

Traffic Impact Study

Monument Hill

El Paso County, Colorado

Prepared for:

The Garrett Companies

Kimley»Horn

T R A F F I C I M P A C T S T U D Y

Traffic Engineer's Statement

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



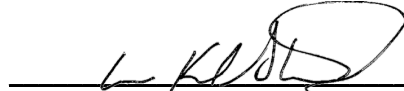
Curtis D. Rowe, P.E., PTOE PE #36355

September 14, 2022

Date

Developer's Statement

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



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September 20, 2022

Date

Monument Hill

El Paso County, Colorado

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September 2022



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1.0 EXECUTIVE SUMMARY

Monument Hill is proposed to be located at 18950 Base Camp Road in El Paso County, Colorado. The project is proposed to include approximately 264 multifamily dwelling units. It is expected that Monument Hill will be completed in the next several years. Therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study per El Paso County and CDOT standards and requirements:

- Palmer Divide Road and Monument Hill Road (#1)
- Misty Acres Boulevard and Monument Hill Road (#2)
- Deer Creek Road and Monument Hill Road (#3)
- Deer Creek Road and Base Camp Road (#4)
- Deer Creek Road and Woodmoor Drive (#5)
- Monument Hill Road and Woodmoor Drive (#6)
- State Highway 105 (SH-105) and Woodmoor Drive (#7)
- Monument Hill Road Southern Right-In/Right-Out Movement Access (#8)
- Monument Hill Road Northern Full Movement Access (#9)

Regional access to Monument Hill will be provided by Interstate 25 (I-25) and SH-105. Primary access will be provided by Woodmoor Drive and Monument Hill Road. Direct access will be provided by a proposed northern full movement access located approximately 800 feet south of the Palmer Ridge High School bus loop access (measured right-of-way to center) and a southern right-in/right-out access located approximately 800 feet south of the full movement access (measured center to center). Likewise, access to the development will be available at the northern cul-de-sac terminus of Base Camp Road. Traffic using this access will arrive and depart Base Camp Road at the Deer Creek Road (#4) intersection.

Monument Hill is expected to generate approximately 1,768 weekday daily trips, with 106 of these trips occurring during the morning peak hour and 136 of these trips occurring during the afternoon

List any reports from other projects which may have been used/researched.

peak hour. The trip generation calculation worksheets are included in **Appendix C**. These trips were added to the background traffic volumes in the 2025 and 2045 horizon analysis years to develop future total traffic volume projections. The background traffic volumes used in this study include traffic anticipated to be generated by the adjacent North Bay at Woodmoor and the Waterside developments which were analyzed in Traffic Impact Studies completed by LSC Transportation Consultants in May and June of 2022, respectively. Additionally, a summary of the Lewis Palmer Trail Safe Routes to School plans within and nearby the study area is included in this traffic study.

Based on the analysis presented in this report, Kimley-Horn believes Monument Hill will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

Recommendations are shown at the end of the report. Please remove them from this location.

2022 Recommendations

- The Monument Hill Road and Woodmoor Drive (#6) intersection experiences a failing level of service today with existing traffic during the morning peak hour. As such, it is recommended this intersection be considered for control improvements to provide acceptable level of service. For purposes of this analysis, the intersection was evaluated with roundabout control. The existing eastbound right turn lane that operates with free conditions can remain unmodified. The eastbound approach to the roundabout should provide a shared left/through lane. The westbound approach should provide a shared left/through/right turn lane. The northbound approach should provide a left turn lane and a shared through/right turn lane. The southbound approach should provide a shared left/through lane and a right turn lane. Each approach to the roundabout should operate with yield conditions with posted R1-2 "YIELD" signs.
- At the SH-105 and Woodmoor Drive (#7) intersection, it is recommended that southbound dual right turn lanes be provided due to existing southbound queues extending beyond the Lake Woodmoor Drive intersection to the north. The existing chevron striping between the southbound right turn and left turn lanes should be modified to include a second southbound right turn lane. As such, it is recommended the southbound right turn phasing be modified from permissive-overlap to protected-overlap phasing with no right turn on red. It is anticipated

this southbound right turn lane will be a continuous lane from the southbound through lane to the north of the Woodmoor Drive and Lake Woodmoor Drive intersection, while the inner southbound left turn lane also be a continuous lane. The existing southbound right and left turn lanes are recommended to provide 250 feet of storage length.

2025 Recommendations

- The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent or modifications are needed at the intersection. Based on traffic projections, the addition of project traffic on the north leg of Woodmoor Drive at SH-105 is not anticipated to increase existing access traffic volumes by more than 20 percent, with the maximum expected increase at 7.7 percent during the afternoon peak hour on the north leg (116 project / 1508 existing 2022 counts). Therefore, a CDOT access permit is not anticipated to be required in association with this project.
- With completion of the Monument Hill project, a northern full movement access is proposed to be located approximately 800 feet south of the Palmer Ridge High School bus loop access (measured right-of-way to center). The access is recommended to operate with stop control with installation of an R1-1 “STOP” sign on the westbound exiting approach.
- A southern right-in/right-out access is proposed to be located approximately 800 feet south of the full movement access (measured center to center), which would also place it approximately 775 feet north of the Deer Creek Road intersection. An R1-1 “STOP” sign is recommended to be installed on the exiting westbound approach. In addition, an R3-2 No Left Turn sign is recommended to be installed below the “STOP” sign to identify the restriction to right out only and on the southeast corner of the intersection visible to southbound drivers to identify the restriction to right in only.

2045 Recommendations

- If projected 2045 volumes are realized, the Palmer Divide Road and Monument Hill Road (#1) intersection may need to be reconfigured with control improvements to operate acceptably. This intersection is anticipated to operate acceptably as a single-lane roundabout with a shared left/through/right turn lane at each approach. If constructed, each approach to the

roundabout should operate with yield conditions with posted R1-2 “YIELD” signs. Of note, this intersection experiences a failing level of service in the 2045 horizon with or without construction of this project.

- The intersection of Misty Acres Boulevard and Monument Hill Road (#2) may experience a failing level of service in the 2045 horizon if projected volumes are realized. This intersection is also anticipated to operate acceptably as a single-lane roundabout with a shared northbound through/right turn lane, a shared southbound left/through lane, and a shared westbound left/right turn lane. The east leg of the intersection should still provide the existing configuration of two eastbound through lanes approaching the northern Palmer Ridge High School access, with the outside lane being an eastbound right turn lane into Palmer Ridge High School access and the inside lane continuing to the east. If constructed, each approach to the roundabout should operate with yield conditions with posted R1-2 “YIELD” signs. Of note, this intersection experiences a failing level of service in the 2045 horizon with or without construction of this project.

General Recommendations

- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of El Paso County and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

2.0 INTRODUCTION

Kimley-Horn and Associates, Inc. has prepared this report to document the results of a Traffic Impact Study for the Monument Hill residential project proposed to be located at 18950 Base Camp Road in El Paso County, Colorado. A vicinity map illustrating the Monument Hill development location is shown in **Figure 1**. For the purposes of this study, Monument Hill is anticipated to include approximately 264 multifamily dwelling units. A conceptual site plan is attached in **Appendix F**. It is expected that Monument Hill will be completed within the next several years; therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were evaluated in this traffic study per El Paso County and CDOT standards and requirements:

- Palmer Divide Road and Monument Hill Road (#1)
- Misty Acres Boulevard and Monument Hill Road (#2)
- Deer Creek Road and Monument Hill Road (#3)
- Deer Creek Road and Base Camp Road (#4)
- Deer Creek Road and Woodmoor Drive (#5)
- Monument Hill Road and Woodmoor Drive (#6)
- State Highway 105 (SH-105) and Woodmoor Drive (#7)
- Monument Hill Road Southern Right-In/Right-Out Movement Access (#8)
- Monument Hill Road Northern Full Movement Access (#9)

Include Access at Base Camp Road



FIGURE 1
MONUMENT HILL
EL PASO COUNTY, COLORADO
VICINITY MAP

Regional access to Monument Hill will be provided by Interstate 25 (I-25) and SH-105. Primary access will be provided by Woodmoor Drive and Monument Hill Road. Direct access will be provided by a proposed northern full movement access located approximately 800 feet south of the Palmer Ridge High School bus loop access (measured right-of-way to center) and a southern right-in/right-out access located approximately 800 feet south of the full movement access (measured center to center). Likewise, access to the development will be available at the northern cul-de-sac terminus of Base Camp Road. Traffic using this access is not anticipated to experience measurable delay, and vehicles from this access will arrive and depart Base Camp Road at the Deer Creek Road (#4) intersection.

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing Study Area

The existing site is comprised of vacant land. Directly east of the development is Palmer Ridge High School and directly west is Interstate 25 (I-25). Extending to the east and north are single family residential homes and to the south are mixed use industrial and retail uses.

3.2 Existing Roadway Network

Palmer Divide Road provides one through lane of travel in each direction, eastbound and westbound, with posted speed limit of 45 miles per hour. This roadway is classified by El Paso County as a two-lane non-residential collector.

Monument Hill Road extends in the north/south direction as a two-lane roadway. The posted speed limit along Monument Hill Road is 35 miles per hour to the north of Misty Acres Boulevard and increases to 45 miles per hour to the south of Misty Acres Boulevard. This roadway is classified by El Paso County as a two-lane non-residential collector. Though not included in the study area or analyzed in this study, Beacon Lite Road is also a collector that travels in the north/south direction that some may use for north/south travel if Monument Hill Road experiences delay.

Misty Acres Boulevard is a two-lane roadway with one through lane in the northbound and southbound direction and a raised median separating each direction throughout most of the roadway. A posted speed limit could not be determined from Google Street View. This roadway is classified by El Paso County as a two-lane residential collector.

Deer Creek Road is a two-lane roadway with one through lane in the eastbound and westbound direction with a 35 mile per hour speed limit through the study area. This roadway is classified by El Paso County as a two-lane local road.

Base Camp Road extends in the northbound and southbound direction with one through lane each way. A posted speed limit could not be determined from Google Street View. Base Camp Road terminates as a cul-de-sac approximately 700 feet north of the Deer Creek Road intersection. This roadway is classified by El Paso County as a two-lane local road.

Woodmoor Drive is a two-lane roadway with one through lane in the north/south direction. The posted speed limit is 30 miles per hour that reduces to 20 miles per hour near the Lewis Palmer Middle School during school arrival and departure times. This roadway is classified by El Paso County as a two-lane residential collector.

Although SH-105 is a north/south state highway, within the study area it extends east/west with two through lanes in each direction through the Woodmoor Drive study intersection. For purposes of this analysis, SH-105 will be referred to in the eastbound/westbound directions. The posted speed limit near the study intersection is 35 miles per hour. The Colorado Department of Transportation classifies this roadway as a Non-Rural Principal Highway (NR-A).

Include discussion on if any of the existing roads have any planned improvements per the Major Transportation Corridor Study (MTCP)

The unsignalized intersection of Palmer Divide Road and Monument Hill Road (#1) operates with stop control on the northbound and southbound approaches of Monument Hill Road. All four approaches provide a single lane for shared movements. An aerial photo of the existing intersection configuration is below (north is up - typical).



Palmer Divide Road & Monument Hill Road (#1)

The unsignalized 'T'-intersection of Misty Acres Boulevard and Monument Hill Road (#2) operates with stop control on the westbound approach of Misty Acres Boulevard. The northbound approach of Monument Hill Road provides a through lane and a separate right turn lane while the southbound approach provides a separate left turn lane and a through lane. The westbound approach provides a separate left and right turn lane. An aerial photo of the existing intersection configuration is below.



Misty Acres Boulevard & Monument Hill Road (#2)

The unsignalized 'T'-intersection of Deer Creek Road and Monument Hill Road (#3) operates with stop control on the westbound approach of Deer Creek Road. The northbound approach of Monument Hill Road provides a through lane and a separate right turn lane while the southbound approach provides a separate left turn lane and a through lane. The westbound approach provides a separate left and right turn lane. An aerial photo of the existing intersection configuration is below.



Deer Creek Road & Monument Hill Road (#3)

The Deer Creek Road and Base Camp Road (#4) 'T'-intersection operates with stop control on the southbound approach of Base Camp Road. All three approaches provide a single lane shared with all movements. An aerial photo of the existing intersection configuration is below.



Deer Creek Road & Base Camp Road (#4)

The unsignalized intersection of Deer Creek Road and Woodmoor Drive (#5) operates with stop control on the eastbound and westbound approach of Deer Creek Road. All four approaches provide a single lane shared with all movements. An aerial photo of the existing intersection configuration is below.



Deer Creek Road & Woodmoor Drive (#5)

The Monument Hill Road and Woodmoor Drive (#6) unsignalized intersection operates with stop control on the eastbound and westbound approach of Monument Hill Road. The northbound and southbound approaches of Woodmoor Drive provide a left turn lane and a shared through/right turn lane. The eastbound approach of Monument Hill Road provides a separate shared left turn/through lane and a channelized right turn lane. The westbound approach provides a single lane shared with all movements. Of note, the east and west legs of Monument Hill Road at this intersection are currently offset from each other by approximately 25 feet. An aerial photo of the existing intersection configuration is below.



Monument Hill Road & Woodmoor Drive (#6)

The signalized T-intersection of SH-105 and Woodmoor Drive (#7) operates with protected only left turn phasing on the eastbound approach of SH-105. The southbound approach provides dual left turn lanes and a separate right turn lane. The eastbound approach of SH-105 provides dual left turn lanes and two through lanes while the westbound approach provides two through lanes and a separate right turn lane. An aerial photo of the existing intersection configuration is below.



SH-105 & Woodmoor Drive (#7)

The intersection lane configuration and control for the study area intersections are shown in **Figure 2**.

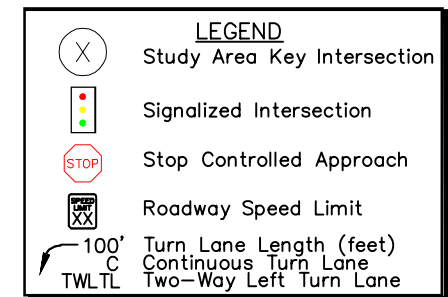
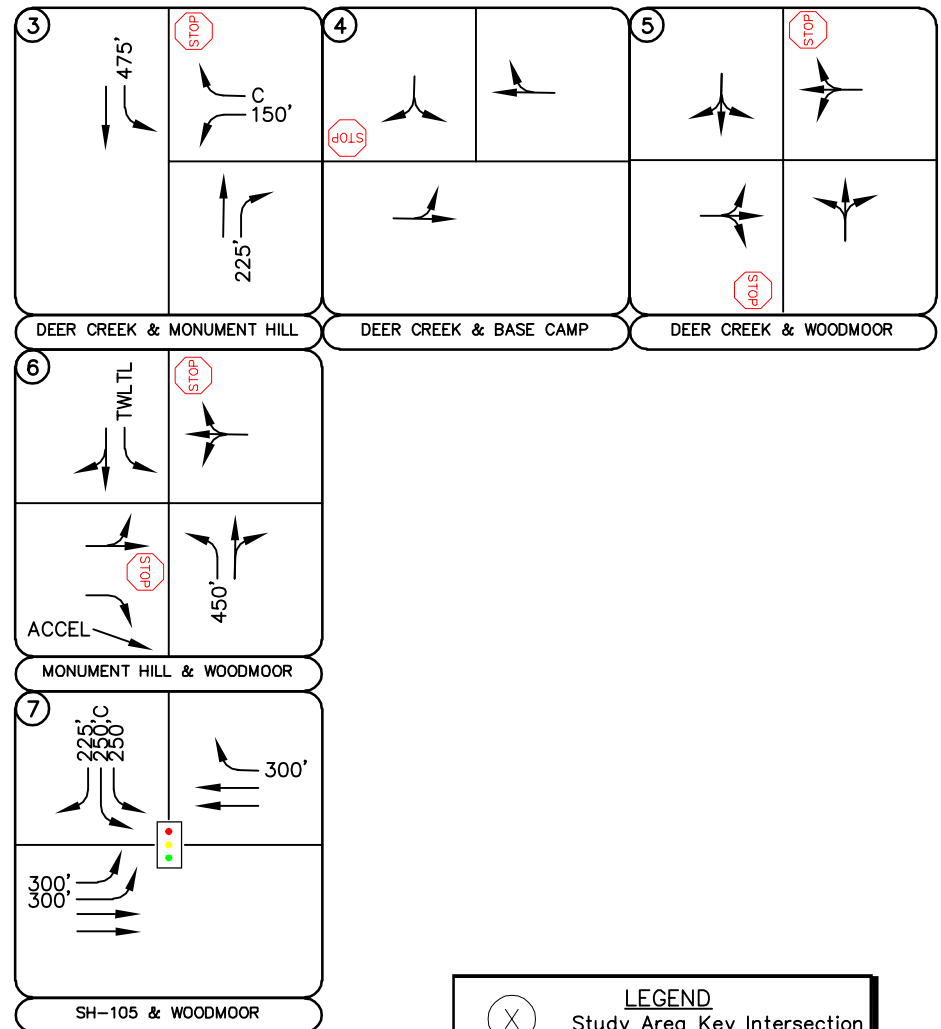
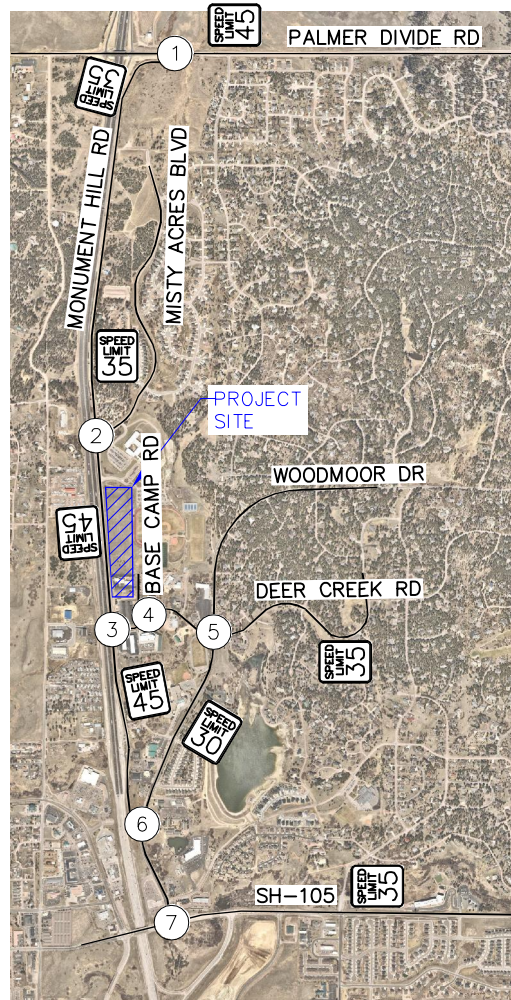
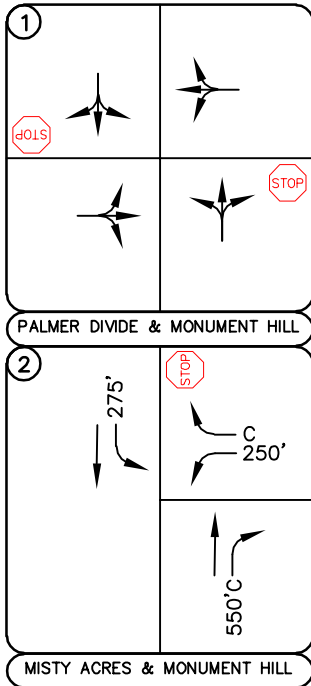


FIGURE 2
MONUMENT HILL
 EL PASO COUNTY, COLORADO
 EXISTING GEOMETRY AND CONTROL



3.3 Existing Traffic Volumes

Existing turning movement counts were conducted at the study intersections Wednesday, September 7, 2022 during the morning and afternoon peak hours. Of note, the nearby schools of Palmer Ridge High School, Lewis-Palmer Middle School, and Lewis-Palmer Elementary School were all in session when these traffic counts were collected. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 2:30 PM to 6:00 PM on these count dates—of note, the counts conducted during these peak periods include the arrival and dismissal times of each of the previously mentioned schools in the study area. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix A**.

3.4 Unspecified Development Traffic Growth

According to information provided on the website for the Colorado Department of Transportation (CDOT), the 20-year growth factor along SH-105 in the vicinity of the site is 1.39. This 20-year growth factor equates to annual growth rate of 1.66 percent. Therefore, a 1.66 percent annual growth rate was used to estimate the short-term 2025 and long-term 2045 traffic volume projections along SH-105. Likewise, Palmer Divide Road is a corridor similar in nature to SH-105 for growth potential; therefore, a 1.66 percent annual growth was also used to estimate 2025 and 2045 traffic volumes. However, the area surrounding the intersections along Monument Hill Road, Deer Creek Road, Woodmoor Drive, and Misty Acres Boulevard are primarily built out. To provide a conservative analysis along these roadways, a 1.0 percent annual growth rate was applied at these intersections. Traffic information from the CDOT Online Transportation Information System (OTIS) website is included in **Appendix B**.

In addition, the volume associated with the known nearby proposed developments of Waterside and North Bay at Woodmoor were included in the background traffic volumes. The applicable documents from the Waterside Traffic Impact Study and the North Bay at Woodmoor Traffic Impact Study prepared in May and June of 2022 are also included in **Appendix B**. Background traffic volumes for 2025 and 2045 are shown in **Figures 4** and **5**, respectively.

Indicate whether which years 2025 and/or 2045 is when Waterside and North Bay counts were included in volumes.

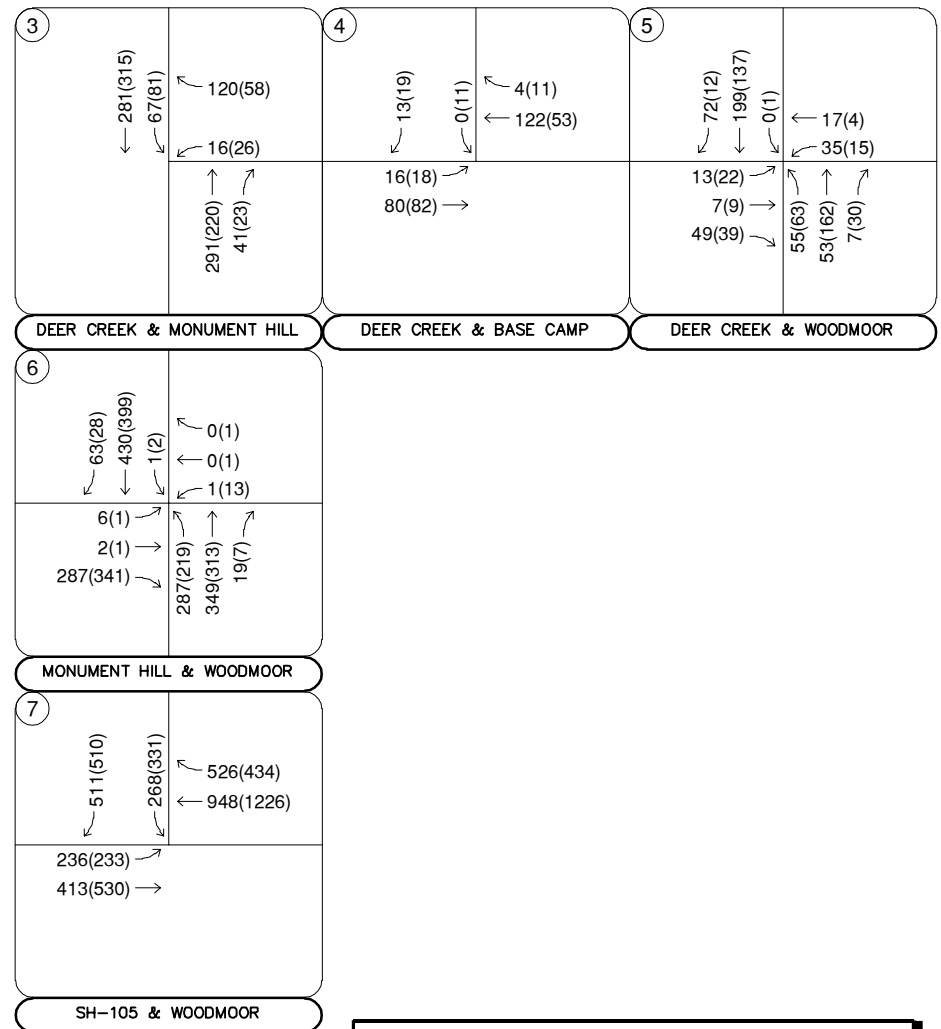
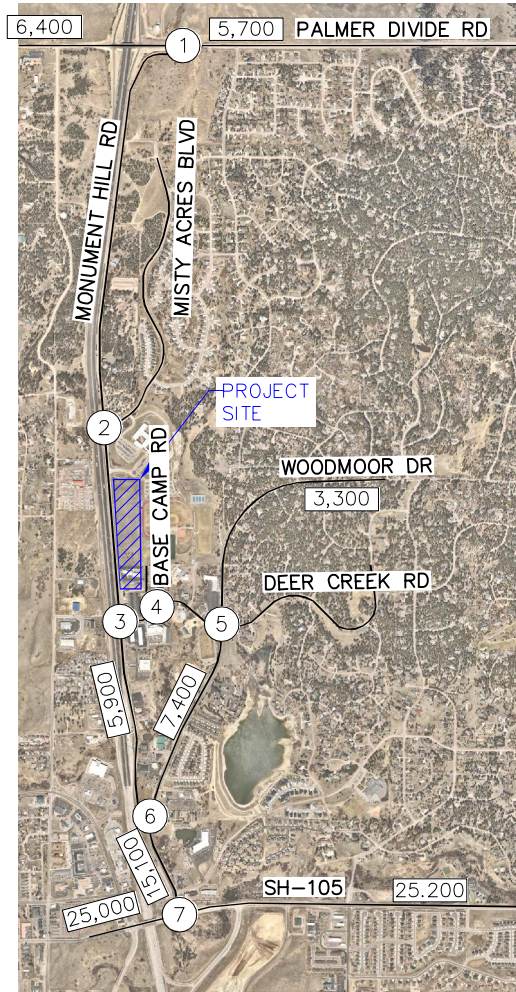
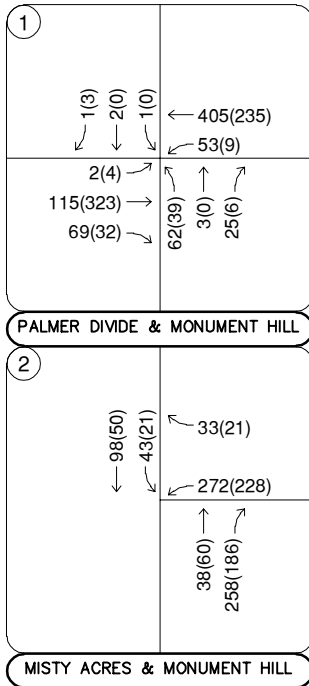
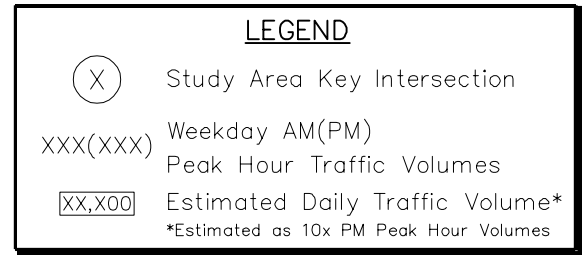
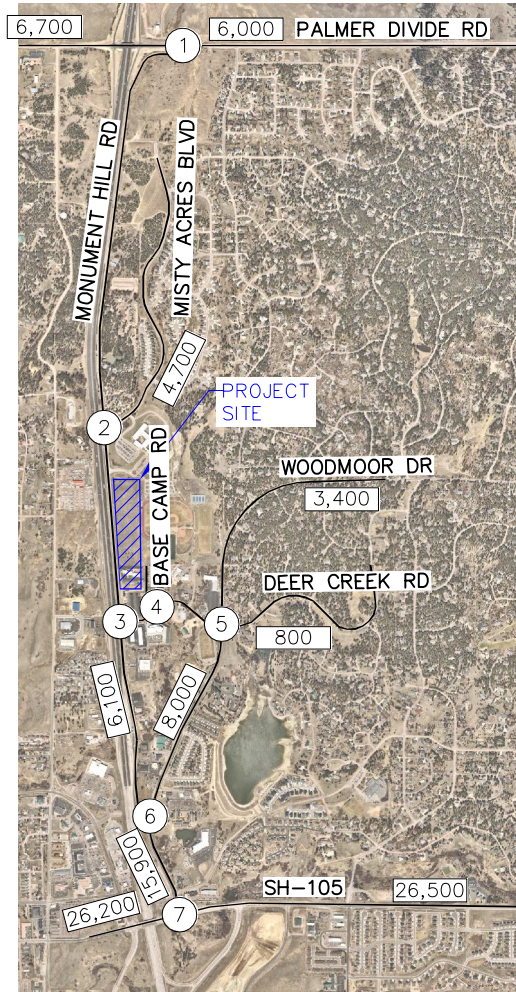


FIGURE 3
MONUMENT HILL
EL PASO COUNTY, COLORADO
2022 EXISTING TRAFFIC VOLUMES



1	<div> <div> <div>1(3)</div> <div>2(0)</div> <div>1(0)</div> </div> <div> <div>426(247)</div> <div>55(9)</div> </div> </div> <div> <div>2(4)</div> <div>121(339)</div> <div>73(37)</div> </div> <div> <div>69(44)</div> <div>3(0)</div> <div>26(6)</div> </div>	
PALMER DIVIDE & MONUMENT HILL		
2	<div> <div>103(56)</div> <div>44(22)</div> </div> <div> <div>34(22)</div> <div>280(235)</div> </div> <div> <div>44(66)</div> <div>266(192)</div> </div>	
MISTY ACRES & MONUMENT HILL		



3	<div><div>← 290(325)</div><div>↘ 71(87)</div></div> <div><div>↖ 129(64)</div><div>↖ 20(30)</div></div> <div><div>↗ 300(227)</div><div>↗ 44(29)</div></div>	4	<div><div>↖ 13(20)</div><div>↘ 0(11)</div></div> <div><div>↖ 4(11)</div><div>↖ 135(62)</div></div> <div><div>↗ 16(19)</div><div>↗ 86(93)</div></div>	5	<div><div>↖ 74(12)</div><div>↖ 205(141)</div><div>↘ 0(1)</div></div> <div><div>↖ 22(7)</div><div>↖ 44(21)</div></div> <div><div>↗ 13(23)</div><div>↗ 9(13)</div><div>↘ 52(45)</div></div>	<div><div>↗ 62(69)</div><div>↗ 55(167)</div><div>↗ 11(39)</div></div>
DEER CREEK & MONUMENT HILL		DEER CREEK & BASE CAMP		DEER CREEK & WOODMOOR		
6	<div><div>↖ 65(29)</div><div>↖ 463(425)</div><div>↘ 1(2)</div></div> <div><div>↖ 0(1)</div><div>↖ 0(1)</div><div>↖ 1(13)</div></div> <div><div>↗ 6(1)</div><div>↗ 2(1)</div><div>↘ 296(351)</div></div>					
MONUMENT HILL & WOODMOOR						
7	<div><div>↖ 533(531)</div><div>↘ 289(349)</div></div> <div><div>↖ 547(459)</div><div>↖ 996(1288)</div></div> <div><div>↗ 247(248)</div><div>↗ 434(557)</div></div>					
SH-105 & WOODMOOR						

LEGEND	
(X)	Study Area Key Intersection
xxx(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
xx,x00	Estimated Daily Traffic Volume*
*Estimated as 10x PM Peak Hour Volumes	

FIGURE 4
MONUMENT HILL
EL PASO COUNTY, COLORADO
2025 BACKGROUND TRAFFIC VOLUMES



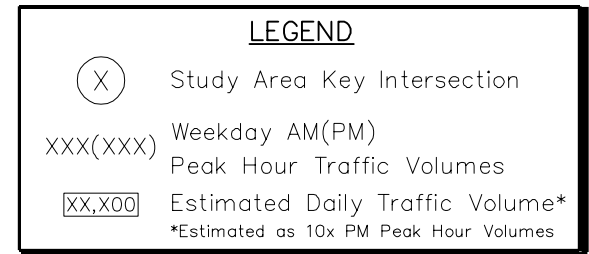
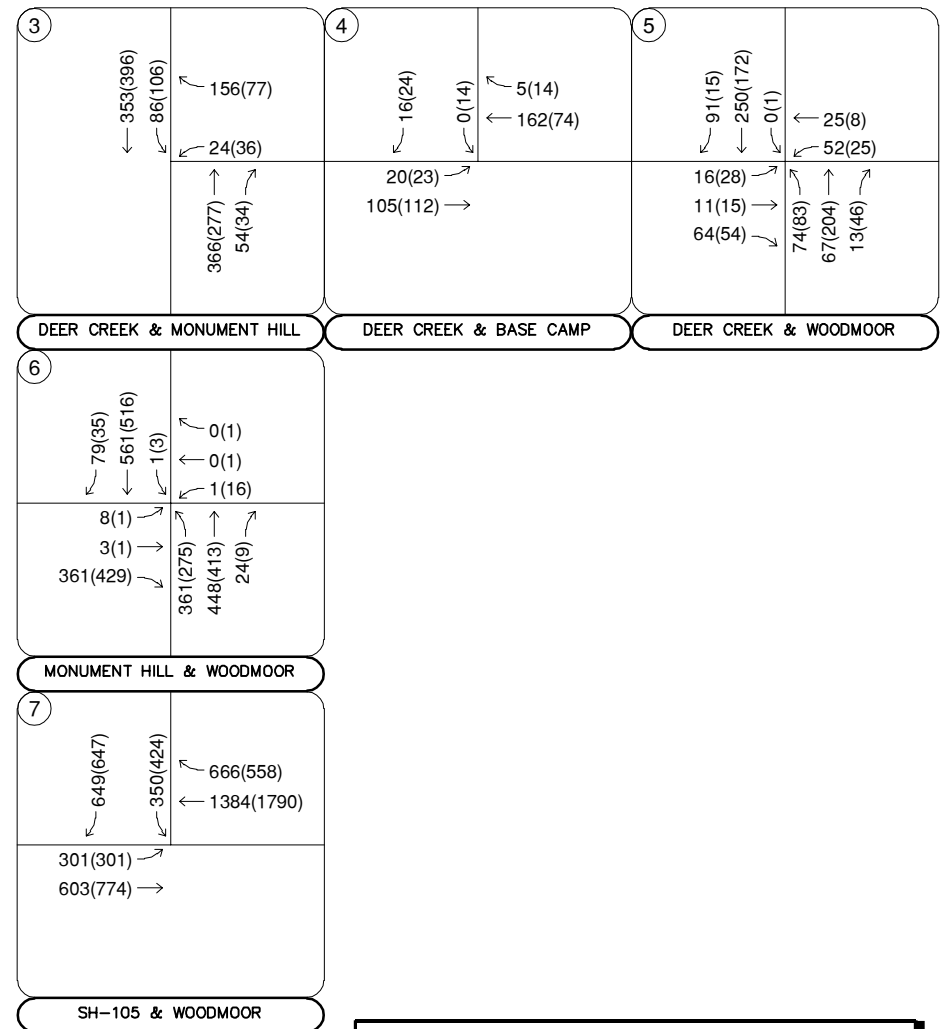
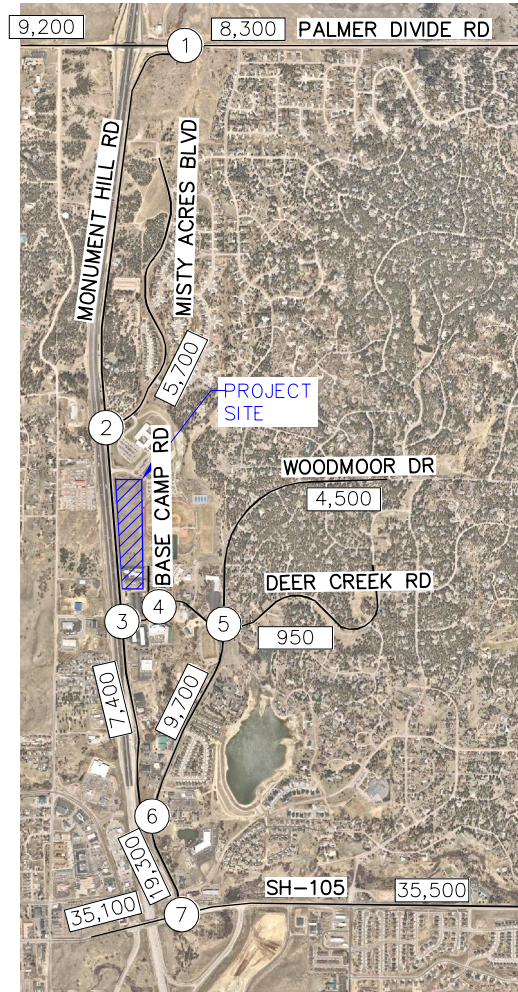
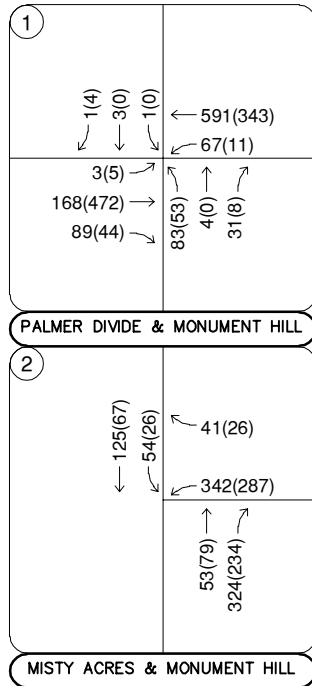


FIGURE 5
MONUMENT HILL
EL PASO COUNTY, COLORADO
2045 BACKGROUND TRAFFIC VOLUMES

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report fitted curve equations that apply to Multifamily Low-Rise Housing (ITE Land Use Code 220) for the 264 dwelling units for traffic associated with the development per ITE recommendations.

Monument Hill is expected to generate approximately 1,768 weekday daily trips, with 106 of these trips occurring during the morning peak hour and 136 of these trips occurring during the afternoon peak hour. Calculations were based on the procedure and information provided in the ITE *Trip Generation Manual, 11th Edition – Volume 1: User's Guide and Handbook*, 2021. **Table 1** summarizes the estimated trip generation for the Monument Hill development. The trip generation worksheets are included in **Appendix C**.

Table 1 – Monument Hill Traffic Generation

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Multifamily Low-Rise Housing (ITE 220) – 264 Dwelling Units	1,768	25	81	106	86	50	136

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution for the proposed development is illustrated in **Figure 6**.

4.3 Traffic Assignment

Monument Hill traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Traffic assignment is shown in **Figure 7**.

4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2025 buildout horizon and long-term 2045 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2025 and 2045 horizon years in **Figures 8 and 9**, respectively.

Provide more description on how thru volumes at intersections 8 & 9 were determined on this figure.

Provide more description on how these volumes were all determined.

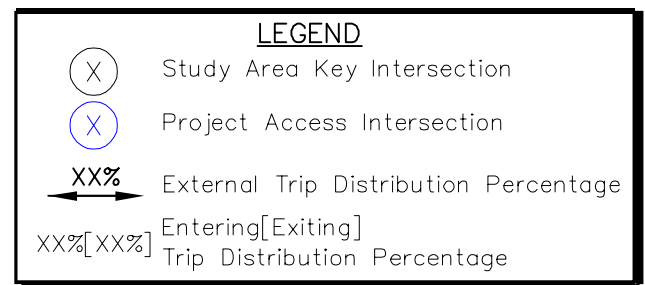
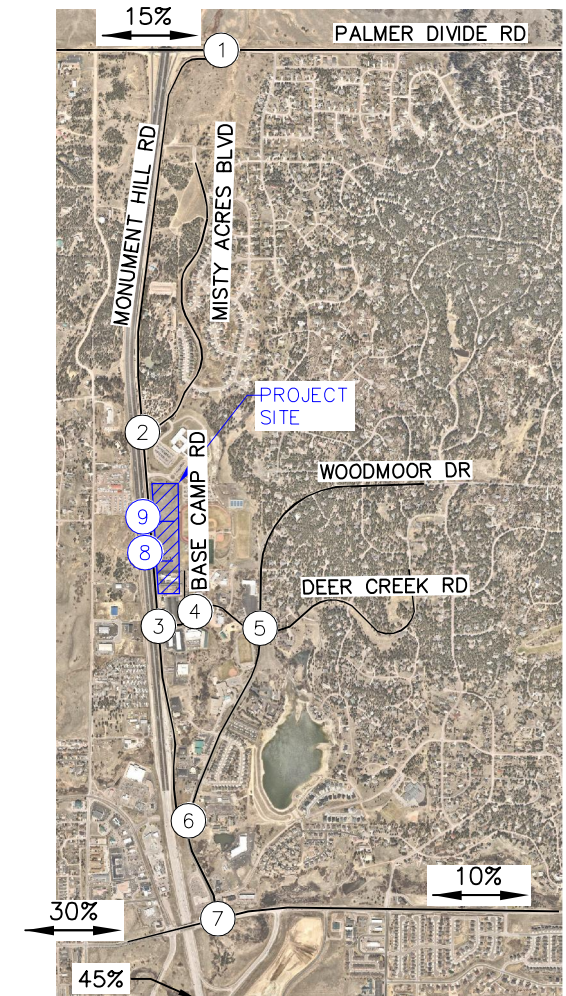
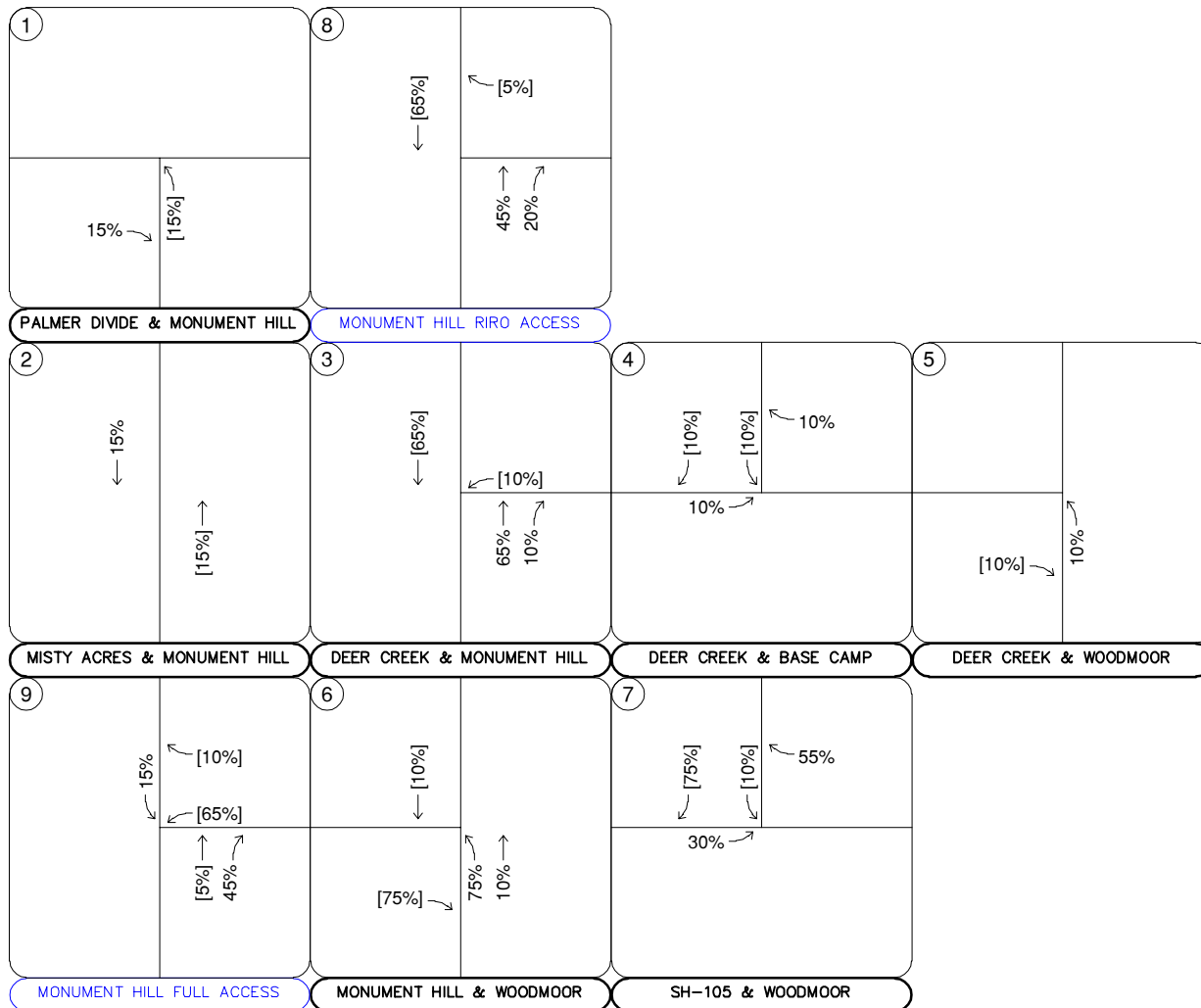


FIGURE 6
MONUMENT HILL
EL PASO COUNTY, COLORADO
PROJECT TRIP DISTRIBUTION

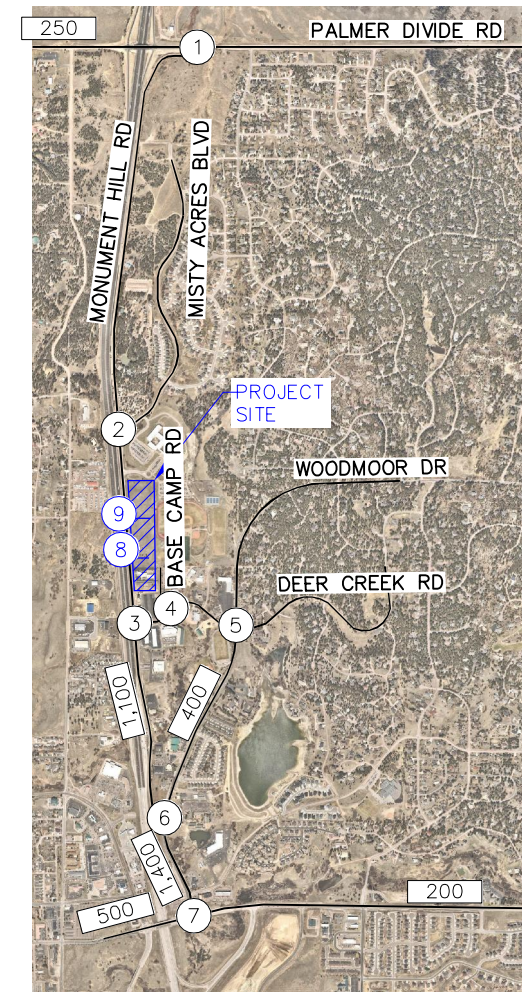
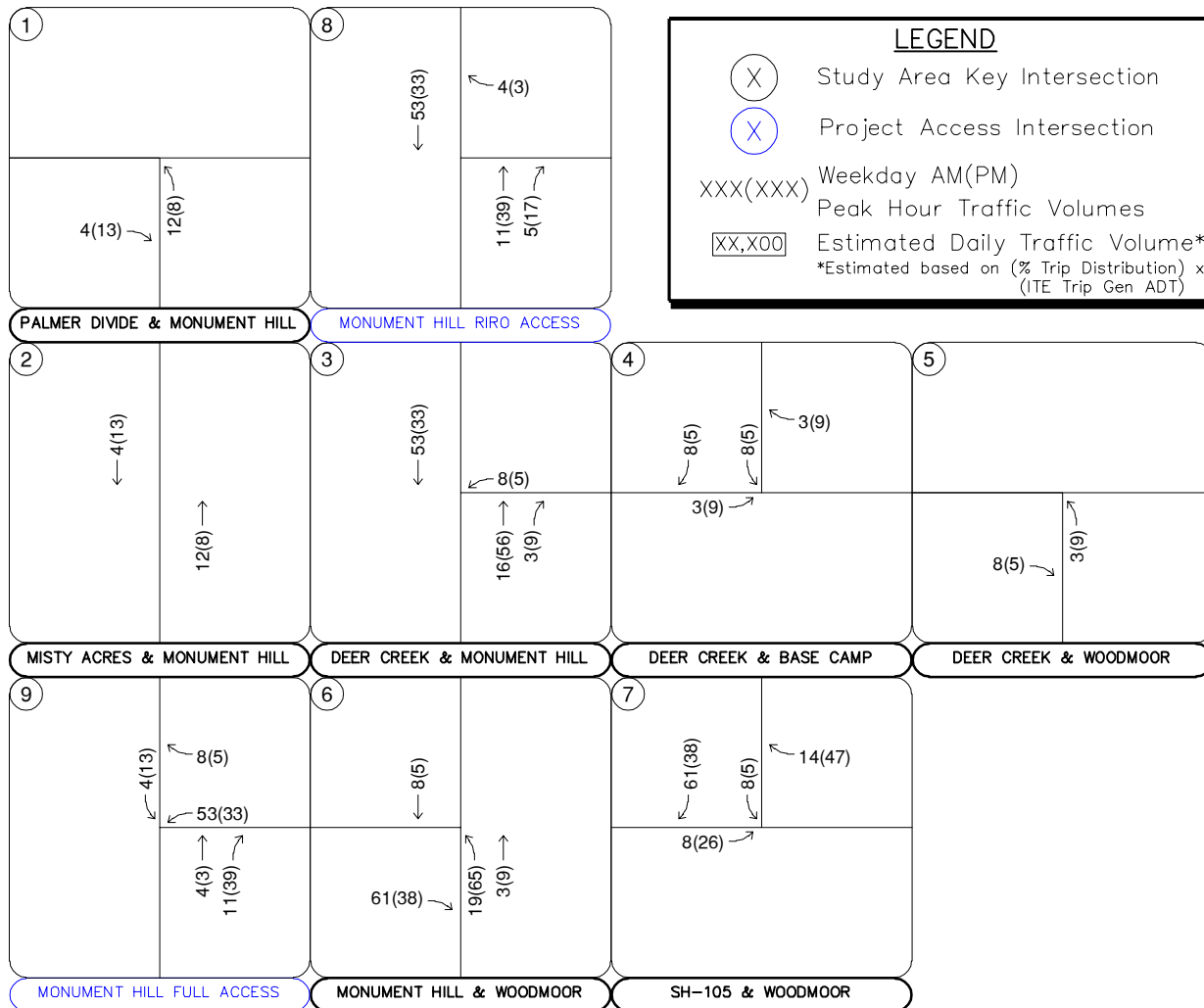
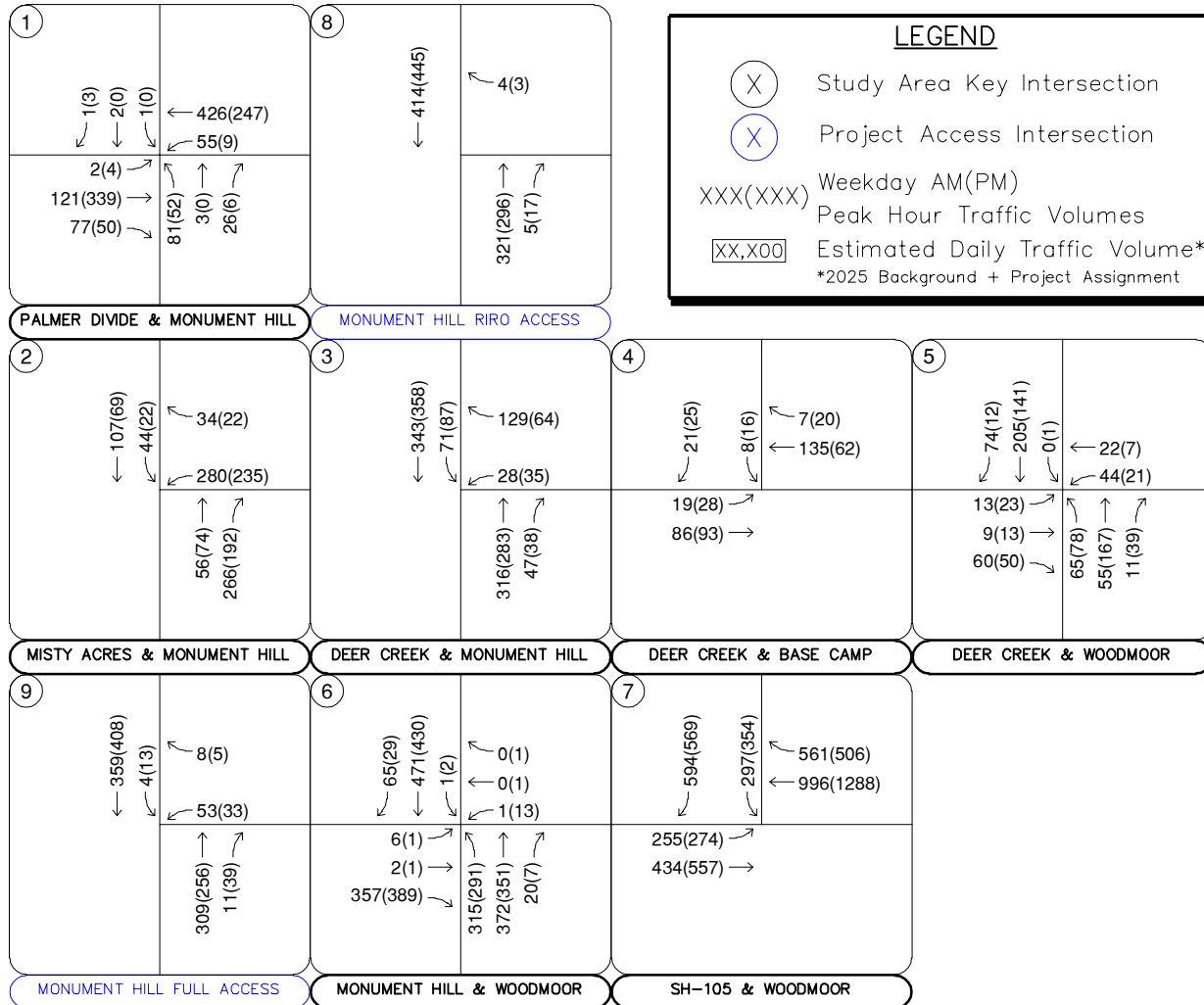


FIGURE 7
MONUMENT HILL
 EL PASO COUNTY, COLORADO
 PROJECT TRAFFIC ASSIGNMENT





LEGEND

(X) Study Area Key Intersection

(X) Project Access Intersection

XXX(XXX) Weekday AM(PM)
Peak Hour Traffic Volumes

XX,X00 Estimated Daily Traffic Volume*
*2025 Background + Project Assignment

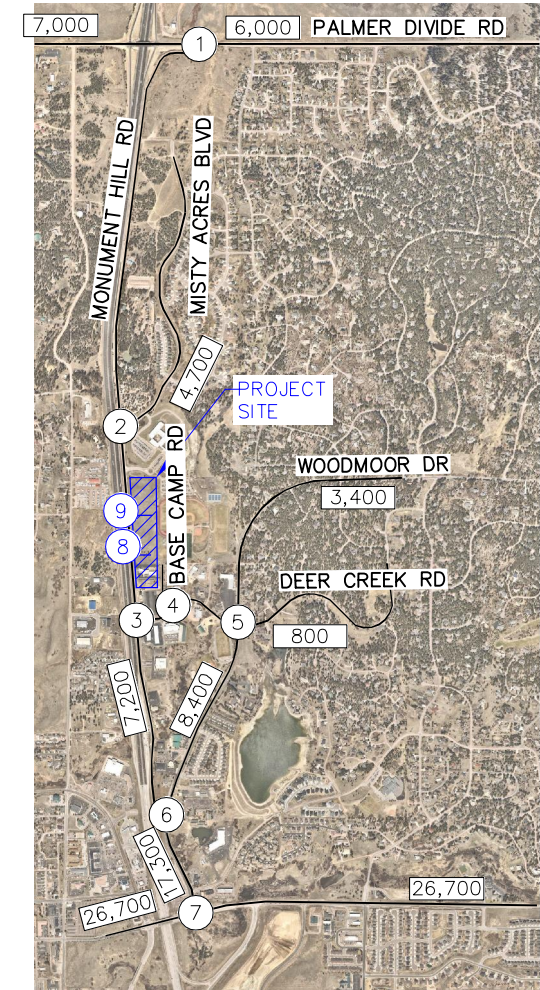


FIGURE 8
MONUMENT HILL
EL PASO COUNTY, COLORADO
2025 TOTAL TRAFFIC VOLUMES

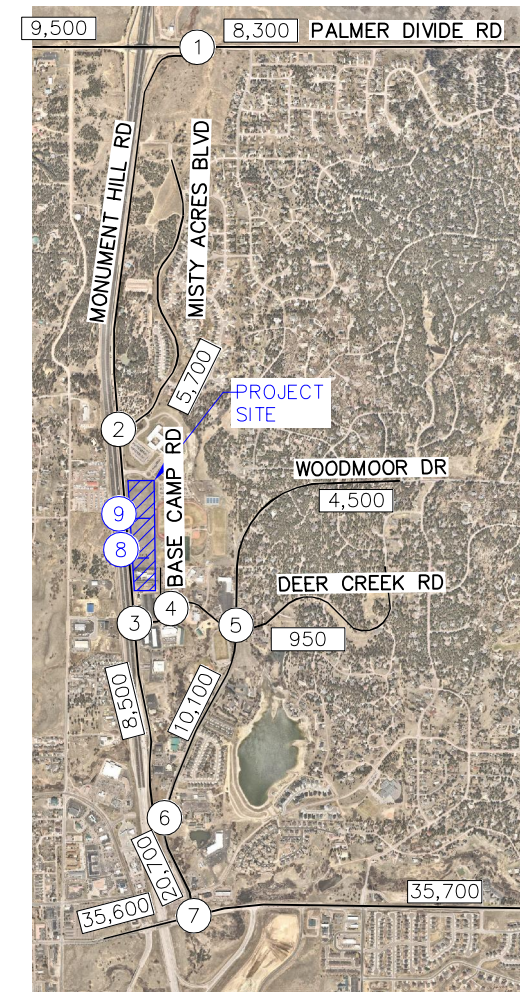
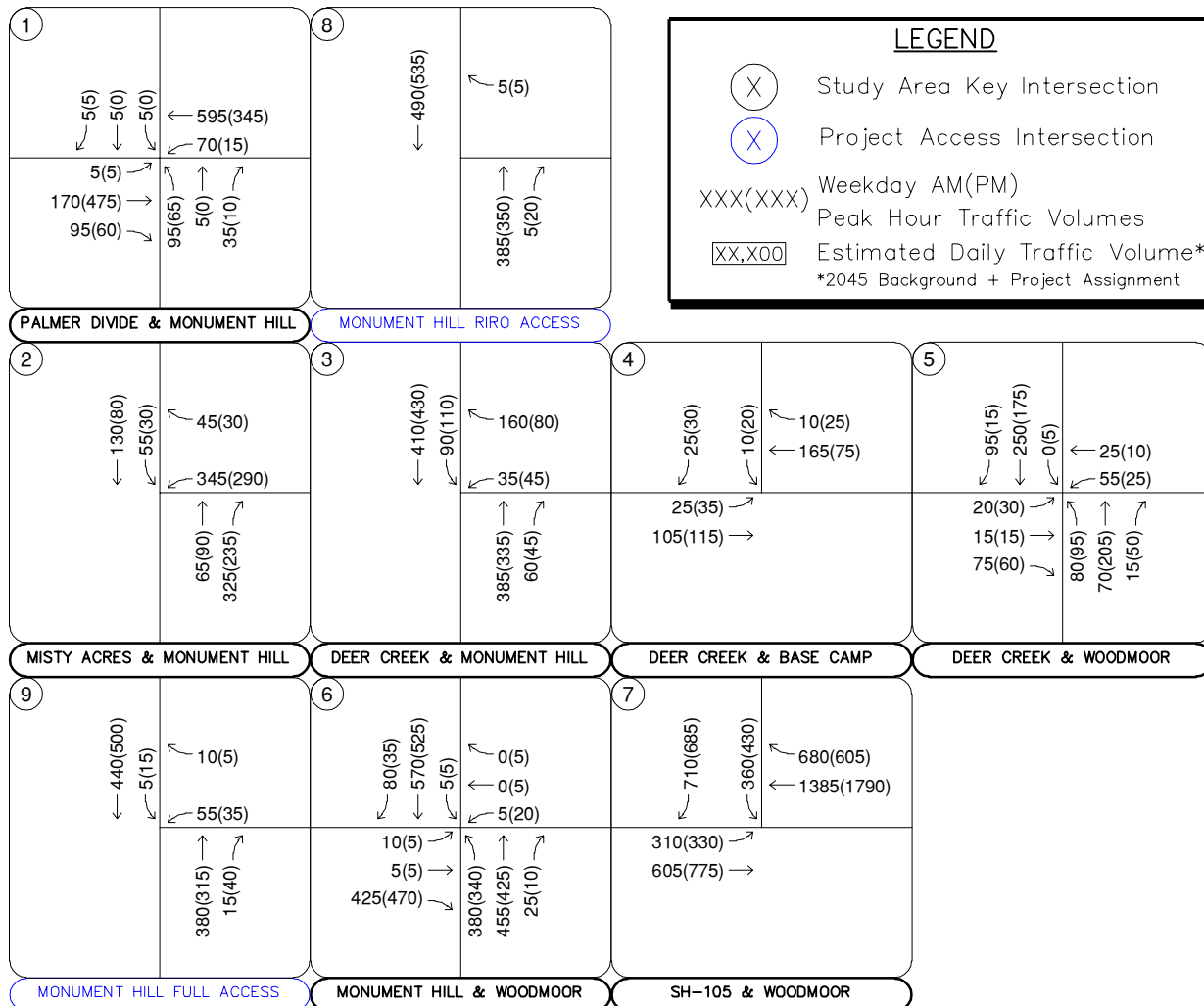


FIGURE 9
MONUMENT HILL
 EL PASO COUNTY, COLORADO
 2045 TOTAL TRAFFIC VOLUMES



5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2025 and 2045 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the current edition of the *Highway Capacity Manual (HCM)*².

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). Based on El Paso County standards, the threshold for acceptable LOS is not worse than LOS D during peak hours. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Definitions provided from the Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for signalized, roundabout, and all-way stop controlled intersections are defined for each approach and for the overall intersection.

² Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

5.2 Key Intersection Operational Analysis

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix D**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2**. Existing peak hour factors were used for all horizons while the recommended HCM urban area peak hour factor of 0.92 was used for the project accesses. The signalized intersection analysis utilizes the observed cycle lengths with optimized phasing and timing. Based on increased national attention given to establishing appropriate yellow and all-red clearance intervals to improve intersection safety, these have been calculated and are applied for approaches at the signalized intersection. The increase in yellow and all red time sacrifices intersection capacity for improved safety. Synchro traffic analysis software was used to analyze the signalized and unsignalized key intersections for HCM level of service.

Palmer Divide Road and Monument Hill Road (#1)

The unsignalized intersection of Palmer Divide Road and Monument Hill Road (#1) operates with stop control on the northbound and southbound approaches of Monument Hill Road. The movements operate acceptably at LOS C or better during both peak hours under existing conditions. With project traffic, the intersection movements are expected to continue operating with LOS D or better during both peak hours in the 2025 horizon.

However, by the 2045 horizon prior to construction of this project, this intersection may experience a failing level of service with its current lane configuration and control. As such, this intersection was analyzed as a single-lane roundabout in the 2045 horizon. With the recommended improvements to this intersection, the intersection movements are anticipated to operate acceptably in the 2045 horizon. **Table 3** provides the results of the LOS analysis conducted at this intersection.

Alternate scenarios should be provided besides just a roundabout.

Table 3 – Palmer Divide Road & Monument Hill Road LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Northbound Approach	21.2	C	14.9	B
Eastbound Left	8.5	A	7.7	A
Westbound Left	7.8	A	8.1	A
Southbound Approach	17.1	C	9.5	A
2025 Background				
Northbound Approach	24.1	C	15.7	C
Eastbound Left	8.5	A	7.8	A
Westbound Left	7.9	A	8.1	A
Southbound Approach	17.9	C	9.6	A
2025 Background Plus Project				
Northbound Approach	26.8	D	16.2	C
Eastbound Left	8.5	A	7.8	A
Westbound Left	7.9	A	8.2	A
Southbound Approach	18.0	C	9.6	A
2045 Background				
Northbound Approach	70.2	F	22.6	C
Eastbound Left	9.2	A	8.0	A
Westbound Left	8.1	A	8.6	A
Southbound Approach	26.7	D	10.2	B
2045 Background Plus Project #	10.4	B	6.4	A
Northbound Approach	4.8	A	5.8	A
Eastbound Approach	5.7	A	6.8	A
Westbound Approach	13.5	B	5.8	A
Southbound Approach	7.5	A	4.2	A

= Single-lane roundabout

Misty Acres Boulevard and Monument Hill Road (#2)

The unsignalized 'T'-intersection of Misty Acres Boulevard and Monument Hill Road (#2) operates with stop control on the westbound approach of Misty Acres Boulevard. The movements operate with LOS D or better during both peak hours under existing conditions. The movements are expected to continue operating with LOS D or better during both peak hours through the 2025 horizon.

However, by the 2045 horizon prior to construction of this project, this intersection may experience a failing level of service in its current intersection configuration. As such, analysis was conducted with this intersection reconfigured as a single-lane three-leg roundabout. With the recommended improvements to the intersection, the intersection and approaches are anticipated to operate at an acceptable level of service with or without the project traffic in the 2045 horizon. **Table 4** provides the results of the LOS analysis conducted at this intersection.

Alternate scenarios should be provided besides just a roundabout.

Table 4 – Misty Acres Boulevard & Monument Hill Road LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Westbound Left	26.8	D	12.3	B
Westbound Right	8.8	A	8.8	A
Southbound Left	8.7	A	8.0	A
2025 Background				
Westbound Left	30.2	D	12.6	B
Westbound Right	8.9	A	8.9	A
Southbound Left	8.8	A	8.1	A
2025 Background Plus Project				
Westbound Left	31.5	D	12.9	B
Westbound Right	9.0	A	8.9	A
Southbound Left	8.9	A	9.1	A
2045 Background				
Westbound Left	92.3	F	14.7	B
Westbound Right	9.1	A	9.0	A
Southbound Left	9.4	A	8.3	A
2045 Background Plus Project #	11.1	B	6.3	A
Westbound Approach	8.9	A	6.7	A
Northbound Approach	11.4	B	6.0	A
Southbound Approach	13.8	B	5.7	A

= Single-lane three-leg roundabout

Deer Creek Road and Monument Hill Road (#3)

The unsignalized 'T'-intersection of Deer Creek Road and Monument Hill Road (#3) operates with stop control on the westbound approach of Deer Creek Road. The movements at the intersection currently operate with LOS C or better during both peak hours. With the addition of project traffic, the movements are expected to continue operating with LOS D or better during the morning and afternoon peak hours through 2045. Therefore, no improvements or modifications are anticipated to be needed at the intersection. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 – Deer Creek Road & Monument Hill Road LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Westbound Left	15.9	C	14.3	B
Westbound Right	15.2	C	10.5	B
Southbound Left	9.1	A	8.2	A
2025 Background				
Westbound Left	16.7	C	14.8	B
Westbound Right	16.0	C	10.6	B
Southbound Left	9.3	A	8.3	A
2025 Background Plus Project				
Westbound Left	18.7	C	15.9	C
Westbound Right	16.7	C	11.3	B
Southbound Left	9.4	A	8.6	A
2045 Background				
Westbound Left	20.6	C	17.6	C
Westbound Right	22.5	C	11.4	B
Southbound Left	10.0	B	8.6	A
2045 Background Plus Project				
Westbound Left	25.2	D	19.8	C
Westbound Right	24.9	C	12.3	B
Southbound Left	10.3	B	9.0	A

Deer Creek Road and Base Camp Road (#4)

The Deer Creek Road and Base Camp Road (#4) 'T'-intersection operates with stop control on the southbound approach of Base Camp Road. Currently, the movements at the intersection operate with LOS A during the morning and afternoon peak hours. The movements at the intersection are anticipated to continue operating with LOS B or better during both peak hours with the addition of project traffic through the long-term horizon. Therefore, no improvements or modifications are anticipated to be needed at the intersection. **Table 6** provides the results of the LOS analysis conducted at this intersection.

Table 6 – Deer Creek Road and Base Camp Road LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Eastbound Left	7.7	A	7.4	A
Southbound Approach	9.6	A	9.4	A
2025 Background				
Eastbound Left	7.8	A	7.5	A
Southbound Approach	9.8	A	9.5	A
2025 Background Plus Project				
Eastbound Left	7.8	A	7.5	A
Southbound Approach	10.7	B	9.8	A
2045 Background				
Eastbound Left	7.9	A	7.5	A
Southbound Approach	10.2	B	9.9	A
2045 Background Plus Project				
Eastbound Left	8.0	A	7.6	A
Southbound Approach	11.6	B	10.3	B

Deer Creek Road and Woodmoor Drive (#5)

The unsignalized intersection of Deer Creek Road and Woodmoor Drive (#5) operates with stop control on the eastbound and westbound approach of Deer Creek Road. With existing geometry and control, the movements at the intersection operate with LOS C or better during both peak hours. It is known that a roundabout is being considered at this intersection in the future. As such, the 2025 and 2045 horizon years include analysis of this intersection reconfigured as a roundabout in addition to the horizon analysis completed with its existing configuration. With the addition of project traffic, the intersection movements are expected to continue operating with LOS D or better during both peak hours through the 2045 horizon in its existing configuration.

With the modification of the intersection to become a single-lane roundabout, the intersection movements are anticipated to operate at LOS A during both peak hours through the 2045 horizon. **Table 7** provides the results of the LOS analysis conducted at this intersection.

Table 7 – Deer Creek Road & Woodmoor Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Northbound Left	8.2	A	7.7	A
Eastbound Approach	12.1	B	11.3	B
Westbound Approach	16.5	C	13.6	B
Southbound Left	0.0	A	7.6	A
2025 Background				
Northbound Left	8.2	A	7.7	A
Eastbound Approach	12.5	B	11.7	B
Westbound Approach	18.4	C	14.4	B
Southbound Left	0.0	A	7.7	A
2025 Background Plus Project				
Northbound Left	8.3	A	7.7	A
Eastbound Approach	12.6	B	11.8	B
Westbound Approach	19.0	C	14.8	B
Southbound Left	0.0	A	7.7	A
2025 Background Plus Project #	5.2	A	4.4	A
Northbound Approach	3.8	A	4.7	A
Eastbound Approach	4.8	A	3.8	A
Westbound Approach	3.8	A	3.9	A
Southbound Approach	6.3	A	4.2	A
2045 Background				
Northbound Left	8.6	A	7.8	A
Eastbound Approach	14.5	B	13.0	B
Westbound Approach	25.1	D	16.7	C
Southbound Left	0.0	A	7.8	A
2045 Background Plus Project				
Northbound Left	8.6	A	7.8	A
Eastbound Approach	15.7	C	13.6	B
Westbound Approach	28.5	D	17.9	C
Southbound Left	0.0	A	7.8	A
2045 Background Plus Project #	6.2	A	4.9	A
Northbound Approach	4.2	A	5.3	A
Eastbound Approach	5.7	A	4.2	A
Westbound Approach	4.2	A	4.2	A
Southbound Approach	7.8	A	4.7	A

= Single-lane roundabout

Monument Hill Road and Woodmoor Drive (#6)

The Monument Hill Road and Woodmoor Drive (#6) unsignalized intersection operates with stop control on the eastbound and westbound approach of Monument Hill Road with the eastbound right turn operating with free movement. Based on the analysis conducted in this study, the eastbound left/through and westbound approaches to the intersection both operate at LOS F during the morning peak hour under existing conditions, while intersection movements currently operate at LOS D or better during the afternoon peak hour. As such, improvements are recommended to be considered at this intersection soon, with or without construction of this project. For purposes of this study, analysis was conducted with this intersection reconfigured as a roundabout in the 2025 and 2045 horizons. The existing eastbound right turn lane that operates with free conditions is recommended to remain unmodified. The eastbound approach to the roundabout should provide a shared left/through lane. The westbound approach should provide a shared left/through/right turn lane. The northbound approach should provide a left turn lane and a shared through/right turn lane. The southbound approach should provide a shared left/through lane and a right turn lane. With the addition of project traffic and the recommended improvements, the intersection is expected to operate with LOS C or better during both peak hours through the 2045 horizon. **Table 8** provides the results of the LOS analysis conducted at this intersection.

Alternate scenarios should be provided besides just a roundabout.

Table 8 – Monument Hill Road & Woodmoor Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing				
Northbound Left	12.0	B	9.5	A
Eastbound Left/Through	51.1	F	23.7	C
Westbound Approach	77.5	F	27.2	D
Southbound Left	8.4	A	8.1	A
2025 Background				
Northbound Left	12.7	B	9.7	A
Eastbound Left/Through	58.6	F	25.4	D
Westbound Approach	78.2	F	29.9	D
Southbound Left	8.5	A	8.2	A
2025 Background Plus Project #	10.1	B	7.1	A
Northbound Left	5.5	A	4.7	A
Northbound Through/Right	6.4	A	5.2	A
Eastbound Left/Through	5.4	A	4.7	A
Westbound Approach	7.2	A	6.0	A
Southbound Left/Through	17.1	C	10.5	B
Southbound Right	4.9	A	4.1	A
2045 Background				
Northbound Left	18.0	C	10.8	B
Eastbound Left/Through	163.8	F	35.3	E
Westbound Approach	79.0	F	54.1	F
Southbound Left	8.9	A	8.4	A
2025 Background Plus Project #	21.1	C	9.6	A
Northbound Left	6.4	A	5.2	A
Northbound Through/Right	7.8	A	6.1	A
Eastbound Left/Through	6.9	A	5.5	A
Westbound Approach	9.2	A	7.5	A
Southbound Left/Through	44.6	E	16.0	C
Southbound Right	5.8	A	4.4	A

= Roundabout

SH-105 and Woodmoor Drive (#7)

The signalized intersection of SH-105 and Woodmoor Drive (#7) operates with protected-only left turn phasing on the eastbound approach of SH-105. The intersection currently operates with LOS C during the morning and afternoon peak hours. However, based on the analysis conducted in this study, the southbound right-turn lane 95th-percentile queue length was observed to extend past the Lake Woodmoor Drive and Woodmoor Drive intersection located approximately 300 feet to the north of SH-105 and Woodmoor Drive (#7) in the existing conditions. As such, it is recommended with or without construction of this project that the chevron-striped lane between the existing southbound right turn and left turn lanes be modified to become a second southbound right turn lane and the southbound right turn phasing be modified from permissive-overlap phasing to protected-overlap phasing with no right turn on red in the existing horizon. With these improvements, this intersection is anticipated to operate acceptably at LOS C through the 2045 horizon. **Table 9** provides the results of the LOS analysis conducted at this intersection.

Table 9 – SH-105 & Woodmoor Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2022 Existing	31.8	C	30.0	C
2025 Background #	26.3	C	25.9	C
2025 Background Plus Project #	27.6	C	26.9	C
2045 Background #	31.8	C	27.9	C
2045 Background Plus Project #	34.3	C	29.8	C

= Addition of second SB right turn lane with protected-overlap SB right turn phasing

Project Accesses

With completion of the Monument Hill project, a northern full movement access is proposed to be located approximately 800 feet south of the Palmer Ridge High School bus loop access (measured right-of-way to center) and a southern right-in/right-out access is proposed to be located approximately 800 feet south of the full movement access, which is approximately 775 feet north of Deer Creek Road (measured centerline to centerline). In addition, a full movement access will be provided within the Base Camp Road cul-de-sac. The northern full movement access (#9) along Monument Hill Road is recommended to operate with stop-control with an R1-1 “STOP” sign is recommended to be installed on the exiting westbound approach. The southern right-in/right-out access (#8) along Monument Hill Road is recommended to operate with stop control with installation of an R1-1 “STOP” sign on the westbound exiting driveway approach. In addition, an R3-2 No Left Turn sign is recommended to be installed below the “STOP” sign to identify the restriction to right out only and on the southeast corner of the intersection visible to southbound drivers to identify the restriction to right in only. The proposed full movement access at Base Camp Road is located at the northern cul-de-sac terminus of the roadway and as such, vehicles entering and exiting the development from this access are not anticipated to experience measurable delay.

Table 10 provides the results of the level of service for the proposed project access intersections. As shown in the table, the project access intersections along Monument Hill Road are anticipated to have all movements operating with acceptable LOS C or better during the peak hours in both the buildout year 2025 and the 2045 long term horizons.

Table 10 – Project Access Level of Service Results

Intersection	2025 Total				2045 Total			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Monument Hill South Access (RIRO) (#8) Westbound Right	10.2	B	10.1	B	10.7	B	10.5	B
Monument Hill North Access (Full) (#9) Westbound Approach	15.6	C	15.4	C	18.9	C	18.5	C
Southbound Left	8.0	A	7.9	A	8.2	A	8.1	A
Base Camp Road Access (Full) All Approaches	0.0	A	0.0	A	0.0	A	0.0	A

5.3 CDOT Analysis

The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent or modifications are needed at the intersection. Based on traffic projections, the addition of project traffic on the north leg of Woodmoor Drive at SH-105 is not anticipated to increase existing access traffic volumes by more than 20 percent, with the maximum expected increase at 7.7 percent during the afternoon peak hour on the north leg (116 project / 1508 existing 2022 counts). In addition, improvements are not anticipated to be needed or recommended at the SH-105 and Woodmoor Drive intersection. Therefore, a CDOT access permit is not anticipated to be required in association with this project.

How was this number determined?

5.4 El Paso

Where did this number come from? Did not see any counts in Appendix A (Intersection Counts) to correlate with this count.

Recommendations were made to revise create a second left turn lane. Revise the

The El Paso County Engineering Criteria Manual (ECM) was used to determine if turn lanes are warranted along Monument Hill Road and Woodmoor Drive. El Paso County classifies Monument Hill Road and Woodmoor Drive as Collector roadways. According to El Paso County ECM guidelines for Minor Arterials and Lower Classifications, a left turn lane is required for any access with a projected peak hour left turning volume of 25 vehicles per hour or greater, a right turn lane is required for any access with a projected peak hour right turning volume of 50 vehicles per hour or greater, and a right turn acceleration lane is generally not required.

Based on Monument Hill Road providing a posted speed limit of 45 miles per hour to the south of Misty Acres Boulevard and Woodmoor Drive providing a speed limit of 30 miles per hour, the turn lane requirements that the project traffic contributes to are as follows:

Deer Creek Road & Monument Hill Road (#3):

- A northbound right turn lane exists and **is not** warranted at this intersection based on projected 2025 total traffic volumes being 47 northbound right turns during the peak hour and the threshold being 50 vehicles per hour. The existing northbound right turn provides a length of 225 feet.
- A southbound left turn lane exists and **is** warranted at this intersection based on projected 2025 total traffic volumes being 87 southbound left turns during the peak hour and the threshold being 25 vehicles per hour. The existing southbound left turn lane is 475 feet.

- A westbound left turn lane exists and **is** warranted at this intersection based on projected 2025 total traffic volumes being 35 westbound left turns during the peak hour and the threshold being 25 vehicles per hour. The existing westbound left turn lane is 150 feet.

Monument Hill Road & Woodmoor Drive (#6):

- A northbound left turn lane exists and **is** warranted at this intersection based on projected 2025 total traffic volumes being 315 northbound left turns during the peak hour and the threshold being 25 vehicles per hour. The existing southbound left turn lane is 450 feet and is within a two-way left turn lane median.
- An eastbound right turn lane exists and **is** warranted at this intersection based on projected 2025 total traffic volumes being 389 eastbound right turns during the peak hour and the threshold being 50 vehicles per hour. The eastbound right turn lane is channelized, and the movement operates under free conditions.

Southern RIRO Access & Monument Hill Road (#8):

- A northbound right turn lane **is not** warranted at this intersection based on projected 2025 total traffic volumes being 17 northbound right turns during the peak hour and the threshold being 50 vehicles per hour.

Northern Full Access & Monument Hill Road (#9):

- A northbound right turn lane **is not** warranted at this intersection based on projected 2025 total traffic volumes being 39 northbound right turns during the peak hour and the threshold being 50 vehicles per hour.
- A southbound left turn lane **is not** warranted at this intersection based on projected 2025 total traffic volumes being 13 southbound left turns during the peak hour and the threshold being 25 vehicles per hour.

5.5 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 11** with calculations provided within the level of service operational sheets of **Appendix D** for unsignalized intersections and **Appendix E** for signalized intersections.

Table 11 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2025 Calculated Queue (feet)	2025 Recommended Length (feet)	2045 Calculated Queue (feet)	2045 Recommended Length (feet)
Misty Acres & Monument (#2)					
Westbound Left	250'	225'	250'	RAB	RAB
Southbound Left	275'	25'	275'	RAB	RAB
Deer Creek & Monument (#3)					
Westbound Left	150'	25'	150'	25'	150'
Southbound Left	475'	25'	475'	25'	475'
Northbound Right	225'	25'	225'	25'	225'
Deer Creek & Monument (#6)					
Northbound Left	450'	25'	450'	50'	450'
Southbound Left	TWLTL	RAB	C	RAB	RAB
SH-105 & Woodmoor Dr (#7)					
Eastbound Left	300' DL	148' DL	300' DL	221' DL	300' DL
Westbound Right	300'	58'	300'	139'	300'
Southbound Left	C DL	182' DL	C/250' DL	242' DL	C/250' DL
Southbound Right	C	242'	C/250' DR	346'	C/250' DR

DL = Dual Left Turn Lanes; DR = Dual Right Turn Lanes; C = Continuous; RAB = Roundabout Approach Lane

All queues are anticipated to remain within the existing or recommended turn lane lengths through 2045.

5.6 Access Spacing Requirements and Roadway Classifications

According to El Paso County 2016 Major Transportation Corridors Plan Update, Monument Hill Road is classified as a collector roadway. The following identifies the intersection spacing requirements for the access intersections associated with the project:

Monument Hill Road South Access (RIRO)

The proposed right-in/right-out South Access is located approximately 800 feet south of the proposed North Access and 775 feet north of the Deer Creek Road intersection (measured centerline to centerline). According to the El Paso County Engineering Criteria Manual, spacing

of intersections along urban collector roadways from a local roadway should be 330 feet from the right-of-way line of the local roadway to the centerline of the access roadway. Therefore, the South Access meets El Paso County spacing requirements.

Monument Hill Road North Access (Full)

The proposed full movement North Access is located approximately 800 feet south of the Palmer Ridge High School Bus Loop intersection (measured centerline to centerline). According to the El Paso County Engineering Criteria Manual, spacing of intersections along urban collector roadways from a local roadway should be 330 feet from the right-of-way line of the local roadway to the centerline of the access roadway. Therefore, the North Access meets El Paso County spacing requirements.

SH-105 is projected to have a 2025 volume of approximately 26,700 vehicles per day and is classified as a four-lane minor arterial. The section of Woodmoor Drive from SH-105 to Monument Hill Road is classified as a non-residential collector roadway with an average daily traffic threshold standard of 20,000 vehicles per day and is projecting to carry 17,300 vehicles per day. North of Monument Hill Road, Woodmoor Drive is classified as a residential collector roadway with 8,400 vehicles per day and the El Paso County threshold is 10,000 vehicles per day. In addition, Palmer Divide Road is classified as a non-residential collector roadway with 6,000 to 7,000 vehicles per day anticipated. Misty Acres Boulevard is classified by El Paso County as a residential collector roadway with 4,700 vehicles per day and the threshold is 10,000 vehicles per day. Deer Creek Road is classified by El Paso County as a local road with approximately 800 vehicles per day estimated to the east of Woodmoor Drive and the threshold is 3,000 vehicles per day. Base Camp Road is classified by El Paso County as a local road with approximately 600 vehicles per day and the threshold is 3,000 vehicles per day. **Figure 10** illustrates the circulation plan and street classification map for roadways internal and external to the Monument Hill project.

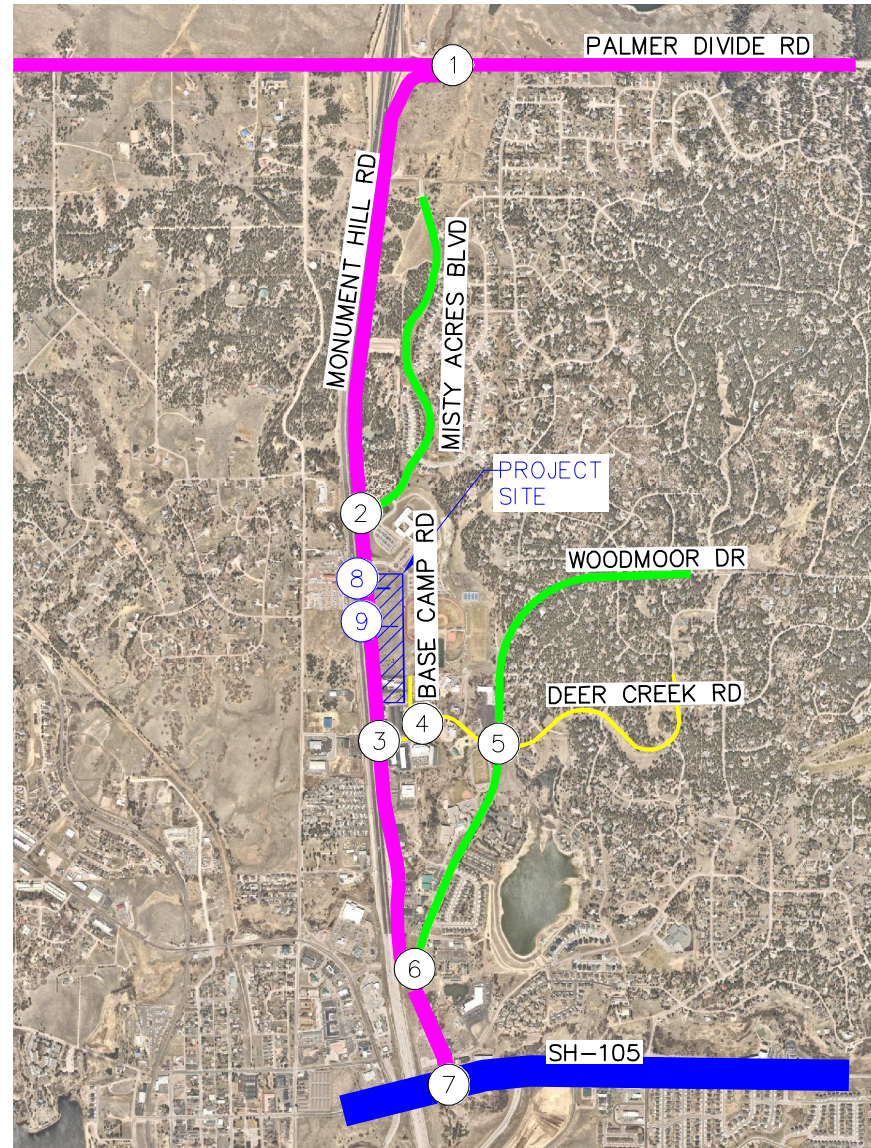


FIGURE 10
MONUMENT HILL
EL PASO COUNTY, COLORADO
ROADWAY CLASSIFICATION

5.7 Sight Distance Evaluation

It is recommended that sight triangles be provided at all site access points to give drivers exiting the site a clear view of oncoming traffic. Landscaping and objects within sight triangles must not obstruct drivers' views of the adjacent travel lanes. ECM design intersection sight distances for left turn from stop were evaluated at the accesses along Monument Hill Road. ECM does not provide sight distances for right-turning vehicles from stop; therefore, AASHTO standards were used for right-turn from stop distances at the project accesses. The following identifies sight distance requirements for the access intersections associated with the project:

Monument Hill Road South Access (RIRO)

With AASHTO standards and design speed of 50 mph (consistent with ECM Table 2-7, speed limit of 45 mph), the sight distance for a vehicle turning right from stop is 555 feet as stated in the ECM Table 2-21. Therefore, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way and a line-of-sight distance of 555 feet located in the middle of the northbound through lane along Monument Hill Road. Therefore, it is believed that the proposed south access along Monument Hill Road is appropriately located to provide necessary sight distances.

Monument Hill Road North Access (Full)

With El Paso County standards and a roadway design speed of 50 miles per hour along Monument Hill Road (consistent with ECM Table 2-7, speed limit of 45 mph), the intersection sight distance for a vehicle turning left from stop is 555 feet. Therefore, all obstructions for left turning vehicles from stop should be clear to the right within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way and a line-of-sight distance of 555 feet located in the middle of the southbound through lane along Monument Hill Road. Likewise, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 13 feet from the edge of the major road traveled way and a line-of-sight distance of 555 feet located in the middle of the northbound through lane along Monument Hill Road. Therefore, it is believed that the proposed north access along Monument Hill Road is appropriately located to provide necessary sight distances.

5.8 Bicycle and Pedestrian Access

Sidewalks are not present on either side of the Monument Hill Road, Deer Creek Road, Misty Acres Boulevard, or along the majority of Woodmoor Drive. Sidewalks are provided on either side of Woodmoor Drive from SH-105 to approximately 800 feet north of SH-105. Bicycle lanes are not provided along any of the study roadways. The development is not proposing to provide sidewalks or bicycle lanes along Monument Hill Road to match the characteristic of the surrounding areas. It is known that the Lewis Palmer School District Trail System is proposing a “Safe Routes to School” pedestrian system in the area. Per the plans provided by El Paso County, this system includes sidewalks and/or trails within the study area along much of Woodmoor Drive, Deer Creek Road, and Lake Woodmoor Drive, with curb ramps and pavement striping at crosswalks to provide safer access to schools in the area.

5.9 Road Impact Fees

Road impact fees were evaluated based on the El Paso County Road Impact Fee Schedule. Based on these fee schedule guidelines, the fee per multi-family dwelling unit is \$2,407. Therefore, the road impact fee for the proposed 264 multi-family residences is expected to be \$635,448. Road impact fee calculations are shown in **Table 12**. During the final plat process, the project team will determine if the impact fees are paid up front or if the property will be included in one of the available public improvement districts with reduced upfront costs. The project team will determine payment methods with the final plat.

Table 12 – Road Impact Fees

Use	Units	Fee / Unit	Total Fee
Multi-Family Housing	264	\$2,407	\$635,448

5.10 Improvement Summary

Based on the results of the intersection operational, turn lane evaluations, and vehicle queuing analysis, the key intersection recommended improvements and control is shown in **Figure 11** for the 2025 short-term horizon and in **Figure 12** for the 2045 long-term horizon.

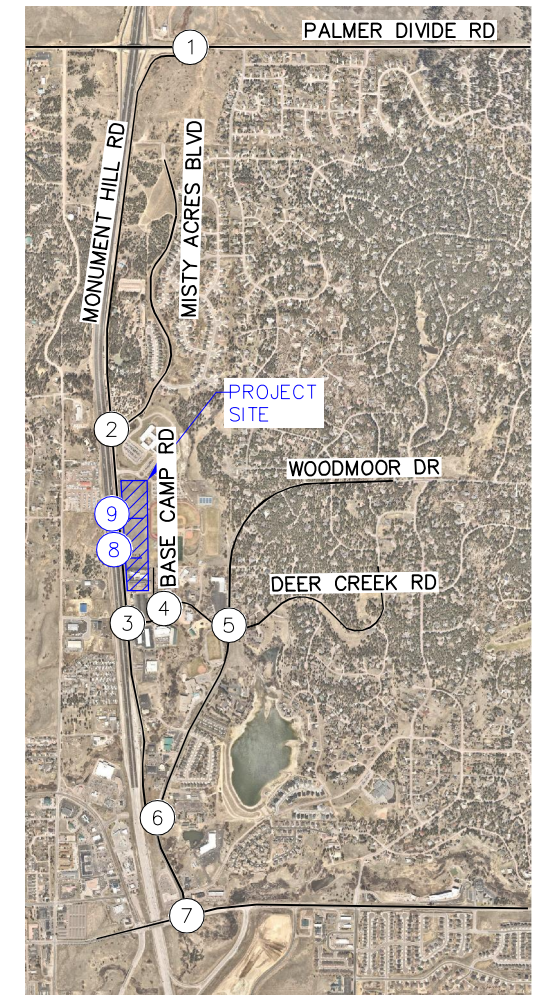
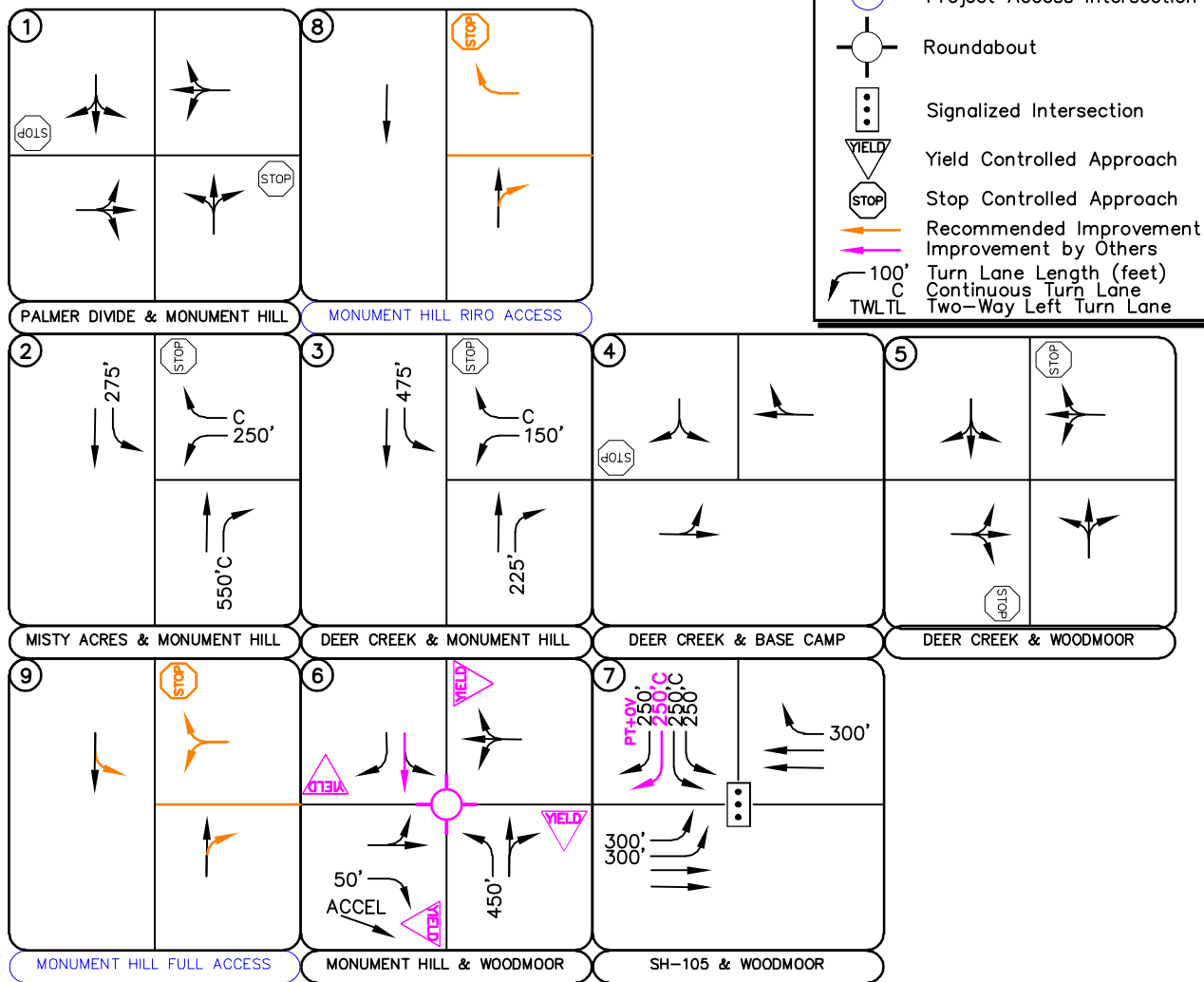


FIGURE 11
MONUMENT HILL
EL PASO COUNTY, COLORADO
2025 RECOMMENDED GEOMETRY AND CONTROL



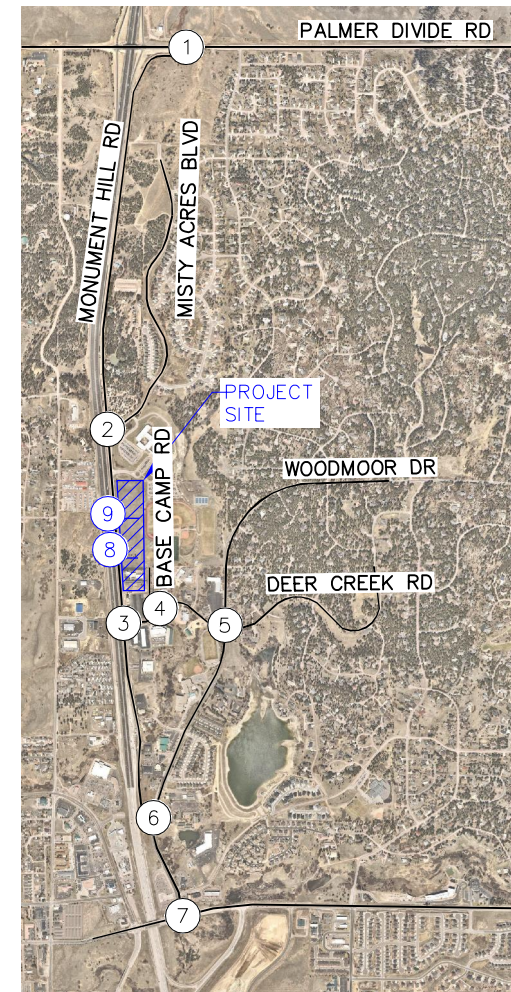
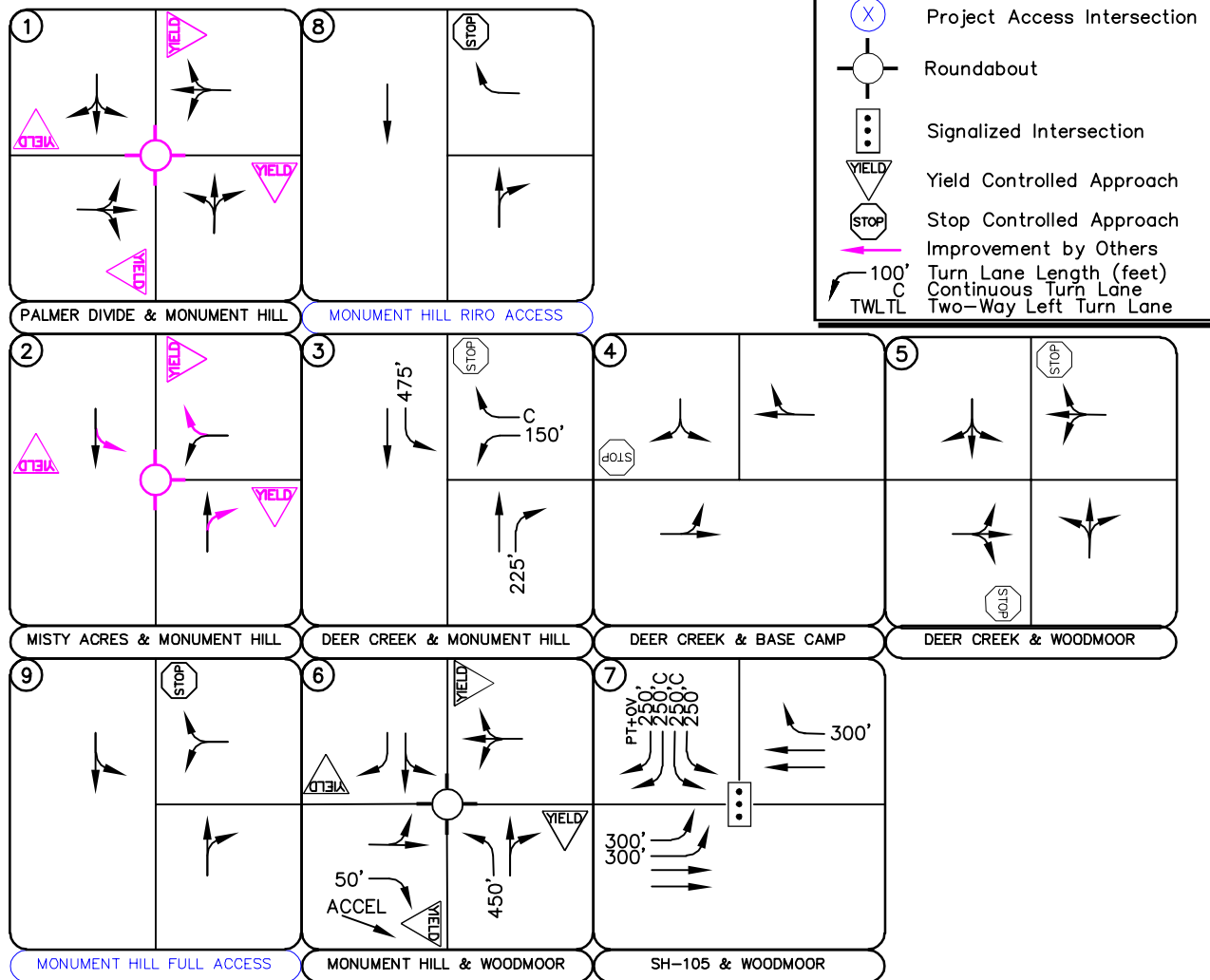


FIGURE 12
MONUMENT HILL
EL PASO COUNTY, COLORADO
2045 RECOMMENDED GEOMETRY AND CONTROL

6.0 CONCLUSIONS AND RECOMMENDATIONS

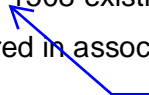
Based on the analysis presented in this report, Kimley-Horn believes Monument Hill will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

Note: If improvements are not being constructed for this intersection, funds may need to be set up to help pay for projects portion of improvements.

2022 Recommendations

- The Monument Hill Road and Woodmoor Drive (#6) intersection experiences a failing level of service today with existing traffic during the morning peak hour. As such, it is recommended this intersection be considered for control improvements to provide acceptable level of service. For purposes of this analysis, the intersection was evaluated with roundabout control. The existing eastbound right turn lane that operates with free conditions can remain unmodified. The eastbound approach to the roundabout should provide a shared left/through lane. The westbound approach should provide a shared left/through/right turn lane. The northbound approach should provide a left turn lane and a shared through/right turn lane. The southbound approach should provide a shared left/through lane and a right turn lane. Each approach to the roundabout should operate with yield conditions with posted R1-2 “YIELD” signs.
- At the SH-105 and Woodmoor Drive (#7) intersection, it is recommended that southbound dual right turn lanes be provided due to existing southbound queues extending beyond the Lake Woodmoor Drive intersection to the north. The existing chevron striping between the southbound right turn and left turn lanes should be modified to include a second southbound right turn lane. As such, it is recommended the southbound right turn phasing be modified from permissive-overlap to protected-overlap phasing with no right turn on red. It is anticipated this southbound right turn lane will be a continuous lane from the southbound through lane to the north of the Woodmoor Drive and Lake Woodmoor Drive intersection, while the inner southbound left turn lane also be a continuous lane. The existing southbound right and left turn lanes are recommended to provide 250 feet of storage length.

2025 Recommendations

- The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent or modifications are needed at the intersection. Based on traffic projections, the addition of project traffic on the north leg of Woodmoor Drive at SH-105 is not anticipated to increase existing access traffic volumes by more than 20 percent, with the maximum expected increase at 7.7 percent during the afternoon peak hour on the north leg (116 project / 1508 existing 2022 counts). Therefore, a CDOT access permit is not anticipated to be required in association with this project.


These numbers should be updated to 2025 volumes and then determine % increase to determine if access permit is required
- With completion of the Monument Hill project, a northern full movement access is proposed to be located approximately 800 feet south of the Palmer Ridge High School bus loop access (measured right-of-way to center). The access is recommended to operate with stop control with installation of an R1-1 “STOP” sign on the westbound exiting approach.
- A southern right-in/right-out access is proposed to be located approximately 800 feet south of the full movement access (measured center to center), which would also place it approximately 775 feet north of the Deer Creek Road intersection. An R1-1 “STOP” sign is recommended to be installed on the exiting westbound approach. In addition, an R3-2 No Left Turn sign is recommended to be installed below the “STOP” sign to identify the restriction to right out only and on the southeast corner of the intersection visible to southbound drivers to identify the restriction to right in only.

2045 Recommendations

- If projected 2045 volumes are realized, the Palmer Divide Road and Monument Hill Road (#1) intersection may need to be reconfigured with control improvements to operate acceptably. This intersection is anticipated to operate acceptably as a single-lane roundabout with a shared left/through/right turn lane at each approach. If constructed, each approach to the roundabout should operate with yield conditions with posted R1-2 “YIELD” signs. Of note, this intersection experiences a failing level of service in the 2045 horizon with or without construction of this project.

- The intersection of Misty Acres Boulevard and Monument Hill Road (#2) may experience a failing level of service in the 2045 horizon if projected volumes are realized. This intersection is also anticipated to operate acceptably as a single-lane roundabout with a shared northbound through/right turn lane, a shared southbound left/through lane, and a shared westbound left/right turn lane. The east leg of the intersection should still provide the existing configuration of two eastbound through lanes approaching the northern Palmer Ridge High School access, with the outside lane being an eastbound right turn lane into Palmer Ridge High School access and the inside lane continuing to the east. If constructed, each approach to the roundabout should operate with yield conditions with posted R1-2 “YIELD” signs. Of note, this intersection experiences a failing level of service in the 2045 horizon with or without construction of this project.

General Recommendations

- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of El Paso County and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

Provide summary table of recommended improvements & % impact project has at each of those intersections (% of how much traffic volume is being generated by proposed project)

APPENDICES

APPENDIX A

Intersection Count Sheets

Monument Hill Rd Palmer Divide Ave

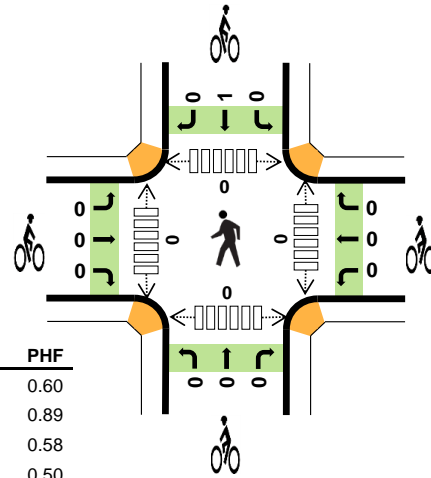
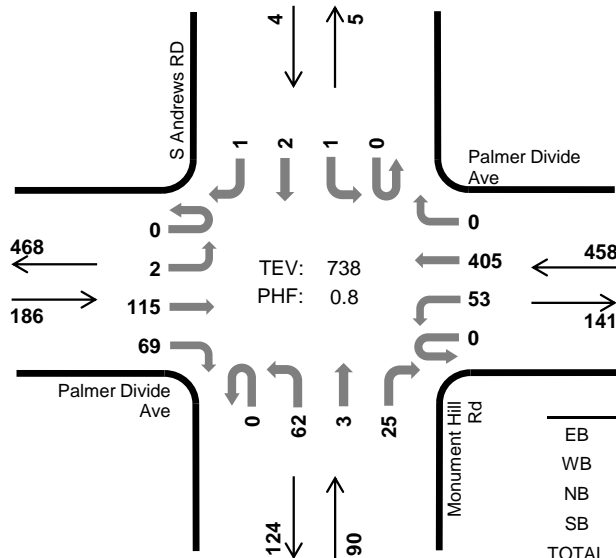


Peak Hour

Date: 09/07/2022

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



Two-Hour Count Summaries

Interval Start		Palmer Divide Ave				Palmer Divide Ave				Monument Hill Rd				S Andrews RD				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	13	14	0	10	108	0	0	14	1	3	0	0	1	0	164	0
7:15 AM		0	0	37	41	0	30	99	0	0	13	0	11	0	0	0	0	231	0
7:30 AM		0	1	30	7	0	10	106	0	0	29	1	9	0	1	0	1	195	0
7:45 AM		0	1	35	7	0	3	92	0	0	6	1	2	0	0	1	0	148	738
8:00 AM		0	2	28	3	0	1	76	1	0	7	1	1	0	0	1	1	122	696
8:15 AM		0	0	33	9	0	5	79	0	0	6	0	1	0	0	0	1	134	599
8:30 AM		0	2	26	7	0	1	67	0	0	3	0	2	0	1	1	0	110	514
8:45 AM		0	0	37	4	0	3	73	0	0	6	1	2	0	0	3	1	130	496
Count Total		0	6	239	92	0	63	700	1	0	84	5	31	0	2	7	4	1,234	0
Peak Hour	All	0	2	115	69	0	53	405	0	0	62	3	25	0	1	2	1	738	0
	HV	0	0	8	1	0	0	2	0	0	2	0	0	0	0	0	0	13	0
	HV%	-	0%	7%	1%	-	0%	0%	-	-	3%	0%	0%	-	0%	0%	0%	2%	0

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

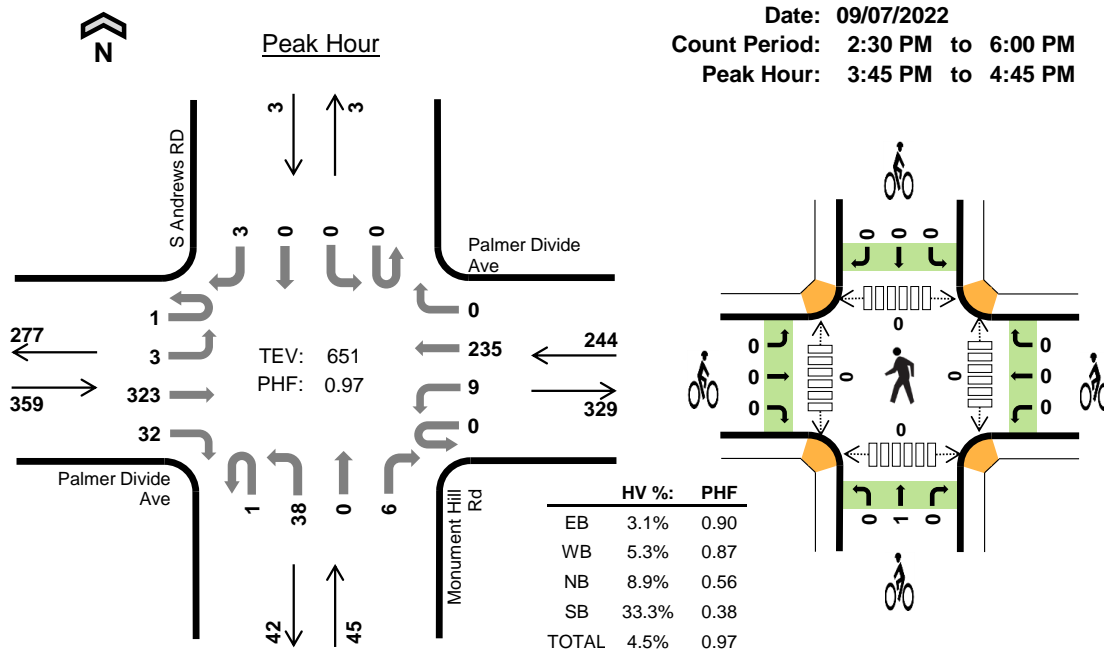
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	2	0	1	0	3	0	0	0	1	1	0	0	0	0	0
7:30 AM	6	1	1	0	8	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	3	2	1	1	7	0	0	0	0	0	0	0	0	0	0
8:15 AM	3	4	0	0	7	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	3	1	1	5	0	0	0	0	0	0	0	0	0	0
Count Total	15	14	4	2	35	0	0	0	1	1	0	0	0	0	0
Peak Hour	9	2	2	0	13	0	0	0	1	1	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Palmer Divide Ave				Palmer Divide Ave				Monument Hill Rd				S Andrews RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0
7:30 AM	0	0	5	1	0	0	1	0	0	1	0	0	0	0	0	0	8	0
7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13
8:00 AM	0	0	2	1	0	0	2	0	0	0	1	0	0	0	1	0	7	19
8:15 AM	0	0	2	1	0	0	4	0	0	0	0	0	0	0	0	0	7	23
8:30 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	18
8:45 AM	0	0	0	0	0	0	3	0	0	1	0	0	0	0	1	0	5	22
Count Total	0	0	12	3	0	0	14	0	0	3	1	0	0	0	2	0	35	0
Peak Hour	0	0	8	1	0	0	2	0	0	2	0	0	0	0	0	0	13	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Palmer Divide Ave			Palmer Divide Ave			Monument Hill Rd			S Andrews RD			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0			

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

Monument Hill Rd Palmer Divide Ave



Three-and-a-Half-Hour Count Summaries

Interval Start	Palmer Divide Ave Eastbound				Palmer Divide Ave Westbound				Monument Hill Rd Northbound				S Andrews Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
3:45 PM	0	1	75	7	0	1	65	0	1	5	0	2	0	0	0	2	159	0
4:00 PM	0	1	80	6	0	2	58	0	0	19	0	1	0	0	0	0	167	0
4:15 PM	1	1	75	12	0	3	67	0	0	6	0	2	0	0	0	1	168	0
4:30 PM	0	0	93	7	0	3	45	0	0	8	0	1	0	0	0	0	157	651
Peak Hour	All	1	3	323	32	0	9	235	0	1	38	0	6	0	0	3	651	0
	HV	0	1	9	1	0	0	13	0	0	4	0	0	0	0	1	29	0
	HV%	0%	33%	3%	3%	-	0%	6%	-	0%	11%	-	0%	-	-	33%	4%	0

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

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

Three-and-a-Half-Hour Count Summaries																			
Interval Start		Palmer Divide Ave				Palmer Divide Ave				Monument Hill Rd				S Andrews RD				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM		0	1	58	13	0	6	46	0	0	3	1	0	0	1	0	3	132	0
2:45 PM		0	1	53	10	0	9	43	0	0	8	0	5	0	0	0	0	129	0
3:00 PM		0	1	64	5	0	6	52	2	0	15	0	24	1	0	0	3	173	0
3:15 PM		0	0	74	7	0	2	65	0	0	10	0	3	0	0	0	1	162	596
3:30 PM		0	0	72	3	0	1	59	0	0	8	0	7	0	0	0	0	150	614
3:45 PM		0	1	75	7	0	1	65	0	1	5	0	2	0	0	0	2	159	644
4:00 PM		0	1	80	6	0	2	58	0	0	19	0	1	0	0	0	0	167	638
4:15 PM		1	1	75	12	0	3	67	0	0	6	0	2	0	0	0	1	168	644
4:30 PM		0	0	93	7	0	3	45	0	0	8	0	1	0	0	0	0	157	651
4:45 PM		0	0	88	9	0	1	49	0	0	4	1	6	0	0	0	0	158	650
5:00 PM		0	0	88	11	0	3	43	0	0	9	0	2	0	1	1	0	158	641
5:15 PM		0	0	89	11	0	9	52	1	0	3	0	6	0	0	0	0	171	644
5:30 PM		0	0	80	6	0	2	41	1	0	12	0	4	0	0	0	0	146	633
5:45 PM		0	0	80	12	0	2	55	0	0	3	0	5	0	0	0	0	157	632
Count Total		1	6	1,069	119	0	50	740	4	1	113	2	68	1	2	1	10	2,187	0
Peak Hour	All	1	3	323	32	0	9	235	0	1	38	0	6	0	0	0	3	651	0
	HV	0	1	9	1	0	0	13	0	0	4	0	0	0	0	0	1	29	0
	HV%	0%	33%	3%	3%	-	0%	6%	-	0%	11%	-	0%	-	-	-	33%	4%	0
Note: Three-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
2:30 PM		2	5	1	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM		3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM		4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM		2	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM		2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM		6	1	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM		1	4	3	0	8	0	0	1	0	1	0	1	0	0	0	0	0	0
4:15 PM		2	5	0	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM		2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM		0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM		0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM		1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM		0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0
Count Total		25	28	5	3	61	0	1	1	0	2	0	0	0	0	0	0	0	0
Peak Hour		11	13	4	1	29	0	0	1	0	1	0	0	0	0	0	0	0	0

Three-and-a-Half-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Palmer Divide Ave				Palmer Divide Ave				Monument Hill Rd				S Andrews RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM	0	0	2	0	0	0	5	0	0	0	1	0	0	0	0	2	10	0
2:45 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
3:00 PM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0
3:15 PM	0	0	1	1	0	0	4	0	0	0	0	0	0	0	0	0	6	25
3:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	17
3:45 PM	0	0	5	1	0	0	1	0	0	1	0	0	0	0	0	0	8	21
4:00 PM	0	1	0	0	0	0	4	0	0	3	0	0	0	0	0	0	8	24
4:15 PM	0	0	2	0	0	0	5	0	0	0	0	0	0	0	0	1	8	26
4:30 PM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	29
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	22
5:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	17
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Count Total	0	1	22	2	0	0	28	0	0	4	1	0	0	0	0	3	61	0
Peak Hour	0	1	9	1	0	0	13	0	0	4	0	0	0	0	0	1	29	0

Three-and-a-Half-Hour Count Summaries - Bikes																		
Interval Start	Palmer Divide Ave				Palmer Divide Ave				Monument Hill Rd				S Andrews RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
2:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
2:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
3:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
3:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
3:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
3:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:00 PM	0	0	0		0	0	0		0	1	0		0	0	0		1	1
4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	1
4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	1
4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	1
5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:45 PM	0	0	0		0	0	1		0	0	0		0	0	0		1	1
Count Total	0	0	0		0	0	1		0	1	0		0	0	0		2	0
Peak Hour	0	0	0		0	0	0		0	1	0		0	0	0		1	0

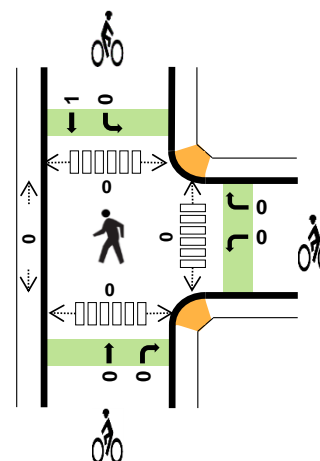
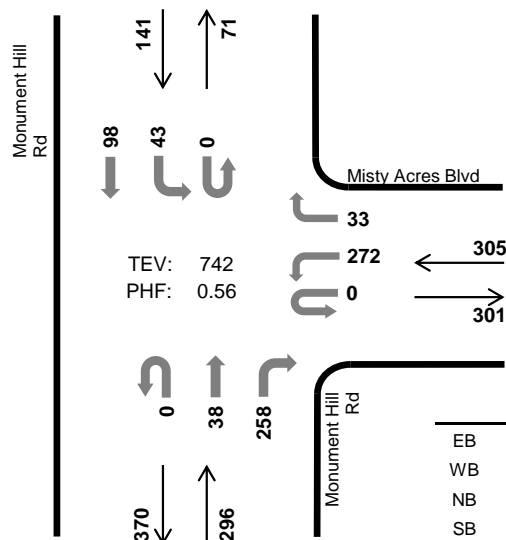
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Monument Hill Rd Misty Acres Blvd



Peak Hour

Date: 09/07/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	-	-
WB	0.3%	0.63
NB	0.7%	0.52
SB	1.4%	0.42
TOTAL	0.7%	0.56

Two-Hour Count Summaries

Interval Start		n/a				Misty Acres Blvd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	51	0	10	0	0	8	74	0	4	15	0	162	0
7:15 AM		0	0	0	0	0	92	0	10	0	0	14	129	0	32	52	0	329	0
7:30 AM		0	0	0	0	0	110	0	11	0	0	10	40	0	6	18	0	195	0
7:45 AM		0	0	0	0	0	19	0	2	0	0	6	15	0	1	13	0	56	742
8:00 AM		0	0	0	0	0	18	0	1	0	0	4	18	0	1	7	0	49	629
8:15 AM		0	0	0	0	0	18	0	0	0	0	8	10	0	3	12	0	51	351
8:30 AM		0	0	0	0	0	29	0	3	0	0	4	16	0	1	6	0	59	215
8:45 AM		0	0	0	0	0	27	0	1	0	0	8	29	0	3	6	0	74	233
Count Total		0	0	0	0	0	364	0	38	0	0	62	331	0	51	129	0	975	0
Peak Hour	All	0	0	0	0	0	272	0	33	0	0	38	258	0	43	98	0	742	0
	HV	0	0	0	0	0	0	0	1	0	0	2	0	0	0	2	0	5	0
	HV%	-	-	-	-	-	0%	-	3%	-	-	5%	0%	-	0%	2%	-	1%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	1	2	0	0	0	1	1	0	0	0	0	0
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	2	2	5	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	3	1	0	4	0	0	1	0	1	0	0	0	0	0
Count Total	0	5	7	4	16	0	0	1	1	2	0	0	0	0	0
Peak Hr	0	1	2	2	5	0	0	0	1	1	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	n/a				Misty Acres Blvd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	5
8:15 AM	0	0	0	0	0	1	0	0	0	0	1	1	0	1	1	0	5	8
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
8:45 AM	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	4	11
Count Total	0	0	0	0	0	4	0	1	0	0	4	3	0	1	3	0	16	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	2	0	0	0	2	0	5	0

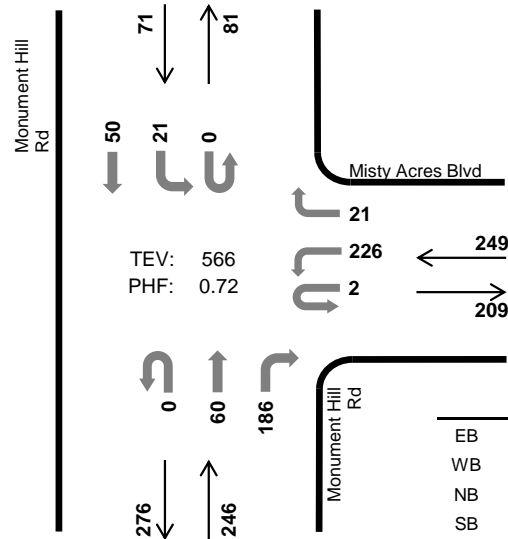
Two-Hour Count Summaries - Bikes																		
Interval Start	n/a			Misty Acres Blvd			Monument Hill Rd			Monument Hill Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	1				
Count Total	0	0	0	0	0	0	0	1	0	0	1	0	2	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	1	0				

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

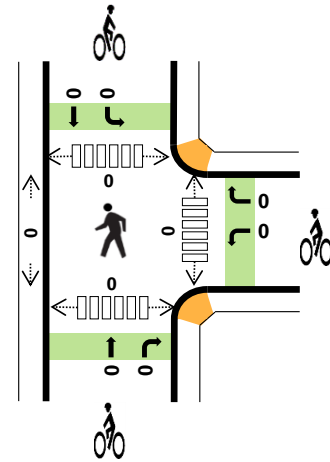
Monument Hill Rd Misty Acres Blvd



Peak Hour



Date: 09/07/2022
Count Period: 2:30 PM to 6:00 PM
Peak Hour: 2:30 PM to 3:30 PM



	HV %:	PHF
EB	-	-
WB	0.4%	0.57
NB	1.2%	0.84
SB	1.4%	0.71
TOTAL	0.9%	0.72

Three-and-a-Half-Hour Count Summaries

Interval Start		n/a				Misty Acres Blvd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM		0	0	0	0	1	30	0	1	0	0	5	61	0	9	16	0	123	0
2:45 PM		0	0	0	0	0	52	0	5	0	0	10	53	0	6	16	0	142	0
3:00 PM		0	0	0	0	1	98	0	10	0	0	27	46	0	4	11	0	197	0
3:15 PM		0	0	0	0	0	46	0	5	0	0	18	26	0	2	7	0	104	566
Peak Hour	All	0	0	0	0	2	226	0	21	0	0	60	186	0	21	50	0	566	0
	HV	0	0	0	0	0	0	0	1	0	0	2	1	0	1	0	0	5	0
	HV%	-	-	-	-	0%	0%	-	5%	-	-	3%	1%	-	5%	0%	-	1%	0

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

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

Three-and-a-Half-Hour Count Summaries																			
Interval Start		n/a				Misty Acres Blvd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
2:30 PM	0	0	0	0	1	30	0	1	0	0	5	61	0	9	16	0	123	0	
2:45 PM	0	0	0	0	0	52	0	5	0	0	10	53	0	6	16	0	142	0	
3:00 PM	0	0	0	0	1	98	0	10	0	0	27	46	0	4	11	0	197	0	
3:15 PM	0	0	0	0	0	46	0	5	0	0	18	26	0	2	7	0	104	566	
3:30 PM	0	0	0	0	0	30	0	2	0	0	13	23	0	0	6	0	74	517	
3:45 PM	0	0	0	0	0	17	0	1	0	0	7	14	0	1	9	0	49	424	
4:00 PM	0	0	0	0	0	18	0	0	0	0	24	29	0	0	5	0	76	303	
4:15 PM	0	0	0	0	0	25	0	0	0	0	15	27	0	1	17	0	85	284	
4:30 PM	0	0	0	0	0	13	0	1	0	0	13	20	0	0	13	0	60	270	
4:45 PM	0	0	0	0	0	18	0	1	0	0	14	25	0	0	10	0	68	289	
5:00 PM	0	0	0	0	0	14	0	0	0	0	12	22	0	1	14	0	63	276	
5:15 PM	0	0	0	0	0	20	0	0	0	0	16	23	0	1	17	0	77	268	
5:30 PM	0	0	0	0	0	20	0	1	0	0	15	23	0	3	9	0	71	279	
5:45 PM	0	0	0	0	0	19	0	0	0	0	12	18	0	1	10	0	60	271	
Count Total		0	0	0	0	2	420	0	27	0	0	201	410	0	29	160	0	1,249	0
Peak Hour	All	0	0	0	0	2	226	0	21	0	0	60	186	0	21	50	0	566	0
	HV	0	0	0	0	0	0	0	1	0	0	2	1	0	1	0	0	5	0
	HV%	-	-	-	-	0%	0%	-	5%	-	-	3%	1%	-	5%	0%	-	1%	0
Note: Three-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
2:30 PM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total		0	2	8	2	12	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hr		0	1	3	1	5	0	0	0	0	0	0	0	0	0	0	0	0	

Three-and-a-Half-Hour Count Summaries - Heavy Vehicles

Interval Start	n/a				Misty Acres Blvd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	5
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	7
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	7
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	1	0	1	0	0	6	2	0	1	1	0	12	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	2	1	0	1	0	0	5	0

Three-and-a-Half-Hour Count Summaries - Bikes

Interval Start	n/a			Misty Acres Blvd			Monument Hill Rd			Monument Hill Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

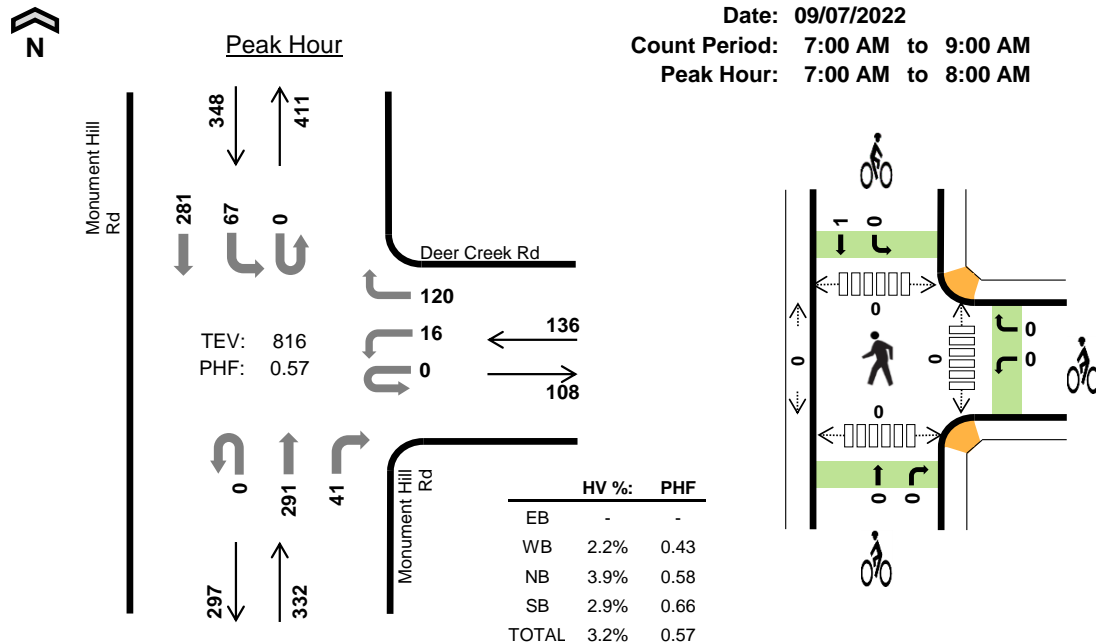
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Monument Hill Rd
Deer Creek Rd

Date: 09/07/2022

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



Two-Hour Count Summaries

Interval Start		N/A				Deer Creek Rd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	5	0	33	0	0	83	16	0	24	43	0	204	0
7:15 AM		0	0	0	0	0	6	0	74	0	0	141	3	0	21	111	0	356	0
7:30 AM		0	0	0	0	0	1	0	11	0	0	48	7	0	14	102	0	183	0
7:45 AM		0	0	0	0	0	4	0	2	0	0	19	15	0	8	25	0	73	816
8:00 AM		0	0	0	0	0	3	0	1	0	0	13	3	0	2	26	0	48	660
8:15 AM		0	0	0	0	0	6	0	3	0	0	16	5	0	6	22	0	58	362
8:30 AM		0	0	0	0	0	4	0	5	0	0	22	6	0	2	34	0	73	252
8:45 AM		0	0	0	0	0	5	0	4	0	0	59	11	0	6	20	0	105	284
Count Total		0	0	0	0	0	34	0	133	0	0	401	66	0	83	383	0	1,100	0
Peak Hour	All	0	0	0	0	0	16	0	120	0	0	291	41	0	67	281	0	816	0
	HV	0	0	0	0	0	2	0	1	0	0	13	0	0	0	10	0	26	0
	HV%	-	-	-	-	-	13%	-	1%	-	-	4%	0%	-	0%	4%	-	3%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	2	5	2	9	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	7	7	14	0	0	0	1	1	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	2	2	4	0	0	0	0	0	1	1	1	0	3
Count Total	0	4	19	14	37	0	0	0	1	1	1	1	1	0	3
Peak Hr	0	3	13	10	26	0	0	0	1	1	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	N/A				Deer Creek Rd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	2	0	0	0	0	0	5	0	0	0	2	0	9	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	14	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	26
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	19
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	4	11
Count Total	0	0	0	0	0	3	0	1	0	0	18	1	0	2	12	0	0	37	0
Peak Hour	0	0	0	0	0	2	0	1	0	0	13	0	0	0	10	0	0	26	0

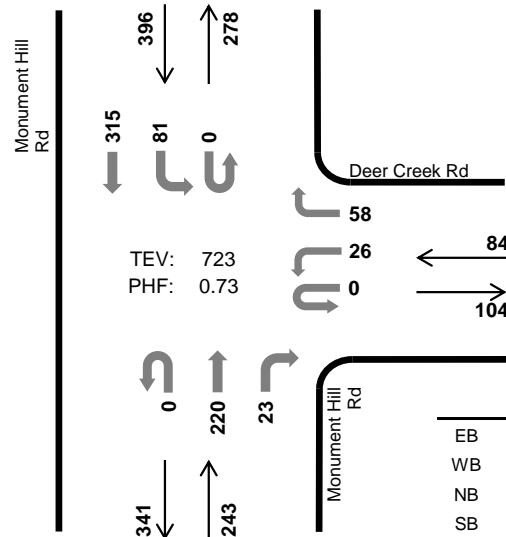
Two-Hour Count Summaries - Bikes																			
Interval Start	N/A			Deer Creek Rd			Monument Hill Rd			Monument Hill Rd			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0

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

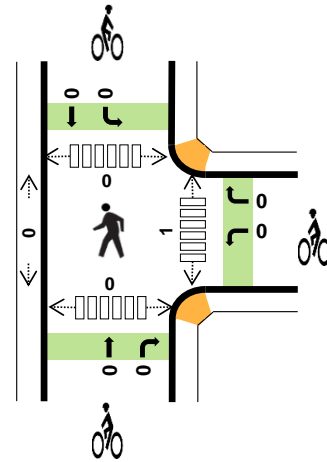
Monument Hill Rd Deer Creek Rd



Peak Hour



Date: 09/07/2022
Count Period: 2:30 PM to 6:00 PM
Peak Hour: 2:30 PM to 3:30 PM



	HV %:	PHF
EB	-	-
WB	2.4%	0.70
NB	5.3%	0.79
SB	2.3%	0.54
TOTAL	3.3%	0.73

Three-and-a-Half-Hour Count Summaries

Interval Start		N/A				Deer Creek Rd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM		0	0	0	0	0	8	0	22	0	0	74	3	0	17	29	0	153	0
2:45 PM		0	0	0	0	0	3	0	18	0	0	70	7	0	23	71	0	192	0
3:00 PM		0	0	0	0	0	10	0	10	0	0	39	4	0	34	149	0	246	0
3:15 PM		0	0	0	0	0	5	0	8	0	0	37	9	0	7	66	0	132	723
Peak Hour	All	0	0	0	0	0	26	0	58	0	0	220	23	0	81	315	0	723	0
	HV	0	0	0	0	0	1	0	1	0	0	11	2	0	1	8	0	24	0
	HV%	-	-	-	-	-	4%	-	2%	-	-	5%	9%	-	1%	3%	-	3%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:30 PM	0	1	5	0	6	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	7	2	10	0	0	0	0	0	1	0	0	0	1
3:00 PM	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	2	13	9	24	0	0	0	0	0	1	0	0	0	1

Three-and-a-Half-Hour Count Summaries																			
Interval Start		N/A				Deer Creek Rd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM		0	0	0	0	0	8	0	22	0	0	74	3	0	17	29	0	153	0
2:45 PM		0	0	0	0	0	3	0	18	0	0	70	7	0	23	71	0	192	0
3:00 PM		0	0	0	0	0	10	0	10	0	0	39	4	0	34	149	0	246	0
3:15 PM		0	0	0	0	0	5	0	8	0	0	37	9	0	7	66	0	132	723
3:30 PM		0	0	0	0	0	13	0	4	0	0	40	9	0	9	35	0	110	680
3:45 PM		0	0	0	0	0	7	0	6	0	0	19	4	0	2	24	0	62	550
4:00 PM		0	0	0	0	0	8	0	7	0	0	47	3	0	2	23	0	90	394
4:15 PM		0	0	0	0	0	10	0	5	0	0	42	10	0	11	32	0	110	372
4:30 PM		0	0	0	0	0	13	0	9	0	0	30	2	0	10	25	0	89	351
4:45 PM		0	0	0	0	0	12	0	4	0	0	41	5	0	6	30	0	98	387
5:00 PM		0	0	0	0	0	11	0	8	0	0	32	2	0	9	35	0	97	394
5:15 PM		0	0	0	0	0	7	0	7	0	0	45	4	0	11	28	0	102	386
5:30 PM		0	0	0	0	0	7	0	7	0	0	45	4	0	12	45	0	120	417
5:45 PM		0	0	0	0	0	8	0	4	0	0	28	5	0	12	36	0	93	412
Count Total		0	0	0	0	0	122	0	119	0	0	589	71	0	165	628	0	1,694	0
Peak Hour	All	0	0	0	0	0	26	0	58	0	0	220	23	0	81	315	0	723	0
	HV	0	0	0	0	0	1	0	1	0	0	11	2	0	1	8	0	24	0
	HV%	-	-	-	-	-	4%	-	2%	-	-	5%	9%	-	1%	3%	-	3%	0
Note: Three-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)								
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total				
2:30 PM		0	1	5	0	6	0	0	0	0	0	0	0	0	0	0			
2:45 PM		0	1	7	2	10	0	0	0	0	0	1	0	0	0	1			
3:00 PM		0	0	0	7	7	0	0	0	0	0	0	0	0	0	0			
3:15 PM		0	0	1	0	1	0	0	0	0	0	0	0	0	0	0			
3:30 PM		0	0	1	0	1	0	0	0	0	0	0	0	0	0	0			
3:45 PM		0	2	1	0	3	0	0	0	0	0	0	0	0	0	0			
4:00 PM		0	2	0	0	2	0	0	0	1	1	0	0	0	0	0			
4:15 PM		0	0	0	1	1	0	0	0	0	0	0	0	0	0	0			
4:30 PM		0	1	1	0	2	0	0	0	0	0	0	0	0	0	0			
4:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:00 PM		0	0	1	0	1	0	0	0	0	0	0	0	0	0	0			
5:15 PM		0	0	1	0	1	0	0	0	0	0	0	0	0	0	0			
5:30 PM		0	2	1	0	3	0	0	0	0	0	0	0	0	0	0			
5:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total		0	9	19	10	38	0	0	0	1	1	1	0	0	0	1			
Peak Hr		0	2	13	9	24	0	0	0	0	0	1	0	0	0	1			

Three-and-a-Half-Hour Count Summaries - Heavy Vehicles

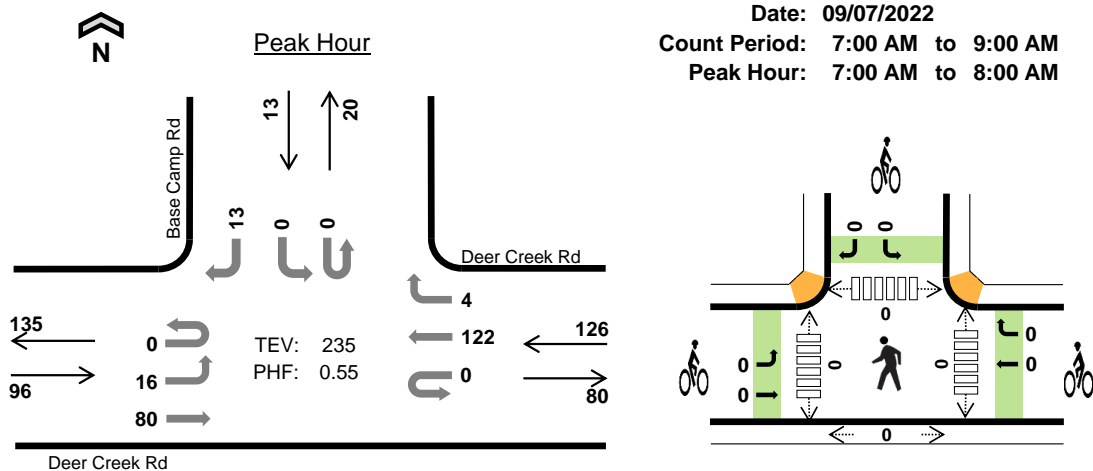
Interval Start	N/A				Deer Creek Rd				Monument Hill Rd				Monument Hill Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM	0	0	0	0	0	0	0	1	0	0	5	0	0	0	0	0	6	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	6	1	0	0	2	0	10	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	7	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	24
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	19
3:45 PM	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	3	12
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	7
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	3	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Count Total	0	0	0	0	0	4	0	5	0	0	11	8	0	1	9	0	38	0
Peak Hour	0	0	0	0	0	1	0	1	0	0	11	2	0	1	8	0	24	0

Three-and-a-Half-Hour Count Summaries - Bikes

Interval Start	N/A			Deer Creek Rd			Monument Hill Rd			Monument Hill Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Base Camp Rd Deer Creek Rd



	HV %:	PHF
EB	1.0%	0.67
WB	1.6%	0.41
NB	-	-
SB	7.7%	0.54
TOTAL	1.7%	0.55

Two-Hour Count Summaries

Interval Start		Deer Creek Rd				Deer Creek Rd				n/a				Base Camp Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	3	33	0	0	0	29	1	0	0	0	0	0	0	0	3	69	0
7:15 AM		0	4	21	0	0	0	74	2	0	0	0	0	0	0	0	6	107	0
7:30 AM		0	5	16	0	0	0	15	1	0	0	0	0	0	0	0	1	38	0
7:45 AM		0	4	10	0	0	0	4	0	0	0	0	0	0	0	0	3	21	235
8:00 AM		0	3	2	0	0	0	5	1	0	0	0	0	0	0	0	1	12	178
8:15 AM		0	6	2	0	0	0	2	2	0	0	0	0	0	3	0	4	19	90
8:30 AM		0	5	2	0	0	0	3	2	0	0	0	0	0	1	0	3	16	68
8:45 AM		0	9	1	0	0	0	7	1	0	0	0	0	0	0	0	3	21	68
Count Total		0	39	87	0	0	0	139	10	0	0	0	0	0	4	0	24	303	0
Peak Hour	All	0	16	80	0	0	0	122	4	0	0	0	0	0	0	0	13	235	0
	HV	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	4	0
	HV%	-	0%	1%	-	-	-	2%	0%	-	-	-	-	-	-	-	8%	2%	0

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

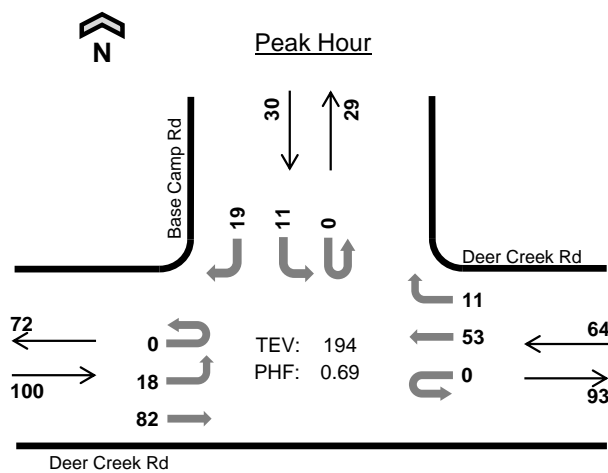
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0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

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Deer Creek Rd				Deer Creek Rd				n/a				Base Camp Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	4	0
Peak Hour	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	4	0

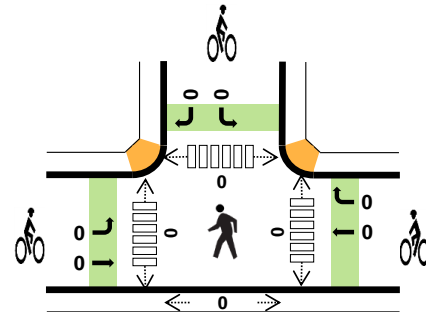
Two-Hour Count Summaries - Bikes																	
Interval Start	Deer Creek Rd			Deer Creek Rd			n/a			Base Camp Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	2	2	2		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
Count Total	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

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

Base Camp Rd Deer Creek Rd



Date: 09/07/2022
Count Period: 2:30 PM to 6:00 PM
Peak Hour: 2:30 PM to 3:30 PM



	HV %:	PHF
EB	2.0%	0.57
WB	1.6%	0.70
NB	-	-
SB	3.3%	0.54
TOTAL	2.1%	0.69

Three-and-a-Half-Hour Count Summaries

Interval Start	Deer Creek Rd Eastbound				Deer Creek Rd Westbound				n/a Northbound				Base Camp Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM	0	2	17	0	0	0	19	2	0	0	0	0	0	4	0	3	47	0
2:45 PM	0	6	19	0	0	0	21	2	0	0	0	0	0	0	0	2	50	0
3:00 PM	0	6	38	0	0	0	7	5	0	0	0	0	0	4	0	10	70	0
3:15 PM	0	4	8	0	0	0	6	2	0	0	0	0	0	3	0	4	27	194
Peak Hour	All	0	18	82	0	0	0	53	11	0	0	0	0	0	11	0	194	0
	HV	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1	4	0
	HV%	-	0%	2%	-	-	-	2%	0%	-	-	-	-	-	0%	-	2%	0

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

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

Three-and-a-Half-Hour Count Summaries																			
Interval Start		Deer Creek Rd				Deer Creek Rd				n/a				Base Camp Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	2:30 PM	0	2	17	0	0	0	19	2	0	0	0	0	0	4	0	3	47	0
	2:45 PM	0	6	19	0	0	0	21	2	0	0	0	0	0	0	0	2	50	0
	3:00 PM	0	6	38	0	0	0	7	5	0	0	0	0	0	4	0	10	70	0
	3:15 PM	0	4	8	0	0	0	6	2	0	0	0	0	0	3	0	4	27	194
	3:30 PM	0	6	11	0	0	0	8	3	0	0	0	0	0	3	0	6	37	184
	3:45 PM	0	3	4	0	0	0	9	3	0	0	0	0	0	1	0	6	26	160
	4:00 PM	0	1	3	0	0	0	8	4	0	0	0	0	0	4	0	7	27	117
	4:15 PM	0	8	10	0	0	0	8	1	0	0	0	0	0	3	0	5	35	125
	4:30 PM	0	0	7	0	0	0	8	1	0	0	0	0	0	4	0	11	31	119
	4:45 PM	0	4	11	0	0	0	7	0	0	0	0	0	0	2	0	13	37	130
	5:00 PM	0	3	10	0	0	0	8	2	0	0	0	0	0	1	0	9	33	136
	5:15 PM	0	4	8	0	0	0	6	1	0	0	0	0	0	1	0	4	24	125
	5:30 PM	0	5	14	0	0	0	8	2	0	0	0	0	0	1	0	5	35	129
	5:45 PM	0	1	9	0	0	0	7	2	0	0	0	0	0	1	0	3	23	115
Count Total		0	53	169	0	0	0	130	30	0	0	0	0	0	32	0	88	502	0
Peak Hour	All	0	18	82	0	0	0	53	11	0	0	0	0	0	11	0	19	194	0
	HV	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	4	0
	HV%	-	0%	2%	-	-	-	2%	0%	-	-	-	-	-	0%	-	5%	2%	0
Note: Three-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South				
	2:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:45 PM	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	2	0	0	2	1	1	0	1	3	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	2	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total		9	6	0	3	18	1	1	0	2	4	0	0	0	0	0	0	0	0
Peak Hr		2	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0

Three-and-a-Half-Hour Count Summaries - Heavy Vehicles

Interval Start	Deer Creek Rd				Deer Creek Rd				n/a				Base Camp Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
2:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
3:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
3:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5
3:45 PM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3	6
4:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	7
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	4	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Count Total	0	3	6	0	0	0	6	0	0	0	0	0	0	0	0	3	18	0
Peak Hour	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	4	0

Three-and-a-Half-Hour Count Summaries - Bikes

Interval Start	Deer Creek Rd			Deer Creek Rd			n/a			Base Camp Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	1	0	0	0	0	1	0	0	0	0	0	1	3	3
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	0	0	0	1	0	0	0	1	0	1	4	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Woodmoor Rd Deer Creek Rd

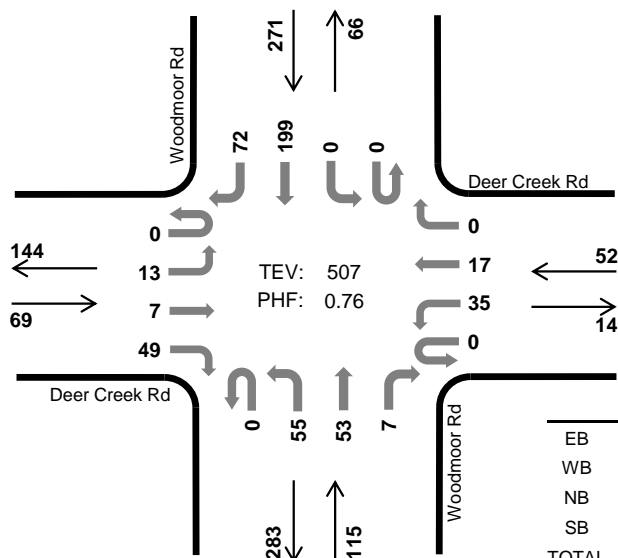


Peak Hour

Date: 09/07/2022

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



Two-Hour Count Summaries

Interval Start		Deer Creek Rd				Deer Creek Rd				Woodmoor Rd				Woodmoor Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	2	0	24	0	13	5	0	0	18	8	1	0	0	59	15	145	0
7:15 AM		0	4	3	13	0	6	9	0	0	27	13	2	0	0	46	44	167	0
7:30 AM		0	5	3	5	0	10	3	0	0	6	13	0	0	0	45	10	100	0
7:45 AM		0	2	1	7	0	6	0	0	0	4	19	4	0	0	49	3	95	507
8:00 AM		0	1	0	2	0	8	0	0	0	14	18	0	0	1	34	3	81	443
8:15 AM		0	4	0	9	0	3	0	0	0	9	15	1	0	0	32	2	75	351
8:30 AM		0	1	0	3	0	11	0	0	0	7	18	3	0	1	50	5	99	350
8:45 AM		0	0	1	7	0	6	0	0	0	6	25	3	0	0	32	5	85	340
Count Total		0	19	8	70	0	63	17	0	0	91	129	14	0	2	347	87	847	0
Peak Hour	All	0	13	7	49	0	35	17	0	0	55	53	7	0	0	199	72	507	0
	HV	0	0	0	1	0	0	0	0	0	1	0	0	0	0	4	0	6	0
	HV%	-	0%	0%	2%	-	0%	0%	-	-	2%	0%	0%	-	-	2%	0%	1%	0

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

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

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Deer Creek Rd				Deer Creek Rd				Woodmoor Rd				Woodmoor Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	6
8:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	8
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	3	10
Count Total	0	1	0	2	0	1	0	0	0	0	2	3	1	0	0	6	16	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	4	6	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Deer Creek Rd			Deer Creek Rd			Woodmoor Rd			Woodmoor Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	2	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	2	0	0	0	0	0	0	0	0	2	0			
Peak Hour	0	0	0	2	0	0	0	0	0	0	0	0	2	0			

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

Woodmoor Rd Deer Creek Rd

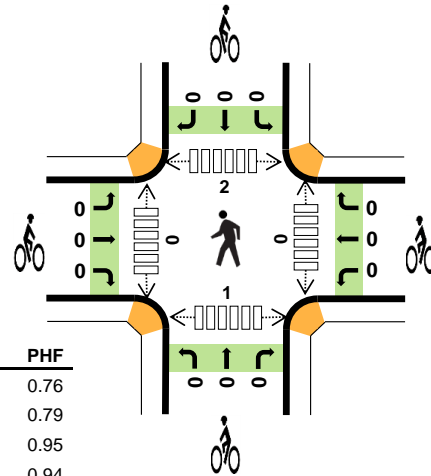
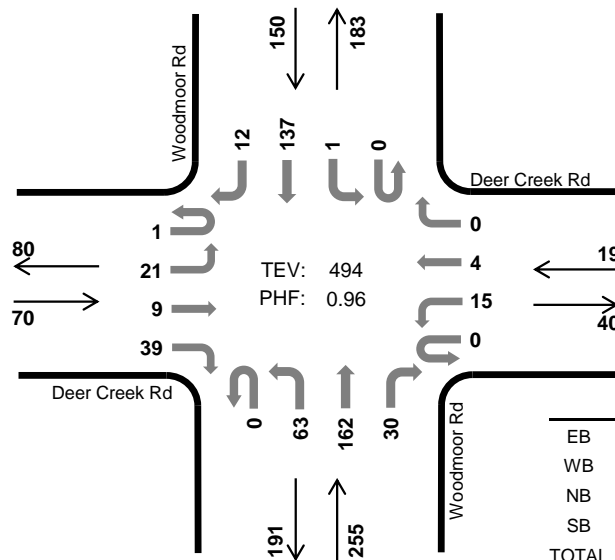


Peak Hour

Date: 09/07/2022

Count Period: 2:30 PM to 6:00 PM

Peak Hour: 5:00 PM to 6:00 PM



	HV %	PHF
EB	1.4%	0.76
WB	5.3%	0.79
NB	1.2%	0.95
SB	4.0%	0.94
TOTAL	2.2%	0.96

Three-and-a-Half-Hour Count Summaries

Interval Start		Deer Creek Rd				Deer Creek Rd				Woodmoor Rd				Woodmoor Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:00 PM		1	5	4	12	0	3	1	0	0	6	47	8	0	0	36	4	127	0
5:15 PM		0	4	1	8	0	3	3	0	0	12	38	10	0	0	33	2	114	0
5:30 PM		0	5	2	5	0	5	0	0	0	20	40	7	0	1	36	3	124	0
5:45 PM		0	7	2	14	0	4	0	0	0	25	37	5	0	0	32	3	129	494
Peak Hour	All	1	21	9	39	0	15	4	0	0	63	162	30	0	1	137	12	494	0
	HV	0	0	0	1	0	1	0	0	0	1	2	0	0	0	6	0	11	0
	HV%	0%	0%	0%	3%	-	7%	0%	-	-	2%	1%	0%	-	0%	4%	0%	2%	0

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

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

Three-and-a-Half-Hour Count Summaries																			
Interval Start		Deer Creek Rd				Deer Creek Rd				Woodmoor Rd				Woodmoor Rd				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM		0	5	0	18	0	11	1	0	1	17	27	8	0	1	27	13	129	0
2:45 PM		0	8	0	10	0	8	2	2	0	12	28	4	0	0	24	8	106	0
3:00 PM		0	20	9	18	0	3	1	0	0	7	25	9	0	0	23	5	120	0
3:15 PM		0	6	2	5	0	9	1	0	0	6	34	8	0	0	30	4	105	460
3:30 PM		0	4	2	11	0	5	1	0	0	4	27	9	0	1	28	2	94	425
3:45 PM		0	1	2	6	0	8	2	0	1	5	34	12	0	0	38	2	111	430
4:00 PM		0	3	0	14	0	4	2	0	0	7	59	10	0	0	29	3	131	441
4:15 PM		0	7	0	10	0	3	1	0	0	4	37	5	0	0	40	1	108	444
4:30 PM		0	3	1	8	0	7	2	0	0	4	28	9	0	1	35	5	103	453
4:45 PM		0	7	2	11	0	7	2	2	0	3	36	3	0	0	27	4	104	446
5:00 PM		1	5	4	12	0	3	1	0	0	6	47	8	0	0	36	4	127	442
5:15 PM		0	4	1	8	0	3	3	0	0	12	38	10	0	0	33	2	114	448
5:30 PM		0	5	2	5	0	5	0	0	0	20	40	7	0	1	36	3	124	469
5:45 PM		0	7	2	14	0	4	0	0	0	25	37	5	0	0	32	3	129	494
Count Total		1	85	27	150	0	80	19	4	2	132	497	107	0	4	438	59	1,605	0
Peak Hour	All	1	21	9	39	0	15	4	0	0	63	162	30	0	1	137	12	494	0
	HV	0	0	0	1	0	1	0	0	0	1	2	0	0	0	6	0	11	0
	HV%	0%	0%	0%	3%	-	7%	0%	-	-	2%	1%	0%	-	0%	4%	0%	2%	0
Note: Three-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
2:30 PM		0	0	1	0	1	0	0	0	0	0	0	7	0	4	11			
2:45 PM		0	1	1	0	2	0	0	0	0	0	0	0	0	0	0			
3:00 PM		1	0	1	2	4	0	0	0	0	0	0	4	0	0	4			
3:15 PM		0	0	1	0	1	0	0	0	0	0	0	0	0	0	0			
3:30 PM		1	0	2	1	4	0	0	0	0	0	0	0	0	0	0			
3:45 PM		0	0	1	1	2	0	0	0	0	0	0	0	0	0	0			
4:00 PM		0	1	1	2	4	0	1	0	0	1	0	1	0	0	1			
4:15 PM		0	0	0	0	0	1	0	0	0	1	0	0	0	0	0			
4:30 PM		0	0	0	1	1	0	0	0	0	0	0	0	0	0	0			
4:45 PM		1	1	0	1	3	0	0	0	0	0	0	0	0	0	0			
5:00 PM		1	1	1	0	3	0	0	0	0	0	0	0	0	1	1			
5:15 PM		0	0	1	4	5	0	0	0	0	0	0	0	0	0	0			
5:30 PM		0	0	1	1	2	0	0	0	0	0	0	0	0	0	0			
5:45 PM		0	0	0	1	1	0	0	0	0	0	0	0	0	2	0	2		
Count Total		4	4	11	14	33	1	1	0	0	2	0	12	2	5	19			
Peak Hour		1	1	3	6	11	0	0	0	0	0	0	0	2	1	3			

Three-and-a-Half-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Deer Creek Rd				Deer Creek Rd				Woodmoor Rd				Woodmoor Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
2:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0
3:00 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0	0	4	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	8
3:30 PM	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	4	11
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	11	
4:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	4	11	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	7	
4:45 PM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	3	8	
5:00 PM	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	3	7	
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	12	
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	13	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11	
Count Total	0	0	0	4	0	2	1	1	0	4	7	0	0	1	11	2	33	0	
Peak Hour	0	0	0	1	0	1	0	0	0	1	2	0	0	0	6	0	11	0	

Three-and-a-Half-Hour Count Summaries - Bikes																			
Interval Start	Deer Creek Rd				Deer Creek Rd				Woodmoor Rd				Woodmoor Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT				
2:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
2:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
3:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
3:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
3:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
3:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
4:00 PM	0	0	0		0	1	0		0	0	0		0	0	0		1	1	
4:15 PM	0	1	0		0	0	0		0	0	0		0	0	0		1	2	
4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	2	
4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	2	
5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	1	
5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0	
Count Total	0	1	0		0	1	0		0	0	0		0	0	0		2	0	
Peak Hour	0	0	0		0	0	0		0	0	0		0	0	0		0	0	

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

Woodmoor Dr Monument Hill Rd

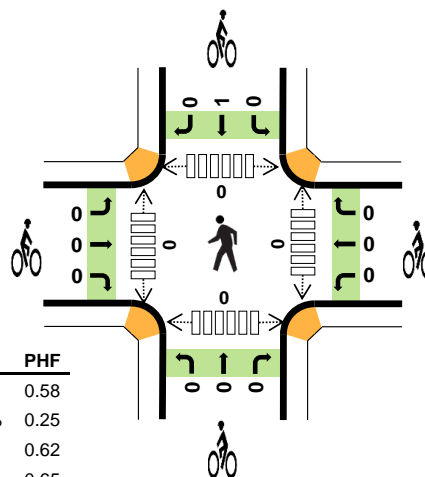
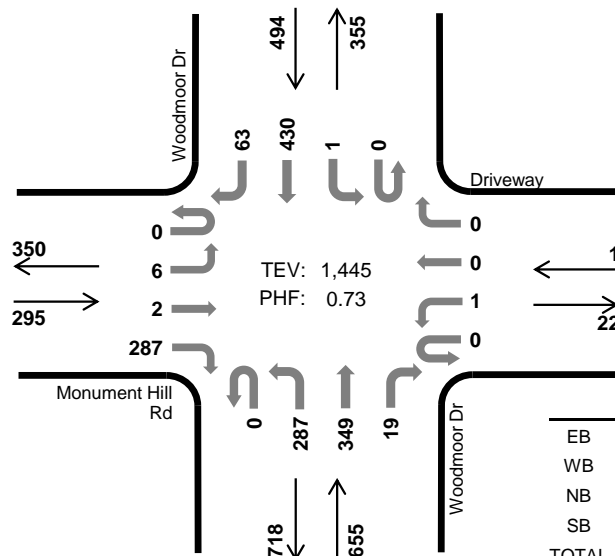


Peak Hour

Date: 09/07/2022

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	4.1%	0.58
WB	100.0%	0.25
NB	3.7%	0.62
SB	5.1%	0.65
TOTAL	4.3%	0.73

Two-Hour Count Summaries

Interval Start		Monument Hill Rd				Driveway				Woodmoor Dr				Woodmoor Dr				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	40	0	0	0	0	0	77	185	1	0	0	160	31	494	0
7:15 AM		0	1	0	101	0	0	0	0	0	120	71	5	0	1	139	26	464	0
7:30 AM		0	4	0	124	0	0	0	0	0	58	43	3	0	0	65	4	301	0
7:45 AM		0	1	2	22	0	1	0	0	0	32	50	10	0	0	66	2	186	1,445
8:00 AM		0	0	0	28	0	1	0	0	0	18	53	2	0	0	57	0	159	1,110
8:15 AM		0	1	0	24	0	0	0	0	0	20	40	4	0	0	57	1	147	793
8:30 AM		0	1	0	37	0	1	0	0	0	27	50	11	0	0	74	1	202	694
8:45 AM		0	1	0	22	0	0	0	0	0	64	56	4	0	0	71	1	219	727
Count Total		0	9	2	398	0	3	0	0	0	416	548	40	0	1	689	66	2,172	0
Peak Hour	All	0	6	2	287	0	1	0	0	0	287	349	19	0	1	430	63	1,445	0
	HV	0	0	0	12	0	1	0	0	0	3	20	1	0	0	16	9	62	0
	HV%	-	0%	0%	4%	-	100%	-	-	-	1%	6%	5%	-	0%	4%	14%	4%	0

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

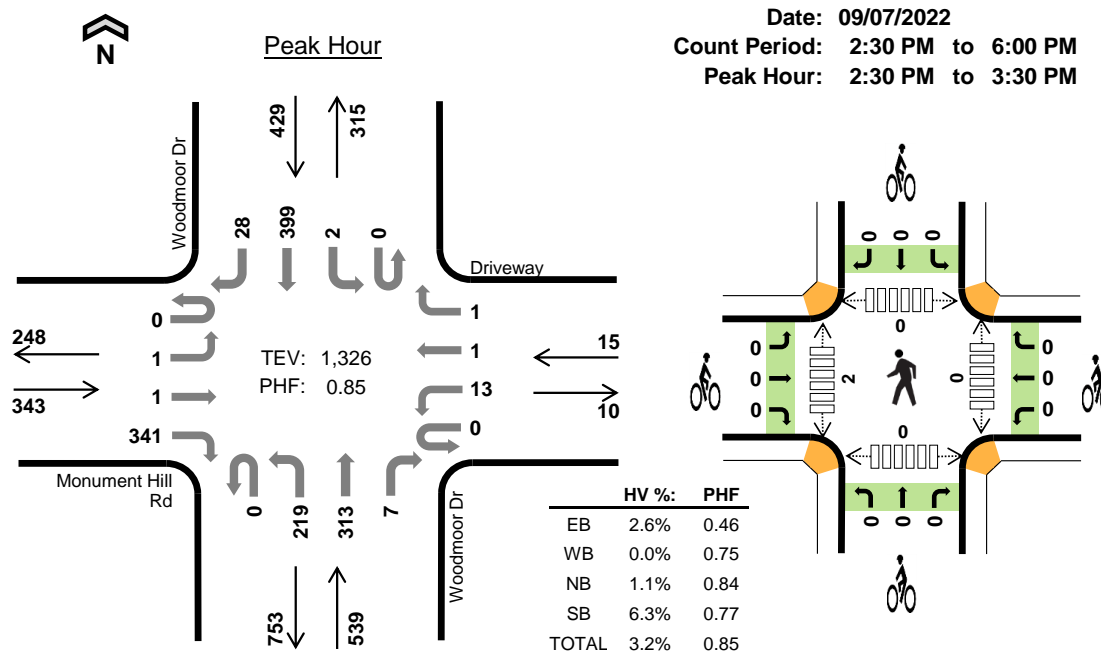
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	2	0	19	9	30	0	0	0	1	1	0	0	0	0	0
7:15 AM	8	0	3	13	24	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	1	2	4	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	1	1	1	4	0	0	0	0	0	0	0	0	0	0
8:00 AM	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	1	2	4	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	3	1	4	0	0	1	0	1	0	0	0	0	0
8:45 AM	0	0	2	3	5	0	0	0	0	0	0	1	0	1	2
Count Total	15	1	33	31	80	0	0	1	1	2	0	1	0	1	2
Peak Hour	12	1	24	25	62	0	0	0	1	1	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Monument Hill Rd				Driveway				Woodmoor Dr				Woodmoor Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	2	0	0	0	0	0	1	18	0	0	0	5	4	30	0
7:15 AM	0	0	0	8	0	0	0	0	0	2	1	0	0	0	8	5	24	0
7:30 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0	4	0
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	1	0	0	1	0	4	62
8:00 AM	0	0	0	2	0	0	0	0	0	1	2	0	0	0	0	0	5	37
8:15 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0	4	17
8:30 AM	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	4	17
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	18
Count Total	0	1	0	14	0	1	0	0	0	7	25	1	0	0	22	9	80	0
Peak Hour	0	0	0	12	0	1	0	0	0	3	20	1	0	0	16	9	62	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Monument Hill Rd			Driveway			Woodmoor Dr			Woodmoor Dr			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1				
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	1	0				

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

Woodmoor Dr Monument Hill Rd



Three-and-a-Half-Hour Count Summaries

Interval Start		Monument Hill Rd				Driveway				Woodmoor Dr				Woodmoor Dr				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM		0	0	1	34	0	1	0	0	0	63	95	2	0	0	122	12	330	0
2:45 PM		0	1	0	42	0	4	0	1	0	71	70	3	0	1	125	13	331	0
3:00 PM		0	0	0	187	0	5	0	0	0	41	69	1	0	1	86	2	392	0
3:15 PM		0	0	0	78	0	3	1	0	0	44	79	1	0	0	66	1	273	1,326
Peak Hour	All	0	1	1	341	0	13	1	1	0	219	313	7	0	2	399	28	1,326	0
	HV	0	0	0	9	0	0	0	0	0	3	3	0	0	0	18	9	42	0
	HV%	-	0%	0%	3%	-	0%	0%	0%	-	1%	1%	0%	-	0%	5%	32%	3%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:30 PM	0	0	1	10	11	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	2	15	17	0	0	0	0	0	0	1	0	0	1
3:00 PM	9	0	3	1	13	0	0	0	0	0	0	1	0	0	1
3:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Peak Hour	9	0	6	27	42	0	0	0	0	0	0	2	0	0	2

Three-and-a-Half-Hour Count Summaries																			
Interval Start		Monument Hill Rd				Driveway				Woodmoor Dr				Woodmoor Dr				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:30 PM		0	0	1	34	0	1	0	0	0	63	95	2	0	0	122	12	330	0
2:45 PM		0	1	0	42	0	4	0	1	0	71	70	3	0	1	125	13	331	0
3:00 PM		0	0	0	187	0	5	0	0	0	41	69	1	0	1	86	2	392	0
3:15 PM		0	0	0	78	0	3	1	0	0	44	79	1	0	0	66	1	273	1,326
3:30 PM		0	2	0	44	0	2	0	0	0	51	59	2	0	0	77	1	238	1,234
3:45 PM		0	0	0	38	0	2	0	0	0	21	80	1	0	0	75	0	217	1,120
4:00 PM		0	0	0	30	0	3	0	0	0	47	96	0	0	0	75	2	253	981
4:15 PM		0	0	1	39	0	4	1	1	0	47	62	0	0	0	84	3	242	950
4:30 PM		0	1	0	29	0	4	0	1	0	50	69	2	0	0	85	3	244	956
4:45 PM		0	0	0	48	0	4	0	1	0	30	69	3	0	0	67	0	222	961
5:00 PM		0	0	0	43	0	0	0	0	0	34	88	1	0	0	117	1	284	992
5:15 PM		0	0	1	28	0	7	1	0	0	44	85	0	0	0	84	6	256	1,006
5:30 PM		0	0	0	58	0	5	0	1	0	50	69	1	0	0	66	1	251	1,013
5:45 PM		0	0	1	32	0	3	0	1	0	40	91	3	0	0	69	1	241	1,032
Count Total		0	4	4	730	0	47	3	6	0	633	1,081	20	0	2	1,198	46	3,774	0
Peak Hour	All	0	1	1	341	0	13	1	1	0	219	313	7	0	2	399	28	1,326	0
	HV	0	0	0	9	0	0	0	0	0	3	3	0	0	0	18	9	42	0
	HV%	-	0%	0%	3%	-	0%	0%	0%	-	1%	1%	0%	-	0%	5%	32%	3%	0
Note: Three-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
2:30 PM		0	0	1	10	11	0	0	0	0	0	0	0	0	0	0	0	0	
2:45 PM		0	0	2	15	17	0	0	0	0	0	0	1	0	0	0	1		
3:00 PM		9	0	3	1	13	0	0	0	0	0	0	1	0	0	0	1		
3:15 PM		0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM		0	0	4	1	5	0	0	0	0	0	0	0	0	0	0	0		
3:45 PM		0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0		
4:00 PM		0	0	3	3	6	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM		1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM		1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM		0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM		0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM		0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0		
5:30 PM		3	0	3	1	7	0	0	0	1	1	0	0	0	0	0	0		
5:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Count Total		14	1	27	39	81	0	0	0	1	1	0	2	0	0	0	2		
Peak Hour		9	0	6	27	42	0	0	0	0	0	0	2	0	0	0	2		

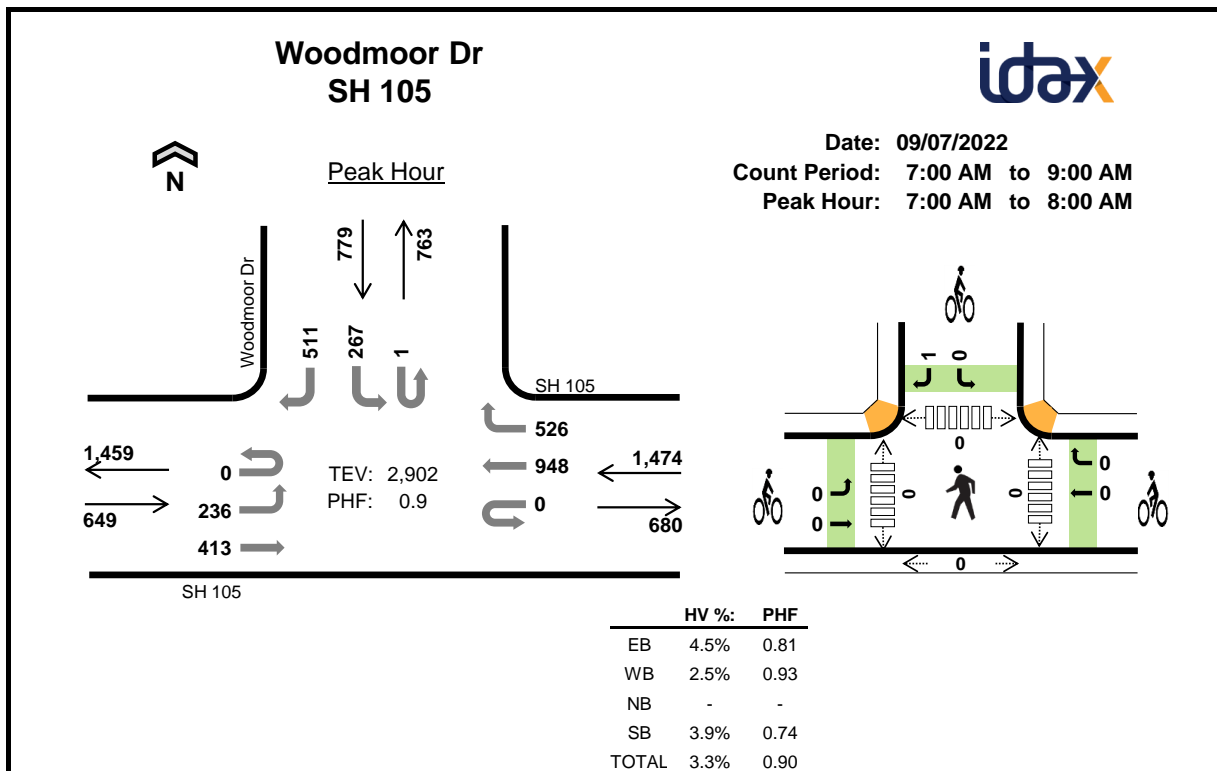
Three-and-a-Half-Hour Count Summaries - Heavy Vehicles

Interval Start	Monument Hill Rd				Driveway				Woodmoor Dr				Woodmoor Dr				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
2:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	10	0	11	0
2:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	6	9	17	0
3:00 PM	0	0	0	9	0	0	0	0	0	0	3	0	0	0	0	1	0	13	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	42
3:30 PM	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	5	36
3:45 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	3	22
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	6	15
4:15 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2	16
4:30 PM	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0	0	0	4	15
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	3	15
5:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	3	12
5:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	4	0	0	6	16
5:30 PM	0	0	0	3	0	0	0	0	0	1	2	0	0	0	1	0	0	7	19
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Count Total	0	0	0	14	0	1	0	0	0	12	15	0	0	0	30	9	0	81	0
Peak Hour	0	0	0	9	0	0	0	0	0	3	3	0	0	0	18	9	0	42	0

Three-and-a-Half-Hour Count Summaries - Bikes

Interval Start	Monument Hill Rd			Driveway			Woodmoor Dr			Woodmoor Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

**Two-Hour Count Summaries**

Interval Start		SH 105				SH 105				n/a				Woodmoor Dr				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	84	74	0	0	0	168	217	0	0	0	0	0	80	0	119	742	0
7:15 AM		0	69	132	0	0	0	223	120	0	0	0	0	0	98	0	164	806	0
7:30 AM		0	44	98	0	0	0	258	91	0	0	0	0	1	55	0	146	693	0
7:45 AM		0	39	109	0	0	0	299	98	0	0	0	0	0	34	0	82	661	2,902
8:00 AM		0	24	86	0	0	0	262	85	0	0	0	0	0	27	0	94	578	2,738
8:15 AM		0	19	95	0	0	0	184	78	0	0	0	0	0	30	0	66	472	2,404
8:30 AM		0	56	96	0	0	0	195	85	0	0	0	0	0	40	0	92	564	2,275
8:45 AM		0	63	100	0	0	0	262	97	0	0	0	0	0	48	0	93	663	2,277
Count Total		0	398	790	0	0	0	1,851	871	0	0	0	0	1	412	0	856	5,179	0
Peak Hour	All	0	236	413	0	0	0	948	526	0	0	0	0	1	267	0	511	2,902	0
	HV	0	11	18	0	0	0	22	15	0	0	0	0	0	17	0	13	96	0
	HV%	-	5%	4%	-	-	-	2%	3%	-	-	-	-	0%	6%	-	3%	3%	0

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

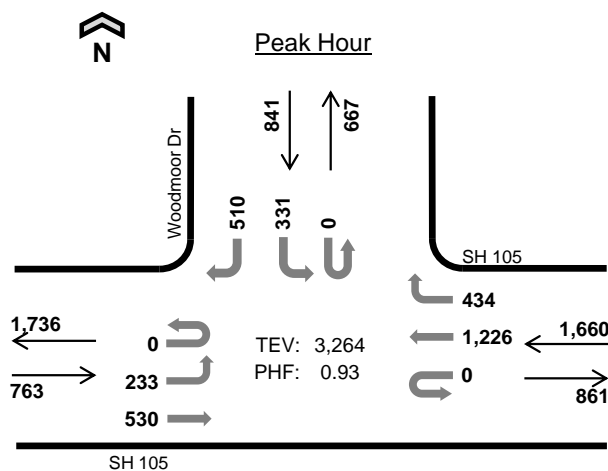
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	13	15	0	5	33	0	0	0	0	0	0	0	0	0	0
7:15 AM	2	8	0	21	31	0	0	0	1	1	0	0	0	0	0
7:30 AM	6	8	0	2	16	0	0	0	0	0	0	0	0	0	0
7:45 AM	8	6	0	2	16	0	0	0	0	0	0	0	0	0	0
8:00 AM	11	3	0	3	17	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	7	0	2	11	0	0	0	0	0	0	0	0	0	0
8:30 AM	4	5	0	1	10	0	1	0	0	1	0	0	1	0	1
8:45 AM	2	13	0	5	20	0	0	0	0	0	0	0	0	0	0
Count Total	48	65	0	41	154	0	1	0	1	2	0	0	1	0	1
Peak Hr	29	37	0	30	96	0	0	0	1	1	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	SH 105				SH 105				n/a				Woodmoor Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	6	7	0	0	0	2	13	0	0	0	0	0	4	0	1	33	0
7:15 AM	0	1	1	0	0	0	7	1	0	0	0	0	0	11	0	10	31	0
7:30 AM	0	0	6	0	0	0	7	1	0	0	0	0	0	2	0	0	16	0
7:45 AM	0	4	4	0	0	0	6	0	0	0	0	0	0	0	0	2	16	96
8:00 AM	0	1	10	0	0	0	2	1	0	0	0	0	0	2	0	1	17	80
8:15 AM	0	0	2	0	0	0	5	2	0	0	0	0	0	1	0	1	11	60
8:30 AM	0	2	2	0	0	0	2	3	0	0	0	0	0	0	0	1	10	54
8:45 AM	0	0	2	0	0	0	11	2	0	0	0	0	0	0	0	5	20	58
Count Total	0	14	34	0	0	0	42	23	0	0	0	0	0	20	0	21	154	0
Peak Hour	0	11	18	0	0	0	22	15	0	0	0	0	0	17	0	13	96	0

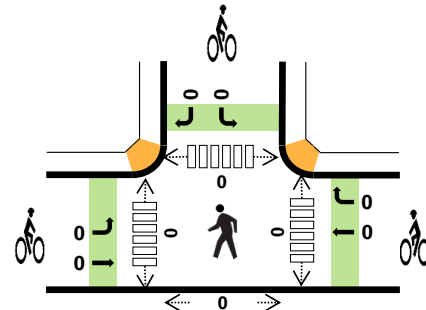
Two-Hour Count Summaries - Bikes																	
Interval Start	SH 105			SH 105			n/a			Woodmoor Dr			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0

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

Woodmoor Dr SH 105



Date: 09/07/2022
Count Period: 2:30 PM to 6:00 PM
Peak Hour: 2:45 PM to 3:45 PM



	HV %:	PHF
EB	2.0%	0.85
WB	2.2%	0.90
NB	-	-
SB	3.4%	0.73
TOTAL	2.5%	0.93

Three-and-a-Half-Hour Count Summaries

Interval Start		SH 105				SH 105				n/a				Woodmoor Dr				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
2:45 PM		0	66	125	0	0	0	271	120	0	0	0	0	0	90	0	118	790	0
3:00 PM		0	56	135	0	0	0	312	90	0	0	0	0	0	118	0	171	882	0
3:15 PM		0	48	109	0	0	0	353	108	0	0	0	0	0	73	0	116	807	0
3:30 PM		0	63	161	0	0	0	290	116	0	0	0	0	0	50	0	105	785	3,264
Peak Hour	All	0	233	530	0	0	0	1,226	434	0	0	0	0	0	331	0	510	3,264	0
	HV	0	3	12	0	0	0	28	8	0	0	0	0	0	19	0	10	80	0
	HV%	-	1%	2%	-	-	-	2%	2%	-	-	-	-	-	6%	-	2%	2%	0

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:45 PM	4	6	0	16	26	0	0	0	0	0	0	0	0	0	0
3:00 PM	3	13	0	11	27	0	0	0	0	0	0	0	0	0	0
3:15 PM	3	8	0	0	11	0	0	0	0	0	0	0	0	0	0
3:30 PM	5	9	0	2	16	0	0	0	0	0	0	0	0	0	0
Peak Hour	15	36	0	29	80	0	0	0	0	0	0	0	0	0	0

Three-and-a-Half-Hour Count Summaries																			
Interval Start		SH 105				SH 105				n/a				Woodmoor Dr				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
2:30 PM	0	64	152	0	0	0	215	128	0	0	0	0	0	87	0	85	731	0	
2:45 PM	0	66	125	0	0	0	271	120	0	0	0	0	0	90	0	118	790	0	
3:00 PM	0	56	135	0	0	0	312	90	0	0	0	0	0	118	0	171	882	0	
3:15 PM	0	48	109	0	0	0	353	108	0	0	0	0	0	73	0	116	807	3,210	
3:30 PM	0	63	161	0	0	0	290	116	0	0	0	0	0	50	0	105	785	3,264	
3:45 PM	0	76	124	0	0	0	274	107	0	0	0	0	0	51	0	106	738	3,212	
4:00 PM	0	61	152	0	0	0	260	98	0	0	0	0	0	57	0	121	749	3,079	
4:15 PM	0	48	152	0	0	0	268	107	0	0	0	0	0	68	0	116	759	3,031	
4:30 PM	0	39	147	0	0	0	292	100	0	0	0	0	0	60	0	104	742	2,988	
4:45 PM	0	61	158	0	0	0	258	114	0	0	0	0	0	52	0	103	746	2,996	
5:00 PM	0	67	187	0	0	0	263	96	0	0	0	0	0	72	0	145	830	3,077	
5:15 PM	0	62	162	0	0	0	244	114	0	0	0	0	0	63	0	111	756	3,074	
5:30 PM	0	59	156	0	0	0	242	93	0	0	0	0	0	48	0	121	719	3,051	
5:45 PM	0	46	124	0	0	0	233	112	0	0	0	0	0	50	0	90	655	2,960	
Count Total		0	816	2,044	0	0	0	3,775	1,503	0	0	0	0	0	939	0	1,612	10,689	0
Peak Hour	All	0	233	530	0	0	0	1,226	434	0	0	0	0	0	331	0	510	3,264	0
	HV	0	3	12	0	0	0	28	8	0	0	0	0	0	19	0	10	80	0
	HV%	-	1%	2%	-	-	-	2%	2%	-	-	-	-	-	6%	-	2%	2%	0
Note: Three-and-a-half-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.																			
Interval Start		Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)							
		EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total			
2:30 PM	3	7	0	1	11	0	0	0	0	0	0	0	0	1	0	1			
2:45 PM	4	6	0	16	26	0	0	0	0	0	0	0	0	0	0	0			
3:00 PM	3	13	0	11	27	0	0	0	0	0	0	0	0	0	0	0			
3:15 PM	3	8	0	0	11	0	0	0	0	0	0	0	0	0	0	0			
3:30 PM	5	9	0	2	16	0	0	0	0	0	0	0	0	0	0	0			
3:45 PM	3	10	0	2	15	0	0	0	0	0	0	0	0	0	0	0			
4:00 PM	1	8	0	2	11	0	0	0	0	0	0	0	0	1	0	1			
4:15 PM	2	4	0	1	7	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	1	19	0	1	21	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	2	9	0	1	12	0	0	0	0	0	0	0	0	0	0	0			
5:00 PM	3	12	0	3	18	0	0	0	0	0	0	0	0	1	0	1			
5:15 PM	2	4	0	6	12	0	0	0	0	0	0	0	0	1	0	1			
5:30 PM	2	4	0	4	10	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0			
Count Total		34	115	0	50	199	0	0	0	0	0	0	0	4	0	4			
Peak Hr		15	36	0	29	80	0	0	0	0	0	0	0	0	0	0			

Three-and-a-Half-Hour Count Summaries - Heavy Vehicles																			
Interval Start	SH 105				SH 105				n/a				Woodmoor Dr				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
2:30 PM	0	1	2	0	0	0	5	2	0	0	0	0	0	0	0	0	1	11	0
2:45 PM	0	1	3	0	0	0	3	3	0	0	0	0	0	0	14	0	2	26	0
3:00 PM	0	0	3	0	0	0	11	2	0	0	0	0	0	0	4	0	7	27	0
3:15 PM	0	0	3	0	0	0	7	1	0	0	0	0	0	0	0	0	0	11	75
3:30 PM	0	2	3	0	0	0	7	2	0	0	0	0	0	0	1	0	1	16	80
3:45 PM	0	2	1	0	0	0	8	2	0	0	0	0	0	0	1	0	1	15	69
4:00 PM	0	0	1	0	0	0	8	0	0	0	0	0	0	0	1	0	1	11	53
4:15 PM	0	0	2	0	0	0	3	1	0	0	0	0	0	0	0	0	1	7	49
4:30 PM	0	0	1	0	0	0	17	2	0	0	0	0	0	0	0	0	1	21	54
4:45 PM	0	0	2	0	0	0	7	2	0	0	0	0	0	0	0	0	1	12	51
5:00 PM	0	1	2	0	0	0	10	2	0	0	0	0	0	0	2	0	1	18	58
5:15 PM	0	2	0	0	0	0	1	3	0	0	0	0	0	0	3	0	3	12	63
5:30 PM	0	1	1	0	0	0	2	2	0	0	0	0	0	0	1	0	3	10	52
5:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	42
Count Total	0	10	24	0	0	0	91	24	0	0	0	0	0	0	27	0	23	199	0
Peak Hour	0	3	12	0	0	0	28	8	0	0	0	0	0	0	19	0	10	80	0

Three-and-a-Half-Hour Count Summaries - Bikes																		
Interval Start	SH 105			SH 105			n/a			Woodmoor Dr			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

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

APPENDIX B

Future Traffic Projections and Relevant Adjacent Studies

CDOT OTIS: Caliber at Woodmoor

ROUTE	REFPT	ENDREFPT	LENGTH	UPDATEYR	AADT	YR20FACTOR	Annual Growth Rate	DHV	LOCATION
105A	4.731	5.211	0.42	2020	19000	1.39	1.66%	11	ON SH 105 E/O I-25 E/O WOODMOOR DR MONUMENT

North Bay at Woodmoor

Traffic Impact Study Update

Prepared for:

Ms. Beth A. Diana
Planning Manager
La Plata Communities, Inc.
9540 Federal Drive, Suite 200
Colorado Springs, CO 8092

JUNE 2, 2021

LSC Transportation Consultants
Prepared by: Jeffrey C. Hodsdon, P.E.

LSC # S214850



Table 2: Trip Generation Estimate

ITE		Value	Units 1	Trip Generation Rates 2						Total Trips Generated					
Code	Description			Average	A.M.		P.M.		Average	A.M.		P.M.			
		Weekday	In	Out	In	Out	Weekday	In	Out	In	Out				
Current Traffic Report															
215	Single-Family (Attached) Housing	27	DU	7.12	0.14	0.32	0.32	0.24	192	4	9	9	7		
220	Multi-Family Housing (Low-Rise)	8	DU	7.16	0.13	0.41	0.40	0.24	57	1	3	3	2		
	Total	35	DU					Total	249	5	12	12	8		
Prior Traffic Report															
230	Residential Condominium/Townhome	28	DU	-	-	-	-	-	163	2	10	10	5		
				Increase From Prior Traffic Study						86	3	2	2	3	

¹ DU = dwelling units

² Source: Trip Generation, 11th Edition (2021) by the Institute of Transportation Engineers (ITE)



Approximate Scale
Scale: 1" = 80'

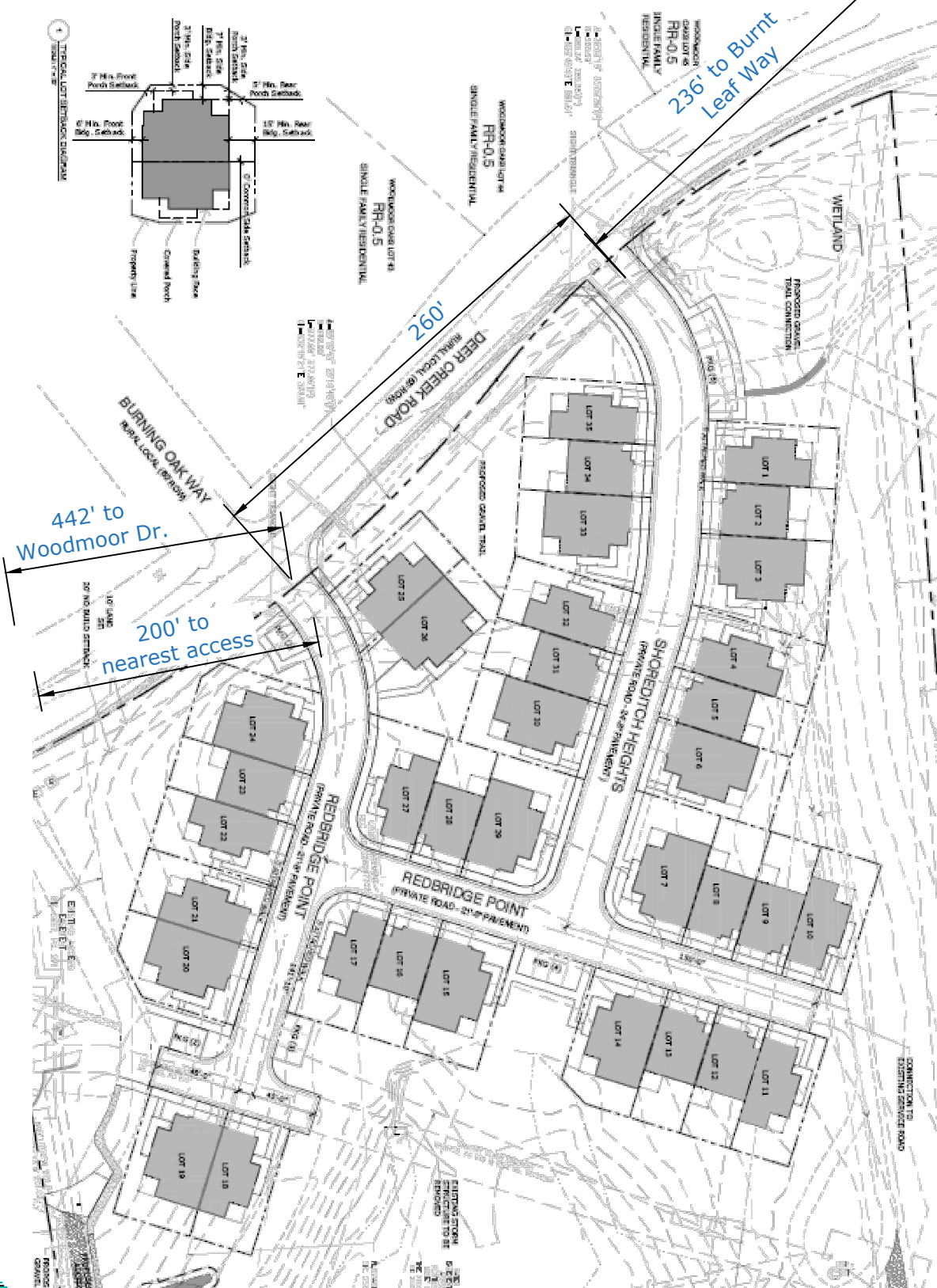
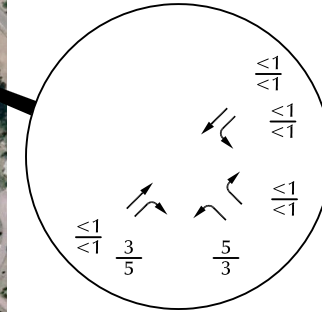
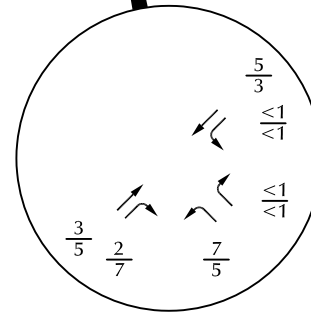
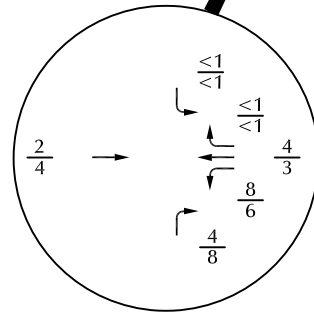
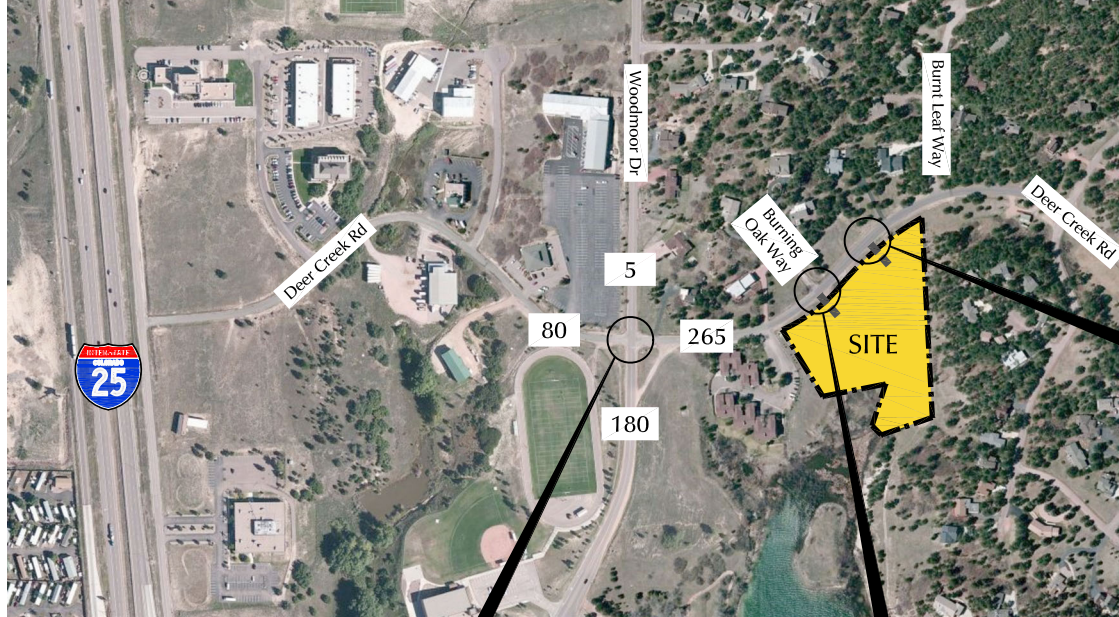


Figure 2
Site Plan

North Bay at Woodmoor (LSC #S214850)





$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (Veh/Hour)}}{\text{PM Weekday Peak-Hour Traffic (Veh/Hour)}}$
 X,XXX = Average Daily Traffic (Vehicles/Day)

Figure 7 Site-Generated Traffic

North Bay at Woodmoor (LSC# 214850)

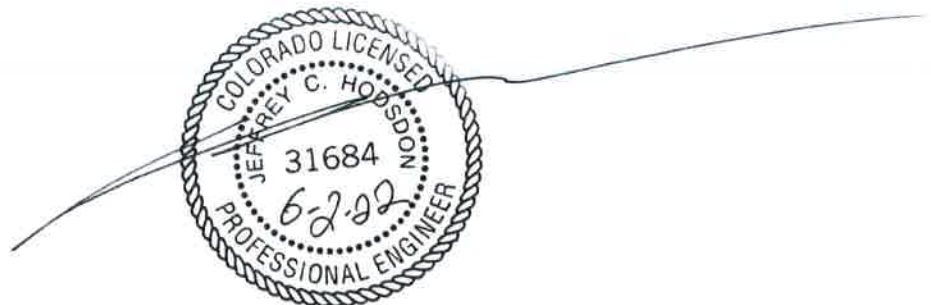


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North Bay at Woodmoor Traffic Impact Study (LSC #S214850) June 2, 2022

Traffic Engineer's Statement

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



Developer's Statement

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

A handwritten signature in blue ink, appearing to read 'Ben A. Lerner', written over a horizontal line.

10-3-2022
Date

Table 2: Trip Generation Estimate

ITE		Value	Units ¹	Trip Generation Rates ²								Total Trips Generated							
				Average	A.M.		School PM ³		P.M.		Average	A.M.		School PM ³		P.M.			
Code	Description			Weekday	In	Out	In	Out	In	Out	Weekday	In	Out	In	Out	In	Out		
215	Single-Family (Attached) Housing	36	DU	7.12	0.14	0.32	0.24	0.18	0.32	0.24	256	5	12	9	6	12	9		
220	Multi-Family Housing (Low-Rise)	16	DU	7.16	0.13	0.41	0.30	0.17	0.40	0.24	115	2	7	5	3	6	4		
		52								Total	371	7	18	13	9	18	12		

¹ DU = dwelling units

² Source: *Trip Generation, 11th Edition (2021)* by the Institute of Transportation Engineers (ITE)

³ Source: *Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use* by ITE (assumes school PM peak of 2:15pm - 3:15pm)



1" = 100'
scale

Deer Creek Road

450'

Proposed Site Access

Woodmoor Drive

450'

Lewis Palmer
Middle School

The Barn
Community
Center

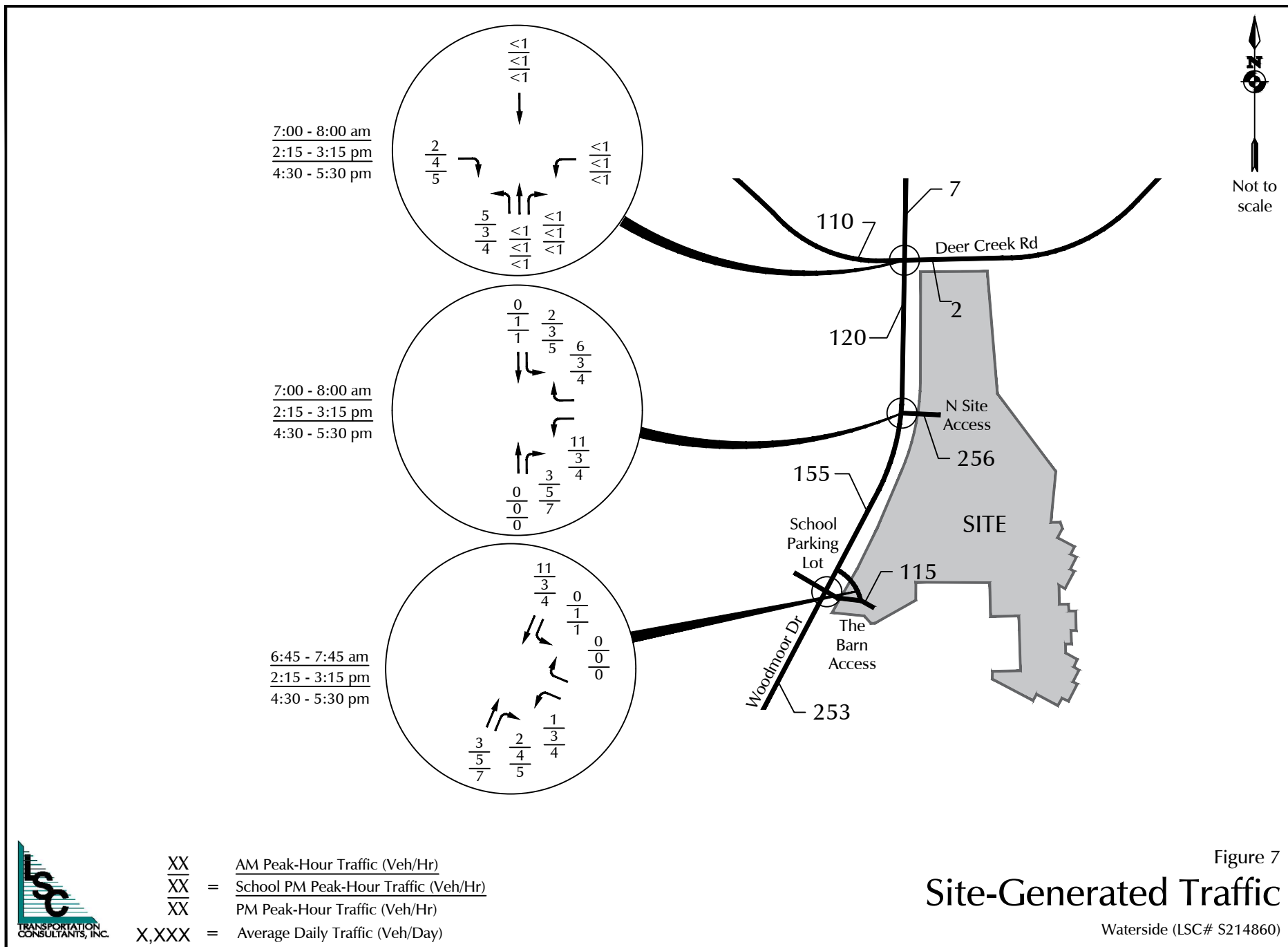
Existing
Access

Figure 2

Site Plan

Waterside (LSC# S214860)





PoDI / NHS	
PROJECT OF DIVISION INTEREST (PoDI)?	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
NATIONAL HIGHWAY SYSTEM?	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES

DEPARTMENT OF TRANSPORTATION

STATE OF COLORADO

CONSTRUCTION BID PLANS OF PROPOSED
FEDERAL AID PROJECT NO. SAR M915-009

LEWIS PALMER TRAIL

LEWIS PALMER SCHOOL DISTRICT 38

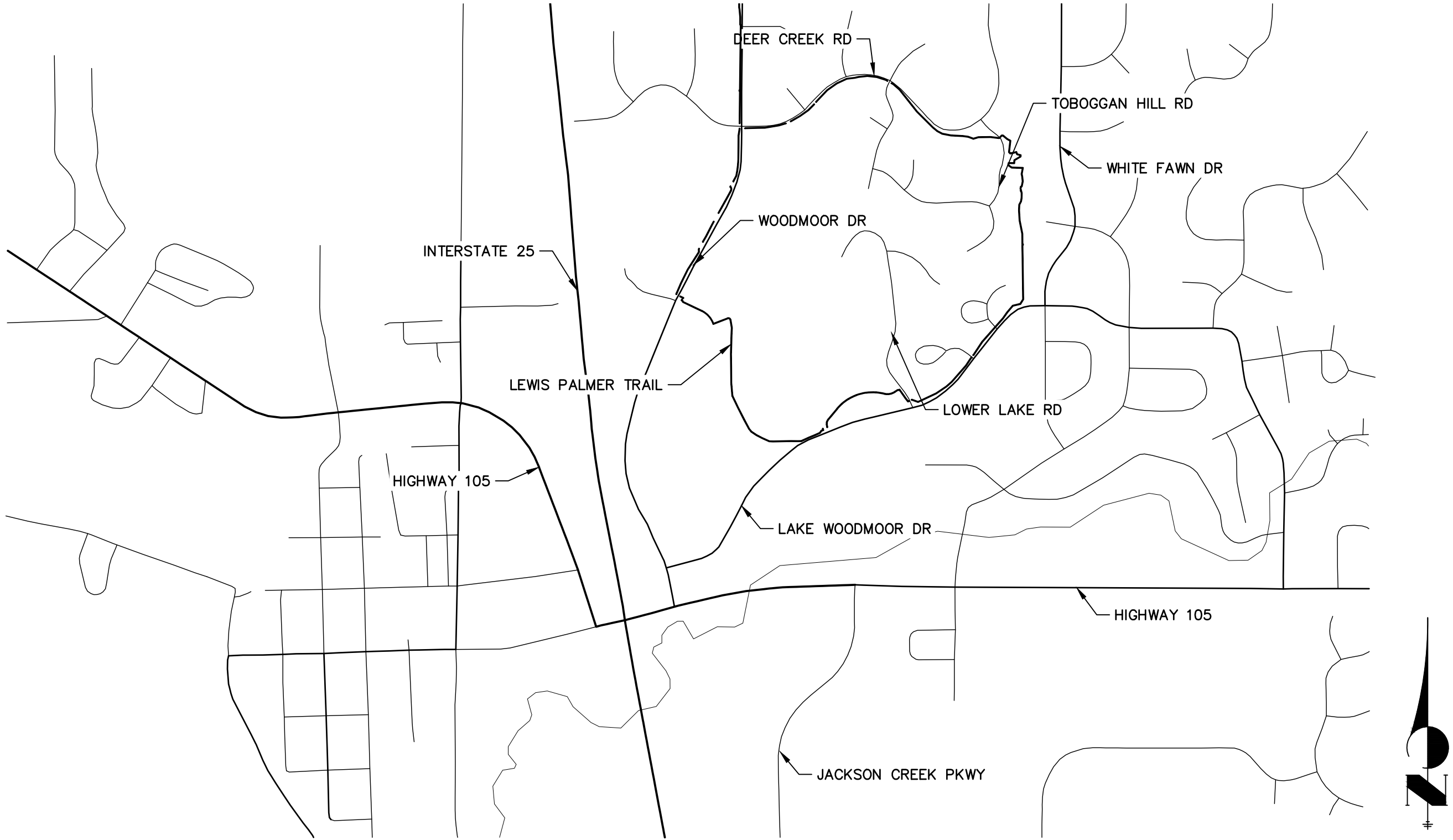
RELATED PROJECT:
P.E. UNDER PROJECT: PROJECT NUMBER: PROJECT CODE:
R.O.W. PROJECT:
TBD

TABULATION OF LENGTH & DESIGN DATA

STATION			PATH LENGTH (FT)
WOODMOOR DRIVE			
BEGIN PATH	0+00.00		
END PATH	30+99.13		3099.13
WILLOW PARK WAY & LAKE ACCESS ROAD			
BEGIN PATH	30+99.13		
END PATH	52+84.41		2185.28
LAKE WOODMOOR DRIVE			
BEGIN PATH	52+84.41		
END PATH	55+32.09		247.68
CORONADO BEACH DR			
BEGIN PATH	55+32.09		
END PATH	64+33.46		901.37
LOWER LAKE ROAD			
BEGIN PATH	64+33.46		
END PATH	66+69.77		236.31
LAKE WOODMOOR DRIVE			
BEGIN PATH	66+69.77		
END PATH	80+76.62		1406.85
WOODMOOR IMPROVEMENT (ASSOCIATION- OPEN SPACE)			
BEGIN PATH	80+76.62		
END PATH	103+00.00		2223.38
DEER CREEK ROAD			
BEGIN PATH	103+00.00		
END PATH	127+63.00		2463.00

DESIGN DATA

WIDTH	4'
CROSS-SLOPE	5% MAX
MAXIMUM SLOPE	12.5%
PASSING ZONE	5'x5' MAX 1,000' APART
RESTING ZONES	5% MAX SLOPE



VICINITY MAP
SCALE: 1"=1000'

SHEET INDEX

- | | |
|-------|-------------------------------------|
| 1 | - COVER SHEET |
| 2 | - STANDARDS PLAN LIST |
| 3 | - LEGEND |
| 4 | - TYPICAL SECTIONS |
| 5-6 | - RAMP DETAILS |
| 7 | - NOTES |
| 8 | - SUMMARY OF APPROXIMATE QUANTITIES |
| 9 | - SURVEY TABULATIONS |
| 10-12 | - HORIZONTAL CONTROL PLANS |
| 13-28 | - TRAIL PLAN AND PROFILE |
| 29-41 | - CROSS SECTION |

CONTACTS:

OWNER	LEWIS PALMER SCHOOL DISTRICT 38 146 N JEFFERSON STREET MONUMENT, CO 80132 ATTN: RICKY VESTAL P~(719) 757-1430
PROJECT PARTNER	WOODMOOR IMPROVEMENT ASSOCIATION 1691 WOODMOOR DR. MONUMENT, CO 80132 ATTN: P~(719) 488-2693
PROJECT PARTNER	WOODMOOR WATER AND SANITATION DISTRICT PO BOX 1407 MONUMENT, CO 80132 ATTN: P~() -
ENGINEER/SURVEYOR	JR ENGINEERING, LLC ATTN: GLENN ELLIS 5475 TECH CENTER DRIVE, SUITE 235 COLORADO SPRINGS, CO 80919 P~(303) 267-6241
CDOT (REGION 2)	COLORADO DEPARTMENT OF TRANSPORTATION 5615 WILLS BOULEVARD PUEBLO, CO 81008 CONTACT: JUNIOR RODRIGUEZ P~(719) 251-6980

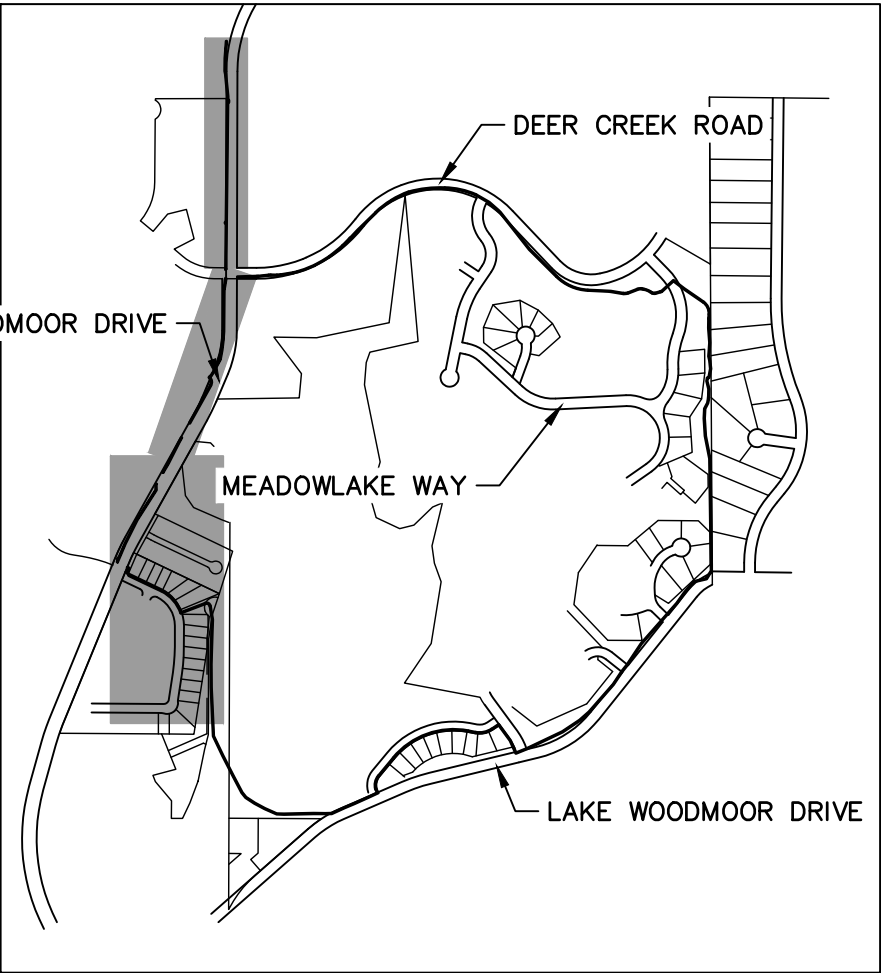
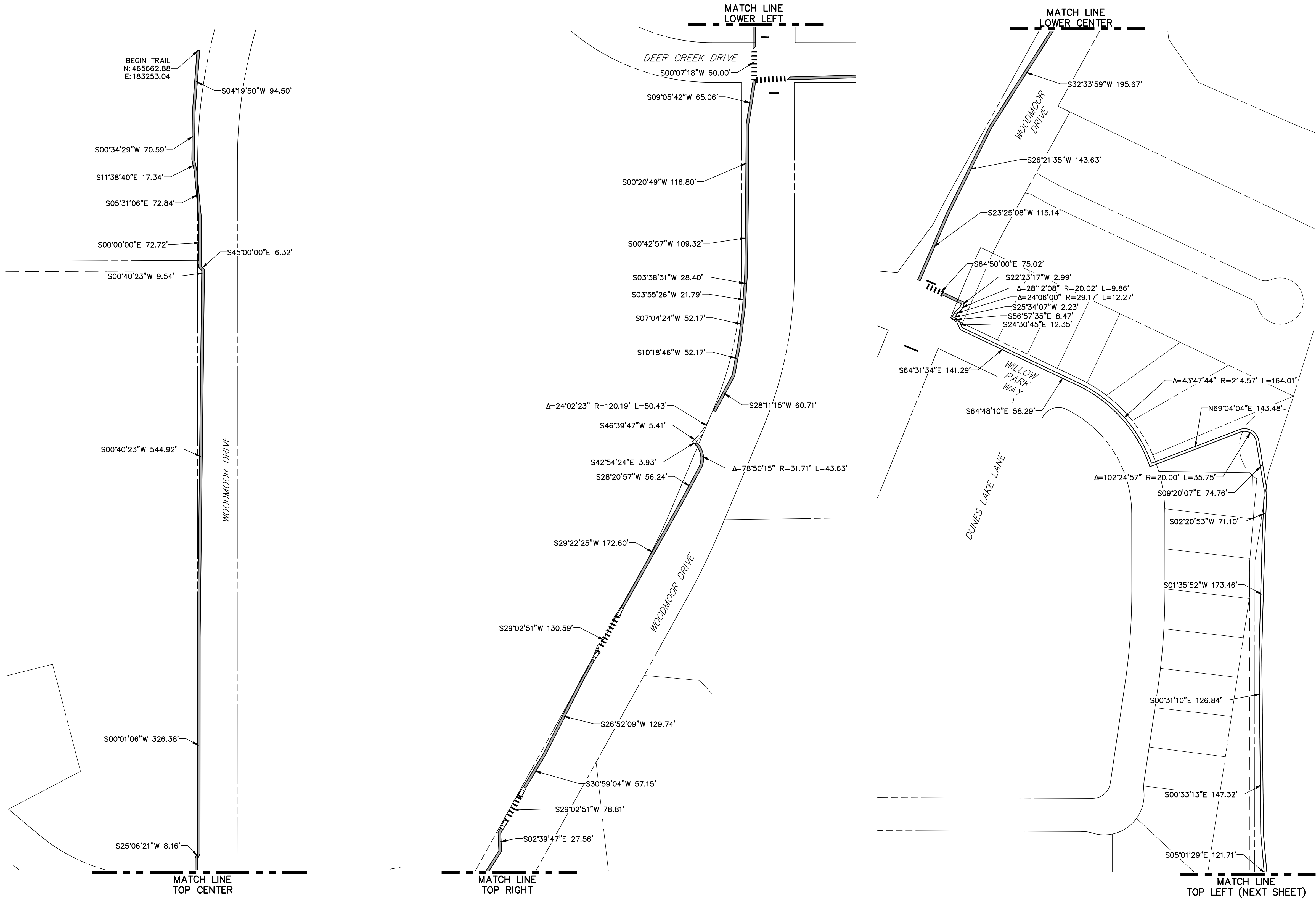
ENGINEER'S STATEMENT

PREPARED UNDER MY SUPERVISION

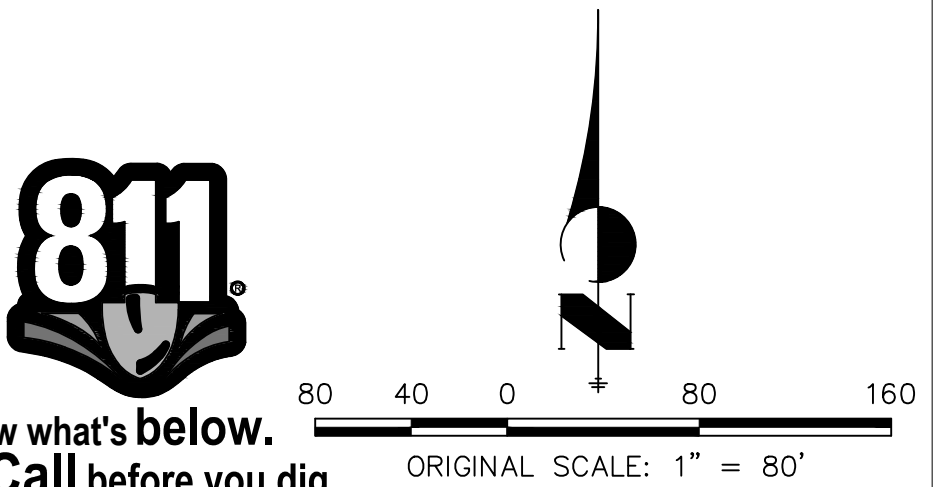
GLENN D. ELLIS, P.E.
COLORADO P.E. 38861
FOR AND ON BEHALF OF JR ENGINEERING, LLC



Print Date: 05/20/2021	<div><div></div><div></div><div></div><div></div><div></div></div>	Sheet Revisions			<div>Colorado Department of Transportation</div> <div> 5615 WILL BLVD. Pueblo, CO 81008 Phone: 719-546-5750</div> <div> Lewis Palmer School District 38</div>	As Constructed		LEWIS PALMER TRAIL COVER SHEET			Project No./Code	
File Name:		Date:	Comments	Init.		No Revisions:					M915-009/22585	
Horiz. Scale: N/A							Revised:	Designer: GG	Structure	2520300		
Unit name							Void:	Detailer: GG	Numbers			
Unit leader								Sheet Subset:	Subset Sheets:	OF	Sheet Number 1 OF 41	
<div> J-R ENGINEERING A Westrian Company</div> <div>Centennial 303-740-9393 • Colorado Springs 719-593-2593 Fort Collins 970-491-9888 • www.jrengineering.com</div>												



KEY MAP
SCALE: NOT TO SCALE



Print Date: 05/20/2021

File Name:


Horiz. Scale: 1"=80' Vert. Scale: N/A

Unit name Unit leader

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Sheet Revisions			
Date:	Comments	Init.	

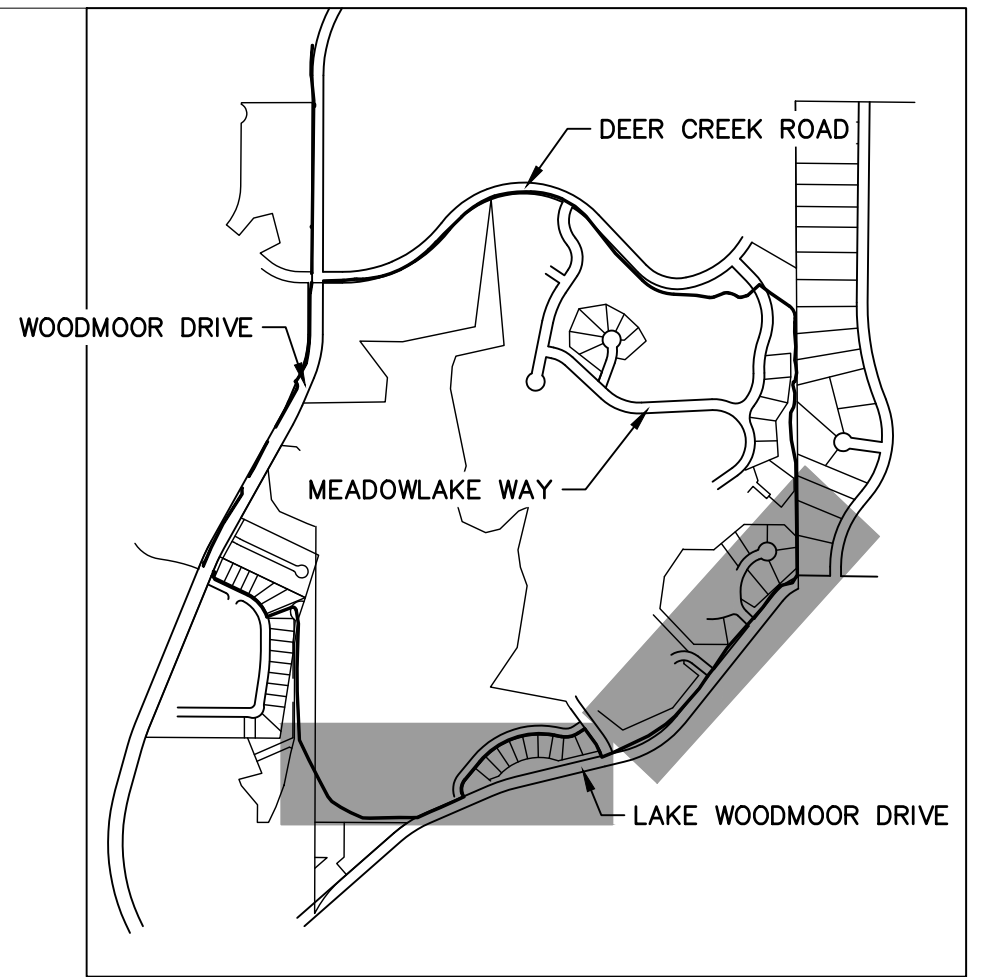
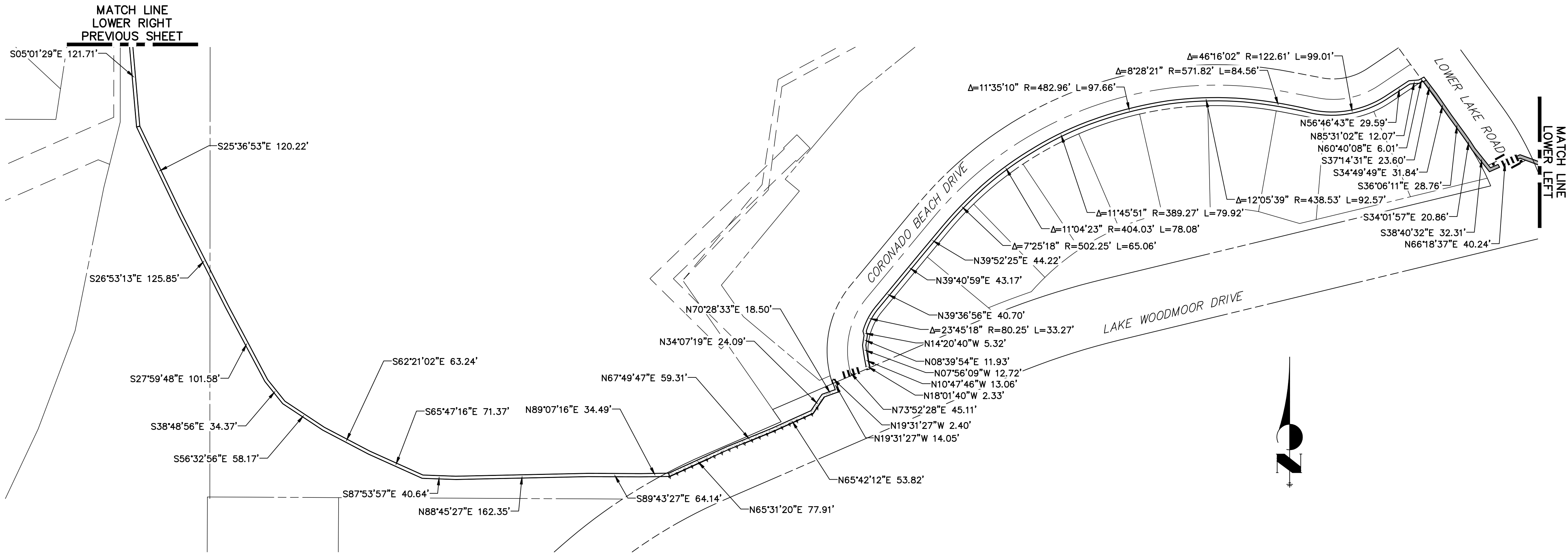
Colorado Department of Transportation

 5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

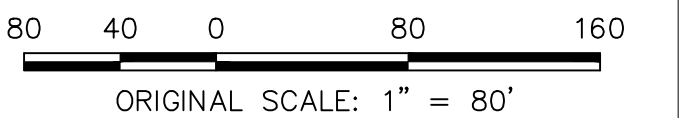
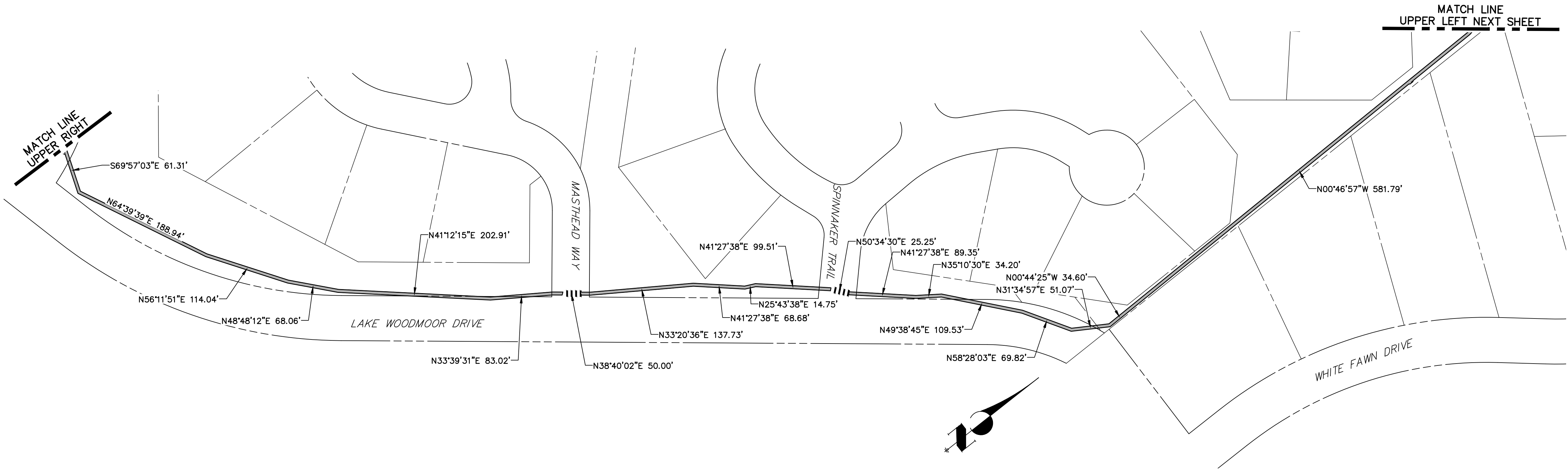
Region 2


 Lewis Palmer School District 38

As Constructed		LEWIS PALMER TRAIL HORIZONTAL CONTROL				Project No./Code	
No Revisions:						M915-009/22585	
Revised:		Designer:	GG	Structure Numbers		2520300	
Void:		Detailer:	GG				
		Sheet Subset:		Subset Sheets:	OF	Sheet Number 10 OF 41	




KEY MAP
SCALE: NOT TO SCALE




Print Date: 05/20/2021	
File Name:	
Horiz. Scale: 1"=80'	Vert. Scale: N/A
Unit name	Unit leader
 J-R ENGINEERING A Westrian Company	
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Sheet Revisions		
Date:	Comments	Init.

Colorado Department
of Transportation



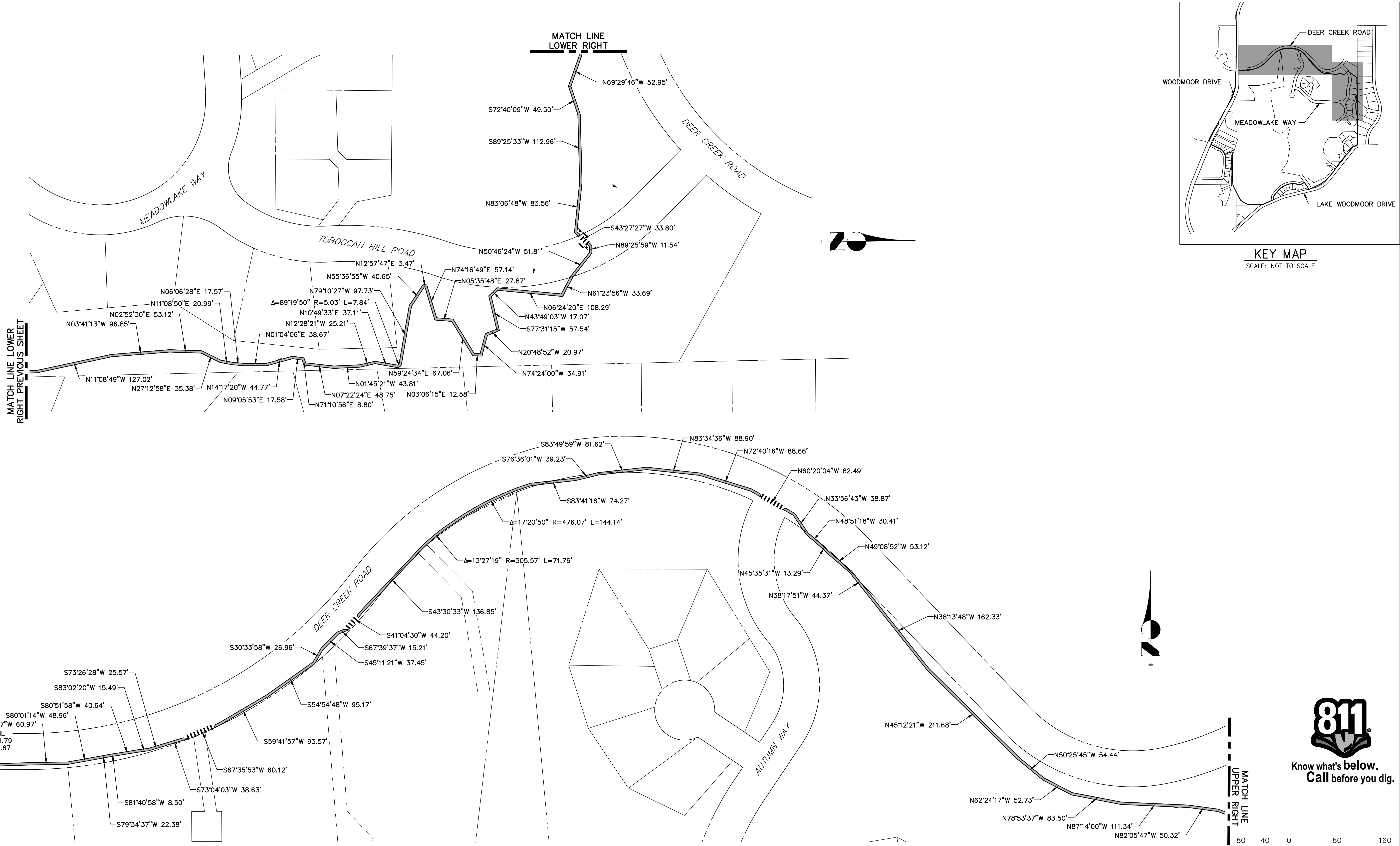
5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750



Lewis Palmer
School District 38

Region 2

As Constructed	LEWIS PALMER TRAIL HORIZONTAL CONTROL			Project No./Code
No Revisions:				M915-009/22585
Revised:	Designer: GG	Structure Numbers		2520300
Void:	Detailer: GG	Sheet Subset:	Subset Sheets: OF	Sheet Number 11 OF 41




Print Date: 05/20/2021

File Name:

Horiz. Scale: 1"=80'

Unit name

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Unit leader

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Sheet Revisions			
Date:	Comments	Init.	

Colorado Department of Transportation

**CDOT**

5615 WILL BLVD.
Pueblo, CO 81008
Phone: 719-546-5750

**LP**
Lewis Palmer School District 38

As Constructed	LEWIS PALMER TRAIL HORIZONTAL CONTROL				Project No./Code	
No Revisions:					M915-009/22585	
Revised:	Designer:	GG	Structure		2520300	
Void:	Detailer:	GG	Numbers		Sheet Number 12 OF 41	
	Sheet Subset:		Subset Sheets:	OF		

APPENDIX C

Trip Generation Worksheets

Project Caliber at Woodmoor
 Subject Trip Generation for Multifamily Housing (Low-Rise)
 Designed by TJD Date June 24, 2022 Job No. 096481007
 Checked by _____ Date _____ Sheet No. _____ of _____

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Low-Rise) (220)

Independent Variable - Dwelling Units (X)

$$X = 264$$

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 255)

$(T) = 0.31 (X) + 22.85$	Directional Distribution:	24% ent.	76% exit.
$(T) = 0.31 * (264.0) + 22.85$	T = 106	Average Vehicle Trip Ends	
	25 entering	81 exiting	
	25 + 81 = 106		

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 256)

$(T) = 0.43 (X) + 20.55$	Directional Distribution:	63% ent.	37% exit.
$(T) = 0.43 * (264.0) + 20.55$	T = 136	Average Vehicle Trip Ends	
	86 entering	50 exiting	
	86 + 50 = 136		

Weekday (200 Series Page 254)





$(T) = 6.41 (X) + 75.31$	Directional Distribution:	50% ent.	50% exit.
$(T) = 6.41 * (264.0) + 75.31$	T = 1768	Average Vehicle Trip Ends	
	884 entering	884 exiting	
	884 + 884 = 1768		

APPENDIX D

Intersection Analysis Worksheets

HCM 6th TWSC
1: Monument Hill Road & Palmer Divide Road

2022 Existing AM
09/13/2022





Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	115	69	53	405	0	62	3	25	1	2	1
Future Vol, veh/h	2	115	69	53	405	0	62	3	25	1	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	144	86	66	506	0	78	4	31	1	3	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	506	0	0	230	0	0	833	831	187	849	874	506
Stage 1	-	-	-	-	-	-	193	193	-	638	638	-
Stage 2	-	-	-	-	-	-	640	638	-	211	236	-
Critical Hdwy	4.15	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1043	-	-	1338	-	-	288	305	855	281	288	566
Stage 1	-	-	-	-	-	-	809	741	-	465	471	-
Stage 2	-	-	-	-	-	-	464	471	-	791	710	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1043	-	-	1338	-	-	270	283	855	253	267	566
Mov Cap-2 Maneuver	-	-	-	-	-	-	270	283	-	253	267	-
Stage 1	-	-	-	-	-	-	807	739	-	464	439	-
Stage 2	-	-	-	-	-	-	429	439	-	756	708	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.9			21.2			17.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	334	1043	-	-	1338	-	-	303				
HCM Lane V/C Ratio	0.337	0.002	-	-	0.05	-	-	0.017				
HCM Control Delay (s)	21.2	8.5	0	-	7.8	0	-	17.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.4	0	-	-	0.2	-	-	0.1				

HCM 6th TWSC
1: Monument Hill Road & Palmer Divide Road

2022 Existing PM
09/13/2022

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	323	32	9	235	0	39	0	6	0	0	3
Future Vol, veh/h	4	323	32	9	235	0	39	0	6	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	5	5	5	9	9	9	33	2	2
Mvmt Flow	4	333	33	9	242	0	40	0	6	0	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	242	0	0	366	0	0	620	618	350	621	634	242
Stage 1	-	-	-	-	-	-	358	358	-	260	260	-
Stage 2	-	-	-	-	-	-	262	260	-	361	374	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.19	6.59	6.29	7.43	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.581	4.081	3.381	3.797	4.018	3.318
Pot Cap-1 Maneuver	1319	-	-	1176	-	-	390	396	678	359	397	797
Stage 1	-	-	-	-	-	-	646	616	-	681	693	-
Stage 2	-	-	-	-	-	-	728	680	-	598	618	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1319	-	-	1176	-	-	385	391	678	352	392	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	385	391	-	352	392	-
Stage 1	-	-	-	-	-	-	643	614	-	678	687	-
Stage 2	-	-	-	-	-	-	719	674	-	590	616	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			14.9			9.5		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	409	1319	-	-	1176	-	-	797				
HCM Lane V/C Ratio	0.113	0.003	-	-	0.008	-	-	0.004				
HCM Control Delay (s)	14.9	7.7	0	-	8.1	0	-	9.5				
HCM Lane LOS	B	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	121	73	55	426	0	69	3	26	1	2	1
Future Vol, veh/h	2	121	73	55	426	0	69	3	26	1	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	151	91	69	533	0	86	4	33	1	3	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	533	0	0	242	0	0	876	874	197	892	919	533
Stage 1	-	-	-	-	-	-	203	203	-	671	671	-
Stage 2	-	-	-	-	-	-	673	671	-	221	248	-
Critical Hdwy	4.15	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1020	-	-	1324	-	-	269	288	844	263	271	547
Stage 1	-	-	-	-	-	-	799	733	-	446	455	-
Stage 2	-	-	-	-	-	-	445	455	-	781	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1020	-	-	1324	-	-	251	266	844	235	250	547
Mov Cap-2 Maneuver	-	-	-	-	-	-	251	266	-	235	250	-
Stage 1	-	-	-	-	-	-	797	731	-	445	421	-
Stage 2	-	-	-	-	-	-	409	421	-	745	699	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.9			24.1			17.9		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	309	1020	-	-	1324	-	-	284				
HCM Lane V/C Ratio	0.396	0.002	-	-	0.052	-	-	0.018				
HCM Control Delay (s)	24.1	8.5	0	-	7.9	0	-	17.9				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.8	0	-	-	0.2	-	-	0.1				

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	339	37	9	247	0	44	0	6	0	0	3
Future Vol, veh/h	4	339	37	9	247	0	44	0	6	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	5	5	5	9	9	9	33	2	2
Mvmt Flow	4	349	38	9	255	0	45	0	6	0	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	255	0	0	387	0	0	651	649	368	652	668	255
Stage 1	-	-	-	-	-	-	376	376	-	273	273	-
Stage 2	-	-	-	-	-	-	275	273	-	379	395	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.19	6.59	6.29	7.43	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.581	4.081	3.381	3.797	4.018	3.318
Pot Cap-1 Maneuver	1304	-	-	1155	-	-	372	380	662	341	379	784
Stage 1	-	-	-	-	-	-	631	604	-	670	684	-
Stage 2	-	-	-	-	-	-	716	671	-	585	605	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1304	-	-	1155	-	-	367	375	662	335	374	784
Mov Cap-2 Maneuver	-	-	-	-	-	-	367	375	-	335	374	-
Stage 1	-	-	-	-	-	-	628	602	-	667	678	-
Stage 2	-	-	-	-	-	-	707	665	-	577	603	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			15.7			9.6		
HCM LOS							C			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	388	1304	-	-	1155	-	-	784				
HCM Lane V/C Ratio	0.133	0.003	-	-	0.008	-	-	0.004				
HCM Control Delay (s)	15.7	7.8	0	-	8.1	0	-	9.6				
HCM Lane LOS	C	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0				

HCM 6th TWSC
1: Monument Hill Road & Palmer Divide Road

2025 Total AM
09/13/2022

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	121	77	55	426	0	81	3	26	1	2	1
Future Vol, veh/h	2	121	77	55	426	0	81	3	26	1	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	151	96	69	533	0	101	4	33	1	3	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	533	0	0	247	0	0	878	876	199	895	924	533
Stage 1	-	-	-	-	-	-	205	205	-	671	671	-
Stage 2	-	-	-	-	-	-	673	671	-	224	253	-
Critical Hdwy	4.15	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1020	-	-	1319	-	-	268	287	842	261	269	547
Stage 1	-	-	-	-	-	-	797	732	-	446	455	-
Stage 2	-	-	-	-	-	-	445	455	-	779	698	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1020	-	-	1319	-	-	250	265	842	234	248	547
Mov Cap-2 Maneuver	-	-	-	-	-	-	250	265	-	234	248	-
Stage 1	-	-	-	-	-	-	795	730	-	445	421	-
Stage 2	-	-	-	-	-	-	409	421	-	743	696	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.9			26.8			18		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	300	1020	-	-	1319	-	-	282				
HCM Lane V/C Ratio	0.458	0.002	-	-	0.052	-	-	0.018				
HCM Control Delay (s)	26.8	8.5	0	-	7.9	0	-	18				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2.3	0	-	-	0.2	-	-	0.1				

HCM 6th TWSC
1: Monument Hill Road & Palmer Divide Road

2025 Total PM
09/13/2022

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	339	50	9	247	0	52	0	6	0	0	3
Future Vol, veh/h	4	339	50	9	247	0	52	0	6	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	5	5	5	9	9	9	33	2	2
Mvmt Flow	4	349	52	9	255	0	54	0	6	0	0	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	255	0	0	401	0	0	658	656	375	659	682	255
Stage 1	-	-	-	-	-	-	383	383	-	273	273	-
Stage 2	-	-	-	-	-	-	275	273	-	386	409	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.19	6.59	6.29	7.43	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.581	4.081	3.381	3.797	4.018	3.318
Pot Cap-1 Maneuver	1304	-	-	1142	-	-	368	376	656	338	372	784
Stage 1	-	-	-	-	-	-	626	600	-	670	684	-
Stage 2	-	-	-	-	-	-	716	671	-	579	596	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1304	-	-	1142	-	-	363	371	656	332	367	784
Mov Cap-2 Maneuver	-	-	-	-	-	-	363	371	-	332	367	-
Stage 1	-	-	-	-	-	-	623	598	-	667	678	-
Stage 2	-	-	-	-	-	-	707	665	-	571	594	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			16.2			9.6		
HCM LOS							C			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	381	1304	-	-	1142	-	-	784				
HCM Lane V/C Ratio	0.157	0.003	-	-	0.008	-	-	0.004				
HCM Control Delay (s)	16.2	7.8	0	-	8.2	0	-	9.6				
HCM Lane LOS	C	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	168	89	67	591	0	83	4	31	1	3	1
Future Vol, veh/h	3	168	89	67	591	0	83	4	31	1	3	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	210	111	84	739	0	104	5	39	1	4	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	739	0	0	321	0	0	1184	1181	266	1203	1236	739
Stage 1	-	-	-	-	-	-	274	274	-	907	907	-
Stage 2	-	-	-	-	-	-	910	907	-	296	329	-
Critical Hdwy	4.15	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.245	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	854	-	-	1239	-	-	166	190	773	161	176	417
Stage 1	-	-	-	-	-	-	732	683	-	330	355	-
Stage 2	-	-	-	-	-	-	329	355	-	712	646	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	854	-	-	1239	-	-	148	167	773	136	155	417
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	167	-	136	155	-
Stage 1	-	-	-	-	-	-	728	679	-	328	314	-
Stage 2	-	-	-	-	-	-	287	314	-	667	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.8	70.2	26.7
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	189	854	-	-	1239	-	-	172
HCM Lane V/C Ratio	0.78	0.004	-	-	0.068	-	-	0.036
HCM Control Delay (s)	70.2	9.2	0	-	8.1	0	-	26.7
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	5.3	0	-	-	0.2	-	-	0.1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	472	44	11	343	0	53	0	8	0	0	4
Future Vol, veh/h	5	472	44	11	343	0	53	0	8	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	5	5	5	9	9	9	33	2	2
Mvmt Flow	5	487	45	11	354	0	55	0	8	0	0	4
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	532	0	0	898	896	510	900	918	354
Stage 1	-	-	-	-	-	-	520	520	-	376	376	-
Stage 2	-	-	-	-	-	-	378	376	-	524	542	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.19	6.59	6.29	7.43	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.43	5.52	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.581	4.081	3.381	3.797	4.018	3.318
Pot Cap-1 Maneuver	1199	-	-	1020	-	-	253	272	550	229	272	690
Stage 1	-	-	-	-	-	-	527	521	-	587	616	-
Stage 2	-	-	-	-	-	-	630	604	-	484	520	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1199	-	-	1020	-	-	248	267	550	222	267	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	248	267	-	222	267	-
Stage 1	-	-	-	-	-	-	524	518	-	583	608	-
Stage 2	-	-	-	-	-	-	618	596	-	474	517	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			22.6			10.2		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	267	1199	-	-	1020	-	-	690				
HCM Lane V/C Ratio	0.236	0.004	-	-	0.011	-	-	0.006				
HCM Control Delay (s)	22.6	8	0	-	8.6	0	-	10.2				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.9	0	-	-	0	-	-	0				

HCM 6th Roundabout
1: Monument Hill Road & Palmer Divide Road

2045 Total AM
09/13/2022

Intersection				
Intersection Delay, s/veh	10.4			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	337	832	169	18
Demand Flow Rate, veh/h	354	849	172	18
Vehicles Circulating, veh/h	102	133	235	970
Vehicles Exiting, veh/h	886	274	221	12
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.7	13.5	4.8	7.5
Approach LOS	A	B	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	354	849	172	18
Cap Entry Lane, veh/h	1244	1205	1086	513
Entry HV Adj Factor	0.953	0.980	0.982	0.993
Flow Entry, veh/h	337	832	169	18
Cap Entry, veh/h	1185	1181	1066	510
V/C Ratio	0.285	0.705	0.158	0.035
Control Delay, s/veh	5.7	13.5	4.8	7.5
LOS	A	B	A	A
95th %tile Queue, veh	1	6	1	0

HCM 6th Roundabout
1: Monument Hill Road & Palmer Divide Road

2045 Total PM
09/13/2022







Intersection				
Intersection Delay, s/veh	6.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	557	371	77	5
Demand Flow Rate, veh/h	574	390	84	5
Vehicles Circulating, veh/h	16	78	510	463
Vehicles Exiting, veh/h	452	516	80	5
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.8	5.8	5.8	4.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	574	390	84	5
Cap Entry Lane, veh/h	1358	1274	820	861
Entry HV Adj Factor	0.971	0.952	0.917	1.000
Flow Entry, veh/h	557	371	77	5
Cap Entry, veh/h	1318	1213	752	861
V/C Ratio	0.423	0.306	0.102	0.006
Control Delay, s/veh	6.8	5.8	5.8	4.2
LOS	A	A	A	A
95th %tile Queue, veh	2	1	0	0

HCM 6th TWSC
2: Monument Hill Road & Misty Acres Boulevard

2022 Existing AM
09/12/2022

Intersection

Int Delay, s/veh 10.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	272	33	38	258	43	98
Future Vol, veh/h	272	33	38	258	43	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	486	59	68	461	77	175

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	397	68	0
Stage 1	68	-	-
Stage 2	329	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	608	995	-
Stage 1	955	-	-
Stage 2	729	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	563	995	-
Mov Cap-2 Maneuver	634	-	-
Stage 1	955	-	-
Stage 2	675	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.9	0	2.7
HCM LOS	C		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 634 995 1038	-	-
HCM Lane V/C Ratio	-	- 0.766 0.059 0.074	-	-
HCM Control Delay (s)	-	- 26.8 8.8 8.7	-	-
HCM Lane LOS	-	- D A A	-	-
HCM 95th %tile Q(veh)	-	- 7.1 0.2 0.2	-	-

HCM 6th TWSC
2: Monument Hill Road & Misty Acres Boulevard

2022 Existing PM
09/12/2022

Intersection

Int Delay, s/veh 5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	228	21	60	186	21	50
Future Vol, veh/h	228	21	60	186	21	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	317	29	83	258	29	69

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	210	83	0
Stage 1	83	-	-
Stage 2	127	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	778	976	-
Stage 1	940	-	-
Stage 2	899	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	759	976	-
Mov Cap-2 Maneuver	809	-	-
Stage 1	940	-	-
Stage 2	877	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 809	976	1218
HCM Lane V/C Ratio	-	- 0.391	0.03	0.024
HCM Control Delay (s)	-	- 12.3	8.8	8
HCM Lane LOS	-	- B	A	A
HCM 95th %tile Q(veh)	-	- 1.9	0.1	0.1







HCM 6th TWSC
2: Monument Hill Road & Misty Acres Boulevard

2025 Background AM

09/12/2022

Intersection

Int Delay, s/veh 11.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	280	34	44	266	44	103
Future Vol, veh/h	280	34	44	266	44	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	500	61	79	475	79	184

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	421	79	0
Stage 1	79	-	-
Stage 2	342	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	589	981	-
Stage 1	944	-	-
Stage 2	719	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	543	981	-
Mov Cap-2 Maneuver	622	-	-
Stage 1	944	-	-
Stage 2	663	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.9	0	2.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	622	981
HCM Lane V/C Ratio	-	-	0.804	0.062
HCM Control Delay (s)	-	-	30.2	8.9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	8	0.2







HCM 6th TWSC
2: Monument Hill Road & Misty Acres Boulevard

2025 Background PM

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Intersection

Int Delay, s/veh 5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	235	22	66	192	22	56
Future Vol, veh/h	235	22	66	192	22	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	326	31	92	267	31	78

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	232	92	0
Stage 1	92	-	-
Stage 2	140	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	756	965	-
Stage 1	932	-	-
Stage 2	887	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	736	965	-
Mov Cap-2 Maneuver	795	-	-
Stage 1	932	-	-
Stage 2	864	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	2.3
HCM LOS	B		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 795 965 1200	-	-
HCM Lane V/C Ratio	-	- 0.411 0.032 0.025	-	-
HCM Control Delay (s)	-	- 12.6 8.9 8.1	-	-
HCM Lane LOS	-	- B A A	-	-
HCM 95th %tile Q(veh)	-	- 2 0.1 0.1	-	-

HCM 6th TWSC
2: Monument Hill Road & Misty Acres Boulevard

2025 Total AM
09/13/2022

Intersection

Int Delay, s/veh 12.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	280	34	56	266	44	107
Future Vol, veh/h	280	34	56	266	44	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	500	61	100	475	79	191

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	449	100	0
Stage 1	100	-	-
Stage 2	349	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	568	956	-
Stage 1	924	-	-
Stage 2	714	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	523	956	-
Mov Cap-2 Maneuver	614	-	-
Stage 1	924	-	-
Stage 2	658	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.1	0	2.6
HCM LOS	D		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	614	956
HCM Lane V/C Ratio	-	-	0.814	0.064
HCM Control Delay (s)	-	-	31.5	9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	8.3	0.2

HCM 6th TWSC
2: Monument Hill Road & Misty Acres Boulevard

2025 Total PM
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Intersection

Int Delay, s/veh 5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	235	22	74	192	22	69
Future Vol, veh/h	235	22	74	192	22	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	326	31	103	267	31	96

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	261	103	0
Stage 1	103	-	-
Stage 2	158	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	728	952	-
Stage 1	921	-	-
Stage 2	871	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	709	952	-
Mov Cap-2 Maneuver	778	-	-
Stage 1	921	-	-
Stage 2	848	-	-







Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	2
HCM LOS	B		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 778 952 1189	-	-
HCM Lane V/C Ratio	-	- 0.42 0.032 0.026	-	-
HCM Control Delay (s)	-	- 12.9 8.9 8.1	-	-
HCM Lane LOS	-	- B A A	-	-
HCM 95th %tile Q(veh)	-	- 2.1 0.1 0.1	-	-

HCM 6th TWSC
2: Monument Hill Road & Misty Acres Boulevard

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Intersection						
Int Delay, s/veh	34.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	342	41	53	324	54	125
Future Vol, veh/h	342	41	53	324	54	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	56	56	56	56	56	56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	611	73	95	579	96	223
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	510	95	0	0	674	0
Stage 1	95	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 523	962	-	-	917	-
Stage 1	929	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 468	962	-	-	917	-
Mov Cap-2 Maneuver	~ 559	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	~ 596	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	83.4	0		2.8		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	559	962	917	-
HCM Lane V/C Ratio	-	-	1.093	0.076	0.105	-
HCM Control Delay (s)	-	-	92.3	9.1	9.4	-
HCM Lane LOS	-	-	F	A	A	-
HCM 95th %tile Q(veh)	-	-	18.7	0.2	0.4	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Intersection						
Int Delay, s/veh	6.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	287	26	79	234	26	67
Future Vol, veh/h	287	26	79	234	26	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	250	0	-	550	275	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	399	36	110	325	36	93
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	275	110	0	0	435	0
Stage 1	110	-	-	-	-	-
Stage 2	165	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	715	943	-	-	1125	-
Stage 1	915	-	-	-	-	-
Stage 2	864	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	692	943	-	-	1125	-
Mov Cap-2 Maneuver	766	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	14.2	0	2.3			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 766 943 1125	-	-		
HCM Lane V/C Ratio	-	- 0.52 0.038 0.032	-	-		
HCM Control Delay (s)	-	- 14.7 9 8.3	-	-		
HCM Lane LOS	-	- B A A	-	-		
HCM 95th %tile Q(veh)	-	- 3.1 0.1 0.1	-	-		

HCM 6th Roundabout
2: Monument Hill Road & Misty Acres Boulevard

2045 Total AM

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Intersection			
Intersection Delay, s/veh	11.1		
Intersection LOS	B		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	619	750	441
Demand Flow Rate, veh/h	631	766	450
Vehicles Circulating, veh/h	127	134	559
Vehicles Exiting, veh/h	771	875	199
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.9	11.4	13.8
Approach LOS	A	B	B
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
Entry Flow, veh/h	631	766	450
Cap Entry Lane, veh/h	1212	1204	780
Entry HV Adj Factor	0.981	0.980	0.980
Flow Entry, veh/h	619	750	441
Cap Entry, veh/h	1189	1179	764
V/C Ratio	0.521	0.636	0.577
Control Delay, s/veh	8.9	11.4	13.8
LOS	A	B	B
95th %tile Queue, veh	3	5	4

HCM 6th Roundabout
2: Monument Hill Road & Misty Acres Boulevard

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Intersection			
Intersection Delay, s/veh	6.3		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	445	451	153
Demand Flow Rate, veh/h	454	461	156
Vehicles Circulating, veh/h	127	43	411
Vehicles Exiting, veh/h	376	524	170
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.7	6.0	5.7
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
Entry Flow, veh/h	454	461	156
Cap Entry Lane, veh/h	1212	1321	907
Entry HV Adj Factor	0.980	0.979	0.979
Flow Entry, veh/h	445	451	153
Cap Entry, veh/h	1188	1293	889
V/C Ratio	0.375	0.349	0.172
Control Delay, s/veh	6.7	6.0	5.7
LOS	A	A	A
95th %tile Queue, veh	2	2	1







Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	120	291	41	67	281
Future Vol, veh/h	16	120	291	41	67	281
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	28	211	511	72	118	493
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1240	511	0	0	583	0
Stage 1	511	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.13	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.227	-
Pot Cap-1 Maneuver	193	563	-	-	986	-
Stage 1	602	-	-	-	-	-
Stage 2	477	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	170	563	-	-	986	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	15.3	0	1.8			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 357 563	986	-		
HCM Lane V/C Ratio	-	- 0.079 0.374	0.119	-		
HCM Control Delay (s)	-	- 15.9 15.2	9.1	-		
HCM Lane LOS	-	- C C	A	-		
HCM 95th %tile Q(veh)	-	- 0.3 1.7	0.4	-		

HCM 6th TWSC
3: Monument Hill Road & Deer Creek Road

2022 Existing PM
09/12/2022

Intersection







Int Delay, s/veh 2.3







Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	58	220	23	81	315
Future Vol, veh/h	26	58	220	23	81	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	2	2	5	5	2	2
Mvmt Flow	36	79	301	32	111	432

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	955	301	0
Stage 1	301	-	-
Stage 2	654	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	287	739	-
Stage 1	751	-	-
Stage 2	517	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	261	739	-
Mov Cap-2 Maneuver	424	-	-
Stage 1	751	-	-
Stage 2	470	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	1.7
HCM LOS	B		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	424	739
HCM Lane V/C Ratio	-	-	0.084	0.108
HCM Control Delay (s)	-	-	14.3	10.5
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.3	0.4

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	129	300	44	71	290
Future Vol, veh/h	20	129	300	44	71	290
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	35	226	526	77	125	509
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1285	526	0	0	603	0
Stage 1	526	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.13	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.227	-
Pot Cap-1 Maneuver	182	552	-	-	970	-
Stage 1	593	-	-	-	-	-
Stage 2	462	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	159	552	-	-	970	-
Mov Cap-2 Maneuver	343	-	-	-	-	-
Stage 1	593	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	16.1	0	1.8			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 343 552	970	-		
HCM Lane V/C Ratio	-	- 0.102 0.41	0.128	-		
HCM Control Delay (s)	-	- 16.7 16	9.3	-		
HCM Lane LOS	-	- C C	A	-		
HCM 95th %tile Q(veh)	-	- 0.3 2	0.4	-		

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	64	227	29	87	325
Future Vol, veh/h	30	64	227	29	87	325
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	2	2	5	5	2	2
Mvmt Flow	41	88	311	40	119	445
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	994	311	0	0	351	0
Stage 1	311	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	272	729	-	-	1208	-
Stage 1	743	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	245	729	-	-	1208	-
Mov Cap-2 Maneuver	408	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.9	0	1.8			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 408 729 1208		-		
HCM Lane V/C Ratio	-	- 0.101 0.12 0.099		-		
HCM Control Delay (s)	-	- 14.8 10.6 8.3		-		
HCM Lane LOS	-	- B B A		-		
HCM 95th %tile Q(veh)	-	- 0.3 0.4 0.3		-		







HCM 6th TWSC
3: Monument Hill Road & Deer Creek Road







2025 Total AM
09/13/2022







Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	129	316	47	71	343
Future Vol, veh/h	28	129	316	47	71	343
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	49	226	554	82	125	602
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1406	554	0	0	636	0
Stage 1	554	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.13	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.227	-
Pot Cap-1 Maneuver	153	532	-	-	943	-
Stage 1	575	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	133	532	-	-	943	-
Mov Cap-2 Maneuver	311	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	17.1	0	1.6			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 311 532	943	-		
HCM Lane V/C Ratio	-	- 0.158 0.425	0.132	-		
HCM Control Delay (s)	-	- 18.7 16.7	9.4	-		
HCM Lane LOS	-	- C C	A	-		
HCM 95th %tile Q(veh)	-	- 0.6 2.1	0.5	-		

HCM 6th TWSC
3: Monument Hill Road & Deer Creek Road

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Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	64	283	38	87	358
Future Vol, veh/h	35	64	283	38	87	358
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	2	2	5	5	2	2
Mvmt Flow	48	88	388	52	119	490
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1116	388	0	0	440	0
Stage 1	388	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	230	660	-	-	1120	-
Stage 1	686	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	206	660	-	-	1120	-
Mov Cap-2 Maneuver	379	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.9	0	1.7			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	379	660	1120	-
HCM Lane V/C Ratio	-	-	0.127	0.133	0.106	-
HCM Control Delay (s)	-	-	15.9	11.3	8.6	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.5	0.4	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	156	366	54	86	353
Future Vol, veh/h	24	156	366	54	86	353
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	42	274	642	95	151	619
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1563	642	0	0	737	0
Stage 1	642	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.13	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.227	-
Pot Cap-1 Maneuver	123	474	-	-	864	-
Stage 1	524	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	101	474	-	-	864	-
Mov Cap-2 Maneuver	273	-	-	-	-	-
Stage 1	524	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	22.2	0	2			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 273 474	864	-		
HCM Lane V/C Ratio	-	- 0.154 0.577	0.175	-		
HCM Control Delay (s)	-	- 20.6 22.5	10	-		
HCM Lane LOS	-	- C C	B	-		
HCM 95th %tile Q(veh)	-	- 0.5 3.6	0.6	-		

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	36	77	277	34	106	396
Future Vol, veh/h	36	77	277	34	106	396
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	2	2	5	5	2	2
Mvmt Flow	49	105	379	47	145	542
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1211	379	0	0	426	0
Stage 1	379	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	201	668	-	-	1133	-
Stage 1	692	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	175	668	-	-	1133	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	13.4	0	1.8			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 335 668 1133	-	-		
HCM Lane V/C Ratio	-	- 0.147 0.158 0.128	-	-		
HCM Control Delay (s)	-	- 17.6 11.4 8.6	-	-		
HCM Lane LOS	-	- C B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.5 0.6 0.4	-	-		

HCM 6th TWSC
3: Monument Hill Road & Deer Creek Road

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Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	160	385	60	90	410
Future Vol, veh/h	35	160	385	60	90	410
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	57	57	57	57	57	57
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	61	281	675	105	158	719
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1710	675	0	0	780	0
Stage 1	675	-	-	-	-	-
Stage 2	1035	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.13	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.227	-
Pot Cap-1 Maneuver	100	454	-	-	833	-
Stage 1	506	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	81	454	-	-	833	-
Mov Cap-2 Maneuver	239	-	-	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	25	0	1.9			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 239 454	833	-		
HCM Lane V/C Ratio	-	- 0.257 0.618	0.19	-		
HCM Control Delay (s)	-	- 25.2 24.9	10.3	-		
HCM Lane LOS	-	- D C	B	-		
HCM 95th %tile Q(veh)	-	- 1 4.1	0.7	-		

HCM 6th TWSC
3: Monument Hill Road & Deer Creek Road

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Intersection




Int Delay, s/veh 2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	45	80	335	45	110	430
Future Vol, veh/h	45	80	335	45	110	430
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	225	475	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	2	2	5	5	2	2
Mvmt Flow	62	110	459	62	151	589

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1350	459	0
Stage 1	459	-	-
Stage 2	891	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	166	602	-
Stage 1	636	-	-
Stage 2	401	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	142	602	-
Mov Cap-2 Maneuver	305	-	-
Stage 1	636	-	-
Stage 2	343	-	-




Approach	WB	NB	SB
HCM Control Delay, s	15	0	1.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 305 602 1045	-	-
HCM Lane V/C Ratio	-	- 0.202 0.182 0.144	-	-
HCM Control Delay (s)	-	- 19.8 12.3 9	-	-
HCM Lane LOS	-	- C B A	-	-
HCM 95th %tile Q(veh)	-	- 0.7 0.7 0.5	-	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	80	122	4	0	13
Future Vol, veh/h	16	80	122	4	0	13
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	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	8	8
Mvmt Flow	29	145	222	7	0	24
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	229	0	-	0	429	226
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	4.12	-	-	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.218	-	-	-	3.572	3.372
Pot Cap-1 Maneuver	1339	-	-	-	572	799
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1339	-	-	-	558	799
Mov Cap-2 Maneuver	-	-	-	-	558	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	817	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		9.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1339	-	-	-	799	
HCM Lane V/C Ratio	0.022	-	-	-	0.03	
HCM Control Delay (s)	7.7	0	-	-	9.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	

Intersection




Int Delay, s/veh 2.1




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	82	53	11	11	19
Future Vol, veh/h	18	82	53	11	11	19
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	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	26	119	77	16	16	28

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	93	0	0 256 85
Stage 1	-	-	- 85 -
Stage 2	-	-	- 171 -
Critical Hdwy	4.12	-	- 6.43 6.23
Critical Hdwy Stg 1	-	-	- 5.43 -
Critical Hdwy Stg 2	-	-	- 5.43 -
Follow-up Hdwy	2.218	-	- 3.527 3.327
Pot Cap-1 Maneuver	1501	-	- 731 971
Stage 1	-	-	- 936 -
Stage 2	-	-	- 857 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1501	-	- 717 971
Mov Cap-2 Maneuver	-	-	- 717 -
Stage 1	-	-	- 918 -
Stage 2	-	-	- 857 -

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1501	-	-	-	859
HCM Lane V/C Ratio	0.017	-	-	-	0.051
HCM Control Delay (s)	7.4	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2




Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	86	135	4	0	13
Future Vol, veh/h	16	86	135	4	0	13
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	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	8	8
Mvmt Flow	29	156	245	7	0	24
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	252	0	-	0	463	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	4.12	-	-	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.218	-	-	-	3.572	3.372
Pot Cap-1 Maneuver	1313	-	-	-	546	775
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1313	-	-	-	533	775
Mov Cap-2 Maneuver	-	-	-	-	533	-
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	808	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.2	0		9.8		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1313	-	-	-	-	775
HCM Lane V/C Ratio	0.022	-	-	-	-	0.03
HCM Control Delay (s)	7.8	0	-	-	-	9.8
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	93	62	11	11	20
Future Vol, veh/h	19	93	62	11	11	20
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	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	28	135	90	16	16	29
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	106	0	-	0	289	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	191	-
Critical Hdwy	4.12	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.218	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1485	-	-	-	699	955
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1485	-	-	-	685	955
Mov Cap-2 Maneuver	-	-	-	-	685	-
Stage 1	-	-	-	-	905	-
Stage 2	-	-	-	-	839	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		9.5		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1485	-	-	-	838	
HCM Lane V/C Ratio	0.019	-	-	-	0.054	
HCM Control Delay (s)	7.5	0	-	-	9.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

HCM 6th TWSC
4: Deer Creek Road & Base Camp Road

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Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	86	135	7	8	21
Future Vol, veh/h	19	86	135	7	8	21
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	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	8	8
Mvmt Flow	35	156	245	13	15	38
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	258	0	-	0	478	252
Stage 1	-	-	-	-	252	-
Stage 2	-	-	-	-	226	-
Critical Hdwy	4.12	-	-	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.218	-	-	-	3.572	3.372
Pot Cap-1 Maneuver	1307	-	-	-	535	772
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1307	-	-	-	519	772
Mov Cap-2 Maneuver	-	-	-	-	519	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.4	0		10.7		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1307	-	-	-	680	
HCM Lane V/C Ratio	0.026	-	-	-	0.078	
HCM Control Delay (s)	7.8	0	-	-	10.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

HCM 6th TWSC
4: Deer Creek Road & Base Camp Road

2025 Total PM
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Intersection




Int Delay, s/veh 2.5




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	93	62	20	16	25
Future Vol, veh/h	28	93	62	20	16	25
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	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	41	135	90	29	23	36

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	119	0	0 322 105
Stage 1	-	-	- 105 -
Stage 2	-	-	- 217 -
Critical Hdwy	4.12	-	- 6.43 6.23
Critical Hdwy Stg 1	-	-	- 5.43 -
Critical Hdwy Stg 2	-	-	- 5.43 -
Follow-up Hdwy	2.218	-	- 3.527 3.327
Pot Cap-1 Maneuver	1469	-	- 670 947
Stage 1	-	-	- 917 -
Stage 2	-	-	- 817 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1469	-	- 650 947
Mov Cap-2 Maneuver	-	-	- 650 -
Stage 1	-	-	- 889 -
Stage 2	-	-	- 817 -

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1469	-	-	-	804
HCM Lane V/C Ratio	0.028	-	-	-	0.074
HCM Control Delay (s)	7.5	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	105	162	5	0	16
Future Vol, veh/h	20	105	162	5	0	16
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	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	8	8
Mvmt Flow	36	191	295	9	0	29
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	304	0	-	0	563	300
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	4.12	-	-	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.218	-	-	-	3.572	3.372
Pot Cap-1 Maneuver	1257	-	-	-	477	726
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1257	-	-	-	462	726
Mov Cap-2 Maneuver	-	-	-	-	462	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	767	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		10.2		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1257	-	-	-	726	
HCM Lane V/C Ratio	0.029	-	-	-	0.04	
HCM Control Delay (s)	7.9	0	-	-	10.2	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	




Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	112	74	14	14	24
Future Vol, veh/h	23	112	74	14	14	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	33	162	107	20	20	35
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	127	0	-	0	345	117
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	4.12	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.218	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1459	-	-	-	650	932
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1459	-	-	-	634	932
Mov Cap-2 Maneuver	-	-	-	-	634	-
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	808	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		9.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1459	-	-	-	794	
HCM Lane V/C Ratio	0.023	-	-	-	0.069	
HCM Control Delay (s)	7.5	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	

HCM 6th TWSC
4: Deer Creek Road & Base Camp Road

2045 Total AM
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Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	105	165	10	10	25
Future Vol, veh/h	25	105	165	10	10	25
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	55	55	55	55	55	55
Heavy Vehicles, %	2	2	2	2	8	8
Mvmt Flow	45	191	300	18	18	45

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	318	0	0 590 309
Stage 1	-	-	- 309 -
Stage 2	-	-	- 281 -
Critical Hdwy	4.12	-	- 6.48 6.28
Critical Hdwy Stg 1	-	-	- 5.48 -
Critical Hdwy Stg 2	-	-	- 5.48 -
Follow-up Hdwy	2.218	-	- 3.572 3.372
Pot Cap-1 Maneuver	1242	-	- 460 717
Stage 1	-	-	- 731 -
Stage 2	-	-	- 753 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1242	-	- 441 717
Mov Cap-2 Maneuver	-	-	- 441 -
Stage 1	-	-	- 701 -
Stage 2	-	-	- 753 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	11.6
HCM LOS			B




Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1242	-	-	-	608
HCM Lane V/C Ratio	0.037	-	-	-	0.105
HCM Control Delay (s)	8	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

HCM 6th TWSC
4: Deer Creek Road & Base Camp Road

2045 Total PM
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Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	35	115	75	25	20	30
Future Vol, veh/h	35	115	75	25	20	30
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	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	3	3
Mvmt Flow	51	167	109	36	29	43

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	145	0	0 396 127
Stage 1	-	-	- 127 -
Stage 2	-	-	- 269 -
Critical Hdwy	4.12	-	- 6.43 6.23
Critical Hdwy Stg 1	-	-	- 5.43 -
Critical Hdwy Stg 2	-	-	- 5.43 -
Follow-up Hdwy	2.218	-	- 3.527 3.327
Pot Cap-1 Maneuver	1437	-	- 607 921
Stage 1	-	-	- 896 -
Stage 2	-	-	- 774 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1437	-	- 583 921
Mov Cap-2 Maneuver	-	-	- 583 -
Stage 1	-	-	- 861 -
Stage 2	-	-	- 774 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1437	-	-	-	748
HCM Lane V/C Ratio	0.035	-	-	-	0.097
HCM Control Delay (s)	7.6	0	-	-	10.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

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	13	7	49	35	17	0	55	53	7	0	199	72
Future Vol, veh/h	13	7	49	35	17	0	55	53	7	0	199	72
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	9	64	46	22	0	72	70	9	0	262	95
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	540	533	310	565	576	75	357	0	0	79	0	0
Stage 1	310	310	-	219	219	-	-	-	-	-	-	-
Stage 2	230	223	-	346	357	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	453	453	730	436	428	986	1202	-	-	1519	-	-
Stage 1	700	659	-	783	722	-	-	-	-	-	-	-
Stage 2	773	719	-	670	628	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	413	424	730	372	401	986	1202	-	-	1519	-	-
Mov Cap-2 Maneuver	413	424	-	372	401	-	-	-	-	-	-	-
Stage 1	656	659	-	734	677	-	-	-	-	-	-	-
Stage 2	700	674	-	602	628	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.1		16.5		3.9		0					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1202	-	-	599	381	1519	-	-				
HCM Lane V/C Ratio	0.06	-	-	0.152	0.18	-	-	-				
HCM Control Delay (s)	8.2	0	-	12.1	16.5	0	-	-				
HCM Lane LOS	A	A	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.6	0	-	-				

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	9	39	15	4	0	63	162	30	1	137	12
Future Vol, veh/h	22	9	39	15	4	0	63	162	30	1	137	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	5	5	5	2	2	2	4	4	4
Mvmt Flow	23	9	41	16	4	0	66	169	31	1	143	13

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	471	484	150	494	475	185	156	0	0	200	0	0
Stage 1	152	152	-	317	317	-	-	-	-	-	-	-
Stage 2	319	332	-	177	158	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.15	6.55	6.25	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.545	4.045	3.345	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	503	483	896	481	484	850	1424	-	-	1360	-	-
Stage 1	850	772	-	688	649	-	-	-	-	-	-	-
Stage 2	693	644	-	818	761	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	479	457	896	434	458	850	1424	-	-	1360	-	-
Mov Cap-2 Maneuver	479	457	-	434	458	-	-	-	-	-	-	-
Stage 1	806	771	-	652	615	-	-	-	-	-	-	-
Stage 2	653	611	-	771	760	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.3		13.6		1.9		0.1	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1424	-	-	641	439	1360	-
HCM Lane V/C Ratio	0.046	-	-	0.114	0.045	0.001	-
HCM Control Delay (s)	7.7	0	-	11.3	13.6	7.6	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.4	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	13	9	52	44	22	0	62	55	11	0	205	74
Future Vol, veh/h	13	9	52	44	22	0	62	55	11	0	205	74
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	12	68	58	29	0	82	72	14	0	270	97
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	577	569	319	602	610	79	367	0	0	86	0	0
Stage 1	319	319	-	243	243	-	-	-	-	-	-	-
Stage 2	258	250	-	359	367	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	428	432	722	412	409	981	1192	-	-	1510	-	-
Stage 1	693	653	-	761	705	-	-	-	-	-	-	-
Stage 2	747	700	-	659	622	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	381	401	722	344	380	981	1192	-	-	1510	-	-
Mov Cap-2 Maneuver	381	401	-	344	380	-	-	-	-	-	-	-
Stage 1	643	653	-	706	654	-	-	-	-	-	-	-
Stage 2	663	650	-	586	622	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.5		18.4		4		0					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1192	-	-	575	355	1510	-	-				
HCM Lane V/C Ratio	0.068	-	-	0.169	0.245	-	-	-				
HCM Control Delay (s)	8.2	0	-	12.5	18.4	0	-	-				
HCM Lane LOS	A	A	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.9	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	23	13	45	21	7	0	69	167	39	1	141	12
Future Vol, veh/h	23	13	45	21	7	0	69	167	39	1	141	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	5	5	5	2	2	2	4	4	4
Mvmt Flow	24	14	47	22	7	0	72	174	41	1	147	13

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	498	515	154	525	501	195	160	0	0	215	0	0
Stage 1	156	156	-	339	339	-	-	-	-	-	-	-
Stage 2	342	359	-	186	162	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.15	6.55	6.25	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.545	4.045	3.345	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	483	464	892	458	468	839	1419	-	-	1343	-	-
Stage 1	846	769	-	669	635	-	-	-	-	-	-	-
Stage 2	673	627	-	809	758	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	455	437	892	405	440	839	1419	-	-	1343	-	-
Mov Cap-2 Maneuver	455	437	-	405	440	-	-	-	-	-	-	-
Stage 1	797	768	-	630	598	-	-	-	-	-	-	-
Stage 2	626	591	-	752	757	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.7		14.4		1.9		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1419	-	-	620	413	1343	-
HCM Lane V/C Ratio	0.051	-	-	0.136	0.071	0.001	-
HCM Control Delay (s)	7.7	0	-	11.7	14.4	7.7	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.2	0	-

HCM 6th Roundabout
5: Woodmoor Drive & Deer Creek Road

2025 Total AM - Roundabout

09/13/2022

Intersection				
Intersection Delay, s/veh	5.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	108	87	172	367
Demand Flow Rate, veh/h	110	89	175	374
Vehicles Circulating, veh/h	334	178	29	177
Vehicles Exiting, veh/h	217	26	415	90
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.8	3.8	3.8	6.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	110	89	175	374
Cap Entry Lane, veh/h	982	1151	1340	1152
Entry HV Adj Factor	0.980	0.982	0.980	0.980
Flow Entry, veh/h	108	87	172	367
Cap Entry, veh/h	962	1130	1313	1129
V/C Ratio	0.112	0.077	0.131	0.325
Control Delay, s/veh	4.8	3.8	3.8	6.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	1

HCM 6th TWSC
5: Woodmoor Drive & Deer Creek Road

2025 Total AM
09/13/2022

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	13	9	60	44	22	0	65	55	11	0	205	74
Future Vol, veh/h	13	9	60	44	22	0	65	55	11	0	205	74
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	12	79	58	29	0	86	72	14	0	270	97

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	585	577	319	615	618	79	367	0	0	86	0	0
Stage 1	319	319	-	251	251	-	-	-	-	-	-	-
Stage 2	266	258	-	364	367	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	422	427	722	403	405	981	1192	-	-	1510	-	-
Stage 1	693	653	-	753	699	-	-	-	-	-	-	-
Stage 2	739	694	-	655	622	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	374	395	722	330	374	981	1192	-	-	1510	-	-
Mov Cap-2 Maneuver	374	395	-	330	374	-	-	-	-	-	-	-
Stage 1	640	653	-	696	646	-	-	-	-	-	-	-
Stage 2	652	641	-	573	622	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.6		19		4.1		0	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1192	-	-	583	343	1510	-
HCM Lane V/C Ratio	0.072	-	-	0.185	0.253	-	-
HCM Control Delay (s)	8.3	0	-	12.6	19	0	-
HCM Lane LOS	A	A	-	B	C	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	1	0	-

HCM 6th Roundabout
5: Woodmoor Drive & Deer Creek Road

2025 Total PM - Roundabout

09/13/2022

Intersection				
Intersection Delay, s/veh	4.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	90	29	296	160
Demand Flow Rate, veh/h	91	30	302	166
Vehicles Circulating, veh/h	177	284	39	113
Vehicles Exiting, veh/h	102	57	229	201
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	3.9	4.7	4.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	91	30	302	166
Cap Entry Lane, veh/h	1152	1033	1326	1230
Entry HV Adj Factor	0.986	0.956	0.979	0.965
Flow Entry, veh/h	90	29	296	160
Cap Entry, veh/h	1136	987	1298	1186
V/C Ratio	0.079	0.029	0.228	0.135
Control Delay, s/veh	3.8	3.9	4.7	4.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	0

HCM 6th TWSC
5: Woodmoor Drive & Deer Creek Road

2025 Total PM
09/13/2022

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	13	50	21	7	0	78	167	39	1	141	12
Future Vol, veh/h	23	13	50	21	7	0	78	167	39	1	141	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	5	5	5	2	2	2	4	4	4
Mvmt Flow	24	14	52	22	7	0	81	174	41	1	147	13

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	516	533	154	546	519	195	160	0	0	215	0	0
Stage 1	156	156	-	357	357	-	-	-	-	-	-	-
Stage 2	360	377	-	189	162	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.15	6.55	6.25	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.545	4.045	3.345	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	470	453	892	444	457	839	1419	-	-	1343	-	-
Stage 1	846	769	-	655	623	-	-	-	-	-	-	-
Stage 2	658	616	-	806	758	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	440	423	892	388	427	839	1419	-	-	1343	-	-
Mov Cap-2 Maneuver	440	423	-	388	427	-	-	-	-	-	-	-
Stage 1	791	768	-	612	583	-	-	-	-	-	-	-
Stage 2	608	576	-	745	757	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.8		14.8		2.1		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1419	-	-	618	397	1343	-
HCM Lane V/C Ratio	0.057	-	-	0.145	0.073	0.001	-
HCM Control Delay (s)	7.7	0	-	11.8	14.8	7.7	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.2	0	-

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	11	64	52	25	0	74	67	13	0	250	91
Future Vol, veh/h	16	11	64	52	25	0	74	67	13	0	250	91
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	14	84	68	33	0	97	88	17	0	329	120

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	696	688	389	729	740	97	449	0	0	105	0	0
Stage 1	389	389	-	291	291	-	-	-	-	-	-	-
Stage 2	307	299	-	438	449	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	356	369	659	338	345	959	1111	-	-	1486	-	-
Stage 1	635	608	-	717	672	-	-	-	-	-	-	-
Stage 2	703	666	-	597	572	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	304	335	659	265	313	959	1111	-	-	1486	-	-
Mov Cap-2 Maneuver	304	335	-	265	313	-	-	-	-	-	-	-
Stage 1	576	608	-	650	610	-	-	-	-	-	-	-
Stage 2	603	604	-	508	572	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.5		25.1		4.1		0	
HCM LOS	B		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1111	-	-	498	279	1486	-
HCM Lane V/C Ratio	0.088	-	-	0.24	0.363	-	-
HCM Control Delay (s)	8.6	0	-	14.5	25.1	0	-
HCM Lane LOS	A	A	-	B	D	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.9	1.6	0	-

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	15	54	25	8	0	83	204	46	1	172	15
Future Vol, veh/h	28	15	54	25	8	0	83	204	46	1	172	15
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	5	5	5	2	2	2	4	4	4
Mvmt Flow	29	16	56	26	8	0	86	213	48	1	179	16

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	602	622	187	634	606	237	195	0	0	261	0	0
Stage 1	189	189	-	409	409	-	-	-	-	-	-	-
Stage 2	413	433	-	225	197	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.15	6.55	6.25	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.545	4.045	3.345	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	412	403	855	388	407	795	1378	-	-	1292	-	-
Stage 1	813	744	-	613	591	-	-	-	-	-	-	-
Stage 2	616	582	-	771	732	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	382	373	855	331	377	795	1378	-	-	1292	-	-
Mov Cap-2 Maneuver	382	373	-	331	377	-	-	-	-	-	-	-
Stage 1	754	743	-	568	548	-	-	-	-	-	-	-
Stage 2	562	540	-	704	731	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13		16.7		1.9		0	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	549	341	1292	-
HCM Lane V/C Ratio	0.063	-	-	0.184	0.101	0.001	-
HCM Control Delay (s)	7.8	0	-	13	16.7	7.8	0
HCM Lane LOS	A	A	-	B	C	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0.3	0	-

HCM 6th Roundabout
5: Woodmoor Drive & Deer Creek Road

2045 Total AM - Roundabout

09/13/2022

Intersection				
Intersection Delay, s/veh	6.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	145	105	217	454
Demand Flow Rate, veh/h	148	107	221	464
Vehicles Circulating, veh/h	409	228	47	214
Vehicles Exiting, veh/h	268	40	510	121
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.7	4.2	4.2	7.8
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	148	107	221	464
Cap Entry Lane, veh/h	909	1094	1315	1109
Entry HV Adj Factor	0.977	0.984	0.983	0.979
Flow Entry, veh/h	145	105	217	454
Cap Entry, veh/h	888	1077	1292	1086
V/C Ratio	0.163	0.098	0.168	0.418
Control Delay, s/veh	5.7	4.2	4.2	7.8
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	2

HCM 6th TWSC
5: Woodmoor Drive & Deer Creek Road

2045 Total AM
09/13/2022

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	20	15	75	55	25	0	80	70	15	0	250	95
Future Vol, veh/h	20	15	75	55	25	0	80	70	15	0	250	95
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	20	99	72	33	0	105	92	20	0	329	125

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	721	714	392	763	766	102	454	0	0	112	0	0
Stage 1	392	392	-	312	312	-	-	-	-	-	-	-
Stage 2	329	322	-	451	454	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	343	357	657	321	333	953	1107	-	-	1478	-	-
Stage 1	633	606	-	699	658	-	-	-	-	-	-	-
Stage 2	684	651	-	588	569	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	290	321	657	240	299	953	1107	-	-	1478	-	-
Mov Cap-2 Maneuver	290	321	-	240	299	-	-	-	-	-	-	-
Stage 1	569	606	-	628	592	-	-	-	-	-	-	-
Stage 2	581	585	-	483	569	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.7		28.5		4.2		0	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1107	-	-	479	256	1478	-
HCM Lane V/C Ratio	0.095	-	-	0.302	0.411	-	-
HCM Control Delay (s)	8.6	0	-	15.7	28.5	0	-
HCM Lane LOS	A	A	-	C	D	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.3	1.9	0	-

HCM 6th Roundabout
5: Woodmoor Drive & Deer Creek Road

2045 Total PM - Roundabout

09/13/2022

Intersection				
Intersection Delay, s/veh	4.9			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	109	36	365	203
Demand Flow Rate, veh/h	111	37	372	211
Vehicles Circulating, veh/h	221	351	53	138
Vehicles Exiting, veh/h	128	74	279	250
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	4.2	5.3	4.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	111	37	372	211
Cap Entry Lane, veh/h	1101	965	1307	1199
Entry HV Adj Factor	0.979	0.960	0.980	0.961
Flow Entry, veh/h	109	36	365	203
Cap Entry, veh/h	1078	926	1282	1152
V/C Ratio	0.101	0.038	0.285	0.176
Control Delay, s/veh	4.2	4.2	5.3	4.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

HCM 6th TWSC
5: Woodmoor Drive & Deer Creek Road

2045 Total PM
09/13/2022

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	15	60	25	10	0	95	205	50	5	175	15
Future Vol, veh/h	30	15	60	25	10	0	95	205	50	5	175	15
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	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	5	5	5	2	2	2	4	4	4
Mvmt Flow	31	16	63	26	10	0	99	214	52	5	182	16
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	643	664	190	678	646	240	198	0	0	266	0	0
Stage 1	200	200	-	438	438	-	-	-	-	-	-	-
Stage 2	443	464	-	240	208	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.15	6.55	6.25	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.545	4.045	3.345	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	386	381	852	362	386	792	1375	-	-	1286	-	-
Stage 1	802	736	-	592	574	-	-	-	-	-	-	-
Stage 2	594	564	-	757	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	352	347	852	302	352	792	1375	-	-	1286	-	-
Mov Cap-2 Maneuver	352	347	-	302	352	-	-	-	-	-	-	-
Stage 1	734	733	-	542	525	-	-	-	-	-	-	-
Stage 2	533	516	-	684	721	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	13.6		17.9			2.1			0.2			
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1375	-	-	528	315	1286	-	-				
HCM Lane V/C Ratio	0.072	-	-	0.207	0.116	0.004	-	-				
HCM Control Delay (s)	7.8	0	-	13.6	17.9	7.8	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.4	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	6	2	287	1	0	0	287	349	19	1	430	63
Future Vol, veh/h	6	2	287	1	0	0	287	349	19	1	430	63
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	4	4	4	5	5	5	4	4	4	5	5	5
Mvmt Flow	8	3	393	1	0	0	393	478	26	1	589	86
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1911	1924	-	1913	1954	491	675	0	0	504	0	0
Stage 1	634	634	-	1277	1277	-	-	-	-	-	-	-
Stage 2	1277	1290	-	636	677	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	-	7.15	6.55	6.25	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	-	3.545	4.045	3.345	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	51	66	0	50	63	571	907	-	-	1045	-	-
Stage 1	464	470	0	201	234	-	-	-	-	-	-	-
Stage 2	202	232	0	461	448	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	34	37	-	32	36	571	907	-	-	1045	-	-
Mov Cap-2 Maneuver	85	104	-	51	47	-	-	-	-	-	-	-
Stage 1	263	470	-	114	133	-	-	-	-	-	-	-
Stage 2	114	132	-	458	448	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	51.1		77.5		5.2		0					
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	907	-	-	89	-	51	1045	-	-			
HCM Lane V/C Ratio	0.433	-	-	0.123	-	0.027	0.001	-	-			
HCM Control Delay (s)	12	-	-	51.1	0	77.5	8.4	-	-			
HCM Lane LOS	B	-	-	F	A	F	A	-	-			
HCM 95th %tile Q(veh)	2.2	-	-	0.4	-	0.1	0	-	-			

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	1	1	341	13	1	1	219	313	7	2	399	28
Future Vol, veh/h	1	1	341	13	1	1	219	313	7	2	399	28
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	2	2	2	2	2	2	6	6	6
Mvmt Flow	1	1	401	15	1	1	258	368	8	2	469	33

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1379	1382	-	1378	1394	372	502	0	0	376	0	0
Stage 1	490	490	-	888	888	-	-	-	-	-	-	-
Stage 2	889	892	-	490	506	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	-	7.12	6.52	6.22	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	-	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	121	143	0	122	141	674	1062	-	-	1161	-	-
Stage 1	558	547	0	338	362	-	-	-	-	-	-	-
Stage 2	336	359	0	560	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	98	108	-	99	106	674	1062	-	-	1161	-	-
Mov Cap-2 Maneuver	184	207	-	171	175	-	-	-	-	-	-	-
Stage 1	422	546	-	256	274	-	-	-	-	-	-	-
Stage 2	253	272	-	558	539	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	23.7		27.2		3.8		0	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1062	-	-	195	-	180	1161	-	-
HCM Lane V/C Ratio	0.243	-	-	0.012	-	0.098	0.002	-	-
HCM Control Delay (s)	9.5	-	-	23.7	0	27.2	8.1	-	-
HCM Lane LOS	A	-	-	C	A	D	A	-	-
HCM 95th %tile Q(veh)	1	-	-	0	-	0.3	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	6	2	296	1	0	0	296	369	20	1	463	65
Future Vol, veh/h	6	2	296	1	0	0	296	369	20	1	463	65
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	4	4	4	5	5	5	4	4	4	5	5	5
Mvmt Flow	8	3	405	1	0	0	405	505	27	1	634	89

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2010	2023	-	2011	2054	519	723	0	0	532	0	0
Stage 1	681	681	-	1329	1329	-	-	-	-	-	-	-
Stage 2	1329	1342	-	682	725	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	-	7.15	6.55	6.25	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	-	3.545	4.045	3.345	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	43	57	0	43	54	551	870	-	-	1020	-	-
Stage 1	437	447	0	188	221	-	-	-	-	-	-	-
Stage 2	189	219	0	435	426	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	27	30	-	27	29	551	870	-	-	1020	-	-
Mov Cap-2 Maneuver	74	92	-	-	18	-	-	-	-	-	-	-
Stage 1	233	447	-	100	118	-	-	-	-	-	-	-
Stage 2	101	117	-	432	426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	58.6		5.5	0
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	870	-	-	78	-	-	1020	-	-
HCM Lane V/C Ratio	0.466	-	-	0.14	-	-	0.001	-	-
HCM Control Delay (s)	12.7	-	-	58.6	0	-	8.5	-	-
HCM Lane LOS	B	-	-	F	A	-	A	-	-
HCM 95th %tile Q(veh)	2.5	-	-	0.5	-	-	0	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	1	1	351	13	1	1	226	342	7	2	425	29
Future Vol, veh/h	1	1	351	13	1	1	226	342	7	2	425	29
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	2	2	2	2	2	2	6	6	6
Mvmt Flow	1	1	413	15	1	1	266	402	8	2	500	34
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1460	1463	-	1460	1476	406	534	0	0	410	0	0
Stage 1	521	521	-	938	938	-	-	-	-	-	-	-
Stage 2	939	942	-	522	538	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	-	7.12	6.52	6.22	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	-	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	106	128	0	107	126	645	1034	-	-	1128	-	-
Stage 1	537	530	0	317	343	-	-	-	-	-	-	-
Stage 2	316	340	0	538	522	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	84	95	-	85	93	645	1034	-	-	1128	-	-
Mov Cap-2 Maneuver	168	191	-	153	159	-	-	-	-	-	-	-
Stage 1	399	529	-	236	255	-	-	-	-	-	-	-
Stage 2	233	253	-	536	521	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	25.4		29.9		3.8		0					
HCM LOS	D		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1034	-	-	179	-	162	1128	-	-			
HCM Lane V/C Ratio	0.257	-	-	0.013	-	0.109	0.002	-	-			
HCM Control Delay (s)	9.7	-	-	25.4	0	29.9	8.2	-	-			
HCM Lane LOS	A	-	-	D	A	D	A	-	-			
HCM 95th %tile Q(veh)	1	-	-	0	-	0.4	0	-	-			

Intersection						
Intersection Delay, s/veh	10.1					
Intersection LOS	B					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	1	1	1		1	
Adj Approach Flow, veh/h	11	1	969		735	
Demand Flow Rate, veh/h	11	1	1007		771	
Vehicles Circulating, veh/h	679	987	12		450	
Vehicles Exiting, veh/h	542	32	678		538	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	5.4	7.2	6.0		15.7	
Approach LOS	A	A	A		C	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LT	LTR	L	TR	LT	R
Assumed Moves	LT	LTR	L	TR	LT	R
RT Channelized						
Lane Util	1.000	1.000	0.446	0.554	0.879	0.121
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	11	1	449	558	678	93
Cap Entry Lane, veh/h	690	504	1405	1405	943	943
Entry HV Adj Factor	0.990	1.000	0.962	0.962	0.952	0.957
Flow Entry, veh/h	11	1	432	537	646	89
Cap Entry, veh/h	683	504	1352	1351	898	902
V/C Ratio	0.016	0.002	0.320	0.397	0.719	0.099
Control Delay, s/veh	5.4	7.2	5.5	6.4	17.1	4.9
LOS	A	A	A	A	C	A
95th %tile Queue, veh	0	0	1	2	6	0

Intersection						
Intersection Delay, s/veh	7.1					
Intersection LOS	A					
Approach	EB	WB	NB	SB		
Entry Lanes	1	1	2	2		
Conflicting Circle Lanes	1	1	1	1		
Adj Approach Flow, veh/h	2	17	763	542		
Demand Flow Rate, veh/h	2	17	778	574		
Vehicles Circulating, veh/h	553	771	4	365		
Vehicles Exiting, veh/h	386	11	551	423		
Ped Vol Crossing Leg, #/h	0	0	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	4.7	6.0	5.0	10.1		
Approach LOS	A	A	A	B		
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LT	LTR	L	TR	LT	R
Assumed Moves	LT	LTR	L	TR	LT	R
RT Channelized						
Lane Util	1.000	1.000	0.449	0.551	0.937	0.063
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	2	17	349	429	538	36
Cap Entry Lane, veh/h	785	629	1415	1415	1019	1019
Entry HV Adj Factor	0.985	0.999	0.980	0.981	0.944	0.944
Flow Entry, veh/h	2	17	342	421	508	34
Cap Entry, veh/h	774	628	1387	1388	961	962
V/C Ratio	0.003	0.027	0.247	0.303	0.528	0.035
Control Delay, s/veh	4.7	6.0	4.7	5.2	10.5	4.1
LOS	A	A	A	A	B	A
95th %tile Queue, veh	0	0	1	1	3	0

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	8	3	361	1	0	0	361	448	24	1	561	79
Future Vol, veh/h	8	3	361	1	0	0	361	448	24	1	561	79
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	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	4	4	4	5	5	5	4	4	4	5	5	5
Mvmt Flow	11	4	495	1	0	0	495	614	33	1	768	108

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2445	2461	-	2447	2499	631	876	0	0	647	0	0
Stage 1	824	824	-	1621	1621	-	-	-	-	-	-	-
Stage 2	1621	1637	-	826	878	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	-	7.15	6.55	6.25	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.15	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.15	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	-	3.545	4.045	3.345	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	21	30	0	21	28	476	762	-	-	924	-	-
Stage 1	364	385	0	127	159	-	-	-	-	-	-	-
Stage 2	128	157	0	362	362	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 10	11	-	9	10	476	762	-	-	924	-	-
Mov Cap-2 Maneuver	33	45	-	50	71	-	-	-	-	-	-	-
Stage 1	127	385	-	44	56	-	-	-	-	-	-	-
Stage 2	45	55	-	358	362	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	163.8	79	7.8	0
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	762	-	-	36	-	50	924	-	-
HCM Lane V/C Ratio	0.649	-	-	0.419	-	0.027	0.001	-	-
HCM Control Delay (s)	18	-	-	163.8	0	79	8.9	-	-
HCM Lane LOS	C	-	-	F	A	F	A	-	-
HCM 95th %tile Q(veh)	4.8	-	-	1.4	-	0.1	0	-	-

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

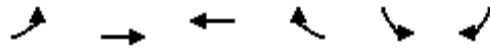
Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕		↗	↕	
Traffic Vol, veh/h	1	1	429	16	1	1	275	413	9	3	516	35
Future Vol, veh/h	1	1	429	16	1	1	275	413	9	3	516	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	3	3	3	2	2	2	2	2	2	6	6	6
Mvmt Flow	1	1	505	19	1	1	324	486	11	4	607	41
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1777	1781	-	1776	1796	492	648	0	0	497	0	0
Stage 1	636	636	-	1140	1140	-	-	-	-	-	-	-
Stage 2	1141	1145	-	636	656	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	-	7.12	6.52	6.22	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	-	3.518	4.018	3.318	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	64	82	0	64	80	577	938	-	-	1047	-	-
Stage 1	464	470	0	244	276	-	-	-	-	-	-	-
Stage 2	243	273	0	466	462	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	46	53	-	46	52	577	938	-	-	1047	-	-
Mov Cap-2 Maneuver	111	134	-	89	94	-	-	-	-	-	-	-
Stage 1	304	468	-	160	181	-	-	-	-	-	-	-
Stage 2	158	179	-	463	460	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	35.3		54.1		4.3		0					
HCM LOS	E		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	938	-	-	121	-	94	1047	-	-			
HCM Lane V/C Ratio	0.345	-	-	0.019	-	0.225	0.003	-	-			
HCM Control Delay (s)	10.8	-	-	35.3	0	54.1	8.4	-	-			
HCM Lane LOS	B	-	-	E	A	F	A	-	-			
HCM 95th %tile Q(veh)	1.5	-	-	0.1	-	0.8	0	-	-			

Intersection						
Intersection Delay, s/veh	21.1					
Intersection LOS	C					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	1	1	1		1	
Adj Approach Flow, veh/h	21	7	1178		898	
Demand Flow Rate, veh/h	22	7	1225		943	
Vehicles Circulating, veh/h	834	1205	29		549	
Vehicles Exiting, veh/h	657	49	827		663	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	6.9	9.2	7.2		39.8	
Approach LOS	A	A	A		E	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LT	LTR	L	TR	LT	R
Assumed Moves	LT	LTR	L	TR	LT	R
RT Channelized						
Lane Util	1.000	1.000	0.442	0.558	0.877	0.123
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	22	7	542	683	827	116
Cap Entry Lane, veh/h	589	404	1383	1383	862	862
Entry HV Adj Factor	0.942	1.000	0.961	0.962	0.953	0.948
Flow Entry, veh/h	21	7	521	657	788	110
Cap Entry, veh/h	555	404	1330	1331	821	817
V/C Ratio	0.037	0.017	0.392	0.494	0.960	0.135
Control Delay, s/veh	6.9	9.2	6.4	7.8	44.6	5.8
LOS	A	A	A	A	E	A
95th %tile Queue, veh	0	0	2	3	15	0

Intersection						
Intersection Delay, s/veh	9.6					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	1	1	1		1	
Adj Approach Flow, veh/h	12	36	912		665	
Demand Flow Rate, veh/h	12	36	930		704	
Vehicles Circulating, veh/h	685	924	18		438	
Vehicles Exiting, veh/h	457	24	679		522	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	5.5	7.5	5.7		15.3	
Approach LOS	A	A	A		C	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LT	LTR	L	TR	LT	R
Assumed Moves	LT	LTR	L	TR	LT	R
RT Channelized						
Lane Util	1.000	1.000	0.439	0.561	0.939	0.061
Follow-Up Headway, s	2.609	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	12	36	408	522	661	43
Cap Entry Lane, veh/h	686	538	1397	1397	953	953
Entry HV Adj Factor	0.985	0.997	0.980	0.981	0.944	0.953
Flow Entry, veh/h	12	36	400	512	624	41
Cap Entry, veh/h	676	536	1370	1370	900	909
V/C Ratio	0.017	0.067	0.292	0.374	0.693	0.045
Control Delay, s/veh	5.5	7.5	5.2	6.1	16.0	4.4
LOS	A	A	A	A	C	A
95th %tile Queue, veh	0	0	1	2	6	0

Timings
7: SH-105 & Woodmoor Drive

2022 Existing AM
09/12/2022

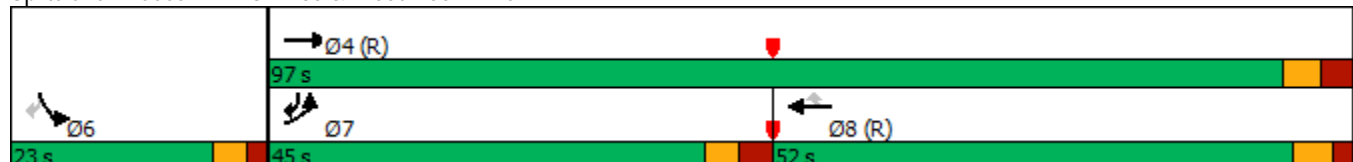


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	236	413	948	526	268	511
Future Volume (vph)	236	413	948	526	268	511
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	11.0
Total Split (s)	45.0	97.0	52.0	52.0	23.0	45.0
Total Split (%)	37.5%	80.8%	43.3%	43.3%	19.2%	37.5%
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	3.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	6.0
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	C-Max	C-Max	C-Max	Max	None
Act Effect Green (s)	31.4	90.5	54.1	54.1	18.0	54.4
Actuated g/C Ratio	0.26	0.75	0.45	0.45	0.15	0.45
v/c Ratio	0.30	0.18	0.67	0.57	0.59	0.79
Control Delay	35.1	4.4	29.8	4.4	52.9	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	4.4	29.8	4.4	52.9	34.6
LOS	D	A	C	A	D	C
Approach Delay		15.5	20.8		40.9	
Approach LOS		B	C		D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 99 (83%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 25.0
 Intersection LOS: C
 Intersection Capacity Utilization 67.4%
 ICU Level of Service C
 Analysis Period (min) 15

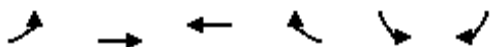
Splits and Phases: 7: SH-105 & Woodmoor Drive



HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive













2022 Existing AM
09/12/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↰↱	↕	↕	↱	↰↱	↱	
Traffic Volume (veh/h)	236	413	948	526	268	511	
Future Volume (veh/h)	236	413	948	526	268	511	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1826	1826	1856	1856	1841	1841	
Adj Flow Rate, veh/h	262	459	1053	584	298	401	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	5	5	3	3	4	4	
Cap, veh/h	338	2616	2130	950	510	390	
Arrive On Green	0.10	0.75	0.60	0.60	0.15	0.15	
Sat Flow, veh/h	3374	3561	3618	1572	3401	1560	
Grp Volume(v), veh/h	262	459	1053	584	298	401	
Grp Sat Flow(s),veh/h/ln	1687	1735	1763	1572	1700	1560	
Q Serve(g_s), s	9.1	4.5	20.2	28.1	9.8	18.0	
Cycle Q Clear(g_c), s	9.1	4.5	20.2	28.1	9.8	18.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	338	2616	2130	950	510	390	
V/C Ratio(X)	0.78	0.18	0.49	0.61	0.58	1.03	
Avail Cap(c_a), veh/h	1096	2616	2130	950	510	390	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	52.7	4.2	13.4	15.0	47.5	45.0	
Incr Delay (d2), s/veh	3.8	0.1	0.8	3.0	4.8	52.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.0	1.5	8.0	10.4	4.5	28.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	56.5	4.3	14.2	17.9	52.3	97.9	
LnGrp LOS	E	A	B	B	D	F	
Approach Vol, veh/h		721	1637		699		
Approach Delay, s/veh		23.3	15.6		78.5		
Approach LOS		C	B		E		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			97.0		23.0	18.0	79.0
Change Period (Y+Rc), s			6.5		5.0	6.0	* 6.5
Max Green Setting (Gmax), s			90.5		18.0	39.0	* 47
Max Q Clear Time (g_c+I1), s			6.5		20.0	11.1	30.1
Green Ext Time (p_c), s			3.5		0.0	0.9	9.2
Intersection Summary							
HCM 6th Ctrl Delay			31.8				
HCM 6th LOS			C				
Notes							

Timings
7: SH-105 & Woodmoor Drive

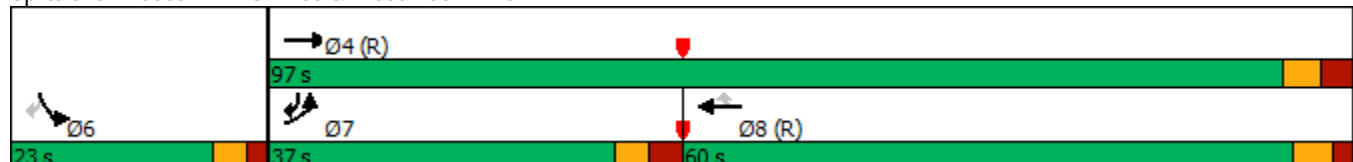
2022 Existing PM
09/12/2022

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	233	530	1226	434	331	510
Future Volume (vph)	233	530	1226	434	331	510
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	11.0
Total Split (s)	37.0	97.0	60.0	60.0	23.0	37.0
Total Split (%)	30.8%	80.8%	50.0%	50.0%	19.2%	30.8%
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	3.0
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	6.0
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	C-Max	C-Max	C-Max	Max	None
Act Effect Green (s)	26.7	90.5	58.8	58.8	18.0	49.7
Actuated g/C Ratio	0.22	0.75	0.49	0.49	0.15	0.41
v/c Ratio	0.33	0.21	0.76	0.46	0.70	0.83
Control Delay	39.4	4.5	29.4	3.4	56.5	41.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	4.5	29.4	3.4	56.5	41.5
LOS	D	A	C	A	E	D
Approach Delay		15.2	22.6		47.4	
Approach LOS		B	C		D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 69 (58%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 27.2
 Intersection LOS: C
 Intersection Capacity Utilization 75.1%
 ICU Level of Service D
 Analysis Period (min) 15

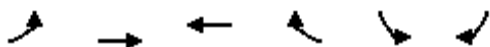
Splits and Phases: 7: SH-105 & Woodmoor Drive



HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

2022 Existing PM
09/12/2022

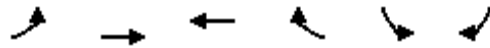


Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↰↱	↕	↕	↱	↰↱	↱	
Traffic Volume (veh/h)	233	530	1226	434	331	510	
Future Volume (veh/h)	233	530	1226	434	331	510	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856	
Adj Flow Rate, veh/h	251	570	1318	467	356	387	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	3	3	
Cap, veh/h	326	2680	2167	967	514	384	
Arrive On Green	0.09	0.75	0.61	0.61	0.15	0.15	
Sat Flow, veh/h	3456	3647	3647	1585	3428	1572	
Grp Volume(v), veh/h	251	570	1318	467	356	387	
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1714	1572	
Q Serve(g_s), s	8.5	5.6	27.6	19.6	11.8	18.0	
Cycle Q Clear(g_c), s	8.5	5.6	27.6	19.6	11.8	18.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	326	2680	2167	967	514	384	
V/C Ratio(X)	0.77	0.21	0.61	0.48	0.69	1.01	
Avail Cap(c_a), veh/h	893	2680	2167	967	514	384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	53.1	4.3	14.5	12.9	48.4	45.3	
Incr Delay (d2), s/veh	3.9	0.2	1.3	1.7	7.5	47.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.9	1.9	11.0	7.2	5.6	27.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	56.9	4.5	15.8	14.7	55.8	93.1	
LnGrp LOS	E	A	B	B	E	F	
Approach Vol, veh/h		821	1785		743		
Approach Delay, s/veh		20.5	15.5		75.2		
Approach LOS		C	B		E		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				97.0	23.0	17.3	79.7
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				90.5	18.0	31.0	* 55
Max Q Clear Time (g_c+I1), s				7.6	20.0	10.5	29.6
Green Ext Time (p_c), s				4.5	0.0	0.8	13.6
Intersection Summary							
HCM 6th Ctrl Delay			30.0				
HCM 6th LOS			C				
Notes							

Timings
7: SH-105 & Woodmoor Drive

2025 Background AM

09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	247	434	996	547	289	533
Future Volume (vph)	247	434	996	547	289	533
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	23.0	84.0	61.0	61.0	26.0	
Total Split (%)	20.9%	76.4%	55.5%	55.5%	23.6%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	14.6	77.5	57.9	57.9	21.0	41.6
Actuated g/C Ratio	0.13	0.70	0.53	0.53	0.19	0.38
v/c Ratio	0.62	0.20	0.60	0.55	0.50	0.54
Control Delay	51.0	5.8	20.2	3.3	42.9	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	5.8	20.2	3.3	42.9	23.4
LOS	D	A	C	A	D	C
Approach Delay		22.2	14.2		30.3	
Approach LOS		C	B		C	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 20.3

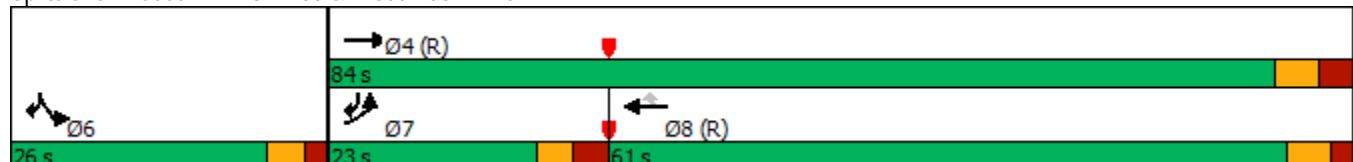
Intersection LOS: C

Intersection Capacity Utilization 56.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: SH-105 & Woodmoor Drive

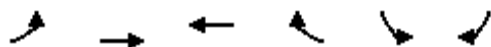













HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

2025 Background AM

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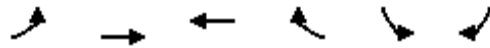


Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	 	 	 		 	 	
Traffic Volume (veh/h)	247	434	996	547	289	533	
Future Volume (veh/h)	247	434	996	547	289	533	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1826	1826	1856	1856	1841	1841	
Adj Flow Rate, veh/h	274	482	1107	608	321	592	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	5	5	3	3	4	4	
Cap, veh/h	344	2444	1932	862	649	804	
Arrive On Green	0.10	0.70	0.55	0.55	0.19	0.19	
Sat Flow, veh/h	3374	3561	3618	1572	3401	2745	
Grp Volume(v), veh/h	274	482	1107	608	321	592	
Grp Sat Flow(s),veh/h/ln	1687	1735	1763	1572	1700	1373	
Q Serve(g_s), s	8.7	5.2	22.8	31.3	9.3	21.0	
Cycle Q Clear(g_c), s	8.7	5.2	22.8	31.3	9.3	21.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	344	2444	1932	862	649	804	
V/C Ratio(X)	0.80	0.20	0.57	0.71	0.49	0.74	
Avail Cap(c_a), veh/h	521	2444	1932	862	649	804	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	48.3	5.6	16.4	18.3	39.8	35.1	
Incr Delay (d2), s/veh	4.9	0.2	1.2	4.8	2.7	5.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.9	1.8	9.2	12.0	4.1	16.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	53.2	5.8	17.6	23.2	42.4	41.0	
LnGrp LOS	D	A	B	C	D	D	
Approach Vol, veh/h		756	1715		913		
Approach Delay, s/veh		23.0	19.6		41.5		
Approach LOS		C	B		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				84.0	26.0	17.2	66.8
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				77.5	21.0	17.0	* 56
Max Q Clear Time (g_c+l1), s				7.2	23.0	10.7	33.3
Green Ext Time (p_c), s				3.7	0.0	0.5	11.6
Intersection Summary							
HCM 6th Ctrl Delay			26.3				
HCM 6th LOS			C				
Notes							

Timings
7: SH-105 & Woodmoor Drive

2025 Background PM

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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	248	557	1288	459	349	531
Future Volume (vph)	248	557	1288	459	349	531
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	20.0	87.0	67.0	67.0	23.0	
Total Split (%)	18.2%	79.1%	60.9%	60.9%	20.9%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	13.0	80.5	62.5	62.5	18.0	37.0
Actuated g/C Ratio	0.12	0.73	0.57	0.57	0.16	0.34
v/c Ratio	0.66	0.23	0.69	0.44	0.67	0.59
Control Delay	54.4	5.0	19.4	2.4	50.0	29.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	5.0	19.4	2.4	50.0	29.0
LOS	D	A	B	A	D	C
Approach Delay		20.2	14.9		37.3	
Approach LOS		C	B		D	

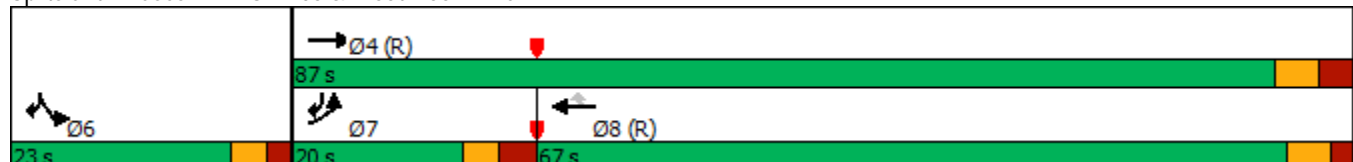
Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 21.9
 Intersection Capacity Utilization 66.4%
 Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service C

Splits and Phases: 7: SH-105 & Woodmoor Drive

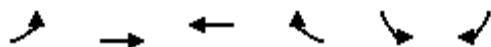


HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

2025 Background PM

09/13/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↰↱	↰↱	↰↱	↰	↰↱	↰↱	
Traffic Volume (veh/h)	248	557	1288	459	349	531	
Future Volume (veh/h)	248	557	1288	459	349	531	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856	
Adj Flow Rate, veh/h	267	599	1385	494	375	571	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	3	3	
Cap, veh/h	334	2601	2063	920	561	720	
Arrive On Green	0.10	0.73	0.58	0.58	0.16	0.16	
Sat Flow, veh/h	3456	3647	3647	1585	3428	2768	
Grp Volume(v), veh/h	267	599	1385	494	375	571	
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1714	1384	
Q Serve(g_s), s	8.3	6.0	29.5	20.9	11.3	18.0	
Cycle Q Clear(g_c), s	8.3	6.0	29.5	20.9	11.3	18.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	334	2601	2063	920	561	720	
V/C Ratio(X)	0.80	0.23	0.67	0.54	0.67	0.79	
Avail Cap(c_a), veh/h	440	2601	2063	920	561	720	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	48.6	4.8	15.9	14.1	43.2	37.9	
Incr Delay (d2), s/veh	7.6	0.2	1.8	2.2	6.2	8.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.9	2.0	11.8	7.7	5.3	16.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	56.2	5.0	17.6	16.3	49.4	46.6	
LnGrp LOS	E	A	B	B	D	D	
Approach Vol, veh/h		866	1879		946		
Approach Delay, s/veh		20.8	17.3		47.7		
Approach LOS		C	B		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				87.0	23.0	16.6	70.4
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				80.5	18.0	14.0	* 62
Max Q Clear Time (g_c+I1), s				8.0	20.0	10.3	31.5
Green Ext Time (p_c), s				4.8	0.0	0.3	16.1
Intersection Summary							
HCM 6th Ctrl Delay			25.9				
HCM 6th LOS			C				

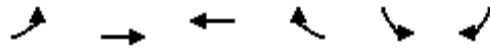
Notes

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

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
7: SH-105 & Woodmoor Drive

2025 Total AM
09/13/2022

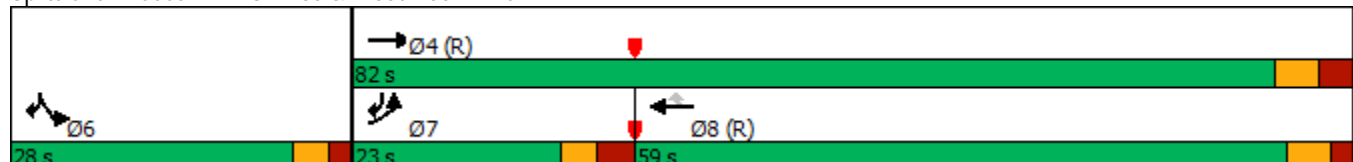


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑	↑↑	↔	↔↔	↔↔
Traffic Volume (vph)	255	434	996	561	297	594
Future Volume (vph)	255	434	996	561	297	594
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	23.0	82.0	59.0	59.0	28.0	
Total Split (%)	20.9%	74.5%	53.6%	53.6%	25.5%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	14.8	75.5	55.7	55.7	23.0	43.8
Actuated g/C Ratio	0.13	0.69	0.51	0.51	0.21	0.40
v/c Ratio	0.63	0.20	0.62	0.57	0.47	0.58
Control Delay	51.4	6.5	21.9	3.5	40.7	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	6.5	21.9	3.5	40.7	24.0
LOS	D	A	C	A	D	C
Approach Delay		23.1	15.3		29.6	
Approach LOS		C	B		C	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 21.1
 Intersection Capacity Utilization 57.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

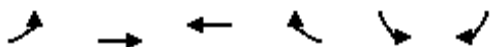
Splits and Phases: 7: SH-105 & Woodmoor Drive



HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

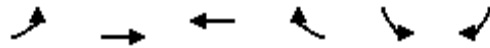
2025 Total AM
09/13/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖↗	↑↑	↑↑	↖	↖↗	↖↗	
Traffic Volume (veh/h)	255	434	996	561	297	594	
Future Volume (veh/h)	255	434	996	561	297	594	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1826	1826	1856	1856	1841	1841	
Adj Flow Rate, veh/h	283	482	1107	623	330	660	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	5	5	3	3	4	4	
Cap, veh/h	353	2381	1858	829	711	862	
Arrive On Green	0.10	0.69	0.53	0.53	0.21	0.21	
Sat Flow, veh/h	3374	3561	3618	1572	3401	2745	
Grp Volume(v), veh/h	283	482	1107	623	330	660	
Grp Sat Flow(s),veh/h/ln	1687	1735	1763	1572	1700	1373	
Q Serve(g_s), s	9.0	5.6	23.8	34.1	9.3	23.0	
Cycle Q Clear(g_c), s	9.0	5.6	23.8	34.1	9.3	23.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	353	2381	1858	829	711	862	
V/C Ratio(X)	0.80	0.20	0.60	0.75	0.46	0.77	
Avail Cap(c_a), veh/h	521	2381	1858	829	711	862	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	48.1	6.3	17.9	20.4	38.1	34.1	
Incr Delay (d2), s/veh	5.5	0.2	1.4	6.2	2.2	6.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.0	1.9	9.7	13.4	4.1	17.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	53.6	6.5	19.3	26.6	40.3	40.5	
LnGrp LOS	D	A	B	C	D	D	
Approach Vol, veh/h		765	1730		990		
Approach Delay, s/veh		23.9	22.0		40.5		
Approach LOS		C	C		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				82.0	28.0	17.5	64.5
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				75.5	23.0	17.0	* 54
Max Q Clear Time (g_c+l1), s				7.6	25.0	11.0	36.1
Green Ext Time (p_c), s				3.7	0.0	0.5	10.1
Intersection Summary							
HCM 6th Ctrl Delay			27.6				
HCM 6th LOS			C				
Notes							

Timings
7: SH-105 & Woodmoor Drive

2025 Total PM
09/13/2022

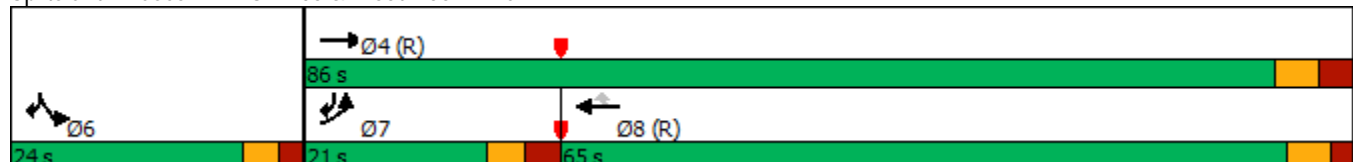


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↰↱	↰↱	↰	↰↱	↰↱
Traffic Volume (vph)	274	557	1288	506	354	569
Future Volume (vph)	274	557	1288	506	354	569
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	21.0	86.0	65.0	65.0	24.0	
Total Split (%)	19.1%	78.2%	59.1%	59.1%	21.8%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	13.9	79.5	60.6	60.6	19.0	38.9
Actuated g/C Ratio	0.13	0.72	0.55	0.55	0.17	0.35
v/c Ratio	0.68	0.23	0.71	0.49	0.65	0.60
Control Delay	54.1	5.4	21.1	2.7	48.2	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	5.4	21.1	2.7	48.2	28.8
LOS	D	A	C	A	D	C
Approach Delay		21.5	15.9		36.2	
Approach LOS		C	B		D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 22.5
 Intersection LOS: C
 Intersection Capacity Utilization 67.3%
 ICU Level of Service C
 Analysis Period (min) 15

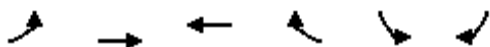
Splits and Phases: 7: SH-105 & Woodmoor Drive









HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

2025 Total PM
09/13/2022

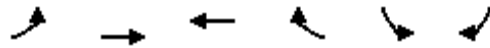


Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	274	557	1288	506	354	569	
Future Volume (veh/h)	274	557	1288	506	354	569	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856	
Adj Flow Rate, veh/h	295	599	1385	544	381	612	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	3	3	
Cap, veh/h	363	2568	2001	892	592	769	
Arrive On Green	0.11	0.72	0.56	0.56	0.17	0.17	
Sat Flow, veh/h	3456	3647	3647	1585	3428	2768	
Grp Volume(v), veh/h	295	599	1385	544	381	612	
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1714	1384	
Q Serve(g_s), s	9.2	6.2	30.7	25.1	11.4	19.0	
Cycle Q Clear(g_c), s	9.2	6.2	30.7	25.1	11.4	19.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	363	2568	2001	892	592	769	
V/C Ratio(X)	0.81	0.23	0.69	0.61	0.64	0.80	
Avail Cap(c_a), veh/h	471	2568	2001	892	592	769	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	48.2	5.1	17.2	16.0	42.3	36.8	
Incr Delay (d2), s/veh	8.1	0.2	2.0	3.1	5.3	8.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.4	2.1	12.4	9.4	5.2	17.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	56.2	5.3	19.2	19.1	47.7	45.2	
LnGrp LOS	E	A	B	B	D	D	
Approach Vol, veh/h		894	1929		993		
Approach Delay, s/veh		22.1	19.2		46.1		
Approach LOS		C	B		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				86.0	24.0	17.6	68.4
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				79.5	19.0	15.0	* 60
Max Q Clear Time (g_c+I1), s				8.2	21.0	11.2	32.7
Green Ext Time (p_c), s				4.8	0.0	0.4	15.4
Intersection Summary							
HCM 6th Ctrl Delay			26.9				
HCM 6th LOS			C				
Notes							

Timings
7: SH-105 & Woodmoor Drive

2045 Background AM

09/13/2022

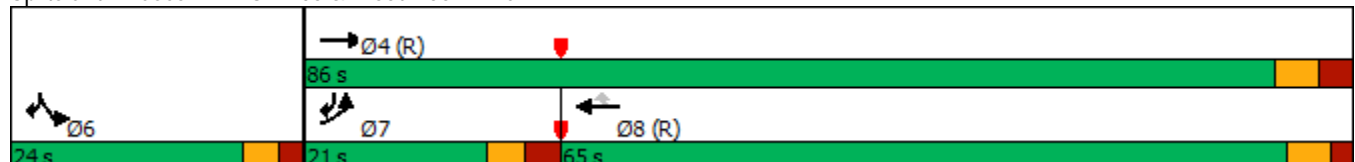


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑	↑↑	↔	↔↔	↔↔
Traffic Volume (vph)	301	603	1384	666	350	649
Future Volume (vph)	301	603	1384	666	350	649
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	21.0	86.0	65.0	65.0	24.0	
Total Split (%)	19.1%	78.2%	59.1%	59.1%	21.8%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	14.6	79.5	59.9	59.9	19.0	39.6
Actuated g/C Ratio	0.13	0.72	0.54	0.54	0.17	0.36
v/c Ratio	0.76	0.27	0.81	0.65	0.67	0.71
Control Delay	57.7	5.6	24.6	5.6	49.0	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	5.6	24.6	5.6	49.0	33.2
LOS	E	A	C	A	D	C
Approach Delay		22.9	18.5		38.7	
Approach LOS		C	B		D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 24.6
 Intersection Capacity Utilization 70.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 7: SH-105 & Woodmoor Drive

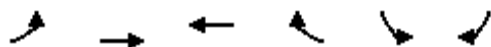


HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

2045 Background AM

09/13/2022

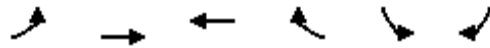


Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖↗	↑↑	↑↑	↗	↖↗	↖↗	
Traffic Volume (veh/h)	301	603	1384	666	350	649	
Future Volume (veh/h)	301	603	1384	666	350	649	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1826	1826	1856	1856	1841	1841	
Adj Flow Rate, veh/h	334	670	1538	740	389	721	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	5	5	3	3	4	4	
Cap, veh/h	397	2507	1940	865	587	798	
Arrive On Green	0.12	0.72	0.55	0.55	0.17	0.17	
Sat Flow, veh/h	3374	3561	3618	1572	3401	2745	
Grp Volume(v), veh/h	334	670	1538	740	389	721	
Grp Sat Flow(s),veh/h/ln	1687	1735	1763	1572	1700	1373	
Q Serve(g_s), s	10.7	7.3	38.3	44.0	11.8	19.0	
Cycle Q Clear(g_c), s	10.7	7.3	38.3	44.0	11.8	19.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	397	2507	1940	865	587	798	
V/C Ratio(X)	0.84	0.27	0.79	0.86	0.66	0.90	
Avail Cap(c_a), veh/h	460	2507	1940	865	587	798	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	47.5	5.2	19.7	21.0	42.5	37.5	
Incr Delay (d2), s/veh	11.7	0.3	3.4	10.6	5.8	15.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.1	2.4	15.7	17.7	5.4	20.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	59.2	5.5	23.1	31.6	48.3	53.1	
LnGrp LOS	E	A	C	C	D	D	
Approach Vol, veh/h		1004	2278		1110		
Approach Delay, s/veh		23.4	25.9		51.4		
Approach LOS		C	C		D		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				86.0	24.0	19.0	67.0
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				79.5	19.0	15.0	* 60
Max Q Clear Time (g_c+l1), s				9.3	21.0	12.7	46.0
Green Ext Time (p_c), s				5.5	0.0	0.3	10.8
Intersection Summary							
HCM 6th Ctrl Delay			31.8				
HCM 6th LOS			C				
Notes							

Timings
7: SH-105 & Woodmoor Drive

2045 Background PM

09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	→→	←←	→	←←	→→
Traffic Volume (vph)	301	774	1790	558	424	647
Future Volume (vph)	301	774	1790	558	424	647
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	19.0	87.0	68.0	68.0	23.0	
Total Split (%)	17.3%	79.1%	61.8%	61.8%	20.9%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	12.8	80.5	62.7	62.7	18.0	36.8
Actuated g/C Ratio	0.12	0.73	0.57	0.57	0.16	0.33
v/c Ratio	0.81	0.32	0.95	0.52	0.82	0.75
Control Delay	64.5	5.6	34.8	2.9	57.7	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	5.6	34.8	2.9	57.7	37.4
LOS	E	A	C	A	E	D
Approach Delay		22.1	27.2		45.4	
Approach LOS		C	C		D	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 30.3

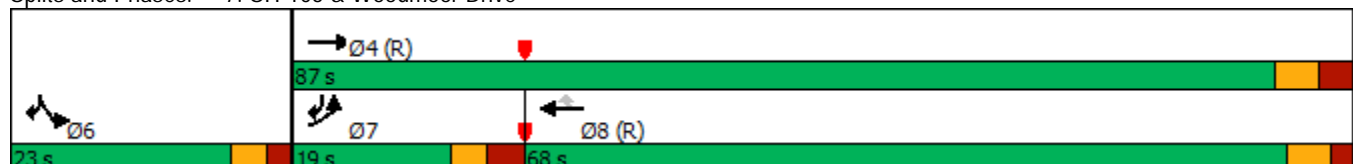
Intersection LOS: C

Intersection Capacity Utilization 83.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: SH-105 & Woodmoor Drive

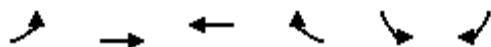


HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

2045 Background PM

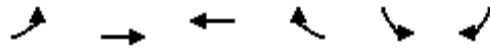
09/13/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↔↔	↑↑	↑↑	↔	↔↔	↔↔	
Traffic Volume (veh/h)	301	774	1790	558	424	647	
Future Volume (veh/h)	301	774	1790	558	424	647	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856	
Adj Flow Rate, veh/h	324	832	1925	600	456	696	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	3	3	
Cap, veh/h	384	2850	2261	1008	561	761	
Arrive On Green	0.11	0.80	0.64	0.64	0.16	0.16	
Sat Flow, veh/h	3456	3647	3647	1585	3428	2768	
Grp Volume(v), veh/h	324	832	1925	600	456	696	
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1714	1384	
Q Serve(g_s), s	10.1	6.7	47.3	24.4	14.1	18.0	
Cycle Q Clear(g_c), s	10.1	6.7	47.3	24.4	14.1	18.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	384	2850	2261	1008	561	761	
V/C Ratio(X)	0.84	0.29	0.85	0.60	0.81	0.92	
Avail Cap(c_a), veh/h	408	2850	2261	1008	561	761	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	47.9	2.8	15.9	11.7	44.4	38.6	
Incr Delay (d2), s/veh	14.2	0.3	4.3	2.6	12.2	17.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.1	1.8	18.7	8.7	6.9	20.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	62.1	3.1	20.2	14.3	56.5	56.1	
LnGrp LOS	E	A	C	B	E	E	
Approach Vol, veh/h		1156	2525		1152		
Approach Delay, s/veh		19.6	18.8		56.3		
Approach LOS		B	B		E		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				94.9	23.0	18.2	76.7
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				80.5	18.0	13.0	* 63
Max Q Clear Time (g_c+I1), s				8.7	20.0	12.1	49.3
Green Ext Time (p_c), s				7.3	0.0	0.1	11.5
Intersection Summary							
HCM 6th Ctrl Delay			27.9				
HCM 6th LOS			C				
Notes							

Timings
7: SH-105 & Woodmoor Drive

2045 Total AM
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	310	605	1385	680	360	710
Future Volume (vph)	310	605	1385	680	360	710
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	21.0	84.0	63.0	63.0	26.0	
Total Split (%)	19.1%	76.4%	57.3%	57.3%	23.6%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	14.7	77.5	57.8	57.8	21.0	41.7
Actuated g/C Ratio	0.13	0.70	0.53	0.53	0.19	0.38
v/c Ratio	0.77	0.28	0.84	0.67	0.62	0.75
Control Delay	58.9	6.3	27.3	5.9	45.7	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	6.3	27.3	5.9	45.7	33.4
LOS	E	A	C	A	D	C
Approach Delay		24.1	20.2		37.5	
Approach LOS		C	C		D	

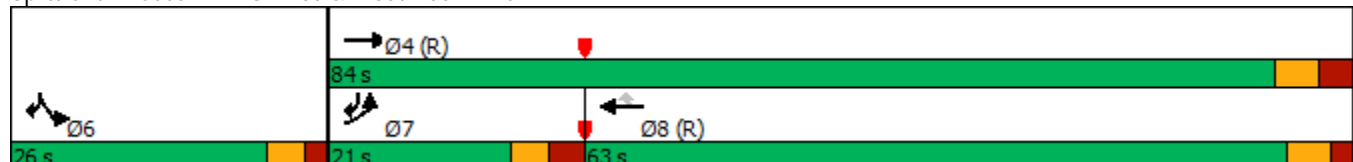
Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 25.7
 Intersection Capacity Utilization 71.9%
 Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service C

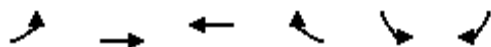
Splits and Phases: 7: SH-105 & Woodmoor Drive



HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive

2045 Total AM
09/13/2022

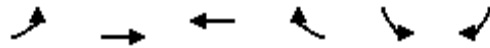


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑↑	↑↑	↑	←←	↑↑
Traffic Volume (veh/h)	310	605	1385	680	360	710
Future Volume (veh/h)	310	605	1385	680	360	710
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1826	1856	1856	1841	1841
Adj Flow Rate, veh/h	344	672	1539	756	400	789
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	5	5	3	3	4	4
Cap, veh/h	407	2444	1867	833	649	855
Arrive On Green	0.12	0.70	0.53	0.53	0.19	0.19
Sat Flow, veh/h	3374	3561	3618	1572	3401	2745
Grp Volume(v), veh/h	344	672	1539	756	400	789
Grp Sat Flow(s),veh/h/ln	1687	1735	1763	1572	1700	1373
Q Serve(g_s), s	11.0	7.8	40.1	47.9	11.9	21.0
Cycle Q Clear(g_c), s	11.0	7.8	40.1	47.9	11.9	21.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	407	2444	1867	833	649	855
V/C Ratio(X)	0.85	0.27	0.82	0.91	0.62	0.92
Avail Cap(c_a), veh/h	460	2444	1867	833	649	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	6.0	21.6	23.4	40.8	36.6
Incr Delay (d2), s/veh	12.5	0.3	4.3	15.5	4.3	16.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.7	16.8	20.3	5.3	22.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.9	6.2	25.9	39.0	45.1	53.5
LnGrp LOS	E	A	C	D	D	D
Approach Vol, veh/h		1016	2295		1189	
Approach Delay, s/veh		24.4	30.2		50.7	
Approach LOS		C	C		D	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			84.0		26.0	19.3
Change Period (Y+Rc), s			6.5		5.0	6.0
Max Green Setting (Gmax), s			77.5		21.0	15.0
Max Q Clear Time (g_c+l1), s			9.8		23.0	13.0
Green Ext Time (p_c), s			5.6		0.0	0.3
Intersection Summary						
HCM 6th Ctrl Delay			34.3			
HCM 6th LOS			C			
Notes						

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
7: SH-105 & Woodmoor Drive

2045 Total PM
09/13/2022

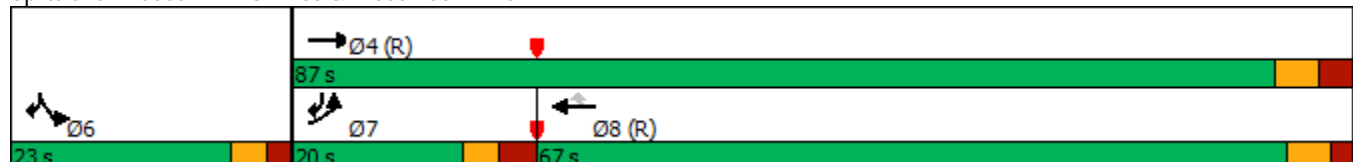


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	330	775	1790	605	430	685
Future Volume (vph)	330	775	1790	605	430	685
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	7	4	8		6	6 7
Permitted Phases				8		
Detector Phase	7	4	8	8	6	6 7
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	24.5	24.0	24.0	23.0	
Total Split (s)	20.0	87.0	67.0	67.0	23.0	
Total Split (%)	18.2%	79.1%	60.9%	60.9%	20.9%	
Yellow Time (s)	3.0	3.5	3.5	3.5	3.0	
All-Red Time (s)	3.0	3.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.5	5.5	5.5	5.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	
Act Effect Green (s)	13.9	80.5	61.6	61.6	18.0	37.9
Actuated g/C Ratio	0.13	0.73	0.56	0.56	0.16	0.34
v/c Ratio	0.82	0.32	0.97	0.56	0.83	0.77
Control Delay	63.0	5.6	38.6	3.4	58.6	37.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	5.6	38.6	3.4	58.6	37.6
LOS	E	A	D	A	E	D
Approach Delay		22.7	29.7		45.7	
Approach LOS		C	C		D	

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 31.9
 Intersection LOS: C
 Intersection Capacity Utilization 84.9%
 ICU Level of Service E
 Analysis Period (min) 15

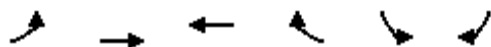
Splits and Phases: 7: SH-105 & Woodmoor Drive



HCM 6th Signalized Intersection Summary

7: SH-105 & Woodmoor Drive




2045 Total PM
09/13/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖↗	↑↑	↑↑	↖	↖↗	↖↗	
Traffic Volume (veh/h)	330	775	1790	605	430	685	
Future Volume (veh/h)	330	775	1790	605	430	685	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1856	1856	
Adj Flow Rate, veh/h	355	833	1925	651	462	737	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Percent Heavy Veh, %	2	2	2	2	3	3	
Cap, veh/h	415	2834	2213	987	561	785	
Arrive On Green	0.12	0.80	0.62	0.62	0.16	0.16	
Sat Flow, veh/h	3456	3647	3647	1585	3428	2768	
Grp Volume(v), veh/h	355	833	1925	651	462	737	
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1714	1384	
Q Serve(g_s), s	11.1	6.8	49.0	28.9	14.3	18.0	
Cycle Q Clear(g_c), s	11.1	6.8	49.0	28.9	14.3	18.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	415	2834	2213	987	561	785	
V/C Ratio(X)	0.85	0.29	0.87	0.66	0.82	0.94	
Avail Cap(c_a), veh/h	440	2834	2213	987	561	785	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	47.5	2.9	17.1	13.3	44.5	38.5	
Incr Delay (d2), s/veh	14.6	0.3	5.0	3.5	12.9	20.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.6	1.9	19.7	10.5	7.1	21.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	62.0	3.2	22.1	16.7	57.3	58.6	
LnGrp LOS	E	A	C	B	E	E	
Approach Vol, veh/h		1188	2576		1199		
Approach Delay, s/veh		20.8	20.7		58.1		
Approach LOS		C	C		E		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				94.4	23.0	19.2	75.2
Change Period (Y+Rc), s				6.5	5.0	6.0	* 6.5
Max Green Setting (Gmax), s				80.5	18.0	14.0	* 62
Max Q Clear Time (g_c+l1), s				8.8	20.0	13.1	51.0
Green Ext Time (p_c), s				7.4	0.0	0.1	9.4
Intersection Summary							
HCM 6th Ctrl Delay			29.8				
HCM 6th LOS			C				
Notes							




HCM 6th TWSC
8: Monument Hill Road & RIRO Access

2025 Total AM
09/13/2022

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	321	5	0	414
Future Vol, veh/h	0	4	321	5	0	414
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	349	5	0	450
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	352	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	692	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	692	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.2	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	692		-		
HCM Lane V/C Ratio	-	0.006		-		
HCM Control Delay (s)	-	10.2		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0		-		




HCM 6th TWSC
8: Monument Hill Road & RIRO Access

2025 Total PM
09/13/2022

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	296	17	0	445
Future Vol, veh/h	0	3	296	17	0	445
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	322	18	0	484
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	331	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	711	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	711	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.1	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	711		-		
HCM Lane V/C Ratio	-	0.005		-		
HCM Control Delay (s)	-	10.1		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0		-		

HCM 6th TWSC
8: Monument Hill Road & RIRO Access

2045 Total AM
09/13/2022




Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	5	385	5	0	490
Future Vol, veh/h	0	5	385	5	0	490
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	418	5	0	533
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	421	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	632	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	632	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.7	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	632		-		
HCM Lane V/C Ratio	-	0.009		-		
HCM Control Delay (s)	-	10.7		-		
HCM Lane LOS	-	B		-		
HCM 95th %tile Q(veh)	-	0		-		

HCM 6th TWSC
8: Monument Hill Road & RIRO Access

2045 Total PM
09/13/2022

Intersection

Int Delay, s/veh 0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	5	350	20	0	535
Future Vol, veh/h	0	5	350	20	0	535
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	380	22	0	582




Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	391	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.22	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.318	-
Pot Cap-1 Maneuver	0	658	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	658	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	658
HCM Lane V/C Ratio	-	-	0.008
HCM Control Delay (s)	-	-	10.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0




HCM 6th TWSC
9: Monument Hill Road & Full Access

2025 Total AM
09/13/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	8	309	11	4	359
Future Vol, veh/h	53	8	309	11	4	359
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	9	336	12	4	390
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	740	342	0	0	348	0
Stage 1	342	-	-	-	-	-
Stage 2	398	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	384	701	-	-	1211	-
Stage 1	719	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	382	701	-	-	1211	-
Mov Cap-2 Maneuver	382	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	15.6	0	0.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	406	1211	-	
HCM Lane V/C Ratio	-	-	0.163	0.004	-	
HCM Control Delay (s)	-	-	15.6	8	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.6	0	-	




HCM 6th TWSC
9: Monument Hill Road & Full Access

2025 Total PM
09/13/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	5	256	39	13	408
Future Vol, veh/h	33	5	256	39	13	408
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	5	278	42	14	443
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	770	299	0	0	320	0
Stage 1	299	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	369	741	-	-	1240	-
Stage 1	752	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	363	741	-	-	1240	-
Mov Cap-2 Maneuver	363	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.4	0		0.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	389	1240	-	
HCM Lane V/C Ratio	-	-	0.106	0.011	-	
HCM Control Delay (s)	-	-	15.4	7.9	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0	-	




HCM 6th TWSC
9: Monument Hill Road & Full Access

2045 Total AM
09/13/2022

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	10	380	15	5	440
Future Vol, veh/h	55	10	380	15	5	440
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	11	413	16	5	478
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	909	421	0	0	429	0
Stage 1	421	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	305	632	-	-	1130	-
Stage 1	662	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	303	632	-	-	1130	-
Mov Cap-2 Maneuver	303	-	-	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	18.9	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	329	1130	-	
HCM Lane V/C Ratio	-	-	0.215	0.005	-	
HCM Control Delay (s)	-	-	18.9	8.2	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.8	0	-	

HCM 6th TWSC
9: Monument Hill Road & Full Access

2045 Total PM
09/13/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	5	315	40	15	500
Future Vol, veh/h	35	5	315	40	15	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	5	342	43	16	543
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	939	364	0	0	385	0
Stage 1	364	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	293	681	-	-	1173	-
Stage 1	703	-	-	-	-	-
Stage 2	563	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	287	681	-	-	1173	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	18.5	0	0.2			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	309	1173	-	
HCM Lane V/C Ratio	-	-	0.141	0.014	-	
HCM Control Delay (s)	-	-	18.5	8.1	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.5	0	-	

APPENDIX E

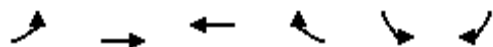
Queues Analysis Worksheets

Queues

2025 Total AM

7: SH-105 & Woodmoor Drive

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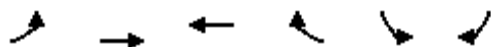
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	283	482	1107	623	330	660
v/c Ratio	0.63	0.20	0.62	0.57	0.47	0.58
Control Delay	51.4	6.5	21.9	3.5	40.7	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	6.5	21.9	3.5	40.7	24.0
Queue Length 50th (ft)	97	58	290	0	106	173
Queue Length 95th (ft)	140	78	371	58	151	231
Internal Link Dist (ft)		920	1314		1179	
Turn Bay Length (ft)	300			300	250	250
Base Capacity (vph)	515	2359	1775	1101	704	1195
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.20	0.62	0.57	0.47	0.55
Intersection Summary						

Queues

2025 Total PM

7: SH-105 & Woodmoor Drive

09/13/2022



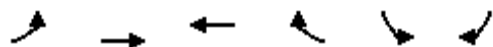
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	295	599	1385	544	381	612
v/c Ratio	0.68	0.23	0.71	0.49	0.65	0.60
Control Delay	54.1	5.4	21.1	2.7	48.2	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	5.4	21.1	2.7	48.2	28.8
Queue Length 50th (ft)	102	64	370	0	130	176
Queue Length 95th (ft)	148	84	454	49	182	242
Internal Link Dist (ft)		920	1314		1179	
Turn Bay Length (ft)	300			300	250	250
Base Capacity (vph)	468	2557	1948	1116	587	1042
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.23	0.71	0.49	0.65	0.59
Intersection Summary						

Queues

2045 Total AM

7: SH-105 & Woodmoor Drive

09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	344	672	1539	756	400	789
v/c Ratio	0.77	0.28	0.84	0.67	0.62	0.75
Control Delay	58.9	6.3	27.3	5.9	45.7	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	6.3	27.3	5.9	45.7	33.4
Queue Length 50th (ft)	122	81	466	36	135	257
Queue Length 95th (ft)	#181	104	572	139	186	340
Internal Link Dist (ft)		920	1314		1179	
Turn Bay Length (ft)	300			300	250	250
Base Capacity (vph)	454	2422	1843	1133	642	1065
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.28	0.84	0.67	0.62	0.74

Intersection Summary

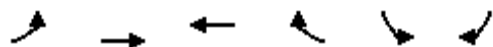
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

2045 Total PM

7: SH-105 & Woodmoor Drive

09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	355	833	1925	651	462	737
v/c Ratio	0.95	0.32	0.94	0.55	0.83	0.80
Control Delay	84.7	5.6	32.6	2.8	58.6	40.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	5.6	32.6	2.8	58.6	40.8
Queue Length 50th (ft)	130	93	625	1	164	261
Queue Length 95th (ft)	#221	118	#838	48	#242	346
Internal Link Dist (ft)		920	1314		1179	
Turn Bay Length (ft)	300			300	250	250
Base Capacity (vph)	374	2589	2042	1187	556	916
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.32	0.94	0.55	0.83	0.80

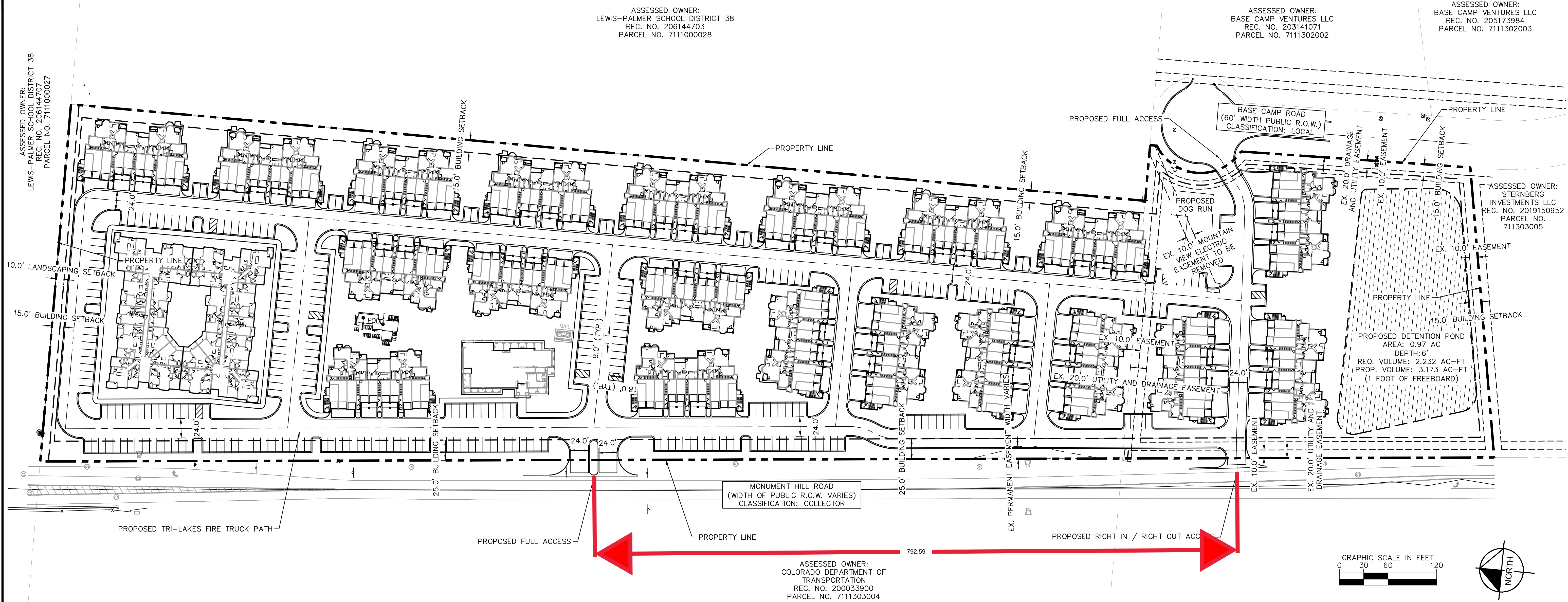
Intersection Summary

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

APPENDIX F

Conceptual Site Plan

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LEGEND

- PROPERTY LINE
- LOT LINE
- SECTION LINE
- EXISTING EASEMENT
- SETBACKS
- PROPOSED DETENTION POND

Monument Hill Road- option 1							22220
THE GARRETT COMPANIES							7/15/22
UNIT TABULATION - 2 STORY BIG HOUSE & 3 STORY RESIDENTIAL							% BREAKDOWN
UNIT NAME	UNIT TYPE	NET AREA(SF)	UNIT COUNT	PARKING	PERCENTAGE	TOTAL AREA	
A1-EU	1br/1ba	663	4	6	2%	2,652	39%
A1L-BH	1br/1ba	676	20	30	8%	13,520	
A1-U-BH	1br/1ba	822	20	30	8%	16,440	
A2U-BH	1br/1ba	956	40	60	15%	38,240	
A2-EU	1br/1ba	759	12	18	5%	9,108	
A3-EU	1br/1ba	824	6	9	2%	4,944	52%
B1-EU	2br/2ba	1,093	12	20	5%	13,116	
B2-EU	2br/2ba	1,175	12	20	5%	14,100	
B3-EU	2br/2ba	1,265	6	10	2%	7,590	
B1U-BH	2br/2ba	1,247	40	40	15%	49,880	
B2L-BH	2br/2ba	1,328	31	31	12%	41,168	9%
B2U-BH	2br/2ba	1,408	31	53	12%	43,648	
B4-EU	2br/2ba	1,265	6	10	2%	7,590	
C1L-BH	3br/2ba	1,508	9	18	3%	13,572	
C1U-BH	3br/2ba	1,577	9	18	3%	14,193	
C1-EU	3br/2ba	1,433	6	12	2%	8,598	
TOTALS			264	356	100%	298,359	

PARKING COUNT

PARKING REQUIRED:
1 BED (102 UNITS) X 1.5 SPACES = 153
2 BED (138 UNITS) X 1.7 SPACES = 235
3 BED (24 UNITS) X 2 SPACES = 48
= 436 SPACES

PARKING PROVIDED:
200 GARAGE SPACES
292 SURFACE SPACES
= 492 SPACES

MONUMENT HILL
PRELIMINARY SITE PLAN
09/13/2022

Kimley»Horn

© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
2 N NEVADA AVE, SUITE 300, COLORADO SPRINGS, 80903
PHONE: 719-453-0180

Callout (6)

How was this number determined?

How was this number determined?

Background: In order for requiring an access permit along Colorado Department of Transportation's advance signs where project traffic is anticipated to increase the existing access permits by more than 20 percent or modifications are needed at the intersection. Road signposts, the addition of project traffic on the north leg of Woodmen Drive at 31st Street to increase existing access traffic volumes by more than 20 percent requires expedient review at 77 percent during the afternoon peak hour on all weekdays (Monday through Friday). Therefore, a 200-foot access permit is to be implemented in compliance with this order.

Findings: These findings should be updated to 300 feet and the 200-foot access permit is to be implemented in compliance with this order.

Conclusion: The Colorado Department of Transportation is in compliance with the addition of the Woodmen Drive project, a northern full access intersection is proposed and approximately 300 feet south of the Palmer Ridge High School bus loop access is right-of-way to the project. The access is recommended to signal with stop control on an 80 x 3250' sign on the westbound advance approach.

Recommendation: The Colorado Department of Transportation is in compliance with the right-of-way to the project, a northern full access intersection is proposed and approximately 300 feet south of the Palmer Ridge High School bus loop access is right-of-way to the project. The access is recommended to signal with stop control on an 80 x 3250' sign on the westbound advance approach.

These numbers should be updated to 2025 volumes and then determine % increase to determine if access permit is required

years in **Figures 8** and **9**, respec

Provide more description on how thru volumes at intersections 8 & 9 were determined on this figure.

Provide more description on how thru volumes at intersections 8 & 9 were determined on this figure.

short-term 2025 buildout horizon and long-term 2045 buildout horizon. All traffic volumes for the study area are illustrated in Figures 8 and 9, respectively.

Provide more description on how these volumes were all determined.

Provide more description on how these volumes were all determined.

(COOT) roadway occurs when project traffic is anticipated to increase the exit volumes by more than 20 percent or modifications are needed at the intersection. The intersection of Woodmoor Drive and Highway 68 was analyzed in the projections; the amount of project traffic on the north leg of Woodmoor Drive is anticipated to increase existing access traffic volumes by more than 20 percent maximum expected increase is 7.7 percent during the afternoon peak hour on project / existing 2022 counts). In addition, improvements are not anticipated or recommended at the Site 105 and Woodmoor Drive intersection. Therefore, it is permitted for an applicant to be required to an association with this project.

S-6.63 [View this document online](#) [Download this document](#)

[Environmental Resources Manual \(with this context\)](#)

The ID Geospatial Engineering Criteria Manual (GEM) will be used to determine turn lanes are warranted along Minnerhill Road and Woodmoor Drive. Woodmoor Drive is classified as Minnerhill Road and Woodmoor Drive as Collector roadways. As County GEM guidelines for Minor Arterials and Lower Classifications, a left turn lane for any access with a projected peak hour turning volume of 25 vehicles per hour is required.

Where did this number come from? Did not see any counts in Appendix A (Intersection Counts) to correlate with this count.

not needed at the intersection. Based on traffic volume of Woodmont Drive at SH-105 is not during by more than 20 percent, with the afternoon peak hour on the north leg (116 movements) are not anticipated to be needed five intersection. Therefore, a CDOT access at this project.

Recommendations were made to consider turning left on a signalized left turn lane. Please see the attached and Woodmont Drive. (i) Pass County v at Collector roadway. According to PI Pass v Classifications, a left turn lane is required on volume of 25 vehicles per hour or greater, rejected peak hour right turning volume of 60

Recommendations were made to revise striping and create a second left turn lane. Revise this statement

Text Box (11)

- Deer Creek Road and Woodmoor Drive (R6)
- Monument Hill Road and Woodmoor Drive (R6)
- State Highway 105 (SH-105) and Woodmoor Drive
- Monument Hill Road Southern Right-of-Way Curb
- Monument Hill Road Northern Full Movement Access

Include Access at Base Camp Road

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Author: CDurham
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Include Access at Base Camp Road

report, Kinley-Horn believes Monument Hill will be and future roadway network. Analysis of the existing opment, and expected traffic volumes resulted in the

Recommendations are shown at the end of the report. Please remove them from this location.

or Drive (R6) intersection experiences a falling level of y the morning peak hour. As such, it is recommended areal improvements to provide acceptable level of intersection was evaluated with roundabout control.

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Recommendations are shown at the end of the report. Please remove them from this location.

op new access location prior to construction of new project, the level of service with its current lane configuration and controlled as a single-lane roundabout in the 2045 horizon. In the intersection, the intersection movements y in the 2045 horizon. Table 3 provides the results of the action. Alternate scenarios should be provided besides just a roundabout.

Approach	Delay (sec/veh)	LOS
Starting Roundabout Approach	21.2	C

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Alternate scenarios should be provided besides just a roundabout.

to such, analysis was conducted

ndabout. With the recommended as are anticipated to operate at ic in the 2045 horizon. Table 4 action. Alternate scenarios should be provided besides just a roundabout.

Approach	Delay (sec/veh)	LOS
Starting Roundabout Approach	21.2	C

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Alternate scenarios should be provided besides just a roundabout.

the intersection movements are expected to continue th peak hours through the 2045 horizon in its exist

Keep the standard intersection analysis in as well and discuss. Roundabout is not a given, so both alternatives need to be provided along with a comparison between them.

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Keep the standard intersection analysis in as well and discuss. Roundabout is not a given, so both alternatives need to be provided along with a comparison between them.

a shared throughright turn lane. The south lane and a right turn lane. With this addition the intersection is expected to operate at 2045 horizon. Table 6 provides the results

Alternate scenarios should be provided besides just a roundabout.


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Author: CDurham
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Alternate scenarios should be provided besides just a roundabout.

In addition, the volume associated with the known nearby and North Bay at Woodcreek were included in the traffic documents from the Waterside Traffic Impact Study and Impact Study prepared in May and June of 2022 are also traffic volumes for 2022 and 2045 are shown in Figures 4

Indicate whether which years 2025 and/or 2045 is when Waterside and North Bay counts were included in volumes.

Kimley-Horn and Associates, Inc.
00000-0000 - Worksheet 100


Subject: Text Box
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Author: CDurham
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Indicate whether which years 2025 and/or 2045 is when Waterside and North Bay counts were included in volumes.

calculated intersection of Plaza Camp Road. Traffic at Camp Road at the West Creek Road (400) intersection. Monument 100 is expected to generate approximately 1000 trips occurring during the morning peak hour and 1300

List any reports from other projects which may have been used/researched.

00000-0000 - Worksheet 100


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Author: CDurham
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List any reports from other projects which may have been used/researched.

Although SR-100 is a non-typical state highway, within the study it has through lanes to meet demands through the Waterside Office use of this analysis, SR-100 will be selected in the transportation corridor study for use in the study intersection. It is 10 miles per hour. It is Transportation corridor study for use in the study intersection.

Include discussion of any of the existing roads that are planned improvements and the Major Transportation Corridor Study (MTCP).

00000-0000 - Worksheet 100


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Author: CDurham
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Include discussion on if any of the existing roads have any planned improvements per the Major Transportation Corridor Study (MTCP)

10000-0000 - Worksheet 100

Provide summary table of recommended improvements & % impact project has at each of those intersections (% of how much traffic volume is being generated by proposed project)

00000-0000 - Worksheet 100

Subject: Text Box
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Author: CDurham
Date: 10/18/2022 3:29:54 PM
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Provide summary table of recommended improvements & % impact project has at each of those intersections (% of how much traffic volume is being generated by proposed project)

6.0 CONCLUSIONS AND RECOMMENDATIONS

As presented in this report, Kimley-Horn believes Monument 100 will be placed into the existing and future roadway network. Analysis of the existing a proposed project development, and proposed right-of-way involved in the site and recommendations.

Note: If improvements are not being constructed for this intersection, funds may need to be set up to help pay for the proposed project development.

10000-0000 - Worksheet 100

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Author: CDurham
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Note: If improvements are not being constructed for this intersection, funds may need to be set up to help pay for projects portion of improvements.