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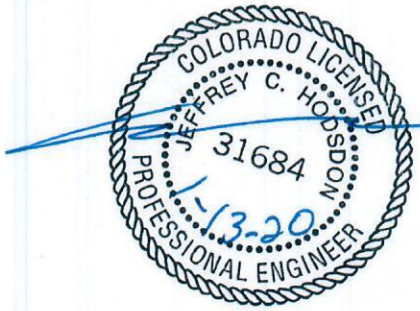
Falcon Field
Master Traffic Impact Study
PCD File No. CR191
(LSC #184560)
January 13, 2020

Traffic Engineer's Statement

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



Please remove the extra text from the standard signature block.

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report. There are no commitments made on the Developer's behalf in this report. Commitments will be made at the Final Plat stage of development in the form of a Subdivision Improvements Agreement and plat conditions.

Falcon Field LLC

by _____ Manager

1/15/2020
Date

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January 13, 2019

P.J. Anderson
31 N Tejon, Ste 500
Colorado Springs, CO 80903

RE: Falcon Field
El Paso County, CO
Master Traffic Impact Study
LSC #184560
PCD File No. CR191

Dear Mr. Anderson,

LSC Transportation Consultants, Inc. has prepared this Master Traffic Impact Study for the Falcon Field rezone/development in the Falcon area of El Paso County, Colorado Falcon Field is a proposed commercial development to be located southeast of the intersection of US 24 and Woodmen Road. This report has been prepared to accompany a property rezone submittal to El Paso County and the Colorado Department of Transportation (CDOT). Subsequent Traffic Impact Studies for Falcon Field will be provided for each phase of the project.

REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on the adjacent and nearby roadway system, including functional classification, widths, pavement markings, surface conditions, traffic control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes
- Weekday peak-hour turning movement traffic counts at the following intersections:
    - Woodmen Road/US 24
    - Woodmen Road/McLaughlin Road
    - Woodmen Road/Meridian Road
    - Rio Lane/US 24
- Estimated current average weekday traffic (AWT) volumes on the study area streets including US 24, Meridian Road, McLaughlin Road, Rio Lane
- Projections of 20-year background traffic volumes on the study area streets
- The proposed site land use – conceptual only with the rezone application

- Estimates of average weekday and weekday peak-hour trip generation for the proposed Falcon Field development and the estimated directional distribution of site-generated vehicle-trips on the area street and roadway network
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the study area intersections
- Projected total daily (AWT) volumes on the study area streets
- Intersection level of service analysis at the study area intersections
- Findings and recommendations

LIST OF OTHER TRAFFIC REPORTS USED IN THE PREPARATION OF THIS REPORT

The most recent versions of the following traffic reports were utilized in preparing this report. Falcon Marketplace, Meadowlake Ranch (LSC), The Ranch (LSC), US Highway 24 Planning and Linkage Study (CDOT). This report is generally consistent with these reports. Minor adjustments to background traffic volumes have been made to account for newer traffic counts, and traffic projections in the CDOT PEL study. Also, the background traffic volumes attempt to adjust for some of the pairing of trips between developments (i.e. some trips shown to exit one development may be paired with an arriving trip at another development). Each project's Traffic Impact Study (TIS) shows the trip ends generated at each trip end. This can result in "double counting" of trips on roadways in intersections between these two developments.

Other known reports completed within the past five years include: Big O tires (Meridian Road/US Highway 24), Falcon Highlands Taco Bell deviation request memo, Meridian Crossing Memo.

LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby roadways. The development is planned to have a home improvement store and other commercial land uses. The site is directly southeast of the intersection of Woodmen Road/US 24 in Parcels 4307000001 and 4307200015. A copy of the site plan is attached in Figure 2.

As shown on the site concept plan, the primary access will be a new southeast leg of the Woodmen Road/US 24 intersection (currently a T-intersection). This entry/access street will be classified as an urban non-residential Collector. The proposed new street connection between this entry drive and existing Rio Lane to the east would also be a non-residential Collector. The intersection of the entry street and the Collector connection to Rio Lane will either be a stop sign-controlled T-intersection or a modern roundabout. It should be noted that the intersection of Rio Lane/US 24 is proposed to be closed as shown in the adopted *US Highway 24 Access Management Plan* and the *US 24 Planning and Environmental Linkages Study, October 2017*.

The site plan shows conceptual, private internal drives for site circulation. Stubs are shown which would allow for possible future connections to future adjacent developments if ever needed. Currently no connections are proposed. The site plan also shows some potential future public

street connections. These are being provided for the benefit of Highway 24 access management should future connections to adjacent developments be needed in the future. No connections are proposed at this time. It is anticipated that the potential future public street connections would be Urban Local streets.

EXISTING ROADWAY AND TRAFFIC VOLUMES

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **Woodmen Road** is four-lane east/west Expressway that ends at the intersection with US 24. The intersections of Woodmen Road with Meridian Road, McLaughlin Road, and US 24 are all signalized.
- **US Highway 24** is a two-lane, category EX - Expressway/Major Bypass adjacent to the site that runs northeast/southwest with a 55-mph posted speed limit. The corridor was studied in-depth in the US 24 Planning and Environmental Linkages Study. Two alternatives were carried forward in this study for the segment of US 24 adjacent to the site:
    - US 24 as a six-lane corridor
    - US 24 as a four-lane corridor with a peak period shoulder lane in each direction

  Because both scenarios result in US 24 operating a six-lane road during peak hours, this has been assumed for the 2040 analysis.
- **Meridian Road** is a four-lane north/south Principal Arterial. Meridian Road currently does not connect with US 24 but is proposed to connect (signal traffic control) in the short-term future. The current US 24/Old Meridian Road intersection is planned to be converted to a right-in/right-out intersection.
- **McLaughlin Road** is a two-lane, non-residential Collector road that extends north from Rolling Thunder Avenue to Eastonville Road. The roadway provides retail and residential access both north and south of Woodmen Road.
- **Rio Lane** is a two-lane Rural Local roadway that connects US 24 to Falcon Highway. The roadway is about 24-feet wide. The intersection with US 24 is stop sign-controlled. The intersection with US Highway 24 is planned to be closed and the new internal roads planned as part of this development will serve as the replacement connection to US Highway 24.

Existing Traffic Volumes

Figure 3a shows the results of morning and afternoon peak-hour turning movement traffic counts at the intersections of Woodmen Road/US 24, Woodmen Road/Meridian Road, Woodmen Road/McLaughlin Road, and Rio Lane/US 24. The intersection traffic counts were collected in 2018 and 2019.

Existing Levels of Service

Level of service (LOS) is a quantitative measure of the level of delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A represents control delay of less than 10 seconds for unsignalized and signalized intersections. LOS F represents control delay of more than 50 seconds for unsignalized intersections and more than 80 seconds for signalized intersections. Table 1 shows the level of service delay ranges.

Table 1. Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle)[1]
A	≤ 10.0	≤ 10.0
B	10.1 – 20.0	10.1 – 15.0
C	20.1 – 35.0	15.1 – 25.0
D	35.1 – 55.0	25.1 – 35.0
E	55.1 – 80.0	35.1 – 50.0
F	≥ 80.1	≥ 50.1

[1] For unsignalized intersections, if V/C is > 1.00, then LOS is LOS F regardless of the projected average control delay per vehicle

Figure 3b presents the results of the existing intersection level of service analysis. The signalized intersections were analyzed using Synchro. While the unsignalized intersection of US 24/Rio Lane was analyzed based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The level of service reports are attached.

The southwest-bound through/left at the stop sign-controlled intersection of US 24/Rio Lane currently operates at LOS B or better during the peak hours. The shared northwest-bound left/right turning movement on Rio Lane operates at LOS E during the morning peak hour and LOS F during the evening peak hour. The levels of service E/F for this movement are due to both the volume of left-turning vehicles and the high volume of through vehicles on US 24.

The intersection of US 24/Woodmen Road currently operates at LOS B during both peak hours, with all movements operating at LOS C or better.

The intersection of McLaughlin Road/Woodmen Road currently operates at LOS B during both peak hours. All turning movements operate at LOS C or better during both peak hours, except for the northbound through movement that operates at LOS D during the evening peak hour.

The intersection of Meridian Road/Woodmen Road currently operates at LOS C during both peak hours. The left-turning movements operate at LOS D during both peak hours. The through and

right-turning movements operate at LOS C or better, except for the northbound through movement which currently operates at LOS D during both peak hours.

TRIP GENERATION

Estimates of the vehicle-trips projected to be generated by the proposed development have been made using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 2 below presents a summary of the estimated site trip generation. The detailed trip generation estimate for the development, including ITE rates for the proposed land use, is presented in Table 3.

Approximately 13,550 total daily trips are projected to enter and exit the site at the access point ("driveway trips") on the average weekday. During the morning peak hour, approximately 265 vehicles would enter, and 183 vehicles would exit the site. During the evening peak, approximately 590 vehicles would enter, and 631 vehicles would exit. The proposed development is projected to generate approximately 4,900 (new/non-pass-by or diverted) vehicle trips on the average weekday during a 24-hour period.

Table 2: Estimated Falcon Field Weekday Vehicle-Trip Generation

Analysis Period	Total Trips			Passby Trips			Diverted Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
A.M. Peak Hour	265	183	448	94	94	188	53	53	106
P.M. Peak Hour	590	631	1,221	234	234	468	151	151	302
Daily/24-Hour	6,772	6,772	13,544	2,649	2,649	5,298	1,661	1,661	3,223

A detailed trip generation estimate for the Falcon Field development including ITE rates for the proposed land use, is presented in Table 3 (attached).

Internal Trips

Internal trips are trips that occur within the site and do not impact the external roadways. Because the site is planned to have multiple retail pads, some of the generated trips will be traveling within the site. Table 3 includes estimates of internal trip capture to account for trips generated within the site.

Pass-by and Diverted Trips

The trips generated by the site have also been aggregated by trip type to account for the pass-by phenomenon. A pass-by trip is one made by a motorist who would already be on an adjacent road regardless of the proposed development, but who stops in at the site while passing by. The pass-by motorist would then continue on his or her way to a final destination in the original

direction. For purposes of this report, pass-by trips are trips by motorists already traveling through the intersection of US 24/Woodmen Road.

Because the site is near the intersections of US 24/Falcon Highway and US 24/Meridian Road, vehicles traveling through these intersections, but not through the intersection of US 24/Woodmen Road may still stop at the site on the way to their destination. Because these intersections are not directly adjacent to the site, these trips would be considered "diverted trips" based on ITE terminology and therefore are referred to as such in this report. These trips would result in altered turning movements at the nearby major intersections of US 24/Falcon Highway, US 24/Meridian Road, and Woodmen Road/Meridian Road and new turning movements at the intersection of US 24/Woodmen Road. In addition, it has been assumed that some of these diverted trips coming to and from Falcon Highway to the east will use Rio Lane to access the site.

Passby and diverted trips are shown in Table 3 and are based on *Trip Generation Handbook - An ITE Proposed Recommended Practice*, 3rd Edition, 2014 by ITE.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Directional Distribution

An estimate of the directional distribution of site-generated vehicle trips to the study area roads and intersections is a necessary component in determining the site-generated traffic volumes. Figure 4 shows the directional distribution estimate for the primary site-generated trips. The figure shows the percentages of the site-generated vehicle trips (primary trips) projected to be oriented to and from the site's major approaches. Estimates have been based on the following factors: traffic counts conducted at major intersections adjacent to the proposed development, the proposed land uses, the access plan, the area road system serving the site, the site's geographic location, and previously conducted LSC studies in the vicinity.

The directional distribution estimates for primary trips are based on the anticipated service area. This commercial center will primarily serve the Falcon area. The higher percentages for Meridian north of Woodmen, McLaughlin Road north of Woodmen Road, and US Highway 24 east of the site reflect the higher current density of "rooftops" and the anticipated growth areas to the north and northeast. The 10 percent split is associated with current residential development and potential future developments to the east (Falcon Highway corridor) and southeast. The 5 percent split to/from the southwest on US 24 (primary trips, like the other directional splits) is intended to account for some future Banning Lewis Ranch connections to Highway 24 and potentially some trips from the Cimarron Hills area (likely limited by the longer trip length and availability of commercial in the Powers Boulevard corridor). The 6 percent split to/from west Rolling Thunder Way reflects the residential development in that direction. While the 7 percent split to/from west Woodmen Road accounts for some traffic coming from areas to the west, including northern Colorado Springs, via this route.

Additionally, Figure 4 shows what percentage of overall pass-by and diverted trips have been pulled from each turning movement at the affected intersections to be rerouted as part of the site generated traffic.

Site-Generated Traffic

Site-generated traffic volumes for the development during the weekday morning and evening peak hours are shown in Figure 5 for the following intersections:

- Woodmen Road/US 24
- Woodmen Road/Meridian Road
- Woodmen Road/McLaughlin Road
- US 24/Meridian Road (long-term only)
- US 24/Old Meridian Road (long-term only)

Site-generated traffic volumes have been calculated by applying the directional distribution percentages estimated by LSC (from Figure 4) to the trip generation estimates (from Table 3). The pass-by trips and diverted trips were assigned based on the magnitude and direction of the peak hour traffic volumes projected for the area major streets/roads.

BACKGROUND TRAFFIC VOLUMES

Background traffic is traffic on the adjacent roadways that is forecasted to be present without the proposed development. Short-term and 2040 background traffic scenarios were developed.

Figure 6a shows the estimated short-term future background traffic volumes at the study area intersections, while Figure 7a shows the estimated 2040 background traffic volumes. These projected volumes include estimates from planned future Falcon area development and increases in through traffic volumes on the study area roadways. The forecasts also assume that the intersection of US 24/Rio Lane has been closed and the associated traffic has been re-routed.

TOTAL TRAFFIC VOLUMES

Site generated traffic volumes from Figure 5 were added to short-term background traffic volumes from Figure 6a to calculate short-term total traffic volumes provided on Figure 8a. Similarly, 2040 total traffic volumes provided on Figure 9a were calculated by adding the site generated traffic (Figure 5) with the 2040 background traffic volumes (Figure 7a).

LEVEL OF SERVICE ANALYSIS

Short-Term

Levels of service were calculated for both the short-term background and short-term total traffic volumes, as shown in Figure 6b and Figure 8b, respectively. Traffic lanes are also provided on

these figures. In the short-term scenarios, it has been assumed that no baseline capacity improvements will occur on US 24. The improvements assumed at the intersection of US 24/Woodmen Road would include:

- The fourth leg of the intersection with a left-lane, two through-lanes, and right-lane outbound at the site access.
- Auxiliary turn lanes on US Highway 24 to serve the trips/vehicle turning movements associated with the new fourth leg - the development, and the "replacement" Rio Lane connection.
- Raised right turn islands for pedestrian accessibility.
- Any lane alignment and/or median modifications on the Woodmen side of the intersection (to be determined with preliminary design)
- Signal modifications.

The signalized intersections are all forecasted to operate at LOS D or better during both peak hours in both the background and total scenarios. The intersection of Woodmen/Meridian is projected to operate at an overall level of service (LOS) D or better based on the short-term and 2040 total traffic volumes with and without this proposed development. Some of the individual intersection turning/lane group movements are shown to operate with delay in the LOS E range, in both the background and total traffic scenarios, (with and without site-generated traffic). This is a major, four-leg intersection of a Principal Arterial and an Expressway. As such, this intersection has a high projected background traffic demand and some individual LOS E movements are to be expected during peak periods. These "E" levels of service are due to the high volumes of left-turning background traffic forecast on all approaches. The reported v/c ratios for individual E level of service movements are less than 1.0. The site is forecast to add approximately 3 percent to the overall intersection traffic.

2040

Levels of service and traffic lanes/traffic control are provided for the 2040 background and 2040 total traffic scenarios in Figure 7b and Figure 9b, respectively. In the 2040 scenarios it has been assumed that US 24 has been widened to six lanes. Additionally, it has been assumed that the southeast-bound laneage on Woodmen Road at the US 24/Woodmen Road intersection reflects the laneage in the US 24 PEL (dual left-turns, single through lane, dual right-turns).

All the signalized intersections are projected to operate at LOS D or better during both peak hours in the 2040 scenarios. The intersection of Woodmen/Meridian is projected to operate at an overall level of service (LOS) D or better based on the 2040 total traffic volumes with and without this proposed development. Some of the individual intersection turning/lane group movements are shown to operate with delay in the LOS E range in both the background and total traffic scenarios (with and without site-generated traffic). This is a major four leg intersection of a Principal Arterial and an Expressway. As such, the intersection has a high projected background traffic demand and some individual LOS E movements are to be expected during peak periods. The reported v/c ratios for individual E level of service movements are less than 1.0.

QUEUING ANALYSIS

The 95th percentile queues at the intersection of US 24/Woodmen Road along with the queues at the intersection of the proposed Collector and Rio Lane were analyzed to develop laneage on the Collector. Additionally, the maximum queues were analyzed with SimTraffic.

The El Paso County *Engineering Criteria Manual (ECM)* standards were followed to develop turn lane recommendations at the intersections. Figure 10 provides the turn lane conceptual design for the roadway between US 24 and Rio Lane. As shown, it is recommended that the outbound left turn be 250 feet in length, while the outbound right turn should be 200 feet. The southbound left turn onto Rio Lane should be 150 feet in length. Queueing reports are attached.

Although not shown in Figure 10, an alternative design to the intersection with Rio Lane would be a modern roundabout. The southbound left turn lane onto Rio Lane would not be necessary with the roundabout option.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- Falcon Field is expected to generate about 13,544 new external vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour about 265 vehicles would enter and 183 vehicles would exit the site. During the afternoon peak hour approximately 590 vehicles would enter, and 631 vehicles would exit the site.

Traffic Operations Analysis

- All the study area signalized intersections are projected to operate at LOS D or better during both peak hours for the short-term and year 2040 scenarios. The El Paso County *Engineering Criteria Manual (ECM)* standards were followed to develop turn-lane recommendations at the intersections. Figure 10 provides the turn-lane conceptual design for the roadway between US 24 and Rio Lane. Please refer to the Level of Service and Queuing Analysis sections of this report for additional details and discussion.

Recommended Improvements

- A list of recommended improvements in the study area is presented in Table 4.
- The intersection of US 24/Rio Lane is to be closed and the proposed Collector roads within the site will connect Rio Lane to the US 24/Woodmen intersection.

The short-term improvements assumed at the intersection of US 24/Woodmen Road would include:

- The fourth leg of the intersection with a left-lane, two through-lanes, and right-lane outbound at the site access;
- Raised right-turn islands for pedestrian accessibility;
- Any lane alignment and/or median modifications on the Woodmen side of the intersection (to be determined with preliminary design);
- Signal modifications;
- Auxiliary turn lanes on US Highway 24 to serve the trips/vehicle turning movements associated with the new fourth leg - the development, and the "replacement" Rio Lane connection.

Based on the 2040 total traffic volumes shown in Figure 9a and the criteria contained in the *State of Colorado Highway Access Code,* the following deceleration and acceleration lanes are required on US Highway 24:

- A northeast-bound right-turn deceleration is warranted on US 24 approaching Woodmen Road. Based on a posted speed limit of 55 miles per hour (mph), the prescribed lane length for the deceleration lane is 600 feet long plus a 222-foot taper.
- A southwest-bound left-turn deceleration is warranted on US 24 approaching Woodmen Road. Based on a posted speed limit of 55 miles per hour (mph), the prescribed lane length for the deceleration lane is 600 feet long plus 125 feet of storage and a 222-foot taper.
- A northwest-bound right-turn acceleration is warranted on US 24 east of Woodmen Road. Based on a posted speed limit of 55 miles per hour (mph), the prescribed lane length for the acceleration lane is 960 feet long plus a 222-foot taper.
- Based on the total traffic volumes shown in Figure 9a and the criteria contained in the El Paso County *Engineering Criteria Manual (ECM)*, turn lanes are required on the urban non-residential Collector at the intersection with US 24 and the intersection with Rio Lane. Additional details are provided on Figure 10.

DEVIATIONS TO ECM CRITERIA

The following deviations may be required:

- Intersection spacing along a Non-Residential Collector for the first intersection back from an arterial roadway;
- Access to an Urban Non-Residential Collector;
- Curve Centerline Radius on an Urban, Non-Residential Collector;
- Auxiliary Turn lane length on an Urban Non-Residential Collector.

ROADWAY CLASSIFICATIONS

- The roads proposed for this project would be classified as Urban Non-Residential Collector streets. Please refer to the "Existing Roadways" section above for classification information of existing roads.

MTCP-IDENTIFIED ROADWAY IMPROVEMENT PROJECTS

- The MTCP calls for improvement to US Highway 24 from Garrett Road to Woodmen Road and upgrade to a rural six-lane Principal Arterial.
- Although not in the immediate area, the MTCP calls for an upgrade to Falcon Highway to a two-lane, rural Minor Arterial from US Highway 24 to one mile east of Curtis Road. Also, the MTCP calls for an upgrade to Eastonville Road from McLaughlin to Latigo Blvd. as a rural road upgrade to a two-lane Rural Minor Arterial.

MULTI-MODAL TRANSPORTATION & TDM OPPORTUNITIES

- The project would include urban street sections with sidewalks.
- Figure 10 shows the recommendation for pedestrian crossing of US Highway 24. LSC recommends pedestrian/bicycle trail connections between the US Highway 24 Woodmen intersection to the Rock Island Trail and the existing sidewalks within the existing shopping center areas of Falcon.
- Also, trail connections exist between the Rock Island Trail and the Woodmen Hills neighborhoods to the north of Highway 24.
- A Park & Ride is planned for a site south of US Highway 24 & Woodmen. Future Mountain Metropolitan Transit bus service may be added to/from this Park & Ride location.
- This site is within two miles of Falcon Elementary School. No residential uses are proposed for this development.

COUNTY ROAD IMPROVEMENT FEE PROGRAM

This project would be subject to participation in the County Roadway Improvement Fee Program in the future. However, the site is located within the Woodmen Road Metropolitan District service area.

US HIGHWAY ACCESS MANAGEMENT PLAN

This project will implement part of the US Highway Access Management Plan. There may be available CDOT funds associated with implementing access management plans that could potentially match or at least offset some of the developer infrastructure costs.

* * * * *

Please contact me if you have any questions regarding this report.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.
Principal

JCH:CRG:jas

Enclosures: Tables 3- 4
Figures 1-10
Traffic Count Reports
Level of Service Reports
Queuing Reports

Tables and Figures

TRANSPORTATION
CONSULTANTS, INC.

Table 3: Detailed Trip Generation Estimate

Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates [1] Average Weekday Traffic	Trip Generation Rates [1] Morning Peak Hour In	Trip Generation Rates [1] Morning Peak Hour Out	Trip Generation Rates [1] Afternoon Peak Hour In	Trip Generation Rates [1] Afternoon Peak Hour Out	Total Trips Generated Average Weekday Traffic	Total Trips Generated Morning Peak Hour In	Total Trips Generated Morning Peak Hour Out	Total Trips Generated Afternoon Peak Hour In	Total Trips Generated Afternoon Peak Hour Out	Internal Trip %	Internal Trips Generated Average Weekday Traffic	Internal Trips Generated Morning Peak Hour In	Internal Trips Generated Morning Peak Hour Out	Internal Trips Generated Afternoon Peak Hour In	Internal Trips Generated Afternoon Peak Hour Out	External Trips Generated Average Weekday Traffic	External Trips Generated Morning Peak Hour In	External Trips Generated Morning Peak Hour Out	External Trips Generated Afternoon Peak Hour In	External Trips Generated Afternoon Peak Hour Out	Pass-By Trips [2]	New External Trips Generated Average Weekday Traffic
Falcon Fields Crossing Trip Generation Estimate																									
820	Shopping Center	233.66 KSF[3]	38.32	0.54	0.33	1.81	1.96	8,953	126	77	423	458	4%	358	5	3	17	18	8,595	121	74	406	440	34%	5,673
862	Home Improvement Superstore	175 KSF	30.74	0.89	0.68	1.14	1.19	5,380	157	118	200	208	8%	430	13	9	16	17	4,949	144	109	184	191	48%	2,574
		Total Trip Generation Estimate						**14,333**	**283**	**196**	**622**	**666**		**788**	**18**	**13**	**33**	**35**	**13,544**	**265**	**183**	**590**	**631**		**8,247**

Notes:

(1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE)

(2) Source: "Trip Generation Handbook - An ITE Proposed Recommended Practice, Third Edition September 2017" by ITE

(3) KSF = one thousand square feet of floor space

Source: LSC Transportation Consultants, Inc.

Table 4 - Recommended Improvements

Item #	Improvement	Timing	Responsibility
	Roadway Segment Improvements		
1	Construct an Urban Non-Residential Collector street from the Woodmen/US 24 intersection into the site; Construct an Urban Non-Residential Collector street between this "entry" street to existing Rio Lane as per the US Highway 24 Access Management Plan.	With the subdivision (plat)	Applicant
2	Upgrade Rio Lane (Falcon Highway to the site) to Urban Local standards; pedestrian facilities would be included in the Urban Local cross-section evaluate the roadway for potential traffic calming measures.	Current Traffic Volumes exceed Rural Local Design ADT	Applicant to contribute a proportionate share to El Paso County
3	Widen US Highway 24 to provide three through lanes in each direction.	Shown in 2040 MTCP and the US Highway 24 PEL Study	Master Planned
	US 24/Woodmen Road Intersection		
4	Construct a 700 foot-long southwestbound left-turn deceleration lane plus transition taper on US 24 (westbound) approaching Woodmen Road. This requires widening of the box culvert under US 24 just west of the US 24/Rio Lane intersection.	With site development	Applicant
5	Lengthening/extension of the westbound right turn deceleration lane on US Highway 24 at Woodmen Road to CDOT standards (600 feet plus transition taper) with the necessary widening of the box culvert under US 24. The culvert widening should accommodate an extension of the westbound right turn deceleration lane on US Highway 24 to CDOT standards.	With the culvert widening ~~(with the site development)~~	Should be funded by CDOT. The additional cost associated with the culvert widening for the right turn lane, and the lengthening of the right turn lane itself should not be the responsibility of this applicant. CDOT and/or EPC funds should reimburse the applicant for this improvement if completed as part of this project.
6	Construct a 600 foot-long northeastbound right-turn deceleration lane plus transition taper on US 24 (eastbound) approaching Woodmen Road	With site development	
7	Construct a 960 foot-long northwestbound left-turn acceleration lane (plus transition taper) on US 24 (eastbound) east of Woodmen Road.	With site development	Applicant
8	Construct the southeast leg of the intersection as an Urban Non-Residential Collector Street Lanes need to align across US 24 (within allowable/acceptable lane offset tolerances and considering protected/permissive left turn sight distance and left turning vehicle paths).	With the subdivision (plat)	Applicant
9	Modify the northwest leg (Woodmen Road) **as needed** so lanes align across US 24; The details would be determined with the Preliminary Plan (One option would be to narrow raised median nose to about 6 feet); construct raised/curbed right turn islands for pedestrians and for installing a signal pole on the northeast corner, construct a sidewalk connection to the Rock Island Trail (which connects to the sidewalk along the north side of Woodmen Road adjacent to the Falcon Town Center (Safeway).	With site development	Applicant
10	Traffic signal system modifications, pedestrian accommodations, signing/striping improvements to convert the existing intersection from a T intersection to a four-leg intersection.	With site development	Applicant
	The Planned On-Site Collector Intersection just south of the US 24/Woodmen Road Intersection		
11	The two alternatives for the first intersection south of US Highway 24 are a Stop-sign-controlled T intersection or a modern roundabout. Figure 10 depicts the T intersection, however the applicant is open to considering the roundabout option.	With site development	Applicant
	US Highway 24 Right-of-Way Dedication & Preservation		
12	(TBD) required Right-of-Way Dedication & Preservation along US Highway 24	With the Plat	Applicant
	US 24/Rio Lane Intersection		
13	Close intersection and realign Rio Lane	Short-Term	Applicant
	Falcon Highway/Rio Lane Intersection		
14	Construct westbound right turn deceleration lane	Once westbound right turning volume exceeds 50 right turning vehicles per hour.(~~Volume may already exceed this threshold~~)	Applicant

Source: LSC Transportation Consultants, Inc. (9-20-2019)

After discussing with engineering manager, please provide additional detail for the timing/trigger of these improvements. What ADT will trigger the improvements or are these improvements to be done with the initial site development?

Please include that the proportionate share shall be finalized with the plat.

The narrative indicates a 600' lane with 125' of storage for a total of 725' plus taper.

Please indicate who is responsible. CDOT?

what is the difference between this item and item#1. It appears that this improvement is already covered in item#1.

Please delete the crossed out text.

FYI: The applicant shall pursue any reimbursements with the advisory committee and/or CDOT

It is unclear what improvement this is referring to. Should this be a right-turn acceleration lane onto US24?

revise the timing of the improvement to be with the Plat.

Please revise the highlighted text so that it is stated as either "with the Plat" or "with the subdivision (plat)". Choose one so that it is consistent.

With the ADT identified, the road is at a Rural Collector design ADT. Please revise the first sentence to indicate ".....Urban Local standards or a County approved alternative.

Please also include in the timing that the closing of Rio lane shall be coordinated with CDOT/EPC.

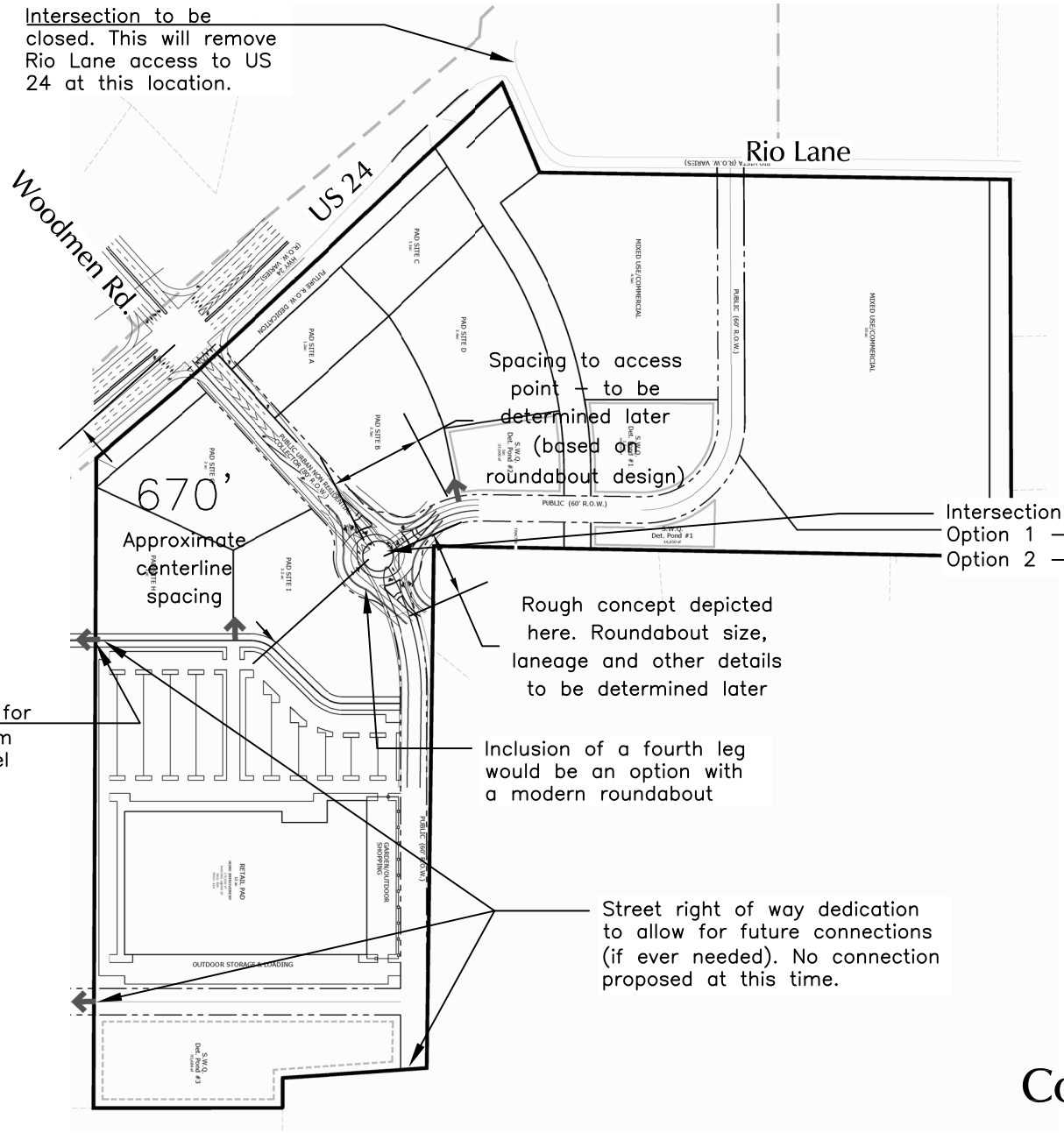
Please delete the crossed out text as your report does not include analysis that shows the threshold being met.

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 1

Vicinity Map

Falcon Fields (LSC# 184560)



N

Not to scale

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Figure 2

Conceptual Site Plan

Falcon Fields (LSC# 184560)

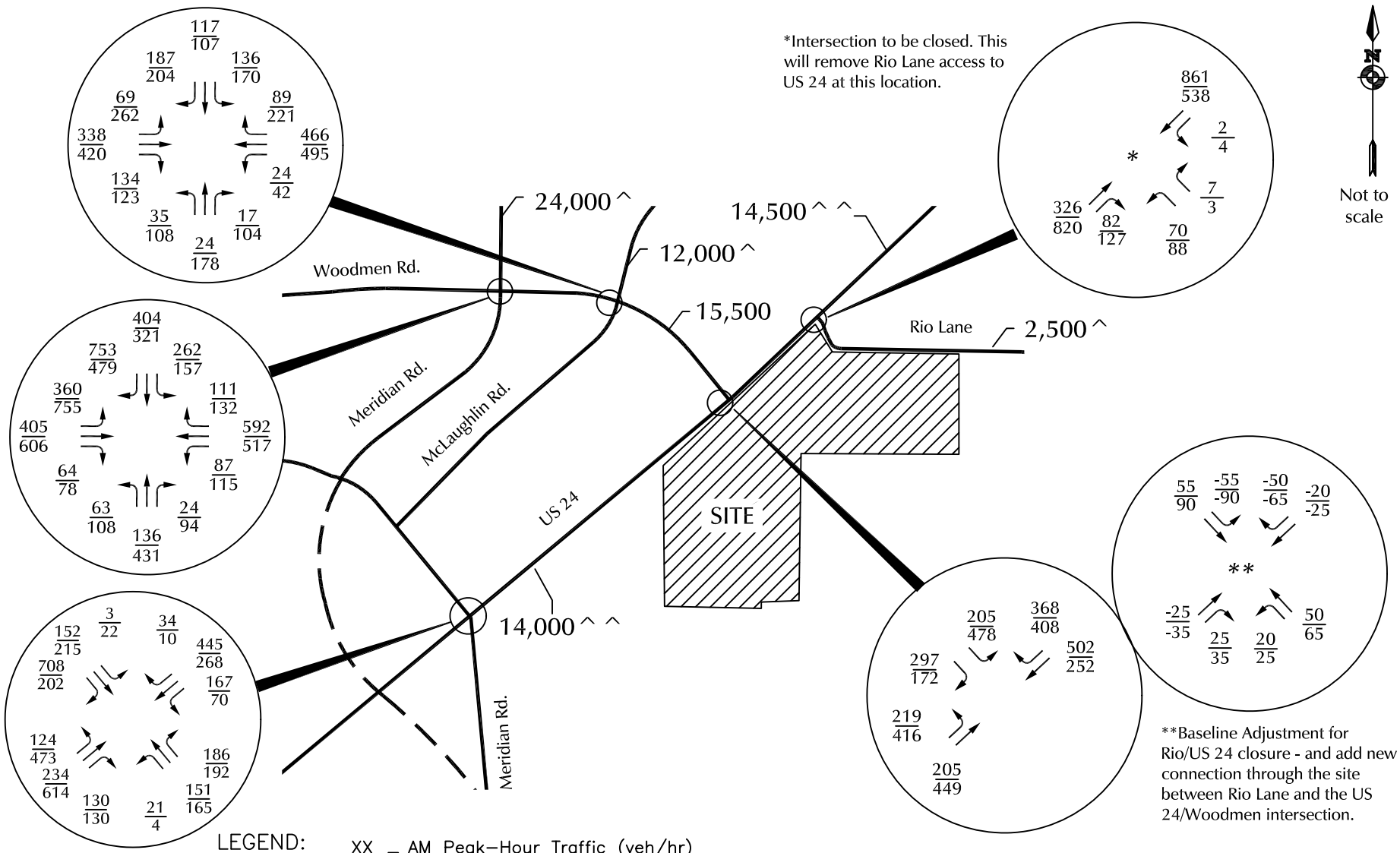

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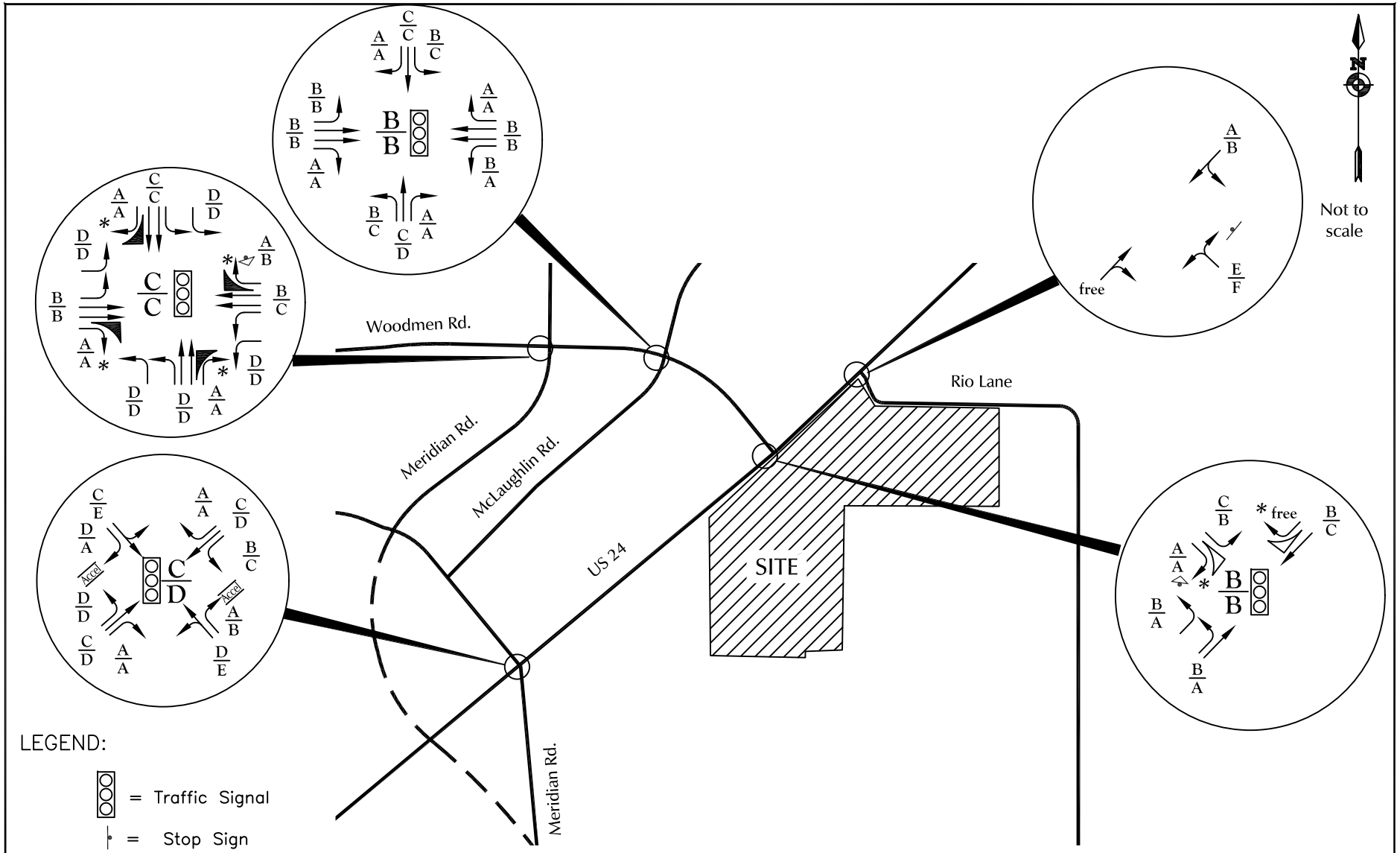
Figure 3a

Existing Traffic

Falcon Fields (LSC# 184560)



$\frac{A}{B}$ = AM Individual Movement Peak–Hour Level of Service / PM Individual Movement Peak–Hour Level of Service

$\frac{C}{D}$ = AM Entire Intersection Peak–Hour Level of Service / PM Entire Intersection Peak–Hour Level of Service

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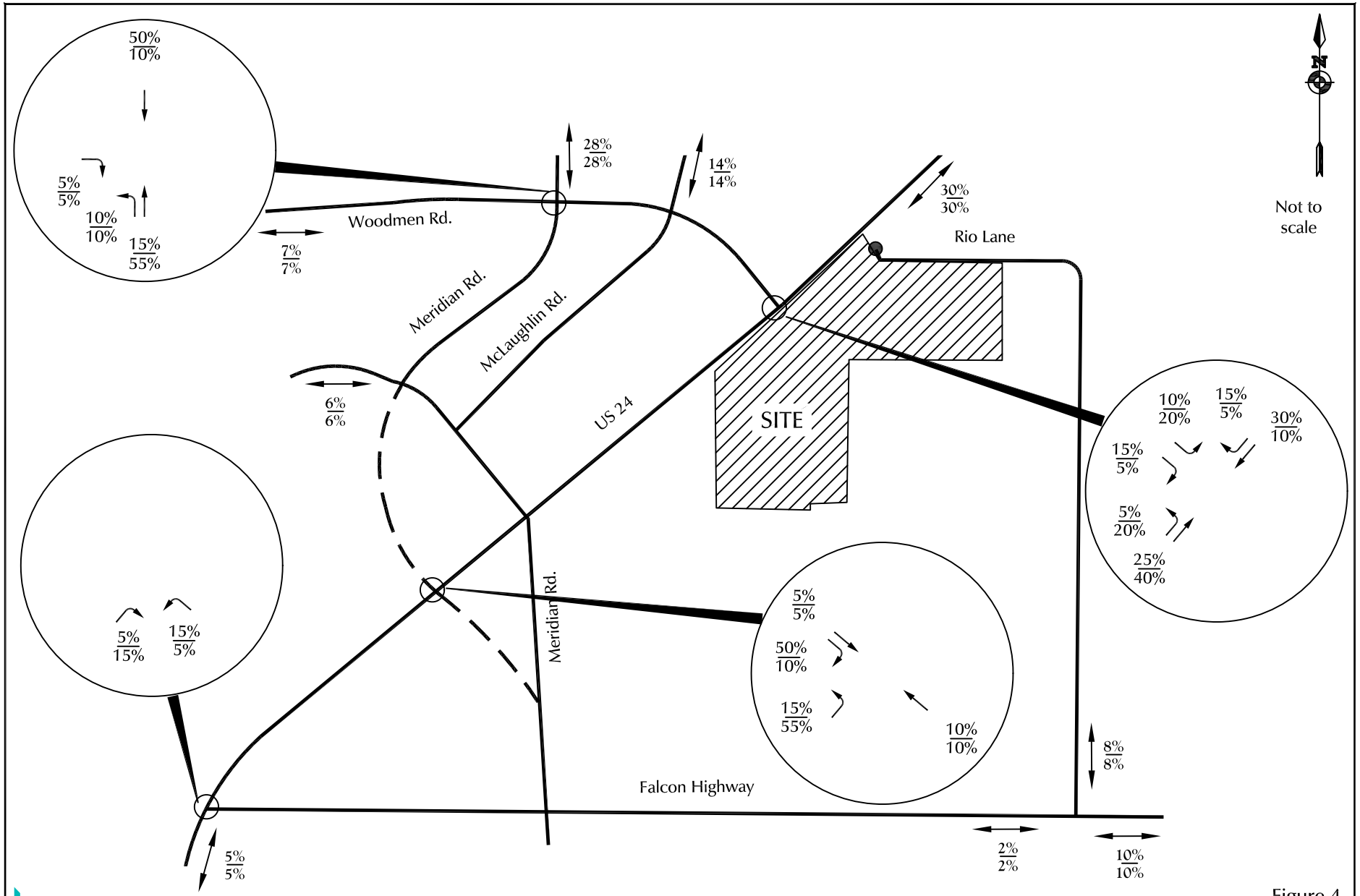
Figure 3b

Existing Lane Geometry, Traffic Control, and Level of Service

Falcon Fields (LSC# 184560)



LEGEND:

$$\frac{XX}{XX} = \frac{\text{AM Percent Directional Distribution}}{\text{PM Percent Directional Distribution}}$$

Note: percentages in the circles at the intersections represent the % passby and diverted trip percentages.

Figure 4

Directional Distribution

Falcon Fields (LSC# 184560)

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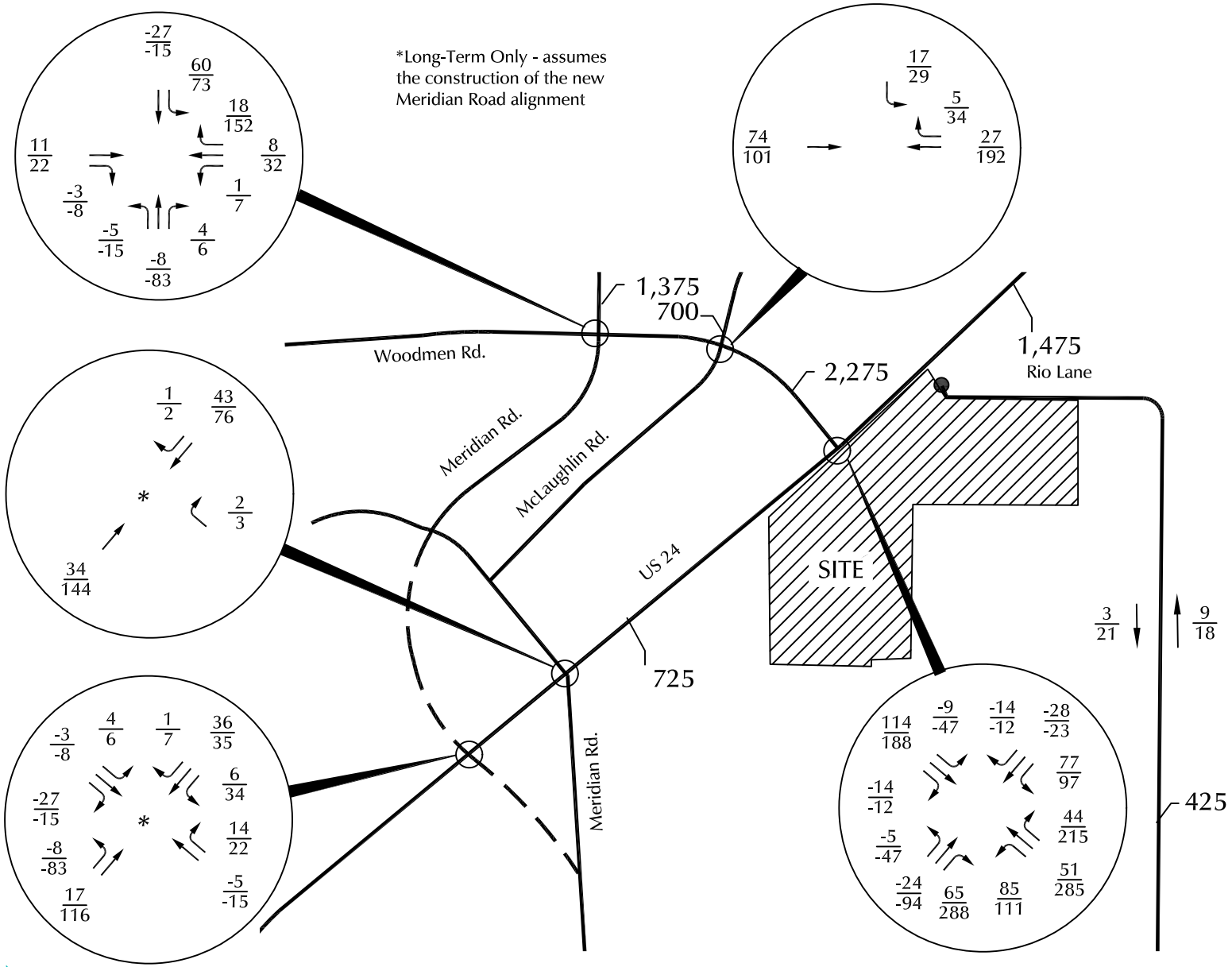

Figure 5

Site-Generated Traffic

Falcon Fields (LSC# 184560)

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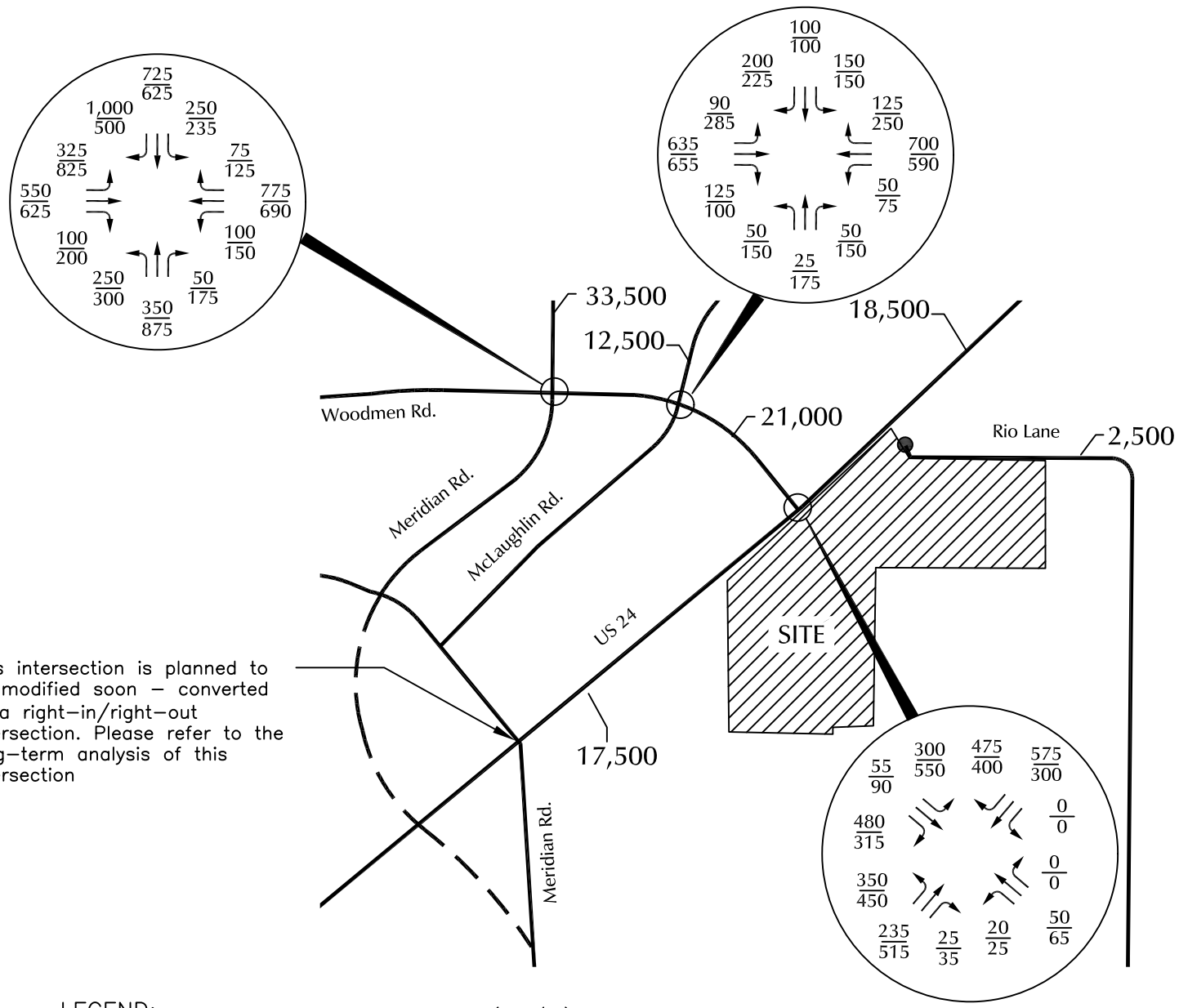

LEGEND:

$\frac{XX}{XX}$ = AM Peak–Hour Traffic (veh/hr) / PM Peak–Hour Traffic (veh/hr)

XXX = Average Weekday Traffic (veh/hr)

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Figure 6a

Short-Term Background Traffic

Falcon Fields (LSC# 184560)

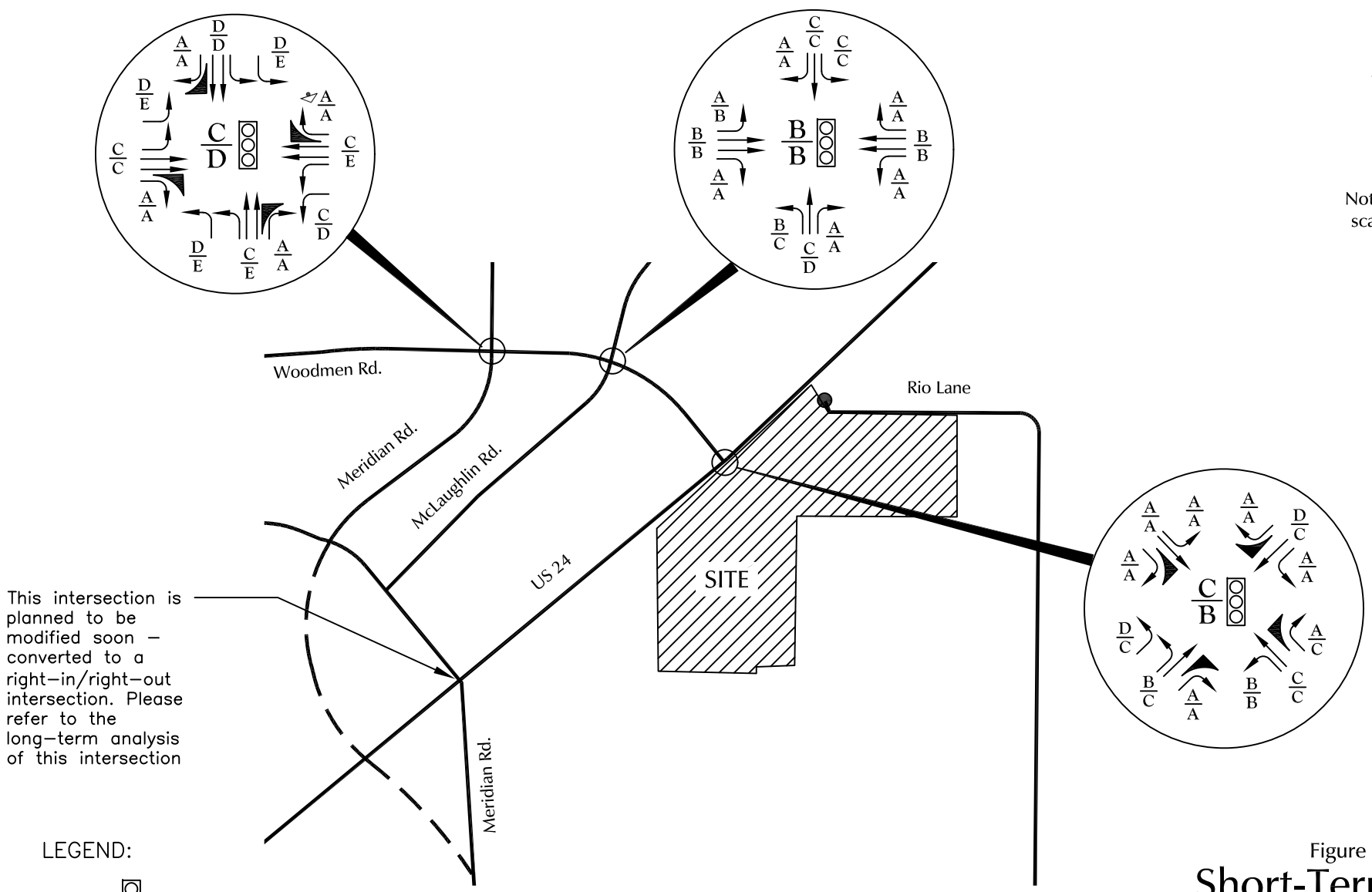


Figure 6b

Short-Term Background Lane Geometry, Traffic Control, and Level of Service

Falcon Fields (LSC# 184560)

TRANSPORTATION CONSULTANTS, INC.

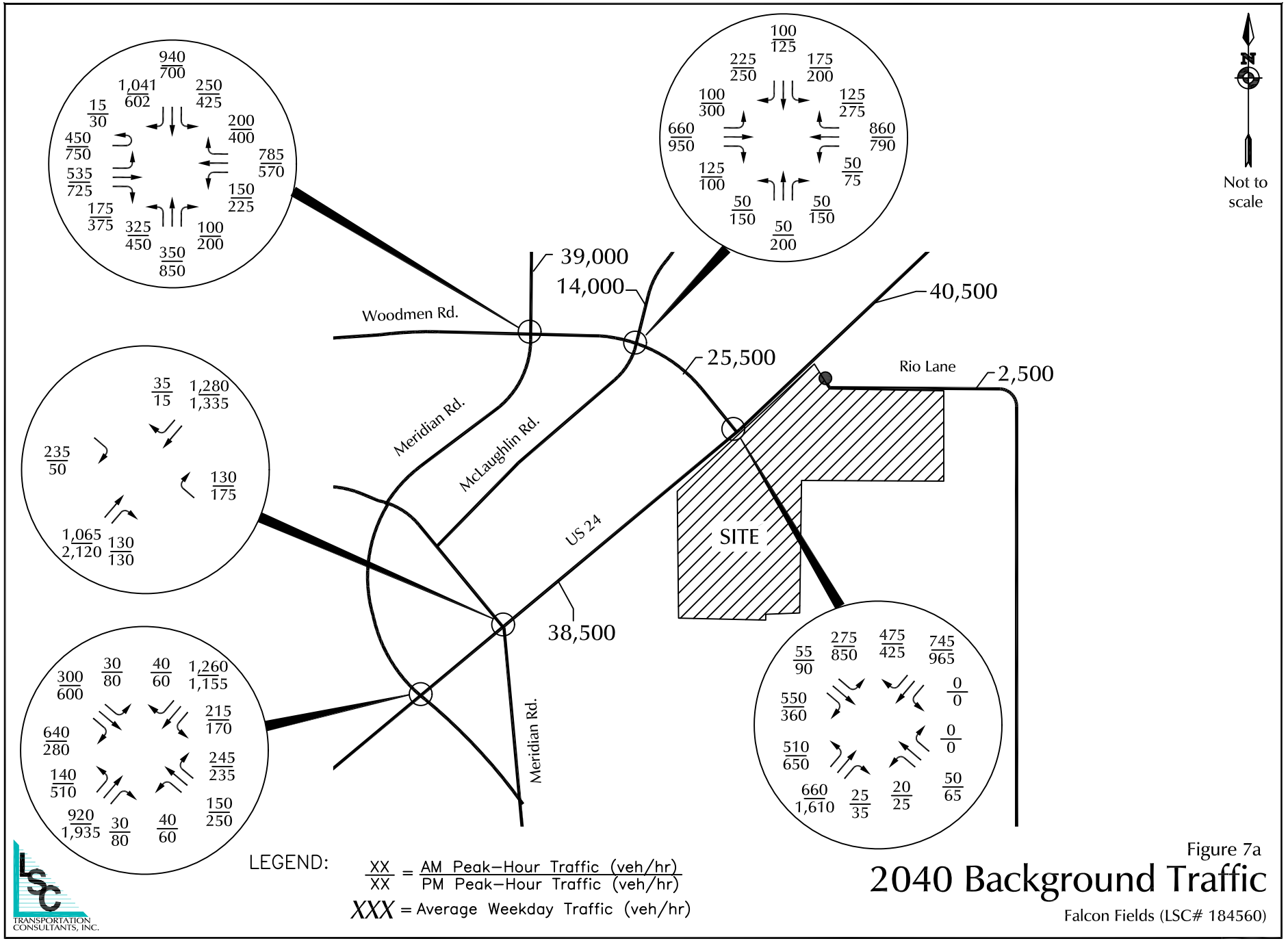


Figure 7a

2040 Background Traffic

Falcon Fields (LSC# 184560)

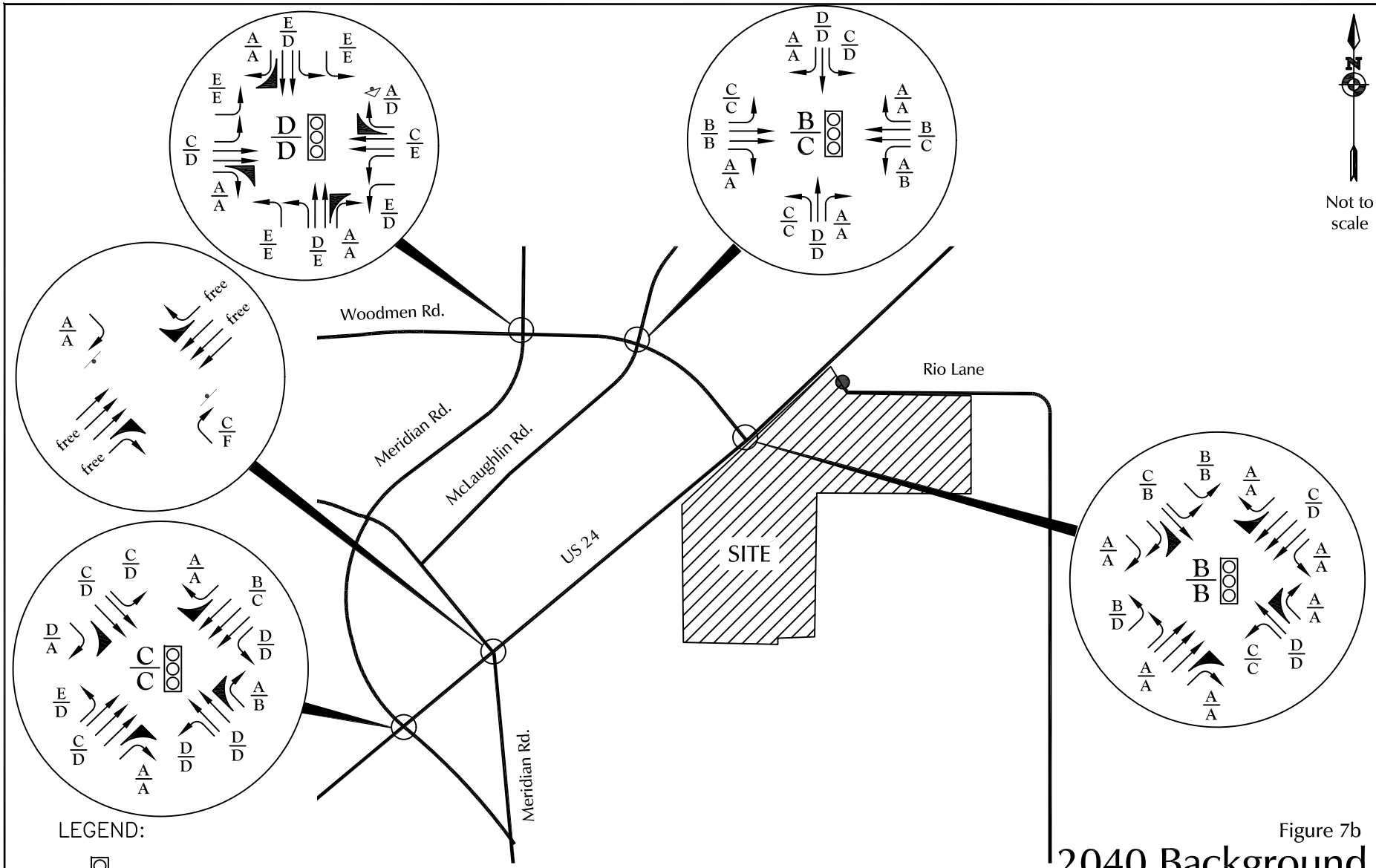
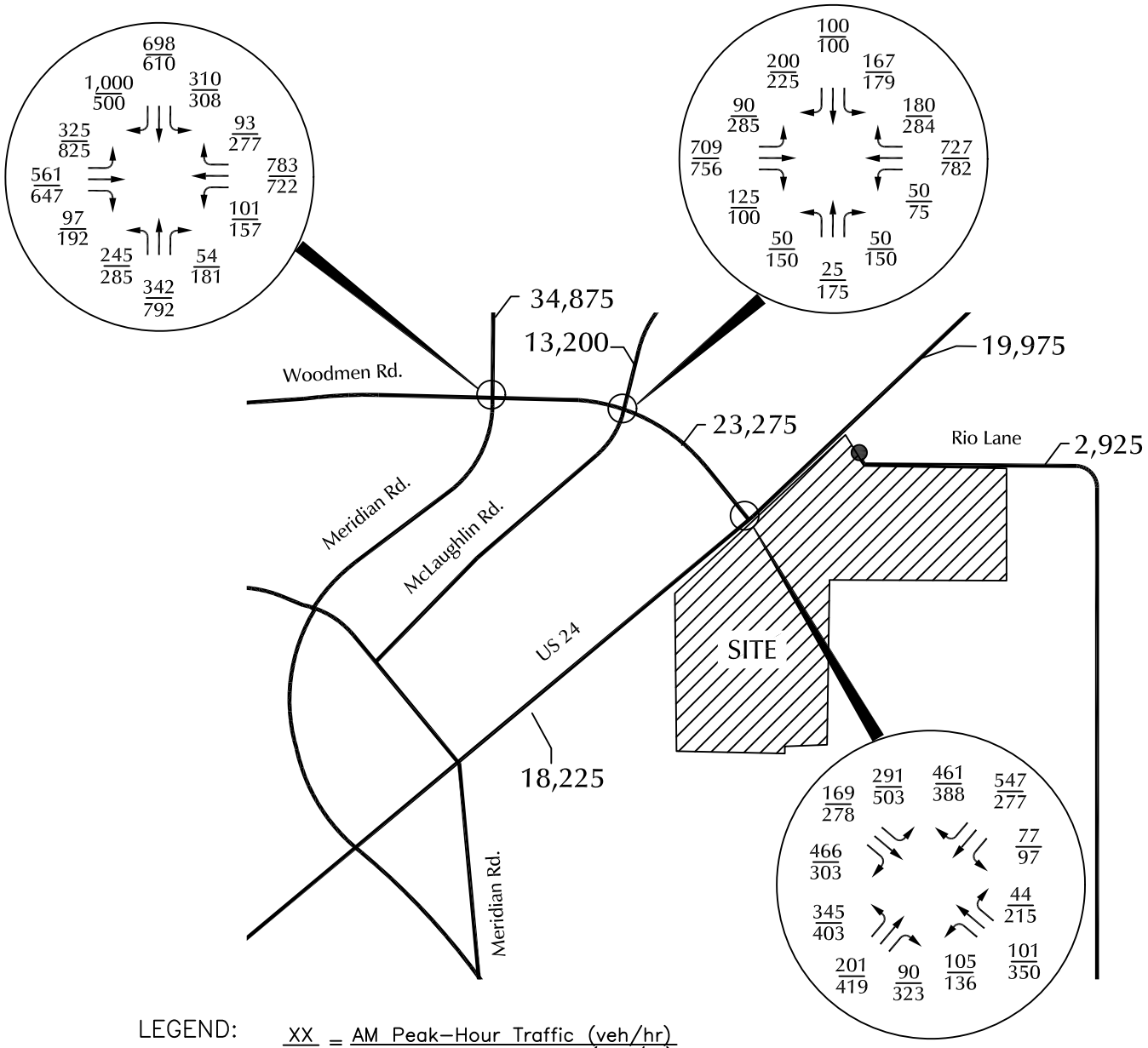


Figure 7b

2040 Background Lane Geometry, Traffic Control, and Level of Service

Falcon Fields (LSC# 184560)



LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Peak-Hour Traffic (veh/hr)}}{\text{PM Peak-Hour Traffic (veh/hr)}}$

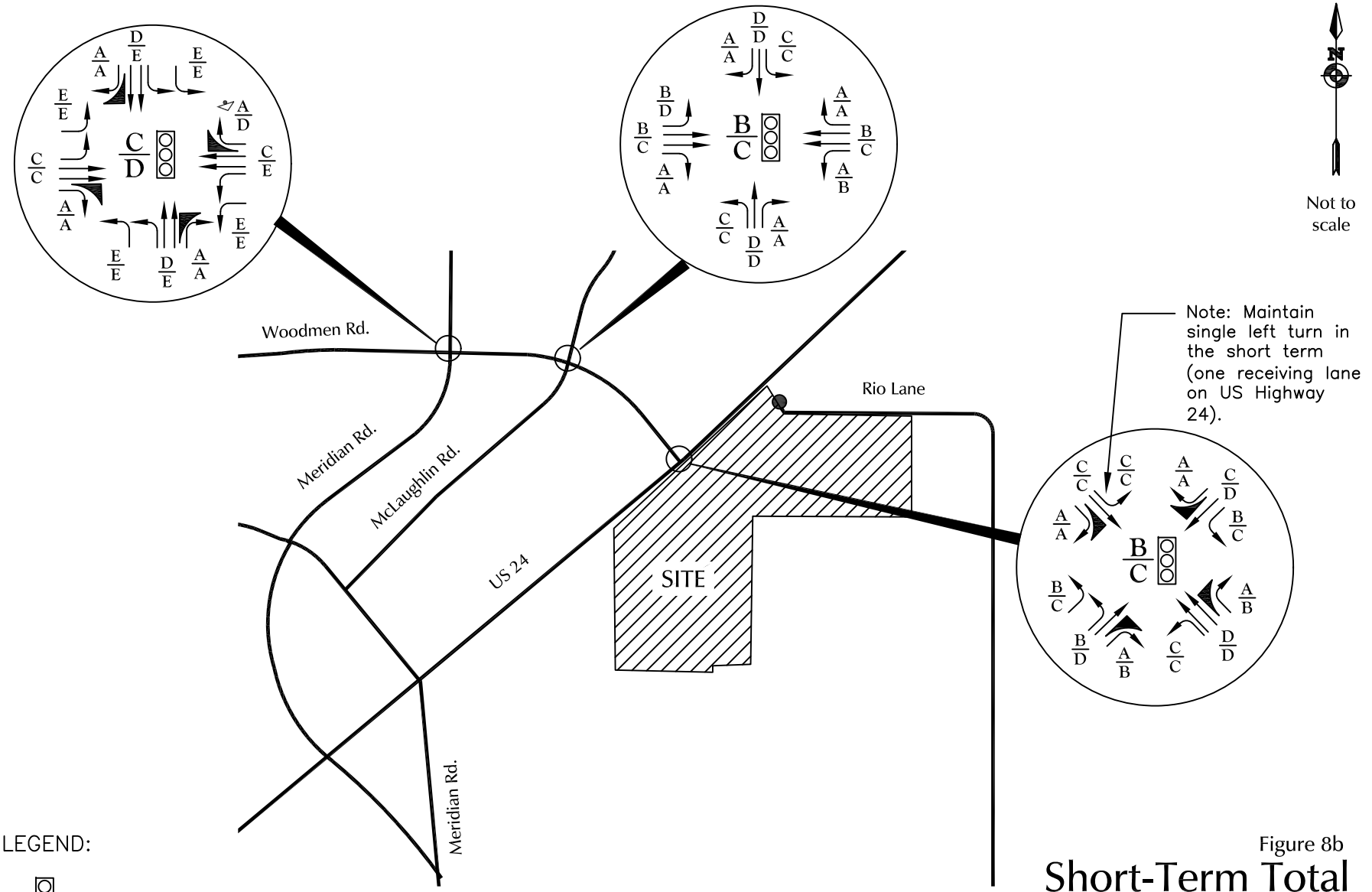
XXX = Average Weekday Traffic (veh/hr)

TRANSPORTATION CONSULTANTS, INC.

Figure 8a

Short-Term Total Traffic

Falcon Fields (LSC# 184560)



LEGEND:

= Traffic Signal = Yield Sign

$\frac{A}{B} = \frac{\text{AM Individual Movement Peak–Hour Level of Service}}{\text{PM Individual Movement Peak–Hour Level of Service}}$

$\frac{C}{D} = \frac{\text{AM Entire Intersection Peak–Hour Level of Service}}{\text{PM Entire Intersection Peak–Hour Level of Service}}$

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Figure 8b

Short-Term Total Lane Geometry, Traffic Control, and Level of Service

Falcon Fields (LSC# 184560)

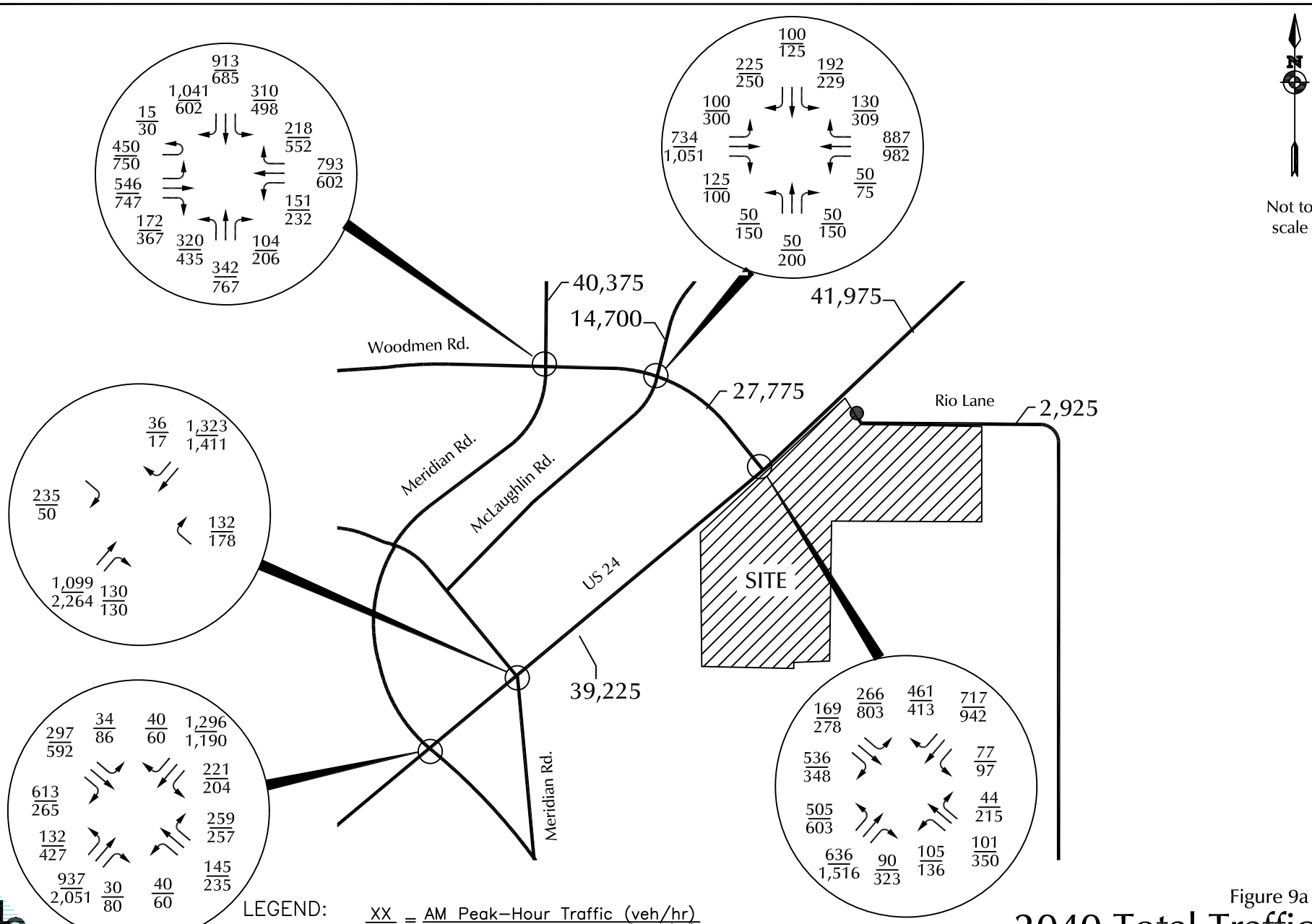


Figure 9a

2040 Total Traffic

Falcon Fields (LSC# 184560)

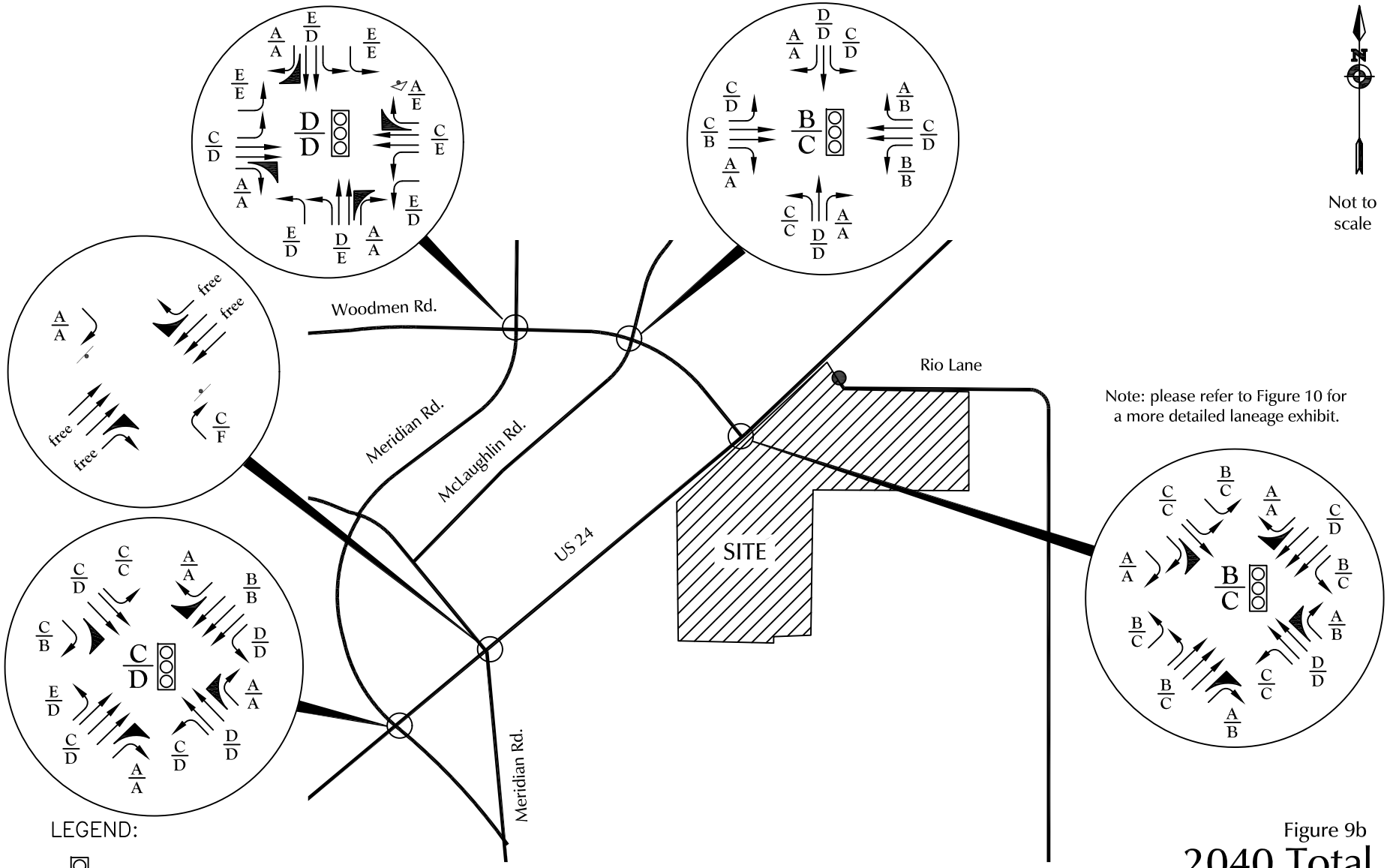
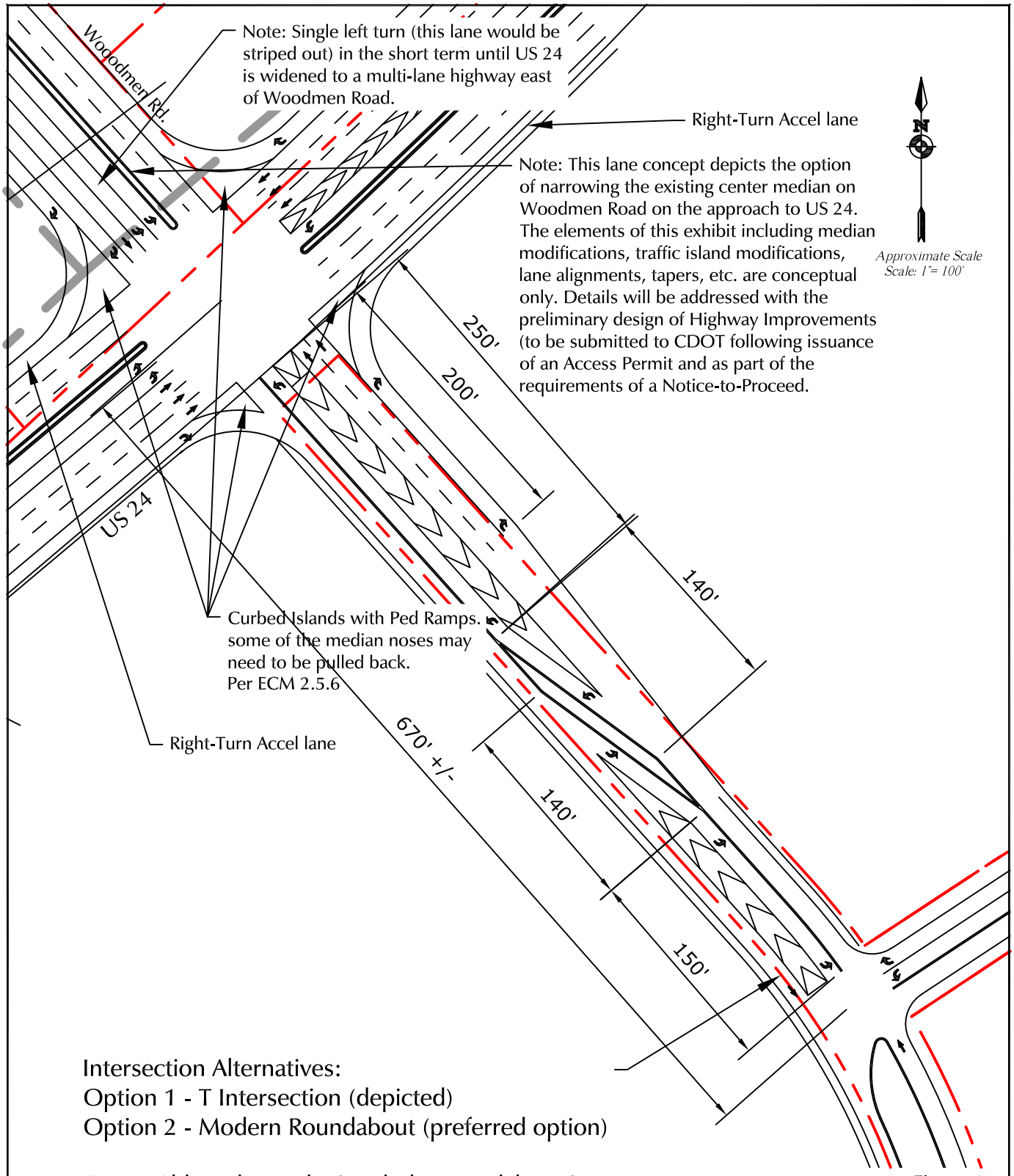


Figure 9b

2040 Total Lane Geometry, Traffic Control, and Level of Service

Falcon Fields (LSC# 184560)



Intersection Alternatives:
Option 1 - T Intersection (depicted)
Option 2 - Modern Roundabout (preferred option)

(Note: Although not depicted, the roundabout is the preferred option)

Figure 10

Preliminary Intersection Lane Concept Plan (2040 - Six Lanes on US 24)

(LSC #184560)

Traffic Counts

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LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Meridian Rd - Woodmen Rd AM
Site Code : 184390
Start Date : 05/24/2018
Page No : 1

Groups Printed- Unshifted

	Meridian Rd Southbound					Woodmen Rd Westbound					Meridian Rd Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:30	16	38	84	0	138	1	69	9	0	79	7	8	1	0	16	37	35	4	0	76	309
06:45	61	95	139	1	296	12	135	30	0	177	13	26	3	0	42	58	92	18	0	168	683
Total	77	133	223	1	434	13	204	39	0	256	20	34	4	0	58	95	127	22	0	244	992
07:00	72	98	174	0	344	30	137	32	0	199	12	22	6	0	40	87	121	18	1	227	810
07:15	81	100	232	0	413	21	164	31	0	216	15	30	4	0	49	92	90	19	0	201	879
07:30	51	104	216	0	371	17	196	20	0	233	18	34	4	1	57	84	104	17	0	205	866
07:45	58	102	131	0	291	19	95	28	0	142	18	50	10	0	78	97	90	10	0	197	708
Total	262	404	753	0	1419	87	592	111	0	790	63	136	24	1	224	360	405	64	1	830	3263
08:00	43	75	150	0	268	13	109	27	0	149	15	24	7	0	46	103	90	24	0	217	680
08:15	40	60	143	0	243	17	139	22	0	178	19	27	7	2	55	94	56	17	0	167	643

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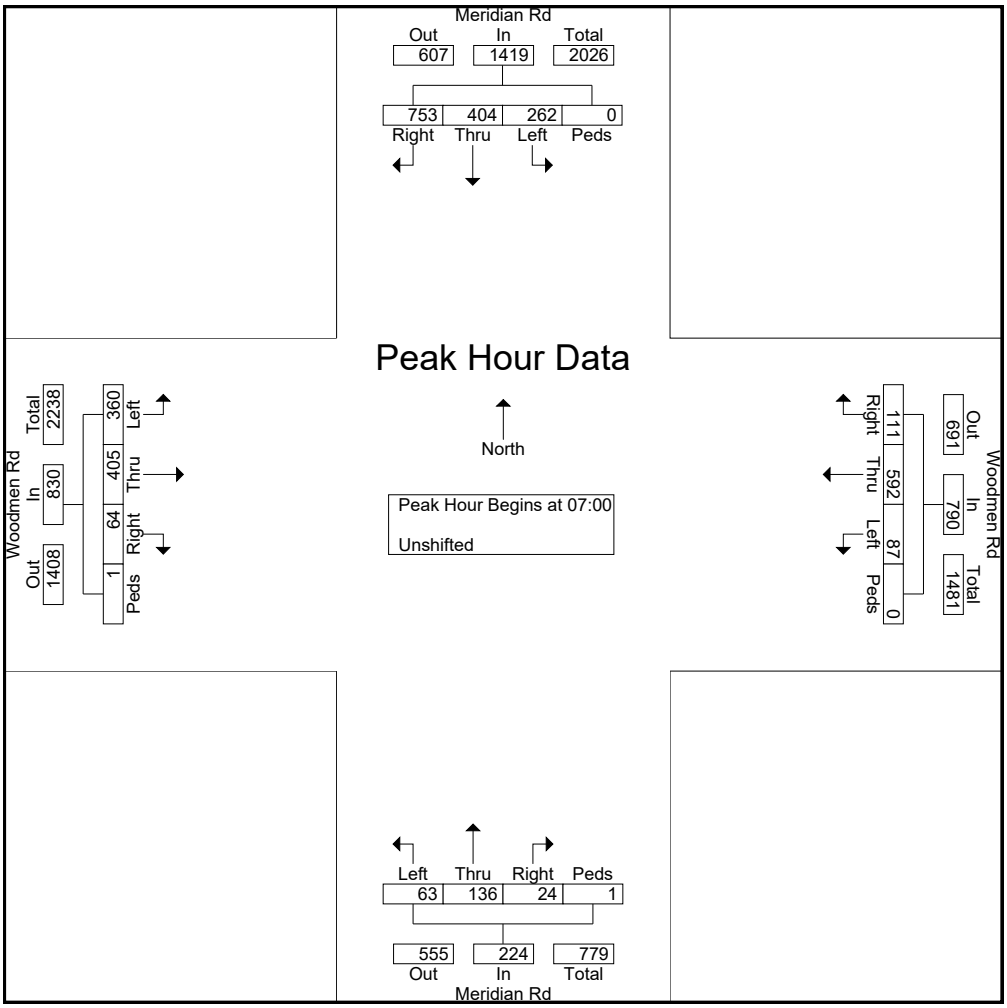
	Meridian Rd Southbound					Woodmen Rd Westbound					Meridian Rd Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	72	98	174	0	344	**30**	137	**32**	0	199	12	22	6	0	40	87	**121**	18	**1**	**227**	810
07:15	**81**	100	**232**	0	**413**	21	164	31	0	216	15	30	4	0	49	92	90	**19**	0	201	**879**
07:30	51	**104**	216	0	371	17	**196**	20	0	**233**	**18**	34	4	**1**	57	84	104	17	0	205	866
07:45	58	102	131	0	291	19	95	28	0	142	18	**50**	**10**	0	**78**	**97**	90	10	0	197	708
Total Volume	262	404	753	0	1419	87	592	111	0	790	63	136	24	1	224	360	405	64	1	830	3263
% App. Total	18.5	28.5	53.1	0		11	74.9	14.1	0		28.1	60.7	10.7	0.4		43.4	48.8	7.7	0.1		
PHF	.809	.971	.811	.000	.859	.725	.755	.867	.000	.848	.875	.680	.600	.250	.718	.928	.837	.842	.250	.914	.928



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Site Code : 184390
Start Date : 05/24/2018
Page No : 1

Groups Printed- Unshifted

	Meridian Rd Southbound					Woodmen Rd Westbound					Meridian Rd Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	41	86	117	0	244	14	131	29	0	174	23	111	26	2	162	187	127	8	1	323	903
16:15	37	86	115	0	238	34	105	37	0	176	30	112	23	0	165	187	169	21	0	377	956
16:30	38	70	111	0	219	38	170	22	0	230	23	111	17	2	153	191	164	19	0	374	976
16:45	41	79	136	0	256	29	111	44	1	185	32	97	28	2	159	190	146	30	0	366	966
Total	157	321	479	0	957	115	517	132	1	765	108	431	94	6	639	755	606	78	1	1440	3801
17:00	29	72	113	0	214	30	133	52	0	215	21	89	30	2	142	147	140	23	0	310	881
17:15	47	78	95	0	220	60	84	34	0	178	25	121	22	3	171	185	150	32	0	367	936
17:30	34	68	104	0	206	47	79	32	0	158	18	102	26	2	148	222	166	26	0	414	926
17:45	34	58	94	0	186	37	106	40	0	183	20	81	15	2	118	157	151	18	0	326	813
Total	144	276	406	0	826	174	402	158	0	734	84	393	93	9	579	711	607	99	0	1417	3556

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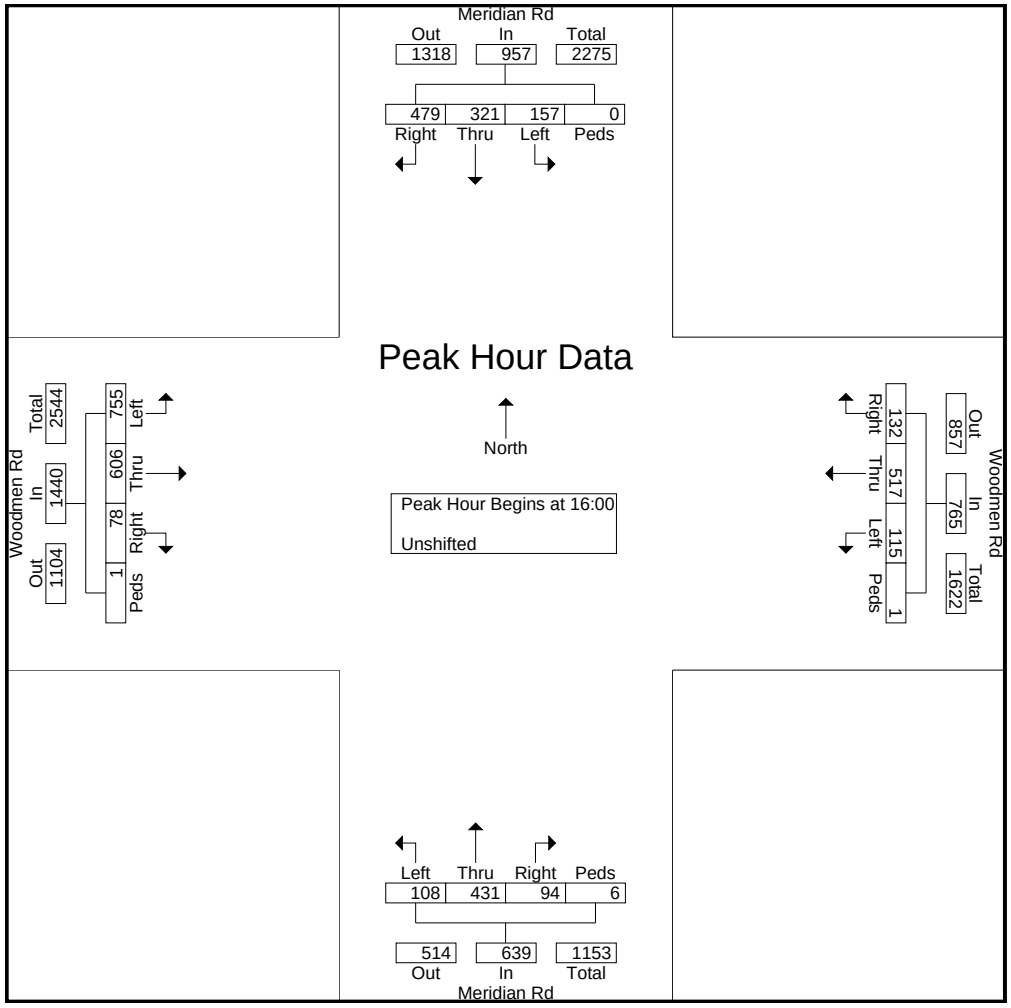
	Meridian Rd Southbound					Woodmen Rd Westbound					Meridian Rd Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	**41**	**86**	117	0	244	14	131	29	0	174	23	111	26	**2**	162	187	127	8	**1**	323	903
16:15	37	86	115	0	238	34	105	37	0	176	30	**112**	23	0	**165**	187	**169**	21	0	**377**	956
16:30	38	70	111	0	219	**38**	**170**	22	0	**230**	23	111	17	2	153	**191**	164	19	0	374	**976**
16:45	41	79	**136**	0	**256**	29	111	**44**	**1**	185	**32**	97	**28**	2	159	190	146	**30**	0	366	966
Total Volume	157	321	479	0	957	115	517	132	1	765	108	431	94	6	639	755	606	78	1	1440	3801
% App. Total	16.4	33.5	50.1	0		15	67.6	17.3	0.1		16.9	67.4	14.7	0.9		52.4	42.1	5.4	0.1		
PHF	.957	.933	.881	.000	.935	.757	.760	.750	.250	.832	.844	.962	.839	.750	.968	.988	.896	.650	.250	.955	.974



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File Name : Mclaughlin Rd - Woodmen Rd AM
Site Code : 184560
Start Date : 7/17/2019
Page No : 1

Groups Printed- Unshifted

	Mclaughlin Rd Southbound					Woodmen Rd Westbound					Mclaughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Int. Total**
06:30 AM	24	26	21	0	71	3	64	10	0	77	3	5	3	0	11	7	74	28	0	109	268
06:45 AM	23	23	15	0	61	3	69	11	0	83	4	6	3	0	13	8	76	26	0	110	267
Total	47	49	36	0	132	6	133	21	0	160	7	11	6	0	24	15	150	54	0	219	535
07:00 AM	32	30	44	0	106	3	103	14	0	120	7	6	4	0	17	9	98	36	0	143	386
07:15 AM	43	29	57	0	129	4	119	20	1	144	12	5	2	0	19	15	78	40	0	133	425
07:30 AM	39	33	45	0	117	8	143	23	0	174	5	5	3	0	13	19	94	28	0	141	445
07:45 AM	22	25	41	0	88	9	101	32	0	142	11	8	8	0	27	26	68	30	0	124	381
Total	136	117	187	0	440	24	466	89	1	580	35	24	17	0	76	69	338	134	0	541	1637
08:00 AM	29	24	43	0	96	7	94	24	0	125	6	9	6	0	21	24	81	15	0	120	362
08:15 AM	28	20	38	0	86	5	89	19	0	113	12	14	6	0	32	17	74	23	0	114	345
Grand Total	240	210	304	0	754	42	782	153	1	978	60	58	35	0	153	125	643	226	0	994	2879
Apprch %	31.8	27.9	40.3	0		4.3	80	15.6	0.1		39.2	37.9	22.9	0		12.6	64.7	22.7	0		
Total %	8.3	7.3	10.6	0	26.2	1.5	27.2	5.3	0	34	2.1	2	1.2	0	5.3	4.3	22.3	7.8	0	34.5	

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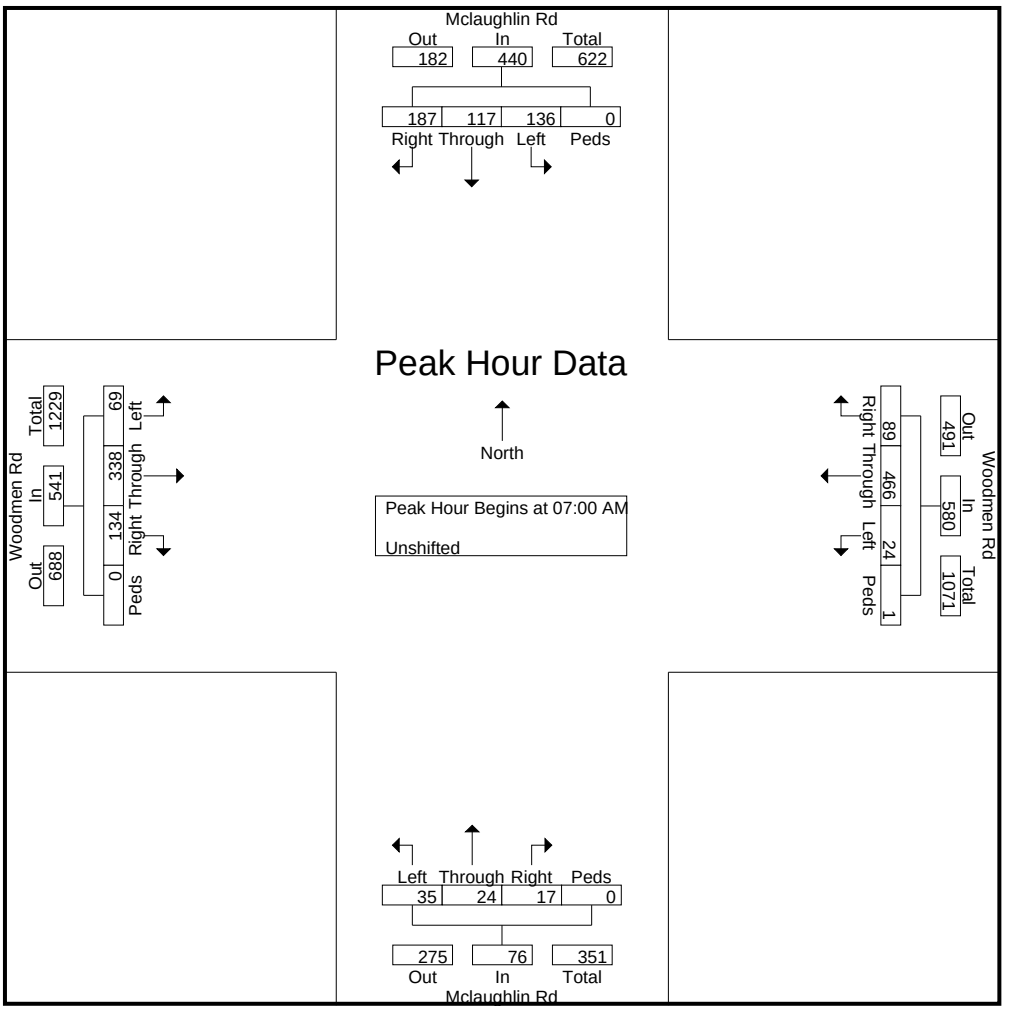
Page No : 2

	Mclaughlin Rd Southbound					Woodmen Rd Westbound					Mclaughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	32	30	44	0	106	3	103	14	0	120	7	6	4	0	17	9	**98**	36	0	**143**	386
07:15 AM	**43**	29	**57**	0	**129**	4	119	20	**1**	144	**12**	5	2	0	19	15	78	**40**	0	133	425
07:30 AM	39	**33**	45	0	117	8	**143**	23	0	**174**	5	5	3	0	13	19	94	28	0	141	**445**
07:45 AM	22	25	41	0	88	**9**	101	**32**	0	142	11	**8**	**8**	0	**27**	**26**	68	30	0	124	381
Total Volume	136	117	187	0	440	24	466	89	1	580	35	24	17	0	76	69	338	134	0	541	1637
% App. Total	30.9	26.6	42.5	0		4.1	80.3	15.3	0.2		46.1	31.6	22.4	0		12.8	62.5	24.8	0		
PHF	.791	.886	.820	.000	.853	.667	.815	.695	.250	.833	.729	.750	.531	.000	.704	.663	.862	.838	.000	.946	.920



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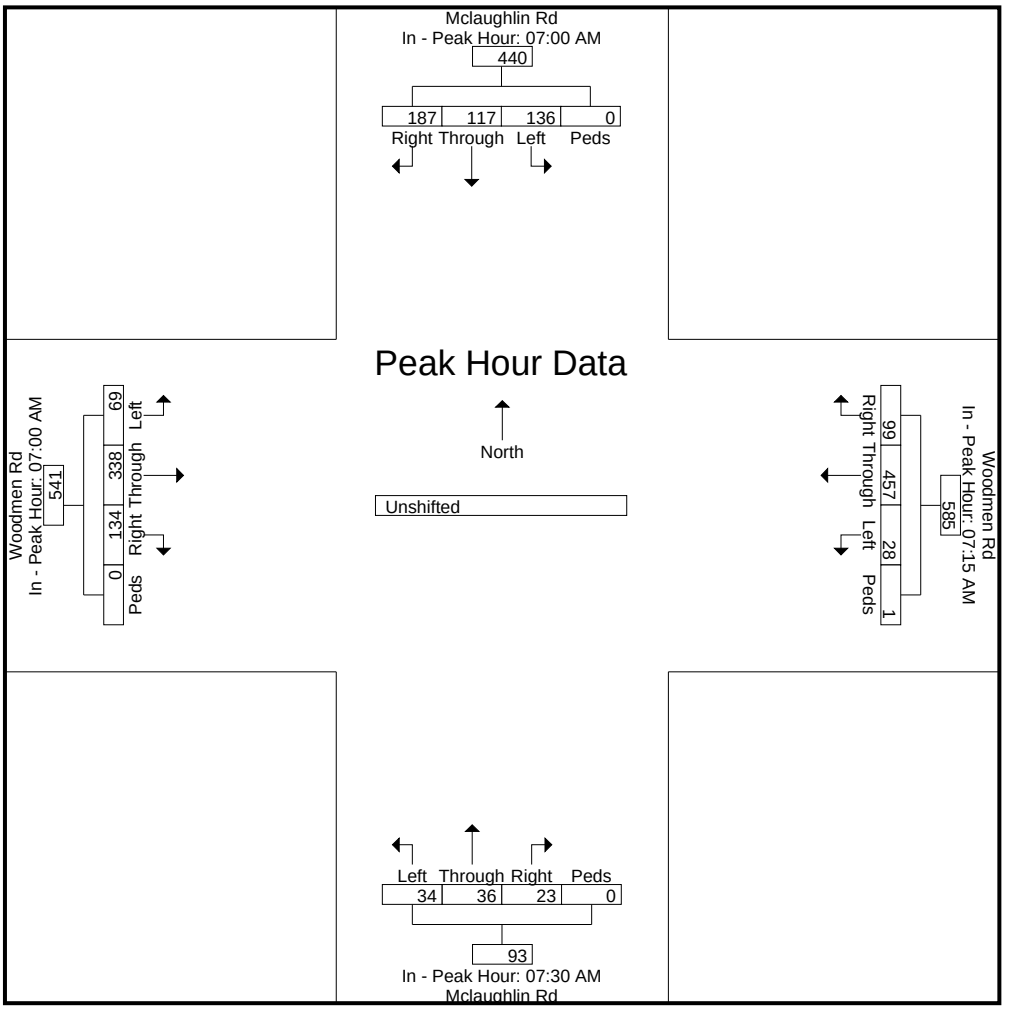
	Mclaughlin Rd Southbound					Woodmen Rd Westbound					Mclaughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:00 AM					07:15 AM					07:30 AM					07:00 AM					
+0 mins.	32	30	44	0	106	4	119	20	**1**	144	5	5	3	0	13	9	**98**	36	0	**143**	
+15 mins.	**43**	29	**57**	0	**129**	8	**143**	23	0	**174**	11	8	**8**	0	27	15	78	**40**	0	133	
+30 mins.	39	**33**	45	0	117	**9**	101	**32**	0	142	6	9	6	0	21	19	94	28	0	141	
+45 mins.	22	25	41	0	88	7	94	24	0	125	**12**	**14**	6	0	**32**	**26**	68	30	0	124	
Total Volume	136	117	187	0	440	28	457	99	1	585	34	36	23	0	93	69	338	134	0	541	
% App. Total	30.9	26.6	42.5	0		4.8	78.1	16.9	0.2		36.6	38.7	24.7	0		12.8	62.5	24.8	0		
PHF	.791	.886	.820	.000	.853	.778	.799	.773	.250	.841	.708	.643	.719	.000	.727	.663	.862	.838	.000	.946	



LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Mclaughlin Rd - Woodmen Rd PM
Site Code : 184560
Start Date : 7/16/2019
Page No : 1

Groups Printed- Unshifted

	Mclaughlin Rd Southbound					Woodmen Rd Westbound					Mclaughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Left**	**Through**	**Right**	**Peds**	**App. Total**	**Int. Total**
04:00 PM	32	22	26	0	80	6	110	38	0	154	12	40	12	0	64	32	86	15	0	133	431
04:15 PM	47	29	49	0	125	16	118	50	0	184	24	37	25	0	86	62	102	16	0	180	575
04:30 PM	56	36	50	0	142	10	131	37	0	178	20	52	24	0	96	71	110	27	0	208	624
04:45 PM	46	25	50	0	121	6	136	46	0	188	23	34	20	0	77	69	113	34	0	216	602
Total	181	112	175	0	468	38	495	171	0	704	79	163	81	0	323	234	411	92	0	737	2232
05:00 PM	34	32	55	1	122	16	128	68	0	212	22	39	36	0	97	62	87	24	1	174	605
05:15 PM	47	25	50	0	122	12	107	53	0	172	25	50	27	0	102	63	99	30	0	192	588
05:30 PM	43	25	49	0	117	8	124	54	0	186	38	55	21	0	114	68	121	35	0	224	641
05:45 PM	57	37	44	1	139	10	80	57	3	150	26	39	20	0	85	69	119	19	0	207	581
Total	181	119	198	2	500	46	439	232	3	720	111	183	104	0	398	262	426	108	1	797	2415
Grand Total	362	231	373	2	968	84	934	403	3	1424	190	346	185	0	721	496	837	200	1	1534	4647
Apprch %	37.4	23.9	38.5	0.2		5.9	65.6	28.3	0.2		26.4	48	25.7	0		32.3	54.6	13	0.1		
Total %	7.8	5	8	0	20.8	1.8	20.1	8.7	0.1	30.6	4.1	7.4	4	0	15.5	10.7	18	4.3	0	33	

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545 E Pikes Peak Ave, Suite 210
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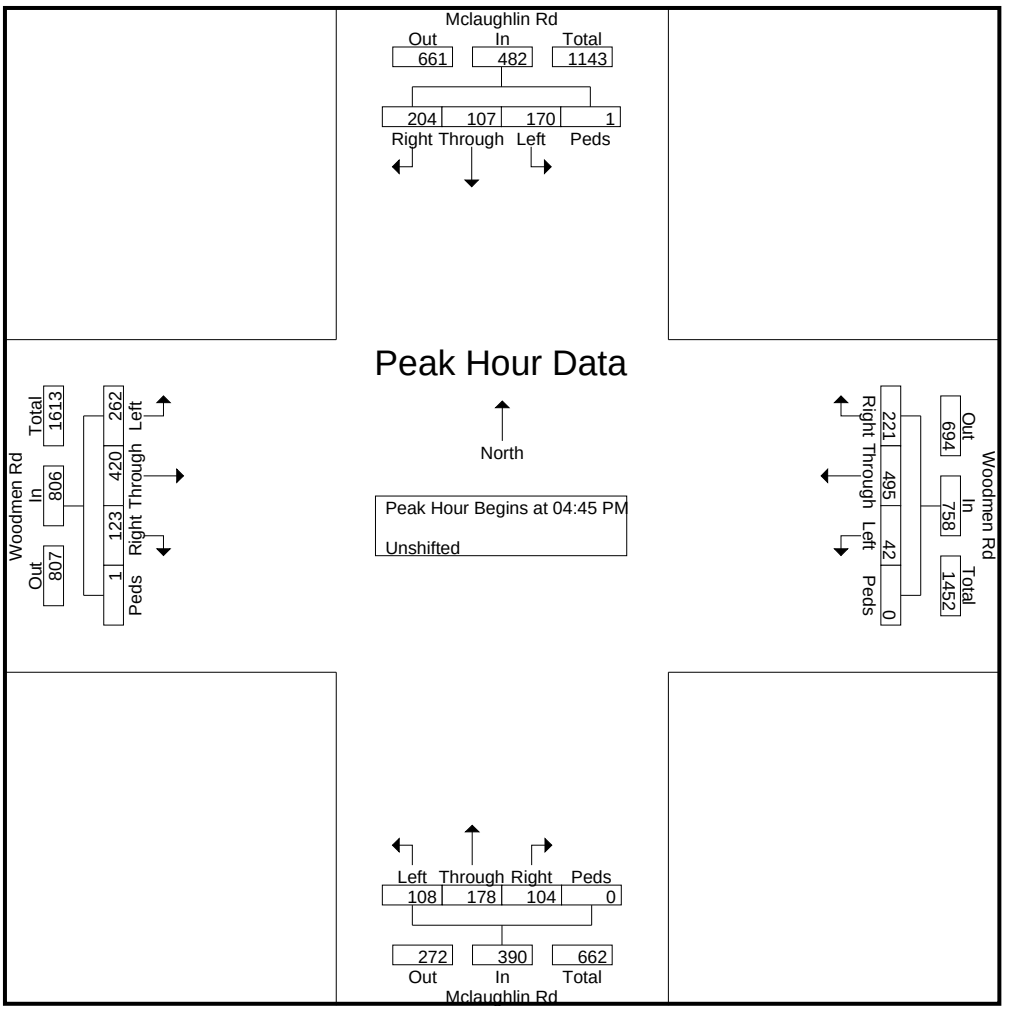
719-633-2868

File Name : Mclaughlin Rd - Woodmen Rd PM
Site Code : 184560
Start Date : 7/16/2019
Page No : 2

	Mclaughlin Rd Southbound					Woodmen Rd Westbound					Mclaughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	46	25	50	0	121	6	**136**	46	0	188	23	34	20	0	77	**69**	113	34	0	216	602
05:00 PM	34	**32**	**55**	**1**	**122**	**16**	128	**68**	0	**212**	22	39	**36**	0	97	62	87	24	**1**	174	605
05:15 PM	**47**	25	50	0	122	12	107	53	0	172	25	50	27	0	102	63	99	30	0	192	588
05:30 PM	43	25	49	0	117	8	124	54	0	186	**38**	**55**	21	0	**114**	68	**121**	**35**	0	**224**	**641**
Total Volume	170	107	204	1	482	42	495	221	0	758	108	178	104	0	390	262	420	123	1	806	2436
% App. Total	35.3	22.2	42.3	0.2		5.5	65.3	29.2	0		27.7	45.6	26.7	0		32.5	52.1	15.3	0.1		
PHF	.904	.836	.927	.250	.988	.656	.910	.813	.000	.894	.711	.809	.722	.000	.855	.949	.868	.879	.250	.900	.950



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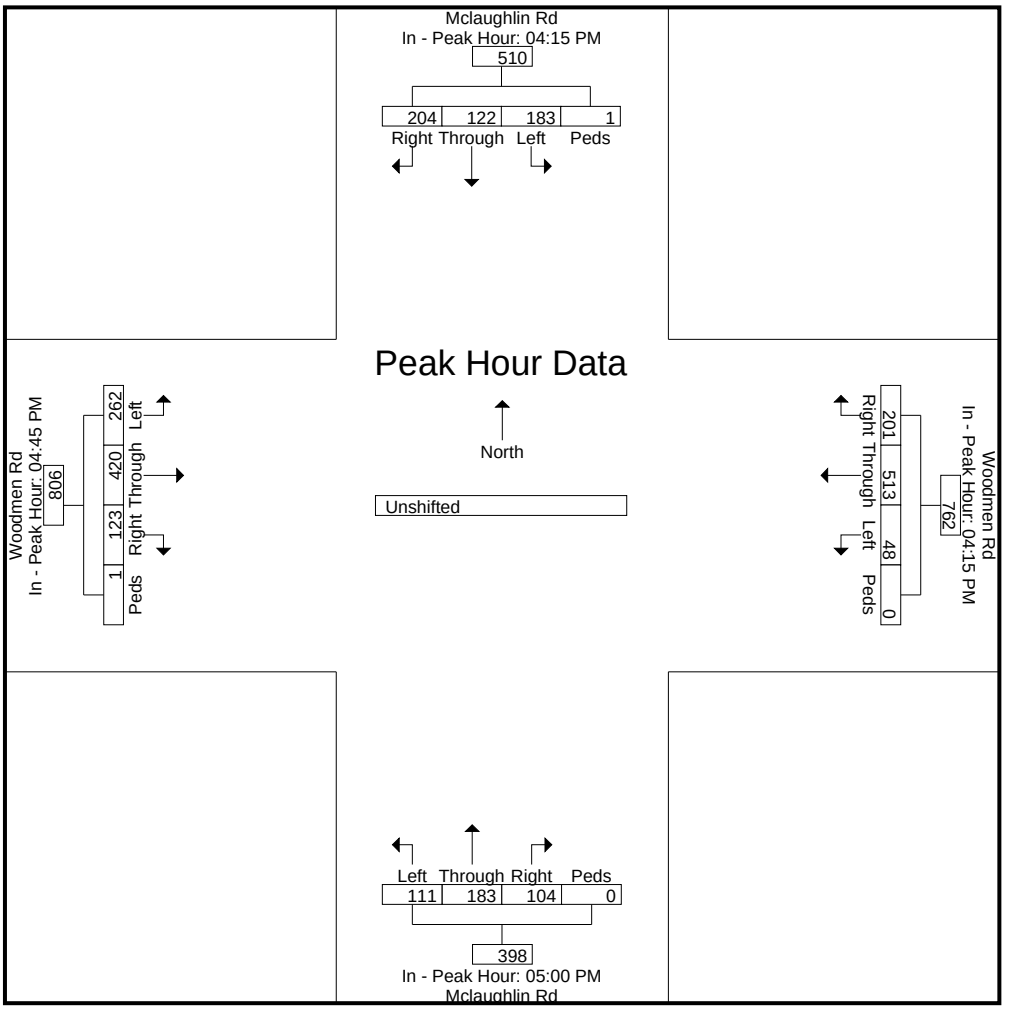
719-633-2868

File Name : Mclaughlin Rd - Woodmen Rd PM
Site Code : 184560
Start Date : 7/16/2019
Page No : 3

	Mclaughlin Rd Southbound					Woodmen Rd Westbound					Mclaughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	**Left**	Through	**Right**	**Peds**	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					04:15 PM					05:00 PM					04:45 PM					
+0 mins.	47	29	49	0	125	**16**	118	50	0	184	22	39	**36**	0	97	**69**	113	34	0	216	
+15 mins.	**56**	**36**	50	0	**142**	10	131	37	0	178	25	50	27	0	102	62	87	24	**1**	174	
+30 mins.	46	25	50	0	121	6	**136**	46	0	188	**38**	**55**	21	0	**114**	63	99	30	0	192	
+45 mins.	34	32	**55**	**1**	122	16	128	**68**	0	**212**	26	39	20	0	85	68	**121**	**35**	0	**224**	
Total Volume	183	122	204	1	510	48	513	201	0	762	111	183	104	0	398	262	420	123	1	806	
% App. Total	35.9	23.9	40	0.2		6.3	67.3	26.4	0		27.9	46	26.1	0		32.5	52.1	15.3	0.1		
PHF	.817	.847	.927	.250	.898	.750	.943	.739	.000	.899	.730	.832	.722	.000	.873	.949	.868	.879	.250	.900	



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Default Comments
Change These in The Preferences Window
Select File/Preference in the Main Scree
Then Click the Comments Tab

Groups Printed- Unshifted

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:30	0	106	49	0	155	0	0	0	0	0	61	33	0	0	94	32	0	48	1	81	330
06:45	0	145	90	0	235	0	0	0	0	0	59	37	0	0	96	46	0	83	0	129	460
Total	0	251	139	0	390	0	0	0	0	0	120	70	0	0	190	78	0	131	1	210	790
07:00	0	135	98	0	233	0	0	0	0	0	40	41	0	0	81	44	0	87	0	131	445
07:15	0	112	104	0	216	0	0	0	0	0	60	58	0	0	118	52	0	64	0	116	450
07:30	0	110	76	1	187	0	0	0	0	0	60	70	0	0	130	63	0	63	0	126	443
07:45	0	99	94	0	193	0	0	0	0	0	37	68	0	0	105	62	0	55	1	118	416
Total	0	456	372	1	829	0	0	0	0	0	197	237	0	0	434	221	0	269	1	491	1754
08:00	0	73	70	0	143	0	0	0	0	0	56	66	0	0	122	60	0	47	0	107	372
08:15	0	76	98	0	174	0	0	0	0	0	50	45	0	0	95	50	0	62	0	112	381

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Colorado Springs, CO 80905
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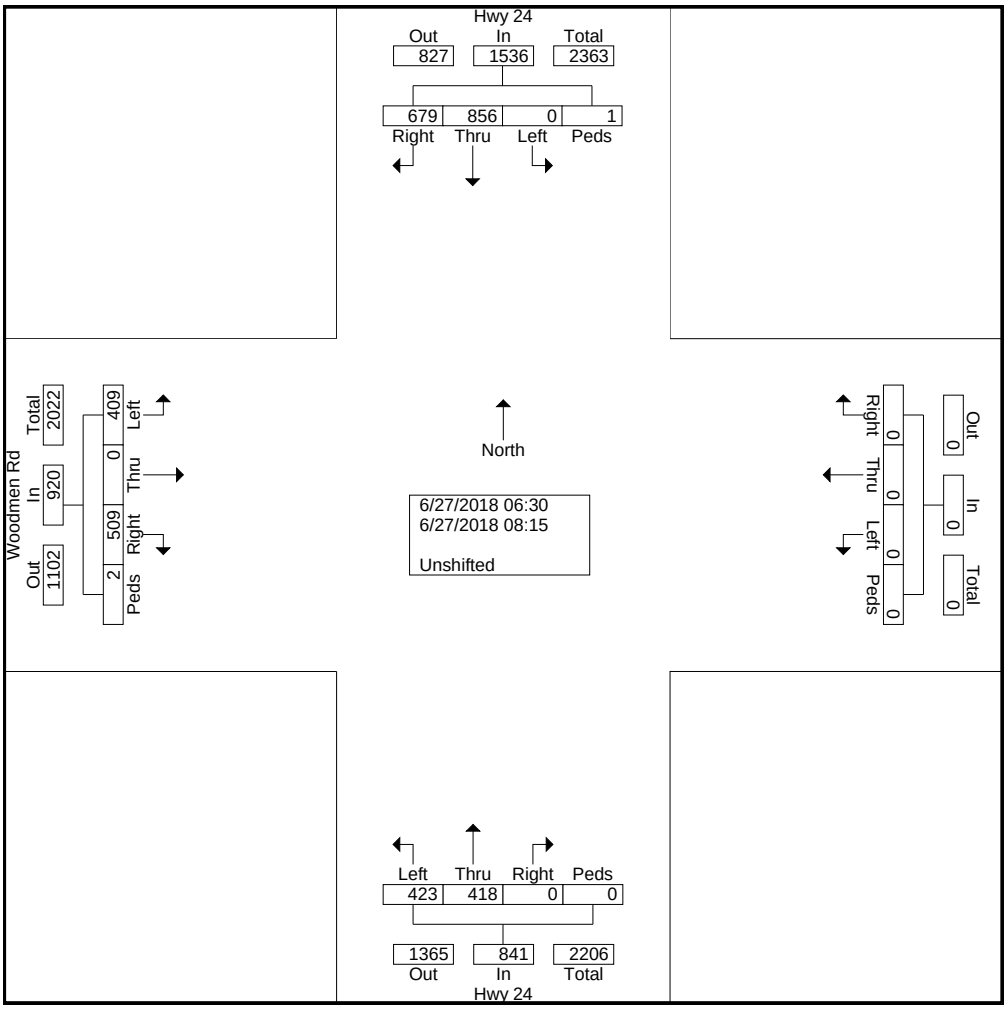
Groups Printed- Unshifted

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Grand Total	0	856	679	1	1536	0	0	0	0	0	423	418	0	0	841	409	0	509	2	920	3297
Apprch %	0	55.7	44.2	0.1		0	0	0	0		50.3	49.7	0	0		44.5	0	55.3	0.2		
Total %	0	26	20.6	0	46.6	0	0	0	0	0	12.8	12.7	0	0	25.5	12.4	0	15.4	0.1	27.9	



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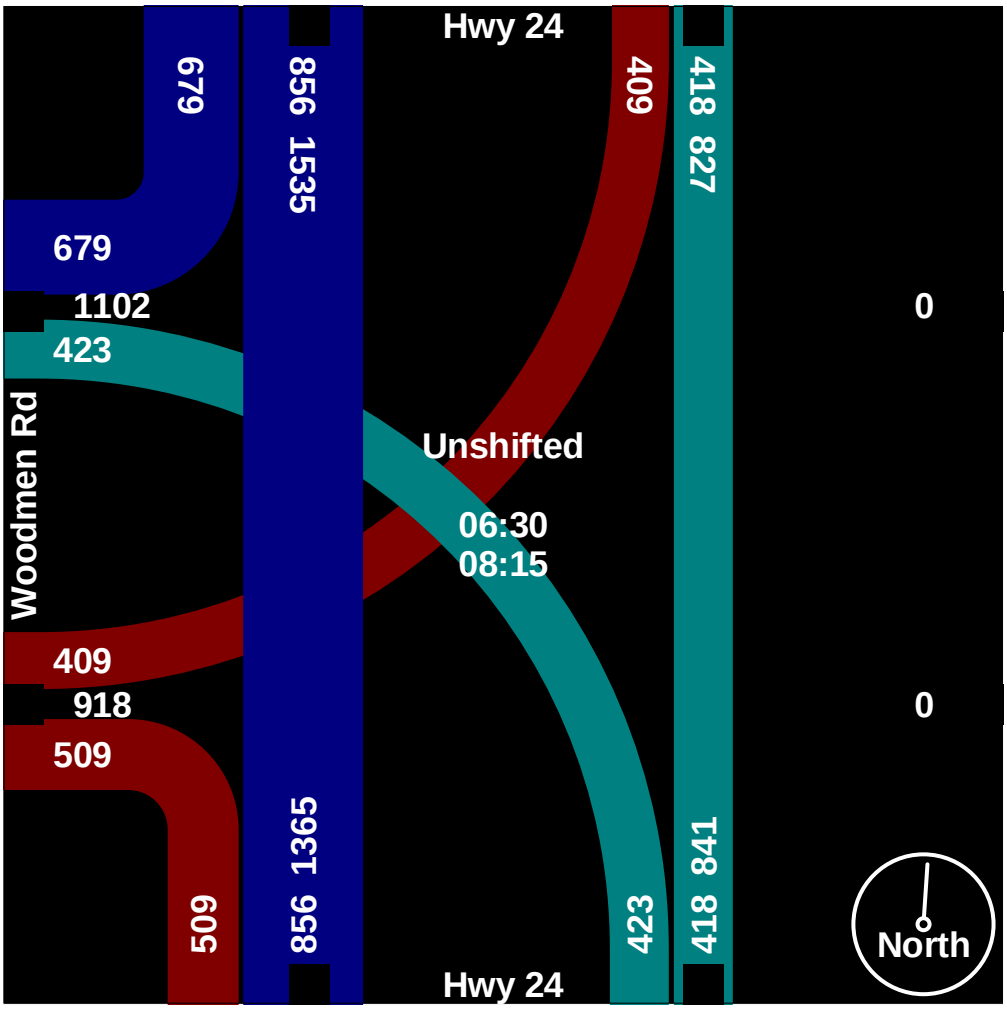

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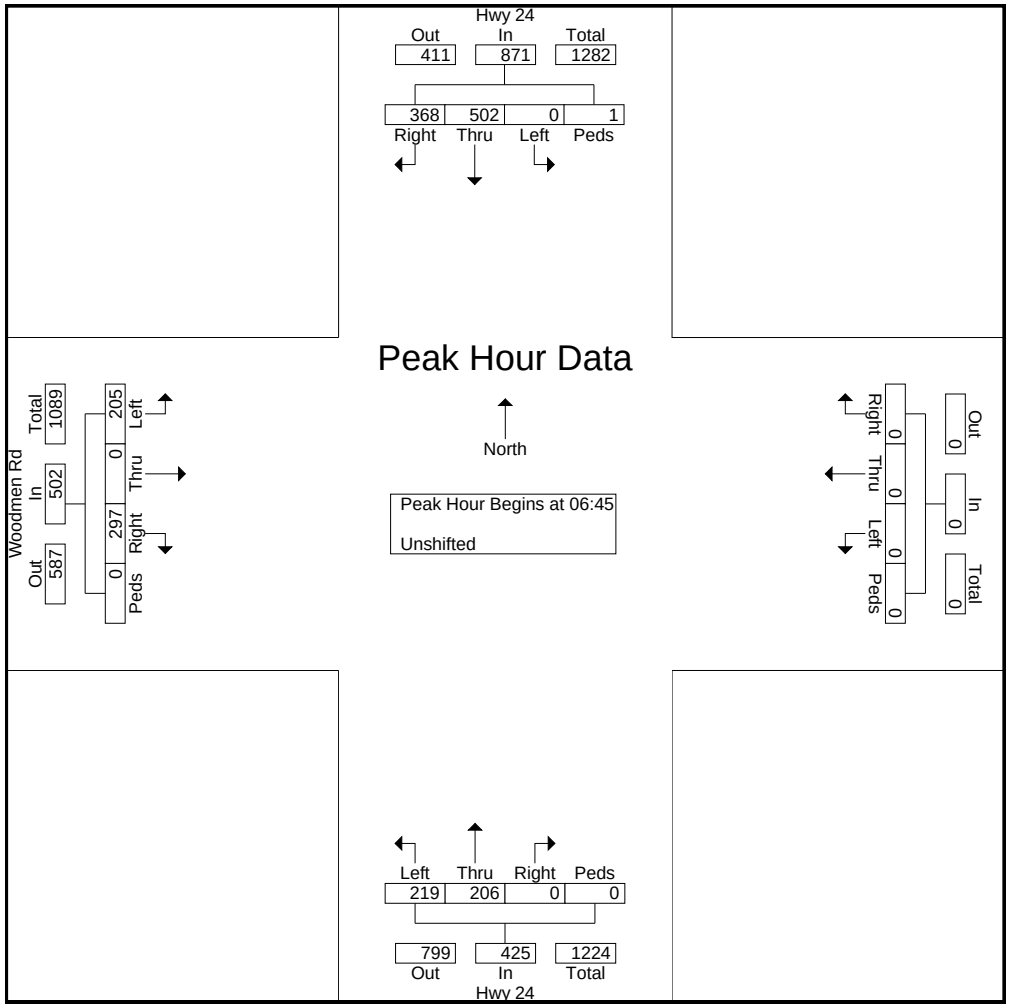
Colorado Springs, CO 80905
719-633-2868

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45																					
06:45	0	**145**	90	0	**235**	0	0	0	0	0	59	37	0	0	96	46	0	83	0	129	**460**
07:00	0	135	98	0	233	0	0	0	0	0	40	41	0	0	81	44	0	**87**	0	**131**	445
07:15	0	112	**104**	0	216	0	0	0	0	0	**60**	58	0	0	118	52	0	64	0	116	450
07:30	0	110	76	**1**	187	0	0	0	0	0	60	**70**	0	0	**130**	**63**	0	63	0	126	443
Total Volume	0	502	368	1	871	0	0	0	0	0	219	206	0	0	425	205	0	297	0	502	1798
% App. Total	0	57.6	42.3	0.1		0	0	0	0		51.5	48.5	0	0		40.8	0	59.2	0		
PHF	.000	.866	.885	.250	.927	.000	.000	.000	.000	.000	.913	.736	.000	.000	.817	.813	.000	.853	.000	.958	.977



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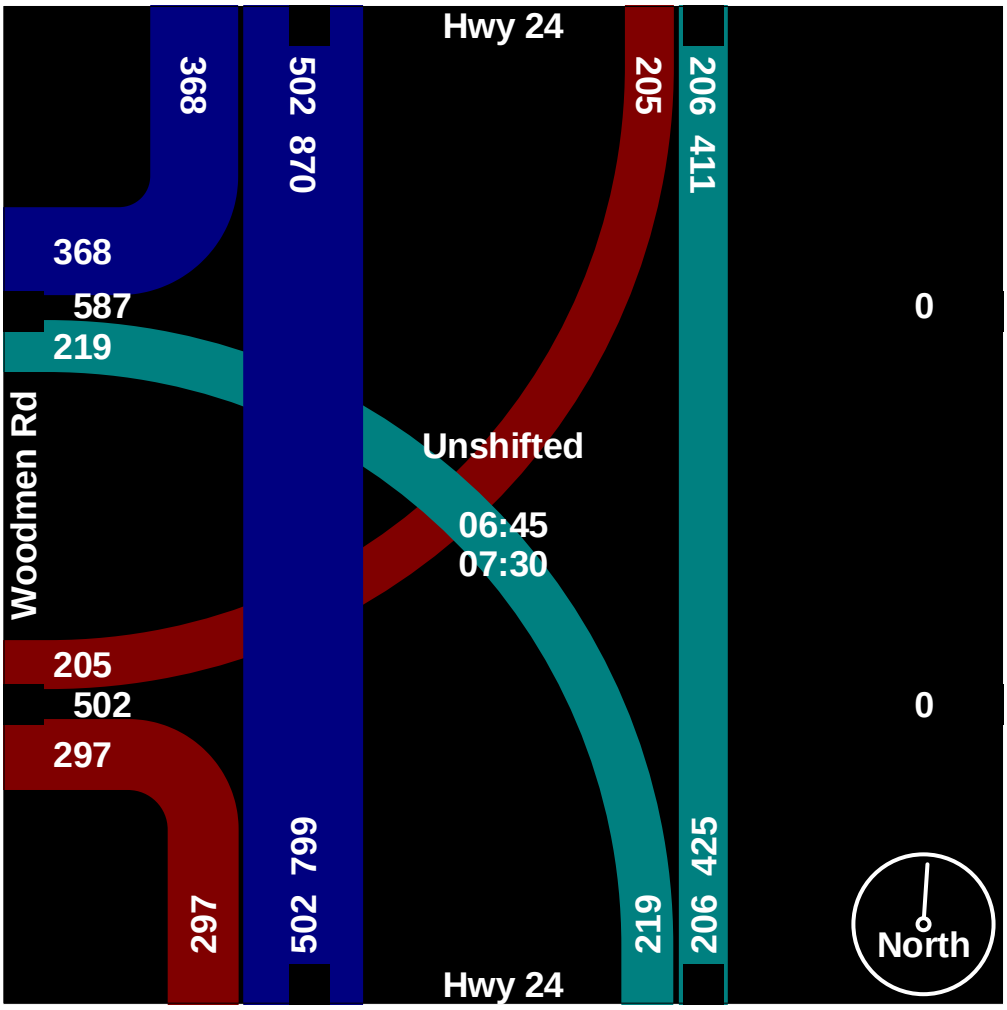

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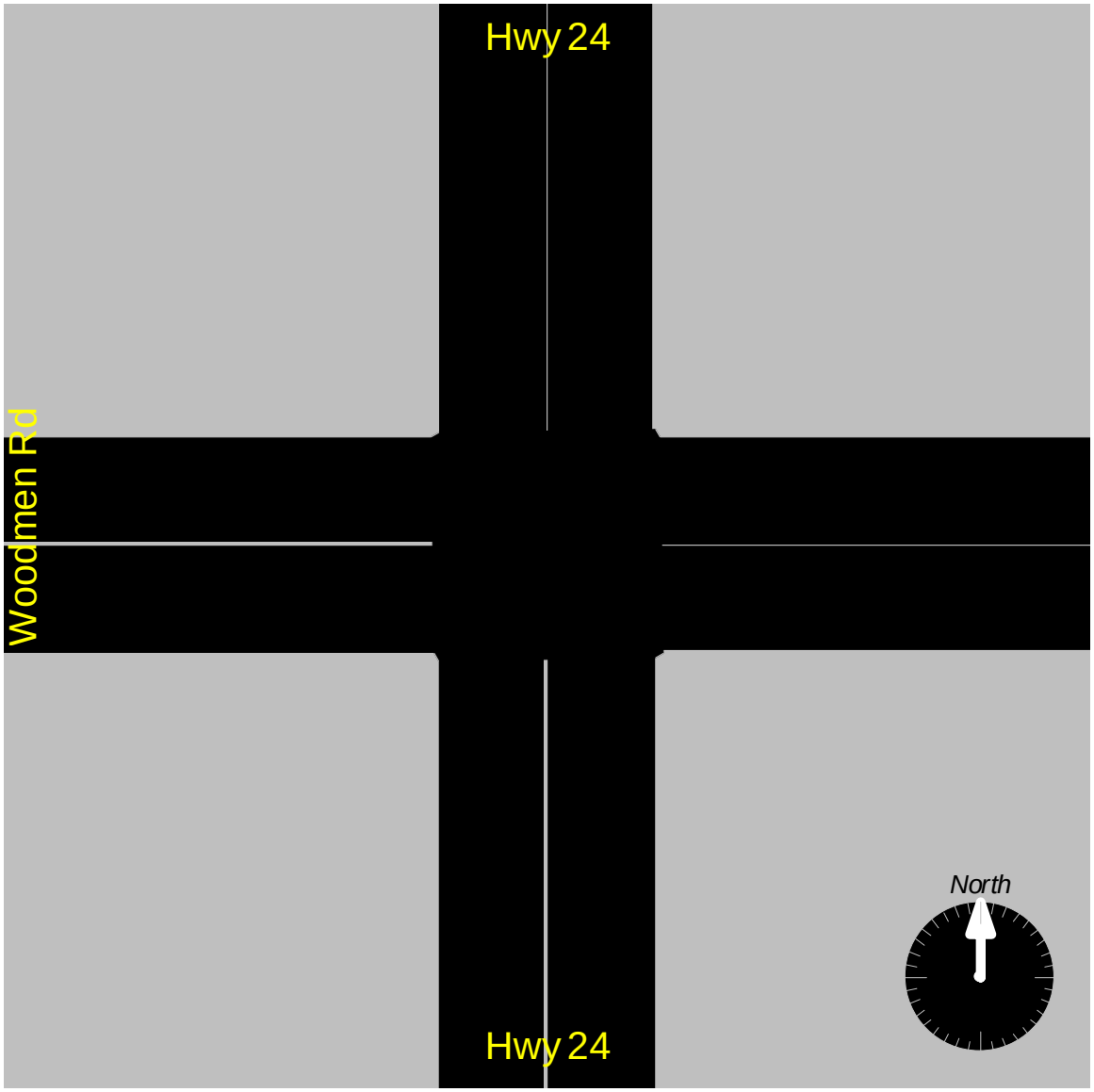

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Default Comments
Change These in The Preferences Window
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Then Click the Comments Tab

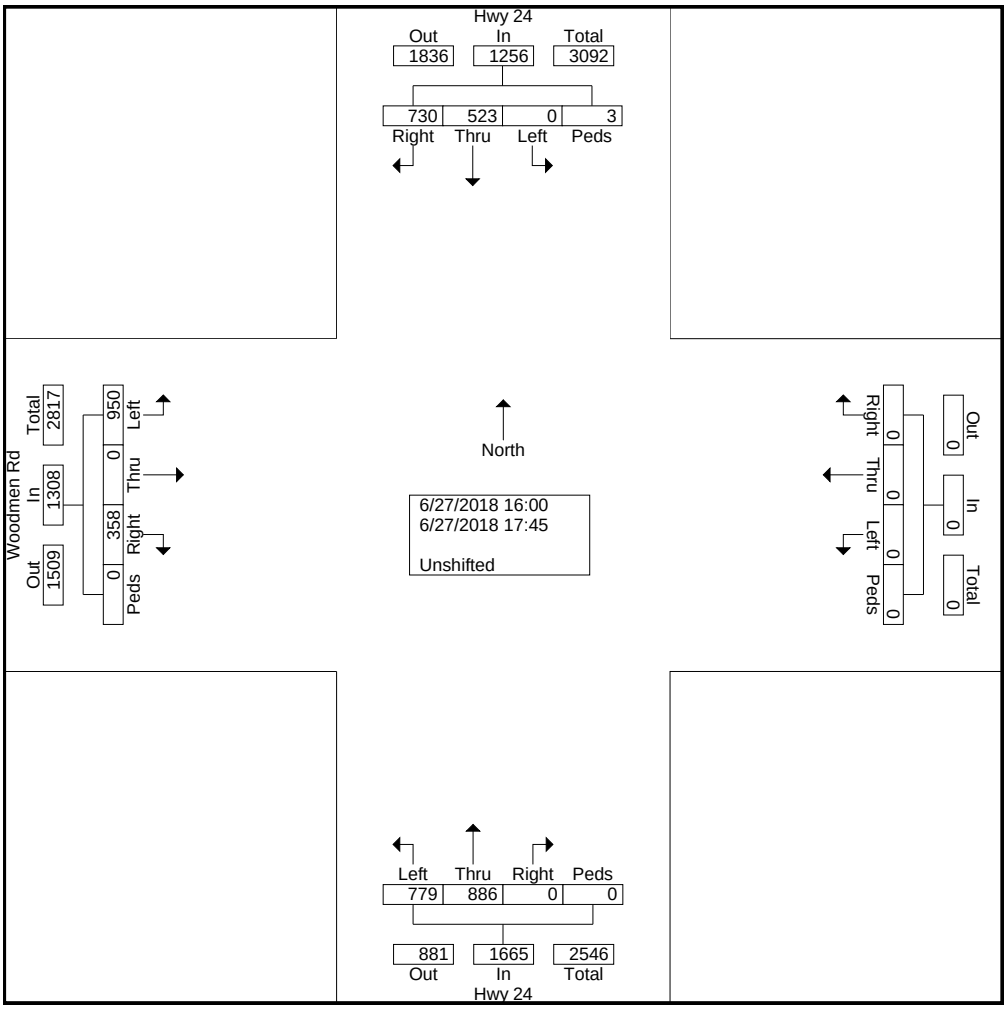
Groups Printed- Unshifted

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	0	52	73	0	125	0	0	0	0	0	91	94	0	0	185	122	0	38	0	160	470
16:15	0	72	95	0	167	0	0	0	0	0	88	120	0	0	208	99	0	47	0	146	521
16:30	0	63	113	0	176	0	0	0	0	0	111	111	0	0	222	119	0	52	0	171	569
16:45	0	60	106	3	169	0	0	0	0	0	93	117	0	0	210	110	0	38	0	148	527
Total	0	247	387	3	637	0	0	0	0	0	383	442	0	0	825	450	0	175	0	625	2087
17:00	0	65	94	0	159	0	0	0	0	0	106	117	0	0	223	135	0	35	0	170	552
17:15	0	64	95	0	159	0	0	0	0	0	106	104	0	0	210	114	0	47	0	161	530
17:30	0	71	79	0	150	0	0	0	0	0	93	104	0	0	197	142	0	49	0	191	538
17:45	0	76	75	0	151	0	0	0	0	0	91	119	0	0	210	109	0	52	0	161	522
Total	0	276	343	0	619	0	0	0	0	0	396	444	0	0	840	500	0	183	0	683	2142

LSC Transportation Consultants, Inc.
Colorado Springs, CO 80905
719-633-2868

Groups Printed- Unshifted

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Grand Total	0	523	730	3	1256	0	0	0	0	0	779	886	0	0	1665	950	0	358	0	1308	4229
Apprch %	0	41.6	58.1	0.2		0	0	0	0		46.8	53.2	0	0		72.6	0	27.4	0		
Total %	0	12.4	17.3	0.1	29.7	0	0	0	0	0	18.4	21	0	0	39.4	22.5	0	8.5	0	30.9	



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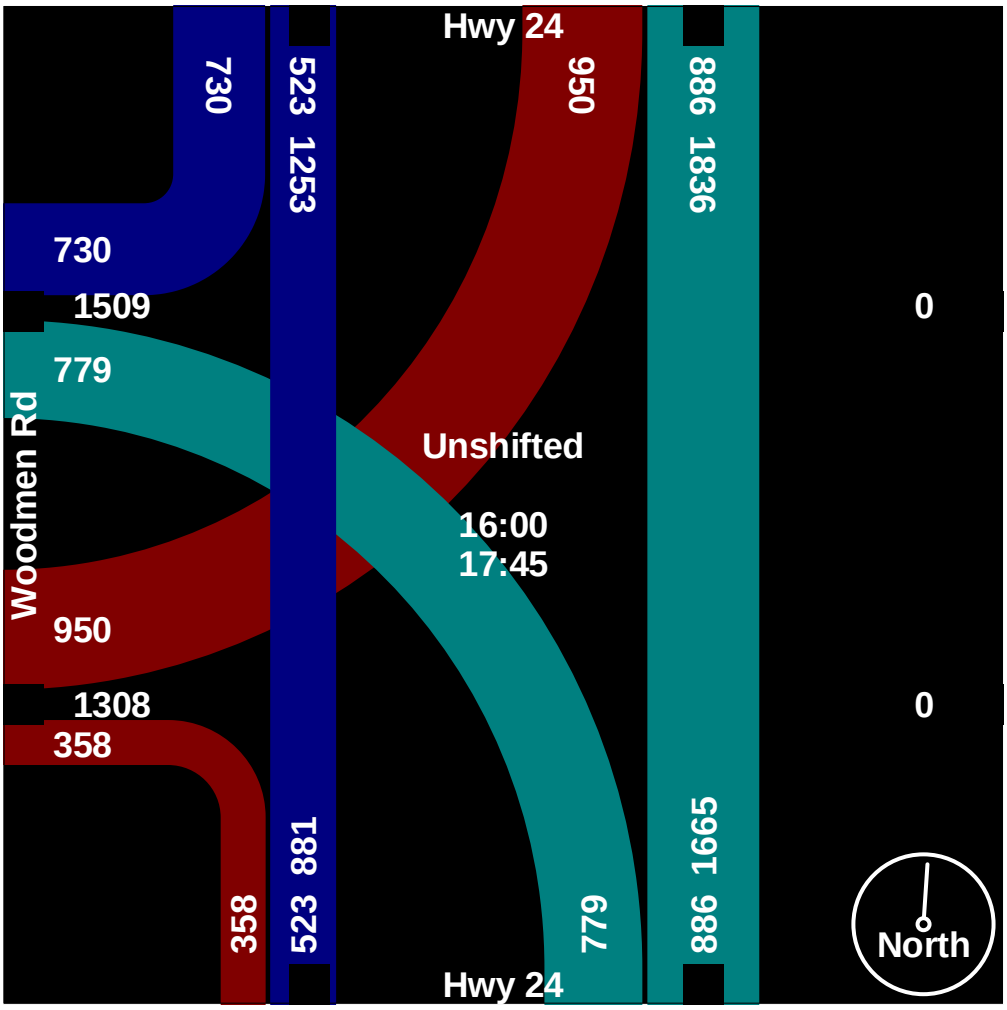
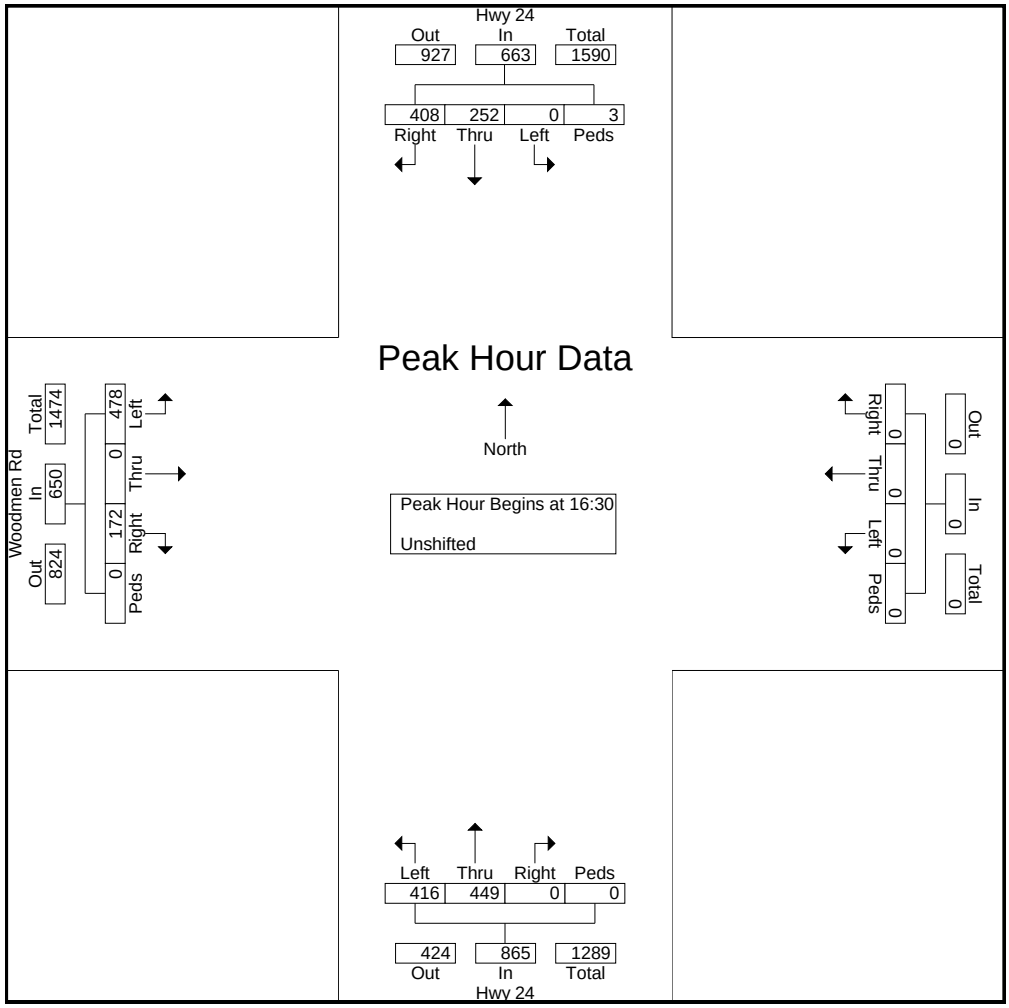


LSC Transportation Consultants, Inc.
Colorado Springs, CO 80905
719-633-2868

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	63	**113**	0	**176**	0	0	0	0	0	**111**	111	0	0	222	119	0	**52**	0	**171**	**569**
16:45	0	60	106	**3**	169	0	0	0	0	0	93	**117**	0	0	210	110	0	38	0	148	527
17:00	0	**65**	94	0	159	0	0	0	0	0	106	117	0	0	**223**	**135**	0	35	0	170	552
17:15	0	64	95	0	159	0	0	0	0	0	106	104	0	0	210	114	0	47	0	161	530
Total Volume	0	252	408	3	663	0	0	0	0	0	416	449	0	0	865	478	0	172	0	650	2178
% App. Total	0	38	61.5	0.5		0	0	0	0		48.1	51.9	0	0		73.5	0	26.5	0		
PHF	.000	.969	.903	.250	.942	.000	.000	.000	.000	.000	.937	.959	.000	.000	.970	.885	.000	.827	.000	.950	.957



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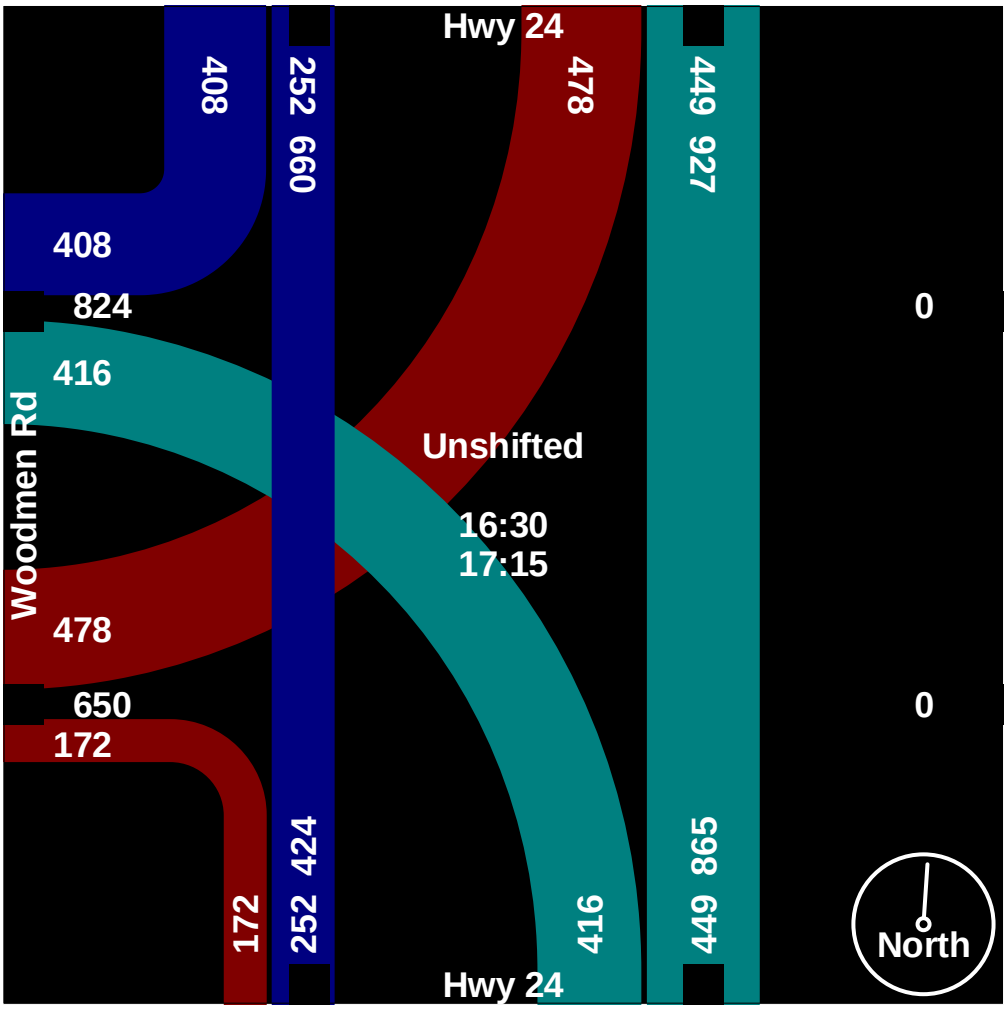

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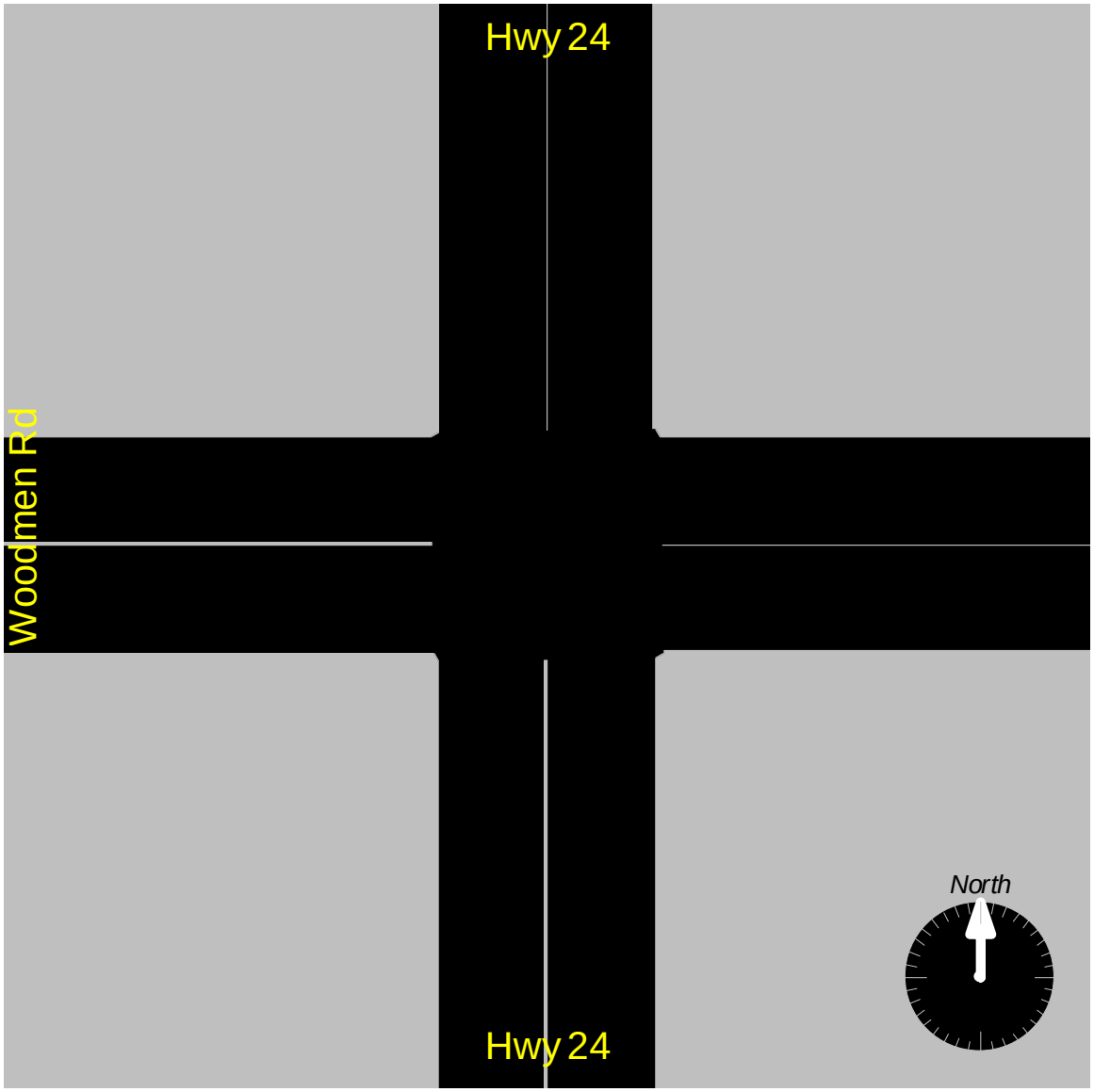

LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Hwy 24 - Rio Ln AM
Site Code : 184560
Start Date : 1/16/2019
Page No : 1

Groups Printed- Unshifted

	Hwy 24 Southbound				Rio Ln Westbound				Hwy 24 Northbound				Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
06:30	1	217	0	0	16	0	2	0	0	91	16	0	0	0	0	0	343
06:45	0	236	0	0	15	0	0	0	0	84	24	0	0	0	0	0	359
Total	1	453	0	0	31	0	2	0	0	175	40	0	0	0	0	0	702
07:00	0	201	0	0	20	0	3	0	0	83	16	0	0	0	0	0	323
07:15	1	207	0	0	19	0	2	0	0	68	26	0	0	0	0	0	323
07:30	1	209	0	0	21	0	1	0	0	69	21	0	0	0	0	0	322
07:45	0	137	0	0	18	0	0	0	0	82	24	0	0	0	0	0	261
Total	2	754	0	0	78	0	6	0	0	302	87	0	0	0	0	0	1229
08:00	0	158	0	0	17	0	0	0	0	69	18	0	0	0	0	0	262
08:15	0	142	0	0	15	0	0	0	0	101	9	0	0	0	0	0	267
Grand Total	3	1507	0	0	141	0	8	0	0	647	154	0	0	0	0	0	2460
Apprch %	0.2	99.8	0	0	94.6	0	5.4	0	0	80.8	19.2	0	0	0	0	0	
Total %	0.1	61.3	0	0	5.7	0	0.3	0	0	26.3	6.3	0	0	0	0	0	

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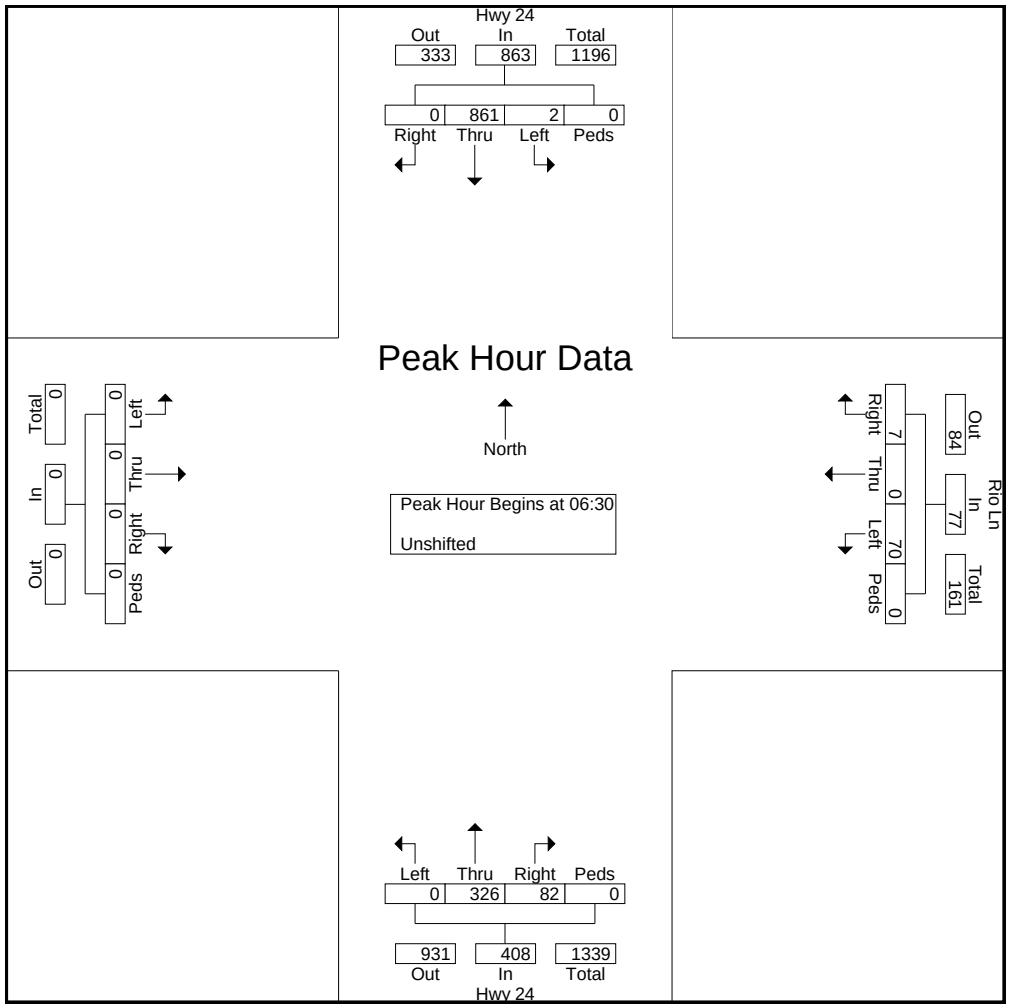
719-633-2868

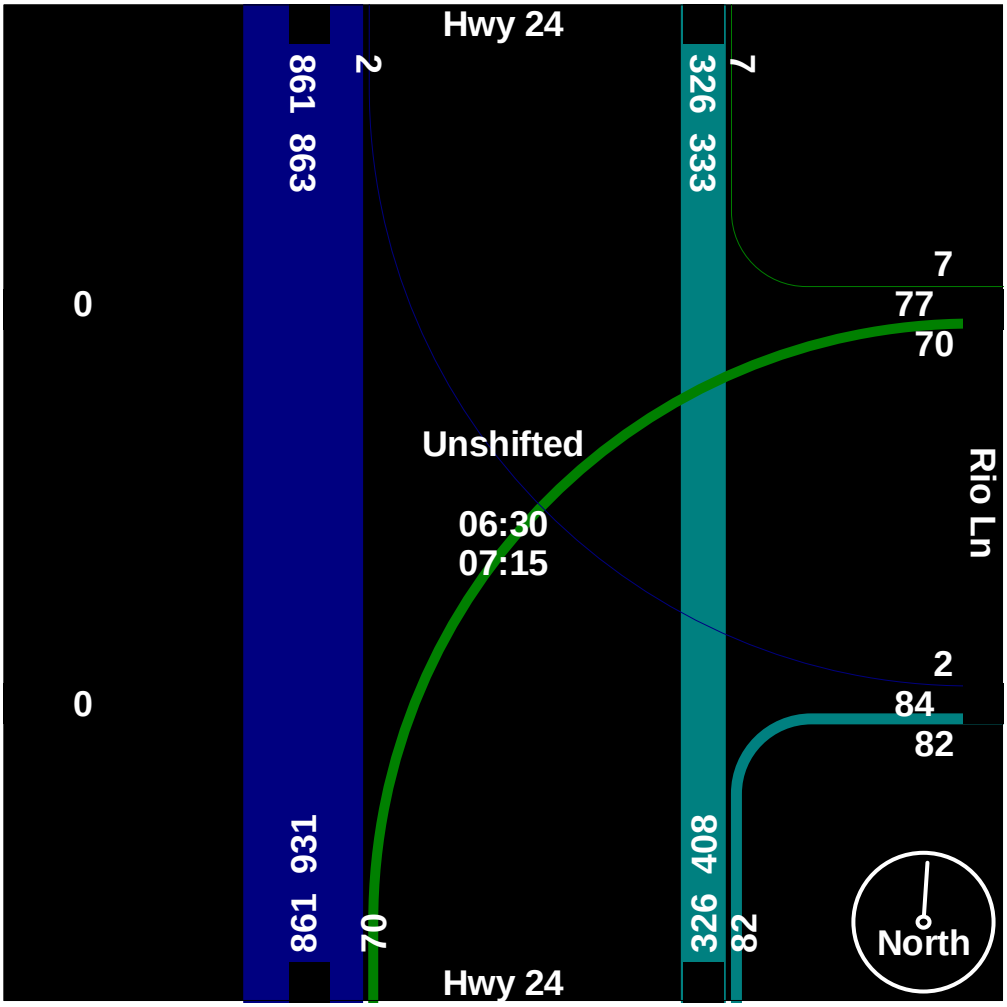
File Name : Hwy 24 - Rio Ln AM
Site Code : 184560
Start Date : 1/16/2019
Page No : 2

	Hwy 24 Southbound					Rio Ln Westbound					Hwy 24 Northbound					Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:30																					
06:30	**1**	217	0	0	218	16	0	2	0	18	0	**91**	16	0	107	0	0	0	0	0	343
06:45	0	**236**	0	0	**236**	15	0	0	0	15	0	84	24	0	**108**	0	0	0	0	0	**359**
07:00	0	201	0	0	201	**20**	0	**3**	0	**23**	0	83	16	0	99	0	0	0	0	0	323
07:15	1	207	0	0	208	19	0	2	0	21	0	68	**26**	0	94	0	0	0	0	0	323
Total Volume	2	861	0	0	863	70	0	7	0	77	0	326	82	0	408	0	0	0	0	0	1348
% App. Total	0.2	99.8	0	0		90.9	0	9.1	0		0	79.9	20.1	0		0	0	0	0		
PHF	.500	.912	.000	.000	.914	.875	.000	.583	.000	.837	.000	.896	.788	.000	.944	.000	.000	.000	.000	.000	.939



LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Hwy 24 - Rio Ln AM
Site Code : 184560
Start Date : 1/16/2019
Page No : 3



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545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Hwy 24 - Rio Ln PM
Site Code : 184560
Start Date : 1/16/2019
Page No : 1

Groups Printed- Unshifted

	Hwy 24 Southbound				Rio Ln Westbound				Hwy 24 Northbound				Rio Ln Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
16:00	0	140	0	0	28	0	0	0	0	178	21	0	0	0	0	0	367
16:15	1	116	0	0	24	0	0	0	0	233	39	0	0	0	0	0	413
16:30	1	148	0	0	21	0	0	0	0	201	21	0	0	0	0	0	392
16:45	0	120	0	0	22	0	2	0	0	204	28	0	0	0	0	0	376
Total	2	524	0	0	95	0	2	0	0	816	109	0	0	0	0	0	1548
17:00	2	154	0	0	21	0	1	0	0	182	39	0	0	0	0	0	399
17:15	3	126	0	0	24	0	3	0	0	195	38	0	0	0	0	0	389
17:30	2	113	0	0	23	0	1	0	0	208	29	0	0	0	0	0	376
17:45	1	85	0	0	22	0	1	0	0	214	27	0	0	0	0	0	350
Total	8	478	0	0	90	0	6	0	0	799	133	0	0	0	0	0	1514
Grand Total	10	1002	0	0	185	0	8	0	0	1615	242	0	0	0	0	0	3062
Apprch %	1	99	0	0	95.9	0	4.1	0	0	87	13	0	0	0	0	0	
Total %	0.3	32.7	0	0	6	0	0.3	0	0	52.7	7.9	0	0	0	0	0	

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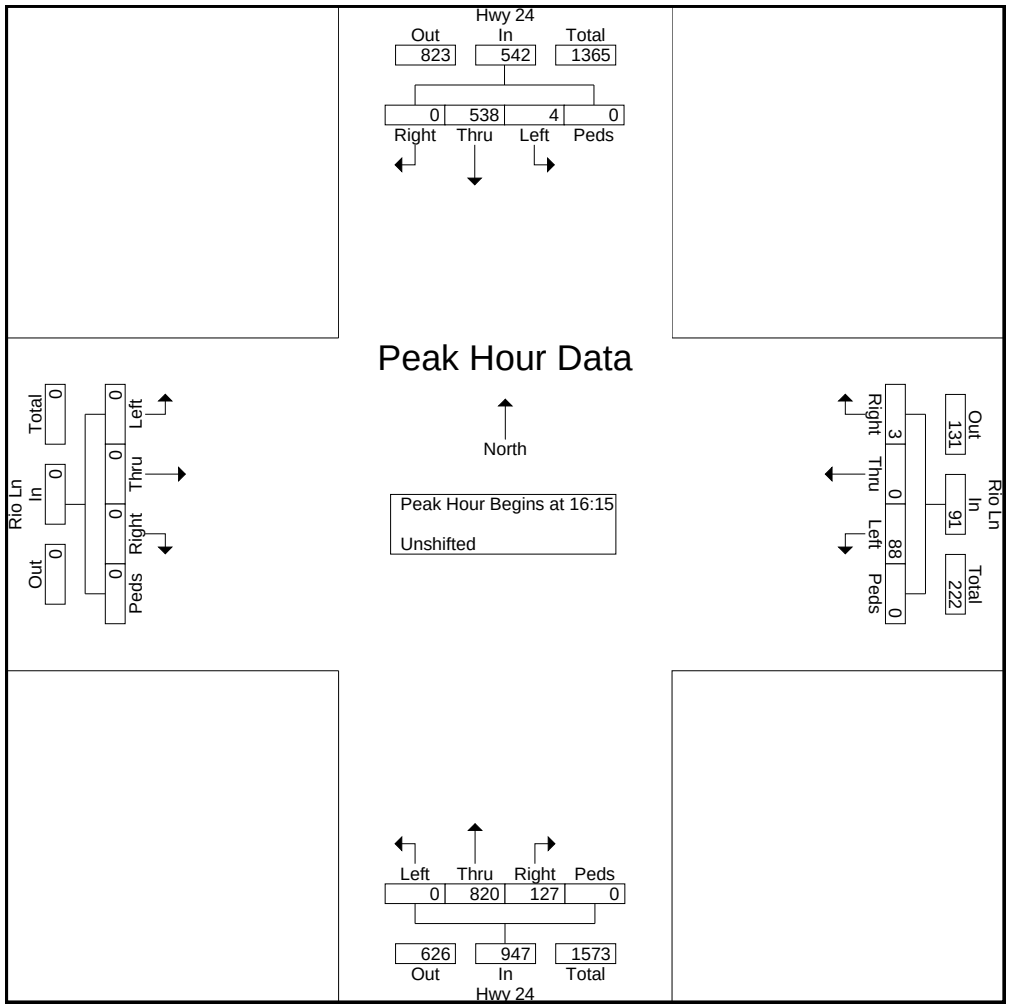
719-633-2868

File Name : Hwy 24 - Rio Ln PM
Site Code : 184560
Start Date : 1/16/2019

	Hwy 24 Southbound					Rio Ln Westbound					Hwy 24 Northbound					Rio Ln Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	1	116	0	0	117	**24**	0	0	0	**24**	0	**233**	**39**	0	**272**	0	0	0	0	0	**413**
16:30	1	148	0	0	149	21	0	0	0	21	0	201	21	0	222	0	0	0	0	0	392
16:45	0	120	0	0	120	22	0	**2**	0	24	0	204	28	0	232	0	0	0	0	0	376
17:00	**2**	**154**	0	0	**156**	21	0	1	0	22	0	182	39	0	221	0	0	0	0	0	399
Total Volume	4	538	0	0	542	88	0	3	0	91	0	820	127	0	947	0	0	0	0	0	1580
% App. Total	0.7	99.3	0	0		96.7	0	3.3	0		0	86.6	13.4	0		0	0	0	0		
PHF	.500	.873	.000	.000	.869	.917	.000	.375	.000	.948	.000	.880	.814	.000	.870	.000	.000	.000	.000	.000	.956



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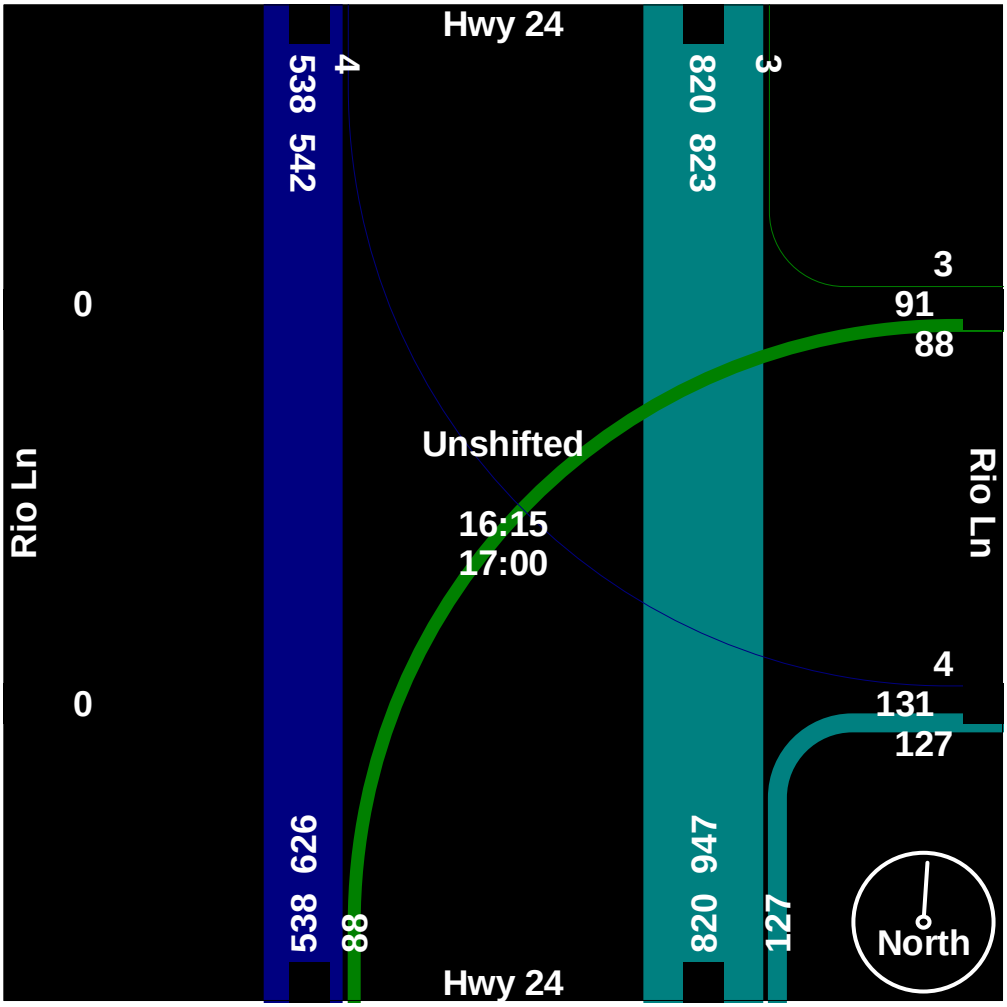
719-633-2868

File Name : Hwy 24 - Rio Ln PM
Site Code : 184560
Start Date : 1/16/2019
Page No : 3



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 24 - Meridian Rd AM
Site Code : 00174890
Start Date : 12/14/2017
Page No : 1

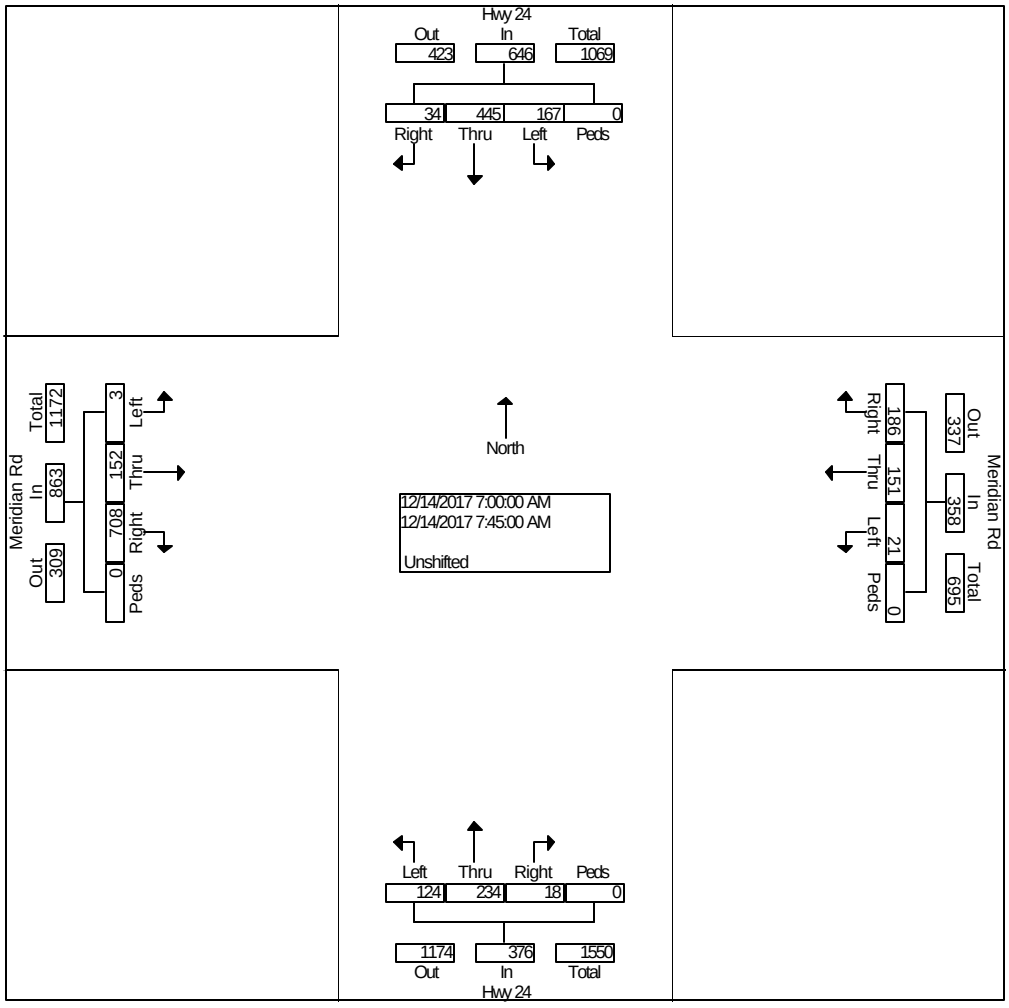
Groups Printed- Unshifted

	Hwy 24 From North				Meridian Rd From East				Hwy 24 From South				Meridian Rd From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	2	175	19	0	40	21	2	0	1	58	15	0	142	16	0	0	491
06:45 AM	6	119	34	0	34	19	1	0	4	50	28	0	171	29	1	0	496
Total	8	294	53	0	74	40	3	0	5	108	43	0	313	45	1	0	987
07:00 AM	13	96	39	0	43	30	8	0	2	41	30	0	217	29	1	0	549
07:15 AM	15	105	51	0	59	36	3	0	1	50	39	0	209	40	2	0	610
07:30 AM	4	117	37	0	45	42	5	0	7	66	24	0	175	45	0	0	567
07:45 AM	2	127	40	0	39	43	5	0	8	77	31	0	107	38	0	0	517
Total	34	445	167	0	186	151	21	0	18	234	124	0	708	152	3	0	2243
08:00 AM	4	102	26	0	33	34	2	0	2	52	39	0	84	47	3	0	428
08:15 AM	1	111	22	0	57	39	3	0	3	61	31	0	86	44	0	0	458
Grand Total	47	952	268	0	350	264	29	0	28	455	237	0	1191	288	7	0	4116
Apprch %	3.7	75.1	21.2	0.0	54.4	41.1	4.5	0.0	3.9	63.2	32.9	0.0	80.1	19.4	0.5	0.0	
Total %	1.1	23.1	6.5	0.0	8.5	6.4	0.7	0.0	0.7	11.1	5.8	0.0	28.9	7.0	0.2	0.0	

Counts by LSC

File Name : Hwy 24 - Meridian Rd AM
Site Code : 00174890
Start Date : 12/14/2017
Page No : 2

	Hwy 24 From North					Meridian Rd From East					Hwy 24 From South					Meridian Rd From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	34	445	167	0	646	186	151	21	0	358	18	234	124	0	376	708	152	3	0	863	2243
Percent	5.3	68.9	25.9	0.0		52.0	42.2	5.9	0.0		4.8	62.2	33.0	0.0		82.0	17.6	0.3	0.0		
07:15 Volume	15	105	51	0	171	59	36	3	0	98	1	50	39	0	90	209	40	2	0	251	610
Peak Factor																					0.919
High Int.	07:15 AM					07:15 AM					07:45 AM					07:15 AM					
Volume	15	105	51	0	171	59	36	3	0	98	8	77	31	0	116	209	40	2	0	251	
Peak Factor					0.944					0.913					0.810					0.860	



Counts by LSC

LSC Transportation Consultants, Inc.

File Name : Hwy 24 - Meridian Rd PM
Site Code : 00174890
Start Date : 12/14/2017
Page No : 1

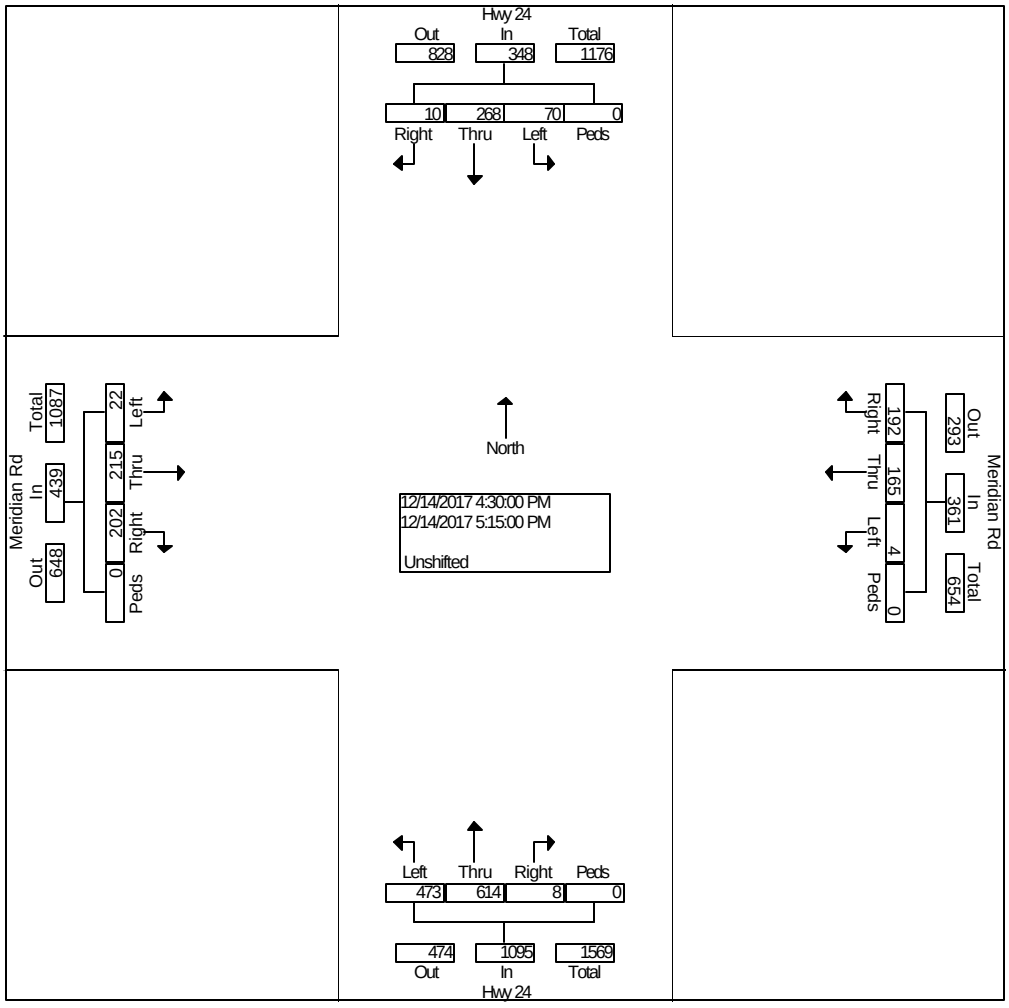
Groups Printed- Unshifted

	Hwy 24 From North				Meridian Rd From East				Hwy 24 From South				Meridian Rd From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
04:00 PM	3	55	14	0	34	46	1	0	1	147	105	0	49	46	5	0	506
04:15 PM	3	59	15	0	35	47	2	0	1	144	109	0	50	48	7	0	520
04:30 PM	4	69	20	0	47	36	1	0	3	156	121	0	48	56	4	0	565
04:45 PM	1	58	21	0	53	42	0	0	2	147	104	0	48	49	6	0	531
Total	11	241	70	0	169	171	4	0	7	594	439	0	195	199	22	0	2122
05:00 PM	4	67	14	0	40	52	2	0	2	154	122	0	70	52	10	0	589
05:15 PM	1	74	15	0	52	35	1	0	1	157	126	0	36	58	2	0	558
05:30 PM	2	81	21	0	30	31	3	0	0	165	98	0	46	54	6	0	537
05:45 PM	2	79	19	0	29	33	2	0	1	159	96	0	44	53	4	0	521
Total	9	301	69	0	151	151	8	0	4	635	442	0	196	217	22	0	2205
Grand Total	20	542	139	0	320	322	12	0	11	1229	881	0	391	416	44	0	4327
Apprch %	2.9	77.3	19.8	0.0	48.9	49.2	1.8	0.0	0.5	57.9	41.5	0.0	45.9	48.9	5.2	0.0	
Total %	0.5	12.5	3.2	0.0	7.4	7.4	0.3	0.0	0.3	28.4	20.4	0.0	9.0	9.6	1.0	0.0	

Counts by LSC

File Name : Hwy 24 - Meridian Rd PM
Site Code : 00174890
Start Date : 12/14/2017
Page No : 2

	Hwy 24 From North					Meridian Rd From East					Hwy 24 From South					Meridian Rd From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	10	268	70	0	348	192	165	4	0	361	8	614	473	0	1095	202	215	22	0	439	2243
Percent	2.9	77.0	20.1	0.0		53.2	45.7	1.1	0.0		0.7	56.1	43.2	0.0		46.0	49.0	5.0	0.0		
05:00 Volume	4	67	14	0	85	40	52	2	0	94	2	154	122	0	278	70	52	10	0	132	589
Peak Factor																					0.952
High Int.	04:30 PM					04:45 PM					05:15 PM					05:00 PM					
Volume	4	69	20	0	93	53	42	0	0	95	1	157	126	0	284	70	52	10	0	132	
Peak Factor					0.935					0.950					0.964					0.831	



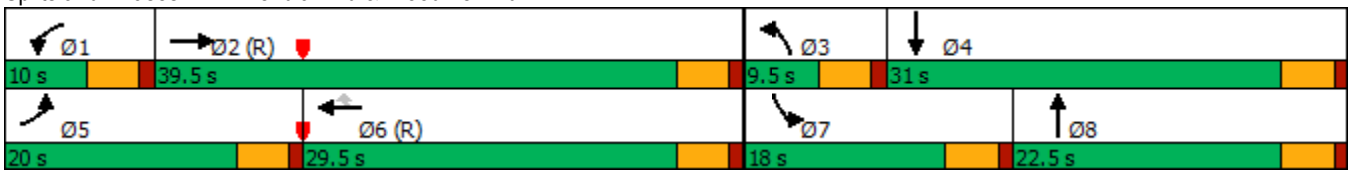
Levels of Service

TRANSPORTATION
CONSULTANTS, INC.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	405	64	87	592	111	63	136	24	262	404	753
Future Volume (vph)	360	405	64	87	592	111	63	136	24	262	404	753
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)			291			236			291			614
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	360	405	64	96	651	122	63	136	24	305	470	876
Shared Lane Traffic (%)												
Lane Group Flow (vph)	360	405	64	96	651	122	63	136	24	305	470	876
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
Total Split (s)	20.0	39.5		10.0	29.5	29.5	9.5	22.5		18.0	31.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	15.1	44.4	90.0	8.2	35.4	35.4	5.5	10.7	90.0	12.8	19.9	90.0
Actuated g/C Ratio	0.17	0.49	1.00	0.09	0.39	0.39	0.06	0.12	1.00	0.14	0.22	1.00
v/c Ratio	0.63	0.23	0.04	0.31	0.47	0.16	0.30	0.32	0.02	0.62	0.60	0.55
Control Delay	39.6	15.3	0.0	45.4	15.5	0.7	44.4	37.5	0.0	42.2	34.9	1.4
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	39.6	15.3	0.0	45.4	15.5	0.7	44.4	37.5	0.0	42.2	34.9	1.4
LOS	D	B	A	D	B	A	D	D	A	D	C	A
Approach Delay		24.7			16.7			35.4			18.5	
Approach LOS		C			B			D			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 20 (22%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

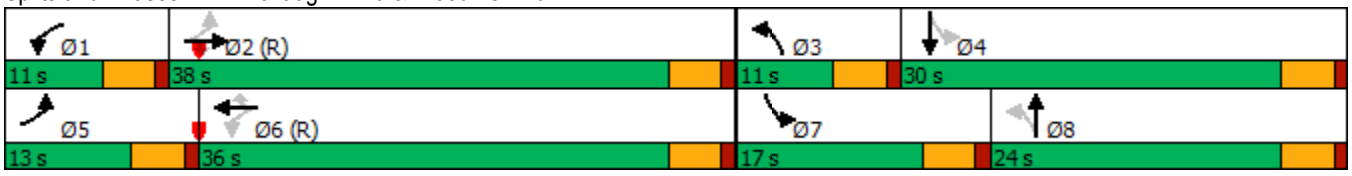
Splits and Phases: 1: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	338	134	24	466	89	35	24	17	136	117	187
Future Volume (vph)	69	338	134	24	466	89	35	24	17	136	117	187
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.310			0.541			0.677			0.637		
Satd. Flow (perm)	577	3539	1583	1008	3539	1583	1261	1863	1583	1187	1863	1583
Satd. Flow (RTOR)			182			182			236			236
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	72	352	140	29	561	107	35	24	17	145	124	199
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	352	140	29	561	107	35	24	17	145	124	199
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	13.0	38.0	38.0	11.0	36.0	36.0	11.0	24.0		17.0	30.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	44.1	40.6	40.6	40.7	35.3	35.3	29.2	22.5	90.0	36.9	30.4	90.0
Actuated g/C Ratio	0.49	0.45	0.45	0.45	0.39	0.39	0.32	0.25	1.00	0.41	0.34	1.00
v/c Ratio	0.19	0.22	0.17	0.06	0.40	0.15	0.08	0.05	0.01	0.26	0.20	0.13
Control Delay	13.4	17.0	5.8	10.1	16.9	0.5	17.0	27.4	0.0	18.5	24.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	17.0	5.8	10.1	16.9	0.5	17.0	27.4	0.0	18.5	24.1	0.2
LOS	B	B	A	B	B	A	B	C	A	B	C	A
Approach Delay		13.8			14.1			16.5			12.2	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 6 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 41.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	297	205	219	205	502	368
Future Volume (vph)	297	205	219	205	502	368
Satd. Flow (prot)	1770	1583	3433	1863	1863	1583
Flt Permitted	0.950		0.273			
Satd. Flow (perm)	1770	1583	987	1863	1863	1583
Satd. Flow (RTOR)		211				396
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	1.00	1.00	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	306	211	219	205	540	396
Shared Lane Traffic (%)						
Lane Group Flow (vph)	306	211	219	205	540	396
Turn Type	Prot	Free	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free	2			6
Total Split (s)	32.0		10.0	58.0	48.0	48.0
Total Lost Time (s)	4.0		4.0	4.0	4.0	4.5
Act Effct Green (s)	28.0	90.0	54.0	54.0	44.0	43.5
Actuated g/C Ratio	0.31	1.00	0.60	0.60	0.49	0.48
v/c Ratio	0.56	0.13	0.29	0.18	0.59	0.41
Control Delay	22.5	0.2	11.3	11.9	19.9	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	0.2	11.3	11.9	19.9	2.8
LOS	C	A	B	B	B	A
Approach Delay	13.4			11.6	12.7	
Approach LOS	B			B	B	

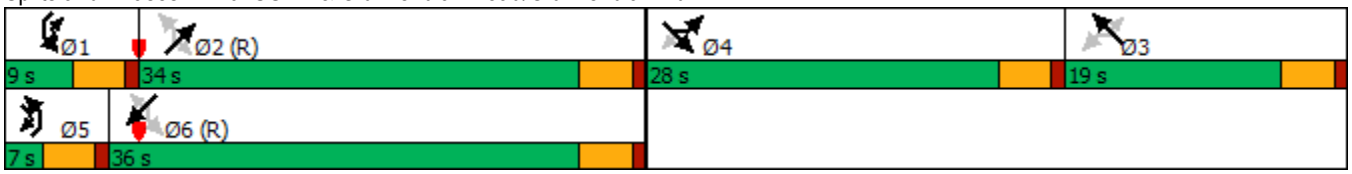
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 59.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: US 24 & Woodmen Rd

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	3	152	708	21	151	186	124	234	130	167	445	34
Future Volume (vph)	3	152	708	21	151	186	124	234	130	167	445	34
Satd. Flow (prot)	0	1861	1583	0	1852	1583	1770	1863	1583	1770	1863	1583
Flt Permitted		0.999			0.946		0.238			0.454		
Satd. Flow (perm)	0	1861	1583	0	1762	1583	443	1863	1583	846	1863	1583
Satd. Flow (RTOR)			424			177			141			127
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	165	770	23	164	202	135	254	141	182	484	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	168	770	0	187	202	135	254	141	182	484	37
Turn Type	Split	NA	pm+ov	Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4	4	5		3	1	5	2		1	6	
Permitted Phases			4	3		3	2		2	6		6
Total Split (s)	28.0	28.0	7.0	19.0	19.0	9.0	7.0	34.0	34.0	9.0	36.0	36.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)		24.0	27.0		15.0	24.0	33.0	30.0	30.0	37.0	32.0	32.0
Actuated g/C Ratio		0.27	0.30		0.17	0.27	0.37	0.33	0.33	0.41	0.36	0.36
v/c Ratio		0.34	1.00		0.64	0.37	0.66	0.41	0.23	0.46	0.73	0.06
Control Delay		29.0	46.2		46.0	8.0	36.3	25.6	4.9	13.1	26.2	0.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		29.0	46.2		46.0	8.0	36.3	25.6	4.9	13.1	26.2	0.7
LOS		C	D		D	A	D	C	A	B	C	A
Approach Delay		43.1			26.3			22.8			21.5	
Approach LOS		D			C			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 87 (97%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 30.4	Intersection LOS: C
Intersection Capacity Utilization 86.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Old Meridian Road/Old Meridian Rd



Intersection	
Int Delay, s/veh	2.1

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	70	7	326	82	2	861
Future Vol, veh/h	70	7	326	82	2	861
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	94	94	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	7	347	87	2	946

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1341	391	0	0	434	0
Stage 1	391	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	168	658	-	-	1126	-
Stage 1	683	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	167	658	-	-	1126	-
Mov Cap-2 Maneuver	167	-	-	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	374	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	39.5	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	179	1126	-
HCM Lane V/C Ratio	-	-	0.43	0.002	-
HCM Control Delay (s)	-	-	39.5	8.2	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	2	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	755	606	78	115	517	132	108	431	94	157	321	479
Future Volume (vph)	755	606	78	115	517	132	108	431	94	157	321	479
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)			236			182			236			479
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	786	631	81	139	623	159	108	431	94	157	321	479
Shared Lane Traffic (%)												
Lane Group Flow (vph)	786	631	81	139	623	159	108	431	94	157	321	479
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
Total Split (s)	30.0	44.5		12.0	26.5	26.5	10.0	22.5		11.0	23.5	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	24.2	42.1	90.0	7.7	25.6	25.6	5.5	15.7	90.0	6.5	18.7	90.0
Actuated g/C Ratio	0.27	0.47	1.00	0.09	0.28	0.28	0.06	0.17	1.00	0.07	0.21	1.00
v/c Ratio	0.85	0.38	0.05	0.47	0.62	0.27	0.52	0.70	0.06	0.64	0.44	0.30
Control Delay	41.3	16.8	0.1	39.6	31.2	10.7	50.2	41.2	0.1	53.1	33.5	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	41.3	16.8	0.1	39.6	31.2	10.7	50.2	41.2	0.1	53.1	33.5	0.5
LOS	D	B	A	D	C	B	D	D	A	D	C	A
Approach Delay		28.8			29.0			36.6			20.2	
Approach LOS		C			C			D			C	

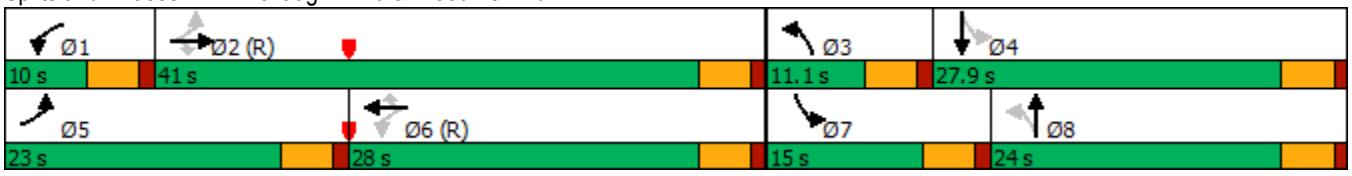
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 58 (64%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	262	420	123	42	495	221	108	178	104	170	107	204
Future Volume (vph)	262	420	123	42	495	221	108	178	104	170	107	204
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.318			0.484			0.688			0.423		
Satd. Flow (perm)	592	3539	1583	902	3539	1583	1282	1863	1583	788	1863	1583
Satd. Flow (RTOR)			137			221			236			236
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	291	467	137	42	495	221	126	207	121	170	107	204
Shared Lane Traffic (%)												
Lane Group Flow (vph)	291	467	137	42	495	221	126	207	121	170	107	204
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	23.0	41.0	41.0	10.0	28.0	28.0	11.1	24.0		15.0	27.9	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	46.5	40.5	40.5	33.4	27.9	27.9	26.9	20.3	90.0	33.1	23.4	90.0
Actuated g/C Ratio	0.52	0.45	0.45	0.37	0.31	0.31	0.30	0.23	1.00	0.37	0.26	1.00
v/c Ratio	0.59	0.29	0.17	0.11	0.45	0.34	0.30	0.49	0.08	0.43	0.22	0.13
Control Delay	11.6	10.3	5.7	8.2	15.9	2.0	21.4	35.5	0.1	22.7	27.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.6	10.3	5.7	8.2	15.9	2.0	21.4	35.5	0.1	22.7	27.7	0.2
LOS	B	B	A	A	B	A	C	D	A	C	C	A
Approach Delay		10.1			11.4			22.2			14.2	
Approach LOS		B			B			C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 4 (4%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 62.0%	ICU Level of Service B
Analysis Period (min) 15	

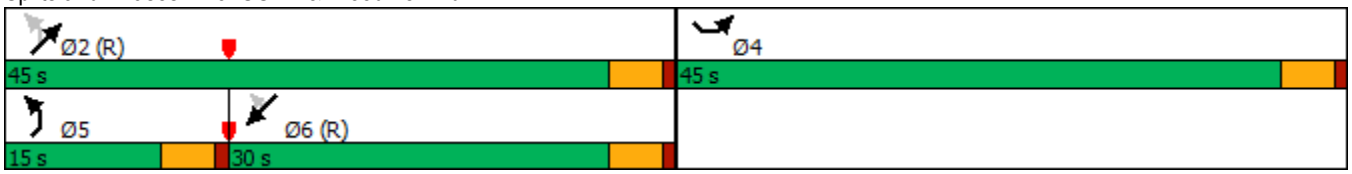
Splits and Phases: 2: McLaughlin Rd & Woodmen Rd



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	478	172	416	449	252	408
Future Volume (vph)	478	172	416	449	252	408
Satd. Flow (prot)	1770	1583	3433	1863	1863	1583
Flt Permitted	0.950		0.373			
Satd. Flow (perm)	1770	1583	1348	1863	1863	1583
Satd. Flow (RTOR)		158				434
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.97	0.97	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	503	181	429	463	268	434
Shared Lane Traffic (%)						
Lane Group Flow (vph)	503	181	429	463	268	434
Turn Type	Prot	Free	pm+pt	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free	2			6
Total Split (s)	45.0		15.0	45.0	30.0	30.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5
Act Effct Green (s)	40.5	90.0	40.5	40.5	25.7	25.7
Actuated g/C Ratio	0.45	1.00	0.45	0.45	0.29	0.29
v/c Ratio	0.63	0.11	0.51	0.55	0.50	0.57
Control Delay	17.0	0.1	6.6	8.3	30.9	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	0.1	6.6	8.3	30.9	6.0
LOS	B	A	A	A	C	A
Approach Delay	12.5			7.5	15.5	
Approach LOS	B			A	B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 72 (80%), Referenced to phase 2:NETL and 6:SWT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 62.9%	ICU Level of Service B
Analysis Period (min) 15	

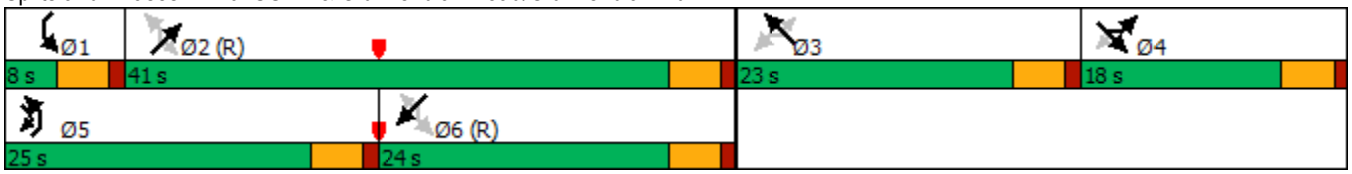
Splits and Phases: 3: US 24 & Woodmen Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	22	215	202	4	165	192	473	614	130	70	268	10
Future Volume (vph)	22	215	202	4	165	192	473	614	130	70	268	10
Satd. Flow (prot)	0	1853	1583	0	1861	1583	1770	1863	1583	1770	1863	1583
Flt Permitted		0.995			0.574		0.252			0.224		
Satd. Flow (perm)	0	1853	1583	0	1069	1583	469	1863	1583	417	1863	1583
Satd. Flow (RTOR)			119			182			141			182
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	24	234	220	4	179	209	514	667	141	76	291	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	220	0	183	209	514	667	141	76	291	11
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4	4	5		3		5	2		1	6	
Permitted Phases			4	3		3	2		2	6		6
Total Split (s)	18.0	18.0	25.0	23.0	23.0	23.0	25.0	41.0	41.0	8.0	24.0	24.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)		13.5	38.5		18.5	18.5	44.5	38.1	38.1	23.0	19.5	19.5
Actuated g/C Ratio		0.15	0.43		0.21	0.21	0.49	0.42	0.42	0.26	0.22	0.22
v/c Ratio		0.93	0.30		0.84	0.45	0.97	0.85	0.19	0.48	0.72	0.02
Control Delay		79.0	8.9		66.5	10.3	54.2	36.2	3.8	30.0	50.7	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		79.0	8.9		66.5	10.3	54.2	36.2	3.8	30.0	50.7	0.1
LOS		E	A		E	B	D	D	A	C	D	A
Approach Delay		46.7			36.5			39.7			45.1	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 6 (7%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 41.3	Intersection LOS: D
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Old Meridian Road/Old Meridian Rd



Intersection	
Int Delay, s/veh	5.3

Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	88	3	820	127	4	538
Future Vol, veh/h	88	3	820	127	4	538
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	87	87	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	3	943	146	4	538

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1562	1016	0	0	1089	0
Stage 1	1016	-	-	-	-	-
Stage 2	546	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	123	289	-	-	641	-
Stage 1	350	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	122	289	-	-	641	-
Mov Cap-2 Maneuver	122	-	-	-	-	-
Stage 1	350	-	-	-	-	-
Stage 2	575	-	-	-	-	-

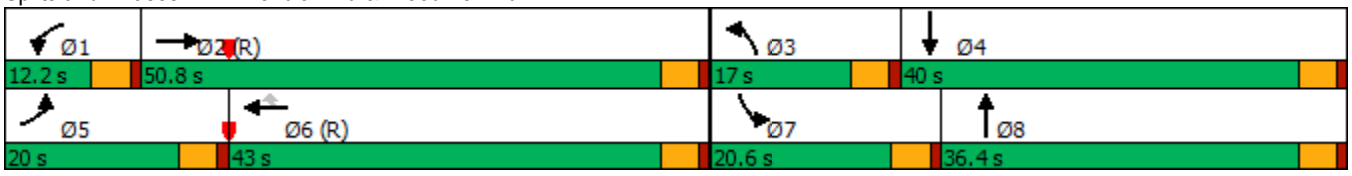
Approach	NB	NE	SW
HCM Control Delay, s	95.6	0	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	124	641	-
HCM Lane V/C Ratio	-	-	0.772	0.006	-
HCM Control Delay (s)	-	-	95.6	10.7	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	4.5	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	550	100	100	775	75	250	350	50	250	725	1000
Future Volume (vph)	325	550	100	100	775	75	250	350	50	250	725	1000
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)			177			136			177			518
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	325	550	100	110	852	82	250	350	50	291	843	1163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	325	550	100	110	852	82	250	350	50	291	843	1163
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
Total Split (s)	20.0	50.8		12.2	43.0	43.0	17.0	36.4		20.6	40.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	15.2	49.4	120.0	8.1	42.3	42.3	12.5	31.5	120.0	15.0	34.0	120.0
Actuated g/C Ratio	0.13	0.41	1.00	0.07	0.35	0.35	0.10	0.26	1.00	0.12	0.28	1.00
v/c Ratio	0.75	0.38	0.06	0.48	0.68	0.13	0.70	0.38	0.03	0.68	0.84	0.73
Control Delay	61.9	26.2	0.1	75.9	21.9	0.4	62.9	37.3	0.0	58.4	48.9	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	26.2	0.1	75.9	21.9	0.4	62.9	37.3	0.0	58.4	48.9	3.1
LOS	E	C	A	E	C	A	E	D	A	E	D	A
Approach Delay		35.4			25.9			44.3			26.9	
Approach LOS		D			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 18 (15%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 30.6	Intersection LOS: C
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	635	125	50	700	125	50	25	50	150	100	200
Future Volume (vph)	90	635	125	50	700	125	50	25	50	150	100	200
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.229			0.345			0.689			0.636		
Satd. Flow (perm)	427	3539	1583	643	3539	1583	1283	1863	1583	1185	1863	1583
Satd. Flow (RTOR)			136			151			177			213
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	94	661	130	60	843	151	50	25	50	160	106	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	661	130	60	843	151	50	25	50	160	106	213
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	15.0	63.0	63.0	12.0	60.0	60.0	12.0	24.0		21.0	33.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	69.1	61.7	61.7	65.6	58.3	58.3	30.9	23.4	120.0	41.0	31.5	120.0
Actuated g/C Ratio	0.58	0.51	0.51	0.55	0.49	0.49	0.26	0.20	1.00	0.34	0.26	1.00
v/c Ratio	0.27	0.36	0.15	0.14	0.49	0.18	0.14	0.07	0.03	0.34	0.22	0.13
Control Delay	14.0	18.6	5.5	9.9	18.6	2.0	28.5	41.9	0.0	31.0	37.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	18.6	5.5	9.9	18.6	2.0	28.5	41.9	0.0	31.0	37.5	0.2
LOS	B	B	A	A	B	A	C	D	A	C	D	A
Approach Delay		16.2			15.7			19.8			18.7	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 49.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	300	55	480	20	50	0	350	235	25	0	575	475
Future Volume (vph)	300	55	480	20	50	0	350	235	25	0	575	475
Satd. Flow (prot)	1770	1863	1583	1770	1863	1863	3433	1863	1583	1863	1863	1583
Flt Permitted	0.576			0.718			0.181					
Satd. Flow (perm)	1073	1863	1583	1337	1863	1863	654	1863	1583	1863	1863	1583
Satd. Flow (RTOR)			495						136			372
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.92	0.97	0.92	0.92	0.92	1.00	1.00	0.92	0.92	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	309	60	495	22	54	0	350	235	27	0	618	511
Shared Lane Traffic (%)												
Lane Group Flow (vph)	309	60	495	22	54	0	350	235	27	0	618	511
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		Free
Total Split (s)	23.0	36.0		9.5	22.5	22.5	14.0	65.0	65.0	9.5	60.5	
Total Lost Time (s)	4.0	4.5		4.5	4.5	4.5	4.0	4.0	4.5	4.5	4.0	
Act Effct Green (s)	41.5	35.3	120.0	19.4	15.5		70.5	70.5	70.0		56.6	120.0
Actuated g/C Ratio	0.35	0.29	1.00	0.16	0.13		0.59	0.59	0.58		0.47	1.00
v/c Ratio	0.61	0.11	0.31	0.09	0.23		0.57	0.21	0.03		0.70	0.32
Control Delay	25.4	21.4	1.1	28.8	47.5		15.3	12.3	0.0		30.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	25.4	21.4	1.1	28.8	47.5		15.3	12.3	0.0		30.4	0.5
LOS	C	C	A	C	D		B	B	A		C	A
Approach Delay		11.2			42.0			13.5			16.9	
Approach LOS		B			D			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 74.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: US 24 & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	825	625	200	150	690	125	300	875	175	235	625	500
Future Volume (vph)	825	625	200	150	690	125	300	875	175	235	625	500
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)			200			151			177			500
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	859	651	208	181	831	151	300	875	175	235	625	500
Shared Lane Traffic (%)												
Lane Group Flow (vph)	859	651	208	181	831	151	300	875	175	235	625	500
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
Total Split (s)	36.0	55.3		15.8	35.1	35.1	18.0	33.9		15.0	30.9	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	31.3	51.6	120.0	10.5	30.8	30.8	13.2	29.5	120.0	10.4	26.7	120.0
Actuated g/C Ratio	0.26	0.43	1.00	0.09	0.26	0.26	0.11	0.25	1.00	0.09	0.22	1.00
v/c Ratio	0.96	0.43	0.13	0.60	0.92	0.29	0.80	1.01	0.11	0.79	0.79	0.32
Control Delay	65.6	25.2	0.2	66.4	48.4	3.1	68.4	77.6	0.1	72.8	52.6	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	65.6	25.2	0.2	66.4	48.4	3.1	68.4	77.6	0.1	72.8	52.6	0.5
LOS	E	C	A	E	D	A	E	E	A	E	D	A
Approach Delay		42.4			45.3			65.5			36.9	
Approach LOS		D			D			E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 24 (20%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 47.2	Intersection LOS: D
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	285	655	100	75	590	250	150	175	150	150	100	225
Future Volume (vph)	285	655	100	75	590	250	150	175	150	150	100	225
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.297			0.372			0.687			0.451		
Satd. Flow (perm)	553	3539	1583	693	3539	1583	1280	1863	1583	840	1863	1583
Satd. Flow (RTOR)			111			250			177			225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	317	728	111	75	590	250	174	203	174	150	100	225
Shared Lane Traffic (%)												
Lane Group Flow (vph)	317	728	111	75	590	250	174	203	174	150	100	225
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	33.0	61.0	61.0	11.0	39.0	39.0	16.0	30.0		18.0	32.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	67.5	58.7	58.7	52.2	45.8	45.8	38.3	27.3	120.0	39.7	28.0	120.0
Actuated g/C Ratio	0.56	0.49	0.49	0.44	0.38	0.38	0.32	0.23	1.00	0.33	0.23	1.00
v/c Ratio	0.65	0.42	0.13	0.21	0.44	0.33	0.38	0.48	0.11	0.41	0.23	0.14
Control Delay	32.1	18.7	3.8	9.8	19.3	1.9	30.4	45.3	0.1	30.4	39.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	18.7	3.8	9.8	19.3	1.9	30.4	45.3	0.1	30.4	39.3	0.2
LOS	C	B	A	A	B	A	C	D	A	C	D	A
Approach Delay		20.9			13.8			26.3			18.0	
Approach LOS		C			B			C			B	

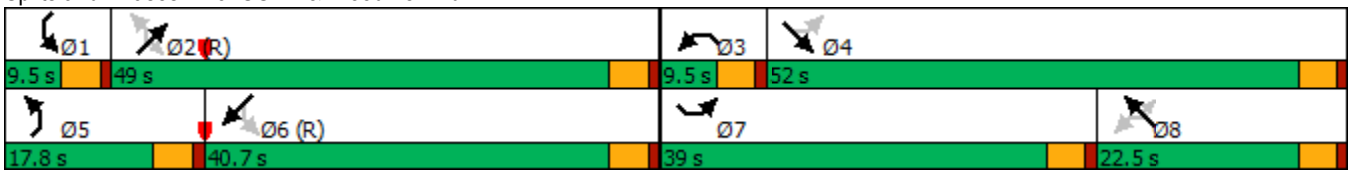
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 15 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	550	90	315	25	65	0	450	515	35	0	300	400
Future Volume (vph)	550	90	315	25	65	0	450	515	35	0	300	400
Satd. Flow (prot)	1770	1863	1583	1770	1863	1863	3433	1863	1583	1863	1863	1583
Flt Permitted	0.549			0.694			0.300					
Satd. Flow (perm)	1023	1863	1583	1293	1863	1863	1084	1863	1583	1863	1863	1583
Satd. Flow (RTOR)			332						136			426
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.97	0.97	0.92	0.92	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	579	98	332	27	71	0	464	531	38	0	319	426
Shared Lane Traffic (%)												
Lane Group Flow (vph)	579	98	332	27	71	0	464	531	38	0	319	426
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		Free
Total Split (s)	39.0	52.0		9.5	22.5	22.5	17.8	49.0	49.0	9.5	40.7	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Act Effct Green (s)	57.0	51.3	120.0	19.4	15.6		54.0	54.0	54.0		36.4	120.0
Actuated g/C Ratio	0.48	0.43	1.00	0.16	0.13		0.45	0.45	0.45		0.30	1.00
v/c Ratio	0.80	0.12	0.21	0.12	0.29		0.62	0.63	0.05		0.56	0.27
Control Delay	22.2	12.5	0.3	23.0	49.0		25.1	29.6	0.1		39.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	22.2	12.5	0.3	23.0	49.0		25.1	29.6	0.1		39.8	0.4
LOS	C	B	A	C	D		C	C	A		D	A
Approach Delay		14.1			41.9			26.5			17.3	
Approach LOS		B			D			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 114 (95%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 79.7%	ICU Level of Service D
Analysis Period (min) 15	

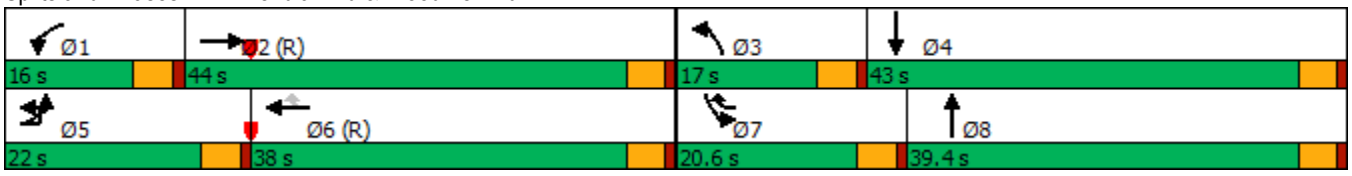
Splits and Phases: 3: US 24 & Woodmen Rd



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	450	535	175	150	785	200	325	350	100	250	940
Future Volume (vph)	15	450	535	175	150	785	200	325	350	100	250	940
Satd. Flow (prot)	0	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539
Satd. Flow (RTOR)				177			174			177		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			0%
Adj. Flow (vph)	16	450	535	175	165	863	220	325	350	100	291	1093
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	466	535	175	165	863	220	325	350	100	291	1093
Turn Type	Prot	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA
Protected Phases	5	5	2		1	6	7	3	8		7	4
Permitted Phases				Free			6			Free		
Total Split (s)	22.0	22.0	44.0		16.0	38.0	20.6	17.0	39.4		20.6	43.0
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0
Act Effct Green (s)		18.0	41.1	120.0	10.9	34.0	53.0	13.0	37.0	120.0	15.0	39.0
Actuated g/C Ratio		0.15	0.34	1.00	0.09	0.28	0.44	0.11	0.31	1.00	0.12	0.32
v/c Ratio		0.91	0.44	0.11	0.53	0.86	0.28	0.88	0.32	0.06	0.68	0.95
Control Delay		72.7	32.2	0.1	79.4	29.8	0.8	64.3	35.7	0.1	58.4	56.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		72.7	32.2	0.1	79.4	29.8	0.8	64.3	35.7	0.1	58.4	56.9
LOS		E	C	A	E	C	A	E	D	A	E	E
Approach Delay			43.5			31.2			43.1			32.2
Approach LOS			D			C			D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 35.7	Intersection LOS: D
Intersection Capacity Utilization 83.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd



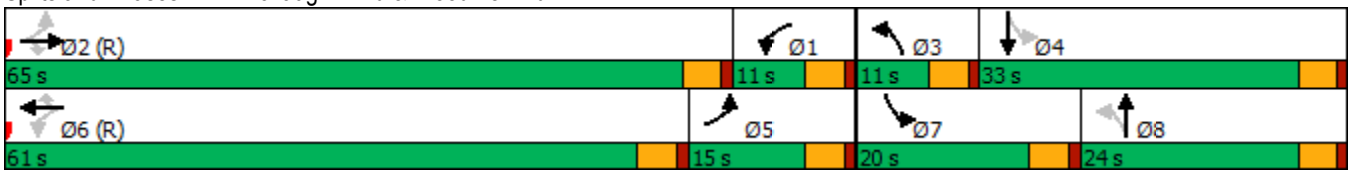
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	1040
Future Volume (vph)	1040
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Satd. Flow (RTOR)	546
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.86
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	1209
Shared Lane Traffic (%)	
Lane Group Flow (vph)	1209
Turn Type	Free
Protected Phases	
Permitted Phases	Free
Total Split (s)	
Total Lost Time (s)	
Act Effct Green (s)	120.0
Actuated g/C Ratio	1.00
v/c Ratio	0.76
Control Delay	3.6
Queue Delay	0.0
Total Delay	3.6
LOS	A
Approach Delay	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	660	125	50	860	125	50	50	50	175	140	225
Future Volume (vph)	100	660	125	50	860	125	50	50	50	175	140	225
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.164			0.312			0.662			0.622		
Satd. Flow (perm)	305	3539	1583	581	3539	1583	1233	1863	1583	1159	1863	1583
Satd. Flow (RTOR)			136			151			177			239
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	104	688	130	60	1036	151	50	50	50	186	149	239
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	688	130	60	1036	151	50	50	50	186	149	239
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	15.0	65.0	65.0	11.0	61.0	61.0	11.0	24.0		20.0	33.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	70.4	62.2	62.2	63.2	57.0	57.0	30.5	23.3	120.0	41.6	32.3	120.0
Actuated g/C Ratio	0.59	0.52	0.52	0.53	0.48	0.48	0.25	0.19	1.00	0.35	0.27	1.00
v/c Ratio	0.35	0.38	0.15	0.16	0.62	0.18	0.14	0.14	0.03	0.39	0.30	0.15
Control Delay	22.1	19.0	5.7	8.3	19.3	0.9	28.9	43.5	0.0	31.9	38.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	19.0	5.7	8.3	19.3	0.9	28.9	43.5	0.0	31.9	38.5	0.2
LOS	C	B	A	A	B	A	C	D	A	C	D	A
Approach Delay		17.5			16.6			24.2			20.4	
Approach LOS		B			B			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 98 (82%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 56.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	275	55	550	20	50	0	510	660	25	0	745	475
Future Volume (vph)	275	55	550	20	50	0	510	660	25	0	745	475
Satd. Flow (prot)	3433	1863	2787	1770	1863	1863	3433	5085	1583	1863	5085	1583
Flt Permitted	0.589			0.718			0.229					
Satd. Flow (perm)	2128	1863	2787	1337	1863	1863	828	5085	1583	1863	5085	1583
Satd. Flow (RTOR)			298						136			511
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.92	0.97	0.92	0.92	0.92	1.00	1.00	0.92	0.92	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	284	60	567	22	54	0	510	660	27	0	801	511
Shared Lane Traffic (%)												
Lane Group Flow (vph)	284	60	567	22	54	0	510	660	27	0	801	511
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4	4 5	3	8		5	2		1	6	
Permitted Phases	4			8		Free	2		2	6		Free
Total Split (s)	25.0	39.0		11.0	25.0		28.0	60.5	60.5	9.5	42.0	
Total Lost Time (s)	4.0	4.5		4.5	4.5		4.0	4.0	4.5	4.5	4.0	
Act Effct Green (s)	46.0	38.9	60.2	22.5	17.5		66.0	66.0	65.5		44.7	120.0
Actuated g/C Ratio	0.38	0.32	0.50	0.19	0.15		0.55	0.55	0.55		0.37	1.00
v/c Ratio	0.26	0.10	0.37	0.08	0.20		0.61	0.24	0.03		0.42	0.32
Control Delay	16.8	21.2	6.7	25.7	44.8		12.9	9.4	0.2		29.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	16.8	21.2	6.7	25.7	44.8		12.9	9.4	0.2		29.4	0.5
LOS	B	C	A	C	D		B	A	A		C	A
Approach Delay		10.8			39.2			10.7			18.1	
Approach LOS		B			D			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 99 (83%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: US 24 & Woodmen Rd

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	235	0	0	130	0	1065	130	0	1280	35
Future Vol, veh/h	0	0	235	0	0	130	0	1065	130	0	1280	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	500	-	-	550
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	0	0	255	0	0	141	0	1158	141	0	1391	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	579	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	393	0	-	-	0	-	-
Stage 1	0	0	0	0	0	-	0	-	-	0	-	-
Stage 2	0	0	0	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	393	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	19.2	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SELn1	SWT	SWR
Capacity (veh/h)	-	-	393	-	-	-
HCM Lane V/C Ratio	-	-	0.36	-	-	-
HCM Control Delay (s)	-	-	19.2	0	-	-
HCM Lane LOS	-	-	C	A	-	-
HCM 95th %tile Q(veh)	-	-	1.6	-	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	300	640	40	150	245	140	920	30	215	1260	40
Future Volume (vph)	30	300	640	40	150	245	140	920	30	215	1260	40
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.649			0.390			0.950			0.950		
Satd. Flow (perm)	1209	3539	1583	726	3539	1583	3433	5085	1583	1770	5085	1583
Satd. Flow (RTOR)			492			266			95			95
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	33	326	696	43	163	266	152	1000	33	234	1370	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	326	696	43	163	266	152	1000	33	234	1370	43
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			8
Total Split (s)	10.0	25.0	25.0	11.0	26.0	26.0	37.0	47.0	47.0	37.0	47.0	47.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)	27.1	22.7	22.7	29.4	25.5	25.5	10.7	53.8	53.8	21.2	64.3	64.3
Actuated g/C Ratio	0.23	0.19	0.19	0.24	0.21	0.21	0.09	0.45	0.45	0.18	0.54	0.54
v/c Ratio	0.11	0.49	1.00	0.19	0.22	0.49	0.50	0.44	0.04	0.75	0.50	0.05
Control Delay	26.0	31.4	46.9	35.7	41.4	8.4	57.4	24.2	0.1	49.4	17.8	1.9
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	26.0	31.4	46.9	35.7	41.4	8.4	57.4	24.2	0.1	49.4	17.8	1.9
LOS	C	C	D	D	D	A	E	C	A	D	B	A
Approach Delay		41.4			22.3			27.8			21.8	
Approach LOS		D			C			C			C	

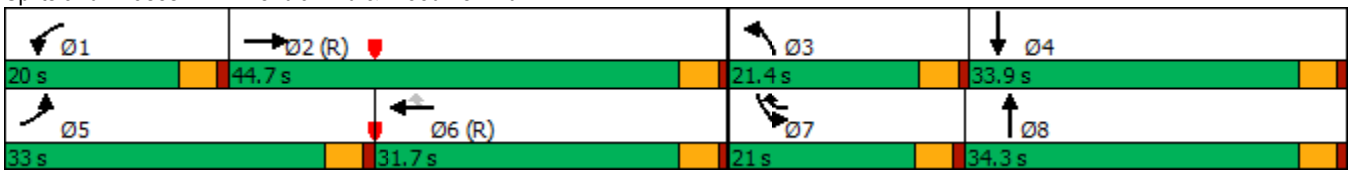
Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 100 (83%), Referenced to phase 4:NET and 8:SWT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.00		
Intersection Signal Delay: 28.3	Intersection LOS: C	
Intersection Capacity Utilization 79.4%	ICU Level of Service D	
Analysis Period (min) 15		

Splits and Phases: 19: US 24

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	750	725	375	225	570	400	450	850	200	425	700	600
Future Volume (vph)	750	725	375	225	570	400	450	850	200	425	700	600
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)			325			95			200			600
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	781	755	391	271	687	482	450	850	200	425	700	600
Shared Lane Traffic (%)												
Lane Group Flow (vph)	781	755	391	271	687	482	450	850	200	425	700	600
Turn Type	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6	7	3	8		7	4	
Permitted Phases			Free			6			Free			Free
Total Split (s)	33.0	44.7		20.0	31.7	21.0	21.4	34.3		21.0	33.9	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	28.5	41.8	120.0	13.9	27.2	48.2	16.9	29.8	120.0	16.5	29.4	120.0
Actuated g/C Ratio	0.24	0.35	1.00	0.12	0.23	0.40	0.14	0.25	1.00	0.14	0.24	1.00
v/c Ratio	0.96	0.61	0.25	0.68	0.86	0.70	0.93	0.97	0.13	0.90	0.81	0.38
Control Delay	68.5	35.3	0.4	45.0	57.2	43.2	71.5	59.3	0.2	74.5	51.0	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	68.5	35.3	0.4	45.0	57.2	43.2	71.5	59.3	0.2	74.5	51.0	0.7
LOS	E	D	A	D	E	D	E	E	A	E	D	A
Approach Delay		41.7			50.2			55.1			39.3	
Approach LOS		D			D			E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 78 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 46.0	Intersection LOS: D
Intersection Capacity Utilization 87.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	950	100	75	790	275	150	200	150	200	125	250
Future Volume (vph)	300	950	100	75	790	275	150	200	150	200	125	250
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.190			0.220			0.677			0.332		
Satd. Flow (perm)	354	3539	1583	410	3539	1583	1261	1863	1583	618	1863	1583
Satd. Flow (RTOR)			111			275			177			250
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	333	1056	111	75	790	275	174	233	174	200	125	250
Shared Lane Traffic (%)												
Lane Group Flow (vph)	333	1056	111	75	790	275	174	233	174	200	125	250
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	31.0	62.1	62.1	10.9	42.0	42.0	15.0	28.0		19.0	32.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	68.5	59.8	59.8	50.8	44.5	44.5	34.9	24.7	120.0	41.1	27.8	120.0
Actuated g/C Ratio	0.57	0.50	0.50	0.42	0.37	0.37	0.29	0.21	1.00	0.34	0.23	1.00
v/c Ratio	0.77	0.60	0.13	0.31	0.60	0.36	0.43	0.61	0.11	0.59	0.29	0.16
Control Delay	23.4	13.3	2.5	16.9	28.8	7.9	32.3	51.5	0.1	36.1	40.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	13.3	2.5	16.9	28.8	7.9	32.3	51.5	0.1	36.1	40.4	0.2
LOS	C	B	A	B	C	A	C	D	A	D	D	A
Approach Delay		14.7			23.0			30.4			21.4	
Approach LOS		B			C			C			C	

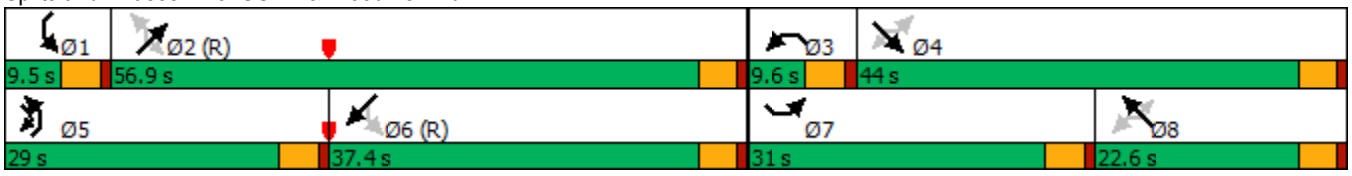
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 5 (4%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	850	90	360	25	65	0	650	1610	35	0	965	425
Future Volume (vph)	850	90	360	25	65	0	650	1610	35	0	965	425
Satd. Flow (prot)	3433	1863	2787	1770	1863	1863	3433	5085	1583	1863	5085	1583
Flt Permitted	0.550			0.694			0.107					
Satd. Flow (perm)	1988	1863	2787	1293	1863	1863	387	5085	1583	1863	5085	1583
Satd. Flow (RTOR)			215						136			452
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.97	0.97	0.92	0.92	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	895	98	379	27	71	0	670	1660	38	0	1027	452
Shared Lane Traffic (%)												
Lane Group Flow (vph)	895	98	379	27	71	0	670	1660	38	0	1027	452
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		Free
Total Split (s)	31.0	44.0	29.0	9.6	22.6	22.6	29.0	56.9	56.9	9.5	37.4	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Act Effct Green (s)	49.1	43.3	70.6	19.6	15.7		61.9	61.9	61.9		34.7	120.0
Actuated g/C Ratio	0.41	0.36	0.59	0.16	0.13		0.52	0.52	0.52		0.29	1.00
v/c Ratio	0.75	0.15	0.22	0.12	0.29		0.86	0.63	0.04		0.70	0.29
Control Delay	16.5	13.1	1.0	25.4	48.9		35.3	6.0	0.1		41.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	16.5	13.1	1.0	25.4	48.9		35.3	6.0	0.1		41.4	0.5
LOS	B	B	A	C	D		D	A	A		D	A
Approach Delay		12.0			42.4			14.2			28.9	
Approach LOS		B			D			B			C	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 96 (80%), Referenced to phase 2:NETL and 6:SWTL, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.86		
Intersection Signal Delay: 18.2	Intersection LOS: B	
Intersection Capacity Utilization 79.4%	ICU Level of Service D	
Analysis Period (min) 15		

Splits and Phases: 3: US 24 & Woodmen Rd



Intersection	
Int Delay, s/veh	8.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	50	0	0	175	0	2120	130	0	1335	15
Future Vol, veh/h	0	0	50	0	0	175	0	2120	130	0	1335	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	500	-	-	550
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	0	0	54	0	0	190	0	2304	141	0	1451	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	1152	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	~ 164	0	-	-	0	-	-
Stage 1	0	0	0	0	0	-	0	-	-	0	-	-
Stage 2	0	0	0	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	~ 164	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	175.8	0	0
HCM LOS	A	F		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SELn1	SWT	SWR
Capacity (veh/h)	-	-	164	-	-	-
HCM Lane V/C Ratio	-	-	1.16	-	-	-
HCM Control Delay (s)	-	-	175.8	0	-	-
HCM Lane LOS	-	-	F	A	-	-
HCM 95th %tile Q(veh)	-	-	10.2	-	-	-

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

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	60	250	235	80	600	280	510	1935	80	170	1155	60
Future Volume (vph)	60	250	235	80	600	280	510	1935	80	170	1155	60
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.315			0.334			0.950			0.950		
Satd. Flow (perm)	587	3539	1583	622	3539	1583	3433	5085	1583	1770	5085	1583
Satd. Flow (RTOR)			255			304			136			136
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	65	272	255	87	652	304	554	2103	87	185	1255	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	272	255	87	652	304	554	2103	87	185	1255	65
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6			4			8
Total Split (s)	9.5	26.6	26.6	13.4	30.5	30.5	31.9	59.0	59.0	21.0	48.1	48.1
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)	22.6	22.6	22.6	27.9	27.9	27.9	27.4	55.5	55.5	15.5	43.6	43.6
Actuated g/C Ratio	0.19	0.19	0.19	0.23	0.23	0.23	0.23	0.46	0.46	0.13	0.36	0.36
v/c Ratio	0.41	0.41	0.50	0.39	0.79	0.51	0.71	0.89	0.11	0.81	0.68	0.10
Control Delay	54.3	45.2	8.9	39.3	48.8	19.3	48.3	35.8	0.9	54.4	22.4	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	54.3	45.2	8.9	39.3	48.8	19.3	48.3	35.8	0.9	54.4	22.4	1.0
LOS	D	D	A	D	D	B	D	D	A	D	C	A
Approach Delay		30.5			39.4			37.3			25.4	
Approach LOS		C			D			D			C	

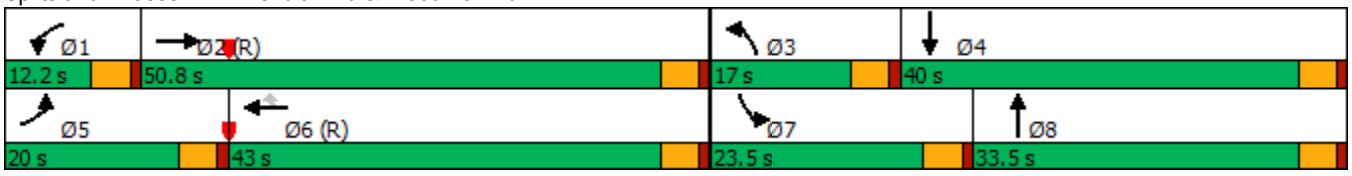
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 4:NET and 8:SWT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 33.9	Intersection LOS: C
Intersection Capacity Utilization 82.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 19: US 24

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	561	97	101	783	93	245	342	54	310	698	1000
Future Volume (vph)	325	561	97	101	783	93	245	342	54	310	698	1000
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)			218			177			218			512
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	325	561	97	111	860	102	245	342	54	360	812	1163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	325	561	97	111	860	102	245	342	54	360	812	1163
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
Total Split (s)	20.0	50.8		12.2	43.0	43.0	17.0	33.5		23.5	40.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	15.4	49.9	120.0	8.3	42.8	42.8	12.5	28.3	120.0	17.5	33.3	120.0
Actuated g/C Ratio	0.13	0.42	1.00	0.07	0.36	0.36	0.10	0.24	1.00	0.15	0.28	1.00
v/c Ratio	0.74	0.38	0.06	0.47	0.68	0.15	0.69	0.41	0.03	0.72	0.83	0.73
Control Delay	61.2	26.0	0.1	77.8	20.7	0.4	62.4	40.1	0.0	57.6	48.4	3.1
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	61.2	26.0	0.1	77.8	20.7	0.4	62.4	40.1	0.0	57.6	48.4	3.1
LOS	E	C	A	E	C	A	E	D	A	E	D	A
Approach Delay		35.1			24.7			45.3			27.2	
Approach LOS		D			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 20 (17%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	709	125	50	727	130	50	25	50	167	100	200
Future Volume (vph)	90	709	125	50	727	130	50	25	50	167	100	200
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.216			0.306			0.689			0.634		
Satd. Flow (perm)	402	3539	1583	570	3539	1583	1283	1863	1583	1181	1863	1583
Satd. Flow (RTOR)			136			157			177			213
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	94	739	130	60	876	157	50	25	50	178	106	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	739	130	60	876	157	50	25	50	178	106	213
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	16.0	63.0	63.0	12.0	59.0	59.0	12.0	24.0		21.0	33.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	69.1	61.7	61.7	65.6	58.3	58.3	30.2	22.7	120.0	41.0	31.5	120.0
Actuated g/C Ratio	0.58	0.51	0.51	0.55	0.49	0.49	0.25	0.19	1.00	0.34	0.26	1.00
v/c Ratio	0.28	0.41	0.15	0.16	0.51	0.18	0.14	0.07	0.03	0.38	0.22	0.13
Control Delay	13.6	19.5	6.0	9.5	18.8	1.9	28.6	42.4	0.0	31.6	37.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	19.5	6.0	9.5	18.8	1.9	28.6	42.4	0.0	31.6	37.5	0.2
LOS	B	B	A	A	B	A	C	D	A	C	D	A
Approach Delay		17.1			15.9			19.9			19.4	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	291	169	466	105	101	44	345	201	90	77	547	461
Future Volume (vph)	291	169	466	105	101	44	345	201	90	77	547	461
Satd. Flow (prot)	1770	1863	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.561			0.641			0.201			0.632		
Satd. Flow (perm)	1045	1863	1583	1194	3539	1583	726	1863	1583	1177	1863	1583
Satd. Flow (RTOR)			427			177			136			380
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.92	0.97	0.92	0.92	0.92	1.00	1.00	0.92	0.92	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	300	184	480	114	110	48	345	201	98	84	588	496
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	184	480	114	110	48	345	201	98	84	588	496
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		Free
Total Split (s)	24.4	33.5		13.4	22.5	22.5	15.2	63.5	63.5	9.6	57.9	
Total Lost Time (s)	4.0	4.5		4.5	4.5	4.5	4.0	4.0	4.5	4.5	4.0	
Act Effct Green (s)	42.9	29.3	120.0	26.6	18.0	18.0	69.1	61.4	60.9	59.0	54.4	120.0
Actuated g/C Ratio	0.36	0.24	1.00	0.22	0.15	0.15	0.58	0.51	0.51	0.49	0.45	1.00
v/c Ratio	0.60	0.40	0.30	0.37	0.21	0.12	0.52	0.21	0.11	0.14	0.70	0.31
Control Delay	24.4	30.2	0.8	32.0	45.9	0.7	15.0	17.4	1.3	12.6	31.8	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	24.4	30.2	0.8	32.0	45.9	0.7	15.0	17.4	1.3	12.6	31.8	0.5
LOS	C	C	A	C	D	A	B	B	A	B	C	A
Approach Delay		13.8			32.1			13.7			17.1	
Approach LOS		B			C			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: US 24 & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	825	647	192	157	722	277	285	792	181	308	610	500
Future Volume (vph)	825	647	192	157	722	277	285	792	181	308	610	500
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)			218			214			218			500
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	859	674	200	189	870	334	285	792	181	308	610	500
Shared Lane Traffic (%)												
Lane Group Flow (vph)	859	674	200	189	870	334	285	792	181	308	610	500
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
Total Split (s)	34.7	54.5		16.1	35.9	35.9	17.7	32.4		17.0	31.7	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	30.2	50.8	120.0	10.8	31.4	31.4	15.4	27.9	120.0	12.5	25.0	120.0
Actuated g/C Ratio	0.25	0.42	1.00	0.09	0.26	0.26	0.13	0.23	1.00	0.10	0.21	1.00
v/c Ratio	1.00	0.45	0.13	0.61	0.94	0.58	0.65	0.96	0.11	0.86	0.83	0.32
Control Delay	74.6	26.0	0.2	71.8	77.7	36.3	58.1	69.5	0.1	76.3	55.6	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	74.6	26.0	0.2	71.8	77.7	36.3	58.1	69.5	0.1	76.3	55.6	0.5
LOS	E	C	A	E	E	D	E	E	A	E	E	A
Approach Delay		47.1			67.0			56.9			40.7	
Approach LOS		D			E			E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 52.4	Intersection LOS: D
Intersection Capacity Utilization 89.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	285	756	100	75	782	284	150	175	150	179	100	225
Future Volume (vph)	285	756	100	75	782	284	150	175	150	179	100	225
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.185			0.328			0.692			0.433		
Satd. Flow (perm)	345	3539	1583	611	3539	1583	1289	1863	1583	807	1863	1583
Satd. Flow (RTOR)			111			284			177			225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	317	840	111	75	782	284	174	203	174	179	100	225
Shared Lane Traffic (%)												
Lane Group Flow (vph)	317	840	111	75	782	284	174	203	174	179	100	225
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	33.0	61.0	61.0	11.0	39.0	39.0	16.0	30.0		18.0	32.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	67.5	58.7	58.7	49.4	43.1	43.1	37.6	26.6	120.0	40.4	28.0	120.0
Actuated g/C Ratio	0.56	0.49	0.49	0.41	0.36	0.36	0.31	0.22	1.00	0.34	0.23	1.00
v/c Ratio	0.74	0.49	0.13	0.24	0.62	0.38	0.39	0.49	0.11	0.48	0.23	0.14
Control Delay	41.9	25.4	8.1	11.1	21.4	1.9	30.4	46.0	0.1	32.1	39.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	25.4	8.1	11.1	21.4	1.9	30.4	46.0	0.1	32.1	39.3	0.2
LOS	D	C	A	B	C	A	C	D	A	C	D	A
Approach Delay		28.0			15.8			26.6			19.3	
Approach LOS		C			B			C			B	

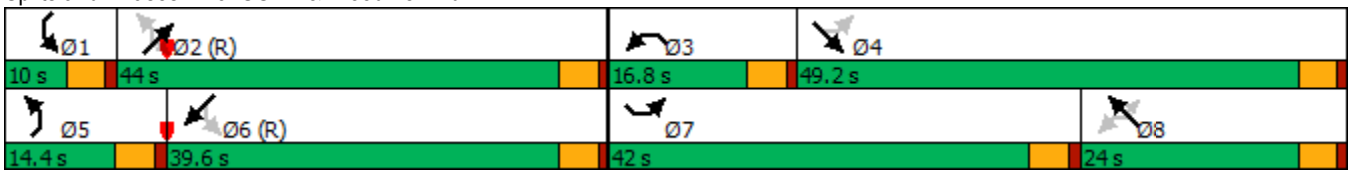
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 22.5	Intersection LOS: C
Intersection Capacity Utilization 71.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	503	278	303	136	350	215	403	419	323	97	277	388
Future Volume (vph)	503	278	303	136	350	215	403	419	323	97	277	388
Satd. Flow (prot)	1770	1863	1583	1770	3539	1583	3433	1863	1583	1770	1863	1583
Flt Permitted	0.251			0.576			0.337			0.271		
Satd. Flow (perm)	468	1863	1583	1073	3539	1583	1218	1863	1583	505	1863	1583
Satd. Flow (RTOR)			319			210			182			413
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.97	0.97	0.92	0.92	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	529	302	319	148	380	234	415	432	351	105	295	413
Shared Lane Traffic (%)												
Lane Group Flow (vph)	529	302	319	148	380	234	415	432	351	105	295	413
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		8	2		2	6		Free
Total Split (s)	42.0	49.2		16.8	24.0	24.0	14.4	44.0	44.0	10.0	39.6	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Act Effct Green (s)	61.5	46.5	120.0	30.0	19.5	19.5	49.4	39.5	39.5	40.6	35.1	120.0
Actuated g/C Ratio	0.51	0.39	1.00	0.25	0.16	0.16	0.41	0.33	0.33	0.34	0.29	1.00
v/c Ratio	0.82	0.42	0.20	0.45	0.66	0.54	0.61	0.70	0.55	0.46	0.54	0.26
Control Delay	33.0	31.0	0.3	24.9	53.4	13.4	28.0	42.6	18.8	30.5	40.1	0.4
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	33.0	31.0	0.3	24.9	53.4	13.4	28.0	42.6	18.8	30.5	40.1	0.4
LOS	C	C	A	C	D	B	C	D	B	C	D	A
Approach Delay		23.4			35.6			30.6			18.7	
Approach LOS		C			D			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 80.0%	ICU Level of Service D
Analysis Period (min) 15	

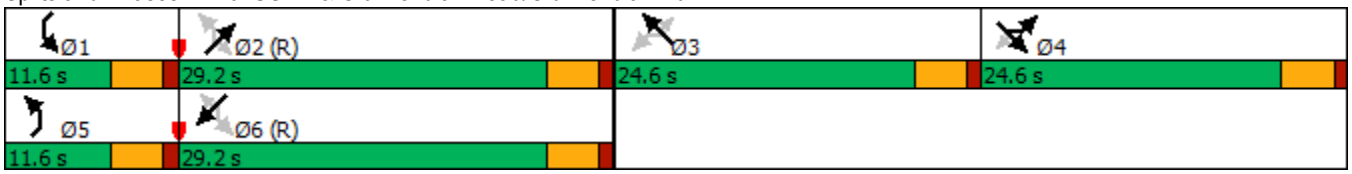
Splits and Phases: 3: US 24 & Woodmen Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Satd. Flow (prot)	0	1863	1863	0	1863	1863	1863	1863	1863	1863	1863	1863
Flt Permitted												
Satd. Flow (perm)	0	1863	1863	0	1863	1863	1863	1863	1863	1863	1863	1863
Satd. Flow (RTOR)												
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type			Perm			Perm	pm+pt		Perm	pm+pt		Perm
Protected Phases	4	4			3		5	2		1	6	
Permitted Phases			4	3		3	2		2	6		6
Total Split (s)	24.6	24.6	24.6	24.6	24.6	24.6	11.6	29.2	29.2	11.6	29.2	29.2
Total Lost Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)												
Actuated g/C Ratio												
v/c Ratio												
Control Delay												
Queue Delay												
Total Delay												
LOS												
Approach Delay												
Approach LOS												

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

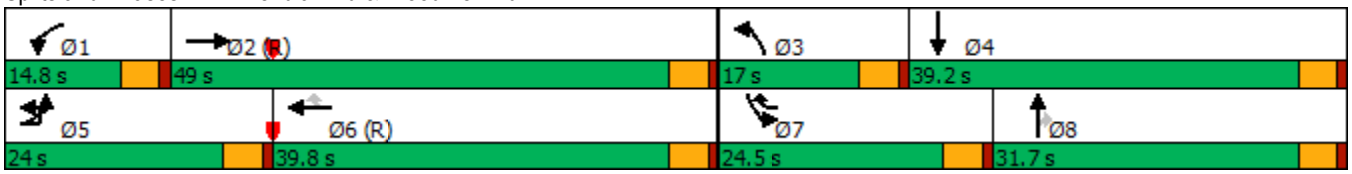
Splits and Phases: 10: US 24 & Old Meridian Road/Old Meridian Rd



Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	450	546	172	151	793	218	320	342	104	310	913
Future Volume (vph)	15	450	546	172	151	793	218	320	342	104	310	913
Satd. Flow (prot)	0	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539
Satd. Flow (RTOR)				218			110			177		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%			0%			0%			0%
Adj. Flow (vph)	16	450	546	172	166	871	240	320	342	104	360	1062
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	466	546	172	166	871	240	320	342	104	360	1062
Turn Type	Prot	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA
Protected Phases	5	5	2		1	6	7	3	8		7	4
Permitted Phases				Free			6			8		
Total Split (s)	24.0	24.0	49.0		14.8	39.8	24.5	17.0	31.7	31.7	24.5	39.2
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.5	4.0	4.0
Act Effct Green (s)		19.4	45.5	120.0	10.3	36.4	58.2	13.0	30.4	29.9	17.8	35.2
Actuated g/C Ratio		0.16	0.38	1.00	0.09	0.30	0.48	0.11	0.25	0.25	0.15	0.29
v/c Ratio		0.84	0.41	0.11	0.57	0.81	0.29	0.86	0.38	0.20	0.71	1.02
Control Delay		63.1	28.6	0.1	79.2	24.3	0.9	63.5	41.3	6.6	56.5	75.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		63.1	28.6	0.1	79.2	24.3	0.9	63.5	41.3	6.6	56.5	75.9
LOS		E	C	A	E	C	A	E	D	A	E	E
Approach Delay			38.0			27.1			45.9			40.0
Approach LOS			D			C			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 37.5	Intersection LOS: D
Intersection Capacity Utilization 82.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd



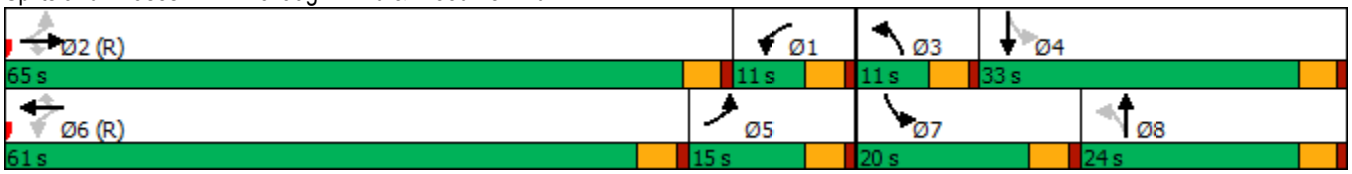
Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	1041
Future Volume (vph)	1041
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Satd. Flow (RTOR)	520
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	0.86
Growth Factor	100%
Heavy Vehicles (%)	2%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	1210
Shared Lane Traffic (%)	
Lane Group Flow (vph)	1210
Turn Type	Free
Protected Phases	
Permitted Phases	Free
Total Split (s)	
Total Lost Time (s)	
Act Effct Green (s)	120.0
Actuated g/C Ratio	1.00
v/c Ratio	0.76
Control Delay	3.6
Queue Delay	0.0
Total Delay	3.6
LOS	A
Approach Delay	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	734	125	50	887	130	50	50	50	192	100	225
Future Volume (vph)	100	734	125	50	887	130	50	50	50	192	100	225
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.152			0.275			0.689			0.620		
Satd. Flow (perm)	283	3539	1583	512	3539	1583	1283	1863	1583	1155	1863	1583
Satd. Flow (RTOR)			136			157			177			239
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	104	765	130	60	1069	157	50	50	50	204	106	239
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	765	130	60	1069	157	50	50	50	204	106	239
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	15.0	65.0	65.0	11.0	61.0	61.0	11.0	24.0		20.0	33.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Act Effct Green (s)	70.4	62.2	62.2	63.2	57.0	57.0	30.0	22.8	120.0	41.6	32.3	120.0
Actuated g/C Ratio	0.59	0.52	0.52	0.53	0.48	0.48	0.25	0.19	1.00	0.35	0.27	1.00
v/c Ratio	0.37	0.42	0.15	0.18	0.64	0.19	0.14	0.14	0.03	0.43	0.21	0.15
Control Delay	24.2	20.4	6.3	10.0	20.9	1.5	28.9	43.8	0.0	32.6	37.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	20.4	6.3	10.0	20.9	1.5	28.9	43.8	0.0	32.6	37.2	0.2
LOS	C	C	A	B	C	A	C	D	A	C	D	A
Approach Delay		19.0			18.1			24.3			19.4	
Approach LOS		B			B			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 98 (82%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 57.4%	ICU Level of Service B
Analysis Period (min) 15	

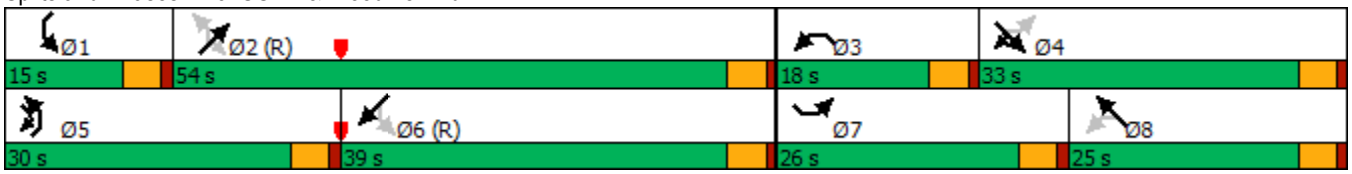
Splits and Phases: 2: McLaughlin Rd & Woodmen Rd



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	266	169	536	105	101	44	505	636	90	77	717	461
Future Volume (vph)	266	169	536	105	101	44	505	636	90	77	717	461
Satd. Flow (prot)	3433	1863	2787	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.573			0.641			0.244			0.399		
Satd. Flow (perm)	2071	1863	2787	1194	3539	1583	882	5085	1583	743	5085	1583
Satd. Flow (RTOR)			323			218			136			496
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.92	0.97	0.92	0.92	0.92	1.00	1.00	0.92	0.92	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	274	184	553	114	110	48	505	636	98	84	771	496
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	184	553	114	110	48	505	636	98	84	771	496
Turn Type	pm+pt	NA	pt+ov	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4	4 5	3	8		5	2		1	6	
Permitted Phases	4			8		Free	2		2	6		Free
Total Split (s)	26.0	33.0		18.0	25.0		30.0	54.0	54.0	15.0	39.0	
Total Lost Time (s)	4.0	4.5		4.5	4.5		4.0	4.0	4.5	4.5	4.0	
Act Effct Green (s)	47.0	31.6	52.9	30.9	20.5	120.0	65.0	54.4	53.9	51.4	43.7	120.0
Actuated g/C Ratio	0.39	0.26	0.44	0.26	0.17	1.00	0.54	0.45	0.45	0.43	0.36	1.00
v/c Ratio	0.26	0.38	0.39	0.32	0.18	0.03	0.60	0.28	0.12	0.22	0.42	0.31
Control Delay	15.3	27.8	8.8	27.7	43.5	0.0	11.3	16.4	5.0	15.9	30.0	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	15.3	27.8	8.8	27.7	43.5	0.0	11.3	16.4	5.0	15.9	30.0	0.5
LOS	B	C	A	C	D	A	B	B	A	B	C	A
Approach Delay		14.0			29.2			13.4			18.3	
Approach LOS		B			C			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 99 (83%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 57.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: US 24 & Woodmen Rd



Intersection	
Int Delay, s/veh	1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	235	0	0	132	0	1099	130	0	1323	36
Future Vol, veh/h	0	0	235	0	0	132	0	1099	130	0	1323	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	500	-	-	550
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	0	0	255	0	0	143	0	1195	141	0	1438	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	598	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	382	0	-	-	0	-	-
Stage 1	0	0	0	0	0	-	0	-	-	0	-	-
Stage 2	0	0	0	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	382	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	20	0	0
HCM LOS	A	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SELn1	SWT	SWR
Capacity (veh/h)	-	-	382	-	-	-
HCM Lane V/C Ratio	-	-	0.376	-	-	-
HCM Control Delay (s)	-	-	20	0	-	-
HCM Lane LOS	-	-	C	A	-	-
HCM 95th %tile Q(veh)	-	-	1.7	-	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	120	215	150	25	25	105
Future Vol, veh/h	120	215	150	25	25	105
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	-	-	0	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	130	234	163	27	27	114

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	190	0	-	0	657	163
Stage 1	-	-	-	-	163	-
Stage 2	-	-	-	-	494	-
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	1384	-	-	-	430	882
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1384	-	-	-	390	882
Mov Cap-2 Maneuver	-	-	-	-	390	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	613	-

Approach	SE	NW	SW
HCM Control Delay, s	2.8	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	1384	-	390	882
HCM Lane V/C Ratio	-	-	0.094	-	0.07	0.129
HCM Control Delay (s)	-	-	7.9	-	14.9	9.7
HCM Lane LOS	-	-	A	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	-	0.2	0.4

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	34	297	613	40	145	259	132	937	30	221	1296	41
Future Volume (vph)	34	297	613	40	145	259	132	937	30	221	1296	41
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.652			0.428			0.950			0.950		
Satd. Flow (perm)	1215	3539	1583	797	3539	1583	3433	5085	1583	1770	5085	1583
Satd. Flow (RTOR)			491			282			136			95
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	37	323	666	43	158	282	143	1018	33	240	1409	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	323	666	43	158	282	143	1018	33	240	1409	45
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			8
Total Split (s)	9.6	28.0	28.0	9.6	28.0	28.0	34.3	41.4	41.4	41.0	48.1	48.1
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)	29.5	25.4	25.4	30.4	27.3	27.3	10.4	51.7	51.7	21.7	63.0	63.0
Actuated g/C Ratio	0.25	0.21	0.21	0.25	0.23	0.23	0.09	0.43	0.43	0.18	0.52	0.52
v/c Ratio	0.11	0.43	0.92	0.18	0.20	0.49	0.48	0.46	0.04	0.75	0.53	0.05
Control Delay	22.8	26.4	29.2	34.3	39.6	7.9	57.4	26.0	0.1	51.6	17.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	26.4	29.2	34.3	39.6	7.9	57.4	26.0	0.1	51.6	17.2	2.2
LOS	C	C	C	C	D	A	E	C	A	D	B	A
Approach Delay		28.1			20.6			29.0			21.7	
Approach LOS		C			C			C			C	

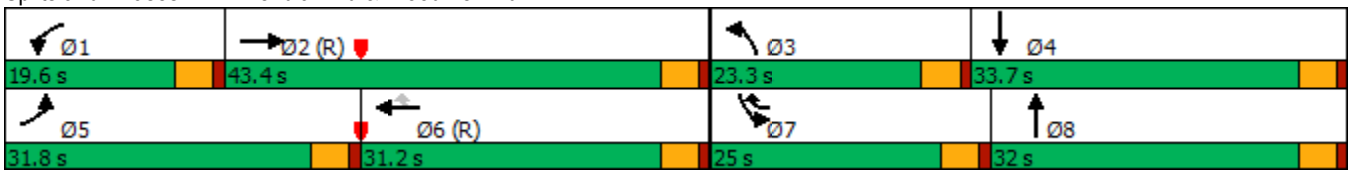
Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 105 (88%), Referenced to phase 4:NET and 8:SWT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.92		
Intersection Signal Delay: 25.1	Intersection LOS: C	
Intersection Capacity Utilization 78.4%	ICU Level of Service D	
Analysis Period (min) 15		

Splits and Phases: 21: US 24

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	750	747	367	232	602	552	435	767	206	498	685	602
Future Volume (vph)	750	747	367	232	602	552	435	767	206	498	685	602
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)			308			95			206			581
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	781	778	382	280	725	665	435	767	206	498	685	602
Shared Lane Traffic (%)												
Lane Group Flow (vph)	781	778	382	280	725	665	435	767	206	498	685	602
Turn Type	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6	7	3	8		7	4	
Permitted Phases			Free			6			Free			Free
Total Split (s)	31.8	43.4		19.6	31.2	25.0	23.3	32.0		25.0	33.7	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	27.7	40.4	120.0	13.9	26.7	51.3	18.1	27.5	120.0	20.1	29.5	120.0
Actuated g/C Ratio	0.23	0.34	1.00	0.12	0.22	0.43	0.15	0.23	1.00	0.17	0.25	1.00
v/c Ratio	0.99	0.65	0.24	0.70	0.92	0.91	0.84	0.95	0.13	0.87	0.79	0.38
Control Delay	75.3	37.3	0.4	44.1	60.9	58.0	47.6	63.8	0.2	64.8	49.9	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	75.3	37.3	0.4	44.1	60.9	58.0	47.6	63.8	0.2	64.8	49.9	0.7
LOS	E	D	A	D	E	E	D	E	A	E	D	A
Approach Delay		45.3			56.9			49.5			37.5	
Approach LOS		D			E			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 78 (65%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 47.0	Intersection LOS: D
Intersection Capacity Utilization 88.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	1051	100	75	982	309	150	200	150	229	125	250
Future Volume (vph)	300	1051	100	75	982	309	150	200	150	229	125	250
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.113			0.187			0.612			0.340		
Satd. Flow (perm)	210	3539	1583	348	3539	1583	1140	1863	1583	633	1863	1583
Satd. Flow (RTOR)			111			309			177			250
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	333	1168	111	75	982	309	174	233	174	229	125	250
Shared Lane Traffic (%)												
Lane Group Flow (vph)	333	1168	111	75	982	309	174	233	174	229	125	250
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Total Split (s)	29.0	64.0	64.0	11.0	46.0	46.0	18.4	27.0		18.0	26.6	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Act Effct Green (s)	70.5	61.7	61.7	51.2	44.9	44.9	35.5	22.9	120.0	36.5	23.4	120.0
Actuated g/C Ratio	0.59	0.51	0.51	0.43	0.37	0.37	0.30	0.19	1.00	0.30	0.20	1.00
v/c Ratio	0.84	0.64	0.13	0.34	0.74	0.39	0.43	0.66	0.11	0.72	0.34	0.16
Control Delay	38.4	12.8	2.4	17.9	39.5	12.6	33.2	55.0	0.1	45.4	45.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	12.8	2.4	17.9	39.5	12.6	33.2	55.0	0.1	45.4	45.5	0.2
LOS	D	B	A	B	D	B	C	D	A	D	D	A
Approach Delay		17.4			32.2			32.0			26.7	
Approach LOS		B			C			C			C	

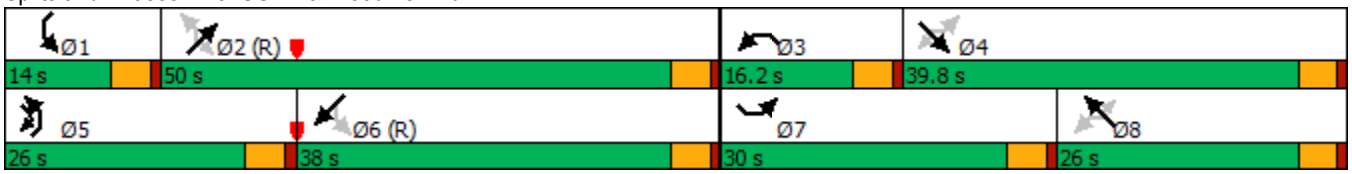
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 5 (4%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 82.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: McLaughlin Rd & Woodmen Rd

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	803	278	348	136	350	215	603	1516	323	97	942	413
Future Volume (vph)	803	278	348	136	350	215	603	1516	323	97	942	413
Satd. Flow (prot)	3433	1863	2787	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.277			0.576			0.122			0.115		
Satd. Flow (perm)	1001	1863	2787	1073	3539	1583	441	5085	1583	214	5085	1583
Satd. Flow (RTOR)			206			177			148			439
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.97	0.97	0.92	0.92	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	845	302	366	148	380	234	622	1563	351	105	1002	439
Shared Lane Traffic (%)												
Lane Group Flow (vph)	845	302	366	148	380	234	622	1563	351	105	1002	439
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		Free
Total Split (s)	30.0	39.8	26.0	16.2	26.0	26.0	26.0	50.0	50.0	14.0	38.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Act Effct Green (s)	51.5	36.4	61.0	32.1	21.5	21.5	59.5	46.4	46.4	43.5	34.9	120.0
Actuated g/C Ratio	0.43	0.30	0.51	0.27	0.18	0.18	0.50	0.39	0.39	0.36	0.29	1.00
v/c Ratio	0.89	0.54	0.24	0.42	0.60	0.55	0.86	0.80	0.50	0.56	0.68	0.28
Control Delay	31.4	21.3	2.4	27.2	49.8	17.6	26.5	24.7	11.3	32.7	40.7	0.4
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	31.4	21.3	2.4	27.2	49.8	17.6	26.5	24.7	11.3	32.7	40.7	0.4
LOS	C	C	A	C	D	B	C	C	B	C	D	A
Approach Delay		22.3			35.5			23.2			28.7	
Approach LOS		C			D			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 2:NETL and 6:SWTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 83.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: US 24 & Woodmen Rd



Intersection	
Int Delay, s/veh	11.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	0	0	50	0	0	178	0	2264	130	0	1411	17
Future Vol, veh/h	0	0	50	0	0	178	0	2264	130	0	1411	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	500	-	-	550
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	0	0	54	0	0	193	0	2461	141	0	1534	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	1231	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	~ 145	0	-	-	0	-	-
Stage 1	0	0	0	0	0	-	0	-	-	0	-	-
Stage 2	0	0	0	0	0	-	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	~ 145	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0	248.5	0	0
HCM LOS	A	F		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SELn1	SWT	SWR
Capacity (veh/h)	-	-	145	-	-	-
HCM Lane V/C Ratio	-	-	1.334	-	-	-
HCM Control Delay (s)	-	-	248.5	0	-	-
HCM Lane LOS	-	-	F	A	-	-
HCM 95th %tile Q(veh)	-	-	12.1	-	-	-

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

Intersection	
Int Delay, s/veh	5.6

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	290	400	480	25	25	210
Future Vol, veh/h	290	400	480	25	25	210
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	-	-	0	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	315	435	522	27	27	228

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	549	0	-	0	1587	522
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	1065	-
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	1021	-	-	-	119	555
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	331	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1021	-	-	-	82	555
Mov Cap-2 Maneuver	-	-	-	-	82	-
Stage 1	-	-	-	-	411	-
Stage 2	-	-	-	-	331	-

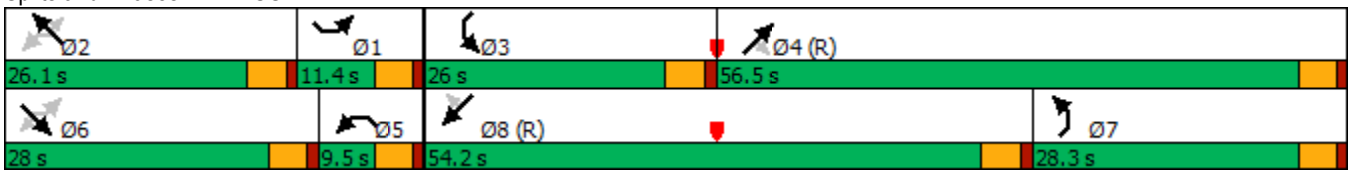
Approach	SE	NW	SW
HCM Control Delay, s	4.2	0	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	SWLn2
Capacity (veh/h)	-	-	1021	-	82	555
HCM Lane V/C Ratio	-	-	0.309	-	0.331	0.411
HCM Control Delay (s)	-	-	10.1	-	69.3	15.9
HCM Lane LOS	-	-	B	-	F	C
HCM 95th %tile Q(veh)	-	-	1.3	-	1.3	2

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	86	592	265	60	235	257	427	2051	80	204	1190	67
Future Volume (vph)	86	592	265	60	235	257	427	2051	80	204	1190	67
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.513			0.185			0.950			0.950		
Satd. Flow (perm)	956	3539	1583	345	3539	1583	3433	5085	1583	1770	5085	1583
Satd. Flow (RTOR)			288			279			95			95
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	93	643	288	65	255	279	464	2229	87	222	1293	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	643	288	65	255	279	464	2229	87	222	1293	73
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			8
Total Split (s)	11.4	28.0	28.0	9.5	26.1	26.1	28.3	56.5	56.5	26.0	54.2	54.2
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)	30.6	25.1	25.1	26.6	21.6	21.6	23.8	54.9	54.9	18.8	50.0	50.0
Actuated g/C Ratio	0.26	0.21	0.21	0.22	0.18	0.18	0.20	0.46	0.46	0.16	0.42	0.42
v/c Ratio	0.32	0.87	0.52	0.48	0.40	0.54	0.68	0.96	0.11	0.80	0.61	0.10
Control Delay	32.2	47.5	15.6	54.5	45.7	9.3	50.4	43.2	3.8	53.7	18.2	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	32.2	47.5	15.6	54.5	45.7	9.3	50.4	43.2	3.8	53.7	18.2	0.6
LOS	C	D	B	D	D	A	D	D	A	D	B	A
Approach Delay		37.2			29.7			43.2			22.3	
Approach LOS		D			C			D			C	

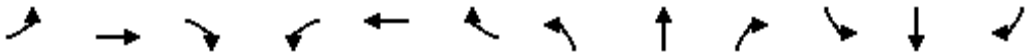
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 89 (74%), Referenced to phase 4:NET and 8:SWT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 35.3	Intersection LOS: D
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 21: US 24



Queuing Reports

TRANSPORTATION
CONSULTANTS, INC.

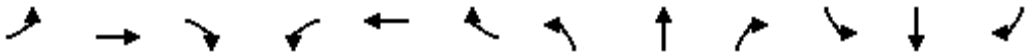


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	466	546	172	166	871	240	320	342	104	360	1062	1210
v/c Ratio	0.84	0.41	0.11	0.57	0.81	0.29	0.86	0.38	0.20	0.71	1.02	0.76
Control Delay	63.1	28.6	0.1	79.2	24.3	0.9	63.5	41.3	6.6	56.5	75.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	28.6	0.1	79.2	24.3	0.9	63.5	41.3	6.6	56.5	75.9	3.6
Queue Length 50th (ft)	181	162	0	69	147	1	130	131	0	137	~460	0
Queue Length 95th (ft)	#255	212	0	107	262	0	#208	181	15	176	#548	0
Internal Link Dist (ft)		964			892			2070			948	
Turn Bay Length (ft)	515			330			375		600	450		450
Base Capacity (vph)	572	1343	1583	308	1072	857	371	896	527	586	1038	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	0.81	0.41	0.11	0.54	0.81	0.28	0.86	0.38	0.20	0.61	1.02	0.76

Intersection Summary

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

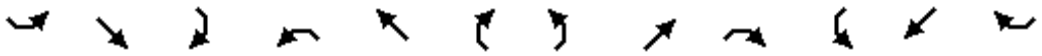
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	104	765	130	60	1069	157	50	50	50	204	106	239
v/c Ratio	0.37	0.42	0.15	0.18	0.64	0.19	0.14	0.14	0.03	0.43	0.21	0.15
Control Delay	24.2	20.4	6.3	10.0	20.9	1.5	28.9	43.8	0.0	32.6	37.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	20.4	6.3	10.0	20.9	1.5	28.9	43.8	0.0	32.6	37.2	0.2
Queue Length 50th (ft)	38	171	17	14	358	0	26	33	0	117	66	0
Queue Length 95th (ft)	m66	206	41	25	390	0	56	71	0	185	117	0
Internal Link Dist (ft)		892			393			431			549	
Turn Bay Length (ft)	375			350		350	125		125	175		100
Base Capacity (vph)	306	1833	885	346	1681	834	353	353	1583	483	501	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	0.34	0.42	0.15	0.17	0.64	0.19	0.14	0.14	0.03	0.42	0.21	0.15

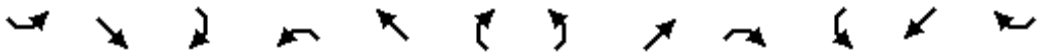
Intersection Summary

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



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	274	184	553	114	110	48	505	636	98	84	771	496
v/c Ratio	0.26	0.38	0.39	0.32	0.18	0.03	0.60	0.28	0.12	0.22	0.42	0.31
Control Delay	15.3	27.8	8.8	27.7	43.5	0.0	11.3	16.4	5.0	15.9	30.0	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	15.3	27.8	8.8	27.7	43.5	0.0	11.3	16.4	5.0	15.9	30.0	0.5
Queue Length 50th (ft)	61	99	85	57	38	0	134	143	20	30	162	0
Queue Length 95th (ft)	83	150	109	99	66	0	42	177	44	56	214	0
Internal Link Dist (ft)		248			478			896			1308	
Turn Bay Length (ft)	250		100	250		250	850		100	250		350
Base Capacity (vph)	1060	489	1587	403	604	1583	1030	2304	785	422	1851	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	0.26	0.38	0.35	0.28	0.18	0.03	0.49	0.28	0.12	0.20	0.42	0.31

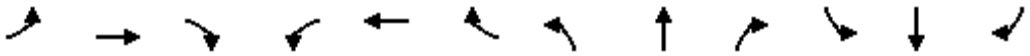
Intersection Summary



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	37	323	666	43	158	282	143	1018	33	240	1409	45
v/c Ratio	0.11	0.43	0.92	0.18	0.20	0.49	0.48	0.46	0.04	0.75	0.53	0.05
Control Delay	22.8	26.4	29.2	34.3	39.6	7.9	57.4	26.0	0.1	51.6	17.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	26.4	29.2	34.3	39.6	7.9	57.4	26.0	0.1	51.6	17.2	2.2
Queue Length 50th (ft)	10	63	490	25	54	0	55	201	0	184	267	3
Queue Length 95th (ft)	m12	m68	m467	55	86	74	87	270	0	238	331	15
Internal Link Dist (ft)		39			658			1315			950	
Turn Bay Length (ft)	300		300	300		300	500		500	500		500
Base Capacity (vph)	322	750	722	243	806	578	852	2192	759	538	2670	876
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	0.11	0.43	0.92	0.18	0.20	0.49	0.17	0.46	0.04	0.45	0.53	0.05

Intersection Summary

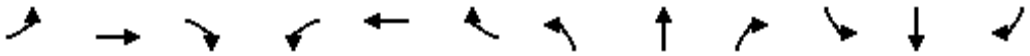
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	781	778	382	280	725	665	435	767	206	498	685	602
v/c Ratio	0.99	0.65	0.24	0.70	0.92	0.91	0.84	0.95	0.13	0.87	0.79	0.38
Control Delay	75.3	37.3	0.4	44.1	60.9	58.0	47.6	63.8	0.2	64.8	49.9	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	75.3	37.3	0.4	44.1	60.9	58.0	47.6	63.8	0.2	64.8	49.9	0.7
Queue Length 50th (ft)	313	273	0	93	308	491	147	323	0	194	263	0
Queue Length 95th (ft)	#448	344	0	126	#354	#580	#233	#439	0	#278	335	0
Internal Link Dist (ft)		964			892			2070			948	
Turn Bay Length (ft)	515			330			375		600	450		450
Base Capacity (vph)	791	1192	1583	431	787	736	537	811	1583	586	870	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	0.99	0.65	0.24	0.65	0.92	0.90	0.81	0.95	0.13	0.85	0.79	0.38

Intersection Summary

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

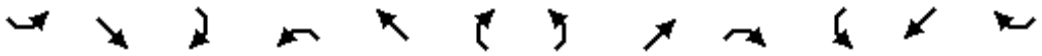


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	333	1168	111	75	982	309	174	233	174	229	125	250
v/c Ratio	0.84	0.64	0.13	0.34	0.74	0.39	0.43	0.66	0.11	0.72	0.34	0.16
Control Delay	38.4	12.8	2.4	17.9	39.5	12.6	33.2	55.0	0.1	45.4	45.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	12.8	2.4	17.9	39.5	12.6	33.2	55.0	0.1	45.4	45.5	0.2
Queue Length 50th (ft)	144	309	15	23	400	86	99	169	0	134	86	0
Queue Length 95th (ft)	m223	358	m20	m36	484	m157	150	245	0	#219	145	0
Internal Link Dist (ft)		892			393			431			549	
Turn Bay Length (ft)	375			350		350	125		125	175		100
Base Capacity (vph)	441	1819	867	225	1322	785	421	355	1583	322	363	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	0.76	0.64	0.13	0.33	0.74	0.39	0.41	0.66	0.11	0.71	0.34	0.16

Intersection Summary

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

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

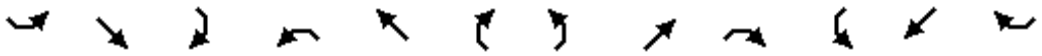


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	845	302	366	148	380	234	622	1563	351	105	1002	439
v/c Ratio	0.89	0.54	0.24	0.42	0.60	0.55	0.86	0.80	0.50	0.56	0.68	0.28
Control Delay	31.4	21.3	2.4	27.2	49.8	17.6	26.5	24.7	11.3	32.7	40.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	21.3	2.4	27.2	49.8	17.6	26.5	24.7	11.3	32.7	40.7	0.4
Queue Length 50th (ft)	108	153	26	70	144	38	134	449	142	42	255	0
Queue Length 95th (ft)	#328	216	32	116	196	119	m160	m470	m166	86	307	0
Internal Link Dist (ft)		248			480			896			1308	
Turn Bay Length (ft)	250		100	250		200	850		100	250		350
Base Capacity (vph)	946	564	1547	364	634	428	754	1965	702	202	1477	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	0.89	0.54	0.24	0.41	0.60	0.55	0.82	0.80	0.50	0.52	0.68	0.28

Intersection Summary

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

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



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Group Flow (vph)	93	643	288	65	255	279	464	2229	87	222	1293	73
v/c Ratio	0.32	0.87	0.52	0.48	0.40	0.54	0.68	0.96	0.11	0.80	0.61	0.10
Control Delay	32.2	47.5	15.6	54.5	45.7	9.3	50.4	43.2	3.8	53.7	18.2	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	32.2	47.5	15.6	54.5	45.7	9.3	50.4	43.2	3.8	53.7	18.2	0.6
Queue Length 50th (ft)	64	276	115	38	92	0	173	614	0	90	209	1
Queue Length 95th (ft)	m96	#381	m144	75	134	75	230	#760	26	#203	238	m0
Internal Link Dist (ft)		40			687			1311			955	
Turn Bay Length (ft)	300		300	300		300	500		500	500		500
Base Capacity (vph)	292	741	559	135	637	513	680	2328	776	317	2118	714
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	0.32	0.87	0.52	0.48	0.40	0.54	0.68	0.96	0.11	0.70	0.61	0.10

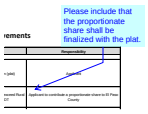
Intersection Summary

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

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

TIS_V3.pdf Markup Summary

Callout (14)



Subject: Callout
Page Label: 16
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Author: Daniel Torres
Date: 2/10/2020 9:34:22 AM
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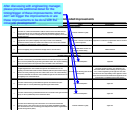
Please include that the proportionate share shall be finalized with the plat.



Subject: Callout
Page Label: 16
Lock: Locked
Author: Daniel Torres
Date: 2/10/2020 9:34:23 AM
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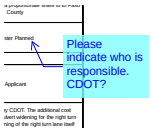
After discussing with engineering manager, please provide additional detail for the timing/trigger of these improvements. What ADT will trigger the improvements or are these improvements to be done with the initial site development?



Subject: Callout
Page Label: 16
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Author: Daniel Torres
Date: 2/10/2020 9:34:25 AM
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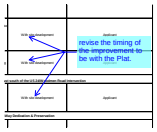
Please indicate who is responsible. CDOT?



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Author: Daniel Torres
Date: 2/10/2020 9:34:26 AM
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revise the timing of the improvement to be with the Plat.

Subject: Callout
Page Label: 16
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Author: Daniel Torres
Date: 2/10/2020 9:34:26 AM
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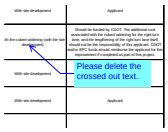
Please also include in the timing that the closing of Rio lane shall be coordinated with CDOT/EPC.



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Author: Daniel Torres
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Please delete the crossed out text.

Subject: Callout
Page Label: 16
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Author: Daniel Torres
Date: 2/10/2020 9:34:33 AM
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what is the difference between this item and item#1. It appears that this improvement is already covered in item#1.

Subject: Callout
Page Label: 16
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Author: Daniel Torres
Date: 2/10/2020 9:34:34 AM
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It is unclear what improvement this is referring to. Should this be a right-turn acceleration lane onto US24?

Subject: Callout
Page Label: 16
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Author: Daniel Torres
Date: 2/10/2020 9:34:35 AM
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Please delete the crossed out text as your report does not include analysis that shows the threshold being met.

Subject: Callout
Page Label: 1
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Author: Daniel Torres
Date: 2/10/2020 9:34:43 AM
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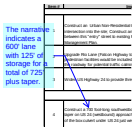
Please remove the extra text from the standard signature block.



Subject: Callout
Page Label: 16
Lock: Locked
Author: Daniel Torres
Date: 2/10/2020 9:34:44 AM
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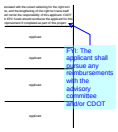
The narrative indicates a 600' lane with 125' of storage for a total of 725' plus taper.



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Author: Daniel Torres
Date: 2/10/2020 9:34:45 AM
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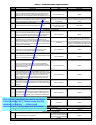
FYI: The applicant shall pursue any reimbursements with the advisory committee and/or CDOT



Subject: Callout
Page Label: 16
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Author: Daniel Torres
Date: 2/10/2020 9:34:46 AM
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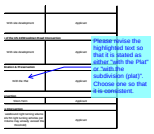
With the ADT identified, the road is at a Rural Collector design ADT. Please revise the first sentence to indicate ".....Urban Local standards or a County approved alternative.



Subject: Callout
Page Label: 16
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Author: Daniel Torres
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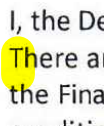
Please revise the highlighted text so that it is stated as either "with the Plat" or "with the subdivision (plat)". Choose one so that it is consistent.

Highlight (7)



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Author: Daniel Torres
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Author: Daniel Torres
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Author: Daniel Torres
Date: 2/10/2020 9:34:42 AM
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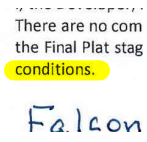

Subject: Highlight
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Author: Daniel Torres
Date: 2/10/2020 9:34:42 AM
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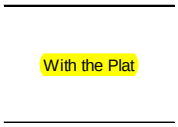

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Author: Daniel Torres
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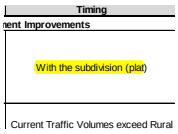
With the Plat



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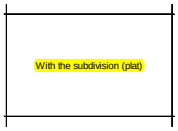

Subject: Highlight
Page Label: 16
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Author: Daniel Torres
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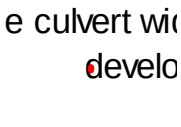
With the subdivision (plat)

Pen (6)



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Author: Daniel Torres
Date: 2/10/2020 9:34:27 AM
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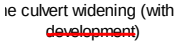

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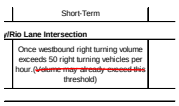

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