

TRAFFIC IMPACT STUDY

For

Church at Bent Grass Meadows
El Paso County, Colorado
PCD File No. CS253

April 2025
Revised October 2025

Prepared for:

FAL Realty, LLC
211 N Robinson Avenue
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Prepared by:



SM ROCHA, LLC

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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.



10/15/2025

Fred Lantz, P.E. #23410

Date

Developer's Statement

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

Signed by:



EC60BB1D5F95481...

12/17/2025

FAL Realty, LLC
211 N Robinson Avenue
Two Leadership Square 8th Floor
Oklahoma City, OK 73102

Date

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I. Introduction

Project Overview

This traffic impact study is provided as a planning document and addresses the capacity, geometric, and control requirements associated with the development entitled Church at Bent Grass Meadows. This analysis was prepared in accordance with Section B.1 of the County's Engineering Criteria Manual (ECM)¹.

This traffic impact study has been revised to address County review comments made to the June 2025 version of this study regarding an additional study intersection, additional turn lane information, and applicable updates to study, text, tables, and figures throughout.

This proposed institutional development consists of a church. The development is located on the northwest corner of Meridian Road and Bent Grass Meadows Drive in El Paso County, Colorado.

Study Area Boundaries

The study area to be examined in this analysis encompasses the Bent Grass Meadows Drive intersections with Woodmen Frontage Road, Meridian Road, Meridian Park Drive, and Bent Grass Market View, the Meridian Road intersection with E Woodmen Road, and the Eastonville Road intersection with Meridian Park Drive, and includes proposed site accesses.

Figure 1 illustrates location of the site and study intersections.

Site Description

Land for the development is currently vacant and surrounded by open space and a mix of residential and commercial land uses.

The proposed development is understood to entail the new construction of an approximate 39,350 square foot church supporting a maximum of 750 attendees.

Proposed access to the development is provided via two access drives onto Bent Grass Meadows Drive: one full-movement access aligning with Meridian Park Drive (referred to as Access A), and one right-in/right-out access approximately 280 feet west of Meridian Park Drive (referred to as Access B).

For purposes of this study, it is anticipated that development construction would be completed by end of Year 2027.

General site and access locations are shown on Figure 1.

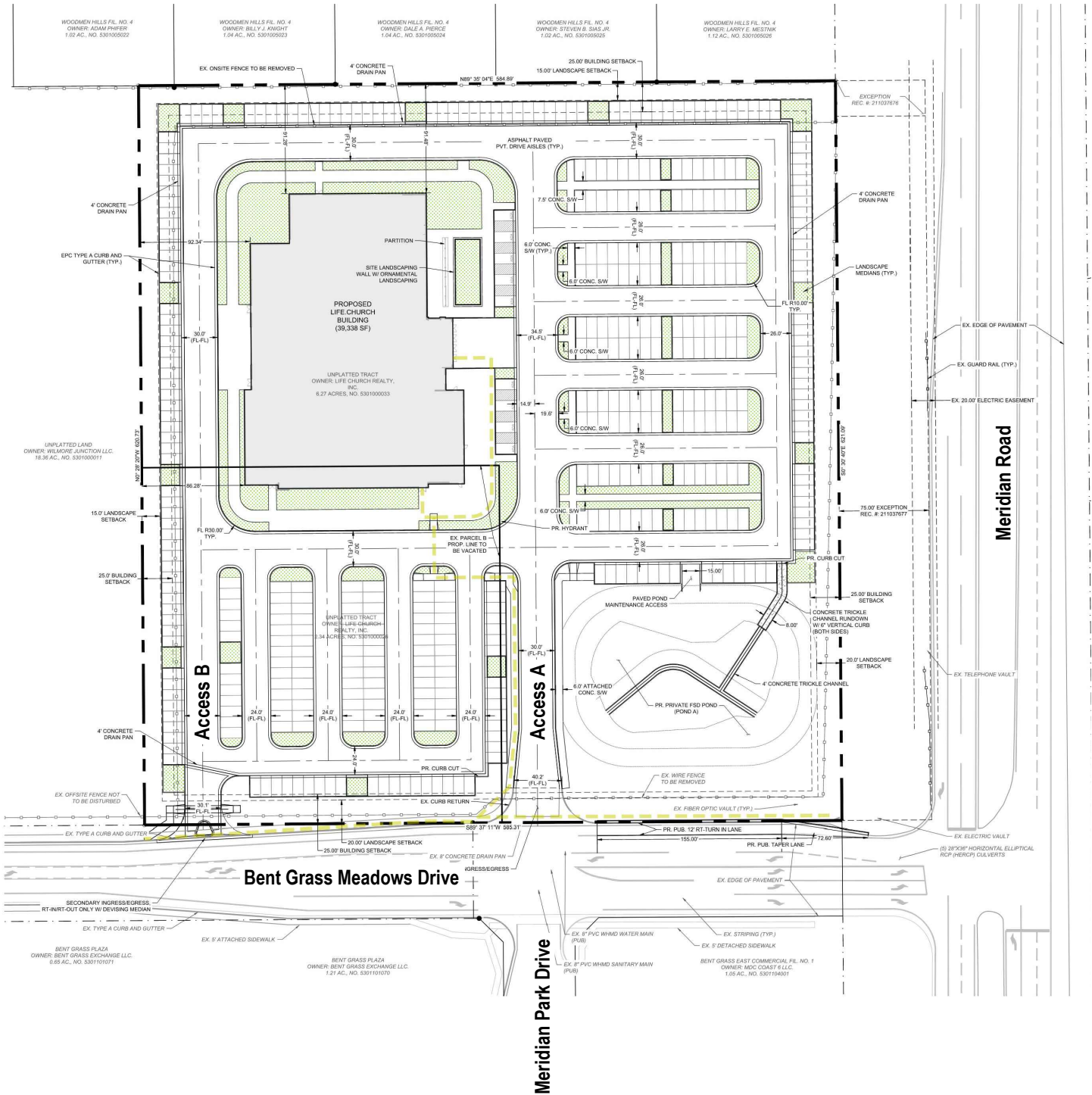
¹ El Paso County Engineering Criteria Manual, El Paso County, January 9, 2025.

A site plan, as prepared by HR Green, Inc., is shown in Figure 2. This plan is provided for illustrative purposes only.

A conceptual sight distance exhibit, illustrating approximate intersection sight distance triangles, is included for reference in Appendix E. This two-dimensional exhibit does not consider the potential for landscaping, utility, nor vertical curve obstructions, and was prepared in accordance with Section 2.4.D, Table 2-35 of the County's ECM and Section 9.5.3.2 of the American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highway and Streets (Green Book)² and is provided for illustrative purposes only.

² A Policy on Geometric Design of Highways and Streets (7th Edition), American Association of State Highway and Transportation Officials, 2018.





CHURCH AT BENT GRASS MEADOWS
 Traffic Impact Study
SM ROCHA, LLC
 Traffic & Transportation Engineering Consultants

Figure 2
SITE PLAN
 October 2025
 Page 4

Existing and Committed Surface Transportation Network

Within the study area, Bent Grass Meadows Drive is the primary roadway that will accommodate traffic to and from the proposed development. The secondary roadways include Meridian Road, E Woodmen Road, Woodmen Frontage Road, Meridian Park Drive, and Eastonville Road. A brief description of each roadway, based on the County's 2024 Major Transportation Corridors Plan (MTCP)³, is provided below:

Bent Grass Meadows Drive is a looping urban-minor collector roadway supporting a three-lane cross-section (one through lane in each direction with a center two-way left-turn lane) within an 80-foot right-of-way (ROW). Bent Grass Meadows Drive has a combination of shared and exclusive turn lanes at the intersections within the study area and provides a posted speed limit of 35 MPH.

Meridian Road is a north-south principal arterial roadway having four through lanes (two lanes in each direction), with exclusive turn lanes at the intersections within the study area. Meridian Road provides a posted speed limit of 55 MPH.

E Woodmen Road is an east-west expressway having four through lanes (two lanes in each direction) with exclusive turn lanes at the intersection within the study area. E Woodmen Road provides a posted speed limit of 55 MPH.

Woodmen Frontage Road is an east-west major collector roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersection within the study area. Woodmen Frontage Road provides a posted speed limit of 30 MPH.

Meridian Park Drive is a north-south local roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Meridian Park Drive provides an assumed speed limit of 30 MPH.

Eastonville Road is a northeast-southwest major collector roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Eastonville Road provides a posted speed limit of 35 MPH.

Falcon Market Place is a looping local roadway supporting a three-lane cross-section (one through lane in each direction with a center two-way left-turn lane) with shared turn lanes at the intersection within the study area. Falcon Market Place provides an assumed speed limit of 25 MPH.

³ El Paso County 2024 Major Transportation Corridors Plan, Felsburg Holt & Ullevig, July 2024.

The study intersections of Meridian Road with Bent Grass Meadows Drive and E Woodmen Road are signalized. The Eastonville Road intersection with Falcon Market Place operates as a roundabout. All other study intersections operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more “STOP” signs.

Pursuant to adjacent ongoing development plans, and in coordination with County Staff, it is anticipated that Meridian Park Drive will be extended south and connect to the intersection of Eastonville Road with Falcon Market Place. Specific timing details of when this extension may occur are unknown at this time, however they are anticipated within the short-term future scenario. As such, it is assumed this improvement will be completed by Year 2027.

Pursuant to the County’s MTCP, E Woodmen Road and Meridian Road are to be widened from four to six through lanes within the study area. The County’s MTCP expects these improvements to occur by Year 2045.

II. Existing Traffic Conditions

Morning weekday (AM), afternoon weekday (PM), and Sunday peak hour traffic counts were collected at the Bent Grass Meadows Drive intersections with Woodmen Frontage Road, Meridian Road, and Meridian Park Drive, the Meridian Road intersection with E Woodmen Road, and the Eastonville Road intersection with Meridian Park Drive. Average daily traffic (ADT) volumes were collected over a 24-hour period on Meridian Road and Bent Grass Meadows Drive. Weekday counts were collected on Thursday, April 3, 2025, with AM peak hour counts being collected during the period of 7:00 a.m. to 9:00 a.m. and PM peak hour counts being collected during the period of 4:00 p.m. to 6:00 p.m. Sunday counts were collected on April 6, 2025, with peak hour counts being represented during the period of 10:00 a.m. to 2:00 p.m.

Peak hour ingress and egress traffic volumes shown for the intersection of Bent Grass Meadows Drive and Bent Grass Market View were obtained from trip generation estimates provided within the Bent Grass Plaza (Lots 1-3) Traffic Impact Study⁴. Considering that the Bent Grass Plaza traffic study did not provide Sunday peak hour traffic counts, these peak hour counts were estimated using standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition. ITE land use code 822 (Strip Retail Plaza (<40k)) and 934 (Fast-Food Restaurant with Drive-Through Window) were used pursuant to the ITE land use codes provided within the Bent Grass Plaza traffic study. Estimated trip generation for the Sunday peak hour is provided for reference in Appendix A.

It is important to note that ITE land use code 822 (Strip Retail Plaza (<40k)) does not provide trip generation information for Sundays. Therefore, Saturday trip generation rates were used to analyze ADT and peak hour rates for Sundays. This is expected to continue allowing for a conservative analysis.

Newly collected and referenced counts representing existing volumes as well as existing intersection geometry are shown in Figure 3. Traffic count data is included for reference in Appendix A.

Existing signal timing parameters for the Meridian Road intersections with Bent Grass Meadows Drive and E Woodmen Road were obtained from the County and used throughout this study to the best extent possible in order to remain consistent with existing signal coordination plans. County signal timing information received is included for reference in Appendix B.

Existing Roadway Signing and Striping

Appropriateness of existing roadway signing and striping was reviewed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD)⁵ and El Paso County's ECM for the study area.

⁴ Bent Grass Plaza (Lots 1-3): Traffic Impact Study, Drexel, Barrell & Co., November, 2023.

⁵ Manual on Uniform Traffic Control Devices, 11th Edition, Federal Highway Administration, December 2023.

Existing roadway signing is generally considered to be sufficient for the surrounding roadway network, as intersection control signage, street name signs, and speed limit signs are considered to be MUTCD compliant. However, it is noted that speed limit signs are absent for traffic turning northbound onto Bent Grass Meadows Drive for approximately 1/3 mile. Additionally, it is noted that speed limit signs are absent for traffic turning onto Meridian Road from Bent Grass Meadows Drive in both the north and south directions until after the preceding intersections.

Existing roadway striping is generally considered to be sufficient for the surrounding roadway network as the area provides MUTCD compliant striping. However, it is noted that an approximate 1/3 mile stretch of Bent Grass Meadows Drive north of Woodmen Frontage Road does not provide centerline striping. It is further noted that Meridian Park Drive does not provide any centerline striping. Additionally, when considering the 40-foot roadway width along Meridian Park Drive at Bent Grass Meadows Drive, striped turn lanes do not exist along Meridian Park Drive. In order to provide MUTCD compliant turn lane striping along Meridian Park Drive at Bent Grass Meadows Drive, the north access for the existing 7-Eleven may need to be restricted.

LEGEND

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

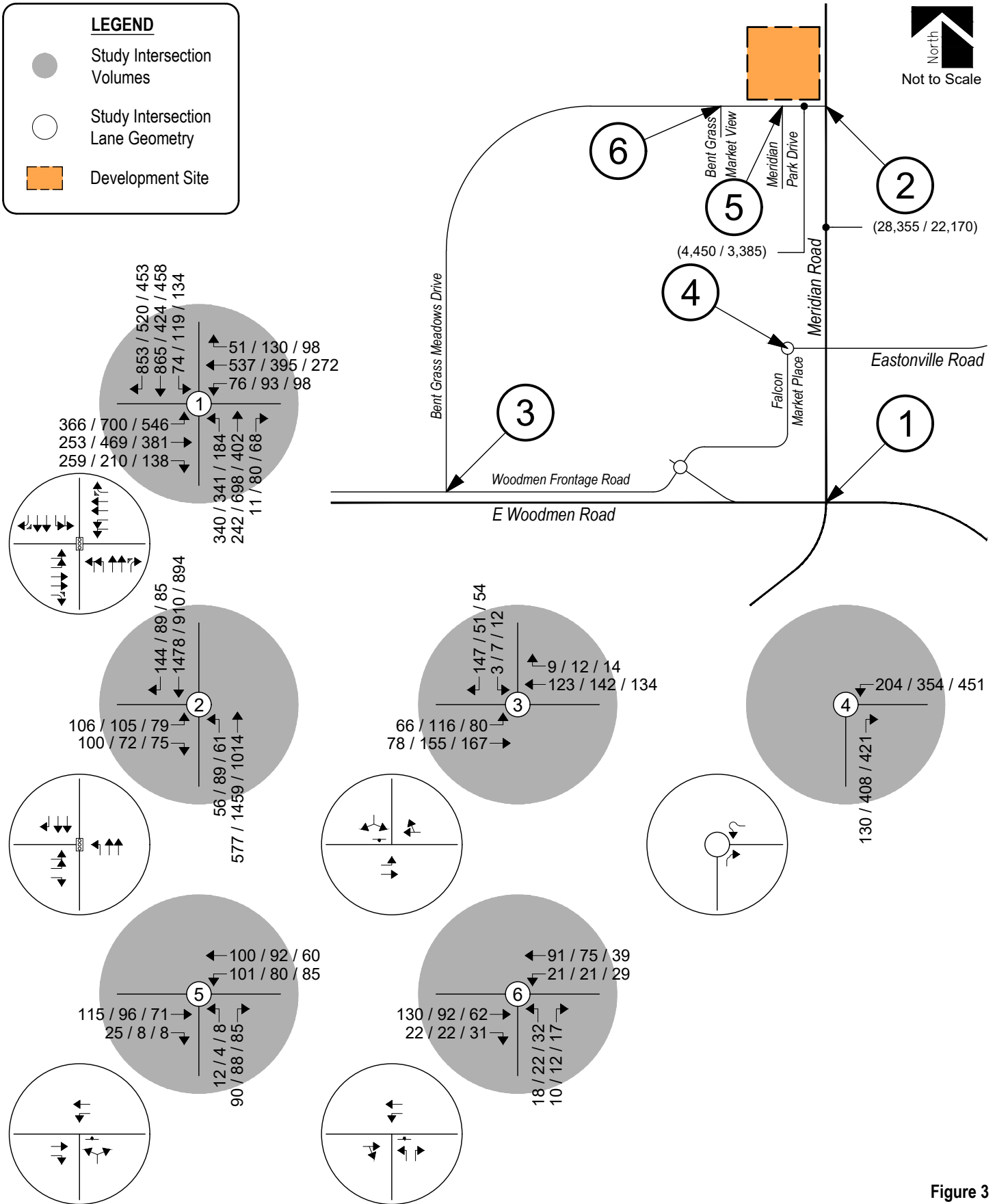


Figure 3
EXISTING TRAFFIC
 Volumes & Intersection Geometry
 AM / PM / Sunday Peak Hour
 (ADT) : Weekday / Sunday Average Daily Traffic

Peak Hour Intersection Levels of Service – Existing Traffic

The Signalized, Unsignalized, and Roundabout Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM), 7th Edition, by the Transportation Research Board and as incorporated into the SYNCHRO computer program, were used to analyze the study intersections for existing and future traffic conditions. These nationally accepted techniques allow for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement and based on the volume to capacity ratio and control delay for each approach for roundabouts.

Pursuant to Section B.4.1.A of the County’s ECM, the design objective for each scenario of this study shall be level of service “D”. Level of service is a method of measurement used by transportation professionals to quantify a driver’s perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from “A” which indicates little, if any, vehicle delay, to “F” which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix C and have been used throughout this study.

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

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

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic

INTERSECTION LANE GROUPS	LEVEL OF SERVICE		
	AM PEAK HOUR	PM PEAK HOUR	SUNDAY PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	D (39.1)	D (41.6)	C (34.8)
Meridian Road / Bent Grass Meadows Drive (Signalized)	B (11.3)	A (8.8)	A (7.6)
Eastonville Road / Falcon Market Place (Roundabout)			
Westbound Left	A	A	A
Northbound Right	A	A	A
Woodmen Frontage Road / Bent Grass Meadows Drive (Stop-Controlled)			
Eastbound Left	A	A	A
Southbound Left and Right	A	A	B
Bent Grass Meadows Drive / Meridian Park Drive (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left and Right	A	A	A
Bent Grass Meadows Drive / Bent Grass Market View (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left	B	A	A
Northbound Right	A	A	A

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

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that the signalized intersection of Meridian Road with E Woodmen Road has overall operations at LOS D during the morning and afternoon peak traffic hours and LOS C during the Sunday peak traffic hour.

The signalized intersection of Meridian Road with Bent Grass Meadows Drive has overall operations at LOS B during the morning peak traffic hour and LOS A during the afternoon and Sunday peak traffic hours.

The roundabout-controlled intersection of Eastonville Road with Falcon Market Place has turn movement operations at LOS A during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Woodmen Frontage Road with Bent Grass Meadows Drive has turn movement operations at LOS A during the morning and afternoon peak traffic hours and LOS B or better during the Sunday peak traffic hour.

The stop-controlled intersection of Bent Grass Meadows Drive with Meridian Park Drive has turn movement operations at LOS A during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Bent Grass Meadows Drive and Bent Grass Market View has turn movement operations at LOS B or better during the morning peak traffic hour and LOS A during the afternoon and Sunday peak traffic hours.

III. Future Traffic Conditions Without Proposed Development

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

To account for projected increases in background traffic for Years 2027 and 2045, an annual growth rate was determined using population growth estimates provided by the Pikes Peak Area Council of Governments' (PPACG) 2045 Long Range Transportation Plan⁶, which anticipates a 20-year growth rate between one and two percent. Therefore, in order to provide for a conservative analysis, a growth rate of two percent was applied to existing traffic volumes.

Considering how ingress and egress volumes at the intersection of Bent Grass Meadows Drive and Bent Grass Market View were trip generation estimates referenced from the Bent Grass Plaza (Lots 1-3) traffic study, these estimates are not subject to annual growth patterns.

To account for projected traffic from adjacent developments not yet built, trip generations from the following traffic studies, provided by the County's Electronic Development Application Review Program (EDARP), were added to background traffic volumes:

- Owl Place Commercial⁷
- Bent Grass Dunkin' Donuts⁸
- Bent Grass East Commercial Filing No. 3⁹

It is important to note that the approved traffic studies noted above only considered traffic operations during a typical weekday and did not include any analyses for a typical Sunday. Therefore, only weekday peak hour and 24-hour trip generations were added to background traffic volumes. While no trips were directly added to Sunday traffic volumes, the conservative annual growth rate applied to existing traffic volumes, as mentioned above, is already assumed to account for regional growth projections and the level of in-fill development expected within the area. Therefore, application of trips generated by future adjacent developments is only further allowing for a more conservative analysis.

⁶ Moving Forward 2045: Pikes Peak Area Regional Transportation Plan, PPACG, January 2020.

⁷ Owl Place Commercial: Traffic Impact Study Addendum, SM ROCHA, LLC, May 21, 2024.

⁸ Bent Grass Dunkin' Donuts: Traffic Impact Study, SM ROCHA, LLC, October 2022.

⁹ Bent Grass East Commercial Filing No. 3: Updated Traffic Impact Analysis, LSC Transportation Consultants, Inc., October 20, 2021.

It is also noted that trip generations from the following future developments, as assessed within the Falcon Meadows at Bent Grass Filing 4 transportation memorandum¹⁰, were not directly added to background traffic volumes as recent aerial imagery suggests these developments were recently built, and therefore are already included within existing traffic volumes:




- Bent Grass Residential Filing No. 2
- Falcon Meadows at Bent Grass Filings 1-4

Pursuant to the non-committed area roadway improvements discussed in Section I, Year 2027 background traffic conditions assume the extension of Meridian Park Drive south to Eastonville Road. Year 2045 background traffic conditions assume the widening of E Woodmen Road and Meridian Road to support six through lanes.

Projected background traffic volumes and intersection geometry for Years 2027 and 2045 are shown in Figure 4 and Figure 5, respectively.

¹⁰ Falcon Meadows at Bent Grass Filing No. 4: Transportation Memorandum, LSC Transportation Consultants, Inc., October 7, 2022.

LEGEND

-  Study Intersection Volumes
-  Study Intersection Lane Geometry
-  Development Site

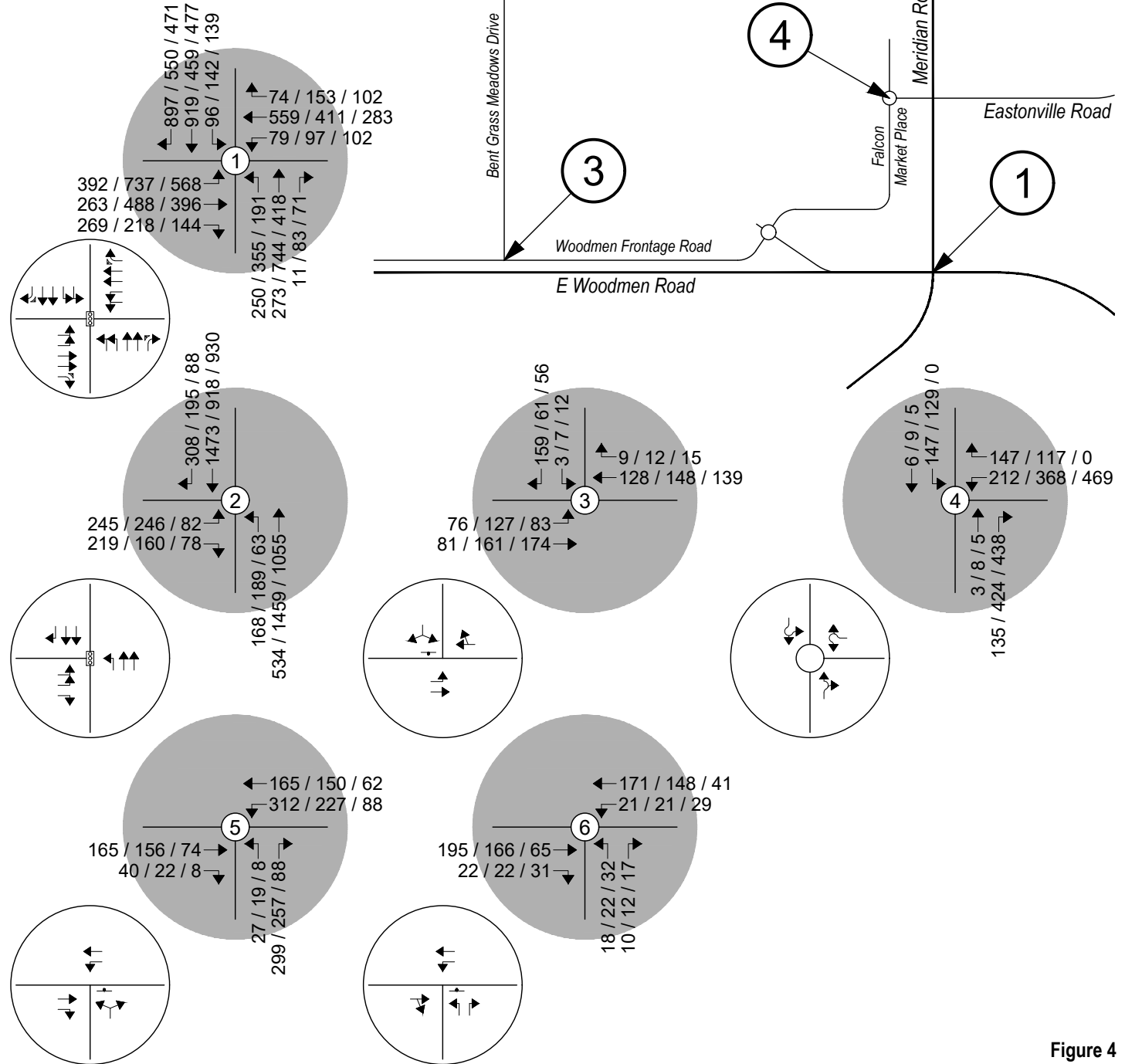


Figure 4
BACKGROUND TRAFFIC - YEAR 2027
 Volumes & Intersection Geometry
 AM / PM / Sunday Peak Hour
 (ADT) : Weekday / Sunday Average Daily Traffic

LEGEND

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

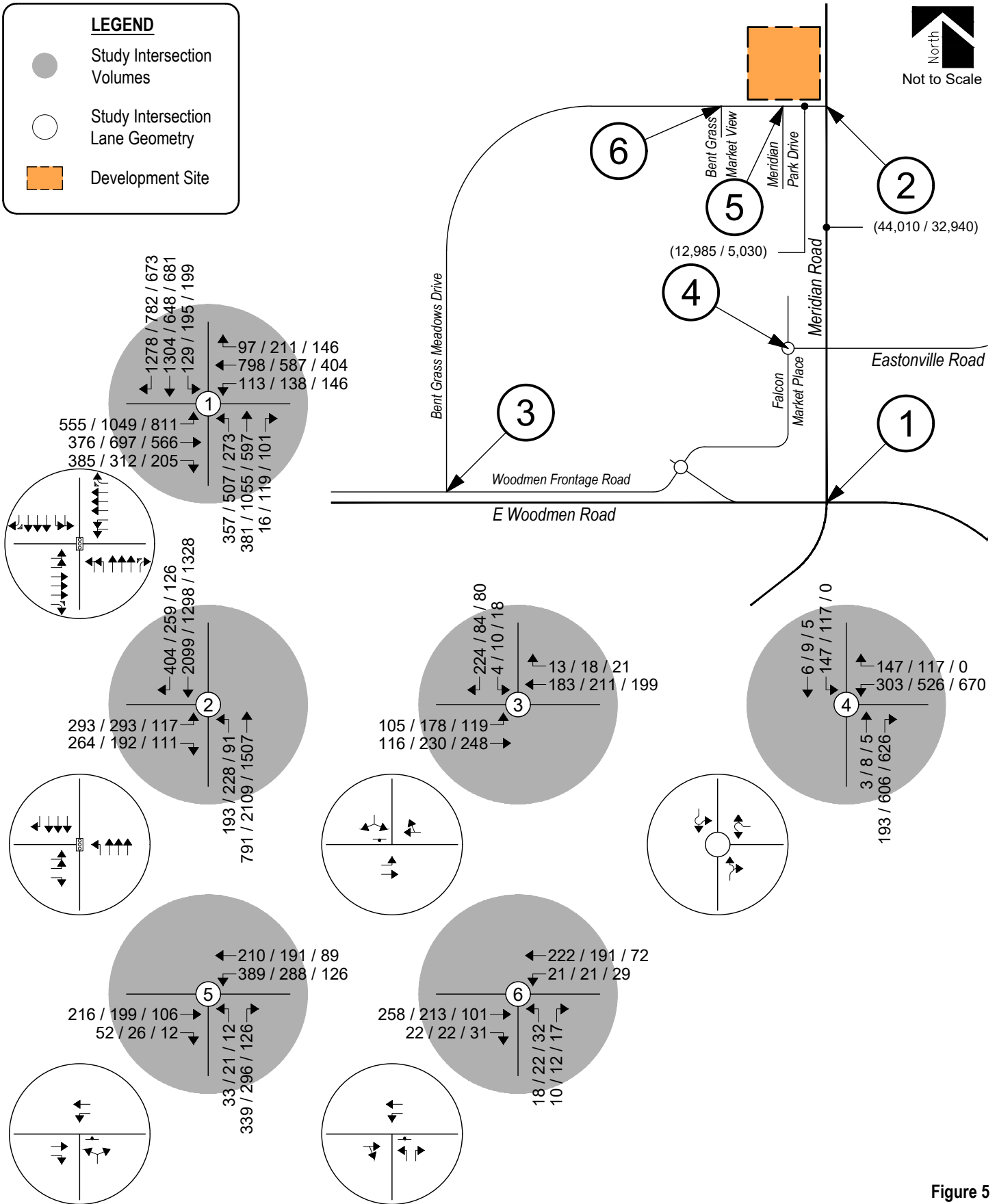


Figure 5
BACKGROUND TRAFFIC - YEAR 2045
 Volumes & Intersection Geometry
 AM / PM / Sunday Peak Hour
 (ADT) : Weekday / Sunday Average Daily Traffic

Peak Hour Intersection Levels of Service – Background Traffic

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

Background traffic level of service analysis results for Year 2027 are listed in Table 2. Year 2045 operational results are summarized in Table 3.

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

Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2027

INTERSECTION LANE GROUPS	LEVEL OF SERVICE		
	AM PEAK HOUR	PM PEAK HOUR	SUNDAY PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	D (38.4)	D (43.9)	D (36.5)
Meridian Road / Bent Grass Meadows Drive (Signalized)	B (19.9)	B (13.1)	A (7.7)
Eastonville Road / Falcon Market Place (Roundabout)			
Westbound Left and Right	A	A	A
Northbound Through and Right	A	A	A
Southbound Left and Through	A	A	A
Woodmen Frontage Road / Bent Grass Meadows Drive (Stop-Controlled)			
Eastbound Left	A	A	A
Southbound Left and Right	B	B	B
Bent Grass Meadows Drive / Meridian Park Drive (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left and Right	C	B	A
Bent Grass Meadows Drive / Bent Grass Market View (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left	B	B	A
Northbound Right	A	A	A

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

Background Traffic Analysis Results – Year 2027

Year 2027 background traffic analysis indicates that the signalized intersection of Meridian Road with E Woodmen Road has overall operations at LOS D during the morning, afternoon, and Sunday peak traffic hours.

The signalized intersection of Meridian Road with Bent Grass Meadows Drive projects overall operations at LOS B during the morning and afternoon peak traffic hours and LOS A during the Sunday peak traffic hour.

The roundabout-controlled intersection of Eastonville Road with Falcon Market Place expects turn movement operations at LOS A during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Woodmen Frontage Road with Bent Grass Meadows Drive predicts turn movement operations at LOS B or better during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Bent Grass Meadows Drive with Meridian Park Drive projects turn movement operations at LOS C or better during the morning peak traffic hour, LOS B or better during the afternoon peak traffic hour, and LOS A during the Sunday peak traffic hour.

The stop-controlled intersection of Bent Grass Meadows Drive with Bent Grass Market View expects turn movement operations at LOS B or better during the morning and afternoon peak traffic hours and LOS A during the Sunday peak traffic hour.

Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2045

INTERSECTION LANE GROUPS	LEVEL OF SERVICE		
	AM PEAK HOUR	PM PEAK HOUR	SUNDAY PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	D (49.6)	E (71.0)	D (44.1)
Meridian Road / Bent Grass Meadows Drive (Signalized)	C (20.5)	B (14.4)	B (10.3)
Eastonville Road / Falcon Market Place (Roundabout)			
Westbound Left and Right	A	A	A
Northbound Through and Right	A	A	A
Southbound Left and Through	A	A	A
Woodmen Frontage Road / Bent Grass Meadows Drive (Stop-Controlled)			
Eastbound Left	A	A	A
Southbound Left and Right	B	B	B
Bent Grass Meadows Drive / Meridian Park Drive (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left and Right	D	C	B
Bent Grass Meadows Drive / Bent Grass Market View (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left	B	B	B
Northbound Right	A	A	A

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

Background Traffic Analysis Results – Year 2045

By Year 2045 and without the proposed development, the signalized intersection of Meridian Road with E Woodmen Road has overall operations at LOS D during the morning and Sunday peak traffic hours and LOS E during the afternoon peak traffic hour. The LOS E operation is attributed to the high volume of eastbound and northbound left turning vehicles. To mitigate the extensive delay projected, construction of a third eastbound left-turn lane and optimization of signal timings is a potential solution which would provide overall LOS D operations during the afternoon peak traffic hour.

The signalized intersection of Meridian Road with Bent Grass Meadows Drive projects overall operations at LOS C during the morning peak traffic hour and LOS B during the afternoon and Sunday peak traffic hours.

The roundabout-controlled intersection of Eastonville Road with Falcon Market Place expects turn movement operations at LOS A during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Woodmen Frontage Road with Bent Grass Meadows Drive predicts turn movement operations at LOS B or better during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Bent Grass Meadows Drive with Meridian Park Drive projects turn movement operations at LOS D or better during the morning peak traffic hour, LOS C or better during the afternoon peak traffic hour, and LOS B or better during the Sunday peak traffic hour.

The stop-controlled intersection of Bent Grass Meadows Drive with Bent Grass Market View anticipates turn movement operations at LOS B or better during the morning, afternoon, and Sunday peak traffic hours.

IV. Proposed Project Traffic

Trip Generation

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

The ITE land use code 560 (Church) was used for estimating trip generation because of its conservative rates and best fit to the proposed land use description.

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

Table 4 – Trip Generation Rates

ITE CODE LAND USE UNIT			TRIP GENERATION RATES										
			WEEKDAY						SUNDAY				
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR			24 HOUR	PEAK HOUR OF GENERATOR		
ENTER	EXIT	TOTAL		ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL				
560	Church	KSF	7.60	0.20	0.12	0.32	0.22	0.27	0.49	31.46	4.97	5.39	10.36

Key: KSF = Thousand Square Feet Gross Floor Area.
 Note: All data and calculations above are subject to being rounded to nearest value.

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

Table 5 – Trip Generation Summary

ITE CODE LAND USE UNIT			TRIP GENERATION RATES										
			WEEKDAY						SUNDAY				
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR			24 HOUR	PEAK HOUR OF GENERATOR		
ENTER	EXIT	TOTAL		ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL				
560	Church	39.3 KSF	299	8	5	13	8	11	19	1,238	196	212	408
<i>Total:</i>			299	8	5	13	8	11	19	1,238	196	212	408

Key: KSF = Thousand Square Feet Gross Floor Area.
 Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 5 illustrates that the proposed development has the potential to generate approximately 299 daily weekday trips with 13 of those occurring during the morning peak hour and 19 during the afternoon peak hour. The proposed development also has the potential to generate approximately 1,238 daily Sunday trips with 408 of those occurring during the Sunday peak hour of generator.

Adjustments to Trip Generation Rates

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

Trip Distribution

The overall directional distribution of site-generated traffic was determined based on the location of development site within the County, proposed and existing area land uses, allowed turning movements, available roadway network, and in reference to the approved Bent Grass Plaza traffic impact study prepared for an adjacent development which was recently constructed.

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

Trip Assignment

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

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

LEGEND

- Study Intersection Volumes
- Development Site

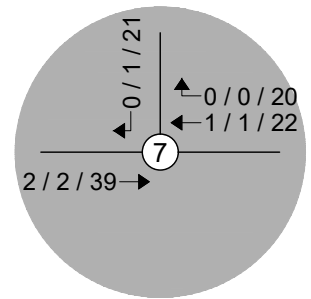
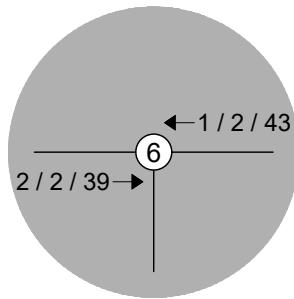
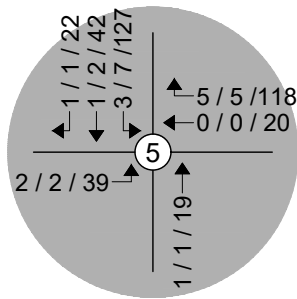
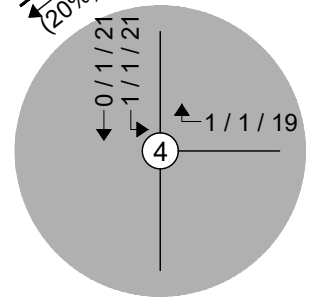
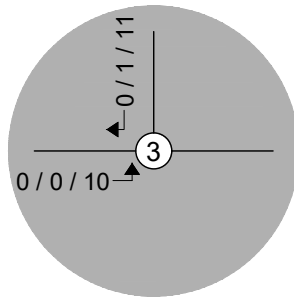
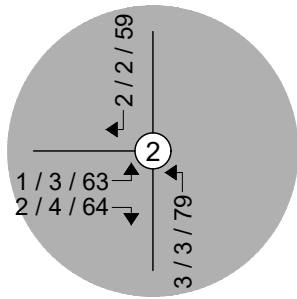
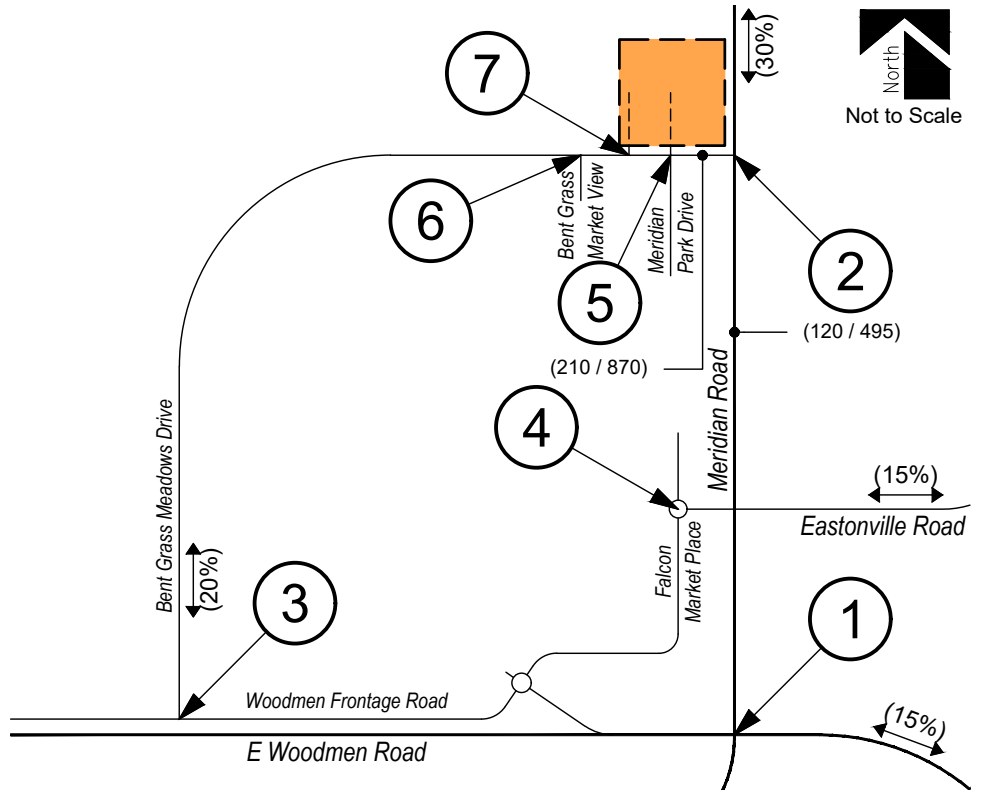
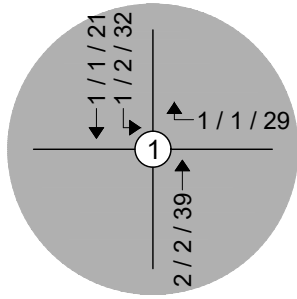


Figure 6
SITE DEVELOPMENT DISTRIBUTION

(%) : Overall

SITE-GENERATED TRIPS

AM / PM / Sunday Peak Hour

(ADT) : Weekday / Sunday Average Daily Traffic



CHURCH AT BENT GRASS MEADOWS

Traffic Impact Study

SM ROCHA, LLC

Traffic & Transportation Engineering Consultants

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V. Future Traffic Conditions With Proposed Development

Total traffic is the traffic projected to be on area roadways with consideration of the proposed development. Total traffic includes background traffic projections for Years 2027 and 2045 with consideration of site-generated traffic. For analysis purposes, it was assumed that development construction would be completed by end of Year 2027.

Pursuant to area roadway improvement discussions provided in Section III, Year 2027 and Year 2045 total traffic conditions assume no additional roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency.

Total Traffic Auxiliary Lane Analysis

Auxiliary lanes for site development access drives were evaluated and are to be based on the County's ECM.

Considering development build-out, an evaluation of auxiliary lane requirements, pursuant to Section 2.3.7.D of the County's ECM, reveals that a westbound right turn deceleration lane at Access A along Bent Grass Meadows Drive may be required since the development's projected peak hour right turn ingress volume exceeds the County's threshold of 50 vehicles per hour.

Projected Year 2027 total traffic volumes and intersection geometry are shown in Figure 7.

Figure 8 shows projected total traffic volumes and intersection geometry for Year 2045.

LEGEND

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

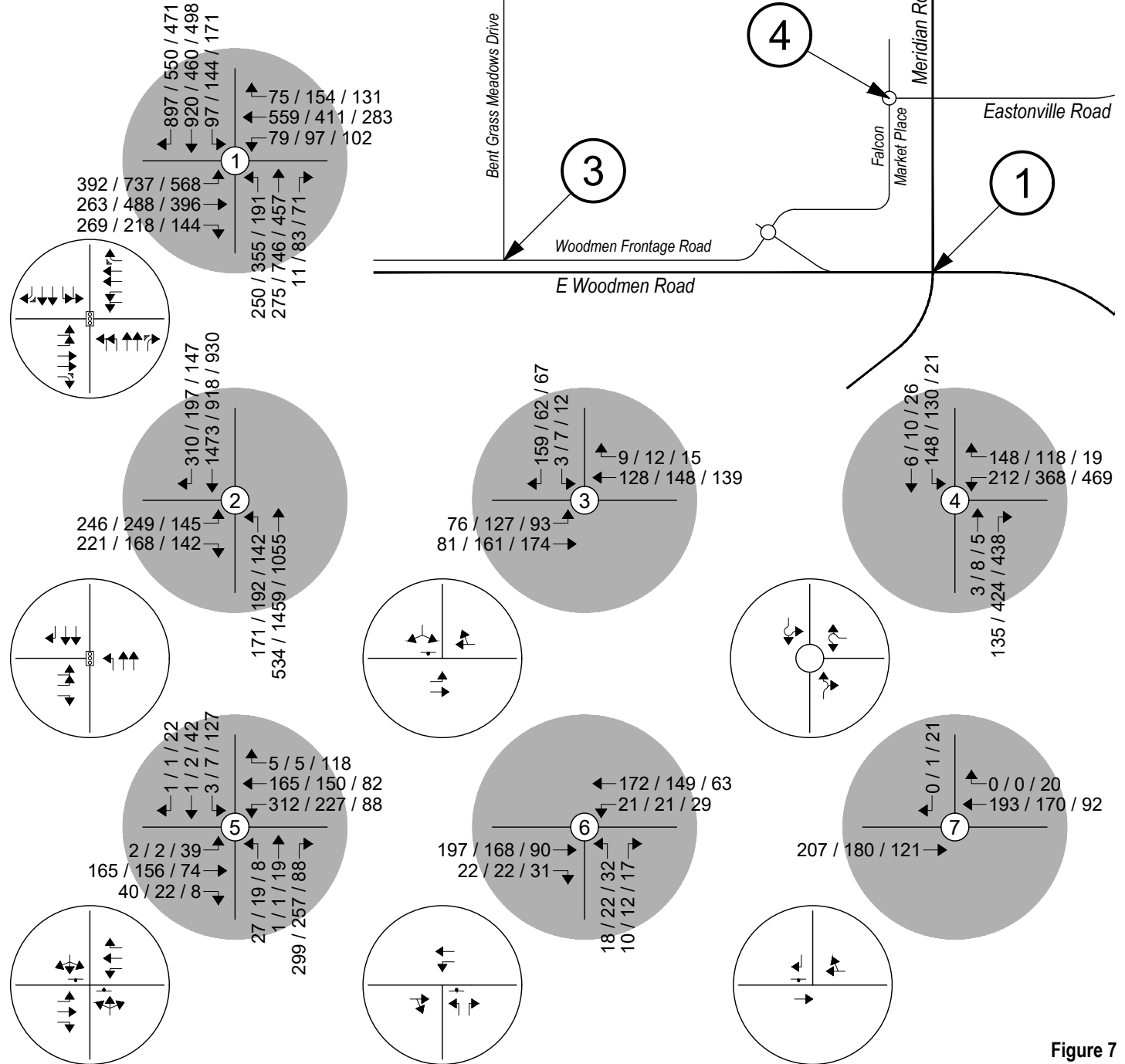


Figure 7
TOTAL TRAFFIC - YEAR 2027
 Volumes & Intersection Geometry
 AM / PM / Sunday Peak Hour
 (ADT) : Weekday / Sunday Average Daily Traffic

LEGEND

- Study Intersection Volumes
- Study Intersection Lane Geometry
- Development Site

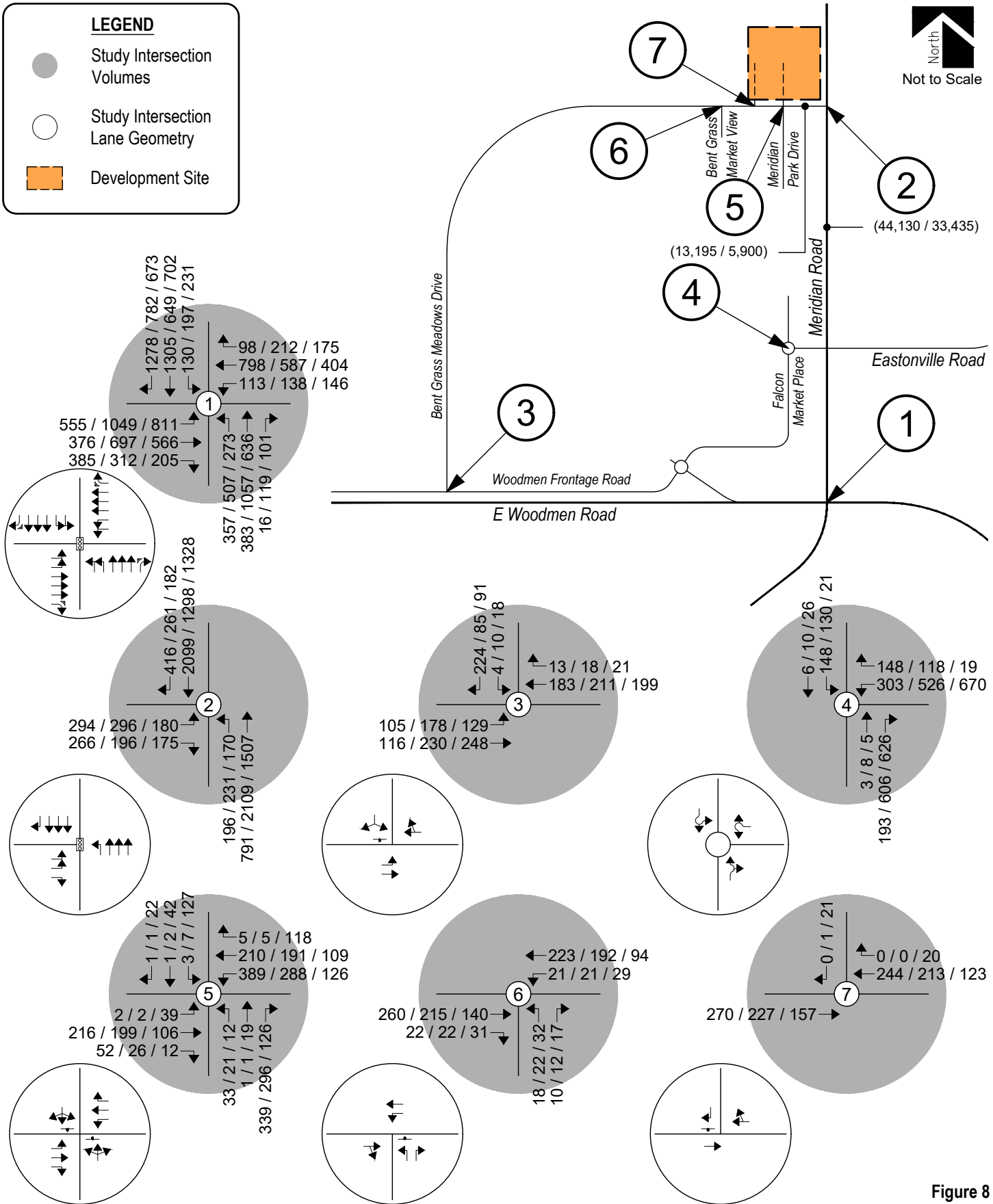


Figure 8
TOTAL TRAFFIC - YEAR 2045
 Volumes & Intersection Geometry
 AM / PM / Sunday Peak Hour
 (ADT) : Weekday / Sunday Average Daily Traffic

Peak Hour Intersection Levels of Service – Total Traffic

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

Total traffic level of service analysis results for Years 2027 and 2045 are summarized in Table 6 and Table 7, respectively.

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

Table 6 – Intersection Capacity Analysis Summary – Total Traffic – Year 2027

INTERSECTION LANE GROUPS	LEVEL OF SERVICE		
	AM PEAK HOUR	PM PEAK HOUR	SUNDAY PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	D (38.4)	D (44.1)	D (37.1)
Meridian Road / Bent Grass Meadows Drive (Signalized)	C (20.1)	B (13.2)	B (10.3)
Eastonville Road / Falcon Market Place (Roundabout)			
Westbound Left and Right	A	A	A
Northbound Through and Right	A	A	A
Southbound Left and Through	A	A	A
Woodmen Frontage Road / Bent Grass Meadows Drive (Stop-Controlled)			
Eastbound Left	A	A	A
Southbound Left and Right	B	B	B
Bent Grass Meadows Drive / Meridian Park Drive / Access A (Stop-Controlled)			
Eastbound Left	A	A	A
Westbound Left	A	A	A
Northbound Left, Through, and Right	C	B	B
Southbound Left, Through, and Right	D	D	C
Bent Grass Meadows Drive / Bent Grass Market View (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left	B	B	B
Northbound Right	A	A	A
Bent Grass Meadows Drive / Access B (Stop-Controlled)			
Southbound Right	A	A	A

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

Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2045

INTERSECTION LANE GROUPS	LEVEL OF SERVICE		
	AM PEAK HOUR	PM PEAK HOUR	SUNDAY PEAK HOUR
Meridian Road / E Woodmen Road (Signalized)	D (49.6)	E (71.2)	D (44.5)
Meridian Road / Bent Grass Meadows Drive (Signalized)	C (20.6)	B (14.5)	B (12.6)
Eastonville Road / Falcon Market Place (Roundabout)			
Westbound Left and Right	A	A	A
Northbound Through and Right	A	A	A
Southbound Left and Through	A	A	A
Woodmen Frontage Road / Bent Grass Meadows Drive (Stop-Controlled)			
Eastbound Left	A	A	A
Southbound Left and Right	B	B	B
Bent Grass Meadows Drive / Meridian Park Drive / Access A (Stop-Controlled)			
Eastbound Left	A	A	A
Westbound Left	A	A	A
Northbound Left, Through, and Right	E	C	B
Southbound Left, Through, and Right	F	E	E
Bent Grass Meadows Drive / Bent Grass Market View (Stop-Controlled)			
Westbound Left	A	A	A
Northbound Left	B	B	B
Northbound Right	A	A	A
Bent Grass Meadows Drive / Access B (Stop-Controlled)			
Southbound Right	A	A	A

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

Total Traffic Analysis Results Upon Development Build-Out

Table 7 illustrates how, by Year 2045 and upon development build-out, the signalized intersection of Meridian Road with E Woodmen Road continues to project overall operations at LOS D during the morning and Sunday peak traffic hours and LOS E during the afternoon peak traffic hour. The LOS E operation continues to be attributed to the high volume of eastbound and northbound left turning vehicles. As discussed in Section III, construction of a third eastbound left-turn lane and optimization of signal timings is a potential solution to mitigate the extensive delay and would provide for overall LOS D operations during the afternoon peak traffic hour.

The signalized intersection of Meridian Road with Bent Grass Meadows Drive projects overall operations at LOS C during the morning peak traffic hour and LOS B during the afternoon and Sunday peak traffic hours.

The roundabout-controlled intersection of Eastonville Road with Falcon Market Place expects turn movement operations at LOS A during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Woodmen Frontage Road with Bent Grass Meadows Drive predicts turn movement operations at LOS B or better during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Bent Grass Meadows Drive with Meridian Park Drive and Access A projects turn movement operations at LOS C or better during the morning, afternoon, and Sunday peak traffic hours. Exceptions include the northbound and southbound turning movements which operate at LOS E and F during their respective peak traffic hours. The LOS E and F operations are attributed to the high volume of westbound left turning vehicles due to the planned future extension of Meridian Park Drive.

The stop-controlled intersection of Bent Grass Meadows Drive with Bent Grass Market View anticipates turn movement operations at LOS B or better during the morning, afternoon, and Sunday peak traffic hours.

The stop-controlled intersection of Bent Grass Meadows Drive with Access B predicts turn movement operations at LOS A during the morning, afternoon, and Sunday peak traffic hours.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals. The upstream signal control on Bent Grass Meadows Drive may tend to create additional gaps in the traffic stream for turning movements at Meridian Park Drive/Access A and has the potential to provide mitigation to the LOS E and F operations projected.

VI. Project Impacts

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

Queue Length Analysis

Queue lengths for the study intersections were analyzed using Year 2045 total traffic conditions. The analysis yields estimate of 95th percentile queue lengths, which have only a five percent probability of being exceeded during the analysis time period. An average vehicle length of 25 feet was assumed. Queue lengths were modeled and are included with the Synchro worksheets in Appendix D.

In general, auxiliary lane lengths are recommended to accommodate the County's minimum turn lane lengths or accommodate long-term 95th percentile vehicle queues, whichever is greater.

Table 8 summarizes the 95th percentile queue results in comparison to the projected storage requirements for turn movements within study area for Year 2045. Please note that if no taper length is provided, the turn lane is either a termination of a through lane, a center two-way left-turn lane, or a continuous acceleration/deceleration lane.

As Table 8 will show, all turn lane lengths at the study intersections have sufficient storage to accommodate future traffic volumes.

Table 8 – Turn Lane Queues and Storage Requirements – Total Traffic – Year 2045

Intersection	Turn Movement	Existing Turn Lane Length (feet)	AM Peak Hour	PM Peak Hour	Sun Peak Hour	El Paso County Turn Lane Length (feet)	Recommended Turn Lane Length (feet)	
			95th Percentile Queue Length (feet)	95th Percentile Queue Length (feet)	95th Percentile Queue Length (feet)			
Signalized Intersections								
Meridian Road / E Woodmen Road	EB	L	480' x2 + 200'T	372'	681'	509'	290' + 240'T	480' x2 + 200'T
		T	-	115'	180'	158'	-	-
		R	660'	0'	0'	0'	290'	660'
	WB	L	195' x2 + 180'T	80'	94'	98'	290' + 240'T	195' x2 + 180'T
		T	-	289'	209'	146'	-	-
		R	260'	0'	20'	30'	290'	260'
	NB	L	460' x2 + 315'T	260'	371'	210'	235' + 200'T	460' x2 + 315'T
		T	-	119'	457'	226'	-	-
		R	360'	0'	0'	0'	290'	360'
	SB	L	460' x2 + 240'T	89'	163'	143'	235' + 200'T	460' x2 + 240'T
		T	-	536'	301'	246'	-	-
		R	445'	0'	0'	0'	290'	445'
Meridian Road / Bent Grass Meadows Drive	EB	L	160' x2	174'	169'	106'	155'	160' x2
		R	160'	0'	0'	0'	155'	160'
	NB	L	710' + 215'T	208'	197'	108'	235' + 200'T	710' + 215'T
		T	-	78'	343'	243'	-	-
	SB	T	-	591'	281'	384'	-	-
		R	330' + 240'T	48'	39'	27'	290' + 200'T	330' + 240'T
Roundabout Intersections								
Eastonville Road / Falcon Market Place	WB	L,R	-	50'	75'	100'	-	-
	NB	T,R	-	25'	100'	75'	-	-
	SB	L,T	-	25'	25'	0'	-	-
Stop-Controlled Intersections								
Woodmen Frontage Road / Bent Grass Meadows Drive	EB	L	310'	8'	13'	10'	115'	310'
		T	-	0'	0'	0'	-	-
	WB	T,R	-	0'	0'	0'	-	-
Access A / Meridian Park Drive / Bent Grass Meadows Drive	EB	L	150' + 170'T	0'	0'	3'	155' + 160'T	150' + 170'T
		T	-	0'	0'	0'	-	-
		R	150' + 170'T	0'	0'	0'	155' + 160'T	150' + 170'T
	WB	L	195' + 70'T	38'	23'	8'	155' + 160'T	195' + 70'T
		T	-	0'	0'	0'	-	-
		R	-	0'	0'	0'	155' + 160'T	155' + 73'T
NB	L,T,R	-	228'	83'	25'	-	-	
SB	L,T,R	-	8'	8'	100'	-	-	
Bent Grass Market View / Bent Grass Meadows Drive	EB	T,R	-	0'	0'	0'	-	-
		L	-	3'	3'	3'	-	-
	WB	T	-	0'	0'	0'	-	-
		L	-	3'	3'	5'	-	-
NB	R	-	0'	3'	3'	-	-	
	L	-	0'	0'	0'	-	-	
Access B / Bent Grass Meadows Drive	EB	T	-	0'	0'	0'	-	-
	WB	T,R	-	0'	0'	0'	-	-
	SB	R	-	0'	0'	3'	-	-

Key: T = Turn Lanes
x2 = Dual turn lanes.

It is important to note that the westbound right turn lane proposed along Bent Grass Meadows Drive at Access A is planned to meet the County’s minimum requirements for storage lengths. Conversely, the taper length being proposed does not meet the County’s minimum requirements due to lack of available roadway. However, considering that westbound vehicles are likely traveling at low speeds due to the fact they have recently completed a turning maneuver, the proposed taper length is believed to be adequate.

Development Impacts

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create minimal negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2045 background traffic conditions.

Recommended Improvements

Roadway and intersection improvement recommendations were assessed pursuant to roadway descriptions discussed in Section I, projected peak hour traffic volumes, level of service results, projected 95th percentile queue lengths, and per requirements defined within the County's ECM.

As discussed in Section V, a westbound right turn deceleration lane at Access A along Bent Grass Meadows Drive is recommended pursuant to vehicle-volume thresholds. It is again noted that the westbound right turn lane proposed along Bent Grass Meadows Drive is planned to meet the County's minimum requirements for storage lengths. Conversely, the taper length being proposed does not meet the County's minimum requirements, as shown in Table 8. However, considering that westbound vehicles are likely traveling at low speeds due to the fact they have recently completed a turning maneuver, the proposed taper length is believed to be adequate.

An existing eastbound left turn deceleration lane along Bent Grass Meadows Drive already exists at Access A. Therefore, signing and striping responsibilities for this development are limited to a westbound right turn deceleration lane along Bent Grass Meadows Drive at Access A. Additionally, considering how Access A and Access B are expected to be private roadways, it is expected that signing and striping along these access drives will be limited to providing intersection control signage and striping at their intersections with Bent Grass Meadows Drive as required by the governing agency.

Multi-Modal Assessment

In accordance with Appendix B.2.4 of the County's ECM, an assessment to pedestrian connectivity and safety was considered.

While no sidewalks or crosswalks are being proposed across Bent Grass Meadows Drive, pedestrian crossing treatments are being proposed across the site access drives, pursuant to the latest site plan shown in Figure 2.

VII. Conclusion

This traffic impact study addressed the capacity, geometric, and control requirements associated with the development entitled Church at Bent Grass Meadows. This proposed institutional development consists of a church. The development is located on the northwest corner of Meridian Road and Bent Grass Meadows Drive in El Paso County, Colorado.

The study area examined in this analysis encompassed the Bent Grass Meadows Drive intersections with Woodmen Frontage Road, Meridian Road, and Meridian Park Drive, the Meridian Road intersection with E Woodmen Road, and the Eastonville Road intersection with Meridian Park Drive, and included proposed site accesses.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2027 and Year 2045 background traffic conditions, and Year 2027 and Year 2045 total traffic conditions.

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

Under Year 2027 and 2045 background traffic conditions, operational analysis shows that all signalized intersections are projected to operate with LOS D operations during peak traffic periods. Exceptions include the Meridian road and E Woodmen Road intersection which projected overall LOS E operations during the afternoon peak traffic hour. All roundabout and stop-controlled intersections anticipate turn movement operations at or better than LOS D during their respective peak traffic periods.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create minimal negative impact to traffic operations for the existing and surrounding roadway system upon roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2045 background traffic conditions. Proposed site accesses have long-term operations at LOS C or better during peak traffic periods and upon build-out with exceptions for the northbound and southbound turning movements at the Bent Grass Meadows Drive intersection with Meridian Park Drive and Access A.

The site is subject to the El Paso County Road Impact Fee Program (Resolution 24-377), as amended. An option for payment will be selected at the final land use approval stage.

The submittal of El Paso County Deviation Request Forms are anticipated with the development of this site to address substandard access spacing and proposed taper lengths.

APPENDIX A

Traffic Count Data Existing Development Sunday Trip Generation



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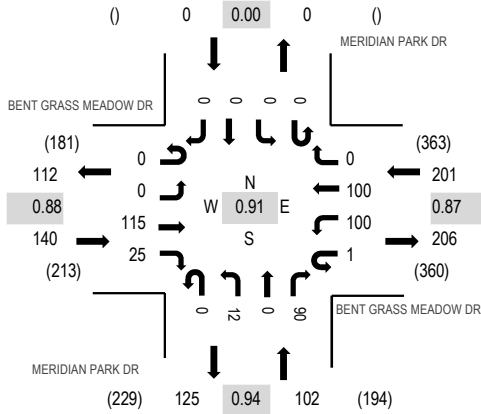
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Date: Thursday, April 3, 2025

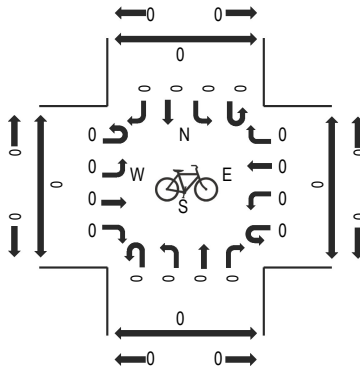
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Peak 15-Minutes: 07:30 AM - 07:45 AM

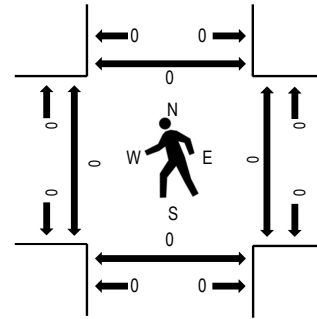
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BENT GRASS MEADOW DR Eastbound				BENT GRASS MEADOW DR Westbound				MERIDIAN PARK DR Northbound				MERIDIAN PARK DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
	7:00 AM	0	0	27	2	0	23	18	0	0	1	0	16	0	0	0			0	87	437	0
7:15 AM	0	0	33	8	1	25	23	0	0	3	0	20	0	0	0	0	113	443	0	0	0	0
7:30 AM	0	0	31	5	0	23	35	0	0	3	0	25	0	0	0	0	122	416	0	0	0	0
7:45 AM	0	0	32	7	0	30	22	0	0	2	0	22	0	0	0	0	115	375	0	0	0	0
8:00 AM	0	0	19	5	0	22	20	0	0	4	0	23	0	0	0	0	93	333	0	0	0	0
8:15 AM	0	0	17	1	0	24	18	0	0	1	0	25	0	0	0	0	86		0	0	0	0
8:30 AM	0	0	12	1	0	27	15	0	0	0	0	26	0	0	0	0	81		0	0	0	0
8:45 AM	0	0	10	3	0	23	14	0	0	2	0	21	0	0	0	0	73		0	0	0	0
Count Total	0	0	181	32	1	197	165	0	0	16	0	178	0	0	0	0	770		0	0	0	0
Peak Hour	0	0	115	25	1	100	100	0	0	12	0	90	0	0	0	0	443		0	0	0	0



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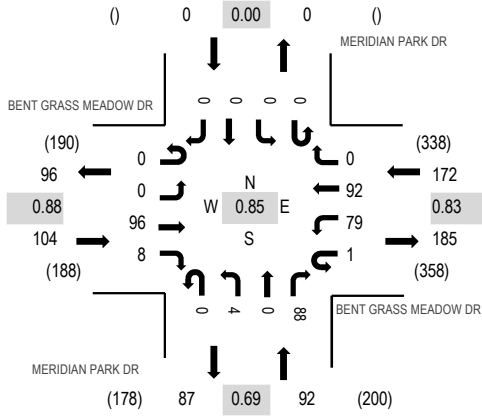
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Date: Thursday, April 3, 2025

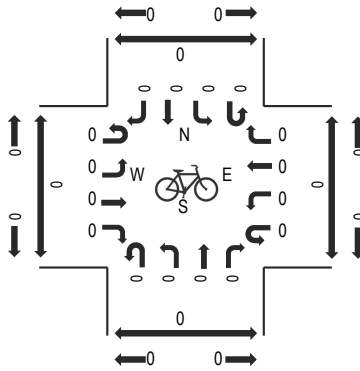
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Peak 15-Minutes: 05:00 PM - 05:15 PM

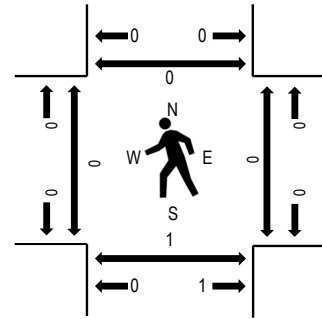
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BENT GRASS MEADOW DR Eastbound				BENT GRASS MEADOW DR Westbound				MERIDIAN PARK DR Northbound				MERIDIAN PARK DR Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
	4:00 PM	0	0	20	1	0	31	21	0	0	2	0	37	0	0	0			0	112	358	0
4:15 PM	0	0	17	1	0	19	20	0	0	7	0	18	0	0	0	0	82	354	0	0	0	0
4:30 PM	0	0	22	1	0	20	19	0	0	5	0	21	0	0	0	0	88	366	0	0	0	0
4:45 PM	0	0	21	1	0	17	19	0	0	1	0	17	0	0	0	0	76	358	0	0	0	0
5:00 PM	0	0	24	1	1	24	28	0	0	0	0	30	0	0	0	0	108	368	0	0	1	0
5:15 PM	0	0	28	2	0	23	24	0	0	0	0	17	0	0	0	0	94		0	0	0	0
5:30 PM	0	0	27	1	0	12	22	0	0	0	0	18	0	0	0	0	80		0	0	0	0
5:45 PM	0	0	17	4	0	20	18	0	0	4	0	23	0	0	0	0	86		0	0	0	0
Count Total	0	0	176	12	1	166	171	0	0	19	0	181	0	0	0	0	726		0	0	1	0
Peak Hour	0	0	96	8	1	79	92	0	0	4	0	88	0	0	0	0	368		0	0	1	0



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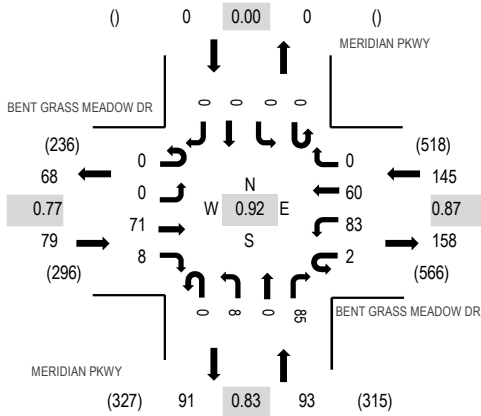
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Date: Sunday, April 6, 2025

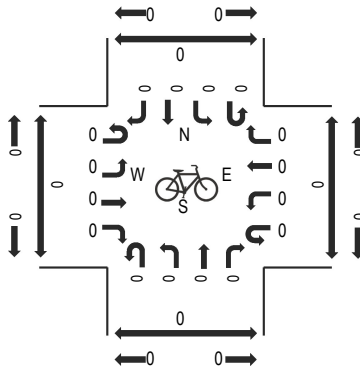
Peak Hour: 12:45 PM - 01:45 PM

Peak 15-Minutes: 01:30 PM - 01:45 PM

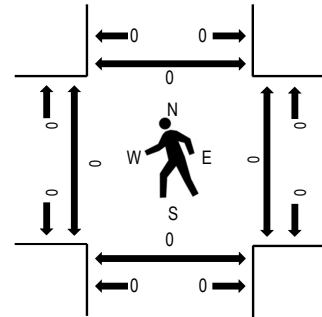
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BENT GRASS MEADOW DR				BENT GRASS MEADOW DR				MERIDIAN PKWY				MERIDIAN PKWY				Total	Rolling Hour	Pedestrian Crossings			
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right						
10:00 AM	0	0	18	1	1	21	17	0	0	0	0	16	0	0	0	0	74	252	0	0	0	0
10:15 AM	0	0	12	0	0	18	10	0	0	1	0	21	0	0	0	0	62	230	0	0	0	0
10:30 AM	0	0	14	1	0	13	12	0	0	0	0	13	0	0	0	0	53	242	0	0	0	0
10:45 AM	0	0	16	6	0	12	11	0	0	0	0	18	0	0	0	0	63	258	0	0	0	0
11:00 AM	0	0	12	1	0	13	10	0	0	1	0	15	0	0	0	0	52	258	0	0	0	0
11:15 AM	0	0	18	3	0	19	13	0	0	2	0	19	0	0	0	0	74	279	0	0	4	0
11:30 AM	0	0	12	1	0	26	14	0	0	0	0	16	0	0	0	0	69	275	0	0	0	0
11:45 AM	0	0	12	0	0	18	9	0	0	1	0	23	0	0	0	0	63	290	0	0	0	0
12:00 PM	0	0	23	0	0	16	14	0	0	1	0	19	0	0	0	0	73	309	0	0	0	0
12:15 PM	0	0	17	1	0	17	17	0	0	1	0	17	0	0	0	0	70	316	0	0	0	0
12:30 PM	0	0	23	1	1	24	14	0	0	4	0	17	0	0	0	0	84	315	0	0	0	0
12:45 PM	0	0	11	1	0	21	21	0	0	4	0	24	0	0	0	0	82	317	0	0	0	0
1:00 PM	0	0	29	1	0	23	8	0	0	0	0	19	0	0	0	0	80	310	0	0	0	0
1:15 PM	0	0	17	1	1	12	16	0	0	0	0	22	0	0	0	0	69		0	0	0	0
1:30 PM	0	0	14	5	1	27	15	0	0	4	0	20	0	0	0	0	86		0	0	0	0
1:45 PM	0	0	20	5	1	19	13	0	0	3	0	14	0	0	0	0	75		0	0	0	0
Count Total	0	0	268	28	5	299	214	0	0	22	0	293	0	0	0	0	1,129		0	0	4	0
Peak Hour	0	0	71	8	2	83	60	0	0	8	0	85	0	0	0	0	317		0	0	0	0



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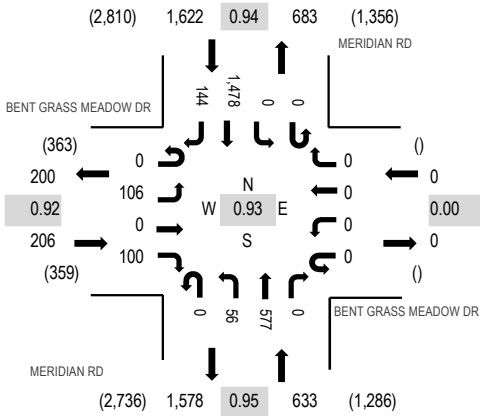
Location: 2 MERIDIAN RD & BENT GRASS MEADOW DR AM

Date: Thursday, April 3, 2025

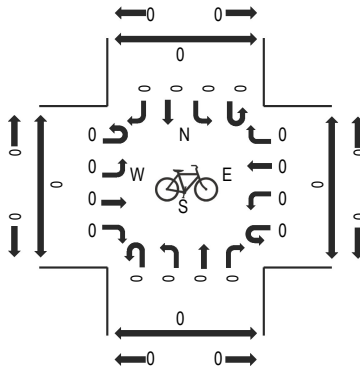
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

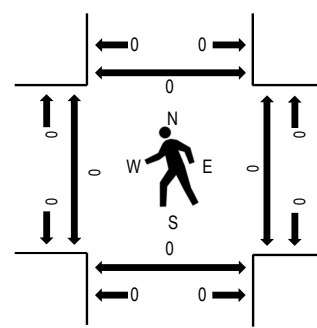
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BENT GRASS MEADOW DR Eastbound				BENT GRASS MEADOW DR Westbound				MERIDIAN RD Northbound			MERIDIAN RD Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North
	7:00 AM	0	12	0	30	0	0	0	0	0	15	125	0	0	0			384	26	592	2,461	0
7:15 AM	0	33	0	20	0	0	0	0	0	15	146	0	0	0	384	34	632	2,423	0	0	0	0
7:30 AM	0	28	0	27	0	0	0	0	0	14	161	0	0	0	389	44	663	2,284	0	0	0	0
7:45 AM	0	33	0	23	0	0	0	0	0	12	145	0	0	0	321	40	574	2,152	0	0	0	0
8:00 AM	0	18	0	23	0	0	0	0	0	14	163	0	0	0	307	29	554	1,994	0	0	0	0
8:15 AM	0	24	0	20	0	0	0	0	0	13	140	0	0	0	268	28	493		0	0	0	0
8:30 AM	0	17	0	20	0	0	0	0	0	14	162	0	0	0	289	29	531		0	0	0	0
8:45 AM	0	13	0	18	0	0	0	0	0	11	136	0	0	0	213	25	416		0	0	0	0
Count Total	0	178	0	181	0	0	0	0	0	108	1,178	0	0	0	2,555	255	4,455		0	0	0	0
Peak Hour	0	106	0	100	0	0	0	0	0	56	577	0	0	0	1,478	144	2,461		0	0	0	0



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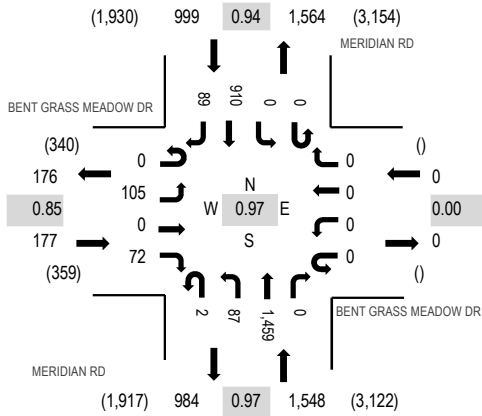
Location: 2 MERIDIAN RD & BENT GRASS MEADOW DR PM

Date: Thursday, April 3, 2025

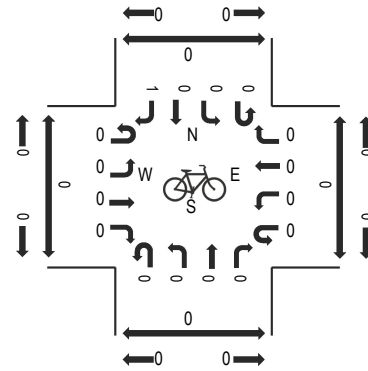
Peak Hour: 04:30 PM - 05:30 PM

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

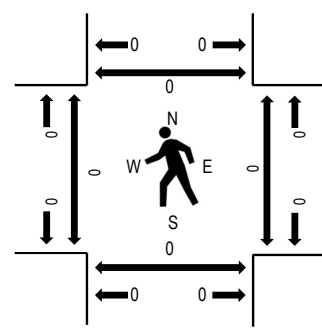
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BENT GRASS MEADOW DR Eastbound				BENT GRASS MEADOW DR Westbound				MERIDIAN RD Northbound			MERIDIAN RD Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North
4:00 PM	0	29	0	29	0	0	0	0	0	22	352	0	0	0	242	30	704	2,723	0	0	0	0
4:15 PM	0	20	0	12	0	0	0	0	0	22	385	0	0	0	222	17	678	2,722	0	0	0	0
4:30 PM	0	23	0	23	0	0	0	0	0	16	374	0	0	0	213	23	672	2,724	0	0	0	0
4:45 PM	0	29	0	8	0	0	0	0	0	23	371	0	0	0	225	13	669	2,707	0	0	0	0
5:00 PM	0	29	0	26	0	0	0	0	2	24	364	0	0	0	228	30	703	2,688	0	0	0	0
5:15 PM	0	24	0	15	0	0	0	0	0	24	350	0	0	0	244	23	680		0	0	0	0
5:30 PM	0	27	0	25	0	0	0	0	0	20	379	0	0	0	189	15	655		0	0	0	0
5:45 PM	0	24	0	16	0	0	0	0	1	19	374	0	0	0	197	19	650		0	0	0	0
Count Total	0	205	0	154	0	0	0	0	3	170	2,949	0	0	0	1,760	170	5,411		0	0	0	0
Peak Hour	0	105	0	72	0	0	0	0	2	87	1,459	0	0	0	910	89	2,724		0	0	0	0



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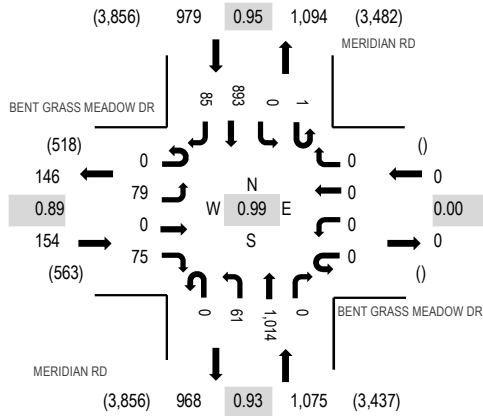
Location: 2 MERIDIAN RD & BENT GRASS MEADOW DR AM

Date: Sunday, April 6, 2025

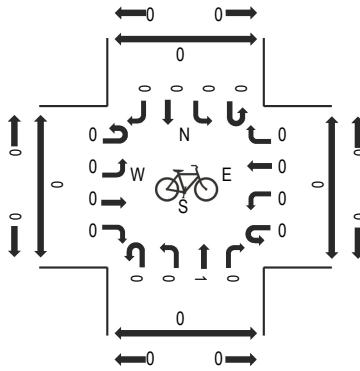
Peak Hour: 12:15 PM - 01:15 PM

Peak 15-Minutes: 12:45 PM - 01:00 PM

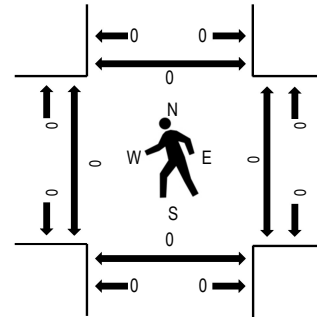
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BENT GRASS MEADOW DR Eastbound				BENT GRASS MEADOW DR Westbound				MERIDIAN RD Northbound			MERIDIAN RD Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North
	10:00 AM	0	9	0	26	0	0	0	0	0	11	111	0	0	0			213	28	398	1,725	0
10:15 AM	0	15	0	17	0	0	0	0	0	11	132	0	0	0	228	19	422	1,766	0	0	0	0
10:30 AM	0	15	0	15	0	0	0	0	1	10	136	0	0	0	233	15	425	1,767	0	0	0	0
10:45 AM	0	14	0	18	0	0	0	0	0	8	178	0	0	0	248	14	480	1,843	0	0	0	0
11:00 AM	0	10	0	16	0	0	0	0	0	12	172	0	0	0	218	11	439	1,866	0	0	0	0
11:15 AM	0	14	0	24	0	0	0	0	0	14	158	0	0	0	196	17	423	1,956	0	0	0	0
11:30 AM	0	13	0	16	0	0	0	0	0	14	189	0	0	0	243	26	501	2,075	0	0	0	0
11:45 AM	0	10	0	24	0	0	0	0	0	11	213	0	0	0	229	16	503	2,129	0	0	0	0
12:00 PM	0	21	0	20	0	0	0	0	0	8	241	0	0	0	217	22	529	2,186	0	0	0	0
12:15 PM	0	17	0	17	0	0	0	0	0	12	231	0	1	0	241	23	542	2,208	0	0	0	0
12:30 PM	0	18	0	24	0	0	0	0	0	19	253	0	0	0	222	19	555	2,152	0	0	0	0
12:45 PM	0	17	0	15	0	0	0	0	0	20	270	0	0	0	216	22	560	2,107	0	0	0	0
1:00 PM	0	27	0	19	0	0	0	0	0	10	260	0	0	0	214	21	551	2,079	0	0	0	0
1:15 PM	0	25	0	18	0	0	0	0	0	16	210	0	0	0	204	13	486		0	0	0	0
1:30 PM	0	15	0	19	0	0	0	0	0	26	226	0	0	0	207	17	510		0	0	0	0
1:45 PM	0	17	0	18	0	0	0	0	0	10	244	0	0	0	220	23	532		0	0	0	0
Count Total	0	257	0	306	0	0	0	0	1	212	3,224	0	1	0	3,549	306	7,856		0	0	0	0
Peak Hour	0	79	0	75	0	0	0	0	0	61	1,014	0	1	0	893	85	2,208		0	0	0	0



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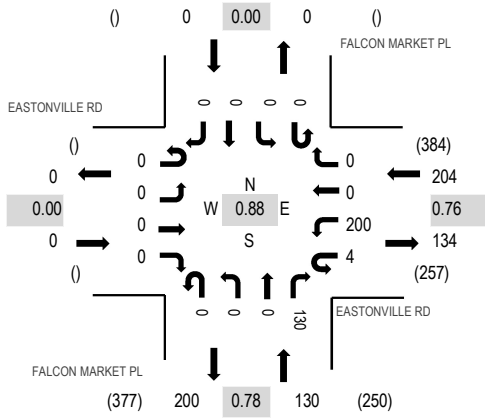
Location: 3 FALCON MARKET PL & EASTONVILLE RD AM

Date: Thursday, April 3, 2025

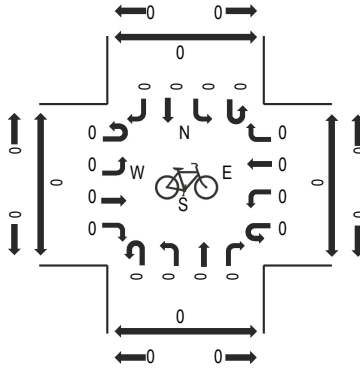
Peak Hour: 07:15 AM - 08:15 AM

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

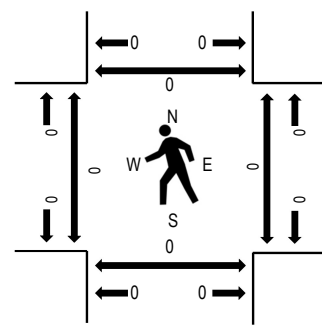
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	EASTONVILLE RD Eastbound				EASTONVILLE RD Westbound				FALCON MARKET PL Northbound				FALCON MARKET PL Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	1	41	0	0	0	0	0	23	0	0	0	0	65	312	0	0	0	0
7:15 AM	0	0	0	0	1	46	0	0	0	0	0	31	0	0	0	0	78	334	0	0	0	0
7:30 AM	0	0	0	0	1	48	0	0	0	0	0	25	0	0	0	0	74	327	0	0	0	0
7:45 AM	0	0	0	0	2	65	0	0	0	0	0	28	0	0	0	0	95	329	0	0	0	0
8:00 AM	0	0	0	0	0	41	0	0	0	0	0	46	0	0	0	0	87	322	0	0	0	0
8:15 AM	0	0	0	0	0	45	0	0	0	0	0	26	0	0	0	0	71		2	0	0	2
8:30 AM	0	0	0	0	2	36	0	0	0	0	0	38	0	0	0	0	76		0	0	0	0
8:45 AM	0	0	0	0	0	55	0	0	0	0	0	33	0	0	0	0	88		0	0	0	0
Count Total	0	0	0	0	7	377	0	0	0	0	0	250	0	0	0	0	634		2	0	0	2
Peak Hour	0	0	0	0	4	200	0	0	0	0	0	130	0	0	0	0	334		0	0	0	0



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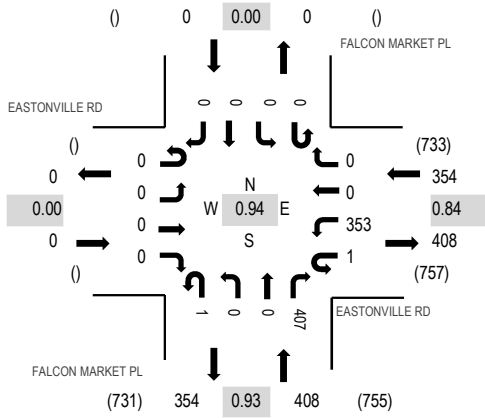
Location: 3 FALCON MARKET PL & EASTONVILLE RD PM

Date: Thursday, April 3, 2025

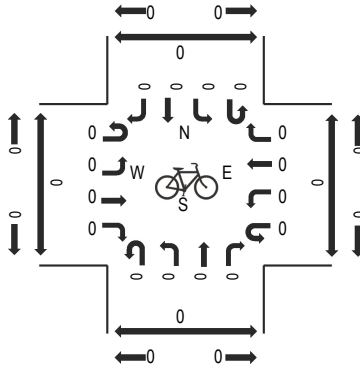
Peak Hour: 05:00 PM - 06:00 PM

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

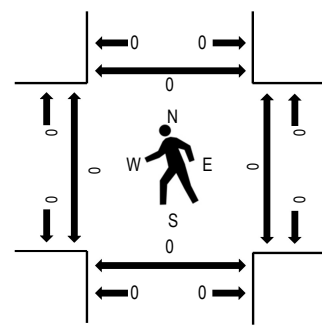
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	EASTONVILLE RD Eastbound				EASTONVILLE RD Westbound				FALCON MARKET PL Northbound				FALCON MARKET PL Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	1	112	0	0	0	0	0	83	0	0	0	0	196	726	0	0	1	0
4:15 PM	0	0	0	0	1	85	0	0	0	0	0	76	0	0	0	0	162	698	0	0	0	0
4:30 PM	0	0	0	0	0	89	0	0	0	0	0	99	0	0	0	0	188	731	0	0	1	0
4:45 PM	0	0	0	0	0	91	0	0	0	0	0	89	0	0	0	0	180	746	0	0	0	0
5:00 PM	0	0	0	0	0	77	0	0	0	0	0	91	0	0	0	0	168	762	0	0	0	0
5:15 PM	0	0	0	0	0	95	0	0	1	0	0	99	0	0	0	0	195		0	0	0	0
5:30 PM	0	0	0	0	0	96	0	0	0	0	0	107	0	0	0	0	203		0	0	0	0
5:45 PM	0	0	0	0	1	85	0	0	0	0	0	110	0	0	0	0	196		0	0	0	0
Count Total	0	0	0	0	3	730	0	0	1	0	0	754	0	0	0	0	1,488		0	0	2	0
Peak Hour	0	0	0	0	1	353	0	0	1	0	0	407	0	0	0	0	762		0	0	0	0



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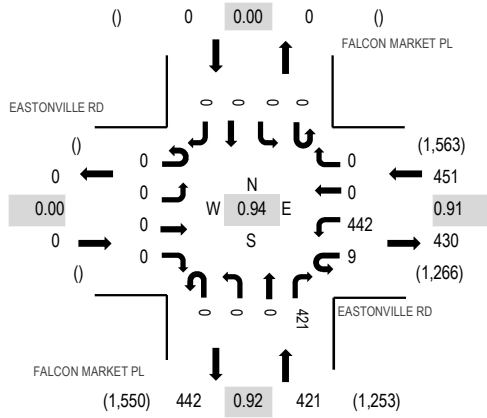
Location: 3 FALCON MARKET PL & EASTONVILLE RD AM

Date: Sunday, April 6, 2025

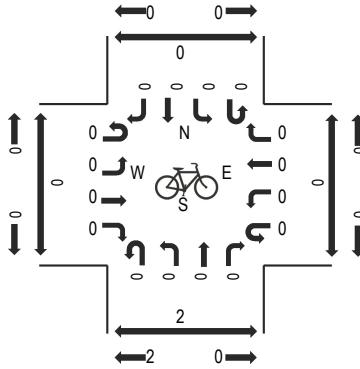
Peak Hour: 12:30 PM - 01:30 PM

Peak 15-Minutes: 12:45 PM - 01:00 PM

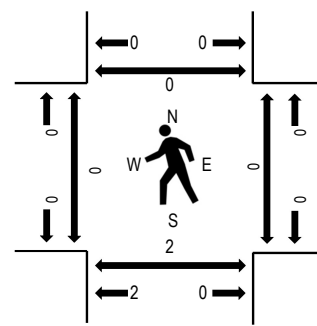
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	EASTONVILLE RD Eastbound				EASTONVILLE RD Westbound				FALCON MARKET PL Northbound				FALCON MARKET PL Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
10:00 AM	0	0	0	0	0	60	0	0	0	0	0	42	0	0	0	0	102	506	0	0	0	0
10:15 AM	0	0	0	0	0	81	0	0	0	0	0	53	0	0	0	0	134	558	2	0	0	2
10:30 AM	0	0	0	0	1	68	0	0	0	0	0	40	0	0	0	0	109	594	0	0	0	0
10:45 AM	0	0	0	0	0	98	0	0	0	0	0	63	0	0	0	0	161	646	0	0	0	0
11:00 AM	0	0	0	0	0	104	0	0	0	0	0	50	0	0	0	0	154	687	0	0	0	0
11:15 AM	0	0	0	0	0	91	0	0	0	0	0	79	0	0	0	0	170	732	0	0	0	0
11:30 AM	0	0	0	0	0	91	0	0	0	0	0	70	0	0	0	0	161	759	0	0	2	0
11:45 AM	0	0	0	0	0	122	0	0	0	0	0	80	0	0	0	0	202	806	0	0	0	0
12:00 PM	0	0	0	0	1	99	0	0	0	0	0	99	0	0	0	0	199	837	0	0	0	0
12:15 PM	0	0	0	0	1	108	0	0	0	0	0	88	0	0	0	0	197	856	0	0	0	0
12:30 PM	0	0	0	0	2	101	0	0	0	0	0	105	0	0	0	0	208	872	0	0	0	0
12:45 PM	0	0	0	0	4	115	0	0	0	0	0	114	0	0	0	0	233	850	0	0	0	0
1:00 PM	0	0	0	0	2	123	0	0	0	0	0	93	0	0	0	0	218	786	0	0	0	0
1:15 PM	0	0	0	0	1	103	0	0	0	0	0	109	0	0	0	0	213		0	0	2	0
1:30 PM	0	0	0	0	0	101	0	0	1	0	0	84	0	0	0	0	186		0	0	2	0
1:45 PM	0	0	0	0	2	84	0	0	0	0	0	83	0	0	0	0	169		0	0	0	0
Count Total	0	0	0	0	14	1,549	0	0	1	0	0	1,252	0	0	0	0	2,816		2	0	6	2
Peak Hour	0	0	0	0	9	442	0	0	0	0	0	421	0	0	0	0	872		0	0	2	0



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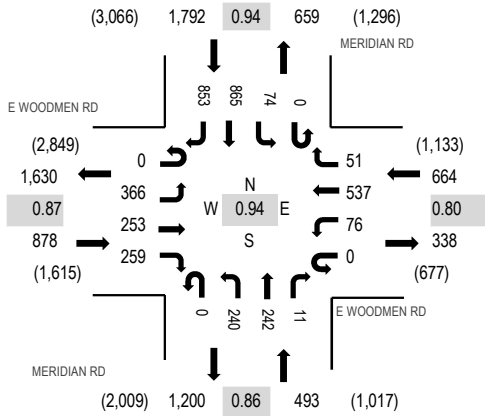
Location: 4 MERIDIAN RD & E WOODMEN RD AM

Date: Thursday, April 3, 2025

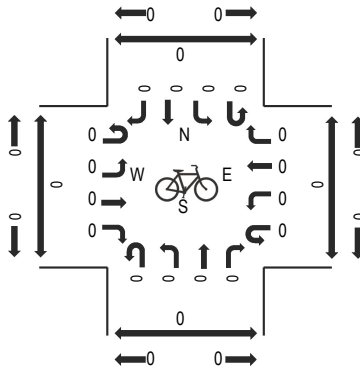
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

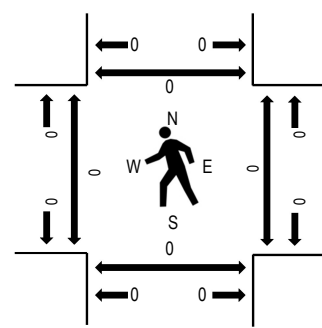
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E WOODMEN RD Eastbound				E WOODMEN RD Westbound				MERIDIAN RD Northbound				MERIDIAN RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	75	70	54	0	17	137	12	0	64	62	4	0	14	211	231	951	3,827	0	0	0	0
7:15 AM	0	107	47	77	0	22	128	10	0	46	66	3	0	10	227	220	963	3,670	0	0	0	0
7:30 AM	0	73	61	63	0	20	170	18	0	79	57	1	0	23	224	230	1,019	3,462	0	0	0	0
7:45 AM	0	111	75	65	0	17	102	11	0	51	57	3	0	27	203	172	894	3,226	0	0	0	0
8:00 AM	0	81	59	44	0	10	103	4	0	60	64	6	0	24	166	173	794	3,004	0	0	0	0
8:15 AM	1	78	49	49	0	11	99	6	0	53	67	12	0	14	170	146	755		0	0	0	0
8:30 AM	2	67	69	40	1	10	105	18	0	59	89	4	0	11	148	160	783		0	0	1	0
8:45 AM	0	93	68	37	0	16	70	16	0	49	54	7	0	15	108	139	672		0	0	0	0
Count Total	3	685	498	429	1	123	914	95	0	461	516	40	0	138	1,457	1,471	6,831		0	0	1	0
Peak Hour	0	366	253	259	0	76	537	51	0	240	242	11	0	74	865	853	3,827		0	0	0	0



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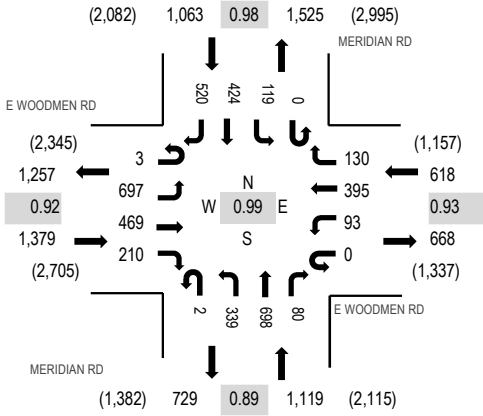
Location: 4 MERIDIAN RD & E WOODMEN RD PM

Date: Thursday, April 3, 2025

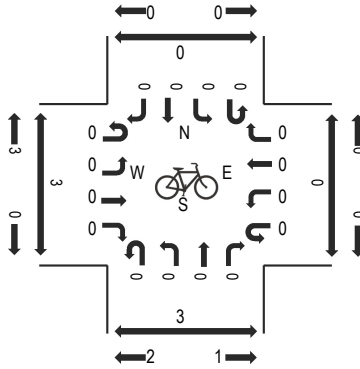
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

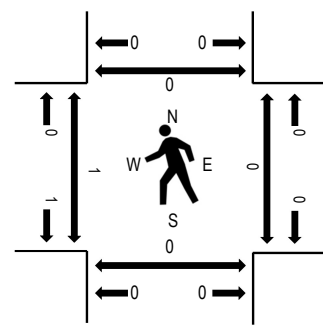
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E WOODMEN RD Eastbound				E WOODMEN RD Westbound				MERIDIAN RD Northbound				MERIDIAN RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	199	120	54	0	24	95	28	2	82	166	19	0	26	101	132	1,048	4,179	0	0	0	0
4:15 PM	0	157	131	52	0	17	91	40	0	89	184	20	0	36	98	126	1,041	4,135	1	0	0	0
4:30 PM	1	197	124	54	0	20	111	36	0	79	144	20	0	25	107	137	1,055	4,095	0	0	0	0
4:45 PM	2	144	94	50	0	32	98	26	0	89	204	21	0	32	118	125	1,035	4,007	0	0	0	0
5:00 PM	3	181	103	41	0	16	87	36	0	68	165	31	0	27	111	135	1,004	3,880	1	0	1	1
5:15 PM	0	148	134	39	0	18	92	36	2	84	165	23	0	31	111	118	1,001		0	0	0	0
5:30 PM	2	202	124	39	0	14	93	27	1	67	137	16	1	26	113	105	967		0	0	0	0
5:45 PM	2	180	94	34	0	19	68	33	1	55	159	22	0	38	94	109	908		0	0	0	1
Count Total	10	1,408	924	363	0	160	735	262	6	613	1,324	172	1	241	853	987	8,059		2	0	1	2
Peak Hour	3	697	469	210	0	93	395	130	2	339	698	80	0	119	424	520	4,179		1	0	0	0



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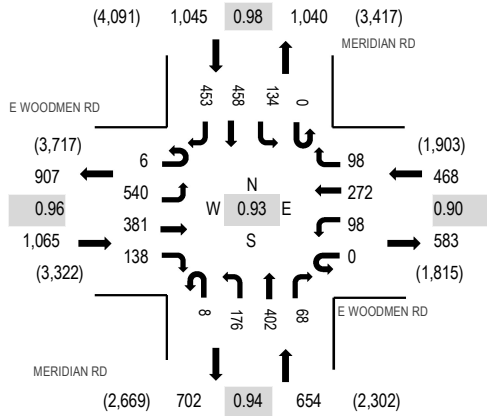
Location: 4 MERIDIAN RD & E WOODMEN RD AM

Date: Sunday, April 6, 2025

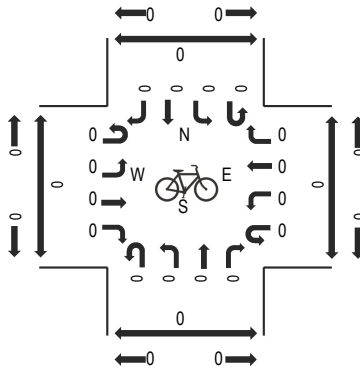
Peak Hour: 12:15 PM - 01:15 PM

Peak 15-Minutes: 12:30 PM - 12:45 PM

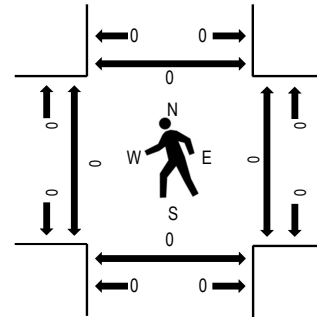
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	E WOODMEN RD Eastbound				E WOODMEN RD Westbound				MERIDIAN RD Northbound				MERIDIAN RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
10:00 AM	0	55	42	14	0	18	60	9	0	40	63	8	0	21	100	119	549	2,506	0	0	0	0
10:15 AM	0	64	56	19	0	30	64	16	0	29	57	7	0	9	103	122	576	2,669	0	0	0	0
10:30 AM	1	66	61	14	0	20	82	19	0	35	73	18	0	12	106	156	663	2,741	0	0	0	0
10:45 AM	1	88	69	19	0	26	97	19	0	33	83	9	0	20	114	140	718	2,822	0	0	0	0
11:00 AM	3	101	73	38	0	30	72	15	0	50	73	12	0	19	108	118	712	2,842	0	0	1	0
11:15 AM	2	87	65	24	0	27	81	21	2	30	64	6	0	26	106	107	648	2,889	0	0	1	0
11:30 AM	1	98	63	37	0	30	74	16	0	50	89	21	0	23	124	118	744	3,033	0	0	0	0
11:45 AM	1	120	49	28	0	30	66	20	1	44	99	18	1	27	114	120	738	3,157	0	0	0	0
12:00 PM	1	100	69	22	0	32	77	19	0	44	110	14	1	28	120	122	759	3,222	0	0	0	0
12:15 PM	2	121	112	29	0	21	69	19	1	40	100	20	0	28	119	111	792	3,232	0	0	0	0
12:30 PM	3	129	109	37	0	28	91	24	0	49	109	22	0	28	125	114	868	3,181	0	0	0	0
12:45 PM	0	149	71	34	0	29	56	30	3	53	102	10	0	38	115	113	803	3,068	0	0	0	0
1:00 PM	1	141	89	38	0	20	56	25	4	34	91	16	0	40	99	115	769	3,048	0	0	0	0
1:15 PM	1	121	72	38	1	20	78	22	1	49	92	16	0	26	88	116	741		0	0	0	0
1:30 PM	1	130	72	33	0	24	75	22	3	29	94	22	0	43	113	94	755		0	0	0	0
1:45 PM	1	115	87	35	0	25	70	28	6	31	107	16	0	32	125	105	783		2	0	1	0
Count Total	19	1,685	1,159	459	1	410	1,168	324	21	640	1,406	235	2	420	1,779	1,890	11,618		2	0	3	0
Peak Hour	6	540	381	138	0	98	272	98	8	176	402	68	0	134	458	453	3,232		0	0	0	0



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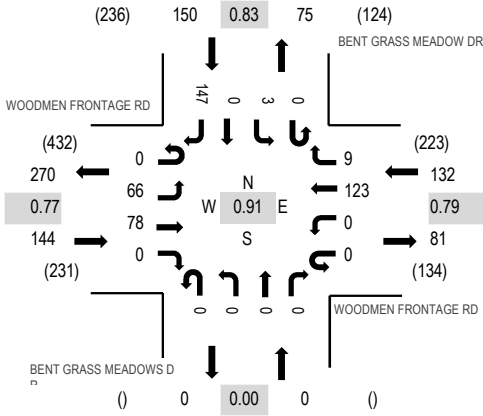
Location: 5 BENT GRASS MEADOWS DR & WOODMEN FRONTAGE RD

Date: Thursday, April 3, 2025

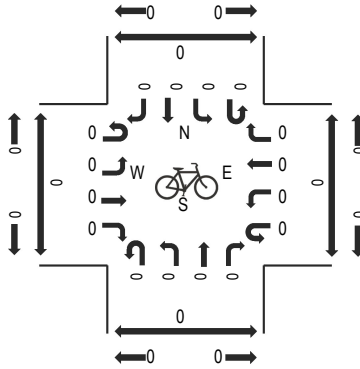
Peak Hour: 07:15 AM - 08:15 AM

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

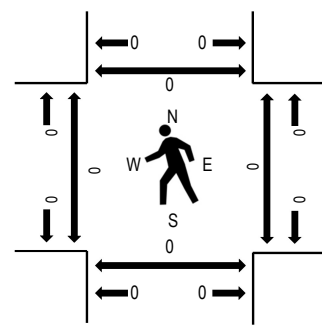
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WOODMEN FRONTAGE RD Eastbound		WOODMEN FRONTAGE RD Westbound				BENT GRASS MEADOWS DR Northbound				BENT GRASS MEADOW DR Southbound				Total	Rolling Hour	Pedestrian Crossings						
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left			Thru	Right	West	East	South	North	
	7:00 AM	0	4	7	0	0	0	24	2	0	0	0	0	0			0	2	0	28	67	376	0
7:15 AM	0	12	13	0	0	0	39	0	0	0	0	0	0	0	0	0	45	109	426	0	0	0	0
7:30 AM	0	15	13	0	0	0	24	4	0	0	0	0	0	2	0	39	97	375	0	0	0	0	0
7:45 AM	0	20	28	0	0	0	22	1	0	0	0	0	0	1	0	31	103	358	0	0	0	0	0
8:00 AM	0	19	24	0	0	0	38	4	0	0	0	0	0	0	0	32	117	314	0	0	0	0	0
8:15 AM	0	12	14	0	0	0	16	1	0	0	0	0	0	2	0	13	58	58	0	0	0	0	0
8:30 AM	0	14	16	0	0	0	26	2	0	0	0	0	0	3	0	19	80	80	0	0	0	0	0
8:45 AM	0	11	9	0	0	0	17	3	0	0	0	0	0	0	0	19	59	59	0	0	0	0	0
Count Total	0	107	124	0	0	0	206	17	0	0	0	0	0	10	0	226	690	690	0	0	0	0	0
Peak Hour	0	66	78	0	0	0	123	9	0	0	0	0	0	3	0	147	426	426	0	0	0	0	0



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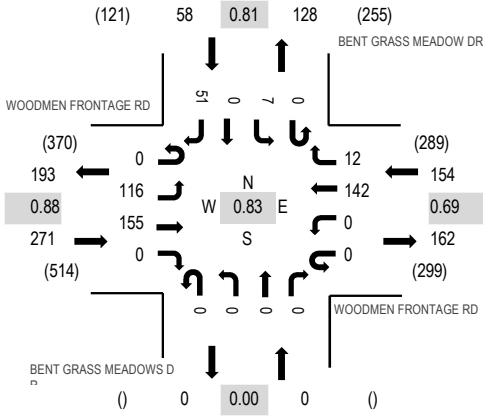
Location: 5 BENT GRASS MEADOWS DR & WOODMEN FRONTAGE RD

Date: Thursday, April 3, 2025

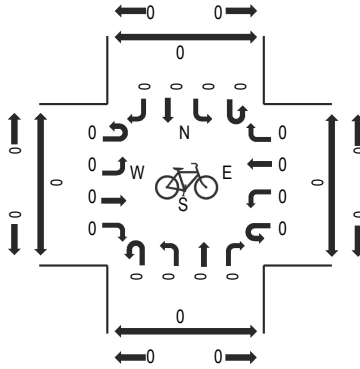
Peak Hour: 05:00 PM - 06:00 PM

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

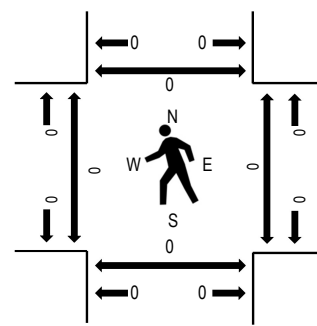
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WOODMEN FRONTAGE RD Eastbound		WOODMEN FRONTAGE RD Westbound			BENT GRASS MEADOWS DR Northbound			BENT GRASS MEADOW DR Southbound				Total	Rolling Hour	Pedestrian Crossings							
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North				
	4:00 PM	0	27	27	0	0	0	31	5	0	0	0			0	0	1	0	17	108	441	0
4:15 PM	0	22	37	0	0	0	32	1	0	0	0	0	0	1	0	18	111	435	0	0	0	0
4:30 PM	0	21	34	0	0	0	39	5	0	0	0	0	0	1	0	13	113	448	0	0	0	0
4:45 PM	0	41	34	0	0	0	17	5	0	0	0	0	0	2	0	10	109	480	0	0	0	0
5:00 PM	0	21	29	0	0	0	31	1	0	0	0	0	0	3	0	17	102	483	0	0	0	0
5:15 PM	0	38	42	0	0	0	28	3	0	0	0	0	0	1	0	12	124		0	0	0	0
5:30 PM	0	31	46	0	0	0	54	2	0	0	0	0	0	1	0	11	145		0	0	0	0
5:45 PM	0	26	38	0	0	0	29	6	0	0	0	0	0	2	0	11	112		0	0	0	0
Count Total	0	227	287	0	0	0	261	28	0	0	0	0	0	12	0	109	924		0	0	0	0
Peak Hour	0	116	155	0	0	0	142	12	0	0	0	0	0	7	0	51	483		0	0	0	0



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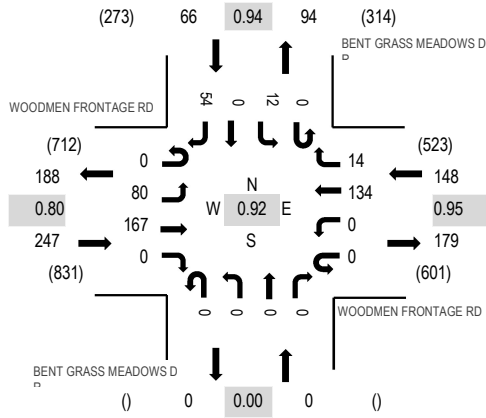
Location: 5 BENT GRASS MEADOWS DR & WOODMEN FRONTAGE RD AM

Date: Sunday, April 6, 2025

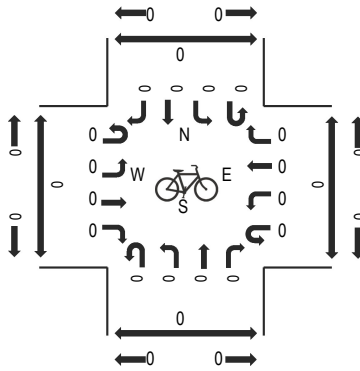
Peak Hour: 01:00 PM - 02:00 PM

Peak 15-Minutes: 01:15 PM - 01:30 PM

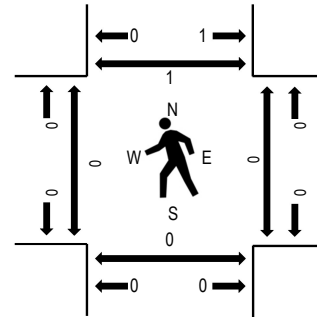
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WOODMEN FRONTAGE RD Eastbound		WOODMEN FRONTAGE RD Westbound			BENT GRASS MEADOWS DR Northbound			BENT GRASS MEADOWS DR Southbound				Total	Rolling Hour	Pedestrian Crossings							
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North				
	10:00 AM	0	6	20	0	0	0	27	1	0	0	0			0	0	1	0	19	74	334	0
10:15 AM	0	9	13	0	0	0	18	2	0	0	0	0	0	1	0	15	58	368	0	0	0	0
10:30 AM	0	13	36	0	0	0	31	1	0	0	0	0	0	0	0	14	95	414	0	0	0	0
10:45 AM	0	18	32	0	0	0	35	4	0	0	0	0	0	1	0	17	107	414	0	0	0	0
11:00 AM	0	19	39	0	0	0	34	6	0	0	0	0	0	1	0	9	108	399	0	0	0	0
11:15 AM	0	13	38	0	0	0	28	2	0	0	0	0	0	2	0	21	104	391	0	0	0	0
11:30 AM	0	20	30	0	0	0	30	2	0	0	0	0	0	0	0	13	95	401	0	0	0	0
11:45 AM	0	15	29	0	0	0	23	5	0	0	0	0	0	2	0	18	92	435	0	0	0	0
12:00 PM	0	15	29	0	0	0	32	3	0	0	0	0	0	2	0	19	100	433	0	0	0	0
12:15 PM	0	18	42	0	0	0	33	4	0	0	0	0	0	3	0	14	114	445	0	0	0	0
12:30 PM	0	21	58	0	0	0	25	4	0	0	0	0	0	2	0	19	129	456	0	0	0	0
12:45 PM	0	15	36	0	0	0	21	4	0	0	0	0	0	5	0	9	90	426	0	0	0	0
1:00 PM	0	22	41	0	0	0	33	5	0	0	0	0	0	4	0	7	112	461	0	0	0	0
1:15 PM	0	24	37	0	0	0	34	4	0	0	0	0	0	4	0	22	125		0	0	0	0
1:30 PM	0	15	40	0	0	0	31	2	0	0	0	0	0	2	0	9	99		0	0	0	0
1:45 PM	0	19	49	0	0	0	36	3	0	0	0	0	0	2	0	16	125		0	0	0	1
Count Total	0	262	569	0	0	0	471	52	0	0	0	0	0	32	0	241	1,627		0	0	0	1
Peak Hour	0	80	167	0	0	0	134	14	0	0	0	0	0	12	0	54	461		0	0	0	1



All Traffic Data Services

6 - BENT GRASS MEADOW DR WEST OF MERIDIAN RD

Time	EB	WB	Total
4/3/2025	3	4	7
4/3/2025 12:15:00 AM	3	0	3
4/3/2025 12:30:00 AM	1	2	3
4/3/2025 12:45:00 AM	0	1	1
4/3/2025 1:00:00 AM	2	1	3
4/3/2025 1:15:00 AM	0	2	2
4/3/2025 1:30:00 AM	0	3	3
4/3/2025 1:45:00 AM	1	1	2
4/3/2025 2:00:00 AM	0	1	1
4/3/2025 2:15:00 AM	2	3	5
4/3/2025 2:30:00 AM	0	0	0
4/3/2025 2:45:00 AM	2	2	4
4/3/2025 3:00:00 AM	2	0	2
4/3/2025 3:15:00 AM	1	0	1
4/3/2025 3:30:00 AM	2	0	2
4/3/2025 3:45:00 AM	4	1	5
4/3/2025 4:00:00 AM	0	0	0
4/3/2025 4:15:00 AM	4	2	6
4/3/2025 4:30:00 AM	2	0	2
4/3/2025 4:45:00 AM	6	6	12
4/3/2025 5:00:00 AM	5	6	11
4/3/2025 5:15:00 AM	8	8	16
4/3/2025 5:30:00 AM	10	7	17
4/3/2025 5:45:00 AM	14	10	24
4/3/2025 6:00:00 AM	18	15	33
4/3/2025 6:15:00 AM	25	14	39
4/3/2025 6:30:00 AM	26	21	47
4/3/2025 6:45:00 AM	34	30	64
4/3/2025 7:00:00 AM	42	41	83
4/3/2025 7:15:00 AM	53	49	102
4/3/2025 7:30:00 AM	55	58	113
4/3/2025 7:45:00 AM	56	52	108
4/3/2025 8:00:00 AM	41	43	84
4/3/2025 8:15:00 AM	44	41	85
4/3/2025 8:30:00 AM	37	43	80
4/3/2025 8:45:00 AM	31	36	67
4/3/2025 9:00:00 AM	25	33	58
4/3/2025 9:15:00 AM	35	26	61
4/3/2025 9:30:00 AM	24	27	51
4/3/2025 9:45:00 AM	31	28	59
4/3/2025 10:00:00 AM	34	30	64
4/3/2025 10:15:00 AM	34	34	68
4/3/2025 10:30:00 AM	33	29	62
4/3/2025 10:45:00 AM	27	25	52
4/3/2025 11:00:00 AM	43	39	82
4/3/2025 11:15:00 AM	50	41	91
4/3/2025 11:30:00 AM	35	30	65
4/3/2025 11:45:00 AM	33	29	62
Total	938	874	1,812
Percentage	51.8%	48.2%	
Peak Hour	7:00 AM	7:15 AM	7:15 AM
Volume	206	202	407
PHF	0.920	0.871	0.900



All Traffic Data Services

6 - BENT GRASS MEADOW DR WEST OF MERIDIAN RD

Time	EB	WB	Total
4/3/2025 12:00:00 PM	46	36	82
4/3/2025 12:15:00 PM	36	34	70
4/3/2025 12:30:00 PM	32	40	72
4/3/2025 12:45:00 PM	39	33	72
4/3/2025 1:00:00 PM	31	39	70
4/3/2025 1:15:00 PM	36	39	75
4/3/2025 1:30:00 PM	42	29	71
4/3/2025 1:45:00 PM	39	31	70
4/3/2025 2:00:00 PM	28	23	51
4/3/2025 2:15:00 PM	27	22	49
4/3/2025 2:30:00 PM	41	33	74
4/3/2025 2:45:00 PM	50	37	87
4/3/2025 3:00:00 PM	53	33	86
4/3/2025 3:15:00 PM	39	60	99
4/3/2025 3:30:00 PM	54	37	91
4/3/2025 3:45:00 PM	47	41	88
4/3/2025 4:00:00 PM	58	52	110
4/3/2025 4:15:00 PM	32	39	71
4/3/2025 4:30:00 PM	46	39	85
4/3/2025 4:45:00 PM	37	36	73
4/3/2025 5:00:00 PM	55	54	109
4/3/2025 5:15:00 PM	39	47	86
4/3/2025 5:30:00 PM	52	35	87
4/3/2025 5:45:00 PM	40	38	78
4/3/2025 6:00:00 PM	37	35	72
4/3/2025 6:15:00 PM	34	27	61
4/3/2025 6:30:00 PM	30	30	60
4/3/2025 6:45:00 PM	25	23	48
4/3/2025 7:00:00 PM	23	25	48
4/3/2025 7:15:00 PM	27	23	50
4/3/2025 7:30:00 PM	28	15	43
4/3/2025 7:45:00 PM	18	13	31
4/3/2025 8:00:00 PM	21	22	43
4/3/2025 8:15:00 PM	23	14	37
4/3/2025 8:30:00 PM	21	9	30
4/3/2025 8:45:00 PM	21	20	41
4/3/2025 9:00:00 PM	14	10	24
4/3/2025 9:15:00 PM	10	8	18
4/3/2025 9:30:00 PM	12	7	19
4/3/2025 9:45:00 PM	9	9	18
4/3/2025 10:00:00 PM	11	8	19
4/3/2025 10:15:00 PM	11	5	16
4/3/2025 10:30:00 PM	7	15	22
4/3/2025 10:45:00 PM	8	4	12
4/3/2025 11:00:00 PM	3	4	7
4/3/2025 11:15:00 PM	2	4	6
4/3/2025 11:30:00 PM	4	1	5
4/3/2025 11:45:00 PM	3	0	3
Total	1,401	1,238	2,639
Percentage	53.1%	46.9%	
Peak Hour	3:15 PM	3:15 PM	3:15 PM
Volume	198	190	388
PHF	0.853	0.792	0.882
Grand Total	2,339	2,112	4,451
Percentage	52.5%	47.5%	



All Traffic Data Services

6 - BENT GRASS MEADOW DR WEST OF MERIDIAN RD

Time	EB	WB	Total
4/6/2025	3	8	11
4/6/2025 12:15:00 AM	7	4	11
4/6/2025 12:30:00 AM	4	2	6
4/6/2025 12:45:00 AM	3	1	4
4/6/2025 1:00:00 AM	2	3	5
4/6/2025 1:15:00 AM	4	2	6
4/6/2025 1:30:00 AM	2	2	4
4/6/2025 1:45:00 AM	2	1	3
4/6/2025 2:00:00 AM	2	1	3
4/6/2025 2:15:00 AM	0	1	1
4/6/2025 2:30:00 AM	2	3	5
4/6/2025 2:45:00 AM	3	0	3
4/6/2025 3:00:00 AM	0	1	1
4/6/2025 3:15:00 AM	3	1	4
4/6/2025 3:30:00 AM	2	1	3
4/6/2025 3:45:00 AM	3	2	5
4/6/2025 4:00:00 AM	0	2	2
4/6/2025 4:15:00 AM	4	2	6
4/6/2025 4:30:00 AM	0	0	0
4/6/2025 4:45:00 AM	1	1	2
4/6/2025 5:00:00 AM	3	4	7
4/6/2025 5:15:00 AM	3	2	5
4/6/2025 5:30:00 AM	9	7	16
4/6/2025 5:45:00 AM	3	2	5
4/6/2025 6:00:00 AM	4	2	6
4/6/2025 6:15:00 AM	5	10	15
4/6/2025 6:30:00 AM	7	2	9
4/6/2025 6:45:00 AM	9	3	12
4/6/2025 7:00:00 AM	4	3	7
4/6/2025 7:15:00 AM	7	8	15
4/6/2025 7:30:00 AM	13	11	24
4/6/2025 7:45:00 AM	12	19	31
4/6/2025 8:00:00 AM	18	18	36
4/6/2025 8:15:00 AM	17	15	32
4/6/2025 8:30:00 AM	23	14	37
4/6/2025 8:45:00 AM	18	22	40
4/6/2025 9:00:00 AM	25	18	43
4/6/2025 9:15:00 AM	23	21	44
4/6/2025 9:30:00 AM	31	22	53
4/6/2025 9:45:00 AM	35	30	65
4/6/2025 10:00:00 AM	35	39	74
4/6/2025 10:15:00 AM	32	30	62
4/6/2025 10:30:00 AM	30	25	55
4/6/2025 10:45:00 AM	32	22	54
4/6/2025 11:00:00 AM	26	23	49
4/6/2025 11:15:00 AM	38	31	69
4/6/2025 11:30:00 AM	29	40	69
4/6/2025 11:45:00 AM	34	27	61
Total	572	508	1,080
Percentage	53.0%	47.0%	
Peak Hour	9:30 AM	9:45 AM	9:45 AM
Volume	133	124	256
PHF	0.950	0.795	0.865



All Traffic Data Services

6 - BENT GRASS MEADOW DR WEST OF MERIDIAN RD

Time	EB	WB	Total
4/6/2025 12:00:00 PM	41	30	71
4/6/2025 12:15:00 PM	34	35	69
4/6/2025 12:30:00 PM	42	38	80
4/6/2025 12:45:00 PM	32	42	74
4/6/2025 1:00:00 PM	46	31	77
4/6/2025 1:15:00 PM	43	29	72
4/6/2025 1:30:00 PM	34	43	77
4/6/2025 1:45:00 PM	35	33	68
4/6/2025 2:00:00 PM	42	48	90
4/6/2025 2:15:00 PM	36	34	70
4/6/2025 2:30:00 PM	36	29	65
4/6/2025 2:45:00 PM	31	41	72
4/6/2025 3:00:00 PM	39	33	72
4/6/2025 3:15:00 PM	41	40	81
4/6/2025 3:30:00 PM	38	29	67
4/6/2025 3:45:00 PM	36	42	78
4/6/2025 4:00:00 PM	32	37	69
4/6/2025 4:15:00 PM	40	36	76
4/6/2025 4:30:00 PM	35	32	67
4/6/2025 4:45:00 PM	43	28	71
4/6/2025 5:00:00 PM	24	26	50
4/6/2025 5:15:00 PM	27	23	50
4/6/2025 5:30:00 PM	32	26	58
4/6/2025 5:45:00 PM	21	30	51
4/6/2025 6:00:00 PM	32	25	57
4/6/2025 6:15:00 PM	31	15	46
4/6/2025 6:30:00 PM	17	23	40
4/6/2025 6:45:00 PM	23	20	43
4/6/2025 7:00:00 PM	15	14	29
4/6/2025 7:15:00 PM	16	23	39
4/6/2025 7:30:00 PM	24	21	45
4/6/2025 7:45:00 PM	13	19	32
4/6/2025 8:00:00 PM	16	7	23
4/6/2025 8:15:00 PM	24	19	43
4/6/2025 8:30:00 PM	10	17	27
4/6/2025 8:45:00 PM	14	12	26
4/6/2025 9:00:00 PM	21	14	35
4/6/2025 9:15:00 PM	6	15	21
4/6/2025 9:30:00 PM	8	5	13
4/6/2025 9:45:00 PM	7	8	15
4/6/2025 10:00:00 PM	9	9	18
4/6/2025 10:15:00 PM	9	11	20
4/6/2025 10:30:00 PM	7	12	19
4/6/2025 10:45:00 PM	12	8	20
4/6/2025 11:00:00 PM	5	2	7
4/6/2025 11:15:00 PM	2	1	3
4/6/2025 11:30:00 PM	3	1	4
4/6/2025 11:45:00 PM	2	4	6
Total	1,186	1,120	2,306
Percentage	51.4%	48.6%	
Peak Hour	12:30 PM	1:30 PM	1:15 PM
Volume	163	158	307
PHF	0.886	0.823	0.853
Grand Total	1,758	1,628	3,386
Percentage	51.9%	48.1%	



All Traffic Data Services

7 - MERIDIAN RD SOUTH OF BENT GRASS MEADOW DR

Time	NB	SB	Total
4/3/2025	25	7	32
4/3/2025 12:15:00 AM	11	4	15
4/3/2025 12:30:00 AM	13	4	17
4/3/2025 12:45:00 AM	7	3	10
4/3/2025 1:00:00 AM	13	5	18
4/3/2025 1:15:00 AM	8	1	9
4/3/2025 1:30:00 AM	7	4	11
4/3/2025 1:45:00 AM	5	4	9
4/3/2025 2:00:00 AM	8	1	9
4/3/2025 2:15:00 AM	6	2	8
4/3/2025 2:30:00 AM	2	3	5
4/3/2025 2:45:00 AM	10	3	13
4/3/2025 3:00:00 AM	5	13	18
4/3/2025 3:15:00 AM	2	19	21
4/3/2025 3:30:00 AM	1	16	17
4/3/2025 3:45:00 AM	7	17	24
4/3/2025 4:00:00 AM	4	15	19
4/3/2025 4:15:00 AM	4	34	38
4/3/2025 4:30:00 AM	6	45	51
4/3/2025 4:45:00 AM	4	44	48
4/3/2025 5:00:00 AM	7	83	90
4/3/2025 5:15:00 AM	11	64	75
4/3/2025 5:30:00 AM	16	126	142
4/3/2025 5:45:00 AM	19	143	162
4/3/2025 6:00:00 AM	28	214	242
4/3/2025 6:15:00 AM	54	253	307
4/3/2025 6:30:00 AM	75	321	396
4/3/2025 6:45:00 AM	87	377	464
4/3/2025 7:00:00 AM	140	414	554
4/3/2025 7:15:00 AM	161	404	565
4/3/2025 7:30:00 AM	175	416	591
4/3/2025 7:45:00 AM	157	344	501
4/3/2025 8:00:00 AM	177	330	507
4/3/2025 8:15:00 AM	153	288	441
4/3/2025 8:30:00 AM	176	309	485
4/3/2025 8:45:00 AM	147	231	378
4/3/2025 9:00:00 AM	135	210	345
4/3/2025 9:15:00 AM	123	227	350
4/3/2025 9:30:00 AM	138	229	367
4/3/2025 9:45:00 AM	130	210	340
4/3/2025 10:00:00 AM	145	206	351
4/3/2025 10:15:00 AM	157	206	363
4/3/2025 10:30:00 AM	136	216	352
4/3/2025 10:45:00 AM	180	192	372
4/3/2025 11:00:00 AM	192	213	405
4/3/2025 11:15:00 AM	218	212	430
4/3/2025 11:30:00 AM	199	187	386
4/3/2025 11:45:00 AM	208	197	405
Total	3,692	7,066	10,758
Percentage	34.3%	65.7%	
Peak Hour	11:00 AM	6:45 AM	7:00 AM
Volume	817	1,611	2,211
PHF	0.937	0.968	0.935



All Traffic Data Services

7 - MERIDIAN RD SOUTH OF BENT GRASS MEADOW DR

Time	NB	SB	Total
4/3/2025 12:00:00 PM	208	224	432
4/3/2025 12:15:00 PM	197	180	377
4/3/2025 12:30:00 PM	200	201	401
4/3/2025 12:45:00 PM	193	211	404
4/3/2025 1:00:00 PM	198	167	365
4/3/2025 1:15:00 PM	223	179	402
4/3/2025 1:30:00 PM	191	203	394
4/3/2025 1:45:00 PM	204	174	378
4/3/2025 2:00:00 PM	214	179	393
4/3/2025 2:15:00 PM	229	197	426
4/3/2025 2:30:00 PM	250	226	476
4/3/2025 2:45:00 PM	273	203	476
4/3/2025 3:00:00 PM	272	233	505
4/3/2025 3:15:00 PM	335	294	629
4/3/2025 3:30:00 PM	298	267	565
4/3/2025 3:45:00 PM	378	262	640
4/3/2025 4:00:00 PM	374	271	645
4/3/2025 4:15:00 PM	407	234	641
4/3/2025 4:30:00 PM	390	236	626
4/3/2025 4:45:00 PM	394	233	627
4/3/2025 5:00:00 PM	390	256	646
4/3/2025 5:15:00 PM	374	259	633
4/3/2025 5:30:00 PM	399	214	613
4/3/2025 5:45:00 PM	394	214	608
4/3/2025 6:00:00 PM	327	256	583
4/3/2025 6:15:00 PM	299	195	494
4/3/2025 6:30:00 PM	293	171	464
4/3/2025 6:45:00 PM	259	133	392
4/3/2025 7:00:00 PM	217	150	367
4/3/2025 7:15:00 PM	194	144	338
4/3/2025 7:30:00 PM	216	107	323
4/3/2025 7:45:00 PM	181	92	273
4/3/2025 8:00:00 PM	181	92	273
4/3/2025 8:15:00 PM	197	93	290
4/3/2025 8:30:00 PM	131	65	196
4/3/2025 8:45:00 PM	159	61	220
4/3/2025 9:00:00 PM	137	42	179
4/3/2025 9:15:00 PM	116	58	174
4/3/2025 9:30:00 PM	90	36	126
4/3/2025 9:45:00 PM	81	40	121
4/3/2025 10:00:00 PM	65	31	96
4/3/2025 10:15:00 PM	53	27	80
4/3/2025 10:30:00 PM	52	31	83
4/3/2025 10:45:00 PM	56	17	73
4/3/2025 11:00:00 PM	35	15	50
4/3/2025 11:15:00 PM	28	8	36
4/3/2025 11:30:00 PM	20	10	30
4/3/2025 11:45:00 PM	25	10	35
Total	10,397	7,201	17,598
Percentage	59.1%	40.9%	
Peak Hour	4:15 PM	3:15 PM	3:45 PM
Volume	1,581	1,094	2,552
PHF	0.971	0.930	0.989
Grand Total	14,089	14,267	28,356
Percentage	49.7%	50.3%	



All Traffic Data Services

7 - MERIDIAN RD SOUTH OF BENT GRASS MEADOW DR

Time	NB	SB	Total
4/6/2025	37	20	57
4/6/2025 12:15:00 AM	23	12	35
4/6/2025 12:30:00 AM	29	14	43
4/6/2025 12:45:00 AM	15	14	29
4/6/2025 1:00:00 AM	16	14	30
4/6/2025 1:15:00 AM	7	13	20
4/6/2025 1:30:00 AM	19	9	28
4/6/2025 1:45:00 AM	10	7	17
4/6/2025 2:00:00 AM	13	7	20
4/6/2025 2:15:00 AM	10	4	14
4/6/2025 2:30:00 AM	8	4	12
4/6/2025 2:45:00 AM	5	6	11
4/6/2025 3:00:00 AM	7	3	10
4/6/2025 3:15:00 AM	5	8	13
4/6/2025 3:30:00 AM	4	7	11
4/6/2025 3:45:00 AM	6	9	15
4/6/2025 4:00:00 AM	4	6	10
4/6/2025 4:15:00 AM	4	11	15
4/6/2025 4:30:00 AM	6	13	19
4/6/2025 4:45:00 AM	9	12	21
4/6/2025 5:00:00 AM	5	24	29
4/6/2025 5:15:00 AM	5	14	19
4/6/2025 5:30:00 AM	6	46	52
4/6/2025 5:45:00 AM	10	35	45
4/6/2025 6:00:00 AM	7	41	48
4/6/2025 6:15:00 AM	18	41	59
4/6/2025 6:30:00 AM	20	63	83
4/6/2025 6:45:00 AM	24	54	78
4/6/2025 7:00:00 AM	27	57	84
4/6/2025 7:15:00 AM	33	84	117
4/6/2025 7:30:00 AM	38	101	139
4/6/2025 7:45:00 AM	50	137	187
4/6/2025 8:00:00 AM	67	140	207
4/6/2025 8:15:00 AM	78	174	252
4/6/2025 8:30:00 AM	86	214	300
4/6/2025 8:45:00 AM	88	164	252
4/6/2025 9:00:00 AM	98	213	311
4/6/2025 9:15:00 AM	122	181	303
4/6/2025 9:30:00 AM	102	273	375
4/6/2025 9:45:00 AM	144	258	402
4/6/2025 10:00:00 AM	122	239	361
4/6/2025 10:15:00 AM	143	245	388
4/6/2025 10:30:00 AM	147	249	396
4/6/2025 10:45:00 AM	186	266	452
4/6/2025 11:00:00 AM	184	234	418
4/6/2025 11:15:00 AM	172	220	392
4/6/2025 11:30:00 AM	203	259	462
4/6/2025 11:45:00 AM	224	253	477
Total	2,646	4,472	7,118
Percentage	37.2%	62.8%	
Peak Hour	11:00 AM	9:30 AM	11:00 AM
Volume	783	1,015	1,750
PHF	0.874	0.929	0.917



All Traffic Data Services

7 - MERIDIAN RD SOUTH OF BENT GRASS MEADOW DR

Time	NB	SB	Total
4/6/2025 12:00:00 PM	249	237	486
4/6/2025 12:15:00 PM	243	258	501
4/6/2025 12:30:00 PM	272	246	518
4/6/2025 12:45:00 PM	290	231	521
4/6/2025 1:00:00 PM	270	233	503
4/6/2025 1:15:00 PM	226	222	448
4/6/2025 1:30:00 PM	252	226	478
4/6/2025 1:45:00 PM	254	238	492
4/6/2025 2:00:00 PM	274	226	500
4/6/2025 2:15:00 PM	221	194	415
4/6/2025 2:30:00 PM	220	204	424
4/6/2025 2:45:00 PM	263	190	453
4/6/2025 3:00:00 PM	231	226	457
4/6/2025 3:15:00 PM	252	205	457
4/6/2025 3:30:00 PM	233	223	456
4/6/2025 3:45:00 PM	250	213	463
4/6/2025 4:00:00 PM	240	221	461
4/6/2025 4:15:00 PM	235	203	438
4/6/2025 4:30:00 PM	237	184	421
4/6/2025 4:45:00 PM	216	194	410
4/6/2025 5:00:00 PM	242	189	431
4/6/2025 5:15:00 PM	184	191	375
4/6/2025 5:30:00 PM	227	163	390
4/6/2025 5:45:00 PM	230	167	397
4/6/2025 6:00:00 PM	207	155	362
4/6/2025 6:15:00 PM	201	157	358
4/6/2025 6:30:00 PM	194	141	335
4/6/2025 6:45:00 PM	184	141	325
4/6/2025 7:00:00 PM	170	115	285
4/6/2025 7:15:00 PM	164	109	273
4/6/2025 7:30:00 PM	131	126	257
4/6/2025 7:45:00 PM	141	95	236
4/6/2025 8:00:00 PM	140	97	237
4/6/2025 8:15:00 PM	134	79	213
4/6/2025 8:30:00 PM	134	97	231
4/6/2025 8:45:00 PM	113	60	173
4/6/2025 9:00:00 PM	66	51	117
4/6/2025 9:15:00 PM	76	53	129
4/6/2025 9:30:00 PM	61	50	111
4/6/2025 9:45:00 PM	62	31	93
4/6/2025 10:00:00 PM	49	35	84
4/6/2025 10:15:00 PM	60	21	81
4/6/2025 10:30:00 PM	52	16	68
4/6/2025 10:45:00 PM	36	23	59
4/6/2025 11:00:00 PM	21	20	41
4/6/2025 11:15:00 PM	22	9	31
4/6/2025 11:30:00 PM	19	16	35
4/6/2025 11:45:00 PM	15	6	21
Total	8,263	6,787	15,050
Percentage	54.9%	45.1%	
Peak Hour	12:15 PM	12:00 PM	12:15 PM
Volume	1,076	972	2,044
PHF	0.928	0.942	0.981
Grand Total	10,909	11,259	22,168
Percentage	49.2%	50.8%	

ITE CODE LAND USE UNIT			TRIP GENERATION RATES			
			SUNDAY			
			24 HOUR	PEAK HOUR OF GENERATOR		
ENTER	EXIT	TOTAL				
822	Strip Retail Plaza (<40k)	KSF	65.80	3.35	3.22	6.57
934	Fast Food Restaurant w/DTW	KSF	472.58	26.47	28.68	55.15

Key: KSF = Thousand Square Feet Gross Floor Area.

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

ITE CODE LAND USE SIZE				TOTAL TRIPS GENERATED			
				SUNDAY			
				24 HOUR	PEAK HOUR OF GENERATOR		
ENTER	EXIT	TOTAL					
822	Strip Retail Plaza (<40k)	13.4 KSF	882	45	43	88	
934	Fast Food Restaurant w/DTW	5.1 KSF	2,410	135	146	281	
<i>Total:</i>			3,292	180	189	369	

Key: KSF = Thousand Square Feet Gross Floor Area.

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

APPENDIX B

Signal Timing Information

126 - Woodmen Road @ Meridian
 Table 1 - Timing and Functions Page 0
 06/14/2018 7:24 AM

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				WBLT	EB	NBLT	SB	EBLT	WB	SBLT	NB	
0 + Key			Phase + Key				Phase					
FUNCTION	KEY	12345678	FUNCTION	KEY	Ph 1	Ph 2	Ph 3	Ph 4	Ph 5	Ph 6	Ph 7	Ph 8
Vehicle Recall	0	2 6	Max I	0	25	60	25	50	50	60	40	50
Ped Recall	1		Max II/HFDW	1	25	60	25	50	50	60	40	50
Red Lock	2		Walk	2	0	5	0	5	0	5	0	5
Yellow Lock	3		Flashing DW	3	0	28	0	28	0	27	0	29
Permits	4	12345678	Max Initial	4	0	0	0	0	0	0	0	0
Ped Phases	5	2 4 6 8	Min Green	5	4	23	8	16	4	23	8	16
Lead Phases	6	1 3 5 7	TBR	6	0	0	0	0	0	0	0	0
Double Entry	7	4 8	TTR	7	0	0	0	0	0	0	0	0
Sequential Timing	8		Observe Gap	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Startup Green	9		Passage	9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Overlap A	A		Min Gap	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overlap B	B		Added Actuation	B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overlap C	C		Yellow	C	4.0	5.2	4.0	5.2	4.0	5.2	4.0	5.2
Overlap D	D		Red Clear	D	3.0	2.1	3.3	2.1	3.5	2.1	2.8	2.1
Exclusive	E		Red Revert	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Simultaneous Gap	F	2 4 6 8	Walk II	F	0	0	0	0	0	0	0	0

passage on phase 1 extended to 1.0 sec
 5
 3
 7 to .5 sec
 RO
 1-14-19

Omni eX v1.4 - Unit & Phase Configuration



Agency: _____ **DATE PREPARED:** 5/4/2022 **By:** DLM
Location: Meridian Road & Bent Grass Meadows **DATE IMPLEMENTED:** _____ **By:** _____
System ID: _____

1.2 Unit Setup																
Auto PED Clr																
Red Revert																
Min Yellow																
TX Diamond																
Diamond Type																

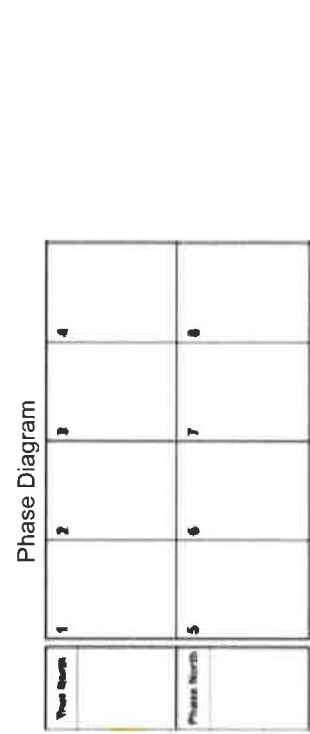
1.4 Channel Setup (1-16)																
Type																
Source																
Alt 1/2 Hz																
Fish Red																
Fish Yel																

1.3 Startup																
Start-Up Phases																
Next Phase																
Flash																
All Red																
Start Veh Call																
Start Ped Call																

1.4 Channel Setup (17-32)																
Type																
Source																
Alt 1/2 Hz																
Fish Red																
Fish Yel																

2.4 Phase Concurrency																
Phase 1																
Phase 2																
Phase 3																
Phase 4																
Phase 5																
Phase 6																
Phase 7																
Phase 8																
Phase 9																
Phase 10																
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings																
Enabled																
Ring1																
Ring2																
Ring3																
Ring4																



B.3 System Information	
System Id	
Name	
Location	

S.1 Coordination Constants	
Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	Begin Yellow
No Early Return	Disable
Sync Ref Time	0
Operational Mode	



Omni eX v1.4 - NEMA TS1 I/O Mapping

Agency: _____ Date Prepared: _____ By: _____
 Location: _____ Date Implemented: _____ By: _____
 System ID: _____

1.5.1.1 Nema ABCD Input Mapping											
Pins	Function	IDX	Pins	Function	IDX	Pins	Function	IDX	Pins	Function	IDX
A-f	Vehicle Detector	1	B-m	Phase Ped Omit	7	A-k	Man Control Enable	1	D-V	Unused Input	1
A-K	Vehicle Detector	2	B-n	Phase Ped Omit	8	A-q	Mode Select Bit	1	D-W	Unused Input	1
B-N	Vehicle Detector	3	B-U	Phase Omit	1	A-y	Mode Select Bit	2	D-X	Unused Input	1
B-L	Vehicle Detector	4	B-S	Phase Omit	2	A-HH	Mode Select Bit	3	D-Y	Free (no Coord)	1
C-P	Vehicle Detector	5	B-R	Phase Omit	3	A-n	Test	1	D-Z	Unused Input	1
C-S	Vehicle Detector	6	B-g	Phase Omit	4	A-AA	Test	2	D-a	Unused Input	1
C-V	Vehicle Detector	7	C-n	Phase Omit	5	C-b	Test	3	D-b	Alarm	1
C-t	Vehicle Detector	8	C-q	Phase Omit	6	A-BB	Walk Rest Modifier	1	D-c	Alarm	2
A-g	Pedestrian Detector	1	C-r	Phase Omit	7	B-B	Unused Input	1	D-d	Alarm	3
A-L	Pedestrian Detector	2	C-s	Phase Omit	8	B-W	Unused Input	1	D-e	Alarm	4
B-P	Pedestrian Detector	3	A-i	Force Off Ring	1	B-X	Unused Input	1	D-f	Alarm	5
B-M	Pedestrian Detector	4	A-N	Stop Time Ring	1	B-y	Unused Input	1	D-g	Local Flash Sense	1
C-R	Pedestrian Detector	5	A-P	Inhibit Max Ring	1	D-A	Vehicle Detector	9	D-h	Mmu Flash	1
C-T	Pedestrian Detector	6	A-x	Red Rest Ring	1	D-B	Vehicle Detector	10	D-i	Door Ajar	1
C-U	Pedestrian Detector	7	A-FF	Ped Recycle Ring	1	D-C	Vehicle Detector	11	D-j	Special Func Input	1
C-W	Pedestrian Detector	8	A-GG	Max Ii Ring	1	D-D	Vehicle Detector	12	D-k	Special Func Input	2
A-h	Phase Hold	1	A-w	Omit Red Clear Ring	1	D-E	Vehicle Detector	13	D-m	Special Func Input	3
A-M	Phase Hold	2	A-m	Call To Na	1	D-F	Vehicle Detector	14	D-n	Special Func Input	4
B-i	Phase Hold	3	C-Y	Force Off Ring	2	D-G	Vehicle Detector	15	D-p	Special Func Input	5
B-h	Phase Hold	4	C-Z	Stop Time Ring	2	D-H	Vehicle Detector	16	D-q	Special Func Input	6
C-m	Phase Hold	5	C-a	Inhibit Max Ring	2	D-J	Vehicle Detector	17	D-r	Special Func Input	7
C-p	Phase Hold	6	C-u	Red Rest Ring	2	D-K	Vehicle Detector	18	D-s	Special Func Input	8
C-EE	Phase Hold	7	B-V	Ped Recycle Ring	2	D-L	Vehicle Detector	19	D-t	Preempt Detector	1
C-X	Phase Hold	8	B-z	Max Ii Ring	2	D-M	Vehicle Detector	20	D-u	Preempt Detector	2
A-EE	Phase Ped Omit	1	C-v	Omit Red Clear Ring	2	D-N	Vehicle Detector	21	D-v	Preempt Detector	3
A-v	Phase Ped Omit	2	A-z	Call To Na	2	D-P	Vehicle Detector	22	D-w	Preempt Detector	4
B-j	Phase Ped Omit	3	A-R	External Start	1	D-R	Vehicle Detector	23	D-x	Preempt Detector	5
B-x	Phase Ped Omit	4	A-S	Interval Advance	1	D-S	Vehicle Detector	24	D-y	Preempt Detector	6
B-T	Phase Ped Omit	5	A-T	Unused Input	1	D-T	Clock Update	1	D-KK	Unused Input	1
B-k	Phase Ped Omit	6	A-j	Min Recall	1	D-U	Unused Input	1	D-MM	Unused Input	1

1.5.1.2 Nema ABCD Output Mapping											
Pins	Function	IDX	Pins	Function	IDX	Pins	Function	IDX	Pins	Function	IDX
A-D	Channel Red	1	B-a	Unused Output	1	C-k	Phase Check	5	A-A	Fault Monitor	1
A-F	Channel Red	2	B-j	Channel Red	10	C-BB	Phase Check	6	A-C	Voltage Monitor	1
B-F	Channel Red	3	C-L	Unused Output	1	C-MM	Phase Check	7	B-FF	Channel Green	15
B-G	Channel Red	4	C-z	Channel Red	11	C-FF	Phase Check	8	B-HH	Channel Yellow	15
C-H	Channel Red	5	C-y	Unused Output	1	B-A	Phase Next	1	B-DD	Channel Red	15
C-G	Channel Red	6	C-C	Channel Red	12	B-C	Phase Next	2	B-w	Channel Green	16
C-F	Channel Red	7	A-a	Unused Output	1	B-t	Phase Next	3	B-EE	Channel Yellow	16
C-D	Channel Red	8	A-H	Channel Yellow	9	B-f	Phase Next	4	B-u	Channel Red	16
A-Z	Channel Yellow	1	B-Z	Unused Output	1	C-M	Phase Next	5	A-X	Flash Logic Output	1
A-b	Channel Yellow	2	B-H	Channel Yellow	10	C-DD	Phase Next	6	D-LL	Detector Reset	1
B-E	Channel Yellow	3	C-K	Unused Output	1	C-PP	Phase Next	7	A-GG	Status A	1
B-c	Channel Yellow	4	C-AA	Channel Yellow	11	C-HH	Phase Next	8	A-r	Status B	1
C-j	Channel Yellow	5	C-KK	Unused Output	1	A-DD	Phase On	1	A-Y	Status C	1
C-h	Channel Yellow	6	C-w	Channel Yellow	12	A-e	Phase On	2	C-A	Status A	2
C-E	Channel Yellow	7	A-t	Unused Output	1	B-s	Phase On	3	C-B	Status B	2
C-e	Channel Yellow	8	A-l	Channel Green	9	B-e	Phase On	4	C-c	Status C	2
A-s	Channel Green	1	B-Y	Unused Output	1	C-N	Phase On	5	D-z	Alarm Output	1
A-c	Channel Green	2	B-d	Channel Green	10	C-CC	Phase On	6	D-AA	Alarm Output	2
B-D	Channel Green	3	C-j	Unused Output	1	C-NN	Phase On	7	D-BB	Special Func Output	1
B-b	Channel Green	4	C-LL	Channel Green	11	C-GG	Phase On	8	D-CC	Special Func Output	2
C-i	Channel Green	5	C-JJ	Unused Output	1	B-AA	Channel Green	13	D-DD	Special Func Output	3
C-g	Channel Green	6	C-d	Channel Green	12	B-p	Channel Yellow	13	D-EE	Special Func Output	4
C-f	Channel Green	7	A-u	Phase Check	1	B-q	Channel Red	13	D-FF	Special Func Output	5
C-x	Channel Green	8	A-d	Phase Check	2	B-GG	Channel Green	14	D-GG	Special Func Output	6
A-E	Unused Output	1	B-r	Phase Check	3	B-BB	Channel Yellow	14	D-HH	Special Func Output	7
A-G	Channel Red	9	B-K	Phase Check	4	B-CC	Channel Red	14	D-JJ	Special Func Output	8

Omni eX v1.4 - 2070 FIO I/O Mapping



Agency: _____
 Location: _____
 System ID: _____

Date Prepared: _____ By: _____
 Date Implemented: _____ By: _____

1.5.3.1 2070 FIO Input Mapping

Pins	Function	Idx	Pins	Function	Idx
C1-39	Vehicle Detector	2	C1-67	Ped Detector	1
C1-40	Vehicle Detector	16	C1-68	Ped Detector	3
C1-41	Vehicle Detector	8	C1-69	Ped Detector	2
C1-42	Vehicle Detector	22	C1-70	Ped Detector	4
C1-43	Vehicle Detector	3	C1-71	Preempt	3
C1-44	Vehicle Detector	17	C1-72	Preempt	4
C1-45	Vehicle Detector	9	C1-73	Preempt	5
C1-46	Vehicle Detector	23	C1-74	Preempt	6
C1-47	Vehicle Detector	6	C1-75	Unused Input	
C1-48	Vehicle Detector	20	C1-76	Vehicle Detector	5
C1-49	Vehicle Detector	12	C1-77	Vehicle Detector	19
C1-50	Vehicle Detector	26	C1-78	Vehicle Detector	11
C1-51	Preempt	1	C1-79	Vehicle Detector	25
C1-52	Preempt	2	C1-80	Interval Advance	
C1-53	Manual Ctrl		C1-81	CMU Flash	
C1-54	Unused Input		C1-82	Stop Time	
C1-55	Vehicle Detector	15	C11-15	Unused Input	
C1-56	Vehicle Detector	1	C11-16	Unused Input	
C1-57	Vehicle Detector	21	C11-17	Unused Input	
C1-58	Vehicle Detector	7	C11-18	Unused Input	
C1-59	Vehicle Detector	27	C11-19	Unused Input	
C1-60	Vehicle Detector	13	C11-20	Unused Input	
C1-61	Vehicle Detector	28	C11-21	Unused Input	
C1-62	Vehicle Detector	14	C11-22	Unused Input	
C11-10	Unused Input		C11-23	Unused Input	
C11-11	Unused Input		C11-24	Unused Input	
C11-12	Unused Input		C11-25	Unused Input	
C11-13	Unused Input		C11-26	Unused Input	
C1-63	Vehicle Detector	4	C11-27	Unused Input	
C1-64	Vehicle Detector	18	C11-28	Unused Input	
C1-65	Vehicle Detector	10	C11-29	Unused Input	
C1-66	Vehicle Detector	24	C11-30	Unused Input	

1.5.3.2 2070 FIO Output Mapping

Pins	Function	Idx	Pins	Function	Idx
C1-02	Channel Red	6	C1-35	Unused Output	
C1-03	Channel Green	6	C1-36	Unused Output	
C1-04	Channel Red	5	C1-37	Unused Output	
C1-05	Channel Yellow	5	C1-38	Unused Output	
C1-06	Channel Green	5	C1-100	Unused Output	
C1-07	Channel Red	4	C1-101	Flash Status	
C1-08	Channel Yellow	4	C1-102	Detector Reset	
C1-09	Channel Green	4	C1-103	Watchdog	
C1-10	Channel Red	3	C1-83	Unused Output	
C1-11	Channel Green	3	C1-84	Unused Output	
C1-12	Channel Red	2	C1-85	Channel Red	16
C1-13	Channel Yellow	2	C1-86	Channel Yellow	16
C1-15	Channel Green	2	C1-87	Channel Green	16
C1-16	Channel Red	1	C1-88	Channel Red	15
C1-17	Channel Yellow	1	C1-89	Channel Yellow	15
C1-18	Channel Green	1	C1-90	Channel Green	15
C1-19	Channel Red	12	C1-91	Unused Output	
C1-20	Channel Green	12	C1-93	Unused Output	
C1-21	Channel Red	11	C1-94	Channel Red	14
C1-22	Channel Yellow	11	C1-95	Channel Yellow	14
C1-23	Channel Green	11	C1-96	Channel Green	14
C1-24	Channel Red	10	C1-97	Channel Red	13
C1-25	Channel Yellow	10	C1-98	Channel Yellow	13
C1-26	Channel Green	10	C1-99	Channel Green	13
C1-27	Channel Red	9	C11-1	Unused Output	
C1-28	Channel Green	9	C11-2	Unused Output	
C1-29	Channel Red	8	C11-3	Unused Output	
C1-30	Channel Yellow	8	C11-4	Unused Output	
C1-31	Channel Green	8	C11-5	Unused Output	
C1-32	Channel Red	7	C11-6	Unused Output	
C1-33	Channel Yellow	7	C11-7	Unused Output	
C1-34	Channel Green	7	C11-8	Unused Output	

Omni eX v1.4 - Logic Gates



Agency: _____ Date Prepared: _____ By: _____
 Location: _____ Date Implemented: _____ By: _____
 System ID: _____

1.6 Logic Gate		1			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		2			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		3			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		4			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		5			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		6			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		7			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		8			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				

1.6 Logic Gate		9			
Functions	Unused	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused				
IN2	Unused				
IN3	Unused				
IN4	Unused				
OUT	Unused				



Omni eX v1.4 - Phase Sequences

Agency: _____ Date Prepared: _____ By: _____
 Location: _____ Date Implemented: _____ By: _____
 System ID: _____

2.3 Phase Sequence 1	
Ring 1	2
Ring 2	5,6,7
Ring 3	
Ring 4	

2.3 Phase Sequence 9	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

Note: Phases 10 through 16 are entered as O,A,B,C,D,E,F

2.3 Phase Sequence 2	
Ring 1	2
Ring 2	5,6,7
Ring 3	
Ring 4	

2.3 Phase Sequence 10	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3	
Ring 1	2
Ring 2	5,6,7
Ring 3	
Ring 4	

2.3 Phase Sequence 11	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

Detector Lock	
No Min Yellow	

Detector Lock	
No Min Yellow	



Omni eX v1.4 - Vehicle Overlaps

Agency: _____
 Location: _____
 System ID: _____

Date Prepared: _____ By: _____
 Date Implemented: _____ By: _____

3.1 Veh Overlap 1		Set 1
Type		
Included Phases		
Modifier Phases		
Excluded Phases		
Excluded Peds		
Trail Grn		
Trailing Yel		
Trailing Red		
Start Delay		
No Trail Grn Phs		
Call Phases		
Actuated Only		
Detector Lock		
No Min Yellow		

3.1 Veh. Overlap 2		Set 1
Type		
Included Phases		
Modifier Phases		
Excluded Phases		
Excluded Peds		
Trail Grn		
Trailing Yel		
Trailing Red		
Start Delay		
No Trail Grn Phs		
Call Phases		
Actuated Only		
Detector Lock		
No Min Yellow		

3.1 Veh Overlap 3		Set 1
Type		
Included Phases		
Modifier Phases		
Excluded Phases		
Excluded Peds		
Trail Grn		
Trailing Yel		
Trailing Red		
Start Delay		
No Trail Grn Phs		
Call Phases		
Actuated Only		
Detector Lock		
No Min Yellow		

3.1 Veh Overlap 4		Set 1
Type		
Included Phases		
Modifier Phases		
Excluded Phases		
Excluded Peds		
Trail Grn		
Trailing Yel		
Trailing Red		
Start Delay		
No Trail Grn Phs		
Call Phases		
Actuated Only		
Detector Lock		
No Min Yellow		

3.1 Veh Overlap 5		Set 1
Type		
Included Phases		
Modifier Phases		
Excluded Phases		
Excluded Peds		
Trail Grn		
Trailing Yel		
Trailing Red		
Start Delay		
No Trail Grn Phs		
Call Phases		
Actuated Only		

3.1 Veh Overlap 6		Set 1
Type		
Included Phases		
Modifier Phases		
Excluded Phases		
Excluded Peds		
Trail Grn		
Trailing Yel		
Trailing Red		
Start Delay		
No Trail Grn Phs		
Call Phases		
Actuated Only		



Omni eX v1.4 - Ped Overlaps

Agency: _____
 Location: _____
 System ID: _____

Date Prepared: _____ By: _____
 Date Implemented: _____ By: _____

3.2 Ped Overlap 1	Set 1	3.2 Ped Overlap 2	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	
3.2 Ped Overlap 3	Set 1	3.2 Ped Overlap 4	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	
3.2 Ped Overlap 5	Set 1	3.2 Ped Overlap 6	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	
3.2 Ped Overlap 7	Set 1	3.2 Ped Overlap 8	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	
3.2 Ped Overlap 9	Set 1	3.2 Ped Overlap 10	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	
3.2 Ped Overlap 11	Set 1	3.2 Ped Overlap 12	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	
3.2 Ped Overlap 13	Set 1	3.2 Ped Overlap 14	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	
3.2 Ped Overlap 15	Set 1	3.2 Ped Overlap 16	Set 1
Included Phases		Included Phases	
Excluded Phases		Excluded Phases	
Intervals		Intervals	
Call Phases		Call Phases	
Actuated Only		Actuated Only	

Omni eX v1.4 - Pedestrian Detector Diagnostics



Agency: _____
 Location: _____
 System ID: _____

DATE PREPARED: _____ By: _____
 DATE IMPLEMENTED: _____ By: _____

4.4 Ped Detector Diag																
Set	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity																
Max. Presence																
Erratic Counts																

4.4 Ped Detector Diag																
Set	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity																
Max. Presence																
Erratic Counts																

4.4 Ped Detector Diag																
Set	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity																
Max. Presence																
Erratic Counts																

4.4 Ped Detector Diag																
Set	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity																
Max. Presence																
Erratic Counts																

4.5 Extra VEH Detector Calls		
DET	Call Phases	Call VEH Overlap
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		

4.6 Extra PED Detector Calls		
DET	Call Phases	Call PED Overlap
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Omni eX v1.4 - Patterns



Agency: _____
 Location: _____
 System ID: _____

DATE PREPARED: _____ By: _____
 DATE IMPLEMENTED: _____ By: _____

5.2 Pattern Parameters		1
Cycle Time		120
Offset Time		5
Split		1
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		2
Cycle Time		100
Offset Time		46
Split		2
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		3
Cycle Time		120
Offset Time		27
Split		3
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		4
Cycle Time		
Offset Time		
Split		
Sequence		
Correction Mode		
Maximum Mode		
Force Mode		
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		



Omni eX v1.4 - Day Plans

Agency: _____
 Location: Meridian Road & Bent Grass Meadows
 System ID: _____

DATE PREPARED: _____
 DATE IMPLEMENTED: _____
 By: _____
 By: _____

6.5 DayPlan 1								
Event#	1	2	3	4	5	6	7	8
Hour	6	9	13	19				
Minute	0	0	30	0				
Action	1	2	3	20				

6.5 DayPlan 1								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	1	2	3	4	5	6	7	8
Hour	10	19						
Minute	0	0						
Action	2	20						

6.5 DayPlan 2								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								



Omni eX v1.4 - Timebase Actions

Agency: _____
 Location: _____
 System ID: _____

Date Prepared: _____ By: _____
 Date Implemented: _____ By: _____

6.6 Action Parameters 1	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 2	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 3	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 4	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 5	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 6	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 7	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 8	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 9	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 10	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 11	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 12	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 13	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 14	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 15	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

Omni eX v1.4 - Transit Priority



Agency: _____
 Location: _____
 System ID: _____

Date Prepared: _____ By: _____
 Date Implemented: _____ By: _____

8.1 TSP Global Options	
Enable	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	
Lockout	
Node	
Name	

8.2 TSP Strategy Options		Strategy 1	Set 1
Enable			
Override + 1			
Service Phases			
Call Phases			
Omit Phases			
Omit Peds			
Queue lump Ph			
ETA			
Input Function			
Input Index			
Input Type			
Request Mode			
Checkout Mode			
Checkout Time			
Max Presence			
Max Presence Clr			
Min ON Time			
Min OFF Time			
Delay Time			
Extend Time			
Headway Time			
Preempt Lockout			

8.2 TSP Strategy Options		Strategy 2	Set 1
Enable			
Override + 1			
Service Phases			
Call Phases			
Omit Phases			
Omit Peds			
Queue lump Ph			
ETA			
Input Function			
Input Index			
Input Type			
Request Mode			
Checkout Mode			
Checkout Time			
Max Presence			
Max Presence Clr			
Min ON Time			
Min OFF Time			
Delay Time			
Extend Time			
Headway Time			
Preempt Lockout			

8.2 TSP Strategy Options		Strategy 3	Set 1
Enable			
Override + 1			
Service Phases			
Call Phases			
Omit Phases			
Omit Peds			
Queue lump Ph			
ETA			
Input Function			
Input Index			
Input Type			
Request Mode			
Checkout Mode			
Checkout Time			
Max Presence			
Max Presence Clr			
Min ON Time			
Min OFF Time			
Delay Time			
Extend Time			
Headway Time			
Preempt Lockout			

8.2 TSP Strategy Options		Strategy 4	Set 1
Enable			
Override + 1			
Service Phases			
Call Phases			
Omit Phases			
Omit Peds			
Queue lump Ph			
ETA			
Input Function			
Input Index			
Input Type			
Request Mode			
Checkout Mode			
Checkout Time			
Max Presence			
Max Presence Clr			
Min ON Time			
Min OFF Time			
Delay Time			
Extend Time			
Headway Time			
Preempt Lockout			

8.2 TSP Strategy Options		Strategy 5	Set 1
Enable			
Override + 1			
Service Phases			
Call Phases			
Omit Phases			
Omit Peds			
Queue lump Ph			
ETA			
Input Function			
Input Index			
Input Type			
Request Mode			
Checkout Mode			
Checkout Time			
Max Presence			
Max Presence Clr			
Min ON Time			
Min OFF Time			
Delay Time			
Extend Time			
Headway Time			
Preempt Lockout			

8.2 TSP Strategy Options		Strategy 6	Set 1
Enable			
Override + 1			
Service Phases			
Call Phases			
Omit Phases			
Omit Peds			
Queue lump Ph			
ETA			
Input Function			
Input Index			
Input Type			
Request Mode			
Checkout Mode			
Checkout Time			
Max Presence			
Max Presence Clr			
Min ON Time			
Min OFF Time			
Delay Time			
Extend Time			
Headway Time			
Preempt Lockout			

Omni eX v1.4 - Log Configuration



Agency: _____
Location: _____
System ID: _____

Date Prepared: _____ **By:** _____
Date Implemented: _____ **By:** _____

9.3-4 Log Configuration			
Volume Occupancy Period			
VOS Log Combined Periods			
Speed Trap Log Period			
Display Metric			
Speed Trap Log Mode			
VOS Log Mode			
Cycle MOE Log Mode			
Power On/Off			
Low Battery			
Cycle Fault			
Coord Fault			
Coord Fail			
Cycle Fail			
MMU Flash			
Local Flash			
Local Free			
Preempt Status Change			
Response Fault			
Alarm Status Change			
Door Status Change			
Pattern Change			
Detector Status Change			
Comm Status Change			
Command Change			
Data Change Keyboard			
Controller Download			
Access Code			
Priority			

6.2 Time Zone			
Global DST			
Standard Time Zone (+/- hr)			

A.3 Unit Comms			
Unit Backup Time			

1.7 Port 1			
Device	1	2	3
Device Present			
Frame40 Enable			

1.5.5 Aux Switch			
Function			
Index			

A.5-6 Time Sync			
NTP Server Address			
NTP Start Hour			
NTP Start Minute			
NTP Interval Hour			
NTP Interval Minute			
GPS Start Hour			
GPS Start Minute			
GPS Interval Hour			
GPS Interval Minute			
Enable NTP Svr			



Omni eX v1.4 - Communicaitons

Agency: _____
Location: _____
System ID: _____

Date Prepared: _____ **By:** _____
Date Implemented: _____ **By:** _____

A.1 Serial Comms						
Port	1	2	3	4	5	8
Protocol						
Speed						
Parity						
Flow Control						
Address						
Group Address						
Data Bits						
Stop Bits						
CTS Delay						
RTS Extend						

A.2 Ethernet Comms		
Port	1	2
IP Address		
Net Mask		
Gateway		
NTCIP Port		
NTCIP Mode		
AB3418 Port		
AB3418 Mode		
AB3418 Address		
AB3418 Group Address		

APPENDIX C

Level of Service Definitions

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7th Edition, Transportation Research Board, 2022: Chapter 19 – Signalized Intersections.

Motorized Vehicle Level of Service (LOS) for Signalized Intersections

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

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

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

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

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

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

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

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

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

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7th Edition, Transportation Research Board, 2022: Chapter 20 – Two-Way Stop-Controlled Intersections, Chapter 21 – All-Way Stop-Controlled Intersections, and Chapter 22 - Roundabouts.

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

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

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

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

























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

APPENDIX D

Capacity Worksheets

Timings
1: Meridian Road & E Woodmen Road

Existing Traffic Conditions
AM Peak Traffic Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	366	253	259	76	537	51	340	242	11	74	865	853
Future Volume (vph)	366	253	259	76	537	51	340	242	11	74	865	853
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			299			233			299			636
Lane Group Flow (vph)	398	275	282	83	584	55	370	263	12	80	940	927
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	24.0	43.0		13.0	32.0	32.0	22.0	49.2		14.8	42.0	
Total Split (%)	20.0%	35.8%		10.8%	26.7%	26.7%	18.3%	41.0%		12.3%	35.0%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	16.2	38.3	120.0	6.0	25.0	25.0	14.7	44.9	120.0	8.0	34.7	120.0
Actuated g/C Ratio	0.14	0.32	1.00	0.05	0.21	0.21	0.12	0.37	1.00	0.07	0.29	1.00
v/c Ratio	0.86	0.24	0.18	0.49	0.79	0.11	0.88	0.20	0.01	0.35	0.92	0.59
Control Delay (s/veh)	69.7	31.8	0.2	65.4	54.0	0.4	74.9	27.0	0.0	58.1	55.8	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.7	31.8	0.2	65.4	54.0	0.4	74.9	27.0	0.0	58.1	55.8	1.6
LOS	E	C	A	E	D	A	E	C	A	E	E	A
Approach Delay (s/veh)		38.3			51.2			53.9			30.1	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	157	85	0	32	228	0	147	74	0	30	371	0
Queue Length 95th (ft)	#236	122	0	60	296	0	#231	108	0	57	#494	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	472	1129	1583	171	738	514	420	1322	1583	228	1024	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.24	0.18	0.49	0.79	0.11	0.88	0.20	0.01	0.35	0.92	0.59

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Existing Traffic Conditions
AM Peak Traffic Hour

Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 39.1	Intersection LOS: D
Intersection Capacity Utilization 87.7%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Existing Traffic Conditions
AM Peak Traffic Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	106	100	56	577	1478	144
Future Volume (vph)	106	100	56	577	1478	144
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.095			
Satd. Flow (perm)	3433	1583	177	3539	3539	1583
Satd. Flow (RTOR)		109				157
Lane Group Flow (vph)	115	109	61	627	1607	157
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	28.0		20.0	92.0	72.0	72.0
Total Split (%)	23.3%		16.7%	76.7%	60.0%	60.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	9.6	120.0	94.4	95.4	83.1	83.1
Actuated g/C Ratio	0.08	1.00	0.79	0.80	0.69	0.69
v/c Ratio	0.42	0.07	0.27	0.22	0.66	0.14
Control Delay (s/veh)	56.9	0.1	6.0	3.4	13.1	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.9	0.1	6.0	3.4	13.1	1.5
LOS	E	A	A	A	B	A
Approach Delay (s/veh)	29.3			3.6	12.1	
Approach LOS	C			A	B	
Queue Length 50th (ft)	44	0	9	51	358	0
Queue Length 95th (ft)	73	0	19	75	487	24
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	586	1583	291	2812	2451	1144
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	0.20	0.07	0.21	0.22	0.66	0.14

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated

Timings

2: Bent Grass Meadows Drive & Meridian Road

Existing Traffic Conditions
AM Peak Traffic Hour

Maximum v/c Ratio: 0.66	
Intersection Signal Delay (s/veh): 11.3	Intersection LOS: B
Intersection Capacity Utilization 65.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC
3: Woodmen Frontage Road & Bent Grass Meadows Drive

Existing Traffic Conditions
 AM Peak Traffic Hour

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	66	78	123	9	3	147
Future Vol, veh/h	66	78	123	9	3	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	72	85	134	10	3	160

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	143	0	-	0	367 139
Stage 1	-	-	-	-	139 -
Stage 2	-	-	-	-	228 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1439	-	-	-	633 910
Stage 1	-	-	-	-	888 -
Stage 2	-	-	-	-	810 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1439	-	-	-	601 910
Mov Cap-2 Maneuver	-	-	-	-	601 -
Stage 1	-	-	-	-	844 -
Stage 2	-	-	-	-	810 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.5	0	9.88
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1439	-	-	-	900
HCM Lane V/C Ratio	0.05	-	-	-	0.181
HCM Ctrl Dly (s/v)	7.6	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

HCM 7th Roundabout
 4: Falcon Market Place & Eastonville Road

Existing Traffic Conditions
 AM Peak Traffic Hour

Intersection			
Intersection Delay, s/veh	3.8		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	0
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	222	141	0
Demand Flow Rate, veh/h	226	144	0
Vehicles Circulating, veh/h	0	0	226
Vehicles Exiting, veh/h	144	226	0
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.0	3.5	0.0
Approach LOS	A	A	-
Lane	Left	Left	
Designated Moves	L	R	
Assumed Moves	L	R	
RT Channelized			
Lane Util	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	
Critical Headway, s	4.976	4.976	
A (Intercept)	1380	1380	
B (Slope)	1.02e-3	1.02e-3	
Entry Flow, veh/h	226	144	
Cap Entry Lane, veh/h	1380	1380	
Entry HV Adj Factor	0.982	0.979	
Flow Entry, veh/h	222	141	
Cap Entry, veh/h	1355	1351	
V/C Ratio	0.164	0.104	
Control Delay, s/veh	4.0	3.5	
LOS	A	A	
95th %tile Queue, veh	1	0	

HCM 7th TWSC
 5: Meridian Park Drive & Bent Grass Meadows Drive

Existing Traffic Conditions
 AM Peak Traffic Hour

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↙
Traffic Vol, veh/h	115	25	101	100	12	90
Future Vol, veh/h	115	25	101	100	12	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	125	27	110	109	13	98

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	152	0	453	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	328	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1429	-	564	926
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	730	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1429	-	521	926
Mov Cap-2 Maneuver	-	-	-	-	575	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	674	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.88	9.78
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	864	-	-	1429	-
HCM Lane V/C Ratio	0.128	-	-	0.077	-
HCM Ctrl Dly (s/v)	9.8	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

HCM 7th TWSC
6: Bent Grass Meadows Drive

Existing Traffic Conditions
AM Peak Traffic Hour

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	130	22	21	91	18	10
Future Vol, veh/h	130	22	21	91	18	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	141	24	23	99	20	11

























Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	165	0	298	153
Stage 1	-	-	-	-	153	-
Stage 2	-	-	-	-	145	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1413	-	693	893
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	883	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1413	-	682	893
Mov Cap-2 Maneuver	-	-	-	-	709	-
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	868	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.42	9.81
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	709	893	-	-	1413	-
HCM Lane V/C Ratio	0.028	0.012	-	-	0.016	-
HCM Ctrl Dly (s/v)	10.2	9.1	-	-	7.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Timings
1: Meridian Road & E Woodmen Road

Existing Traffic Conditions
PM Peak Traffic Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	700	469	210	93	395	130	341	698	80	119	424	520
Future Volume (vph)	700	469	210	93	395	130	341	698	80	119	424	520
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			365			299			365			565
Lane Group Flow (vph)	761	510	228	101	429	141	371	759	87	129	461	565
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	37.0	55.2		14.0	32.2	32.2	23.5	36.0		14.8	27.3	
Total Split (%)	30.8%	46.0%		11.7%	26.8%	26.8%	19.6%	30.0%		12.3%	22.8%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	C-Max		Max	C-Max	C-Max	Max	Max		None	Max	
Act Effct Green (s)	29.5	47.9	120.0	7.0	24.9	24.9	16.2	28.7	120.0	8.0	20.0	120.0
Actuated g/C Ratio	0.25	0.40	1.00	0.06	0.21	0.21	0.14	0.24	1.00	0.07	0.17	1.00
v/c Ratio	0.90	0.36	0.14	0.51	0.58	0.25	0.80	0.90	0.05	0.57	0.78	0.36
Control Delay (s/veh)	59.0	26.2	0.2	64.0	46.6	1.1	64.3	58.8	0.1	64.5	58.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.0	26.2	0.2	64.0	46.6	1.1	64.3	58.8	0.1	64.5	58.3	0.6
LOS	E	C	A	E	D	A	E	E	A	E	E	A
Approach Delay (s/veh)		38.9			39.7			56.3			30.8	
Approach LOS		D			D			E			C	
Queue Length 50th (ft)	295	144	0	39	158	0	145	301	0	51	182	0
Queue Length 95th (ft)	#404	189	0	69	213	0	#215	#409	0	84	242	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	843	1412	1583	200	734	565	463	846	1583	228	589	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.36	0.14	0.51	0.58	0.25	0.80	0.90	0.05	0.57	0.78	0.36

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Existing Traffic Conditions
 PM Peak Traffic Hour

Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 41.6	Intersection LOS: D
Intersection Capacity Utilization 89.0%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Existing Traffic Conditions
PM Peak Traffic Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	105	72	89	1459	910	89
Future Volume (vph)	105	72	89	1459	910	89
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.233			
Satd. Flow (perm)	3433	1583	434	3539	3539	1583
Satd. Flow (RTOR)		78				97
Lane Group Flow (vph)	114	78	97	1586	989	97
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	27.0		20.0	93.0	73.0	73.0
Total Split (%)	22.5%		16.7%	77.5%	60.8%	60.8%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	9.6	120.0	94.4	95.4	79.9	79.9
Actuated g/C Ratio	0.08	1.00	0.79	0.80	0.67	0.67
v/c Ratio	0.42	0.05	0.23	0.56	0.42	0.09
Control Delay (s/veh)	56.9	0.1	4.4	5.6	10.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.9	0.1	4.4	5.6	10.2	1.8
LOS	E	A	A	A	B	A
Approach Delay (s/veh)	33.8			5.5	9.4	
Approach LOS	C			A	A	
Queue Length 50th (ft)	44	0	14	192	168	0
Queue Length 95th (ft)	73	0	28	265	233	19
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	557	1583	469	2813	2357	1086
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	0.20	0.05	0.21	0.56	0.42	0.09

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings

2: Bent Grass Meadows Drive & Meridian Road

Existing Traffic Conditions
PM Peak Traffic Hour

Maximum v/c Ratio: 0.56

Intersection Signal Delay (s/veh): 8.8

Intersection LOS: A

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC
3: Woodmen Frontage Road & Bent Grass Meadows Drive

Existing Traffic Conditions
 PM Peak Traffic Hour

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	116	155	142	12	7	51
Future Vol, veh/h	116	155	142	12	7	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	126	168	154	13	8	55

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	167	0	-	0	582 161
Stage 1	-	-	-	-	161 -
Stage 2	-	-	-	-	421 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1410	-	-	-	476 884
Stage 1	-	-	-	-	868 -
Stage 2	-	-	-	-	662 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1410	-	-	-	433 884
Mov Cap-2 Maneuver	-	-	-	-	433 -
Stage 1	-	-	-	-	790 -
Stage 2	-	-	-	-	662 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.34	0	9.98
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1410	-	-	-	785
HCM Lane V/C Ratio	0.089	-	-	-	0.08
HCM Ctrl Dly (s/v)	7.8	-	-	-	10
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

HCM 7th Roundabout
 4: Falcon Market Place & Eastonville Road

Existing Traffic Conditions
 PM Peak Traffic Hour

Intersection			
Intersection Delay, s/veh	5.4		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	0
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	385	443	0
Demand Flow Rate, veh/h	393	452	0
Vehicles Circulating, veh/h	0	0	393
Vehicles Exiting, veh/h	452	393	0
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.1	5.6	0.0
Approach LOS	A	A	-
Lane	Left	Left	
Designated Moves	L	R	
Assumed Moves	L	R	
RT Channelized			
Lane Util	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	
Critical Headway, s	4.976	4.976	
A (Intercept)	1380	1380	
B (Slope)	1.02e-3	1.02e-3	
Entry Flow, veh/h	393	452	
Cap Entry Lane, veh/h	1380	1380	
Entry HV Adj Factor	0.980	0.980	
Flow Entry, veh/h	385	443	
Cap Entry, veh/h	1352	1352	
V/C Ratio	0.285	0.328	
Control Delay, s/veh	5.1	5.6	
LOS	A	A	
95th %tile Queue, veh	1	1	

HCM 7th TWSC
 5: Meridian Park Drive & Bent Grass Meadows Drive

Existing Traffic Conditions
 PM Peak Traffic Hour

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↙
Traffic Vol, veh/h	96	8	80	92	4	88
Future Vol, veh/h	96	8	80	92	4	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	104	9	87	100	4	96

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	113	0	378 104
Stage 1	-	-	-	-	104 -
Stage 2	-	-	-	-	274 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1476	-	624 950
Stage 1	-	-	-	-	920 -
Stage 2	-	-	-	-	772 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1476	-	587 950
Mov Cap-2 Maneuver	-	-	-	-	626 -
Stage 1	-	-	-	-	920 -
Stage 2	-	-	-	-	727 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.53	9.34
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	929	-	-	1476	-
HCM Lane V/C Ratio	0.108	-	-	0.059	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

HCM 7th TWSC
6: Bent Grass Market View & Bent Grass Meadows Drive

Existing Traffic Conditions
PM Peak Traffic Hour

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	92	22	21	75	22	12
Future Vol, veh/h	92	22	21	75	22	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	100	24	23	82	24	13

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	124	0	239	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1463	-	749	941
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1463	-	737	941
Mov Cap-2 Maneuver	-	-	-	-	746	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.64	9.59
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	746	941	-	-	1463	-
HCM Lane V/C Ratio	0.032	0.014	-	-	0.016	-
HCM Ctrl Dly (s/v)	10	8.9	-	-	7.5	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Timings
1: Meridian Road & E Woodmen Road

Existing Traffic Conditions
Sunday Peak Traffic Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	546	381	138	98	272	98	184	402	68	134	458	453
Future Volume (vph)	546	381	138	98	272	98	184	402	68	134	458	453
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			299			233			299			492
Lane Group Flow (vph)	593	414	150	107	296	107	200	437	74	146	498	492
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	25.3		14.8	25.3	
Total Split (s)	37.0	53.3		15.0	31.3	31.3	19.7	35.1		16.6	32.0	
Total Split (%)	30.8%	44.4%		12.5%	26.1%	26.1%	16.4%	29.3%		13.8%	26.7%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	C-Max		Max	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	29.5	46.0	120.0	8.0	24.0	24.0	11.4	28.3	120.0	9.3	25.7	120.0
Actuated g/C Ratio	0.25	0.38	1.00	0.07	0.20	0.20	0.10	0.24	1.00	0.08	0.21	1.00
v/c Ratio	0.70	0.31	0.09	0.47	0.42	0.21	0.62	0.52	0.05	0.55	0.66	0.31
Control Delay (s/veh)	46.5	26.6	0.1	61.1	44.0	1.0	60.6	42.8	0.1	61.4	48.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.5	26.6	0.1	61.1	44.0	1.0	60.6	42.8	0.1	61.4	48.2	0.5
LOS	D	C	A	E	D	A	E	D	A	E	D	A
Approach Delay (s/veh)		33.4			38.6			43.4			29.2	
Approach LOS		C			D			D			C	
Queue Length 50th (ft)	217	116	0	41	106	0	77	157	0	56	188	0
Queue Length 95th (ft)	280	157	0	72	151	0	117	211	0	91	249	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	843	1356	1583	228	707	503	354	833	1583	280	758	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.31	0.09	0.47	0.42	0.21	0.56	0.52	0.05	0.52	0.66	0.31

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

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

Natural Cycle: 95

Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Existing Traffic Conditions
Sunday Peak Traffic Hour

Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 34.8	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Existing Traffic Conditions
Sunday Peak Traffic Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	79	75	61	1014	894	85
Future Volume (vph)	79	75	61	1014	894	85
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.233			
Satd. Flow (perm)	3433	1583	434	3539	3539	1583
Satd. Flow (RTOR)		82				92
Lane Group Flow (vph)	86	82	66	1102	972	92
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	22.0		20.0	78.0	58.0	58.0
Total Split (%)	22.0%		20.0%	78.0%	58.0%	58.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.5	100.0	78.6	81.1	68.9	68.9
Actuated g/C Ratio	0.09	1.00	0.79	0.81	0.69	0.69
v/c Ratio	0.29	0.05	0.15	0.38	0.40	0.08
Control Delay (s/veh)	45.5	0.1	4.0	4.0	9.7	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.5	0.1	4.0	4.0	9.7	2.1
LOS	D	A	A	A	A	A
Approach Delay (s/veh)	23.3			4.0	9.1	
Approach LOS	C			A	A	
Queue Length 50th (ft)	27	0	9	99	156	0
Queue Length 95th (ft)	50	0	20	140	217	19
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	497	1583	494	2869	2439	1119
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.05	0.13	0.38	0.40	0.08

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 46 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Existing Traffic Conditions
Sunday Peak Traffic Hour

Maximum v/c Ratio: 0.40	
Intersection Signal Delay (s/veh): 7.6	Intersection LOS: A
Intersection Capacity Utilization 55.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



**HCM 7th TWSC
3: Woodmen Frontage Road & Bent Grass Meadows Drive**

**Existing Traffic Conditions
Sunday Peak Traffic Hour**

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	80	167	134	14	12	54
Future Vol, veh/h	80	167	134	14	12	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	87	182	146	15	13	59

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	161	0	-	0	509 153
Stage 1	-	-	-	-	153 -
Stage 2	-	-	-	-	355 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1418	-	-	-	524 893
Stage 1	-	-	-	-	875 -
Stage 2	-	-	-	-	709 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1418	-	-	-	492 893
Mov Cap-2 Maneuver	-	-	-	-	492 -
Stage 1	-	-	-	-	821 -
Stage 2	-	-	-	-	709 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.5	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1418	-	-	-	778
HCM Lane V/C Ratio	0.061	-	-	-	0.092
HCM Ctrl Dly (s/v)	7.7	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

HCM 7th Roundabout
 4: Falcon Market Place & Eastonville Road

Existing Traffic Conditions
 Sunday Peak Traffic Hour

Intersection			
Intersection Delay, s/veh	5.8		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	0
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	490	458	0
Demand Flow Rate, veh/h	500	467	0
Vehicles Circulating, veh/h	0	0	500
Vehicles Exiting, veh/h	467	500	0
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.0	5.7	0.0
Approach LOS	A	A	-
Lane	Left	Left	
Designated Moves	L	R	
Assumed Moves	L	R	
RT Channelized			
Lane Util	1.000	1.000	
Follow-Up Headway, s	2.609	2.609	
Critical Headway, s	4.976	4.976	
A (Intercept)	1380	1380	
B (Slope)	1.02e-3	1.02e-3	
Entry Flow, veh/h	500	467	
Cap Entry Lane, veh/h	1380	1380	
Entry HV Adj Factor	0.980	0.981	
Flow Entry, veh/h	490	458	
Cap Entry, veh/h	1352	1353	
V/C Ratio	0.362	0.338	
Control Delay, s/veh	6.0	5.7	
LOS	A	A	
95th %tile Queue, veh	2	2	

HCM 7th TWSC
 5: Meridian Park Drive & Bent Grass Meadows Drive

Existing Traffic Conditions
 Sunday Peak Traffic Hour

Intersection						
Int Delay, s/veh	4.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	
Traffic Vol, veh/h	71	8	85	60	8	85
Future Vol, veh/h	71	8	85	60	8	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	77	9	92	65	9	92

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	86	0	327	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	250	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1510	-	667	984
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1510	-	626	984
Mov Cap-2 Maneuver	-	-	-	-	650	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	743	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.42	9.28
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1510	-
HCM Lane V/C Ratio	0.107	-	-	0.061	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

HCM 7th TWSC
6: Bent Grass Market View & Bent Grass Meadows Drive

Existing Traffic Conditions
Sunday Peak Traffic Hour

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	62	31	29	39	32	17
Future Vol, veh/h	62	31	29	39	32	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	67	34	32	42	35	18

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	101	0	190
Stage 1	-	-	-	-	84
Stage 2	-	-	-	-	105
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1491	-	799
Stage 1	-	-	-	-	939
Stage 2	-	-	-	-	919
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1491	-	782
Mov Cap-2 Maneuver	-	-	-	-	775
Stage 1	-	-	-	-	939
Stage 2	-	-	-	-	899

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.18	9.48
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	775	975	-	-	1491	-
HCM Lane V/C Ratio	0.045	0.019	-	-	0.021	-
HCM Ctrl Dly (s/v)	9.9	8.8	-	-	7.5	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
AM Peak Traffic Hour - Year 2027

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	392	263	269	79	559	74	250	273	11	96	919	897
Future Volume (vph)	392	263	269	79	559	74	250	273	11	96	919	897
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			299			233			299			641
Lane Group Flow (vph)	426	286	292	86	608	80	272	297	12	104	999	975
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	24.0	44.0		13.0	33.0	33.0	19.0	48.2		14.8	44.0	
Total Split (%)	20.0%	36.7%		10.8%	27.5%	27.5%	15.8%	40.2%		12.3%	36.7%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	16.5	39.3	120.0	6.0	25.7	25.7	11.6	40.9	120.0	8.0	36.8	120.0
Actuated g/C Ratio	0.14	0.33	1.00	0.05	0.21	0.21	0.10	0.34	1.00	0.07	0.31	1.00
v/c Ratio	0.90	0.25	0.18	0.50	0.80	0.15	0.82	0.25	0.01	0.46	0.92	0.62
Control Delay (s/veh)	74.8	31.2	0.3	66.1	53.9	0.6	73.5	29.1	0.0	60.7	54.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	74.8	31.2	0.3	66.1	53.9	0.6	73.5	29.1	0.0	60.7	54.5	1.8
LOS	E	C	A	E	D	A	E	C	A	E	D	A
Approach Delay (s/veh)		40.7			49.7			49.3			30.1	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	169	87	0	34	236	0	108	86	0	40	393	0
Queue Length 95th (ft)	#261	125	0	61	305	0	#175	122	0	70	#521	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	472	1159	1583	171	758	522	334	1206	1583	228	1085	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.25	0.18	0.50	0.80	0.15	0.81	0.25	0.01	0.46	0.92	0.62

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
AM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.92

Intersection Signal Delay (s/veh): 38.4

Intersection LOS: D

Intersection Capacity Utilization 87.4%

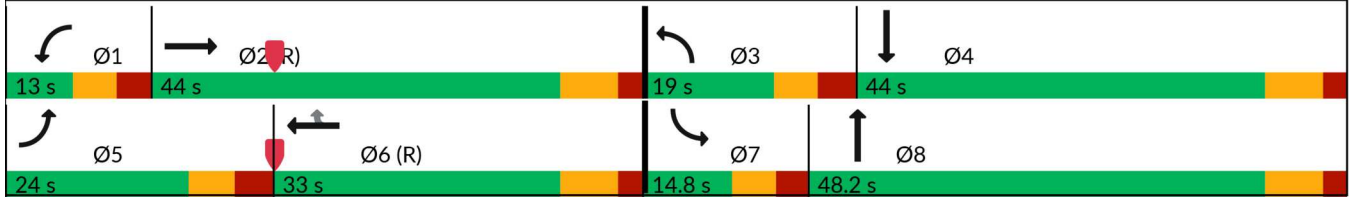
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions
AM Peak Traffic Hour - Year 2027



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	245	219	168	534	1473	308
Future Volume (vph)	245	219	168	534	1473	308
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.065			
Satd. Flow (perm)	3433	1583	121	3539	3539	1583
Satd. Flow (RTOR)		238				335
Lane Group Flow (vph)	266	238	183	580	1601	335
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	28.0		20.0	92.0	72.0	72.0
Total Split (%)	23.3%		16.7%	76.7%	60.0%	60.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.6	120.0	89.4	90.4	69.5	69.5
Actuated g/C Ratio	0.12	1.00	0.75	0.75	0.58	0.58
v/c Ratio	0.64	0.15	0.70	0.22	0.78	0.32
Control Delay (s/veh)	57.1	0.2	37.0	4.8	23.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.1	0.2	37.0	4.8	23.9	2.3
LOS	E	A	D	A	C	A
Approach Delay (s/veh)	30.2			12.5	20.2	
Approach LOS	C			B	C	
Queue Length 50th (ft)	102	0	71	60	493	0
Queue Length 95th (ft)	142	0	#159	90	637	43
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	586	1583	272	2666	2049	1057
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	0.45	0.15	0.67	0.22	0.78	0.32

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions AM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 19.9

Intersection LOS: B

Intersection Capacity Utilization 76.6%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Background Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive AM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	76	81	128	9	3	159
Future Vol, veh/h	76	81	128	9	3	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	83	88	139	10	3	173

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	149	0	-	0	397 144
Stage 1	-	-	-	-	144 -
Stage 2	-	-	-	-	253 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1433	-	-	-	608 903
Stage 1	-	-	-	-	883 -
Stage 2	-	-	-	-	789 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1433	-	-	-	573 903
Mov Cap-2 Maneuver	-	-	-	-	573 -
Stage 1	-	-	-	-	832 -
Stage 2	-	-	-	-	789 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.71	0	10.01
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1433	-	-	-	894
HCM Lane V/C Ratio	0.058	-	-	-	0.197
HCM Ctrl Dly (s/v)	7.7	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Background Traffic Conditions
AM Peak Traffic Hour - Year 2027

Intersection			
Intersection Delay, s/veh	4.9		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	390	150	167
Demand Flow Rate, veh/h	398	153	170
Vehicles Circulating, veh/h	3	163	235
Vehicles Exiting, veh/h	313	242	166
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.2	4.3	4.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	398	153	170
Cap Entry Lane, veh/h	1376	1169	1086
Entry HV Adj Factor	0.980	0.980	0.982
Flow Entry, veh/h	390	150	167
Cap Entry, veh/h	1348	1145	1066
V/C Ratio	0.289	0.131	0.157
Control Delay, s/veh	5.2	4.3	4.8
LOS	A	A	A
95th %tile Queue, veh	1	0	1

HCM 7th TWSC
5: Meridian Park Drive & Bent Grass Meadows Drive

Background Traffic Conditions
AM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	7.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	165	40	312	165	27	299
Future Vol, veh/h	165	40	312	165	27	299
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	179	43	339	179	29	325

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1037
Stage 1	-	-	179
Stage 2	-	-	858
Critical Hdwy	-	4.12	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.318
Pot Cap-1 Maneuver	-	1346	863
Stage 1	-	-	852
Stage 2	-	-	416
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1346	863
Mov Cap-2 Maneuver	-	-	267
Stage 1	-	-	852
Stage 2	-	-	311

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	5.61	14.53
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	729	-	-	1346	-
HCM Lane V/C Ratio	0.486	-	-	0.252	-
HCM Ctrl Dly (s/v)	14.5	-	-	8.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	2.7	-	-	1	-

HCM 7th TWSC
6: Bent Grass Market View & Bent Grass Meadows Drive

Background Traffic Conditions
AM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	195	22	21	171	18	10
Future Vol, veh/h	195	22	21	171	18	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	212	24	23	186	20	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	236	0	455 224
Stage 1	-	-	-	-	224 -
Stage 2	-	-	-	-	232 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1331	-	563 816
Stage 1	-	-	-	-	813 -
Stage 2	-	-	-	-	807 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1331	-	553 816
Mov Cap-2 Maneuver	-	-	-	-	619 -
Stage 1	-	-	-	-	813 -
Stage 2	-	-	-	-	793 -

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.85	10.46
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	619	816	-	-	1331	-
HCM Lane V/C Ratio	0.032	0.013	-	-	0.017	-
HCM Ctrl Dly (s/v)	11	9.5	-	-	7.8	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
PM Peak Traffic Hour - Year 2027

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	737	488	218	97	411	153	355	744	83	142	459	550
Future Volume (vph)	737	488	218	97	411	153	355	744	83	142	459	550
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			365			299			365			598
Lane Group Flow (vph)	801	530	237	105	447	166	386	809	90	154	499	598
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	37.0	53.2		15.0	31.2	31.2	24.1	37.0		14.8	27.7	
Total Split (%)	30.8%	44.3%		12.5%	26.0%	26.0%	20.1%	30.8%		12.3%	23.1%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Act Effct Green (s)	29.5	46.2	120.0	7.7	23.9	23.9	16.8	29.7	120.0	8.0	20.4	120.0
Actuated g/C Ratio	0.25	0.39	1.00	0.06	0.20	0.20	0.14	0.25	1.00	0.07	0.17	1.00
v/c Ratio	0.95	0.39	0.15	0.48	0.63	0.30	0.80	0.92	0.06	0.68	0.83	0.38
Control Delay (s/veh)	65.9	27.8	0.2	61.6	48.7	1.4	63.7	61.3	0.1	70.0	61.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.9	27.8	0.2	61.6	48.7	1.4	63.7	61.3	0.1	70.0	61.1	0.7
LOS	E	C	A	E	D	A	E	E	A	E	E	A
Approach Delay (s/veh)		43.1			39.7			57.7			33.3	
Approach LOS		D			D			E			C	
Queue Length 50th (ft)	315	155	0	41	168	0	151	323	0	61	198	0
Queue Length 95th (ft)	#438	203	0	70	225	0	#221	#442	0	#103	#279	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	843	1361	1583	228	704	554	480	875	1583	228	601	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.39	0.15	0.46	0.63	0.30	0.80	0.92	0.06	0.68	0.83	0.38

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
PM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.95

Intersection Signal Delay (s/veh): 43.9

Intersection LOS: D

Intersection Capacity Utilization 91.3%

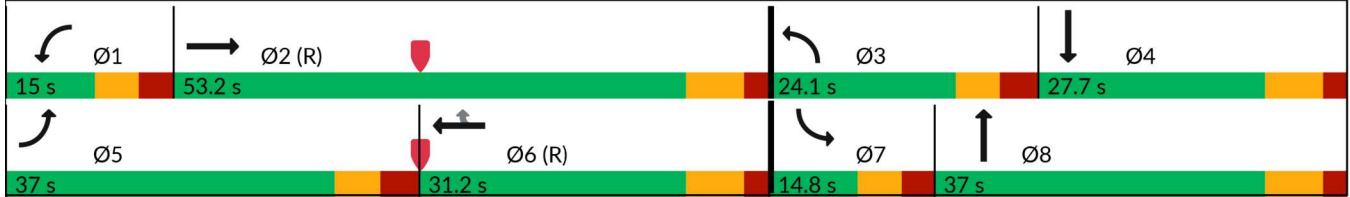
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions PM Peak Traffic Hour - Year 2027



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	246	160	189	1459	918	195
Future Volume (vph)	246	160	189	1459	918	195
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.214			
Satd. Flow (perm)	3433	1583	399	3539	3539	1583
Satd. Flow (RTOR)		174				212
Lane Group Flow (vph)	267	174	205	1586	998	212
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	27.0		20.0	93.0	73.0	73.0
Total Split (%)	22.5%		16.7%	77.5%	60.8%	60.8%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.6	120.0	89.4	90.4	72.3	72.3
Actuated g/C Ratio	0.12	1.00	0.75	0.75	0.60	0.60
v/c Ratio	0.64	0.11	0.50	0.59	0.47	0.20
Control Delay (s/veh)	57.1	0.1	9.2	8.1	14.8	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.1	0.1	9.2	8.1	14.8	2.2
LOS	E	A	A	A	B	A
Approach Delay (s/veh)	34.6			8.2	12.6	
Approach LOS	C			A	B	
Queue Length 50th (ft)	103	0	40	247	211	0
Queue Length 95th (ft)	143	0	72	348	304	35
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	557	1583	430	2666	2131	1038
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	0.48	0.11	0.48	0.59	0.47	0.20

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions PM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 13.1

Intersection LOS: B

Intersection Capacity Utilization 62.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Background Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive PM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↙	
Traffic Vol, veh/h	127	161	148	12	7	61
Future Vol, veh/h	127	161	148	12	7	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	138	175	161	13	8	66

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	174	0	-	0	618
Stage 1	-	-	-	-	167
Stage 2	-	-	-	-	451
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1403	-	-	-	453
Stage 1	-	-	-	-	862
Stage 2	-	-	-	-	642
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1403	-	-	-	408
Mov Cap-2 Maneuver	-	-	-	-	408
Stage 1	-	-	-	-	777
Stage 2	-	-	-	-	642

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.46	0	10.07
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1403	-	-	-	784
HCM Lane V/C Ratio	0.098	-	-	-	0.094
HCM Ctrl Dly (s/v)	7.8	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Background Traffic Conditions
PM Peak Traffic Hour - Year 2027

Intersection			
Intersection Delay, s/veh	6.6		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	527	470	150
Demand Flow Rate, veh/h	538	479	153
Vehicles Circulating, veh/h	9	143	408
Vehicles Exiting, veh/h	613	418	139
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.4	7.1	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
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	538	479	153
Cap Entry Lane, veh/h	1367	1193	910
Entry HV Adj Factor	0.980	0.981	0.979
Flow Entry, veh/h	527	470	150
Cap Entry, veh/h	1339	1170	891
V/C Ratio	0.393	0.402	0.168
Control Delay, s/veh	6.4	7.1	5.7
LOS	A	A	A
95th %tile Queue, veh	2	2	1

HCM 7th TWSC
5: Meridian Park Drive & Bent Grass Meadows Drive

Background Traffic Conditions
PM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	6.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	
Traffic Vol, veh/h	156	22	227	150	19	257
Future Vol, veh/h	156	22	227	150	19	257
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	170	24	247	163	21	279

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	193	0	826	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	657	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1380	-	342	874
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1380	-	281	874
Mov Cap-2 Maneuver	-	-	-	-	361	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	424	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.92	12.23
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	796	-	-	1380	-
HCM Lane V/C Ratio	0.377	-	-	0.179	-
HCM Ctrl Dly (s/v)	12.2	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.8	-	-	0.7	-

HCM 7th TWSC
6: Bent Grass Meadows Drive

Background Traffic Conditions
PM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	166	22	21	148	22	12
Future Vol, veh/h	166	22	21	148	22	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	180	24	23	161	24	13

























Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	204	0	399	192
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	207	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1367	-	607	849
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	828	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1367	-	597	849
Mov Cap-2 Maneuver	-	-	-	-	649	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.95	10.24
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	649	849	-	-	1367	-
HCM Lane V/C Ratio	0.037	0.015	-	-	0.017	-
HCM Ctrl Dly (s/v)	10.8	9.3	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2027

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	568	396	144	102	283	102	191	418	71	139	477	471
Future Volume (vph)	568	396	144	102	283	102	191	418	71	139	477	471
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			299			233			299			512
Lane Group Flow (vph)	617	430	157	111	308	111	208	454	77	151	518	512
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	25.3		14.8	25.3	
Total Split (s)	35.0	52.0		15.0	32.0	32.0	18.0	36.2		16.8	35.0	
Total Split (%)	29.2%	43.3%		12.5%	26.7%	26.7%	15.0%	30.2%		14.0%	29.2%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	25.3	45.0	120.0	7.7	26.9	26.9	10.4	29.4	120.0	9.5	28.0	120.0
Actuated g/C Ratio	0.21	0.38	1.00	0.06	0.22	0.22	0.09	0.25	1.00	0.08	0.23	1.00
v/c Ratio	0.85	0.32	0.10	0.50	0.39	0.21	0.70	0.52	0.05	0.56	0.63	0.32
Control Delay (s/veh)	57.7	27.6	0.1	62.4	41.9	0.9	66.5	41.9	0.1	61.4	45.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.7	27.6	0.1	62.4	41.9	0.9	66.5	41.9	0.1	61.4	45.3	0.5
LOS	E	C	A	E	D	A	E	D	A	E	D	A
Approach Delay (s/veh)		39.5			37.6			44.5			28.0	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	235	124	0	43	108	0	81	162	0	58	191	0
Queue Length 95th (ft)	300	166	0	74	155	0	123	216	0	94	252	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	786	1326	1583	228	793	535	306	867	1583	286	826	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.32	0.10	0.49	0.39	0.21	0.68	0.52	0.05	0.53	0.63	0.32

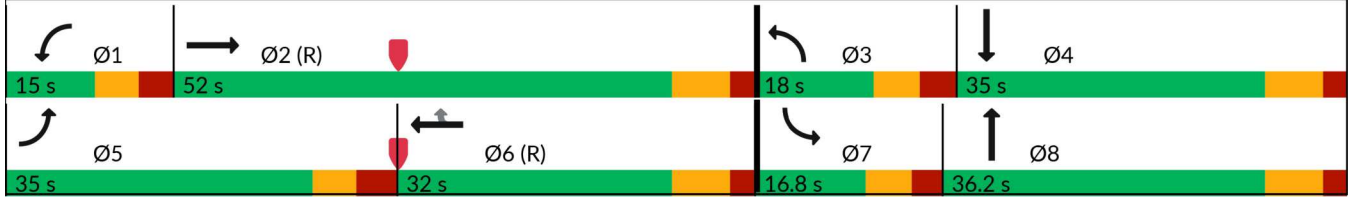
Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 36.5	Intersection LOS: D
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings
2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2027



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	82	78	63	1055	930	88
Future Volume (vph)	82	78	63	1055	930	88
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.221			
Satd. Flow (perm)	3433	1583	412	3539	3539	1583
Satd. Flow (RTOR)		85				96
Lane Group Flow (vph)	89	85	68	1147	1011	96
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	22.0		20.0	78.0	58.0	58.0
Total Split (%)	22.0%		20.0%	78.0%	58.0%	58.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	100.0	78.5	81.0	68.9	68.9
Actuated g/C Ratio	0.09	1.00	0.79	0.81	0.69	0.69
v/c Ratio	0.30	0.05	0.17	0.40	0.41	0.09
Control Delay (s/veh)	45.5	0.1	4.1	4.1	9.9	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	45.5	0.1	4.1	4.1	9.9	2.0
LOS	D	A	A	A	A	A
Approach Delay (s/veh)	23.3			4.1	9.2	
Approach LOS	C			A	A	
Queue Length 50th (ft)	28	0	9	105	164	0
Queue Length 95th (ft)	52	0	20	148	230	20
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	497	1583	479	2868	2438	1120
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	0.18	0.05	0.14	0.40	0.41	0.09

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 46 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions Sunday Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.41	
Intersection Signal Delay (s/veh): 7.7	Intersection LOS: A
Intersection Capacity Utilization 56.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Background Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	174	139	15	12	56
Future Vol, veh/h	83	174	139	15	12	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	90	189	151	16	13	61

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	167	0	-	0	529 159
Stage 1	-	-	-	-	159 -
Stage 2	-	-	-	-	370 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1410	-	-	-	510 886
Stage 1	-	-	-	-	869 -
Stage 2	-	-	-	-	699 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1410	-	-	-	478 886
Mov Cap-2 Maneuver	-	-	-	-	478 -
Stage 1	-	-	-	-	814 -
Stage 2	-	-	-	-	699 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.5	0	10.17
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1410	-	-	-	770
HCM Lane V/C Ratio	0.064	-	-	-	0.096
HCM Ctrl Dly (s/v)	7.7	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2027

Intersection			
Intersection Delay, s/veh	6.0		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	510	481	5
Demand Flow Rate, veh/h	520	491	5
Vehicles Circulating, veh/h	5	0	520
Vehicles Exiting, veh/h	486	525	5
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.2	5.9	4.6
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	520	491	5
Cap Entry Lane, veh/h	1373	1380	812
Entry HV Adj Factor	0.981	0.979	0.980
Flow Entry, veh/h	510	481	5
Cap Entry, veh/h	1346	1351	796
V/C Ratio	0.379	0.356	0.006
Control Delay, s/veh	6.2	5.9	4.6
LOS	A	A	A
95th %tile Queue, veh	2	2	0

HCM 7th TWSC
5: Meridian Park Drive & Bent Grass Meadows Drive

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	4.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↙
Traffic Vol, veh/h	74	8	88	62	8	88
Future Vol, veh/h	74	8	88	62	8	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	80	9	96	67	9	96

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	89	0	339
Stage 1	-	-	-	-	80
Stage 2	-	-	-	-	259
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1506	-	657
Stage 1	-	-	-	-	943
Stage 2	-	-	-	-	785
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1506	-	615
Mov Cap-2 Maneuver	-	-	-	-	641
Stage 1	-	-	-	-	943
Stage 2	-	-	-	-	735

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.43	9.32
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	938	-	-	1506	-
HCM Lane V/C Ratio	0.111	-	-	0.064	-
HCM Ctrl Dly (s/v)	9.3	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

HCM 7th TWSC

Background Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	65	31	29	41	32	17
Future Vol, veh/h	65	31	29	41	32	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	34	32	45	35	18

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	104	0	195	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	108	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1487	-	794	971
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	917	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1487	-	777	971
Mov Cap-2 Maneuver	-	-	-	-	772	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	772	971	-	-	1487	-
HCM Lane V/C Ratio	0.045	0.019	-	-	0.021	-
HCM Ctrl Dly (s/v)	9.9	8.8	-	-	7.5	-
HCM Lane LOS	A	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
AM Peak Traffic Hour - Year 2045

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	555	376	385	113	798	97	357	381	16	129	1304	1278
Future Volume (vph)	555	376	385	113	798	97	357	381	16	129	1304	1278
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			418			233			299			622
Lane Group Flow (vph)	603	409	418	123	867	105	388	414	17	140	1417	1389
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	28.0	45.0		15.0	32.0	32.0	21.0	43.6		16.4	39.0	
Total Split (%)	23.3%	37.5%		12.5%	26.7%	26.7%	17.5%	36.3%		13.7%	32.5%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		Max	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	20.5	37.7	120.0	8.0	24.7	24.7	13.7	36.7	120.0	9.2	31.7	120.0
Actuated g/C Ratio	0.17	0.31	1.00	0.07	0.21	0.21	0.11	0.31	1.00	0.08	0.26	1.00
v/c Ratio	1.03	0.26	0.26	0.54	0.83	0.21	0.99	0.27	0.01	0.53	1.06	0.88
Control Delay (s/veh)	93.6	31.2	0.4	63.4	53.5	0.9	96.9	32.1	0.0	61.1	83.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	93.6	31.2	0.4	63.4	53.5	0.9	96.9	32.1	0.0	61.1	83.2	7.8
LOS	F	C	A	E	D	A	F	C	A	E	F	A
Approach Delay (s/veh)		48.5			49.6			62.2			46.6	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	~257	86	0	48	237	0	157	89	0	54	~439	0
Queue Length 95th (ft)	#372	115	0	80	289	0	#260	118	0	88	#536	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	586	1597	1583	228	1046	510	391	1556	1583	274	1343	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.26	0.26	0.54	0.83	0.21	0.99	0.27	0.01	0.51	1.06	0.88

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
AM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 1.06

Intersection Signal Delay (s/veh): 49.6

Intersection LOS: D

Intersection Capacity Utilization 94.9%

ICU Level of Service F

Analysis Period (min) 15

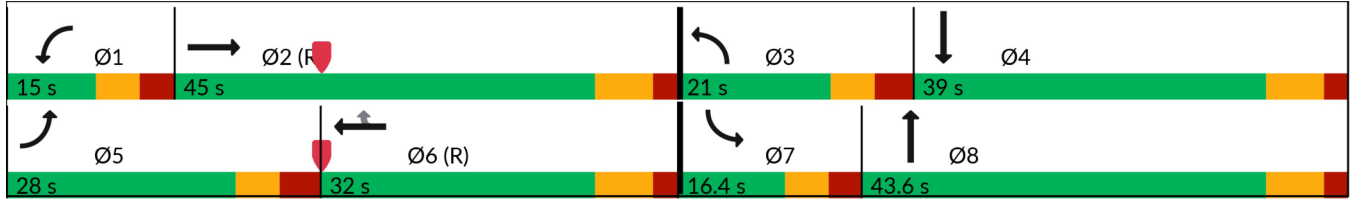
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions AM Peak Traffic Hour - Year 2045



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	293	264	193	791	2099	404
Future Volume (vph)	293	264	193	791	2099	404
Satd. Flow (prot)	3433	1583	1770	5085	5085	1583
Flt Permitted	0.950		0.052			
Satd. Flow (perm)	3433	1583	97	5085	5085	1583
Satd. Flow (RTOR)		287				439
Lane Group Flow (vph)	318	287	210	860	2282	439
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	23.0		25.0	97.0	72.0	72.0
Total Split (%)	19.2%		20.8%	80.8%	60.0%	60.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.6	120.0	89.4	90.4	68.3	68.3
Actuated g/C Ratio	0.12	1.00	0.75	0.75	0.57	0.57
v/c Ratio	0.76	0.18	0.80	0.22	0.79	0.40
Control Delay (s/veh)	63.4	0.3	52.5	4.6	23.5	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.4	0.3	52.5	4.6	23.5	2.5
LOS	E	A	D	A	C	A
Approach Delay (s/veh)	33.4			14.0	20.1	
Approach LOS	C			B	C	
Queue Length 50th (ft)	123	0	108	64	506	0
Queue Length 95th (ft)	173	0	#199	78	591	47
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	443	1583	302	3829	2894	1090
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	0.72	0.18	0.70	0.22	0.79	0.40

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions AM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 0.80

Intersection Signal Delay (s/veh): 20.5

Intersection LOS: C

Intersection Capacity Utilization 79.2%

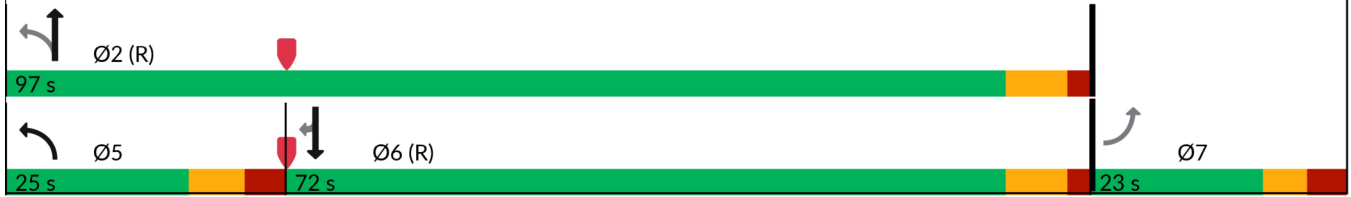
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Background Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive AM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	107	116	183	13	4	224
Future Vol, veh/h	107	116	183	13	4	224
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	116	126	199	14	4	243

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	213	0	-	0	565 206
Stage 1	-	-	-	-	206 -
Stage 2	-	-	-	-	359 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1357	-	-	-	486 835
Stage 1	-	-	-	-	829 -
Stage 2	-	-	-	-	707 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1357	-	-	-	445 835
Mov Cap-2 Maneuver	-	-	-	-	445 -
Stage 1	-	-	-	-	758 -
Stage 2	-	-	-	-	707 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.79	0	11.26
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1357	-	-	-	822
HCM Lane V/C Ratio	0.086	-	-	-	0.302
HCM Ctrl Dly (s/v)	7.9	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.3

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Background Traffic Conditions
AM Peak Traffic Hour - Year 2045

Intersection			
Intersection Delay, s/veh	5.6		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	489	213	167
Demand Flow Rate, veh/h	499	217	170
Vehicles Circulating, veh/h	3	163	336
Vehicles Exiting, veh/h	377	343	166
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.0	4.8	5.4
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	499	217	170
Cap Entry Lane, veh/h	1376	1169	980
Entry HV Adj Factor	0.980	0.981	0.982
Flow Entry, veh/h	489	213	167
Cap Entry, veh/h	1348	1147	961
V/C Ratio	0.363	0.186	0.174
Control Delay, s/veh	6.0	4.8	5.4
LOS	A	A	A
95th %tile Queue, veh	2	1	1

HCM 7th TWSC
5: Meridian Park Drive & Bent Grass Meadows Drive

Background Traffic Conditions
AM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	9.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	↙
Traffic Vol, veh/h	216	52	389	210	33	339
Future Vol, veh/h	216	52	389	210	33	339
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	235	57	423	228	36	368

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	291	0	1309
Stage 1	-	-	-	-	235
Stage 2	-	-	-	-	1074
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1270	-	176
Stage 1	-	-	-	-	804
Stage 2	-	-	-	-	328
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1270	-	117
Mov Cap-2 Maneuver	-	-	-	-	188
Stage 1	-	-	-	-	804
Stage 2	-	-	-	-	219

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	6	20.83
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	623	-	-	1270	-
HCM Lane V/C Ratio	0.649	-	-	0.333	-
HCM Ctrl Dly (s/v)	20.8	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	4.7	-	-	1.5	-

HCM 7th TWSC
6: Bent Grass Market View & Bent Grass Meadows Drive

Background Traffic Conditions
AM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	258	22	21	222	18	10
Future Vol, veh/h	258	22	21	222	18	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	280	24	23	241	20	11

























Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	304	0	579	292
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1256	-	477	747
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1256	-	468	747
Mov Cap-2 Maneuver	-	-	-	-	557	-
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.68	11.05
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	557	747	-	-	1256	-
HCM Lane V/C Ratio	0.035	0.015	-	-	0.018	-
HCM Ctrl Dly (s/v)	11.7	9.9	-	-	7.9	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
PM Peak Traffic Hour - Year 2045

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1049	697	312	138	587	211	507	1055	119	195	648	782
Future Volume (vph)	1049	697	312	138	587	211	507	1055	119	195	648	782
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			365			299			365			609
Lane Group Flow (vph)	1140	758	339	150	638	229	551	1147	129	212	704	850
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	41.0	56.7		16.0	31.7	31.7	24.0	32.5		14.8	23.3	
Total Split (%)	34.2%	47.3%		13.3%	26.4%	26.4%	20.0%	27.1%		12.3%	19.4%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	C-Max		None	C-Max	C-Max	Max	Max		Max	Max	
Act Effct Green (s)	33.5	49.7	120.0	8.7	24.4	24.4	16.7	25.2	120.0	8.0	16.0	120.0
Actuated g/C Ratio	0.28	0.41	1.00	0.07	0.20	0.20	0.14	0.21	1.00	0.07	0.13	1.00
v/c Ratio	1.19	0.36	0.21	0.60	0.62	0.41	1.16	1.07	0.08	0.93	1.04	0.54
Control Delay (s/veh)	134.6	24.9	0.3	64.5	46.6	3.4	137.0	95.0	0.1	99.8	95.3	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	134.6	24.9	0.3	64.5	46.6	3.4	137.0	95.0	0.1	99.8	95.3	1.3
LOS	F	C	A	E	D	A	F	F	A	F	F	A
Approach Delay (s/veh)		77.0			39.5			101.0			50.6	
Approach LOS		E			D			F			D	
Queue Length 50th (ft)	~548	146	0	58	166	0	~259	~361	0	85	~215	0
Queue Length 95th (ft)	#681	180	0	94	209	19	#371	#456	0	#161	#301	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	958	2105	1583	257	1033	560	477	1067	1583	228	678	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.36	0.21	0.58	0.62	0.41	1.16	1.07	0.08	0.93	1.04	0.54

Intersection Summary

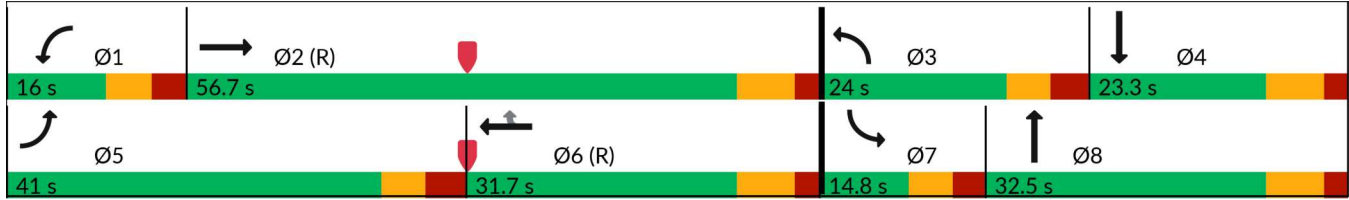
Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
PM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 1.19	
Intersection Signal Delay (s/veh): 71.0	Intersection LOS: E
Intersection Capacity Utilization 101.2%	ICU Level of Service G
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions
PM Peak Traffic Hour - Year 2045



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	293	192	228	2109	1298	259
Future Volume (vph)	293	192	228	2109	1298	259
Satd. Flow (prot)	3433	1583	1770	5085	5085	1583
Flt Permitted	0.950		0.129			
Satd. Flow (perm)	3433	1583	240	5085	5085	1583
Satd. Flow (RTOR)		209				282
Lane Group Flow (vph)	318	209	248	2292	1411	282
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	27.0		20.0	93.0	73.0	73.0
Total Split (%)	22.5%		16.7%	77.5%	60.8%	60.8%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	16.1	120.0	87.9	88.9	69.1	69.1
Actuated g/C Ratio	0.13	1.00	0.73	0.74	0.58	0.58
v/c Ratio	0.69	0.13	0.78	0.61	0.48	0.27
Control Delay (s/veh)	57.5	0.2	29.5	8.5	16.1	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.5	0.2	29.5	8.5	16.1	2.2
LOS	E	A	C	A	B	A
Approach Delay (s/veh)	34.8			10.5	13.8	
Approach LOS	C			B	B	
Queue Length 50th (ft)	122	0	57	268	231	0
Queue Length 95th (ft)	166	0	#191	343	281	39
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	557	1583	329	3767	2929	1031
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.13	0.75	0.61	0.48	0.27

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions PM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 14.4

Intersection LOS: B

Intersection Capacity Utilization 65.7%

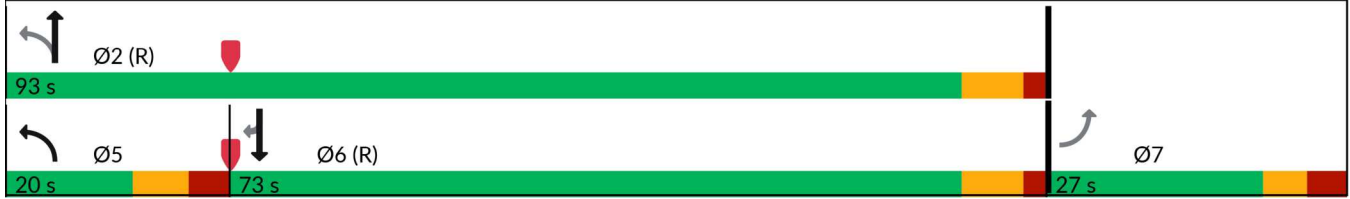
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Background Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive PM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	178	230	211	18	10	84
Future Vol, veh/h	178	230	211	18	10	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	193	250	229	20	11	91

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	249	0	-	0	876 239
Stage 1	-	-	-	-	239 -
Stage 2	-	-	-	-	637 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1317	-	-	-	319 800
Stage 1	-	-	-	-	801 -
Stage 2	-	-	-	-	527 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1317	-	-	-	272 800
Mov Cap-2 Maneuver	-	-	-	-	272 -
Stage 1	-	-	-	-	683 -
Stage 2	-	-	-	-	527 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.58	0	11.41
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1317	-	-	-	663
HCM Lane V/C Ratio	0.147	-	-	-	0.154
HCM Ctrl Dly (s/v)	8.2	-	-	-	11.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.5

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Background Traffic Conditions
PM Peak Traffic Hour - Year 2045

Intersection			
Intersection Delay, s/veh	8.7		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	699	668	137
Demand Flow Rate, veh/h	713	681	140
Vehicles Circulating, veh/h	9	130	583
Vehicles Exiting, veh/h	802	593	139
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.2	9.7	6.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	713	681	140
Cap Entry Lane, veh/h	1367	1209	761
Entry HV Adj Factor	0.980	0.981	0.977
Flow Entry, veh/h	699	668	137
Cap Entry, veh/h	1340	1185	744
V/C Ratio	0.521	0.564	0.184
Control Delay, s/veh	8.2	9.7	6.8
LOS	A	A	A
95th %tile Queue, veh	3	4	1

HCM 7th TWSC
5: Meridian Park Drive & Bent Grass Meadows Drive

Background Traffic Conditions
PM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	6.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	
Traffic Vol, veh/h	199	26	288	191	21	296
Future Vol, veh/h	199	26	288	191	21	296
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	216	28	313	208	23	322

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	245	0	1050
Stage 1	-	-	-	-	216
Stage 2	-	-	-	-	834
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1322	-	252
Stage 1	-	-	-	-	820
Stage 2	-	-	-	-	426
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1322	-	192
Mov Cap-2 Maneuver	-	-	-	-	276
Stage 1	-	-	-	-	820
Stage 2	-	-	-	-	325

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	5.15	14.31
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	728	-	-	1322	-
HCM Lane V/C Ratio	0.473	-	-	0.237	-
HCM Ctrl Dly (s/v)	14.3	-	-	8.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	2.6	-	-	0.9	-

HCM 7th TWSC Background Traffic Conditions
 6: Bent Grass Market View & Bent Grass Meadows Drive PM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	213	22	21	191	22	12
Future Vol, veh/h	213	22	21	191	22	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	232	24	23	208	24	13

























Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	255	0	497	243
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	253	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1310	-	533	795
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	789	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1310	-	523	795
Mov Cap-2 Maneuver	-	-	-	-	597	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	775	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.77	10.69
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	597	795	-	-	1310	-
HCM Lane V/C Ratio	0.04	0.016	-	-	0.017	-
HCM Ctrl Dly (s/v)	11.3	9.6	-	-	7.8	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	811	566	205	146	404	146	273	597	101	199	681	673
Future Volume (vph)	811	566	205	146	404	146	273	597	101	199	681	673
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			304			237			304			650
Lane Group Flow (vph)	882	615	223	159	439	159	297	649	110	216	740	732
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	25.3		14.8	25.3	
Total Split (s)	37.0	51.0		17.0	31.0	31.0	18.0	32.3		19.7	34.0	
Total Split (%)	30.8%	42.5%		14.2%	25.8%	25.8%	15.0%	26.9%		16.4%	28.3%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	29.5	44.2	120.0	9.5	23.7	23.7	10.7	26.0	120.0	11.9	26.7	120.0
Actuated g/C Ratio	0.25	0.37	1.00	0.08	0.20	0.20	0.09	0.22	1.00	0.10	0.22	1.00
v/c Ratio	1.05	0.33	0.14	0.59	0.44	0.32	0.97	0.59	0.07	0.64	0.65	0.46
Control Delay (s/veh)	87.8	27.9	0.2	62.5	43.9	2.2	99.2	44.9	0.1	60.8	45.6	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	87.8	27.9	0.2	62.5	43.9	2.2	99.2	44.9	0.1	60.8	45.6	1.0
LOS	F	C	A	E	D	A	F	D	A	E	D	A
Approach Delay (s/veh)		55.0			39.0			55.5			28.2	
Approach LOS		E			D			E			C	
Queue Length 50th (ft)	~382	124	0	61	110	0	120	168	0	83	192	0
Queue Length 95th (ft)	#509	158	0	98	146	6	#210	212	0	124	238	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	843	1873	1583	286	1004	502	306	1103	1583	369	1131	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.33	0.14	0.56	0.44	0.32	0.97	0.59	0.07	0.59	0.65	0.46

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 1.05

Intersection Signal Delay (s/veh): 44.1

Intersection LOS: D

Intersection Capacity Utilization 87.8%

ICU Level of Service E

Analysis Period (min) 15

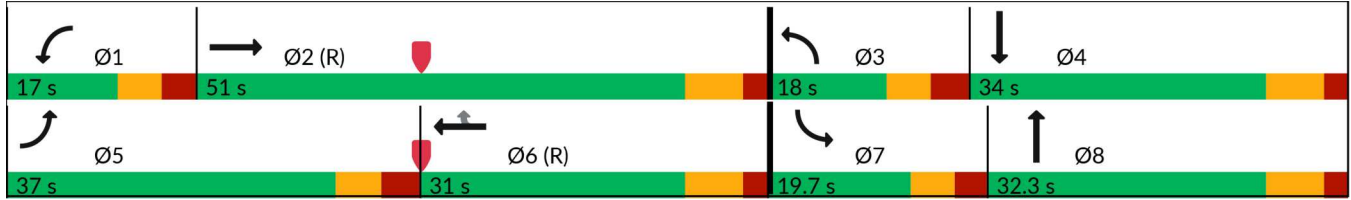
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings
2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2045



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	117	111	91	1507	1328	126
Future Volume (vph)	117	111	91	1507	1328	126
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.110			
Satd. Flow (perm)	3433	1583	205	3539	3539	1583
Satd. Flow (RTOR)		121				137
Lane Group Flow (vph)	127	121	99	1638	1443	137
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	16.0		17.0	84.0	67.0	67.0
Total Split (%)	16.0%		17.0%	84.0%	67.0%	67.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.3	100.0	75.7	76.7	64.1	64.1
Actuated g/C Ratio	0.08	1.00	0.76	0.77	0.64	0.64
v/c Ratio	0.45	0.08	0.38	0.60	0.64	0.13
Control Delay (s/veh)	48.9	0.1	7.3	6.2	13.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.9	0.1	7.3	6.2	13.5	1.8
LOS	D	A	A	A	B	A
Approach Delay (s/veh)	25.1			6.3	12.5	
Approach LOS	C			A	B	
Queue Length 50th (ft)	40	0	14	195	293	0
Queue Length 95th (ft)	70	0	25	243	380	23
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	291	1583	287	2713	2268	1063
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	0.44	0.08	0.34	0.60	0.64	0.13

Intersection Summary
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 46 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Background Traffic Conditions Sunday Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 0.64	
Intersection Signal Delay (s/veh): 10.3	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Background Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	119	248	199	21	18	80
Future Vol, veh/h	119	248	199	21	18	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	129	270	216	23	20	87

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	239	0	-	0	756 228
Stage 1	-	-	-	-	228 -
Stage 2	-	-	-	-	528 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1328	-	-	-	376 812
Stage 1	-	-	-	-	810 -
Stage 2	-	-	-	-	591 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1328	-	-	-	339 812
Mov Cap-2 Maneuver	-	-	-	-	339 -
Stage 1	-	-	-	-	731 -
Stage 2	-	-	-	-	591 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.6	0	11.67
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1328	-	-	-	646
HCM Lane V/C Ratio	0.097	-	-	-	0.165
HCM Ctrl Dly (s/v)	8	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Intersection			
Intersection Delay, s/veh	8.2		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	728	685	5
Demand Flow Rate, veh/h	743	699	5
Vehicles Circulating, veh/h	5	0	743
Vehicles Exiting, veh/h	694	748	5
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.5	7.9	5.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	743	699	5
Cap Entry Lane, veh/h	1373	1380	647
Entry HV Adj Factor	0.980	0.980	0.980
Flow Entry, veh/h	728	685	5
Cap Entry, veh/h	1345	1352	634
V/C Ratio	0.541	0.507	0.008
Control Delay, s/veh	8.5	7.9	5.8
LOS	A	A	A
95th %tile Queue, veh	3	3	0

HCM 7th TWSC
5: Meridian Park Drive & Bent Grass Meadows Drive

Background Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↘	
Traffic Vol, veh/h	106	12	126	89	12	126
Future Vol, veh/h	106	12	126	89	12	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	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	115	13	137	97	13	137

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	128	0	486	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	371	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1458	-	540	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1458	-	490	937
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	633	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.53	9.92
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	882	-	-	1458	-
HCM Lane V/C Ratio	0.17	-	-	0.094	-
HCM Ctrl Dly (s/v)	9.9	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0.3	-

HCM 7th TWSC

Background Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	101	31	29	72	32	17
Future Vol, veh/h	101	31	29	72	32	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	110	34	32	78	35	18

























Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	143	0	268	127
Stage 1	-	-	-	-	127	-
Stage 2	-	-	-	-	141	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1439	-	721	924
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1439	-	705	924
Mov Cap-2 Maneuver	-	-	-	-	724	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	866	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.17	9.79
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	724	924	-	-	1439	-
HCM Lane V/C Ratio	0.048	0.02	-	-	0.022	-
HCM Ctrl Dly (s/v)	10.2	9	-	-	7.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
AM Peak Traffic Hour - Year 2027

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	392	263	269	79	559	75	250	275	11	97	920	897
Future Volume (vph)	392	263	269	79	559	75	250	275	11	97	920	897
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			299			233			299			641
Lane Group Flow (vph)	426	286	292	86	608	82	272	299	12	105	1000	975
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	24.0	44.0		13.0	33.0	33.0	19.0	48.2		14.8	44.0	
Total Split (%)	20.0%	36.7%		10.8%	27.5%	27.5%	15.8%	40.2%		12.3%	36.7%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	16.5	39.3	120.0	6.0	25.7	25.7	11.6	40.9	120.0	8.0	36.8	120.0
Actuated g/C Ratio	0.14	0.33	1.00	0.05	0.21	0.21	0.10	0.34	1.00	0.07	0.31	1.00
v/c Ratio	0.90	0.25	0.18	0.50	0.80	0.16	0.82	0.25	0.01	0.46	0.92	0.62
Control Delay (s/veh)	74.8	31.2	0.3	66.1	53.9	0.6	73.5	29.2	0.0	60.8	54.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	74.8	31.2	0.3	66.1	53.9	0.6	73.5	29.2	0.0	60.8	54.6	1.8
LOS	E	C	A	E	D	A	E	C	A	E	D	A
Approach Delay (s/veh)		40.7			49.6			49.2			30.2	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	169	87	0	34	236	0	108	87	0	41	394	0
Queue Length 95th (ft)	#261	125	0	61	305	0	#175	123	0	70	#522	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	472	1159	1583	171	758	522	334	1206	1583	228	1085	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.25	0.18	0.50	0.80	0.16	0.81	0.25	0.01	0.46	0.92	0.62

Intersection Summary

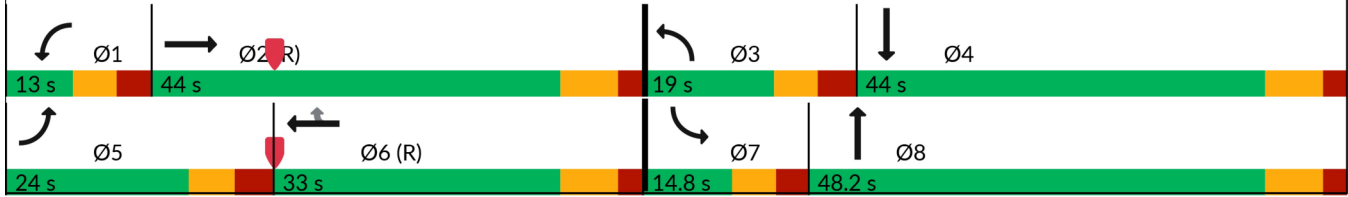
Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
AM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.92	
Intersection Signal Delay (s/veh): 38.4	Intersection LOS: D
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings
2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions
AM Peak Traffic Hour - Year 2027



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	246	221	171	534	1473	310
Future Volume (vph)	246	221	171	534	1473	310
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.065			
Satd. Flow (perm)	3433	1583	121	3539	3539	1583
Satd. Flow (RTOR)		240				337
Lane Group Flow (vph)	267	240	186	580	1601	337
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	28.0		20.0	92.0	72.0	72.0
Total Split (%)	23.3%		16.7%	76.7%	60.0%	60.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.6	120.0	89.4	90.4	69.3	69.3
Actuated g/C Ratio	0.12	1.00	0.75	0.75	0.58	0.58
v/c Ratio	0.64	0.15	0.71	0.22	0.78	0.32
Control Delay (s/veh)	57.1	0.2	37.6	4.8	24.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.1	0.2	37.6	4.8	24.1	2.3
LOS	E	A	D	A	C	A
Approach Delay (s/veh)	30.2			12.8	20.3	
Approach LOS	C			B	C	
Queue Length 50th (ft)	103	0	73	60	495	0
Queue Length 95th (ft)	143	0	#169	90	637	43
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	586	1583	273	2666	2043	1056
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	0.46	0.15	0.68	0.22	0.78	0.32

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions AM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 20.1

Intersection LOS: C

Intersection Capacity Utilization 76.8%

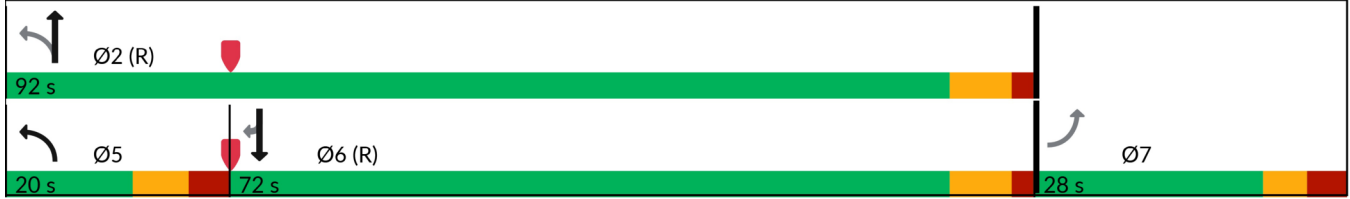
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC

Total Traffic Conditions

3: Woodmen Frontage Road & Bent Grass Meadows Drive AM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	76	81	128	9	3	159
Future Vol, veh/h	76	81	128	9	3	159
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	83	88	139	10	3	173

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	149	0	-	0	397 144
Stage 1	-	-	-	-	144 -
Stage 2	-	-	-	-	253 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1433	-	-	-	608 903
Stage 1	-	-	-	-	883 -
Stage 2	-	-	-	-	789 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1433	-	-	-	573 903
Mov Cap-2 Maneuver	-	-	-	-	573 -
Stage 1	-	-	-	-	832 -
Stage 2	-	-	-	-	789 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.71	0	10.01
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1433	-	-	-	894
HCM Lane V/C Ratio	0.058	-	-	-	0.197
HCM Ctrl Dly (s/v)	7.7	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Total Traffic Conditions
AM Peak Traffic Hour - Year 2027

Intersection			
Intersection Delay, s/veh	4.9		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	391	150	168
Demand Flow Rate, veh/h	399	153	171
Vehicles Circulating, veh/h	3	164	235
Vehicles Exiting, veh/h	314	242	167
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.2	4.3	4.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	399	153	171
Cap Entry Lane, veh/h	1376	1167	1086
Entry HV Adj Factor	0.980	0.980	0.982
Flow Entry, veh/h	391	150	168
Cap Entry, veh/h	1348	1144	1066
V/C Ratio	0.290	0.131	0.157
Control Delay, s/veh	5.2	4.3	4.8
LOS	A	A	A
95th %tile Queue, veh	1	0	1

HCM 7th TWSC

Total Traffic Conditions

5: Meridian Park Drive/Access A & Bent Grass Meadows Drive AM Peak Traffic Hour - Year 2027

Intersection												
Int Delay, s/veh	8.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	165	40	312	165	5	27	1	299	3	1	1
Future Vol, veh/h	2	165	40	312	165	5	27	1	299	3	1	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	105	-	150	150	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	179	43	339	179	5	29	1	325	3	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	185	0	0	223	0	0	1042	1047	179	1042	1085	179
Stage 1	-	-	-	-	-	-	184	184	-	858	858	-
Stage 2	-	-	-	-	-	-	858	863	-	184	227	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1390	-	-	1346	-	-	208	228	863	208	217	863
Stage 1	-	-	-	-	-	-	818	748	-	352	374	-
Stage 2	-	-	-	-	-	-	351	372	-	818	716	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1390	-	-	1346	-	-	154	170	863	96	162	863
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	170	-	96	162	-
Stage 1	-	-	-	-	-	-	817	747	-	263	280	-
Stage 2	-	-	-	-	-	-	262	278	-	508	715	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.07			5.55			18.3			33.92		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	620	1390	-	-	1346	-	-	130
HCM Lane V/C Ratio	0.573	0.002	-	-	0.252	-	-	0.042
HCM Ctrl Dly (s/v)	18.3	7.6	-	-	8.6	-	-	33.9
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	3.6	0	-	-	1	-	-	0.1

HCM 7th TWSC

Total Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive

AM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	197	22	21	172	18	10
Future Vol, veh/h	197	22	21	172	18	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	214	24	23	187	20	11

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	238	0	459	226
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	233	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1329	-	560	813
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	806	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1329	-	551	813
Mov Cap-2 Maneuver	-	-	-	-	617	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.84	10.48
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	617	813	-	-	1329	-
HCM Lane V/C Ratio	0.032	0.013	-	-	0.017	-
HCM Ctrl Dly (s/v)	11	9.5	-	-	7.8	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

HCM 7th TWSC
7: Bent Grass Meadows Drive & Access B

Total Traffic Conditions
AM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	207	193	0	0	0
Future Vol, veh/h	0	207	193	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	225	210	0	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
PM Peak Traffic Hour - Year 2027

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	737	488	218	97	411	154	355	746	83	144	460	550
Future Volume (vph)	737	488	218	97	411	154	355	746	83	144	460	550
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			365			299			365			598
Lane Group Flow (vph)	801	530	237	105	447	167	386	811	90	157	500	598
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	37.0	53.2		15.0	31.2	31.2	24.1	37.0		14.8	27.7	
Total Split (%)	30.8%	44.3%		12.5%	26.0%	26.0%	20.1%	30.8%		12.3%	23.1%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	C-Max		None	C-Max	C-Max	Max	Max		None	Max	
Act Effct Green (s)	29.5	46.2	120.0	7.7	23.9	23.9	16.8	29.7	120.0	8.0	20.4	120.0
Actuated g/C Ratio	0.25	0.39	1.00	0.06	0.20	0.20	0.14	0.25	1.00	0.07	0.17	1.00
v/c Ratio	0.95	0.39	0.15	0.48	0.63	0.30	0.80	0.93	0.06	0.69	0.83	0.38
Control Delay (s/veh)	65.9	27.8	0.2	61.6	48.7	1.4	63.7	61.6	0.1	70.8	61.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.9	27.8	0.2	61.6	48.7	1.4	63.7	61.6	0.1	70.8	61.2	0.7
LOS	E	C	A	E	D	A	E	E	A	E	E	A
Approach Delay (s/veh)		43.1			39.6			57.9			33.6	
Approach LOS		D			D			E			C	
Queue Length 50th (ft)	315	155	0	41	168	0	151	324	0	62	198	0
Queue Length 95th (ft)	#438	203	0	70	225	0	#221	#443	0	#106	#280	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	843	1361	1583	228	704	554	480	875	1583	228	601	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.39	0.15	0.46	0.63	0.30	0.80	0.93	0.06	0.69	0.83	0.38

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
PM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.95	
Intersection Signal Delay (s/veh): 44.1	Intersection LOS: D
Intersection Capacity Utilization 91.4%	ICU Level of Service F
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings
2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions
PM Peak Traffic Hour - Year 2027



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	249	168	192	1459	918	197
Future Volume (vph)	249	168	192	1459	918	197
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.213			
Satd. Flow (perm)	3433	1583	397	3539	3539	1583
Satd. Flow (RTOR)		183				214
Lane Group Flow (vph)	271	183	209	1586	998	214
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	27.0		20.0	93.0	73.0	73.0
Total Split (%)	22.5%		16.7%	77.5%	60.8%	60.8%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.7	120.0	89.3	90.3	72.1	72.1
Actuated g/C Ratio	0.12	1.00	0.74	0.75	0.60	0.60
v/c Ratio	0.65	0.12	0.52	0.60	0.47	0.21
Control Delay (s/veh)	57.2	0.1	9.5	8.1	14.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.2	0.1	9.5	8.1	14.9	2.2
LOS	E	A	A	A	B	A
Approach Delay (s/veh)	34.2			8.3	12.6	
Approach LOS	C			A	B	
Queue Length 50th (ft)	104	0	41	248	212	0
Queue Length 95th (ft)	144	0	74	351	304	35
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	557	1583	428	2662	2126	1036
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	0.49	0.12	0.49	0.60	0.47	0.21

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions PM Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.65

Intersection Signal Delay (s/veh): 13.2

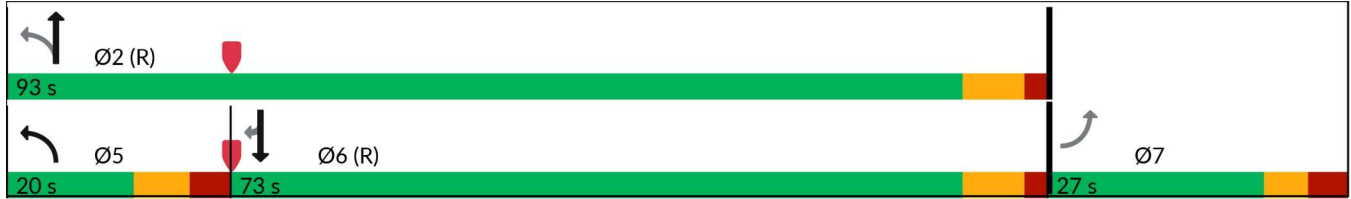
Intersection LOS: B

Intersection Capacity Utilization 62.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC

Total Traffic Conditions

3: Woodmen Frontage Road & Bent Grass Meadows Drive PM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	127	161	148	12	7	62
Future Vol, veh/h	127	161	148	12	7	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	138	175	161	13	8	67

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	174	0	-	0	618 167
Stage 1	-	-	-	-	167 -
Stage 2	-	-	-	-	451 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1403	-	-	-	453 877
Stage 1	-	-	-	-	862 -
Stage 2	-	-	-	-	642 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1403	-	-	-	408 877
Mov Cap-2 Maneuver	-	-	-	-	408 -
Stage 1	-	-	-	-	777 -
Stage 2	-	-	-	-	642 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.46	0	10.07
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1403	-	-	-	785
HCM Lane V/C Ratio	0.098	-	-	-	0.096
HCM Ctrl Dly (s/v)	7.8	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3

HCM 7th Roundabout
 4: Falcon Market Place & Eastonville Road

Total Traffic Conditions
 PM Peak Traffic Hour - Year 2027

Intersection			
Intersection Delay, s/veh	6.6		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	528	470	152
Demand Flow Rate, veh/h	539	479	155
Vehicles Circulating, veh/h	9	144	408
Vehicles Exiting, veh/h	614	419	140
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.4	7.1	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
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	539	479	155
Cap Entry Lane, veh/h	1367	1191	910
Entry HV Adj Factor	0.980	0.981	0.979
Flow Entry, veh/h	528	470	152
Cap Entry, veh/h	1339	1169	891
V/C Ratio	0.394	0.402	0.170
Control Delay, s/veh	6.4	7.1	5.7
LOS	A	A	A
95th %tile Queue, veh	2	2	1

HCM 7th TWSC

Total Traffic Conditions

5: Meridian Park Drive/Access A & Bent Grass Meadows Drive PM Peak Traffic Hour - Year 2027

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗		↕			↕	
Traffic Vol, veh/h	2	156	22	227	150	5	19	1	257	7	2	1
Future Vol, veh/h	2	156	22	227	150	5	19	1	257	7	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	105	-	150	150	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	170	24	247	163	5	21	1	279	8	2	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	193	0	0	832	836	170	831	854	163
Stage 1	-	-	-	-	-	-	174	174	-	657	657	-
Stage 2	-	-	-	-	-	-	658	662	-	174	198	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1409	-	-	1380	-	-	289	303	874	289	296	882
Stage 1	-	-	-	-	-	-	828	755	-	454	462	-
Stage 2	-	-	-	-	-	-	454	459	-	827	737	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1409	-	-	1380	-	-	235	249	874	161	243	882
Mov Cap-2 Maneuver	-	-	-	-	-	-	235	249	-	161	243	-
Stage 1	-	-	-	-	-	-	827	754	-	373	379	-
Stage 2	-	-	-	-	-	-	370	377	-	561	736	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.08			4.86			13.33			25.23		
HCM LOS							B			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	731	1409	-	-	1380	-	-	189
HCM Lane V/C Ratio	0.412	0.002	-	-	0.179	-	-	0.058
HCM Ctrl Dly (s/v)	13.3	7.6	-	-	8.2	-	-	25.2
HCM Lane LOS	B	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	2	0	-	-	0.7	-	-	0.2

HCM 7th TWSC

Total Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive

PM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	168	22	21	149	22	12
Future Vol, veh/h	168	22	21	149	22	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	183	24	23	162	24	13

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	207	0	402	195
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	208	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1365	-	604	847
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	827	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1365	-	594	847
Mov Cap-2 Maneuver	-	-	-	-	648	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	813	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.95	10.26
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	648	847	-	-	1365	-
HCM Lane V/C Ratio	0.037	0.015	-	-	0.017	-
HCM Ctrl Dly (s/v)	10.8	9.3	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

HCM 7th TWSC
7: Bent Grass Meadows Drive & Access B

Total Traffic Conditions
PM Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	180	170	0	0	1
Future Vol, veh/h	0	180	170	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	196	185	0	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 185
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	-	- 0 857
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- - -
Mov Cap-1 Maneuver	-	-	- - 857
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	857
HCM Lane V/C Ratio	-	-	-	0.001
HCM Ctrl Dly (s/v)	-	-	-	9.2
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2027

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	568	396	144	102	283	131	191	457	71	171	498	471
Future Volume (vph)	568	396	144	102	283	131	191	457	71	171	498	471
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Satd. Flow (RTOR)			299			233			299			512
Lane Group Flow (vph)	617	430	157	111	308	142	208	497	77	186	541	512
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	25.3		14.8	25.3	
Total Split (s)	35.0	52.0		15.0	32.0	32.0	18.0	36.2		16.8	35.0	
Total Split (%)	29.2%	43.3%		12.5%	26.7%	26.7%	15.0%	30.2%		14.0%	29.2%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	25.3	45.0	120.0	7.7	26.9	26.9	10.4	29.2	120.0	9.7	28.0	120.0
Actuated g/C Ratio	0.21	0.38	1.00	0.06	0.22	0.22	0.09	0.24	1.00	0.08	0.23	1.00
v/c Ratio	0.85	0.32	0.10	0.50	0.39	0.27	0.70	0.58	0.05	0.67	0.65	0.32
Control Delay (s/veh)	57.7	27.6	0.1	62.4	41.9	1.2	66.5	43.2	0.1	66.0	46.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.7	27.6	0.1	62.4	41.9	1.2	66.5	43.2	0.1	66.0	46.1	0.5
LOS	E	C	A	E	D	A	E	D	A	E	D	A
Approach Delay (s/veh)		39.5			35.7			45.1			30.3	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	235	124	0	43	108	0	81	180	0	73	201	0
Queue Length 95th (ft)	300	166	0	74	155	0	123	237	0	112	263	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	786	1326	1583	228	793	535	306	861	1583	286	826	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.32	0.10	0.49	0.39	0.27	0.68	0.58	0.05	0.65	0.65	0.32

Intersection Summary

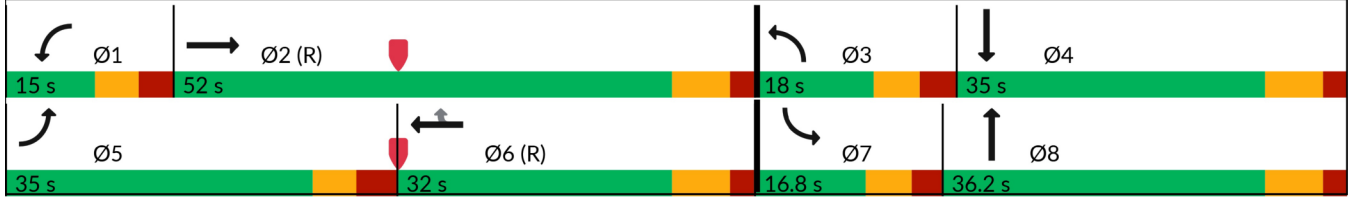
Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 95
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 37.1	Intersection LOS: D
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings
2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2027



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	145	142	142	1055	930	147
Future Volume (vph)	145	142	142	1055	930	147
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.205			
Satd. Flow (perm)	3433	1583	382	3539	3539	1583
Satd. Flow (RTOR)		154				160
Lane Group Flow (vph)	158	154	154	1147	1011	160
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	22.0		20.0	78.0	58.0	58.0
Total Split (%)	22.0%		20.0%	78.0%	58.0%	58.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	10.1	100.0	73.9	74.9	58.3	58.3
Actuated g/C Ratio	0.10	1.00	0.74	0.75	0.58	0.58
v/c Ratio	0.46	0.10	0.39	0.43	0.49	0.16
Control Delay (s/veh)	46.3	0.1	6.9	5.4	13.6	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.3	0.1	6.9	5.4	13.6	2.2
LOS	D	A	A	A	B	A
Approach Delay (s/veh)	23.5			5.6	12.1	
Approach LOS	C			A	B	
Queue Length 50th (ft)	50	0	23	117	182	0
Queue Length 95th (ft)	79	0	46	170	265	29
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	497	1583	441	2650	2064	990
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	0.32	0.10	0.35	0.43	0.49	0.16

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 46 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions Sunday Peak Traffic Hour - Year 2027

Maximum v/c Ratio: 0.49	
Intersection Signal Delay (s/veh): 10.3	Intersection LOS: B
Intersection Capacity Utilization 59.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Total Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	93	174	139	15	12	67
Future Vol, veh/h	93	174	139	15	12	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	189	151	16	13	73

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	167	0	-	0	551 159
Stage 1	-	-	-	-	159 -
Stage 2	-	-	-	-	391 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1410	-	-	-	496 886
Stage 1	-	-	-	-	869 -
Stage 2	-	-	-	-	683 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1410	-	-	-	460 886
Mov Cap-2 Maneuver	-	-	-	-	460 -
Stage 1	-	-	-	-	807 -
Stage 2	-	-	-	-	683 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.7	0	10.21
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1410	-	-	-	777
HCM Lane V/C Ratio	0.072	-	-	-	0.111
HCM Ctrl Dly (s/v)	7.7	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

HCM 7th Roundabout
 4: Falcon Market Place & Eastonville Road

Total Traffic Conditions
 Sunday Peak Traffic Hour - Year 2027

Intersection			
Intersection Delay, s/veh	6.2		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	531	481	51
Demand Flow Rate, veh/h	541	491	52
Vehicles Circulating, veh/h	5	23	520
Vehicles Exiting, veh/h	509	549	26
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.4	6.1	5.1
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	541	491	52
Cap Entry Lane, veh/h	1373	1348	812
Entry HV Adj Factor	0.982	0.979	0.989
Flow Entry, veh/h	531	481	51
Cap Entry, veh/h	1347	1320	803
V/C Ratio	0.394	0.364	0.064
Control Delay, s/veh	6.4	6.1	5.1
LOS	A	A	A
95th %tile Queue, veh	2	2	0

HCM 7th TWSC

Total Traffic Conditions

5: Meridian Park Drive/Access A & Bent Grass Meadows Sunday Peak Traffic Hour - Year 2027

Intersection												
Int Delay, s/veh	8.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗		↕			↕	
Traffic Vol, veh/h	39	74	8	88	82	118	8	19	88	127	42	22
Future Vol, veh/h	39	74	8	88	82	118	8	19	88	127	42	22
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	105	-	150	150	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	80	9	96	89	128	9	21	96	138	46	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	89	0	0	468	574	80	456	454	89
Stage 1	-	-	-	-	-	-	165	165	-	280	280	-
Stage 2	-	-	-	-	-	-	303	409	-	176	174	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1352	-	-	1506	-	-	505	429	980	515	502	969
Stage 1	-	-	-	-	-	-	837	762	-	726	679	-
Stage 2	-	-	-	-	-	-	706	596	-	826	755	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1352	-	-	1506	-	-	406	389	980	401	455	969
Mov Cap-2 Maneuver	-	-	-	-	-	-	406	389	-	401	455	-
Stage 1	-	-	-	-	-	-	811	738	-	680	636	-
Stage 2	-	-	-	-	-	-	599	558	-	702	731	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	2.5			2.31			10.99			20.13		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	726	1352	-	-	1506	-	-	442
HCM Lane V/C Ratio	0.172	0.031	-	-	0.064	-	-	0.469
HCM Ctrl Dly (s/v)	11	7.7	-	-	7.6	-	-	20.1
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.2	-	-	2.4

HCM 7th TWSC

Total Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	90	31	29	63	32	17
Future Vol, veh/h	90	31	29	63	32	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	98	34	32	68	35	18

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	132	0	246	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1454	-	742	938
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	895	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1454	-	726	938
Mov Cap-2 Maneuver	-	-	-	-	738	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	875	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.37	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	738	938	-	-	1454	-
HCM Lane V/C Ratio	0.047	0.02	-	-	0.022	-
HCM Ctrl Dly (s/v)	10.1	8.9	-	-	7.5	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

HCM 7th TWSC
7: Bent Grass Meadows Drive & Access B

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2027

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	121	92	20	0	21
Future Vol, veh/h	0	121	92	20	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	132	100	22	0	23

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	8.91
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	942
HCM Lane V/C Ratio	-	-	-	0.024
HCM Ctrl Dly (s/v)	-	-	-	8.9
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.1

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
AM Peak Traffic Hour - Year 2045

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	555	376	385	113	798	98	357	383	16	130	1305	1278
Future Volume (vph)	555	376	385	113	798	98	357	383	16	130	1305	1278
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			418			233			299			622
Lane Group Flow (vph)	603	409	418	123	867	107	388	416	17	141	1418	1389
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	28.0	45.0		15.0	32.0	32.0	21.0	43.6		16.4	39.0	
Total Split (%)	23.3%	37.5%		12.5%	26.7%	26.7%	17.5%	36.3%		13.7%	32.5%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		Max	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	20.5	37.7	120.0	8.0	24.7	24.7	13.7	36.7	120.0	9.2	31.7	120.0
Actuated g/C Ratio	0.17	0.31	1.00	0.07	0.21	0.21	0.11	0.31	1.00	0.08	0.26	1.00
v/c Ratio	1.03	0.26	0.26	0.54	0.83	0.21	0.99	0.27	0.01	0.54	1.06	0.88
Control Delay (s/veh)	93.6	31.2	0.4	63.4	53.5	0.9	96.9	32.1	0.0	61.2	83.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	93.6	31.2	0.4	63.4	53.5	0.9	96.9	32.1	0.0	61.2	83.4	7.8
LOS	F	C	A	E	D	A	F	C	A	E	F	A
Approach Delay (s/veh)		48.5			49.5			62.1			46.7	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	~257	86	0	48	237	0	157	89	0	55	~440	0
Queue Length 95th (ft)	#372	115	0	80	289	0	#260	119	0	89	#536	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	586	1597	1583	228	1046	510	391	1556	1583	274	1343	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.26	0.26	0.54	0.83	0.21	0.99	0.27	0.01	0.51	1.06	0.88

Intersection Summary

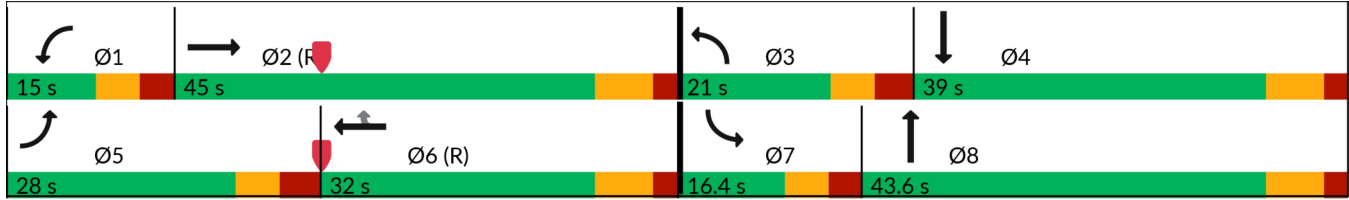
Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
AM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 1.06	
Intersection Signal Delay (s/veh): 49.6	Intersection LOS: D
Intersection Capacity Utilization 94.9%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings 2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions
AM Peak Traffic Hour - Year 2045



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	294	266	196	791	2099	416
Future Volume (vph)	294	266	196	791	2099	416
Satd. Flow (prot)	3433	1583	1770	5085	5085	1583
Flt Permitted	0.950		0.052			
Satd. Flow (perm)	3433	1583	97	5085	5085	1583
Satd. Flow (RTOR)		289				452
Lane Group Flow (vph)	320	289	213	860	2282	452
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	23.0		25.0	97.0	72.0	72.0
Total Split (%)	19.2%		20.8%	80.8%	60.0%	60.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.7	120.0	89.3	90.3	68.1	68.1
Actuated g/C Ratio	0.12	1.00	0.74	0.75	0.57	0.57
v/c Ratio	0.76	0.18	0.81	0.22	0.79	0.41
Control Delay (s/veh)	63.5	0.3	52.9	4.6	23.7	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	63.5	0.3	52.9	4.6	23.7	2.5
LOS	E	A	D	A	C	A
Approach Delay (s/veh)	33.5			14.2	20.2	
Approach LOS	C			B	C	
Queue Length 50th (ft)	124	0	110	64	509	0
Queue Length 95th (ft)	174	0	#208	78	591	48
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	443	1583	302	3828	2884	1093
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	0.72	0.18	0.71	0.22	0.79	0.41

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated

Timings

2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions

AM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 0.81

Intersection Signal Delay (s/veh): 20.6

Intersection LOS: C

Intersection Capacity Utilization 79.4%

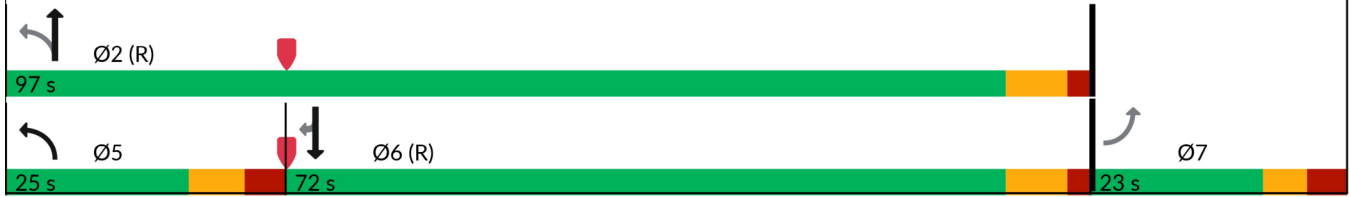
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC

Total Traffic Conditions

3: Woodmen Frontage Road & Bent Grass Meadows Drive AM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↘	
Traffic Vol, veh/h	105	116	183	13	4	224
Future Vol, veh/h	105	116	183	13	4	224
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	114	126	199	14	4	243

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	213	0	-	0	560 206
Stage 1	-	-	-	-	206 -
Stage 2	-	-	-	-	354 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1357	-	-	-	489 835
Stage 1	-	-	-	-	829 -
Stage 2	-	-	-	-	710 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1357	-	-	-	448 835
Mov Cap-2 Maneuver	-	-	-	-	448 -
Stage 1	-	-	-	-	759 -
Stage 2	-	-	-	-	710 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.75	0	11.26
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1357	-	-	-	822
HCM Lane V/C Ratio	0.084	-	-	-	0.301
HCM Ctrl Dly (s/v)	7.9	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.3

HCM 7th Roundabout
 4: Falcon Market Place & Eastonville Road

Total Traffic Conditions
 AM Peak Traffic Hour - Year 2045

Intersection			
Intersection Delay, s/veh	5.6		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	490	213	168
Demand Flow Rate, veh/h	500	217	171
Vehicles Circulating, veh/h	3	164	336
Vehicles Exiting, veh/h	378	343	167
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.0	4.8	5.4
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	500	217	171
Cap Entry Lane, veh/h	1376	1167	980
Entry HV Adj Factor	0.980	0.981	0.982
Flow Entry, veh/h	490	213	168
Cap Entry, veh/h	1348	1145	962
V/C Ratio	0.363	0.186	0.175
Control Delay, s/veh	6.0	4.8	5.4
LOS	A	A	A
95th %tile Queue, veh	2	1	1

HCM 7th TWSC

Total Traffic Conditions

5: Meridian Park Drive/Access A & Bent Grass Meadows Drive AM Peak Traffic Hour - Year 2045

Intersection												
Int Delay, s/veh	16.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗		↕			↕	
Traffic Vol, veh/h	2	216	52	389	210	5	33	1	339	3	1	1
Future Vol, veh/h	2	216	52	389	210	5	33	1	339	3	1	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	105	-	150	150	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	235	57	423	228	5	36	1	368	3	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	291	0	0	1314	1318	235	1314	1370	228
Stage 1	-	-	-	-	-	-	239	239	-	1074	1074	-
Stage 2	-	-	-	-	-	-	1074	1079	-	240	296	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1334	-	-	1270	-	-	135	157	804	135	146	811
Stage 1	-	-	-	-	-	-	764	707	-	266	296	-
Stage 2	-	-	-	-	-	-	266	295	-	764	668	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1334	-	-	1270	-	-	89	105	804	48	98	811
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	105	-	48	98	-
Stage 1	-	-	-	-	-	-	763	706	-	178	198	-
Stage 2	-	-	-	-	-	-	176	197	-	412	667	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.06			5.95			45.82			62.37		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	1334	-	-	1270	-	-	68
HCM Lane V/C Ratio	0.87	0.002	-	-	0.333	-	-	0.08
HCM Ctrl Dly (s/v)	45.8	7.7	-	-	9.2	-	-	62.4
HCM Lane LOS	E	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	9.1	0	-	-	1.5	-	-	0.3

HCM 7th TWSC

Total Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive

AM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	260	22	21	223	18	10
Future Vol, veh/h	260	22	21	223	18	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	283	24	23	242	20	11

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	307	0	583	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	288	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1254	-	475	745
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	761	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1254	-	466	745
Mov Cap-2 Maneuver	-	-	-	-	556	-
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	747	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.68	11.07
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	556	745	-	-	1254	-
HCM Lane V/C Ratio	0.035	0.015	-	-	0.018	-
HCM Ctrl Dly (s/v)	11.7	9.9	-	-	7.9	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

HCM 7th TWSC
7: Bent Grass Meadows Drive & Access B

Total Traffic Conditions
AM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	270	244	0	0	0
Future Vol, veh/h	0	270	244	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	293	265	0	0	0

























Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
PM Peak Traffic Hour - Year 2045

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1049	697	312	138	587	212	507	1057	119	197	649	782
Future Volume (vph)	1049	697	312	138	587	212	507	1057	119	197	649	782
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			365			299			365			609
Lane Group Flow (vph)	1140	758	339	150	638	230	551	1149	129	214	705	850
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	23.3		14.8	23.3	
Total Split (s)	41.0	56.7		16.0	31.7	31.7	24.0	32.5		14.8	23.3	
Total Split (%)	34.2%	47.3%		13.3%	26.4%	26.4%	20.0%	27.1%		12.3%	19.4%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	C-Max		None	C-Max	C-Max	Max	Max		Max	Max	
Act Effct Green (s)	33.5	49.7	120.0	8.7	24.4	24.4	16.7	25.2	120.0	8.0	16.0	120.0
Actuated g/C Ratio	0.28	0.41	1.00	0.07	0.20	0.20	0.14	0.21	1.00	0.07	0.13	1.00
v/c Ratio	1.19	0.36	0.21	0.60	0.62	0.41	1.16	1.08	0.08	0.94	1.04	0.54
Control Delay (s/veh)	134.6	24.9	0.3	64.5	46.6	3.5	137.0	95.6	0.1	101.6	95.7	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	134.6	24.9	0.3	64.5	46.6	3.5	137.0	95.6	0.1	101.6	95.7	1.3
LOS	F	C	A	E	D	A	F	F	A	F	F	A
Approach Delay (s/veh)		77.0			39.5			101.3			51.1	
Approach LOS		E			D			F			D	
Queue Length 50th (ft)	~548	146	0	58	166	0	~259	~363	0	86	~216	0
Queue Length 95th (ft)	#681	180	0	94	209	20	#371	#457	0	#163	#301	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	958	2105	1583	257	1033	560	477	1067	1583	228	678	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.36	0.21	0.58	0.62	0.41	1.16	1.08	0.08	0.94	1.04	0.54

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
PM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 1.19	
Intersection Signal Delay (s/veh): 71.2	Intersection LOS: E
Intersection Capacity Utilization 101.2%	ICU Level of Service G
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings
2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions
PM Peak Traffic Hour - Year 2045



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	296	196	231	2109	1298	261
Future Volume (vph)	296	196	231	2109	1298	261
Satd. Flow (prot)	3433	1583	1770	5085	5085	1583
Flt Permitted	0.950		0.129			
Satd. Flow (perm)	3433	1583	240	5085	5085	1583
Satd. Flow (RTOR)		213				284
Lane Group Flow (vph)	322	213	251	2292	1411	284
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	27.0		20.0	93.0	73.0	73.0
Total Split (%)	22.5%		16.7%	77.5%	60.8%	60.8%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	16.2	120.0	87.8	88.8	68.9	68.9
Actuated g/C Ratio	0.14	1.00	0.73	0.74	0.57	0.57
v/c Ratio	0.69	0.13	0.78	0.61	0.48	0.28
Control Delay (s/veh)	57.5	0.2	30.3	8.5	16.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.5	0.2	30.3	8.5	16.2	2.2
LOS	E	A	C	A	B	A
Approach Delay (s/veh)	34.7			10.7	13.9	
Approach LOS	C			B	B	
Queue Length 50th (ft)	124	0	61	270	233	0
Queue Length 95th (ft)	169	0	#197	343	281	39
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	557	1583	329	3762	2919	1030
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	0.58	0.13	0.76	0.61	0.48	0.28

Intersection Summary

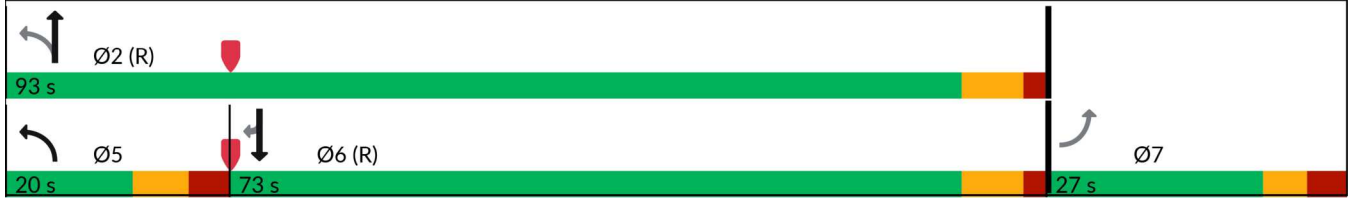
Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Timings 2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions PM Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 14.5	Intersection LOS: B
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Total Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive PM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	3.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	178	230	211	18	10	85
Future Vol, veh/h	178	230	211	18	10	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	193	250	229	20	11	92

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	249	0	-	0	876 239
Stage 1	-	-	-	-	239 -
Stage 2	-	-	-	-	637 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1317	-	-	-	319 800
Stage 1	-	-	-	-	801 -
Stage 2	-	-	-	-	527 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1317	-	-	-	272 800
Mov Cap-2 Maneuver	-	-	-	-	272 -
Stage 1	-	-	-	-	683 -
Stage 2	-	-	-	-	527 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.58	0	11.41
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1317	-	-	-	664
HCM Lane V/C Ratio	0.147	-	-	-	0.155
HCM Ctrl Dly (s/v)	8.2	-	-	-	11.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.5

HCM 7th Roundabout
 4: Falcon Market Place & Eastonville Road

Total Traffic Conditions
 PM Peak Traffic Hour - Year 2045

Intersection			
Intersection Delay, s/veh	8.9		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	700	668	152
Demand Flow Rate, veh/h	714	681	155
Vehicles Circulating, veh/h	9	144	583
Vehicles Exiting, veh/h	816	594	140
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.2	10.0	7.1
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	714	681	155
Cap Entry Lane, veh/h	1367	1191	761
Entry HV Adj Factor	0.980	0.981	0.979
Flow Entry, veh/h	700	668	152
Cap Entry, veh/h	1340	1168	746
V/C Ratio	0.522	0.572	0.204
Control Delay, s/veh	8.2	10.0	7.1
LOS	A	A	A
95th %tile Queue, veh	3	4	1

HCM 7th TWSC

Total Traffic Conditions

5: Meridian Park Drive/Access A & Bent Grass Meadows Drive PM Peak Traffic Hour - Year 2045

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗		↔			↔	
Traffic Vol, veh/h	2	199	26	288	191	5	21	1	296	7	2	1
Future Vol, veh/h	2	199	26	288	191	5	21	1	296	7	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	105	-	150	150	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	216	28	313	208	5	23	1	322	8	2	1

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	213	0	0	245	0	0	1055	1060	216	1055	1083	208
Stage 1	-	-	-	-	-	-	221	221	-	834	834	-
Stage 2	-	-	-	-	-	-	835	839	-	221	249	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1357	-	-	1322	-	-	203	224	824	204	217	833
Stage 1	-	-	-	-	-	-	782	721	-	363	383	-
Stage 2	-	-	-	-	-	-	362	381	-	781	701	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1357	-	-	1322	-	-	153	171	824	94	166	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	153	171	-	94	166	-
Stage 1	-	-	-	-	-	-	781	720	-	277	293	-
Stage 2	-	-	-	-	-	-	274	291	-	475	699	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.07	5.1	17.31	39.88
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1357	-	-	1322	-	-	114
HCM Lane V/C Ratio	0.546	0.002	-	-	0.237	-	-	0.095
HCM Ctrl Dly (s/v)	17.3	7.7	-	-	8.6	-	-	39.9
HCM Lane LOS	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	3.3	0	-	-	0.9	-	-	0.3

HCM 7th TWSC

Total Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive

PM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	215	22	21	192	22	12
Future Vol, veh/h	215	22	21	192	22	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	234	24	23	209	24	13

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	258	0	500	246
Stage 1	-	-	-	-	246	-
Stage 2	-	-	-	-	254	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1307	-	530	793
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	788	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1307	-	521	793
Mov Cap-2 Maneuver	-	-	-	-	596	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	774	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.77	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	596	793	-	-	1307	-
HCM Lane V/C Ratio	0.04	0.016	-	-	0.017	-
HCM Ctrl Dly (s/v)	11.3	9.6	-	-	7.8	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

HCM 7th TWSC
7: Bent Grass Meadows Drive & Access B

Total Traffic Conditions
PM Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	227	213	0	0	1
Future Vol, veh/h	0	227	213	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	247	232	0	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	9.46
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	808
HCM Lane V/C Ratio	-	-	-	0.001
HCM Ctrl Dly (s/v)	-	-	-	9.5
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	811	566	205	146	404	175	273	636	101	231	702	673
Future Volume (vph)	811	566	205	146	404	175	273	636	101	231	702	673
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	5085	1583	3433	5085	1583
Satd. Flow (RTOR)			304			237			304			650
Lane Group Flow (vph)	882	615	223	159	439	190	297	691	110	251	763	732
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	23.0		4.0	23.0	23.0	8.0	16.0		8.0	16.0	
Minimum Split (s)	11.5	30.3		11.0	30.3	30.3	15.3	25.3		14.8	25.3	
Total Split (s)	37.0	51.0		17.0	31.0	31.0	18.0	32.3		19.7	34.0	
Total Split (%)	30.8%	42.5%		14.2%	25.8%	25.8%	15.0%	26.9%		16.4%	28.3%	
Yellow Time (s)	4.0	5.2		4.0	5.2	5.2	4.0	5.2		4.0	5.2	
All-Red Time (s)	3.5	2.1		3.0	2.1	2.1	3.3	2.1		2.8	2.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.3		7.0	7.3	7.3	7.3	7.3		6.8	7.3	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	29.5	44.2	120.0	9.5	23.7	23.7	10.7	25.6	120.0	12.3	26.7	120.0
Actuated g/C Ratio	0.25	0.37	1.00	0.08	0.20	0.20	0.09	0.21	1.00	0.10	0.22	1.00
v/c Ratio	1.05	0.33	0.14	0.59	0.44	0.38	0.97	0.64	0.07	0.72	0.67	0.46
Control Delay (s/veh)	87.8	27.9	0.2	62.5	43.9	4.3	99.2	46.2	0.1	64.2	46.2	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	87.8	27.9	0.2	62.5	43.9	4.3	99.2	46.2	0.1	64.2	46.2	1.0
LOS	F	C	A	E	D	A	F	D	A	E	D	A
Approach Delay (s/veh)		55.0			38.1			55.9			29.8	
Approach LOS		E			D			E			C	
Queue Length 50th (ft)	~382	124	0	61	110	0	120	181	0	97	199	0
Queue Length 95th (ft)	#509	158	0	98	146	30	#210	226	0	143	246	0
Internal Link Dist (ft)		1011			761			805			661	
Turn Bay Length (ft)	480		660	195		260	450		360	460		445
Base Capacity (vph)	843	1873	1583	286	1004	502	306	1086	1583	369	1131	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.33	0.14	0.56	0.44	0.38	0.97	0.64	0.07	0.68	0.67	0.46

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated

Timings
1: Meridian Road & E Woodmen Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 1.05

Intersection Signal Delay (s/veh): 44.5

Intersection LOS: D

Intersection Capacity Utilization 88.0%

ICU Level of Service E

Analysis Period (min) 15

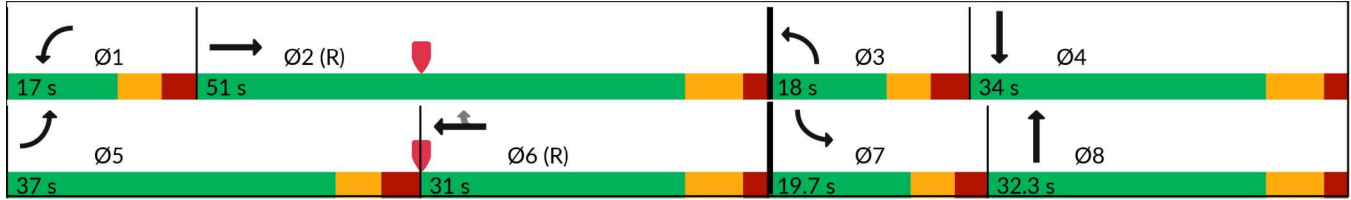
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Meridian Road & E Woodmen Road



Timings
2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2045



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	180	175	170	1507	1328	182
Future Volume (vph)	180	175	170	1507	1328	182
Satd. Flow (prot)	3433	1583	1770	3539	3539	1583
Flt Permitted	0.950		0.103			
Satd. Flow (perm)	3433	1583	192	3539	3539	1583
Satd. Flow (RTOR)		190				198
Lane Group Flow (vph)	196	190	185	1638	1443	198
Turn Type	Perm	Free	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	7	Free	2			6
Detector Phase	7		5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0		5.0	15.0	10.0	10.0
Minimum Split (s)	15.5		13.5	27.5	17.5	17.5
Total Split (s)	16.0		17.0	84.0	67.0	67.0
Total Split (%)	16.0%		17.0%	84.0%	67.0%	67.0%
Yellow Time (s)	4.0		5.0	5.5	5.5	5.5
All-Red Time (s)	3.5		3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5		8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None		None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	100.0	75.6	76.6	60.1	60.1
Actuated g/C Ratio	0.08	1.00	0.76	0.77	0.60	0.60
v/c Ratio	0.68	0.12	0.68	0.60	0.68	0.19
Control Delay (s/veh)	57.3	0.2	22.7	6.3	15.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.3	0.2	22.7	6.3	15.6	1.8
LOS	E	A	C	A	B	A
Approach Delay (s/veh)	29.2			7.9	14.0	
Approach LOS	C			A	B	
Queue Length 50th (ft)	63	0	27	195	307	0
Queue Length 95th (ft)	#106	0	#108	243	384	27
Internal Link Dist (ft)	335			1057	793	
Turn Bay Length (ft)	160	160	710			330
Base Capacity (vph)	291	1583	279	2711	2126	1030
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	0.67	0.12	0.66	0.60	0.68	0.19

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 46 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated

Timings
2: Bent Grass Meadows Drive & Meridian Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 12.6

Intersection LOS: B

Intersection Capacity Utilization 72.4%

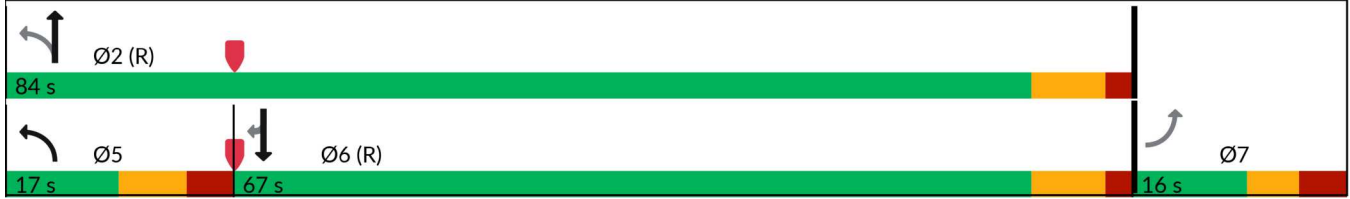
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bent Grass Meadows Drive & Meridian Road



HCM 7th TWSC Total Traffic Conditions
3: Woodmen Frontage Road & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	129	248	199	21	18	91
Future Vol, veh/h	129	248	199	21	18	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	-	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	140	270	216	23	20	99

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	239	0	-	0	778 228
Stage 1	-	-	-	-	228 -
Stage 2	-	-	-	-	550 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1328	-	-	-	365 812
Stage 1	-	-	-	-	810 -
Stage 2	-	-	-	-	578 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1328	-	-	-	326 812
Mov Cap-2 Maneuver	-	-	-	-	326 -
Stage 1	-	-	-	-	725 -
Stage 2	-	-	-	-	578 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.75	0	11.75
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1328	-	-	-	652
HCM Lane V/C Ratio	0.106	-	-	-	0.182
HCM Ctrl Dly (s/v)	8	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.7

HCM 7th Roundabout
4: Falcon Market Place & Eastonville Road

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Intersection			
Intersection Delay, s/veh	8.4		
Intersection LOS	A		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	749	685	51
Demand Flow Rate, veh/h	764	699	52
Vehicles Circulating, veh/h	5	23	743
Vehicles Exiting, veh/h	717	772	26
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.8	8.2	6.5
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	764	699	52
Cap Entry Lane, veh/h	1373	1348	647
Entry HV Adj Factor	0.980	0.980	0.989
Flow Entry, veh/h	749	685	51
Cap Entry, veh/h	1346	1321	640
V/C Ratio	0.557	0.519	0.080
Control Delay, s/veh	8.8	8.2	6.5
LOS	A	A	A
95th %tile Queue, veh	4	3	0

HCM 7th TWSC

Total Traffic Conditions

5: Meridian Park Drive/Access A & Bent Grass Meadows Sunday Peak Traffic Hour - Year 2045

Intersection												
Int Delay, s/veh	11											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↗		↔			↔	
Traffic Vol, veh/h	39	106	12	126	109	118	12	19	126	127	42	22
Future Vol, veh/h	39	106	12	126	109	118	12	19	126	127	42	22
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	105	-	150	150	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	115	13	137	118	128	13	21	137	138	46	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	247	0	0	128	0	0	615	721	115	603	605	118
Stage 1	-	-	-	-	-	-	200	200	-	392	392	-
Stage 2	-	-	-	-	-	-	415	521	-	210	213	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1319	-	-	1458	-	-	403	354	937	411	412	933
Stage 1	-	-	-	-	-	-	802	736	-	632	606	-
Stage 2	-	-	-	-	-	-	615	532	-	792	726	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1319	-	-	1458	-	-	306	310	937	290	361	933
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	310	-	290	361	-
Stage 1	-	-	-	-	-	-	776	712	-	573	549	-
Stage 2	-	-	-	-	-	-	497	482	-	635	703	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	1.94			2.76			12.23			32.67		
HCM LOS							B			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	668	1319	-	-	1458	-	-	330
HCM Lane V/C Ratio	0.255	0.032	-	-	0.094	-	-	0.629
HCM Ctrl Dly (s/v)	12.2	7.8	-	-	7.7	-	-	32.7
HCM Lane LOS		B	A	-	-	A	-	D
HCM 95th %tile Q(veh)		1	0.1	-	-	0.3	-	4

HCM 7th TWSC

Total Traffic Conditions

6: Bent Grass Market View & Bent Grass Meadows Drive Sunday Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	140	31	29	94	32	17
Future Vol, veh/h	140	31	29	94	32	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	50	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	152	34	32	102	35	18

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	186	0	334	169
Stage 1	-	-	-	-	169	-
Stage 2	-	-	-	-	165	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1389	-	661	875
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1389	-	646	875
Mov Cap-2 Maneuver	-	-	-	-	684	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	844	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.8	10.08
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	684	875	-	-	1389	-
HCM Lane V/C Ratio	0.051	0.021	-	-	0.023	-
HCM Ctrl Dly (s/v)	10.5	9.2	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-

HCM 7th TWSC
7: Bent Grass Meadows Drive & Access B

Total Traffic Conditions
Sunday Peak Traffic Hour - Year 2045

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	157	13	20	0	21
Future Vol, veh/h	0	157	13	20	0	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	171	14	22	0	23

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	- 25
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	-	-	-	0 1051
Stage 1	0	-	-	-	0 -
Stage 2	0	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	- 1051
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	1051
HCM Lane V/C Ratio	-	-	-	0.022
HCM Ctrl Dly (s/v)	-	-	-	8.5
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0.1

APPENDIX E

Sight Distance Exhibit

