

Ranch at Cheyenne Mountain Traffic Impact Study

Prepared for:



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Executive Summary

The Ranch at Cheyenne Mountain development (the “Project”) is located northwest of the intersection of State Highway 115 and Norad Road/O’Connell Boulevard in Colorado Springs, Colorado. The Project is proposed as a medium-density, mixed-use residential development consisting of either 785 multifamily residential units or a combination of 655 multifamily residential units and 130 single-family attached residential units, along with three large open-space areas. Because both development scenarios are anticipated to generate the same overall number of trips, the trip generation and traffic analysis presented in this report are based on the assumption that the Project will consist of 785 multifamily residential units. Both residential land uses are permitted under the applicable zoning criteria. The final combination of residential uses will be determined during the development plan process. At that time, a traffic letter will be submitted to provide updated traffic analysis, as necessary, and to confirm the assumptions and conclusions presented in this report.

Based on the trip generation analysis, the project is anticipated to generate approximately 4,660 daily trips, including 300 trips during the morning peak hour and 391 trips during the afternoon peak hour. Because no nearby transit service is available, all project trips were assumed to be made by personal vehicles. Access to the development will be provided through several access points. One full-movement access point will be located along Norad Road/O’Connell Boulevard near the State Highway 115 southbound off-ramp. An additional three-legged intersection will provide access at the existing roundabout at Broadmoor Bluffs Drive and Lytle Valley Drive. The southbound approach of the roundabout will serve as an access route extending south toward Norad Road. The final access point to the project will be provided via Campglen Drive, located north of the project. A supplemental traffic letter will be prepared at a later date to evaluate the proposed internal roadways and access driveways in future phases of the project. A total of eleven intersections were evaluated as part of this study to assess the project’s effects on the surrounding transportation network under both the buildout year (2030) and horizon year (2050) conditions.

The study was prepared in accordance with the City of Colorado Springs Traffic Study Format and Traffic Criteria Manual (TCM) which provided the basis for the access and auxiliary-lane evaluations. Trip generation was developed using the *ITE Trip Generation Manual*, 12th Edition, and Synchro 12 was used to perform capacity analysis, including level of service (LOS), queue, and delay results, consistent with the *Highway Capacity Manual*, 7th Edition. A review of historical traffic volumes within the study area indicated a negative annual growth rate in the vicinity of the project, while some areas experienced an annual growth rate of approximately one percent. To provide a conservative analysis, a one percent annual growth rate was applied to the collected traffic counts. This growth rate was reviewed and approved by the City of Colorado Springs for use in the analysis. A conservative growth rate was also applied to the internal residential roadways. However, the surrounding area is largely developed to its anticipated maximum capacity, and significant additional traffic growth is not expected. Therefore, the projected average daily traffic (ADT) volumes presented in this analysis represent a conservative estimate and are substantially higher than the traffic volumes anticipated to occur under actual conditions.

Summary of Findings:

Capacity Analysis: The study determined that all analyzed intersections would operate at an acceptable LOS, with or without the project, and without any excessive queuing or delay, both in the buildout year (2030) and horizon year (2050).

Existing Conditions Analysis: PTV Vistro uses the NCHRP Report No. 716 methodology to estimate 24-hour traffic volumes from hourly counts for the signal warrant analysis. The analysis indicated that a traffic signal is not warranted at any of the stop-controlled intersections studied in this report.

Auxiliary Lane Requirement: The intersections studied were evaluated following the guidelines from the City of Colorado Springs Traffic Criteria Manual. The following improvements are recommended:

Buildout (2030) Total:

Norad Road/Broadmoor Bluffs Drive (#1)

- A 315- ft southbound right-turn lane. Include 160-ft of taper and 155-ft of deceleration lane.
- A 235-ft eastbound right-turn lane. Include 120-ft of taper and 115-ft of deceleration lane.

1. Introduction

The Ranch at Cheyenne Mountain project (the Project) is an approximately 110.337-acre development located in southwest Colorado Springs, Colorado. The Project is proposed as a medium-density, mixed-use residential development consisting of either 785 multifamily residential units or a combination of 655 multifamily residential units and 130 single-family attached residential units, along with three large open-space areas. Because both development scenarios are anticipated to generate the same overall number of trips, the trip generation and traffic analysis presented in this report are based on the assumption that the Project will consist of 785 multifamily residential units. The Project will be constructed on vacant land and lies on the west side of State Highway 115, bounded on the north by Campglen Drive and bounded on the south by Norad Road.

It is anticipated that the Project will be constructed by the end of 2030 and will be served by three designated access points. Access to the Project is proposed via Norad Road/SH-115 Southbound Off-Ramp, Broadmoor Bluffs Drive, and Campglen Drive. The existing roundabout at Broadmoor Bluffs Drive and Lytle Valley Drive will serve as an access west of the project.

The purpose of this traffic impact study is to assess the effects this proposed development will have on the surrounding transportation system and to identify whether improvements or mitigation measures are needed to support safe and efficient operations.

The report is organized as follows:

- **Executive Summary** – Describes the overall overview of the study findings and recommendations from the studies.
- **Introduction** – Describes the purpose and intent of this study.
- **Area Conditions** – Describes the study area land uses as well as the existing and future roadway network.
- **Proposed Development** – Describes the proposed developments and their location.
- **Projected Traffic** – Identifies the expected number of daily and peak hour trips that will be generated by the Ranch at Cheyenne Mountain development. The expected external trip distribution is also shown.
- **Traffic Analysis** – Analyzes the existing conditions in the study area, as well as the buildout year (2030) and horizon year (2050) conditions, both with and without the project, for the Ranch at Cheyenne Mountain.
- **Findings and Conclusions** – Identifies any deficiencies in the study area roadway network with or without the project and mitigation measures that will alleviate any identified deficiencies.
- **Recommendations** – Provides a summary of the study findings.

2. Area Conditions

This section describes the existing conditions and the planned level of improvements adjacent to the proposed development.

2.1 Site Accessibility

A brief overview of the location of the Project development and its surrounding transportation system is provided below.

Ranch at Cheyenne Mountain is located north of Norad road and west of State Highway 115.

The existing roadway system consists of the following transportation facilities:

State Highway 115 is a north-south facility classified as a principal arterial by the Colorado Department of Transportation (CDOT) that provides two lanes in each direction. No sidewalk is provided along this road. The ADT threshold capacity for this road is 60,000 vehicles according to the City of Colorado Springs Traffic Criteria Manual (TCM). The posted speed limit is 55 mph on this roadway.

Academy Boulevard – is an east-west transportation facility which provides a four-lane divided roadway. The City of Colorado Springs Major Thoroughfare Plan (MTP) classifies this road as an expressway with a daily traffic capacity of up to 85,000 according to the City of Colorado Springs TCM. The posted speed limit is 50 mph.

Broadmoor Bluffs Drive – is a north-south roadway classified as a local road in the City of Colorado Springs Metropolitan Transportation Plan (MTP). The roadway consists of one travel lane in each direction, provides a bike lane, and has a posted speed limit of 30 mph. Broadmoor Bluffs Drive intersects with Academy Boulevard and Farthing Drive. As part of the Ranch at Cheyenne Mountain development, a new roadway will be constructed within the project site to connect Broadmoor Bluffs Drive to Norad Road. This connection will provide an additional access point to the development from the west.

Norad Road - is an east-west roadway classified as a non-county-maintained road. The roadway consists of one travel lane in each direction and has a posted speed limit of 40 mph. Norad Road includes curb and gutter improvements but does not provide pedestrian sidewalks. In addition to serving adjacent properties, the roadway provides the primary access to the Cheyenne Mountain Space Force Station. As part of the Ranch at Cheyenne Mountain development, the existing intersection of Norad Road and the State Highway 115 southbound on-ramp will be reconstructed as a full movement intersection. Upon completion of the development, this intersection will serve as the primary access to the Project.

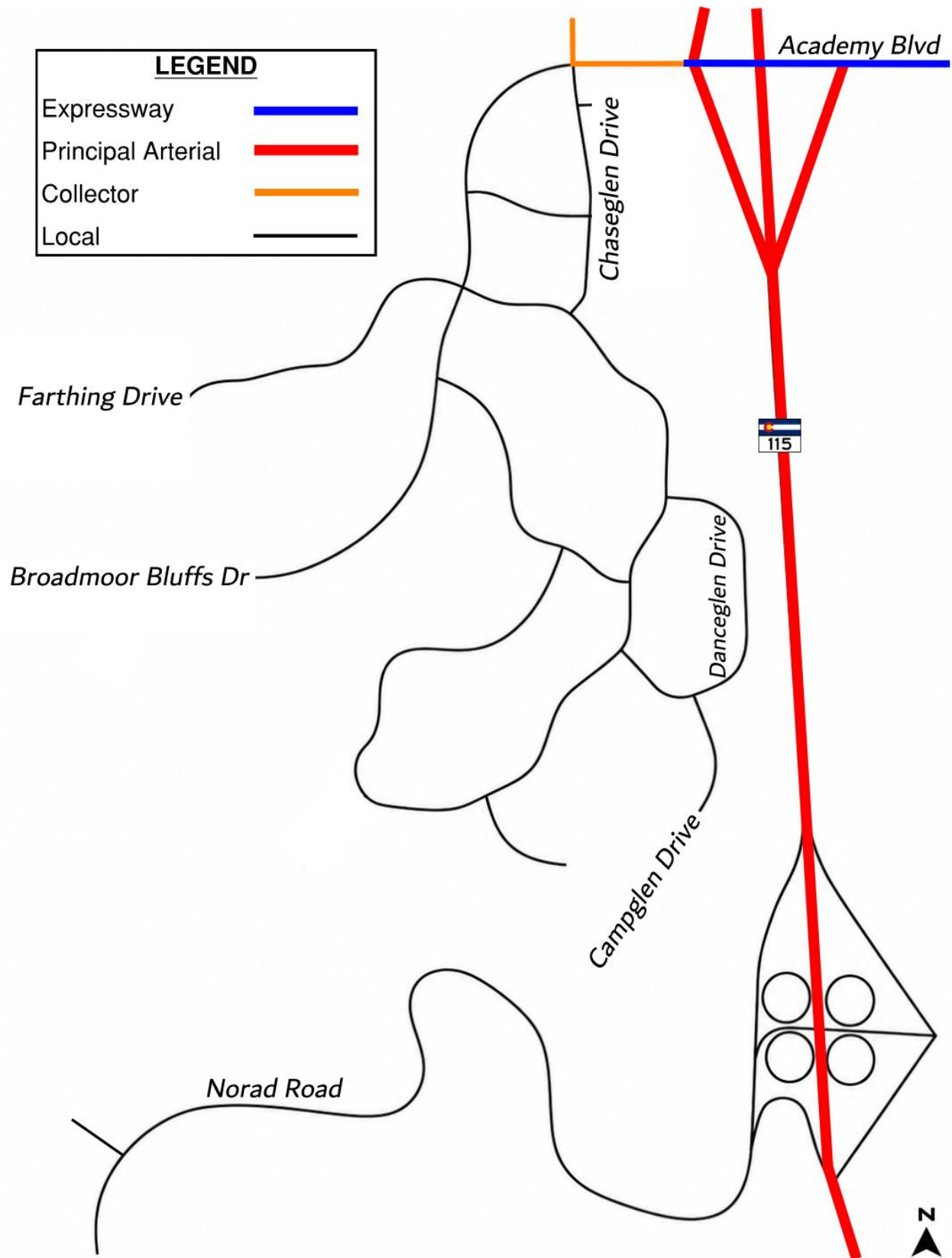
Figure 1 shows the vicinity map and the location of the project.

Figure 1. Vicinity Map



Roadways adjacent to the new development were classified based on the City of Colorado Springs Major Thoroughfare Plan (CCS) and the 2045 Major Transportation Corridor Plan (EPC) and are shown in Figure 2.

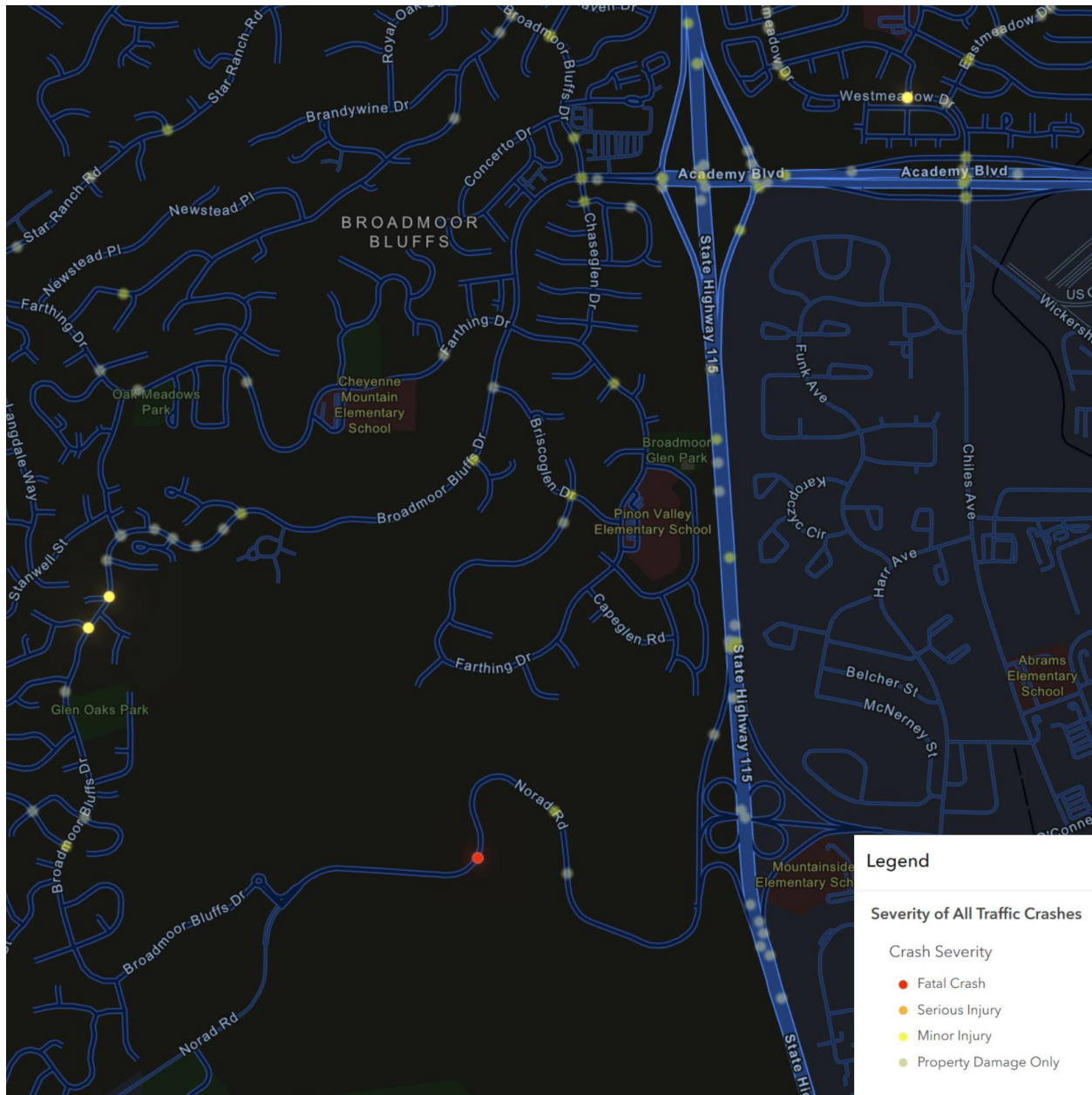
Figure 2. Roadway Classification



2.2 Crash History

The Pikes Peak Area Council of Governments (PPACG) website was used to obtain crash data for the project vicinity, including fatal and severe crashes. Crash data from 2020 through 2024 were reviewed and are presented on the website as a crash density map. As shown in Figure 3, one fatal crash occurred along Norad Road in 2020, and eight minor crashes were recorded near the project. No severe crashes were reported within the project vicinity during the 2020–2024 study period.

Figure 3. Crash Map



2.3 Existing Conditions Analysis

Turning movement counts were taken at the studied intersections and daily two-way traffic counts were taken at select locations along the roadway segments. Traffic counts were collected on June 17, 2026 to analyze existing and future conditions. Data collection focused on the intersections listed below, which were selected in coordination with the City of Colorado Springs. Morning peak hour counts were conducted between 7:00 AM and 9:00 AM. Afternoon peak hour counts were conducted between 4:00 PM and 6:00 PM. The existing traffic counts are provided in Appendix A – Traffic Counts. The existing conditions analysis focuses on the following intersections:

- Broadmoor Bluffs Drive/Norad Road
- Norad Road/SH-115 SB Off-Ramp/Oconnell Boulevard
- Campglen Drive/Danceglen Drive
- Farthing Drive/Danceglen Drive south
- Farthing Drive/Danceglen Drive north
- Chaseglen Drive/Farthing Drive
- Broadmoor Bluffs Drive/Farthing Drive
- Academy Boulevard/Chaseglen Drive/Broadmoor Bluffs Drive
- Academy Boulevard/SH-115 SB Ramps

The AM and PM peak hour volumes as well as the daily traffic volumes at the studied intersections are shown in Figure 4. The existing intersection configurations and traffic control are shown in Figure 5.

Figure 4. Existing Traffic Volumes

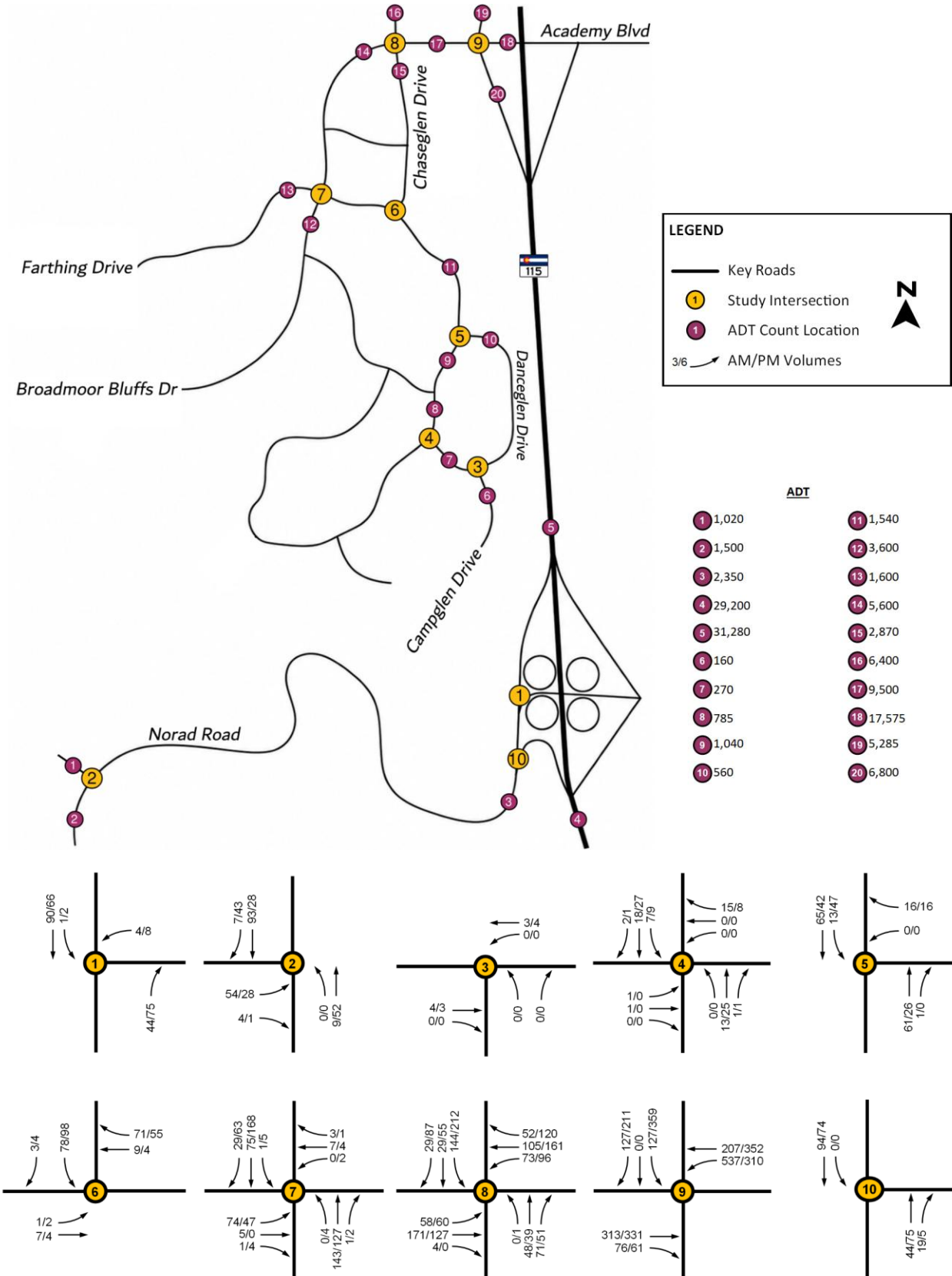
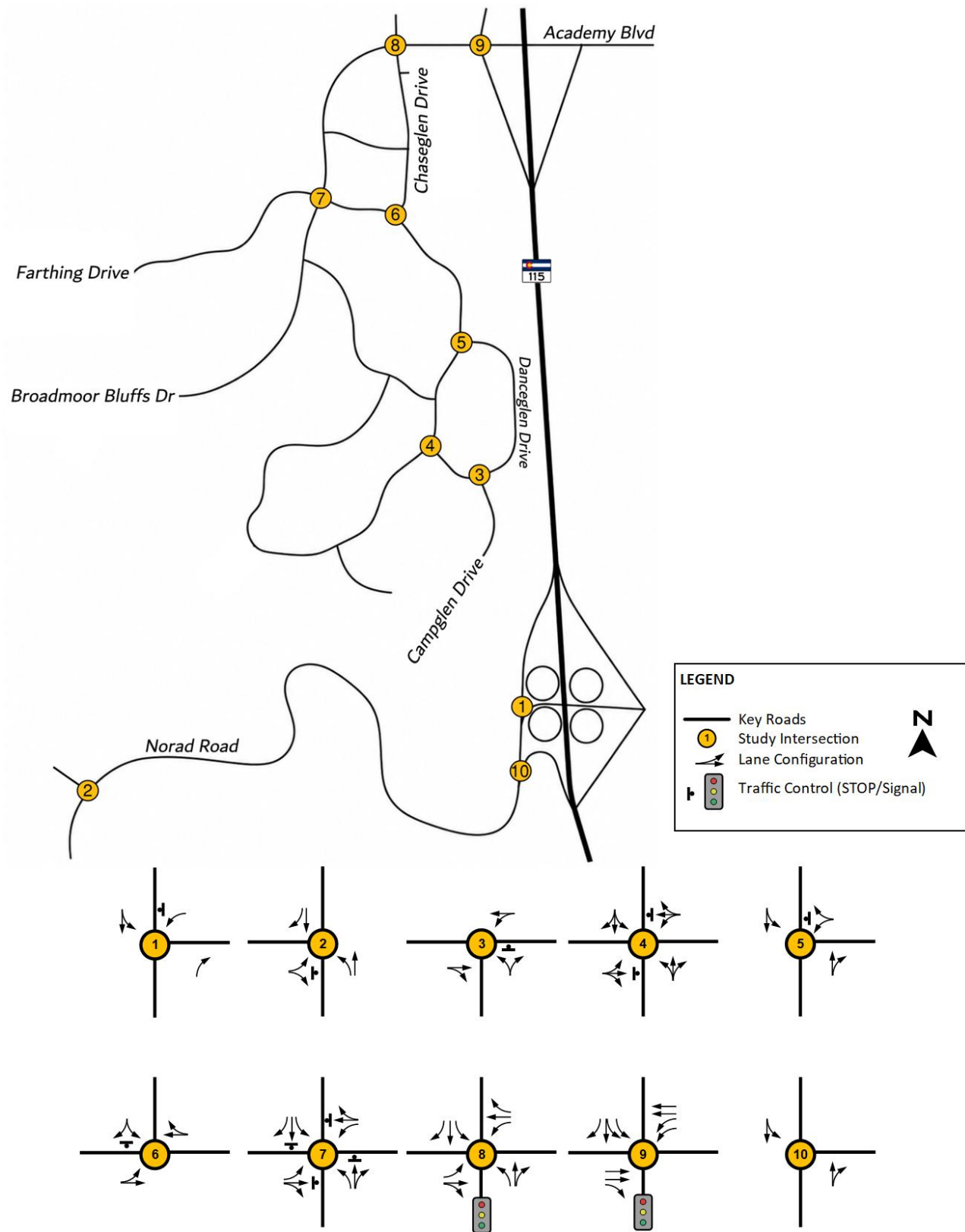


Figure 5. Existing Intersection Configurations & Traffic Control



To determine how efficiently and effectively the perimeter street system accommodates the existing traffic volumes, the key intersections in the vicinity of the proposed development were analyzed using Synchro 12 software. The results are shown as Levels of Service (LOS). LOS is a qualitative measure used to describe the condition of traffic flow and delay, ranging from excellent conditions at LOS A to very poor conditions at LOS F. In general, agencies try to maintain a minimum of LOS D for intersection and approach operations. This report will show movement LOS for informational and illustrative purposes, but mitigation will only be triggered by an intersection or approach falling below LOS D.

Table 1 provides a description of conditions for each LOS at a signalized intersection.

Table 1. Signalized Intersection Level of Service Criteria

Level of Service	Average Stopped Delay (seconds per vehicle)	Description
A	≤ 10	Very low delay. Most vehicles do not stop.
B	> 10 to 20	Generally good progression. Slight delays.
C	> 20 to 35	Increased number of stopped vehicles
D	> 35 to 55	Noticeable congestion.
E	> 55 to 80	High delays and frequent cycle failures.
F	> 80	Forced flow. Extensive queuing.

Source: Highway Capacity Manual 7th Edition

For unsignalized (side-street stop controlled) intersections, Synchro 12 software was used again. The software applies the Transportation Research Board's Highway Capacity Manual 7th Edition (HCM) methodology for unsignalized intersections to determine average control delay per vehicle (measured in seconds) for each stop-controlled movement. The method incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. For side street stop-controlled intersections, delay is represented as the average delay per vehicle for the worst approach, not the overall intersection.

Table 2 summarizes the relationship between delay and level of service for an unsignalized intersection.

Table 2. Unsignalized Intersection Level of Service Criteria

Level of Service	Average Total Delay (seconds per vehicle)	Description
A	≤ 10	Little or no conflicting traffic for minor street approach.
B	> 10 to 15	Minor street begins to notice absence of available gaps.
C	> 15 to 25	Minor street begins experiencing delay for available gaps.
D	> 25 to 35	Minor street starts to experience queuing.
E	> 35 to 50	Extensive minor street queuing due to insufficient gaps.
F	> 50	Insufficient gaps to allow minor street traffic to cross safely through the major street traffic stream.

Source: Highway Capacity Manual 7th Edition

Intersection LOS analysis was performed for the study area intersections, and the results are shown in Table 3.

Table 3. Existing Conditions Intersection Operations

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
1	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	NBR	A	A	NB	A	NBT	A
				SB	A	SBL	A		SB	A	SBL	A
				WB	A	WBL	A		WB	A	WBL	A
2	Norad & Broadmoor Bluffs	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBT	A				NBT	A
						SBT	A				SBT	A
				SB	A	SBR	A		SB	A	SBR	A
						EBL	A				EBL	A
						EBR	A				EBR	A
3	Danceglen & Campglen	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBR	A				NBR	A
						EBT	A				EBT	A
				EB	A	EBR	A		EB	A	EBR	A
						WBL	A				WBL	A
						WBT	A				WBT	A
4	Farthing & Danceglen S	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBT	A				NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
						SBR	A				SBR	A
				EB	A	EBL	A		EB	A	EBL	A
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A
5	Farthing & Danceglen N	TWSC	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
						SBL	A				SBL	A
				SB	A	SBR	A		SB	A	SBR	A
						WBL	A				WBL	A
						WBR	A				WBR	A
6	Farthing & Chaseglen	TWSC	A	SB	A	SBL	A	A	SB	A	SBL	A
						SBR	A				SBR	A
						EBL	A				EBL	A
				EB	A	EBT	A		EB	A	EBT	A
						WBT	A				WBT	A
						WBR	A				WBR	A
7	Broadmoor Bluffs & Farthing	AWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBT	A				NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	B
						SBR	A				SBR	A
				EB	A	EBL	A		EB	A	EBL	A
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
8	Academy & Chaseglen	Signalized	B	NB	B	NBL	A	B	NB	B	NBL	B
						NBT	A				NBT	A
						NBR	B				NBR	B
				SB	B	SBL	B		SB	B	SBL	B
						SBT	B				SBT	B
						SBR	B				SBR	B
				EB	B	EBL	B		EB	B	EBL	B
						EBT	A				EBT	A
						EBR	B				EBR	B
				WB	C	WBL	C		WB	B	WBL	C
						WBT	C				WBT	B
						WBR	C				WBR	B
9	Academy & SH-115 SB Off-Ramp	Signalized	C	SB	C	SBL	C	B	SB	B	SBL	C
						SBT	C				SBT	C
						SBR	A				SBR	A
				EB	C	EBT	C		EB	C	EBT	C
						EBR	A				EBR	A
				WB	B	WBL	B		WB	B	WBL	C
						WBT	A				WBT	A
						NBT	A		NB	A	NBT	A
						NBR	A				NBR	A
10	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	SBL	A	A	SB	A	SBL	A
						SBR	A				SBR	A
				SB	A							

As shown in Table 3, all studied intersections operate at an acceptable LOS. According to the City of Colorado Springs TCM, acceptable operations are defined as any operations at LOS D or better. Therefore, Matrix does not recommend any mitigations for the existing conditions. Note that the HCM LOS for stop-controlled intersection is based on the worst movement.

3. Proposed Development

The Ranch at Cheyenne Mountain development is located west of Highway 115 and north of Norad Road. The approximately 110.337-acre development consists of medium density, mixed-use residential area and three open space areas.

The development will be accessible from Norad Road via a future community collector roadway extending from Norad Road/SH-115 southbound off-ramp to Campglen Drive, as well as through a local roadway connection from the Broadmoor Bluffs Drive roundabout to Campglen Drive. Additional access will be provided from the north via Campglen Drive, a local roadway.

The overall site plan for the development is presented in Figure 6. The site plan can be found in Appendix F – Supporting Documents. No new adjacent developments are planned in the surrounding area; therefore, no additional development traffic was included in the background traffic volumes.

Figure 6. Ranch at Cheyenne Mountain Site Plan



4. Proposed Development Traffic

This section documents how much traffic the project development is expected to generate and how the external site trips will be distributed on the adjacent roadway network.

4.1 Trip Generation

The vehicle trips associated with the project were calculated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 12th Edition. This methodology consists of choosing an independent variable for the land use for a particular time of day. The independent variable correlates to the variation in trip ends and is related to the land use. The value of the independent variable is either multiplied by a weighted average or used in a regression equation to calculate the trips generated by the land use category. The *ITE Trip Generation Manual* provides guidance on when to use the weighted average versus the regression equation. Table 4 shows the trips that are expected to be generated by Ranch at Cheyenne Mountain at build out (2030) year. It was assumed that 100% of trips would be made by personal vehicles and no public transit use was assumed for this development. Because the maximum number of dwelling units supported by the selected trip generation methodology is 689 units, and the total number of proposed multi-family dwelling units exceeds this threshold, the trip generation was split into two separate calculations. The resulting trips from each calculation were then added together to determine the total multi-family trip generation. A mixed-use residential land use is also permitted within the development and will be analyzed as part of future development plans.

Table 4. Ranch at Cheyenne Mountain Trip Generation

Development	Code - Land Use - Units	AM			PM			Daily
		In	Out	Total	In	Out	Total	Total
PA-1	220 - Multifamily (Low-Rise) - 689 DU	61	193	254	210	128	338	4,000
	220 - Multifamily (Low-Rise) - 96 DU	11	35	46	33	20	53	660
TOTAL		72	228	300	243	148	391	4,660

4.2 Trip Distribution

Figure 7 illustrates the anticipated external distribution of site-generated trips. This distribution was developed based on the collected directional traffic counts and the locations of major attractions in the surrounding area. Given the presence of an elementary school near the project, Matrix assumed that 15 percent of the total trips generated by the Ranch at Cheyenne Mountain development will use Campglen Drive for school drop-off and pick-up activities and continue through the residential area to the north.

4.3 Traffic Growth

Traffic growth within the study area was evaluated using data from the Colorado Department of Transportation (CDOT) Traffic Count Data System (TCDS) and the Pikes Peak Area Council of Governments (PPACG). At the southbound off-ramp from State Highway 115 to Norad Road, both the CDOT and PPACG databases indicate negative traffic growth, based on data from 2010 to 2020 and 2022 to 2025, respectively. Along State Highway 115 south of Norad Road, the CDOT TCDS indicates an average annual growth rate of 1.57 percent between 2004, the earliest available count, and 2024, the most recent available count. In contrast, PPACG data indicate a negative annual growth rate between 2018 and 2025. Along State Highway 115 south of Academy Boulevard, both the CDOT TCDS and PPACG data indicate an average annual growth rate of approximately 1 percent over the available data periods, which range from 2006 to 2025. To provide a conservative basis for the analysis, Matrix applied an annual traffic growth rate of **1 percent**. The resulting growth factor for the buildout year of 2030 is **1.082** and **1.608** for the horizon year of 2050. It should also be noted that a conservative growth rate was applied to the internal residential roadways. In reality, the surrounding area is already developed to its maximum capacity, and significant additional traffic growth is not anticipated. Therefore, the projected ADT volumes presented in this analysis are considerably more conservative and substantially higher than what is expected to occur under actual conditions.

Figure 7. Trip Distribution

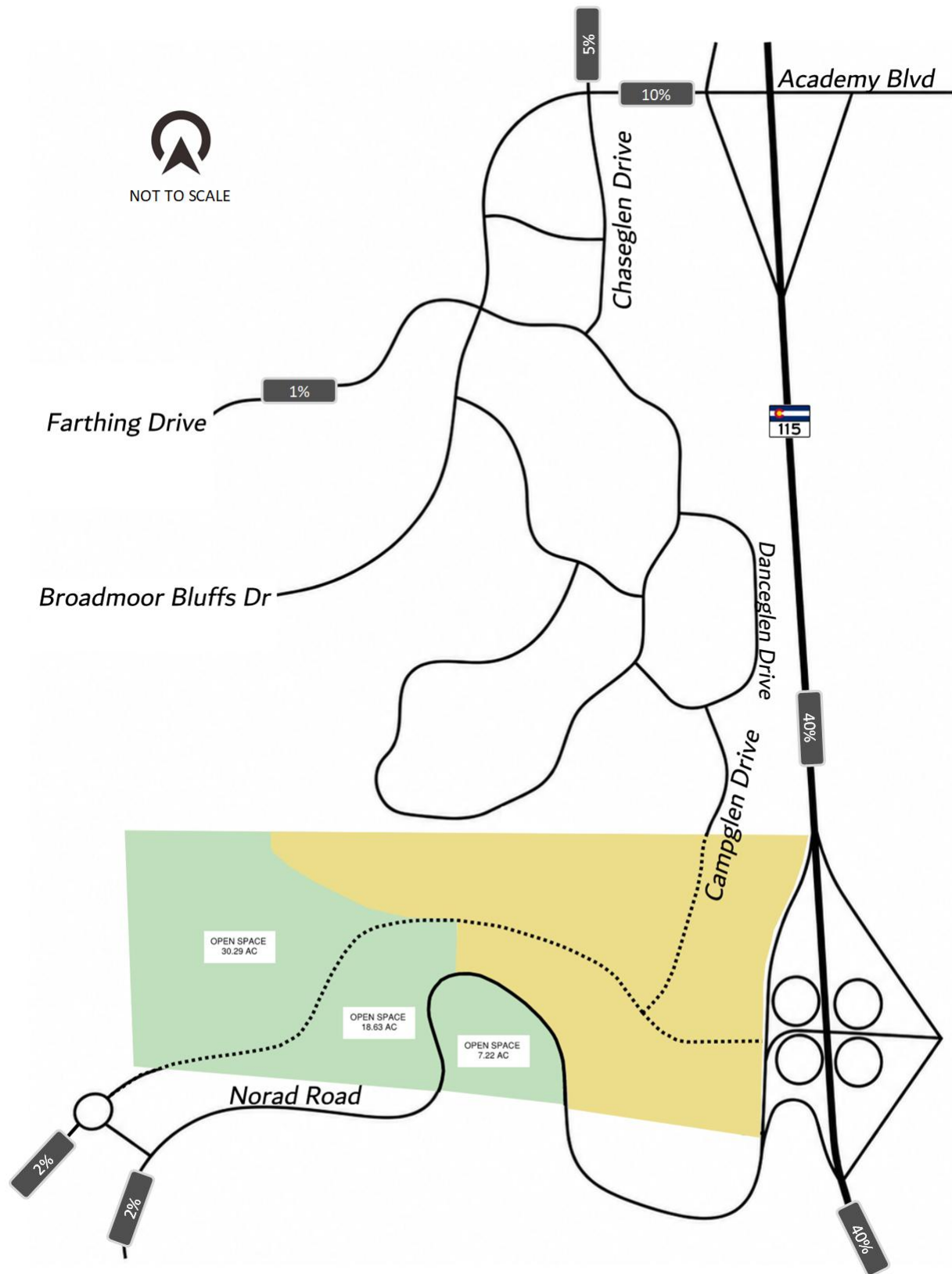
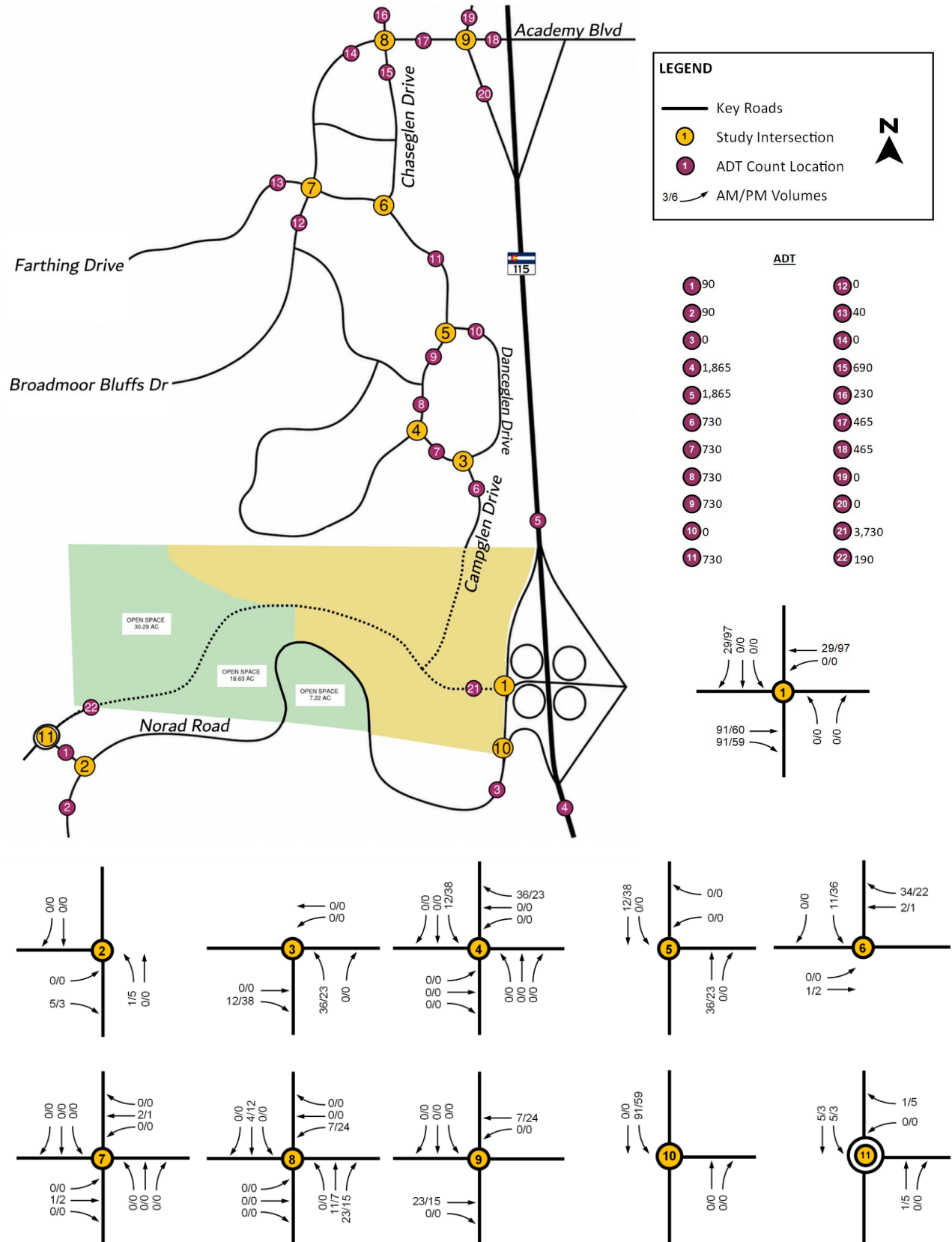


Figure 8. Ranch at Cheyenne Mountain Daily Site Trips



5. Buildout (2030) Traffic Analysis

The calculated 2030 background volumes were used to analyze the no-build scenario and site trips were added to this background to analyze the “with project” (total traffic) scenario. This analysis also takes into consideration any roadway improvements which are anticipated to be in place during this time. Traffic conditions without the project have been analyzed for the buildout year (2030) and horizon year (2050) conditions.

5.1 Buildout (2030) Background Conditions

The buildout background daily volumes, AM peak hour and PM peak hour volumes are shown in Figure 9. The intersection configurations and traffic control for the studied intersections are shown in Figure 10. The intersection analysis summary for the AM and PM peak hour is shown in Table 5. Traffic growth in the study area was evaluated using the CDOT Traffic Counts Database System (TCDS) and Pikes Peak Area Council of Governments (PPACG). At State highway 115 southbound off ramp to Norad Road, both CDOT and PPACG database shows a negative growth from 2010 to 2020 and 2022 to 2025, respectively. At State highway 115 south of Norad Road, CDOT TCDS shows a 1.57% annual growth from 2004 (earliest available counts) to 2024 (latest available counts) while PPACG shows a negative annual growth rate between 2018 and 2025. Along State Highway 115 south of Academy Boulevard, both CDOT TCDS and PPACG shows an approximately 1% annual growth rate ranging from 2006 to 2025. To provide a conservative basis for this analysis, Matrix applied an annual growth rate of **1 percent**. The resulting growth factors used for the buildout (2030) year is **1.082**.

Figure 9. Buildout (2030) Background Traffic Volumes

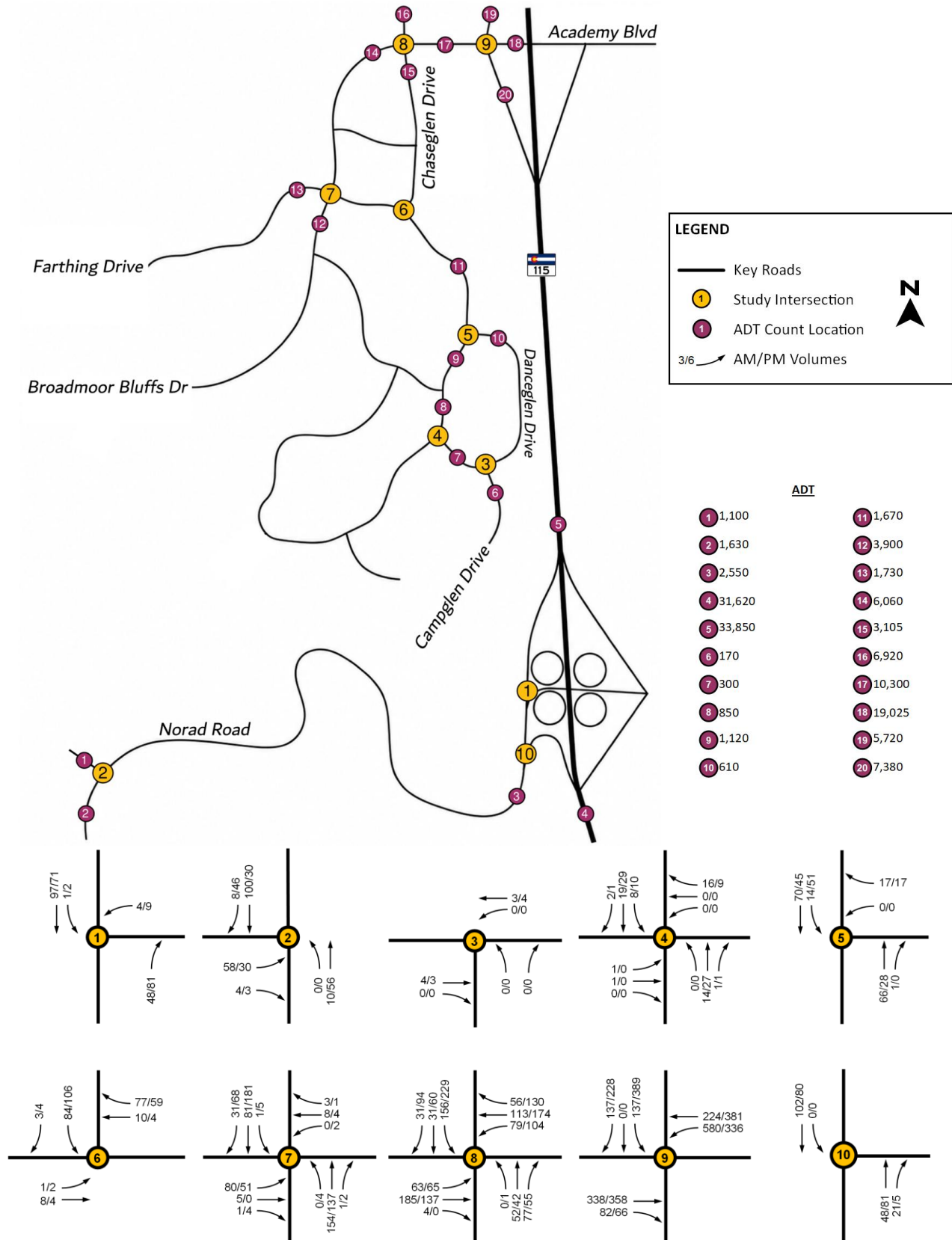


Figure 10. Buildout (2030) Background Intersection Configuration & Traffic Control

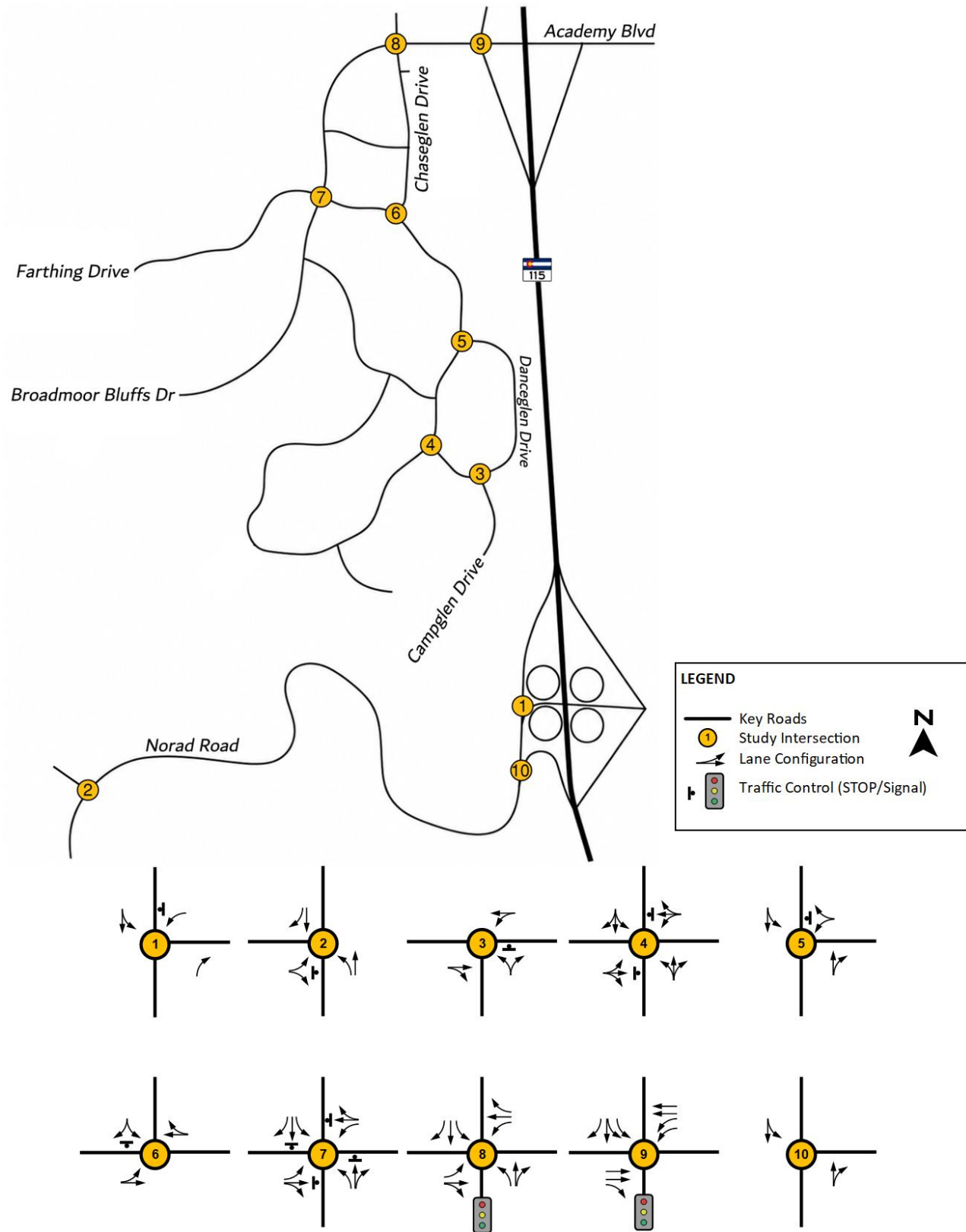


Table 5. Buildout (2030) Background Intersection Operations

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
1	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	NBR	A	A	NB	A	NBT	A
				SB	A	SBL	A		SB	A	SBL	A
				WB	A	WBL	A		WB	A	WBL	A
2	Norad & Broadmoor Bluffs	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBT	A				NBT	A
						SBT	A				SBT	A
				SB	A	SBR	A		SB	A	SBR	A
						EBL	A				EBL	A
						EBR	A				EBR	A
3	Danceglen & Campglen	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBR	A				NBR	A
						EBT	A				EBT	A
				EB	A	EBR	A		EB	A	EBR	A
						WBL	A				WBL	A
						WBT	A				WBT	A
4	Farthing & Danceglen S	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBT	A				NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
						SBR	A				SBR	A
				EB	A	EBL	A		EB	A	EBL	A
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A
5	Farthing & Danceglen N	TWSC	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
						SBL	A				SBL	A
				SB	A	SBR	A		SB	A	SBR	A
						WBL	A				WBL	A
						WBR	A				WBR	A
6	Farthing & Chaseglen	TWSC	A	SB	A	SBL	A	A	SB	A	SBL	A
						SBR	A				SBR	A
						EBL	A				EBL	A
				EB	A	EBT	A		EB	A	EBT	A
						WBT	A				WBT	A
						WBR	A				WBR	A
7	Broadmoor Bluffs & Farthing	AWSC	A	NB	B	NBL	A	B	NB	B	NBL	A
						NBT	B				NBT	B
						NBR	B				NBR	B
				SB	A	SBL	A		SB	B	SBL	A
						SBT	A				SBT	B
						SBR	A				SBR	A
				EB	B	EBL	B		EB	B	EBL	B
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
8	Academy & Chaseglen	Signalized	B	NB	B	NBL	A	B	NB	B	NBL	B
						NBT	A				NBT	A
						NBR	B				NBR	B
				SB	B	SBL	B		SB	B	SBL	B
						SBT	B				SBT	B
						SBR	B				SBR	B
				EB	B	EBL	C		EB	B	EBL	C
						EBT	A				EBT	B
						EBR	B				EBR	B
				WB	B	WBL	C		WB	B	WBL	C
						WBT	B				WBT	B
						WBR	B				WBR	B
9	Academy & SH-115 SB Off-Ramp	Signalized	B	SB	B	SBL	C	B	SB	C	SBL	D
						SBT	C				SBT	D
						SBR	A				SBR	A
				EB	C	EBT	C		EB	C	EBT	C
						EBR	A				EBR	A
						WBL	C		WB	B	WBL	C
				WB	B	WBT	A				WBT	A
						WBR	A				WBR	A
						WBT	A				WBT	A
10	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBR	A				SBR	A
						SBL	A				SBL	A
						SBR	A				SBR	A

As shown in Table 5, all studied intersections operate at an acceptable LOS. Therefore, Matrix does not recommend any mitigations for the buildout background scenarios. Note that the HCM LOS for stop-controlled intersection is based on the worst movement.

5.2 Buildout (2030) Total Conditions

The total daily volumes, AM, and PM volumes with the addition of the project at buildout are shown in Figure 11. The 2030 roadway classification is shown in Figure 12. The intersection configuration and traffic control for the studied intersections are shown in Figure 13. The intersection operations for the AM and PM peak hours are shown in Table 6. The turn lane evaluation for the buildout total is shown in Table 7. For the buildout year (2030), Norad Road was assumed to primarily serve traffic traveling to and from Cheyenne Mountain Space Force Station. Traffic originating from the residential areas north of the Space Force Station and currently using Norad Road via Broadmoor Bluffs Drive was reassigned to the proposed internal project roadway rather than continuing to use Norad Road.

Figure 11. Buildout (2030) Total Traffic Volumes

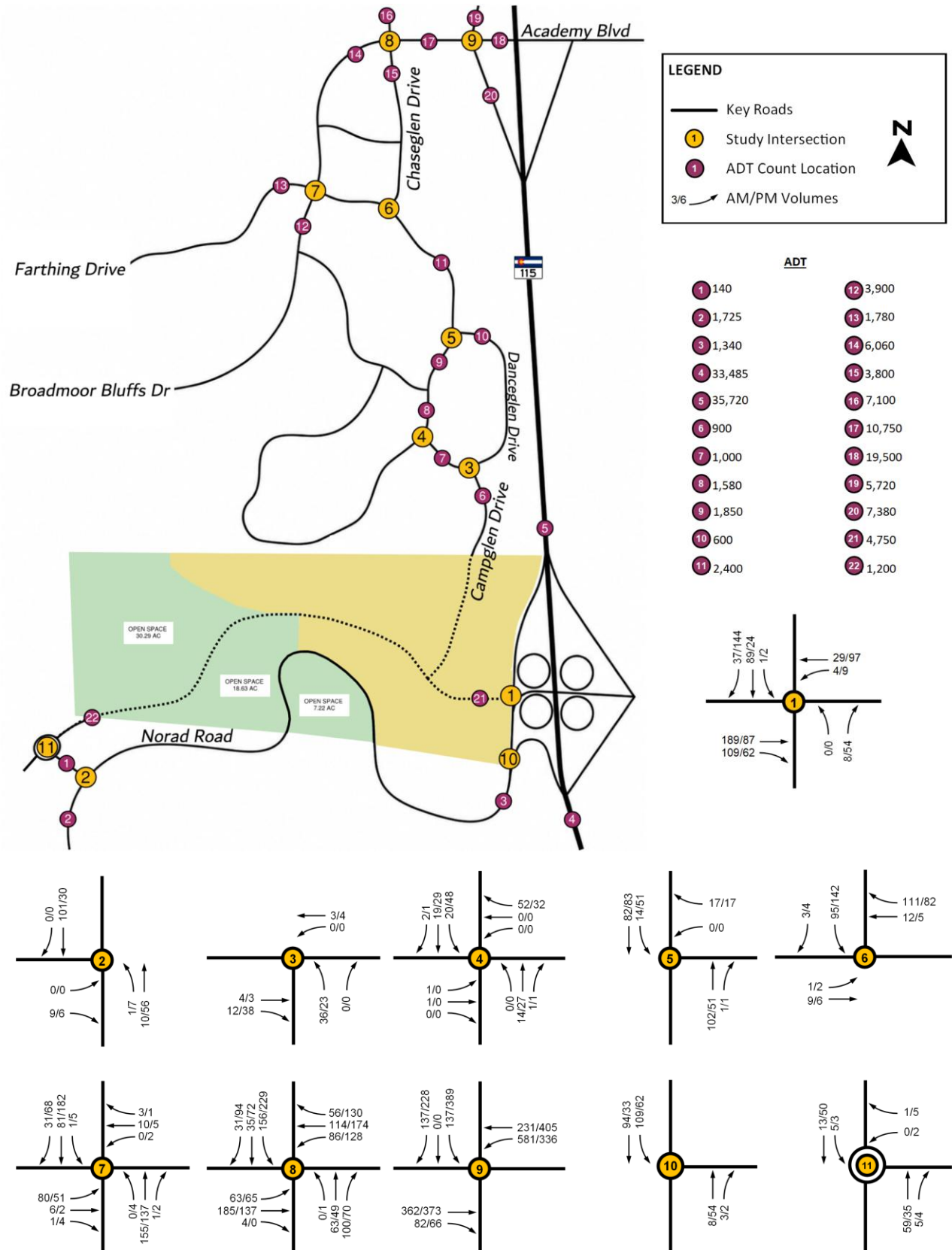


Figure 12. Buildout (2030) Total Roadway Classification

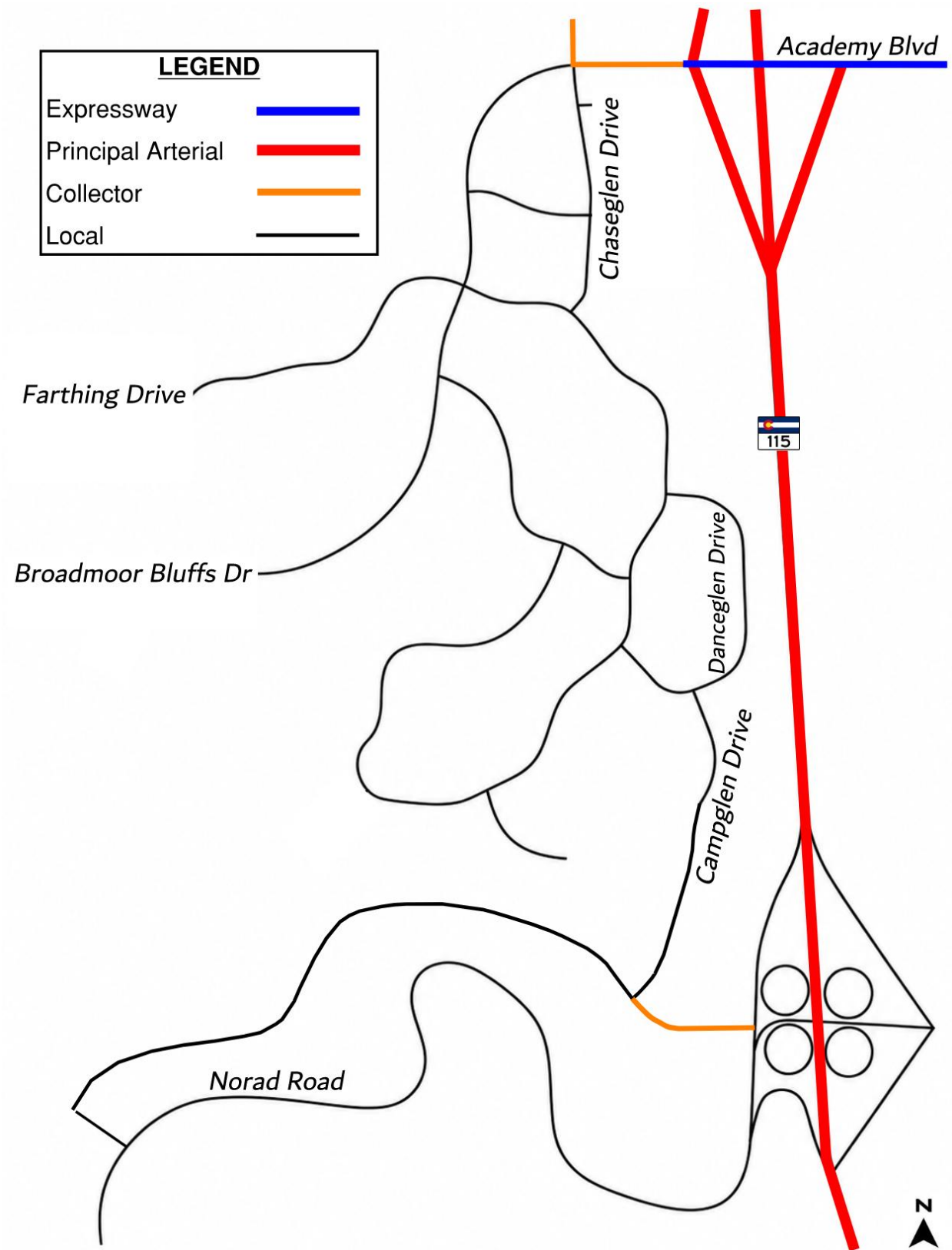


Figure 13. Buildout (2030) Total Intersection Configuration & Traffic Control

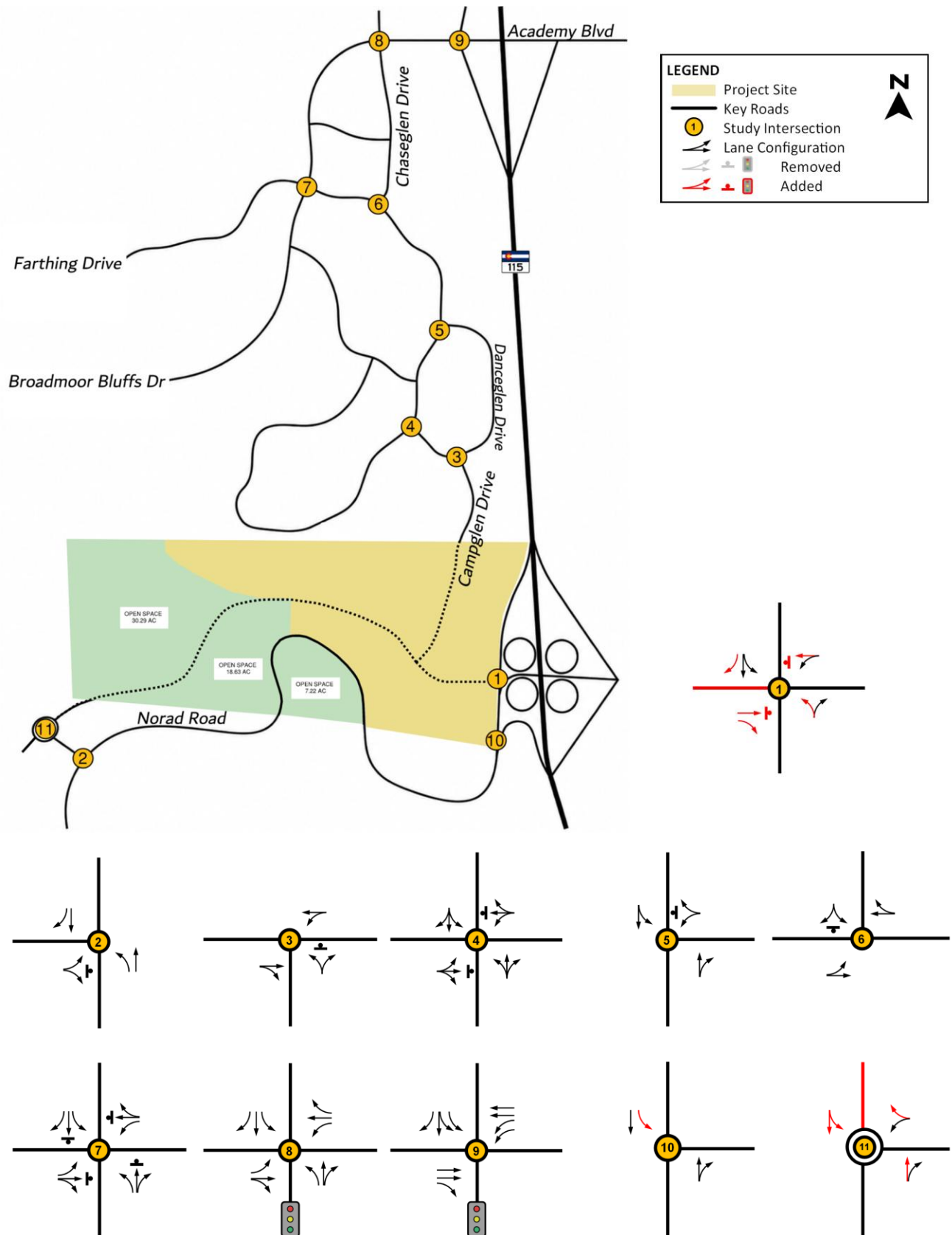


Table 6. Buildout (2030) Total Intersection Operations

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
1	Norad & SH-115 SB On-Ramp	TWSC	B	NB	A	NBL	A	B	NB	A	NBL	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
				EB	B	SBR	A		EB	A	SBR	A
						EBT	B				EBT	A
				WB	B	EBR	A		WB	B	EBR	A
						WBL	B				WBL	B
2	Norad & Broadmoor Bluffs	TWSC	A	NB	A	WBT	B	A	NB	A	WBL	B
						NBL	A				NBL	A
				SB	A	NBT	A		SB	A	NBT	A
						SBT	A				SBT	A
				EB	A	SBR	A		EB	A	SBR	A
						EBL	A				EBL	A
				WB	A	EBR	A		WB	A	EBR	A
						NBL	A				NBL	A
3	Danceglen & Campglen	TWSC	A	NB	A	NBR	A	A	NB	A	NBR	A
						EBT	A				EBT	A
				EB	A	EBR	A		EB	A	EBR	A
						WBL	A		WB	A	WBL	A
				WB	A	WBT	A				WBT	A
						NBL	A		NB	A	NBL	A
				SB	A	NBT	A				NBT	A
						NBR	A				NBR	A
4	Farthing & Danceglen S	TWSC	A	NB	A	SBL	A	A	NB	A	SBL	A
						SBT	A				SBT	A
				SB	A	SBR	A		SB	A	SBR	A
						EBL	A				EBL	A
				EB	A	EBT	A		EB	A	EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
5	Farthing & Danceglen N	TWSC	A	NB	A	WBR	A	A	NB	A	WBR	A
						NBT	A				NBT	A
				SB	A	NBR	A		SB	A	NBR	A
						SBL	A				SBL	A
				WB	A	SBR	A		WB	A	SBR	A
						WBL	A				WBL	A
				WB	A	WBR	A		WB	A	WBR	A
						NBT	A				NBT	A
6	Farthing & Chaseglen	TWSC	B	SB	B	SBL	B	A	SB	A	SBL	A
						SBR	B				SBR	A
				EB	A	EBL	A		EB	A	EBL	A
						EBT	A				EBT	A
				WB	A	WBT	A		WB	A	WBT	A
						WBR	A				WBR	A
				WB	A	NBL	A		WB	A	NBL	A
						NBR	A				NBR	A

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
7	Broadmoor Bluffs & Farthing	AWSC	B	NB	B	NBL	A	A	NB	A	NBL	A
						NBT	B				NBT	A
						NBR	B				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
						SBR	A				SBR	A
				EB	B	EBL	B		EB	A	EBL	A
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A
8	Academy & Chaseglen	Signalized	B	NB	B	NBL	A	B	NB	B	NBL	B
						NBT	A				NBT	A
						NBR	B				NBR	B
				SB	B	SBL	B		SB	B	SBL	B
						SBT	B				SBT	B
						SBR	B				SBR	B
				EB	B	EBL	B		EB	B	EBL	B
						EBT	A				EBT	B
						EBR	B				EBR	B
				WB	B	WBL	C		WB	B	WBL	C
						WBT	B				WBT	B
						WBR	B				WBR	B
9	Academy & SH-115 SB Off-Ramp	Signalized	B	SB	B	SBL	C	B	SB	C	SBL	C
						SBT	A				SBT	A
						SBR	B				SBR	A
				EB	C	EBT	C		EB	C	EBT	C
						EBR	A				EBR	A
				WB	B	WBL	C		WB	B	WBL	C
10	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBR	A				SBR	A
11	Broadmoor Bluffs & Lytle Valley	Round about	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
				WB	A	WBL	A		WB	A	WBL	A
						WBR	A				WBR	A

As shown in Table 6, all studied intersections operate at an acceptable LOS. Therefore, Matrix does not recommend any mitigations for the buildout total scenarios. Note that the HCM LOS for stop-controlled intersection is based on the worst movement.

The City of Colorado Springs (CCS) Traffic Criteria Manual (TCM) was used to study the required turn lanes through this report, and the results are summarized in Table 7, below for the buildout (2030) total scenario.

Table 7. Buildout (2030) Total Turn Lane Requirements

ID	Intersection	Movement	No. Lanes	Speed (mph)	Volume (vph)	Queue (ft)	Taper (ft)	Deceleration (ft)	Storage (ft)	Total (ft)
1	Norad Rd/Broadmoor Bluffs Dr	SBR	1	40	144	0	160	155	-	315
	TWSC CCS TCM	EBR	1	30	109	25	120	115	-	235

As shown in Table 7, the volumes presented reflect the higher of the AM or PM peak-hour volumes. The project will be responsible for providing the necessary approach lanes at intersections where project access points intersect with the existing roadway network. It should be noted that the intersection of Broadmoor Bluffs Drive and Lytle Valley Drive (Intersection #11 in this report) is an existing roundabout with the required approach lanes already in place. Also, it was assumed that Broadmoor Bluffs from the Lytle Valley Drive to Norad Road will have a speed limit of 30 mph.

The recommended improvements under the Buildout (2030) Total Traffic scenario are as follows:

Norad Road/Broadmoor Bluffs Drive (#1)

- A 315- ft southbound right-turn lane. Include 160-ft of taper and 155-ft of deceleration lane.
- A 235-ft eastbound right-turn lane. Include 120-ft of taper and 115-ft of deceleration lane.

6. Horizon (2050) Traffic Analysis

The calculated 2050 background volumes were used to analyze the no-build scenario and site trips were added to this background to analyze the “with project” (total traffic) scenario. This analysis also takes into consideration any roadway improvements which are anticipated to be in place during this time. Traffic conditions without the project have been analyzed for the horizon year (2050) conditions.

6.1 Horizon (2050) Background Conditions

By applying the growth factors discussed earlier to the existing traffic counts into the transportation network, the projected AM and PM peak hour volumes and the daily traffic volumes were developed, as shown in Figure 14. The intersection configurations and traffic control are shown in Figure 15. The intersection operations for AM and PM peak hour are shown in Table 8.

Figure 14. Horizon (2050) Background Traffic Volumes

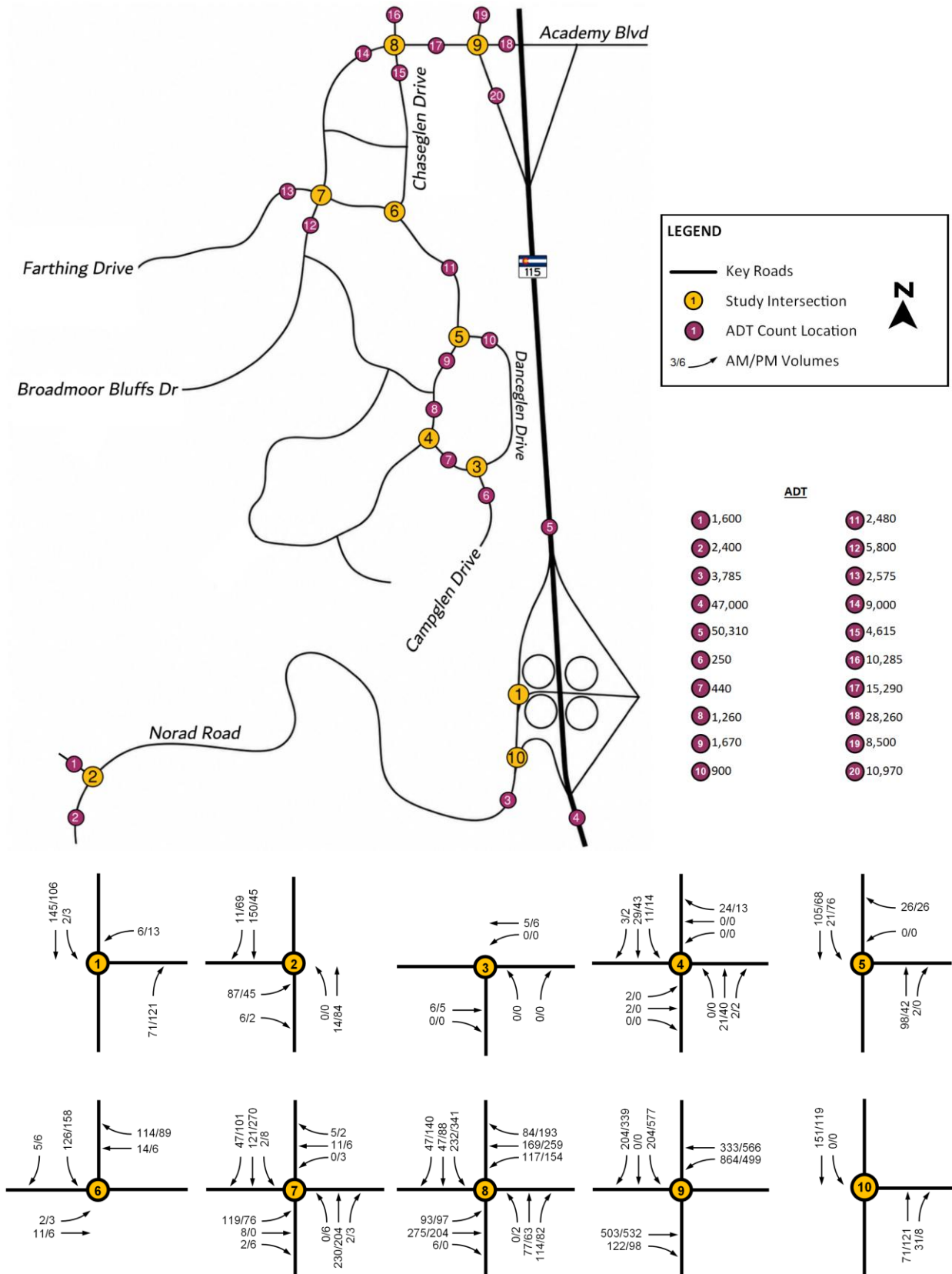


Figure 15. Horizon (2050) Background Intersection Configuration & Traffic Control

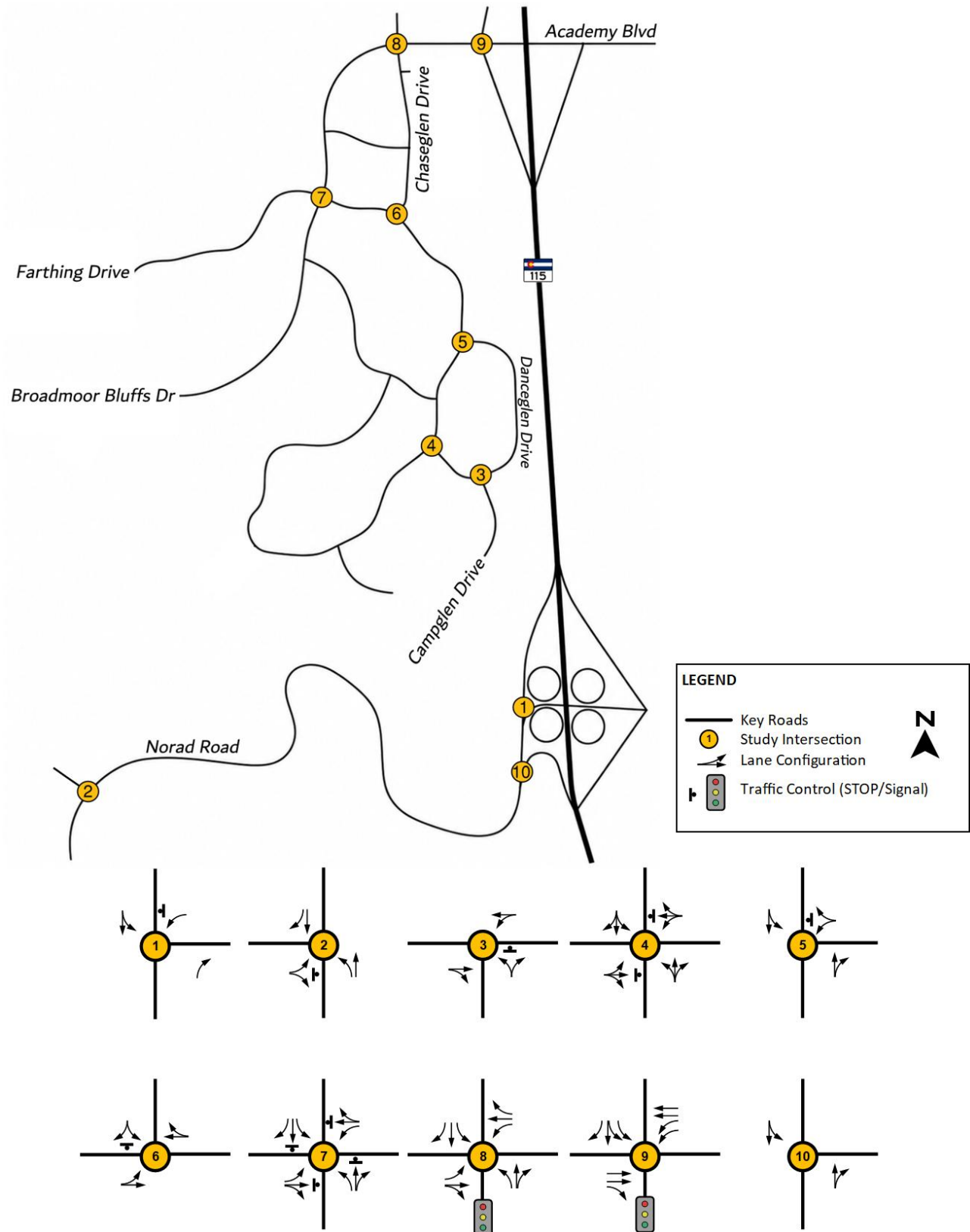


Table 8. Horizon (2050) Background Intersection Operations

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
1	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	NBR	A	A	NB	A	NBT	A
				SB	A	SBL	A		SB	A	SBL	A
				WB	A	WBL	A		WB	A	WBL	A
2	Norad & Broadmoor Bluffs	TWSC	B	NB	A	NBL	A	A	NB	A	NBL	A
						NBT	A				NBT	A
						SBT	A				SBT	A
				SB	A	SBR	A		SB	A	SBR	A
						EBL	B				EBL	A
						EBR	B				EBR	A
3	Danceglen & Campglen	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBR	A				NBR	A
						EBT	A				EBT	A
				EB	A	EBR	A		EB	A	EBR	A
						WBL	A				WBL	A
						WBT	A				WBT	A
4	Farthing & Danceglen S	TWSC	A	NB	A	NBL	A	A	NB	A	NBL	A
						NBT	A				NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
						SBR	A				SBR	A
				EB	A	EBL	A		EB	A	EBL	A
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A
5	Farthing & Danceglen N	TWSC	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
						SBL	A				SBL	A
				SB	A	SBR	A		SB	A	SBR	A
						WBL	A				WBL	A
						WBR	A				WBR	A
6	Farthing & Chaseglen	TWSC	A	SB	A	SBL	A	A	SB	A	SBL	A
						SBR	A				SBR	A
						EBL	A				EBL	A
				EB	A	EBT	A		EB	A	EBT	A
						WBT	A				WBT	A
						WBR	A				WBR	A
7	Broadmoor Bluffs & Farthing	AWSC	B	NB	B	NBL	A	B	NB	B	NBL	A
						NBT	B				NBT	B
						NBR	B				NBR	B
				SB	A	SBL	A		SB	B	SBL	A
						SBT	A				SBT	B
						SBR	A				SBR	A
				EB	B	EBL	B		EB	B	EBL	B
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
8	Academy & Chaseglen	Signalized	B	NB	B	NBL	A	B	NB	B	NBL	B
						NBT	A				NBT	A
						NBR	B				NBR	B
				SB	B	SBL	C		SB	B	SBL	C
						SBT	B				SBT	B
						SBR	B				SBR	B
				EB	B	EBL	C		EB	B	EBL	C
						EBT	A				EBT	B
						EBR	B				EBR	A
				WB	B	WBL	C		WB	B	WBL	C
						WBT	B				WBT	B
						WBR	B				WBR	B
9	Academy & SH-115 SB Off-Ramp	Signalized	C	SB	B	SBL	C	C	SB	C	SBL	D
						SBT	C				SBT	D
						SBR	A				SBR	A
				EB	C	EBT	C		EB	B	EBT	C
						EBR	A				EBR	A
						WBL	C		WB	C	WBL	C
				WB	C	WBT	A				WBT	A
						WBR	A				WBR	A
						WBT	A				WBT	A
10	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
						SBL	A				SBL	A
				SB	A	SBR	A		SB	A	SBR	A
						SBL	A				SBL	A
						SBR	A				SBR	A

As shown in Table 8, all intersections operate at an acceptable LOS in the horizon background scenario. Therefore, Matrix does not recommend any mitigations for the studied intersections.

6.2 Horizon (2050) Total Conditions

When the project traffic is added to the 2050 background traffic, the resulting AM and PM peak hour volumes as well as the daily traffic volumes are shown in Figure 16. The roadway intersections configuration and traffic control are shown in Figure 17. The intersection operations for the horizon total scenario in the AM and PM peak hour are shown in Table 9.

Figure 16. Horizon (2050) Total Traffic Volumes

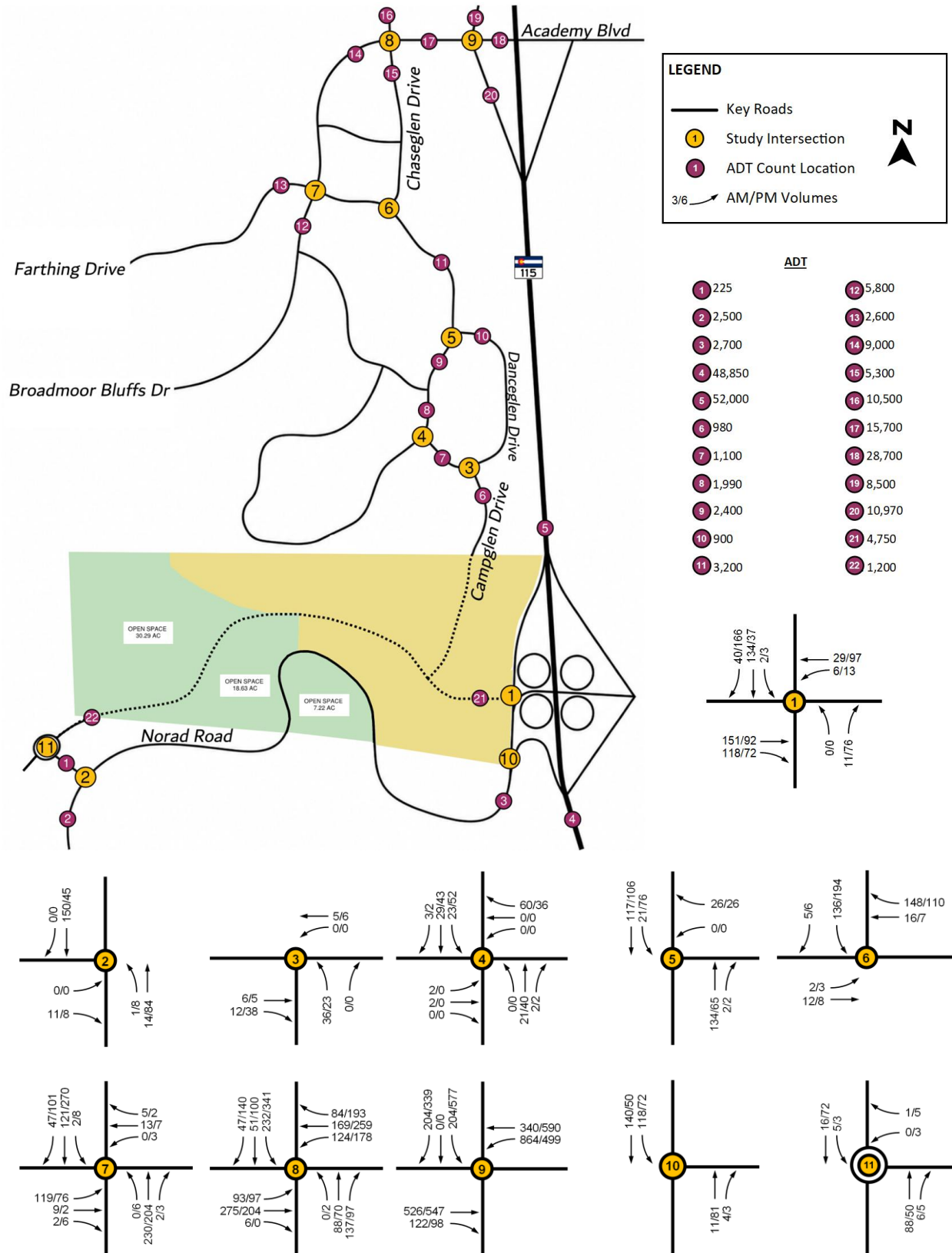


Figure 17. Horizon (2050) Total Intersection Configuration & Traffic Control

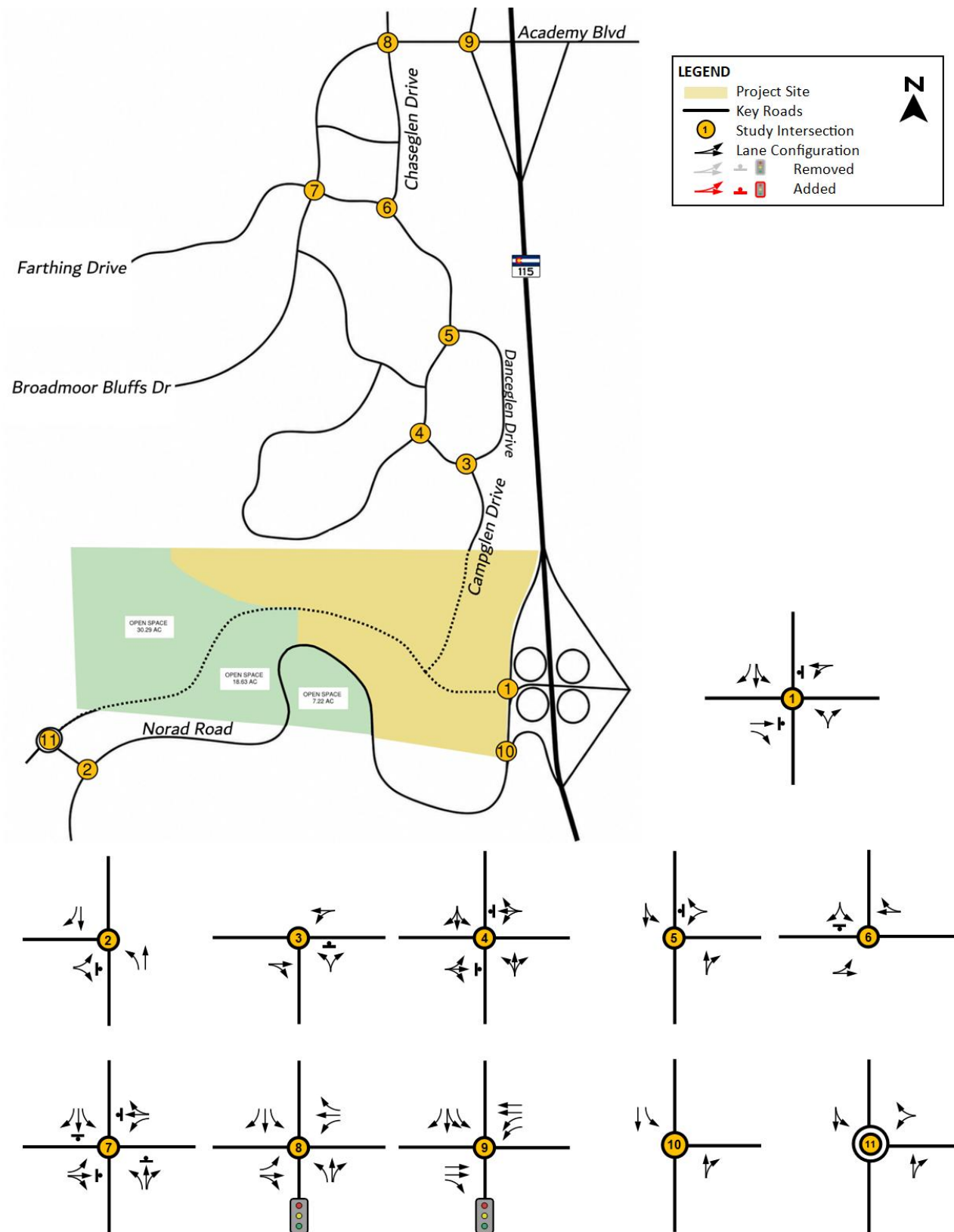


Table 9. Horizon (2050) Total Intersection Operations

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
1	Norad & SH-115 SB On-Ramp	TWSC	B	NB	A	NBL	A	B	NB	A	NBL	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
				EB	B	SBR	A		EB	B	SBR	A
						EBT	B				EBT	B
				WB	B	EBR	A		WB	B	EBR	A
						WBL	B				WBL	B
2	Norad & Broadmoor Bluffs	TWSC	A	NB	A	WBT	B	A	NB	A	WBL	B
						NBL	A				NBL	A
				SB	A	NBT	A		SB	A	NBT	A
						SBT	A				SBT	A
				EB	A	SBR	A		EB	A	SBR	A
						EBL	A				EBL	A
				WB	A	EBR	A		WB	A	EBR	A
						NBL	A				NBL	A
3	Danceglen & Campglen	TWSC	A	NB	A	NBR	A	A	NB	A	NBR	A
						EBT	A				EBT	A
				EB	A	EBR	A		EB	A	EBR	A
						WBL	A		WB	A	WBL	A
				WB	A	WBT	A				WBT	A
						NBL	A		NB	A	NBL	A
				SB	A	NBT	A				NBT	A
						NBR	A				NBR	A
4	Farthing & Danceglen S	TWSC	A	NB	A	SBL	A	A	NB	A	SBL	A
						SBT	A				SBT	A
				SB	A	SBR	A		SB	A	SBR	A
						EBL	A				EBL	A
				EB	A	EBT	A		EB	A	EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
				WB	A	WBR	A		WB	A	WBR	A
						NBT	A		NB	A	NBT	A
				SB	A	NBR	A				NBR	A
						SBL	A		SB	A	SBL	A
5	Farthing & Danceglen N	TWSC	A	NB	A	SBR	A	A	NB	A	SBR	A
						WBL	A				WBL	A
				SB	A	WBR	A		SB	A	WBR	A
						NBT	A				NBT	A
				WB	A	NBR	A		WB	A	NBR	A
						SBL	A				SBL	A
				WB	A	SBR	A				SBR	A
						WBL	A				WBL	A
6	Farthing & Chaseglen	TWSC	A	SB	A	WBR	A	B	SB	B	WBR	A
						SBL	A				SBL	B
				EB	A	SBR	A		EB	A	SBR	B
						EBL	A				EBL	A
				WB	A	EBT	A		WB	A	EBT	A
						WBT	A				WBT	A
				WB	A	WBR	A		WB	A	WBR	A
						SBL	A				SBL	B

Int ID	Intersection	Control	AM Peak Hour Results					PM Peak Hour Results				
			Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS	Int LOS	Appr	Appr LOS	Mvmt	Mvmt LOS
7	Broadmoor Bluffs & Farthing	AWSC	B	NB	B	NBL	A	B	NB	B	NBL	B
						NBT	B				NBT	B
						NBR	B				NBR	B
				SB	A	SBL	A		SB	B	SBL	A
						SBT	A				SBT	B
						SBR	A				SBR	A
				EB	B	EBL	B		EB	B	EBL	B
						EBT	A				EBT	A
						EBR	A				EBR	A
				WB	A	WBL	A		WB	A	WBL	A
						WBT	A				WBT	A
						WBR	A				WBR	A
8	Academy & Chaseglen	Signalized	B	NB	B	NBL	A	C	NB	B	NBL	B
						NBT	A				NBT	A
						NBR	B				NBR	B
				SB	B	SBL	C		SB	B	SBL	C
						SBT	B				SBT	B
						SBR	B				SBR	B
				EB	B	EBL	C		EB	B	EBL	C
						EBT	A				EBT	B
						EBR	B				EBR	B
				WB	B	WBL	C		WB	C	WBL	C
						WBT	B				WBT	C
						WBR	B				WBR	C
9	Academy & SH-115 SB Off-Ramp	Signalized	C	SB	B	SBL	C	C	SB	D	SBL	F
						SBT	A				SBT	A
						SBR	A				SBR	A
				EB	C	EBT	C		EB	C	EBT	B
						EBR	A				EBR	A
				WB	C	WBL	C		WB	C	WBL	D
10	Norad & SH-115 SB On-Ramp	TWSC	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBR	A				SBR	A
11	Broadmoor Bluffs & Lytle Valley	Round about	A	NB	A	NBT	A	A	NB	A	NBT	A
						NBR	A				NBR	A
				SB	A	SBL	A		SB	A	SBL	A
						SBT	A				SBT	A
				WB	A	WBL	A		WB	A	WBL	A
						WBR	A				WBR	A

As shown in Table 9, all studied intersections operate at an acceptable LOS. Therefore, Matrix does not recommend any mitigations for the horizon total scenarios. Note that the HCM LOS for stop-controlled intersection is based on the worst movement. It should also be noted that a conservative growth rate was applied to the internal residential roadways. In reality, the surrounding area is already developed to its maximum capacity, and significant additional traffic growth is not anticipated. Therefore, the projected ADT volumes presented in this analysis are considerably more conservative and substantially higher than what is expected to occur under actual conditions. Signal warrant analysis was also performed for all stop-controlled intersections and can be found in Appendix E – Horizon Conditions.

Conclusions and Recommendations

The traffic impacts associated with the proposed Ranch at Cheyenne Mountain development, located west of State Highway 115, were evaluated as part of this study. The analysis indicates that, with implementation of the recommended improvements, all study intersections are expected to operate safely and without traffic operational deficiencies during both the 2030 buildout year and the 2050 horizon year.

It should be noted that the location and alignment of the proposed extension of Broadmoor Bluffs Drive to Norad Road have not yet been finalized and may change. A supplemental traffic letter will be prepared at a later date to evaluate the internal roadway network and development access within the Ranch at Cheyenne Mountain development, as well as the final intersection configuration at Norad Road/SH-115 SB On-Ramp (Intersection #1). At that time, updated traffic analysis will be provided, as necessary, to confirm the assumptions and conclusions presented in this report.

Overall, with implementation of the recommended auxiliary turn lanes and other identified improvements, the proposed development is not expected to result in adverse traffic impacts on the surrounding roadway network. A summary of the improvements required for the 2030 buildout year is provided in Table 10.

Table 10. Summary of Required Improvements

ID	Intersection	Improvements	Responsibility
Buildout (2030) Year			
1	Norad/ SH-115 SB On-Ramp	A 315- ft southbound right-turn lane. Include 160-ft of taper and 155-ft of deceleration lane. A 235-ft eastbound right-turn lane. Include 120-ft of taper and 115-ft of deceleration lane.	The Project is responsible for these improvements.
11	Broadmoor Bluffs/Lytle Valley	The extension of Broadmoor Bluffs from Lytle Valley Drive to Norad Road.	

Appendix A – Traffic Counts

All Traffic Data Services

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12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 10

Station ID: 10

BROADMOOR BLUFFS DR W.O. NORAD RD

Start Time	17-Jun-26 Wed	EB	WB	Total
12:00 AM		0	3	3
01:00		1	0	1
02:00		1	0	1
03:00		1	1	2
04:00		8	1	9
05:00		16	4	20
06:00		39	5	44
07:00		81	7	88
08:00		71	26	97
09:00		34	20	54
10:00		35	27	62
11:00		27	37	64
12:00 PM		33	33	66
01:00		27	28	55
02:00		19	26	45
03:00		24	44	68
04:00		20	58	78
05:00		33	45	78
06:00		24	41	65
07:00		21	34	55
08:00		9	23	32
09:00		4	8	12
10:00		4	7	11
11:00		2	5	7
Total		534	483	1017
Percent		52.5%	47.5%	
AM Peak	-	07:00	11:00	-
Vol.	-	81	37	-
PM Peak	-	12:00	16:00	-
Vol.	-	33	58	-
Grand Total		534	483	1017
Percent		52.5%	47.5%	
ADT		ADT 1,017	AADT 1,017	

All Traffic Data Services

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 11

Station ID: 11

NORAD RD W.O. BROADMOOR BLUFFS

Start Time	17-Jun-26 Wed	EB	WB	Total
12:00 AM		1	1	2
01:00		2	1	3
02:00		4	1	5
03:00		0	7	7
04:00		8	33	41
05:00		36	142	178
06:00		43	174	217
07:00		9	97	106
08:00		8	51	59
09:00		22	27	49
10:00		15	24	39
11:00		62	18	80
12:00 PM		38	24	62
01:00		66	36	102
02:00		112	9	121
03:00		141	11	152
04:00		55	16	71
05:00		52	29	81
06:00		29	1	30
07:00		7	7	14
08:00		8	7	15
09:00		17	24	41
10:00		19	8	27
11:00		5	0	5
Total		759	748	1507
Percent		50.4%	49.6%	
AM Peak	-	11:00	06:00	06:00
Vol.	-	62	174	217
PM Peak	-	15:00	13:00	15:00
Vol.	-	141	36	152
Grand Total		759	748	1507
Percent		50.4%	49.6%	
ADT		ADT 1,507	AADT 1,507	

All Traffic Data Services

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 12

Station ID: 12

NORAD RD S.O. OCONNELL BLVD

Start Time	17-Jun-26	NB	SB								Total
12:00 AM		1	4								5
01:00		4	2								6
02:00		5	1								6
03:00		1	8								9
04:00		14	35								49
05:00		51	145								196
06:00		75	179								254
07:00		62	93								155
08:00		67	75								142
09:00		56	45								101
10:00		46	50								96
11:00		82	49								131
12:00 PM		65	51								116
01:00		88	59								147
02:00		128	33								161
03:00		160	42								202
04:00		71	60								131
05:00		74	75								149
06:00		51	38								89
07:00		23	37								60
08:00		16	27								43
09:00		22	32								54
10:00		21	15								36
11:00		9	6								15
Total		1192	1161								2353
Percent		50.7%	49.3%								
AM Peak	-	11:00	06:00	-	-	-	-	-	-	06:00	
Vol.	-	82	179	-	-	-	-	-	-	254	
PM Peak	-	15:00	17:00	-	-	-	-	-	-	15:00	
Vol.	-	160	75	-	-	-	-	-	-	202	
Grand Total		1192	1161								2353
Percent		50.7%	49.3%								
ADT		ADT 2,353	AADT 2,353								

All Traffic Data Services

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 13

Station ID: 13

HWY 115 S.O. OCONNELL BLVD

Start Time	17-Jun-26 Wed	NB	SB							Total
12:00 AM		54	43							97
01:00		21	23							44
02:00		33	33							66
03:00		42	37							79
04:00		90	169							259
05:00		247	1020							1267
06:00		633	1406							2039
07:00		974	1306							2280
08:00		700	1435							2135
09:00		816	929							1745
10:00		778	763							1541
11:00		974	754							1728
12:00 PM		937	1047							1984
01:00		873	930							1803
02:00		1082	807							1889
03:00		1419	816							2235
04:00		1511	804							2315
05:00		1168	849							2017
06:00		643	615							1258
07:00		456	472							928
08:00		258	377							635
09:00		148	245							393
10:00		126	180							306
11:00		64	104							168
Total		14047	15164							29211
Percent		48.1%	51.9%							
AM Peak	-	07:00	08:00	-	-	-	-	-	-	07:00
Vol.	-	974	1435	-	-	-	-	-	-	2280
PM Peak	-	16:00	12:00	-	-	-	-	-	-	16:00
Vol.	-	1511	1047	-	-	-	-	-	-	2315
Grand Total		14047	15164							29211
Percent		48.1%	51.9%							
ADT		ADT 29,211	AADT 29,211							

All Traffic Data Services

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12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 14

Station ID: 14

HWY 115 N.O. OCONNELL BLVD

Start Time	17-Jun-26 Wed	NB	SB							Total
12:00 AM		55	41							96
01:00		25	22							47
02:00		38	32							70
03:00		40	45							85
04:00		101	201							302
05:00		286	1146							1432
06:00		677	1559							2236
07:00		1002	1293							2295
08:00		756	1520							2276
09:00		866	978							1844
10:00		820	818							1638
11:00		1045	801							1846
12:00 PM		1029	1080							2109
01:00		969	981							1950
02:00		1178	832							2010
03:00		1557	854							2411
04:00		1581	887							2468
05:00		1250	908							2158
06:00		704	659							1363
07:00		482	516							998
08:00		268	398							666
09:00		175	279							454
10:00		151	197							348
11:00		71	106							177
Total		15126	16153							31279
Percent		48.4%	51.6%							
AM Peak	-	11:00	06:00	-	-	-	-	-	-	07:00
Vol.	-	1045	1559	-	-	-	-	-	-	2295
PM Peak	-	16:00	12:00	-	-	-	-	-	-	16:00
Vol.	-	1581	1080	-	-	-	-	-	-	2468
Grand Total		15126	16153							31279
Percent		48.4%	51.6%							
ADT		ADT 31,279	AADT 31,279							

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CAMP GLEN DR S.O. DANCE GLEN DR S

Start Time	17-Jun-26	NB	SB							Total
12:00 AM		0	0							0
01:00		1	0							1
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		3	0							3
06:00		6	0							6
07:00		6	1							7
08:00		9	2							11
09:00		7	1							8
10:00		6	8							14
11:00		6	5							11
12:00 PM		9	5							14
01:00		2	6							8
02:00		5	4							9
03:00		3	3							6
04:00		9	7							16
05:00		3	9							12
06:00		7	4							11
07:00		4	7							11
08:00		3	3							6
09:00		0	2							2
10:00		0	2							2
11:00		1	1							2
Total		90	70							160
Percent		56.3%	43.8%							
AM Peak	-	08:00	10:00	-	-	-	-	-	-	10:00
Vol.	-	9	8	-	-	-	-	-	-	14
PM Peak	-	12:00	17:00	-	-	-	-	-	-	16:00
Vol.	-	9	9	-	-	-	-	-	-	16
Grand Total		90	70							160
Percent		56.3%	43.8%							
ADT		ADT 160	AADT 160							

All Traffic Data Services

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12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 16

Station ID: 16

DANCEGLEN DR S W.O. CAMPGLEN DR

Start Time	17-Jun-26 Wed	EB	WB	Total
12:00 AM		0	0	0
01:00		0	0	0
02:00		0	0	0
03:00		0	0	0
04:00		0	0	0
05:00		0	4	4
06:00		2	11	13
07:00		6	8	14
08:00		8	16	24
09:00		5	10	15
10:00		11	6	17
11:00		7	10	17
12:00 PM		11	2	13
01:00		9	6	15
02:00		9	9	18
03:00		12	9	21
04:00		10	8	18
05:00		17	5	22
06:00		12	12	24
07:00		12	5	17
08:00		6	3	9
09:00		4	3	7
10:00		4	0	4
11:00		0	1	1
Total		145	128	273
Percent		53.1%	46.9%	
AM Peak	-	10:00	08:00	- - - - - 08:00
Vol.	-	11	16	- - - - - 24
PM Peak	-	17:00	18:00	- - - - - 18:00
Vol.	-	17	12	- - - - - 24
Grand Total		145	128	273
Percent		53.1%	46.9%	
ADT		ADT 273	AADT 273	

All Traffic Data Services

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 17

Station ID: 17

FARTHING DR N.O. DANCEGLEN DR S

Start Time	17-Jun-26 Wed	NB	SB	Total
12:00 AM		0	0	0
01:00		0	1	1
02:00		0	0	0
03:00		0	0	0
04:00		2	0	2
05:00		7	0	7
06:00		20	3	23
07:00		35	17	52
08:00		32	25	57
09:00		31	23	54
10:00		22	23	45
11:00		27	19	46
12:00 PM		9	32	41
01:00		27	26	53
02:00		27	23	50
03:00		23	41	64
04:00		33	37	70
05:00		17	32	49
06:00		23	33	56
07:00		13	27	40
08:00		17	26	43
09:00		5	15	20
10:00		1	8	9
11:00		1	1	2
Total		372	412	784
Percent		47.4%	52.6%	
AM Peak	-	07:00	08:00	- - - - - 08:00
Vol.	-	35	25	- - - - - 57
PM Peak	-	16:00	15:00	- - - - - 16:00
Vol.	-	33	41	- - - - - 70
Grand Total		372	412	784
Percent		47.4%	52.6%	
ADT		ADT 784	AADT 784	

All Traffic Data Services

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12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 18

Station ID: 18

FARTHING DR S.O. DANCEGLEN DR N

Start Time	17-Jun-26 Wed	NB	SB	Total
12:00 AM		0	0	0
01:00		0	1	1
02:00		0	0	0
03:00		1	0	1
04:00		3	0	3
05:00		8	0	8
06:00		24	8	32
07:00		38	22	60
08:00		62	65	127
09:00		64	42	106
10:00		28	27	55
11:00		27	63	90
12:00 PM		13	41	54
01:00		31	26	57
02:00		29	25	54
03:00		31	41	72
04:00		36	40	76
05:00		19	31	50
06:00		26	42	68
07:00		17	31	48
08:00		19	33	52
09:00		3	13	16
10:00		1	7	8
11:00		1	1	2
Total		481	559	1040
Percent		46.3%	53.8%	
AM Peak	-	09:00	08:00	- - - - - 08:00
Vol.	-	64	65	- - - - - 127
PM Peak	-	16:00	18:00	- - - - - 16:00
Vol.	-	36	42	- - - - - 76
Grand Total		481	559	1040
Percent		46.3%	53.8%	
ADT		ADT 1,040	AADT 1,040	

All Traffic Data Services

Page 1

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 19

Station ID: 19

DANCEGLEN DR N E.O. FARTHING DR

Start Time	17-Jun-26	EB	WB							Total
12:00 AM		2	0							2
01:00		2	1							3
02:00		0	0							0
03:00		0	0							0
04:00		0	0							0
05:00		0	4							4
06:00		5	14							19
07:00		25	19							44
08:00		14	16							30
09:00		11	40							51
10:00		10	18							28
11:00		16	9							25
12:00 PM		18	20							38
01:00		20	14							34
02:00		15	15							30
03:00		21	16							37
04:00		25	17							42
05:00		45	14							59
06:00		13	40							53
07:00		18	8							26
08:00		11	5							16
09:00		3	11							14
10:00		2	2							4
11:00		1	2							3
Total		277	285							562
Percent		49.3%	50.7%							
AM Peak	-	07:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	25	40	-	-	-	-	-	-	51
PM Peak	-	17:00	18:00	-	-	-	-	-	-	17:00
Vol.	-	45	40	-	-	-	-	-	-	59
Grand Total		277	285							562
Percent		49.3%	50.7%							
ADT		ADT 562	AADT 562							

All Traffic Data Services

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 20

Station ID: 20

FARTHING DR N.O. DANCEGLEN DR N

Start Time	17-Jun-26 Wed	NB	SB	Total
12:00 AM		0	2	2
01:00		1	3	4
02:00		0	0	0
03:00		1	0	1
04:00		3	0	3
05:00		12	0	12
06:00		38	13	51
07:00		55	45	100
08:00		77	78	155
09:00		101	50	151
10:00		43	34	77
11:00		35	78	113
12:00 PM		30	56	86
01:00		42	43	85
02:00		44	40	84
03:00		46	61	107
04:00		52	64	116
05:00		33	76	109
06:00		61	50	111
07:00		25	49	74
08:00		20	40	60
09:00		11	13	24
10:00		3	9	12
11:00		3	2	5
Total		736	806	1542
Percent		47.7%	52.3%	
AM Peak	-	09:00	08:00	- - - - - 08:00
Vol.	-	101	78	- - - - - 155
PM Peak	-	18:00	17:00	- - - - - 16:00
Vol.	-	61	76	- - - - - 116
Grand Total		736	806	1542
Percent		47.7%	52.3%	
ADT		ADT 1,542	AADT 1,542	

All Traffic Data Services

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 23

Station ID: 23

BROADMOOR BLUFFS DR W.O. CHASEGLEN DR

Start Time	17-Jun-26 Wed	EB	WB							Total
12:00 AM		6	13							19
01:00		4	12							16
02:00		3	3							6
03:00		2	5							7
04:00		11	5							16
05:00		65	10							75
06:00		140	21							161
07:00		221	84							305
08:00		233	134							367
09:00		236	165							401
10:00		177	182							359
11:00		188	200							388
12:00 PM		212	206							418
01:00		187	184							371
02:00		172	200							372
03:00		199	237							436
04:00		196	254							450
05:00		173	235							408
06:00		131	194							325
07:00		84	160							244
08:00		65	133							198
09:00		47	76							123
10:00		23	62							85
11:00		13	35							48
Total		2788	2810							5598
Percent		49.8%	50.2%							
AM Peak	-	09:00	11:00	-	-	-	-	-	-	09:00
Vol.	-	236	200	-	-	-	-	-	-	401
PM Peak	-	12:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	212	254	-	-	-	-	-	-	450
Grand Total		2788	2810							5598
Percent		49.8%	50.2%							
ADT		ADT 5,598	AADT 5,598							

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Station ID: 25

BROADMOOR BLUUFFS DR N.O. S ACADEMY BLVD

Start Time	17-Jun-26	NB	SB								Total
12:00 AM		9	15								24
01:00		6	8								14
02:00		2	5								7
03:00		6	12								18
04:00		9	8								17
05:00		40	59								99
06:00		69	112								181
07:00		130	182								312
08:00		158	202								360
09:00		200	236								436
10:00		133	223								356
11:00		164	266								430
12:00 PM		214	331								545
01:00		175	274								449
02:00		144	262								406
03:00		170	311								481
04:00		213	332								545
05:00		186	333								519
06:00		120	251								371
07:00		103	175								278
08:00		73	145								218
09:00		57	91								148
10:00		45	70								115
11:00		16	49								65
Total		2442	3952								6394
Percent		38.2%	61.8%								
AM Peak	-	09:00	11:00	-	-	-	-	-	-	09:00	
Vol.	-	200	266	-	-	-	-	-	-	436	
PM Peak	-	12:00	17:00	-	-	-	-	-	-	12:00	
Vol.	-	214	333	-	-	-	-	-	-	545	
Grand Total		2442	3952								6394
Percent		38.2%	61.8%								
ADT		ADT 6,394	AADT 6,394								

All Traffic Data Services

12200 W 52nd Ave

Wheat Ridge, CO 80033

www.alltrafficdata.net

Site Code: 26

Station ID: 26

S ACADEMY BLVD E.O. CHASEGLEN DR

Start Time	17-Jun-26 Wed	EB	WB							Total
12:00 AM		20	22							42
01:00		12	18							30
02:00		6	6							12
03:00		12	7							19
04:00		27	11							38
05:00		126	27							153
06:00		274	56							330
07:00		390	155							545
08:00		386	230							616
09:00		418	224							642
10:00		326	231							557
11:00		362	312							674
12:00 PM		443	272							715
01:00		383	278							661
02:00		346	282							628
03:00		364	304							668
04:00		396	371							767
05:00		358	341							699
06:00		312	241							553
07:00		177	224							401
08:00		144	167							311
09:00		102	109							211
10:00		59	90							149
11:00		44	42							86
Total		5487	4020							9507
Percent		57.7%	42.3%							
AM Peak	-	09:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	418	312	-	-	-	-	-	-	674
PM Peak	-	12:00	16:00	-	-	-	-	-	-	16:00
Vol.	-	443	371	-	-	-	-	-	-	767
Grand Total		5487	4020							9507
Percent		57.7%	42.3%							
ADT		ADT 9,507	AADT 9,507							

All Traffic Data Services

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12200 W 52nd Ave

Wheat Ridge, CO 80033

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Site Code: 27

Station ID: 27

S ACADEMY BLVD E.O. HWY 115 SB RAMPS

Start Time	17-Jun-26 Wed	EB	WB							Total
12:00 AM		27	34							61
01:00		17	20							37
02:00		9	23							32
03:00		19	37							56
04:00		38	120							158
05:00		143	501							644
06:00		306	686							992
07:00		400	731							1131
08:00		440	744							1184
09:00		505	611							1116
10:00		427	535							962
11:00		450	606							1056
12:00 PM		599	669							1268
01:00		500	654							1154
02:00		475	605							1080
03:00		548	624							1172
04:00		570	690							1260
05:00		721	600							1321
06:00		593	395							988
07:00		332	342							674
08:00		227	266							493
09:00		151	212							363
10:00		99	142							241
11:00		61	71							132
Total		7657	9918							17575
Percent		43.6%	56.4%							
AM Peak	-	09:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	505	744	-	-	-	-	-	-	1184
PM Peak	-	17:00	16:00	-	-	-	-	-	-	17:00
Vol.	-	721	690	-	-	-	-	-	-	1321
Grand Total		7657	9918							17575
Percent		43.6%	56.4%							
ADT		ADT 17,575	AADT 17,575							



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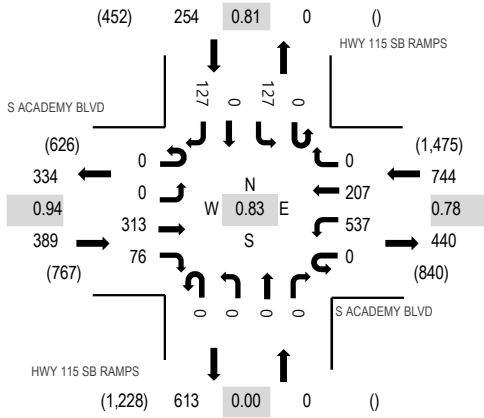
Location: 1 HWY 115 SB RAMPS & S ACADEMY BLVD AM

Date: Wednesday, June 17, 2026

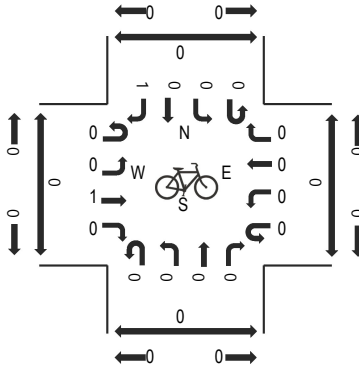
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

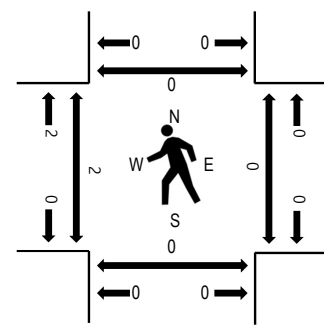
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	S ACADEMY BLVD				S ACADEMY BLVD				HWY 115 SB RAMPS				HWY 115 SB RAMPS				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
7:00 AM	0	0	65	16	0	142	37	0	0	0	0	0	0	24	0	10	294	1,307	0	0	0	0
7:15 AM	0	0	73	24	0	142	49	0	0	0	0	0	0	29	0	22	339	1,299	0	0	0	0
7:30 AM	0	0	66	32	0	126	54	0	0	0	0	0	0	32	0	23	333	1,279	0	0	0	0
7:45 AM	0	0	80	22	0	111	70	0	0	0	0	0	0	31	0	27	341	1,309	0	0	0	0
8:00 AM	0	0	81	8	0	94	45	0	0	0	0	0	0	27	0	31	286	1,387	0	0	0	0
8:15 AM	0	0	77	20	0	127	48	0	0	0	0	0	0	25	0	22	319		0	0	0	0
8:30 AM	0	0	77	23	0	149	43	0	0	0	0	0	0	42	0	29	363		0	0	0	0
8:45 AM	0	0	78	25	0	167	71	0	0	0	0	0	0	33	0	45	419		2	0	0	0
Count Total	0	0	597	170	0	1,058	417	0	0	0	0	0	0	243	0	209	2,694		2	0	0	0
Peak Hour	0	0	313	76	0	537	207	0	0	0	0	0	0	127	0	127	1,387		2	0	0	0



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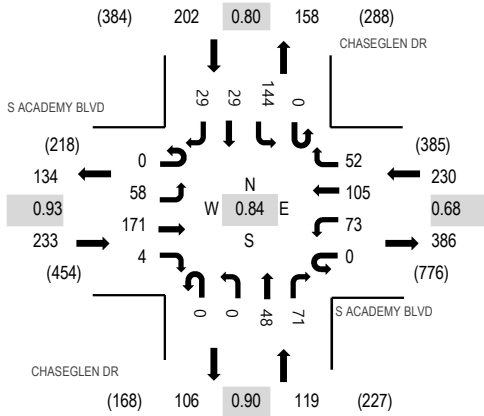
Location: 2 CHASEGLEN DR & S ACADEMY BLVD AM

Date: Wednesday, June 17, 2026

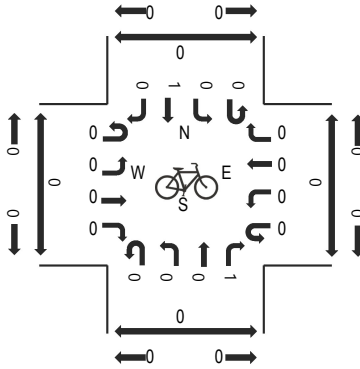
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

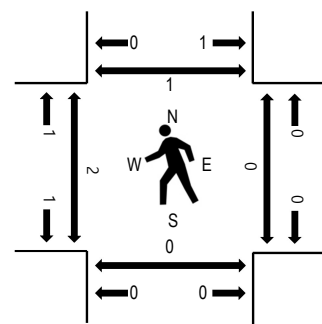
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	S ACADEMY BLVD Eastbound				S ACADEMY BLVD Westbound				CHASEGLEN DR Northbound				CHASEGLEN DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	11	32	1	0	6	11	10	0	0	9	13	0	38	2	3	137	666	1	0	0	0
7:15 AM	0	11	44	1	0	10	14	6	0	0	8	23	0	38	1	4	160	701	0	0	0	0
7:30 AM	0	10	51	0	0	9	19	15	0	0	14	19	0	33	7	8	185	729	0	0	0	0
7:45 AM	0	16	42	1	0	22	20	13	0	0	7	15	0	42	2	4	184	735	1	0	0	0
8:00 AM	0	10	44	1	0	14	17	19	0	0	14	16	0	29	4	4	172	784	2	0	0	1
8:15 AM	0	20	43	1	0	13	23	12	0	0	14	14	0	39	5	4	188		0	0	0	0
8:30 AM	0	12	35	1	0	14	25	8	0	0	9	24	0	44	9	10	191		0	0	0	0
8:45 AM	0	16	49	1	0	32	40	13	0	0	11	17	0	32	11	11	233		0	0	0	0
Count Total	1	106	340	7	0	120	169	96	0	0	86	141	0	295	41	48	1,450		4	0	0	1
Peak Hour	0	58	171	4	0	73	105	52	0	0	48	71	0	144	29	29	784		2	0	0	1



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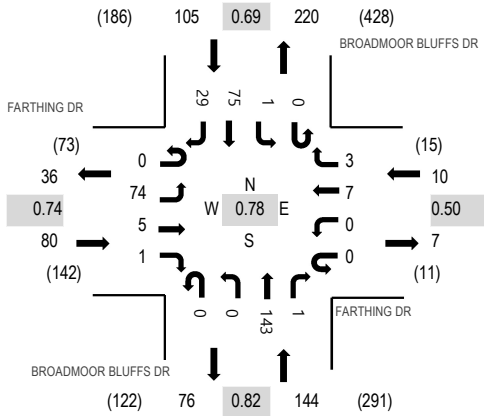
Location: 3 BROADMOOR BLUFFS DR & FARTHING DR AM

Date: Wednesday, June 17, 2026

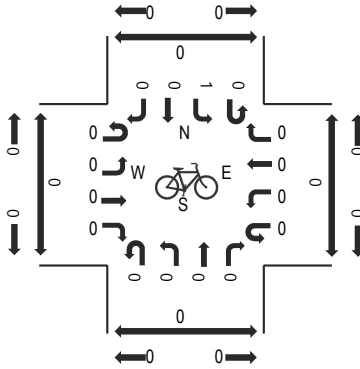
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

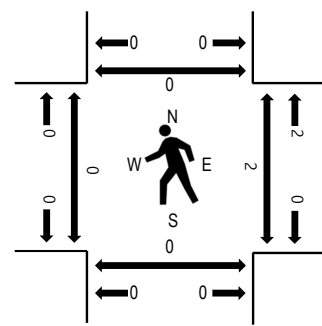
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FARTHING DR Eastbound				FARTHING DR Westbound				BROADMOOR BLUFFS DR Northbound				BROADMOOR BLUFFS DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	5	0	0	0	0	0	1	0	1	36	0	0	1	5	7	56	295	0	1	0	0
7:15 AM	0	17	0	1	0	0	0	1	0	0	31	0	0	0	11	7	68	308	0	0	0	0
7:30 AM	0	22	0	0	0	0	0	0	0	0	39	0	0	0	12	9	82	327	0	0	0	0
7:45 AM	0	17	0	0	0	1	1	1	0	0	38	2	0	1	16	12	89	319	0	0	0	0
8:00 AM	0	22	0	0	0	0	3	0	0	0	30	0	0	0	12	2	69	339	0	1	0	0
8:15 AM	0	11	1	1	0	0	0	1	0	0	48	0	0	0	13	12	87		0	1	0	0
8:30 AM	0	15	3	0	0	0	1	0	0	0	27	0	0	0	22	6	74		0	0	0	0
8:45 AM	0	26	1	0	0	0	3	2	0	0	38	1	0	1	28	9	109		0	0	0	0
Count Total	0	135	5	2	0	1	8	6	0	1	287	3	0	3	119	64	634		0	3	0	0
Peak Hour	0	74	5	1	0	0	7	3	0	0	143	1	0	1	75	29	339		0	2	0	0



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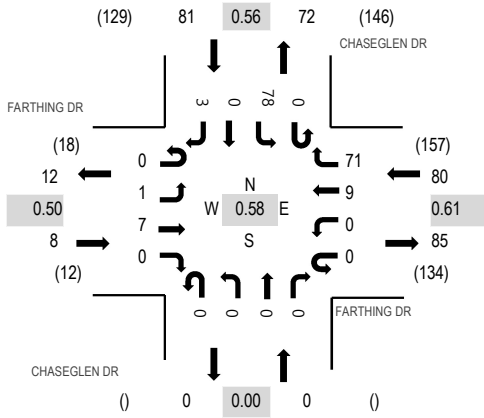
Location: 4 CHASEGLEN DR & FARTHING DR AM

Date: Wednesday, June 17, 2026

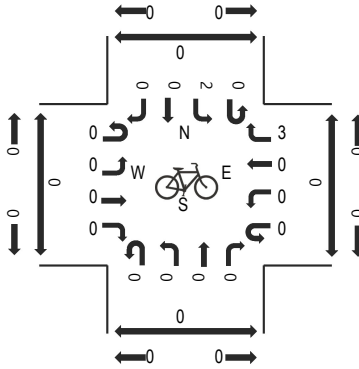
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

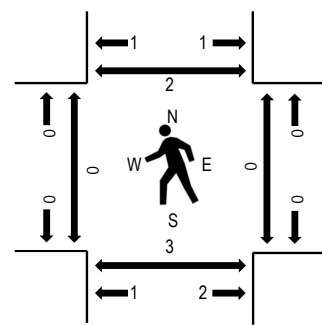
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FARTHING DR Eastbound				FARTHING DR Westbound				CHASEGLEN DR Northbound				CHASEGLEN DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	1	0	0	0	1	15	0	0	0	0	0	6	0	1	24	129	0	1	1	4
7:15 AM	0	0	0	0	0	0	1	21	0	0	0	0	0	11	0	0	33	134	2	0	0	5
7:30 AM	0	0	0	0	0	0	0	21	0	0	0	0	0	10	0	0	31	134	0	0	2	1
7:45 AM	0	1	2	0	0	0	2	16	0	0	0	0	0	19	0	1	41	137	0	0	1	2
8:00 AM	0	0	0	0	0	0	2	11	0	0	0	0	0	15	0	1	29	169	0	0	0	0
8:15 AM	0	0	1	0	0	0	1	15	0	0	0	0	0	15	0	1	33		0	0	2	2
8:30 AM	0	0	3	0	0	0	1	17	0	0	0	0	0	13	0	0	34		0	0	0	0
8:45 AM	0	1	3	0	0	0	5	28	0	0	0	0	0	35	0	1	73		0	0	1	0
Count Total	0	2	10	0	0	0	13	144	0	0	0	0	0	124	0	5	298		2	1	7	14
Peak Hour	0	1	7	0	0	0	9	71	0	0	0	0	0	78	0	3	169		0	0	3	2



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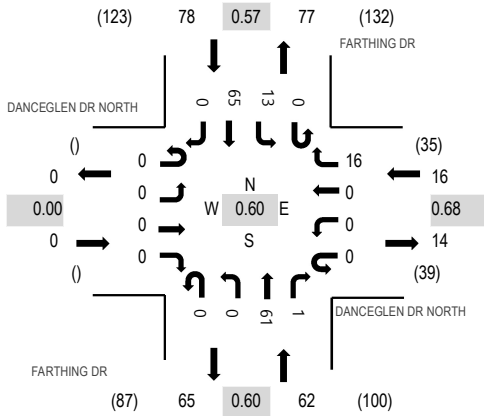
Location: 5 FARTHING DR & DANCEGLEN DR NORTH AM

Date: Wednesday, June 17, 2026

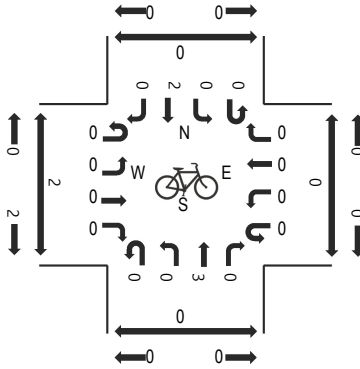
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

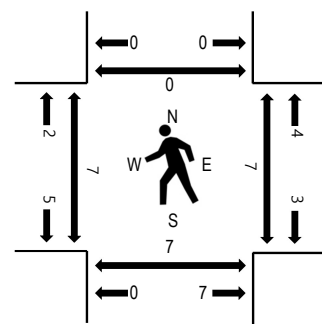
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DANCEGLEN DR NORTH Eastbound				DANCEGLEN DR NORTH Westbound				FARTHING DR Northbound				FARTHING DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	0	0	3	0	0	8	1	0	3	4	0	19	102	3	2	3	0
7:15 AM	0	0	0	0	0	0	0	7	0	0	9	0	0	2	6	0	24	106	1	2	0	0
7:30 AM	0	0	0	0	0	0	0	4	0	0	13	0	0	4	3	0	24	116	0	4	0	0
7:45 AM	0	0	0	0	0	0	0	5	0	0	6	1	0	14	9	0	35	126	2	4	2	0
8:00 AM	0	0	0	0	0	0	0	2	0	0	10	0	0	5	6	0	23	156	0	1	4	0
8:15 AM	0	0	0	0	0	0	0	5	0	0	11	1	0	2	15	0	34		0	3	0	0
8:30 AM	0	0	0	0	0	0	0	4	0	0	14	0	0	3	13	0	34		4	2	3	0
8:45 AM	0	0	0	0	0	0	0	5	0	0	26	0	0	3	31	0	65		3	1	0	0
Count Total	0	0	0	0	0	0	0	35	0	0	97	3	0	36	87	0	258		13	19	12	0
Peak Hour	0	0	0	0	0	0	0	16	0	0	61	1	0	13	65	0	156		7	7	7	0



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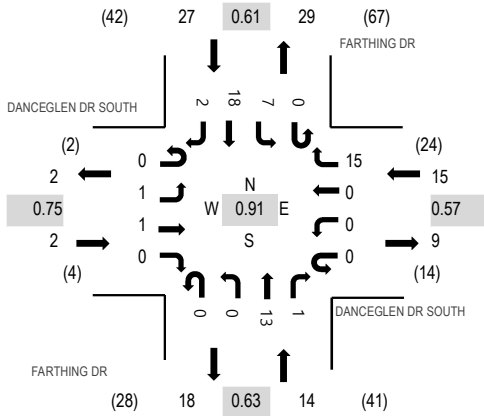
Location: 6 FARTHING DR & DANCEGLEN DR SOUTH AM

Date: Wednesday, June 17, 2026

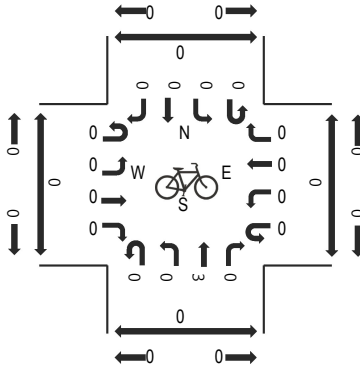
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

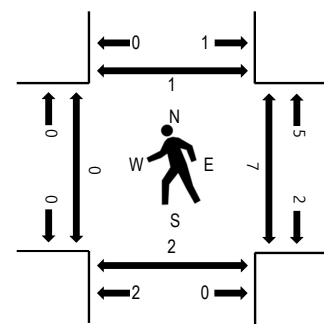
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DANCEGLEN DR SOUTH Eastbound				DANCEGLEN DR SOUTH Westbound				FARTHING DR Northbound				FARTHING DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	1	0	0	0	0	0	2	0	0	7	0	1	0	0	0	11	53	2	0	1	0
7:15 AM	0	1	0	0	0	0	0	4	0	0	5	0	0	1	2	0	13	54	1	1	0	3
7:30 AM	0	0	0	0	0	0	0	1	0	0	9	1	0	0	2	0	13	56	1	0	0	0
7:45 AM	0	0	1	0	0	0	0	1	0	0	3	0	0	3	7	1	16	58	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	2	0	0	5	1	0	1	3	0	12	58	0	2	1	0
8:15 AM	0	1	0	0	0	0	0	5	0	0	1	0	0	2	5	1	15		0	2	0	1
8:30 AM	0	0	0	0	0	0	0	7	0	0	4	0	0	1	3	0	15		0	2	1	0
8:45 AM	0	0	0	0	0	0	0	2	0	0	5	0	0	3	6	0	16		0	2	0	0
Count Total	0	3	1	0	0	0	0	24	0	0	39	2	1	11	28	2	111		4	10	3	4
Peak Hour	0	1	1	0	0	0	0	15	0	0	13	1	0	7	18	2	58		0	7	2	1



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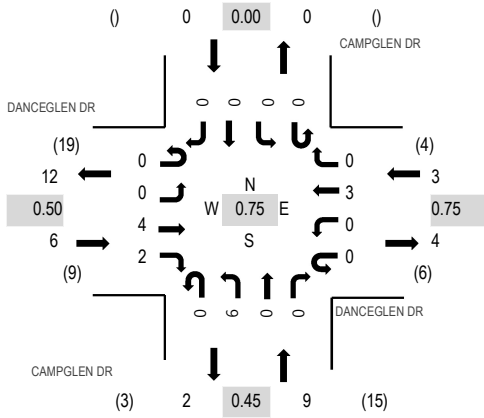
Location: 7 CAMPGLEN DR & DANCEGLEN DR AM

Date: Wednesday, June 17, 2026

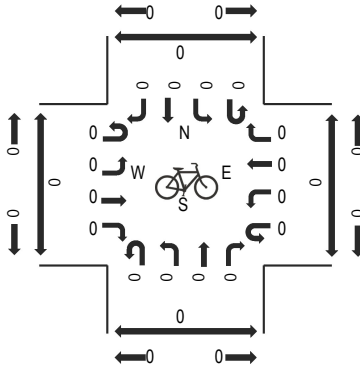
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

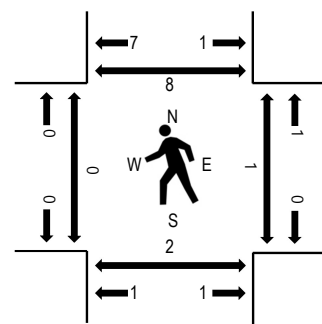
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DANCEGLEN DR Eastbound				DANCEGLEN DR Westbound				CAMPGLEN DR Northbound				CAMPGLEN DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	10	0	0	1	0
7:15 AM	0	0	0	1	0	0	1	0	0	2	0	0	0	0	0	0	4	13	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	3	13	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	16	0	0	0	1
8:00 AM	0	0	1	0	0	0	1	0	0	2	0	0	0	0	0	0	4	18	0	0	0	4
8:15 AM	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	4		0	0	0	1
8:30 AM	0	0	0	0	0	0	1	0	0	5	0	0	0	0	0	0	6		0	1	2	3
8:45 AM	0	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	4		0	0	0	0
Count Total	1	0	5	3	0	0	4	0	0	14	0	1	0	0	0	0	28		0	1	3	9
Peak Hour	0	0	4	2	0	0	3	0	0	9	0	0	0	0	0	0	18		0	1	2	8



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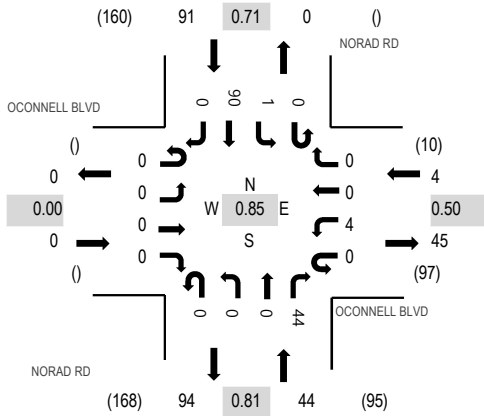
Location: 8 NORAD RD & OCONNELL BLVD AM

Date: Wednesday, June 17, 2026

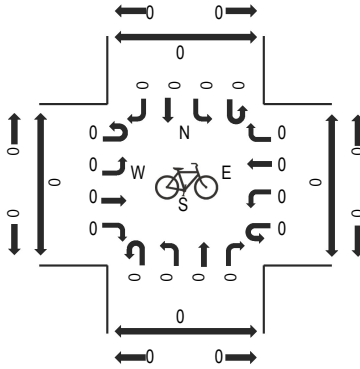
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:00 AM - 07:15 AM

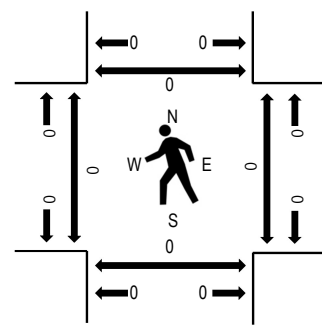
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	OCONNELL BLVD Eastbound				OCONNELL BLVD Westbound				NORAD RD Northbound				NORAD RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	8	0	1	31	0	41	139	0	0	0	0
7:15 AM	0	0	0	0	0	2	0	0	0	0	0	10	0	0	14	0	26	135	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	11	0	0	27	0	38	138	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	0	15	0	0	18	0	34	132	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	17	0	1	19	0	37	126	0	0	0	0
8:15 AM	0	0	0	0	0	2	0	0	0	0	0	9	0	0	18	0	29		0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	14	0	0	17	0	32		0	0	0	0
8:45 AM	0	0	0	0	0	3	0	0	0	0	0	11	0	0	14	0	28		0	0	0	0
Count Total	0	0	0	0	0	10	0	0	0	0	0	95	0	2	158	0	265		0	0	0	0
Peak Hour	0	0	0	0	0	4	0	0	0	0	0	44	0	1	90	0	139		0	0	0	0



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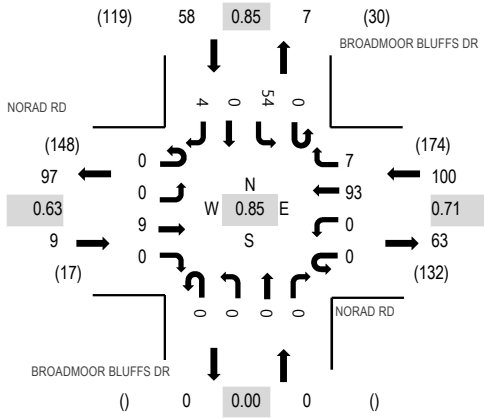
Location: 9 BROADMOOR BLUFFS DR & NORAD RD AM

Date: Wednesday, June 17, 2026

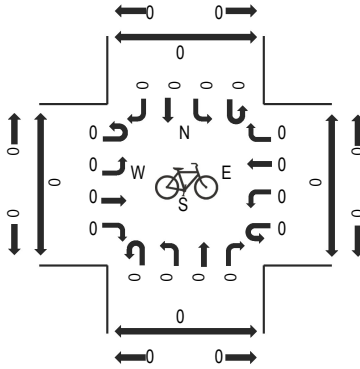
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:00 AM - 07:15 AM

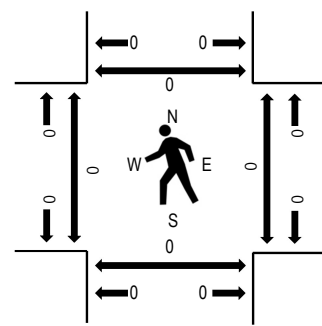
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	NORAD RD Eastbound				NORAD RD Westbound				BROADMOOR BLUFFS DR Northbound				BROADMOOR BLUFFS DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	1	0	0	0	34	1	0	0	0	0	0	12	0	1	49	167	0	0	0	0
7:15 AM	0	0	4	0	0	0	19	1	0	0	0	0	0	17	0	1	42	154	0	0	0	0
7:30 AM	0	0	1	0	0	0	22	2	0	0	0	0	0	10	0	2	37	151	0	0	0	0
7:45 AM	0	0	3	0	0	0	18	3	0	0	0	0	0	15	0	0	39	147	0	0	0	0
8:00 AM	0	0	2	0	0	0	15	5	0	0	0	0	0	14	0	0	36	143	0	0	0	0
8:15 AM	0	0	1	0	0	0	15	5	0	0	0	0	0	18	0	0	39		0	0	0	0
8:30 AM	0	0	3	0	0	0	12	5	0	0	0	0	0	13	0	0	33		0	0	0	0
8:45 AM	0	0	2	0	0	0	9	8	0	0	0	0	0	16	0	0	35		0	0	0	0
Count Total	0	0	17	0	0	0	144	30	0	0	0	0	0	115	0	4	310		0	0	0	0
Peak Hour	0	0	9	0	0	0	93	7	0	0	0	0	0	54	0	4	167		0	0	0	0



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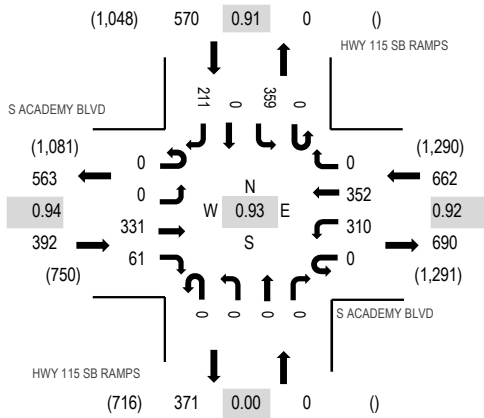
Location: 1 HWY 115 SB RAMPS & S ACADEMY BLVD PM

Date: Wednesday, June 17, 2026

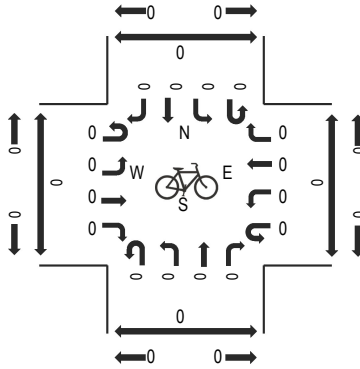
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

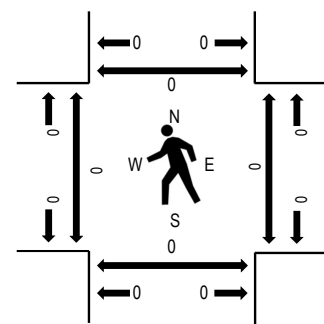
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	S ACADEMY BLVD				S ACADEMY BLVD				HWY 115 SB RAMPS				HWY 115 SB RAMPS				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
4:00 PM	0	0	71	21	0	77	95	0	0	0	0	0	0	61	0	43	368	1,507	0	0	0	0
4:15 PM	0	0	83	16	0	69	85	0	0	0	0	0	0	45	0	48	346	1,516	0	0	0	0
4:30 PM	0	0	82	18	0	81	105	0	0	0	0	0	0	78	0	40	404	1,605	0	0	0	0
4:45 PM	0	0	91	15	0	78	100	0	0	0	0	0	0	59	0	46	389	1,624	0	0	0	0
5:00 PM	0	0	75	15	0	67	73	0	0	0	0	0	0	92	0	55	377	1,581	0	0	0	0
5:15 PM	0	0	88	13	0	88	101	0	0	0	0	0	0	85	0	60	435		0	0	0	0
5:30 PM	0	0	77	18	0	77	78	0	0	0	0	0	0	123	0	50	423		0	0	0	0
5:45 PM	0	0	54	13	0	50	66	0	0	0	0	0	0	127	0	36	346		0	0	0	0
Count Total	0	0	621	129	0	587	703	0	0	0	0	0	0	670	0	378	3,088		0	0	0	0
Peak Hour	0	0	331	61	0	310	352	0	0	0	0	0	0	359	0	211	1,624		0	0	0	0



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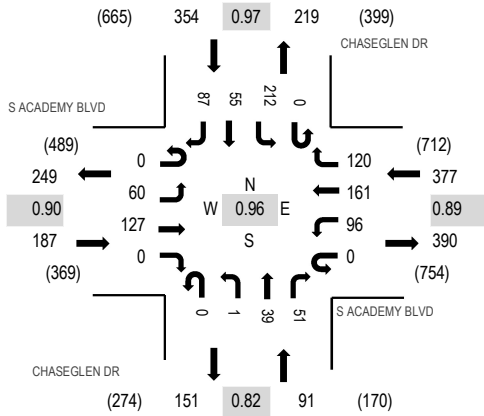
Location: 2 CHASEGLEN DR & S ACADEMY BLVD PM

Date: Wednesday, June 17, 2026

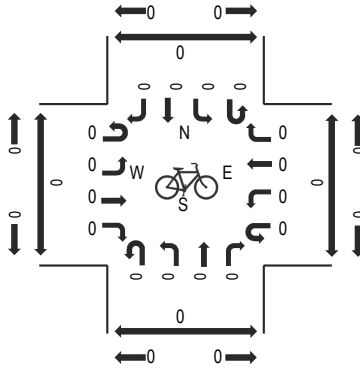
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

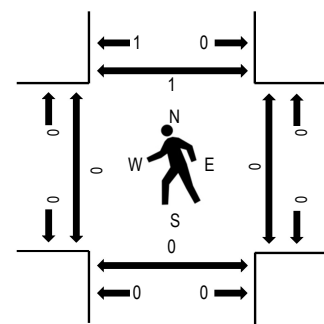
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	S ACADEMY BLVD Eastbound				S ACADEMY BLVD Westbound				CHASEGLEN DR Northbound				CHASEGLEN DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	17	33	0	0	26	49	26	0	0	12	11	0	49	10	13	246	989	0	0	0	2
4:15 PM	0	19	36	0	0	18	49	18	0	0	5	9	0	58	8	15	235	995	0	0	0	1
4:30 PM	0	9	34	0	0	14	42	31	0	0	12	12	0	49	16	25	244	1,009	0	0	0	1
4:45 PM	0	13	35	0	0	23	39	36	0	0	15	14	0	56	11	22	264	1,007	0	0	0	0
5:00 PM	0	25	26	0	0	32	33	21	0	1	8	15	0	52	18	21	252	927	0	0	0	0
5:15 PM	0	13	32	0	0	27	47	32	0	0	4	10	0	55	10	19	249		0	0	0	0
5:30 PM	0	20	26	0	0	25	39	18	0	0	12	16	0	59	7	20	242		0	0	0	0
5:45 PM	0	9	21	1	0	15	35	17	0	0	7	7	0	39	13	20	184		1	0	0	0
Count Total	0	125	243	1	0	180	333	199	0	1	75	94	0	417	93	155	1,916		1	0	0	4
Peak Hour	0	60	127	0	0	96	161	120	0	1	39	51	0	212	55	87	1,009		0	0	0	1



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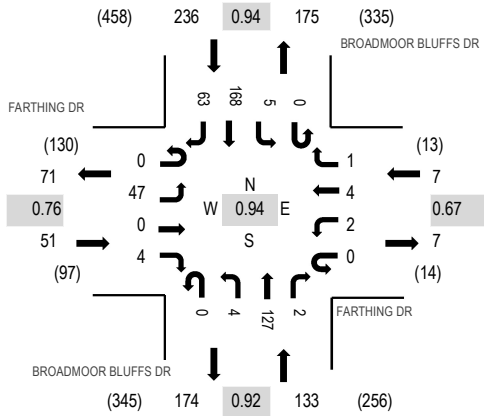
Location: 3 BROADMOOR BLUFFS DR & FARTHING DR PM

Date: Wednesday, June 17, 2026

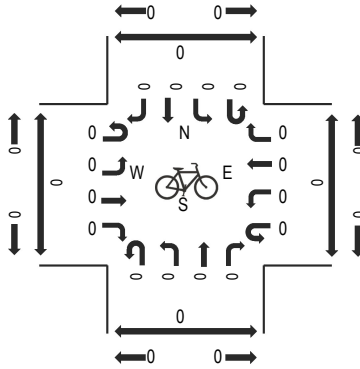
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

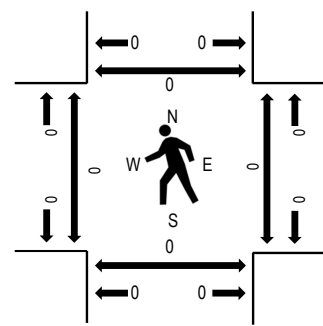
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FARTHING DR Eastbound				FARTHING DR Westbound				BROADMOOR BLUFFS DR Northbound				BROADMOOR BLUFFS DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	14	0	0	0	1	1	0	0	1	27	0	0	1	44	13	102	427	0	0	0	0
4:15 PM	0	14	0	3	0	0	0	0	0	1	36	1	0	1	37	20	113	423	0	0	0	0
4:30 PM	0	9	0	1	0	0	2	1	0	2	31	0	0	0	41	16	103	419	0	0	0	0
4:45 PM	0	10	0	0	0	1	1	0	0	0	33	1	0	3	46	14	109	424	0	0	0	0
5:00 PM	0	13	1	1	0	0	1	0	0	0	34	1	0	0	37	10	98	397	0	0	0	0
5:15 PM	0	9	0	1	0	1	1	0	0	0	30	1	0	0	50	16	109		0	0	0	0
5:30 PM	0	10	0	2	0	0	1	2	0	1	31	2	0	1	39	19	108		0	0	0	0
5:45 PM	0	8	1	0	0	0	0	0	0	0	23	0	0	0	40	10	82		0	0	0	0
Count Total	0	87	2	8	0	3	7	3	0	5	245	6	0	6	334	118	824		0	0	0	0
Peak Hour	0	47	0	4	0	2	4	1	0	4	127	2	0	5	168	63	427		0	0	0	0



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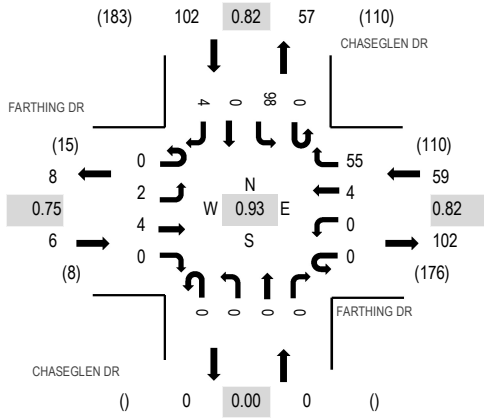
Location: 4 CHASEGLEN DR & FARTHING DR PM

Date: Wednesday, June 17, 2026

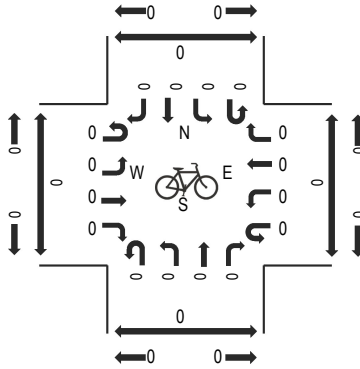
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

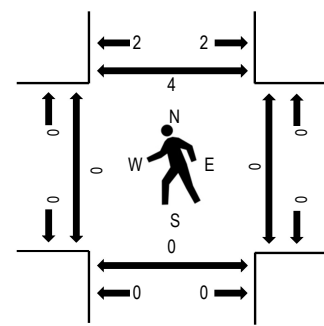
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	FARTHING DR Eastbound				FARTHING DR Westbound				CHASEGLEN DR Northbound				CHASEGLEN DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	0	0	14	0	0	0	0	0	22	0	2	38	145	0	0	1	1
4:15 PM	0	1	0	0	0	0	0	10	0	0	0	0	0	19	0	1	31	152	0	0	0	1
4:30 PM	0	1	0	0	0	0	0	16	0	0	0	0	0	14	0	3	34	162	0	0	0	0
4:45 PM	0	0	2	0	0	0	1	17	0	0	0	0	0	21	0	1	42	167	0	0	0	0
5:00 PM	0	0	2	0	0	0	1	13	0	0	0	0	0	28	0	1	45	156	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	9	0	0	0	0	0	29	0	2	41		0	0	0	2
5:30 PM	0	1	0	0	0	0	2	16	0	0	0	0	0	20	0	0	39		0	0	0	2
5:45 PM	0	0	0	0	0	0	0	11	0	0	0	0	0	19	0	1	31		0	0	0	0
Count Total	0	4	4	0	0	0	4	106	0	0	0	0	0	172	0	11	301		0	0	1	6
Peak Hour	0	2	4	0	0	0	4	55	0	0	0	0	0	98	0	4	167		0	0	0	4



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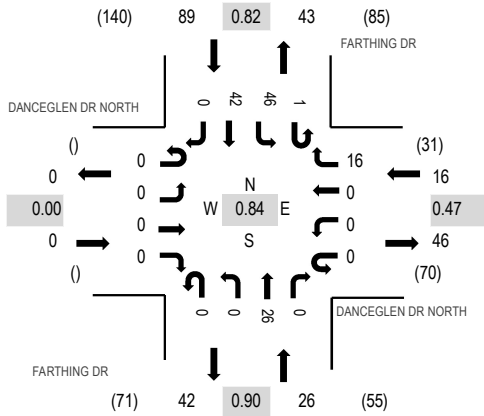
Location: 5 FARTHING DR & DANCEGLEN DR NORTH PM

Date: Wednesday, June 17, 2026

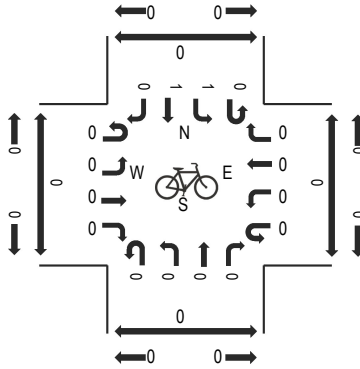
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

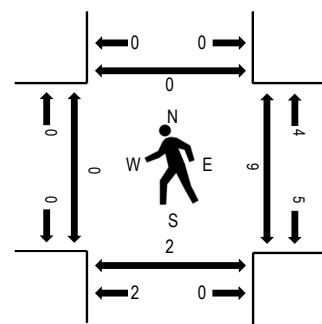
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DANCEGLEN DR NORTH Eastbound				DANCEGLEN DR NORTH Westbound				FARTHING DR Northbound				FARTHING DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	0	0	2	0	0	8	0	0	6	10	0	26	117	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	2	0	0	8	0	0	8	9	0	27	124	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	4	0	0	9	1	0	4	7	0	25	127	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	9	0	0	10	0	0	6	14	0	39	131	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	2	0	0	4	0	0	17	10	0	33	109	0	4	2	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	5	0	0	13	11	0	30		0	2	0	0
5:30 PM	0	0	0	0	0	0	0	4	0	0	7	0	1	10	7	0	29		0	3	0	0
5:45 PM	0	0	0	0	0	1	0	6	0	0	3	0	0	5	2	0	17		0	0	0	0
Count Total	0	0	0	0	0	1	0	30	0	0	54	1	1	69	70	0	226		0	9	2	0
Peak Hour	0	0	0	0	0	0	0	16	0	0	26	0	1	46	42	0	131		0	9	2	0



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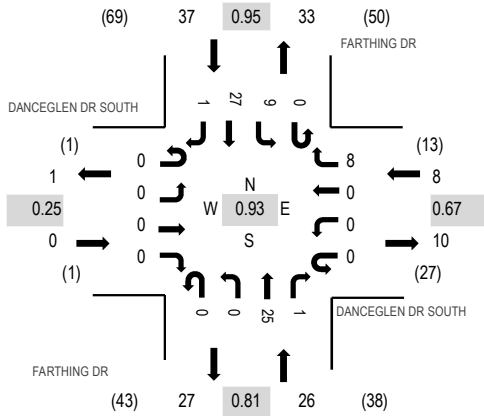
Location: 6 FARTHING DR & DANCEGLEN DR SOUTH PM

Date: Wednesday, June 17, 2026

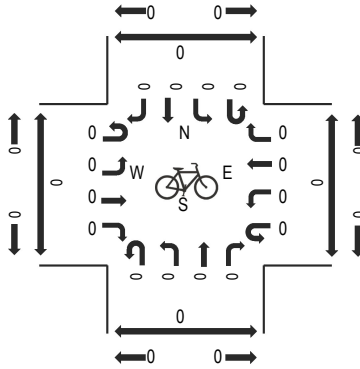
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

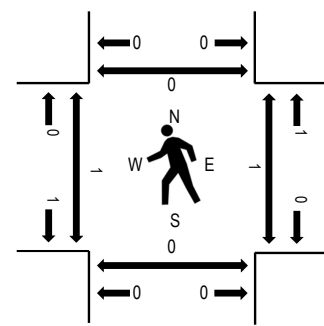
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DANCEGLEN DR SOUTH Eastbound				DANCEGLEN DR SOUTH Westbound				FARTHING DR Northbound				FARTHING DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	0	0	2	0	0	5	0	0	2	8	1	18	71	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	3	0	0	6	0	0	2	8	0	19	67	1	1	0	0
4:30 PM	0	0	0	0	0	0	0	3	0	0	8	0	0	2	5	0	18	61	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	6	1	0	3	6	0	16	60	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	5	5	0	14	50	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	4	6	0	13		0	1	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	5	1	0	6	3	0	17		0	1	0	0
5:45 PM	0	1	0	0	0	0	0	1	0	0	1	0	0	1	2	0	6		0	0	0	0
Count Total	0	1	0	0	0	0	0	13	0	0	36	2	0	25	43	1	121		1	3	0	0
Peak Hour	0	0	0	0	0	0	0	8	0	0	25	1	0	9	27	1	71		1	1	0	0



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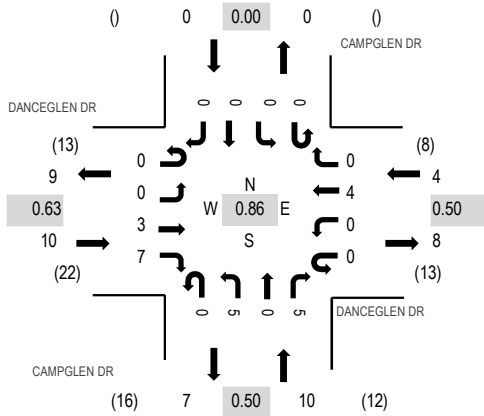
Location: 7 CAMPGLEN DR & DANCEGLEN DR PM

Date: Wednesday, June 17, 2026

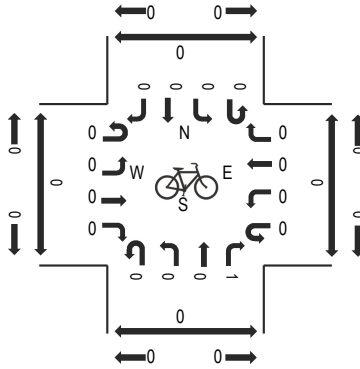
Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes: 04:15 PM - 04:30 PM

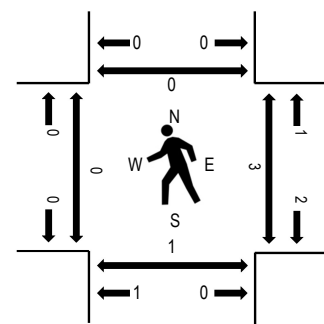
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DANCEGLEN DR Eastbound				DANCEGLEN DR Westbound				CAMPGLEN DR Northbound				CAMPGLEN DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	5	23	0	0	0	0
4:15 PM	0	0	1	1	0	0	2	0	0	1	0	2	0	0	0	0	7	24	0	0	1	0
4:30 PM	0	0	1	1	0	0	0	0	0	3	0	2	0	0	0	0	7	20	0	0	0	0
4:45 PM	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	4	21	0	0	0	0
5:00 PM	0	0	0	3	0	0	2	0	0	1	0	0	0	0	0	0	6	19	0	3	0	0
5:15 PM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3		0	2	0	0
5:30 PM	0	0	3	3	0	0	1	0	0	1	0	0	0	0	0	0	8		0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2		0	0	0	0
Count Total	0	0	7	15	0	1	7	0	0	6	0	6	0	0	0	0	42		0	5	1	0
Peak Hour	0	0	3	7	0	0	4	0	0	5	0	5	0	0	0	0	24		0	3	1	0



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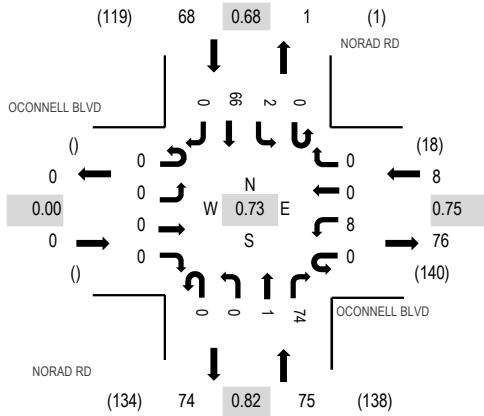
Location: 8 NORAD RD & OCONNELL BLVD PM

Date: Wednesday, June 17, 2026

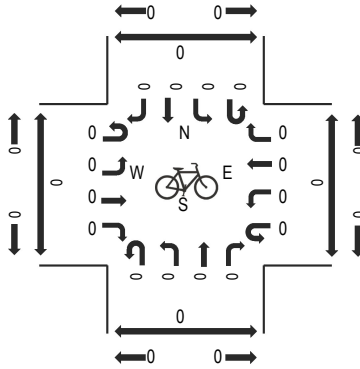
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

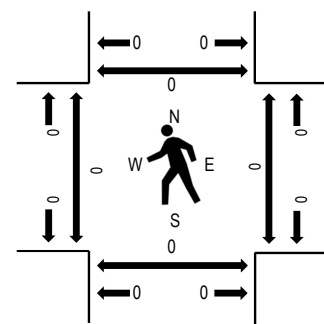
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	OCONNELL BLVD Eastbound				OCONNELL BLVD Westbound				NORAD RD Northbound				NORAD RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	2	0	0	0	0	0	21	0	0	12	0	35	124	0	0	0	0
4:15 PM	0	0	0	0	0	2	0	0	0	0	0	20	0	0	13	0	35	120	0	0	0	0
4:30 PM	0	0	0	0	0	2	0	0	0	0	0	11	0	1	11	0	25	112	0	0	0	0
4:45 PM	0	0	0	0	0	4	0	0	0	0	0	11	0	0	14	0	29	139	0	0	0	0
5:00 PM	0	0	0	0	0	4	0	0	0	0	0	14	0	0	13	0	31	151	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	16	0	0	11	0	27		0	0	0	0
5:30 PM	0	0	0	0	0	4	0	0	0	0	1	22	0	0	25	0	52		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	22	0	2	17	0	41		0	0	0	0
Count Total	0	0	0	0	0	18	0	0	0	0	1	137	0	3	116	0	275		0	0	0	0
Peak Hour	0	0	0	0	0	8	0	0	0	0	1	74	0	2	66	0	151		0	0	0	0



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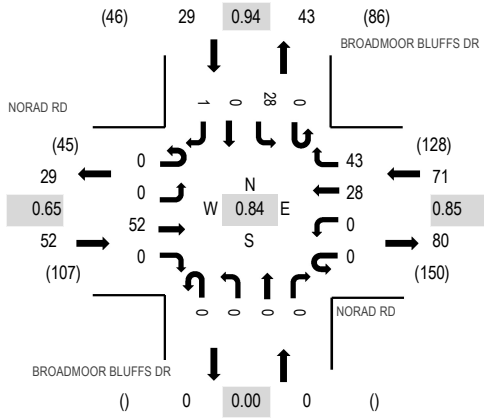
Location: 9 BROADMOOR BLUFFS DR & NORAD RD PM

Date: Wednesday, June 17, 2026

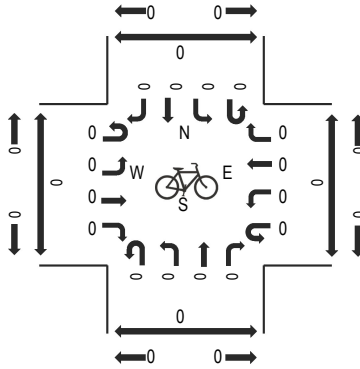
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:45 PM - 06:00 PM

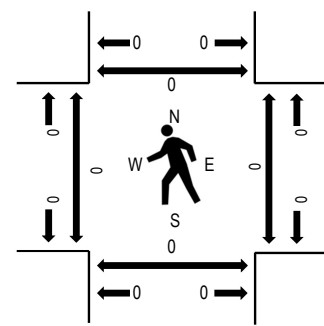
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	NORAD RD Eastbound				NORAD RD Westbound				BROADMOOR BLUFFS DR Northbound				BROADMOOR BLUFFS DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	1	20	0	0	0	3	11	0	0	0	0	0	9	0	0	44	129	0	0	0	0
4:15 PM	0	0	18	0	0	0	4	6	0	0	0	0	0	1	0	0	29	118	0	0	0	0
4:30 PM	0	0	10	0	0	0	5	13	0	0	0	0	0	0	0	0	28	121	0	0	0	0
4:45 PM	0	1	5	0	0	0	4	11	0	0	0	0	0	7	0	0	28	135	0	0	0	0
5:00 PM	0	0	7	0	0	0	7	11	0	0	0	0	0	7	0	1	33	152	0	0	0	0
5:15 PM	0	0	11	0	0	0	5	8	0	0	0	0	0	8	0	0	32		0	0	0	0
5:30 PM	0	0	14	0	0	0	8	13	0	0	0	0	0	7	0	0	42		0	0	0	0
5:45 PM	0	0	20	0	0	0	8	11	0	0	0	0	0	6	0	0	45		0	0	0	0
Count Total	0	2	105	0	0	0	44	84	0	0	0	0	0	45	0	1	281		0	0	0	0
Peak Hour	0	0	52	0	0	0	28	43	0	0	0	0	0	28	0	1	152		0	0	0	0

Appendix B – Existing Conditions

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰			↱		↱
Traffic Vol, veh/h	4	0	0	44	1	90
Future Vol, veh/h	4	0	0	44	1	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	52	1	106

Major/Minor	Minor1	Major2	
Conflicting Flow All	108	-	0
Stage 1	0	-	-
Stage 2	108	-	-
Critical Hdwy	6.42	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	-	2.218
Pot Cap-1 Maneuver	889	0	-
Stage 1	-	0	-
Stage 2	916	0	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	889	-	-
Mov Cap-2 Maneuver	889	-	-
Stage 1	-	-	-
Stage 2	916	-	-

Approach	WB	SB
HCM Ctrl Dly, s/v	9.07	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	889	-	-
HCM Lane V/C Ratio	0.005	-	-
HCM Ctrl Dly (s/v)	9.1	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	54	4	0	9	93	7
Future Vol, veh/h	54	4	0	9	93	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	64	5	0	11	109	8

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	120	109	109	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	876	944	1493	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	876	944	1493	-	-	-
Mov Cap-2 Maneuver	876	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	1012	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.43	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1493	-	880	-	-
HCM Lane V/C Ratio	-	-	0.078	-	-
HCM Ctrl Dly (s/v)	0	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 7th TWSC
3: Campglen Drive & Danceglen Drive

Existing AM
08/28/2026

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	3	0	0
Future Vol, veh/h	4	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	75	75	90	90
Heavy Vehicles, %	2	0	0	2	0	2
Mvmt Flow	8	0	0	4	0	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	8	0	12	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	4	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1625	-	1013	1074
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1024	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1625	-	1013	1074
Mov Cap-2 Maneuver	-	-	-	-	1013	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1024	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1625	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	1	1	0	0	0	15	0	13	1	7	18	2
Future Vol, veh/h	1	1	0	0	0	15	0	13	1	7	18	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	57	57	57	63	63	63	61	61	61
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	1	1	0	0	0	26	0	21	2	11	30	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	75	76	31	75	77	21	33	0	0	22	0	0
Stage 1	54	54	-	21	21	-	-	-	-	-	-	-
Stage 2	21	22	-	53	56	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	915	814	1049	920	817	1056	1592	-	-	1593	-	-
Stage 1	958	850	-	1002	881	-	-	-	-	-	-	-
Stage 2	998	877	-	965	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	886	808	1049	912	811	1056	1592	-	-	1593	-	-
Mov Cap-2 Maneuver	886	808	-	912	811	-	-	-	-	-	-	-
Stage 1	951	844	-	1002	881	-	-	-	-	-	-	-
Stage 2	973	877	-	956	846	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.27	8.5	0	1.89
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1592	-	-	845 1056	458	-	-
HCM Lane V/C Ratio	-	-	-	0.003 0.025 0.007	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.3 8.5 7.3	0	-	-
HCM Lane LOS	A	-	-	A A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0.1 0	0	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	61	1	13	65
Future Vol, veh/h	0	16	61	1	13	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	60	60	57	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	24	102	2	23	114
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	262	103	0	0	103	0
Stage 1	103	-	-	-	-	-
Stage 2	160	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	731	953	-	-	1488	-
Stage 1	927	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	719	953	-	-	1488	-
Mov Cap-2 Maneuver	719	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	8.88	0	1.24			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	953	300	-	
HCM Lane V/C Ratio	-	-	0.025	0.015	-	
HCM Ctrl Dly (s/v)	-	-	0	8.9	7.5	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	7	9	71	78	3
Future Vol, veh/h	1	7	9	71	78	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	61	61	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	14	15	116	139	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	131	0	-	0	91	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	18	-
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	1454	-	-	-	909	989
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1454	-	-	-	908	989
Mov Cap-2 Maneuver	-	-	-	-	908	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	1005	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0.93	0		9.7		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	225	-	-	-	911	
HCM Lane V/C Ratio	0.001	-	-	-	0.159	
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.7	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	5	1	0	7	3	0	143	1	1	75	29
Future Vol, veh/h	74	5	1	0	7	3	0	143	1	1	75	29
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.82	0.82	0.82	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	100	7	1	0	14	6	0	174	1	1	109	42
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	9.8	8.4	9.8	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	99%	0%	83%	100%	70%	0%	100%	0%
Vol Right, %	0%	1%	0%	17%	0%	30%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	144	74	6	0	10	1	75	29
LT Vol	0	0	74	0	0	0	1	0	0
Through Vol	0	143	0	5	0	7	0	75	0
RT Vol	0	1	0	1	0	3	0	0	29
Lane Flow Rate	0	176	100	8	0	20	1	109	42
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0	0.256	0.166	0.012	0	0.03	0.002	0.161	0.054
Departure Headway (Hd)	5.224	5.253	5.977	5.358	5.665	5.488	5.828	5.326	4.622
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	681	598	665	0	648	613	672	772
Service Time	2.97	2.999	3.732	3.113	3.434	3.257	3.574	3.071	2.367
HCM Lane V/C Ratio	0	0.258	0.167	0.012	0	0.031	0.002	0.162	0.054
HCM Control Delay, s/veh	8	9.8	9.9	8.2	8.4	8.4	8.6	9.1	7.6
HCM Lane LOS	N	A	A	A	N	A	A	A	A
HCM 95th-tile Q	0	1	0.6	0	0	0.1	0	0.6	0.2

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing AM

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations	↰	→	↰	→	↰	→	↰	→	↰
Traffic Volume (vph)	58	171	73	105	52	48	144	29	29
Future Volume (vph)	58	171	73	105	52	48	144	29	29
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		2		6		4		8	
Permitted Phases	2		6		6		8		8
Detector Phase	2	2	6	6	6	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	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	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47
v/c Ratio	0.13	0.27	0.24	0.22	0.12	0.16	0.31	0.04	0.05
Control Delay (s/veh)	16.2	17.1	17.7	16.8	4.7	5.9	14.3	11.1	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.2	17.1	17.7	16.8	4.7	5.9	14.3	11.1	4.3
LOS	B	B	B	B	A	A	B	B	A
Approach Delay (s/veh)		16.9		14.3		5.9		12.4	
Approach LOS		B		B		A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.31

Intersection Signal Delay (s/veh): 13.4

Intersection LOS: B

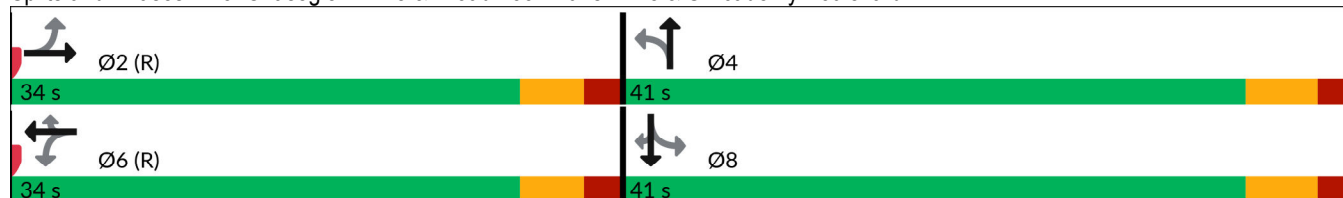
Intersection Capacity Utilization 42.2%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



Existing AM

Ranch at Cheyenne Mountain_ExistingConditions.syn

Synchro 12 Report

Page 8

HCM 7th Signalized Intersection Capacity Analysis

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing AM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	171	4	73	105	52	0	48	71	144	29	29
Future Volume (veh/h)	58	171	4	73	105	52	0	48	71	144	29	29
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	184	4	107	154	76	0	53	79	180	36	36
Peak Hour Factor	0.93	0.93	0.93	0.68	0.68	0.68	0.90	0.90	0.90	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	469	693	15	467	711	602	96	316	472	626	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.7	0.0	16.9	20.7	16.4	15.6	0.0	0.0	12.0	15.8	11.0	11.0
Ln Grp LOS	B		B	C	B	B			B	B	B	B
Approach Vol, veh/h	250			337			132			252		
Approach Delay, s/veh	17.4			17.6			12.0			14.4		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			6.0			5.0			5.0		
Phs Duration (G+Y+Rc), s	34.0			41.0			34.0			41.0		
Change Period (Y+Rc), s	5.5			6.0			5.5			6.0		
Max Green (Gmax), s	28.5			35.0			28.5			35.0		
Max Allow Headway (MAH), s	0.0			0.0			0.0			0.0		
Max Q Clear (g_c+I1), s	0.0			0.0			0.0			0.0		
Green Ext Time (g_e), s	0.0			0.0			0.0			0.0		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1151			1349			1195			1258		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1824			678			1870			1870		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	40			1011			1585			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing AM
08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	62	0	0	0	107	0	180
Grp Sat Flow (s), veh/h/ln	0	1151	0	1349	0	1195	0	1258
Q Serve Time (g_s), s	0.0	2.9	0.0	0.0	0.0	5.1	0.0	7.2
Cycle Q Clear Time (g_c), s	0.0	7.1	0.0	0.0	0.0	10.3	0.0	10.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1151	0	1349	0	1195	0	1258
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	0.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	24.3	0.0	0.0	0.0	23.3	0.0	31.6
Perm LT Q Serve Time (g_ps), s	0.0	2.9	0.0	0.0	0.0	5.1	0.0	7.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	469	0	96	0	467	0	626
V/C Ratio (X)	0.00	0.13	0.00	0.00	0.00	0.23	0.00	0.29
Avail Cap (c_a), veh/h	0	469	0	96	0	467	0	626
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.1	0.0	0.0	0.0	19.6	0.0	14.6
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	1.1	0.0	1.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.7	0.0	0.0	0.0	20.7	0.0	15.8
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	0.0	0.0	1.3	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	0.0	0.0	1.5	0.0	2.1
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment						T		T
Lanes in Grp	0	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	154	0	36
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.8
Lane Grp Cap (c), veh/h	0	0	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.04
Avail Cap (c_a), veh/h	0	0	0	0	0	711	0	873
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	15.7	0.0	10.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	16.4	0.0	11.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.3

HCM 7th Signalized Intersection Capacity Analysis 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing AM
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	188	0	132	0	76	0	36
Grp Sat Flow (s), veh/h/ln	0	1863	0	1688	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.2	0.0	3.4	0.0	2.3	0.0	0.9
Cycle Q Clear Time (g_c), s	0.0	5.2	0.0	3.4	0.0	2.3	0.0	0.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.02	0.00	0.60	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	708	0	788	0	602	0	740
V/C Ratio (X)	0.00	0.27	0.00	0.17	0.00	0.13	0.00	0.05
Avail Cap (c_a), veh/h	0	708	0	788	0	602	0	740
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.0	0.0	11.6	0.0	15.1	0.0	10.9
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.5	0.0	0.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.9	0.0	12.0	0.0	15.6	0.0	11.0
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	1.2	0.0	0.8	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.3	0.0	1.3	0.0	0.9	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.02	0.00	0.03	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.0
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing AM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↗
Traffic Volume (vph)	313	76	537	207	127	0	127
Future Volume (vph)	313	76	537	207	127	0	127
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	22.0	22.0	22.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.39	0.17	0.59	0.11	0.24	0.24	0.36
Control Delay (s/veh)	27.5	3.0	24.7	5.3	30.2	30.2	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.5	3.0	24.7	5.3	30.2	30.2	7.7
LOS	C	A	C	A	C	C	A
Approach Delay (s/veh)	22.7			19.3		19.0	
Approach LOS	C			B		B	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.59

Intersection Signal Delay (s/veh): 20.1

Intersection LOS: C

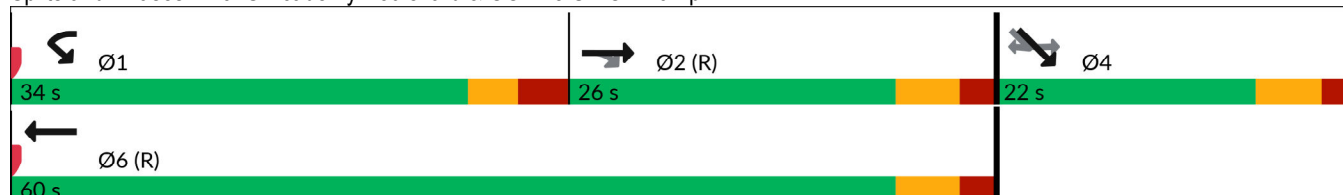
Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing AM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	313	76	537	207	0	127	0	127	0	0	0
Future Volume (veh/h)	0	313	76	537	207	0	127	0	127	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	333	0	688	265	0	157	0	0			
Peak Hour Factor	0.90	0.94	0.94	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	27.2	0.0	24.3	5.3	0.0	28.5	0.0	0.0			
Ln Grp LOS		C	A	C	A		C		A			
Approach Vol, veh/h		414			953			314				
Approach Delay, s/veh		21.8			19.0			14.3				
Approach LOS		C			B			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing AM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	688	0	0	157	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	13.4	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	13.4	0.0	0.0	3.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.58	0.00	0.00	0.23	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	22.2	0.0	0.0	27.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	24.3	0.0	0.0	28.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	4.8	0.0	0.0	1.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.2	0.0	0.0	1.3	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.30	0.00	0.00	0.08	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	333	0	0	0	265	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	6.4	0.0	0.0	0.0	2.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.4	0.0	0.0	0.0	2.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.38	0.00	0.00	0.00	0.11	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	25.9	0.0	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.2	0.0	0.0	0.0	5.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	0.6	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing AM
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	18.8
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	0	0	75	2	66
Future Vol, veh/h	8	0	0	75	2	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	0	0	88	2	78

Major/Minor	Minor1	Major2	
Conflicting Flow All	82	-	0
Stage 1	0	-	-
Stage 2	82	-	-
Critical Hdwy	6.42	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	-	2.218
Pot Cap-1 Maneuver	920	0	-
Stage 1	-	0	-
Stage 2	941	0	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	920	-	-
Mov Cap-2 Maneuver	920	-	-
Stage 1	-	-	-
Stage 2	941	-	-

Approach	WB	SB
HCM Ctrl Dly, s/v	8.96	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	920	-	-
HCM Lane V/C Ratio	0.01	-	-
HCM Ctrl Dly (s/v)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	1	0	52	28	43
Future Vol, veh/h	28	1	0	52	28	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	33	1	0	61	33	51
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	94	33	33	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	906	1041	1592	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	906	1041	1592	-	-	-
Mov Cap-2 Maneuver	906	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.11	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1592	-	910	-	-	
HCM Lane V/C Ratio	-	-	0.038	-	-	
HCM Ctrl Dly (s/v)	0	-	9.1	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	0	0	4	0	0
Future Vol, veh/h	3	0	0	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	75	75	90	90
Heavy Vehicles, %	2	0	0	2	0	2
Mvmt Flow	6	0	0	5	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	6	0	11	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1628	-	1014	1077
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1023	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1628	-	1014	1077
Mov Cap-2 Maneuver	-	-	-	-	1014	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1023	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1628	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

HCM 7th TWSC
4: Farthing Drive & Danceglen Court/Danceglen Drive

Existing PM
08/28/2026

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	8	0	25	1	9	27	1
Future Vol, veh/h	0	0	0	0	0	8	0	25	1	9	27	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	57	57	57	63	63	63	61	61	61
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	14	0	40	2	15	44	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	114	116	45	114	116	40	46	0	0	41	0	0
Stage 1	75	75	-	40	40	-	-	-	-	-	-	-
Stage 2	40	41	-	74	75	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	863	774	1030	868	778	1031	1575	-	-	1568	-	-
Stage 1	935	833	-	979	865	-	-	-	-	-	-	-
Stage 2	975	861	-	941	836	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	843	767	1030	859	771	1031	1575	-	-	1568	-	-
Mov Cap-2 Maneuver	843	767	-	859	771	-	-	-	-	-	-	-
Stage 1	926	825	-	979	865	-	-	-	-	-	-	-
Stage 2	962	861	-	932	828	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	8.54	0	1.78
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1575	-	-	- 1031	435	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.009	-	-
HCM Ctrl Dly (s/v)	0	-	-	0 8.5	7.3	0	-
HCM Lane LOS	A	-	-	A A	A A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	-	-

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	26	0	47	42
Future Vol, veh/h	0	16	26	0	47	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	60	60	57	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	24	43	0	82	74
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	282	43	0	0	43	0
Stage 1	43	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	712	1027	-	-	1565	-
Stage 1	984	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	673	1027	-	-	1565	-
Mov Cap-2 Maneuver	673	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	761	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	8.59	0		3.92		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1027	951	-
HCM Lane V/C Ratio	-	-	-	0.023	0.053	-
HCM Ctrl Dly (s/v)	-	-	0	8.6	7.4	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	0.2	-

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	4	4	55	98	4
Future Vol, veh/h	2	4	4	55	98	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	61	61	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	8	7	90	175	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	97	0	-	0	68	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	16	-
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	1497	-	-	-	937	1016
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	1007	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1497	-	-	-	935	1016
Mov Cap-2 Maneuver	-	-	-	-	935	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	1007	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	2.47	0		9.76		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	600	-	-	-	938	
HCM Lane V/C Ratio	0.003	-	-	-	0.194	
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	0	4	2	4	1	4	127	2	5	168	63
Future Vol, veh/h	47	0	4	2	4	1	4	127	2	5	168	63
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.82	0.82	0.82	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	64	0	5	4	8	2	5	155	2	7	243	91
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	9.8	8.9	9.9	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	98%	0%	0%	0%	80%	0%	100%	0%
Vol Right, %	0%	2%	0%	100%	0%	20%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	129	47	4	2	5	5	168	63
LT Vol	4	0	47	0	2	0	5	0	0
Through Vol	0	127	0	0	0	4	0	168	0
RT Vol	0	2	0	4	0	1	0	0	63
Lane Flow Rate	5	157	64	5	4	10	7	243	91
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.008	0.238	0.113	0.008	0.007	0.016	0.011	0.35	0.113
Departure Headway (Hd)	5.931	5.452	6.378	5.173	6.487	5.878	5.672	5.17	4.468
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	602	656	560	687	548	604	630	694	800
Service Time	3.685	3.207	4.147	2.942	4.27	3.661	3.414	2.913	2.21
HCM Lane V/C Ratio	0.008	0.239	0.114	0.007	0.007	0.017	0.011	0.35	0.114
HCM Control Delay, s/veh	8.7	9.9	10	8	9.3	8.8	8.5	10.7	7.8
HCM Lane LOS	A	A	A	A	A	A	A	B	A
HCM 95th-tile Q	0	0.9	0.4	0	0	0	0	1.6	0.4

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing PM

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	60	127	96	161	120	1	39	212	55	87
Future Volume (vph)	60	127	96	161	120	1	39	212	55	87
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases		2		6			4		8	
Permitted Phases	2		6		6	4		8		8
Detector Phase	2	2	6	6	6	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47	0.47
v/c Ratio	0.16	0.19	0.30	0.34	0.25	0.00	0.12	0.44	0.08	0.14
Control Delay (s/veh)	16.7	16.5	16.2	16.0	2.5	11.0	6.2	16.4	11.5	3.1
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)	16.7	16.5	16.2	16.0	2.5	11.0	6.2	16.4	11.5	3.1
LOS	B	B	B	B	A	B	A	B	B	A
Approach Delay (s/veh)		16.6		11.7			6.3		12.3	
Approach LOS		B		B			A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.44

Intersection Signal Delay (s/veh): 12.3

Intersection LOS: B

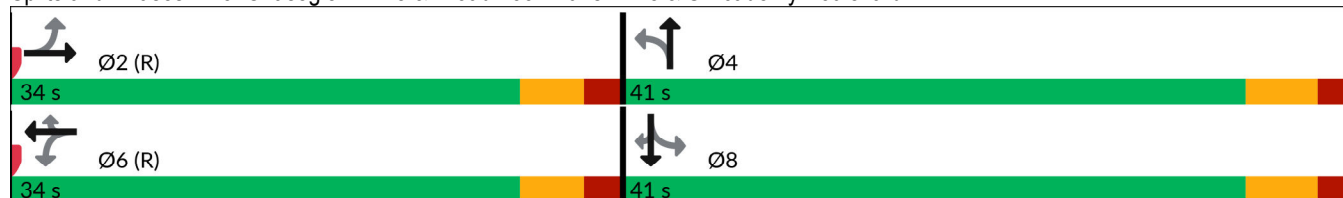
Intersection Capacity Utilization 45.2%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



Existing PM

Ranch at Cheyenne Mountain_ExistingConditions.syn

Synchro 12 Report

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HCM 7th Signalized Intersection Capacity Analysis

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing PM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	127	0	96	161	120	1	39	51	212	55	87
Future Volume (veh/h)	60	127	0	96	161	120	1	39	51	212	55	87
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	137	0	141	237	176	1	43	57	265	69	109
Peak Hour Factor	0.93	0.93	0.93	0.68	0.68	0.68	0.90	0.90	0.90	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	353	711	0	510	711	602	643	340	451	657	873	740
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.00	0.13	0.13	0.13	0.47	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	22.9	16.2	0.0	28.4	25.4	24.9	11.5	0.0	11.7	17.0	11.3	11.9
Ln Grp LOS	C	B		C	C	C	B		B	B	B	B
Approach Vol, veh/h	202			554			101			443		
Approach Delay, s/veh	18.3			26.0			11.7			14.8		
Approach LOS	B			C			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			6.0			5.0			5.0		
Phs Duration (G+Y+Rc), s	34.0			41.0			34.0			41.0		
Change Period (Y+Rc), s	5.5			6.0			5.5			6.0		
Max Green (Gmax), s	28.5			35.0			28.5			35.0		
Max Allow Headway (MAH), s	0.0			0.0			0.0			0.0		
Max Q Clear (g_c+I1), s	0.0			0.0			0.0			0.0		
Green Ext Time (g_e), s	0.0			0.0			0.0			0.0		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	973			1225			1252			1295		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1870			729			1870			1870		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	0			967			1585			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing PM
08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	65	0	1	0	141	0	265
Grp Sat Flow (s), veh/h/ln	0	973	0	1225	0	1252	0	1295
Q Serve Time (g_s), s	0.0	3.9	0.0	0.0	0.0	7.8	0.0	10.9
Cycle Q Clear Time (g_c), s	0.0	12.6	0.0	1.6	0.0	11.5	0.0	13.4
Perm LT Sat Flow (s_l), veh/h/ln	0	973	0	1225	0	1252	0	1295
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	35.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	19.8	0.0	33.5	0.0	24.8	0.0	32.5
Perm LT Q Serve Time (g_ps), s	0.0	3.9	0.0	0.0	0.0	7.8	0.0	10.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	353	0	643	0	510	0	657
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.28	0.00	0.40
Avail Cap (c_a), veh/h	0	353	0	643	0	510	0	657
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.7	0.0	11.5	0.0	27.1	0.0	15.1
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	1.3	0.0	1.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.9	0.0	11.5	0.0	28.4	0.0	17.0
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.0	0.0	2.6	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.0	0.0	2.8	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.00	0.00	0.10	0.00	0.51
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	137	0	0	0	237	0	69
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.7	0.0	0.0	0.0	8.7	0.0	1.5
Cycle Q Clear Time (g_c), s	0.0	3.7	0.0	0.0	0.0	8.7	0.0	1.5
Lane Grp Cap (c), veh/h	0	711	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.33	0.00	0.08
Avail Cap (c_a), veh/h	0	711	0	0	0	711	0	873
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.6	0.0	0.0	0.0	24.1	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	1.3	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.2	0.0	0.0	0.0	25.4	0.0	11.3
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	0.0	0.0	4.1	0.0	0.6

HCM 7th Signalized Intersection Capacity Analysis

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Existing PM
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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.6	0.0	0.0	0.0	4.3	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.16	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				T+R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	100	0	176	0	109
Grp Sat Flow (s), veh/h/ln	0	0	0	1696	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	2.5	0.0	7.6	0.0	3.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.5	0.0	7.6	0.0	3.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.57	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	792	0	602	0	740
V/C Ratio (X)	0.00	0.00	0.00	0.13	0.00	0.29	0.00	0.15
Avail Cap (c_a), veh/h	0	0	0	792	0	602	0	740
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.3	0.0	23.6	0.0	11.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	1.2	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.7	0.0	24.9	0.0	11.9
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.9	0.0	3.0	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.0	0.0	3.2	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.02	0.00	0.12	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	19.9
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing PM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↖
Traffic Volume (vph)	331	61	310	352	359	0	211
Future Volume (vph)	331	61	310	352	359	0	211
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	22.0	22.0	22.0
Total Split (s)	26.0	26.0	34.0	60.0	15.0	15.0	15.0
Total Split (%)	34.7%	34.7%	45.3%	80.0%	20.0%	20.0%	20.0%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	9.0	9.0	9.0
Actuated g/C Ratio	0.27	0.27	0.37	0.72	0.12	0.12	0.12
v/c Ratio	0.37	0.13	0.31	0.18	1.10	1.10	0.62
Control Delay (s/veh)	33.7	7.1	17.5	3.6	127.8	129.3	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	33.7	7.1	17.5	3.6	127.8	129.3	11.8
LOS	C	A	B	A	F	F	B
Approach Delay (s/veh)	29.6			10.1		85.4	
Approach LOS	C			B		F	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 1.10

Intersection Signal Delay (s/veh): 41.1

Intersection LOS: D

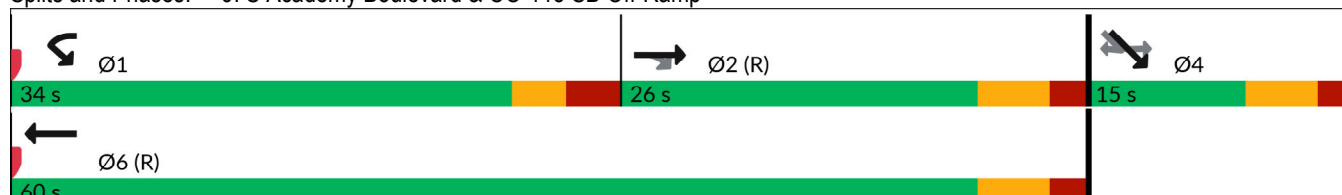
Intersection Capacity Utilization 50.5%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing PM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	331	61	310	352	0	359	0	211	0	0	0
Future Volume (veh/h)	0	331	61	310	352	0	359	0	211	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	352	0	397	451	0	443	0	0			
Peak Hour Factor	0.90	0.94	0.94	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	948		1290	2559	0	428	0				
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.09	0.00	0.37	0.72	0.00	0.12	0.00	0.00			
Unsig. Movement Delay									0.00			
Ln Grp Delay, s/veh	0.0	29.4	0.0	17.3	3.5	0.0	86.2	0.0	0.0			
Ln Grp LOS		C		B	A		F		A			
Approach Vol, veh/h		352			848			703				
Approach Delay, s/veh		29.4			9.9			54.3				
Approach LOS		C			A			D				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		15.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		9.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing PM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	397	0	0	443	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	6.1	0.0	0.0	9.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	6.1	0.0	0.0	9.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1290	0	0	428	0	0	0	0
V/C Ratio (X)	0.31	0.00	0.00	1.04	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1290	0	0	428	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	16.6	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	53.2	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	17.3	0.0	0.0	86.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.1	0.0	0.0	3.7	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	3.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.2	0.0	0.0	6.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.13	0.00	0.00	0.41	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	352	0	0	0	451	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	7.0	0.0	0.0	0.0	3.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.0	0.0	0.0	0.0	3.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	948	0	0	0	2559	0	0
V/C Ratio (X)	0.00	0.37	0.00	0.00	0.00	0.18	0.00	0.00
Avail Cap (c_a), veh/h	0	948	0	0	0	2559	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	28.3	0.0	0.0	0.0	3.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.4	0.0	0.0	0.0	3.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	0.0	0.0	0.5	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Existing PM
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	423	0	190	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	423	0	190	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	29.9
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SER] is included in calculations of the approach delay and intersection delay.
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Appendix C – Trip Generation

PROJECT DETAILS									
Project Name:		Ranch at Cheyenne Mountain				Type of Project:			
Project No:						City:			
Country:						Built-up Area(Sq.ft):			
Analyst Name:		Timothy Cason				Clients Name:			
Date:		8/22/2026				ZIP/Postal Code:			
State/Province:						No. of Scenarios: 3			
Analysis Region:									
SCENARIO SUMMARY									

Scenarios	Name	No. of Land Uses	Phases of Development	No. of Years to Project Traffic	User Group	Estimated New Vehicle Trips		
						Entry	Exit	Total
Scenario - 1	AM Peak Hour	2	1	0		72	228	300
Scenario - 1	PM Peak Hour	2	1	0		243	148	391
Scenario - 1	Weekday	2	1	0		2330	2330	4660

Scenario - 1

Scenario Name: AM Peak Hour

User Group:

Dev. phase: 1

No. of Years to Project 0

Analyst Note:

Traffic :

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	689	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN)	61	193	254
Data Source: Trip Generation Manual, 12th Ed					T = 0.35(X) + 12.93	24%	76%	
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	96	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN)	11	35	46
Data Source: Trip Generation Manual, 12th Ed					T = 0.35(X) + 12.93	24%	76%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	24	76
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	24	76

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	61	193	0	0	61	193
	254		0		254	
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	11	35	0	0	11	35
	46		0		46	

Scenario - 2

Scenario Name: PM Peak Hour

Dev. phase: 1

Analyst Note:

User Group:

No. of Years to Project

Traffic : 0

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	689	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN)	210	128	338
Data Source: Trip Generation Manual, 12th Ed					T = 0.48(X) + 7.35	62%	38%	
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	96	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN)	33	20	53
Data Source: Trip Generation Manual, 12th Ed					T = 0.48(X) + 7.35	62%	38%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	62	38
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	62	38

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	210	128	0	0	210	128
	338		0		338	
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	33	20	0	0	33	20
	53		0		53	

Scenario - 3

Scenario Name: Weekday

User Group:

Dev. phase: 1

No. of Years to Project 0

Analyst Note:

Traffic :

Warning:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
220(2) - Multifamily Housing (Low-Rise) - Not	General	Dwelling Units	689	Weekday	Best Fit (LIN)	2000	2000	4000
Data Source: Trip Generation Manual, 12th Ed	Urban/Suburban				T = 5.63(X) + 120.45	50%	50%	
220(1) - Multifamily Housing (Low-Rise) - Not	General	Dwelling Units	96	Weekday	Best Fit (LIN)	330	330	660
Data Source: Trip Generation Manual, 12th Ed	Urban/Suburban				T = 5.63(X) + 120.45	50%	50%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	50	50
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	100	100	1	1	50	50

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220(2) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	2000	2000	0	0	2000	2000
	4000		0		4000	
220(1) - Multifamily Housing (Low-Rise) - Not Close to Rail Transit	330	330	0	0	330	330
	660		0		660	

Appendix D – Buildout Conditions

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰			↱		↱
Traffic Vol, veh/h	4	0	0	44	1	90
Future Vol, veh/h	4	0	0	44	1	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	56	1	114

Major/Minor	Minor1	Major2	
Conflicting Flow All	117	-	0
Stage 1	0	-	-
Stage 2	117	-	-
Critical Hdwy	6.42	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	-	2.218
Pot Cap-1 Maneuver	879	0	-
Stage 1	-	0	-
Stage 2	908	0	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	879	-	-
Mov Cap-2 Maneuver	879	-	-
Stage 1	-	-	-
Stage 2	908	-	-

Approach	WB	SB
HCM Ctrl Dly, s/v	9.12	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	879	-	-
HCM Lane V/C Ratio	0.006	-	-
HCM Ctrl Dly (s/v)	9.1	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	54	4	0	9	93	7
Future Vol, veh/h	54	4	0	9	93	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	69	5	0	11	118	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	130	118	118	0	-	0
Stage 1	118	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	865	934	1483	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	865	934	1483	-	-	-
Mov Cap-2 Maneuver	865	-	-	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	9.53	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1483	-	869	-	-	
HCM Lane V/C Ratio	-	-	0.085	-	-	
HCM Ctrl Dly (s/v)	0	-	9.5	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	3	0	0
Future Vol, veh/h	4	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	75	75	90	90
Heavy Vehicles, %	2	0	0	2	0	2
Mvmt Flow	9	0	0	4	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	9	0	13	9
Stage 1	-	-	-	-	9	-
Stage 2	-	-	-	-	4	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1625	-	1011	1073
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1024	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1625	-	1011	1073
Mov Cap-2 Maneuver	-	-	-	-	1011	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1024	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1625	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	0	0	15	0	13	1	7	18	2
Future Vol, veh/h	1	1	0	0	0	15	0	13	1	7	18	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	57	57	57	63	63	63	61	61	61
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	1	1	0	0	0	28	0	22	2	12	32	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	81	82	34	81	83	23	35	0	0	24	0	0
Stage 1	58	58	-	23	23	-	-	-	-	-	-	-
Stage 2	22	24	-	57	60	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	907	808	1045	912	811	1054	1589	-	-	1591	-	-
Stage 1	953	846	-	1000	880	-	-	-	-	-	-	-
Stage 2	996	875	-	960	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	876	801	1045	903	804	1054	1589	-	-	1591	-	-
Mov Cap-2 Maneuver	876	801	-	903	804	-	-	-	-	-	-	-
Stage 1	946	839	-	1000	880	-	-	-	-	-	-	-
Stage 2	969	875	-	950	842	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.32	8.51	0	1.89
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1589	-	-	837 1054	458	-	-
HCM Lane V/C Ratio	-	-	-	0.003 0.027 0.008	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.3 8.5 7.3	0	-	-
HCM Lane LOS	A	-	-	A A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0.1 0	0	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	61	1	13	65
Future Vol, veh/h	0	16	61	1	13	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	60	60	57	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	25	110	2	25	123
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	283	111	0	0	112	0
Stage 1	111	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	711	943	-	-	1478	-
Stage 1	919	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	699	943	-	-	1478	-
Mov Cap-2 Maneuver	699	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	8.93	0		1.25		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	-	943	300	-
HCM Lane V/C Ratio	-	-	-	0.027	0.017	-
HCM Ctrl Dly (s/v)	-	-	0	8.9	7.5	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	0.1	-

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	7	9	71	78	3
Future Vol, veh/h	1	7	9	71	78	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	61	61	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	15	16	126	150	6
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	142	0	-	0	98	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	19	-
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	1441	-	-	-	901	982
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	1003	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1441	-	-	-	899	982
Mov Cap-2 Maneuver	-	-	-	-	899	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	1003	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0.94	0		9.82		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	225	-	-	-	902	
HCM Lane V/C Ratio	0.001	-	-	-	0.173	
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	5	1	0	7	3	0	143	1	1	75	29
Future Vol, veh/h	74	5	1	0	7	3	0	143	1	1	75	29
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.82	0.82	0.82	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	108	7	1	0	15	6	0	188	1	2	117	45
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	10.1	8.6	10.2	8.9
HCM LOS	B	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	99%	0%	83%	100%	70%	0%	100%	0%
Vol Right, %	0%	1%	0%	17%	0%	30%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	144	74	6	0	10	1	75	29
LT Vol	0	0	74	0	0	0	1	0	0
Through Vol	0	143	0	5	0	7	0	75	0
RT Vol	0	1	0	1	0	3	0	0	29
Lane Flow Rate	0	190	108	9	0	22	2	117	45
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0	0.28	0.182	0.013	0	0.034	0.003	0.176	0.059
Departure Headway (Hd)	5.29	5.319	6.059	5.44	5.768	5.59	5.899	5.396	4.692
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	673	590	654	0	635	604	662	759
Service Time	3.045	3.075	3.826	3.206	3.549	3.371	3.656	3.153	2.448
HCM Lane V/C Ratio	0	0.282	0.183	0.014	0	0.035	0.003	0.177	0.059
HCM Control Delay, s/veh	8	10.2	10.2	8.3	8.5	8.6	8.7	9.3	7.7
HCM Lane LOS	N	B	B	A	N	A	A	A	A
HCM 95th-tile Q	0	1.1	0.7	0	0	0.1	0	0.6	0.2

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Buildout (2030) Background AM

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	58	171	73	105	52	48	144	29	29
Future Volume (vph)	58	171	73	105	52	48	144	29	29
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		2		6		4		8	
Permitted Phases	2		6		6		8		8
Detector Phase	2	2	6	6	6	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	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	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47
v/c Ratio	0.15	0.29	0.27	0.24	0.13	0.17	0.34	0.04	0.05
Control Delay (s/veh)	16.4	17.5	18.1	17.0	4.5	5.9	14.7	11.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.4	17.5	18.1	17.0	4.5	5.9	14.7	11.2	4.2
LOS	B	B	B	B	A	A	B	B	A
Approach Delay (s/veh)		17.2		14.5		5.9		12.7	
Approach LOS		B		B		A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.34

Intersection Signal Delay (s/veh): 13.6

Intersection LOS: B

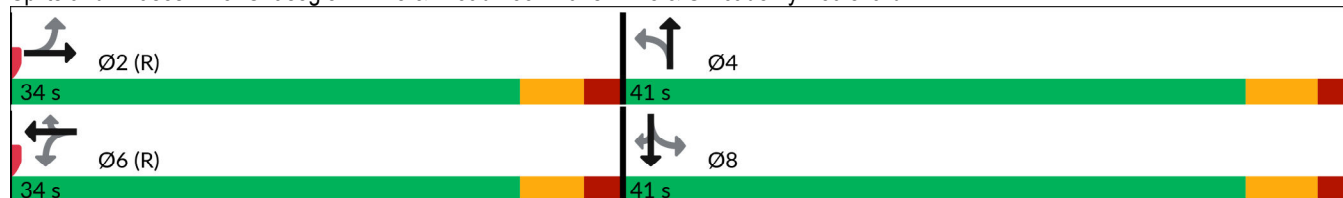
Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	171	4	73	105	52	0	48	71	144	29	29
Future Volume (veh/h)	58	171	4	73	105	52	0	48	71	144	29	29
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	201	5	116	167	83	0	58	85	194	39	39
Peak Hour Factor	0.92	0.92	0.92	0.68	0.68	0.68	0.90	0.90	0.90	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	457	690	17	452	711	602	96	320	469	616	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.2	0.0	17.2	21.6	16.6	15.7	0.0	0.0	12.2	16.4	11.0	11.1
Ln Grp LOS	B		B	C	B	B			B	B	B	B
Approach Vol, veh/h		274			366			143			272	
Approach Delay, s/veh		17.7			18.0			12.2			14.9	
Approach LOS		B			B			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		2			4		6		8			
Case No		6.0			6.0		5.0		5.0			
Phs Duration (G+Y+Rc), s		34.0			41.0		34.0		41.0			
Change Period (Y+Rc), s		5.5			6.0		5.5		6.0			
Max Green (Gmax), s		28.5			35.0		28.5		35.0			
Max Allow Headway (MAH), s		0.0			0.0		0.0		0.0			
Max Q Clear (g_c+I1), s		0.0			0.0		0.0		0.0			
Green Ext Time (g_e), s		0.0			0.0		0.0		0.0			
Prob of Phs Call (p_c)		1.00			1.00		1.00		1.00			
Prob of Max Out (p_x)		0.00			0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt		5			7		1		3			
Mvmt Sat Flow, veh/h		1130			1342		1176		1245			
Through Movement Data												
Assigned Mvmt		2			4		6		8			
Mvmt Sat Flow, veh/h		1817			685		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12			14				16		18
Mvmt Sat Flow, veh/h			45			1004				1585		1585
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			

HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Background AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	68	0	0	0	116	0	194
Grp Sat Flow (s), veh/h/ln	0	1130	0	1342	0	1176	0	1245
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	5.7	0.0	8.1
Cycle Q Clear Time (g_c), s	0.0	7.8	0.0	0.0	0.0	11.5	0.0	11.8
Perm LT Sat Flow (s_l), veh/h/ln	0	1130	0	1342	0	1176	0	1245
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	0.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	23.9	0.0	0.0	0.0	22.7	0.0	31.3
Perm LT Q Serve Time (g_ps), s	0.0	3.3	0.0	0.0	0.0	5.7	0.0	8.1
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	457	0	96	0	452	0	616
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.26	0.00	0.32
Avail Cap (c_a), veh/h	0	457	0	96	0	452	0	616
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.5	0.0	0.0	0.0	20.2	0.0	15.1
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.4	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	0.0	0.0	21.6	0.0	16.4
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	1.5	0.0	2.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.0	0.0	1.7	0.0	2.4
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.00	0.00	0.06	0.00	0.36
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment						T		T
Lanes in Grp	0	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	167	0	39
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.9
Lane Grp Cap (c), veh/h	0	0	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.04
Avail Cap (c_a), veh/h	0	0	0	0	0	711	0	873
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	15.8	0.0	10.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	16.6	0.0	11.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.3

HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Background AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	206	0	143	0	83	0	39
Grp Sat Flow (s), veh/h/ln	0	1862	0	1690	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.8	0.0	3.7	0.0	2.6	0.0	1.0
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	3.7	0.0	2.6	0.0	1.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.02	0.00	0.59	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	708	0	788	0	602	0	740
V/C Ratio (X)	0.00	0.29	0.00	0.18	0.00	0.14	0.00	0.05
Avail Cap (c_a), veh/h	0	708	0	788	0	602	0	740
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.2	0.0	11.7	0.0	15.2	0.0	10.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.5	0.0	0.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.2	0.0	12.2	0.0	15.7	0.0	11.1
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	1.3	0.0	0.9	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	1.4	0.0	1.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.02	0.00	0.04	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.3
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Background AM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↘
Traffic Volume (vph)	313	76	537	207	127	0	127
Future Volume (vph)	313	76	537	207	127	0	127
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	22.0	22.0	22.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.43	0.19	0.63	0.12	0.26	0.26	0.38
Control Delay (s/veh)	28.0	3.6	25.7	5.4	30.4	30.5	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.0	3.6	25.7	5.4	30.4	30.5	7.7
LOS	C	A	C	A	C	C	A
Approach Delay (s/veh)	23.2			20.0		19.1	
Approach LOS	C			C		B	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 20.6

Intersection LOS: C

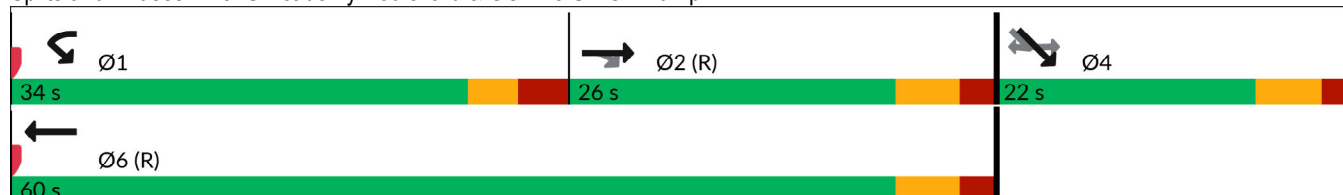
Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Background AM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	313	76	537	207	0	127	0	127	0	0	0
Future Volume (veh/h)	0	313	76	537	207	0	127	0	127	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	367	0	744	287	0	169	0	0			
Peak Hour Factor	0.92	0.92	0.92	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			Yes					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	27.7	0.0	25.2	5.3	0.0	28.7	0.0	0.0			
Ln Grp LOS		C	A	C	A		C		A			
Approach Vol, veh/h		456			1031			338				
Approach Delay, s/veh		22.3			19.7			14.4				
Approach LOS		C			B			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Background AM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	744	0	0	169	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	14.8	0.0	0.0	3.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	14.8	0.0	0.0	3.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.63	0.00	0.00	0.24	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	22.7	0.0	0.0	27.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.2	0.0	0.0	28.7	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	5.3	0.0	0.0	1.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.7	0.0	0.0	1.4	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.34	0.00	0.00	0.09	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	367	0	0	0	287	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	7.1	0.0	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.1	0.0	0.0	0.0	2.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.42	0.00	0.00	0.00	0.12	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	26.1	0.0	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.7	0.0	0.0	0.0	5.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	0.0	0.0	0.6	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Background AM
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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.9	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	19.3
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	0	0	75	2	66
Future Vol, veh/h	8	0	0	75	2	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	0	0	95	3	84

Major/Minor	Minor1	Major2	
Conflicting Flow All	89	-	0
Stage 1	0	-	-
Stage 2	89	-	-
Critical Hdwy	6.42	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	-	2.218
Pot Cap-1 Maneuver	912	0	-
Stage 1	-	0	-
Stage 2	935	0	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	912	-	-
Mov Cap-2 Maneuver	912	-	-
Stage 1	-	-	-
Stage 2	935	-	-

Approach	WB	SB
HCM Ctrl Dly, s/v	8.99	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	912	-	-
HCM Lane V/C Ratio	0.011	-	-
HCM Ctrl Dly (s/v)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	3	0	52	28	43
Future Vol, veh/h	28	3	0	52	28	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	36	4	0	66	36	55

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	102	36	36	0	-	0
Stage 1	36	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	897	1037	1589	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	897	1037	1589	-	-	-
Mov Cap-2 Maneuver	897	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	957	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.14	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1589	-	909	-	-
HCM Lane V/C Ratio	-	-	0.043	-	-
HCM Ctrl Dly (s/v)	0	-	9.1	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	0	0	4	0	0
Future Vol, veh/h	3	0	0	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	50	75	75	90	90
Heavy Vehicles, %	2	0	0	2	0	2
Mvmt Flow	6	0	0	6	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	6	0	12	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	6	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1628	-	1012	1076
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1023	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1628	-	1012	1076
Mov Cap-2 Maneuver	-	-	-	-	1012	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1023	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		0	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1628	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	0	0	0	0	8	0	25	1	9	27	1
Future Vol, veh/h	0	0	0	0	0	8	0	25	1	9	27	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	57	57	57	63	63	63	61	61	61
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	15	0	43	2	16	48	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	123	125	49	123	125	44	50	0	0	45	0	0
Stage 1	81	81	-	44	44	-	-	-	-	-	-	-
Stage 2	43	45	-	80	81	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	851	765	1026	856	769	1026	1570	-	-	1564	-	-
Stage 1	928	828	-	976	862	-	-	-	-	-	-	-
Stage 2	971	858	-	934	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	830	757	1026	847	761	1026	1570	-	-	1564	-	-
Mov Cap-2 Maneuver	830	757	-	847	761	-	-	-	-	-	-	-
Stage 1	918	819	-	976	862	-	-	-	-	-	-	-
Stage 2	957	858	-	924	822	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	8.56	0	1.78
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1570	-	-	-	1026	435	-
HCM Lane V/C Ratio	-	-	-	-	0.015	0.01	-
HCM Ctrl Dly (s/v)	0	-	-	0	8.6	7.3	0
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	26	0	47	42
Future Vol, veh/h	0	16	26	0	47	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	60	60	57	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	25	47	0	89	80
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	304	47	0	0	47	0
Stage 1	47	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	692	1022	-	-	1561	-
Stage 1	981	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	650	1022	-	-	1561	-
Mov Cap-2 Maneuver	650	-	-	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	8.61	0		3.93		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	-	1022	951	-
HCM Lane V/C Ratio	-	-	-	0.025	0.057	-
HCM Ctrl Dly (s/v)	-	-	0	8.6	7.4	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	0.2	-

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	4	4	55	98	4
Future Vol, veh/h	2	4	4	55	98	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	61	61	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	9	7	97	189	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	104	0	-	0	73	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	17	-
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	1487	-	-	-	931	1011
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1487	-	-	-	928	1011
Mov Cap-2 Maneuver	-	-	-	-	928	-
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	1005	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	2.48	0		9.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	600	-	-	-	931	
HCM Lane V/C Ratio	0.003	-	-	-	0.211	
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.8	

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	0	4	2	4	1	4	127	2	5	168	63
Future Vol, veh/h	47	0	4	2	4	1	4	127	2	5	168	63
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.82	0.82	0.82	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	69	0	6	4	9	2	5	167	3	8	263	99
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	10	9.1	10.3	10.3
HCM LOS	A	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	98%	0%	0%	0%	80%	0%	100%	0%
Vol Right, %	0%	2%	0%	100%	0%	20%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	129	47	4	2	5	5	168	63
LT Vol	4	0	47	0	2	0	5	0	0
Through Vol	0	127	0	0	0	4	0	168	0
RT Vol	0	2	0	4	0	1	0	0	63
Lane Flow Rate	5	170	69	6	4	11	8	263	99
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.009	0.261	0.124	0.009	0.008	0.018	0.012	0.382	0.124
Departure Headway (Hd)	6.008	5.529	6.484	5.278	6.71	6.1	5.726	5.224	4.521
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	592	646	549	671	537	590	623	686	788
Service Time	3.777	3.298	4.271	3.065	4.41	3.8	3.483	2.981	2.278
HCM Lane V/C Ratio	0.008	0.263	0.126	0.009	0.007	0.019	0.013	0.383	0.126
HCM Control Delay, s/veh	8.8	10.3	10.2	8.1	9.5	8.9	8.6	11.2	7.9
HCM Lane LOS	A	B	B	A	A	A	A	B	A
HCM 95th-tile Q	0	1	0.4	0	0	0.1	0	1.8	0.4

Timings

Buildout (2030) Background PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	65	137	104	174	130	1	42	229	60	94
Future Volume (vph)	65	137	104	174	130	1	42	229	60	94
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases		2		6			4		8	
Permitted Phases	2		6		6	4		8		8
Detector Phase	2	2	6	6	6	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47	0.47
v/c Ratio	0.18	0.21	0.33	0.36	0.27	0.00	0.13	0.48	0.09	0.15
Control Delay (s/veh)	17.0	16.7	18.9	18.6	3.7	11.0	6.2	17.1	11.5	3.0
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)	17.0	16.7	18.9	18.6	3.7	11.0	6.2	17.1	11.5	3.0
LOS	B	B	B	B	A	B	A	B	B	A
Approach Delay (s/veh)		16.8		13.9			6.3		12.8	
Approach LOS		B		B			A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay (s/veh): 13.4

Intersection LOS: B

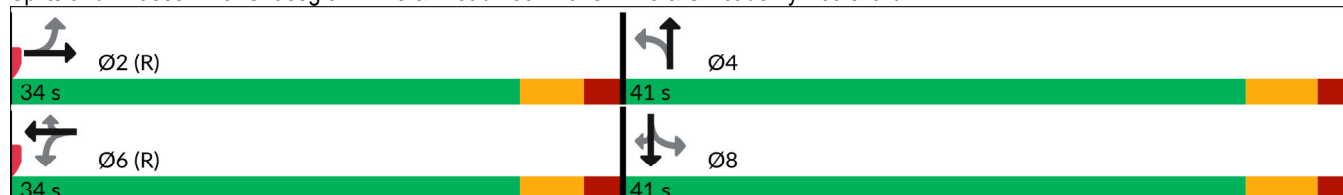
Intersection Capacity Utilization 46.8%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	137	0	104	174	130	1	42	55	229	60	94
Future Volume (veh/h)	65	137	0	104	174	130	1	42	55	229	60	94
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	147	0	153	256	191	1	47	61	286	75	118
Peak Hour Factor	0.93	0.93	0.93	0.68	0.68	0.68	0.90	0.90	0.90	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	362	711	0	502	711	602	633	345	447	649	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.00	0.38	0.38	0.38	0.47	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	22.1	16.3	0.0	20.9	18.1	17.8	11.6	0.0	11.7	17.8	11.3	12.0
Ln Grp LOS	C	B		C	B	B	B		B	B	B	B
Approach Vol, veh/h	217			600			109			479		
Approach Delay, s/veh	18.2			18.7			11.7			15.4		
Approach LOS	B			B			B			B		
Timer:												
	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			6.0			5.0			5.0		
Phs Duration (G+Y+Rc), s	34.0			41.0			34.0			41.0		
Change Period (Y+Rc), s	5.5			6.0			5.5			6.0		
Max Green (Gmax), s	28.5			35.0			28.5			35.0		
Max Allow Headway (MAH), s	0.0			0.0			0.0			0.0		
Max Q Clear (g_c+I1), s	0.0			0.0			0.0			0.0		
Green Ext Time (g_e), s	0.0			0.0			0.0			0.0		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	943			1209			1241			1286		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1870			739			1870			1870		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	0			959			1585			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Background PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	70	0	1	0	153	0	286
Grp Sat Flow (s), veh/h/ln	0	943	0	1209	0	1241	0	1286
Q Serve Time (g_s), s	0.0	4.3	0.0	0.0	0.0	7.1	0.0	12.2
Cycle Q Clear Time (g_c), s	0.0	11.7	0.0	1.7	0.0	11.1	0.0	14.9
Perm LT Sat Flow (s_l), veh/h/ln	0	943	0	1209	0	1241	0	1286
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	35.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	21.1	0.0	33.3	0.0	24.5	0.0	32.3
Perm LT Q Serve Time (g_ps), s	0.0	4.3	0.0	0.0	0.0	7.1	0.0	12.2
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	362	0	633	0	502	0	649
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.30	0.00	0.44
Avail Cap (c_a), veh/h	0	362	0	633	0	502	0	649
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.9	0.0	11.6	0.0	19.4	0.0	15.6
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	1.6	0.0	2.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.1	0.0	11.6	0.0	20.9	0.0	17.8
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.0	0.0	1.9	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.0	0.0	2.2	0.0	3.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.00	0.00	0.08	0.00	0.57
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	147	0	0	0	256	0	75
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	4.0	0.0	0.0	0.0	7.4	0.0	1.7
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	0.0	0.0	7.4	0.0	1.7
Lane Grp Cap (c), veh/h	0	711	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.21	0.00	0.00	0.00	0.36	0.00	0.09
Avail Cap (c_a), veh/h	0	711	0	0	0	711	0	873
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.6	0.0	0.0	0.0	16.7	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.4	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.3	0.0	0.0	0.0	18.1	0.0	11.3
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	0.0	0.0	3.0	0.0	0.6

HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Background PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	0.0	0.0	3.3	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.12	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				T+R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	108	0	191	0	118
Grp Sat Flow (s), veh/h/ln	0	0	0	1698	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	2.7	0.0	6.4	0.0	3.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.7	0.0	6.4	0.0	3.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.56	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	792	0	602	0	740
V/C Ratio (X)	0.00	0.00	0.00	0.14	0.00	0.32	0.00	0.16
Avail Cap (c_a), veh/h	0	0	0	792	0	602	0	740
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.4	0.0	16.4	0.0	11.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	1.4	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.7	0.0	17.8	0.0	12.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.0	0.0	2.2	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.1	0.0	2.4	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.02	0.00	0.09	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	17.0
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Background PM
08/28/2026

	→	↗	↖	←	↘	↙	↖
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↖	↖	↖
Traffic Volume (vph)	358	66	336	381	389	0	228
Future Volume (vph)	358	66	336	381	389	0	228
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	22.0	22.0	22.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.45	0.15	0.37	0.21	0.73	0.73	0.53
Control Delay (s/veh)	28.3	2.3	21.5	5.8	45.9	45.9	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.3	2.3	21.5	5.8	45.9	45.9	7.8
LOS	C	A	C	A	D	D	A
Approach Delay (s/veh)	24.3			13.2		31.9	
Approach LOS	C			B		C	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay (s/veh): 22.2

Intersection LOS: C

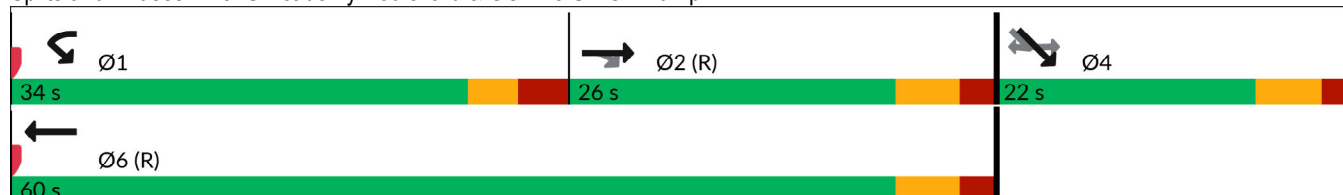
Intersection Capacity Utilization 52.0%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Background PM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	358	66	336	381	0	389	0	228	0	0	0
Future Volume (veh/h)	0	358	66	336	381	0	389	0	228	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	389	0	431	488	0	480	0	0			
Peak Hour Factor	0.92	0.92	0.92	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			Yes					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	28.0	0.0	21.2	5.7	0.0	36.3	0.0	0.0			
Ln Grp LOS		C	A	C	A		D		A			
Approach Vol, veh/h		461			919			761				
Approach Delay, s/veh		23.6			13.0			22.9				
Approach LOS		C			B			C				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Background PM
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Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	431	0	0	480	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	7.7	0.0	0.0	10.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.7	0.0	0.0	10.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.37	0.00	0.00	0.69	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	20.3	0.0	0.0	30.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	5.6	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	21.2	0.0	0.0	36.3	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.8	0.0	0.0	4.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	0.0	4.8	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.17	0.00	0.00	0.28	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	389	0	0	0	488	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	7.6	0.0	0.0	0.0	4.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.6	0.0	0.0	0.0	4.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.21	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	26.3	0.0	0.0	0.0	5.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.0	0.0	0.0	0.0	5.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	0.0	0.0	1.1	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	0.0	0.0	1.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	18.8
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	189	109	4	29	0	0	0	8	1	89	37
Future Vol, veh/h	0	189	109	4	29	0	0	0	8	1	89	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	85	85	85	85	90	85	90	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	0	2	2	2	2	2
Mvmt Flow	0	222	128	5	34	0	0	0	9	1	105	44

Major/Minor	Minor2		Minor1				Major2		
Conflicting Flow All	-	129	126	218	151	-	0	0	0
Stage 1	-	129	-	0	0	-	-	-	-
Stage 2	-	0	-	218	151	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218	-	-
Pot Cap-1 Maneuver	0	762	924	738	741	0	-	-	-
Stage 1	0	790	-	-	-	0	-	-	-
Stage 2	0	-	-	784	773	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	-	762	924	450	741	-	-	-	-
Mov Cap-2 Maneuver	-	762	-	450	741	-	-	-	-
Stage 1	-	790	-	-	-	-	-	-	-
Stage 2	-	-	-	485	773	-	-	-	-

Approach	EB		WB		SB	
HCM Ctrl Dly, s/v	12.73		10.55			
HCM LOS	B		B			

Minor Lane/Major Mvmt	EBLn1WBLn1		SBL	SBT	SBR
Capacity (veh/h)	814	687	-	-	-
HCM Lane V/C Ratio	0.431	0.056	-	-	-
HCM Ctrl Dly (s/v)	12.7	10.6	-	-	-
HCM Lane LOS	B	B	-	-	-
HCM 95th %tile Q(veh)	2.2	0.2	-	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	0	9	1	10	101	0
Future Vol, veh/h	0	9	1	10	101	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	2	2	2	2	0
Mvmt Flow	0	11	1	12	119	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	133	119	119	0	-	0
Stage 1	119	-	-	-	-	-
Stage 2	14	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	866	933	1469	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	865	933	1469	-	-	-
Mov Cap-2 Maneuver	865	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	8.9	0.68		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1469	-	933	-	-	
HCM Lane V/C Ratio	0.001	-	0.011	-	-	
HCM Ctrl Dly (s/v)	7.5	-	8.9	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 7th TWSC
3: Campglen Drive & Danceglen Drive

Buildout (2030) Total AM
08/28/2026

Intersection						
Int Delay, s/veh	5.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	12	0	3	36	0
Future Vol, veh/h	4	12	0	3	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	100	100	75	100	90
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	8	12	0	4	36	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	20	0	18	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	4	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1609	-	1000	1066
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	1019	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1609	-	1000	1066
Mov Cap-2 Maneuver	-	-	-	-	1000	-
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	1019	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		8.74	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1000	-	-	1609	-	
HCM Lane V/C Ratio	0.036	-	-	-	-	
HCM Ctrl Dly (s/v)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC
4: Farthing Drive & Danceglen Court/Danceglen Drive

Buildout (2030) Total AM
08/28/2026

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	0	0	0	52	0	14	1	20	19	2
Future Vol, veh/h	1	1	0	0	0	52	0	14	1	20	19	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	57	57	57	63	63	63	61	61	61
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	1	1	0	0	0	91	0	22	2	33	31	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	121	122	33	120	123	23	34	0	0	24	0	0
Stage 1	98	98	-	23	23	-	-	-	-	-	-	-
Stage 2	22	24	-	97	100	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	855	768	1047	860	771	1054	1590	-	-	1591	-	-
Stage 1	908	814	-	1000	880	-	-	-	-	-	-	-
Stage 2	996	875	-	914	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	764	752	1047	840	755	1054	1590	-	-	1591	-	-
Mov Cap-2 Maneuver	764	752	-	840	755	-	-	-	-	-	-	-
Stage 1	889	797	-	1000	880	-	-	-	-	-	-	-
Stage 2	910	875	-	893	799	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.77		8.74		0		3.57					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1590	-	-	758	1054	862	-	-				
HCM Lane V/C Ratio	-	-	-	0.004	0.087	0.021	-	-				
HCM Ctrl Dly (s/v)	0	-	-	9.8	8.7	7.3	0	-				
HCM Lane LOS	A	-	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0.1	-	-				

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	102	1	14	82
Future Vol, veh/h	0	17	102	1	14	82
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	68	68	60	90	90	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	25	170	1	16	144
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	346	171	0	0	171	0
Stage 1	171	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	655	873	-	-	1406	-
Stage 1	864	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	647	873	-	-	1406	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	850	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	9.24	0		0.74		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	873	176	-	
HCM Lane V/C Ratio	-	-	0.029	0.011	-	
HCM Ctrl Dly (s/v)	-	-	9.2	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	9	12	111	95	3
Future Vol, veh/h	1	9	12	111	95	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	61	61	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	18	20	182	170	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	202	0	-	0	133	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	22	-
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	1370	-	-	-	861	943
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1370	-	-	-	860	943
Mov Cap-2 Maneuver	-	-	-	-	860	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	1001	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0.76	0		10.24		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	180	-	-	-	862	
HCM Lane V/C Ratio	0.001	-	-	-	0.203	
HCM Ctrl Dly (s/v)	7.6	0	-	-	10.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.8	

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	80	6	1	0	10	3	0	155	1	1	81	31
Future Vol, veh/h	80	6	1	0	10	3	0	155	1	1	81	31
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.82	0.82	0.82	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	108	8	1	0	20	6	0	189	1	1	117	45
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	10	8.7	10.2	8.9
HCM LOS	A	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	99%	0%	86%	100%	77%	0%	100%	0%
Vol Right, %	0%	1%	0%	14%	0%	23%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	156	80	7	0	13	1	81	31
LT Vol	0	0	80	0	0	0	1	0	0
Through Vol	0	155	0	6	0	10	0	81	0
RT Vol	0	1	0	1	0	3	0	0	31
Lane Flow Rate	0	190	108	9	0	26	1	117	45
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0	0.282	0.182	0.014	0	0.041	0.002	0.176	0.059
Departure Headway (Hd)	5.303	5.333	6.069	5.467	5.769	5.641	5.915	5.412	4.708
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	672	588	650	0	629	603	660	756
Service Time	3.061	3.09	3.839	3.237	3.553	3.424	3.675	3.172	2.468
HCM Lane V/C Ratio	0	0.283	0.184	0.014	0	0.041	0.002	0.177	0.06
HCM Control Delay, s/veh	8.1	10.2	10.2	8.3	8.6	8.7	8.7	9.3	7.8
HCM Lane LOS	N	B	B	A	N	A	A	A	A
HCM 95th-tile Q	0	1.2	0.7	0	0	0.1	0	0.6	0.2

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Buildout (2030) Total AM

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Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	63	185	86	114	56	63	156	35	31
Future Volume (vph)	63	185	86	114	56	63	156	35	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		2		6		4		8	
Permitted Phases	2		6		6		8		8
Detector Phase	2	2	6	6	6	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	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	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47
v/c Ratio	0.15	0.29	0.29	0.24	0.13	0.21	0.35	0.05	0.05
Control Delay (s/veh)	16.4	17.5	18.5	17.0	4.6	5.7	15.0	11.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.4	17.5	18.5	17.0	4.6	5.7	15.0	11.2	4.2
LOS	B	B	B	B	A	A	B	B	A
Approach Delay (s/veh)		17.2		14.8		5.7		12.9	
Approach LOS		B		B		A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.35

Intersection Signal Delay (s/veh): 13.4

Intersection LOS: B

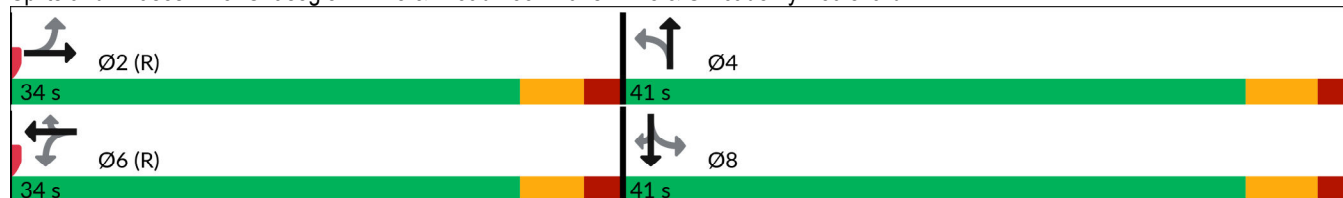
Intersection Capacity Utilization 52.0%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



Buildout (2030) Total AM

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HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	185	4	86	114	56	0	63	100	156	35	31
Future Volume (veh/h)	63	185	4	86	114	56	0	63	100	156	35	31
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	201	4	126	168	82	0	70	111	195	44	39
Peak Hour Factor	0.92	0.92	0.92	0.68	0.68	0.68	0.90	0.90	0.90	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	456	694	14	453	711	602	96	304	482	580	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.2	0.0	17.2	21.9	16.6	15.7	0.0	0.0	12.6	17.5	11.0	11.1
Ln Grp LOS	B		B	C	B	B			B	B	B	B
Approach Vol, veh/h	273			376			181			278		
Approach Delay, s/veh	17.7			18.2			12.6			15.6		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			6.0			5.0			5.0		
Phs Duration (G+Y+Rc), s	34.0			41.0			34.0			41.0		
Change Period (Y+Rc), s	5.5			6.0			5.5			6.0		
Max Green (Gmax), s	28.5			35.0			28.5			35.0		
Max Allow Headway (MAH), s	0.0			0.0			0.0			0.0		
Max Q Clear (g_c+I1), s	0.0			0.0			0.0			0.0		
Green Ext Time (g_e), s	0.0			0.0			0.0			0.0		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1130			1336			1177			1203		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1827			651			1870			1870		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	36			1033			1585			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

Buildout (2030) Total AM

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HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

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Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	68	0	0	0	126	0	195
Grp Sat Flow (s), veh/h/ln	0	1130	0	1336	0	1177	0	1203
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	6.3	0.0	8.7
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	0.0	0.0	12.0	0.0	13.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1130	0	1336	0	1177	0	1203
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	0.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	23.9	0.0	0.0	0.0	22.8	0.0	30.2
Perm LT Q Serve Time (g_ps), s	0.0	3.3	0.0	0.0	0.0	6.3	0.0	8.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	456	0	96	0	453	0	580
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.28	0.00	0.34
Avail Cap (c_a), veh/h	0	456	0	96	0	453	0	580
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.5	0.0	0.0	0.0	20.4	0.0	16.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.5	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	0.0	0.0	21.9	0.0	17.5
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	1.6	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.0	0.0	1.8	0.0	2.5
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.00	0.00	0.07	0.00	0.38
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment						T		T
Lanes in Grp	0	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	168	0	44
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	1.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	1.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.05
Avail Cap (c_a), veh/h	0	0	0	0	0	711	0	873
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	15.8	0.0	10.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	16.6	0.0	11.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.4

Buildout (2030) Total AM

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HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	205	0	181	0	82	0	39
Grp Sat Flow (s), veh/h/ln	0	1864	0	1684	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.7	0.0	4.8	0.0	2.5	0.0	1.0
Cycle Q Clear Time (g_c), s	0.0	5.7	0.0	4.8	0.0	2.5	0.0	1.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.02	0.00	0.61	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	708	0	786	0	602	0	740
V/C Ratio (X)	0.00	0.29	0.00	0.23	0.00	0.14	0.00	0.05
Avail Cap (c_a), veh/h	0	708	0	786	0	602	0	740
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.2	0.0	12.0	0.0	15.2	0.0	10.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.7	0.0	0.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.2	0.0	12.6	0.0	15.7	0.0	11.1
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	1.7	0.0	0.9	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	1.9	0.0	0.9	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.03	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.5
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↘
Traffic Volume (vph)	362	82	581	231	137	0	137
Future Volume (vph)	362	82	581	231	137	0	137
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	34.0	60.0	15.0	15.0	15.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.46	0.19	0.64	0.13	0.26	0.26	0.38
Control Delay (s/veh)	28.4	3.6	25.7	5.4	30.4	30.5	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.4	3.6	25.7	5.4	30.4	30.5	7.7
LOS	C	A	C	A	C	C	A
Approach Delay (s/veh)	23.8			19.9		19.1	
Approach LOS	C			B		B	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 20.8

Intersection LOS: C

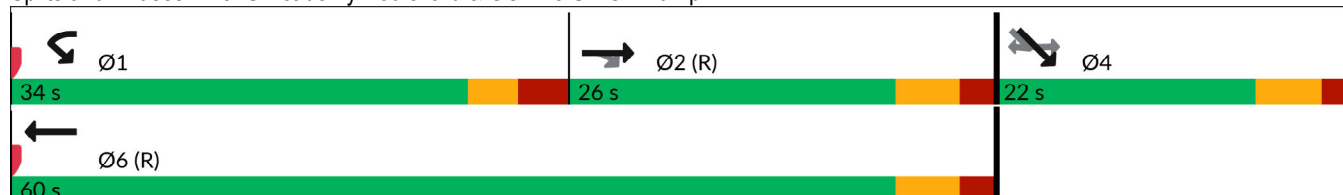
Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	362	82	581	231	0	137	0	137	0	0	0
Future Volume (veh/h)	0	362	82	581	231	0	137	0	137	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	393	0	745	296	0	169	0	0			
Peak Hour Factor	0.90	0.92	0.92	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	28.1	0.0	25.2	5.3	0.0	28.7	0.0	0.0			
Ln Grp LOS		C	A	C	A		C		A			
Approach Vol, veh/h		482			1041			338				
Approach Delay, s/veh		22.9			19.6			14.4				
Approach LOS		C			B			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	745	0	0	169	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	14.8	0.0	0.0	3.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	14.8	0.0	0.0	3.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.63	0.00	0.00	0.24	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	22.7	0.0	0.0	27.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.2	0.0	0.0	28.7	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	5.3	0.0	0.0	1.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.8	0.0	0.0	1.4	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.34	0.00	0.00	0.09	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	393	0	0	0	296	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	7.7	0.0	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.7	0.0	0.0	0.0	2.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.13	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	26.4	0.0	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.1	0.0	0.0	0.0	5.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.0	0.0	0.6	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM
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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	19.5
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection			
Intersection Delay, s/veh	3.0		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1	69	19
Demand Flow Rate, veh/h	1	70	19
Vehicles Circulating, veh/h	65	5	0
Vehicles Exiting, veh/h	10	14	66
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.8	3.1	2.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	1	70	19
Cap Entry Lane, veh/h	1291	1373	1380
Entry HV Adj Factor	1.000	0.982	0.986
Flow Entry, veh/h	1	69	19
Cap Entry, veh/h	1291	1348	1360
V/C Ratio	0.001	0.051	0.014
Control Delay, s/veh	2.8	3.1	2.8
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection												
Int Delay, s/veh	7.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑		↑		↑	↑
Traffic Vol, veh/h	0	189	109	4	29	0	0	0	8	1	89	37
Future Vol, veh/h	0	189	109	4	29	0	0	0	8	1	89	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	85	85	85	85	90	85	90	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	0	2	2	2	2	2
Mvmt Flow	0	222	128	5	34	0	0	0	9	1	105	44
Major/Minor	Minor2			Minor1			Major2					
Conflicting Flow All	-	107	105	218	151	-	-	-	0	0	0	0
Stage 1	-	107	-	0	0	-	-	-	-	-	-	-
Stage 2	-	0	-	218	151	-	-	-	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	-	-	4.12	-	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	-	-	2.218	-	-	-
Pot Cap-1 Maneuver	0	783	950	738	741	0	-	-	-	-	-	-
Stage 1	0	807	-	-	-	0	-	-	-	-	-	-
Stage 2	0	-	-	784	773	0	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	783	950	457	741	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	783	-	457	741	-	-	-	-	-	-	-
Stage 1	-	807	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	491	773	-	-	-	-	-	-	-
Approach	EB			WB			SB					
HCM Ctrl Dly, s/v	10.67			10.54								
HCM LOS	B			B								
Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	783	950	689	-	-	-						
HCM Lane V/C Ratio	0.284	0.135	0.056	-	-	-						
HCM Ctrl Dly (s/v)	11.4	9.4	10.5	-	-	-						
HCM Lane LOS	B	A	B	-	-	-						
HCM 95th %tile Q(veh)	1.2	0.5	0.2	-	-	-						

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	0	9	1	10	101	0
Future Vol, veh/h	0	9	1	10	101	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	2	2	2	2	0
Mvmt Flow	0	11	1	12	119	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	133	119	119	0	-	0
Stage 1	119	-	-	-	-	-
Stage 2	14	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	866	933	1469	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	865	933	1469	-	-	-
Mov Cap-2 Maneuver	865	-	-	-	-	-
Stage 1	911	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	8.9	0.68		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1469	-	933	-	-	
HCM Lane V/C Ratio	0.001	-	0.011	-	-	
HCM Ctrl Dly (s/v)	7.5	-	8.9	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	5.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	12	0	3	36	0
Future Vol, veh/h	4	12	0	3	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	100	100	75	100	90
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	8	12	0	4	36	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	20	0	18	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	4	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1609	-	1000	1066
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	1019	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1609	-	1000	1066
Mov Cap-2 Maneuver	-	-	-	-	1000	-
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	1019	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		8.74		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	1000	-	-	1609	-	
HCM Lane V/C Ratio	0.036	-	-	-	-	
HCM Ctrl Dly (s/v)	8.7	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	1	1	0	0	0	52	0	14	1	20	19	2
Future Vol, veh/h	1	1	0	0	0	52	0	14	1	20	19	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	57	57	57	63	63	63	61	61	61
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	1	1	0	0	0	91	0	22	2	33	31	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	121	122	33	120	123	23	34	0	0	24	0	0
Stage 1	98	98	-	23	23	-	-	-	-	-	-	-
Stage 2	22	24	-	97	100	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	855	768	1047	860	771	1054	1590	-	-	1591	-	-
Stage 1	908	814	-	1000	880	-	-	-	-	-	-	-
Stage 2	996	875	-	914	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	764	752	1047	840	755	1054	1590	-	-	1591	-	-
Mov Cap-2 Maneuver	764	752		840	755	-	-	-	-	-	-	-
Stage 1	889	797	-	1000	880	-	-	-	-	-	-	-
Stage 2	910	875	-	893	799	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	9.77		8.74		0		3.57					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1590	-	-	758	1054	862	-	-				
HCM Lane V/C Ratio	-	-	-	0.004	0.087	0.021	-	-				
HCM Ctrl Dly (s/v)	0	-	-	9.8	8.7	7.3	0	-				
HCM Lane LOS	A	-	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0.1	-	-				

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	17	102	1	14	82
Future Vol, veh/h	0	17	102	1	14	82
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	68	68	60	90	90	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	25	170	1	16	144
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	346	171	0	0	171	0
Stage 1	171	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	655	873	-	-	1406	-
Stage 1	864	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	647	873	-	-	1406	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	850	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	9.24	0		0.74		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	873		176	-	
HCM Lane V/C Ratio	-	0.029		0.011	-	
HCM Ctrl Dly (s/v)	-	9.2		7.6	0	
HCM Lane LOS	-	A		A	A	
HCM 95th %tile Q(veh)	-	0.1		0	-	

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	9	12	111	95	3
Future Vol, veh/h	1	9	12	111	95	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	50	50	61	61	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	18	20	182	170	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	202	0	-	0	133	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	22	-
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	1370	-	-	-	861	943
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1370	-	-	-	860	943
Mov Cap-2 Maneuver	-	-	-	-	860	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	1001	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0.76	0		10.24		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	180	-	-	-	862	
HCM Lane V/C Ratio	0.001	-	-	-	0.203	
HCM Ctrl Dly (s/v)	7.6	0	-	-	10.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.8	

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	80	6	1	0	10	3	0	155	1	1	81	31
Future Vol, veh/h	80	6	1	0	10	3	0	155	1	1	81	31
Peak Hour Factor	0.74	0.74	0.74	0.50	0.50	0.50	0.82	0.82	0.82	0.69	0.69	0.69
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	108	8	1	0	20	6	0	189	1	1	117	45
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	10	8.7	10.2	8.9
HCM LOS	A	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	99%	0%	86%	100%	77%	0%	100%	0%
Vol Right, %	0%	1%	0%	14%	0%	23%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	156	80	7	0	13	1	81	31
LT Vol	0	0	80	0	0	0	1	0	0
Through Vol	0	155	0	6	0	10	0	81	0
RT Vol	0	1	0	1	0	3	0	0	31
Lane Flow Rate	0	190	108	9	0	26	1	117	45
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0	0.282	0.182	0.014	0	0.041	0.002	0.176	0.059
Departure Headway (Hd)	5.303	5.333	6.069	5.467	5.769	5.641	5.915	5.412	4.708
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	672	588	650	0	629	603	660	756
Service Time	3.061	3.09	3.839	3.237	3.553	3.424	3.675	3.172	2.468
HCM Lane V/C Ratio	0	0.283	0.184	0.014	0	0.041	0.002	0.177	0.06
HCM Control Delay, s/veh	8.1	10.2	10.2	8.3	8.6	8.7	8.7	9.3	7.8
HCM Lane LOS	N	B	B	A	N	A	A	A	A
HCM 95th-tile Q	0	1.2	0.7	0	0	0.1	0	0.6	0.2

Timings

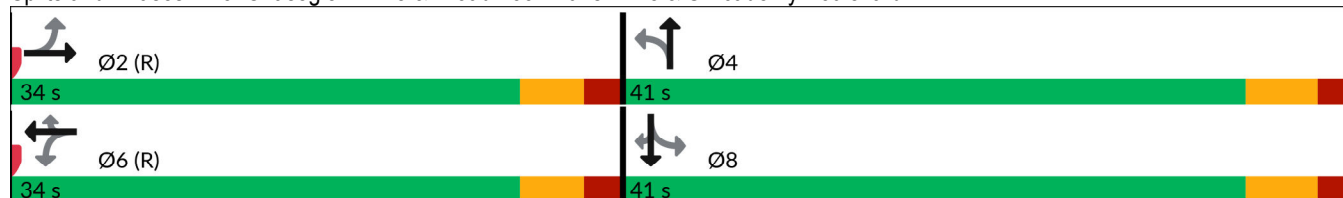
8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Buildout (2030) Total AM_Mitigated

08/28/2026

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	63	185	86	114	56	63	156	35	31
Future Volume (vph)	63	185	86	114	56	63	156	35	31
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		2		6		4		8	
Permitted Phases	2		6		6		8		8
Detector Phase	2	2	6	6	6	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	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	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47
v/c Ratio	0.15	0.29	0.29	0.24	0.13	0.21	0.35	0.05	0.05
Control Delay (s/veh)	16.4	17.5	18.5	17.0	4.6	5.7	15.0	11.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.4	17.5	18.5	17.0	4.6	5.7	15.0	11.2	4.2
LOS	B	B	B	B	A	A	B	B	A
Approach Delay (s/veh)		17.2		14.8		5.7		12.9	
Approach LOS		B		B		A		B	
Intersection Summary									
Cycle Length: 75									
Actuated Cycle Length: 75									
Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green									
Natural Cycle: 75									
Control Type: Pretimed									
Maximum v/c Ratio: 0.35									
Intersection Signal Delay (s/veh): 13.4					Intersection LOS: B				
Intersection Capacity Utilization 52.0%					ICU Level of Service A				
Analysis Period (min) 15									
Description: Academy blvd/Broadmoor Bluffs/Chaseglen									

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



HCM 7th Signalized Intersection Capacity Analysis

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Buildout (2030) Total AM_Mitigated

08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	185	4	86	114	56	0	63	100	156	35	31
Future Volume (veh/h)	63	185	4	86	114	56	0	63	100	156	35	31
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	201	4	126	168	82	0	70	111	195	44	39
Peak Hour Factor	0.92	0.92	0.92	0.68	0.68	0.68	0.90	0.90	0.90	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	456	694	14	453	711	602	96	304	482	580	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.2	0.0	17.2	21.9	16.6	15.7	0.0	0.0	12.6	17.5	11.0	11.1
Ln Grp LOS	B		B	C	B	B			B	B	B	B
Approach Vol, veh/h	273			376			181			278		
Approach Delay, s/veh	17.7			18.2			12.6			15.6		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2		4		6		8					
Case No	6.0		6.0		5.0		5.0					
Phs Duration (G+Y+Rc), s	34.0		41.0		34.0		41.0					
Change Period (Y+Rc), s	5.5		6.0		5.5		6.0					
Max Green (Gmax), s	28.5		35.0		28.5		35.0					
Max Allow Headway (MAH), s	0.0		0.0		0.0		0.0					
Max Q Clear (g_c+I1), s	0.0		0.0		0.0		0.0					
Green Ext Time (g_e), s	0.0		0.0		0.0		0.0					
Prob of Phs Call (p_c)	1.00		1.00		1.00		1.00					
Prob of Max Out (p_x)	0.00		0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt	5		7		1		3					
Mvmt Sat Flow, veh/h	1130		1336		1177		1203					
Through Movement Data												
Assigned Mvmt	2		4		6		8					
Mvmt Sat Flow, veh/h	1827		651		1870		1870					
Right-Turn Movement Data												
Assigned Mvmt	12		14		16		18					
Mvmt Sat Flow, veh/h	36		1033		1585		1585					
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Buildout (2030) Total AM_Mitigated

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	68	0	0	0	126	0	195
Grp Sat Flow (s), veh/h/ln	0	1130	0	1336	0	1177	0	1203
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	6.3	0.0	8.7
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	0.0	0.0	12.0	0.0	13.5
Perm LT Sat Flow (s_l), veh/h/ln	0	1130	0	1336	0	1177	0	1203
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	0.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	23.9	0.0	0.0	0.0	22.8	0.0	30.2
Perm LT Q Serve Time (g_ps), s	0.0	3.3	0.0	0.0	0.0	6.3	0.0	8.7
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	456	0	96	0	453	0	580
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.28	0.00	0.34
Avail Cap (c_a), veh/h	0	456	0	96	0	453	0	580
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.5	0.0	0.0	0.0	20.4	0.0	16.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.5	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	0.0	0.0	21.9	0.0	17.5
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	1.6	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.0	0.0	1.8	0.0	2.5
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.00	0.00	0.07	0.00	0.38
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment						T		T
Lanes in Grp	0	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	168	0	44
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	1.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	1.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.05
Avail Cap (c_a), veh/h	0	0	0	0	0	711	0	873
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	15.8	0.0	10.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	16.6	0.0	11.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.4

HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total AM_Mitigated

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	205	0	181	0	82	0	39
Grp Sat Flow (s), veh/h/ln	0	1864	0	1684	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.7	0.0	4.8	0.0	2.5	0.0	1.0
Cycle Q Clear Time (g_c), s	0.0	5.7	0.0	4.8	0.0	2.5	0.0	1.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.02	0.00	0.61	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	708	0	786	0	602	0	740
V/C Ratio (X)	0.00	0.29	0.00	0.23	0.00	0.14	0.00	0.05
Avail Cap (c_a), veh/h	0	708	0	786	0	602	0	740
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.2	0.0	12.0	0.0	15.2	0.0	10.9
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.7	0.0	0.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.2	0.0	12.6	0.0	15.7	0.0	11.1
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	1.7	0.0	0.9	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	1.9	0.0	0.9	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.03	0.00	0.03	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.5
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM_Mitigated
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↘
Traffic Volume (vph)	362	82	581	231	137	0	137
Future Volume (vph)	362	82	581	231	137	0	137
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	34.0	60.0	15.0	15.0	15.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.46	0.19	0.64	0.13	0.26	0.26	0.38
Control Delay (s/veh)	28.4	3.6	25.7	5.4	30.4	30.5	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.4	3.6	25.7	5.4	30.4	30.5	7.7
LOS	C	A	C	A	C	C	A
Approach Delay (s/veh)	23.8			19.9		19.1	
Approach LOS	C			B		B	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 20.8

Intersection LOS: C

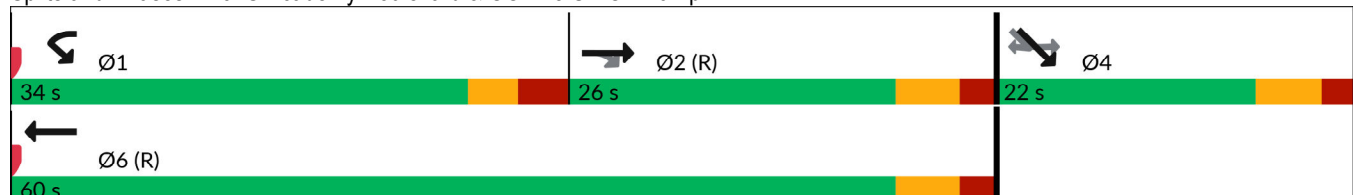
Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM_Mitigated
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	362	82	581	231	0	137	0	137	0	0	0
Future Volume (veh/h)	0	362	82	581	231	0	137	0	137	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	393	0	745	296	0	169	0	0			
Peak Hour Factor	0.90	0.92	0.92	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	28.1	0.0	25.2	5.3	0.0	28.7	0.0	0.0			
Ln Grp LOS		C	A	C	A		C		A			
Approach Vol, veh/h		482			1041			338				
Approach Delay, s/veh		22.9			19.6			14.4				
Approach LOS		C			B			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM_Mitigated
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	745	0	0	169	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	14.8	0.0	0.0	3.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	14.8	0.0	0.0	3.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.63	0.00	0.00	0.24	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	22.7	0.0	0.0	27.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.2	0.0	0.0	28.7	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	5.3	0.0	0.0	1.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.8	0.0	0.0	1.4	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.34	0.00	0.00	0.09	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	393	0	0	0	296	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	7.7	0.0	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.7	0.0	0.0	0.0	2.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.13	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	26.4	0.0	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.1	0.0	0.0	0.0	5.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.0	0.0	0.6	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total AM_Mitigated
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	19.5
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection			
Intersection Delay, s/veh	3.0		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1	69	19
Demand Flow Rate, veh/h	1	70	19
Vehicles Circulating, veh/h	65	5	0
Vehicles Exiting, veh/h	10	14	66
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.8	3.1	2.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	1	70	19
Cap Entry Lane, veh/h	1291	1373	1380
Entry HV Adj Factor	1.000	0.982	0.986
Flow Entry, veh/h	1	69	19
Cap Entry, veh/h	1291	1348	1360
V/C Ratio	0.001	0.051	0.014
Control Delay, s/veh	2.8	3.1	2.8
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Mitigated

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	87	62	9	97	0	0	0	54	2	24	144
Future Vol, veh/h	0	87	62	9	97	0	0	0	54	2	24	144
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	0	2	2	2	2	2
Mvmt Flow	0	119	85	12	133	0	0	0	74	3	33	197

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	137	132	98	236	-
Stage 1	-	137	-	0	0	-
Stage 2	-	0	-	98	236	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	0	754	918	884	665	0
Stage 1	0	783	-	-	-	0
Stage 2	0	-	-	908	710	0
Platoon blocked, %						
Mov Cap-1 Maneuver	-	754	918	675	665	-
Mov Cap-2 Maneuver	-	754	-	675	665	-
Stage 1	-	783	-	-	-	-
Stage 2	-	-	-	699	710	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	10.89	11.91	
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	814 666	-	-	-
HCM Lane V/C Ratio	0.251 0.218	-	-	-
HCM Ctrl Dly (s/v)	10.9 11.9	-	-	-
HCM Lane LOS	B B	-	-	-
HCM 95th %tile Q(veh)	1 0.8	-	-	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	0	6	7	56	30	0
Future Vol, veh/h	0	6	7	56	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	2	2	2	2	0
Mvmt Flow	0	7	8	67	36	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	119	36	36	0	-	0
Stage 1	36	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	881	1037	1575	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	877	1037	1575	-	-	-
Mov Cap-2 Maneuver	877	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	8.5	0.81		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1575	-	1037	-	-	
HCM Lane V/C Ratio	0.005	-	0.007	-	-	
HCM Ctrl Dly (s/v)	7.3	-	8.5	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	38	0	4	23	0
Future Vol, veh/h	3	38	0	4	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	3	44	0	5	27	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	48	0	30	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1573	-	984	1050
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1573	-	984	1050
Mov Cap-2 Maneuver	-	-	-	-	984	-
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	1018	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		8.76	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	984	-	-	1573	-	
HCM Lane V/C Ratio	0.027	-	-	-	-	
HCM Ctrl Dly (s/v)	8.8	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC
4: Farthing Drive & Danceglen Court/Danceglen Drive

Buildout (2030) Total PM
08/28/2026

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	32	0	27	1	48	29	1
Future Vol, veh/h	0	0	0	0	0	32	0	27	1	48	29	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	67	67	67	81	81	81	92	92	92
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	48	0	33	1	52	32	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	170	171	32	170	171	34	33	0	0	35	0	0
Stage 1	136	136	-	34	34	-	-	-	-	-	-	-
Stage 2	33	35	-	136	137	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	794	722	1048	798	726	1039	1592	-	-	1577	-	-
Stage 1	867	784	-	987	871	-	-	-	-	-	-	-
Stage 2	983	866	-	872	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	732	698	1048	771	701	1039	1592	-	-	1577	-	-
Mov Cap-2 Maneuver	732	698	-	771	701	-	-	-	-	-	-	-
Stage 1	838	757	-	987	871	-	-	-	-	-	-	-
Stage 2	938	866	-	843	761	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	8.63	0	4.53
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1592	-	-	-	1039	1100	-
HCM Lane V/C Ratio	-	-	-	-	0.046	0.033	-
HCM Ctrl Dly (s/v)	0	-	-	0	8.6	7.4	0
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.1	-

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	51	1	51	83
Future Vol, veh/h	0	17	51	1	51	83
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	68	68	60	90	90	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	25	85	1	57	146
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	345	86	0	0	86	0
Stage 1	86	-	-	-	-	-
Stage 2	259	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	656	973	-	-	1510	-
Stage 1	943	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	629	973	-	-	1510	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	8.8		0		2.09	
HCM LOS	A					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	973	504	-
HCM Lane V/C Ratio		-	-	0.026	0.038	-
HCM Ctrl Dly (s/v)		-	-	8.8	7.5	0
HCM Lane LOS		-	-	A	A	A
HCM 95th %tile Q(veh)		-	-	0.1	0.1	-

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	6	5	82	142	4
Future Vol, veh/h	2	6	5	82	142	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	8	6	100	173	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	106	0	-	0	69	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	13	-
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	1485	-	-	-	935	1010
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1485	-	-	-	933	1010
Mov Cap-2 Maneuver	-	-	-	-	933	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	1010	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	1.86	0		9.75		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	450	-	-	-	935	
HCM Lane V/C Ratio	0.002	-	-	-	0.19	
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	2	4	2	5	1	4	137	2	5	182	68
Future Vol, veh/h	51	2	4	2	5	1	4	137	2	5	182	68
Peak Hour Factor	0.76	0.76	0.76	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	67	3	5	3	7	1	4	149	2	5	198	74
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	9.6	8.7	9.6	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	99%	0%	33%	0%	83%	0%	100%	0%
Vol Right, %	0%	1%	0%	67%	0%	17%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	139	51	6	2	6	5	182	68
LT Vol	4	0	51	0	2	0	5	0	0
Through Vol	0	137	0	2	0	5	0	182	0
RT Vol	0	2	0	4	0	1	0	0	68
Lane Flow Rate	4	151	67	8	3	9	5	198	74
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.007	0.224	0.115	0.011	0.005	0.014	0.009	0.283	0.091
Departure Headway (Hd)	5.819	5.341	6.196	5.226	6.322	5.736	5.658	5.157	4.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	671	576	681	563	620	632	696	803
Service Time	3.562	3.085	3.954	2.984	4.09	3.504	3.394	2.892	2.189
HCM Lane V/C Ratio	0.007	0.225	0.116	0.012	0.005	0.015	0.008	0.284	0.092
HCM Control Delay, s/veh	8.6	9.6	9.8	8	9.1	8.6	8.4	9.9	7.6
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.9	0.4	0	0	0	0	1.2	0.3

Timings

Buildout (2030) Total PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	65	137	128	174	130	1	49	229	72	94
Future Volume (vph)	65	137	128	174	130	1	49	229	72	94
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases		2		6			4		8	
Permitted Phases	2		6		6	4		8		8
Detector Phase	2	2	6	6	6	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	37.0	34.0	34.0	34.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	46.2%	46.2%	46.2%	46.2%	46.2%	53.8%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	24.5	24.5	24.5	24.5	24.5	29.0	29.0	29.0	29.0	29.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.45	0.45	0.45	0.45	0.45
v/c Ratio	0.16	0.22	0.31	0.28	0.21	0.00	0.18	0.45	0.09	0.13
Control Delay (s/veh)	14.7	14.8	13.9	13.0	2.4	10.0	5.8	15.8	10.9	3.1
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)	14.7	14.8	13.9	13.0	2.4	10.0	5.8	15.8	10.9	3.1
LOS	B	B	B	B	A	A	A	B	B	A
Approach Delay (s/veh)		14.8		10.1			5.8		11.9	
Approach LOS		B		B			A		B	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 9 (14%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.45

Intersection Signal Delay (s/veh): 11.0

Intersection LOS: B

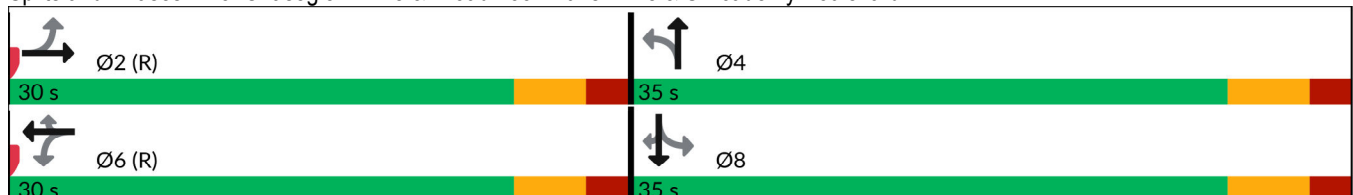
Intersection Capacity Utilization 47.8%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



Buildout (2030) Total PM

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HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	137	0	128	174	130	1	49	70	229	72	94
Future Volume (veh/h)	65	137	0	128	174	130	1	49	70	229	72	94
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	152	0	144	196	146	1	60	85	249	78	102
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.82	0.82	0.82	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	415	705	0	508	705	597	627	312	442	601	834	707
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.00	0.25	0.25	0.25	0.45	0.45	0.45	0.45	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.4	14.4	0.0	21.8	18.2	17.9	10.9	0.0	11.5	17.0	10.6	11.1
Ln Grp LOS	B	B		C	B	B	B		B	B	B	B
Approach Vol, veh/h	224			486			146			429		
Approach Delay, s/veh	15.7			19.2			11.5			14.4		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			6.0			5.0			5.0		
Phs Duration (G+Y+Rc), s	30.0			35.0			30.0			35.0		
Change Period (Y+Rc), s	5.5			6.0			5.5			6.0		
Max Green (Gmax), s	24.5			29.0			24.5			29.0		
Max Allow Headway (MAH), s	0.0			0.0			0.0			0.0		
Max Q Clear (g_c+I1), s	0.0			0.0			0.0			0.0		
Green Ext Time (g_e), s	0.0			0.0			0.0			0.0		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1039			1223			1235			1243		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1870			700			1870			1870		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	0			992			1585			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

Buildout (2030) Total PM

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HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	72	0	1	0	144	0	249
Grp Sat Flow (s), veh/h/ln	0	1039	0	1223	0	1235	0	1243
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	6.4	0.0	9.9
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	1.6	0.0	10.0	0.0	13.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1039	0	1223	0	1235	0	1243
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	24.5	0.0	29.0	0.0	24.5	0.0	29.0
Perm LT Serve Time (g_u), s	0.0	19.0	0.0	27.4	0.0	20.9	0.0	25.6
Perm LT Q Serve Time (g_ps), s	0.0	3.4	0.0	0.0	0.0	6.4	0.0	9.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	415	0	627	0	508	0	601
V/C Ratio (X)	0.00	0.17	0.00	0.00	0.00	0.28	0.00	0.41
Avail Cap (c_a), veh/h	0	415	0	627	0	508	0	601
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.5	0.0	10.9	0.0	20.4	0.0	14.9
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	1.4	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	10.9	0.0	21.8	0.0	17.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	1.9	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.0	0.0	2.1	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.08	0.00	0.44
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	152	0	0	0	196	0	78
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.6	0.0	0.0	0.0	5.5	0.0	1.6
Cycle Q Clear Time (g_c), s	0.0	3.6	0.0	0.0	0.0	5.5	0.0	1.6
Lane Grp Cap (c), veh/h	0	705	0	0	0	705	0	834
V/C Ratio (X)	0.00	0.22	0.00	0.00	0.00	0.28	0.00	0.09
Avail Cap (c_a), veh/h	0	705	0	0	0	705	0	834
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.7	0.0	0.0	0.0	17.2	0.0	10.4
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.4	0.0	0.0	0.0	18.2	0.0	10.6
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.0	0.0	2.2	0.0	0.6

Buildout (2030) Total PM

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HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.5	0.0	0.0	0.0	2.4	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.09	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				T+R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	145	0	146	0	102
Grp Sat Flow (s), veh/h/ln	0	0	0	1692	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	3.4	0.0	4.8	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.4	0.0	4.8	0.0	2.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.59	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	755	0	597	0	707
V/C Ratio (X)	0.00	0.00	0.00	0.19	0.00	0.24	0.00	0.14
Avail Cap (c_a), veh/h	0	0	0	755	0	597	0	707
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.9	0.0	16.9	0.0	10.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	1.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.5	0.0	17.9	0.0	11.1
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.2	0.0	1.6	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.3	0.0	1.8	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.02	0.00	0.07	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.1
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↘
Traffic Volume (vph)	373	66	336	405	389	0	228
Future Volume (vph)	373	66	336	405	389	0	228
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	11.0	11.0	11.0
Total Split (s)	27.0	27.0	20.0	47.0	18.0	18.0	18.0
Total Split (%)	41.5%	41.5%	30.8%	72.3%	27.7%	27.7%	27.7%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	21.0	21.0	14.0	41.0	12.0	12.0	12.0
Actuated g/C Ratio	0.32	0.32	0.22	0.63	0.18	0.18	0.18
v/c Ratio	0.35	0.12	0.58	0.23	0.77	0.77	0.54
Control Delay (s/veh)	21.5	4.3	26.6	5.5	44.8	44.8	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.5	4.3	26.6	5.5	44.8	44.8	7.8
LOS	C	A	C	A	D	D	A
Approach Delay (s/veh)	18.9			15.1		31.1	
Approach LOS	B			B		C	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 21.5

Intersection LOS: C

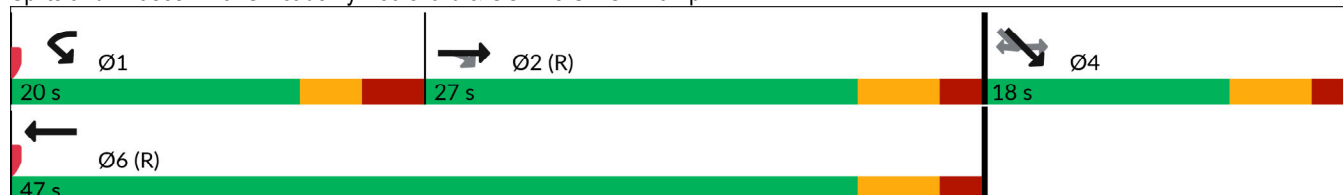
Intersection Capacity Utilization 52.0%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	373	66	336	405	0	389	0	228	0	0	0
Future Volume (veh/h)	0	373	66	336	405	0	389	0	228	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	405	0	431	519	0	480	0	0			
Peak Hour Factor	0.90	0.92	0.92	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	1148		744	2242	0	658	0				
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.65	0.00	0.22	0.63	0.00	0.18	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	9.2	0.0	26.1	5.4	0.0	32.0	0.0	0.0			
Ln Grp LOS		A	A	C	A		C		A			
Approach Vol, veh/h		477			950			761				
Approach Delay, s/veh		7.8			14.8			20.2				
Approach LOS		A			B			C				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		20.0	27.0		18.0		47.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		14.0	21.0		12.0		41.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	431	0	0	480	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	7.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	744	0	0	658	0	0	0	0
V/C Ratio (X)	0.58	0.00	0.00	0.73	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	744	0	0	658	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	22.9	0.0	0.0	25.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	7.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.1	0.0	0.0	32.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.6	0.0	0.0	3.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	0.0	3.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.17	0.00	0.00	0.23	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	405	0	0	0	519	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	4.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	0.0	0.0	4.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	1148	0	0	0	2242	0	0
V/C Ratio (X)	0.00	0.35	0.00	0.00	0.00	0.23	0.00	0.00
Avail Cap (c_a), veh/h	0	1148	0	0	0	2242	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.2	0.0	0.0	0.0	5.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM
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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	0.0	0.0	0.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	512	0	293	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	512	0	293	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	15.2
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection			
Intersection Delay, s/veh 2.9			
Intersection LOS A			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	7	42	57
Demand Flow Rate, veh/h	7	43	58
Vehicles Circulating, veh/h	39	3	2
Vehicles Exiting, veh/h	7	57	44
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.8	2.9	3.0
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	7	43	58
Cap Entry Lane, veh/h	1326	1376	1377
Entry HV Adj Factor	1.000	0.982	0.981
Flow Entry, veh/h	7	42	57
Cap Entry, veh/h	1326	1351	1351
V/C Ratio	0.005	0.031	0.042
Control Delay, s/veh	2.8	2.9	3.0
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑		↑		↑	↑
Traffic Vol, veh/h	0	87	62	9	97	0	0	0	54	2	24	144
Future Vol, veh/h	0	87	62	9	97	0	0	0	54	2	24	144
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	0	2	2	2	2	2
Mvmt Flow	0	119	85	12	133	0	0	0	74	3	33	197
Major/Minor	Minor2			Minor1			Major2					
Conflicting Flow All	-	38	33	98	236	-	-	-	0	0	0	0
Stage 1	-	38	-	0	0	-	-	-	-	-	-	-
Stage 2	-	0	-	98	236	-	-	-	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	-	-	4.12	-	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	-	-	2.218	-	-	-
Pot Cap-1 Maneuver	0	854	1041	884	665	0	-	-	-	-	-	-
Stage 1	0	863	-	-	-	0	-	-	-	-	-	-
Stage 2	0	-	-	908	710	0	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	854	1041	699	665	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	854	-	699	665	-	-	-	-	-	-	-
Stage 1	-	863	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	719	710	-	-	-	-	-	-	-
Approach	EB			WB			SB					
HCM Ctrl Dly, s/v	9.43			11.88								
HCM LOS	A			B								
Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	854	1041	668	-	-	-						
HCM Lane V/C Ratio	0.14	0.082	0.217	-	-	-						
HCM Ctrl Dly (s/v)	9.9	8.8	11.9	-	-	-						
HCM Lane LOS	A	A	B	-	-	-						
HCM 95th %tile Q(veh)	0.5	0.3	0.8	-	-	-						

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	0	6	7	56	30	0
Future Vol, veh/h	0	6	7	56	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	2	2	2	2	0
Mvmt Flow	0	7	8	67	36	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	119	36	36	0	-	0
Stage 1	36	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	881	1037	1575	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	877	1037	1575	-	-	-
Mov Cap-2 Maneuver	877	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	8.5	0.81		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1575	-	1037	-	-	
HCM Lane V/C Ratio	0.005	-	0.007	-	-	
HCM Ctrl Dly (s/v)	7.3	-	8.5	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	
Traffic Vol, veh/h	3	38	0	4	23	0
Future Vol, veh/h	3	38	0	4	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	3	44	0	5	27	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	48	0	30	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1573	-	984	1050
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1573	-	984	1050
Mov Cap-2 Maneuver	-	-	-	-	984	-
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	1018	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		8.76		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	984	-	-	1573	-	
HCM Lane V/C Ratio	0.027	-	-	-	-	
HCM Ctrl Dly (s/v)	8.8	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	0	0	0	0	32	0	27	1	48	29	1
Future Vol, veh/h	0	0	0	0	0	32	0	27	1	48	29	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	67	67	67	81	81	81	92	92	92
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	48	0	33	1	52	32	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	170	171	32	170	171	34	33	0	0	35	0	0
Stage 1	136	136	-	34	34	-	-	-	-	-	-	-
Stage 2	33	35	-	136	137	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	794	722	1048	798	726	1039	1592	-	-	1577	-	-
Stage 1	867	784	-	987	871	-	-	-	-	-	-	-
Stage 2	983	866	-	872	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	732	698	1048	771	701	1039	1592	-	-	1577	-	-
Mov Cap-2 Maneuver	732	698	-	771	701	-	-	-	-	-	-	-
Stage 1	838	757	-	987	871	-	-	-	-	-	-	-
Stage 2	938	866	-	843	761	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		8.63		0		4.53					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1592	-	-	-	-	1039	1100	-	-			
HCM Lane V/C Ratio	-	-	-	-	-	0.046	0.033	-	-			
HCM Ctrl Dly (s/v)	0	-	-	0	8.6	7.4	0	-	-			
HCM Lane LOS	A	-	-	A	A	A	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.1	-	-	-			

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	17	51	1	51	83
Future Vol, veh/h	0	17	51	1	51	83
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	68	68	60	90	90	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	25	85	1	57	146
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	345	86	0	0	86	0
Stage 1	86	-	-	-	-	-
Stage 2	259	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	656	973	-	-	1510	-
Stage 1	943	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	629	973	-	-	1510	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	8.8	0	2.09			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	973	504	-	
HCM Lane V/C Ratio	-	-	0.026	0.038	-	
HCM Ctrl Dly (s/v)	-	-	8.8	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-	

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	6	5	82	142	4
Future Vol, veh/h	2	6	5	82	142	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	8	6	100	173	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	106	0	-	0	69	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	13	-
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	1485	-	-	-	935	1010
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	1010	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1485	-	-	-	933	1010
Mov Cap-2 Maneuver	-	-	-	-	933	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	1010	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	1.86	0		9.75		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	450	-	-	-	935	
HCM Lane V/C Ratio	0.002	-	-	-	0.19	
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	2	4	2	5	1	4	137	2	5	182	68
Future Vol, veh/h	51	2	4	2	5	1	4	137	2	5	182	68
Peak Hour Factor	0.76	0.76	0.76	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	67	3	5	3	7	1	4	149	2	5	198	74
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	9.6	8.7	9.6	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	99%	0%	33%	0%	83%	0%	100%	0%
Vol Right, %	0%	1%	0%	67%	0%	17%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	139	51	6	2	6	5	182	68
LT Vol	4	0	51	0	2	0	5	0	0
Through Vol	0	137	0	2	0	5	0	182	0
RT Vol	0	2	0	4	0	1	0	0	68
Lane Flow Rate	4	151	67	8	3	9	5	198	74
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.007	0.224	0.115	0.011	0.005	0.014	0.009	0.283	0.091
Departure Headway (Hd)	5.819	5.341	6.196	5.226	6.322	5.736	5.658	5.157	4.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	671	576	681	563	620	632	696	803
Service Time	3.562	3.085	3.954	2.984	4.09	3.504	3.394	2.892	2.189
HCM Lane V/C Ratio	0.007	0.225	0.116	0.012	0.005	0.015	0.008	0.284	0.092
HCM Control Delay, s/veh	8.6	9.6	9.8	8	9.1	8.6	8.4	9.9	7.6
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.9	0.4	0	0	0	0	1.2	0.3

Timings

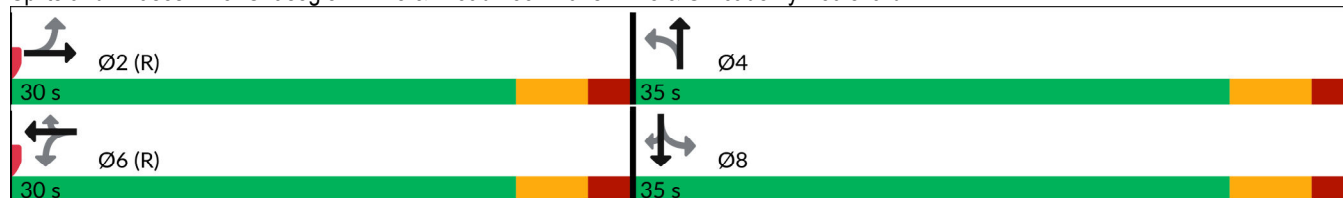
8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Buildout (2030) Total PM_Mitigated

08/28/2026

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	65	137	128	174	130	1	49	229	72	94
Future Volume (vph)	65	137	128	174	130	1	49	229	72	94
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases		2		6			4		8	
Permitted Phases	2		6		6	4		8		8
Detector Phase	2	2	6	6	6	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	37.0	34.0	34.0	34.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	46.2%	46.2%	46.2%	46.2%	46.2%	53.8%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	24.5	24.5	24.5	24.5	24.5	29.0	29.0	29.0	29.0	29.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.45	0.45	0.45	0.45	0.45
v/c Ratio	0.16	0.22	0.31	0.28	0.21	0.00	0.18	0.45	0.09	0.13
Control Delay (s/veh)	14.7	14.8	13.9	13.0	2.4	10.0	5.8	15.8	10.9	3.1
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)	14.7	14.8	13.9	13.0	2.4	10.0	5.8	15.8	10.9	3.1
LOS	B	B	B	B	A	A	A	B	B	A
Approach Delay (s/veh)		14.8		10.1			5.8		11.9	
Approach LOS		B		B			A		B	
Intersection Summary										
Cycle Length: 65										
Actuated Cycle Length: 65										
Offset: 9 (14%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green										
Natural Cycle: 75										
Control Type: Pretimed										
Maximum v/c Ratio: 0.45										
Intersection Signal Delay (s/veh): 11.0					Intersection LOS: B					
Intersection Capacity Utilization 47.8%					ICU Level of Service A					
Analysis Period (min) 15										
Description: Academy blvd/Broadmoor Bluffs/Chaseglen										

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	137	0	128	174	130	1	49	70	229	72	94
Future Volume (veh/h)	65	137	0	128	174	130	1	49	70	229	72	94
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	152	0	144	196	146	1	60	85	249	78	102
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.82	0.82	0.82	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	415	705	0	508	705	597	627	312	442	601	834	707
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.00	0.25	0.25	0.25	0.45	0.45	0.45	0.45	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.4	14.4	0.0	21.8	18.2	17.9	10.9	0.0	11.5	17.0	10.6	11.1
Ln Grp LOS	B	B		C	B	B	B		B	B	B	B
Approach Vol, veh/h		224			486			146			429	
Approach Delay, s/veh		15.7			19.2			11.5			14.4	
Approach LOS		B			B			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		2			4		6		8			
Case No		6.0			6.0		5.0		5.0			
Phs Duration (G+Y+Rc), s		30.0			35.0		30.0		35.0			
Change Period (Y+Rc), s		5.5			6.0		5.5		6.0			
Max Green (Gmax), s		24.5			29.0		24.5		29.0			
Max Allow Headway (MAH), s		0.0			0.0		0.0		0.0			
Max Q Clear (g_c+I1), s		0.0			0.0		0.0		0.0			
Green Ext Time (g_e), s		0.0			0.0		0.0		0.0			
Prob of Phs Call (p_c)		1.00			1.00		1.00		1.00			
Prob of Max Out (p_x)		0.00			0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt		5			7		1		3			
Mvmt Sat Flow, veh/h		1039			1223		1235		1243			
Through Movement Data												
Assigned Mvmt		2			4		6		8			
Mvmt Sat Flow, veh/h		1870			700		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12			14				16		18
Mvmt Sat Flow, veh/h			0			992				1585		1585
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			

HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total PM_Mitigated

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	72	0	1	0	144	0	249
Grp Sat Flow (s), veh/h/ln	0	1039	0	1223	0	1235	0	1243
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	6.4	0.0	9.9
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	1.6	0.0	10.0	0.0	13.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1039	0	1223	0	1235	0	1243
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	24.5	0.0	29.0	0.0	24.5	0.0	29.0
Perm LT Serve Time (g_u), s	0.0	19.0	0.0	27.4	0.0	20.9	0.0	25.6
Perm LT Q Serve Time (g_ps), s	0.0	3.4	0.0	0.0	0.0	6.4	0.0	9.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	415	0	627	0	508	0	601
V/C Ratio (X)	0.00	0.17	0.00	0.00	0.00	0.28	0.00	0.41
Avail Cap (c_a), veh/h	0	415	0	627	0	508	0	601
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.5	0.0	10.9	0.0	20.4	0.0	14.9
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	1.4	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	10.9	0.0	21.8	0.0	17.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	1.9	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.0	0.0	2.1	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.08	0.00	0.44
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	152	0	0	0	196	0	78
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.6	0.0	0.0	0.0	5.5	0.0	1.6
Cycle Q Clear Time (g_c), s	0.0	3.6	0.0	0.0	0.0	5.5	0.0	1.6
Lane Grp Cap (c), veh/h	0	705	0	0	0	705	0	834
V/C Ratio (X)	0.00	0.22	0.00	0.00	0.00	0.28	0.00	0.09
Avail Cap (c_a), veh/h	0	705	0	0	0	705	0	834
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.7	0.0	0.0	0.0	17.2	0.0	10.4
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.4	0.0	0.0	0.0	18.2	0.0	10.6
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.0	0.0	2.2	0.0	0.6

HCM 7th Signalized Intersection Capacity Analysis

Buildout (2030) Total PM_Mitigated

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.5	0.0	0.0	0.0	2.4	0.0	0.6
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.09	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				T+R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	145	0	146	0	102
Grp Sat Flow (s), veh/h/ln	0	0	0	1692	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	3.4	0.0	4.8	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.4	0.0	4.8	0.0	2.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.59	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	755	0	597	0	707
V/C Ratio (X)	0.00	0.00	0.00	0.19	0.00	0.24	0.00	0.14
Avail Cap (c_a), veh/h	0	0	0	755	0	597	0	707
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.9	0.0	16.9	0.0	10.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	1.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.5	0.0	17.9	0.0	11.1
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.2	0.0	1.6	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.3	0.0	1.8	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.02	0.00	0.07	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.1
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM_Mitigated
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↖	↗	↖
Traffic Volume (vph)	373	66	336	405	389	0	228
Future Volume (vph)	373	66	336	405	389	0	228
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	11.0	11.0	11.0
Total Split (s)	27.0	27.0	20.0	47.0	18.0	18.0	18.0
Total Split (%)	41.5%	41.5%	30.8%	72.3%	27.7%	27.7%	27.7%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	21.0	21.0	14.0	41.0	12.0	12.0	12.0
Actuated g/C Ratio	0.32	0.32	0.22	0.63	0.18	0.18	0.18
v/c Ratio	0.35	0.12	0.58	0.23	0.77	0.77	0.54
Control Delay (s/veh)	21.5	4.3	26.6	5.5	44.8	44.8	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.5	4.3	26.6	5.5	44.8	44.8	7.8
LOS	C	A	C	A	D	D	A
Approach Delay (s/veh)	18.9			15.1		31.1	
Approach LOS	B			B		C	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.77

Intersection Signal Delay (s/veh): 21.5

Intersection LOS: C

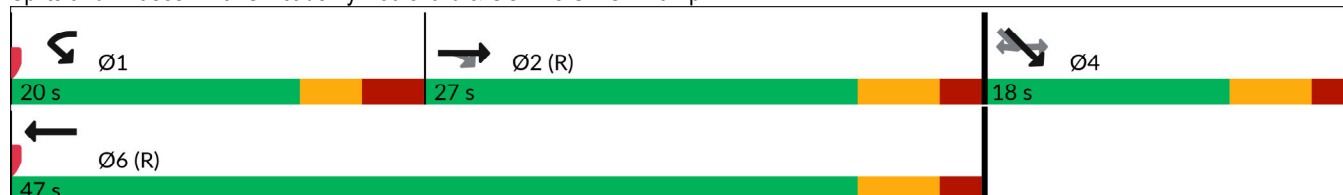
Intersection Capacity Utilization 52.0%

ICU Level of Service A

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM_Mitigated
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	373	66	336	405	0	389	0	228	0	0	0
Future Volume (veh/h)	0	373	66	336	405	0	389	0	228	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	405	0	431	519	0	480	0	0			
Peak Hour Factor	0.90	0.92	0.92	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	1148		744	2242	0	658	0				
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.65	0.00	0.22	0.63	0.00	0.18	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	9.2	0.0	26.1	5.4	0.0	32.0	0.0	0.0			
Ln Grp LOS		A	A	C	A		C		A			
Approach Vol, veh/h		477			950			761				
Approach Delay, s/veh		7.8			14.8			20.2				
Approach LOS		A			B			C				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		20.0	27.0		18.0		47.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		14.0	21.0		12.0		41.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM_Mitigated
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	431	0	0	480	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	7.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.3	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	744	0	0	658	0	0	0	0
V/C Ratio (X)	0.58	0.00	0.00	0.73	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	744	0	0	658	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	22.9	0.0	0.0	25.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	0.0	7.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.1	0.0	0.0	32.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.6	0.0	0.0	3.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.9	0.0	0.0	3.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.17	0.00	0.00	0.23	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	405	0	0	0	519	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	4.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	0.0	0.0	4.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	1148	0	0	0	2242	0	0
V/C Ratio (X)	0.00	0.35	0.00	0.00	0.00	0.23	0.00	0.00
Avail Cap (c_a), veh/h	0	1148	0	0	0	2242	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	0.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.2	0.0	0.0	0.0	5.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Buildout (2030) Total PM_Mitigated
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	0.0	0.0	0.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	512	0	293	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	512	0	293	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	15.2
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection			
Intersection Delay, s/veh 2.9			
Intersection LOS A			
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	7	42	57
Demand Flow Rate, veh/h	7	43	58
Vehicles Circulating, veh/h	39	3	2
Vehicles Exiting, veh/h	7	57	44
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.8	2.9	3.0
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	7	43	58
Cap Entry Lane, veh/h	1326	1376	1377
Entry HV Adj Factor	1.000	0.982	0.981
Flow Entry, veh/h	7	42	57
Cap Entry, veh/h	1326	1351	1351
V/C Ratio	0.005	0.031	0.042
Control Delay, s/veh	2.8	2.9	3.0
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Mitigated

Appendix E – Horizon Conditions

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰			↱		↱
Traffic Vol, veh/h	4	0	0	44	1	90
Future Vol, veh/h	4	0	0	44	1	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
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	7	0	0	77	2	158

Major/Minor	Minor1	Major2	
Conflicting Flow All	161	-	0
Stage 1	0	-	-
Stage 2	161	-	-
Critical Hdwy	6.42	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	-	2.218
Pot Cap-1 Maneuver	830	0	-
Stage 1	-	0	-
Stage 2	868	0	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	830	-	-
Mov Cap-2 Maneuver	830	-	-
Stage 1	-	-	-
Stage 2	868	-	-

Approach	WB	SB
HCM Ctrl Dly, s/v	9.37	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	830	-	-
HCM Lane V/C Ratio	0.008	-	-
HCM Ctrl Dly (s/v)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑	↑	↑
Traffic Vol, veh/h	54	4	0	9	93	7
Future Vol, veh/h	54	4	0	9	93	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	95	7	0	16	163	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	179	163	163	0	-	0
Stage 1	163	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	811	882	1428	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	811	882	1428	-	-	-
Mov Cap-2 Maneuver	811	-	-	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.04	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1428	-	816	-	-
HCM Lane V/C Ratio	-	-	0.124	-	-
HCM Ctrl Dly (s/v)	0	-	10	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	3	0	0
Future Vol, veh/h	4	0	0	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	2
Mvmt Flow	7	0	0	5	0	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	7	0	12	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1627	-	1012	1075
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1023	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1627	-	1012	1075
Mov Cap-2 Maneuver	-	-	-	-	1012	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1023	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1627	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	1	1	0	0	0	15	0	13	1	7	18	2
Future Vol, veh/h	1	1	0	0	0	15	0	13	1	7	18	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	2	2	0	0	0	26	0	23	2	12	32	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	81	82	33	81	83	24	35	0	0	25	0	0
Stage 1	58	58	-	24	24	-	-	-	-	-	-	-
Stage 2	23	25	-	57	60	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	907	808	1046	912	811	1053	1589	-	-	1590	-	-
Stage 1	954	847	-	1000	880	-	-	-	-	-	-	-
Stage 2	995	875	-	960	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	878	802	1046	903	805	1053	1589	-	-	1590	-	-
Mov Cap-2 Maneuver	878	802	-	903	805	-	-	-	-	-	-	-
Stage 1	947	840	-	1000	880	-	-	-	-	-	-	-
Stage 2	971	875	-	951	843	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	9.31		8.51		0		1.89	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1589	-	-	838	1053	458	-	-
HCM Lane V/C Ratio	-	-	-	0.004	0.025	0.008	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.3	8.5	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	61	1	13	65
Future Vol, veh/h	0	16	61	1	13	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	28	107	2	23	114
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	267	108	0	0	109	0
Stage 1	108	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	727	946	-	-	1482	-
Stage 1	922	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	715	946	-	-	1482	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	8.92	0		1.24		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	946	300	-
HCM Lane V/C Ratio	-	-	-	0.03	0.015	-
HCM Ctrl Dly (s/v)	-	-	0	8.9	7.5	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	7	9	71	78	3
Future Vol, veh/h	1	7	9	71	78	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	12	16	124	137	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	140	0	-	0	94	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	16	-
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	1443	-	-	-	906	983
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	1007	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1443	-	-	-	905	983
Mov Cap-2 Maneuver	-	-	-	-	905	-
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	1007	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	0.94	0		9.7		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	225	-	-	-	908	
HCM Lane V/C Ratio	0.001	-	-	-	0.156	
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.7	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	5	1	0	7	3	0	143	1	1	75	29
Future Vol, veh/h	74	5	1	0	7	3	0	143	1	1	75	29
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	0	2	2	0	2	2	2	2	2
Mvmt Flow	130	9	2	0	12	5	0	250	2	2	131	51
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	10.7	8.9	11.6	9.4
HCM LOS	B	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	99%	0%	83%	100%	70%	0%	100%	0%
Vol Right, %	0%	1%	0%	17%	0%	30%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	144	74	6	0	10	1	75	29
LT Vol	0	0	74	0	0	0	1	0	0
Through Vol	0	143	0	5	0	7	0	75	0
RT Vol	0	1	0	1	0	3	0	0	29
Lane Flow Rate	0	252	130	11	0	18	2	131	51
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0	0.381	0.226	0.017	0	0.029	0.003	0.205	0.069
Departure Headway (Hd)	5.418	5.447	6.293	5.673	6.201	6.023	6.12	5.616	4.911
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	655	566	624	0	598	580	634	722
Service Time	3.194	3.223	4.089	3.469	3.901	3.723	3.905	3.401	2.695
HCM Lane V/C Ratio	0	0.385	0.23	0.018	0	0.03	0.003	0.207	0.071
HCM Control Delay, s/veh	8.2	11.6	10.9	8.6	8.9	8.9	8.9	9.9	8.1
HCM Lane LOS	N	B	B	A	N	A	A	A	A
HCM 95th-tile Q	0	1.8	0.9	0.1	0	0.1	0	0.8	0.2

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Horizon (2050) Background AM

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	93	275	117	169	84	77	232	47	47
Future Volume (vph)	93	275	117	169	84	77	232	47	47
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		2		6		4		8	
Permitted Phases	2		6		6		8		8
Detector Phase	2	2	6	6	6	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	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	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47
v/c Ratio	0.22	0.43	0.36	0.26	0.14	0.24	0.46	0.06	0.07
Control Delay (s/veh)	17.4	19.5	20.6	17.3	4.4	5.9	17.1	11.3	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.4	19.5	20.6	17.3	4.4	5.9	17.1	11.3	3.9
LOS	B	B	C	B	A	A	B	B	A
Approach Delay (s/veh)		19.0		15.4		5.9		14.3	
Approach LOS		B		B		A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.46

Intersection Signal Delay (s/veh): 14.8

Intersection LOS: B

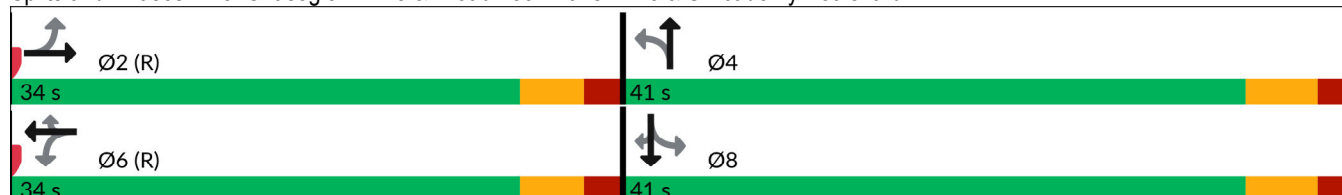
Intersection Capacity Utilization 64.4%

ICU Level of Service C

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Background AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	275	6	117	169	84	0	77	114	232	47	47
Future Volume (veh/h)	93	275	6	117	169	84	0	77	114	232	47	47
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A _{pbT})	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	299	7	127	184	91	0	84	124	252	51	51
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
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	441	692	16	373	711	602	96	318	470	556	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	20.7	0.0	19.2	25.9	16.9	15.8	0.0	0.0	13.0	20.3	11.1	11.2
Ln Grp LOS	C		B	C	B	B			B	C	B	B
Approach Vol, veh/h		407			402			208			354	
Approach Delay, s/veh		19.6			19.5			13.0			17.7	
Approach LOS		B			B			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		2			4		6		8			
Case No		6.0			6.0		5.0		5.0			
Phs Duration (G+Y+Rc), s		34.0			41.0		34.0		41.0			
Change Period (Y+Rc), s		5.5			6.0		5.5		6.0			
Max Green (Gmax), s		28.5			35.0		28.5		35.0			
Max Allow Headway (MAH), s		0.0			0.0		0.0		0.0			
Max Q Clear (g _{c+I1}), s		0.0			0.0		0.0		0.0			
Green Ext Time (g _e), s		0.0			0.0		0.0		0.0			
Prob of Phs Call (p _c)		1.00			1.00		1.00		1.00			
Prob of Max Out (p _x)		0.00			0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt		5			7		1		3			
Mvmt Sat Flow, veh/h		1104			1313		1073		1174			
Through Movement Data												
Assigned Mvmt		2			4		6		8			
Mvmt Sat Flow, veh/h		1820			682		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt		12			14		16		18			
Mvmt Sat Flow, veh/h		43			1007		1585		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Background AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	101	0	0	0	127	0	252
Grp Sat Flow (s), veh/h/ln	0	1104	0	1313	0	1073	0	1174
Q Serve Time (g_s), s	0.0	5.2	0.0	0.0	0.0	7.5	0.0	12.5
Cycle Q Clear Time (g_c), s	0.0	10.3	0.0	0.0	0.0	16.6	0.0	18.1
Perm LT Sat Flow (s_l), veh/h/ln	0	1104	0	1313	0	1073	0	1174
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	0.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	23.4	0.0	0.0	0.0	19.4	0.0	29.4
Perm LT Q Serve Time (g_ps), s	0.0	5.2	0.0	0.0	0.0	7.5	0.0	12.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	441	0	96	0	373	0	556
V/C Ratio (X)	0.00	0.23	0.00	0.00	0.00	0.34	0.00	0.45
Avail Cap (c_a), veh/h	0	441	0	96	0	373	0	556
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.5	0.0	0.0	0.0	23.4	0.0	17.7
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	2.5	0.0	2.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.7	0.0	0.0	0.0	25.9	0.0	20.3
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	0.0	1.8	0.0	3.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.0	0.0	2.1	0.0	3.6
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.00	0.00	0.08	0.00	0.55
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment						T		T
Lanes in Grp	0	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	184	0	51
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	5.1	0.0	1.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	5.1	0.0	1.1
Lane Grp Cap (c), veh/h	0	0	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.06
Avail Cap (c_a), veh/h	0	0	0	0	0	711	0	873
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	16.0	0.0	11.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	16.9	0.0	11.1
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.4

HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Background AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	306	0	208	0	91	0	51
Grp Sat Flow (s), veh/h/ln	0	1863	0	1689	0	1585	0	1585
Q Serve Time (g_s), s	0.0	9.1	0.0	5.6	0.0	2.8	0.0	1.3
Cycle Q Clear Time (g_c), s	0.0	9.1	0.0	5.6	0.0	2.8	0.0	1.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.02	0.00	0.60	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	708	0	788	0	602	0	740
V/C Ratio (X)	0.00	0.43	0.00	0.26	0.00	0.15	0.00	0.07
Avail Cap (c_a), veh/h	0	708	0	788	0	602	0	740
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.2	0.0	12.2	0.0	15.3	0.0	11.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.8	0.0	0.5	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	13.0	0.0	15.8	0.0	11.2
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	2.0	0.0	1.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.2	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	2.2	0.0	1.1	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.04	0.00	0.04	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	18.1
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background AM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↘
Traffic Volume (vph)	503	122	864	333	204	0	204
Future Volume (vph)	503	122	864	333	204	0	204
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	22.0	22.0	22.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.63	0.27	0.80	0.16	0.34	0.34	0.46
Control Delay (s/veh)	31.6	6.5	30.8	5.5	31.9	31.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.6	6.5	30.8	5.5	31.9	31.9	7.7
LOS	C	A	C	A	C	C	A
Approach Delay (s/veh)	26.7			23.8		19.8	
Approach LOS	C			C		B	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 23.9

Intersection LOS: C

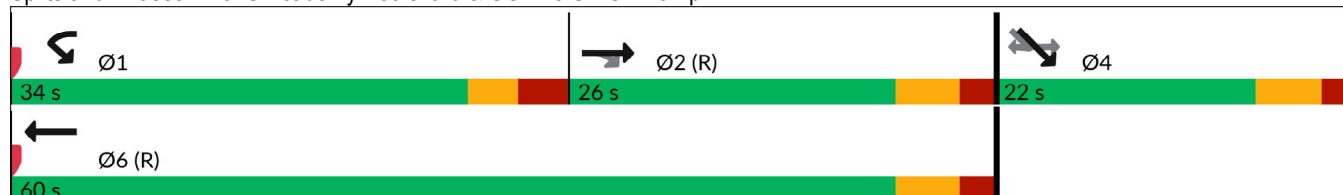
Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background AM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	503	122	864	333	0	204	0	204	0	0	0
Future Volume (veh/h)	0	503	122	864	333	0	204	0	204	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	547	0	939	362	0	222	0	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			Yes					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	31.2	0.0	30.0	5.5	0.0	29.5	0.0	0.0			
Ln Grp LOS		C	A	C	A		C		A			
Approach Vol, veh/h		680			1301			444				
Approach Delay, s/veh		25.1			23.2			14.8				
Approach LOS		C			C			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background AM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	939	0	0	222	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	20.1	0.0	0.0	4.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	20.1	0.0	0.0	4.4	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.80	0.00	0.00	0.32	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	24.4	0.0	0.0	28.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	5.6	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	30.0	0.0	0.0	29.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	7.2	0.0	0.0	1.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	8.1	0.0	0.0	1.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.48	0.00	0.00	0.11	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	547	0	0	0	362	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	11.3	0.0	0.0	0.0	3.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	11.3	0.0	0.0	0.0	3.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.63	0.00	0.00	0.00	0.15	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	27.7	0.0	0.0	0.0	5.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.5	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.2	0.0	0.0	0.0	5.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	0.0	0.0	0.8	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background AM
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2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.8	0.0	0.0	0.0	0.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	22.2
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰			↱		↱
Traffic Vol, veh/h	8	0	0	75	2	66
Future Vol, veh/h	8	0	0	75	2	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
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	14	0	0	131	4	116

Major/Minor	Minor1	Major2	
Conflicting Flow All	123	-	0
Stage 1	0	-	-
Stage 2	123	-	-
Critical Hdwy	6.42	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	-	2.218
Pot Cap-1 Maneuver	873	0	-
Stage 1	-	0	-
Stage 2	903	0	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	873	-	-
Mov Cap-2 Maneuver	873	-	-
Stage 1	-	-	-
Stage 2	903	-	-

Approach	WB	SB
HCM Ctrl Dly, s/v	9.19	
HCM LOS	A	

Minor Lane/Major Mvmt	WBLn1	SBL	SBT
Capacity (veh/h)	873	-	-
HCM Lane V/C Ratio	0.016	-	-
HCM Ctrl Dly (s/v)	9.2	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	28	3	0	52	28	43
Future Vol, veh/h	28	3	0	52	28	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	49	5	0	91	49	75

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	140	49	49	0	-	0
Stage 1	49	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	853	1020	1571	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	853	1020	1571	-	-	-
Mov Cap-2 Maneuver	853	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	933	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.43	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	867	-	-
HCM Lane V/C Ratio	-	-	0.063	-	-
HCM Ctrl Dly (s/v)	0	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	0	0	4	0	0
Future Vol, veh/h	3	0	0	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	2
Mvmt Flow	5	0	0	7	0	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	5	0	12	5
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	7	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1629	-	1012	1078
Stage 1	-	-	-	-	1023	-
Stage 2	-	-	-	-	1021	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1629	-	1012	1078
Mov Cap-2 Maneuver	-	-	-	-	1012	-
Stage 1	-	-	-	-	1023	-
Stage 2	-	-	-	-	1021	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0		0	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	-	-	-	1629	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	0	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	0	0	0	0	8	0	25	1	9	27	1
Future Vol, veh/h	0	0	0	0	0	8	0	25	1	9	27	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	14	0	44	2	16	47	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	123	125	48	123	125	45	49	0	0	46	0	0
Stage 1	80	80	-	45	45	-	-	-	-	-	-	-
Stage 2	44	46	-	79	81	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	851	765	1026	856	769	1025	1571	-	-	1562	-	-
Stage 1	929	829	-	975	862	-	-	-	-	-	-	-
Stage 2	970	857	-	935	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	831	757	1026	847	761	1025	1571	-	-	1562	-	-
Mov Cap-2 Maneuver	831	757	-	847	761	-	-	-	-	-	-	-
Stage 1	919	820	-	975	862	-	-	-	-	-	-	-
Stage 2	957	857	-	925	823	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	8.56	0	1.78
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	-	1025	435	-
HCM Lane V/C Ratio	-	-	-	-	0.014	0.01	-
HCM Ctrl Dly (s/v)	0	-	-	0	8.6	7.3	0
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	26	0	47	42
Future Vol, veh/h	0	16	26	0	47	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	28	46	0	82	74
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	284	46	0	0	46	0
Stage 1	46	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	711	1024	-	-	1562	-
Stage 1	982	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	672	1024	-	-	1562	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	8.61	0	3.92			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	1024	951	-	
HCM Lane V/C Ratio	-	-	0.027	0.053	-	
HCM Ctrl Dly (s/v)	-	-	0	8.6	7.4	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-	

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	4	4	55	98	4
Future Vol, veh/h	2	4	4	55	98	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	7	7	96	172	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	103	0	-	0	69	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	14	-
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	1489	-	-	-	936	1012
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	1009	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1489	-	-	-	933	1012
Mov Cap-2 Maneuver	-	-	-	-	933	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	1009	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	2.47	0		9.75		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	600	-	-	-	936	
HCM Lane V/C Ratio	0.002	-	-	-	0.191	
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.7	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	0	4	2	4	1	4	127	2	5	168	63
Future Vol, veh/h	47	0	4	2	4	1	4	127	2	5	168	63
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	0	2	2	0	2	2	2	2	2
Mvmt Flow	82	0	7	4	7	2	7	222	4	9	294	110
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	10.7	9.4	11.5	11.3
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	98%	0%	0%	0%	80%	0%	100%	0%
Vol Right, %	0%	2%	0%	100%	0%	20%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	129	47	4	2	5	5	168	63
LT Vol	4	0	47	0	2	0	5	0	0
Through Vol	0	127	0	0	0	4	0	168	0
RT Vol	0	2	0	4	0	1	0	0	63
Lane Flow Rate	7	226	82	7	4	9	9	294	110
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.012	0.356	0.157	0.011	0.007	0.016	0.014	0.442	0.144
Departure Headway (Hd)	6.157	5.678	6.877	5.669	7.08	6.468	5.915	5.413	4.709
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	576	628	525	635	508	556	600	659	753
Service Time	3.956	3.476	4.579	3.371	4.785	4.173	3.7	3.197	2.494
HCM Lane V/C Ratio	0.012	0.36	0.156	0.011	0.008	0.016	0.015	0.446	0.146
HCM Control Delay, s/veh	9	11.6	10.9	8.4	9.8	9.3	8.8	12.5	8.3
HCM Lane LOS	A	B	B	A	A	A	A	B	A
HCM 95th-tile Q	0	1.6	0.6	0	0	0	0	2.3	0.5

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Horizon (2050) Background PM

08/28/2026

										
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	97	204	154	259	193	2	63	341	88	140
Future Volume (vph)	97	204	154	259	193	2	63	341	88	140
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases		2		6			4		8	
Permitted Phases	2		6		6	4		8		8
Detector Phase	2	2	6	6	6	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47	0.47
v/c Ratio	0.28	0.31	0.40	0.40	0.29	0.00	0.19	0.65	0.11	0.19
Control Delay (s/veh)	18.8	17.9	20.5	19.1	3.7	11.0	6.2	21.9	11.7	2.8
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)	18.8	17.9	20.5	19.1	3.7	11.0	6.2	21.9	11.7	2.8
LOS	B	B	C	B	A	B	A	C	B	A
Approach Delay (s/veh)		18.2		14.6			6.2		15.6	
Approach LOS		B		B			A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.65

Intersection Signal Delay (s/veh): 14.9

Intersection LOS: B

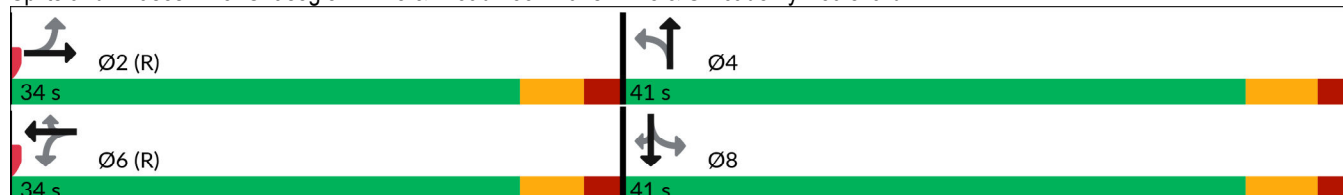
Intersection Capacity Utilization 65.7%

ICU Level of Service C

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Background PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	204	0	154	259	193	2	63	82	341	88	140
Future Volume (veh/h)	97	204	0	154	259	193	2	63	82	341	88	140
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	222	0	167	282	210	2	68	89	371	96	152
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
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	340	711	0	440	711	602	599	343	449	603	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.00	0.38	0.38	0.38	0.47	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	25.0	17.5	0.0	24.2	18.6	18.2	11.9	0.0	12.3	23.2	11.5	12.4
Ln Grp LOS	C	B		C	B	B	B		B	C	B	B
Approach Vol, veh/h	327			659			159			619		
Approach Delay, s/veh	19.9			19.9			12.3			18.7		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			6.0			5.0			5.0		
Phs Duration (G+Y+Rc), s	34.0			41.0			34.0			41.0		
Change Period (Y+Rc), s	5.5			6.0			5.5			6.0		
Max Green (Gmax), s	28.5			35.0			28.5			35.0		
Max Allow Headway (MAH), s	0.0			0.0			0.0			0.0		
Max Q Clear (g_c+I1), s	0.0			0.0			0.0			0.0		
Green Ext Time (g_e), s	0.0			0.0			0.0			0.0		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	905			1150			1159			1230		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1870			735			1870			1870		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	0			962			1585			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Background PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	105	0	2	0	167	0	371
Grp Sat Flow (s), veh/h/ln	0	905	0	1150	0	1159	0	1230
Q Serve Time (g_s), s	0.0	7.2	0.0	0.1	0.0	8.9	0.0	19.0
Cycle Q Clear Time (g_c), s	0.0	15.4	0.0	2.2	0.0	15.1	0.0	23.1
Perm LT Sat Flow (s_l), veh/h/ln	0	905	0	1150	0	1159	0	1230
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	35.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	20.2	0.0	32.8	0.0	22.2	0.0	30.9
Perm LT Q Serve Time (g_ps), s	0.0	7.2	0.0	0.1	0.0	8.9	0.0	19.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	340	0	599	0	440	0	603
V/C Ratio (X)	0.00	0.31	0.00	0.00	0.00	0.38	0.00	0.62
Avail Cap (c_a), veh/h	0	340	0	599	0	440	0	603
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.6	0.0	11.9	0.0	21.7	0.0	18.5
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.0	0.0	2.5	0.0	4.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.0	0.0	11.9	0.0	24.2	0.0	23.2
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	0.0	0.0	2.3	0.0	5.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	0.0	0.0	2.6	0.0	5.7
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.01	0.00	0.10	0.00	0.88
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	222	0	0	0	282	0	96
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	6.3	0.0	0.0	0.0	8.3	0.0	2.2
Cycle Q Clear Time (g_c), s	0.0	6.3	0.0	0.0	0.0	8.3	0.0	2.2
Lane Grp Cap (c), veh/h	0	711	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.31	0.00	0.00	0.00	0.40	0.00	0.11
Avail Cap (c_a), veh/h	0	711	0	0	0	711	0	873
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.4	0.0	0.0	0.0	17.0	0.0	11.2
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	1.7	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.5	0.0	0.0	0.0	18.6	0.0	11.5
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	3.3	0.0	0.8

HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Background PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.7	0.0	0.0	0.0	3.7	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.14	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				T+R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	157	0	210	0	152
Grp Sat Flow (s), veh/h/ln	0	0	0	1697	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	4.1	0.0	7.1	0.0	4.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.1	0.0	7.1	0.0	4.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.57	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	792	0	602	0	740
V/C Ratio (X)	0.00	0.00	0.00	0.20	0.00	0.35	0.00	0.21
Avail Cap (c_a), veh/h	0	0	0	792	0	602	0	740
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.8	0.0	16.6	0.0	11.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	1.6	0.0	0.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	12.3	0.0	18.2	0.0	12.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	2.4	0.0	1.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.6	0.0	2.7	0.0	1.5
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.10	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	18.8
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background PM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↘
Traffic Volume (vph)	532	98	499	566	577	0	339
Future Volume (vph)	532	98	499	566	577	0	339
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	22.0	22.0	22.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.67	0.22	0.46	0.26	0.95	0.96	0.65
Control Delay (s/veh)	32.5	5.6	22.7	6.1	74.7	75.4	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.5	5.6	22.7	6.1	74.7	75.4	11.5
LOS	C	A	C	A	E	E	B
Approach Delay (s/veh)	28.3			13.9		51.6	
Approach LOS	C			B		D	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.96

Intersection Signal Delay (s/veh): 30.6

Intersection LOS: C

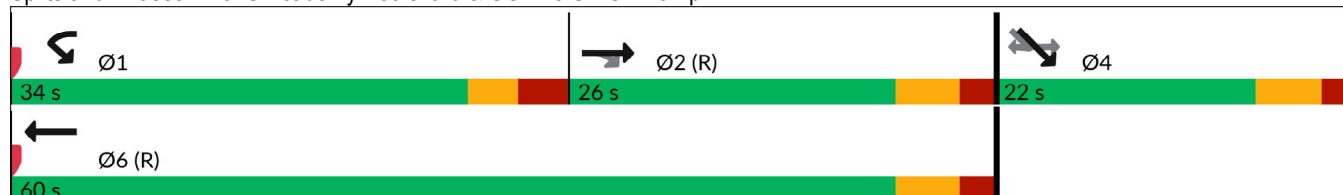
Intersection Capacity Utilization 61.9%

ICU Level of Service B

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background PM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	532	98	499	566	0	577	0	339	0	0	0
Future Volume (veh/h)	0	532	98	499	566	0	577	0	339	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	578	0	542	615	0	627	0	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			Yes					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	32.0	0.0	22.4	6.1	0.0	49.4	0.0	0.0			
Ln Grp LOS		C	A	C	A		D		A			
Approach Vol, veh/h		685			1157			995				
Approach Delay, s/veh		27.0			13.7			31.1				
Approach LOS		C			B			C				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background PM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	542	0	0	627	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	10.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	10.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.46	0.00	0.00	0.90	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	21.1	0.0	0.0	32.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	17.2	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.4	0.0	0.0	49.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.6	0.0	0.0	5.9	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.0	1.7	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	3.8	0.0	0.0	7.5	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.23	0.00	0.00	0.44	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	578	0	0	0	615	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	12.0	0.0	0.0	0.0	5.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.0	0.0	0.0	0.0	5.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.67	0.00	0.00	0.00	0.26	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	28.0	0.0	0.0	0.0	5.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.0	0.0	0.0	0.0	0.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.0	0.0	0.0	0.0	6.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.6	0.0	0.0	0.0	1.5	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Background PM
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	0.0	0.0	1.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.00	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	23.0
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑		↑		↑	↑
Traffic Vol, veh/h	0	151	118	6	29	0	0	0	11	2	134	40
Future Vol, veh/h	0	151	118	6	29	0	0	0	11	2	134	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	0	2	2	2	2	2
Mvmt Flow	0	164	128	7	32	0	0	0	12	2	146	43

Major/Minor	Minor2		Minor1		Major2	
Conflicting Flow All	-	150	146	232	193	-
Stage 1	-	150	-	0	0	-
Stage 2	-	0	-	232	193	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-
Pot Cap-1 Maneuver	0	742	901	723	702	0
Stage 1	0	773	-	-	-	0
Stage 2	0	-	-	771	740	0
Platoon blocked, %						-
Mov Cap-1 Maneuver	-	742	901	483	702	-
Mov Cap-2 Maneuver	-	742	-	483	702	-
Stage 1	-	773	-	-	-	-
Stage 2	-	-	-	521	740	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	10.54	10.87	
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	742	901	651	-	-	-
HCM Lane V/C Ratio	0.221	0.142	0.058	-	-	-
HCM Ctrl Dly (s/v)	11.2	9.7	10.9	-	-	-
HCM Lane LOS	B	A	B	-	-	-
HCM 95th %tile Q(veh)	0.8	0.5	0.2	-	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	0	11	1	14	150	0
Future Vol, veh/h	0	11	1	14	150	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	2	2	2	0
Mvmt Flow	0	12	1	15	163	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	180	163	163	0	-	0
Stage 1	163	-	-	-	-	-
Stage 2	17	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	814	882	1416	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	813	882	1416	-	-	-
Mov Cap-2 Maneuver	813	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.14	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1416	-	882	-	-
HCM Lane V/C Ratio	0.001	-	0.014	-	-
HCM Ctrl Dly (s/v)	7.5	-	9.1	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
3: Campglen Drive & Danceglen Drive

Horizon (2050) Total AM
08/28/2026

Intersection						
Int Delay, s/veh	5.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	12	0	5	36	0
Future Vol, veh/h	6	12	0	5	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	7	13	0	5	39	0
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	20	0	18	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1610	-	999	1067
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1610	-	999	1067
Mov Cap-2 Maneuver	-	-	-	-	999	-
Stage 1	-	-	-	-	1010	-
Stage 2	-	-	-	-	1018	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		8.75		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	999	-	-	1610	-	
HCM Lane V/C Ratio	0.039	-	-	-	-	
HCM Ctrl Dly (s/v)	8.8	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	2	2	0	0	0	60	0	21	2	23	29	3
Future Vol, veh/h	2	2	0	0	0	60	0	21	2	23	29	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	2	2	0	0	0	65	0	23	2	25	32	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	106	108	33	107	109	24	35	0	0	25	0	0
Stage 1	83	83	-	24	24	-	-	-	-	-	-	-
Stage 2	23	25	-	83	85	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	874	782	1046	878	785	1053	1590	-	-	1589	-	-
Stage 1	925	826	-	999	879	-	-	-	-	-	-	-
Stage 2	995	874	-	931	828	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	806	769	1046	861	773	1053	1590	-	-	1589	-	-
Mov Cap-2 Maneuver	806	769	-	861	773	-	-	-	-	-	-	-
Stage 1	910	813	-	999	879	-	-	-	-	-	-	-
Stage 2	934	874	-	913	815	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.6	8.65	0	3.05
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1590	-	-	787 1053	739	-	-
HCM Lane V/C Ratio	-	-	-	0.006 0.062 0.016	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	9.6 8.6 7.3	0	-	-
HCM Lane LOS	A	-	-	A A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0.2 0	0	-	-

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	26	134	2	21	117
Future Vol, veh/h	0	26	134	2	21	117
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, %	0	2	2	2	2	2
Mvmt Flow	0	28	146	2	23	127
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	320	147	0	0	148	0
Stage 1	147	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	678	900	-	-	1434	-
Stage 1	886	-	-	-	-	-
Stage 2	862	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	666	900	-	-	1434	-
Mov Cap-2 Maneuver	666	-	-	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	9.13	0		1.15		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	900	274	-	
HCM Lane V/C Ratio	-	-	0.031	0.016	-	
HCM Ctrl Dly (s/v)	-	-	9.1	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	16	148	136	5
Future Vol, veh/h	2	12	16	148	136	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	13	17	161	148	5
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	178	0	-	0	115	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	17	-
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	1398	-	-	-	881	958
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	1005	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1398	-	-	-	880	958
Mov Cap-2 Maneuver	-	-	-	-	880	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	1005	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	1.08	0		9.94		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	257	-	-	-	882	
HCM Lane V/C Ratio	0.002	-	-	-	0.174	
HCM Ctrl Dly (s/v)	7.6	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.6	

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	119	9	2	0	13	5	0	230	2	2	121	47
Future Vol, veh/h	119	9	2	0	13	5	0	230	2	2	121	47
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	0	2	2	0	2	2	2	2	2
Mvmt Flow	129	10	2	0	14	5	0	250	2	2	132	51
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	10.8	9	11.6	9.4
HCM LOS	B	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	99%	0%	82%	100%	72%	0%	100%	0%
Vol Right, %	0%	1%	0%	18%	0%	28%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	232	119	11	0	18	2	121	47
LT Vol	0	0	119	0	0	0	2	0	0
Through Vol	0	230	0	9	0	13	0	121	0
RT Vol	0	2	0	2	0	5	0	0	47
Lane Flow Rate	0	252	129	12	0	20	2	132	51
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0	0.382	0.23	0.019	0	0.033	0.004	0.206	0.07
Departure Headway (Hd)	5.429	5.457	6.402	5.772	6.211	6.049	6.131	5.628	4.922
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	653	564	624	0	595	578	631	718
Service Time	3.219	3.247	4.103	3.472	3.918	3.756	3.927	3.423	2.717
HCM Lane V/C Ratio	0	0.386	0.229	0.019	0	0.034	0.003	0.209	0.071
HCM Control Delay, s/veh	8.2	11.6	11	8.6	8.9	9	9	9.9	8.1
HCM Lane LOS	N	B	B	A	N	A	A	A	A
HCM 95th-tile Q	0	1.8	0.9	0.1	0	0.1	0	0.8	0.2

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Horizon (2050) Total AM

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	93	275	124	169	84	88	232	51	47
Future Volume (vph)	93	275	124	169	84	88	232	51	47
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Perm
Protected Phases		2		6		4		8	
Permitted Phases	2		6		6		8		8
Detector Phase	2	2	6	6	6	4	8	8	8
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	34.0	34.0	34.0
Total Split (s)	34.0	34.0	34.0	34.0	34.0	41.0	41.0	41.0	41.0
Total Split (%)	45.3%	45.3%	45.3%	45.3%	45.3%	54.7%	54.7%	54.7%	54.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	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	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	28.5	28.5	28.5	28.5	28.5	35.0	35.0	35.0	35.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.47	0.47	0.47	0.47
v/c Ratio	0.22	0.43	0.39	0.26	0.14	0.28	0.48	0.06	0.07
Control Delay (s/veh)	17.4	19.5	21.1	17.3	4.4	6.3	17.7	11.3	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.4	19.5	21.1	17.3	4.4	6.3	17.7	11.3	3.9
LOS	B	B	C	B	A	A	B	B	A
Approach Delay (s/veh)		19.0		15.7		6.3		14.7	
Approach LOS		B		B		A		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 13 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay (s/veh): 14.8

Intersection LOS: B

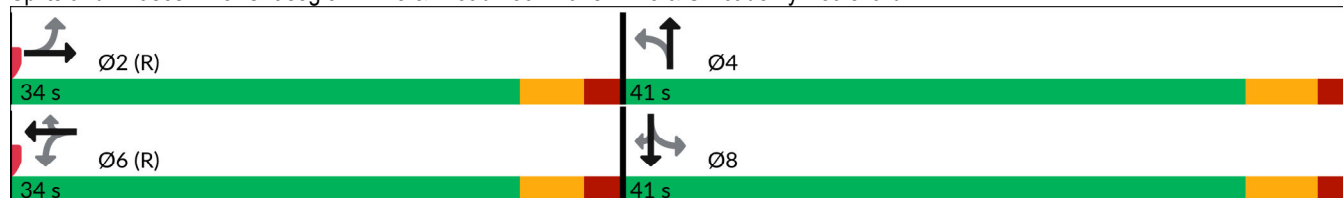
Intersection Capacity Utilization 66.8%

ICU Level of Service C

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



Ranch at Cheyenne Mountain_HorizonTotal.syn

Horizon (2050) Total AM

Synchro 12 Report

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HCM 7th Signalized Intersection Capacity Analysis 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Horizon (2050) Total AM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	275	6	124	169	84	0	88	137	232	51	47
Future Volume (veh/h)	93	275	6	124	169	84	0	88	137	232	51	47
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	299	7	135	184	91	0	96	149	252	55	51
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
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	441	692	16	373	711	602	96	308	478	523	873	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.00	0.47	0.47	0.47	0.47	0.47
Unsig. Movement Delay												
Ln Grp Delay, s/veh	20.7	0.0	19.2	26.3	16.9	15.8	0.0	0.0	13.5	21.9	11.1	11.2
Ln Grp LOS	C		B	C	B	B			B	C	B	B
Approach Vol, veh/h	407				410				245		358	
Approach Delay, s/veh	19.6				19.7				13.5		18.7	
Approach LOS	B				B				B		B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2				4				6		8	
Case No	6.0				6.0				5.0		5.0	
Phs Duration (G+Y+Rc), s	34.0				41.0				34.0		41.0	
Change Period (Y+Rc), s	5.5				6.0				5.5		6.0	
Max Green (Gmax), s	28.5				35.0				28.5		35.0	
Max Allow Headway (MAH), s	0.0				0.0				0.0		0.0	
Max Q Clear (g_c+I1), s	0.0				0.0				0.0		0.0	
Green Ext Time (g_e), s	0.0				0.0				0.0		0.0	
Prob of Phs Call (p_c)	1.00				1.00				1.00		1.00	
Prob of Max Out (p_x)	0.00				0.00				0.00		0.00	
Left-Turn Movement Data												
Assigned Mvmt	5				7				1		3	
Mvmt Sat Flow, veh/h	1104				1308				1073		1135	
Through Movement Data												
Assigned Mvmt	2				4				6		8	
Mvmt Sat Flow, veh/h	1820				661				1870		1870	
Right-Turn Movement Data												
Assigned Mvmt	12				14				16		18	
Mvmt Sat Flow, veh/h	43				1025				1585		1585	
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Total AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	101	0	0	0	135	0	252
Grp Sat Flow (s), veh/h/ln	0	1104	0	1308	0	1073	0	1135
Q Serve Time (g_s), s	0.0	5.2	0.0	0.0	0.0	8.0	0.0	13.4
Cycle Q Clear Time (g_c), s	0.0	10.3	0.0	0.0	0.0	17.1	0.0	20.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1104	0	1308	0	1073	0	1135
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	28.5	0.0	0.0	0.0	28.5	0.0	35.0
Perm LT Serve Time (g_u), s	0.0	23.4	0.0	0.0	0.0	19.4	0.0	28.2
Perm LT Q Serve Time (g_ps), s	0.0	5.2	0.0	0.0	0.0	8.0	0.0	13.4
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	441	0	96	0	373	0	523
V/C Ratio (X)	0.00	0.23	0.00	0.00	0.00	0.36	0.00	0.48
Avail Cap (c_a), veh/h	0	441	0	96	0	373	0	523
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.5	0.0	0.0	0.0	23.6	0.0	18.8
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	2.7	0.0	3.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.7	0.0	0.0	0.0	26.3	0.0	21.9
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	0.0	1.9	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.0	0.0	2.2	0.0	3.7
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.00	0.00	0.08	0.00	0.58
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment						T		T
Lanes in Grp	0	0	0	0	0	1	0	1
Grp Vol (v), veh/h	0	0	0	0	0	184	0	55
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	5.1	0.0	1.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	5.1	0.0	1.2
Lane Grp Cap (c), veh/h	0	0	0	0	0	711	0	873
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.06
Avail Cap (c_a), veh/h	0	0	0	0	0	711	0	873
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	16.0	0.0	11.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	16.9	0.0	11.1
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.5

HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Total AM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R		T+R		R		R	
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	306	0	245	0	91	0	51
Grp Sat Flow (s), veh/h/ln	0	1863	0	1686	0	1585	0	1585
Q Serve Time (g_s), s	0.0	9.1	0.0	6.8	0.0	2.8	0.0	1.3
Cycle Q Clear Time (g_c), s	0.0	9.1	0.0	6.8	0.0	2.8	0.0	1.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.02	0.00	0.61	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	708	0	787	0	602	0	740
V/C Ratio (X)	0.00	0.43	0.00	0.31	0.00	0.15	0.00	0.07
Avail Cap (c_a), veh/h	0	708	0	787	0	602	0	740
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.2	0.0	12.5	0.0	15.3	0.0	11.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	1.0	0.0	0.5	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	13.5	0.0	15.8	0.0	11.2
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	2.4	0.0	1.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.2	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	2.6	0.0	1.1	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.04	0.00	0.04	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	18.4
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total AM
08/28/2026

	→	↗	↖	←	↘	↙	↻
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↘	↙	↘
Traffic Volume (vph)	526	122	864	340	204	0	204
Future Volume (vph)	526	122	864	340	204	0	204
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	34.0	60.0	15.0	15.0	15.0
Total Split (s)	26.0	26.0	34.0	60.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	41.5%	73.2%	26.8%	26.8%	26.8%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	20.0	20.0	28.0	54.0	16.0	16.0	16.0
Actuated g/C Ratio	0.24	0.24	0.34	0.66	0.20	0.20	0.20
v/c Ratio	0.66	0.27	0.80	0.16	0.34	0.34	0.46
Control Delay (s/veh)	32.3	6.5	30.8	5.5	31.9	31.9	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.3	6.5	30.8	5.5	31.9	31.9	7.7
LOS	C	A	C	A	C	C	A
Approach Delay (s/veh)	27.4			23.7		19.8	
Approach LOS	C			C		B	

Intersection Summary

Cycle Length: 82

Actuated Cycle Length: 82

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 24.1

Intersection LOS: C

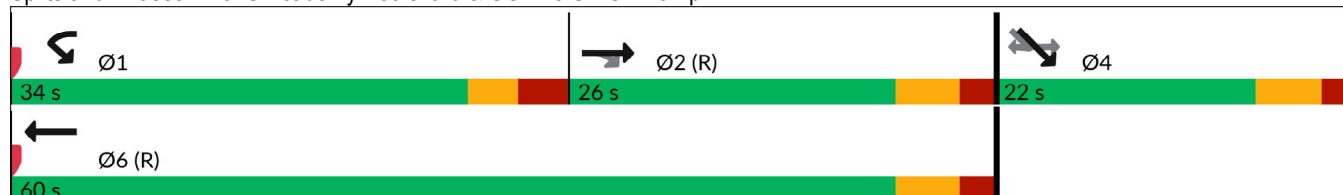
Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total AM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	526	122	864	340	0	204	0	204	0	0	0
Future Volume (veh/h)	0	526	122	864	340	0	204	0	204	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	572	0	939	370	0	222	0	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	867		1180	2340	0	695	0				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.24	0.00	0.34	0.66	0.00	0.20	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	31.9	0.0	30.0	5.5	0.0	29.5	0.0	0.0			
Ln Grp LOS		C	A	C	A		C		A			
Approach Vol, veh/h		705			1309			444				
Approach Delay, s/veh		25.9			23.1			14.8				
Approach LOS		C			C			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		34.0	26.0		22.0		60.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		28.0	20.0		16.0		54.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total AM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	939	0	0	222	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	20.1	0.0	0.0	4.4	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	20.1	0.0	0.0	4.4	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	1180	0	0	695	0	0	0	0
V/C Ratio (X)	0.80	0.00	0.00	0.32	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	1180	0	0	695	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	24.4	0.0	0.0	28.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	5.6	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	30.0	0.0	0.0	29.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	7.2	0.0	0.0	1.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	8.1	0.0	0.0	1.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.48	0.00	0.00	0.11	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	572	0	0	0	370	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	11.9	0.0	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	11.9	0.0	0.0	0.0	3.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	867	0	0	0	2340	0	0
V/C Ratio (X)	0.00	0.66	0.00	0.00	0.00	0.16	0.00	0.00
Avail Cap (c_a), veh/h	0	867	0	0	0	2340	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	27.9	0.0	0.0	0.0	5.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.9	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.9	0.0	0.0	0.0	5.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.6	0.0	0.0	0.0	0.8	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total AM
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	0.0	0.0	0.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	387	0	309	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	387	0	309	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	22.4
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection			
Intersection Delay, s/veh	3.2		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1	103	22
Demand Flow Rate, veh/h	1	105	22
Vehicles Circulating, veh/h	98	5	0
Vehicles Exiting, veh/h	12	17	99
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.9	3.3	2.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	1	105	22
Cap Entry Lane, veh/h	1249	1373	1380
Entry HV Adj Factor	1.000	0.982	0.985
Flow Entry, veh/h	1	103	22
Cap Entry, veh/h	1249	1348	1359
V/C Ratio	0.001	0.076	0.016
Control Delay, s/veh	2.9	3.3	2.8
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑		↑		↑	↑
Traffic Vol, veh/h	0	92	72	13	97	0	0	0	76	3	37	166
Future Vol, veh/h	0	92	72	13	97	0	0	0	76	3	37	166
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	2	2	2	2	2	2	0	2	2	2	2	2
Mvmt Flow	0	126	99	18	133	0	0	0	104	4	51	227

Major/Minor	Minor2		Minor1				Major2		
Conflicting Flow All	-	59	51	122	286	-	0	0	0
Stage 1	-	59	-	0	0	-	-	-	-
Stage 2	-	0	-	122	286	-	-	-	-
Critical Hdwy	-	6.52	6.22	7.12	6.52	-	4.12	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	-	4.018	3.318	3.518	4.018	-	2.218	-	-
Pot Cap-1 Maneuver	0	832	1017	853	623	0	-	-	-
Stage 1	0	846	-	-	-	0	-	-	-
Stage 2	0	-	-	882	675	0	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	-	832	1017	654	623	-	-	-	-
Mov Cap-2 Maneuver	-	832	-	654	623	-	-	-	-
Stage 1	-	846	-	-	-	-	-	-	-
Stage 2	-	-	-	678	675	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	9.58	12.55	
HCM LOS	A	B	

Minor Lane/Major Mvmt	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	832	1017	627	-	-	-
HCM Lane V/C Ratio	0.151	0.097	0.24	-	-	-
HCM Ctrl Dly (s/v)	10.1	8.9	12.6	-	-	-
HCM Lane LOS	B	A	B	-	-	-
HCM 95th %tile Q(veh)	0.5	0.3	0.9	-	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		W	U	U	W
Traffic Vol, veh/h	0	8	8	84	45	0
Future Vol, veh/h	0	8	8	84	45	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	150	-	-	260
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	2	2	2	2	0
Mvmt Flow	0	10	10	100	54	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	173	54	54	0	-	0
Stage 1	54	-	-	-	-	-
Stage 2	119	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	822	1014	1552	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	817	1014	1552	-	-	-
Mov Cap-2 Maneuver	817	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	911	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.59	0.64	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1552	-	1014	-	-
HCM Lane V/C Ratio	0.006	-	0.009	-	-
HCM Ctrl Dly (s/v)	7.3	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 7th TWSC
3: Campglen Drive & Danceglen Drive

Horizon (2050) Total PM
08/28/2026

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	5	38	0	6	23	0
Future Vol, veh/h	5	38	0	6	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	0	2	2	2
Mvmt Flow	6	44	0	7	27	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	50	0	35	28
Stage 1	-	-	-	-	28	-
Stage 2	-	-	-	-	7	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1570	-	978	1047
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1016	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1570	-	978	1047
Mov Cap-2 Maneuver	-	-	-	-	978	-
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	1016	-
Approach	EB	WB		NB		
HCM Ctrl Dly, s/v	0	0		8.78		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	978	-	-	1570	-	
HCM Lane V/C Ratio	0.027	-	-	-	-	
HCM Ctrl Dly (s/v)	8.8	-	-	0	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 7th TWSC
4: Farthing Drive & Danceglen Court/Danceglen Drive

Horizon (2050) Total PM
08/28/2026

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	36	0	40	2	52	43	2
Future Vol, veh/h	0	0	0	0	0	36	0	40	2	52	43	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	67	67	67	81	81	81	92	92	92
Heavy Vehicles, %	2	2	0	0	0	2	0	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	54	0	49	2	57	47	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	210	213	48	210	213	51	49	0	0	52	0	0
Stage 1	161	161	-	51	51	-	-	-	-	-	-	-
Stage 2	49	52	-	160	162	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.2	7.1	6.5	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.3	3.5	4	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	747	685	1027	751	688	1018	1571	-	-	1554	-	-
Stage 1	841	765	-	967	857	-	-	-	-	-	-	-
Stage 2	964	852	-	847	768	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	681	659	1027	723	663	1018	1571	-	-	1554	-	-
Mov Cap-2 Maneuver	681	659	-	723	663	-	-	-	-	-	-	-
Stage 1	810	736	-	967	857	-	-	-	-	-	-	-
Stage 2	913	852	-	815	739	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	8.74	0	3.97
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	-	1018	956	-
HCM Lane V/C Ratio	-	-	-	-	0.053	0.036	-
HCM Ctrl Dly (s/v)	0	-	-	0	8.7	7.4	0
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.1	-

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	26	65	0	76	106
Future Vol, veh/h	0	26	65	0	76	106
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	68	68	60	90	90	57
Heavy Vehicles, %	0	2	2	2	2	2
Mvmt Flow	0	38	108	0	84	186
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	463	108	0	0	108	0
Stage 1	108	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	561	945	-	-	1482	-
Stage 1	921	-	-	-	-	-
Stage 2	714	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	525	945	-	-	1482	-
Mov Cap-2 Maneuver	525	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	8.97	0		2.37		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	945	562	-	
HCM Lane V/C Ratio	-	-	0.04	0.057	-	
HCM Ctrl Dly (s/v)	-	-	9	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-	

Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	8	7	110	194	6
Future Vol, veh/h	3	8	7	110	194	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	11	9	134	237	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	143	0	-	0	94	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	19	-
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	1440	-	-	-	905	986
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	1004	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1440	-	-	-	903	986
Mov Cap-2 Maneuver	-	-	-	-	903	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	1004	-
Approach	EB	WB		SB		
HCM Ctrl Dly, s/v	2.05	0		10.44		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	491	-	-	-	905	
HCM Lane V/C Ratio	0.003	-	-	-	0.269	
HCM Ctrl Dly (s/v)	7.5	0	-	-	10.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	1.1	

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	2	6	3	7	2	6	204	3	8	270	101
Future Vol, veh/h	76	2	6	3	7	2	6	204	3	8	270	101
Peak Hour Factor	0.76	0.76	0.76	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	0	2	2	0	2	2	2	2	2
Mvmt Flow	100	3	8	4	10	3	7	222	3	9	293	110
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	2
HCM Control Delay, s/veh	11.1	9.6	11.9	11.7
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	99%	0%	25%	0%	78%	0%	100%	0%
Vol Right, %	0%	1%	0%	75%	0%	22%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	207	76	8	3	9	8	270	101
LT Vol	6	0	76	0	3	0	8	0	0
Through Vol	0	204	0	2	0	7	0	270	0
RT Vol	0	3	0	6	0	2	0	0	101
Lane Flow Rate	7	225	100	11	4	13	9	293	110
Geometry Grp	6	6	6	6	6	6	6	6	6
Degree of Util (X)	0.012	0.368	0.192	0.017	0.009	0.024	0.015	0.458	0.15
Departure Headway (Hd)	6.369	5.89	6.919	5.887	7.17	6.542	6.125	5.622	4.918
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	612	519	608	499	547	588	646	733
Service Time	4.094	3.615	4.653	3.621	4.912	4.284	3.825	3.322	2.618
HCM Lane V/C Ratio	0.012	0.368	0.193	0.018	0.008	0.024	0.015	0.454	0.15
HCM Control Delay, s/veh	9.2	12	11.3	8.7	10	9.4	8.9	13	8.5
HCM Lane LOS	A	B	B	A	A	A	A	B	A
HCM 95th-tile Q	0	1.7	0.7	0.1	0	0.1	0	2.4	0.5

Timings

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

Horizon (2050) Total PM

08/28/2026



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	97	204	178	259	193	2	70	341	100	140
Future Volume (vph)	97	204	178	259	193	2	70	341	100	140
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases		2		6			4		8	
Permitted Phases	2		6		6	4		8		8
Detector Phase	2	2	6	6	6	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.5	37.5	37.5	37.5	37.5	37.0	37.0	34.0	34.0	34.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	46.2%	46.2%	46.2%	46.2%	46.2%	53.8%	53.8%	53.8%	53.8%	53.8%
Yellow Time (s)	3.5	3.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	6.0	6.0	6.0	6.0	6.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	24.5	24.5	24.5	24.5	24.5	29.0	29.0	29.0	29.0	29.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.45	0.45	0.45	0.45	0.45
v/c Ratio	0.29	0.32	0.47	0.41	0.30	0.00	0.25	0.71	0.13	0.19
Control Delay (s/veh)	16.9	16.0	15.5	13.4	1.8	10.0	5.9	24.1	11.2	2.9
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)	16.9	16.0	15.5	13.4	1.8	10.0	5.9	24.1	11.2	2.9
LOS	B	B	B	B	A	A	A	C	B	A
Approach Delay (s/veh)		16.3		10.4			6.0		16.8	
Approach LOS		B		B			A		B	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 9 (14%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 13.1

Intersection LOS: B

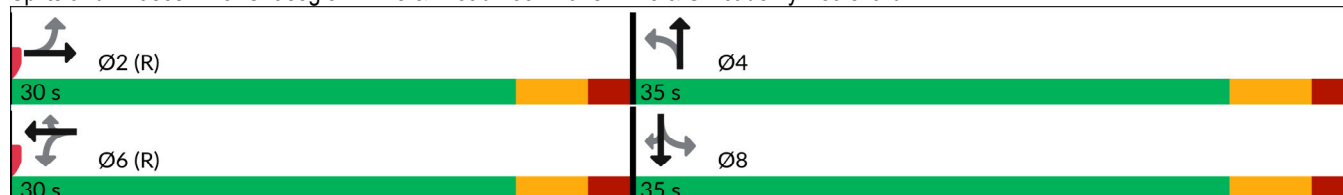
Intersection Capacity Utilization 68.3%

ICU Level of Service C

Analysis Period (min) 15

Description: Academy blvd/Broadmoor Bluffs/Chaseglen

Splits and Phases: 8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard



HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Total PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	204	0	178	259	193	2	70	97	341	100	140
Future Volume (veh/h)	97	204	0	178	259	193	2	70	97	341	100	140
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1900	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	227	0	200	291	217	2	85	118	371	109	152
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.82	0.82	0.82	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	319	705	0	446	705	597	579	316	439	548	834	707
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.38	0.38	0.00	0.12	0.12	0.12	0.45	0.45	0.45	0.45	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	24.6	15.6	0.0	30.8	23.6	23.0	11.3	0.0	12.2	25.4	10.9	11.7
Ln Grp LOS	C	B		C	C	C	B		B	C	B	B
Approach Vol, veh/h	335			708			205			632		
Approach Delay, s/veh	18.5			25.5			12.2			19.6		
Approach LOS	B			C			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			6.0			5.0			5.0		
Phs Duration (G+Y+Rc), s	30.0			35.0			30.0			35.0		
Change Period (Y+Rc), s	5.5			6.0			5.5			6.0		
Max Green (Gmax), s	24.5			29.0			24.5			29.0		
Max Allow Headway (MAH), s	0.0			0.0			0.0			0.0		
Max Q Clear (g_c+I1), s	0.0			0.0			0.0			0.0		
Green Ext Time (g_e), s	0.0			0.0			0.0			0.0		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	891			1136			1154			1179		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1870			709			1870			1870		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	0			984			1585			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Total PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	108	0	2	0	200	0	371
Grp Sat Flow (s), veh/h/ln	0	891	0	1136	0	1154	0	1179
Q Serve Time (g_s), s	0.0	6.9	0.0	0.1	0.0	10.8	0.0	18.8
Cycle Q Clear Time (g_c), s	0.0	16.2	0.0	2.3	0.0	16.4	0.0	23.7
Perm LT Sat Flow (s_l), veh/h/ln	0	891	0	1136	0	1154	0	1179
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	24.5	0.0	29.0	0.0	24.5	0.0	29.0
Perm LT Serve Time (g_u), s	0.0	15.2	0.0	26.8	0.0	18.9	0.0	24.1
Perm LT Q Serve Time (g_ps), s	0.0	6.9	0.0	0.1	0.0	10.8	0.0	18.8
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	319	0	579	0	446	0	548
V/C Ratio (X)	0.00	0.34	0.00	0.00	0.00	0.45	0.00	0.68
Avail Cap (c_a), veh/h	0	319	0	579	0	446	0	548
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.7	0.0	11.3	0.0	27.6	0.0	18.8
Incr Delay (d2), s/veh	0.0	2.9	0.0	0.0	0.0	3.2	0.0	6.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.6	0.0	11.3	0.0	30.8	0.0	25.4
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	0.0	3.3	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.4	0.0	1.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.6	0.0	0.0	0.0	3.7	0.0	5.6
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.01	0.00	0.13	0.00	0.86
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		T
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	227	0	0	0	291	0	109
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	1870
Q Serve Time (g_s), s	0.0	5.6	0.0	0.0	0.0	9.3	0.0	2.2
Cycle Q Clear Time (g_c), s	0.0	5.6	0.0	0.0	0.0	9.3	0.0	2.2
Lane Grp Cap (c), veh/h	0	705	0	0	0	705	0	834
V/C Ratio (X)	0.00	0.32	0.00	0.00	0.00	0.41	0.00	0.13
Avail Cap (c_a), veh/h	0	705	0	0	0	705	0	834
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	0.0	0.0	21.8	0.0	10.6
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	1.8	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.6	0.0	0.0	0.0	23.6	0.0	10.9
1st-Term Q (Q1), veh/ln	0.0	2.2	0.0	0.0	0.0	4.4	0.0	0.8

Ranch at Cheyenne Mountain_HorizonTotal.syn

Horizon (2050) Total PM

Synchro 12 Report

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HCM 7th Signalized Intersection Capacity Analysis

Horizon (2050) Total PM

8: Chaseglen Drive & Broadmoor Bluffs Drive & S Academy Boulevard

08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.4	0.0	0.0	0.0	4.7	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.17	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				T+R		R		R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	203	0	217	0	152
Grp Sat Flow (s), veh/h/ln	0	0	0	1693	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	4.9	0.0	8.2	0.0	3.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.9	0.0	8.2	0.0	3.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.58	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	755	0	597	0	707
V/C Ratio (X)	0.00	0.00	0.00	0.27	0.00	0.36	0.00	0.21
Avail Cap (c_a), veh/h	0	0	0	755	0	597	0	707
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.3	0.0	21.3	0.0	11.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.9	0.0	1.7	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	12.2	0.0	23.0	0.0	11.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.7	0.0	3.2	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.9	0.0	3.4	0.0	1.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.12	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	20.8
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Timings
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total PM
08/28/2026

	→	↗	↖	←	↘	↙	↖
Lane Group	EBT	EBR	WBL	WBT	SEL	SET	SER
Lane Configurations	↑↑	↑	↖↗	↑↑	↖	↖	↖
Traffic Volume (vph)	547	98	499	590	577	0	339
Future Volume (vph)	547	98	499	590	577	0	339
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	20.0	20.0	6.0	20.0	5.0	5.0	5.0
Minimum Split (s)	26.0	26.0	12.0	26.0	11.0	11.0	11.0
Total Split (s)	27.0	27.0	20.0	47.0	18.0	18.0	18.0
Total Split (%)	41.5%	41.5%	30.8%	72.3%	27.7%	27.7%	27.7%
Yellow Time (s)	4.0	4.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	3.0	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)	21.0	21.0	14.0	41.0	12.0	12.0	12.0
Actuated g/C Ratio	0.32	0.32	0.22	0.63	0.18	0.18	0.18
v/c Ratio	0.52	0.17	0.87	0.34	1.15	1.15	0.88
Control Delay (s/veh)	22.2	5.5	39.1	6.1	126.7	126.7	34.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.2	5.5	39.1	6.1	126.7	126.7	34.1
LOS	C	A	D	A	F	F	C
Approach Delay (s/veh)	19.7			21.3		92.4	
Approach LOS	B			C		F	

Intersection Summary

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 1.15

Intersection Signal Delay (s/veh): 45.8

Intersection LOS: D

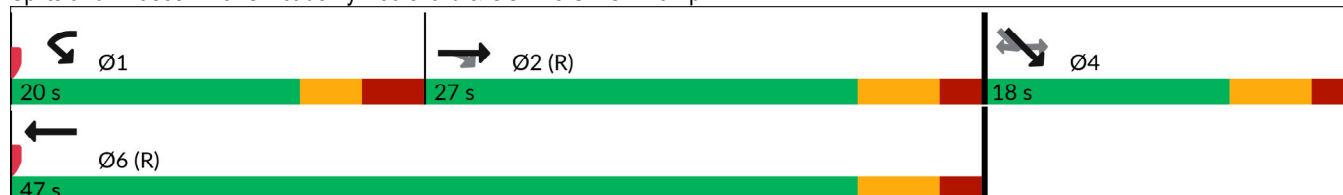
Intersection Capacity Utilization 61.9%

ICU Level of Service B

Analysis Period (min) 15

Description: Academy Blvd/CO-115 SB Off-Ramp

Splits and Phases: 9: S Academy Boulevard & CO-115 SB Off-Ramp



HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total PM
08/28/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑	↑	↑↑	↑↑		↑	↑	↑			
Traffic Volume (veh/h)	0	547	98	499	590	0	577	0	339	0	0	0
Future Volume (veh/h)	0	547	98	499	590	0	577	0	339	0	0	0
Number	5	2	12	1	6	16	7	4	14			
Initial Q, veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0	1870	1900	1870			
Adj Flow Rate, veh/h	0	595	0	640	756	0	712	0	0			
Peak Hour Factor	0.90	0.92	0.92	0.78	0.78	0.90	0.81	0.81	0.81			
Percent Heavy Veh, %	0	2	2	2	2	0	2	0	2			
Opposing Right Turn Influence	No			Yes			No					
Cap, veh/h	0	1148		744	2242	0	658	0				
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.00	0.65	0.00	0.22	0.63	0.00	0.18	0.00	0.00			
Unsig. Movement Delay			0.00						0.00			
Ln Grp Delay, s/veh	0.0	10.5	0.0	37.0	6.0	0.0	86.0	0.0	0.0			
Ln Grp LOS		B	A	D	A		F		A			
Approach Vol, veh/h		702			1396			1131				
Approach Delay, s/veh		8.9			20.2			54.2				
Approach LOS		A			C			D				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2		4		6					
Case No		2.0	7.0		9.0		4.0					
Phs Duration (G+Y+Rc), s		20.0	27.0		18.0		47.0					
Change Period (Y+Rc), s		6.0	6.0		6.0		6.0					
Max Green (Gmax), s		14.0	21.0		12.0		41.0					
Max Allow Headway (MAH), s		0.0	0.0		0.0		0.0					
Max Q Clear (g_c+I1), s		0.0	0.0		0.0		0.0					
Green Ext Time (g_e), s		0.0	0.0		0.0		0.0					
Prob of Phs Call (p_c)		1.00	1.00		1.00		1.00					
Prob of Max Out (p_x)		0.00	0.00		0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt		1	5		7							
Mvmt Sat Flow, veh/h		3456	0		3563							
Through Movement Data												
Assigned Mvmt			2		4		6					
Mvmt Sat Flow, veh/h			3647		0		3647					
Right-Turn Movement Data												
Assigned Mvmt			12		14		16					
Mvmt Sat Flow, veh/h			1585		1585		0					
Left Lane Group Data												
Assigned Mvmt		1	5	0	7	0	0	0	0			

HCM 7th Signalized Intersection Capacity Analysis
9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total PM
08/28/2026

Lane Assignment	L (Prot)			L				
Lanes in Grp	2	0	0	2	0	0	0	0
Grp Vol (v), veh/h	640	0	0	712	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1728	0	0	1781	0	0	0	0
Q Serve Time (g_s), s	11.6	0.0	0.0	12.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	11.6	0.0	0.0	12.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1781	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	744	0	0	658	0	0	0	0
V/C Ratio (X)	0.86	0.00	0.00	1.08	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	744	0	0	658	0	0	0	0
Upstream Filter (I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	24.6	0.0	0.0	26.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	12.4	0.0	0.0	59.5	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	37.0	0.0	0.0	86.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	4.1	0.0	0.0	4.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	1.3	0.0	0.0	5.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	5.4	0.0	0.0	10.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.32	0.00	0.00	0.60	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T			T				
Lanes in Grp	0	2	0	0	0	2	0	0
Grp Vol (v), veh/h	0	595	0	0	0	756	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	5.8	0.0	0.0	0.0	6.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	0.0	0.0	6.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	1148	0	0	0	2242	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.34	0.00	0.00
Avail Cap (c_a), veh/h	0	1148	0	0	0	2242	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.8	0.0	0.0	0.0	5.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	0.0	0.4	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.5	0.0	0.0	0.0	6.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.0	0.0	1.4	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis 9: S Academy Boulevard & CO-115 SB Off-Ramp

Horizon (2050) Total PM
08/28/2026

2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	0.0	0.0	1.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	512	0	293	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	512	0	293	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	29.6
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [EBR, SER] is included in calculations of the approach delay and intersection delay.

Intersection			
Intersection Delay, s/veh	3.1		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	8	59	81
Demand Flow Rate, veh/h	8	60	83
Vehicles Circulating, veh/h	55	3	3
Vehicles Exiting, veh/h	8	83	60
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.8	3.0	3.1
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	8	60	83
Cap Entry Lane, veh/h	1305	1376	1376
Entry HV Adj Factor	1.000	0.982	0.981
Flow Entry, veh/h	8	59	81
Cap Entry, veh/h	1305	1351	1350
V/C Ratio	0.006	0.044	0.060
Control Delay, s/veh	2.8	3.0	3.1
LOS	A	A	A
95th %tile Queue, veh	0	0	0

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Signal Warrants Report For Intersection 1: Norad Rd/Oconell Blvd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	11	176	35	269
2	11	171	34	261
3	10	167	33	256
4	10	157	31	239
5	9	139	28	213
6	9	137	27	210
7	8	136	27	207
8	8	123	25	188
9	8	121	24	186
10	7	120	24	183
11	6	104	21	159
12	6	97	19	148
13	6	95	19	145
14	4	70	14	108
15	4	70	14	108
16	3	49	10	75
17	2	28	6	43
18	2	28	6	43
19	1	16	3	24
20	1	9	2	13
21	0	5	1	8
22	0	2	0	3
23	0	2	0	3
24	0	2	0	3

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	187	1	269	No	No	No	No	No	No	No	No	No	No
2	1	182	1	261	No	No	No	No	No	No	No	No	No	No
3	1	177	1	256	No	No	No	No	No	No	No	No	No	No
4	1	167	1	239	No	No	No	No	No	No	No	No	No	No
5	1	148	1	213	No	No	No	No	No	No	No	No	No	No
6	1	146	1	210	No	No	No	No	No	No	No	No	No	No
7	1	144	1	207	No	No	No	No	No	No	No	No	No	No
8	1	131	1	188	No	No	No	No	No	No	No	No	No	No
9	1	129	1	186	No	No	No	No	No	No	No	No	No	No
10	1	127	1	183	No	No	No	No	No	No	No	No	No	No
11	1	110	1	159	No	No	No	No	No	No	No	No	No	No
12	1	103	1	148	No	No	No	No	No	No	No	No	No	No
13	1	101	1	145	No	No	No	No	No	No	No	No	No	No
14	1	74	1	108	No	No	No	No	No	No	No	No	No	No
15	1	74	1	108	No	No	No	No	No	No	No	No	No	No
16	1	52	1	75	No	No	No	No	No	No	No	No	No	No
17	1	30	1	43	No	No	No	No	No	No	No	No	No	No
18	1	30	1	43	No	No	No	No	No	No	No	No	No	No
19	1	17	1	24	No	No	No	No	No	No	No	No	No	No
20	1	10	1	13	No	No	No	No	No	No	No	No	No	No
21	1	5	1	8	No	No	No	No	No	No	No	No	No	No
22	1	2	1	3	No	No	No	No	No	No	No	No	No	No
23	1	2	1	3	No	No	No	No	No	No	No	No	No	No
24	1	2	1	3	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	11.2	12.4
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:06	0:55
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	35	269
High Minor Volume Condition Met	No	Yes
Total Entering Volume on All Approaches During Same Hour	491	491
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	No	

Signal Warrants Report For Intersection 2: Norad Rd/Broadmoor Bluffs Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	150	15	11
2	146	15	11
3	143	14	10
4	134	13	10
5	119	12	9
6	117	12	9
7	116	12	8
8	105	11	8
9	103	10	8
10	102	10	7
11	89	9	6
12	83	8	6
13	81	8	6
14	60	6	4
15	60	6	4
16	42	4	3
17	24	2	2
18	24	2	2
19	14	1	1
20	8	1	1
21	5	0	0
22	2	0	0
23	2	0	0
24	2	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	165	1	11	No	No	No	No	No	No	No	No	No	No
2	2	161	1	11	No	No	No	No	No	No	No	No	No	No
3	2	157	1	10	No	No	No	No	No	No	No	No	No	No
4	2	147	1	10	No	No	No	No	No	No	No	No	No	No
5	2	131	1	9	No	No	No	No	No	No	No	No	No	No
6	2	129	1	9	No	No	No	No	No	No	No	No	No	No
7	2	128	1	8	No	No	No	No	No	No	No	No	No	No
8	2	116	1	8	No	No	No	No	No	No	No	No	No	No
9	2	113	1	8	No	No	No	No	No	No	No	No	No	No
10	2	112	1	7	No	No	No	No	No	No	No	No	No	No
11	2	98	1	6	No	No	No	No	No	No	No	No	No	No
12	2	91	1	6	No	No	No	No	No	No	No	No	No	No
13	2	89	1	6	No	No	No	No	No	No	No	No	No	No
14	2	66	1	4	No	No	No	No	No	No	No	No	No	No
15	2	66	1	4	No	No	No	No	No	No	No	No	No	No
16	2	46	1	3	No	No	No	No	No	No	No	No	No	No
17	2	26	1	2	No	No	No	No	No	No	No	No	No	No
18	2	26	1	2	No	No	No	No	No	No	No	No	No	No
19	2	15	1	1	No	No	No	No	No	No	No	No	No	No
20	2	9	1	1	No	No	No	No	No	No	No	No	No	No
21	2	5	1	0	No	No	No	No	No	No	No	No	No	No
22	2	2	1	0	No	No	No	No	No	No	No	No	No	No
23	2	2	1	0	No	No	No	No	No	No	No	No	No	No
24	2	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.1
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	11
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	176
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 3: Danceglen Dr/Campglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	5	18	36
2	5	17	35
3	5	17	34
4	4	16	32
5	4	14	28
6	4	14	28
7	4	14	28
8	4	13	25
9	3	12	25
10	3	12	24
11	3	11	21
12	3	10	20
13	3	10	19
14	2	7	14
15	2	7	14
16	1	5	10
17	1	3	6
18	1	3	6
19	0	2	3
20	0	1	2
21	0	1	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	23	1	36	No	No	No	No	No	No	No	No	No	No
2	1	22	1	35	No	No	No	No	No	No	No	No	No	No
3	1	22	1	34	No	No	No	No	No	No	No	No	No	No
4	1	20	1	32	No	No	No	No	No	No	No	No	No	No
5	1	18	1	28	No	No	No	No	No	No	No	No	No	No
6	1	18	1	28	No	No	No	No	No	No	No	No	No	No
7	1	18	1	28	No	No	No	No	No	No	No	No	No	No
8	1	17	1	25	No	No	No	No	No	No	No	No	No	No
9	1	15	1	25	No	No	No	No	No	No	No	No	No	No
10	1	15	1	24	No	No	No	No	No	No	No	No	No	No
11	1	14	1	21	No	No	No	No	No	No	No	No	No	No
12	1	13	1	20	No	No	No	No	No	No	No	No	No	No
13	1	13	1	19	No	No	No	No	No	No	No	No	No	No
14	1	9	1	14	No	No	No	No	No	No	No	No	No	No
15	1	9	1	14	No	No	No	No	No	No	No	No	No	No
16	1	6	1	10	No	No	No	No	No	No	No	No	No	No
17	1	4	1	6	No	No	No	No	No	No	No	No	No	No
18	1	4	1	6	No	No	No	No	No	No	No	No	No	No
19	1	2	1	3	No	No	No	No	No	No	No	No	No	No
20	1	1	1	2	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:05
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	36
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	59
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 4: Farthing Dr/Danceglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	55	23	60	4
2	53	22	58	4
3	52	22	57	4
4	49	20	53	4
5	43	18	47	3
6	43	18	47	3
7	42	18	46	3
8	39	16	42	3
9	38	16	41	3
10	37	16	41	3
11	32	14	35	2
12	30	13	33	2
13	30	12	32	2
14	22	9	24	2
15	22	9	24	2
16	15	6	17	1
17	9	4	10	1
18	9	4	10	1
19	5	2	5	0
20	3	1	3	0
21	2	1	2	0
22	1	0	1	0
23	1	0	1	0
24	1	0	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	78	1	60	No	No	No	No	No	No	No	No	No	No
2	1	75	1	58	No	No	No	No	No	No	No	No	No	No
3	1	74	1	57	No	No	No	No	No	No	No	No	No	No
4	1	69	1	53	No	No	No	No	No	No	No	No	No	No
5	1	61	1	47	No	No	No	No	No	No	No	No	No	No
6	1	61	1	47	No	No	No	No	No	No	No	No	No	No
7	1	60	1	46	No	No	No	No	No	No	No	No	No	No
8	1	55	1	42	No	No	No	No	No	No	No	No	No	No
9	1	54	1	41	No	No	No	No	No	No	No	No	No	No
10	1	53	1	41	No	No	No	No	No	No	No	No	No	No
11	1	46	1	35	No	No	No	No	No	No	No	No	No	No
12	1	43	1	33	No	No	No	No	No	No	No	No	No	No
13	1	42	1	32	No	No	No	No	No	No	No	No	No	No
14	1	31	1	24	No	No	No	No	No	No	No	No	No	No
15	1	31	1	24	No	No	No	No	No	No	No	No	No	No
16	1	21	1	17	No	No	No	No	No	No	No	No	No	No
17	1	13	1	10	No	No	No	No	No	No	No	No	No	No
18	1	13	1	10	No	No	No	No	No	No	No	No	No	No
19	1	7	1	5	No	No	No	No	No	No	No	No	No	No
20	1	4	1	3	No	No	No	No	No	No	No	No	No	No
21	1	3	1	2	No	No	No	No	No	No	No	No	No	No
22	1	1	1	1	No	No	No	No	No	No	No	No	No	No
23	1	1	1	1	No	No	No	No	No	No	No	No	No	No
24	1	1	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6	9.7
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:08	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	60	4
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	142	142
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	No	

Signal Warrants Report For Intersection 5: Farthing Dr/Danceglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	E
1	138	136	26
2	134	132	25
3	131	129	25
4	123	121	23
5	109	107	21
6	108	106	20
7	106	105	20
8	97	95	18
9	95	94	18
10	94	92	18
11	81	80	15
12	76	75	14
13	75	73	14
14	55	54	10
15	55	54	10
16	39	38	7
17	22	22	4
18	22	22	4
19	12	12	2
20	7	7	1
21	4	4	1
22	1	1	0
23	1	1	0
24	1	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	274	1	26	No	No	No	No	No	No	No	No	No	No
2	1	266	1	25	No	No	No	No	No	No	No	No	No	No
3	1	260	1	25	No	No	No	No	No	No	No	No	No	No
4	1	244	1	23	No	No	No	No	No	No	No	No	No	No
5	1	216	1	21	No	No	No	No	No	No	No	No	No	No
6	1	214	1	20	No	No	No	No	No	No	No	No	No	No
7	1	211	1	20	No	No	No	No	No	No	No	No	No	No
8	1	192	1	18	No	No	No	No	No	No	No	No	No	No
9	1	189	1	18	No	No	No	No	No	No	No	No	No	No
10	1	186	1	18	No	No	No	No	No	No	No	No	No	No
11	1	161	1	15	No	No	No	No	No	No	No	No	No	No
12	1	151	1	14	No	No	No	No	No	No	No	No	No	No
13	1	148	1	14	No	No	No	No	No	No	No	No	No	No
14	1	109	1	10	No	No	No	No	No	No	No	No	No	No
15	1	109	1	10	No	No	No	No	No	No	No	No	No	No
16	1	77	1	7	No	No	No	No	No	No	No	No	No	No
17	1	44	1	4	No	No	No	No	No	No	No	No	No	No
18	1	44	1	4	No	No	No	No	No	No	No	No	No	No
19	1	24	1	2	No	No	No	No	No	No	No	No	No	No
20	1	14	1	1	No	No	No	No	No	No	No	No	No	No
21	1	8	1	1	No	No	No	No	No	No	No	No	No	No
22	1	2	1	0	No	No	No	No	No	No	No	No	No	No
23	1	2	1	0	No	No	No	No	No	No	No	No	No	No
24	1	2	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.1
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:03
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	26
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	300
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 6: Farthing Dr/Chaseglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	164	14	141
2	159	14	137
3	156	13	134
4	146	12	125
5	130	11	111
6	128	11	110
7	126	11	109
8	115	10	99
9	113	10	97
10	112	10	96
11	97	8	83
12	90	8	78
13	89	8	76
14	66	6	56
15	66	6	56
16	46	4	39
17	26	2	23
18	26	2	23
19	15	1	13
20	8	1	7
21	5	0	4
22	2	0	1
23	2	0	1
24	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	178	1	141	No	No	No	No	No	No	No	No	No	No
2	1	173	1	137	No	No	No	No	No	No	No	No	No	No
3	1	169	1	134	No	No	No	No	No	No	No	No	No	No
4	1	158	1	125	No	No	No	No	No	No	No	No	No	No
5	1	141	1	111	No	No	No	No	No	No	No	No	No	No
6	1	139	1	110	No	No	No	No	No	No	No	No	No	No
7	1	137	1	109	No	No	No	No	No	No	No	No	No	No
8	1	125	1	99	No	No	No	No	No	No	No	No	No	No
9	1	123	1	97	No	No	No	No	No	No	No	No	No	No
10	1	122	1	96	No	No	No	No	No	No	No	No	No	No
11	1	105	1	83	No	No	No	No	No	No	No	No	No	No
12	1	98	1	78	No	No	No	No	No	No	No	No	No	No
13	1	97	1	76	No	No	No	No	No	No	No	No	No	No
14	1	72	1	56	No	No	No	No	No	No	No	No	No	No
15	1	72	1	56	No	No	No	No	No	No	No	No	No	No
16	1	50	1	39	No	No	No	No	No	No	No	No	No	No
17	1	28	1	23	No	No	No	No	No	No	No	No	No	No
18	1	28	1	23	No	No	No	No	No	No	No	No	No	No
19	1	16	1	13	No	No	No	No	No	No	No	No	No	No
20	1	9	1	7	No	No	No	No	No	No	No	No	No	No
21	1	5	1	4	No	No	No	No	No	No	No	No	No	No
22	1	2	1	1	No	No	No	No	No	No	No	No	No	No
23	1	2	1	1	No	No	No	No	No	No	No	No	No	No
24	1	2	1	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.9
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:23
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	141
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	319
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 7: Broadmoor Bluffs Dr/Farthing Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	170	232	18	130
2	165	225	17	126
3	162	220	17	124
4	151	206	16	116
5	134	183	14	103
6	133	181	14	101
7	131	179	14	100
8	119	162	13	91
9	117	160	12	90
10	116	158	12	88
11	100	137	11	77
12	94	128	10	72
13	92	125	10	70
14	68	93	7	52
15	68	93	7	52
16	48	65	5	36
17	27	37	3	21
18	27	37	3	21
19	15	21	2	12
20	9	12	1	7
21	5	7	1	4
22	2	2	0	1
23	2	2	0	1
24	2	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	3	402	2	130	No	No	No	Yes	No	No	No	No	No	No
2	3	390	2	126	No	No	No	Yes	No	No	No	No	No	No
3	3	382	2	124	No	No	No	Yes	No	No	No	No	No	No
4	3	357	2	116	No	No	No	Yes	No	No	No	No	No	No
5	3	317	2	103	No	No	No	No	No	No	No	No	No	No
6	3	314	2	101	No	No	No	No	No	No	No	No	No	No
7	3	310	2	100	No	No	No	No	No	No	No	No	No	No
8	3	281	2	91	No	No	No	No	No	No	No	No	No	No
9	3	277	2	90	No	No	No	No	No	No	No	No	No	No
10	3	274	2	88	No	No	No	No	No	No	No	No	No	No
11	3	237	2	77	No	No	No	No	No	No	No	No	No	No
12	3	222	2	72	No	No	No	No	No	No	No	No	No	No
13	3	217	2	70	No	No	No	No	No	No	No	No	No	No
14	3	161	2	52	No	No	No	No	No	No	No	No	No	No
15	3	161	2	52	No	No	No	No	No	No	No	No	No	No
16	3	113	2	36	No	No	No	No	No	No	No	No	No	No
17	3	64	2	21	No	No	No	No	No	No	No	No	No	No
18	3	64	2	21	No	No	No	No	No	No	No	No	No	No
19	3	36	2	12	No	No	No	No	No	No	No	No	No	No
20	3	21	2	7	No	No	No	No	No	No	No	No	No	No
21	3	12	2	4	No	No	No	No	No	No	No	No	No	No
22	3	4	2	1	No	No	No	No	No	No	No	No	No	No
23	3	4	2	1	No	No	No	No	No	No	No	No	No	No
24	3	4	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	4	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.9	10.8
Number of Lanes on Minor Street Approach	2	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:02	0:23
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	18	130
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	550	550
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	No	

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Signal Warrants Report For Intersection 1: Norad Rd/Oconell Blvd

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	S, N
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	S	N	E	W
1	76	206	110	164
2	74	200	107	159
3	72	196	105	156
4	68	183	98	146
5	60	163	87	130
6	59	161	86	128
7	59	159	85	126
8	53	144	77	115
9	52	142	76	113
10	52	140	75	112
11	45	122	65	97
12	42	113	61	90
13	41	111	59	89
14	30	82	44	66
15	30	82	44	66
16	21	58	31	46
17	12	33	18	26
18	12	33	18	26
19	7	19	10	15
20	4	10	6	8
21	2	6	3	5
22	1	2	1	2
23	1	2	1	2
24	1	2	1	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	282	1	164	No	No	No	Yes	No	No	No	No	No	No
2	1	274	1	159	No	No	No	No	No	No	No	No	No	No
3	1	268	1	156	No	No	No	No	No	No	No	No	No	No
4	1	251	1	146	No	No	No	No	No	No	No	No	No	No
5	1	223	1	130	No	No	No	No	No	No	No	No	No	No
6	1	220	1	128	No	No	No	No	No	No	No	No	No	No
7	1	218	1	126	No	No	No	No	No	No	No	No	No	No
8	1	197	1	115	No	No	No	No	No	No	No	No	No	No
9	1	194	1	113	No	No	No	No	No	No	No	No	No	No
10	1	192	1	112	No	No	No	No	No	No	No	No	No	No
11	1	167	1	97	No	No	No	No	No	No	No	No	No	No
12	1	155	1	90	No	No	No	No	No	No	No	No	No	No
13	1	152	1	89	No	No	No	No	No	No	No	No	No	No
14	1	112	1	66	No	No	No	No	No	No	No	No	No	No
15	1	112	1	66	No	No	No	No	No	No	No	No	No	No
16	1	79	1	46	No	No	No	No	No	No	No	No	No	No
17	1	45	1	26	No	No	No	No	No	No	No	No	No	No
18	1	45	1	26	No	No	No	No	No	No	No	No	No	No
19	1	26	1	15	No	No	No	No	No	No	No	No	No	No
20	1	14	1	8	No	No	No	No	No	No	No	No	No	No
21	1	8	1	5	No	No	No	No	No	No	No	No	No	No
22	1	3	1	2	No	No	No	No	No	No	No	No	No	No
23	1	3	1	2	No	No	No	No	No	No	No	No	No	No
24	1	3	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	1	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	12.1	11.1
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:22	0:30
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	110	164
High Minor Volume Condition Met	Yes	Yes
Total Entering Volume on All Approaches During Same Hour	556	556
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	No	

Signal Warrants Report For Intersection 2: Norad Rd/Broadmoor Bluffs Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	W
1	45	92	8
2	44	89	8
3	43	87	8
4	40	82	7
5	36	73	6
6	35	72	6
7	35	71	6
8	31	64	6
9	31	63	6
10	31	63	5
11	27	54	5
12	25	51	4
13	24	50	4
14	18	37	3
15	18	37	3
16	13	26	2
17	7	15	1
18	7	15	1
19	4	8	1
20	2	5	0
21	1	3	0
22	0	1	0
23	0	1	0
24	0	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	2	137	1	8	No	No	No	No	No	No	No	No	No	No
2	2	133	1	8	No	No	No	No	No	No	No	No	No	No
3	2	130	1	8	No	No	No	No	No	No	No	No	No	No
4	2	122	1	7	No	No	No	No	No	No	No	No	No	No
5	2	109	1	6	No	No	No	No	No	No	No	No	No	No
6	2	107	1	6	No	No	No	No	No	No	No	No	No	No
7	2	106	1	6	No	No	No	No	No	No	No	No	No	No
8	2	95	1	6	No	No	No	No	No	No	No	No	No	No
9	2	94	1	6	No	No	No	No	No	No	No	No	No	No
10	2	94	1	5	No	No	No	No	No	No	No	No	No	No
11	2	81	1	5	No	No	No	No	No	No	No	No	No	No
12	2	76	1	4	No	No	No	No	No	No	No	No	No	No
13	2	74	1	4	No	No	No	No	No	No	No	No	No	No
14	2	55	1	3	No	No	No	No	No	No	No	No	No	No
15	2	55	1	3	No	No	No	No	No	No	No	No	No	No
16	2	39	1	2	No	No	No	No	No	No	No	No	No	No
17	2	22	1	1	No	No	No	No	No	No	No	No	No	No
18	2	22	1	1	No	No	No	No	No	No	No	No	No	No
19	2	12	1	1	No	No	No	No	No	No	No	No	No	No
20	2	7	1	0	No	No	No	No	No	No	No	No	No	No
21	2	4	1	0	No	No	No	No	No	No	No	No	No	No
22	2	1	1	0	No	No	No	No	No	No	No	No	No	No
23	2	1	1	0	No	No	No	No	No	No	No	No	No	No
24	2	1	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:01
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	8
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	145
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 3: Danceglen Dr/Campglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	S
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	S
1	6	43	23
2	6	42	22
3	6	41	22
4	5	38	20
5	5	34	18
6	5	34	18
7	5	33	18
8	4	30	16
9	4	30	16
10	4	29	16
11	4	25	14
12	3	24	13
13	3	23	12
14	2	17	9
15	2	17	9
16	2	12	6
17	1	7	4
18	1	7	4
19	1	4	2
20	0	2	1
21	0	1	1
22	0	0	0
23	0	0	0
24	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	49	1	23	No	No	No	No	No	No	No	No	No	No
2	1	48	1	22	No	No	No	No	No	No	No	No	No	No
3	1	47	1	22	No	No	No	No	No	No	No	No	No	No
4	1	43	1	20	No	No	No	No	No	No	No	No	No	No
5	1	39	1	18	No	No	No	No	No	No	No	No	No	No
6	1	39	1	18	No	No	No	No	No	No	No	No	No	No
7	1	38	1	18	No	No	No	No	No	No	No	No	No	No
8	1	34	1	16	No	No	No	No	No	No	No	No	No	No
9	1	34	1	16	No	No	No	No	No	No	No	No	No	No
10	1	33	1	16	No	No	No	No	No	No	No	No	No	No
11	1	29	1	14	No	No	No	No	No	No	No	No	No	No
12	1	27	1	13	No	No	No	No	No	No	No	No	No	No
13	1	26	1	12	No	No	No	No	No	No	No	No	No	No
14	1	19	1	9	No	No	No	No	No	No	No	No	No	No
15	1	19	1	9	No	No	No	No	No	No	No	No	No	No
16	1	14	1	6	No	No	No	No	No	No	No	No	No	No
17	1	8	1	4	No	No	No	No	No	No	No	No	No	No
18	1	8	1	4	No	No	No	No	No	No	No	No	No	No
19	1	5	1	2	No	No	No	No	No	No	No	No	No	No
20	1	2	1	1	No	No	No	No	No	No	No	No	No	No
21	1	1	1	1	No	No	No	No	No	No	No	No	No	No
22	1	0	1	0	No	No	No	No	No	No	No	No	No	No
23	1	0	1	0	No	No	No	No	No	No	No	No	No	No
24	1	0	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	S
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.8
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:03
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	23
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	72
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 4: Farthing Dr/Danceglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	97	42	36	0
2	94	41	35	0
3	92	40	34	0
4	86	37	32	0
5	77	33	28	0
6	76	33	28	0
7	75	32	28	0
8	68	29	25	0
9	67	29	25	0
10	66	29	24	0
11	57	25	21	0
12	53	23	20	0
13	52	23	19	0
14	39	17	14	0
15	39	17	14	0
16	27	12	10	0
17	16	7	6	0
18	16	7	6	0
19	9	4	3	0
20	5	2	2	0
21	3	1	1	0
22	1	0	0	0
23	1	0	0	0
24	1	0	0	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	139	1	36	No	No	No	No	No	No	No	No	No	No
2	1	135	1	35	No	No	No	No	No	No	No	No	No	No
3	1	132	1	34	No	No	No	No	No	No	No	No	No	No
4	1	123	1	32	No	No	No	No	No	No	No	No	No	No
5	1	110	1	28	No	No	No	No	No	No	No	No	No	No
6	1	109	1	28	No	No	No	No	No	No	No	No	No	No
7	1	107	1	28	No	No	No	No	No	No	No	No	No	No
8	1	97	1	25	No	No	No	No	No	No	No	No	No	No
9	1	96	1	25	No	No	No	No	No	No	No	No	No	No
10	1	95	1	24	No	No	No	No	No	No	No	No	No	No
11	1	82	1	21	No	No	No	No	No	No	No	No	No	No
12	1	76	1	20	No	No	No	No	No	No	No	No	No	No
13	1	75	1	19	No	No	No	No	No	No	No	No	No	No
14	1	56	1	14	No	No	No	No	No	No	No	No	No	No
15	1	56	1	14	No	No	No	No	No	No	No	No	No	No
16	1	39	1	10	No	No	No	No	No	No	No	No	No	No
17	1	23	1	6	No	No	No	No	No	No	No	No	No	No
18	1	23	1	6	No	No	No	No	No	No	No	No	No	No
19	1	13	1	3	No	No	No	No	No	No	No	No	No	No
20	1	7	1	2	No	No	No	No	No	No	No	No	No	No
21	1	4	1	1	No	No	No	No	No	No	No	No	No	No
22	1	1	1	0	No	No	No	No	No	No	No	No	No	No
23	1	1	1	0	No	No	No	No	No	No	No	No	No	No
24	1	1	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.6	9.8
Number of Lanes on Minor Street Approach	1	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:05	0:00
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	36	0
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	175	175
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	No	

Signal Warrants Report For Intersection 5: Farthing Dr/Danceglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	N	S	E
1	182	65	26
2	177	63	25
3	173	62	25
4	162	58	23
5	144	51	21
6	142	51	20
7	140	50	20
8	127	46	18
9	126	45	18
10	124	44	18
11	107	38	15
12	100	36	14
13	98	35	14
14	73	26	10
15	73	26	10
16	51	18	7
17	29	10	4
18	29	10	4
19	16	6	2
20	9	3	1
21	5	2	1
22	2	1	0
23	2	1	0
24	2	1	0

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	247	1	26	No	No	No	No	No	No	No	No	No	No
2	1	240	1	25	No	No	No	No	No	No	No	No	No	No
3	1	235	1	25	No	No	No	No	No	No	No	No	No	No
4	1	220	1	23	No	No	No	No	No	No	No	No	No	No
5	1	195	1	21	No	No	No	No	No	No	No	No	No	No
6	1	193	1	20	No	No	No	No	No	No	No	No	No	No
7	1	190	1	20	No	No	No	No	No	No	No	No	No	No
8	1	173	1	18	No	No	No	No	No	No	No	No	No	No
9	1	171	1	18	No	No	No	No	No	No	No	No	No	No
10	1	168	1	18	No	No	No	No	No	No	No	No	No	No
11	1	145	1	15	No	No	No	No	No	No	No	No	No	No
12	1	136	1	14	No	No	No	No	No	No	No	No	No	No
13	1	133	1	14	No	No	No	No	No	No	No	No	No	No
14	1	99	1	10	No	No	No	No	No	No	No	No	No	No
15	1	99	1	10	No	No	No	No	No	No	No	No	No	No
16	1	69	1	7	No	No	No	No	No	No	No	No	No	No
17	1	39	1	4	No	No	No	No	No	No	No	No	No	No
18	1	39	1	4	No	No	No	No	No	No	No	No	No	No
19	1	22	1	2	No	No	No	No	No	No	No	No	No	No
20	1	12	1	1	No	No	No	No	No	No	No	No	No	No
21	1	7	1	1	No	No	No	No	No	No	No	No	No	No
22	1	3	1	0	No	No	No	No	No	No	No	No	No	No
23	1	3	1	0	No	No	No	No	No	No	No	No	No	No
24	1	3	1	0	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	E
Total Stopped Delay Per Vehicle on Minor Approach (s)	8.7
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:03
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	26
High Minor Volume Condition Met	No
Total Entering Volume on All Approaches During Same Hour	273
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 6: Farthing Dr/Chaseglen Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	E, W
Minor Approaches	N
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets
	E	W	N
1	117	11	200
2	113	11	194
3	111	10	190
4	104	10	178
5	92	9	158
6	91	9	156
7	90	8	154
8	82	8	140
9	81	8	138
10	80	7	136
11	69	6	118
12	64	6	110
13	63	6	108
14	47	4	80
15	47	4	80
16	33	3	56
17	19	2	32
18	19	2	32
19	11	1	18
20	6	1	10
21	4	0	6
22	1	0	2
23	1	0	2
24	1	0	2

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	1	128	1	200	No	No	No	No	No	No	No	No	No	No
2	1	124	1	194	No	No	No	No	No	No	No	No	No	No
3	1	121	1	190	No	No	No	No	No	No	No	No	No	No
4	1	114	1	178	No	No	No	No	No	No	No	No	No	No
5	1	101	1	158	No	No	No	No	No	No	No	No	No	No
6	1	100	1	156	No	No	No	No	No	No	No	No	No	No
7	1	98	1	154	No	No	No	No	No	No	No	No	No	No
8	1	90	1	140	No	No	No	No	No	No	No	No	No	No
9	1	89	1	138	No	No	No	No	No	No	No	No	No	No
10	1	87	1	136	No	No	No	No	No	No	No	No	No	No
11	1	75	1	118	No	No	No	No	No	No	No	No	No	No
12	1	70	1	110	No	No	No	No	No	No	No	No	No	No
13	1	69	1	108	No	No	No	No	No	No	No	No	No	No
14	1	51	1	80	No	No	No	No	No	No	No	No	No	No
15	1	51	1	80	No	No	No	No	No	No	No	No	No	No
16	1	36	1	56	No	No	No	No	No	No	No	No	No	No
17	1	21	1	32	No	No	No	No	No	No	No	No	No	No
18	1	21	1	32	No	No	No	No	No	No	No	No	No	No
19	1	12	1	18	No	No	No	No	No	No	No	No	No	No
20	1	7	1	10	No	No	No	No	No	No	No	No	No	No
21	1	4	1	6	No	No	No	No	No	No	No	No	No	No
22	1	1	1	2	No	No	No	No	No	No	No	No	No	No
23	1	1	1	2	No	No	No	No	No	No	No	No	No	No
24	1	1	1	2	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	0	0	0

Warrant 3 Condition A

Orientation	N
Total Stopped Delay Per Vehicle on Minor Approach (s)	10.1
Number of Lanes on Minor Street Approach	1
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:33
Delay Condition Met	No
Volume on Minor Street Approach During Same Hour	200
High Minor Volume Condition Met	Yes
Total Entering Volume on All Approaches During Same Hour	328
Number of Approaches on Intersection	3
Total Volume Condition Met	No
Warrant Met for Approach	No
Warrant Met for Intersection	No

Signal Warrants Report For Intersection 7: Broadmoor Bluffs Dr/Farthing Dr

Warrants Summary

Warrant	Name	Met?
#1	Eight Hour Vehicular Volume	No
#2	Four Hour Vehicular Volume	No
#3	Peak Hour	No

Intersection Warrants Parameters

Major Approaches	N, S
Minor Approaches	E, W
Speed > 40mph	No
Population < 10,000	No
Warrant Factor	100%

Warrant Analysis Traffic Volumes

Hour	Major Streets		Minor Streets	
	N	S	E	W
1	379	213	12	84
2	368	207	12	81
3	360	202	11	80
4	337	190	11	75
5	299	168	9	66
6	296	166	9	66
7	292	164	9	65
8	265	149	8	59
9	262	147	8	58
10	258	145	8	57
11	224	126	7	50
12	208	117	7	46
13	205	115	6	45
14	152	85	5	34
15	152	85	5	34
16	106	60	3	24
17	61	34	2	13
18	61	34	2	13
19	34	19	1	8
20	19	11	1	4
21	11	6	0	3
22	4	2	0	1
23	4	2	0	1
24	4	2	0	1

Warrant Analysis by Hour

Hour	Major Streets		Minor Street		Warrant 1 Condition A				Warrant 1 Condition B				Warrant 2	Warrant 3
	Number	Volume	Number	Volume	100%	80%	70%	56%	100%	80%	70%	56%		Condition B
1	3	592	2	84	No	No	No	No	No	No	No	Yes	No	No
2	3	575	2	81	No	No	No	No	No	No	No	Yes	No	No
3	3	562	2	80	No	No	No	No	No	No	No	Yes	No	No
4	3	527	2	75	No	No	No	No	No	No	No	Yes	No	No
5	3	467	2	66	No	No	No	No	No	No	No	No	No	No
6	3	462	2	66	No	No	No	No	No	No	No	No	No	No
7	3	456	2	65	No	No	No	No	No	No	No	No	No	No
8	3	414	2	59	No	No	No	No	No	No	No	No	No	No
9	3	409	2	58	No	No	No	No	No	No	No	No	No	No
10	3	403	2	57	No	No	No	No	No	No	No	No	No	No
11	3	350	2	50	No	No	No	No	No	No	No	No	No	No
12	3	325	2	46	No	No	No	No	No	No	No	No	No	No
13	3	320	2	45	No	No	No	No	No	No	No	No	No	No
14	3	237	2	34	No	No	No	No	No	No	No	No	No	No
15	3	237	2	34	No	No	No	No	No	No	No	No	No	No
16	3	166	2	24	No	No	No	No	No	No	No	No	No	No
17	3	95	2	13	No	No	No	No	No	No	No	No	No	No
18	3	95	2	13	No	No	No	No	No	No	No	No	No	No
19	3	53	2	8	No	No	No	No	No	No	No	No	No	No
20	3	30	2	4	No	No	No	No	No	No	No	No	No	No
21	3	17	2	3	No	No	No	No	No	No	No	No	No	No
22	3	6	2	1	No	No	No	No	No	No	No	No	No	No
23	3	6	2	1	No	No	No	No	No	No	No	No	No	No
24	3	6	2	1	No	No	No	No	No	No	No	No	No	No
Hours Met					0	0	0	0	0	0	0	4	0	0

Warrant 3 Condition A

Orientation	E	W
Total Stopped Delay Per Vehicle on Minor Approach (s)	9.3	10.6
Number of Lanes on Minor Street Approach	2	2
VehicleHours of Stopped Delay on Minor Approach (h:mm)	0:01	0:14
Delay Condition Met	No	No
Volume on Minor Street Approach During Same Hour	12	84
High Minor Volume Condition Met	No	No
Total Entering Volume on All Approaches During Same Hour	688	688
Number of Approaches on Intersection	4	4
Total Volume Condition Met	No	No
Warrant Met for Approach	No	No
Warrant Met for Intersection	No	

Appendix F – Supporting Documents

THE RANCH AT CHEYENNE MOUNTAIN

BROADMOOR GLEN ADDITION NO. 1, NO. 2, AND NO. 3 ANNEXATION

CITY OF COLORADO SPRINGS, COLORADO

LAND USE PLAN

GENERAL NOTES:

- THIS LAND USE PLAN MAP IS A DRAWING REPRESENTING A PROPOSED DEVELOPMENT SHOWING CONCEPTUAL PLANNING AREAS, LAND USE TYPES AND LOCATIONS IN ORDER TO EVALUATE THE FEASIBILITY OF THE PROJECT.
- PRIOR TO ANY DEVELOPMENT ON THE PROPERTY, A DEVELOPMENT PLAN MUST BE SUBMITTED AND APPROVED.
- UNTIL APPROVED BY THE CITY OF COLORADO SPRINGS, ALL PROPOSED ACCESS LOCATIONS, ROAD LOCATIONS, WIDTHS AND AND ALIGNMENTS, INTERSECTIONS LOCATIONS AND DESIGN SHOWN ON THIS LAND USE PLAN ARE CONCEPTUAL AND SUBJECT TO CHANGE. FINAL LOCATION AND DESIGN WILL BE DETERMINED THROUGH THE SUBSEQUENT DEVELOPMENT PLANS.
- SIGNAGE IS NOT APPROVED PER THIS PLAN. A SEPARATE SIGN PERMIT IS REQUIRED. CONTACT DEVELOPMENT REVIEW ENTERPRISE AT 719-385-5982, 2880 INTERNATIONAL CIRCLE FOR SIGN PERMIT APPLICATION.
- THE MINERAL ESTATE OWNER NOTIFICATION CERTIFICATION AFFIDAVIT WAS SUBMITTED AND CAN BE FOUND IN FILE . THE APPLICANT HAS ATTESTED THERE ARE NO SEPARATE MINERAL ESTATE OWNER (S) IDENTIFIED AND NO FURTHER ACTION TAKEN.
- CITY WIDE DEVELOPMENT IMPACT FEES FOR POLICE AND FIRE APPLY TO ALL DEVELOPMENT, TO BE DUE AT TIME OF BUILDING PERMIT.
- EXISTING BUILDINGS TO BE REMOVED PRIOR TO ANY FUTURE DEVELOPMENT.
- RESIDING IN OR NEAR WILDLAND URBAN INTERFACE OR INTERMIX AREAS INVOLVES INCREASED WILDFIRE RISKS THAT MAY NOT APPLY IN URBAN OR MORE URBANIZED TYPES OF DEVELOPED COMMUNITIES. ALL LOTS WITHIN THIS DEVELOPMENT ARE SUBJECT TO FUELS MANAGEMENT REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE BUILDER TO IMPLEMENT THE FUELS MANAGEMENT PROCEDURES AS DEFINED IN CHAPTER 8 OF THE CITY CODE FOR EACH LOT. APPROVAL INSPECTION MUST BE OBTAINED FROM THE FIRE DEPARTMENT PRIOR TO FINAL INSPECTION BY THE BUILDING DEPARTMENT AND/OR ALLOWING OCCUPANCY OF THE RESIDENCE. THE INITIAL FUELS MANAGEMENT INSPECTION MUST BE REQUESTED FROM THE FIRE DEPARTMENT PRIOR TO FRAMING INSPECTION WITH SUBSEQUENT APPROVAL OBTAINED PRIOR TO BUILDING FINAL.
- THE PARCELS WITHIN THIS DEVELOPMENT ARE SUBJECT TO THE FEES, RESTRICTIONS, AND COVENANTS OF THE ROCK CREEK METROPOLITAN DISTRICT, WHICH IS CREATED BY ORDINANCE NO. XXXXXXXXXXXX CLERK AND RECORDER'S OFFICE UNDER RECEPTION NO. XXXXXXXXXX
- ALL LANDSCAPE TRACTS WILL BE OWNED AND MAINTAINED BY THE ROCK CREEK METROPOLITAN DISTRICT.
- NO DIRECT VEHICULAR ACCESS SHALL BE ALLOWED ONTO STATE HIGHWAY 115 OR NORAD ROAD FROM THE FINAL PLATTED PARCELS WITHIN THIS DEVELOPMENT. THIS NOTE DOES NOT WAIVE, ABANDON, OR EXTINGUISH ANY EXISTING RECORDED OR COURT-DECREED ACCESS RIGHT APPURTENANT TO THE PROPERTY, OR ACCESS FOR EMERGENCY, UTILITY, AND MAINTENANCE PURPOSES.
- REFER TO THE TRAFFIC IMPACT STUDY SUBMITTED WITH THIS LAND USE PLAN FOR MORE DETAIL REGARDING TRAFFIC VOLUMES, CIRCULATION, ETC. FUTURE DEVELOPMENT PLANS SHALL FOLLOW THE RECOMMENDATIONS OUTLINED IN THIS TRAFFIC STUDY. ADDITIONAL TRAFFIC ANALYSIS SHALL NOT BE REQUIRED WITH FUTURE SUBMITTALS UNLESS A CHANGE OF USE OR INCREASE IN DENSITY IS REQUESTED.
- NO-BUILD ZONE: OPEN SPACE AREAS SHALL REMAIN FREE OF DEVELOPMENT EXCEPT FOR ROADS, UTILITIES, AND RELATED IMPROVEMENTS.

GENERAL STORM DETENTION NOTES:

- FLOODPLAIN STATEMENT: NO PORTION OF THIS SITE IS WITHIN A DESIGNATED F.E.M.A. FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 08041C0739G & 08041C0950G, EFFECTIVE DECEMBER 7, 2018.
- STORM WATER DETENTION AND STORM WATER QUALITY WILL BE PROVIDED FOR THIS SITE WITHIN PROPOSED ON-SITE PRIVATE FULL SPECTRUM DETENTION FACILITIES TO BE DEFINED WITH FUTURE DEVELOPMENT PLAN.
- THIS SITE IS NOT WITHIN THE STREAMSIDE OVERLAY.

ADA DESIGN PROFESSIONAL STANDARDS STATEMENT:

- THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY THE CITY OF COLORADO SPRINGS DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY OTHER FEDERAL OR STATE ACCESSIBILITY LAWS OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS. SOLE RESPONSIBILITY FOR COMPLIANCE WITH FEDERAL AND STATE ACCESSIBILITY LAWS LIES WITH THE PROPERTY OWNER.

GEOLOGIC HAZARD DISCLOSURE:

- GEOLOGIC HAZARD AND SOILS INVESTIGATIONS SHALL BE COMPLETED AT TIME OF THE DEVELOPMENT PLAN STAGE, WHEN MORE DETAILED SITE DESIGN, GRADING, INFRASTRUCTURE, AND LAND USE INFORMATION IS AVAILABLE. ANY REQUIRED GEOTECHNICAL AND GEOLOGIC HAZARD STUDIES SHALL BE COMPLETED AT THAT TIME TO EVALUATE SITE-SPECIFIC CONDITIONS AND IDENTIFY ANY NECESSARY MITIGATION MEASURES.

PARK LAND DEDICATION CALCULATION:

	DU/AC RANGE	UNIT NO. ESTIMATE	PARKS ORDINANCE CATEGORY	ACRES OF DEDICATION PER UNIT (NEIGHBORHOOD)	ACRES OF DEDICATION PER UNIT (COMMUNITY)	TOTAL ACRES OF LAND DEDICATION REQUIRED (NEIGHBORHOOD)	TOTAL ACRES OF LAND DEDICATION REQUIRED (COMMUNITY)
	3.5-4.99	185	1 unit per structure	0.00664	0.00797	1.2	1.5
	5.0-7.99	200	2-4 units per structure	0.00539	0.00646	1.1	1.3
	8.0-11.99	0	5-19 units per structure	0.00491	0.00589	0.0	0.0
	12-24.99	400	20-49 units per structure	0.00444	0.00533	1.8	2.1
TOTAL		785				4.1	4.9

ALL PARKLAND DEDICATION ORDINANCE WILL BE MET THROUGH LAND DEDICATION IN LIEU OF FEES.

LEGAL DESCRIPTION

A PARCEL OF LAND BEING PARCEL A RECORDED FEBRUARY 21, 2017 UNDER RECEPTION NUMBER 217020348 OF THE OFFICIAL RECORDS OF THE EL PASO COUNTY, COLORADO CLERK AND RECORDER, BEING A PORTION OF THE NORTH HALF OF THE NORTHEAST QUARTER (N1/2 NE1/4) OF SECTION 18, THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER (NE1/4 NW1/4) OF SECTION 18 AND A PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER (NW1/4 NW1/4) OF SECTION 17, ALL IN TOWNSHIP 15 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 1-1/2 INCH DIAMETER PIPE WITH 2-1/2 INCH DIAMETER ALUMINUM CAP STAMPED BY L.S. 3854 AT THE NORTHEAST CORNER OF SAID SECTION 18, FROM WHICH A NO. 6 REBAR WITH 2-1/2 INCH DIAMETER ALUMINUM CAP BY PLS 22573 AT THE NORTH ONE-QUARTER CORNER OF SAID SECTION 18, BEARS NORTH 89°00'12" WEST, A DISTANCE OF 2610.22 FEET, AND IS THE BASIS OF BEARINGS USED HEREIN;

THENCE SOUTH 89°33'54" EAST ON THE COMMON LINE BETWEEN SECTION 8 AND SECTION 17 OF SAID TOWNSHIP 15 SOUTH, RANGE 66 WEST AND DESCRIBED AS SUCH IN THE RESERVE AT BROADMOOR GLEN SUBDIVISION FILING NO. 6 RECORDED NOVEMBER 22, 1996 UNDER RECEPTION NUMBER 96146966 OF SAID RECORDS, AND IN THE ANNEXATION PLAT OF GATES ADDITION NO. TEN RECORDED APRIL 4, 1972 UNDER RECEPTION NUMBER 875356 OF SAID RECORDS, A DISTANCE OF 164.27 FEET TO A POINT ON A CURVE, ON THE WESTERLY LINE OF THE 200 FOOT WIDE TRACT OF LAND DESCRIBED IN DECREE ON DECLARATION OF TAKING RECORDED NOVEMBER 24, 1959 IN BOOK 1779 AT PAGE 185 OF SAID RECORDS, WHOSE CENTER BEARS NORTH 69°00'47" WEST;

THENCE ON SAID WESTERLY LINE THE FOLLOWING FOUR COURSES:

- THENCE ON A CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 03°15'36", HAVING A RADIUS OF 1332.40 FEET FOR AN ARC DISTANCE OF 75.81 FEET;
- THENCE SOUTH 24°14'48" WEST A DISTANCE OF 20.17 FEET TO A POINT OF CURVE;
- THENCE ON A CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 23°40'00", HAVING A RADIUS OF 1532.00 FEET FOR AN ARC DISTANCE OF 632.81 FEET;
- THENCE SOUTH 00°34'48" WEST A DISTANCE OF 620.96 FEET TO THE SOUTHERLY LINE OF SAID OF N1/2NE1/4, FROM WHENCE THE SOUTHEAST CORNER OF SAID N1/2NE1/4 BEARS SOUTH 88°59'07" EAST ON SAID SOUTHERLY LINE, A DISTANCE OF 29.13 FEET;

THENCE NORTH 88°59'07" WEST ON THE NORTHERLY LINE OF J.L. RANCH ADDITION RECORDED DECEMBER 8, 1987 IN PLAT BOOK C-4 AT PAGE 127 OF SAID RECORDS, A DISTANCE OF 1072.60 FEET TO THE SOUTHEAST CORNER OF PARCEL B RECORDED OCTOBER 22, 2001 UNDER RECEPTION NUMBER 201152953 OF SAID RECORDS, BEING A POINT ON THE EASTERLY LINE OF A 200 FOOT WIDE TRACT OF LAND DESCRIBED IN TRACT 101E-2 RECORDED IN SAID BOOK 1779 AT PAGE 185;

THENCE ON THE COMMON LINE BETWEEN SAID PARCEL A AND SAID TRACT 101E-2 THE FOLLOWING SIX COURSES:

- THENCE NORTH 05°25'12" WEST A DISTANCE OF 251.97 FEET TO A POINT OF CURVE;
- THENCE ON A CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 52°00'00", HAVING A RADIUS OF 418.31 FEET FOR AN ARC DISTANCE OF 379.65 FEET;
- THENCE NORTH 57°25'12" WEST A DISTANCE OF 469.78 FEET TO A POINT OF CURVE;
- THENCE ON A CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 133°55'00", HAVING A RADIUS OF 299.99 FEET FOR AN ARC DISTANCE OF 701.16 FEET;
- THENCE SOUTH 11°20'12" EAST A DISTANCE OF 311.75 FEET TO A POINT OF CURVE;
- THENCE ON A CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 50°29'35", HAVING A RADIUS OF 218.31 FEET FOR AN ARC DISTANCE OF 192.39 FEET TO THE SOUTHWEST CORNER OF SAID TRACT 101E-2 ON THE NORTHERLY LINE OF SAID J.L. RANCH ADDITION;

THENCE ON THE NORTHERLY AND EASTERLY LINES OF SAID J.L. RANCH ADDITION FOLLOWING THREE COURSES:

- THENCE NORTH 88°59'07" WEST ON THE SOUTHERLY LINE OF SAID N1/2 NE1/4, A DISTANCE OF 460.03 FEET TO THE SOUTHWEST CORNER THEREOF;
- THENCE NORTH 88°58'35" WEST ON THE SOUTHERLY LINE OF SAID NE1/4 NW1/4, A DISTANCE OF 1306.71 FEET TO THE SOUTHWEST CORNER THEREOF;
- THENCE NORTH 00°30'20" WEST ON THE WESTERLY LINE OF SAID NE1/4 NW1/4, A DISTANCE OF 1323.29 FEET TO THE NORTHWEST CORNER THEREOF;

THENCE ON THE SOUTHERLY LINE OF SAID GATES ADDITION NO. TEN THE FOLLOWING TWO COURSES:

- THENCE SOUTH 89°00'07" EAST ON THE COMMON LINE BETWEEN THE NORTHWEST QUARTER (NW1/4) OF SAID SECTION 18 AND THE SOUTHWEST QUARTER (SW1/4) QUARTER OF SECTION 7 OF SAID TOWNSHIP, A DISTANCE OF 1305.47 FEET TO THE COMMON ONE-QUARTER CORNER OF SAID SECTION 7 AND SAID SECTION 18;
- THENCE SOUTH 89°00'12" EAST ON THE COMMON LINE BETWEEN THE NORTHEAST QUARTER (NE1/4) OF SAID SECTION 18 AND THE SOUTHEAST QUARTER (SE1/4) OF SAID SECTION 7, A DISTANCE OF 2610.22 FEET TO THE POINT OF BEGINNING.

THE DESCRIPTION ABOVE PRODUCES AN AREA OF 103.174 ACRES OF LAND, MORE OR LESS.

A PARCEL OF LAND BEING PARCEL B RECORDED FEBRUARY 21, 2017 UNDER RECEPTION NUMBER 217020348 OF THE OFFICIAL RECORDS OF THE EL PASO COUNTY, COLORADO CLERK AND RECORDER, BEING LOCATED IN A PORTION OF THE NORTH HALF OF THE NORTHEAST QUARTER (N1/2 NE1/4) OF SECTION 18, TOWNSHIP 15 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A NO. 6 REBAR WITH A 2-1/2" ALUMINUM CAP STAMPED BY PLS 19586 AT THE SOUTHEAST CORNER OF SAID N1/2 NE1/4, FROM WHICH A NO. 5 REBAR WITH 1-1/2" ALUMINUM CAP STAMPED BY LS 1808 AT THE SOUTHWEST CORNER OF SAID N1/2 NE1/4 BEARS NORTH 88°59'07" WEST A DISTANCE OF 2611.93 FEET AND IS THE BASIS OF BEARINGS USED HEREIN;

THENCE NORTH 88°59'07" WEST ON THE SOUTH LINE OF SAID N1/2 NE1/4, A DISTANCE OF 1,303.00 FEET TO THE SOUTEAST CORNER OF SAID PARCEL B, A POINT ON THE WESTERLY LINE OF A 200 FOOT WIDE TRACT OF LAND DESCRIBED IN TRACT 101E-2 RECORDED NOVEMBER 24, 1959 IN BOOK 1779 AT PAGE 185 OF SAID RECORDS, AND DESCRIBED IN PARCEL B RECORDED OCTOBER 22, 2001 UNDER RECEPTION NUMBER 201152953 OF SAID RECORDS, SAID POINT BEING THE POINT OF BEGINNING;

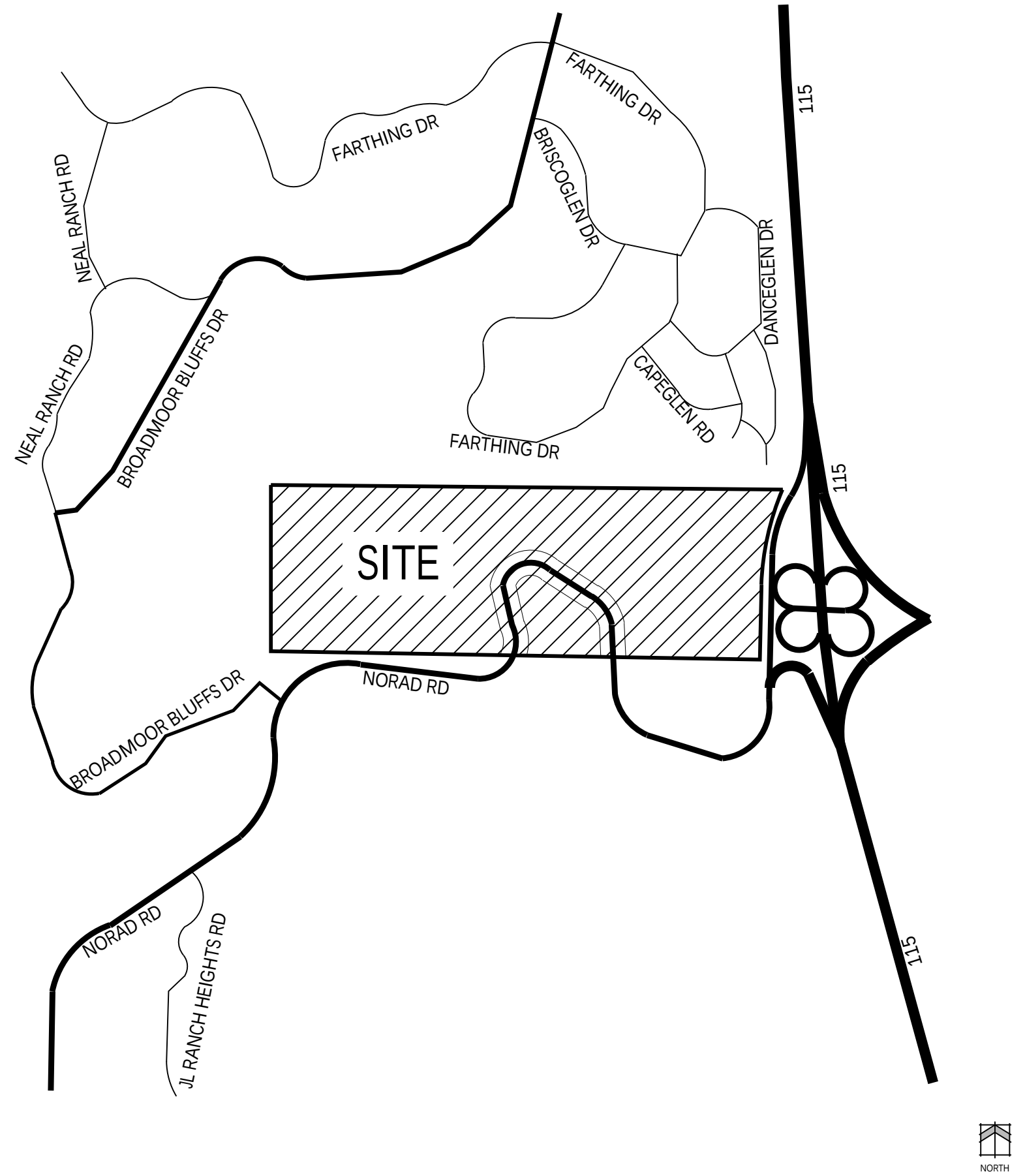
THENCE CONTINUING NORTH 88°59'07" WEST ON SAID SOUTH LINE ALSO BEING THE NORTHERLY LINE OF J.L. RANCH ADDITION RECORDED DECEMBER 8, 1987 IN PLAT BOOK C-4 AT PAGE 127 OF SAID RECORDS, A DISTANCE OF 624.61 FEET (625.42 OF RECORD) TO THE COMMON LINE UNDER SAID PARCEL B RECORDED UNDER RECEPTION NUMBER 217020348 AND SAID 200 FOOT WIDE TRACT OF LAND, BEING A POINT ON A CURVE, WHOSE CENTER BEARS NORTH 70°10'55" WEST;

THENCE ON SAID COMMON LINE THE FOLLOWING SIX COURSES:

- THENCE ON A CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 31°09'17" (31°28'40" OF RECORD), HAVING A RADIUS OF 418.31 FEET FOR AN ARC DISTANCE OF 227.46 FEET (229.82 FEET OF RECORD);
- THENCE NORTH 11°20'12" WEST A DISTANCE OF 311.75 FEET TO A POINT OF CURVE;
- THENCE ON A CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 133°55'00", HAVING A RADIUS OF 99.99 FEET FOR AN ARC DISTANCE OF 233.71 FEET;
- THENCE SOUTH 57°25'12" EAST A DISTANCE OF 469.78 FEET TO A POINT OF CURVE;
- THENCE ON A CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 52°00'00", HAVING A RADIUS OF 218.31 FEET FOR AN ARC DISTANCE OF 198.13 FEET;
- THENCE SOUTH 05°25'12" EAST A DISTANCE OF 229.41 FEET (229.72 FEET OF RECORD) TO THE POINT OF BEGINNING.

THE DESCRIPTION ABOVE PRODUCES AN AREA OF 7.163 ACRES OF LAND, MORE OR LESS.

VICINITY MAP



SITE DATA

TAX ID NUMBER: 6500000007, 6500000183
TOTAL AREA: 110.33 AC
RESIDENTIAL: 49.11 AC
OPEN SPACE: 56.08 AC
PROPOSED PUBLIC ROW: 5.14 AC

CURRENT ZONING: A-5 (EL PASO COUNTY)
PROPOSED ZONING: R-FLEX MEDIUM

CURRENT USE: VACANT
PROPOSED USE: MEDIUM-HIGH DENSITY RESIDENTIAL

MINIMUM DENSITY: 5 DU/AC
MAXIMUM DENSITY: 16 DU/AC
PROPOSED UNIT COUNT: 785

MAXIMUM BUILDING HEIGHT: 45'

LANDSCAPE SETBACKS:
EAST (HWY 115): 25'
SOUTH (NORAD RD): 10'

PROJECT TEAM

OWNER: CCCS THC INC
2188 EXECUTIVE CIR
COLORADO SPRINGS, CO 80906-4100
DEVELOPER: COLORADO SPRINGS EQUITIES LLC
90 S CASCADE AVE. SUITE 1500
COLORADO SPRINGS, CO 80903
APPLICANT: N.E.S. INC.
619 N. CASCADE AVE., SUITE 200
COLORADO SPRINGS, CO 80903

SHEET INDEX

NUMBER	DESCRIPTION
1	COVER
2	LAND USE PLAN
3	SLOPE ANALYSIS
4	VEGETATION ANALYSIS



N.E.S. Inc.
619 N. Cascade Avenue, Suite 200
Colorado Springs, CO 80903

Tel. 719.471.0073
Fax 719.471.0267

www.nescolorado.com

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PLANNER / LANDSCAPE ARCHITECT
IN ASSOCIATION WITH

THE RANCH AT CHEYENNE MOUNTAIN

COLORADO SPRINGS,
CO

PROJECT INFO

DATE: 09/01/26
PROJECT MGR: K. JOHNSON, J. ALWINE
PREPARED BY: Y. LIU

STAMP

LAND USE PLAN

DATE: BY: DESCRIPTION:

ISSUE / REVISION

SHEET TITLE

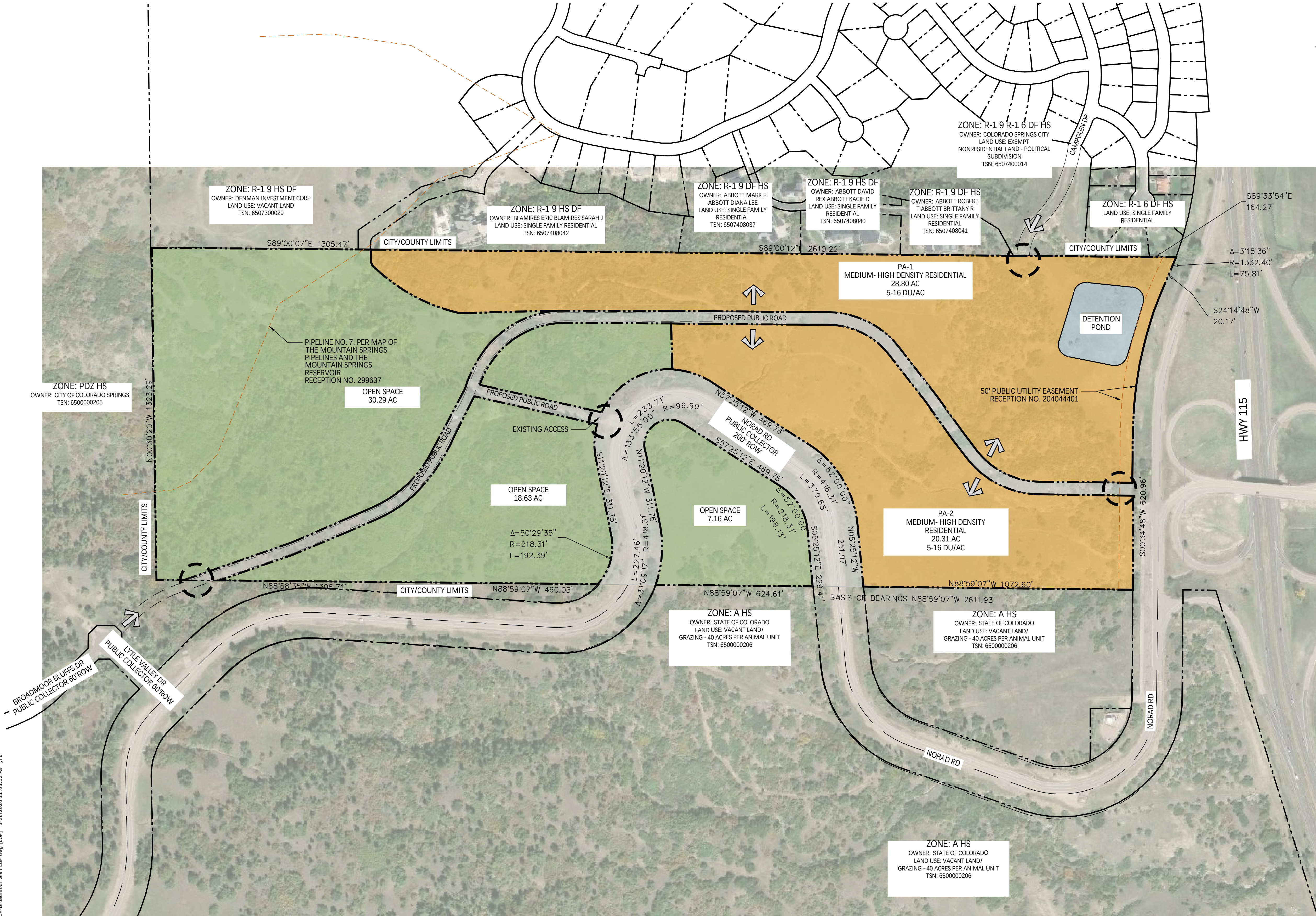
SHEET NUMBER/TITLE

1
1 OF 4

PLAN FILE #

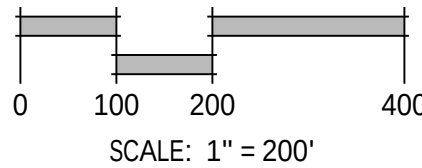
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LEGEND

- MEDIUM-HIGH DENSITY-RESIDENTIAL (49.11 AC)
- OPEN SPACE (56.08 AC)
- DETENTION POND
- ROADWAYS 5.14 AC)
- FULL ACCESS
- PARCEL ACCESS POINT
- PROPERTY BOUNDARY
- ADJACENT PARCEL BOUNDARIES
- RIGHT OF WAY
- EASEMENT



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LAND USE PLAN

SHEET DESCRIPTION

2

2 OF 4

SHEET NUMBER/TITLE

LUPL-26-