	0	0	407	62	0	72	67	0	0	0	0	217	0	0	0	16	841	3,471	0	0	0	0
4:45 PM	0	0	425	50	0	71	56	0	0	0	0	296	0	0	0	17	915	3,461	0	0	0	0
5:00 PM	0	0	398	63	0	71	74	0	0	0	0	241	0	0	0	16	863	3,309	0	0	0	0
5:15 PM	0	0	385	49	0	59	79	0	0	0	0	262	0	0	0	18	852		0	0	0	0
5:30 PM	0	0	308	42	0	69	69	0	0	0	0	320	0	0	0	23	831		0	0	0	0
5:45 PM	0	0	249	29	0	57	67	0	0	0	0	326	0	0	0	35	763		0	0	0	0
Count Total	0	0	3,107	448	0	525	524	0	0	0	0	2,066	0	0	0	159	6,829		0	0	0	0
Peak Hour	0	0	1,745	258	0	294	249	0	0	0	0	963	0	0	0	63	3,572		0	0	0	0

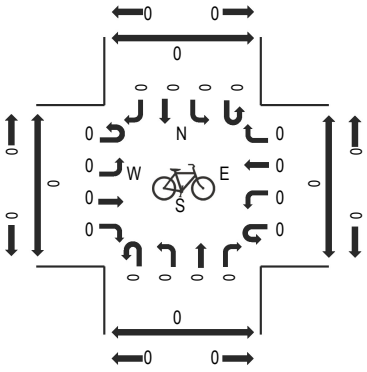
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 8 MESA RIDGE PKWY & MESA RIDGE PKWY AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

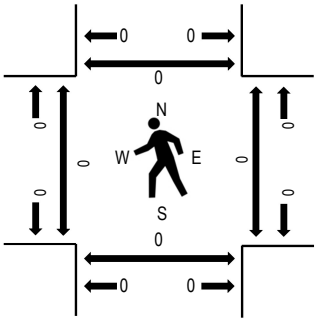
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

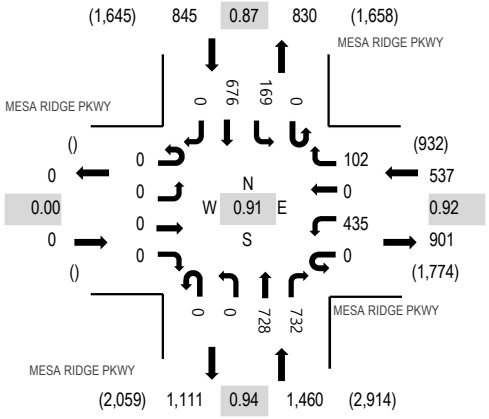
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				MESA RIDGE PKWY Northbound				MESA RIDGE PKWY 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	190	0	66	0	0	302	91	0	16	124	0	789	2,437	0	0	0	0
7:15 AM	0	0	0	0	0	91	0	78	0	0	247	94	0	16	93	0	619	2,114	0	0	0	0
7:30 AM	0	0	0	0	0	127	0	50	0	0	140	80	0	9	89	0	495	1,931	0	0	0	0
7:45 AM	0	0	0	0	0	126	0	49	0	0	136	72	0	19	132	0	534	1,877	0	0	0	0
8:00 AM	0	0	0	0	0	97	0	55	0	0	97	88	0	19	110	0	466	1,754	0	0	0	0
8:15 AM	0	0	0	0	0	130	0	34	0	0	94	69	0	14	95	0	436		0	0	0	0
8:30 AM	0	0	0	0	0	162	0	25	0	0	77	59	0	18	100	0	441		0	0	0	0
8:45 AM	0	0	0	0	0	118	0	22	0	0	78	60	0	18	115	0	411		0	0	0	0
Count Total	0	0	0	0	0	1,041	0	379	0	0	1,171	613	0	129	858	0	4,191		0	0	0	0
Peak Hour	0	0	0	0	0	534	0	243	0	0	825	337	0	60	438	0	2,437		0	0	0	0

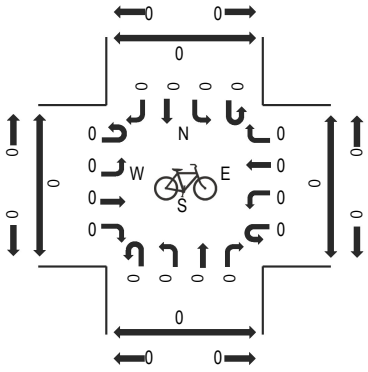
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 8 MESA RIDGE PKWY & MESA RIDGE PKWY PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

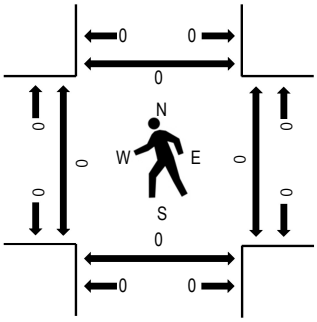
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

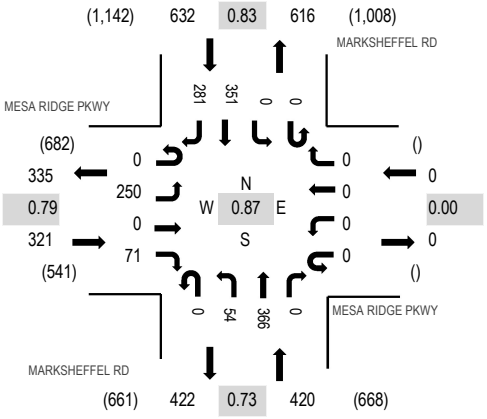
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				MESA RIDGE PKWY Northbound				MESA RIDGE PKWY 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	88	0	18	0	0	175	157	1	45	154	0	638	2,704	0	0	0	0
4:15 PM	0	0	0	0	0	88	0	19	0	0	186	173	0	53	167	0	686	2,739	0	0	0	0
4:30 PM	0	0	0	0	0	77	0	17	0	0	210	183	0	47	171	0	705	2,832	0	0	0	0
4:45 PM	0	0	0	0	0	115	0	26	0	0	163	187	0	39	145	0	675	2,842	0	0	0	0
5:00 PM	0	0	0	0	0	106	0	24	0	0	187	166	0	36	154	0	673	2,787	0	0	0	0
5:15 PM	0	0	0	0	0	113	0	33	0	0	196	193	0	49	195	0	779		0	0	0	0
5:30 PM	0	0	0	0	0	101	0	19	0	0	182	186	0	45	182	0	715		0	0	0	0
5:45 PM	0	0	0	0	0	64	0	24	0	0	178	192	0	23	139	0	620		0	0	0	0
Count Total	0	0	0	0	0	752	0	180	0	0	1,477	1,437	1	337	1,307	0	5,491		0	0	0	0
Peak Hour	0	0	0	0	0	435	0	102	0	0	728	732	0	169	676	0	2,842		0	0	0	0

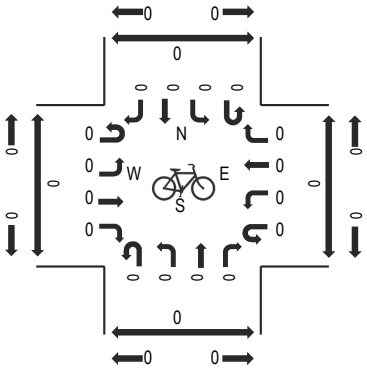
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 MARKSHEFFEL RD & MESA RIDGE PKWY AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

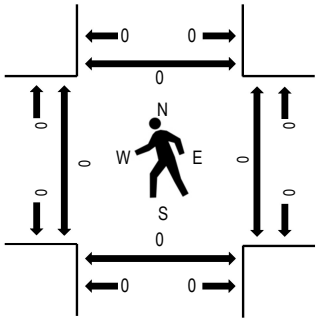
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

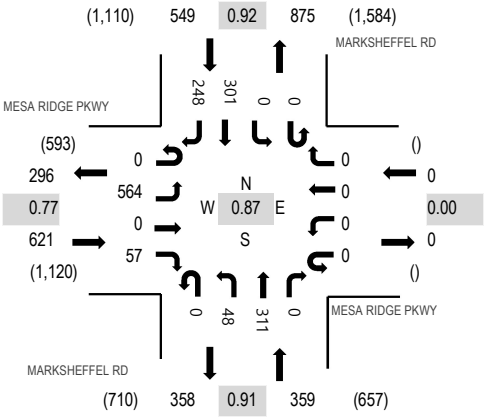
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				MARKSHEFFEL RD Northbound				MARKSHEFFEL 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	82	0	19	0	0	0	0	0	13	92	0	0	0	116	74	396	1,373	0	0	0	0
7:15 AM	0	65	0	24	0	0	0	0	0	22	121	0	0	0	86	56	374	1,236	0	0	0	0
7:30 AM	0	56	0	17	0	0	0	0	0	6	78	0	0	0	85	71	313	1,117	0	0	0	0
7:45 AM	0	47	0	11	0	0	0	0	0	13	75	0	0	0	64	80	290	1,068	0	0	0	0
8:00 AM	0	65	0	12	0	0	0	0	0	13	67	0	0	0	41	61	259	978	0	0	0	0
8:15 AM	0	40	0	10	0	0	0	0	0	9	58	0	0	0	65	73	255		0	0	0	0
8:30 AM	0	48	0	8	0	0	0	0	0	9	46	0	0	0	55	98	264		0	0	0	0
8:45 AM	0	29	0	8	0	0	0	0	0	7	39	0	0	0	40	77	200		0	0	0	0
Count Total	0	432	0	109	0	0	0	0	0	92	576	0	0	0	552	590	2,351		0	0	0	0
Peak Hour	0	250	0	71	0	0	0	0	0	54	366	0	0	0	351	281	1,373		0	0	0	0

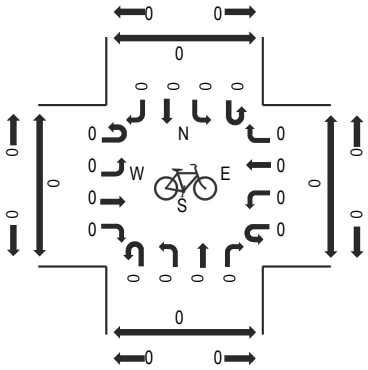
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 9 MARKSHEFFEL RD & MESA RIDGE PKWY PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

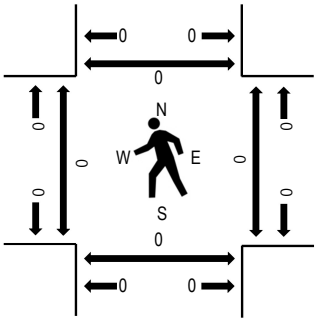
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

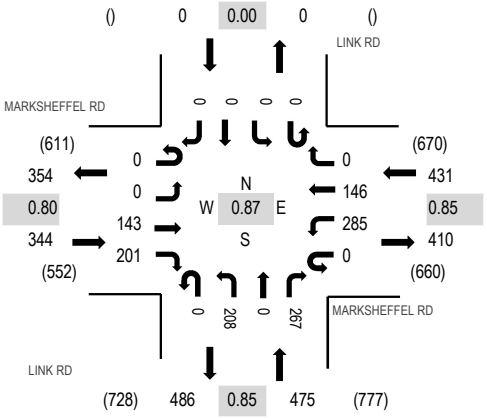
Traffic Counts - Motorized Vehicles

Interval Start Time	MESA RIDGE PKWY Eastbound				MESA RIDGE PKWY Westbound				MARKSHEFFEL RD Northbound				MARKSHEFFEL 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	185	0	17	0	0	0	0	0	15	56	0	0	0	65	61	399	1,529	0	0	0	0
4:15 PM	0	170	0	16	0	0	0	0	0	15	87	0	0	0	95	55	438	1,484	0	0	0	0
4:30 PM	0	102	0	12	0	0	0	0	0	7	84	0	0	0	80	63	348	1,383	0	0	0	0
4:45 PM	0	107	0	12	0	0	0	0	0	11	84	0	0	0	61	69	344	1,360	0	0	0	0
5:00 PM	0	105	0	7	0	0	0	0	0	14	71	0	0	0	75	82	354	1,358	0	0	0	0
5:15 PM	0	101	0	15	0	0	0	0	0	12	62	0	0	0	84	63	337		0	0	0	0
5:30 PM	0	89	0	14	0	0	0	0	0	15	68	0	0	0	78	61	325		0	0	0	0
5:45 PM	0	160	0	8	0	0	0	0	0	3	53	0	0	0	71	47	342		0	0	0	0
Count Total	0	1,019	0	101	0	0	0	0	0	92	565	0	0	0	609	501	2,887		0	0	0	0
Peak Hour	0	564	0	57	0	0	0	0	0	48	311	0	0	0	301	248	1,529		0	0	0	0

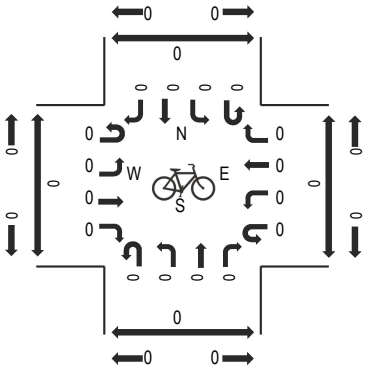
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 10 LINK RD & MARKSHEFFEL RD AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

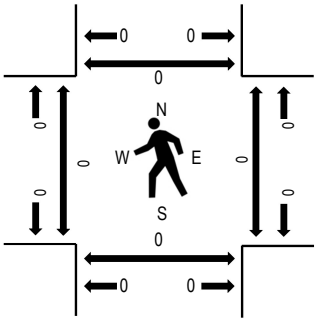
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

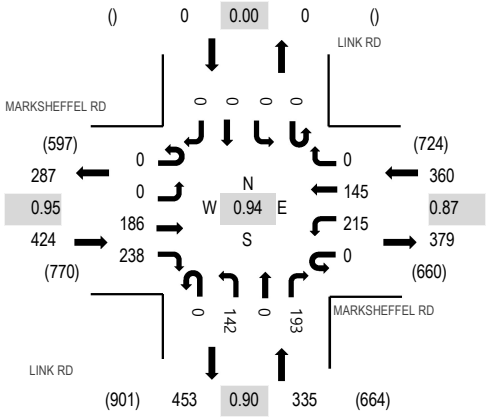
Traffic Counts - Motorized Vehicles

Interval Start Time	MARKSHEFFEL RD Eastbound				MARKSHEFFEL RD Westbound				LINK RD Northbound				LINK 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	0	44	40	0	78	49	0	0	60	0	66	0	0	0	0	337	1,250	0	0	0	0
7:15 AM	0	0	50	58	0	76	36	0	0	50	0	89	0	0	0	0	359	1,117	0	0	0	0
7:30 AM	0	0	36	62	0	67	28	0	0	44	0	46	0	0	0	0	283	974	0	0	0	0
7:45 AM	0	0	13	41	0	64	33	0	0	54	0	66	0	0	0	0	271	866	0	0	0	0
8:00 AM	0	0	35	24	0	29	23	0	0	40	0	53	0	0	0	0	204	749	0	0	0	0
8:15 AM	0	0	31	31	0	34	40	0	0	49	0	31	0	0	0	0	216		0	0	0	0
8:30 AM	0	0	25	20	0	42	22	0	0	36	0	30	0	0	0	0	175		0	0	0	0
8:45 AM	0	0	12	30	0	32	17	0	0	30	0	33	0	0	0	0	154		0	0	0	0
Count Total	0	0	246	306	0	422	248	0	0	363	0	414	0	0	0	0	1,999		0	0	0	0
Peak Hour	0	0	143	201	0	285	146	0	0	208	0	267	0	0	0	0	1,250		0	0	0	0

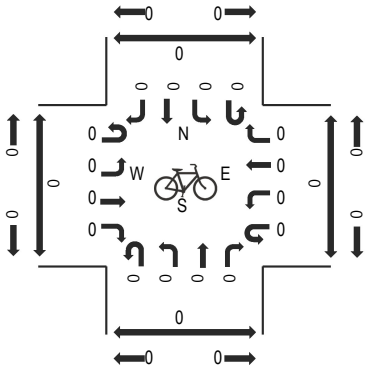
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 10 LINK RD & MARKSHEFFEL RD PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

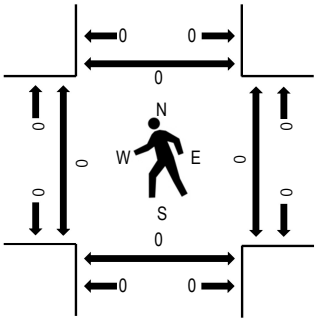
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

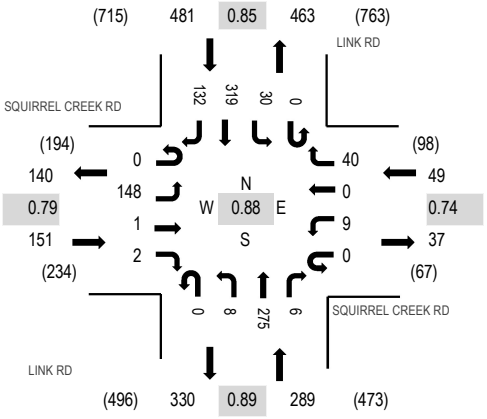
Traffic Counts - Motorized Vehicles

Interval Start Time	MARKSHEFFEL RD Eastbound				MARKSHEFFEL RD Westbound				LINK RD Northbound				LINK 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	0	30	51	0	54	38	0	0	37	0	44	0	0	0	0	254	1,109	0	0	0	0
4:15 PM	0	0	50	62	0	64	42	0	0	26	0	54	0	0	0	0	298	1,119	0	0	0	0
4:30 PM	0	0	43	60	0	53	35	0	0	39	0	47	0	0	0	0	277	1,096	0	0	0	0
4:45 PM	0	0	48	64	0	44	31	0	0	44	0	49	0	0	0	0	280	1,109	0	0	0	0
5:00 PM	0	0	45	52	0	54	37	0	0	33	0	43	0	0	0	0	264	1,049	0	0	0	0
5:15 PM	0	0	38	62	0	54	35	0	0	46	0	40	0	0	0	0	275		0	0	0	0
5:30 PM	0	0	27	61	0	57	47	0	0	45	0	53	0	0	0	0	290		0	0	0	0
5:45 PM	0	0	21	56	0	53	26	0	0	36	0	28	0	0	0	0	220		0	0	0	0
Count Total	0	0	302	468	0	433	291	0	0	306	0	358	0	0	0	0	2,158		0	0	0	0
Peak Hour	0	0	186	238	0	215	145	0	0	142	0	193	0	0	0	0	1,119		0	0	0	0

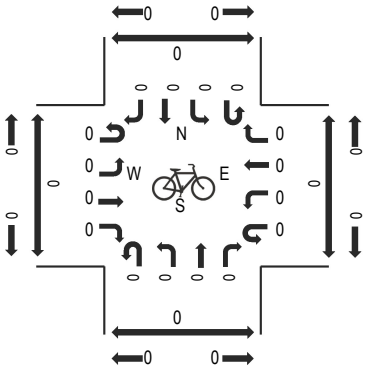
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 11 LINK RD & SQUIRREL CREEK RD AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

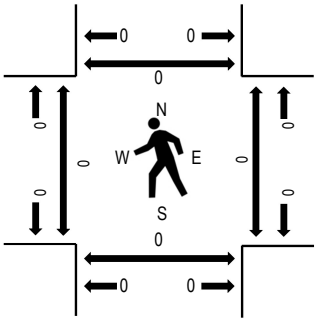
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

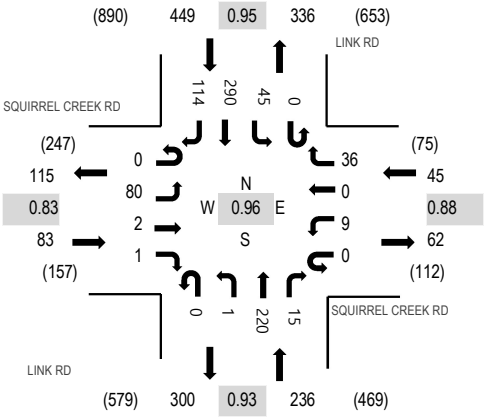
Traffic Counts - Motorized Vehicles

Interval Start Time	SQUIRREL CREEK RD Eastbound				SQUIRREL CREEK RD Westbound				LINK RD Northbound				LINK 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	47	1	0	0	4	0	14	0	2	66	1	0	6	64	36	241	970	0	0	0	0
7:15 AM	0	45	0	0	0	1	0	7	0	2	78	1	0	8	96	37	275	877	0	0	0	0
7:30 AM	0	23	0	1	0	3	0	5	0	1	60	2	0	11	80	25	211	744	0	0	0	0
7:45 AM	0	33	0	1	0	1	0	14	0	3	71	2	0	5	79	34	243	664	0	0	0	0
8:00 AM	0	25	0	1	0	0	2	16	0	0	59	0	0	6	32	7	148	550	0	0	0	0
8:15 AM	0	20	0	0	0	0	1	8	0	0	47	1	0	7	43	15	142		0	0	0	0
8:30 AM	0	20	0	1	0	4	1	6	0	0	38	0	0	6	45	10	131		0	0	0	0
8:45 AM	1	14	1	0	0	1	1	9	0	1	38	0	0	9	39	15	129		0	0	0	0
Count Total	1	227	2	4	0	14	5	79	0	9	457	7	0	58	478	179	1,520		0	0	0	0
Peak Hour	0	148	1	2	0	9	0	40	0	8	275	6	0	30	319	132	970		0	0	0	0

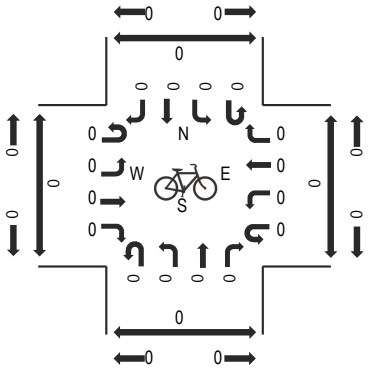
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 11 LINK RD & SQUIRREL CREEK RD PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

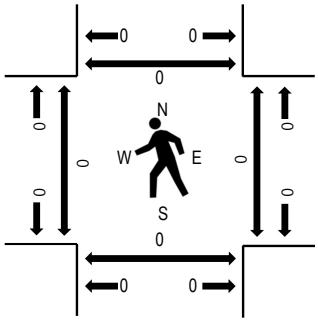
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

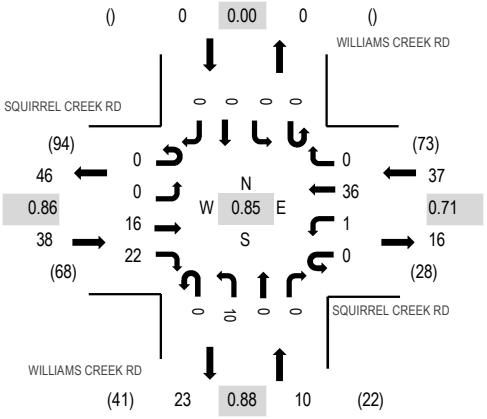
Traffic Counts - Motorized Vehicles

Interval Start Time	SQUIRREL CREEK RD Eastbound				SQUIRREL CREEK RD Westbound				LINK RD Northbound				LINK 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	16	1	0	0	0	0	6	0	1	56	6	0	10	70	26	192	813	0	0	0	0
4:15 PM	0	15	1	0	0	1	0	12	0	0	56	3	0	13	83	22	206	802	0	0	0	0
4:30 PM	0	23	0	1	0	4	0	9	0	0	51	2	0	12	63	39	204	798	0	0	0	0
4:45 PM	0	26	0	0	0	4	0	9	0	0	57	4	0	10	74	27	211	812	0	0	0	0
5:00 PM	0	14	1	0	0	2	0	5	0	0	54	1	0	10	63	31	181	778	0	0	0	0
5:15 PM	0	21	0	0	0	0	1	7	0	2	62	3	0	11	62	33	202		0	0	0	0
5:30 PM	0	18	2	0	0	1	0	6	0	0	66	1	0	13	74	37	218		0	0	0	0
5:45 PM	0	18	0	0	0	2	2	4	0	1	42	1	0	7	75	25	177		0	0	0	0
Count Total	0	151	5	1	0	14	3	58	0	4	444	21	0	86	564	240	1,591		0	0	0	0
Peak Hour	0	80	2	1	0	9	0	36	0	1	220	15	0	45	290	114	813		0	0	0	0

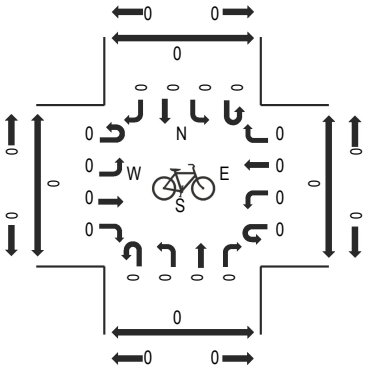
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 12 WILLIAMS CREEK RD & SQUIRREL CREEK RD AM
Date: Tuesday, September 1, 2026
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

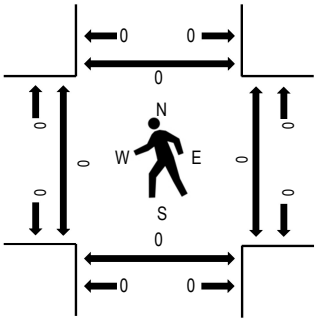
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

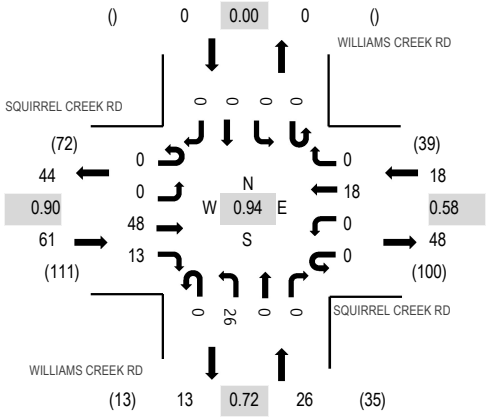
Traffic Counts - Motorized Vehicles

Interval Start Time	SQUIRREL CREEK RD Eastbound				SQUIRREL CREEK RD Westbound				WILLIAMS CREEK RD Northbound				WILLIAMS CREEK 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	0	5	5	0	0	13	0	0	2	0	0	0	0	0	0	25	85	0	0	0	0
7:15 AM	0	0	1	6	0	0	7	0	0	1	0	0	0	0	0	0	15	84	0	0	0	0
7:30 AM	0	0	6	5	0	1	6	0	0	3	0	0	0	0	0	0	21	85	0	0	0	0
7:45 AM	0	0	4	6	0	0	10	0	0	4	0	0	0	0	0	0	24	84	0	0	0	0
8:00 AM	0	0	3	5	0	0	12	0	0	4	0	0	0	0	0	0	24	78	0	0	0	0
8:15 AM	0	0	2	4	0	0	8	0	0	2	0	0	0	0	0	0	16		0	0	0	0
8:30 AM	0	0	3	6	0	0	7	0	0	4	0	0	0	0	0	0	20		0	0	0	0
8:45 AM	0	0	4	3	0	0	9	0	0	2	0	0	0	0	0	0	18		0	0	0	0
Count Total	0	0	28	40	0	1	72	0	0	22	0	0	0	0	0	0	163		0	0	0	0
Peak Hour	0	0	16	22	0	1	36	0	0	10	0	0	0	0	0	0	85		0	0	0	0

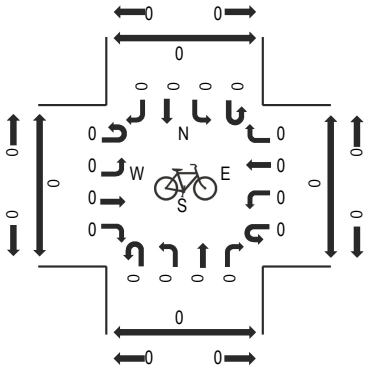
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 12 WILLIAMS CREEK RD & SQUIRREL CREEK RD PM
Date: Tuesday, September 1, 2026
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

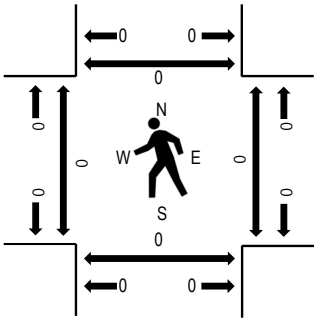
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	SQUIRREL CREEK RD Eastbound				SQUIRREL CREEK RD Westbound				WILLIAMS CREEK RD Northbound				WILLIAMS CREEK 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	0	11	4	0	0	2	0	0	6	0	0	0	0	0	0	23	105	0	0	0	0
4:15 PM	0	0	10	7	0	0	5	0	0	6	0	0	0	0	0	0	28	99	0	0	0	0
4:30 PM	0	0	12	1	0	0	8	0	0	5	0	0	0	0	0	0	26	91	0	0	0	0
4:45 PM	0	0	15	1	0	0	3	0	0	9	0	0	0	0	0	0	28	90	0	0	0	0
5:00 PM	0	0	11	0	0	0	2	0	0	4	0	0	0	0	0	0	17	80	0	0	0	0
5:15 PM	0	0	11	0	1	0	3	0	0	4	0	1	0	0	0	0	20		0	0	0	0
5:30 PM	0	0	16	0	0	0	9	0	0	0	0	0	0	0	0	0	25		0	0	0	0
5:45 PM	0	0	12	0	0	0	6	0	0	0	0	0	0	0	0	0	18		0	0	0	0
Count Total	0	0	98	13	1	0	38	0	0	34	0	1	0	0	0	0	185		0	0	0	0
Peak Hour	0	0	48	13	0	0	18	0	0	26	0	0	0	0	0	0	105		0	0	0	0

All Traffic Data Services

13 - BIRDSALL RD EAST OF OLD PUEBLO RD

Time	EB	WB	Total
9/1/2026	0	0	0
9/1/2026 12:15:00 AM	0	0	0
9/1/2026 12:30:00 AM	0	0	0
9/1/2026 12:45:00 AM	0	0	0
9/1/2026 1:00:00 AM	0	0	0
9/1/2026 1:15:00 AM	0	0	0
9/1/2026 1:30:00 AM	0	0	0
9/1/2026 1:45:00 AM	0	1	1
9/1/2026 2:00:00 AM	0	0	0
9/1/2026 2:15:00 AM	0	0	0
9/1/2026 2:30:00 AM	0	0	0
9/1/2026 2:45:00 AM	0	0	0
9/1/2026 3:00:00 AM	0	0	0
9/1/2026 3:15:00 AM	0	0	0
9/1/2026 3:30:00 AM	0	0	0
9/1/2026 3:45:00 AM	0	0	0
9/1/2026 4:00:00 AM	0	0	0
9/1/2026 4:15:00 AM	1	2	3
9/1/2026 4:30:00 AM	0	0	0
9/1/2026 4:45:00 AM	0	1	1
9/1/2026 5:00:00 AM	0	0	0
9/1/2026 5:15:00 AM	0	0	0
9/1/2026 5:30:00 AM	0	0	0
9/1/2026 5:45:00 AM	1	0	1
9/1/2026 6:00:00 AM	3	0	3
9/1/2026 6:15:00 AM	1	1	2
9/1/2026 6:30:00 AM	0	2	2
9/1/2026 6:45:00 AM	1	0	1
9/1/2026 7:00:00 AM	1	2	3
9/1/2026 7:15:00 AM	2	4	6
9/1/2026 7:30:00 AM	0	1	1
9/1/2026 7:45:00 AM	1	0	1
9/1/2026 8:00:00 AM	0	4	4
9/1/2026 8:15:00 AM	0	1	1
9/1/2026 8:30:00 AM	1	0	1
9/1/2026 8:45:00 AM	1	0	1
9/1/2026 9:00:00 AM	0	1	1
9/1/2026 9:15:00 AM	1	0	1
9/1/2026 9:30:00 AM	1	0	1
9/1/2026 9:45:00 AM	0	0	0
9/1/2026 10:00:00 AM	0	1	1
9/1/2026 10:15:00 AM	0	1	1
9/1/2026 10:30:00 AM	0	0	0
9/1/2026 10:45:00 AM	1	0	1
9/1/2026 11:00:00 AM	0	0	0
9/1/2026 11:15:00 AM	1	1	2
9/1/2026 11:30:00 AM	0	0	0
9/1/2026 11:45:00 AM	0	0	0
Total	17	23	40
Percentage	42.5%	57.5%	
Peak Hour	5:30 AM	7:15 AM	6:30 AM
Volume	5	9	12
PHF	0.417	0.563	0.500

All Traffic Data Services

13 - BIRDSALL RD EAST OF OLD PUEBLO RD

Time	EB	WB	Total
9/1/2026 12:00:00 PM	0	1	1
9/1/2026 12:15:00 PM	2	1	3
9/1/2026 12:30:00 PM	2	1	3
9/1/2026 12:45:00 PM	0	0	0
9/1/2026 1:00:00 PM	0	0	0
9/1/2026 1:15:00 PM	1	2	3
9/1/2026 1:30:00 PM	2	1	3
9/1/2026 1:45:00 PM	0	0	0
9/1/2026 2:00:00 PM	1	1	2
9/1/2026 2:15:00 PM	1	2	3
9/1/2026 2:30:00 PM	1	1	2
9/1/2026 2:45:00 PM	1	1	2
9/1/2026 3:00:00 PM	3	4	7
9/1/2026 3:15:00 PM	1	2	3
9/1/2026 3:30:00 PM	2	1	3
9/1/2026 3:45:00 PM	4	2	6
9/1/2026 4:00:00 PM	1	1	2
9/1/2026 4:15:00 PM	1	1	2
9/1/2026 4:30:00 PM	1	1	2
9/1/2026 4:45:00 PM	0	0	0
9/1/2026 5:00:00 PM	2	7	9
9/1/2026 5:15:00 PM	1	0	1
9/1/2026 5:30:00 PM	1	1	2
9/1/2026 5:45:00 PM	0	0	0
9/1/2026 6:00:00 PM	0	2	2
9/1/2026 6:15:00 PM	2	1	3
9/1/2026 6:30:00 PM	4	0	4
9/1/2026 6:45:00 PM	1	1	2
9/1/2026 7:00:00 PM	0	0	0
9/1/2026 7:15:00 PM	1	0	1
9/1/2026 7:30:00 PM	1	1	2
9/1/2026 7:45:00 PM	0	0	0
9/1/2026 8:00:00 PM	0	0	0
9/1/2026 8:15:00 PM	1	0	1
9/1/2026 8:30:00 PM	0	0	0
9/1/2026 8:45:00 PM	0	0	0
9/1/2026 9:00:00 PM	0	0	0
9/1/2026 9:15:00 PM	1	0	1
9/1/2026 9:30:00 PM	1	0	1
9/1/2026 9:45:00 PM	0	0	0
9/1/2026 10:00:00 PM	0	0	0
9/1/2026 10:15:00 PM	0	0	0
9/1/2026 10:30:00 PM	0	0	0
9/1/2026 10:45:00 PM	0	0	0
9/1/2026 11:00:00 PM	0	0	0
9/1/2026 11:15:00 PM	0	0	0
9/1/2026 11:30:00 PM	0	0	0
9/1/2026 11:45:00 PM	0	0	0
Total	40	36	76
Percentage	52.6%	47.4%	
Peak Hour	3:00 PM	3:00 PM	3:00 PM
Volume	10	9	19
PHF	0.625	0.563	0.679
Grand Total	57	59	116
Percentage	49.1%	50.9%	

Intersection 722 at Marksheffel Rd and Mesa Ridge Py - Timing table, page 1

Page 1	Phases											
	1	2	3	4	5	6	7	8	9	10	11	12
Min Green	0	15	0	8	5	15	0	0	0	0	0	0
Passage Time I	0.0	3.0	0.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
Passage Time II	0.0	3.0	0.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Green I	0	40	0	30	10	40	0	0	0	0	0	0
Max Green II	0	40	0	30	10	40	0	0	0	0	0	0
Yellow Clearance	0.0	4.0	0.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clearance	0.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Added Initial	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0
Min Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Green Time	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert Time	0.0	5.0	0.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Advance Walk Time	0	0	0	0	0	0	0	0	0	0	0	0
Walk Time	0	0	0	7	0	7	0	0	0	0	0	0
Pedestrian Clearance	0	0	0	15	0	16	0	0	0	0	0	0
Handicap Walk	0	0	0	0	0	0	0	0	0	0	0	0
Handicap Ped Clearance	0	0	0	0	0	0	0	0	0	0	0	0
Marksheffel Rd		X			X	X						
Mesa Ridge Py				X								
Compass Direction		N		E	N	S						
Through, Turn or XPed		Thru		Thru	Left,prt	Thru						

Intersection 722 at Marksheffel Rd and Mesa Ridge Py - Sequence table, page 1

Page 1	Ring 1 Phases				Ring 2 Phases				Ring 3 Phases			
	1	2	3	4	5	6	7	8	9	10	11	12
State 1					Vehicle							
Barrier 1												
State 2		Vehicle				V & P						
Barrier 2	XXXXXXXXXXXXXXXXXXXXXX				XXXXXXXXXXXXXXXXXXXXXX							
State 3				V & P								
Barrier 3	XXXXXXXXXXXXXXXXXXXXXX				XXXXXXXXXXXXXXXXXXXXXX							
State 4												
Barrier 4												
State 5												
Barrier 5												
State 6												
Barrier 6												
State 7												
Barrier 7												
State 8												
Barrier 8												
State 9												
Barrier 9												
State 10												
Barrier 10												
State 11												
Barrier 11												
State 12												
Barrier 12												

Intersection 722 at Marksheffel Rd and Mesa Ridge Py - Phases control table, page 1

Page 1	Vehicle Phases 111 123456789012		Ped Phases 111 123456789012
Min Recalls	2 6	Ped Recalls	
Max Recalls		Handicap Ped Recalls	
Recall If Maxed		Soft Ped Recalls	
Dual Entry	4 8	Don't Recall (FDW Offset)	2 4 6 8
Do Not Skip		Allow Walk Reduction	
Simultaneous Gap Out		Hold In Walk	
Restricted Phases		Allow Ped Re-service	
Sequential Initial Timing		Rest In Walk	No
Max Timer Starts For Call			
Reduction Starts For Call			
Red To Avoid Left Turn Trap			
Rest In Red	No		

APPENDIX B

Level of Service Definitions

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7th Edition, Transportation Research Board, 2022: 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, 7th Edition, Transportation Research Board, 2022: 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

High left turn volume

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	698	67	90	987	0	0	0	0	0	0	270
Future Volume (vph)	0	698	67	90	987	0	0	0	0	0	0	270
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	0	2787
Flt Permitted				0.221								
Satd. Flow (perm)	0	3539	1583	412	3539	0	0	0	0	0	0	2787
Satd. Flow (RTOR)			155									475
Lane Group Flow (vph)	0	759	73	98	1073	0	0	0	0	0	0	293
Turn Type		NA	Perm	custom	NA							Perm
Protected Phases		2		1	6 8							
Permitted Phases			2	6								4
Detector Phase		2	2	1	6 8							4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0								5.0
Minimum Split (s)		11.5	11.5	11.5								10.0
Total Split (s)		32.0	32.0	14.0								14.0
Total Split (%)		53.3%	53.3%	23.3%								23.3%
Yellow Time (s)		4.5	4.5	4.5								3.0
All-Red Time (s)		2.0	2.0	2.0								2.0
Lost Time Adjust (s)		0.0	0.0	0.0								0.0
Total Lost Time (s)		6.5	6.5	6.5								5.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None								None
Act Effct Green (s)		15.9	15.9	22.6	44.5							9.4
Actuated g/C Ratio		0.36	0.36	0.51	1.00							0.21
v/c Ratio		0.60	0.11	0.23	0.30							0.30
Control Delay (s/veh)		14.7	0.4	5.7	0.2							0.8
Queue Delay		0.0	0.0	0.0	0.0							0.0
Total Delay (s/veh)		14.7	0.4	5.7	0.2							0.8
LOS		B	A	A	A							A
Approach Delay (s/veh)		13.4			0.7						0.8	
Approach LOS		B			A						A	
Queue Length 50th (ft)		98	0	11	0							0
Queue Length 95th (ft)		148	2	24	0							0
Internal Link Dist (ft)		92			225			103			36	
Turn Bay Length (ft)			310	550								
Base Capacity (vph)		2191	1039	456	3482							980
Starvation Cap Reductn		0	0	0	0							0
Spillback Cap Reductn		0	0	0	0							0
Storage Cap Reductn		0	0	0	0							0
Reduced v/c Ratio		0.35	0.07	0.21	0.31							0.30

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 44.5
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.60

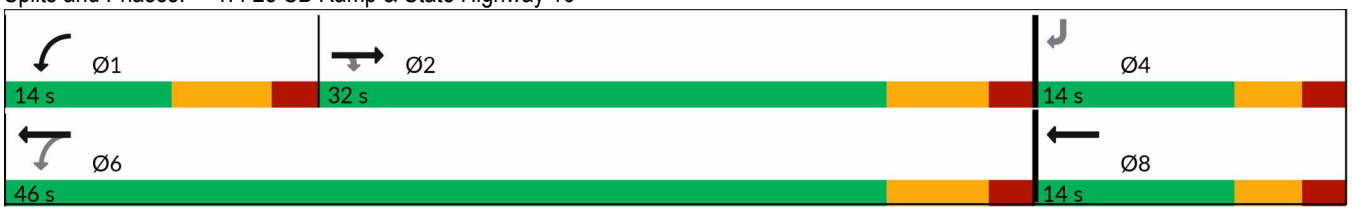
This table does not match the total number of passenger vehilces shown on Figure 10. Please revise Figure 10 and all the Synchro models to match.

Lane Group	Ø6	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	6	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.5	10.0
Total Split (s)	46.0	14.0
Total Split (%)	77%	23%
Yellow Time (s)	4.5	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Intersection Signal Delay (s/veh): 5.3 Intersection LOS: A
Intersection Capacity Utilization 58.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-25 SB Ramp & State Highway 16

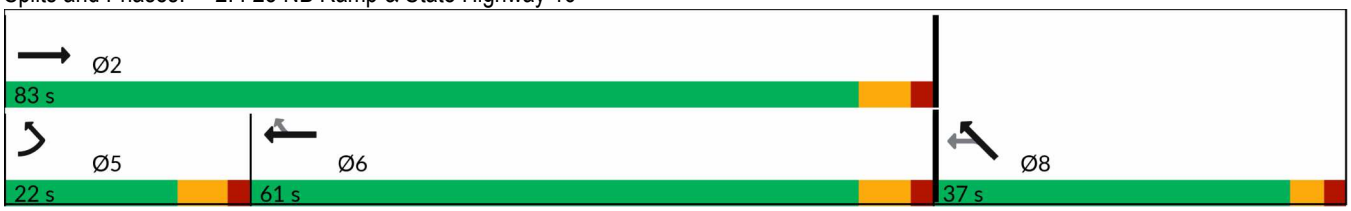


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	196	1025	0	0	843	450	0	0	0	229	1	204
Future Volume (vph)	196	1025	0	0	843	450	0	0	0	229	1	204
Satd. Flow (prot)	3433	5085	0	0	3356	1441	0	0	0	1681	1525	0
Flt Permitted	0.950									0.950	0.995	
Satd. Flow (perm)	3433	5085	0	0	3356	1441	0	0	0	1681	1525	0
Satd. Flow (RTOR)					8	421					108	
Lane Group Flow (vph)	213	1114	0	0	984	421	0	0	0	224	248	0
Turn Type	Prot	NA			NA	Perm				Perm	NA	
Protected Phases	5	2			6						8	
Permitted Phases						6				8		
Detector Phase	5	2			6	6				8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0				5.0	5.0	
Minimum Split (s)	11.5	22.5			22.5	22.5				22.5	22.5	
Total Split (s)	22.0	83.0			61.0	61.0				37.0	37.0	
Total Split (%)	18.3%	69.2%			50.8%	50.8%				30.8%	30.8%	
Yellow Time (s)	4.5	4.5			4.5	4.5				3.0	3.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5			6.5	6.5				5.0	5.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None				None	None	
Act Effct Green (s)	10.9	49.3			31.5	31.5				16.7	16.7	
Actuated g/C Ratio	0.14	0.63			0.40	0.40				0.21	0.21	
v/c Ratio	0.44	0.35			0.72	0.51				0.62	0.60	
Control Delay (s/veh)	37.1	7.3			23.3	4.2				38.3	23.9	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	37.1	7.3			23.3	4.2				38.3	23.9	
LOS	D	A			C	A				D	C	
Approach Delay (s/veh)		12.1			17.6						30.7	
Approach LOS		B			B						C	
Queue Length 50th (ft)	48	80			207	0				103	61	
Queue Length 95th (ft)	108	142			363	61				225	174	
Internal Link Dist (ft)		464			201			321			489	
Turn Bay Length (ft)	520									445		
Base Capacity (vph)	717	4674			2468	1170				725	719	
Starvation Cap Reductn	0	0			0	0				0	0	
Spillback Cap Reductn	0	0			0	0				0	0	
Storage Cap Reductn	0	0			0	0				0	0	
Reduced v/c Ratio	0.30	0.24			0.40	0.36				0.31	0.34	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 78.1
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 17.3 Intersection LOS: B
Intersection Capacity Utilization 61.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: I-25 NB Ramp & State Highway 16





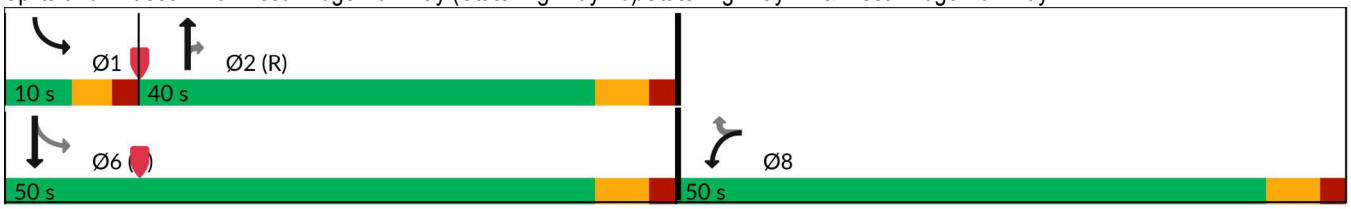
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	534	243	825	337	60	438
Future Volume (vph)	534	243	825	337	60	438
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.173	
Satd. Flow (perm)	1770	1583	3539	1583	322	3539
Satd. Flow (RTOR)		167		195		
Lane Group Flow (vph)	580	264	897	366	65	476
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	10.0	11.0
Total Split (s)	50.0	50.0	40.0	40.0	10.0	50.0
Total Split (%)	50.0%	50.0%	40.0%	40.0%	10.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	38.1	38.1	41.0	41.0	50.9	49.9
Actuated g/C Ratio	0.38	0.38	0.41	0.41	0.51	0.50
v/c Ratio	0.86	0.37	0.62	0.48	0.26	0.27
Control Delay (s/veh)	41.8	8.9	27.6	13.8	17.2	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.8	8.9	27.6	13.8	17.2	16.0
LOS	D	A	C	B	B	B
Approach Delay (s/veh)	31.5		23.6			16.2
Approach LOS	C		C			B
Queue Length 50th (ft)	333	40	257	80	21	92
Queue Length 95th (ft)	445	91	343	177	49	140
Internal Link Dist (ft)	447		1			206
Turn Bay Length (ft)	305			90	1000	
Base Capacity (vph)	778	790	1450	763	251	1767
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.33	0.62	0.48	0.26	0.27

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

Maximum v/c Ratio: 0.86

Intersection Signal Delay (s/veh): 24.6	Intersection LOS: C
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Mesa Ridge Parkway (State Highway 16)/State Highway 21 & Mesa Ridge Parkway





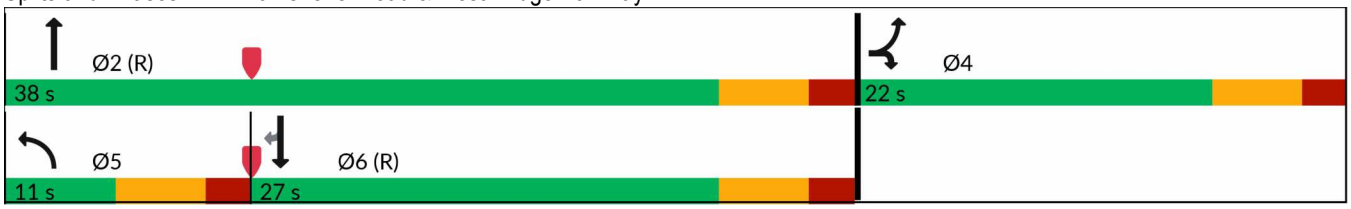
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	250	71	54	366	351	281
Future Volume (vph)	250	71	54	366	351	281
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Satd. Flow (RTOR)		77				305
Lane Group Flow (vph)	272	77	59	398	382	305
Turn Type	Prot	Prot	Prot	NA	NA	Perm
Protected Phases	4	4	5	2	6	
Permitted Phases						6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	14.0	14.0	11.0	21.0	21.0	21.0
Total Split (s)	22.0	22.0	11.0	38.0	27.0	27.0
Total Split (%)	36.7%	36.7%	18.3%	63.3%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	13.5	13.5	5.9	34.5	27.3	27.3
Actuated g/C Ratio	0.23	0.23	0.10	0.58	0.46	0.46
v/c Ratio	0.68	0.19	0.34	0.37	0.45	0.34
Control Delay (s/veh)	30.0	6.2	31.3	8.8	16.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.0	6.2	31.3	8.8	16.1	3.4
LOS	C	A	C	A	B	A
Approach Delay (s/veh)	24.8			11.7	10.4	
Approach LOS	C			B	B	
Queue Length 50th (ft)	90	0	20	73	114	0
Queue Length 95th (ft)	154	27	53	133	191	44
Internal Link Dist (ft)	526			899	443	
Turn Bay Length (ft)	300		50			500
Base Capacity (vph)	474	480	174	1071	856	892
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.16	0.34	0.37	0.45	0.34

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 14.2	Intersection LOS: B
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	143	201	285	146	0	208	0	267	0	0	0
Future Volume (vph)	0	143	201	285	146	0	208	0	267	0	0	0
Satd. Flow (prot)	1863	1863	1583	1770	1863	0	1770	0	1583	0	1863	0
Flt Permitted				0.600			0.950					
Satd. Flow (perm)	1863	1863	1583	1118	1863	0	1770	0	1583	0	1863	0
Satd. Flow (RTOR)			218						290			
Lane Group Flow (vph)	0	155	218	310	159	0	226	0	290	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt		Perm			
Protected Phases	5	2		1	6		7				8	
Permitted Phases	2		2	6			4		7	8		
Detector Phase	5	2	2	1	6		7		7	8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	5.0	
Minimum Split (s)	11.5	11.5	11.5	11.5	11.5		11.0		11.0	11.0	11.0	
Total Split (s)	11.5	36.0	36.0	36.0	60.5		37.0		37.0	11.0	11.0	
Total Split (%)	9.6%	30.0%	30.0%	30.0%	50.4%		30.8%		30.8%	9.2%	9.2%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.0		4.0	4.0	4.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5		6.0		6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead		Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None		None	None	None	
Act Effct Green (s)		66.8	66.8	86.4	86.4		21.1		21.1			
Actuated g/C Ratio		0.56	0.56	0.72	0.72		0.18		0.18			
v/c Ratio		0.15	0.22	0.35	0.12		0.73		0.56			
Control Delay (s/veh)		15.5	3.0	7.7	6.2		57.5		16.0			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay (s/veh)		15.5	3.0	7.7	6.2		57.5		16.0			
LOS		B	A	A	A		E		B			
Approach Delay (s/veh)		8.2			7.2			34.2				
Approach LOS		A			A			C				
Queue Length 50th (ft)		55	0	73	34		184		40			
Queue Length 95th (ft)		119	45	139	71		261		128			
Internal Link Dist (ft)		731			936			5211			397	
Turn Bay Length (ft)			145	150			285					
Base Capacity (vph)		1037	977	965	1341		457		624			
Starvation Cap Reductn		0	0	0	0		0		0			
Spillback Cap Reductn		0	0	0	0		0		0			
Storage Cap Reductn		0	0	0	0		0		0			
Reduced v/c Ratio		0.15	0.22	0.32	0.12		0.49		0.46			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

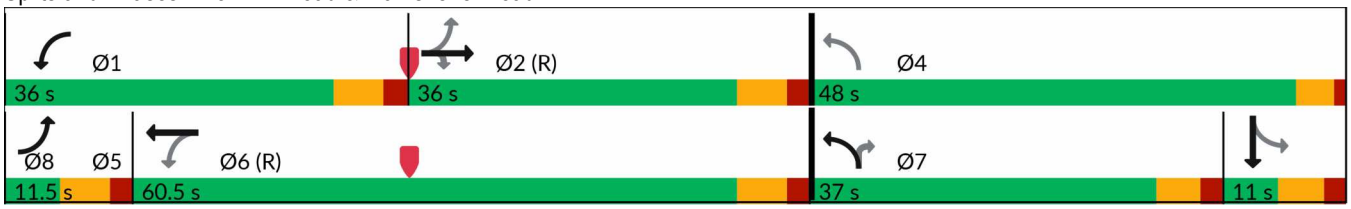
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	48.0
Total Split (%)	40%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Maximum v/c Ratio: 0.73

Intersection Signal Delay (s/veh): 17.7	Intersection LOS: B
Intersection Capacity Utilization 49.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Link Road & Marksheffel Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	1	2	9	0	40	8	275	6	30	319	132
Future Volume (vph)	148	1	2	9	0	40	8	275	6	30	319	132
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1857	0	1770	1863	1583
Flt Permitted	0.499			0.757			0.533			0.518		
Satd. Flow (perm)	930	1863	1583	1410	1863	1583	993	1857	0	965	1863	1583
Satd. Flow (RTOR)			132			549		1				168
Lane Group Flow (vph)	161	1	2	10	0	43	9	306	0	33	347	143
Turn Type	pm+pt	NA	Perm	pm+pt		Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
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
Minimum Split (s)	9.5	9.5	9.5	10.5	10.5	10.5	11.0	11.0		11.0	11.0	11.0
Total Split (s)	29.0	29.0	29.0	14.0	14.0	14.0	15.0	62.0		15.0	62.0	62.0
Total Split (%)	24.2%	24.2%	24.2%	11.7%	11.7%	11.7%	12.5%	51.7%		12.5%	51.7%	51.7%
Yellow Time (s)	2.5	2.5	2.5	3.5	3.5	3.5	4.0	4.0		4.0	4.0	4.0
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
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
Total Lost Time (s)	4.5	4.5	4.5	5.5	5.5	5.5	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	25.1	22.6	22.6	10.5		5.5	80.3	76.8		83.4	82.0	82.0
Actuated g/C Ratio	0.21	0.19	0.19	0.09		0.05	0.67	0.64		0.70	0.68	0.68
v/c Ratio	0.52	0.00	0.00	0.07		0.07	0.01	0.26		0.05	0.27	0.13
Control Delay (s/veh)	45.8	39.0	0.0	36.6		0.2	7.5	12.5		8.6	11.4	2.6
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	45.8	39.0	0.0	36.6		0.2	7.5	12.5		8.6	11.4	2.6
LOS	D	D	A	D		A	A	B		A	B	A
Approach Delay (s/veh)		45.2			7.1			12.4			8.8	
Approach LOS		D			A			B			A	
Queue Length 50th (ft)	108	1	0	6		0	2	113		8	96	0
Queue Length 95th (ft)	165	6	0	20		0	9	193		26	237	34
Internal Link Dist (ft)		363			1558			1054			5211	
Turn Bay Length (ft)	120		120	130		130	150			150		150
Base Capacity (vph)	388	406	449	177		622	738	1188		734	1272	1134
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	0.41	0.00	0.00	0.06		0.07	0.01	0.26		0.04	0.27	0.13

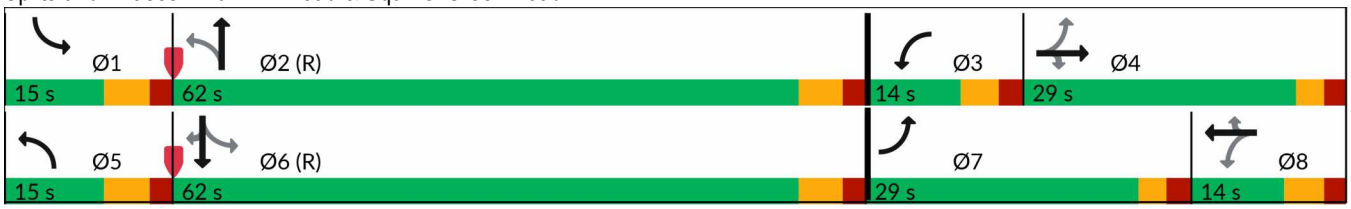
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay (s/veh): 15.4	Intersection LOS: B
Intersection Capacity Utilization 48.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Link Road & Squirrel Creek Road



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	2	110	8	17	336	43	39	18	17	21	13	24
Future Vol, veh/h	2	110	8	17	336	43	39	18	17	21	13	24
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	-	-	520	-	-	-	-	-	-	-	-
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	2	120	9	18	365	47	42	20	18	23	14	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	412	0	0	128	0	0	538	577	124	559	558	389
Stage 1	-	-	-	-	-	-	128	128	-	426	426	-
Stage 2	-	-	-	-	-	-	409	449	-	134	133	-
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	1147	-	-	1458	-	-	454	427	927	439	438	660
Stage 1	-	-	-	-	-	-	875	790	-	607	586	-
Stage 2	-	-	-	-	-	-	619	572	-	870	787	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1147	-	-	1458	-	-	416	421	927	405	432	660
Mov Cap-2 Maneuver	-	-	-	-	-	-	416	421	-	405	432	-
Stage 1	-	-	-	-	-	-	874	788	-	599	579	-
Stage 2	-	-	-	-	-	-	573	565	-	830	785	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.14	0.32	14.05	13.43
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	478	1147	-	-	1458	-	-	490
HCM Lane V/C Ratio	0.168	0.002	-	-	0.013	-	-	0.129
HCM Ctrl Dly (s/v)	14	8.1	-	-	7.5	-	-	13.4
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	22	1	36	10	0
Future Vol, veh/h	16	22	1	36	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	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	17	24	1	39	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	41	0	71	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	41	-
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	-	-	1568	-	934	1045
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	981	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1568	-	933	1045
Mov Cap-2 Maneuver	-	-	-	-	933	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	980	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.2	8.9
HCM LOS			A

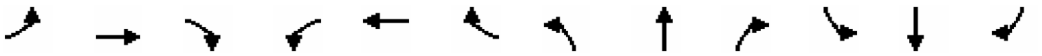
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	933	-	-	49	-
HCM Lane V/C Ratio	0.012	-	-	0.001	-
HCM Ctrl Dly (s/v)	8.9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	9	5	6	1	7	17	7	1	18	7
Future Vol, veh/h	3	6	9	5	6	1	7	17	7	1	18	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	10	5	7	1	8	18	8	1	20	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	6.9	7.2	7.1	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	17%	42%	4%
Vol Thru, %	55%	33%	50%	69%
Vol Right, %	23%	50%	8%	27%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	18	12	26
LT Vol	7	3	5	1
Through Vol	17	6	6	18
RT Vol	7	9	1	7
Lane Flow Rate	34	20	13	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.021	0.015	0.03
Departure Headway (Hd)	3.921	3.785	4.089	3.862
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	945	875	928
Service Time	1.939	1.811	2.116	1.882
HCM Lane V/C Ratio	0.037	0.021	0.015	0.03
HCM Control Delay, s/veh	7.1	6.9	7.2	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	126	0	0	0	17	0	29	0	16	21
Future Volume (Veh/h)	0	8	126	0	0	0	17	0	29	0	16	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	9	137	0	0	0	18	0	32	0	17	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			9			86	78	78	110	9	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			9			86	78	78	110	9	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	97	100	98	98
cM capacity (veh/h)	1623			1611			868	813	983	841	886	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	146	50	40
Volume Left	0	18	0
Volume Right	137	32	23
cSH	1700	938	990
Volume to Capacity	0.09	0.05	0.04
Queue Length 95th (ft)	0	4	3
Control Delay (s/veh)	0.0	9.1	8.8
Lane LOS		A	A
Approach Delay (s/veh)	0.0	9.1	8.8
Approach LOS		A	A

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	24.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	79	36	31	26	10
Future Volume (Veh/h)	63	79	36	31	26	10
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	68	86	39	34	28	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		204	179	222	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		204	179	222	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	96		94	95	96	99
cM capacity (veh/h)	1623		699	685	648	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	154	73	39
Volume Left	68	39	0
Volume Right	86	0	11
cSH	1623	692	731
Volume to Capacity	0.04	0.11	0.05
Queue Length 95th (ft)	3	9	4
Control Delay (s/veh)	3.4	10.8	10.2
Lane LOS	A	B	B
Approach Delay (s/veh)	3.4	10.8	10.2
Approach LOS		B	B

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	25.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	5	36	0	3	19
Future Vol, veh/h	2	5	36	0	3	19
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	2	5	39	0	3	21

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	66	39	0	0	39	0
Stage 1	39	-	-	-	-	-
Stage 2	27	-	-	-	-	-
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	939	1032	-	-	1571	-
Stage 1	983	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	937	1032	-	-	1571	-
Mov Cap-2 Maneuver	937	-	-	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	993	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.62	0	0.99
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1003	245	-
HCM Lane V/C Ratio	-	-	0.008	0.002	-
HCM Ctrl Dly (s/v)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1745	258	294	249	0	0	0	0	0	0	63
Future Volume (vph)	0	1745	258	294	249	0	0	0	0	0	0	63
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	0	2787
Flt Permitted				0.109								
Satd. Flow (perm)	0	3539	1583	203	3539	0	0	0	0	0	0	2787
Satd. Flow (RTOR)			280									1360
Lane Group Flow (vph)	0	1897	280	320	271	0	0	0	0	0	0	68
Turn Type		NA	Perm	custom	NA							Perm
Protected Phases		2		1	6 8							
Permitted Phases			2	6								4
Detector Phase		2	2	1	6 8							4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0								5.0
Minimum Split (s)		11.5	11.5	11.5								10.0
Total Split (s)		36.6	36.6	13.4								10.0
Total Split (%)		61.0%	61.0%	22.3%								16.7%
Yellow Time (s)		4.5	4.5	4.5								3.0
All-Red Time (s)		2.0	2.0	2.0								2.0
Lost Time Adjust (s)		0.0	0.0	0.0								0.0
Total Lost Time (s)		6.5	6.5	6.5								5.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None								None
Act Effct Green (s)		30.1	30.1	43.5	60.0							5.0
Actuated g/C Ratio		0.50	0.50	0.73	1.00							0.08
v/c Ratio		1.07	0.30	0.98	0.08							0.05
Control Delay (s/veh)		60.3	2.2	62.1	0.0							0.1
Queue Delay		0.0	0.0	0.0	0.0							0.0
Total Delay (s/veh)		60.3	2.2	62.1	0.0							0.1
LOS		E	A	E	A							A
Approach Delay (s/veh)		52.9			33.6						0.1	
Approach LOS		D			C						A	
Queue Length 50th (ft)		~420	0	66	0							0
Queue Length 95th (ft)		#548	31	#213	0							0
Internal Link Dist (ft)		92			225			103			36	
Turn Bay Length (ft)			310	550								
Base Capacity (vph)		1775	933	327	3539							1478
Starvation Cap Reductn		0	0	0	0							0
Spillback Cap Reductn		0	0	0	0							0
Storage Cap Reductn		0	0	0	0							0
Reduced v/c Ratio		1.07	0.30	0.98	0.08							0.05

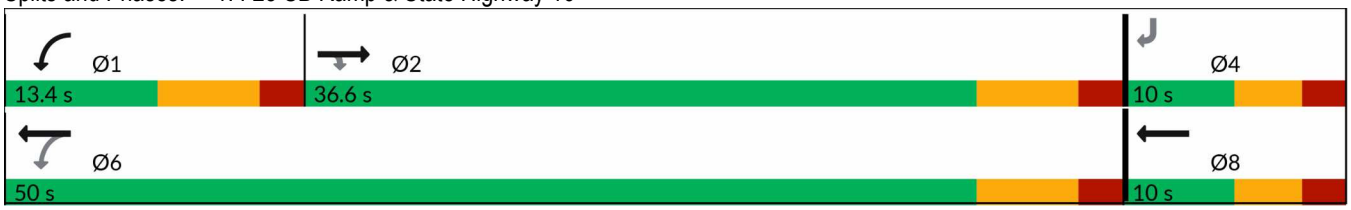
Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.07

Lane Group	Ø6	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	6	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.5	10.0
Total Split (s)	50.0	10.0
Total Split (%)	83%	17%
Yellow Time (s)	4.5	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Intersection Signal Delay (s/veh): 47.6 Intersection LOS: D
Intersection Capacity Utilization 114.5% ICU Level of Service H
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: I-25 SB Ramp & State Highway 16

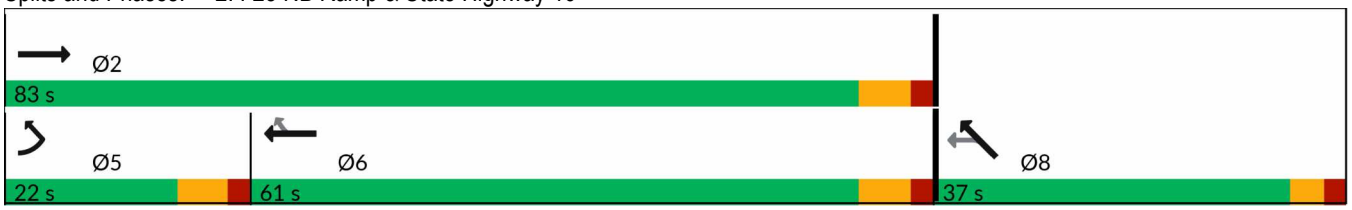


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	461	2247	0	0	498	743	0	0	0	30	1	227
Future Volume (vph)	461	2247	0	0	498	743	0	0	0	30	1	227
Satd. Flow (prot)	3433	5085	0	0	3177	1441	0	0	0	1681	1506	0
Flt Permitted	0.950									0.950	0.999	
Satd. Flow (perm)	3433	5085	0	0	3177	1441	0	0	0	1681	1506	0
Satd. Flow (RTOR)					175	420					5	
Lane Group Flow (vph)	501	2442	0	0	929	420	0	0	0	30	251	0
Turn Type	Prot	NA			NA	Perm				Perm	NA	
Protected Phases	5	2			6						8	
Permitted Phases						6				8		
Detector Phase	5	2			6	6				8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0				5.0	5.0	
Minimum Split (s)	11.5	22.5			22.5	22.5				22.5	22.5	
Total Split (s)	22.0	83.0			61.0	61.0				37.0	37.0	
Total Split (%)	18.3%	69.2%			50.8%	50.8%				30.8%	30.8%	
Yellow Time (s)	4.5	4.5			4.5	4.5				3.0	3.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5			6.5	6.5				5.0	5.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None				None	None	
Act Effct Green (s)	16.3	56.4			33.2	33.2				20.5	20.5	
Actuated g/C Ratio	0.18	0.63			0.37	0.37				0.23	0.23	
v/c Ratio	0.80	0.76			0.72	0.52				0.08	0.72	
Control Delay (s/veh)	49.2	13.9			22.1	4.5				30.5	44.9	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	49.2	13.9			22.1	4.5				30.5	44.9	
LOS	D	B			C	A				C	D	
Approach Delay (s/veh)		19.9			16.6						43.4	
Approach LOS		B			B						D	
Queue Length 50th (ft)	136	313			191	0				13	129	
Queue Length 95th (ft)	#347	515			312	62				45	278	
Internal Link Dist (ft)		464			201			321			489	
Turn Bay Length (ft)	520									445		
Base Capacity (vph)	628	4351			2108	1077				635	572	
Starvation Cap Reductn	0	77			0	0				0	0	
Spillback Cap Reductn	0	0			0	0				0	0	
Storage Cap Reductn	0	0			0	0				0	0	
Reduced v/c Ratio	0.80	0.57			0.44	0.39				0.05	0.44	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 89
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 20.4 Intersection LOS: C
Intersection Capacity Utilization 66.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: I-25 NB Ramp & State Highway 16





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	435	102	728	732	169	676
Future Volume (vph)	435	102	728	732	169	676
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.247	
Satd. Flow (perm)	1770	1583	3539	1583	460	3539
Satd. Flow (RTOR)		111		566		
Lane Group Flow (vph)	473	111	791	796	184	735
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	10.0	11.0
Total Split (s)	39.0	39.0	50.0	50.0	11.0	61.0
Total Split (%)	39.0%	39.0%	50.0%	50.0%	11.0%	61.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	30.1	30.1	45.9	45.9	58.9	57.9
Actuated g/C Ratio	0.30	0.30	0.46	0.46	0.59	0.58
v/c Ratio	0.89	0.20	0.49	0.77	0.51	0.36
Control Delay (s/veh)	52.9	5.6	20.6	12.4	15.8	12.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	52.9	5.6	20.6	12.4	15.8	12.3
LOS	D	A	C	B	B	B
Approach Delay (s/veh)	43.9		16.5			13.0
Approach LOS	D		B			B
Queue Length 50th (ft)	281	0	189	115	54	132
Queue Length 95th (ft)	#443	38	245	303	92	175
Internal Link Dist (ft)	447		1			206
Turn Bay Length (ft)	305			90	1000	
Base Capacity (vph)	584	596	1626	1033	361	2048
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.19	0.49	0.77	0.51	0.36

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

Maximum v/c Ratio: 0.89

Intersection Signal Delay (s/veh): 20.6	Intersection LOS: C
Intersection Capacity Utilization 67.8%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 3: Mesa Ridge Parkway (State Highway 16)/State Highway 21 & Mesa Ridge Parkway





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	564	57	48	311	301	248
Future Volume (vph)	564	57	48	311	301	248
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Satd. Flow (RTOR)		62				270
Lane Group Flow (vph)	613	62	52	338	327	270
Turn Type	Prot	Prot	Prot	NA	NA	Perm
Protected Phases	4	4	5	2	6	
Permitted Phases						6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	14.0	14.0	11.0	21.0	21.0	21.0
Total Split (s)	28.0	28.0	11.0	32.0	21.0	21.0
Total Split (%)	46.7%	46.7%	18.3%	53.3%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	21.9	21.9	5.1	26.1	19.5	19.5
Actuated g/C Ratio	0.37	0.37	0.09	0.44	0.33	0.33
v/c Ratio	0.95	0.10	0.35	0.42	0.54	0.39
Control Delay (s/veh)	46.8	4.6	32.8	13.7	23.4	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.8	4.6	32.8	13.7	23.4	4.8
LOS	D	A	C	B	C	A
Approach Delay (s/veh)	43.0			16.3	15.0	
Approach LOS	D			B	B	
Queue Length 50th (ft)	212	0	19	82	109	0
Queue Length 95th (ft)	#404	20	49	141	#212	49
Internal Link Dist (ft)	526			899	443	
Turn Bay Length (ft)	300		50			500
Base Capacity (vph)	649	619	150	811	605	697
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.10	0.35	0.42	0.54	0.39

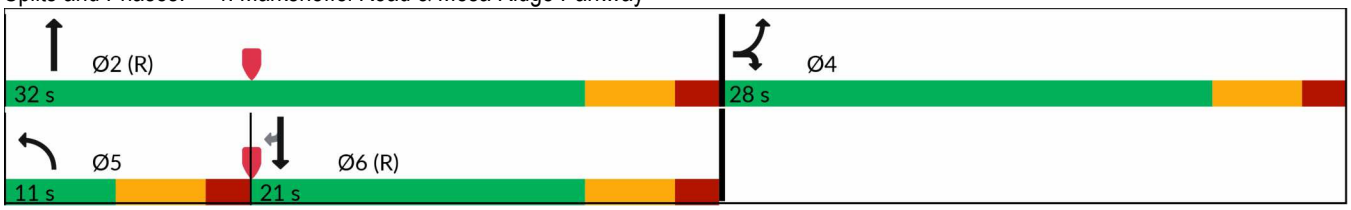
Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay (s/veh): 26.6	Intersection LOS: C
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 4: Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	186	238	215	145	0	142	0	193	0	0	0
Future Volume (vph)	0	186	238	215	145	0	142	0	193	0	0	0
Satd. Flow (prot)	1863	1863	1583	1770	1863	0	1770	0	1583	0	1863	0
Flt Permitted				0.581			0.950					
Satd. Flow (perm)	1863	1863	1583	1082	1863	0	1770	0	1583	0	1863	0
Satd. Flow (RTOR)			259						210			
Lane Group Flow (vph)	0	202	259	234	158	0	154	0	210	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt		Perm			
Protected Phases	5	2		1	6		7				8	
Permitted Phases	2		2	6			4		7	8		
Detector Phase	5	2	2	1	6		7		7	8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	5.0	
Minimum Split (s)	11.5	11.5	11.5	11.5	11.5		11.0		11.0	11.0	11.0	
Total Split (s)	11.5	45.0	45.0	30.0	63.5		34.0		34.0	11.0	11.0	
Total Split (%)	9.6%	37.5%	37.5%	25.0%	52.9%		28.3%		28.3%	9.2%	9.2%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.0		4.0	4.0	4.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5		6.0		6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead		Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None		None	None	None	
Act Effct Green (s)		75.0	75.0	91.6	91.6		15.9		15.9			
Actuated g/C Ratio		0.63	0.63	0.76	0.76		0.13		0.13			
v/c Ratio		0.17	0.24	0.27	0.11		0.66		0.54			
Control Delay (s/veh)		11.1	2.1	5.2	4.4		67.0		22.0			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay (s/veh)		11.1	2.1	5.2	4.4		67.0		22.0			
LOS		B	A	A	A		E		C			
Approach Delay (s/veh)		6.0			4.9			41.0				
Approach LOS		A			A			D				
Queue Length 50th (ft)		62	0	43	27		127		13			
Queue Length 95th (ft)		121	39	83	56		198		121			
Internal Link Dist (ft)		731			936			5211			397	
Turn Bay Length (ft)			145	150			285					
Base Capacity (vph)		1164	1086	960	1422		413		530			
Starvation Cap Reductn		0	0	0	0		0		0			
Spillback Cap Reductn		0	0	0	0		0		0			
Storage Cap Reductn		0	0	0	0		0		0			
Reduced v/c Ratio		0.17	0.24	0.24	0.11		0.37		0.40			

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

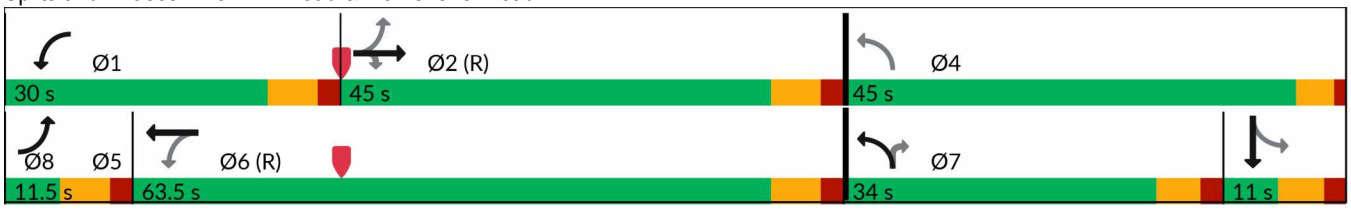
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	45.0
Total Split (%)	38%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Maximum v/c Ratio: 0.66

Intersection Signal Delay (s/veh): 16.1	Intersection LOS: B
Intersection Capacity Utilization 43.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Link Road & Marksheffel Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	2	1	9	0	36	1	220	15	45	290	114
Future Volume (vph)	80	2	1	9	0	36	1	220	15	45	290	114
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1846	0	1770	1863	1583
Flt Permitted	0.447			0.757			0.569			0.560		
Satd. Flow (perm)	833	1863	1583	1410	1863	1583	1060	1846	0	1043	1863	1583
Satd. Flow (RTOR)			132			650		4				168
Lane Group Flow (vph)	87	2	1	10	0	39	1	255	0	49	315	124
Turn Type	pm+pt	NA	Perm	pm+pt		Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
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
Minimum Split (s)	9.5	9.5	9.5	10.5	10.5	10.5	11.0	11.0		11.0	11.0	11.0
Total Split (s)	22.0	22.0	22.0	16.0	16.0	16.0	15.0	65.0		17.0	67.0	67.0
Total Split (%)	18.3%	18.3%	18.3%	13.3%	13.3%	13.3%	12.5%	54.2%		14.2%	55.8%	55.8%
Yellow Time (s)	2.5	2.5	2.5	3.5	3.5	3.5	4.0	4.0		4.0	4.0	4.0
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
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
Total Lost Time (s)	4.5	4.5	4.5	5.5	5.5	5.5	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	17.7	15.2	15.2	9.4		5.5	86.0	81.6		91.0	89.4	89.4
Actuated g/C Ratio	0.15	0.13	0.13	0.08		0.05	0.72	0.68		0.76	0.75	0.75
v/c Ratio	0.41	0.01	0.00	0.08		0.06	0.00	0.20		0.06	0.23	0.10
Control Delay (s/veh)	49.1	44.5	0.0	41.1		0.2	6.0	9.5		6.0	8.0	1.6
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	49.1	44.5	0.0	41.1		0.2	6.0	9.5		6.0	8.0	1.6
LOS	D	D	A	D		A	A	A		A	A	A
Approach Delay (s/veh)		48.5			8.5			9.5			6.1	
Approach LOS		D			A			A			A	
Queue Length 50th (ft)	59	1	0	7		0	0	81		10	72	0
Queue Length 95th (ft)	105	10	0	22		0	2	137		29	196	22
Internal Link Dist (ft)		363			1558			1054			5211	
Turn Bay Length (ft)	120		120	130		130	150			150		150
Base Capacity (vph)	285	307	371	193		731	837	1256		863	1388	1222
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	0.31	0.01	0.00	0.05		0.05	0.00	0.20		0.06	0.23	0.10

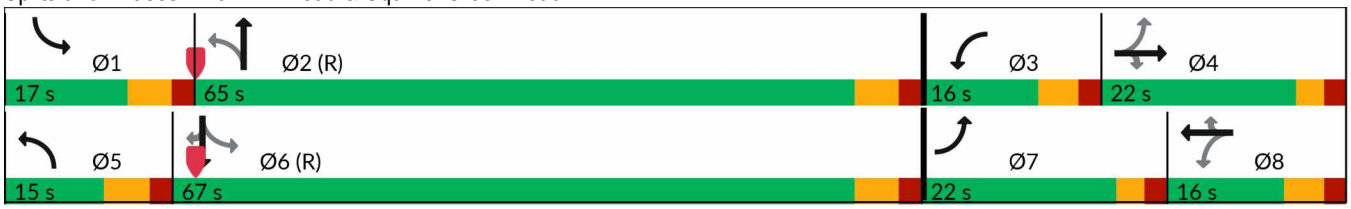
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay (s/veh): 11.6	Intersection LOS: B
Intersection Capacity Utilization 44.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Link Road & Squirrel Creek Road



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	20	303	35	13	192	30	14	17	7	31	18	11
Future Vol, veh/h	20	303	35	13	192	30	14	17	7	31	18	11
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	-	-	520	-	-	-	-	-	-	-	-
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	329	38	14	209	33	15	18	8	34	20	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	241	0	0	367	0	0	639	661	348	635	664	225
Stage 1	-	-	-	-	-	-	392	392	-	253	253	-
Stage 2	-	-	-	-	-	-	247	270	-	382	411	-
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	1325	-	-	1191	-	-	389	382	695	391	381	814
Stage 1	-	-	-	-	-	-	633	607	-	751	698	-
Stage 2	-	-	-	-	-	-	757	686	-	640	595	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1325	-	-	1191	-	-	353	372	695	358	370	814
Mov Cap-2 Maneuver	-	-	-	-	-	-	353	372	-	358	370	-
Stage 1	-	-	-	-	-	-	622	597	-	742	689	-
Stage 2	-	-	-	-	-	-	716	678	-	604	585	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.43	0.45	15.08	15.64
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	398	1325	-	-	1191	-	-	403
HCM Lane V/C Ratio	0.104	0.016	-	-	0.012	-	-	0.162
HCM Ctrl Dly (s/v)	15.1	7.8	-	-	8.1	-	-	15.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	48	13	0	18	26	0
Future Vol, veh/h	48	13	0	18	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	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	52	14	0	20	28	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	66	0	79	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	20	-
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	-	-	1535	-	924	1006
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1535	-	924	1006
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	9.02
HCM LOS			A

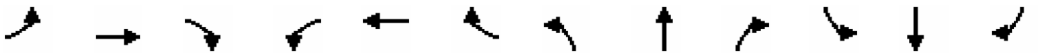
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	924	-	-	1535	-
HCM Lane V/C Ratio	0.031	-	-	-	-
HCM Ctrl Dly (s/v)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	7	23	10	6	0	8	17	2	0	30	6
Future Vol, veh/h	13	7	23	10	6	0	8	17	2	0	30	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	8	25	11	7	0	9	18	2	0	33	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7	7.3	7.3	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	30%	63%	0%
Vol Thru, %	63%	16%	38%	83%
Vol Right, %	7%	53%	0%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	43	16	36
LT Vol	8	13	10	0
Through Vol	17	7	6	30
RT Vol	2	23	0	6
Lane Flow Rate	29	47	17	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.049	0.02	0.043
Departure Headway (Hd)	4.09	3.805	4.214	3.968
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	939	847	901
Service Time	2.121	1.839	2.25	1.997
HCM Lane V/C Ratio	0.033	0.05	0.02	0.043
HCM Control Delay, s/veh	7.3	7	7.3	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	7	56	0	0	0	18	0	28	0	13	51
Future Volume (Veh/h)	0	7	56	0	0	0	18	0	28	0	13	51
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	8	61	0	0	0	20	0	30	0	14	55
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			8			46	39	39	69	8	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			8			46	39	39	69	8	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	97	100	98	95
cM capacity (veh/h)	1623			1612			897	854	1033	897	887	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	69	50	69
Volume Left	0	20	0
Volume Right	61	30	55
cSH	1700	974	1038
Volume to Capacity	0.04	0.05	0.07
Queue Length 95th (ft)	0	4	5
Control Delay (s/veh)	0.0	8.9	8.7
Lane LOS		A	A
Approach Delay (s/veh)	0.0	8.9	8.7
Approach LOS		A	A

Intersection Summary				
Average Delay	5.6			
Intersection Capacity Utilization	19.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	41	36	11	33	10
Future Volume (Veh/h)	28	41	36	11	33	10
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	45	39	12	36	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		112	83	105	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		112	83	105	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	98		95	98	95	99
cM capacity (veh/h)	1623		815	793	771	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	75	51	47
Volume Left	30	39	0
Volume Right	45	0	11
cSH	1623	810	827
Volume to Capacity	0.02	0.06	0.06
Queue Length 95th (ft)	1	5	5
Control Delay (s/veh)	3.0	9.7	9.6
Lane LOS	A	A	A
Approach Delay (s/veh)	3.0	9.7	9.6
Approach LOS		A	A

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	20.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	5	29	0	3	46
Future Vol, veh/h	4	5	29	0	3	46
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	4	5	32	0	3	50

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	88	32	0	0	32	0
Stage 1	32	-	-	-	-	-
Stage 2	57	-	-	-	-	-
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	913	1042	-	-	1581	-
Stage 1	991	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	911	1042	-	-	1581	-
Mov Cap-2 Maneuver	911	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.71	0	0.45
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	980	110	-
HCM Lane V/C Ratio	-	-	0.01	0.002	-
HCM Ctrl Dly (s/v)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	741	71	96	1047	0	0	0	0	0	0	287
Future Volume (vph)	0	741	71	96	1047	0	0	0	0	0	0	287
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	0	2787
Flt Permitted				0.199								
Satd. Flow (perm)	0	3539	1583	371	3539	0	0	0	0	0	0	2787
Satd. Flow (RTOR)			155									436
Lane Group Flow (vph)	0	805	77	104	1138	0	0	0	0	0	0	312
Turn Type		NA	Perm	custom	NA							Perm
Protected Phases		2		1	6 8							
Permitted Phases			2	6								4
Detector Phase		2	2	1	6 8							4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0								5.0
Minimum Split (s)		11.5	11.5	11.5								10.0
Total Split (s)		32.0	32.0	14.0								14.0
Total Split (%)		53.3%	53.3%	23.3%								23.3%
Yellow Time (s)		4.5	4.5	4.5								3.0
All-Red Time (s)		2.0	2.0	2.0								2.0
Lost Time Adjust (s)		0.0	0.0	0.0								0.0
Total Lost Time (s)		6.5	6.5	6.5								5.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None								None
Act Effct Green (s)		16.8	16.8	26.6	48.2							9.4
Actuated g/C Ratio		0.35	0.35	0.55	1.00							0.20
v/c Ratio		0.65	0.12	0.26	0.32							0.35
Control Delay (s/veh)		16.4	0.6	5.7	0.2							1.8
Queue Delay		0.0	0.0	0.0	0.0							0.0
Total Delay (s/veh)		16.4	0.6	5.7	0.2							1.8
LOS		B	A	A	A							A
Approach Delay (s/veh)		15.0			0.7						1.8	
Approach LOS		B			A						A	
Queue Length 50th (ft)		106	0	11	0							0
Queue Length 95th (ft)		158	3	25	0							8
Internal Link Dist (ft)		92			225			103			36	
Turn Bay Length (ft)			310	550								
Base Capacity (vph)		1994	959	436	3453							903
Starvation Cap Reductn		0	0	0	0							0
Spillback Cap Reductn		0	0	0	0							0
Storage Cap Reductn		0	0	0	0							0
Reduced v/c Ratio		0.40	0.08	0.24	0.33							0.35

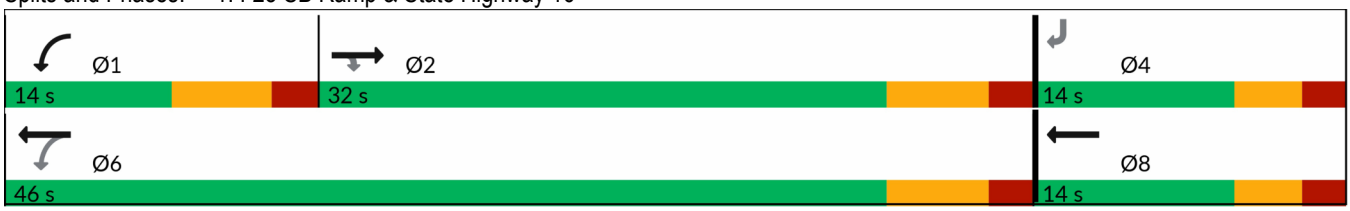
Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48.2
Natural Cycle: 40
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65

Lane Group	Ø6	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	6	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.5	10.0
Total Split (s)	46.0	14.0
Total Split (%)	77%	23%
Yellow Time (s)	4.5	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Intersection Signal Delay (s/veh): 6.0 Intersection LOS: A
Intersection Capacity Utilization 61.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-25 SB Ramp & State Highway 16

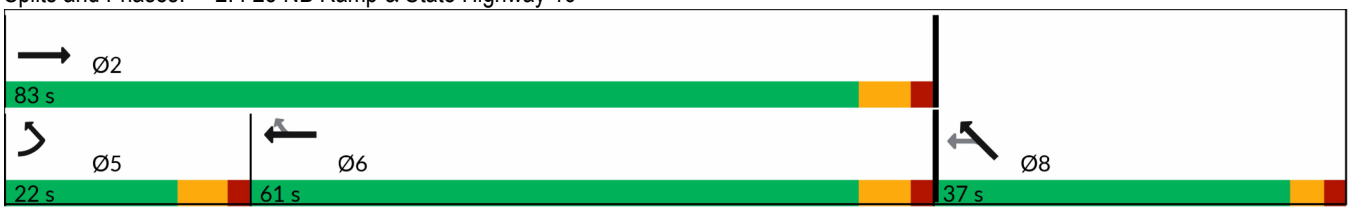


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	208	1088	0	0	895	478	0	0	0	243	1	216
Future Volume (vph)	208	1088	0	0	895	478	0	0	0	243	1	216
Satd. Flow (prot)	3433	5085	0	0	3356	1441	0	0	0	1681	1523	0
Flt Permitted	0.950									0.950	0.995	
Satd. Flow (perm)	3433	5085	0	0	3356	1441	0	0	0	1681	1523	0
Satd. Flow (RTOR)					8	447					93	
Lane Group Flow (vph)	226	1183	0	0	1046	447	0	0	0	238	262	0
Turn Type	Prot	NA			NA	Perm				Perm	NA	
Protected Phases	5	2			6						8	
Permitted Phases						6				8		
Detector Phase	5	2			6	6				8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0				5.0	5.0	
Minimum Split (s)	11.5	22.5			22.5	22.5				22.5	22.5	
Total Split (s)	22.0	83.0			61.0	61.0				37.0	37.0	
Total Split (%)	18.3%	69.2%			50.8%	50.8%				30.8%	30.8%	
Yellow Time (s)	4.5	4.5			4.5	4.5				3.0	3.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5			6.5	6.5				5.0	5.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None				None	None	
Act Effct Green (s)	11.4	52.8			34.5	34.5				18.2	18.2	
Actuated g/C Ratio	0.14	0.63			0.41	0.41				0.22	0.22	
v/c Ratio	0.48	0.37			0.75	0.52				0.65	0.65	
Control Delay (s/veh)	40.4	7.8			24.7	4.2				40.7	28.4	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	40.4	7.8			24.7	4.2				40.7	28.4	
LOS	D	A			C	A				D	C	
Approach Delay (s/veh)		13.0			18.6						34.3	
Approach LOS		B			B						C	
Queue Length 50th (ft)	55	92			238	0				116	81	
Queue Length 95th (ft)	124	167			416	63				254	211	
Internal Link Dist (ft)		464			201			321			489	
Turn Bay Length (ft)	520									445		
Base Capacity (vph)	677	4509			2331	1136				684	675	
Starvation Cap Reductn	0	0			0	0				0	0	
Spillback Cap Reductn	0	0			0	0				0	0	
Storage Cap Reductn	0	0			0	0				0	0	
Reduced v/c Ratio	0.33	0.26			0.45	0.39				0.35	0.39	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 83.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75

Intersection Signal Delay (s/veh): 18.6 Intersection LOS: B
Intersection Capacity Utilization 64.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: I-25 NB Ramp & State Highway 16





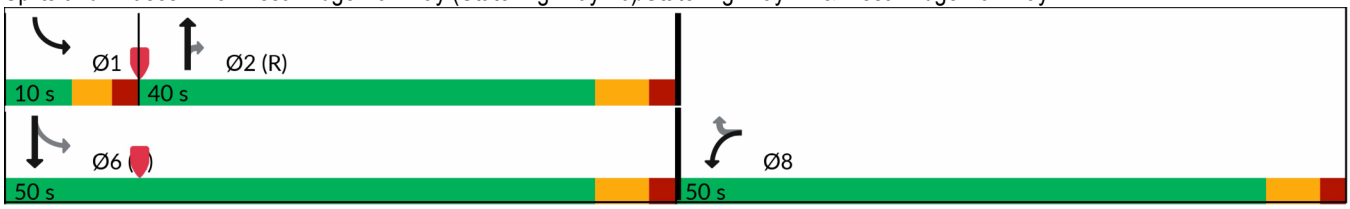
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	567	258	875	358	64	465
Future Volume (vph)	567	258	875	358	64	465
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.145	
Satd. Flow (perm)	1770	1583	3539	1583	270	3539
Satd. Flow (RTOR)		161		195		
Lane Group Flow (vph)	616	280	951	389	70	505
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	10.0	11.0
Total Split (s)	50.0	50.0	40.0	40.0	10.0	50.0
Total Split (%)	50.0%	50.0%	40.0%	40.0%	10.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.5	39.5	39.6	39.6	49.5	48.5
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.50	0.49
v/c Ratio	0.88	0.39	0.68	0.52	0.31	0.29
Control Delay (s/veh)	43.0	9.7	29.7	15.4	18.8	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	9.7	29.7	15.4	18.8	16.9
LOS	D	A	C	B	B	B
Approach Delay (s/veh)	32.6		25.6			17.2
Approach LOS	C		C			B
Queue Length 50th (ft)	351	48	289	98	24	103
Queue Length 95th (ft)	487	104	370	197	52	148
Internal Link Dist (ft)	447		1			206
Turn Bay Length (ft)	305			90	1000	
Base Capacity (vph)	778	786	1402	745	223	1716
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.36	0.68	0.52	0.31	0.29

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay (s/veh): 26.1	Intersection LOS: C
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Mesa Ridge Parkway (State Highway 16)/State Highway 21 & Mesa Ridge Parkway





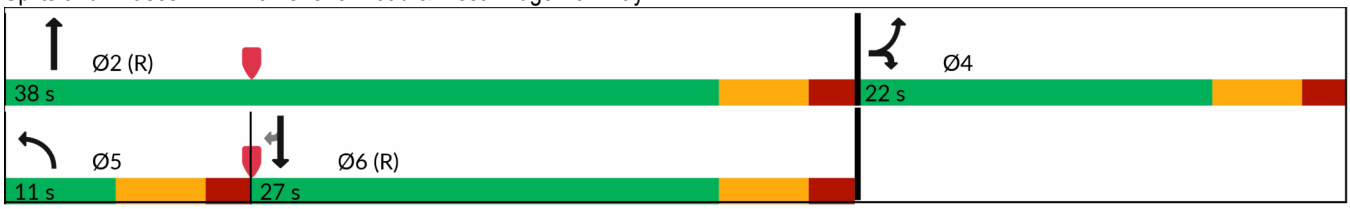
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	265	75	57	388	372	298
Future Volume (vph)	265	75	57	388	372	298
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Satd. Flow (RTOR)		82				324
Lane Group Flow (vph)	288	82	62	422	404	324
Turn Type	Prot	Prot	Prot	NA	NA	Perm
Protected Phases	4	4	5	2	6	
Permitted Phases						6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	14.0	14.0	11.0	21.0	21.0	21.0
Total Split (s)	22.0	22.0	11.0	38.0	27.0	27.0
Total Split (%)	36.7%	36.7%	18.3%	63.3%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	13.7	13.7	5.9	34.3	27.2	27.2
Actuated g/C Ratio	0.23	0.23	0.10	0.57	0.45	0.45
v/c Ratio	0.71	0.19	0.36	0.40	0.48	0.36
Control Delay (s/veh)	31.3	6.2	31.9	9.1	16.5	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.3	6.2	31.9	9.1	16.5	3.4
LOS	C	A	C	A	B	A
Approach Delay (s/veh)	25.7			12.1	10.7	
Approach LOS	C			B	B	
Queue Length 50th (ft)	95	0	21	80	125	0
Queue Length 95th (ft)	164	27	55	143	203	46
Internal Link Dist (ft)	526			899	443	
Turn Bay Length (ft)	300		50			500
Base Capacity (vph)	472	482	172	1063	851	899
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.17	0.36	0.40	0.47	0.36

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 14.6	Intersection LOS: B
Intersection Capacity Utilization 53.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	152	213	302	155	0	221	0	283	0	0	0
Future Volume (vph)	0	152	213	302	155	0	221	0	283	0	0	0
Satd. Flow (prot)	1863	1863	1583	1770	1863	0	1770	0	1583	0	1863	0
Flt Permitted				0.593			0.950					
Satd. Flow (perm)	1863	1863	1583	1105	1863	0	1770	0	1583	0	1863	0
Satd. Flow (RTOR)			232						308			
Lane Group Flow (vph)	0	165	232	328	168	0	240	0	308	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt		Perm			
Protected Phases	5	2		1	6		7				8	
Permitted Phases	2		2	6			4		7	8		
Detector Phase	5	2	2	1	6		7		7	8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	5.0	
Minimum Split (s)	11.5	11.5	11.5	11.5	11.5		11.0		11.0	11.0	11.0	
Total Split (s)	11.5	36.0	36.0	36.0	60.5		37.0		37.0	11.0	11.0	
Total Split (%)	9.6%	30.0%	30.0%	30.0%	50.4%		30.8%		30.8%	9.2%	9.2%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.0		4.0	4.0	4.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5		6.0		6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead		Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None		None	None	None	
Act Effct Green (s)		65.1	65.1	85.5	85.5		22.0		22.0			
Actuated g/C Ratio		0.54	0.54	0.71	0.71		0.18		0.18			
v/c Ratio		0.16	0.24	0.38	0.13		0.74		0.57			
Control Delay (s/veh)		16.7	3.2	8.3	6.6		57.4		15.8			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay (s/veh)		16.7	3.2	8.3	6.6		57.4		15.8			
LOS		B	A	A	A		E		B			
Approach Delay (s/veh)		8.8			7.7			34.0				
Approach LOS		A			A			C				
Queue Length 50th (ft)		62	0	81	37		195		47			
Queue Length 95th (ft)		131	48	153	77		276		138			
Internal Link Dist (ft)		731			936			5211			397	
Turn Bay Length (ft)			145	150			285					
Base Capacity (vph)		1010	964	950	1326		457		637			
Starvation Cap Reductn		0	0	0	0		0		0			
Spillback Cap Reductn		0	0	0	0		0		0			
Storage Cap Reductn		0	0	0	0		0		0			
Reduced v/c Ratio		0.16	0.24	0.35	0.13		0.53		0.48			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

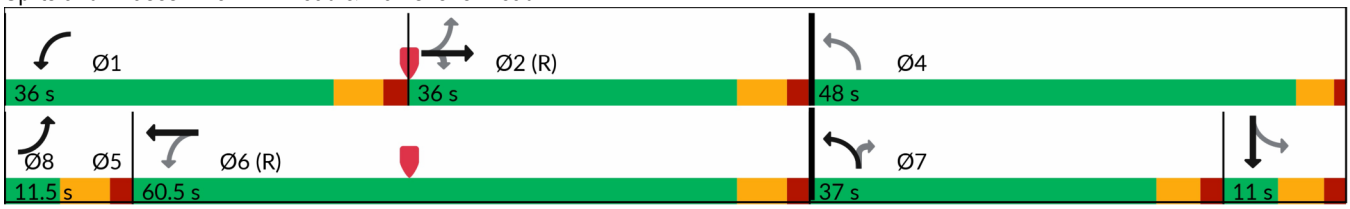
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	48.0
Total Split (%)	40%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Maximum v/c Ratio: 0.74

Intersection Signal Delay (s/veh): 18.0	Intersection LOS: B
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Link Road & Marksheffel Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	1	2	9	0	40	8	292	6	30	339	140
Future Volume (vph)	157	1	2	9	0	40	8	292	6	30	339	140
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1857	0	1770	1863	1583
Flt Permitted	0.499			0.757			0.515			0.502		
Satd. Flow (perm)	930	1863	1583	1410	1863	1583	959	1857	0	935	1863	1583
Satd. Flow (RTOR)			132			528		1				168
Lane Group Flow (vph)	171	1	2	10	0	43	9	324	0	33	368	152
Turn Type	pm+pt	NA	Perm	pm+pt		Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
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
Minimum Split (s)	9.5	9.5	9.5	10.5	10.5	10.5	11.0	11.0		11.0	11.0	11.0
Total Split (s)	29.0	29.0	29.0	14.0	14.0	14.0	15.0	62.0		15.0	62.0	62.0
Total Split (%)	24.2%	24.2%	24.2%	11.7%	11.7%	11.7%	12.5%	51.7%		12.5%	51.7%	51.7%
Yellow Time (s)	2.5	2.5	2.5	3.5	3.5	3.5	4.0	4.0		4.0	4.0	4.0
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
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
Total Lost Time (s)	4.5	4.5	4.5	5.5	5.5	5.5	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	25.8	23.3	23.3	10.5		5.5	79.6	76.1		82.7	81.3	81.3
Actuated g/C Ratio	0.22	0.19	0.19	0.09		0.05	0.66	0.63		0.69	0.68	0.68
v/c Ratio	0.54	0.00	0.00	0.07		0.07	0.01	0.28		0.05	0.29	0.13
Control Delay (s/veh)	45.5	38.0	0.0	35.9		0.3	7.9	13.1		9.1	12.2	3.2
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	45.5	38.0	0.0	35.9		0.3	7.9	13.1		9.1	12.2	3.2
LOS	D	D	A	D		A	A	B		A	B	A
Approach Delay (s/veh)		45.0			7.0			13.0			9.5	
Approach LOS		D			A			B			A	
Queue Length 50th (ft)	115	1	0	6		0	2	123		8	105	0
Queue Length 95th (ft)	172	6	0	20		0	9	210		27	257	42
Internal Link Dist (ft)		363			1558			1054			5211	
Turn Bay Length (ft)	120		120	130		130	150			150		150
Base Capacity (vph)	392	413	454	177		602	711	1177		709	1261	1126
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	0.44	0.00	0.00	0.06		0.07	0.01	0.28		0.05	0.29	0.13

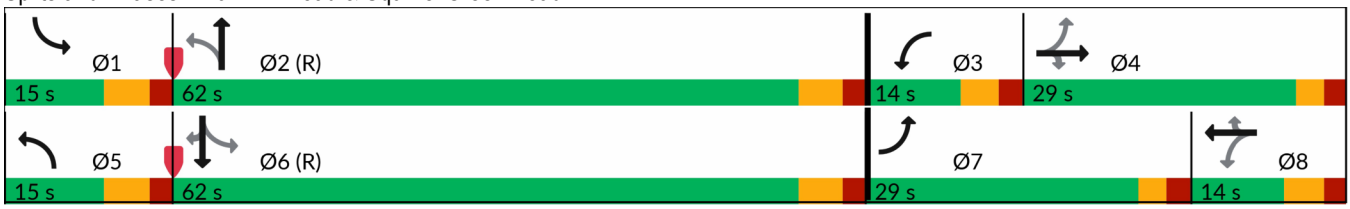
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay (s/veh): 16.0	Intersection LOS: B
Intersection Capacity Utilization 49.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Link Road & Squirrel Creek Road



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	2	117	8	17	357	46	39	18	17	22	13	25
Future Vol, veh/h	2	117	8	17	357	46	39	18	17	22	13	25
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	-	-	520	-	-	-	-	-	-	-	-
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	2	127	9	18	388	50	42	20	18	24	14	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	438	0	0	136	0	0	568	611	132	591	590	413
Stage 1	-	-	-	-	-	-	136	136	-	450	450	-
Stage 2	-	-	-	-	-	-	432	475	-	141	140	-
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	1122	-	-	1448	-	-	434	409	918	418	420	639
Stage 1	-	-	-	-	-	-	867	784	-	589	572	-
Stage 2	-	-	-	-	-	-	602	557	-	862	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1122	-	-	1448	-	-	395	403	918	385	414	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	395	403	-	385	414	-
Stage 1	-	-	-	-	-	-	866	783	-	581	564	-
Stage 2	-	-	-	-	-	-	555	550	-	822	779	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.13	0.3	14.55	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	457	1122	-	-	1448	-	-	470
HCM Lane V/C Ratio	0.176	0.002	-	-	0.013	-	-	0.139
HCM Ctrl Dly (s/v)	14.5	8.2	-	-	7.5	-	-	13.9
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	22	1	36	10	0
Future Vol, veh/h	16	22	1	36	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	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	17	24	1	39	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	41	0	71	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	41	-
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	-	-	1568	-	934	1045
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	981	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1568	-	933	1045
Mov Cap-2 Maneuver	-	-	-	-	933	-
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	980	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.2	8.9
HCM LOS			A

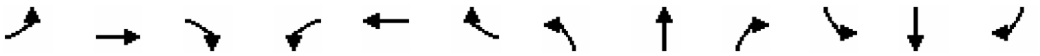
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	933	-	-	49	-
HCM Lane V/C Ratio	0.012	-	-	0.001	-
HCM Ctrl Dly (s/v)	8.9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	9	5	6	1	7	17	7	1	18	7
Future Vol, veh/h	3	6	9	5	6	1	7	17	7	1	18	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	10	5	7	1	8	18	8	1	20	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	6.9	7.2	7.1	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	17%	42%	4%
Vol Thru, %	55%	33%	50%	69%
Vol Right, %	23%	50%	8%	27%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	18	12	26
LT Vol	7	3	5	1
Through Vol	17	6	6	18
RT Vol	7	9	1	7
Lane Flow Rate	34	20	13	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.021	0.015	0.03
Departure Headway (Hd)	3.921	3.785	4.089	3.862
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	914	945	875	928
Service Time	1.939	1.811	2.116	1.882
HCM Lane V/C Ratio	0.037	0.021	0.015	0.03
HCM Control Delay, s/veh	7.1	6.9	7.2	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	133	0	0	0	18	0	31	0	17	22
Future Volume (Veh/h)	0	8	133	0	0	0	18	0	31	0	17	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	9	145	0	0	0	20	0	34	0	18	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			9			91	82	82	116	9	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			9			91	82	82	116	9	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	97	100	98	98
cM capacity (veh/h)	1623			1611			861	809	978	831	886	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	154	54	42
Volume Left	0	20	0
Volume Right	145	34	24
cSH	1700	931	990
Volume to Capacity	0.09	0.06	0.04
Queue Length 95th (ft)	0	5	3
Control Delay (s/veh)	0.0	9.1	8.8
Lane LOS		A	A
Approach Delay (s/veh)	0.0	9.1	8.8
Approach LOS		A	A

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	24.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	67	84	38	33	28	11
Future Volume (Veh/h)	67	84	38	33	28	11
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	73	91	41	36	30	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		219	192	237	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		219	192	237	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	96		94	95	95	99
cM capacity (veh/h)	1623		679	672	634	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	164	77	42
Volume Left	73	41	0
Volume Right	91	0	12
cSH	1623	676	719
Volume to Capacity	0.04	0.11	0.06
Queue Length 95th (ft)	4	10	5
Control Delay (s/veh)	3.5	11.0	10.3
Lane LOS	A	B	B
Approach Delay (s/veh)	3.5	11.0	10.3
Approach LOS		B	B

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	5	38	0	3	20
Future Vol, veh/h	2	5	38	0	3	20
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	2	5	41	0	3	22

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	70	41	0	0	41	0
Stage 1	41	-	-	-	-	-
Stage 2	28	-	-	-	-	-
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	935	1030	-	-	1568	-
Stage 1	981	-	-	-	-	-
Stage 2	994	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	933	1030	-	-	1568	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	992	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.63	0	0.95
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1000	235	-
HCM Lane V/C Ratio	-	-	0.008	0.002	-
HCM Ctrl Dly (s/v)	-	-	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1852	274	312	264	0	0	0	0	0	0	67
Future Volume (vph)	0	1852	274	312	264	0	0	0	0	0	0	67
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	0	0	2787
Flt Permitted				0.109								
Satd. Flow (perm)	0	3539	1583	203	3539	0	0	0	0	0	0	2787
Satd. Flow (RTOR)			298									1332
Lane Group Flow (vph)	0	2013	298	339	287	0	0	0	0	0	0	73
Turn Type		NA	Perm	custom	NA							Perm
Protected Phases		2		1	6 8							
Permitted Phases			2	6								4
Detector Phase		2	2	1	6 8							4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0								5.0
Minimum Split (s)		11.5	11.5	11.5								10.0
Total Split (s)		36.6	36.6	13.4								10.0
Total Split (%)		61.0%	61.0%	22.3%								16.7%
Yellow Time (s)		4.5	4.5	4.5								3.0
All-Red Time (s)		2.0	2.0	2.0								2.0
Lost Time Adjust (s)		0.0	0.0	0.0								0.0
Total Lost Time (s)		6.5	6.5	6.5								5.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None								None
Act Effct Green (s)		30.1	30.1	43.5	60.0							5.0
Actuated g/C Ratio		0.50	0.50	0.73	1.00							0.08
v/c Ratio		1.13	0.32	1.04	0.08							0.05
Control Delay (s/veh)		86.4	2.2	77.8	0.0							0.1
Queue Delay		0.0	0.0	0.0	0.0							0.0
Total Delay (s/veh)		86.4	2.2	77.8	0.0							0.1
LOS		F	A	E	A							A
Approach Delay (s/veh)		75.6			42.1						0.1	
Approach LOS		E			D						A	
Queue Length 50th (ft)		~468	0	~81	0							0
Queue Length 95th (ft)		#598	32	#232	0							0
Internal Link Dist (ft)		92			225			103			36	
Turn Bay Length (ft)			310	550								
Base Capacity (vph)		1775	942	327	3539							1453
Starvation Cap Reductn		0	0	0	0							0
Spillback Cap Reductn		0	0	0	0							0
Storage Cap Reductn		0	0	0	0							0
Reduced v/c Ratio		1.13	0.32	1.04	0.08							0.05

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.13

Lane Group	Ø6	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	6	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.5	10.0
Total Split (s)	50.0	10.0
Total Split (%)	83%	17%
Yellow Time (s)	4.5	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Intersection Signal Delay (s/veh): 66.8 Intersection LOS: E

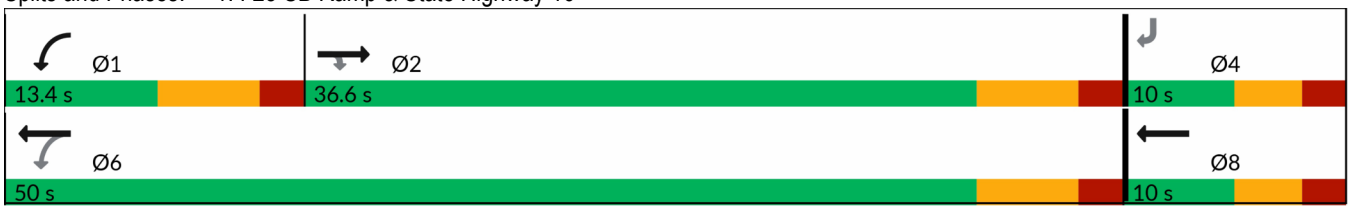
Intersection Capacity Utilization 121.1% ICU Level of Service H

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: I-25 SB Ramp & State Highway 16



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	489	2385	0	0	528	788	0	0	0	32	1	241
Future Volume (vph)	489	2385	0	0	528	788	0	0	0	32	1	241
Satd. Flow (prot)	3433	5085	0	0	3177	1441	0	0	0	1681	1508	0
Flt Permitted	0.950									0.950	0.999	
Satd. Flow (perm)	3433	5085	0	0	3177	1441	0	0	0	1681	1508	0
Satd. Flow (RTOR)					174	446					4	
Lane Group Flow (vph)	532	2592	0	0	985	446	0	0	0	31	267	0
Turn Type	Prot	NA			NA	Perm				Perm	NA	
Protected Phases	5	2			6						8	
Permitted Phases						6				8		
Detector Phase	5	2			6	6				8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0				5.0	5.0	
Minimum Split (s)	11.5	22.5			22.5	22.5				22.5	22.5	
Total Split (s)	22.0	83.0			61.0	61.0				37.0	37.0	
Total Split (%)	18.3%	69.2%			50.8%	50.8%				30.8%	30.8%	
Yellow Time (s)	4.5	4.5			4.5	4.5				3.0	3.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5			6.5	6.5				5.0	5.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None				None	None	
Act Effct Green (s)	16.3	61.8			38.7	38.7				22.6	22.6	
Actuated g/C Ratio	0.17	0.64			0.40	0.40				0.23	0.23	
v/c Ratio	0.92	0.80			0.71	0.53				0.08	0.75	
Control Delay (s/veh)	65.2	15.4			22.5	4.3				32.4	49.8	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	65.2	15.5			22.5	4.3				32.4	49.8	
LOS	E	B			C	A				C	D	
Approach Delay (s/veh)		23.9			16.8						48.0	
Approach LOS		C			B						D	
Queue Length 50th (ft)	173	393			225	0				15	161	
Queue Length 95th (ft)	#375	578			342	63				46	297	
Internal Link Dist (ft)		464			201			321			489	
Turn Bay Length (ft)	520									445		
Base Capacity (vph)	579	4079			1957	1036				586	528	
Starvation Cap Reductn	0	72			0	0				0	0	
Spillback Cap Reductn	0	0			0	0				0	0	
Storage Cap Reductn	0	0			0	0				0	0	
Reduced v/c Ratio	0.92	0.65			0.50	0.43				0.05	0.51	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 96.4
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.92

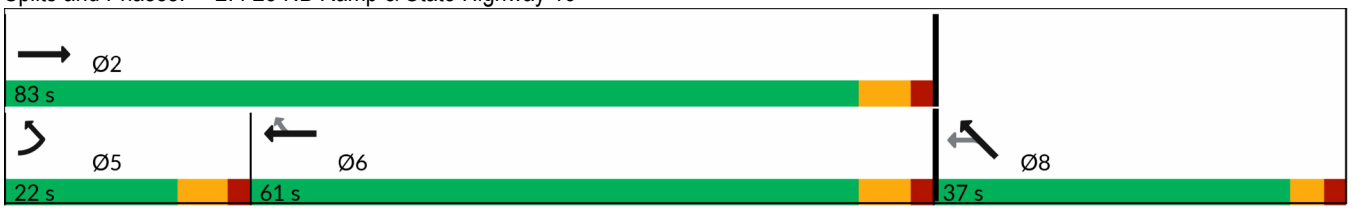
Intersection Signal Delay (s/veh): 23.3 Intersection LOS: C

Intersection Capacity Utilization 69.8% ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 2: I-25 NB Ramp & State Highway 16





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	462	108	773	777	179	717
Future Volume (vph)	462	108	773	777	179	717
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.223	
Satd. Flow (perm)	1770	1583	3539	1583	415	3539
Satd. Flow (RTOR)		117		565		
Lane Group Flow (vph)	502	117	840	845	195	779
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	10.0	11.0
Total Split (s)	39.0	39.0	50.0	50.0	11.0	61.0
Total Split (%)	39.0%	39.0%	50.0%	50.0%	11.0%	61.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	31.1	31.1	45.2	45.2	57.9	56.9
Actuated g/C Ratio	0.31	0.31	0.45	0.45	0.58	0.57
v/c Ratio	0.91	0.20	0.53	0.82	0.59	0.39
Control Delay (s/veh)	55.7	5.5	21.5	15.9	19.0	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	55.7	5.5	21.5	15.9	19.0	13.0
LOS	E	A	C	B	B	B
Approach Delay (s/veh)	46.2		18.7			14.2
Approach LOS	D		B			B
Queue Length 50th (ft)	302	0	204	161	59	144
Queue Length 95th (ft)	#487	39	263	#395	97	187
Internal Link Dist (ft)	447		1			206
Turn Bay Length (ft)	305			90	1000	
Base Capacity (vph)	584	600	1600	1025	331	2015
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.20	0.53	0.82	0.59	0.39

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

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 22.6	Intersection LOS: C
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 3: Mesa Ridge Parkway (State Highway 16)/State Highway 21 & Mesa Ridge Parkway



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	599	60	51	330	319	263
Future Volume (vph)	599	60	51	330	319	263
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Satd. Flow (RTOR)		65				286
Lane Group Flow (vph)	651	65	55	359	347	286
Turn Type	Prot	Prot	Prot	NA	NA	Perm
Protected Phases	4	4	5	2	6	
Permitted Phases						6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	14.0	14.0	11.0	21.0	21.0	21.0
Total Split (s)	28.0	28.0	11.0	32.0	21.0	21.0
Total Split (%)	46.7%	46.7%	18.3%	53.3%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	22.0	22.0	5.0	26.0	19.4	19.4
Actuated g/C Ratio	0.37	0.37	0.08	0.43	0.32	0.32
v/c Ratio	1.00	0.10	0.37	0.44	0.58	0.41
Control Delay (s/veh)	58.9	4.5	33.7	14.2	24.5	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.9	4.5	33.7	14.2	24.5	4.9
LOS	E	A	C	B	C	A
Approach Delay (s/veh)	54.0			16.8	15.6	
Approach LOS	D			B	B	
Queue Length 50th (ft)	~234	0	20	88	117	0
Queue Length 95th (ft)	#438	21	50	150	#232	51
Internal Link Dist (ft)	526			899	443	
Turn Bay Length (ft)	300		50			500
Base Capacity (vph)	649	621	147	807	602	705
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.10	0.37	0.44	0.58	0.41

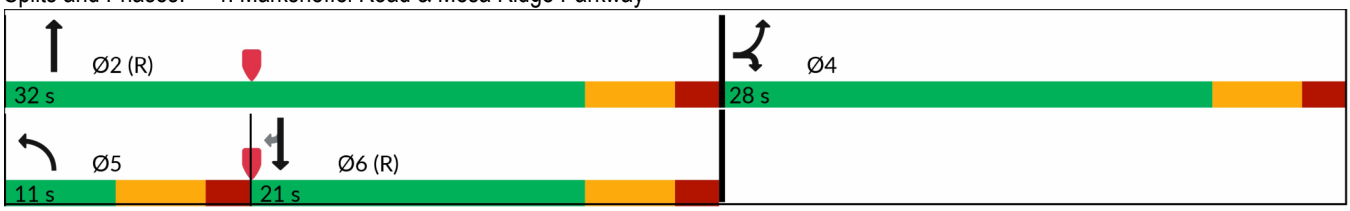
Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay (s/veh): 31.5	Intersection LOS: C
Intersection Capacity Utilization 69.1%	ICU Level of Service C
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: 4: Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	197	253	228	154	0	151	0	205	0	0	0
Future Volume (vph)	0	197	253	228	154	0	151	0	205	0	0	0
Satd. Flow (prot)	1863	1863	1583	1770	1863	0	1770	0	1583	0	1863	0
Flt Permitted				0.574			0.950					
Satd. Flow (perm)	1863	1863	1583	1069	1863	0	1770	0	1583	0	1863	0
Satd. Flow (RTOR)			275						223			
Lane Group Flow (vph)	0	214	275	248	167	0	164	0	223	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt		Perm			
Protected Phases	5	2		1	6		7				8	
Permitted Phases	2		2	6			4		7	8		
Detector Phase	5	2	2	1	6		7		7	8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	5.0	
Minimum Split (s)	11.5	11.5	11.5	11.5	11.5		11.0		11.0	11.0	11.0	
Total Split (s)	11.5	45.0	45.0	30.0	63.5		34.0		34.0	11.0	11.0	
Total Split (%)	9.6%	37.5%	37.5%	25.0%	52.9%		28.3%		28.3%	9.2%	9.2%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.0		4.0	4.0	4.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5		6.0		6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead		Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None		None	None	None	
Act Effct Green (s)		73.9	73.9	90.9	90.9		16.6		16.6			
Actuated g/C Ratio		0.62	0.62	0.76	0.76		0.14		0.14			
v/c Ratio		0.19	0.25	0.28	0.12		0.67		0.54			
Control Delay (s/veh)		11.8	2.2	5.5	4.6		67.3		21.7			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay (s/veh)		11.8	2.2	5.5	4.6		67.3		21.7			
LOS		B	A	A	A		E		C			
Approach Delay (s/veh)		6.4			5.2			41.0				
Approach LOS		A			A			D				
Queue Length 50th (ft)		68	0	47	30		136		19			
Queue Length 95th (ft)		132	41	91	61		208		126			
Internal Link Dist (ft)		731			936			5211			397	
Turn Bay Length (ft)			145	150			285					
Base Capacity (vph)		1147	1080	947	1411		413		540			
Starvation Cap Reductn		0	0	0	0		0		0			
Spillback Cap Reductn		0	0	0	0		0		0			
Storage Cap Reductn		0	0	0	0		0		0			
Reduced v/c Ratio		0.19	0.25	0.26	0.12		0.40		0.41			

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated

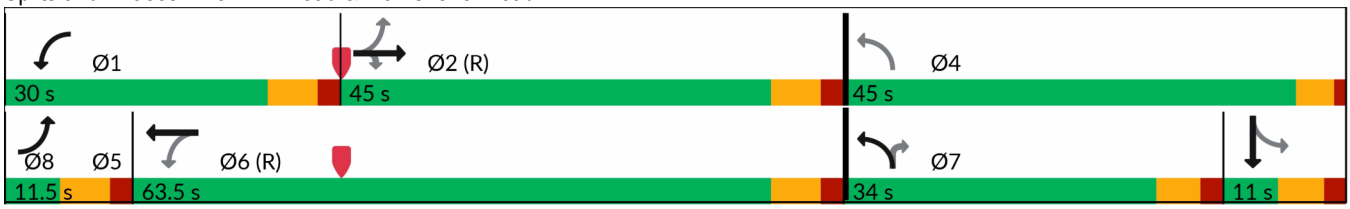
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	45.0
Total Split (%)	38%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Maximum v/c Ratio: 0.67

Intersection Signal Delay (s/veh): 16.4	Intersection LOS: B
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Link Road & Marksheffel Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	2	1	9	0	36	1	233	15	45	308	121
Future Volume (vph)	85	2	1	9	0	36	1	233	15	45	308	121
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1846	0	1770	1863	1583
Flt Permitted	0.445			0.757			0.559			0.549		
Satd. Flow (perm)	829	1863	1583	1410	1863	1583	1041	1846	0	1023	1863	1583
Satd. Flow (RTOR)			132			631		4				168
Lane Group Flow (vph)	92	2	1	10	0	39	1	269	0	49	335	132
Turn Type	pm+pt	NA	Perm	pm+pt		Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
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
Minimum Split (s)	9.5	9.5	9.5	10.5	10.5	10.5	11.0	11.0		11.0	11.0	11.0
Total Split (s)	22.0	22.0	22.0	16.0	16.0	16.0	15.0	65.0		17.0	67.0	67.0
Total Split (%)	18.3%	18.3%	18.3%	13.3%	13.3%	13.3%	12.5%	54.2%		14.2%	55.8%	55.8%
Yellow Time (s)	2.5	2.5	2.5	3.5	3.5	3.5	4.0	4.0		4.0	4.0	4.0
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
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
Total Lost Time (s)	4.5	4.5	4.5	5.5	5.5	5.5	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	18.1	15.5	15.5	9.4		5.5	85.7	81.3		90.6	89.1	89.1
Actuated g/C Ratio	0.15	0.13	0.13	0.08		0.05	0.71	0.68		0.76	0.74	0.74
v/c Ratio	0.43	0.01	0.00	0.08		0.06	0.00	0.22		0.06	0.24	0.11
Control Delay (s/veh)	49.2	44.0	0.0	40.8		0.2	6.0	9.8		6.3	8.4	1.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	49.2	44.0	0.0	40.8		0.2	6.0	9.8		6.3	8.4	1.9
LOS	D	D	A	D		A	A	A		A	A	A
Approach Delay (s/veh)		48.6			8.5			9.7			6.6	
Approach LOS		D			A			A			A	
Queue Length 50th (ft)	63	1	0	7		0	0	86		10	78	0
Queue Length 95th (ft)	109	10	0	22		0	2	146		29	211	26
Internal Link Dist (ft)		363			1558			1054			5211	
Turn Bay Length (ft)	120		120	130		130	150			150		150
Base Capacity (vph)	287	309	372	193		714	822	1251		847	1383	1218
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	0.32	0.01	0.00	0.05		0.05	0.00	0.22		0.06	0.24	0.11

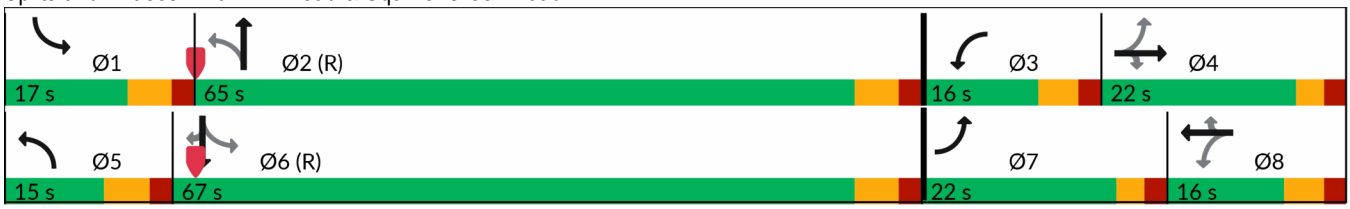
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay (s/veh): 11.9	Intersection LOS: B
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Link Road & Squirrel Creek Road



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	21	322	35	13	204	32	14	17	7	33	18	11
Future Vol, veh/h	21	322	35	13	204	32	14	17	7	33	18	11
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	-	-	520	-	-	-	-	-	-	-	-
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	23	350	38	14	222	35	15	18	8	36	20	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	257	0	0	388	0	0	674	699	369	672	701	239
Stage 1	-	-	-	-	-	-	415	415	-	267	267	-
Stage 2	-	-	-	-	-	-	260	285	-	405	434	-
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	1308	-	-	1170	-	-	368	364	677	369	363	800
Stage 1	-	-	-	-	-	-	615	593	-	738	688	-
Stage 2	-	-	-	-	-	-	745	676	-	623	581	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1308	-	-	1170	-	-	333	353	677	336	352	800
Mov Cap-2 Maneuver	-	-	-	-	-	-	333	353	-	336	352	-
Stage 1	-	-	-	-	-	-	604	582	-	729	679	-
Stage 2	-	-	-	-	-	-	704	668	-	586	571	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.43	0.42	15.69	16.49
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	378	1308	-	-	1170	-	-	381
HCM Lane V/C Ratio	0.109	0.017	-	-	0.012	-	-	0.177
HCM Ctrl Dly (s/v)	15.7	7.8	-	-	8.1	-	-	16.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	48	13	0	18	26	0
Future Vol, veh/h	48	13	0	18	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	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	52	14	0	20	28	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	66	0	79	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	20	-
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	-	-	1535	-	924	1006
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1535	-	924	1006
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	9.02
HCM LOS			A

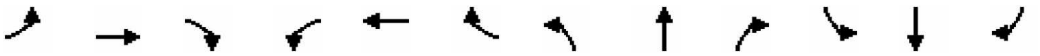
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	924	-	-	1535	-
HCM Lane V/C Ratio	0.031	-	-	-	-
HCM Ctrl Dly (s/v)	9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	7	23	10	6	0	8	17	2	0	30	6
Future Vol, veh/h	13	7	23	10	6	0	8	17	2	0	30	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	8	25	11	7	0	9	18	2	0	33	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7	7.3	7.3	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	30%	63%	0%
Vol Thru, %	63%	16%	38%	83%
Vol Right, %	7%	53%	0%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	43	16	36
LT Vol	8	13	10	0
Through Vol	17	7	6	30
RT Vol	2	23	0	6
Lane Flow Rate	29	47	17	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.049	0.02	0.043
Departure Headway (Hd)	4.09	3.805	4.214	3.968
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	939	847	901
Service Time	2.121	1.839	2.25	1.997
HCM Lane V/C Ratio	0.033	0.05	0.02	0.043
HCM Control Delay, s/veh	7.3	7	7.3	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	7	59	0	0	0	19	0	30	0	14	54
Future Volume (Veh/h)	0	7	59	0	0	0	19	0	30	0	14	54
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	8	64	0	0	0	21	0	33	0	15	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			8			48	40	40	73	8	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			8			48	40	40	73	8	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	97	100	98	95
cM capacity (veh/h)	1623			1612			890	852	1031	888	887	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	72	54	74
Volume Left	0	21	0
Volume Right	64	33	59
cSH	1700	971	1038
Volume to Capacity	0.04	0.06	0.07
Queue Length 95th (ft)	0	4	6
Control Delay (s/veh)	0.0	8.9	8.7
Lane LOS		A	A
Approach Delay (s/veh)	0.0	8.9	8.7
Approach LOS		A	A

Intersection Summary			
Average Delay			5.6
Intersection Capacity Utilization			20.2%
Analysis Period (min)			15
ICU Level of Service			A



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	44	38	12	35	11
Future Volume (Veh/h)	30	44	38	12	35	11
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	48	41	13	38	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		121	90	114	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		121	90	114	0
tC, single (s)	4.1		7.1	6.5	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.0	4.0	3.3
p0 queue free %	98		95	98	95	99
cM capacity (veh/h)	1623		800	784	760	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	81	54	50
Volume Left	33	41	0
Volume Right	48	0	12
cSH	1623	796	819
Volume to Capacity	0.02	0.07	0.06
Queue Length 95th (ft)	2	5	5
Control Delay (s/veh)	3.0	9.9	9.7
Lane LOS	A	A	A
Approach Delay (s/veh)	3.0	9.9	9.7
Approach LOS		A	A

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	20.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.1

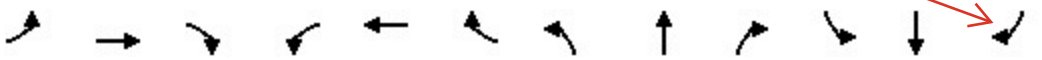
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	5	31	0	3	49
Future Vol, veh/h	4	5	31	0	3	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	5	34	0	3	53

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	93	34	0	0	34	0
Stage 1	34	-	-	-	-	-
Stage 2	60	-	-	-	-	-
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	906	1040	-	-	1578	-
Stage 1	989	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	904	1040	-	-	1578	-
Mov Cap-2 Maneuver	904	-	-	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	961	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.73	0	0.42
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	975	104	-
HCM Lane V/C Ratio	-	-	0.01	0.002	-
HCM Ctrl Dly (s/v)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

I don't think this is modeled correctly. SBR doesn't even utilize the signal. (SBR is downstream of it.)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	741	71	114	1047	0	0	0	0	0	0	287
Future Volume (vph)	0	741	71	114	1047	0	0	0	0	0	0	287
Satd. Flow (prot)	0	3539	1583	1504	3539	0	0	0	0	0	0	2787
Flt Permitted				0.199								
Satd. Flow (perm)	0	3539	1583	315	3539	0	0	0	0	0	0	2787
Satd. Flow (RTOR)			155									436
Lane Group Flow (vph)	0	805	77	124	1138	0	0	0	0	0	0	312
Turn Type		NA	Perm	custom	NA							Perm
Protected Phases		2		1	6 8							
Permitted Phases			2	6								4
Detector Phase		2	2	1	6 8							4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0								5.0
Minimum Split (s)		11.5	11.5	11.5								10.0
Total Split (s)		32.0	32.0	14.0								14.0
Total Split (%)		53.3%	53.3%	23.3%								23.3%
Yellow Time (s)		4.5	4.5	4.5								3.0
All-Red Time (s)		2.0	2.0	2.0								2.0
Lost Time Adjust (s)		0.0	0.0	0.0								0.0
Total Lost Time (s)		6.5	6.5	6.5								5.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None								None
Act Effct Green (s)		16.9	16.9	26.8	48.5							9.4
Actuated g/C Ratio		0.35	0.35	0.55	1.00							0.19
v/c Ratio		0.65	0.12	0.36	0.32							0.35
Control Delay (s/veh)		16.5	0.6	7.2	0.2							1.8
Queue Delay		0.0	0.0	0.0	0.0							0.0
Total Delay (s/veh)		16.5	0.6	7.2	0.2							1.8
LOS		B	A	A	A							A
Approach Delay (s/veh)		15.1			0.9						1.8	
Approach LOS		B			A						A	
Queue Length 50th (ft)		109	0	16	0							0
Queue Length 95th (ft)		158	3	33	0							8
Internal Link Dist (ft)		92			225			103			36	
Turn Bay Length (ft)			310	550								
Base Capacity (vph)		1984	956	370	3450							901
Starvation Cap Reductn		0	0	0	0							0
Spillback Cap Reductn		0	0	0	0							0
Storage Cap Reductn		0	0	0	0							0
Reduced v/c Ratio		0.41	0.08	0.34	0.33							0.35

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 48.5
Natural Cycle: 45
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.65

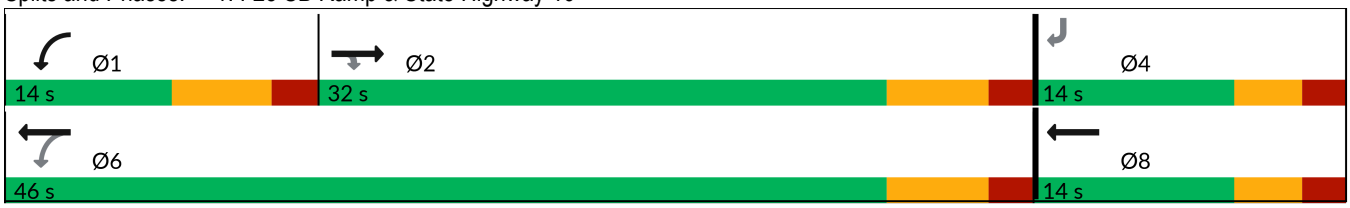
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Lane Group	Ø6	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	6	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.5	10.0
Total Split (s)	46.0	14.0
Total Split (%)	77%	23%
Yellow Time (s)	4.5	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Intersection Signal Delay (s/veh): 6.1 Intersection LOS: A
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: I-25 SB Ramp & State Highway 16

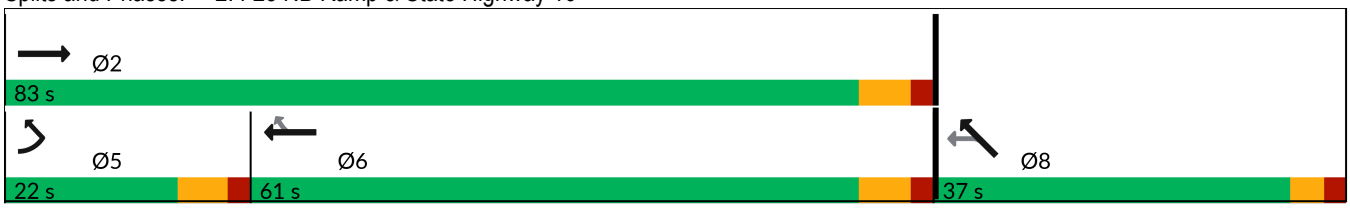


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	208	1220	0	0	926	478	0	0	0	243	1	247
Future Volume (vph)	208	1220	0	0	926	478	0	0	0	243	1	247
Satd. Flow (prot)	3433	5085	0	0	3269	1441	0	0	0	1681	1422	0
Flt Permitted	0.950									0.950	0.996	
Satd. Flow (perm)	3433	5085	0	0	3269	1441	0	0	0	1681	1422	0
Satd. Flow (RTOR)					6	458					68	
Lane Group Flow (vph)	226	1326	0	0	1069	458	0	0	0	238	295	0
Turn Type	Prot	NA			NA	Perm				Perm	NA	
Protected Phases	5	2			6						8	
Permitted Phases						6				8		
Detector Phase	5	2			6	6				8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0				5.0	5.0	
Minimum Split (s)	11.5	22.5			22.5	22.5				22.5	22.5	
Total Split (s)	22.0	83.0			61.0	61.0				37.0	37.0	
Total Split (%)	18.3%	69.2%			50.8%	50.8%				30.8%	30.8%	
Yellow Time (s)	4.5	4.5			4.5	4.5				3.0	3.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5			6.5	6.5				5.0	5.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None				None	None	
Act Effct Green (s)	11.7	56.5			37.9	37.9				20.6	20.6	
Actuated g/C Ratio	0.13	0.63			0.42	0.42				0.23	0.23	
v/c Ratio	0.50	0.41			0.77	0.52				0.61	0.78	
Control Delay (s/veh)	44.2	8.9			26.8	4.2				40.3	41.1	
Queue Delay	0.0	0.0			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	44.2	8.9			26.8	4.2				40.3	41.1	
LOS	D	A			C	A				D	D	
Approach Delay (s/veh)		14.1			20.0						40.7	
Approach LOS		B			C						D	
Queue Length 50th (ft)	62	122			279	0				127	127	
Queue Length 95th (ft)	128	204			462	64				258	283	
Internal Link Dist (ft)		464			201			321			489	
Turn Bay Length (ft)	520									445		
Base Capacity (vph)	633	4300			2124	1096				640	584	
Starvation Cap Reductn	0	0			0	0				0	0	
Spillback Cap Reductn	0	0			0	0				0	0	
Storage Cap Reductn	0	0			0	0				0	0	
Reduced v/c Ratio	0.36	0.31			0.50	0.42				0.37	0.51	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 89.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 20.5 Intersection LOS: C
Intersection Capacity Utilization 65.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: I-25 NB Ramp & State Highway 16





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	567	258	906	490	248	496
Future Volume (vph)	567	258	906	490	248	496
Satd. Flow (prot)	1770	1583	3438	1583	1770	3438
Flt Permitted	0.950				0.103	
Satd. Flow (perm)	1770	1583	3438	1583	192	3438
Satd. Flow (RTOR)		158		258		
Lane Group Flow (vph)	616	280	985	533	270	539
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	10.0	11.0
Total Split (s)	50.0	50.0	40.0	40.0	10.0	50.0
Total Split (%)	50.0%	50.0%	40.0%	40.0%	10.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.5	39.5	34.0	34.0	49.5	48.5
Actuated g/C Ratio	0.40	0.40	0.34	0.34	0.50	0.49
v/c Ratio	0.88	0.39	0.84	0.75	1.10	0.32
Control Delay (s/veh)	43.0	9.9	38.6	22.4	116.1	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.0	9.9	38.6	22.4	116.1	17.3
LOS	D	A	D	C	F	B
Approach Delay (s/veh)	32.6		32.9			50.3
Approach LOS	C		C			D
Queue Length 50th (ft)	351	49	315	159	~169	115
Queue Length 95th (ft)	487	106	402	300	#367	164
Internal Link Dist (ft)	447		1			206
Turn Bay Length (ft)	305			90	1000	
Base Capacity (vph)	778	785	1168	708	245	1667
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.36	0.84	0.75	1.10	0.32

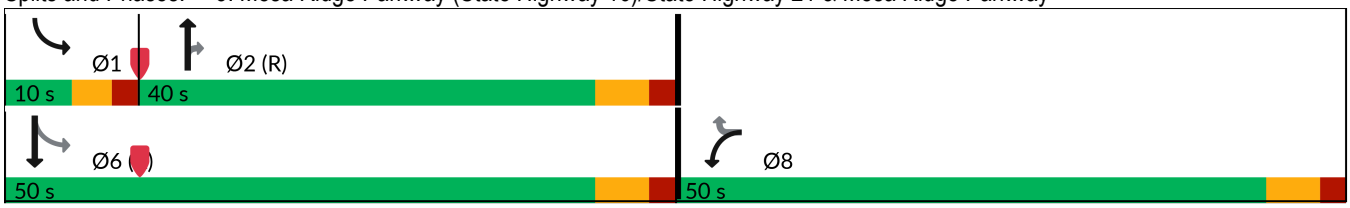
Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay (s/veh): 37.2	Intersection LOS: D
Intersection Capacity Utilization 84.4%	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: 3: Mesa Ridge Parkway (State Highway 16)/State Highway 21 & Mesa Ridge Parkway





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	265	391	57	388	477	298
Future Volume (vph)	265	391	57	388	477	298
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Satd. Flow (RTOR)		336				324
Lane Group Flow (vph)	288	425	62	422	518	324
Turn Type	Prot	Prot	Prot	NA	NA	Perm
Protected Phases	4	4	5	2	6	
Permitted Phases						6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	14.0	14.0	11.0	21.0	21.0	21.0
Total Split (s)	22.0	22.0	11.0	38.0	27.0	27.0
Total Split (%)	36.7%	36.7%	18.3%	63.3%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	13.9	13.9	5.5	34.1	27.4	27.4
Actuated g/C Ratio	0.23	0.23	0.09	0.57	0.46	0.46
v/c Ratio	0.70	0.68	0.39	0.40	0.61	0.36
Control Delay (s/veh)	30.7	11.1	33.4	9.3	19.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.7	11.1	33.4	9.3	19.8	3.4
LOS	C	B	C	A	B	A
Approach Delay (s/veh)	19.0			12.3	13.5	
Approach LOS	B			B	B	
Queue Length 50th (ft)	93	26	22	83	167	0
Queue Length 95th (ft)	164	102	55	143	#317	46
Internal Link Dist (ft)	526			899	443	
Turn Bay Length (ft)	300		50			500
Base Capacity (vph)	472	668	161	1058	851	899
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.64	0.39	0.40	0.61	0.36

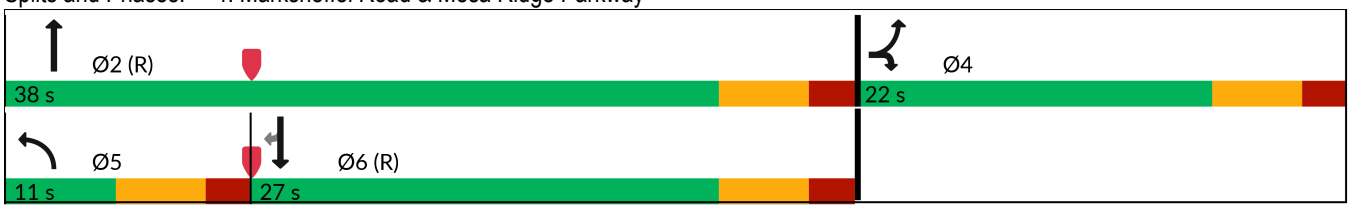
Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 15.1	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

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

Splits and Phases: 4: Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	152	213	523	155	0	221	0	283	0	0	0
Future Volume (vph)	0	152	213	523	155	0	221	0	283	0	0	0
Satd. Flow (prot)	1863	1863	1583	1770	1863	0	1770	0	1583	0	1863	0
Flt Permitted				0.583			0.950					
Satd. Flow (perm)	1863	1863	1583	1086	1863	0	1770	0	1583	0	1863	0
Satd. Flow (RTOR)			232						308			
Lane Group Flow (vph)	0	165	232	568	168	0	240	0	308	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt		Perm			
Protected Phases	5	2		1	6		7				8	
Permitted Phases	2		2	6			4		7	8		
Detector Phase	5	2	2	1	6		7		7	8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	5.0	
Minimum Split (s)	11.5	11.5	11.5	11.5	11.5		11.0		11.0	11.0	11.0	
Total Split (s)	11.5	36.0	36.0	36.0	60.5		37.0		37.0	11.0	11.0	
Total Split (%)	9.6%	30.0%	30.0%	30.0%	50.4%		30.8%		30.8%	9.2%	9.2%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.0		4.0	4.0	4.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5		6.0		6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead		Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None		None	None	None	
Act Effct Green (s)		55.2	55.2	85.5	85.5		22.0		22.0			
Actuated g/C Ratio		0.46	0.46	0.71	0.71		0.18		0.18			
v/c Ratio		0.19	0.27	0.62	0.13		0.74		0.57			
Control Delay (s/veh)		24.1	4.7	11.6	6.6		54.9		18.1			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay (s/veh)		24.1	4.7	11.6	6.6		54.9		18.1			
LOS		C	A	B	A		D		B			
Approach Delay (s/veh)		12.7			10.5			34.2				
Approach LOS		B			B			C				
Queue Length 50th (ft)		73	0	168	37		195		72			
Queue Length 95th (ft)		165	60	304	77		277		165			
Internal Link Dist (ft)		731			936			5211			397	
Turn Bay Length (ft)			145	150			285					
Base Capacity (vph)		857	853	949	1326		457		637			
Starvation Cap Reductn		0	0	0	0		0		0			
Spillback Cap Reductn		0	0	0	0		0		0			
Storage Cap Reductn		0	0	0	0		0		0			
Reduced v/c Ratio		0.19	0.27	0.60	0.13		0.53		0.48			

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

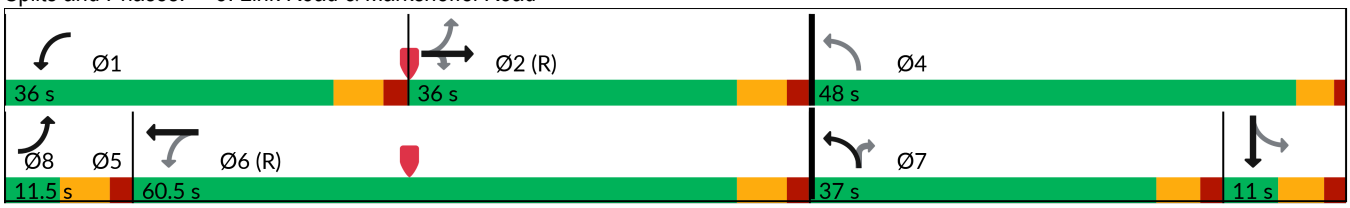
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	48.0
Total Split (%)	40%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Maximum v/c Ratio: 0.74

Intersection Signal Delay (s/veh): 18.7	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Link Road & Marksheffel Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	1	2	9	0	40	8	292	6	451	339	140
Future Volume (vph)	157	1	2	9	0	40	8	292	6	451	339	140
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1857	0	1770	1863	1583
Flt Permitted	0.499			0.757			0.542			0.440		
Satd. Flow (perm)	930	1863	1583	1410	1863	1583	1010	1857	0	820	1863	1583
Satd. Flow (RTOR)			132			528		1				168
Lane Group Flow (vph)	171	1	2	10	0	43	9	324	0	490	368	152
Turn Type	pm+pt	NA	Perm	pm+pt		Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
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
Minimum Split (s)	9.5	9.5	9.5	10.5	10.5	10.5	11.0	11.0		11.0	11.0	11.0
Total Split (s)	29.0	29.0	29.0	14.0	14.0	14.0	15.0	62.0		15.0	62.0	62.0
Total Split (%)	24.2%	24.2%	24.2%	11.7%	11.7%	11.7%	12.5%	51.7%		12.5%	51.7%	51.7%
Yellow Time (s)	2.5	2.5	2.5	3.5	3.5	3.5	4.0	4.0		4.0	4.0	4.0
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
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
Total Lost Time (s)	4.5	4.5	4.5	5.5	5.5	5.5	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	25.8	23.3	23.3	10.5		5.5	67.0	61.2		83.7	81.3	81.3
Actuated g/C Ratio	0.22	0.19	0.19	0.09		0.05	0.56	0.51		0.70	0.68	0.68
v/c Ratio	0.54	0.00	0.00	0.07		0.07	0.02	0.34		0.70	0.29	0.13
Control Delay (s/veh)	45.5	38.0	0.0	35.9		0.3	8.8	20.3		21.8	13.3	4.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	45.5	38.0	0.0	35.9		0.3	8.8	20.3		21.8	13.3	4.1
LOS	D	D	A	D		A	A	C		C	B	A
Approach Delay (s/veh)		45.0			7.0			20.0			16.0	
Approach LOS		D			A			B			B	
Queue Length 50th (ft)	115	1	0	6		0	2	160		175	106	0
Queue Length 95th (ft)	172	6	0	20		0	9	233		#389	290	56
Internal Link Dist (ft)		363			1558			1054			5211	
Turn Bay Length (ft)	120		120	130		130	150			150		150
Base Capacity (vph)	392	413	454	177		602	648	948		702	1261	1126
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	0.44	0.00	0.00	0.06		0.07	0.01	0.34		0.70	0.29	0.13

Intersection Summary

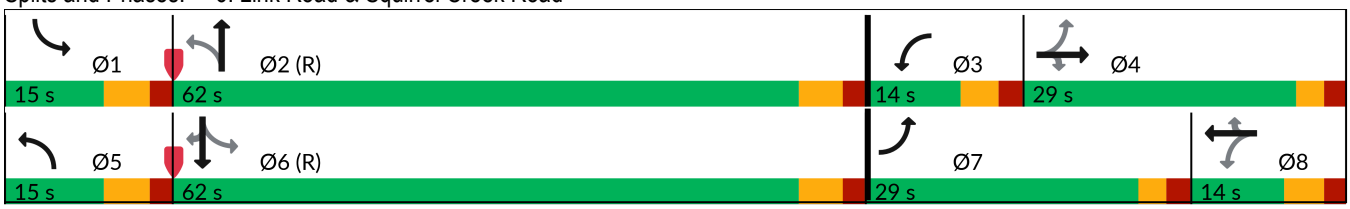
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 19.8	Intersection LOS: B
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 6: Link Road & Squirrel Creek Road



Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	117	8	69	357	46	39	18	17	22	13	25
Future Vol, veh/h	2	117	8	69	357	46	39	18	17	22	13	25
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	-	-	520	-	-	-	-	-	-	-	-
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	2	127	9	75	388	50	42	20	18	24	14	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	438	0	0	136	0	0	681	724	132	704	703	413
Stage 1	-	-	-	-	-	-	136	136	-	563	563	-
Stage 2	-	-	-	-	-	-	545	588	-	141	140	-
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	1122	-	-	1448	-	-	364	352	918	352	362	639
Stage 1	-	-	-	-	-	-	867	784	-	511	509	-
Stage 2	-	-	-	-	-	-	523	496	-	862	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1122	-	-	1448	-	-	317	333	918	308	342	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	317	333	-	308	342	-
Stage 1	-	-	-	-	-	-	866	783	-	484	483	-
Stage 2	-	-	-	-	-	-	461	470	-	822	779	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.13	1.11	17.06	15.62
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	379	1122	-	-	1448	-	-	404
HCM Lane V/C Ratio	0.212	0.002	-	-	0.052	-	-	0.161
HCM Ctrl Dly (s/v)	17.1	8.2	-	-	7.6	-	-	15.6
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	0.6

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	443	53	36	10	0
Future Vol, veh/h	16	443	53	36	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	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	17	482	58	39	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	499	0	413	258
Stage 1	-	-	-	-	258	-
Stage 2	-	-	-	-	154	-
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	-	-	1065	-	596	780
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1065	-	563	780
Mov Cap-2 Maneuver	-	-	-	-	563	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	826	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	5.11	11.52
HCM LOS			B

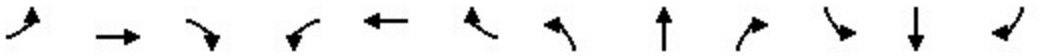
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	563	-	-	1042	-
HCM Lane V/C Ratio	0.019	-	-	0.054	-
HCM Ctrl Dly (s/v)	11.5	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	6	9	5	6	1	7	17	7	1	18	59
Future Vol, veh/h	3	6	9	5	6	1	7	17	7	1	18	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	10	5	7	1	8	18	8	1	20	64
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7	7.3	7.1	6.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	17%	42%	1%
Vol Thru, %	55%	33%	50%	23%
Vol Right, %	23%	50%	8%	76%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	18	12	78
LT Vol	7	3	5	1
Through Vol	17	6	6	18
RT Vol	7	9	1	59
Lane Flow Rate	34	20	13	85
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.021	0.015	0.084
Departure Headway (Hd)	3.964	3.882	4.187	3.564
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	904	920	853	1006
Service Time	1.985	1.915	2.221	1.584
HCM Lane V/C Ratio	0.038	0.022	0.015	0.084
HCM Control Delay, s/veh	7.1	7	7.3	6.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	133	0	0	0	18	0	31	0	48	22
Future Volume (Veh/h)	0	8	133	0	0	0	18	0	31	0	48	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	9	145	0	0	0	20	0	34	0	52	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			9			108	82	82	116	9	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			9			108	82	82	116	9	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	7.0	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.4	3.3
p0 queue free %	100			100			98	100	97	100	93	98
cM capacity (veh/h)	1623			1611			810	809	978	831	799	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	154	54	76
Volume Left	0	20	0
Volume Right	145	34	24
cSH	1700	908	872
Volume to Capacity	0.09	0.06	0.09
Queue Length 95th (ft)	0	5	7
Control Delay (s/veh)	0.0	9.2	9.5
Lane LOS		A	A
Approach Delay (s/veh)	0.0	9.2	9.5
Approach LOS		A	A

Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	24.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	67	115	38	64	81	11
Future Volume (Veh/h)	67	115	38	64	81	11
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	73	125	41	70	88	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		265	209	271	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		265	209	271	0
tC, single (s)	4.1		7.1	6.8	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.3	4.0	3.3
p0 queue free %	96		93	88	86	99
cM capacity (veh/h)	1623		585	606	607	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	198	111	100
Volume Left	73	41	0
Volume Right	125	0	12
cSH	1623	598	641
Volume to Capacity	0.04	0.19	0.16
Queue Length 95th (ft)	4	17	14
Control Delay (s/veh)	2.9	12.4	11.7
Lane LOS	A	B	B
Approach Delay (s/veh)	2.9	12.4	11.7
Approach LOS		B	B

Intersection Summary			
Average Delay	7.6		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	5	38	84	3	20
Future Vol, veh/h	33	5	38	84	3	20
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, %	50	2	2	100	2	2
Mvmt Flow	36	5	41	91	3	22

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	115	87	0	0	133	0
Stage 1	87	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	6.9	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	778	972	-	-	1452	-
Stage 1	829	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	776	972	-	-	1452	-
Mov Cap-2 Maneuver	776	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	882	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.76	0	0.98
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	797	235	-
HCM Lane V/C Ratio	-	-	0.052	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.8	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1852	274	346	264	0	0	0	0	0	0	67
Future Volume (vph)	0	1852	274	346	264	0	0	0	0	0	0	67
Satd. Flow (prot)	0	3539	1583	1504	3539	0	0	0	0	0	0	2787
Flt Permitted				0.109								
Satd. Flow (perm)	0	3539	1583	173	3539	0	0	0	0	0	0	2787
Satd. Flow (RTOR)			298									1332
Lane Group Flow (vph)	0	2013	298	376	287	0	0	0	0	0	0	73
Turn Type		NA	Perm	custom	NA							Perm
Protected Phases		2		1	6 8							
Permitted Phases			2	6								4
Detector Phase		2	2	1	6 8							4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0								5.0
Minimum Split (s)		11.5	11.5	11.5								10.0
Total Split (s)		36.6	36.6	13.4								10.0
Total Split (%)		61.0%	61.0%	22.3%								16.7%
Yellow Time (s)		4.5	4.5	4.5								3.0
All-Red Time (s)		2.0	2.0	2.0								2.0
Lost Time Adjust (s)		0.0	0.0	0.0								0.0
Total Lost Time (s)		6.5	6.5	6.5								5.0
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Recall Mode		None	None	None								None
Act Effct Green (s)		30.1	30.1	43.5	60.0							5.0
Actuated g/C Ratio		0.50	0.50	0.73	1.00							0.08
v/c Ratio		1.13	0.32	1.35	0.08							0.05
Control Delay (s/veh)		86.4	2.2	199.8	0.0							0.1
Queue Delay		0.0	0.0	0.0	0.0							0.0
Total Delay (s/veh)		86.4	2.2	199.8	0.0							0.1
LOS		F	A	F	A							A
Approach Delay (s/veh)		75.6			113.3						0.1	
Approach LOS		E			F						A	
Queue Length 50th (ft)		~468	0	~166	0							0
Queue Length 95th (ft)		#598	32	#339	0							0
Internal Link Dist (ft)		540			225			103			36	
Turn Bay Length (ft)			310	550								
Base Capacity (vph)		1775	942	278	3539							1453
Starvation Cap Reductn		0	0	0	0							0
Spillback Cap Reductn		0	0	0	0							0
Storage Cap Reductn		0	0	0	0							0
Reduced v/c Ratio		1.13	0.32	1.35	0.08							0.05

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.35

Lane Group	Ø6	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	6	8
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.5	10.0
Total Split (s)	50.0	10.0
Total Split (%)	83%	17%
Yellow Time (s)	4.5	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Intersection Signal Delay (s/veh): 82.0 Intersection LOS: F

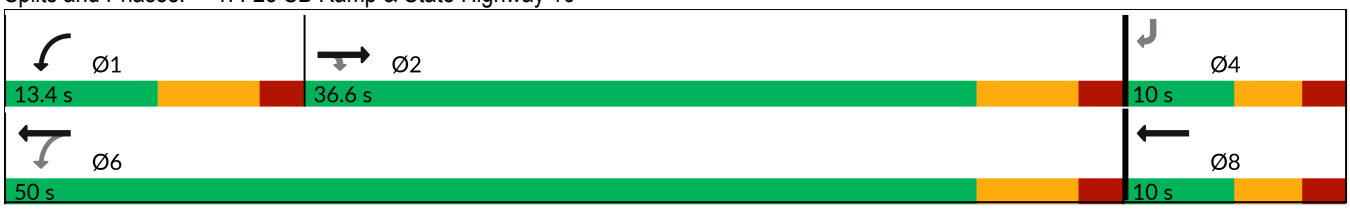
Intersection Capacity Utilization 121.1% ICU Level of Service H The worst possible

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: I-25 SB Ramp & State Highway 16



I'm not sure if this is modeled correctly. This does not reflect the configuration of the intersection.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	489	2385	0	0	559	920	0	0	0	32	1	272
Future Volume (vph)	489	2385	0	0	559	920	0	0	0	32	1	272
Satd. Flow (prot)	3433	5085	0	0	3112	1441	0	0	0	1681	1398	0
Flt Permitted	0.950									0.950	0.999	
Satd. Flow (perm)	3433	5085	0	0	3112	1441	0	0	0	1681	1398	0
Satd. Flow (RTOR)					223	510					4	
Lane Group Flow (vph)	532	2592	0	0	1098	510	0	0	0	31	301	0
Turn Type	Prot	NA			NA	Perm				Perm	NA	
Protected Phases	5	2			6						8	
Permitted Phases						6				8		
Detector Phase	5	2			6	6				8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0				5.0	5.0	
Minimum Split (s)	11.5	22.5			22.5	22.5				22.5	22.5	
Total Split (s)	22.0	83.0			61.0	61.0				37.0	37.0	
Total Split (%)	18.3%	69.2%			50.8%	50.8%				30.8%	30.8%	
Yellow Time (s)	4.5	4.5			4.5	4.5				3.0	3.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5			6.5	6.5				5.0	5.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	None			None	None				None	None	
Act Effct Green (s)	16.0	65.2			42.4	42.4				26.3	26.3	
Actuated g/C Ratio	0.15	0.63			0.41	0.41				0.25	0.25	
v/c Ratio	1.00	0.81			0.78	0.57				0.07	0.84	
Control Delay (s/veh)	85.6	17.2			24.8	4.5				32.6	59.0	
Queue Delay	0.0	0.1			0.0	0.0				0.0	0.0	
Total Delay (s/veh)	85.6	17.3			24.8	4.5				32.6	59.0	
LOS	F	B			C	A				C	E	
Approach Delay (s/veh)		28.9			18.4						56.6	
Approach LOS		C			B						E	
Queue Length 50th (ft)	~226	479			298	0				17	210	
Queue Length 95th (ft)	#375	578			401	68				46	#383	
Internal Link Dist (ft)		464			201			321			489	
Turn Bay Length (ft)	520									445		
Base Capacity (vph)	532	3858			1798	1017				538	450	
Starvation Cap Reductn	0	151			0	0				0	0	
Spillback Cap Reductn	0	0			0	0				0	0	
Storage Cap Reductn	0	0			0	0				0	0	
Reduced v/c Ratio	1.00	0.70			0.61	0.50				0.06	0.67	

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 103.4
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.00

Intersection Signal Delay (s/veh): 27.4 Intersection LOS: C

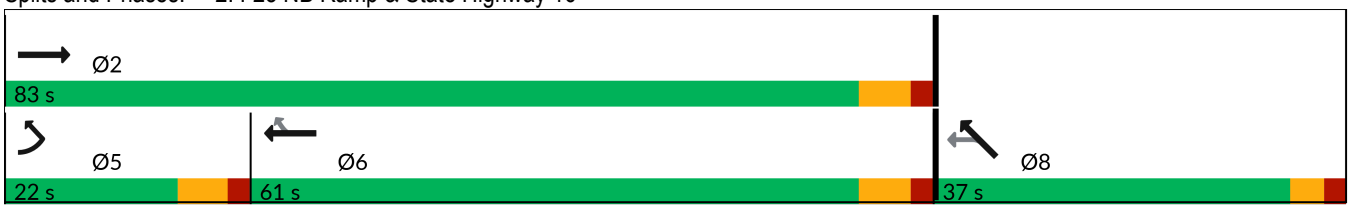
Intersection Capacity Utilization 76.2% ICU Level of Service D

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: 2: I-25 NB Ramp & State Highway 16





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	594	292	804	777	179	748
Future Volume (vph)	594	292	804	777	179	748
Satd. Flow (prot)	1770	1583	3438	1583	1770	3438
Flt Permitted	0.950				0.204	
Satd. Flow (perm)	1770	1583	3438	1583	380	3438
Satd. Flow (RTOR)		199		543		
Lane Group Flow (vph)	646	317	874	845	195	813
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	10.0	11.0
Total Split (s)	39.0	39.0	50.0	50.0	11.0	61.0
Total Split (%)	39.0%	39.0%	50.0%	50.0%	11.0%	61.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	6.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.0	33.0	44.0	44.0	56.0	55.0
Actuated g/C Ratio	0.33	0.33	0.44	0.44	0.56	0.55
v/c Ratio	1.11	0.48	0.58	0.85	0.66	0.43
Control Delay (s/veh)	102.9	12.5	22.9	17.9	23.4	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	102.9	12.5	22.9	17.9	23.4	14.2
LOS	F	B	C	B	C	B
Approach Delay (s/veh)	73.2		20.5			15.9
Approach LOS	E		C			B
Queue Length 50th (ft)	~480	55	222	180	59	157
Queue Length 95th (ft)	#698	135	286	#444	#100	204
Internal Link Dist (ft)	447		1			206
Turn Bay Length (ft)	305			90	1000	
Base Capacity (vph)	584	655	1512	1000	296	1890
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.48	0.58	0.85	0.66	0.43

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay (s/veh): 33.0	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
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: 3: Mesa Ridge Parkway (State Highway 16)/State Highway 21 & Mesa Ridge Parkway



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	599	60	367	435	319	263
Future Volume (vph)	599	60	367	435	319	263
Satd. Flow (prot)	1770	1583	1770	1863	1863	1583
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1770	1583	1770	1863	1863	1583
Satd. Flow (RTOR)		65				286
Lane Group Flow (vph)	651	65	399	473	347	286
Turn Type	Prot	Prot	Prot	NA	NA	Perm
Protected Phases	4	4	5	2	6	
Permitted Phases						6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	14.0	14.0	11.0	21.0	21.0	21.0
Total Split (s)	28.0	28.0	11.0	32.0	21.0	21.0
Total Split (%)	46.7%	46.7%	18.3%	53.3%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	22.0	22.0	5.0	26.0	15.0	15.0
Actuated g/C Ratio	0.37	0.37	0.08	0.43	0.25	0.25
v/c Ratio	1.00	0.10	2.71	0.59	0.75	0.47
Control Delay (s/veh)	58.9	4.5	808.0	16.6	33.0	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.9	4.5	808.0	16.6	33.0	5.7
LOS	E	A	F	B	C	A
Approach Delay (s/veh)	54.0			378.7	20.7	
Approach LOS	D			F	C	
Queue Length 50th (ft)	~234	0	~257	125	117	0
Queue Length 95th (ft)	#438	21	#408	209	#232	51
Internal Link Dist (ft)	526			899	443	
Turn Bay Length (ft)	300		50			500
Base Capacity (vph)	649	621	147	807	465	610
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.10	2.71	0.59	0.75	0.47

Intersection Summary
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

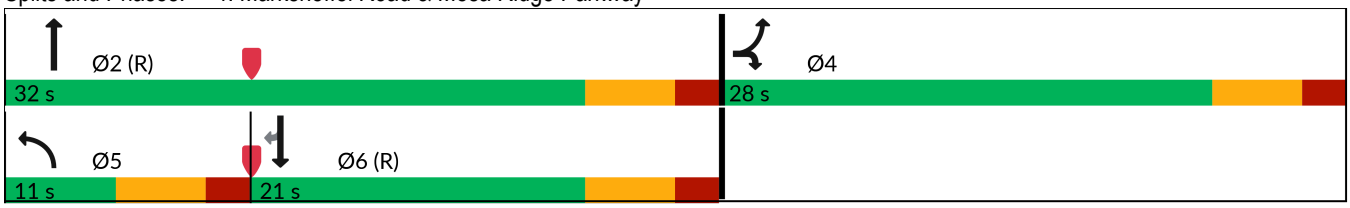
Maximum v/c Ratio: 2.71

Intersection Signal Delay (s/veh): 172.0	Intersection LOS: F
Intersection Capacity Utilization 85.3%	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: 4: Marksheffel Road & Mesa Ridge Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	197	253	228	154	0	151	0	626	0	0	0
Future Volume (vph)	0	197	253	228	154	0	151	0	626	0	0	0
Satd. Flow (prot)	1863	1863	1583	1770	1863	0	1770	0	1583	0	1863	0
Flt Permitted				0.572			0.950					
Satd. Flow (perm)	1863	1863	1583	1065	1863	0	1770	0	1583	0	1863	0
Satd. Flow (RTOR)			275						680			
Lane Group Flow (vph)	0	214	275	248	167	0	164	0	680	0	0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt		Perm			
Protected Phases	5	2		1	6		7				8	
Permitted Phases	2		2	6			4		7	8		
Detector Phase	5	2	2	1	6		7		7	8	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	5.0	
Minimum Split (s)	11.5	11.5	11.5	11.5	11.5		11.0		11.0	11.0	11.0	
Total Split (s)	11.5	45.0	45.0	30.0	63.5		34.0		34.0	11.0	11.0	
Total Split (%)	9.6%	37.5%	37.5%	25.0%	52.9%		28.3%		28.3%	9.2%	9.2%	
Yellow Time (s)	4.5	4.5	4.5	4.5	4.5		4.0		4.0	4.0	4.0	
All-Red Time (s)	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	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5		6.0		6.0		6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead		Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max		None		None	None	None	
Act Effct Green (s)		71.7	71.7	89.2	89.2		18.3		18.3			
Actuated g/C Ratio		0.60	0.60	0.74	0.74		0.15		0.15			
v/c Ratio		0.19	0.26	0.29	0.12		0.61		0.83			
Control Delay (s/veh)		13.4	2.5	6.4	5.5		57.9		17.1			
Queue Delay		0.0	0.0	0.0	0.0		0.0		0.0			
Total Delay (s/veh)		13.4	2.5	6.4	5.5		57.9		17.1			
LOS		B	A	A	A		E		B			
Approach Delay (s/veh)		7.3			6.0			25.0				
Approach LOS		A			A			C				
Queue Length 50th (ft)		70	0	49	31		129		45			
Queue Length 95th (ft)		150	46	107	72		m181		133			
Internal Link Dist (ft)		731			936			5211			397	
Turn Bay Length (ft)			145	150			285					
Base Capacity (vph)		1113	1056	929	1384		413		890			
Starvation Cap Reductn		0	0	0	0		0		0			
Spillback Cap Reductn		0	0	0	0		0		0			
Storage Cap Reductn		0	0	0	0		0		0			
Reduced v/c Ratio		0.19	0.26	0.27	0.12		0.40		0.76			

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	45.0
Total Split (%)	38%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay (s/veh)	
Queue Delay	
Total Delay (s/veh)	
LOS	
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

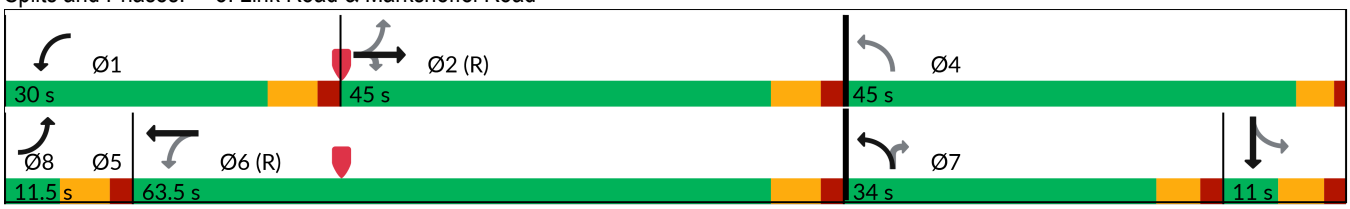
Intersection Summary

Maximum v/c Ratio: 0.83

Intersection Signal Delay (s/veh): 15.6	Intersection LOS: B
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Link Road & Marksheffel Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	2	1	9	0	457	1	233	15	45	308	121
Future Volume (vph)	85	2	1	9	0	457	1	233	15	45	308	121
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1846	0	1770	1863	1583
Flt Permitted	0.544			0.757			0.559			0.538		
Satd. Flow (perm)	1013	1863	1583	1410	1863	1583	1041	1846	0	1002	1863	1583
Satd. Flow (RTOR)			132			635		4				168
Lane Group Flow (vph)	92	2	1	10	0	497	1	269	0	49	335	132
Turn Type	pm+pt	NA	Perm	pm+pt		Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	3	8	8	5	2		1	6	6
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
Minimum Split (s)	9.5	9.5	9.5	10.5	10.5	10.5	11.0	11.0		11.0	11.0	11.0
Total Split (s)	22.0	22.0	22.0	16.0	16.0	16.0	15.0	65.0		17.0	67.0	67.0
Total Split (%)	18.3%	18.3%	18.3%	13.3%	13.3%	13.3%	12.5%	54.2%		14.2%	55.8%	55.8%
Yellow Time (s)	2.5	2.5	2.5	3.5	3.5	3.5	4.0	4.0		4.0	4.0	4.0
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
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
Total Lost Time (s)	4.5	4.5	4.5	5.5	5.5	5.5	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	C-Max
Act Effct Green (s)	23.1	20.6	20.6	12.3		6.2	80.6	76.2		85.6	84.1	84.1
Actuated g/C Ratio	0.19	0.17	0.17	0.10		0.05	0.67	0.64		0.71	0.70	0.70
v/c Ratio	0.34	0.01	0.00	0.06		0.73	0.00	0.23		0.06	0.26	0.11
Control Delay (s/veh)	43.7	42.0	0.0	38.8		7.1	6.0	11.3		7.1	9.9	2.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	43.7	42.0	0.0	38.8		7.1	6.0	11.3		7.1	9.9	2.1
LOS	D	D	A	D		A	A	B		A	A	A
Approach Delay (s/veh)		43.2			7.7			11.3			7.7	
Approach LOS		D			A			B			A	
Queue Length 50th (ft)	63	1	0	7		0	0	86		10	78	0
Queue Length 95th (ft)	105	10	0	21		0	2	158		32	229	28
Internal Link Dist (ft)		363			1558			1054			5211	
Turn Bay Length (ft)	120		120	130		130	150			150		150
Base Capacity (vph)	305	321	382	227		717	777	1172		790	1304	1159
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	0.30	0.01	0.00	0.04		0.69	0.00	0.23		0.06	0.26	0.11

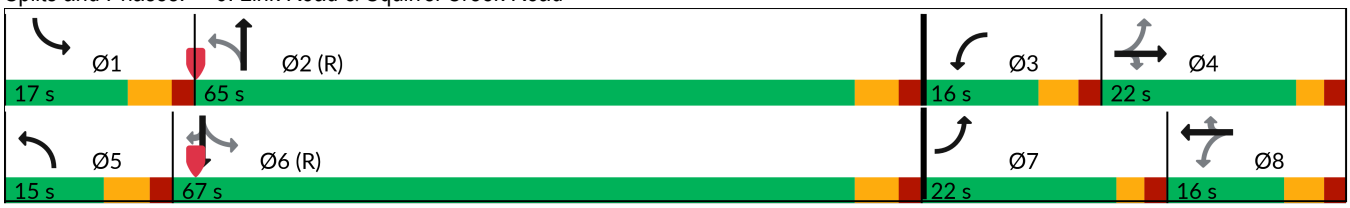
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay (s/veh): 10.8	Intersection LOS: B
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Link Road & Squirrel Creek Road



Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	322	35	13	204	32	14	17	59	33	18	11
Future Vol, veh/h	21	322	35	13	204	32	14	17	59	33	18	11
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	-	-	520	-	-	-	-	-	-	-	-
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	23	350	38	14	222	35	15	18	64	36	20	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	257	0	0	388	0	0	674	699	369	672	701	239
Stage 1	-	-	-	-	-	-	415	415	-	267	267	-
Stage 2	-	-	-	-	-	-	260	285	-	405	434	-
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	1308	-	-	1170	-	-	368	364	677	369	363	800
Stage 1	-	-	-	-	-	-	615	593	-	738	688	-
Stage 2	-	-	-	-	-	-	745	676	-	623	581	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1308	-	-	1170	-	-	333	353	677	308	352	800
Mov Cap-2 Maneuver	-	-	-	-	-	-	333	353	-	308	352	-
Stage 1	-	-	-	-	-	-	604	582	-	729	679	-
Stage 2	-	-	-	-	-	-	704	668	-	536	571	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.43	0.42	13.78	17.27
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	507	1308	-	-	1170	-	-	360
HCM Lane V/C Ratio	0.193	0.017	-	-	0.012	-	-	0.187
HCM Ctrl Dly (s/v)	13.8	7.8	-	-	8.1	-	-	17.3
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	12.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	48	13	0	18	447	52
Future Vol, veh/h	48	13	0	18	447	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	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	52	14	0	20	486	57

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	66	0	79	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	20	-
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	-	-	1535	-	924	1006
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1535	-	924	1006
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	1003	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	14.1
HCM LOS			B

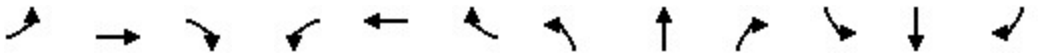
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	932	-	-	1535	-
HCM Lane V/C Ratio	0.582	-	-	-	-
HCM Ctrl Dly (s/v)	14.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	3.9	-	-	0	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	7	23	10	6	0	8	17	2	0	30	6
Future Vol, veh/h	65	7	23	10	6	0	8	17	2	0	30	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	71	8	25	11	7	0	9	18	2	0	33	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.6	7.4	7.4	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	68%	63%	0%
Vol Thru, %	63%	7%	38%	83%
Vol Right, %	7%	24%	0%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	95	16	36
LT Vol	8	65	10	0
Through Vol	17	7	6	30
RT Vol	2	23	0	6
Lane Flow Rate	29	103	17	39
Geometry Grp	1	1	1	1
Degree of Util (X)	0.034	0.116	0.021	0.044
Departure Headway (Hd)	4.188	4.057	4.257	4.066
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	846	881	835	872
Service Time	2.255	2.096	2.312	2.131
HCM Lane V/C Ratio	0.034	0.117	0.02	0.045
HCM Control Delay, s/veh	7.4	7.6	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.1	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	7	59	0	0	0	19	0	83	0	45	54
Future Volume (Veh/h)	0	7	59	0	0	0	19	0	83	0	45	54
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	8	64	0	0	0	21	0	90	0	49	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	0			8			65	40	40	130	8	0
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	0			8			65	40	40	130	8	0
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	7.0	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.4	3.3
p0 queue free %	100			100			97	100	91	100	94	95
cM capacity (veh/h)	1623			1612			838	852	1031	769	800	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	72	111	108
Volume Left	0	21	0
Volume Right	64	90	59
cSH	1700	988	934
Volume to Capacity	0.04	0.11	0.12
Queue Length 95th (ft)	0	9	10
Control Delay (s/veh)	0.0	9.1	9.4
Lane LOS		A	A
Approach Delay (s/veh)	0.0	9.1	9.4
Approach LOS		A	A

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	23.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	75	91	43	35	11
Future Volume (Veh/h)	30	75	91	43	35	11
Sign Control	Free			Stop	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	82	99	47	38	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0		138	107	148	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0		138	107	148	0
tC, single (s)	4.1		7.1	6.8	6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2		3.5	4.3	4.0	3.3
p0 queue free %	98		87	93	95	99
cM capacity (veh/h)	1623		778	710	728	1085

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	115	146	50
Volume Left	33	99	0
Volume Right	82	0	12
cSH	1623	755	791
Volume to Capacity	0.02	0.19	0.06
Queue Length 95th (ft)	2	18	5
Control Delay (s/veh)	2.2	10.9	9.9
Lane LOS	A	B	A
Approach Delay (s/veh)	2.2	10.9	9.9
Approach LOS		B	A

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	5	31	31	3	49
Future Vol, veh/h	88	5	31	31	3	49
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, %	50	2	2	2	2	2
Mvmt Flow	96	5	34	34	3	53

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	110	51	0	0	67	0
Stage 1	51	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.9	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.9	-	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-	-
Follow-up Hdwy	3.95	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	783	1018	-	-	1534	-
Stage 1	862	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	782	1018	-	-	1534	-
Mov Cap-2 Maneuver	782	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	852	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.21	0	0.42
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	791	104	-
HCM Lane V/C Ratio	-	-	0.128	0.002	-
HCM Ctrl Dly (s/v)	-	-	10.2	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

APPENDIX D

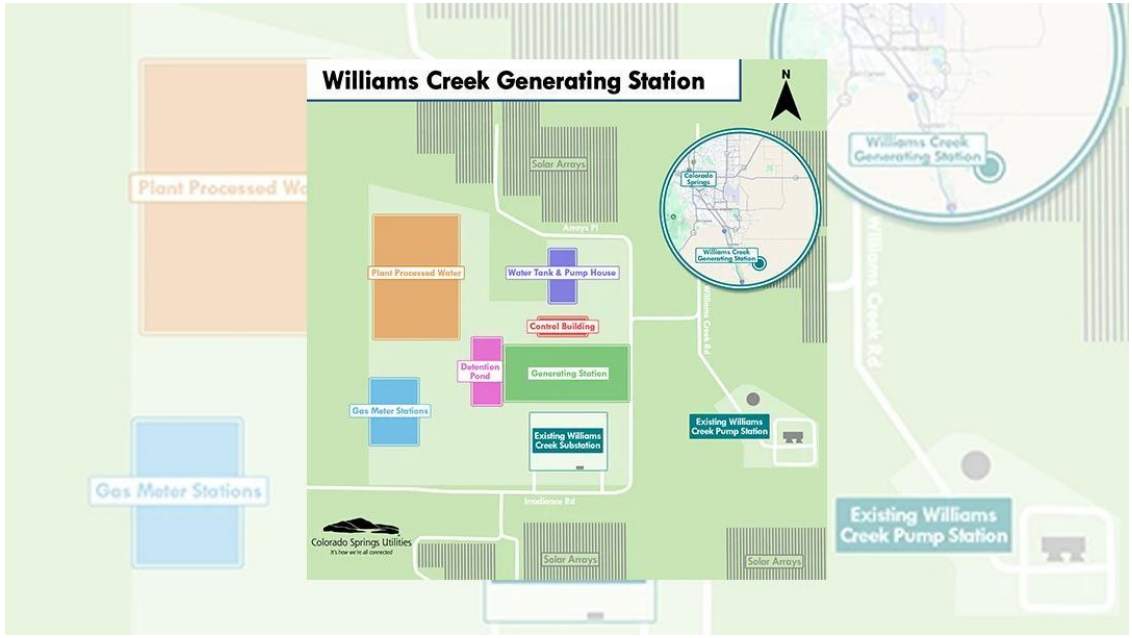
Heavy Vehicle and Workforce Trip Information

Colorado Springs Utilities

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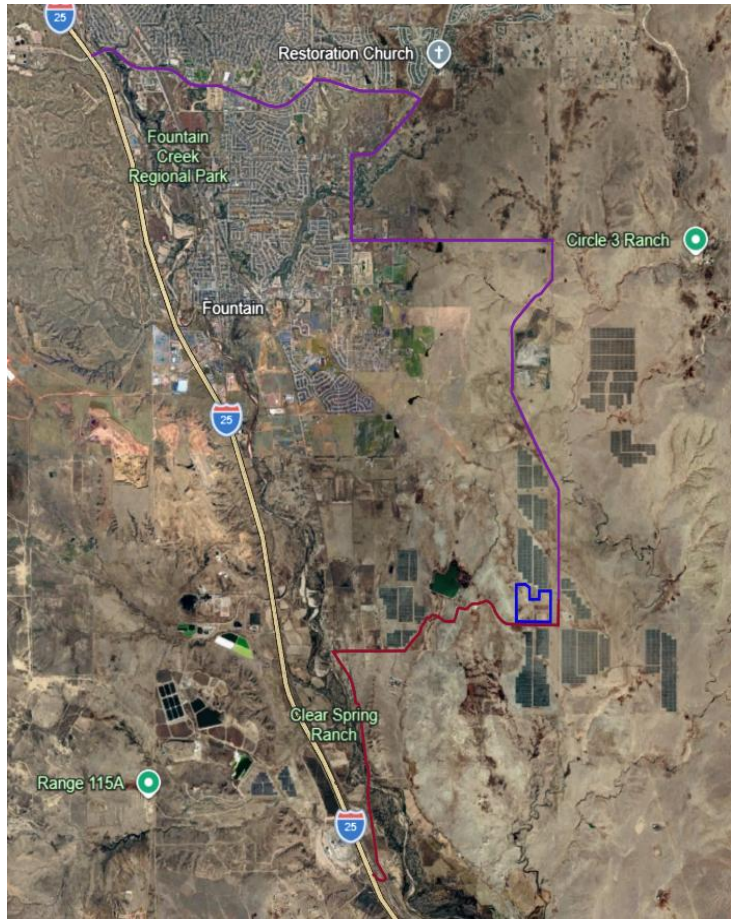
Williams Creek Generating Station Travel Plan

Construction Overview



Location	West of Williams Creek Pump Station and South of the landfill
Project Footprint	~100 Acres
Electric Power Generation	400 MW (10 x 40MW)
Construction Duration	36 Months
Construction Completion	Q3 2030
Construction: Peak Man-Power	~250

Construction Travel Routes



*All routes are subject to change due to construction or state mandated engineered routes given at time of transport.

North Route (Purple Route) – Construction Workforce/Staff Only

1. From I-25, take Exit 132A for **CO-16 East/Mesa Ridge Parkway**.
2. Continue East on **Mesa Ridge Parkway**.
3. Turn onto **South Marksheffel Road**.
4. Proceed South on **C&S Road**.
5. Turn South on **Link Road**.
6. Turn East onto **Squirrel Creek Road** and continue to **Williams Creek Road**.
7. Turn South onto **Williams Creek Road** and proceed to **Williams Creek Pump Station Access Road**
8. Turn onto **Williams Creek Pump Station Access Road**.
9. Follow the designated access route to the project site.

South Route (Maroon Route) – Equipment/Material Haul Route

1. From I-25, take Exit 122 toward **Old Pueblo Road**
2. Continue to **Old Pueblo Road** and proceed North to **Birdsall Road**
3. Turn East on **Birdsall Road**
4. Proceed through the **Woodmoor Water and Sanitation District Easement**
5. Follow designated route to destination

The TIS shows that 100% of heavy vehicle traffic comes from CO-21 before proceeding to I-25. This does not show that. Are any heavy vehicles coming from south of Boca Raton?

Construction Travel Estimates

Travel Type	Travel Route	Travel Frequency	Vehicle Weight	Number of Units
Construction Workforce (Craft)	North/South	Daily during active construction	Light-duty pickup/passenger vehicle (4,000-8,000 lbs GVW)	Estimated Peak 200 personnel
Construction Staff	North/South	Daily throughout project	Light-duty pickup/passenger vehicle (4,000-8,000 lbs GVW)	Estimated Peak 50 personnel
Major Construction Equipment Mobilization	South	One-time mobilization and demobilization deliveries	Heavy-haul transport (80,000-150,000+ lbs GVW depending on equipment)	30 total loads
Soil Imports	South	Periodic during civil construction	20-ton payload dump truck (~60,000-80,000 lbs GVW)	16,000 total loads
Aggregate Deliveries (Onsite)	South	Periodic during civil construction	20-ton payload dump truck (~60,000-80,000 lbs GVW)	300 total loads
Concrete Deliveries	South	Frequent during concrete placement activities	Ready-mix truck carrying 10 CY (~60,000-66,000 lbs GVW)	400 total loads
Onsite Asphalt Deliveries	South	Periodic during paving activities	20-ton payload asphalt truck (~60,000-80,000 lbs GVW)	200 total loads
Major Mechanical Equipment Deliveries	South	As required during equipment installation	Oversize/overweight haul vehicles (80,000-200,000+ lbs GVW)	56 total loads
Carbon Steel Pipe Deliveries	South	Periodic during piping installation	Flatbed tractor-trailer (~60,000-80,000 lbs GVW)	40 total loads
Medium Voltage Cable Deliveries	South	Periodic during electrical installation	Flatbed/reel trailer (~40,000-80,000 lbs GVW)	18 total loads
Prefabricated Building Components	South	During building erection activities	Flatbed tractor-trailer (~60,000-80,000 lbs GVW)	50 total loads
Offsite Road Improvements	South	During roadway improvements	20-ton payload dump truck (~60,000-80,000 lbs GVW)	800 total loads
Tree Removal & Dirt Work Hauling (Meter Stations)	South	Tree removal & dirt work hauling	5-axle haul trucks (typically 70,000-80,000 lbs GVW)	220 total loads
Piping Deliveries (Meter Stations)	South	Piping deliveries	5-axle haul trucks (typically 70,000-80,000 lbs GVW)	5 total loads
Other Equipment Deliveries (Meter Stations)	South	Other equipment deliveries	5-axle trucks (typically 70,000-80,000 lbs GVW)	7 total loads
Oversized Loads (Generating Station)	South	5 phases - 31 loads per phase* and 10 when ready	Oversize haul transport (80,000-150,000+ lbs GVW depending on equipment)	165 total loads
Concrete Deliveries (Generating Station)	South	Frequent during concrete placement activities	Ready-mix truck carrying 10 CY (~60,000-66,000 lbs GVW)	1,500 total loads
Flatbed/ 53' Dry Van Loads (Generating Station)	South	5 phases - 23 loads per phase* and 30 when ready	Tractor trailer (~60,000-80,000 lbs GVW)	145 total loads
Gooseneck Loads (Generating Station)	South	5 phases - 1 per phase* and 10 when ready	Gooseneck trailer combination (~15,000-40,000 lbs GVW)	15 total loads
Sprinter Van Loads (Generating Station)	South	5 phases - 1 in phase* 4, 1 in phase* 5 and 6 when ready	Sprinter van (~4,000-11,000 lbs GVW)	8 total loads

*Each Phase will construct two full packages

These peak numbers don't match the TIS numbers

Does this mean that southbound is loaded and northbound is not? Please clarify.


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Kiewit

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WILLIAMS CREEK GENERATING STATION
PRELIMINARY CONSTRUCTION TRAFFIC PLAN

REV	DATE	DESCRIPTION	ORIG	CHK	APPR
DRAFT	20-Jul-2026	Draft	JS		

PROJECT	DOCUMENT NUMBER	REVISION
WCGS		DRAFT

KIEWIT CONFIDENTIAL & PROPRIETARY INFORMATION

Revision Control Sheet

REVISION	SECTION	CHANGE DESCRIPTION
DRAFT		

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1.0 INTRODUCTION

The overall project consists of the design and construction of a 400 MW single-cycle natural gas power plant with onsite zero liquid discharge wastewater treatment, a control building, and associated facilities for 24/7 operations at the project site near Williams Creek in Colorado Springs, CO. This document addresses the anticipated full buildout of Kiewit's current traffic estimate scope, which includes the wastewater treatment scope, control building, associated balance of plant items, and external roadway improvements leading up to the site. The power block and gas gates are excluded from this estimate and are assumed to be addressed by others.

This traffic planning information is preliminary and is intended to support the 1041 permit Traffic Management Plan and traffic impact analysis. Estimated construction traffic identified herein should be considered incremental to existing or normal site traffic. Ongoing operational traffic has not been estimated at this stage and should be confirmed separately by the Owner or operations team, as applicable.

Mobilization assumptions include construction trailers, temporary facilities, construction equipment, and preliminary crane or support equipment movements to the extent known at this stage. Specific crane sizing, configuration, support truck requirements, and detailed equipment setting plans have not been finalized and will be developed as engineering, vendor information, and construction planning advance.

2.0 SUMMARY OF CONSTRUCTION

2.1 SCHEDULE

Construction is anticipated to mobilize in September 2027. Major construction activities are anticipated to be substantially complete in July 2029, with tie-in, start-up, commissioning, and closeout activities continuing through November 2029. Demobilization is anticipated in December 2029.

The schedule periods are intended to support traffic phasing for the Traffic Management Plan and traffic impact analysis and do not represent final construction sequencing or contractor means and methods.

Activity	Anticipated Start	Anticipated Finish	Crew / Workforce Basis	Manhours / Quantity
Mobilization	Sep 2027	Sep 2027	Site setup and temporary facilities	Included
Earthwork / Civil	Sep 2027	Apr 2028	50 hr/week; crew of 40	71,000 MH
Concrete	Oct 2027	Approx. Jun 2028	50 hr/week; crew of 10	18,000 MH

Steel	Nov 2027	Approx. Jan 2028	50 hr/week; crew of 5	2,000 MH
Mechanical Equipment Setting	Nov 2027	Approx. Mar 2028	50 hr/week; crew of 10	8,000 MH
Piping	Oct 2027	Approx. Jan 2029	50 hr/week; crew of 15	50,000 MH
Electrical	Dec 2027	Approx. Aug 2028	50 hr/week; crew of 18	32,000 MH
Building Subcontractor	Apr 2028	Approx. Nov 2028	230 days; craft and staff of 20	20,000 SF building
Major Construction Complete	-	Jul 2029	Major field construction substantially complete	-
Tie-in / Start-up / Commissioning	Aug 2029	Nov 2029	Commissioning and turnover support	-
Demobilization	Dec 2029	Dec 2029	Remove temporary facilities and closeout	-

2.2 LABOR BASIS

Below is a summary of preliminary estimated onsite labor hours for the construction activities for the purpose of early traffic planning.

Labor assumptions are used to estimate daily workforce-related passenger vehicle trips, with each worker conservatively assumed to generate one inbound and one outbound trip per workday.

Labor Category	**Total Estimated Hours**
Staff Hours	95,000 hours
Craft Hours	240,000 hours
Total Project Labor Hours	335,000 hours

2.2.1 PEAK CRAFT AND STAFF SUMMARY

Below is a further breakdown of onsite labor hours by staff and craft disciplines to identify potential peak onsite workforce periods.

Peak workforce is expected during overlapping civil, concrete, mechanical, piping, electrical, and building activities. The peak onsite workforce is used as the conservative basis for daily construction workforce trip estimates.

Activity	Start	Crew Size / Workforce	Total MH / Quantity
Earthwork / Civil	Sep 2027	40	71,000 MH
Concrete	Oct 2027	10	18,000 MH
Steel	Nov 2027	5	2,000 MH
Mechanical Equipment Setting	Nov 2027	10	8,000 MH
Piping	Oct 2027	15	50,000 MH
Electrical	Dec 2027	18	32,000 MH
Building Construction	Apr 2028	20	20,000 SF building; 230-day duration
Staff Personnel	Throughout	Approx. 20 average / 35 peak	95,000 staff hours

2.2.2 ESTIMATED WORKFORCE BY PERIOD

The following table summarizes anticipated craft workforce by period based on currently identified activity overlaps. These values are intended to support planning-level traffic estimates by construction period.

Period	Active Crafts / Activities	Estimated Craft Workforce
Sep 2027	Earthwork / civil	40
Oct 2027	Earthwork, concrete, piping	65
Nov 2027	Earthwork, concrete, piping, steel, mechanical	80
Dec 2027 - Mar 2028	Earthwork, concrete, piping, steel, mechanical, electrical	Approx. 98
Apr 2028 - Jun 2028	Civil closeout, concrete, mechanical, piping, electrical, building	Approx. 113 peak craft
Jul 2028 - Nov 2028	Piping, electrical, building	Approx. 53
Dec 2028 - Jul 2029	Piping and site completion activities	Approx. 15 to 40
Aug 2029 - Nov 2029	Tie-in, start-up, and commissioning support	Approx. 20 to 35
Dec 2029	Demobilization	Approx. 10 to 15

2.2.3 PEAK DAILY WORKFORCE TRIPS

Peak daily workforce trips are calculated as one inbound and one outbound vehicle trip for each onsite craft or staff person. Actual daily traffic may vary based on carpooling, shift staggering, remote work, or final staffing plans.

Category	Personnel	Daily Workforce Vehicle Trips Assumption
Peak Craft Workforce	113	226 one-way trips/day assuming one arrival and one departure per worker
Peak Staff Workforce	35	70 one-way trips/day assuming one arrival and one departure per staff member
Total Peak Onsite Workforce	148	Approx. 296 one-way workforce trips/day

2.3 DELIVERIES

While project scope is still being developed, the below uses preliminary equipment and scope descriptions for an initial schedule of major deliveries during construction.

Delivery estimates are grouped by major material and equipment type to support conversion of construction quantities into planning-level truckload and one-way trip estimates.

2.3.1 MAJOR CONSTRUCTION EQUIPMENT AND MATERIALS

Item	Estimated Quantity
Major construction equipment count	30 pieces
Major mechanical equipment deliveries	56 deliveries
Concrete deliveries	4,000 CY
Onsite asphalt deliveries	4,000 tons
Aggregate deliveries	6,000 tons
Carbon steel pipe deliveries	21,000 LF, various sizes
Medium voltage cable deliveries	144,000 LF
Prefabricated building components	20,000 SF
Offsite Birdsall Road improvement - Aggregate Base	16,000 tons
Offsite Birdsall Road improvement - Hot Mix Asphalt	16,000 tons

2.3.2 DELIVERY TRUCKLOAD ESTIMATE

The following truckload estimates are preliminary planning values and should be refined using final vendor logistics, haul capacities, delivery sequencing, and contractor means and methods.

Truckload estimates are shown as loads, with one-way trips calculated using both inbound and outbound vehicle movements. Final trip timing will depend on procurement, delivery sequencing, vendor logistics, and construction execution planning.

Material / Equipment	**Planning Assumption**	**Estimated Truckloads**
Major construction equipment	1 move-in delivery per major unit; demobilization additional; includes temporary facilities and preliminary crane/support equipment movements to the extent known	Approx. 30 initial deliveries
Aggregate	20 tons per truck	Approx. 300
Concrete	10 CY per truck (i.e., 20 tons)	Approx. 400
Onsite asphalt	20 tons per truck	Approx. 200
Major mechanical equipment	1 major shipment per delivery	56
Pipe	Varies by pipe diameter and shipment configuration, 30 joints per load	35
Electrical deliveries	Varies by reel size and shipment configuration, 8,000 LF per load	18
Prefabricated building components	Varies by panel/module layout	50
Onsite Approximate one-way truck trips	**Inbound plus outbound movement**	**Approx. 1,912 one-way trips**
Offsite Birdsall Road improvement - Aggregate Base	20 tons per truck	Approx. 800
Offsite Birdsall Road improvement - Hot Mix Asphalt	20 tons per truck	Approx. 800
Offsite Approximate one-way truck trips	**Inbound plus outbound movement**	**Approx. 1,600 one-way trips**