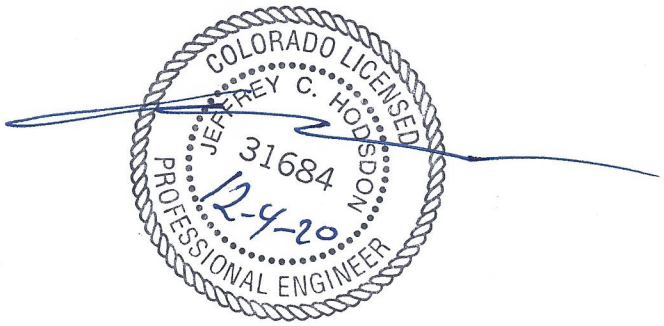
LSC TRANSPORTATION CONSULTANTS, INC.
545 East Pikes Peak Avenue, Suite 210
Colorado Springs, CO 80903
(719) 633-2868
FAX (719) 633-5430
E-mail: lsc@lsctrans.com
Website: http://www.lsctrans.com

Meadow Lake Industrial Park
Master Traffic Impact Study
PCD File No.: CS201, I201, GA-O191
(LSC #195140)
December 4, 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.



Developer's Statement

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

_____ _____

Date

Meadow Lake Industrial Park
Master Traffic Impact Study

Prepared for:
William Guman & Associates, Ltd.
731 North Weber Street, Suite 10
Colorado Springs, CO 80903

Contact: Mr. Bill Guman, RLA, ASLA

DECEMBER 4, 2020

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

LSC #195140

CONTENTS

LSC TRANSPORTATION CONSULTANTS, INC.
2504 E. Pikes Peak Ave., Suite 304
Colorado Springs, CO 80909
(719) 633-2868
FAX (719) 633-5430
E-mail: lsc@lsctrans.com
Website: http://www.lsctrans.com

December 4, 2020

Mr. Bill Guman, RLA, ASLA
William Guman & Associates, Ltd.
731 North Weber Street, Suite 10
Colorado Springs, CO 80903

RE: Meadow Lake Industrial Park
El Paso County, CO
Master Traffic Impact Study
LSC #195140
PCD File No. CS201, I201, GA-O191

Dear Mr. Guman,

LSC Transportation Consultants, Inc. has prepared this updated traffic impact study for the proposed Meadow Lake Industrial Park to be located in El Paso County, Colorado. Located at El Paso County IDs 4300000548, 4300000551, 4300000552, and 4300000553, the site is located northwest of the intersection of Falcon Highway/Curtis Road. Two total site access points are proposed (one each to Falcon Highway and Curtis Road). This report has been prepared for submittal to El Paso County.

REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on major thoroughfares adjacent to the site, including surface conditions, functional classification, widths, pavement markings, 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:
    - Falcon Highway/Curtis Road
    - Curtis Road/Judge Orr Road
    - US Highway 24/Stapleton Road
- Estimated average weekday traffic (AWT) volumes adjacent to the proposed industrial park development on Falcon Highway, Curtis Road, Meridian Road, Judge Orr Road, and US Highway 24 (US Hwy 24);
- Projections of 20-year background traffic volumes on Falcon Highway, Curtis Road, Meridian Road, Judge Orr Road, and US Hwy 24;

- The proposed site land use and access plan;
- Estimates of average weekday and weekday peak-hour trip generation for the proposed industrial park and the estimated directional distribution of site-generated vehicle trips on roadways and intersections adjacent to and in the vicinity of the site;
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the following "study area" intersections:
    - Falcon Highway/Aventura Drive (proposed three-quarter site access)
    - Curtis Road/Sunriver Drive (north full-movement site access)
    - Curtis Road/Minden Drive (south full-movement site access)
    - Falcon Highway/Curtis Road
    - Curtis Road/Judge Orr Road
    - US Highway 24/Stapleton Road
    - US Highway 24/Judge Orr Road
    - US Highway 24/Meridian Road
- Projected total daily and peak-hour traffic volumes at the "study-area" intersections;
- Intersection level of service analysis at the "study-area" intersections;
- Queuing analysis at the proposed site access points and the "study-area" intersections;
- Evaluation of existing and long-term projected intersection volumes to determine potential requirements for any auxiliary right-/left-turn lanes at the proposed site access points, based on the criteria in El Paso County's *Engineering Criteria Manual (ECM)*. Also included are potential long-term lane requirements;
- Completed deviation request forms based on ECM criteria; and
- Findings and recommendations for submittal to El Paso County.

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

Saddlehorn Ranch (dated July 11, 2019) was a previously-completed traffic reports in the vicinity of the proposed Meadow Lake Industrial Park. This report has been provided for reference and to provide context.

LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby roadways. Located at El Paso County IDs 4300000548, 4300000551, 4300000552, and 4300000553, the site is located northwest of the intersection of Falcon Highway/Curtis Road. Meadow Lake Airport is located north and west of the site. Single-family homes currently exist south of Falcon Highway, while the parcel east of Curtis Road is currently vacant.

Assuming an estimated 16 percent floor area ratio, the proposed Meadow Lake Industrial Park could contain approximately:

- 1,158,069 square feet for industrial uses
- 177,934 square feet for commercial uses

Please also indicate the distance from the proposed roadway and the existing McCandish Rd.

Figure 1 shows the area circulation and access points to the adjacent public roads, while Figure 2 contains the proposed site plan showing the proposed land uses, on-site circulation, and proposed access points.

Two proposed, full-movement site access points to Curtis Road (Sunriver Drive and Minden Drive) would be located approximately 1/4-mile and 1/2-mile north of Falcon Highway. Aventura Drive, a three-quarter movement (left-in/right-in/right-out-only access, is also planned to Falcon Highway approximately one-quarter mile west of Curtis Road.

ROAD AND TRAFFIC CONDITIONS AND MTCP CLASSIFICATION

Figure 1 shows the roads adjacent to and in the vicinity of the site. Adjacent roads serving the site are identified below followed by a brief description of each:

US Highway (US Hwy) 24 is located about one mile north of the site (via Curtis Road) and about 1.5 miles west of the site (via Judge Orr Road). US Hwy 24 is also accessible from the southwest corner of the site via Falcon Highway. The travel distance to/from the intersection of US Hwy 24/Falcon Highway via Falcon Highway is about four miles.

This two-lane State Highway extends east/west across Colorado connecting the Buena Vista, Colorado Springs, and Limon areas. US Hwy 24 is planned to be widened to four lanes through the Falcon area and is classified as an Expressway by the Colorado Department of Transportation (CDOT) and the 2016 *El Paso County Major Transportation Corridors Plan (MTCP)*.

Judge Orr Road is a two-lane roadway that extends east from Eastonville Road across most of El Paso County. It is shown on the *El Paso County 2040 Major Transportation Corridors Plan* and the *Preserved Corridor Network Plan* as a four-lane Minor Arterial adjacent to the site (and west of Curtis Road). Posted speed limits adjacent to the site range from 45 to 55 miles per hour (mph). West of Curtis Road, the speed limit is 45 mph, while it generally increases to 55 mph east of Curtis Road. The intersection of US Hwy 24/Judge Orr is currently signalized. Due to the oblique angle of this intersection, the eastbound and westbound approaches are split-phased. The *US 24 Access Control Plan/PEL Study* shows future plans for realignment of Judge Orr at US Hwy 24 to improve the intersection and provide an intersection angle closer to 90 degrees.

Curtis Road is a two-lane roadway that extends south from the intersection of US Hwy 24/Stapleton Road intersection to Drennan Road. It is shown as a two-lane, rural Principal Arterial on El Paso County's *2040 Major Transportation Corridors Plan* and a four-lane Principal Arterial on the *Preserved Corridor Network Plan*. Adjacent to the site, the posted speed limit is 45 mph. Both intersections of Curtis Road/ Judge Orr Road and Curtis Road/Falcon Highway are two-way, stop-sign-controlled. The section north of Judge Orr was recently constructed to current ECM standards with paved shoulders, etc. Generally, Curtis Road is an "unimproved," two-lane paved road between Judge Orr and Falcon Highway.

Falcon Highway extends from US Hwy 24 to Ellicott Highway and is classified as a two-lane Minor Arterial on the 2040 El Paso County MTCP. Adjacent to the site, the posted speed limit is 55 mph. Currently, the intersection of Falcon Highway/Curtis Road has an auxiliary right-turn lane on the eastbound approach and auxiliary left-turn lanes on the northbound and southbound approaches. The westbound approach is currently a single lane at the two-way stop-sign-controlled (TWSC) intersection of Falcon Highway/Curtis Road.

Meridian Road extends north from South Blaney Road to County Line Road. Meridian Road will connect to US Hwy 24 in the short term and ultimately to Falcon Highway in the long term. As classified on the County's MTCP, Meridian Road is shown as a:

- Four-lane Principal Arterial south of Rex Road
- Four-lane Minor Arterial north of Rex Road
- Two-lane Minor Arterial north of Murphy Road and south of Falcon Highway

Existing Traffic Volumes

Vehicular-turning-movement counts were conducted at the following intersections from 6:30-8:30 a.m. and from 4:00-6:00 p.m.:

- Falcon Highway/Curtis Road
    - AM peak – Tuesday, January 7, 2020
    - PM peak – Tuesday, January 7, 2020
- Curtis Road/Judge Orr Road
    - AM peak – Wednesday, January 8, 2020
    - PM peak – Wednesday, January 8, 2020
- US Highway 24/Stapleton Road
    - AM peak – Thursday, November 15, 2018
    - PM peak – Thursday, November 15, 2018

Figure 3 shows these turning-movement volumes, as well as the average weekday traffic volumes (estimated based on factored peak-hour count data) on the study-area roadways. Raw count data are attached.

<u>Adjustments to Existing Counts</u>

The Covid-19 pandemic appears to be affecting the traffic volumes on US Hwy 24 at these intersections. LSC utilized pre-pandemic traffic data at these intersections and recent CDOT data to estimate "typical" current volumes (adjusted for the effects of the pandemic). Figure 3 shows these "short-term baseline" volume estimates. Recent raw traffic data counts were adjusted to align more closely with those conducted by LSC in recent traffic impact studies, including:

- Bennet Ranch
- Saddlehorn Ranch
- Meadowlake Ranch
- Grandview Reserve

PEDESTRIAN AND BICYCLE FACILITIES

The proposed subdivision roads are to be Urban Non-Residential roadways, and, as such, would require sidewalks. The following roadway improvement projects have been identified as being needed by the year 2040 per Map 15 and Table 5 of El Paso County's 2016 MTCP:

- M4 – Falcon Highway from Meridian Road to South Peyton Highway
  - Bicycle and secondary regional trail improvements (6.95 miles)
- M7 – Elbert Road from US 24 to Judge Orr Road
  - Bicycle improvements (2.32 miles)
- M8 – Judge Orr Road from Eastonville Road to South Peyton Highway
  - Bicycle improvements (2.98 miles)
- M9 – Stapleton Road from Meridian Road to US 24
  - Bicycle improvements (2.56 miles)

Urban Non Residential Collector

I apologize for not providing the full name on my original comment

TRIP GENERATION

Estimates of the vehicle trips projected to be generated by Meadow Lake Industrial Park have been made using the nationally published trip-generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Corresponding trip-generation rates from the following ITE Land Use Categories have been used to develop the trip-generation estimates for site buildout:

- "110 – General Light Industrial"
- "820 – Shopping Center"

Table 1 below presents a summary of the estimated external site trip generation. A detailed trip-generation estimate for the industrial park, including ITE rates for the proposed land uses, is presented in Table 4 (attached). Figure 2 shows the layout within the proposed industrial park.

Table 1: Estimated External Site Vehicle-Trip Generation

Analysis Period	Weekday		
	In	Out	Total
Morning Peak Hour	390	124	514
Evening Peak Hour	426	607	1,033
Daily/24-hour	6,672	6,672	13,343

The proposed Meadow Lake Industrial Park is projected to generate about 13,343 total vehicle trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. During the morning peak hour, approximately 390 entering vehicles and 124 exiting vehicles would be generated. Approximately 426 entering and 607 exiting vehicles would be generated by the site during the evening peak hour.

Pass-By and Diverted Trips

The total number of trips to be generated by the site has also been aggregated by trip type to account for pass-by and diverted trips. 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. That pass-by motorist would then continue on his or her way to a final destination in the original direction. Table 4 (attached) shows the percent of the trips generated that were assumed to be pass-by trips. Non-primary trip percentage (34 percent) has been based on data from the *Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2014* by ITE and adjustments by LSC for site-specific conditions.

The proposed Meadow Lake Industrial Park is projected to generate about 8,904 **primary** vehicle trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. Analysis accounts for pass-by and diverted trips from Stapleton Road, Judge Orr Road, and US Highway 24. The ITE-average percent pass-by and percent diverted trips for shopping-related land uses were used for this study, as summarized in Table 4. The resulting primary and non-primary trips are shown in Table 4.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Directional Distribution

Estimating the directional distribution of site-generated vehicle trips to the study-area roads and intersections is a necessary component in determining the site's traffic impacts. Figure 4 shows the percentages of the site-generated vehicle trips projected to be oriented to and from the site's major approaches. Estimates have been based on the following factors: the proposed new land use, the area roadway system serving the site, and the site's geographic location relative to the overall greater El Paso County/Colorado Springs area. Additionally, directional distribution splits from LSC's previously-conducted Saddlehorn Ranch traffic study (dated July 11, 2019) were used to estimate trip distributions and background volumes within the vicinity of the site.

Site-Generated Traffic

Site-generated traffic volumes have been estimated at the following intersections:

- Falcon Highway/Aventura Drive (proposed three-quarter site access)
- Curtis Road/Sunriver Drive (north full-movement site access)
- Curtis Road/Minden Drive (south full-movement site access)
- Falcon Highway/Curtis Road
- Curtis Road/Judge Orr Road
- US Highway 24/Stapleton Road

These volumes have been calculated by applying the directional distribution percentages estimated by LSC (from Figure 4) to the trip-generation estimates (from Table 4). Figure 5 shows

the projected site-generated traffic volumes for the weekday morning and evening peak hours. The figure also shows the estimated average daily traffic volumes (ADTs).

Existing-Plus-Site-Generated Traffic Volumes

Figure 6 shows the sum of the existing traffic volumes (from Figure 3) and site-generated peak-hour traffic volumes (shown in Figure 5). These volumes represent the projected short-term total traffic following site buildout. Laneage and traffic control at the study-area intersections following site buildout are shown in Figure 6.

2040 Background Traffic Volumes

The 2040 background traffic volumes are generally based on the projections presented in the MTCP, but adjustments have been made to account for the removal of the PUD, urban-density land use and corresponding trip generation from the former Santa Fe Springs development area. For more information and details, please refer to PCD File Nos. P178 through P1714. The County rezoned the former Santa Fe Springs development parcels to A-5, A-35, F-5, RR.5, RR2.5, and RR-2, which replaced the Santa Fe Springs PUD 1 zoning.

US Hwy 24 volumes are estimates by LSC based on the Colorado Department of Transportation *US 24 Planning and Environmental Linkages Study Final Corridor Conditions Report* (dated December 2016). These volumes assume the 2040 roadway system including the extension of Stapleton Road west to Briargate Parkway. Traffic from the proposed Meadow Lake Industrial Park is **not** included in the 2040 **background** traffic volumes.

2040 Total Traffic Volumes

Figure 8 shows the sum of 2040 background traffic volumes (from Figure 7) plus site-generated traffic volumes (from Figure 5).

LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 2 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 2: 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

LOS values have been included on each figure for each turning movement/approach during the weekday morning and evening peak hours for the proposed site access intersections and off-site intersections in the study area:

- Figure 3: Existing Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 6: Existing + Site Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 7: 2040 Background Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 8: 2040 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

LOS calculations for long-term scenarios were based upon the recommended lane geometries and traffic controls outlined in the figures above (which were based on recommended improvements in the aforementioned Saddlehorn Ranch traffic study).

Falcon Highway/Aventura Drive (Proposed Three-Quarter Site Access)

All individual turning movements and approaches are projected to operate at LOS B or better through the 2040 horizon year. This analysis assumes that the southbound left-turn movement would be prohibited (three-quarter-movement intersection configuration). Please refer to Figure 6 and Figure 8 for recommended lane configurations and LOS summaries at this intersection during the short- and long-term scenarios, respectively.

Curtis Road/Sunriver Drive (North Full-Movement Site Access)

Short-Term

All individual turning movements and approaches are projected to operate at LOS C or better during the short-term as a two-way stop-sign-controlled intersection with the following auxiliary turn lanes: southbound right-turn deceleration lane, southbound right-turn acceleration lane, and northbound

left-turn deceleration lane. Please refer to Figure 6 for recommended lane configurations and LOS summaries at this intersection during the short-term scenario.

Long-Term

Please refer to Figure 8 for recommended lane configurations and LOS summaries at this intersection during the long-term scenario:

- The eastbound left-turning movements is projected to operate at LOS F during both long-term peak hours, if the intersection were to operate as two-way stop-sign-controlled.
- If the intersection were to be converted to a roundabout, all individual approaches would operate at LOS B or better during the long term.
- If the intersection were to be converted to a channelized-T intersection, all individual turning movements would operate at LOS B or better during both peak hours.

Curtis Road/Minden Drive (South Full-Movement Site Access)

Short-Term

All individual turning movements and approaches are projected to operate at LOS C or better during the short term as a two-way stop-sign-controlled intersection with the following auxiliary turn lanes: southbound right-turn deceleration lane, southbound right-turn acceleration lane, and northbound left-turn deceleration lane. Please refer to Figure 6 and Figure 8 for recommended lane configurations and LOS summaries at this intersection during the short- and long-term scenarios, respectively.

Long-Term

Please refer to Figure 8 for recommended lane configurations and LOS summaries at this intersection during the long-term scenario:

- The eastbound left-turning movement is projected to operate at LOS F during both long-term peak hours, if the intersection were to operate as two-way stop sign-controlled.
- If the intersection were to be converted to a roundabout, all individual approaches would operate at LOS B or better during the long-term.
- If the intersection were to be converted to a channelized-T intersection, all individual turning movements would operate at LOS B or better during both peak hours.

US Highway 24/Stapleton Road

Short-Term

Currently, the intersection of US Hwy 24/Stapleton is two-way stop-sign-controlled. The following turning movements currently operate at LOS E or worse, with or without the addition

of site-generated traffic: northwest-bound left, northwest-bound through, southeast-bound left, and southeast-bound through.

If signalized, all individual turning movements and the intersection overall currently operate at and are projected to operate at LOS C or better during both short-term peak hours, with or without the addition of site-generated traffic.

Long-Term

Based on the long-term scenario analyzed in this report, dual left-turn lanes are projected to be constructed to all approaches at the intersection of US Hwy 24/Stapleton Road. Additionally, all approaches on US Hwy 24 and Stapleton Road would be improved to two through lanes in each direction. Assuming future traffic-signal control, all individual turning movements and the intersection overall are projected to operate at LOS D or better during both long-term peak hours, with or without the addition of site-generated traffic. Please refer to Figure 7 and Figure 8 for anticipated/assumed future lane geometry and LOS at this intersection.

Judge Orr Road/Curtis Road

Short-Term

Currently, all individual approaches/turning movements at the intersection of Judge Orr/Curtis operate at LOS B or better during both peak hours. The northbound left-turn movement is projected to operate at LOS F during the short-term with the addition of site-generated traffic, if the intersection were to remain TWSC or have all-way stop-sign control. If the intersection of Judge Orr/Curtis were to be converted to a roundabout, all individual turning movements would operate at LOS C or better during the short-term buildout scenario.

Long-Term

If the intersection of Judge Orr/Curtis were to be converted from TWSC to a roundabout, all individual turning movements would operate at LOS C or better during both peak hours of the long-term buildout scenario. This intersection improvement was previously recommended in the Saddlehorn Ranch traffic study. Additionally, all approaches on Judge Orr Road and Curtis Road would be improved to two through lanes in each direction (per the 2040 MTCP).

Falcon Highway/Curtis Road

Short-Term

Currently, all individual approaches/turning movements at the intersection of Falcon Highway/Curtis Road operate at LOS D or better during both peak hours. The northbound left-turn, southbound through, and southbound left-turn movements are projected to operate

at LOS E or worse during the short-term with the addition of site-generated traffic. If the intersection of Falcon Highway/Curtis Road were to be converted from TWSC to a roundabout, all individual turning movements would operate at LOS C or better during the short-term buildout scenario.

Long-Term

If the intersection of Falcon Highway/Curtis Road were to be converted from TWSC to a roundabout, all individual turning movements would operate at LOS C or better during both peak hours of the long-term buildout scenario. This intersection improvement was previously recommended in the Saddlehorn Ranch traffic study. Additionally, all approaches at the Falcon Highway/Curtis Road intersection would be improved to two through lanes in each direction (per the 2040 MTCP).

AUXILIARY TURN LANE ANALYSIS, INTERSECTION CONFIGURATION, AND TRAFFIC CONTROL

Auxiliary Turn Lane Requirements

All auxiliary left- and right-turn lanes at this intersection would be required to meet the County's *Engineering Criteria Manual*'s auxiliary turn-lane-length criteria for each roadway's respective posted/design speed limit.

Deceleration lanes shall meet design criteria specified in El Paso County's *Engineering Criteria Manual* (ECM Tables 2-24 and 2-27).

Turn Lane Criteria

Table 3 summarizes peak-hour auxiliary left- and right-turn lane thresholds according to ECM criteria. Roadway classifications for key thoroughfares in the vicinity of the site include:

- Expressway – US Highway 24
- Principal Arterial – Curtis Road, Meridian Road
- Minor Arterial – Judge Orr Road, Falcon Highway
- Non-Residential Collector – all proposed site accesses

Per ECM 2.3.7.D, a left turn lane at an expressway is required for any access that allows left turn ingress movement.

Table 3: ECM Auxiliary Turn-Lane Thresholds by Functional Classification

Functional Classification	Deceleration Lanes		Acceleration Lanes	
	Left	Right	Left	Right
Expressway	10+ vph	10+ vph	*	10+ vph
Principal Arterial	10+ vph	25+ vph	*	50+ vph
Minor Arterial and Lower	25+ vph	50+ vph	*	Generally not required
* May be required if the design would benefit safety and roadway operations Note: vph = vehicles per hour				

Based on projected volumes and ECM criteria summarized in Table 3, auxiliary turn lanes would be required for the following turning movements at the following study-area intersections. Please refer to Table 6 for a comparison of existing and proposed auxiliary turn lane design versus required turn lane lengths in the ECM.

Note: all proposed auxiliary turn lanes at this intersection have been based on the ECM design speed for the roadway's classification. However, at the time of Preliminary Plan submittal, these auxiliary turn-lane lengths may be adjusted, based on the more site-specific design speed of the adjacent roadway (if different from the ECM design speed by general roadway classification).

Falcon Highway/Aventura Drive (Proposed Three-Quarter Site Access)

In order for this intersection to operate at an acceptable level of service, LSC recommends that the southbound left-turn movement be prohibited (three-quarter-movement intersection configuration). The following auxiliary turn lanes would be required, based on projected site-generated traffic volumes:

- Eastbound left-turn deceleration lane
  - 290-foot deceleration lane
  - 150-foot storage length
  - 240-foot approach taper
  - 55:1 redirect taper length
- Westbound right-turn deceleration lane
  - 290-foot deceleration lane
  - 240-foot approach taper
  - 55:1 redirect taper length
- Southbound right-turn acceleration lane
  - 960-foot acceleration lane
  - 222-foot transition taper
  - 18.5:1 transition taper ratio

Sticky Note

LSC Response: Added as requested. A design speed of 60 mph has been used for Curtis Road as for a two-lane Principal Arterial through this section, the 60 mph design speed seems more applicable. This is a Master Study and the design details can be updated at subdivision/plat if the next iteration of

Curtis Road/Sunriver Drive (North Full-Movement

Short Term

The north site access on Curtis Road would operate
two-way stop-sign-controlled intersection with the

- Southbound right-turn deceleration lane
  - 235-foot deceleration lane
  - 200-foot approach taper
  - 45:1 redirect taper length
- Eastbound right-turn acceleration lane
  - 550-foot acceleration lane
  - 13.5:1 transition taper ratio
- Northbound left-turn deceleration lane
  - 235-foot deceleration lane
  - 150-foot storage length
  - 200-foot approach taper
  - 45:1 redirect taper length

Your response document indicates that a design speed of 60mph for Curtis is applicable yet these values appear to be for a design speed of 50 mph. If your intent was 50 mph (since the posted speed is 45mph) then no change is necessary. If 60mph was your intent then please revise your lengths.

Long Term

The Curtis Road/Sunriver Drive site access would not operate at an acceptable LOS in the long term if it were to remain two-way stop-sign-controlled. As such, LSC recommends that the site access be converted to a channelized-T intersection, which would require adding an eastbound left-turn acceleration lane:

- 550-foot acceleration lane
- 13.5:1 transition taper ratio

Note: if a roundabout is selected for traffic control, the above would not apply. Any auxiliary turn lanes would be identified as part of the roundabout design.

Curtis Road/Minden Drive (South Full-Movement Site Access)

Short Term

The south site access on Curtis Road would operate at an acceptable LOS **in the short term** as a two-way stop-sign-controlled intersection with the following auxiliary turn lanes:

- Southbound right-turn deceleration lane
  - 235-foot deceleration lane
  - 200-foot approach taper
  - 45:1 redirect taper length

- Southbound right-turn acceleration lane
    - 550-foot acceleration lane
    - 13.5:1 transition taper ratio
- Northbound left-turn deceleration lane
    - 235-foot deceleration lane
    - 150-foot storage length
    - 200-foot approach taper
    - 45:1 redirect taper length

Long Term

The Curtis Road/Minden Drive site access would not operate at an acceptable LOS **in the long term** if it were to remain two-way stop-sign-controlled. As such, LSC recommends that the site access be converted to a channelized-T intersection, which would require adding an eastbound left-turn acceleration lane:

- 550-foot acceleration lane
- 13.5:1 transition taper ratio

Note: if a roundabout is selected for traffic control, the above would not apply. Any auxiliary turn lanes would be identified as part of the roundabout design.

Judge Orr Road/Curtis Road

This intersection may need to be converted to an AWSC in the short term (or potentially even a modern roundabout in the short term, with rapid site buildout, or in the intermediate term) in order for all individual turning movements/approaches to operate at an acceptable level of service upon site buildout Although the "buildout" scenario has been assumed for the "existing + site" (short-term) volumes, this project will likely take a while to build out. As such, the northbound-left-turning movement is projected to operate at LOS F during the short term for this project. Although the roundabout improvements in the Saddlehorn Ranch traffic study were recommended as a long-term improvement, the need for and timing of conversion from a TWSC to a roundabout in the "immediate term" could be addressed with Preliminary Plans/site development plans/plats as the project develops over time.

Note: The following auxiliary turn lane upgrades would not be required if a roundabout were to be constructed at the intersection of Falcon Highway/Curtis Road. However, these auxiliary turn lanes may be needed if two-way stop control or all-way stop-sign control is used as an intermediate traffic condition:

- Eastbound right-turn deceleration lane
    - 290-foot acceleration lane
    - 240-foot approach taper
    - 55:1 redirect taper length

Falcon Highway/Curtis Road

LSC recommends that this intersection be converted to a roundabout in order for all individual turning movements/approaches to operate at an acceptable level of service upon site buildout. The intersection of Falcon Highway/Curtis Road could potentially be signed for all-way stop sign control (AWSC) during the short-term once AWSC warrants are met, as all approaches would operate at LOS D or better with AWSC..

Note: The following auxiliary turn lane upgrades would not be required if a roundabout were to be constructed at the intersection of Falcon Highway/Curtis Road. However, these auxiliary turn lanes may be needed if all-way stop-sign control is used as an intermediate traffic condition:

- Southbound right-turn deceleration lane
  - 235-foot deceleration lane
  - 200-foot approach taper
  - 45:1 redirect taper length
- Eastbound left-turn deceleration lane
  - 290-foot acceleration lane
  - 240-foot approach taper
  - 55:1 redirect taper length
- Westbound right-turn deceleration lane
  - 290-foot deceleration lane
  - 240-foot approach taper
  - 55:1 redirect taper length

Please revise to Urban Non-Residential Collector

ROADWAY CLASSIFICATIONS

All internal streets within the site should be designed to meet Urban Non-Residential criteria prescribed in the ECM.

ROADWAY SEGMENT IMPROVEMENTS

Curtis Road

Curtis Road should be improved to a two-lane, Principal Arterial. Dedication of right-of-way for one-half of a two-lane Principal Arterial with ROW reservation for additional width up to 90' from centerline for the 4-lane Principal Arterial corridor preservation. The improvement would be from Falcon Highway north to connect to the segment of Curtis planned for upgrade as part of Saddlehorn.

Falcon Highway

Falcon Highway should be improved to a two-lane, Rural Minor Arterial, as shown in the 2040 MTCP (Project U5).

The ECM administrator has been informed of the deviation request and will be reviewed. Decisions for deviation requests are generally not decided with rezone applications. The deviations would not be a part of this rezone as the actual design layout for the roadways have not been submitted and so that a decision on the deviation does not hold up the rezone project.

LIST OF DEVIATIONS REQUESTED

A deviation is required for the 805-foot spacing on Falcon Highway between the proposed south access and McCandish Road (existing). The ECM requires a minimum of 1/4-mile spacing (1,320 feet) between public street intersections on Rural Minor Arterials.

A deviation would be required for the ¼ mile intersection spacing on Curtis Road between Falcon Highway and the proposed south street connection. The ECM requires a minimum of 1/2-mile spacing between public street intersections on Principal Arterials. The deviation requests the south access at the quarter-mile spacing. The request includes allowance to operate as an interim full-movement intersection until Curtis is upgraded to a **four-lane** Principal Arterial in the distant future (per the MTCP Corridor Preservation Plan). At that time the intersection is likely to converted to a three-quarter movement intersection or otherwise turn-movement-restricted. This deviation request has been included with this resubmittal.

COUNTY ROAD IMPROVEMENT FEE PROGRAM

Transportation Impact Fees

Per ECM Appendix B: *State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment*.

The applicant will be required to participate in this program. The PID option will be identified with a future Preliminary Plan/Plat submittal.

Reimbursable Improvements

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 13 and Table 4 of El Paso County's 2016 MTCP:

- U1 – Curtis Road from Judge Orr Road to State Highway 94 ($35,549,000)
    - Existing conditions – 2-lane Rural Unimproved County Road
    - Future conditions – 2-lane Principal Arterial
- U5 – Falcon Highway from US 24 to 1 mile east of Curtis Road ($16,509,000)
    - Existing conditions – 2-lane Rural Unimproved County Road
    - Future conditions – 2-lane Minor Arterial
- C12 – Stapleton Road from Towner Road to Judge Orr Road ($41,076,000)
    - Existing conditions – 2-lane Principal Arterial
    - Future conditions – 4-lane Principal Arterial
- C14 – Judge Orr Road from Eastonville Road to Peyton Highway (38,248,000)
    - Existing conditions – 2-lane Minor Arterial
    - Future conditions – 4-lane Minor Arterial

Although these are identified as "eligible improvements (eligible for Fee Program credit if completed)," **it is our understanding that the applicant will not be responsible for completing improvements to these roadways.**

MULTI-MODAL TRANSPORTATION AND TDM OPPORTUNITIES

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 15 and Table 5 of El Paso County's 2016 MTCP:

- M4 – Falcon Highway from Meridian Road to South Peyton Highway
  - Bicycle and secondary regional trail improvements (6.95 miles)
- M7 – Elbert Road from US 24 to Judge Orr Road
  - Bicycle improvements (2.32 miles)
- M8 – Judge Orr Road from Eastonville Road to South Peyton Highway
  - Bicycle improvements (2.98 miles)
- M9 – Stapleton Road from Meridian Road to US 24
  - Bicycle improvements (2.56 miles)

Please revise or remove this statement. Although the applicant may not be responsible for all of these improvements they may be responsible for some such as Falcon hwy where it is currently an unimproved road that may not have the capacity for the added traffic that this development will add. The sites short term ADT on Falcon hwy is listed as 5000 (fig.5a) which is 1/2 the design ADT(10,000) for a Rural Minor arterial roadway and the current conditions of the road is an unimproved 2 lane roadway. Please feel free to call me to discuss.

IMPROVEMENTS SUMMARY TABLE

Please refer to Table 5, which presents a summary of improvements.

FINDINGS AND CONCLUSIONS

- The site is projected to generate about 13,343 new driveway vehicle-trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 390 vehicles would enter the site while 124 vehicles would exit.
- During the weekday evening peak hour of adjacent street traffic, 426 vehicles would enter the site while 607 vehicles would exit.
- In order for both intersections to operate at acceptable levels of service, LSC recommended that the intersections of Curtis Road/Falcon Highway and Curtis Road/Judge Orr Road be converted to roundabouts in the short-term.
- As a TWSC intersection, the eastbound left-turning movement at both proposed site accesses on Curtis Road (Sunriver Drive and Minden Drive) would operate at LOS C or better during the short-term but LOS F during the long-term. All approaches at both site accesses on Curtis Road are projected to operate at LOS B during the long-term scenario if both were converted to roundabouts or channelized-T intersections.
- Please refer to the Improvements Table for a detailed list of roadway system improvements.

- Please refer to the "Auxiliary Turn Lane Analysis" section above for recommended intersection improvements with and without the addition of site-generated traffic.

- All internal streets within the site should be designed to meet Urban Non-Residential criteria prescribed in the ECM.

* * * * *

Per comments from CDOT, access permits will be required. Please acknowledge this in your narrative.

Please revise to urban non-residential collector

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

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JCH:JAB

Enclosures: Table 4
Table 5
Table 6
Figure 1 - Figure 8
Traffic Count Reports
Synchro LOS Reports

Table 4: Detailed Trip Generation Estimate

ITE		Value	Units	Floor Area Ratio	Value	Units [1]	Trip Generation Rates [2]					Total Trips Generated					% Trips Primary	% Trips Pass-by	% Trips Diverted	Primary Trips Generated				
							Average	A.M.		P.M.		Average	A.M.		P.M.					Average	A.M.		P.M.	
Code	Description						Weekday	In	Out	In	Out	Weekday	In	Out	In	Out				Weekday	In	Out	In	Out
110	General Light Industrial	166.160	Acres	16%	1158.069	KSF	3.84	0.21	0.03	0.02	0.15	4447	240	33	26	174	100%	0%	0%	4447	240	33	26	174
820	Shopping Center	25.530	Acres	16%	177.934	KSF	50.00	0.84	0.51	2.25	2.43	8896	149	91	400	433	41%	34%	25%	3647	61	38	164	177
											Total	**13343**	**390**	**124**	**426**	**607**				**8094**	**302**	**70**	**190**	**351**

[1] KSF = 1,000 square feet of gross floor area

[2] Source: *Trip Generation* , 10th Edition, 2017, by the Institute of Transportation Engineers (ITE)

Table 6: Auxiliary Turn Lane Design Comparison with ECM Criteria

Intersection		Auxiliary Turn Lane				Existing Conditions				ECM-Prescribed Length				Recommended Length			
Name	Approach	Turn	Type	Design Speed	Required	Lane	Storage	Approach Taper	Redirect Taper	Lane	Storage	Approach Taper	Redirect Taper	Lane	Storage	Approach Taper	Redirect Taper
Falcon Hwy/ Aventura Dr	EB	Left	Deceleration	60 mph	Short-term	-	-	-	-	290'	150'	240'	55 : 1	290'	150'	240'	55 : 1
	WB	Right	Deceleration	60 mph	Short-term	-	-	-	-	290'	-	240'	55 : 1	290'	-	240'	55 : 1
	SB	Right	Acceleration	60 mph	Short-term	-	-	-	-	960'	-	222'	-	960'	-	222'	-
Curtis Rd/ Sunriver Dr	SB	Right	Deceleration	50 mph	Short-term	-	-	-	-	235'	-	200'	45 : 1	235'	-	200'	45 : 1
	EB	Right	Acceleration	50 mph	Short-term	-	-	-	-	550'	-	162'	-	550'	-	162'	-
	NB	Left	Deceleration	50 mph	Short-term	-	-	-	-	235'	150'	200'	45 : 1	235'	150'	200'	45 : 1
	EB	Left	Acceleration	50 mph	Long-term	-	-	-	-	550'	-	162'	-	550'	-	162'	-
Curtis Rd/ Minden Dr	SB	Right	Deceleration	50 mph	Short-term	-	-	-	-	235'	-	200'	45 : 1	235'	-	200'	45 : 1
	EB	Right	Acceleration	50 mph	Short-term	-	-	-	-	550'	-	162'	-	550'	-	162'	-
	NB	Left	Deceleration	50 mph	Short-term	-	-	-	-	235'	150'	200'	45 : 1	235'	150'	200'	45 : 1
	EB	Left	Acceleration	50 mph	Long-term	-	-	-	-	550'	-	162'	-	550'	-	162'	-
Judge Orr Rd/ Curtis Rd	EB	Right	Deceleration	50 mph	Short-term	-	-	-	-	290'	-	240'	55 : 1	290'	-	240'	55 : 1
	EB	Left	Deceleration	50 mph	Existing								55 : 1	No modifications required			
	SB	Left	Deceleration	50 mph	Existing								55 : 1	No modifications required			
	NB	Left	Deceleration	50 mph	Existing								55 : 1	No modifications required			
	WB	Left	Deceleration	60 mph	Existing					290'	-	240'	55 : 1	No modifications required			
Curtis Rd/ Falcon Hwy	SB	Right	Deceleration	50 mph	Short-term	-	-	-	-	235'	-	200'	45 : 1	235'	-	200'	45 : 1
	EB	Left	Deceleration	60 mph	Short-term	-	-	-	-	290'	-	240'	55 : 1	290'	-	240'	55 : 1
	WB	Right	Deceleration	60 mph	Short-term	-	-	-	-	290'	-	240'	55 : 1	290'	-	240'	55 : 1
	EB	Right	Deceleration	60 mph	Existing	295'	-	290'	65 : 1	290'	-	240'	55 : 1	No modifications required			
	NB	Left	Deceleration	50 mph	Existing	340'	-	215'	55 : 1	235'	250'	200'	45 : 1	Add 130'	-	-	-
	SB	Left	Deceleration	50 mph	Existing	290'	-	250'	55 : 1	235'	100'	200'	45 : 1	No modifications required			

Please add titles for each column (improvement, timing, and responsibility.

Please update per comments from CDOT and address any other comments that they have.

Table 7: Roadway Improvements for Meadow Lake Industrial Park

Roadway Segment Improvements			
1.2	Curtis Road (Short-Term) -- Falcon Hwy to south end of planned Saddlehorn improvements Upgrade to 2-lane Principal Arterial	With this development; potential for phasing with subdivision/plat filings	Details TBD Applicant or potentially with the property on the east side of Curtis Road if that land owner happens to begin developing that property)
1.2	Curtis Road (Long-Term) -- Falcon Hwy to SH 94 Upgrade to 2-Lane Rural Principal Arterial	Shown in 2040 MTCP (Project U1)	Details TBD Applicant will pay fee program traffic impact fees
1.3	Falcon Highway Upgrade to 2-Lane Rural Minor Arterial	Shown in 2040 MTCP (Project U5)	Details TBD Applicant will pay fee program traffic impact fees
1.4	Stapleton Road Widen to 4-Lane Rural Principal Arterial	Shown in 2040 MTCP (Project C12)	Details TBD Applicant will pay fee program traffic impact fees
1.5	Judge Orr Road Widen to 4-Lane Rural Minor Arterial	Shown in 2040 MTCP (Project C14)	Details TBD Applicant will pay fee program traffic impact fees
Adjacent County Arterial Roadway ROW Requirements			
4.1	Curtis Road 2-Lane Rural Principal Arterial 130' to 150' estimated ROW dedication (Note: 4-lane Rural Principal is 180')	Shown in 2040 MTCP	Applicant (west side)
4.2	Curtis Road 4-Lane Rural Principal Arterial 180' right-of-way preservation	Shown in 2060 Corridor Preservation Plan	Applicant (west side)
Internal Subdivision Roadways			
2.1	Construct internal streets to County Urban Non-Residential Collector Standards	With subdivision/plat filings	Applicant
Off-Site Intersections			
Item #	**Improvement**	**Timing**	**Responsibility**
US Highway 24/Stapleton Intersection			
3.1	Signalize the intersection	Once warrants are met	CDOT is collecting escrow from area developments impacting this intersection with each subdivision filing
Judge Orr/Curtis Road Intersection			
5.1	Short Term Eastbound right-turn deceleration lane	Currently warranted by ECM	Escrow for improvement or construction at the time of development (fee program credit per fee program provisions)
5.2	Short Term Potentially sign for all way stop-sign control	Once warrants for AWSC are met	Applicant
5.3	Long Term (or Prior to 2040) Reconstruct intersection as a modern roundabout (or signalize the intersection)	Once LOS of AWSC drops below acceptable levels (roundabout); or once signal warrants are met (for conversion to a signal or roundabout). Depends on the pace and intensity of development of this site and the rate of other area development and associated background traffic growth.	Applicant This intersection may be fee-program eligible for a signal/roundabout and applicant will pay fee program traffic impact fees
5.4	Long Term (if signalized in the future) Lengthen northbound left-turn deceleration lane	As needed based on future speed limit and turning volume/stacking length criteria	Escrow for improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
Adjacent Access Intersections			
Item #	**Improvement**	**Timing**	**Responsibility**
Curtis Road/Falcon Highway			
6.1	Short Term Change to AWSC traffic control as necessary. Possibly (but unlikely) Reconstruct intersection as a modern roundabout (or signalize the intersection) in the short term if rapid site buildout and area growth occurs. Otherwise, intermediate term. Long Term Reconstruct intersection as a modern roundabout (or signalize the intersection)	Short Term Once warrants for AWSC are met. Depends on the pace and intensity of development of this site and the rate of other area development and associated background traffic growth. Long Term Once LOS of AWSC drops below acceptable levels (roundabout); or once signal warrants are met (for conversion to a signal or roundabout)	Short Term Applicant Long Term Applicant -- as many be required with further determination with subdivision/plat submittals (potentially shared responsibility with other area developments) This intersection may be fee-program eligible for a signal/roundabout and applicant will pay fee-program traffic impact fees.
6.2	Short Term (if signalized in the future) Construct SB right-turn deceleration lane on Curtis Road approaching Falcon Highway	With subdivision/plat filings, per ECM turning volume thresholds	Escrow for pro-rata share of improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
6.3	Short Term (if signalized in the future) Construct EB left-turn deceleration lane on Curtis Road approaching Falcon Highway	With subdivision/plat filings, per ECM turning volume thresholds	Escrow for pro-rata share of improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
6.4	Short Term (if signalized in the future) Construct WB right-turn deceleration lane on Curtis Road approaching Falcon Highway	With subdivision/plat filings, per ECM turning volume thresholds	Escrow for pro-rata share of improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
6.5	Long Term (if signalized in the future) Lengthen northbound left-turn deceleration lane	As needed based on future speed limit and turning volume/stacking length criteria	Escrow for improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
Falcon Highway/Aventura Drive (Site Access)			
7.1	Short Term Westbound right-turn deceleration lane	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
7..2	Short Term Eastbound left-turn deceleration lane and standard 3/4-movement intersection design	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
7.3	Short Term Southbound right-turn acceleration lane	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
Curtis Road/Sunriver Drive (North Site Access)			
8.1	Short Term Southbound right-turn deceleration lane on Curtis Rd approaching the site access	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
8.2	Short Term Northbound left-turn deceleration lane on Curtis Rd approaching the site access	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
8.3	Short Term Eastbound right-turn acceleration lane on Curtis Rd upon exiting the site access	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
8.4	Long Term Reconstruct intersection as a channelized-T intersection (or as a modern roundabout)	With site development, as necessary to maintain acceptable intersection operations	Applicant
8.5	Long Term Northbound left-turn acceleration lane on Curtis Rd upon exiting the site access (to accompany channelized-T reconstruction)	With site development -- with future channelized-T (if implemented)	Applicant
Curtis Road/Minden Drive (South Site Access)			
9.1	Short Term Southbound right-turn deceleration lane on Curtis Rd approaching the site access	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
9.2	Short Term Northbound left-turn deceleration lane on Curtis Rd approaching the site access	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
9.3	Short Term Eastbound right-turn acceleration lane on Curtis Rd upon exiting the site access	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
9.4	Long Term Reconstruct intersection as a channelized-T intersection (or as a modern roundabout)	With site development, as necessary to maintain acceptable intersection operations	Applicant
9.5	Long Term Northbound right-turn acceleration lane on Curtis Rd upon exiting the site access to accompany channelized-T reconstruction	With site development -- with future channelized-T (if implemented)	Applicant

Source: LSC Transportation Consultants, Inc. (Revised 12/04/2020)

Note: Timing and responsibility is subject to change as future applications are submitted

Approximate Scale
Scale: 1"= 3,000'

Figure 1

Vicinity Map

Meadowlake Industrial Park (LSC #195140)

LSC TRANSPORTATION CONSULTANTS, INC.

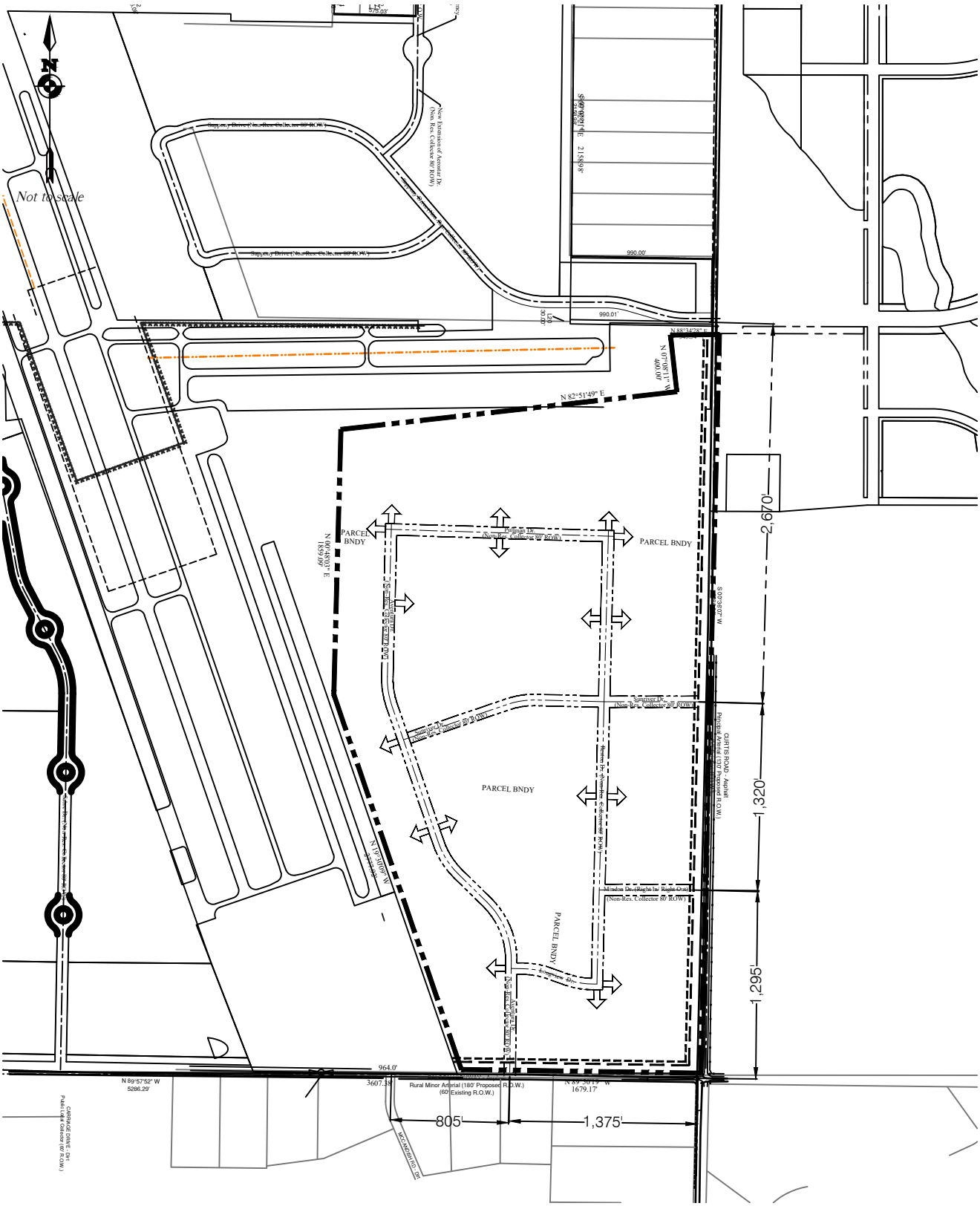


Figure 2

Site Plan

Meadowlake Industrial Park (LSC #195140)

LSC TRANSPORTATION CONSULTANTS, INC.

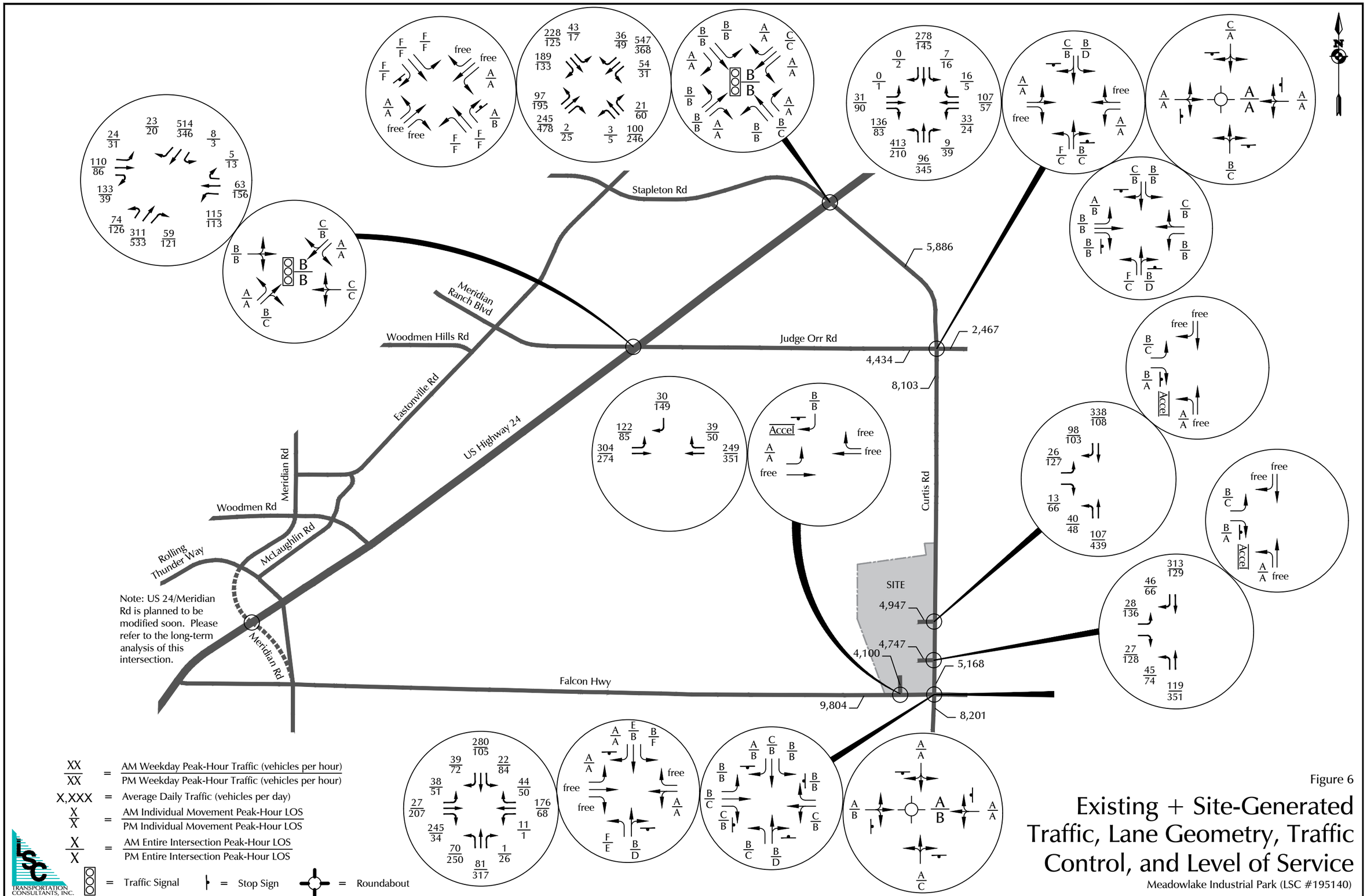
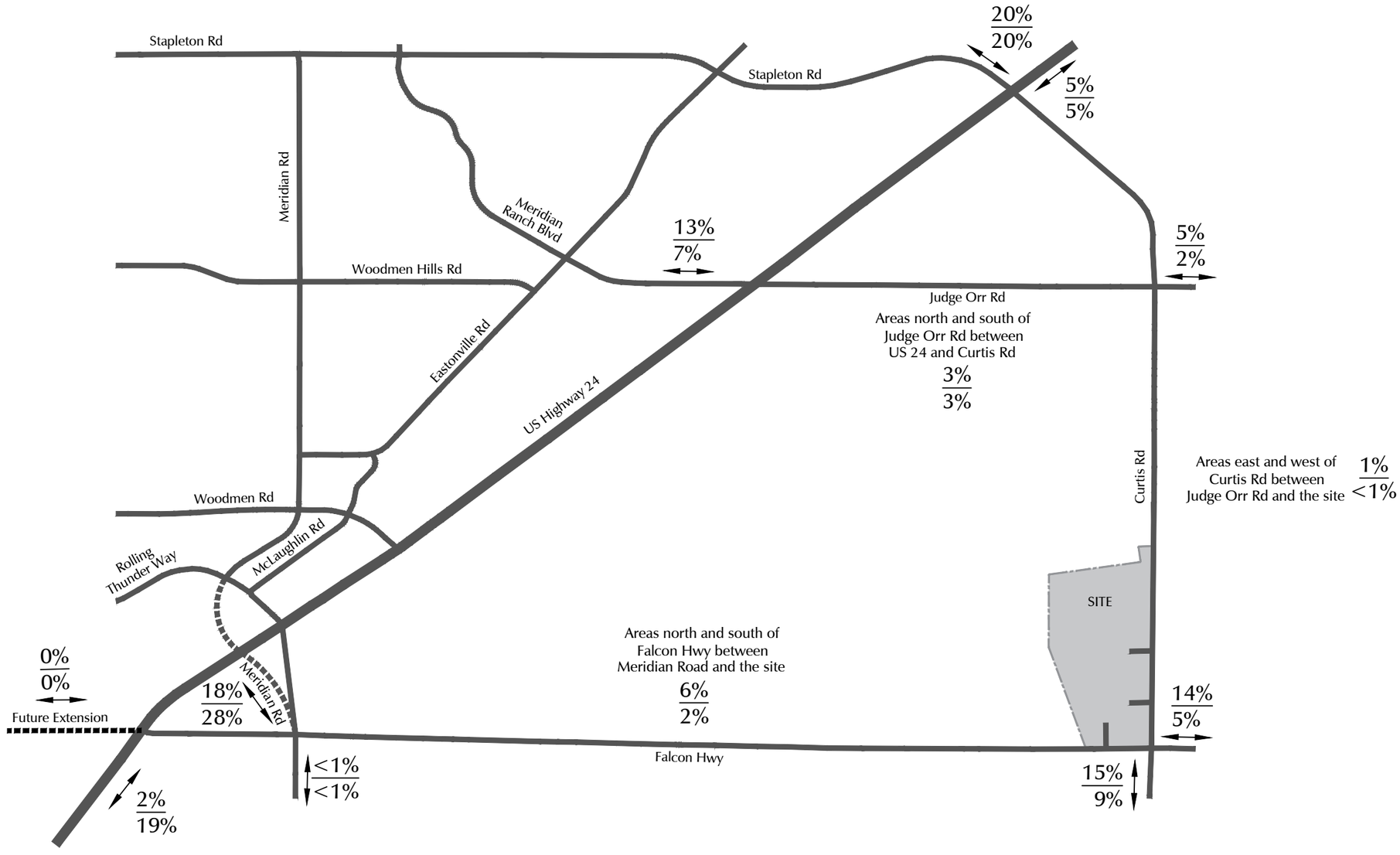


Figure 6

Existing + Site-Generated Traffic, Lane Geometry, Traffic Control, and Level of Service

Meadowlake Industrial Park (LSC #195140)



Approximate Scale
Scale: 1" = 3,000'

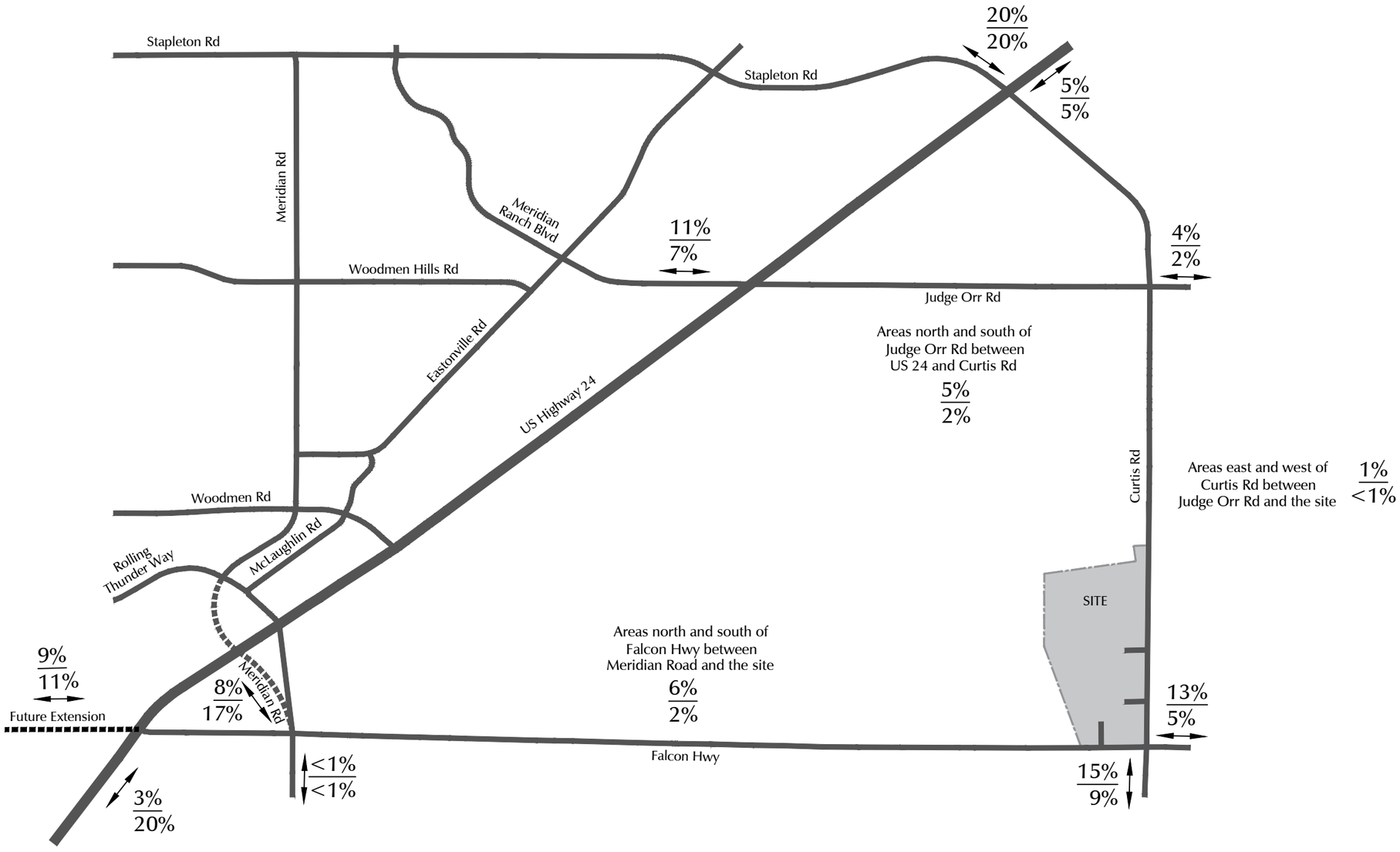
LSC TRANSPORTATION CONSULTANTS, INC.

XX% / XX% = A.M. Peak-Hour Directional Distribution / P.M. Peak-Hour Directional Distribution

Figure 4a

Short-Term Directional Distribution

Meadowlake Industrial Park (LSC #195140)



Approximate Scale
Scale: 1" = 3,000'

TRANSPORTATION CONSULTANTS, INC.

XX% / XX% = A.M. Peak-Hour Directional Distribution / P.M. Peak-Hour Directional Distribution

Figure 4b

Long-Term Directional Distribution

Meadowlake Industrial Park (LSC #195140)

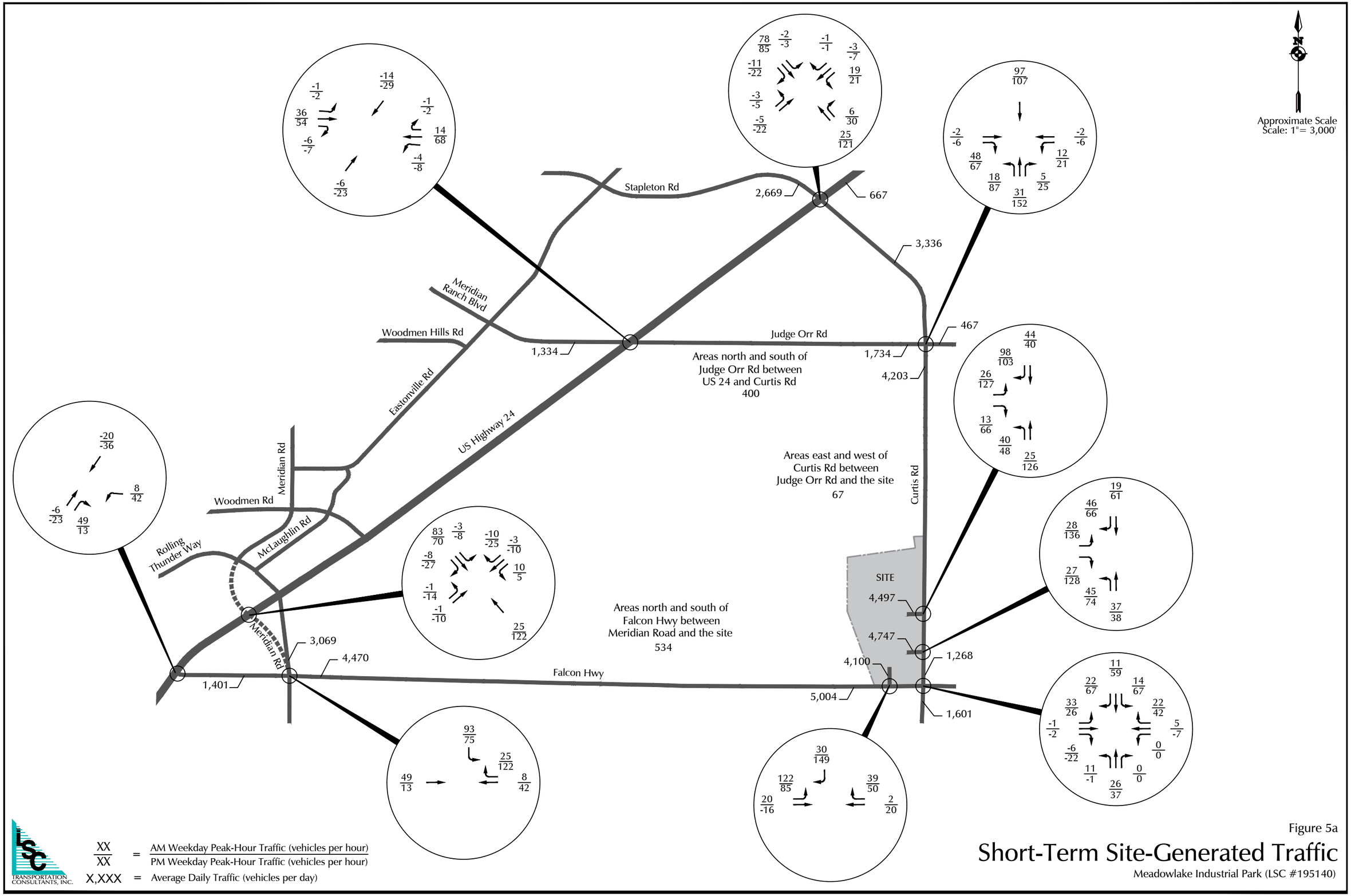


Figure 5a

Short-Term Site-Generated Traffic

Meadowlake Industrial Park (LSC #195140)

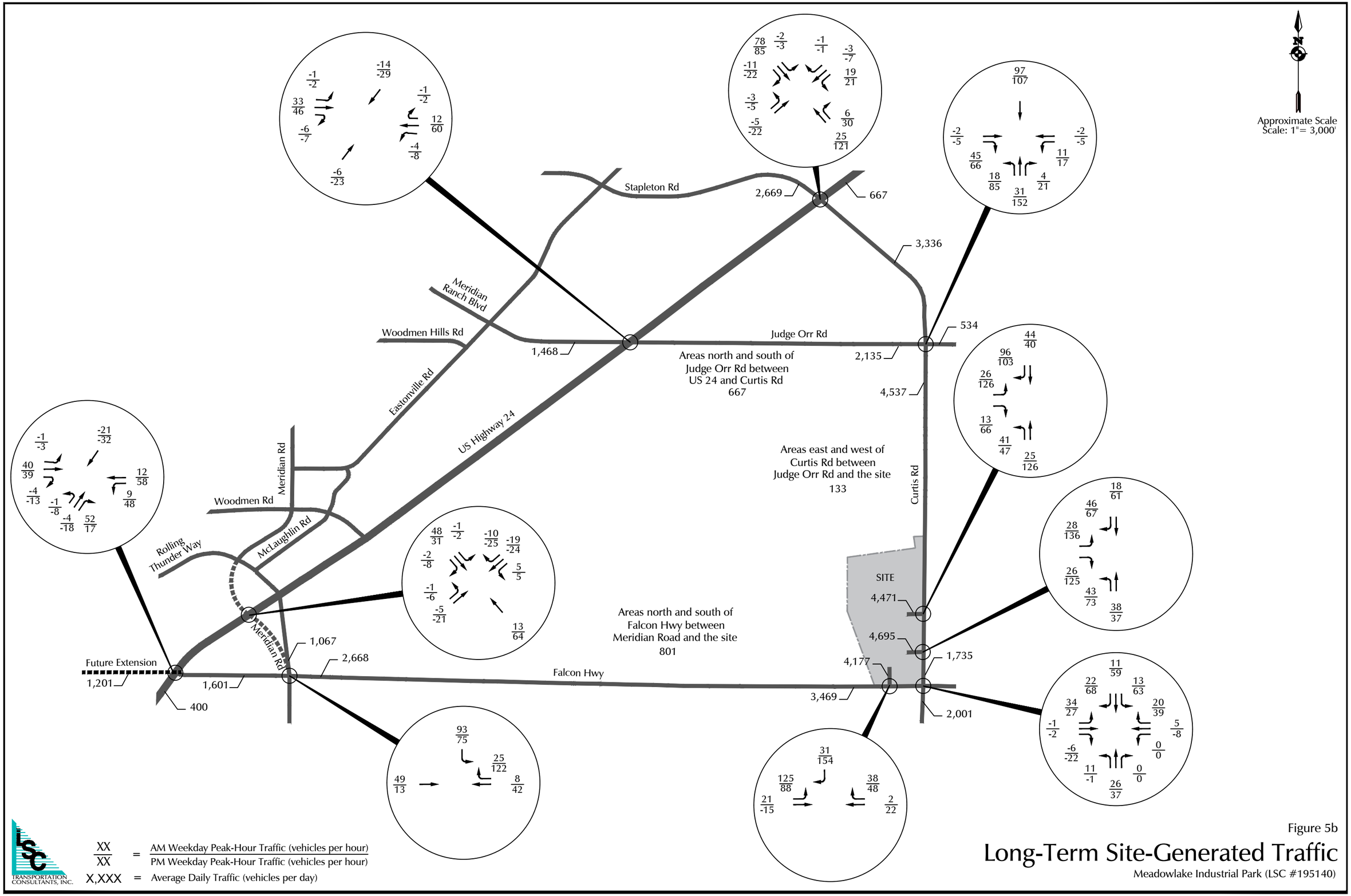


Figure 5b

Long-Term Site-Generated Traffic

Meadowlake Industrial Park (LSC #195140)

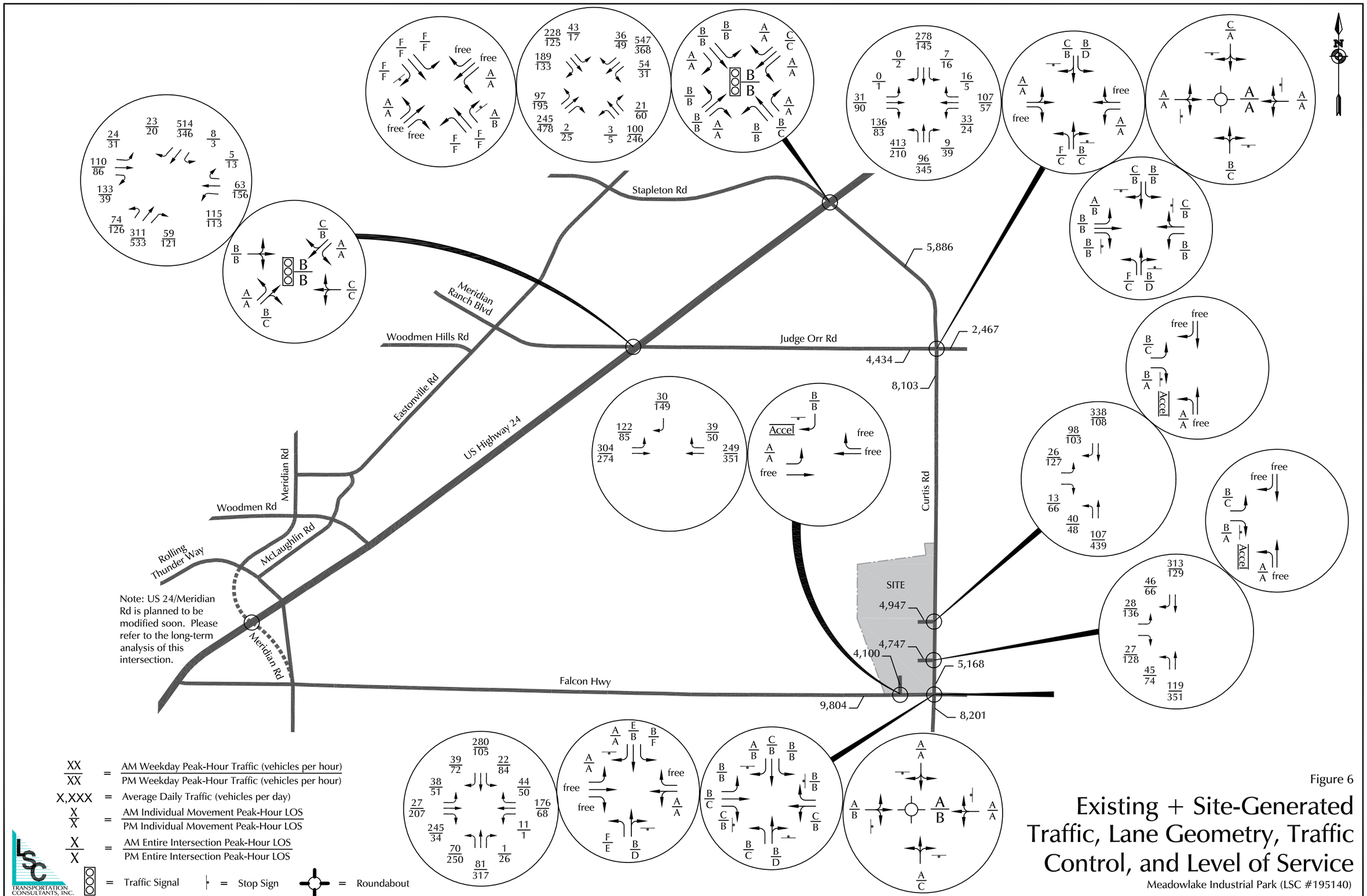
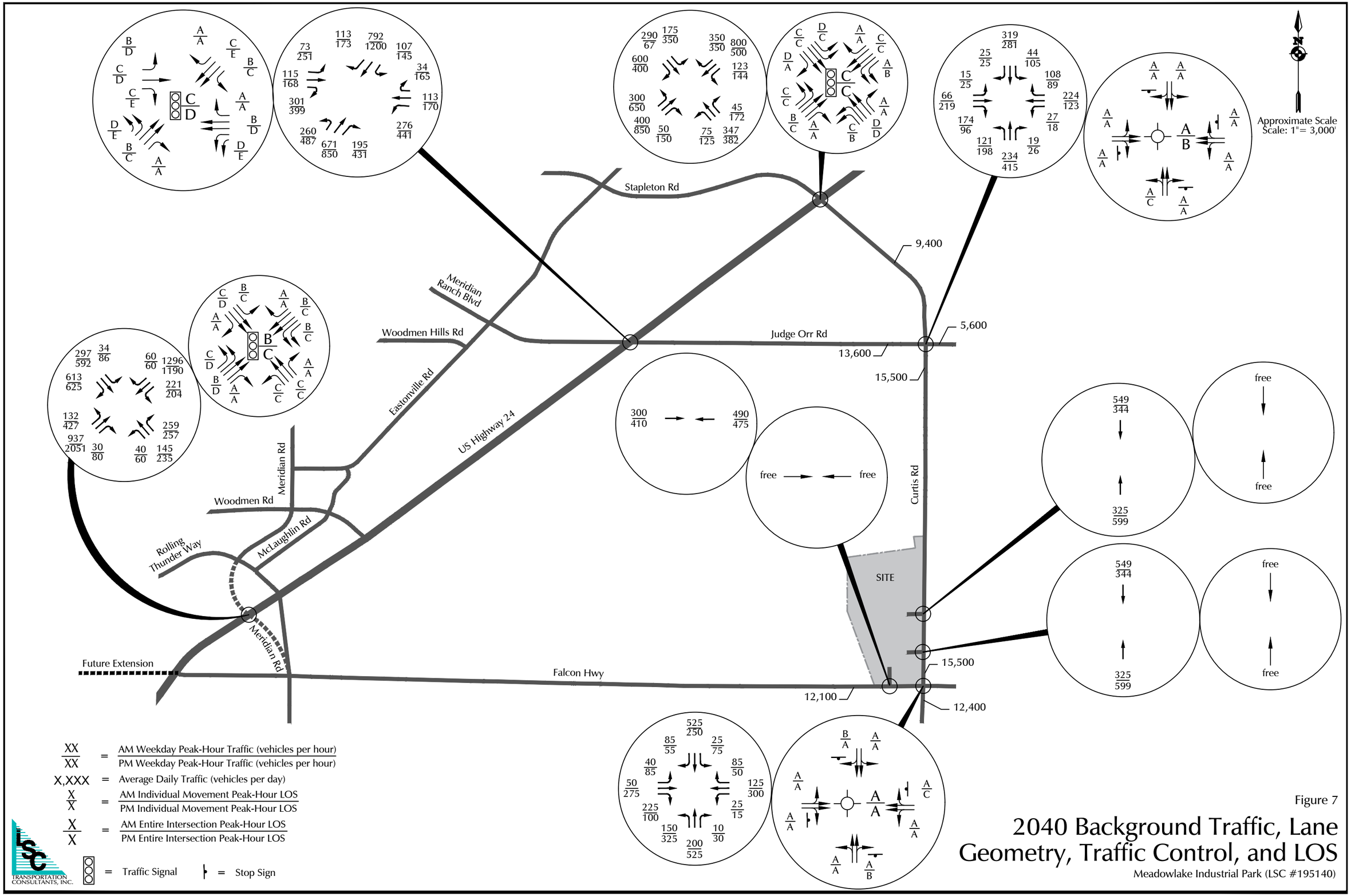


Figure 6

Existing + Site-Generated Traffic, Lane Geometry, Traffic Control, and Level of Service

Meadowlake Industrial Park (LSC #195140)



$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX = Average Daily Traffic (vehicles per day)

$\frac{X}{X}$ = $\frac{\text{AM Individual Movement Peak-Hour LOS}}{\text{PM Individual Movement Peak-Hour LOS}}$

$\frac{X}{X}$ = $\frac{\text{AM Entire Intersection Peak-Hour LOS}}{\text{PM Entire Intersection Peak-Hour LOS}}$

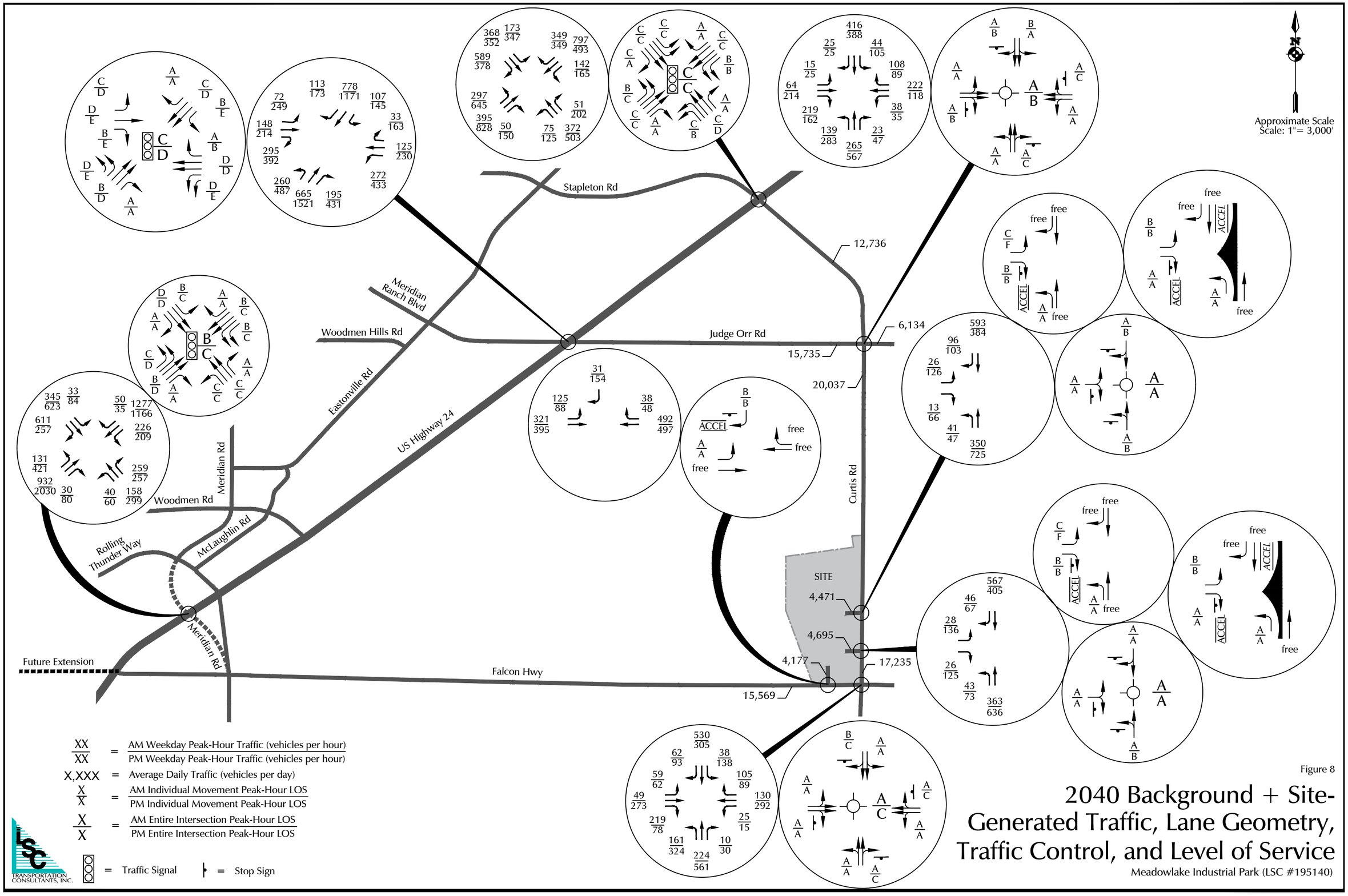
= Traffic Signal = Stop Sign

TRANSPORTATION CONSULTANTS, INC.

Figure 7

2040 Background Traffic, Lane Geometry, Traffic Control, and LOS

Meadowlake Industrial Park (LSC #195140)



$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX = Average Daily Traffic (vehicles per day)

$\frac{X}{X}$ = $\frac{\text{AM Individual Movement Peak-Hour LOS}}{\text{PM Individual Movement Peak-Hour LOS}}$

$\frac{X}{X}$ = $\frac{\text{AM Entire Intersection Peak-Hour LOS}}{\text{PM Entire Intersection Peak-Hour LOS}}$

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 8

2040 Background + Site-Generated Traffic, Lane Geometry, Traffic Control, and Level of Service

Meadowlake Industrial Park (LSC #195140)

LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Judge Orr Rd AM 1-20
Site Code : 195140
Start Date : 1/8/2020
Page No : 1

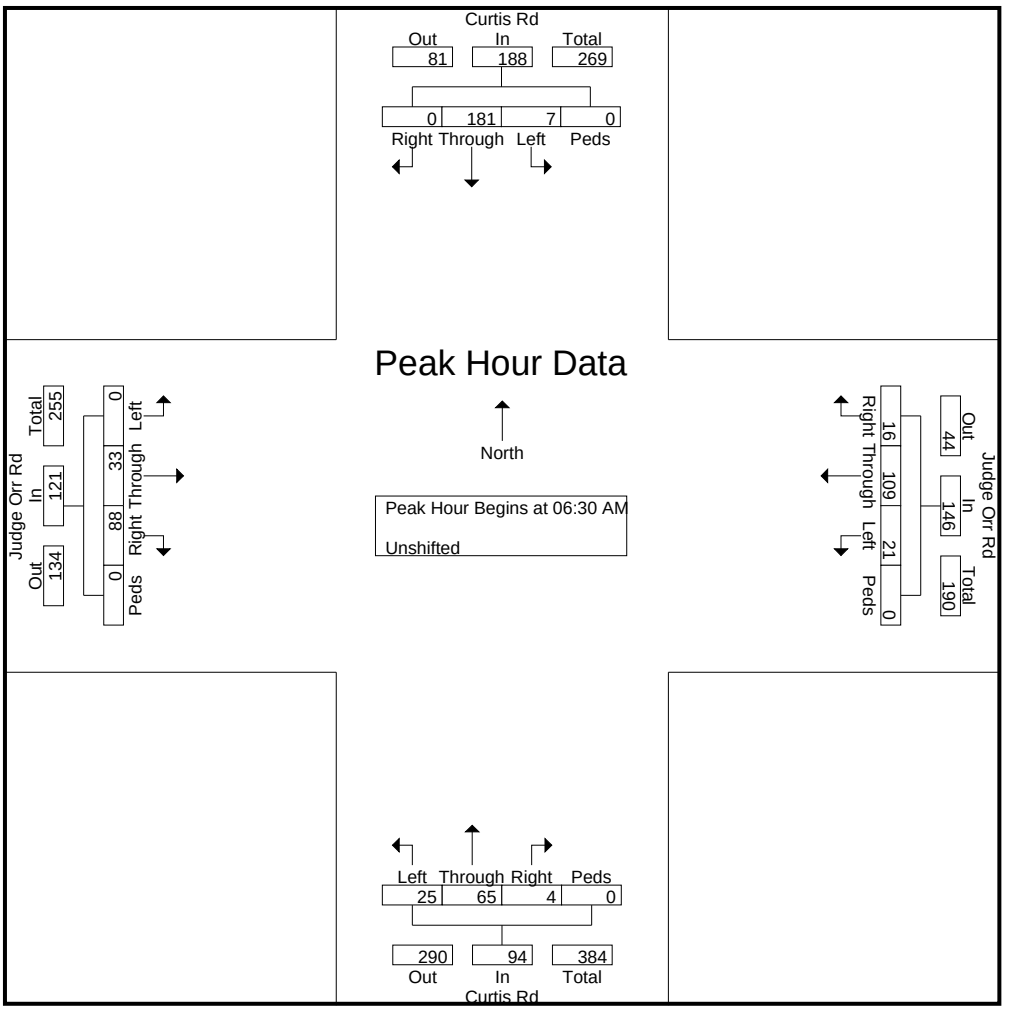
Groups Printed- Unshifted

	Curtis Rd Southbound					Judge Orr Rd Westbound					Curtis Rd Northbound					Judge Orr 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	2	48	0	0	50	3	30	4	0	37	4	10	1	0	15	0	7	18	0	25	127
06:45 AM	3	43	0	0	46	6	26	5	0	37	5	11	2	0	18	0	5	24	0	29	130
Total	5	91	0	0	96	9	56	9	0	74	9	21	3	0	33	0	12	42	0	54	257
07:00 AM	2	46	0	0	48	6	24	3	0	33	10	21	1	0	32	0	9	21	0	30	143
07:15 AM	0	44	0	0	44	6	29	4	0	39	6	23	0	0	29	0	12	25	0	37	149
07:30 AM	2	51	1	0	54	1	18	3	0	22	7	12	0	0	19	0	3	25	0	28	123
07:45 AM	3	37	1	0	41	4	20	1	0	25	5	11	2	0	18	0	7	10	0	17	101
Total	7	178	2	0	187	17	91	11	0	119	28	67	3	0	98	0	31	81	0	112	516
08:00 AM	0	16	0	0	16	1	29	0	0	30	4	8	0	0	12	0	7	5	0	12	70
08:15 AM	3	22	0	0	25	4	16	5	0	25	9	8	0	0	17	0	12	15	0	27	94
Grand Total	15	307	2	0	324	31	192	25	0	248	50	104	6	0	160	0	62	143	0	205	937
Apprch %	4.6	94.8	0.6	0		12.5	77.4	10.1	0		31.2	65	3.8	0		0	30.2	69.8	0		
Total %	1.6	32.8	0.2	0	34.6	3.3	20.5	2.7	0	26.5	5.3	11.1	0.6	0	17.1	0	6.6	15.3	0	21.9	

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

File Name : Curtis Rd - Judge Orr Rd AM 1-20
Site Code : 195140
Start Date : 1/8/2020
Page No : 2

	Curtis Rd Southbound					Judge Orr Rd Westbound					Curtis Rd Northbound					Judge Orr 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 06:30 AM																					
06:30 AM	2	**48**	0	0	**50**	3	**30**	4	0	37	4	10	1	0	15	0	7	18	0	25	127
06:45 AM	**3**	43	0	0	46	**6**	26	**5**	0	37	5	11	**2**	0	18	0	5	24	0	29	130
07:00 AM	2	46	0	0	48	6	24	3	0	33	**10**	21	1	0	**32**	0	9	21	0	30	143
07:15 AM	0	44	0	0	44	6	29	4	0	**39**	6	**23**	0	0	29	0	**12**	**25**	0	**37**	**149**
Total Volume	7	181	0	0	188	21	109	16	0	146	25	65	4	0	94	0	33	88	0	121	549
% App. Total	3.7	96.3	0	0		14.4	74.7	11	0		26.6	69.1	4.3	0		0	27.3	72.7	0		
PHF	.583	.943	.000	.000	.940	.875	.908	.800	.000	.936	.625	.707	.500	.000	.734	.000	.688	.880	.000	.818	.921

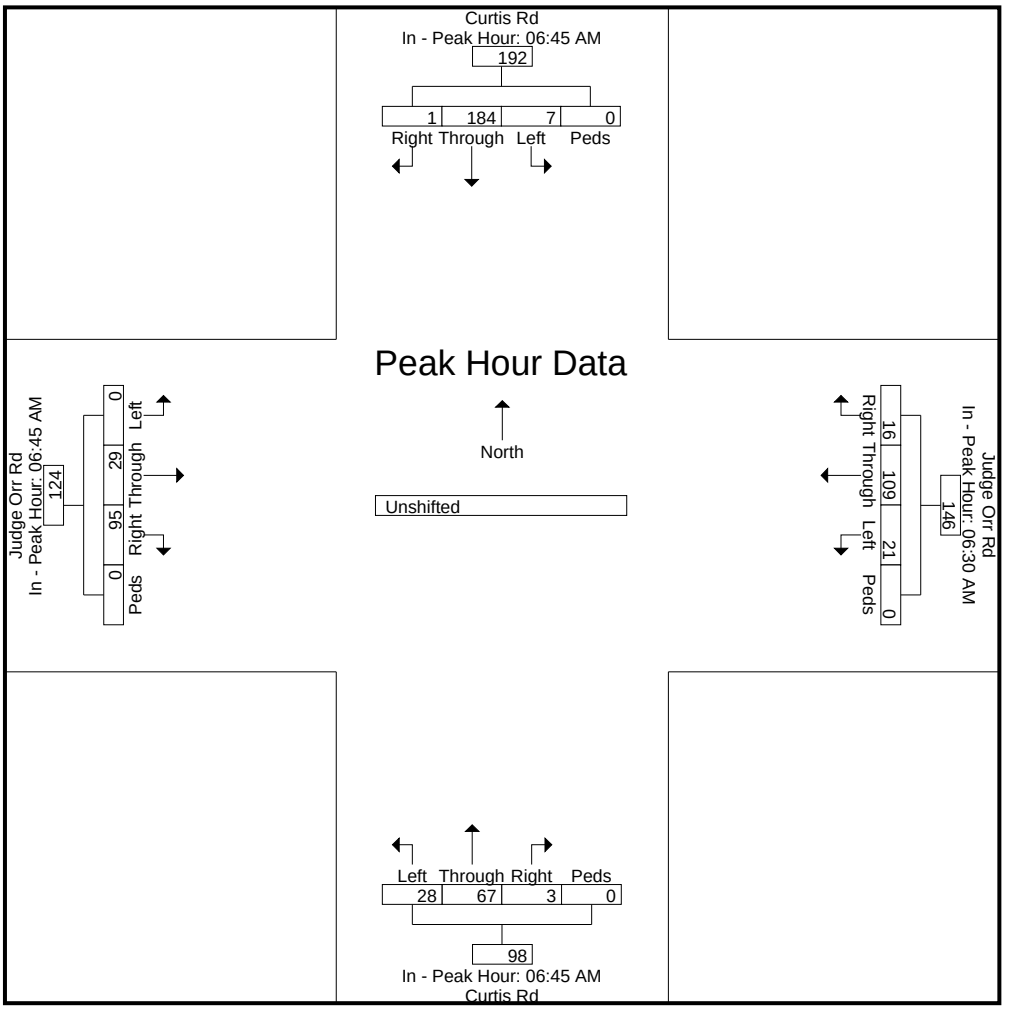


LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Judge Orr Rd AM 1-20
Site Code : 195140
Start Date : 1/8/2020
Page No : 3

	Curtis Rd Southbound					Judge Orr Rd Westbound					Curtis Rd Northbound					Judge Orr 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:																					
	06:45 AM					06:30 AM					06:45 AM					06:45 AM					
+0 mins.	**3**	43	0	0	46	3	**30**	4	0	37	5	11	**2**	0	18	0	5	24	0	29	
+15 mins.	2	46	0	0	48	**6**	26	**5**	0	37	**10**	21	1	0	**32**	0	9	21	0	30	
+30 mins.	0	44	0	0	44	6	24	3	0	33	6	**23**	0	0	29	0	**12**	**25**	0	**37**	
+45 mins.	2	**51**	**1**	0	**54**	6	29	4	0	**39**	7	12	0	0	19	0	3	25	0	28	
Total Volume	7	184	1	0	192	21	109	16	0	146	28	67	3	0	98	0	29	95	0	124	
% App. Total	3.6	95.8	0.5	0		14.4	74.7	11	0		28.6	68.4	3.1	0		0	23.4	76.6	0		
PHF	.583	.902	.250	.000	.889	.875	.908	.800	.000	.936	.700	.728	.375	.000	.766	.000	.604	.950	.000	.838	



LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Judge Orr Rd PM 1-20
Site Code : 00195140
Start Date : 1/8/2020
Page No : 1

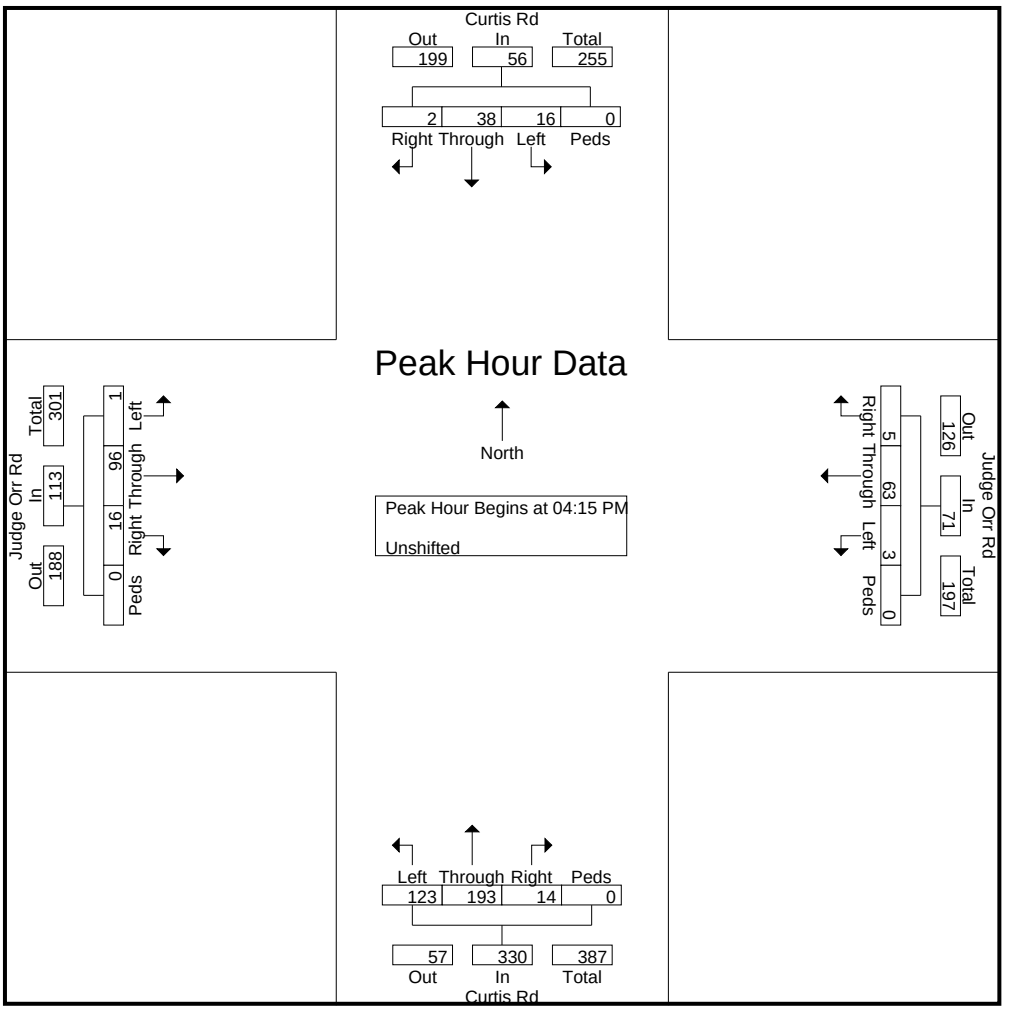
Groups Printed- Unshifted

	Curtis Rd Southbound					Judge Orr Rd Westbound					Curtis Rd Northbound					Judge Orr 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	3	12	3	0	18	0	12	3	0	15	11	36	1	0	48	1	24	10	0	35	116
04:15 PM	6	7	1	0	14	1	20	1	0	22	42	60	3	0	105	0	26	6	0	32	173
04:30 PM	3	11	0	0	14	1	15	0	0	16	19	42	4	0	65	1	27	3	0	31	126
04:45 PM	3	10	1	0	14	0	16	1	0	17	30	43	3	0	76	0	24	3	0	27	134
Total	15	40	5	0	60	2	63	5	0	70	102	181	11	0	294	2	101	22	0	125	549
05:00 PM	4	10	0	0	14	1	12	3	0	16	32	48	4	0	84	0	19	4	0	23	137
05:15 PM	4	11	0	0	15	1	13	3	0	17	19	31	4	0	54	0	31	2	0	33	119
05:30 PM	5	13	0	0	18	1	12	0	0	13	12	35	3	0	50	1	22	2	0	25	106
05:45 PM	3	10	0	0	13	1	11	1	0	13	10	33	2	0	45	1	20	2	0	23	94
Total	16	44	0	0	60	4	48	7	0	59	73	147	13	0	233	2	92	10	0	104	456
Grand Total	31	84	5	0	120	6	111	12	0	129	175	328	24	0	527	4	193	32	0	229	1005
Apprch %	25.8	70	4.2	0		4.7	86	9.3	0		33.2	62.2	4.6	0		1.7	84.3	14	0		
Total %	3.1	8.4	0.5	0	11.9	0.6	11	1.2	0	12.8	17.4	32.6	2.4	0	52.4	0.4	19.2	3.2	0	22.8	

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

File Name : Curtis Rd - Judge Orr Rd PM 1-20
Site Code : 00195140
Start Date : 1/8/2020
Page No : 2

	Curtis Rd Southbound					Judge Orr Rd Westbound					Curtis Rd Northbound					Judge Orr 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 04:15 PM																					
04:15 PM	**6**	7	**1**	0	**14**	**1**	**20**	1	0	**22**	**42**	**60**	3	0	**105**	0	26	**6**	0	**32**	**173**
04:30 PM	3	**11**	0	0	14	1	15	0	0	16	19	42	**4**	0	65	**1**	**27**	3	0	31	126
04:45 PM	3	10	1	0	14	0	16	1	0	17	30	43	3	0	76	0	24	3	0	27	134
05:00 PM	4	10	0	0	14	1	12	**3**	0	16	32	48	4	0	84	0	19	4	0	23	137
Total Volume	16	38	2	0	56	3	63	5	0	71	123	193	14	0	330	1	96	16	0	113	570
% App. Total	28.6	67.9	3.6	0		4.2	88.7	7	0		37.3	58.5	4.2	0		0.9	85	14.2	0		
PHF	.667	.864	.500	.000	1.00	.750	.788	.417	.000	.807	.732	.804	.875	.000	.786	.250	.889	.667	.000	.883	.824

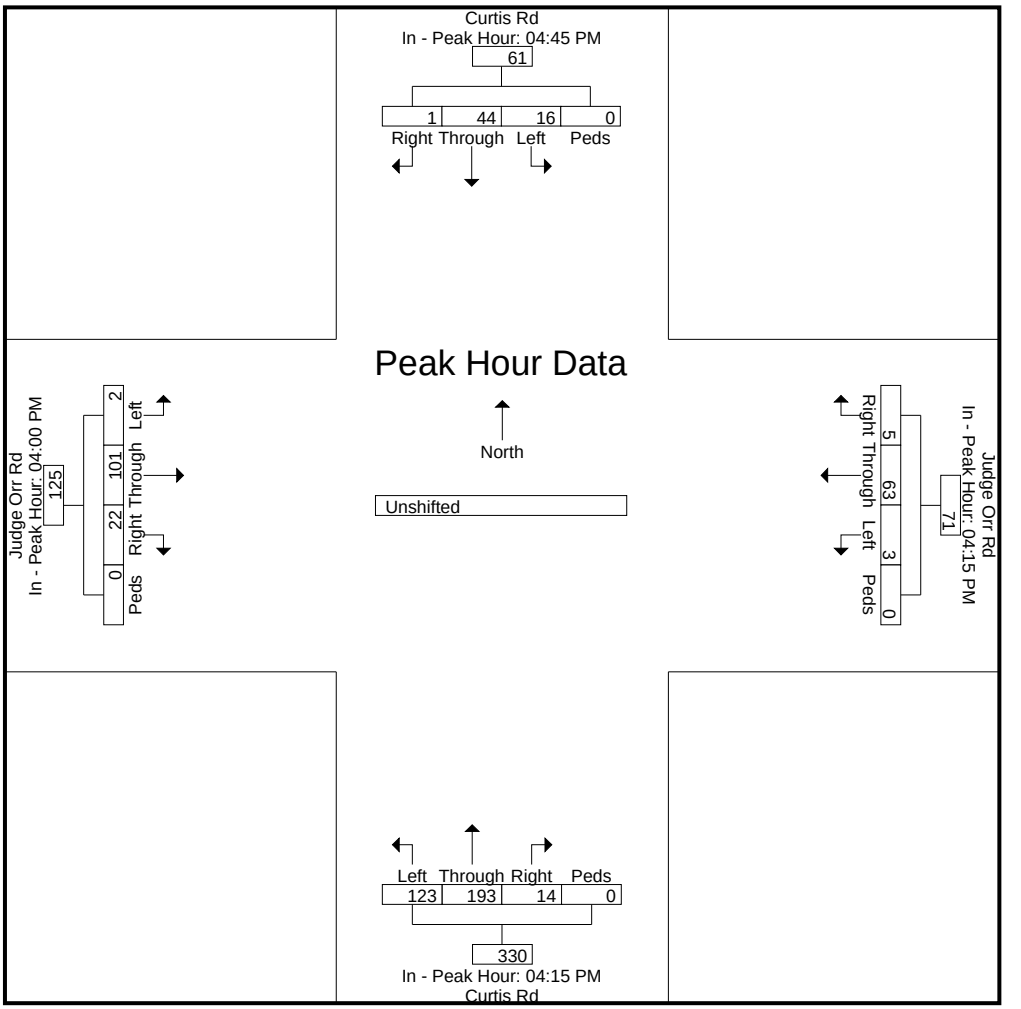


LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Judge Orr Rd PM 1-20
Site Code : 00195140
Start Date : 1/8/2020
Page No : 3

	Curtis Rd Southbound					Judge Orr Rd Westbound					Curtis Rd Northbound					Judge Orr 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:																					
	04:45 PM					04:15 PM					04:15 PM					04:00 PM					
+0 mins.	3	10	**1**	0	14	**1**	**20**	1	0	**22**	**42**	**60**	3	0	**105**	**1**	24	**10**	0	**35**	
+15 mins.	4	10	0	0	14	1	15	0	0	16	19	42	**4**	0	65	0	26	6	0	32	
+30 mins.	4	11	0	0	15	0	16	1	0	17	30	43	3	0	76	1	**27**	3	0	31	
+45 mins.	**5**	**13**	0	0	**18**	1	12	**3**	0	16	32	48	4	0	84	0	24	3	0	27	
Total Volume	16	44	1	0	61	3	63	5	0	71	123	193	14	0	330	2	101	22	0	125	
% App. Total	26.2	72.1	1.6	0		4.2	88.7	7	0		37.3	58.5	4.2	0		1.6	80.8	17.6	0		
PHF	.800	.846	.250	.000	.847	.750	.788	.417	.000	.807	.732	.804	.875	.000	.786	.500	.935	.550	.000	.893	



LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Falcon Hwy AM 1-20
Site Code : 195140
Start Date : 1/7/2020
Page No : 1

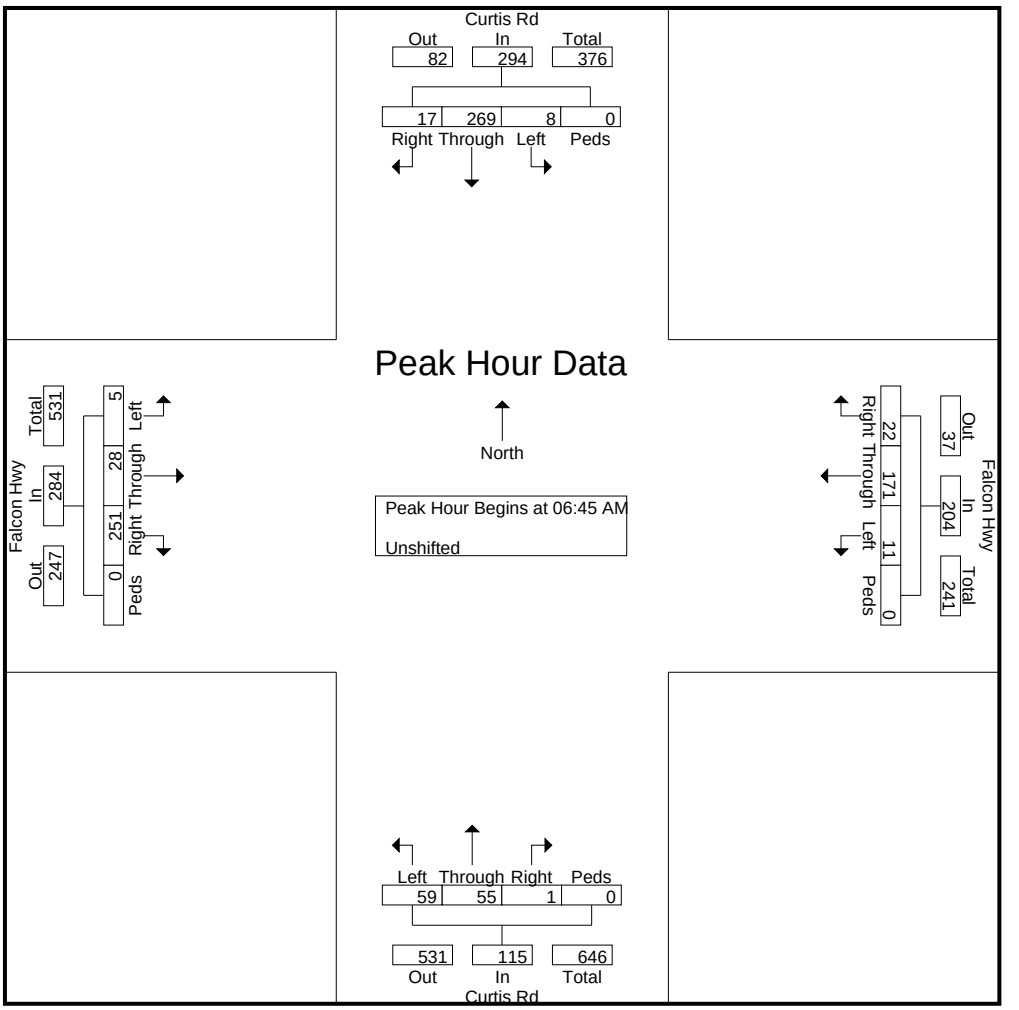
Groups Printed- Unshifted

	Curtis Rd Southbound					Falcon Hwy Westbound					Curtis Rd Northbound					Falcon Hwy 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	0	72	2	0	74	4	42	4	0	50	12	6	1	0	19	1	4	44	0	49	192
06:45 AM	0	63	2	0	65	5	35	5	0	45	14	11	1	0	26	1	7	59	0	67	203
Total	0	135	4	0	139	9	77	9	0	95	26	17	2	0	45	2	11	103	0	116	395
07:00 AM	2	65	6	0	73	0	46	8	0	54	18	26	0	0	44	3	9	58	0	70	241
07:15 AM	2	75	5	0	82	5	48	7	0	60	17	9	0	0	26	0	7	69	0	76	244
07:30 AM	4	66	4	0	74	1	42	2	0	45	10	9	0	0	19	1	5	65	0	71	209
07:45 AM	0	47	3	0	50	3	32	6	0	41	12	4	2	0	18	0	12	30	0	42	151
Total	8	253	18	0	279	9	168	23	0	200	57	48	2	0	107	4	33	222	0	259	845
08:00 AM	0	21	0	0	21	2	35	3	0	40	14	14	1	0	29	0	5	26	0	31	121
08:15 AM	3	24	4	0	31	2	37	1	0	40	19	10	0	0	29	3	15	27	0	45	145
Grand Total	11	433	26	0	470	22	317	36	0	375	116	89	5	0	210	9	64	378	0	451	1506
Apprch %	2.3	92.1	5.5	0		5.9	84.5	9.6	0		55.2	42.4	2.4	0		2	14.2	83.8	0		
Total %	0.7	28.8	1.7	0	31.2	1.5	21	2.4	0	24.9	7.7	5.9	0.3	0	13.9	0.6	4.2	25.1	0	29.9	

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

File Name : Curtis Rd - Falcon Hwy AM 1-20
Site Code : 195140
Start Date : 1/7/2020
Page No : 2

	Curtis Rd Southbound					Falcon Hwy Westbound					Curtis Rd Northbound					Falcon Hwy 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 06:45 AM																					
06:45 AM	0	63	2	0	65	**5**	35	5	0	45	14	11	**1**	0	26	1	7	59	0	67	203
07:00 AM	2	65	**6**	0	73	0	46	**8**	0	54	**18**	**26**	0	0	**44**	**3**	**9**	58	0	70	241
07:15 AM	2	**75**	5	0	**82**	5	**48**	7	0	**60**	17	9	0	0	26	0	7	**69**	0	**76**	**244**
07:30 AM	**4**	66	4	0	74	1	42	2	0	45	10	9	0	0	19	1	5	65	0	71	209
Total Volume	8	269	17	0	294	11	171	22	0	204	59	55	1	0	115	5	28	251	0	284	897
% App. Total	2.7	91.5	5.8	0		5.4	83.8	10.8	0		51.3	47.8	0.9	0		1.8	9.9	88.4	0		
PHF	.500	.897	.708	.000	.896	.550	.891	.688	.000	.850	.819	.529	.250	.000	.653	.417	.778	.909	.000	.934	.919

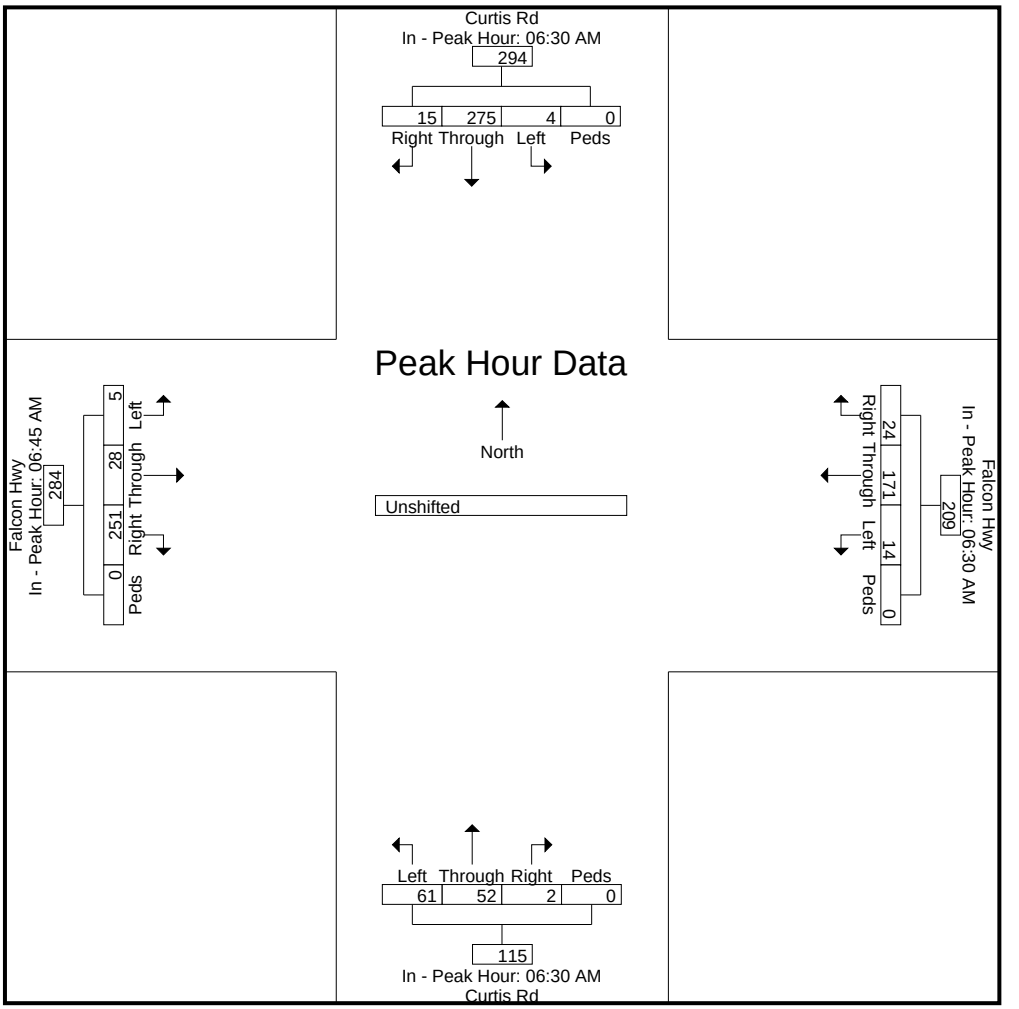


LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Falcon Hwy AM 1-20
Site Code : 195140
Start Date : 1/7/2020
Page No : 3

	Curtis Rd Southbound					Falcon Hwy Westbound					Curtis Rd Northbound					Falcon Hwy 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:																					
	06:30 AM					06:30 AM					06:30 AM					06:45 AM					
+0 mins.	0	72	2	0	74	4	42	4	0	50	12	6	**1**	0	19	1	7	59	0	67	
+15 mins.	0	63	2	0	65	**5**	35	5	0	45	14	11	1	0	26	**3**	**9**	58	0	70	
+30 mins.	**2**	65	**6**	0	73	0	46	**8**	0	54	**18**	**26**	0	0	**44**	0	7	**69**	0	**76**	
+45 mins.	2	**75**	5	0	**82**	5	**48**	7	0	**60**	17	9	0	0	26	1	5	65	0	71	
Total Volume	4	275	15	0	294	14	171	24	0	209	61	52	2	0	115	5	28	251	0	284	
% App. Total	1.4	93.5	5.1	0		6.7	81.8	11.5	0		53	45.2	1.7	0		1.8	9.9	88.4	0		
PHF	.500	.917	.625	.000	.896	.700	.891	.750	.000	.871	.847	.500	.500	.000	.653	.417	.778	.909	.000	.934	



LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Falcon Hwy PM 1-20
Site Code : 195140
Start Date : 1/7/2020
Page No : 1

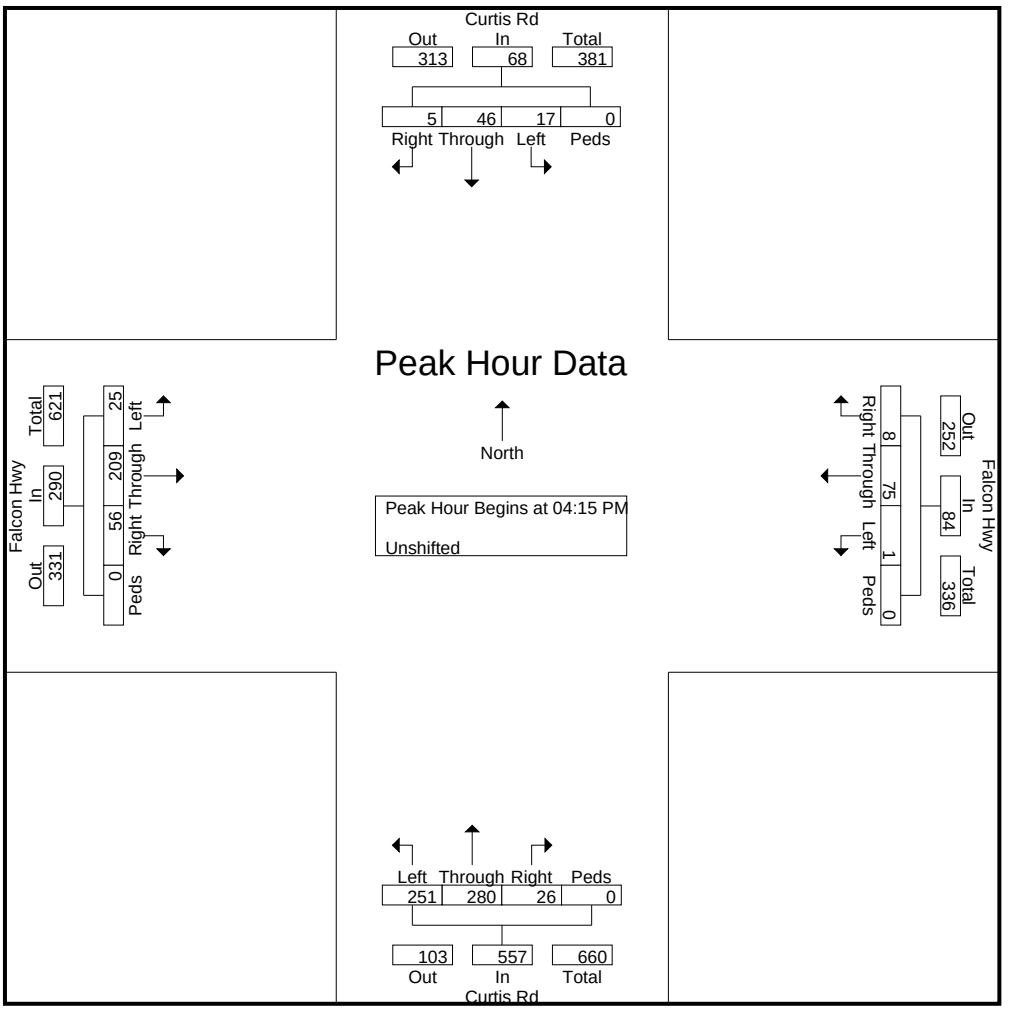
Groups Printed- Unshifted

	Curtis Rd Southbound					Falcon Hwy Westbound					Curtis Rd Northbound					Falcon Hwy 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	6	12	3	0	21	1	16	2	0	19	47	55	4	0	106	1	48	18	0	67	213
04:15 PM	6	14	1	0	21	0	14	2	0	16	68	76	8	0	152	7	47	13	0	67	256
04:30 PM	3	14	1	0	18	0	18	4	0	22	66	71	3	0	140	4	47	15	0	66	246
04:45 PM	5	11	1	0	17	1	24	1	0	26	59	70	5	0	134	8	52	14	0	74	251
Total	20	51	6	0	77	2	72	9	0	83	240	272	20	0	532	20	194	60	0	274	966
05:00 PM	3	7	2	0	12	0	19	1	0	20	58	63	10	0	131	6	63	14	0	83	246
05:15 PM	5	5	0	0	10	2	30	2	0	34	27	48	11	0	86	8	43	14	0	65	195
05:30 PM	5	5	4	0	14	2	17	2	0	21	46	38	7	0	91	8	49	22	0	79	205
05:45 PM	8	12	4	0	24	2	11	0	0	13	21	30	4	0	55	3	35	17	0	55	147
Total	21	29	10	0	60	6	77	5	0	88	152	179	32	0	363	25	190	67	0	282	793
Grand Total	41	80	16	0	137	8	149	14	0	171	392	451	52	0	895	45	384	127	0	556	1759
Apprch %	29.9	58.4	11.7	0		4.7	87.1	8.2	0		43.8	50.4	5.8	0		8.1	69.1	22.8	0		
Total %	2.3	4.5	0.9	0	7.8	0.5	8.5	0.8	0	9.7	22.3	25.6	3	0	50.9	2.6	21.8	7.2	0	31.6	

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

File Name : Curtis Rd - Falcon Hwy PM 1-20
Site Code : 195140
Start Date : 1/7/2020
Page No : 2

	Curtis Rd Southbound					Falcon Hwy Westbound					Curtis Rd Northbound					Falcon Hwy 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 04:15 PM																					
04:15 PM	**6**	**14**	1	0	**21**	0	14	2	0	16	**68**	**76**	8	0	**152**	7	47	13	0	67	**256**
04:30 PM	3	14	1	0	18	0	18	**4**	0	22	66	71	3	0	140	4	47	**15**	0	66	246
04:45 PM	5	11	1	0	17	**1**	**24**	1	0	**26**	59	70	5	0	134	**8**	52	14	0	74	251
05:00 PM	3	7	**2**	0	12	0	19	1	0	20	58	63	**10**	0	131	6	**63**	14	0	**83**	246
Total Volume	17	46	5	0	68	1	75	8	0	84	251	280	26	0	557	25	209	56	0	290	999
% App. Total	25	67.6	7.4	0		1.2	89.3	9.5	0		45.1	50.3	4.7	0		8.6	72.1	19.3	0		
PHF	.708	.821	.625	.000	.810	.250	.781	.500	.000	.808	.923	.921	.650	.000	.916	.781	.829	.933	.000	.873	.976

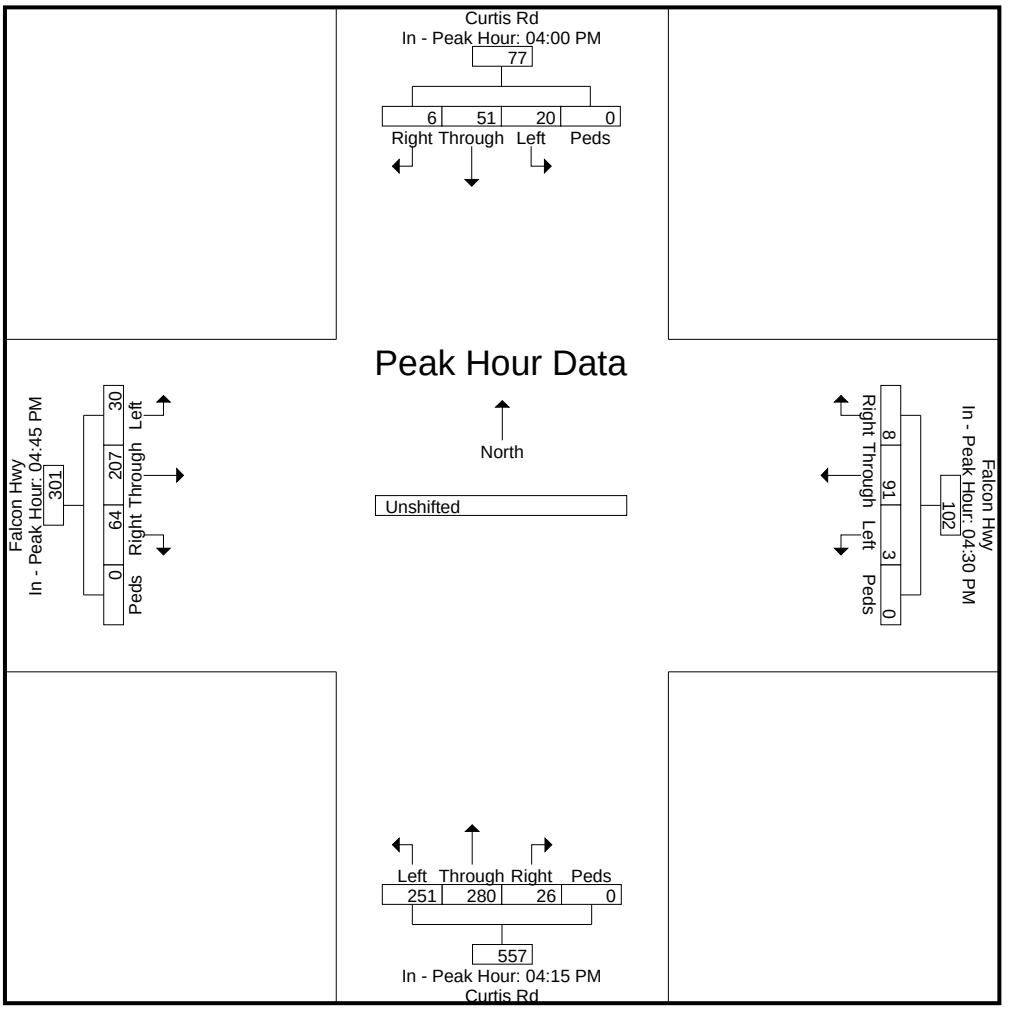


LSC Transportation Consultants, Inc.

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

File Name : Curtis Rd - Falcon Hwy PM 1-20
Site Code : 195140
Start Date : 1/7/2020
Page No : 3

	Curtis Rd Southbound					Falcon Hwy Westbound					Curtis Rd Northbound					Falcon Hwy 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:																					
	04:00 PM					04:30 PM					04:15 PM					04:45 PM					
+0 mins.	**6**	12	**3**	0	**21**	0	18	**4**	0	22	**68**	**76**	8	0	**152**	**8**	52	14	0	74	
+15 mins.	6	**14**	1	0	21	1	24	1	0	26	66	71	3	0	140	6	**63**	14	0	**83**	
+30 mins.	3	14	1	0	18	0	19	1	0	20	59	70	5	0	134	8	43	14	0	65	
+45 mins.	5	11	1	0	17	**2**	**30**	2	0	**34**	58	63	**10**	0	131	8	49	**22**	0	79	
Total Volume	20	51	6	0	77	3	91	8	0	102	251	280	26	0	557	30	207	64	0	301	
% App. Total	26	66.2	7.8	0		2.9	89.2	7.8	0		45.1	50.3	4.7	0		10	68.8	21.3	0		
PHF	.833	.911	.500	.000	.917	.375	.758	.500	.000	.750	.923	.921	.650	.000	.916	.938	.821	.727	.000	.907	



LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Falcon Hwy AM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 1

Groups Printed- Unshifted

	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
07:00 AM	11	2	0	0	13	0	25	31	0	56	0	8	1	0	9	1	2	0	0	3	81
07:15 AM	14	5	0	0	19	3	27	26	0	56	0	11	0	0	11	1	1	0	0	2	88
07:30 AM	17	6	0	0	23	0	30	26	0	56	0	13	1	0	14	0	4	0	0	4	97
07:45 AM	10	5	1	0	16	0	16	24	0	40	0	9	1	0	10	0	6	0	0	6	72
Total	52	18	1	0	71	3	98	107	0	208	0	41	3	0	44	2	13	0	0	15	338
08:00 AM	7	8	1	0	16	0	12	21	0	33	1	13	0	0	14	1	5	0	0	6	69
08:15 AM	10	8	0	0	18	0	17	25	0	42	0	14	0	0	14	0	6	0	0	6	80
08:30 AM	12	5	1	0	18	0	18	23	0	41	0	13	0	0	13	0	4	0	0	4	76
08:45 AM	13	14	1	0	28	0	16	21	0	37	0	10	0	0	10	2	5	0	0	7	82
Total	42	35	3	0	80	0	63	90	0	153	1	50	0	0	51	3	20	0	0	23	307
Grand Total	94	53	4	0	151	3	161	197	0	361	1	91	3	0	95	5	33	0	0	38	645
Apprch %	62.3	35.1	2.6	0		0.8	44.6	54.6	0		1.1	95.8	3.2	0		13.2	86.8	0	0		
Total %	14.6	8.2	0.6	0	23.4	0.5	25	30.5	0	56	0.2	14.1	0.5	0	14.7	0.8	5.1	0	0	5.9	

LSC Transportation Consultants, Inc.

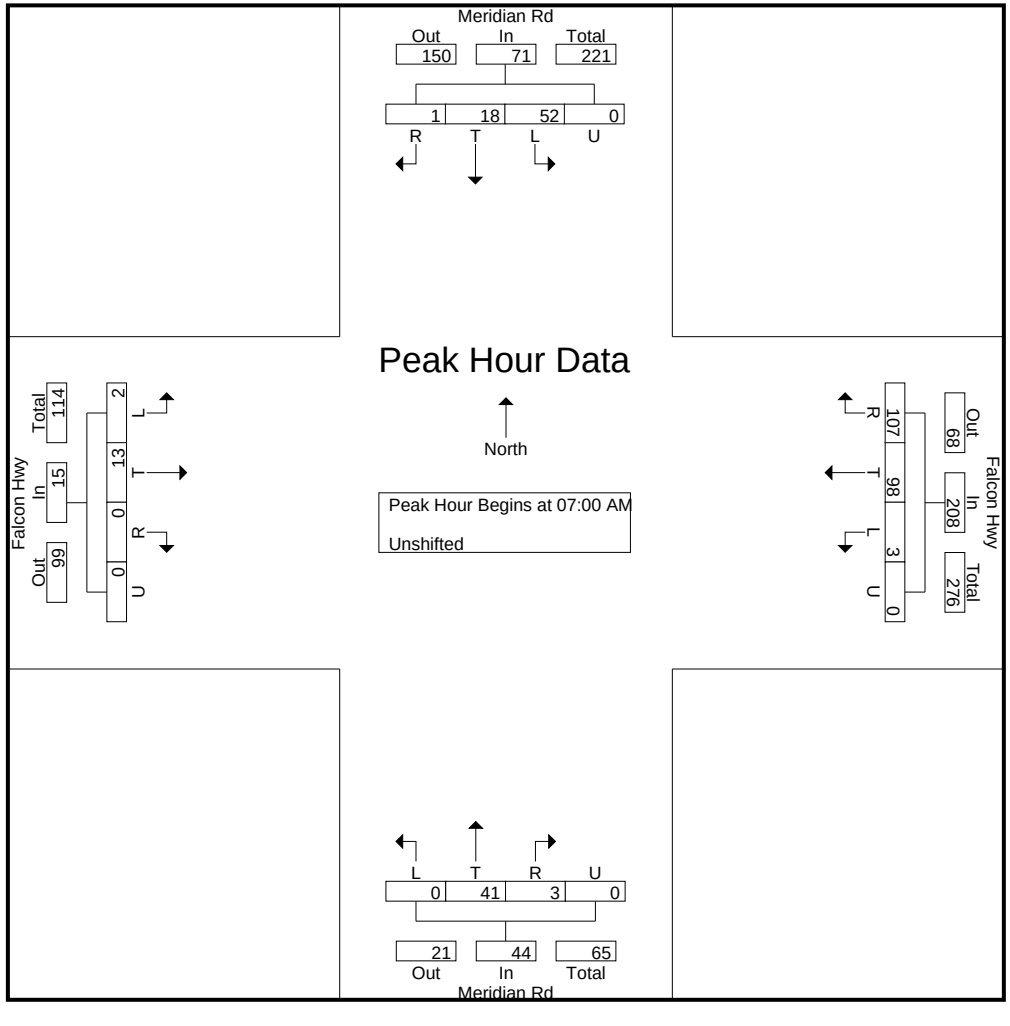
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Meridian Rd - Falcon Hwy AM
Site Code : 00195140
Start Date : 12/1/2020

	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
Peak Hour Analysis From 7:00:00 AM to 8:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	11	2	0	0	13	0	25	**31**	0	**56**	0	8	**1**	0	9	**1**	2	0	0	3	81
7:15:00 AM	14	5	0	0	19	**3**	27	26	0	56	0	11	0	0	11	1	1	0	0	2	88
7:30:00 AM	**17**	**6**	0	0	**23**	0	**30**	26	0	56	0	**13**	1	0	**14**	0	4	0	0	4	**97**
7:45:00 AM	10	5	**1**	0	16	0	16	24	0	40	0	9	1	0	10	0	**6**	0	0	**6**	72
Total Volume	52	18	1	0	71	3	98	107	0	208	0	41	3	0	44	2	13	0	0	15	338
% App. Total	73.2	25.4	1.4	0		1.4	47.1	51.4	0		0	93.2	6.8	0		13.3	86.7	0	0		
PHF	.765	.750	.250	.000	.772	.250	.817	.863	.000	.929	.000	.788	.750	.000	.786	.500	.542	.000	.000	.625	.871

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

File Name : Meridian Rd - Falcon Hwy AM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 3



LSC Transportation Consultants, Inc.

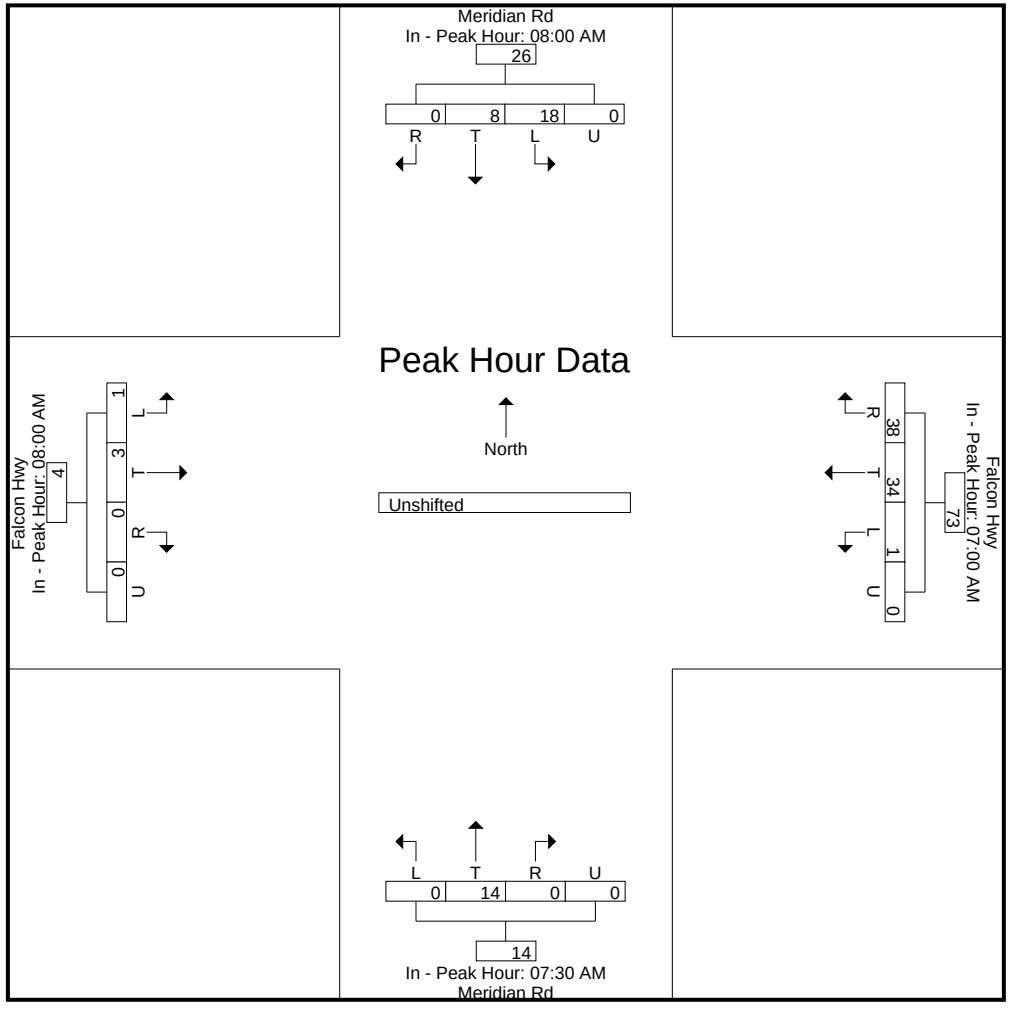
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Meridian Rd - Falcon Hwy AM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 4

	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
Peak Hour Analysis From 7:00:00 AM to 8:45:00 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	8:00:00 AM					7:00:00 AM					7:30:00 AM					8:00:00 AM					
+0 mins.	7	8	**1**	0	16	0	25	**31**	0	**56**	0	13	**1**	0	**14**	1	5	0	0	6	
+5 mins.	10	8	0	0	18	**3**	27	26	0	56	0	9	1	0	10	0	**6**	0	0	6	
+10 mins.	12	5	1	0	18	0	**30**	26	0	56	**1**	13	0	0	14	0	4	0	0	4	
+15 mins.	**13**	**14**	1	0	**28**	0	16	24	0	40	0	**14**	0	0	14	**2**	5	0	0	**7**	
Total Volume	42	35	3	0	80	3	98	107	0	208	1	49	2	0	52	3	20	0	0	23	
% App. Total	52.5	43.8	3.8	0		1.4	47.1	51.4	0		1.9	94.2	3.8	0		13	87	0	0		
PHF	.808	.625	.750	.000	.714	.250	.817	.863	.000	.929	.250	.875	.500	.000	.929	.375	.833	.000	.000	.821	

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

File Name : Meridian Rd - Falcon Hwy AM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 5



LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Falcon Hwy PM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 1

Groups Printed- Unshifted

	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
04:00 PM	37	25	1	0	63	0	8	34	0	42	0	7	2	0	9	2	9	0	0	11	125
04:15 PM	34	13	3	0	50	0	17	29	0	46	0	12	1	0	13	3	15	0	0	18	127
04:30 PM	29	16	1	0	46	0	12	34	0	46	0	15	2	0	17	3	13	0	0	16	125
04:45 PM	43	18	1	0	62	0	5	19	0	24	0	14	4	0	18	3	12	1	0	16	120
Total	143	72	6	0	221	0	42	116	0	158	0	48	9	0	57	11	49	1	0	61	497
05:00 PM	25	14	1	0	40	0	11	21	0	32	0	13	5	0	18	3	7	1	0	11	101
05:15 PM	35	16	2	0	53	0	10	24	1	35	0	17	0	0	17	1	23	1	0	25	130
05:30 PM	31	21	1	0	53	0	5	19	0	24	0	11	2	0	13	0	23	0	0	23	113
05:45 PM	22	20	0	0	42	0	5	15	0	20	0	6	1	0	7	2	12	0	0	14	83
Total	113	71	4	0	188	0	31	79	1	111	0	47	8	0	55	6	65	2	0	73	427
Grand Total	256	143	10	0	409	0	73	195	1	269	0	95	17	0	112	17	114	3	0	134	924
Apprch %	62.6	35	2.4	0		0	27.1	72.5	0.4		0	84.8	15.2	0		12.7	85.1	2.2	0		
Total %	27.7	15.5	1.1	0	44.3	0	7.9	21.1	0.1	29.1	0	10.3	1.8	0	12.1	1.8	12.3	0.3	0	14.5	

LSC Transportation Consultants, Inc.

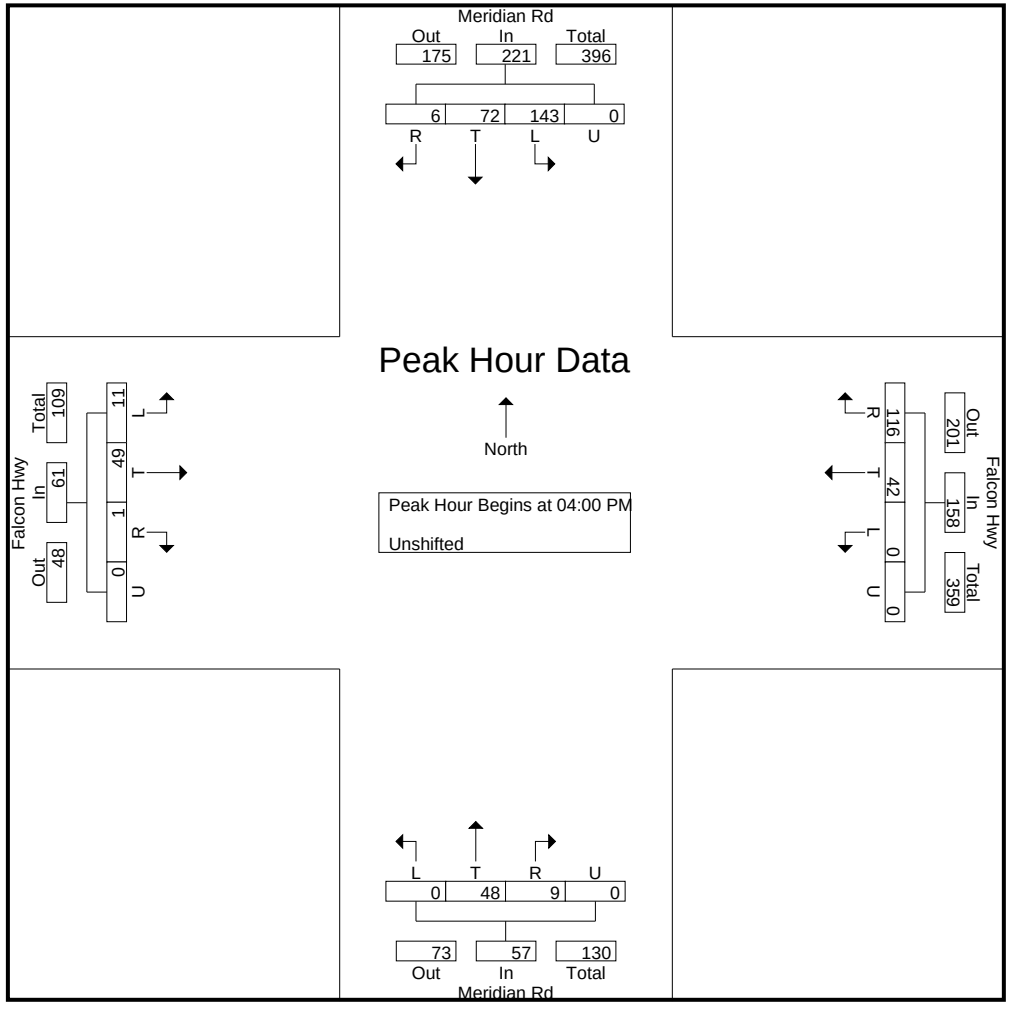
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Meridian Rd - Falcon Hwy PM
Site Code : 00195140
Start Date : 12/1/2020

	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:00:00 PM																					
4:00:00 PM	37	**25**	1	0	**63**	0	8	**34**	0	42	0	7	2	0	9	2	9	0	0	11	125
4:15:00 PM	34	13	**3**	0	50	0	**17**	29	0	**46**	0	12	1	0	13	**3**	**15**	0	0	**18**	**127**
4:30:00 PM	29	16	1	0	46	0	12	34	0	46	0	**15**	2	0	17	3	13	0	0	16	125
4:45:00 PM	**43**	18	1	0	62	0	5	19	0	24	0	14	**4**	0	**18**	3	12	**1**	0	16	120
Total Volume	143	72	6	0	221	0	42	116	0	158	0	48	9	0	57	11	49	1	0	61	497
% App. Total	64.7	32.6	2.7	0		0	26.6	73.4	0		0	84.2	15.8	0		18	80.3	1.6	0		
PHF	.831	.720	.500	.000	.877	.000	.618	.853	.000	.859	.000	.800	.563	.000	.792	.917	.817	.250	.000	.847	.978

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

File Name : Meridian Rd - Falcon Hwy PM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 3



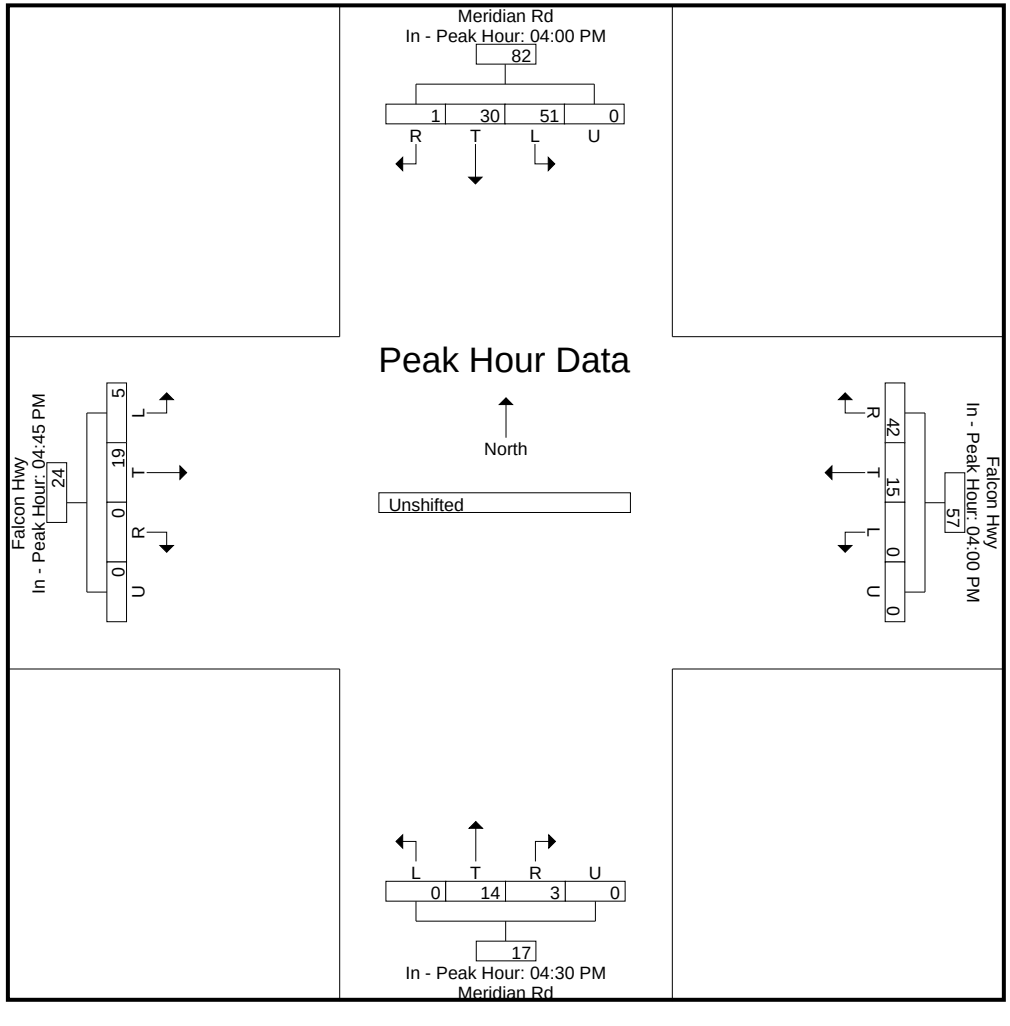
LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Meridian Rd - Falcon Hwy PM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 4

	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	4:00:00 PM					4:00:00 PM					4:30:00 PM					4:45:00 PM					
+0 mins.	37	**25**	1	0	**63**	0	8	**34**	0	42	0	15	2	0	17	**3**	12	**1**	0	16	
+5 mins.	34	13	**3**	0	50	0	**17**	29	0	**46**	0	14	4	0	**18**	3	7	1	0	11	
+10 mins.	29	16	1	0	46	0	12	34	0	46	0	13	**5**	0	18	1	**23**	1	0	**25**	
+15 mins.	**43**	18	1	0	62	0	5	19	0	24	0	**17**	0	0	17	0	23	0	0	23	
Total Volume	143	72	6	0	221	0	42	116	0	158	0	59	11	0	70	7	65	3	0	75	
% App. Total	64.7	32.6	2.7	0		0	26.6	73.4	0		0	84.3	15.7	0		9.3	86.7	4	0		
PHF	.831	.720	.500	.000	.877	.000	.618	.853	.000	.859	.000	.868	.550	.000	.972	.583	.707	.750	.000	.750	

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

File Name : Meridian Rd - Falcon Hwy PM
Site Code : 00195140
Start Date : 12/1/2020
Page No : 5



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Judge Orr Rr AM 10-19
Site Code : 194730
Start Date : 10/2/2019
Page No : 1

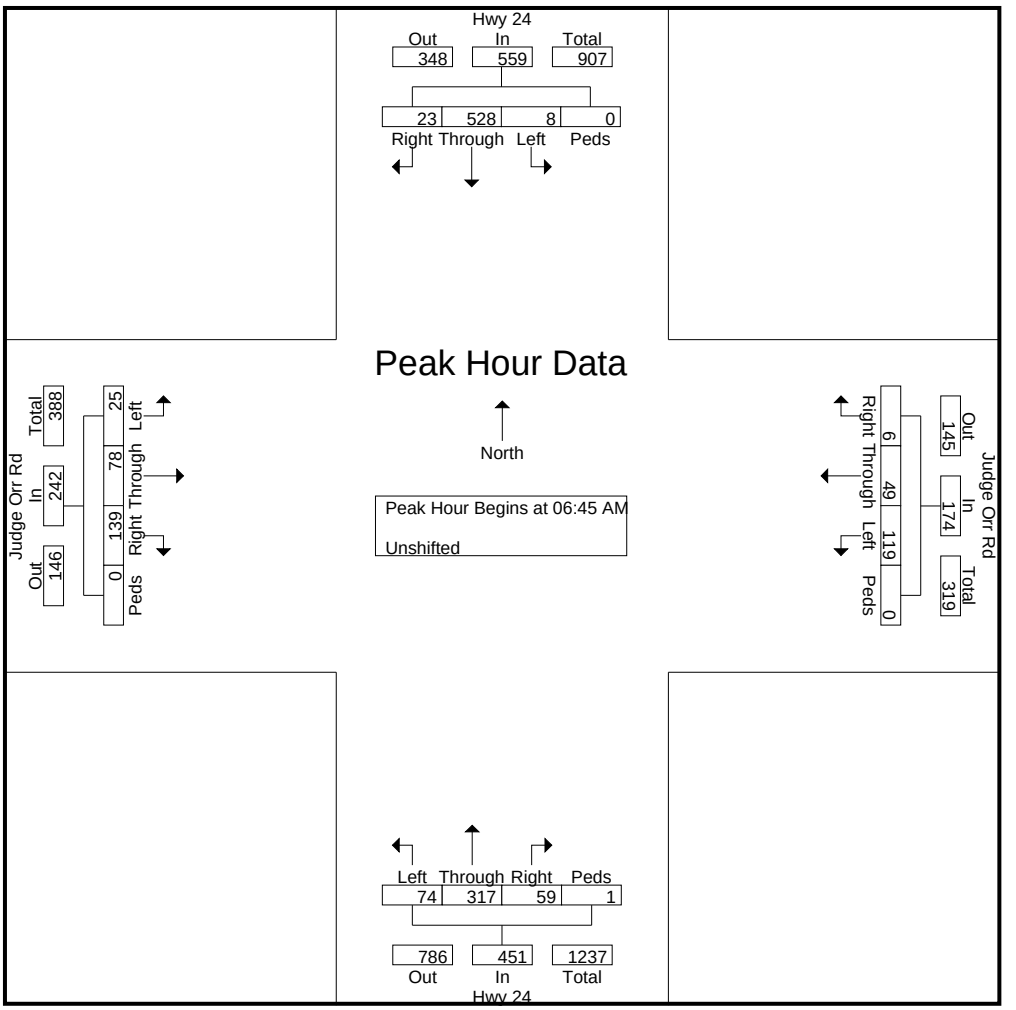
Groups Printed- Unshifted

	Hwy 24 Southbound					Judge Orr Rd Westbound					Hwy 24 Northbound					Judge Orr 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	0	104	3	0	107	40	7	1	0	48	3	63	13	0	79	2	24	37	0	63	297
06:45 AM	0	142	1	0	143	29	4	1	0	34	19	87	15	0	121	4	21	53	0	78	376
Total	0	246	4	0	250	69	11	2	0	82	22	150	28	0	200	6	45	90	0	141	673
07:00 AM	2	137	4	0	143	34	12	4	0	50	18	92	12	0	122	7	17	26	0	50	365
07:15 AM	4	117	8	0	129	33	18	0	0	51	17	77	18	0	112	10	25	29	0	64	356
07:30 AM	2	132	10	0	144	23	15	1	0	39	20	61	14	1	96	4	15	31	0	50	329
07:45 AM	0	111	5	0	116	19	6	0	0	25	16	56	19	0	91	1	16	23	0	40	272
Total	8	497	27	0	532	109	51	5	0	165	71	286	63	1	421	22	73	109	0	204	1322
08:00 AM	1	94	3	0	98	32	10	3	0	45	5	60	15	0	80	5	14	24	0	43	266
08:15 AM	2	99	1	0	102	22	5	2	0	29	11	65	13	0	89	3	9	22	0	34	254
Grand Total	11	936	35	0	982	232	77	12	0	321	109	561	119	1	790	36	141	245	0	422	2515
Apprch %	1.1	95.3	3.6	0		72.3	24	3.7	0		13.8	71	15.1	0.1		8.5	33.4	58.1	0		
Total %	0.4	37.2	1.4	0	39	9.2	3.1	0.5	0	12.8	4.3	22.3	4.7	0	31.4	1.4	5.6	9.7	0	16.8	

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

File Name : Hwy 24 - Judge Orr Rr AM 10-19
Site Code : 194730
Start Date : 10/2/2019
Page No : 2

	Hwy 24 Southbound					Judge Orr Rd Westbound					Hwy 24 Northbound					Judge Orr 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 06:45 AM																					
06:45 AM	0	**142**	1	0	143	29	4	1	0	34	19	87	15	0	121	4	21	**53**	0	**78**	**376**
07:00 AM	2	137	4	0	143	**34**	12	**4**	0	50	18	**92**	12	0	**122**	7	17	26	0	50	365
07:15 AM	**4**	117	8	0	129	33	**18**	0	0	**51**	17	77	**18**	0	112	**10**	**25**	29	0	64	356
07:30 AM	2	132	**10**	0	**144**	23	15	1	0	39	**20**	61	14	**1**	96	4	15	31	0	50	329
Total Volume	8	528	23	0	559	119	49	6	0	174	74	317	59	1	451	25	78	139	0	242	1426
% App. Total	1.4	94.5	4.1	0		68.4	28.2	3.4	0		16.4	70.3	13.1	0.2		10.3	32.2	57.4	0		
PHF	.500	.930	.575	.000	.970	.875	.681	.375	.000	.853	.925	.861	.819	.250	.924	.625	.780	.656	.000	.776	.948

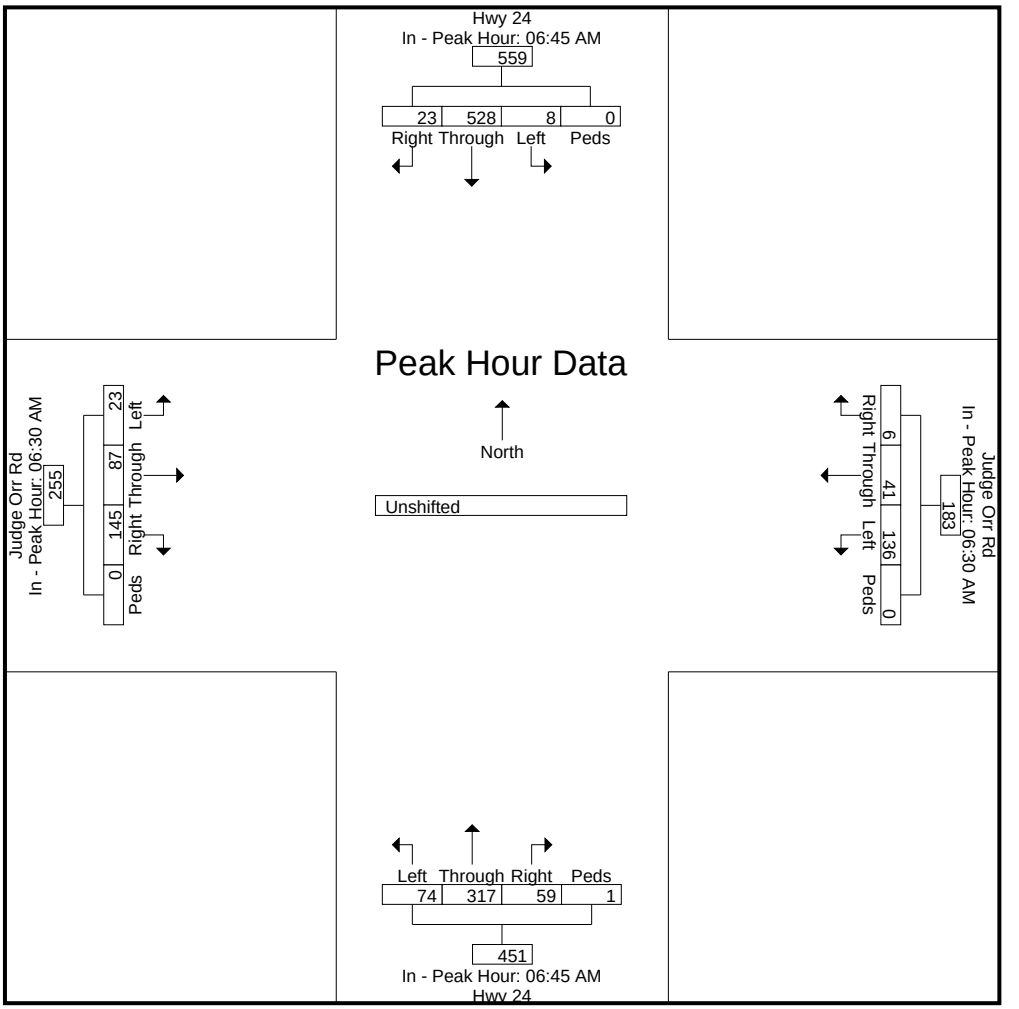


LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Judge Orr Rr AM 10-19
Site Code : 194730
Start Date : 10/2/2019
Page No : 3

	Hwy 24 Southbound					Judge Orr Rd Westbound					Hwy 24 Northbound					Judge Orr 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:																					
	06:45 AM					06:30 AM					06:45 AM					06:30 AM					
+0 mins.	0	**142**	1	0	143	**40**	7	1	0	48	19	87	15	0	121	2	24	37	0	63	
+15 mins.	2	137	4	0	143	29	4	1	0	34	18	**92**	12	0	**122**	4	21	**53**	0	**78**	
+30 mins.	**4**	117	8	0	129	34	12	**4**	0	50	17	77	**18**	0	112	7	17	26	0	50	
+45 mins.	2	132	**10**	0	**144**	33	**18**	0	0	**51**	**20**	61	14	**1**	96	**10**	**25**	29	0	64	
Total Volume	8	528	23	0	559	136	41	6	0	183	74	317	59	1	451	23	87	145	0	255	
% App. Total	1.4	94.5	4.1	0		74.3	22.4	3.3	0		16.4	70.3	13.1	0.2		9	34.1	56.9	0		
PHF	.500	.930	.575	.000	.970	.850	.569	.375	.000	.897	.925	.861	.819	.250	.924	.575	.870	.684	.000	.817	



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Judge Orr Rr PM 10-19
Site Code : 194730
Start Date : 10/2/2019
Page No : 1

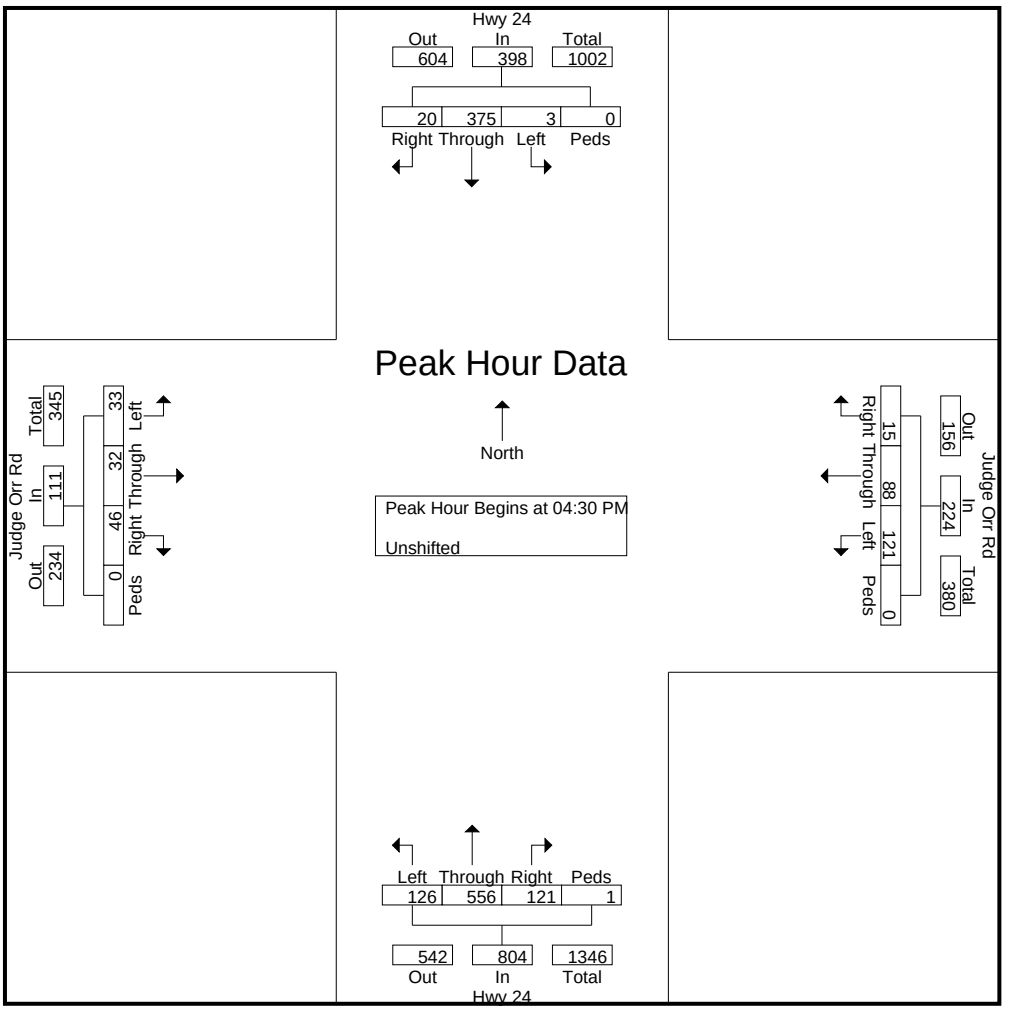
Groups Printed- Unshifted

	Hwy 24 Southbound					Judge Orr Rd Westbound					Hwy 24 Northbound					Judge Orr 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	0	84	4	0	88	42	16	6	0	64	21	138	26	0	185	4	11	9	0	24	361
04:15 PM	0	101	3	0	104	27	16	2	0	45	32	137	33	0	202	6	9	17	0	32	383
04:30 PM	2	92	8	0	102	24	29	3	0	56	38	116	26	0	180	8	7	15	0	30	368
04:45 PM	0	100	2	0	102	33	23	6	0	62	31	136	29	1	197	11	9	13	0	33	394
Total	2	377	17	0	396	126	84	17	0	227	122	527	114	1	764	29	36	54	0	119	1506
05:00 PM	0	83	5	0	88	27	18	6	0	51	34	162	33	0	229	7	6	9	0	22	390
05:15 PM	1	100	5	0	106	37	18	0	0	55	23	142	33	0	198	7	10	9	0	26	385
05:30 PM	2	90	2	0	94	24	9	3	0	36	32	143	32	0	207	4	6	10	0	20	357
05:45 PM	0	86	3	0	89	54	8	1	0	63	25	127	16	0	168	5	12	17	0	34	354
Total	3	359	15	0	377	142	53	10	0	205	114	574	114	0	802	23	34	45	0	102	1486
Grand Total	5	736	32	0	773	268	137	27	0	432	236	1101	228	1	1566	52	70	99	0	221	2992
Apprch %	0.6	95.2	4.1	0		62	31.7	6.2	0		15.1	70.3	14.6	0.1		23.5	31.7	44.8	0		
Total %	0.2	24.6	1.1	0	25.8	9	4.6	0.9	0	14.4	7.9	36.8	7.6	0	52.3	1.7	2.3	3.3	0	7.4	

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

File Name : Hwy 24 - Judge Orr Rr PM 10-19
Site Code : 194730
Start Date : 10/2/2019
Page No : 2

	Hwy 24 Southbound					Judge Orr Rd Westbound					Hwy 24 Northbound					Judge Orr 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 04:30 PM																					
04:30 PM	**2**	92	**8**	0	102	24	**29**	3	0	56	**38**	116	26	0	180	8	7	**15**	0	30	368
04:45 PM	0	**100**	2	0	102	33	23	**6**	0	**62**	31	136	29	**1**	197	**11**	9	13	0	**33**	**394**
05:00 PM	0	83	5	0	88	27	18	6	0	51	34	**162**	**33**	0	**229**	7	6	9	0	22	390
05:15 PM	1	100	5	0	**106**	**37**	18	0	0	55	23	142	33	0	198	7	**10**	9	0	26	385
Total Volume	3	375	20	0	398	121	88	15	0	224	126	556	121	1	804	33	32	46	0	111	1537
% App. Total	0.8	94.2	5	0		54	39.3	6.7	0		15.7	69.2	15	0.1		29.7	28.8	41.4	0		
PHF	.375	.938	.625	.000	.939	.818	.759	.625	.000	.903	.829	.858	.917	.250	.878	.750	.800	.767	.000	.841	.975

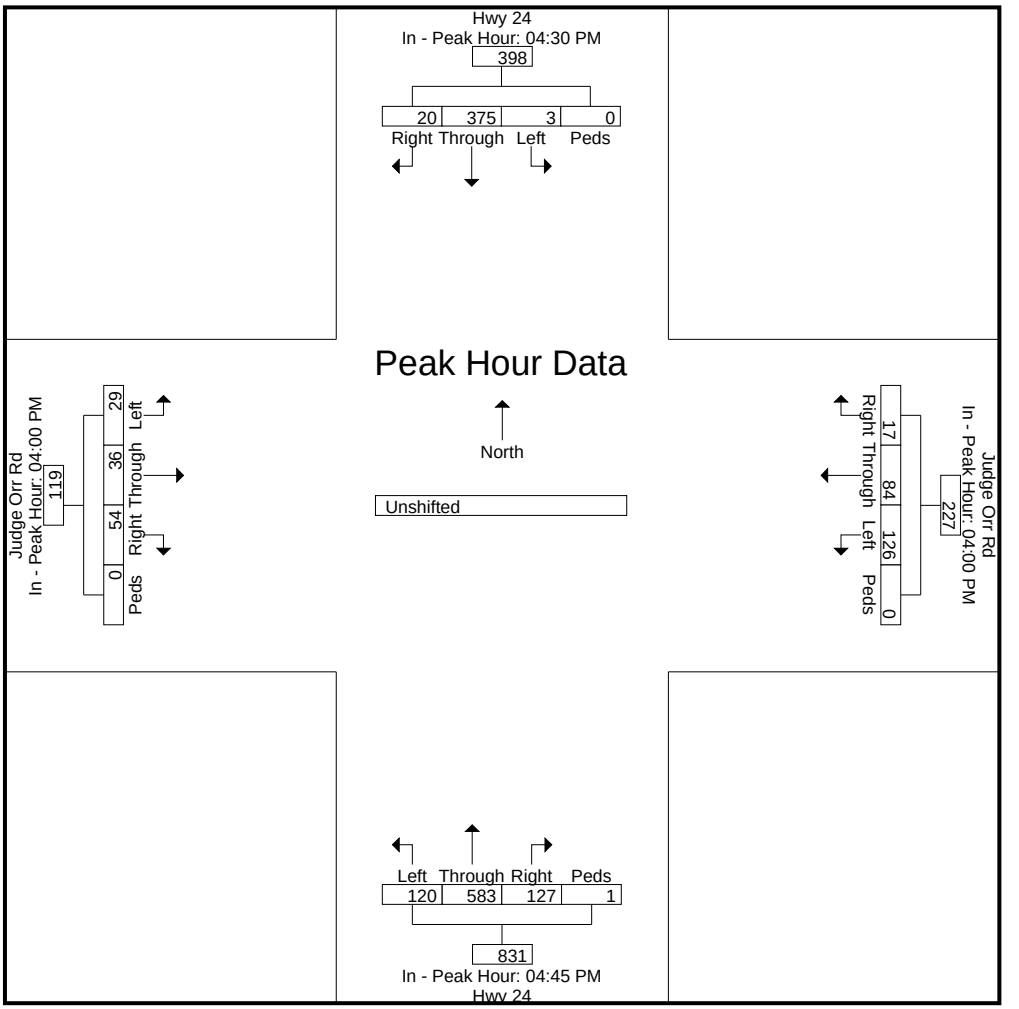


LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Judge Orr Rr PM 10-19
Site Code : 194730
Start Date : 10/2/2019
Page No : 3

	Hwy 24 Southbound					Judge Orr Rd Westbound					Hwy 24 Northbound					Judge Orr 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:																					
	04:30 PM					04:00 PM					04:45 PM					04:00 PM					
+0 mins.	**2**	92	**8**	0	102	**42**	16	**6**	0	**64**	31	136	29	**1**	197	4	**11**	9	0	24	
+15 mins.	0	**100**	2	0	102	27	16	2	0	45	**34**	**162**	**33**	0	**229**	6	9	**17**	0	32	
+30 mins.	0	83	5	0	88	24	**29**	3	0	56	23	142	33	0	198	8	7	15	0	30	
+45 mins.	1	100	5	0	**106**	33	23	6	0	62	32	143	32	0	207	**11**	9	13	0	**33**	
Total Volume	3	375	20	0	398	126	84	17	0	227	120	583	127	1	831	29	36	54	0	119	
% App. Total	0.8	94.2	5	0		55.5	37	7.5	0		14.4	70.2	15.3	0.1		24.4	30.3	45.4	0		
PHF	.375	.938	.625	.000	.939	.750	.724	.708	.000	.887	.882	.900	.962	.250	.907	.659	.818	.794	.000	.902	



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

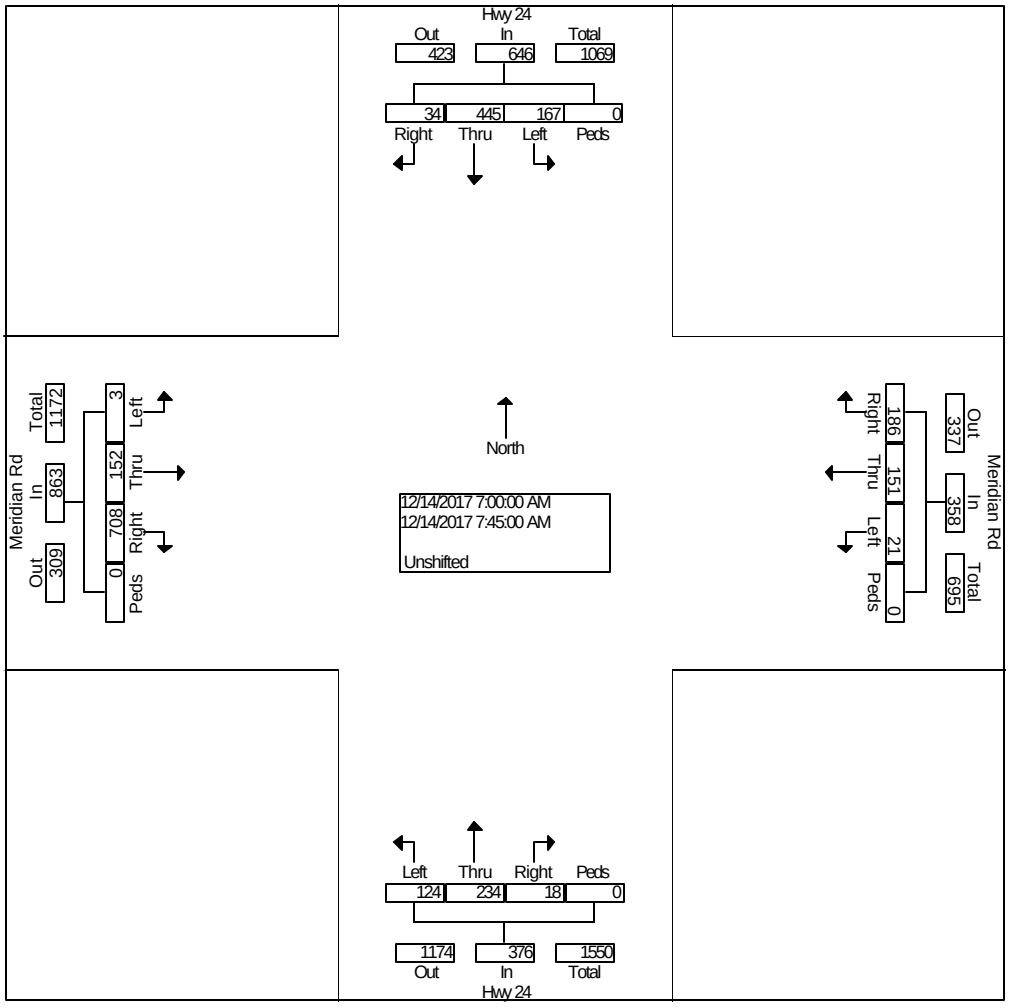
Groups Printed- Unshifted

	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

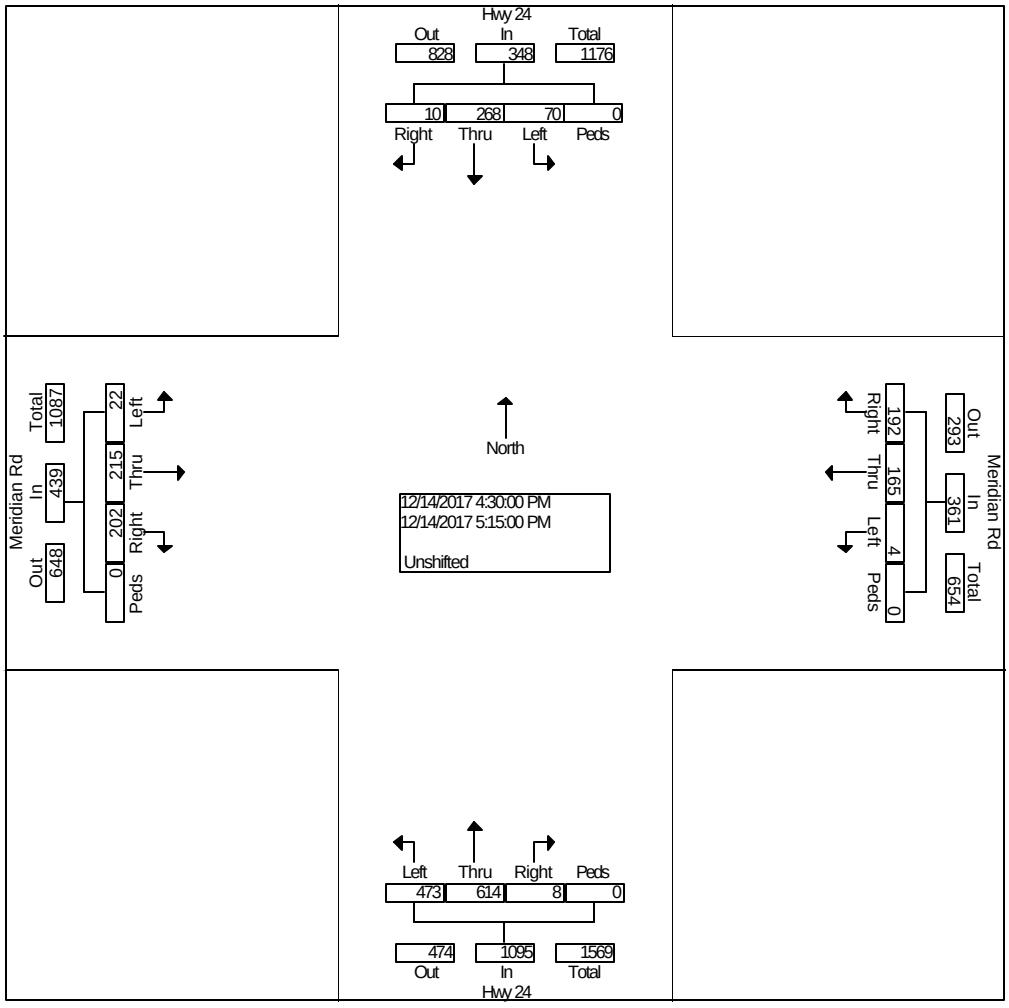
Groups Printed- Unshifted

	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	



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Stapleton Rd AM 11-18
Site Code : 184750
Start Date : 11/15/2018
Page No : 1

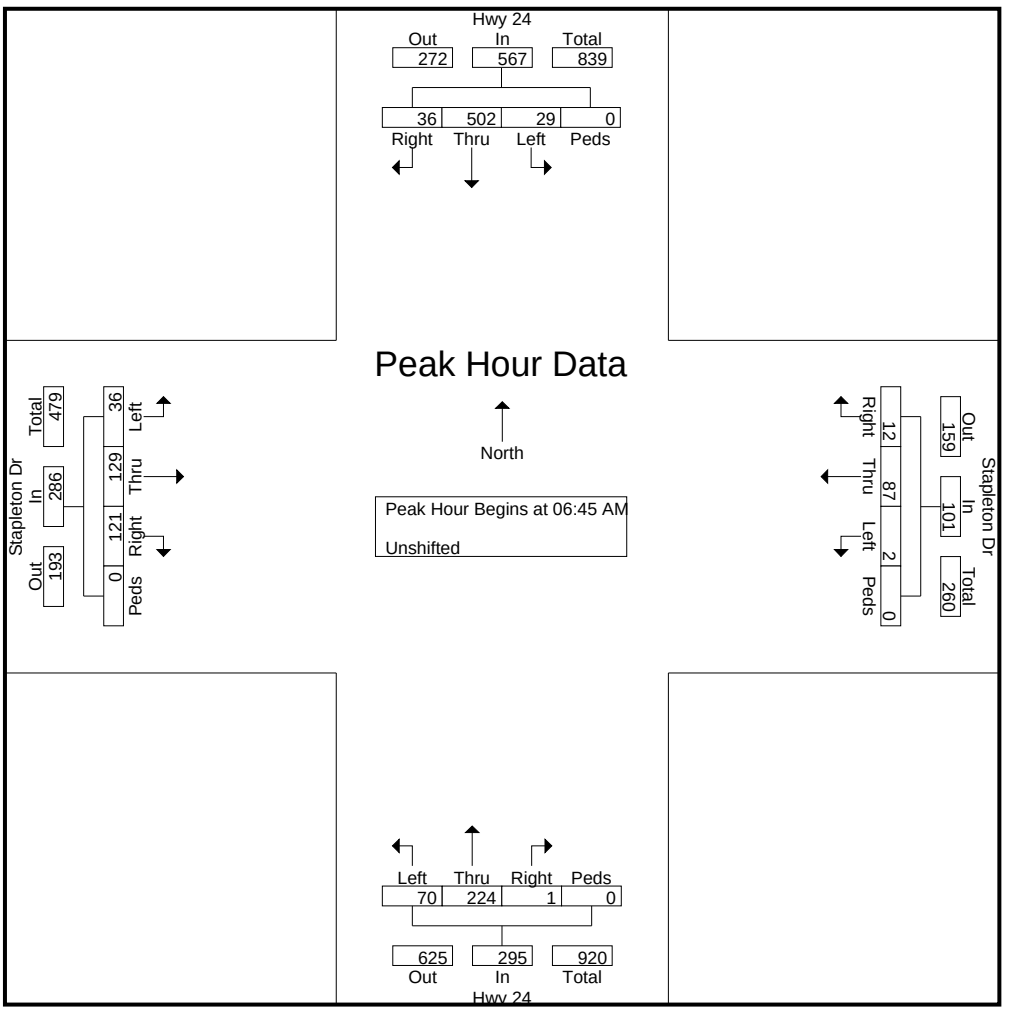
Groups Printed- Unshifted

	Hwy 24 Southbound				Stapleton Dr Westbound				Hwy 24 Northbound				Stapleton Dr Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
06:30 AM	4	120	3	0	0	11	3	0	5	39	0	0	2	30	26	0	243
06:45 AM	7	123	7	0	0	12	4	0	13	55	0	0	11	25	33	0	290
Total	11	243	10	0	0	23	7	0	18	94	0	0	13	55	59	0	533
07:00 AM	9	125	8	0	1	22	4	0	24	70	0	0	12	37	33	0	345
07:15 AM	7	139	11	0	0	29	4	0	18	51	0	0	10	39	27	0	335
07:30 AM	6	115	10	0	1	24	0	0	15	48	1	0	3	28	28	0	279
07:45 AM	6	106	9	0	0	11	4	0	6	43	1	0	5	19	19	0	229
Total	28	485	38	0	2	86	12	0	63	212	2	0	30	123	107	0	1188
08:00 AM	2	74	6	0	4	11	2	0	13	66	0	0	1	10	17	0	206
08:15 AM	3	86	5	0	3	9	0	0	8	60	2	0	2	9	13	0	200
Grand Total	44	888	59	0	9	129	21	0	102	432	4	0	46	197	196	0	2127
Apprch %	4.4	89.6	6	0	5.7	81.1	13.2	0	19	80.3	0.7	0	10.5	44.9	44.6	0	
Total %	2.1	41.7	2.8	0	0.4	6.1	1	0	4.8	20.3	0.2	0	2.2	9.3	9.2	0	

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

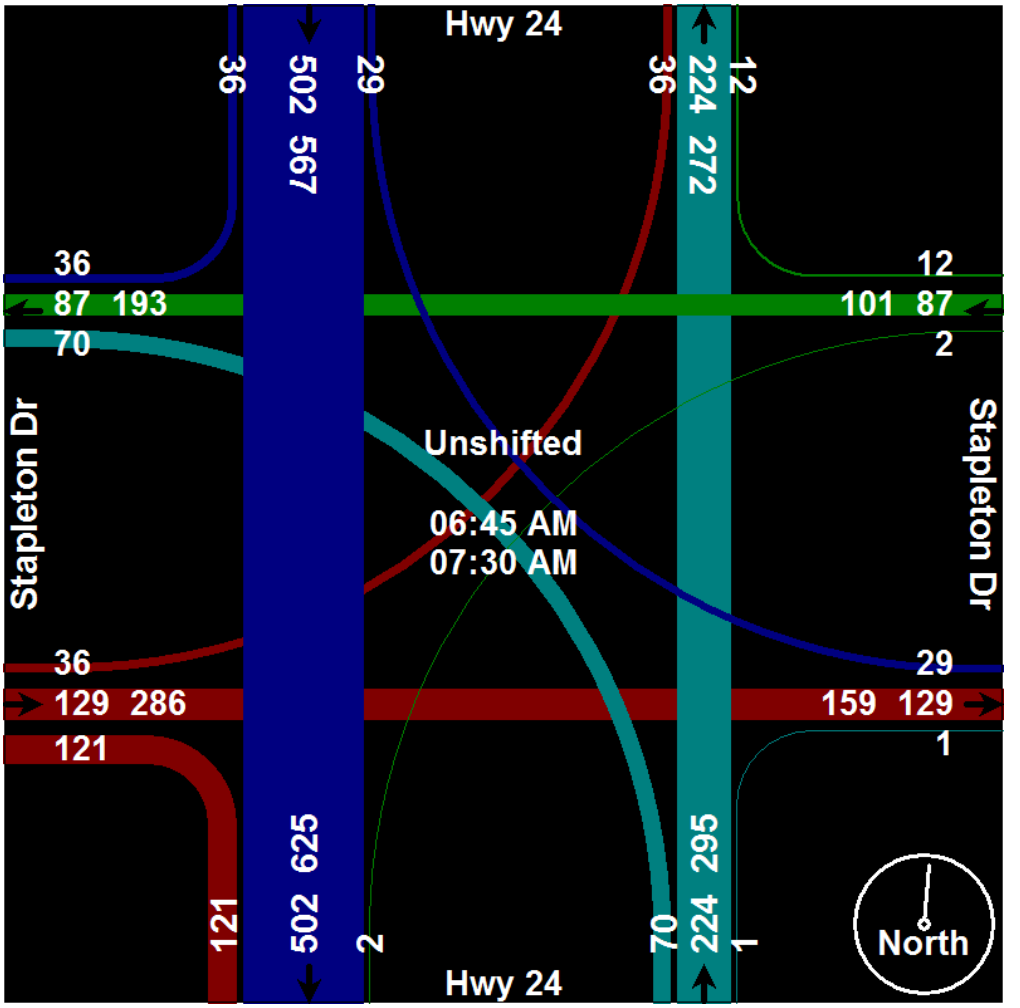
File Name : Hwy 24 - Stapleton Rd AM 11-18
Site Code : 184750
Start Date : 11/15/2018
Page No : 2

	Hwy 24 Southbound					Stapleton Dr Westbound					Hwy 24 Northbound					Stapleton Dr 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 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	7	123	7	0	137	0	12	**4**	0	16	13	55	0	0	68	11	25	**33**	0	69	290
07:00 AM	**9**	125	8	0	142	**1**	22	4	0	27	**24**	**70**	0	0	**94**	**12**	37	33	0	**82**	**345**
07:15 AM	7	**139**	**11**	0	**157**	0	**29**	4	0	**33**	18	51	0	0	69	10	**39**	27	0	76	335
07:30 AM	6	115	10	0	131	1	24	0	0	25	15	48	**1**	0	64	3	28	28	0	59	279
Total Volume	29	502	36	0	567	2	87	12	0	101	70	224	1	0	295	36	129	121	0	286	1249
% App. Total	5.1	88.5	6.3	0		2	86.1	11.9	0		23.7	75.9	0.3	0		12.6	45.1	42.3	0		
PHF	.806	.903	.818	.000	.903	.500	.750	.750	.000	.765	.729	.800	.250	.000	.785	.750	.827	.917	.000	.872	.905



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

File Name : Hwy 24 - Stapleton Rd AM 11-18
Site Code : 184750
Start Date : 11/15/2018
Page No : 3



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Stapleton Rd PM 11-18
Site Code : 00184750
Start Date : 11/28/2018
Page No : 1

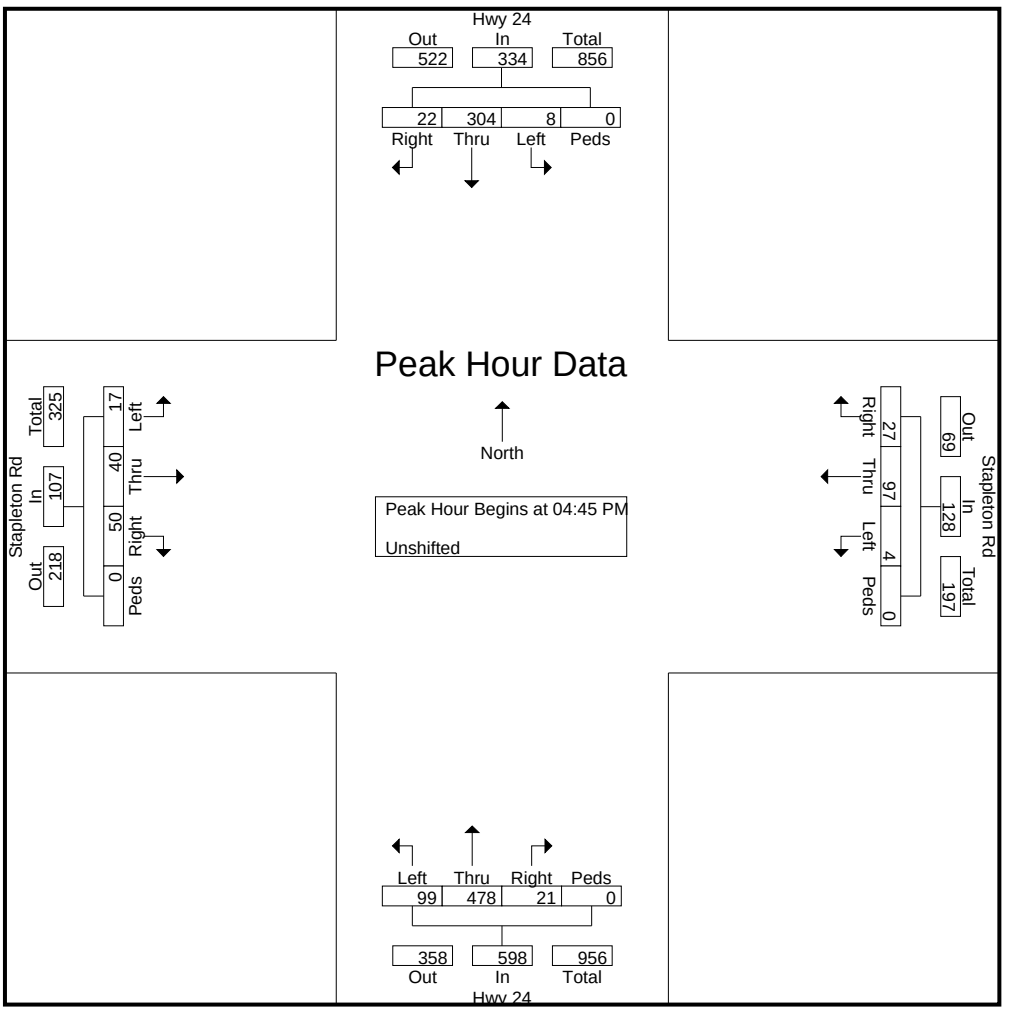
Groups Printed- Unshifted

	Hwy 24 Southbound				Stapleton Rd Westbound				Hwy 24 Northbound				Stapleton Rd Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
04:00 PM	4	73	11	0	1	20	6	0	20	127	5	0	5	6	11	0	289
04:15 PM	1	73	9	0	3	31	5	0	13	100	5	1	7	5	9	0	262
04:30 PM	3	85	3	0	1	23	7	0	28	96	4	0	2	6	13	0	271
04:45 PM	4	73	9	0	1	29	7	0	32	98	6	0	5	7	14	0	285
Total	12	304	32	0	6	103	25	0	93	421	20	1	19	24	47	0	1107
05:00 PM	2	94	2	0	0	22	5	0	18	138	4	0	0	10	16	0	311
05:15 PM	1	74	7	0	2	23	9	0	29	109	7	0	7	15	13	0	296
05:30 PM	1	63	4	0	1	23	6	0	20	133	4	0	5	8	7	0	275
05:45 PM	4	55	4	0	1	15	6	0	18	136	5	0	4	8	6	0	262
Total	8	286	17	0	4	83	26	0	85	516	20	0	16	41	42	0	1144
Grand Total	20	590	49	0	10	186	51	0	178	937	40	1	35	65	89	0	2251
Apprch %	3	89.5	7.4	0	4	75.3	20.6	0	15.4	81.1	3.5	0.1	18.5	34.4	47.1	0	
Total %	0.9	26.2	2.2	0	0.4	8.3	2.3	0	7.9	41.6	1.8	0	1.6	2.9	4	0	

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

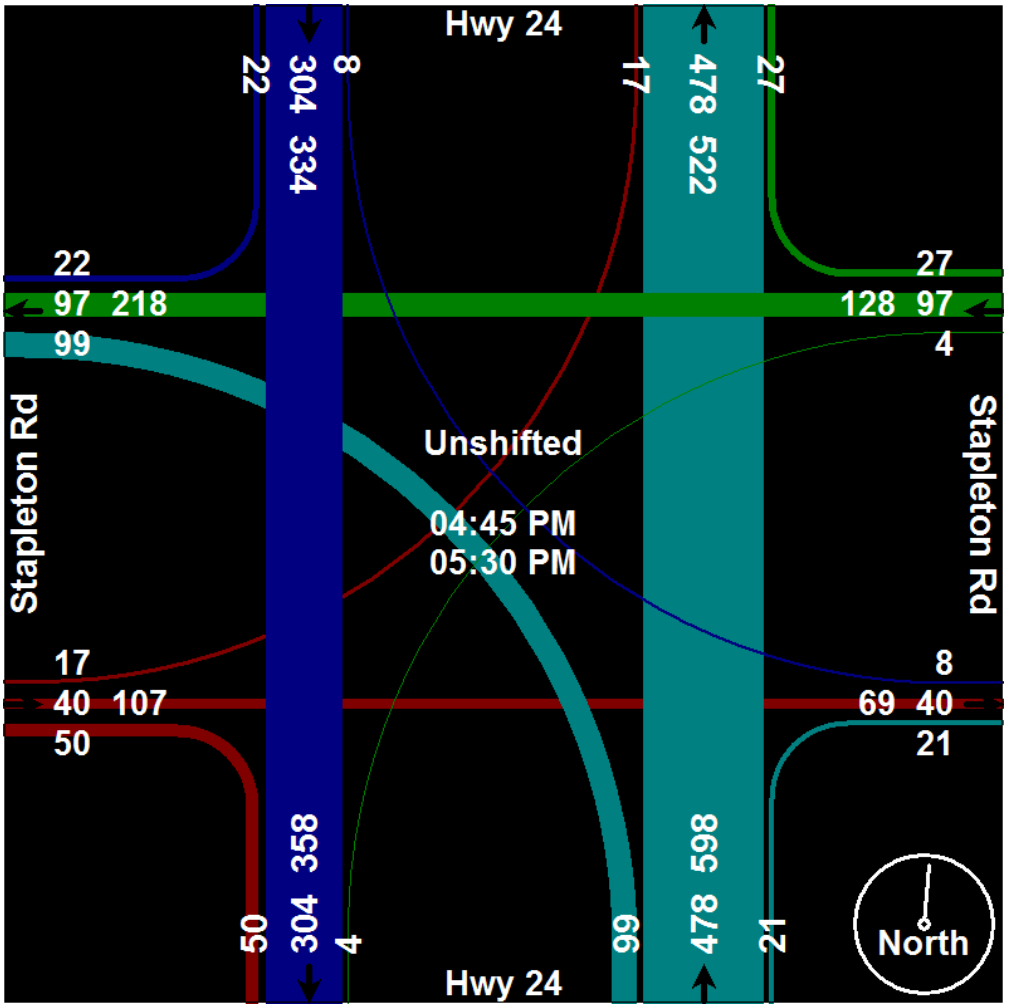
File Name : Hwy 24 - Stapleton Rd PM 11-18
Site Code : 00184750
Start Date : 11/28/2018
Page No : 2

	Hwy 24 Southbound					Stapleton Rd Westbound					Hwy 24 Northbound					Stapleton 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 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**4**	73	**9**	0	86	1	**29**	7	0	**37**	**32**	98	6	0	136	5	7	14	0	26	285
05:00 PM	2	**94**	2	0	**98**	0	22	5	0	27	18	**138**	4	0	**160**	0	10	**16**	0	26	**311**
05:15 PM	1	74	7	0	82	**2**	23	**9**	0	34	29	109	**7**	0	145	**7**	**15**	13	0	**35**	296
05:30 PM	1	63	4	0	68	1	23	6	0	30	20	133	4	0	157	5	8	7	0	20	275
Total Volume	8	304	22	0	334	4	97	27	0	128	99	478	21	0	598	17	40	50	0	107	1167
% App. Total	2.4	91	6.6	0		3.1	75.8	21.1	0		16.6	79.9	3.5	0		15.9	37.4	46.7	0		
PHF	.500	.809	.611	.000	.852	.500	.836	.750	.000	.865	.773	.866	.750	.000	.934	.607	.667	.781	.000	.764	.938



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

File Name : Hwy 24 - Stapleton Rd PM 11-18
Site Code : 00184750
Start Date : 11/28/2018
Page No : 3

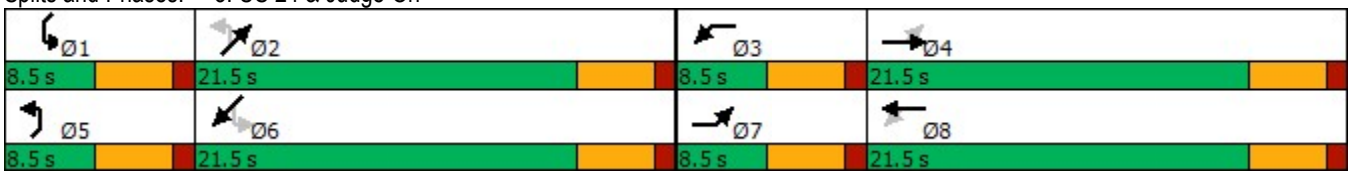


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	25	78	139	119	49	6	74	317	59	8	528	23
Future Volume (vph)	25	78	139	119	49	6	74	317	59	8	528	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	850		0	700		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			280			300		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.923			0.995			0.977			0.994	
Flt Protected		0.995			0.967		0.950			0.950		
Satd. Flow (prot)	0	1711	0	0	1792	0	1770	1820	0	1770	1852	0
Flt Permitted		0.952			0.576		0.225			0.473		
Satd. Flow (perm)	0	1637	0	0	1068	0	419	1820	0	881	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		124			3			16			4	
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			719			1315			2758	
Travel Time (s)		12.1			10.9			16.3			34.2	
Peak Hour Factor	0.87	0.87	0.87	0.83	0.83	0.83	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	29	90	160	143	59	7	80	345	64	9	568	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	0	0	209	0	80	409	0	9	593	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	8.5	21.5		8.5	21.5		8.5	21.5		8.5	21.5	
Total Split (%)	14.2%	35.8%		14.2%	35.8%		14.2%	35.8%		14.2%	35.8%	
Maximum Green (s)	4.0	17.0		4.0	17.0		4.0	17.0		4.0	17.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		12.4			12.4		22.5	21.8		20.9	18.8	
Actuated g/C Ratio		0.28			0.28		0.50	0.48		0.46	0.42	
v/c Ratio		0.52			0.70		0.24	0.46		0.02	0.77	
Control Delay		11.8			29.5		8.3	11.3		6.6	24.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		11.8			29.5		8.3	11.3		6.6	24.5	
LOS		B			C		A	B		A	C	
Approach Delay		11.8			29.5			10.8			24.2	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 18.6		Intersection LOS: B	
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr

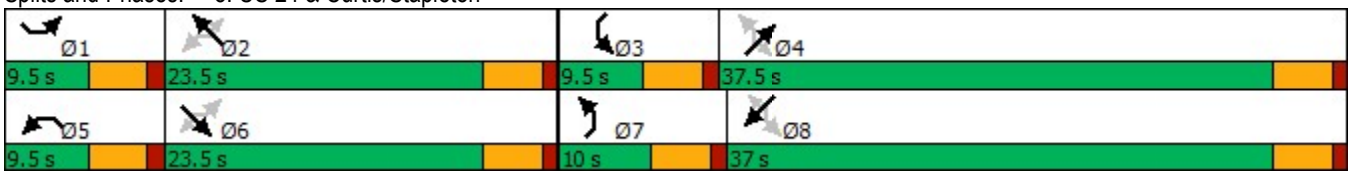


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	45	150	200	3	75	15	100	250	2	35	550	37
Future Volume (vph)	45	150	200	3	75	15	100	250	2	35	550	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		325	215		215	890		1000	790		790
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	240			200			190			190		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.645			0.654			0.142			0.548		
Satd. Flow (perm)	1201	1863	1583	1218	1863	1583	265	1863	1583	1021	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			217			143			143			143
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1349			1298			2758			1426	
Travel Time (s)		20.4			19.7			34.2			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	49	163	217	4	90	18	109	272	2	38	591	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	163	217	4	90	18	109	272	2	38	591	40
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	9.5	23.5	23.5	9.5	23.5	23.5	10.0	37.5	37.5	9.5	37.0	37.0
Total Split (%)	11.9%	29.4%	29.4%	11.9%	29.4%	29.4%	12.5%	46.9%	46.9%	11.9%	46.3%	46.3%
Maximum Green (s)	5.0	19.0	19.0	5.0	19.0	19.0	5.5	33.0	33.0	5.0	32.5	32.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	24.4	23.5	23.5	22.8	20.2	20.2	31.0	28.2	28.2	29.4	25.7	25.7
Actuated g/C Ratio	0.36	0.35	0.35	0.34	0.30	0.30	0.46	0.42	0.42	0.43	0.38	0.38
v/c Ratio	0.10	0.25	0.31	0.01	0.16	0.03	0.43	0.35	0.00	0.08	0.84	0.06
Control Delay	17.4	21.5	5.2	16.7	24.2	0.1	15.0	16.4	0.0	9.5	32.3	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	17.4	21.5	5.2	16.7	24.2	0.1	15.0	16.4	0.0	9.5	32.3	0.2
LOS	B	C	A	B	C	A	B	B	A	A	C	A
Approach Delay		12.8			20.1			15.9			29.1	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 67.8			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 20.9		Intersection LOS: C	
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: US 24 & Curtis/Stapleton



Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	33	88	21	109	16	25	65	4	7	181	0
Future Vol, veh/h	0	33	88	21	109	16	25	65	4	7	181	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	240	-	-	250	-	-	260	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	84	84	84	91	91	91	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	40	107	25	130	19	27	71	4	7	181	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	147	0	0	374	293	94	321	337	140
Stage 1	-	-	-	-	-	-	94	94	-	190	190	-
Stage 2	-	-	-	-	-	-	280	199	-	131	147	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1432	-	-	1435	-	-	583	618	963	632	584	908
Stage 1	-	-	-	-	-	-	913	817	-	812	743	-
Stage 2	-	-	-	-	-	-	727	736	-	873	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1432	-	-	1435	-	-	435	607	963	565	574	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	435	607	-	565	574	-
Stage 1	-	-	-	-	-	-	913	817	-	812	730	-
Stage 2	-	-	-	-	-	-	537	723	-	793	775	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	12.2	14
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	435	620	1432	-	-	1435	-	-	565	574
HCM Lane V/C Ratio	0.063	0.122	-	-	-	0.017	-	-	0.012	0.315
HCM Control Delay (s)	13.8	11.6	0	-	-	7.6	-	-	11.5	14.1
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0.4	0	-	-	0.1	-	-	0	1.3

Intersection	
Int Delay, s/veh	12.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	28	251	11	171	22	59	55	1	8	269	17
Future Vol, veh/h	5	28	251	11	171	22	59	55	1	8	269	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	295	-	-	-	340	-	-	290	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	85	85	85	100	100	100	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	30	270	13	201	26	59	55	1	9	299	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	227	0	0	300	0	0	439	293	30	443	550	214
Stage 1	-	-	-	-	-	-	40	40	-	240	240	-
Stage 2	-	-	-	-	-	-	399	253	-	203	310	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1341	-	-	1261	-	-	528	618	1044	525	443	826
Stage 1	-	-	-	-	-	-	975	862	-	763	707	-
Stage 2	-	-	-	-	-	-	627	698	-	799	659	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1341	-	-	1261	-	-	227	607	1044	482	435	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	607	-	482	435	-
Stage 1	-	-	-	-	-	-	970	858	-	759	699	-
Stage 2	-	-	-	-	-	-	346	690	-	743	656	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.4	19.1	29.9
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	227	612	1341	-	-	1261	-	-	482	448
HCM Lane V/C Ratio	0.26	0.092	0.004	-	-	0.01	-	-	0.018	0.709
HCM Control Delay (s)	26.3	11.5	7.7	0	-	7.9	0	-	12.6	30.4
HCM Lane LOS	D	B	A	A	-	A	A	-	B	D
HCM 95th %tile Q(veh)	1	0.3	0	-	-	0	-	-	0.1	5.5

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	13	0	3	98	107	0	41	3	52	18	1
Future Vol, veh/h	2	13	0	3	98	107	0	41	3	52	18	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	87	87	87	78	78	78	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	17	0	3	113	123	0	53	4	63	22	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	17	0	0	215	265	17	233	204	175
Stage 1	-	-	-	-	-	-	23	23	-	181	181	-
Stage 2	-	-	-	-	-	-	192	242	-	52	23	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1331	-	-	1600	-	-	742	640	1062	722	692	868
Stage 1	-	-	-	-	-	-	995	876	-	821	750	-
Stage 2	-	-	-	-	-	-	810	705	-	961	876	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1331	-	-	1600	-	-	721	637	1062	672	689	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	721	637	-	672	689	-
Stage 1	-	-	-	-	-	-	993	874	-	819	749	-
Stage 2	-	-	-	-	-	-	784	704	-	898	874	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.1	11	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	655	1331	-	-	1600	-	-	678
HCM Lane V/C Ratio	0.086	0.002	-	-	0.002	-	-	0.126
HCM Control Delay (s)	11	7.7	0	-	7.3	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	23.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	45	150	200	3	75	15	100	250	2	35	550	37
Future Vol, veh/h	45	150	200	3	75	15	100	250	2	35	550	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	325	215	-	-	890	-	1000	790	-	790
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	83	83	83	92	92	92	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	163	217	4	90	18	109	272	2	38	591	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1212	1159	591	1367	1197	272	631	0	0	274	0	0
Stage 1	667	667	-	490	490	-	-	-	-	-	-	-
Stage 2	545	492	-	877	707	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	159	196	507	124	186	767	951	-	-	1289	-	-
Stage 1	448	457	-	560	549	-	-	-	-	-	-	-
Stage 2	523	548	-	343	438	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	77	168	507	7	160	767	951	-	-	1289	-	-
Mov Cap-2 Maneuver	77	168	-	7	160	-	-	-	-	-	-	-
Stage 1	396	444	-	496	486	-	-	-	-	-	-	-
Stage 2	368	485	-	120	425	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	65.8	69.5	2.6	0.4
HCM LOS	F	F		

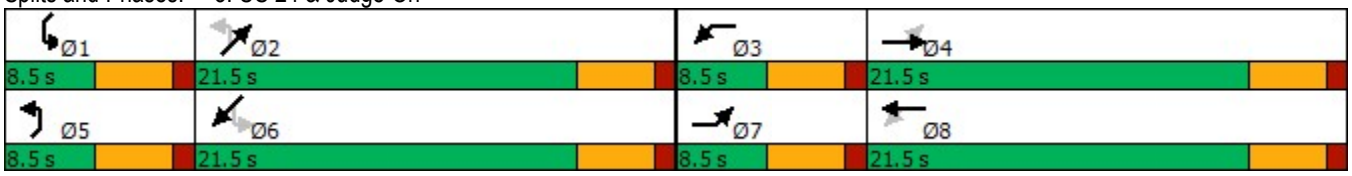
Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	NWLn2	NWLn3	SELn1	SELn2	SELn3	SWL	SWT	SWR
Capacity (veh/h)	951	-	-	7	160	767	77	168	507	1289	-	-
HCM Lane V/C Ratio	0.114	-	-	0.516	0.565	0.024	0.635	0.97	0.429	0.029	-	-
HCM Control Delay (s)	9.3	-	-$	772.9	53.3	9.8	111.5	116.8	17.3	7.9	-	-
HCM Lane LOS	A	-	-	F	F	A	F	F	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	1	2.9	0.1	2.9	7.5	2.1	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	33	32	46	121	88	15	126	556	121	3	375	20
Future Volume (vph)	33	32	46	121	88	15	126	556	121	3	375	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	850		0	700		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			280			300		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945			0.991			0.973			0.992	
Flt Protected		0.985			0.974		0.950			0.950		
Satd. Flow (prot)	0	1734	0	0	1798	0	1770	1812	0	1770	1848	0
Flt Permitted		0.874			0.803		0.362			0.185		
Satd. Flow (perm)	0	1538	0	0	1482	0	674	1812	0	345	1848	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			7			18			5	
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			719			1315			2758	
Travel Time (s)		12.1			10.9			16.3			34.2	
Peak Hour Factor	0.83	0.83	0.83	0.87	0.87	0.87	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	40	39	55	139	101	17	135	598	130	3	408	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	134	0	0	257	0	135	728	0	3	430	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	8.5	21.5		8.5	21.5		8.5	21.5		8.5	21.5	
Total Split (%)	14.2%	35.8%		14.2%	35.8%		14.2%	35.8%		14.2%	35.8%	
Maximum Green (s)	4.0	17.0		4.0	17.0		4.0	17.0		4.0	17.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		13.0			13.0		25.3	24.5		22.6	19.5	
Actuated g/C Ratio		0.27			0.27		0.52	0.51		0.47	0.40	
v/c Ratio		0.29			0.63		0.30	0.78		0.01	0.57	
Control Delay		10.7			22.7		8.6	21.7		6.7	17.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		10.7			22.7		8.6	21.7		6.7	17.0	
LOS		B			C		A	C		A	B	
Approach Delay		10.7			22.7			19.7			16.9	
Approach LOS		B			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 48.2			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 18.7		Intersection LOS: B	
Intersection Capacity Utilization 70.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr



Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	96	16	3	63	5	123	193	17	16	38	2
Future Vol, veh/h	1	96	16	3	63	5	123	193	17	16	38	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	240	-	-	250	-	-	260	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	81	81	81	79	79	79	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	109	18	4	78	6	156	244	22	16	38	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	84	0	0	127	0	0	229	212	118	342	218	81
Stage 1	-	-	-	-	-	-	120	120	-	89	89	-
Stage 2	-	-	-	-	-	-	109	92	-	253	129	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1513	-	-	1459	-	-	726	685	934	612	680	979
Stage 1	-	-	-	-	-	-	884	796	-	918	821	-
Stage 2	-	-	-	-	-	-	896	819	-	751	789	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1513	-	-	1459	-	-	692	682	934	430	677	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	692	682	-	430	677	-
Stage 1	-	-	-	-	-	-	883	795	-	917	819	-
Stage 2	-	-	-	-	-	-	850	817	-	508	788	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	12.7	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	692	697	1513	-	-	1459	-	-	430	688
HCM Lane V/C Ratio	0.225	0.381	0.001	-	-	0.003	-	-	0.037	0.058
HCM Control Delay (s)	11.7	13.3	7.4	-	-	7.5	-	-	13.7	10.6
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.9	1.8	0	-	-	0	-	-	0.1	0.2

Intersection	
Int Delay, s/veh	12.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	209	56	1	75	8	251	280	26	17	46	5
Future Vol, veh/h	25	209	56	1	75	8	251	280	26	17	46	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	295	-	-	-	340	-	-	290	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	92	92	92	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	209	56	1	75	8	273	304	28	21	57	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	265	0	0	372	344	209	534	396	79
Stage 1	-	-	-	-	-	-	259	259	-	81	81	-
Stage 2	-	-	-	-	-	-	113	85	-	453	315	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1299	-	-	585	579	831	457	541	981
Stage 1	-	-	-	-	-	-	746	694	-	927	828	-
Stage 2	-	-	-	-	-	-	892	824	-	586	656	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1514	-	-	1299	-	-	525	567	831	250	530	981
Mov Cap-2 Maneuver	-	-	-	-	-	-	525	567	-	250	530	-
Stage 1	-	-	-	-	-	-	731	680	-	908	827	-
Stage 2	-	-	-	-	-	-	825	823	-	306	643	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	19.1	14.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	525	583	1514	-	-	1299	-	-	250	555
HCM Lane V/C Ratio	0.52	0.571	0.017	-	-	0.001	-	-	0.084	0.113
HCM Control Delay (s)	19	19.1	7.4	0	-	7.8	0	-	20.7	12.3
HCM Lane LOS	C	C	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	3	3.6	0.1	-	-	0	-	-	0.3	0.4

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	49	1	0	42	116	0	48	9	143	72	6
Future Vol, veh/h	1	49	1	0	42	116	0	48	9	143	72	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	87	87	87	83	83	83	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	63	1	0	48	133	0	58	11	164	83	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	181	0	0	64	0	0	226	247	64	215	181	115
Stage 1	-	-	-	-	-	-	66	66	-	115	115	-
Stage 2	-	-	-	-	-	-	160	181	-	100	66	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1394	-	-	1538	-	-	729	655	1000	742	713	937
Stage 1	-	-	-	-	-	-	945	840	-	890	800	-
Stage 2	-	-	-	-	-	-	842	750	-	906	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1394	-	-	1538	-	-	659	654	1000	684	712	937
Mov Cap-2 Maneuver	-	-	-	-	-	-	659	654	-	684	712	-
Stage 1	-	-	-	-	-	-	944	839	-	889	800	-
Stage 2	-	-	-	-	-	-	749	750	-	834	839	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	10.8	13.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	692	1394	-	-	1538	-	-	698
HCM Lane V/C Ratio	0.099	0.001	-	-	-	-	-	0.364
HCM Control Delay (s)	10.8	7.6	0	-	0	-	-	13.1
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	1.7

Intersection	
Int Delay, s/veh	29.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	20	40	30	5	125	30	200	500	25	10	375	50
Future Vol, veh/h	20	40	30	5	125	30	200	500	25	10	375	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	325	215	-	-	890	-	1000	790	-	790
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	93	93	93	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	48	36	6	144	34	215	538	27	11	408	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1501	1425	408	1467	1452	538	462	0	0	565	0	0
Stage 1	430	430	-	968	968	-	-	-	-	-	-	-
Stage 2	1071	995	-	499	484	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	100	136	643	106	~ 130	543	1099	-	-	1007	-	-
Stage 1	603	583	-	305	332	-	-	-	-	-	-	-
Stage 2	267	323	-	554	552	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	108	643	56	~ 103	543	1099	-	-	1007	-	-
Mov Cap-2 Maneuver	-	108	-	56	~ 103	-	-	-	-	-	-	-
Stage 1	485	577	-	245	267	-	-	-	-	-	-	-
Stage 2	93	260	-	474	546	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s		240.2	2.5	0.2
HCM LOS	-	F		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	NWLn2	NWLn3	SELn1	SELn2	SELn3	SWL	SWT	SWR
Capacity (veh/h)	1099	-	-	56	103	543	-	108	643	1007	-	-
HCM Lane V/C Ratio	0.196	-	-	0.103	1.395	0.064	-	0.446	0.056	0.011	-	-
HCM Control Delay (s)	9.1	-	-	76.5	$ 301.5	12.1	-	62.8	10.9	8.6	-	-
HCM Lane LOS	A	-	-	F	F	B	-	F	B	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	0.3	10.3	0.2	-	1.9	0.2	0	-	-

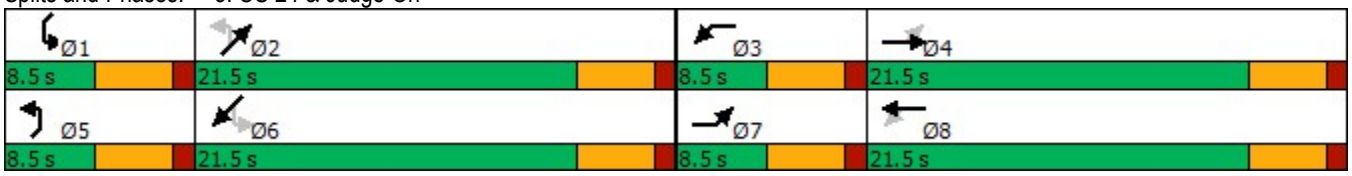
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	24	110	133	115	63	5	74	311	59	8	514	23
Future Volume (vph)	24	110	133	115	63	5	74	311	59	8	514	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	850		0	700		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			280			300		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.933			0.996			0.976			0.994	
Flt Protected		0.995			0.970		0.950			0.950		
Satd. Flow (prot)	0	1729	0	0	1800	0	1770	1818	0	1770	1852	0
Flt Permitted		0.957			0.558		0.237			0.480		
Satd. Flow (perm)	0	1663	0	0	1035	0	441	1818	0	894	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92			3			16			4	
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			719			1315			2758	
Travel Time (s)		12.1			10.9			16.3			34.2	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	28	126	153	132	72	6	80	338	64	9	553	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	307	0	0	210	0	80	402	0	9	578	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	8.5	21.5		8.5	21.5		8.5	21.5		8.5	21.5	
Total Split (%)	14.2%	35.8%		14.2%	35.8%		14.2%	35.8%		14.2%	35.8%	
Maximum Green (s)	4.0	17.0		4.0	17.0		4.0	17.0		4.0	17.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		12.3			12.3		22.3	21.6		20.7	18.6	
Actuated g/C Ratio		0.28			0.28		0.50	0.48		0.46	0.42	
v/c Ratio		0.58			0.73		0.23	0.45		0.02	0.75	
Control Delay		15.0			32.0		8.1	11.2		6.5	23.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		15.0			32.0		8.1	11.2		6.5	23.4	
LOS		B			C		A	B		A	C	
Approach Delay		15.0			32.0			10.7			23.2	
Approach LOS		B			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 44.7			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr



Intersection	
Int Delay, s/veh	95.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	136	33	107	16	413	96	9	7	278	0
Future Vol, veh/h	0	31	136	33	107	16	413	96	9	7	278	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	235	240	-	-	250	-	-	260	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	84	84	84	91	91	91	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	166	39	127	19	454	105	10	7	278	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	146	0	0	204	0	0	392	262	38	394	419	137
Stage 1	-	-	-	-	-	-	38	38	-	215	215	-
Stage 2	-	-	-	-	-	-	354	224	-	179	204	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1436	-	-	1368	-	-	567	643	1034	566	525	911
Stage 1	-	-	-	-	-	-	977	863	-	787	725	-
Stage 2	-	-	-	-	-	-	663	718	-	823	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1436	-	-	1368	-	-	~ 316	624	1034	478	510	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 316	624	-	478	510	-
Stage 1	-	-	-	-	-	-	977	863	-	787	704	-
Stage 2	-	-	-	-	-	-	~ 390	697	-	715	733	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	197.7	20
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	316	646	1436	-	-	1368	-	-	478	510
HCM Lane V/C Ratio	1.436	0.179	-	-	-	0.029	-	-	0.015	0.545
HCM Control Delay (s)	244.9	11.8	0	-	-	7.7	-	-	12.6	20.2
HCM Lane LOS	F	B	A	-	-	A	-	-	B	C
HCM 95th %tile Q(veh)	24.2	0.6	0	-	-	0.1	-	-	0	3.2

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

Intersection	
Int Delay, s/veh	16.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	27	245	11	176	44	70	81	1	22	280	39
Future Vol, veh/h	38	27	245	11	176	44	70	81	1	22	280	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	295	-	-	290	340	-	-	290	-	235
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	85	85	85	100	100	100	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	29	263	13	207	52	70	81	1	24	311	43

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	259	0	0	292	0	0	547	396	29	517	607	207
Stage 1	-	-	-	-	-	-	111	111	-	233	233	-
Stage 2	-	-	-	-	-	-	436	285	-	284	374	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1306	-	-	1270	-	-	448	541	1046	469	411	833
Stage 1	-	-	-	-	-	-	894	804	-	770	712	-
Stage 2	-	-	-	-	-	-	599	676	-	723	618	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1306	-	-	1270	-	-	142	518	1046	399	393	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	142	518	-	399	393	-
Stage 1	-	-	-	-	-	-	866	779	-	746	703	-
Stage 2	-	-	-	-	-	-	313	668	-	627	599	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.4	31.4	35.9
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	142	521	1306	-	-	1270	-	-	399	393	833
HCM Lane V/C Ratio	0.493	0.157	0.031	-	-	0.01	-	-	0.061	0.792	0.052
HCM Control Delay (s)	52.8	13.2	7.8	-	-	7.9	0	-	14.6	41.2	9.6
HCM Lane LOS	F	B	A	-	-	A	A	-	B	E	A
HCM 95th %tile Q(veh)	2.3	0.6	0.1	-	-	0	-	-	0.2	6.8	0.2

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	13	40	107	338	98
Future Vol, veh/h	26	13	40	107	338	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	245	-	-	195
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	14	40	107	376	109

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	563	376	485	0	-	0
Stage 1	376	-	-	-	-	-
Stage 2	187	-	-	-	-	-
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	487	670	1078	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	469	670	1078	-	-	-
Mov Cap-2 Maneuver	469	-	-	-	-	-
Stage 1	668	-	-	-	-	-
Stage 2	845	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1078	-	469	670	-	-
HCM Lane V/C Ratio	0.037	-	0.06	0.021	-	-
HCM Control Delay (s)	8.5	-	13.2	10.5	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	27	45	119	313	46
Future Vol, veh/h	28	27	45	119	313	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	29	45	119	348	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	557	348	399	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	209	-	-	-	-	-
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	491	695	1160	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	470	695	1160	-	-	-
Mov Cap-2 Maneuver	470	-	-	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	2.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1160	-	470	695	-	-
HCM Lane V/C Ratio	0.039	-	0.065	0.042	-	-
HCM Control Delay (s)	8.2	-	13.2	10.4	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	122	304	249	39	0	30
Future Vol, veh/h	122	304	249	39	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	260	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	85	85	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	327	293	46	0	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	339	0	-	0	-	293
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1220	-	-	-	0	746
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1220	-	-	-	-	746
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1220	-	-	-	746
HCM Lane V/C Ratio	0.108	-	-	-	0.044
HCM Control Delay (s)	8.3	-	-	-	10
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.1

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	62	0	3	106	132	0	41	3	145	18	1
Future Vol, veh/h	2	62	0	3	106	132	0	41	3	145	18	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	83	83	83	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	75	0	3	122	152	0	49	4	167	21	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	274	0	0	75	0	0	294	359	75	310	283	198
Stage 1	-	-	-	-	-	-	79	79	-	204	204	-
Stage 2	-	-	-	-	-	-	215	280	-	106	79	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1289	-	-	1524	-	-	658	568	986	642	626	843
Stage 1	-	-	-	-	-	-	930	829	-	798	733	-
Stage 2	-	-	-	-	-	-	787	679	-	900	829	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1289	-	-	1524	-	-	638	566	986	595	623	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	638	566	-	595	623	-
Stage 1	-	-	-	-	-	-	928	827	-	796	732	-
Stage 2	-	-	-	-	-	-	762	678	-	841	827	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	11.8	13.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	583	1289	-	-	1524	-	-	599
HCM Lane V/C Ratio	0.091	0.002	-	-	0.002	-	-	0.315
HCM Control Delay (s)	11.8	7.8	0	-	7.4	0	-	13.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	1.3

Intersection	
Int Delay, s/veh	55.7

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	43	228	189	3	100	21	97	245	2	54	547	36
Future Vol, veh/h	43	228	189	3	100	21	97	245	2	54	547	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	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	325	215	-	-	890	-	1000	790	-	790
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	87	87	87	92	92	92	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	248	205	3	115	24	105	266	2	58	588	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1251	1182	588	1426	1219	266	627	0	0	268	0	0
Stage 1	704	704	-	476	476	-	-	-	-	-	-	-
Stage 2	547	478	-	950	743	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	149	~ 190	509	113	180	773	955	-	-	1296	-	-
Stage 1	428	440	-	570	557	-	-	-	-	-	-	-
Stage 2	521	556	-	312	422	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	50	~ 162	509	-	153	773	955	-	-	1296	-	-
Mov Cap-2 Maneuver	50	~ 162	-	-	153	-	-	-	-	-	-	-
Stage 1	381	420	-	507	496	-	-	-	-	-	-	-
Stage 2	345	495	-	73	403	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	186.8		2.6	0.7
HCM LOS	F	-		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	NWLn2	NWLn3	SELn1	SELn2	SELn3	SWL	SWT	SWR
Capacity (veh/h)	955	-	-	-	153	773	50	162	509	1296	-	-
HCM Lane V/C Ratio	0.11	-	-	-	0.751	0.031	0.935	1.53	0.404	0.045	-	-
HCM Control Delay (s)	9.2	-	-	-	77.9	9.8	237$	318.2	16.8	7.9	-	-
HCM Lane LOS	A	-	-	-	F	A	F	F	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	4.6	0.1	4	16.4	1.9	0.1	-	-

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

Intersection	
Intersection Delay, s/veh	33.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	136	33	107	16	413	96	9	7	278	0
Future Vol, veh/h	0	31	136	33	107	16	413	96	9	7	278	0
Peak Hour Factor	0.82	0.82	0.82	0.84	0.84	0.84	0.91	0.91	0.91	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	166	39	127	19	454	105	10	7	278	0
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	14.3	14.9	52.3	22.2
HCM LOS	B	B	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	100%	0%
Vol Thru, %	0%	91%	100%	100%	0%	0%	87%	0%	100%
Vol Right, %	0%	9%	0%	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	413	105	0	31	136	33	123	7	278
LT Vol	413	0	0	0	0	33	0	7	0
Through Vol	0	96	0	31	0	0	107	0	278
RT Vol	0	9	0	0	136	0	16	0	0
Lane Flow Rate	454	115	0	38	166	39	146	7	278
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.971	0.229	0	0.089	0.357	0.098	0.341	0.016	0.612
Departure Headway (Hd)	7.703	7.131	8.476	8.476	7.753	9.005	8.395	8.443	7.93
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	472	502	0	421	461	396	426	422	453
Service Time	5.471	4.899	6.263	6.263	5.54	6.795	6.184	6.225	5.712
HCM Lane V/C Ratio	0.962	0.229	0	0.09	0.36	0.098	0.343	0.017	0.614
HCM Control Delay	62.6	12	11.3	12.1	14.8	12.8	15.5	11.4	22.5
HCM Lane LOS	F	B	N	B	B	B	C	B	C
HCM 95th-tile Q	12.2	0.9	0	0.3	1.6	0.3	1.5	0	4

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	27	245	11	176	44	70	81	1	22	280	39
Future Vol, veh/h	38	27	245	11	176	44	70	81	1	22	280	39
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	1.00	1.00	1.00	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	29	263	13	207	52	70	81	1	24	311	43
Number of Lanes	1	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	14.6	15.2	12.4	19.1
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	6%	0%	100%	0%	0%
Vol Thru, %	0%	99%	0%	100%	0%	94%	0%	0%	100%	0%
Vol Right, %	0%	1%	0%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	82	38	27	245	187	44	22	280	39
LT Vol	70	0	38	0	0	11	0	22	0	0
Through Vol	0	81	0	27	0	176	0	0	280	0
RT Vol	0	1	0	0	245	0	44	0	0	39
Lane Flow Rate	70	82	41	29	263	220	52	24	311	43
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.161	0.177	0.089	0.059	0.487	0.456	0.097	0.052	0.621	0.078
Departure Headway (Hd)	8.284	7.766	7.871	7.363	6.651	7.457	6.716	7.694	7.187	6.477
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	461	455	486	540	482	533	465	501	552
Service Time	6.047	5.529	5.625	5.117	4.405	5.211	4.47	5.447	4.94	4.23
HCM Lane V/C Ratio	0.162	0.178	0.09	0.06	0.487	0.456	0.098	0.052	0.621	0.078
HCM Control Delay	12.6	12.2	11.4	10.6	15.6	16.4	10.2	10.9	21.1	9.8
HCM Lane LOS	B	B	B	B	C	C	B	B	C	A
HCM 95th-tile Q	0.6	0.6	0.3	0.2	2.6	2.3	0.3	0.2	4.2	0.3

9: Curtis & Judge Orr Performance by lane Interval #1 7:30

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	6.6	5.5	8.3	12.9	8.9

9: Curtis & Judge Orr Performance by lane Interval #2 7:45

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	6.0	5.7	7.9	12.9	8.6

9: Curtis & Judge Orr Performance by lane Interval #3 8:00

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	6.4	6.4	10.0	12.6	9.5

9: Curtis & Judge Orr Performance by lane Interval #4 8:15

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	5.9	5.7	8.1	15.5	9.7

9: Curtis & Judge Orr Performance by lane Entire Run

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	6.7	6.0	9.3	14.7	9.8

10: Curtis & Falcon Hwy Performance by lane Interval #1 7:30

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	4.9	6.2	4.1	7.2	5.8

10: Curtis & Falcon Hwy Performance by lane Interval #2 7:45

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	5.0	6.2	4.1	7.1	5.8

10: Curtis & Falcon Hwy Performance by lane Interval #3 8:00

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	5.6	7.6	3.9	8.0	6.7

10: Curtis & Falcon Hwy Performance by lane Interval #4 8:15

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	5.6	5.7	3.8	7.6	6.1

10: Curtis & Falcon Hwy Performance by lane Entire Run

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	5.4	6.7	4.2	7.6	6.2

Total Zone Performance By Interval

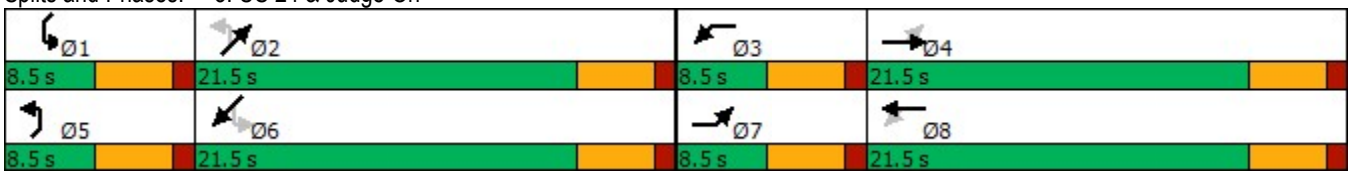
Interval Start	7:30	7:45	8:00	8:15	All
Denied Del/Veh (s)	0.3	0.3	0.4	0.3	0.3
Total Del/Veh (s)	115.9	142.3	130.2	124.1	465.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	31	86	39	113	156	13	126	533	121	3	346	20
Future Volume (vph)	31	86	39	113	156	13	126	533	121	3	346	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	850		0	700		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			280			300		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.994			0.972			0.992	
Flt Protected		0.990			0.980		0.950			0.950		
Satd. Flow (prot)	0	1781	0	0	1815	0	1770	1811	0	1770	1848	0
Flt Permitted		0.904			0.809		0.383			0.190		
Satd. Flow (perm)	0	1627	0	0	1498	0	713	1811	0	354	1848	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			4			19			5	
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			719			1315			2758	
Travel Time (s)		12.1			10.9			16.3			34.2	
Peak Hour Factor	0.87	0.87	0.87	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	36	99	45	123	170	14	135	573	130	3	376	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	0	0	307	0	135	703	0	3	398	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	8.5	21.5		8.5	21.5		8.5	21.5		8.5	21.5	
Total Split (%)	14.2%	35.8%		14.2%	35.8%		14.2%	35.8%		14.2%	35.8%	
Maximum Green (s)	4.0	17.0		4.0	17.0		4.0	17.0		4.0	17.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		13.8			13.8		24.0	23.3		21.4	18.4	
Actuated g/C Ratio		0.29			0.29		0.50	0.49		0.45	0.38	
v/c Ratio		0.37			0.71		0.30	0.79		0.01	0.56	
Control Delay		14.0			25.4		8.8	22.4		6.7	16.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		14.0			25.4		8.8	22.4		6.7	16.9	
LOS		B			C		A	C		A	B	
Approach Delay		14.0			25.4			20.2			16.8	
Approach LOS		B			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 47.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 19.7		Intersection LOS: B	
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr

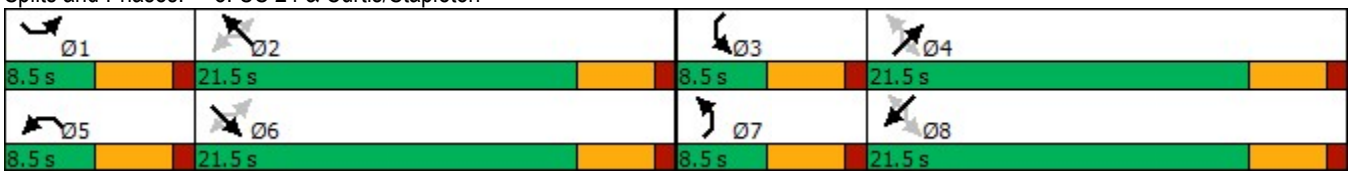


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	17	125	133	5	246	60	195	478	25	31	368	49
Future Volume (vph)	17	125	133	5	246	60	195	478	25	31	368	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		325	215		215	890		1000	790		790
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	240			200			190			190		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.466			0.670			0.318			0.327		
Satd. Flow (perm)	868	1863	1583	1248	1863	1583	592	1863	1583	609	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			191			191			191			191
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1349			1298			2758			1426	
Travel Time (s)		20.4			19.7			34.2			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	18	136	145	5	267	65	210	514	27	34	400	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	136	145	5	267	65	210	514	27	34	400	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	8.5	21.5	21.5	8.5	21.5	21.5	8.5	21.5	21.5	8.5	21.5	21.5
Total Split (%)	14.2%	35.8%	35.8%	14.2%	35.8%	35.8%	14.2%	35.8%	35.8%	14.2%	35.8%	35.8%
Maximum Green (s)	4.0	17.0	17.0	4.0	17.0	17.0	4.0	17.0	17.0	4.0	17.0	17.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	12.2	11.6	11.6	12.2	11.6	11.6	21.5	20.2	20.2	18.4	14.3	14.3
Actuated g/C Ratio	0.27	0.26	0.26	0.27	0.26	0.26	0.47	0.45	0.45	0.41	0.32	0.32
v/c Ratio	0.06	0.28	0.26	0.01	0.56	0.12	0.54	0.62	0.03	0.10	0.68	0.08
Control Delay	11.8	16.4	3.1	11.2	20.6	0.4	17.5	19.4	0.1	8.5	22.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	16.4	3.1	11.2	20.6	0.4	17.5	19.4	0.1	8.5	22.8	0.3
LOS	B	B	A	B	C	A	B	B	A	A	C	A
Approach Delay		9.7			16.6			18.2			19.3	
Approach LOS		A			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 16.8		Intersection LOS: B	
Intersection Capacity Utilization 55.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: US 24 & Curtis/Stapleton



Intersection	
Int Delay, s/veh	15.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	90	83	24	57	5	210	345	39	16	145	2
Future Vol, veh/h	1	90	83	24	57	5	210	345	39	16	145	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	235	240	-	-	250	-	-	260	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	81	81	81	79	79	79	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	102	94	30	70	6	266	437	49	16	145	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	76	0	0	196	0	0	311	240	102	527	331	73
Stage 1	-	-	-	-	-	-	104	104	-	133	133	-
Stage 2	-	-	-	-	-	-	207	136	-	394	198	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1523	-	-	1377	-	-	642	661	953	462	588	989
Stage 1	-	-	-	-	-	-	902	809	-	870	786	-
Stage 2	-	-	-	-	-	-	795	784	-	631	737	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1523	-	-	1377	-	-	507	646	953	196	574	989
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	646	-	196	574	-
Stage 1	-	-	-	-	-	-	901	808	-	869	769	-
Stage 2	-	-	-	-	-	-	630	767	-	275	736	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.1	22.1	14.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	507	668	1523	-	-	1377	-	-	196	577
HCM Lane V/C Ratio	0.524	0.728	0.001	-	-	0.022	-	-	0.082	0.255
HCM Control Delay (s)	19.7	23.4	7.4	-	-	7.7	-	-	25	13.4
HCM Lane LOS	C	C	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	3	6.3	0	-	-	0.1	-	-	0.3	1

Intersection	
Int Delay, s/veh	23.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	207	34	1	68	50	250	317	26	84	105	72
Future Vol, veh/h	51	207	34	1	68	50	250	317	26	84	105	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	290	-	295	-	-	290	340	-	-	290	-	235
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	92	92	92	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	207	34	1	68	50	272	345	28	104	130	89

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	118	0	0	241	0	0	514	429	207	583	413	68
Stage 1	-	-	-	-	-	-	309	309	-	70	70	-
Stage 2	-	-	-	-	-	-	205	120	-	513	343	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1470	-	-	1326	-	-	471	518	833	424	529	995
Stage 1	-	-	-	-	-	-	701	660	-	940	837	-
Stage 2	-	-	-	-	-	-	797	796	-	544	637	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1470	-	-	1326	-	-	336	499	833	177	510	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	336	499	-	177	510	-
Stage 1	-	-	-	-	-	-	676	637	-	907	836	-
Stage 2	-	-	-	-	-	-	613	795	-	233	615	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.1	36.8	24.6
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	336	515	1470	-	-	1326	-	-	177	510	995
HCM Lane V/C Ratio	0.809	0.724	0.035	-	-	0.001	-	-	0.586	0.254	0.089
HCM Control Delay (s)	48.5	28.2	7.5	-	-	7.7	0	-	50.7	14.4	9
HCM Lane LOS	E	D	A	-	-	A	A	-	F	B	A
HCM 95th %tile Q(veh)	6.8	5.9	0.1	-	-	0	-	-	3.2	1	0.3

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	127	66	48	439	108	103
Future Vol, veh/h	127	66	48	439	108	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	245	-	-	195
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	138	72	52	477	133	127

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	714	133	260	0	-	0
Stage 1	133	-	-	-	-	-
Stage 2	581	-	-	-	-	-
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	398	916	1304	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	382	916	1304	-	-	-
Mov Cap-2 Maneuver	382	-	-	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.1	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1304	-	382	916	-	-
HCM Lane V/C Ratio	0.04	-	0.361	0.078	-	-
HCM Control Delay (s)	7.9	-	19.7	9.3	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	1.6	0.3	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	136	128	74	351	129	66
Future Vol, veh/h	136	128	74	351	129	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	148	139	80	382	159	81

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	701	159	240	0	-	0
Stage 1	159	-	-	-	-	-
Stage 2	542	-	-	-	-	-
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	405	886	1327	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	374	886	1327	-	-	-
Mov Cap-2 Maneuver	374	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	1.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1327	-	374	886	-	-
HCM Lane V/C Ratio	0.061	-	0.395	0.157	-	-
HCM Control Delay (s)	7.9	-	20.8	9.8	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	1.8	0.6	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	85	274	351	50	0	149
Future Vol, veh/h	85	274	351	50	0	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	260	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	85	274	351	50	0	162

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	401	0	-	0	-	351
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1158	-	-	-	0	692
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1158	-	-	-	-	692
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1158	-	-	-	692
HCM Lane V/C Ratio	0.073	-	-	-	0.234
HCM Control Delay (s)	8.4	-	-	-	11.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	11	62	1	0	84	238	0	48	9	218	72	6
Future Vol, veh/h	11	62	1	0	84	238	0	48	9	218	72	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	92	92	92	83	83	83	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	75	1	0	91	259	0	58	11	237	78	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	350	0	0	76	0	0	365	452	76	357	323	221
Stage 1	-	-	-	-	-	-	102	102	-	221	221	-
Stage 2	-	-	-	-	-	-	263	350	-	136	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1209	-	-	1523	-	-	591	503	985	598	595	819
Stage 1	-	-	-	-	-	-	904	811	-	781	720	-
Stage 2	-	-	-	-	-	-	742	633	-	867	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1209	-	-	1523	-	-	522	497	985	534	588	819
Mov Cap-2 Maneuver	-	-	-	-	-	-	522	497	-	534	588	-
Stage 1	-	-	-	-	-	-	894	802	-	772	720	-
Stage 2	-	-	-	-	-	-	656	633	-	787	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0	12.7	20.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	539	1209	-	-	1523	-	-	550
HCM Lane V/C Ratio	0.127	0.011	-	-	-	-	-	0.585
HCM Control Delay (s)	12.7	8	0	-	0	-	-	20.4
HCM Lane LOS	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	3.7

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	17	125	133	5	246	60	195	478	25	31	368	49
Future Vol, veh/h	17	125	133	5	246	60	195	478	25	31	368	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	325	215	-	-	890	-	1000	790	-	790
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	93	93	93	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	136	145	5	267	65	210	514	27	34	400	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1582	1429	400	1569	1455	514	453	0	0	541	0	0
Stage 1	468	468	-	934	934	-	-	-	-	-	-	-
Stage 2	1114	961	-	635	521	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	88	~ 135	650	90	~ 130	560	1108	-	-	1028	-	-
Stage 1	575	561	-	319	345	-	-	-	-	-	-	-
Stage 2	253	335	-	467	532	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 106	650	-	~ 102	560	1108	-	-	1028	-	-
Mov Cap-2 Maneuver	-	~ 106	-	-	~ 102	-	-	-	-	-	-	-
Stage 1	466	542	-	258	279	-	-	-	-	-	-	-
Stage 2	~ 8	271	-	263	514	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s			2.5	0.6
HCM LOS	-	-		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	NWLn2	NWLn3	SELn1	SELn2	SELn3	SWL	SWT	SWR
Capacity (veh/h)	1108	-	-	-	102	560	-	106	650	1028	-	-
HCM Lane V/C Ratio	0.189	-	-	-	2.621	0.116	-	1.282	0.222	0.033	-	-
HCM Control Delay (s)	9	-	-	-	$ 823.1	12.3	-	256	12.1	8.6	-	-
HCM Lane LOS	A	-	-	-	F	B	-	F	B	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	24.7	0.4	-	9.2	0.8	0.1	-	-

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

Intersection	
Intersection Delay, s/veh	20.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	90	83	24	57	5	210	345	39	16	145	2
Future Vol, veh/h	1	90	83	24	57	5	210	345	39	16	145	2
Peak Hour Factor	0.88	0.88	0.88	0.81	0.81	0.81	0.79	0.79	0.79	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	102	94	30	70	6	266	437	49	16	145	2
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	11.9	12.1	26.1	13.3
HCM LOS	B	B	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%
Vol Thru, %	0%	90%	0%	100%	0%	0%	92%	0%	99%
Vol Right, %	0%	10%	0%	0%	100%	0%	8%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	384	1	90	83	24	62	16	147
LT Vol	210	0	1	0	0	24	0	16	0
Through Vol	0	345	0	90	0	0	57	0	145
RT Vol	0	39	0	0	83	0	5	0	2
Lane Flow Rate	266	486	1	102	94	30	77	16	147
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.494	0.826	0.003	0.219	0.183	0.07	0.168	0.036	0.305
Departure Headway (Hd)	6.691	6.115	8.203	7.692	6.977	8.476	7.904	7.997	7.479
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	534	588	438	468	517	424	455	449	482
Service Time	4.488	3.912	5.916	5.405	4.69	6.194	5.622	5.714	5.196
HCM Lane V/C Ratio	0.498	0.827	0.002	0.218	0.182	0.071	0.169	0.036	0.305
HCM Control Delay	15.9	31.7	10.9	12.6	11.2	11.8	12.2	11	13.5
HCM Lane LOS	C	D	B	B	B	B	B	B	B
HCM 95th-tile Q	2.7	8.5	0	0.8	0.7	0.2	0.6	0.1	1.3

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	207	34	1	68	50	250	317	26	84	105	72
Future Vol, veh/h	51	207	34	1	68	50	250	317	26	84	105	72
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	207	34	1	68	50	272	345	28	104	130	89
Number of Lanes	1	1	1	0	1	1	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	16.1	12.6	24.6	13.3
HCM LOS	C	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	1%	0%	100%	0%	0%
Vol Thru, %	0%	92%	0%	100%	0%	99%	0%	0%	100%	0%
Vol Right, %	0%	8%	0%	0%	100%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	250	343	51	207	34	69	50	84	105	72
LT Vol	250	0	51	0	0	1	0	84	0	0
Through Vol	0	317	0	207	0	68	0	0	105	0
RT Vol	0	26	0	0	34	0	50	0	0	72
Lane Flow Rate	272	373	51	207	34	69	50	104	130	89
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.58	0.738	0.122	0.467	0.07	0.167	0.111	0.244	0.287	0.179
Departure Headway (Hd)	7.686	7.126	8.639	8.129	7.416	8.693	7.969	8.467	7.957	7.242
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	470	507	415	443	482	412	449	423	451	494
Service Time	5.44	4.88	6.403	5.893	5.18	6.467	5.742	6.231	5.72	5.006
HCM Lane V/C Ratio	0.579	0.736	0.123	0.467	0.071	0.167	0.111	0.246	0.288	0.18
HCM Control Delay	20.6	27.5	12.6	17.9	10.7	13.2	11.7	14	13.9	11.6
HCM Lane LOS	C	D	B	C	B	B	B	B	B	B
HCM 95th-tile Q	3.6	6.1	0.4	2.4	0.2	0.6	0.4	0.9	1.2	0.6

9: Curtis & Judge Orr Performance by lane Interval #1 7:30

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	6.1	4.7	13.6	8.8	10.9

9: Curtis & Judge Orr Performance by lane Interval #2 7:45

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	6.5	4.6	13.6	8.3	10.8

9: Curtis & Judge Orr Performance by lane Interval #3 8:00

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	6.9	5.6	20.4	9.3	15.6

9: Curtis & Judge Orr Performance by lane Interval #4 8:15

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.0
Total Del/Veh (s)	6.3	5.3	16.1	9.1	12.6

9: Curtis & Judge Orr Performance by lane Entire Run

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	7.1	5.2	18.3	9.5	13.8

10: Curtis & Falcon Hwy Performance by lane Interval #1 7:30

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	7.5	5.2	10.4	4.6	8.0

10: Curtis & Falcon Hwy Performance by lane Interval #2 7:45

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	6.7	5.6	13.4	4.3	9.4

10: Curtis & Falcon Hwy Performance by lane Interval #3 8:00

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.3
Total Del/Veh (s)	7.7	5.3	24.7	5.4	15.4

10: Curtis & Falcon Hwy Performance by lane Interval #4 8:15

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	7.4	4.8	14.4	5.2	10.0

10: Curtis & Falcon Hwy Performance by lane Entire Run

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	7.5	5.4	17.0	5.0	11.2

Total Zone Performance By Interval

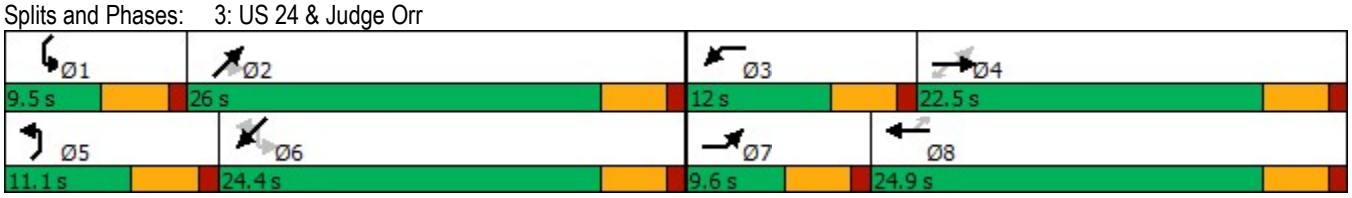
Interval Start	7:30	7:45	8:00	8:15	All
Denied Del/Veh (s)	0.3	0.4	0.5	0.4	0.4
Total Del/Veh (s)	112.7	114.7	183.7	149.1	468.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	73	115	301	276	113	34	260	671	195	107	792	113
Future Volume (vph)	73	115	301	276	113	34	260	671	195	107	792	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290		0	290		290	860		290	695		290
Storage Lanes	1		1	2		1	2		1	1		1
Taper Length (ft)	240			240			300			300		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.674			0.950			0.950			0.316		
Satd. Flow (perm)	1255	1863	1583	3433	3539	1583	3433	3539	1583	589	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			199			164			205			164
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			719			1315			2758	
Travel Time (s)		12.1			10.9			16.3			34.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	79	125	327	300	123	37	274	706	205	113	834	119
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	125	327	300	123	37	274	706	205	113	834	119
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4			8			2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	9.6	22.5	22.5	12.0	24.9	24.9	11.1	26.0	26.0	9.5	24.4	24.4
Total Split (%)	13.7%	32.1%	32.1%	17.1%	35.6%	35.6%	15.9%	37.1%	37.1%	13.6%	34.9%	34.9%
Maximum Green (s)	5.1	18.0	18.0	7.5	20.4	20.4	6.6	21.5	21.5	5.0	19.9	19.9
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	16.6	11.4	11.4	7.5	16.0	16.0	6.6	23.7	23.7	25.0	20.0	20.0
Actuated g/C Ratio	0.26	0.18	0.18	0.12	0.25	0.25	0.10	0.37	0.37	0.39	0.31	0.31
v/c Ratio	0.22	0.37	0.73	0.74	0.14	0.07	0.77	0.54	0.29	0.35	0.75	0.20
Control Delay	14.6	25.6	20.1	41.5	19.7	0.3	45.7	19.3	4.3	13.9	26.1	2.5
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	14.6	25.6	20.1	41.5	19.7	0.3	45.7	19.3	4.3	13.9	26.1	2.5
LOS	B	C	C	D	B	A	D	B	A	B	C	A
Approach Delay		20.6			32.3			22.8			22.2	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 63.7			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 23.6		Intersection LOS: C	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	175	290	600	75	347	45	300	400	50	123	800	350
Future Volume (vph)	175	290	600	75	347	45	300	400	50	123	800	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		325	215		215	890		1000	790		790
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	240			200			190			190		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.299			0.561			0.149			0.502		
Satd. Flow (perm)	557	3539	1583	1045	3539	1583	278	3539	1583	935	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			425			218			153			305
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1349			1298			2758			1426	
Travel Time (s)		20.4			19.7			34.2			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	190	315	652	82	377	49	323	430	54	134	870	380
Shared Lane Traffic (%)												
Lane Group Flow (vph)	190	315	652	82	377	49	323	430	54	134	870	380
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	11.0	17.0	17.0	9.0	15.0	15.0	22.0	34.0	34.0	15.0	27.0	27.0
Total Split (%)	14.7%	22.7%	22.7%	12.0%	20.0%	20.0%	29.3%	45.3%	45.3%	20.0%	36.0%	36.0%
Maximum Green (s)	6.5	12.5	12.5	4.5	10.5	10.5	17.5	29.5	29.5	10.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	19.4	14.3	14.3	14.8	10.2	10.2	41.1	31.0	31.0	29.3	21.4	21.4
Actuated g/C Ratio	0.27	0.20	0.20	0.21	0.14	0.14	0.58	0.43	0.43	0.41	0.30	0.30
v/c Ratio	0.73	0.44	0.99	0.31	0.74	0.12	0.68	0.28	0.07	0.28	0.82	0.55
Control Delay	40.5	29.4	47.8	24.0	40.6	0.6	20.0	14.7	0.2	9.7	31.5	8.6
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	40.5	29.4	47.8	24.0	40.6	0.6	20.0	14.7	0.2	9.7	31.5	8.6
LOS	D	C	D	C	D	A	C	B	A	A	C	A
Approach Delay		41.6			34.0			15.8			23.1	
Approach LOS		D			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 71.4			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 28.6		Intersection LOS: C	
Intersection Capacity Utilization 74.7%		ICU Level of Service D	
Analysis Period (min) 15			

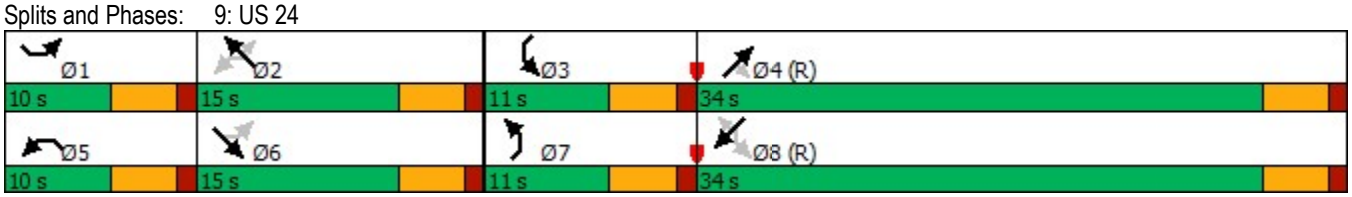
Splits and Phases: 8: US 24 & Curtis/Stapleton

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	60
Future Volume (vph)	34	297	613	40	145	259	132	937	30	221	1296	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195		195	195		195	555		490	555		490
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	180			180			300			300		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.652			0.434			0.950			0.221		
Satd. Flow (perm)	1215	3539	1583	808	3539	1583	3433	5085	1583	412	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			409			282			164			164
Link Speed (mph)		40			40			65			65	
Link Distance (ft)		873			1300			985			695	
Travel Time (s)		14.9			22.2			10.3			7.3	
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	319	659	43	158	282	139	986	32	233	1364	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	319	659	43	158	282	139	986	32	233	1364	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		Free	2		2			4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	15.0		10.0	15.0	15.0	11.0	34.0	34.0	11.0	34.0	34.0
Total Split (%)	14.3%	21.4%		14.3%	21.4%	21.4%	15.7%	48.6%	48.6%	15.7%	48.6%	48.6%
Maximum Green (s)	5.5	10.5		5.5	10.5	10.5	6.5	29.5	29.5	6.5	29.5	29.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min		None	Min	Min	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0			11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0	0		0	0		0	0
Act Effct Green (s)	13.3	10.0	70.0	14.2	12.0	12.0	6.6	33.6	33.6	41.5	36.0	36.0
Actuated g/C Ratio	0.19	0.14	1.00	0.20	0.17	0.17	0.09	0.48	0.48	0.59	0.51	0.51
v/c Ratio	0.14	0.63	0.42	0.18	0.26	0.56	0.43	0.40	0.04	0.62	0.52	0.07
Control Delay	19.9	34.2	0.8	20.6	26.3	8.7	34.4	13.3	0.1	16.1	14.0	0.1
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	19.9	34.2	0.8	20.6	26.3	8.7	34.4	13.3	0.1	16.1	14.0	0.1
LOS	B	C	A	C	C	A	C	B	A	B	B	A
Approach Delay		12.0			15.5			15.4			13.8	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 4:NET and 8:SWTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: US 24



Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	310	428	411	388
Demand Flow Rate, veh/h	316	437	419	396
Vehicles Circulating, veh/h	403	416	145	441
Vehicles Exiting, veh/h	433	148	574	412
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.7	8.2	4.6	7.5
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.057	0.943	0.076	0.924	0.325	0.675	0.114	0.886
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	18	298	33	404	136	283	45	351
Cap Entry Lane, veh/h	984	984	973	973	1245	1245	951	951
Entry HV Adj Factor	1.000	0.981	0.970	0.979	0.978	0.982	0.978	0.979
Flow Entry, veh/h	18	292	32	396	133	278	44	344
Cap Entry, veh/h	984	966	943	952	1217	1222	930	931
V/C Ratio	0.018	0.303	0.034	0.415	0.109	0.227	0.047	0.369
Control Delay, s/veh	3.8	6.9	4.1	8.5	3.9	4.9	4.3	8.0
LOS	A	A	A	A	A	A	A	A
95th %tile Queue, veh	0	1	0	2	0	1	0	2

Intersection	
Intersection Delay, s/veh	9.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	339	276	358	699
Demand Flow Rate, veh/h	346	282	365	714
Vehicles Circulating, veh/h	648	399	128	333
Vehicles Exiting, veh/h	399	94	866	348
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.9	6.0	4.2	12.7
Approach LOS	A	A	A	B

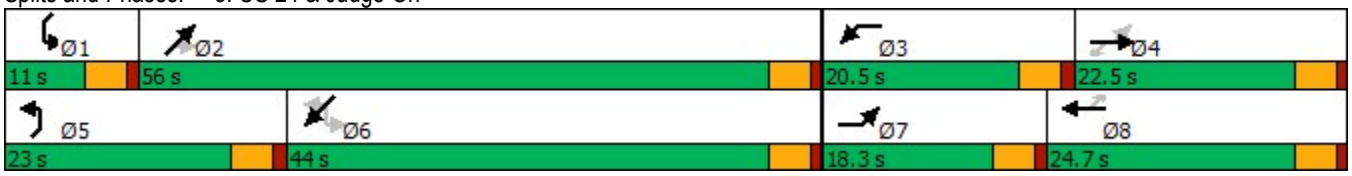
Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.127	0.873	0.106	0.894	0.419	0.581	0.041	0.959
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	44	302	30	252	153	212	29	685
Cap Entry Lane, veh/h	787	787	988	988	1264	1264	1049	1049
Entry HV Adj Factor	0.977	0.980	0.967	0.980	0.980	0.981	0.966	0.980
Flow Entry, veh/h	43	296	29	247	150	208	28	671
Cap Entry, veh/h	769	772	955	968	1239	1240	1013	1028
V/C Ratio	0.056	0.384	0.030	0.255	0.121	0.168	0.028	0.653
Control Delay, s/veh	5.2	9.5	4.0	6.3	3.9	4.3	3.8	13.1
LOS	A	A	A	A	A	A	A	B
95th %tile Queue, veh	0	2	0	1	0	1	0	5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	261	168	399	441	170	165	487	850	431	145	1200	173
Future Volume (vph)	261	168	399	441	170	165	487	850	431	145	1200	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290		0	290		290	860		290	695		290
Storage Lanes	1		1	2		1	2		1	1		1
Taper Length (ft)	240			240			300			300		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.636			0.950			0.950			0.284		
Satd. Flow (perm)	1185	1863	1583	3433	3539	1583	3433	3539	1583	529	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			235			177			454			176
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			1041			1315			2758	
Travel Time (s)		12.1			15.8			16.3			34.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	281	181	429	474	183	177	513	895	454	153	1263	182
Shared Lane Traffic (%)												
Lane Group Flow (vph)	281	181	429	474	183	177	513	895	454	153	1263	182
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4			8			2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	18.3	22.5	22.5	20.5	24.7	24.7	23.0	56.0	56.0	11.0	44.0	44.0
Total Split (%)	16.6%	20.5%	20.5%	18.6%	22.5%	22.5%	20.9%	50.9%	50.9%	10.0%	40.0%	40.0%
Maximum Green (s)	13.8	18.0	18.0	16.0	20.2	20.2	18.5	51.5	51.5	6.5	39.5	39.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	30.7	17.2	17.2	16.0	19.7	19.7	18.2	51.5	51.5	46.3	39.8	39.8
Actuated g/C Ratio	0.28	0.16	0.16	0.15	0.18	0.18	0.17	0.47	0.47	0.42	0.36	0.36
v/c Ratio	0.69	0.62	0.96	0.94	0.29	0.41	0.90	0.54	0.46	0.51	0.98	0.26
Control Delay	39.1	52.8	55.0	75.2	40.1	9.0	64.7	22.0	3.3	20.1	55.8	5.1
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	39.1	52.8	55.0	75.2	40.1	9.0	64.7	22.0	3.3	20.1	55.8	5.1
LOS	D	D	E	E	D	A	E	C	A	C	E	A
Approach Delay		49.6			53.4			29.2			46.6	
Approach LOS		D			D			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 109.2			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 42.0		Intersection LOS: D	
Intersection Capacity Utilization 83.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr

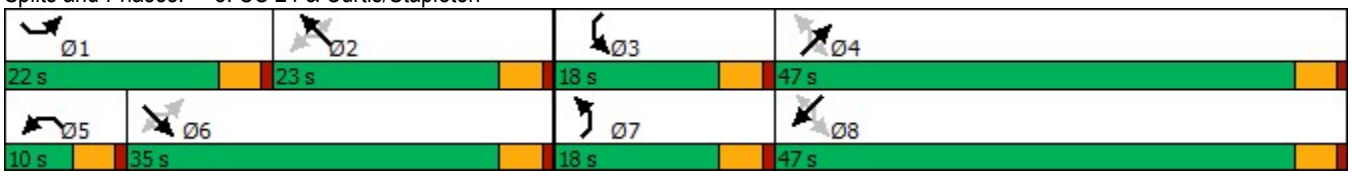


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	350	67	400	125	382	172	650	850	150	144	500	350
Future Volume (vph)	350	67	400	125	382	172	650	850	150	144	500	350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		325	215		215	890		1000	790		790
Storage Lanes	2		1	2		0	2		1	2		1
Taper Length (ft)	240			200			190			190		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.269			0.707			0.269			0.194		
Satd. Flow (perm)	972	3539	1583	2555	3539	1583	972	3539	1583	701	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			394			187			161			337
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1349			1298			2758			1426	
Travel Time (s)		20.4			19.7			34.2			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	380	73	435	136	415	187	699	914	161	157	543	380
Shared Lane Traffic (%)												
Lane Group Flow (vph)	380	73	435	136	415	187	699	914	161	157	543	380
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.0	35.0	35.0	10.0	23.0	23.0	18.0	47.0	47.0	18.0	47.0	47.0
Total Split (%)	20.0%	31.8%	31.8%	9.1%	20.9%	20.9%	16.4%	42.7%	42.7%	16.4%	42.7%	42.7%
Maximum Green (s)	17.5	30.5	30.5	5.5	18.5	18.5	13.5	42.5	42.5	13.5	42.5	42.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	32.0	22.0	22.0	21.0	15.3	15.3	41.7	29.5	29.5	31.0	23.4	23.4
Actuated g/C Ratio	0.38	0.26	0.26	0.25	0.18	0.18	0.50	0.35	0.35	0.37	0.28	0.28
v/c Ratio	0.51	0.08	0.61	0.19	0.64	0.42	0.78	0.73	0.24	0.31	0.55	0.55
Control Delay	21.2	24.8	8.7	19.5	38.2	8.9	21.5	27.7	4.4	13.8	27.6	7.7
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	21.2	24.8	8.7	19.5	38.2	8.9	21.5	27.7	4.4	13.8	27.6	7.7
LOS	C	C	A	B	D	A	C	C	A	B	C	A
Approach Delay		15.4			27.3			23.1			18.6	
Approach LOS		B			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 83.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 67.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: US 24 & Curtis/Stapleton

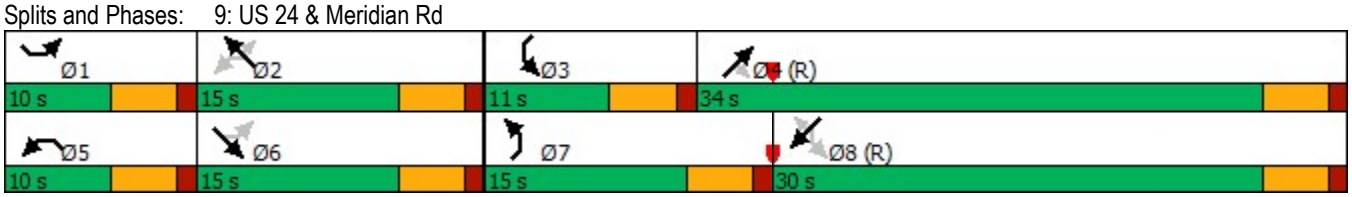


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	86	592	625	60	235	257	427	2051	80	204	1190	60
Future Volume (vph)	86	592	625	60	235	257	427	2051	80	204	1190	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195		195	195		195	555		490	555		490
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	180			180			300			300		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.549			0.299			0.950			0.169		
Satd. Flow (perm)	1023	3539	1583	557	3539	1583	3433	5085	1583	315	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			411			268			164			164
Link Speed (mph)		40			40			65			65	
Link Distance (ft)		873			1300			985			695	
Travel Time (s)		14.9			22.2			10.3			7.3	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	91	623	658	65	253	276	449	2159	84	215	1253	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	623	658	65	253	276	449	2159	84	215	1253	63
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		Free	2		2			4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	15.0		10.0	15.0	15.0	15.0	34.0	34.0	11.0	30.0	30.0
Total Split (%)	14.3%	21.4%		14.3%	21.4%	21.4%	21.4%	48.6%	48.6%	15.7%	42.9%	42.9%
Maximum Green (s)	5.5	10.5		5.5	10.5	10.5	10.5	29.5	29.5	6.5	25.5	25.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min		None	Min	Min	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0			11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0	0		0	0		0	0
Act Effct Green (s)	17.8	14.5	70.0	16.9	12.5	12.5	10.5	29.5	29.5	32.0	25.5	25.5
Actuated g/C Ratio	0.25	0.21	1.00	0.24	0.18	0.18	0.15	0.42	0.42	0.46	0.36	0.36
v/c Ratio	0.29	0.85	0.42	0.28	0.40	0.55	0.87	1.01	0.11	0.77	0.68	0.09
Control Delay	21.3	44.6	0.8	21.8	28.8	9.2	49.3	43.3	0.4	32.3	21.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	44.6	0.8	21.8	28.8	9.2	49.3	43.3	0.4	32.3	21.0	0.3
LOS	C	D	A	C	C	A	D	D	A	C	C	A
Approach Delay		22.1			18.9			42.9			21.7	
Approach LOS		C			B			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 4:NET and 8:SWTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 30.8		Intersection LOS: C	
Intersection Capacity Utilization 86.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: US 24 & Meridian Rd



Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	455	299	1135	518
Demand Flow Rate, veh/h	465	305	1157	529
Vehicles Circulating, veh/h	547	1126	384	558
Vehicles Exiting, veh/h	539	415	628	873
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.7	15.8	16.0	9.8
Approach LOS	B	C	C	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.062	0.938	0.144	0.856	0.315	0.685	0.202	0.798
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	29	436	44	261	365	792	107	422
Cap Entry Lane, veh/h	863	863	510	510	1001	1001	855	855
Entry HV Adj Factor	0.966	0.980	0.977	0.981	0.981	0.981	0.981	0.979
Flow Entry, veh/h	28	427	43	256	358	777	105	413
Cap Entry, veh/h	833	846	498	500	982	982	839	837
V/C Ratio	0.034	0.505	0.086	0.512	0.365	0.791	0.125	0.494
Control Delay, s/veh	4.6	11.0	8.3	17.1	7.6	19.9	5.5	10.9
LOS	A	B	A	C	A	C	A	B
95th %tile Queue, veh	0	3	0	3	2	9	0	3

Intersection	
Intersection Delay, s/veh	15.3
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	413	396	995	662
Demand Flow Rate, veh/h	421	404	1015	675
Vehicles Circulating, veh/h	573	1044	514	672
Vehicles Exiting, veh/h	774	485	480	776
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.0	24.2	15.1	14.1
Approach LOS	A	C	C	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.150	0.850	0.037	0.963	0.354	0.646	0.256	0.744
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	63	358	15	389	359	656	173	502
Cap Entry Lane, veh/h	843	843	549	549	890	890	770	770
Entry HV Adj Factor	0.984	0.979	1.000	0.980	0.981	0.980	0.983	0.981
Flow Entry, veh/h	62	351	15	381	352	643	170	492
Cap Entry, veh/h	830	825	549	538	872	872	757	756
V/C Ratio	0.075	0.425	0.027	0.708	0.404	0.737	0.225	0.652
Control Delay, s/veh	5.1	9.7	6.9	24.9	8.9	18.5	7.3	16.5
LOS	A	A	A	C	A	C	A	C
95th %tile Queue, veh	0	2	0	6	2	7	1	5

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	209	839	601
Demand Flow Rate, veh/h	213	856	613
Vehicles Circulating, veh/h	483	140	52
Vehicles Exiting, veh/h	182	556	944
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.1	14.0	7.6
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	213	856	613
Cap Entry Lane, veh/h	843	1196	1309
Entry HV Adj Factor	0.981	0.980	0.980
Flow Entry, veh/h	209	839	601
Cap Entry, veh/h	827	1173	1282
V/C Ratio	0.253	0.716	0.468
Control Delay, s/veh	7.1	14.0	7.6
LOS	A	B	A
95th %tile Queue, veh	1	7	3

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	284	770	583
Demand Flow Rate, veh/h	290	786	595
Vehicles Circulating, veh/h	510	151	81
Vehicles Exiting, veh/h	166	649	856
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.7	12.3	7.8
Approach LOS	A	B	A

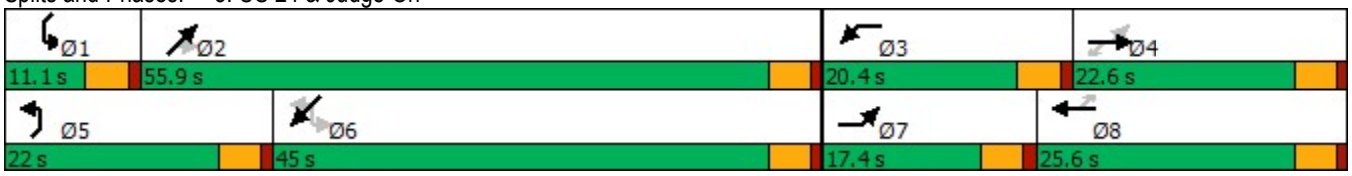
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	290	786	595
Cap Entry Lane, veh/h	820	1183	1270
Entry HV Adj Factor	0.979	0.980	0.980
Flow Entry, veh/h	284	770	583
Cap Entry, veh/h	803	1159	1245
V/C Ratio	0.354	0.664	0.468
Control Delay, s/veh	8.7	12.3	7.8
LOS	A	B	A
95th %tile Queue, veh	2	5	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	72	148	295	272	125	33	260	665	195	107	778	113
Future Volume (vph)	72	148	295	272	125	33	260	665	195	107	778	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290		0	290		290	860		290	695		290
Storage Lanes	1		1	2		1	2		1	1		1
Taper Length (ft)	240			240			300			300		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.667			0.950			0.950			0.367		
Satd. Flow (perm)	1242	1863	1583	3433	3539	1583	3433	3539	1583	684	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			262			149			205			149
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			1041			1315			2758	
Travel Time (s)		12.1			15.8			16.3			34.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	77	159	317	292	134	35	274	700	205	113	819	119
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	159	317	292	134	35	274	700	205	113	819	119
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4			8			2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	17.4	22.6	22.6	20.4	25.6	25.6	22.0	55.9	55.9	11.1	45.0	45.0
Total Split (%)	15.8%	20.5%	20.5%	18.5%	23.3%	23.3%	20.0%	50.8%	50.8%	10.1%	40.9%	40.9%
Maximum Green (s)	12.9	18.1	18.1	15.9	21.1	21.1	17.5	51.4	51.4	6.6	40.5	40.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	22.6	13.9	13.9	13.5	21.1	21.1	13.5	51.6	51.6	51.1	44.6	44.6
Actuated g/C Ratio	0.22	0.13	0.13	0.13	0.20	0.20	0.13	0.50	0.50	0.49	0.43	0.43
v/c Ratio	0.24	0.64	0.72	0.65	0.19	0.08	0.61	0.40	0.23	0.28	0.54	0.16
Control Delay	27.7	54.7	19.5	50.6	36.2	0.4	49.2	17.9	3.0	12.7	25.0	2.5
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	27.7	54.7	19.5	50.6	36.2	0.4	49.2	17.9	3.0	12.7	25.0	2.5
LOS	C	D	B	D	D	A	D	B	A	B	C	A
Approach Delay		30.7			42.6			22.6			21.1	
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 103.6			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 59.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr

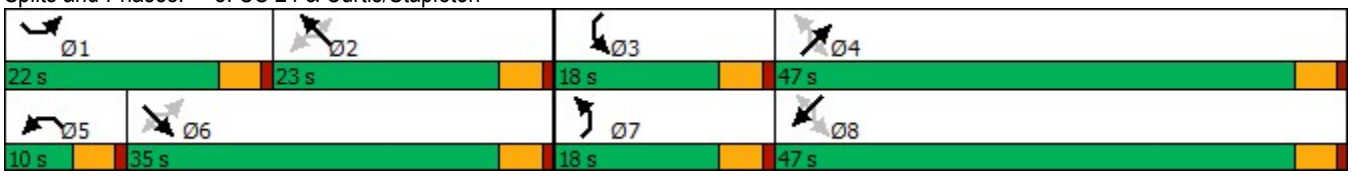


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	173	368	589	75	372	51	297	395	50	142	797	349
Future Volume (vph)	173	368	589	75	372	51	297	395	50	142	797	349
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		325	215		215	890		1000	790		790
Storage Lanes	2		1	2		0	2		1	2		1
Taper Length (ft)	240			200			190			190		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.347			0.516			0.129			0.504		
Satd. Flow (perm)	1254	3539	1583	1865	3539	1583	466	3539	1583	1821	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			323			149			149			362
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1349			1298			2758			1426	
Travel Time (s)		20.4			19.7			34.2			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	188	400	640	82	404	55	319	425	54	154	866	379
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	400	640	82	404	55	319	425	54	154	866	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.0	35.0	35.0	10.0	23.0	23.0	18.0	47.0	47.0	18.0	47.0	47.0
Total Split (%)	20.0%	31.8%	31.8%	9.1%	20.9%	20.9%	16.4%	42.7%	42.7%	16.4%	42.7%	42.7%
Maximum Green (s)	17.5	30.5	30.5	5.5	18.5	18.5	13.5	42.5	42.5	13.5	42.5	42.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	35.6	29.0	29.0	28.5	22.7	22.7	46.2	34.5	34.5	38.3	30.5	30.5
Actuated g/C Ratio	0.38	0.31	0.31	0.31	0.24	0.24	0.50	0.37	0.37	0.41	0.33	0.33
v/c Ratio	0.27	0.36	0.89	0.12	0.47	0.11	0.52	0.32	0.08	0.17	0.75	0.50
Control Delay	20.7	28.1	33.3	20.5	33.2	0.5	16.1	21.9	0.2	13.3	32.6	5.6
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	20.7	28.1	33.3	20.5	33.2	0.5	16.1	21.9	0.2	13.3	32.6	5.6
LOS	C	C	C	C	C	A	B	C	A	B	C	A
Approach Delay		29.7			27.9			18.1			23.2	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 92.8			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 24.8		Intersection LOS: C	
Intersection Capacity Utilization 73.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: US 24 & Curtis/Stapleton

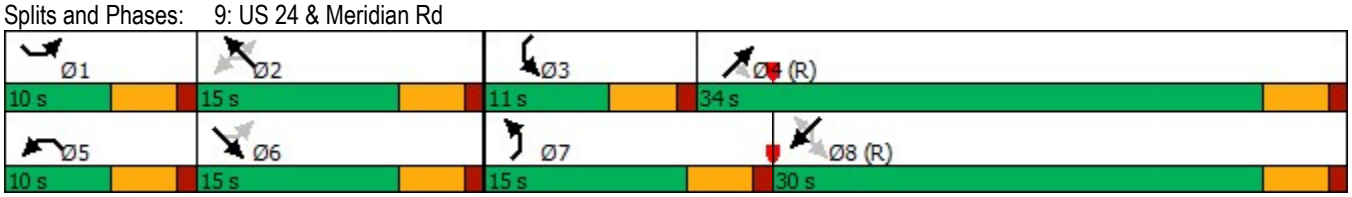


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	33	345	611	40	158	259	131	932	30	226	1277	50
Future Volume (vph)	33	345	611	40	158	259	131	932	30	226	1277	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195		195	195		195	555		490	555		490
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	180			180			300			300		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.644			0.379			0.950			0.232		
Satd. Flow (perm)	1200	3539	1583	706	3539	1583	3433	5085	1583	432	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			439			278			164			164
Link Speed (mph)		40			40			65			65	
Link Distance (ft)		873			1300			985			695	
Travel Time (s)		14.9			22.2			10.3			7.3	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	363	643	43	170	278	138	981	32	238	1344	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	363	643	43	170	278	138	981	32	238	1344	53
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		Free	2		2			4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	15.0		10.0	15.0	15.0	15.0	34.0	34.0	11.0	30.0	30.0
Total Split (%)	14.3%	21.4%		14.3%	21.4%	21.4%	21.4%	48.6%	48.6%	15.7%	42.9%	42.9%
Maximum Green (s)	5.5	10.5		5.5	10.5	10.5	10.5	29.5	29.5	6.5	25.5	25.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min		None	Min	Min	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0			11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0	0		0	0		0	0
Act Effct Green (s)	13.6	10.3	70.0	14.5	12.3	12.3	8.2	33.3	33.3	39.6	34.1	34.1
Actuated g/C Ratio	0.19	0.15	1.00	0.21	0.18	0.18	0.12	0.48	0.48	0.57	0.49	0.49
v/c Ratio	0.13	0.70	0.41	0.19	0.27	0.55	0.34	0.41	0.04	0.63	0.54	0.06
Control Delay	19.7	36.2	0.8	20.8	26.3	8.6	30.4	13.4	0.1	17.8	15.8	0.1
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	19.7	36.2	0.8	20.8	26.3	8.6	30.4	13.4	0.1	17.8	15.8	0.1
LOS	B	D	A	C	C	A	C	B	A	B	B	A
Approach Delay		13.8			15.8			15.1			15.6	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 4:NET and 8:SWTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 15.0		Intersection LOS: B	
Intersection Capacity Utilization 59.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	13	41	350	593	96
Future Vol, veh/h	26	13	41	350	593	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	245	-	-	195
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	14	41	350	659	107

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1091	659	766	0	-	0
Stage 1	659	-	-	-	-	-
Stage 2	432	-	-	-	-	-
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	238	464	847	-	-	-
Stage 1	515	-	-	-	-	-
Stage 2	655	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	227	464	847	-	-	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	655	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	847	-	227	464	-	-
HCM Lane V/C Ratio	0.048	-	0.124	0.03	-	-
HCM Control Delay (s)	9.5	-	23.1	13	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	26	43	363	567	46
Future Vol, veh/h	28	26	43	363	567	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	28	43	363	630	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1079	630	681	0	-	0
Stage 1	630	-	-	-	-	-
Stage 2	449	-	-	-	-	-
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	242	482	912	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	643	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	228	482	912	-	-	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	912	-	228	482	-	-
HCM Lane V/C Ratio	0.047	-	0.133	0.059	-	-
HCM Control Delay (s)	9.1	-	23.2	12.9	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	0.2	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	125	321	492	38	0	31
Future Vol, veh/h	125	321	492	38	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	260	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	85	85	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	345	579	45	0	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	624	0	-	0	-	579
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	957	-	-	-	0	515
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	957	-	-	-	-	515
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	957	-	-	-	515
HCM Lane V/C Ratio	0.14	-	-	-	0.065
HCM Control Delay (s)	9.4	-	-	-	12.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.2

13: Curtis & Sunriver Performance by movement Interval #1 7:30

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	11.0	3.0	3.6	0.5	0.5	1.1

13: Curtis & Sunriver Performance by movement Interval #2 7:45

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	11.0	2.7	3.8	0.4	0.4	1.1

13: Curtis & Sunriver Performance by movement Interval #3 8:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	9.9	2.6	4.5	0.0	0.4	0.4	1.0

13: Curtis & Sunriver Performance by movement Interval #4 8:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0		0.0	0.0	0.0
Total Del/Veh (s)	10.9	2.7	4.0		0.4	0.4	1.0

13: Curtis & Sunriver Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	11.1	2.6	4.0	0.6	0.4	0.4	1.1

16: Curtis & Minden Performance by movement Interval #1 7:30

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	9.1	2.4	4.6	0.5	0.1	1.1

16: Curtis & Minden Performance by movement Interval #2 7:45

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	8.3	2.4	2.9	0.5	0.1	1.0

16: Curtis & Minden Performance by movement Interval #3 8:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	9.2	2.5	2.3	0.0	0.5	0.1	1.1

13: Curtis & Sunriver Performance by movement

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	11.1	3.2	4.8	0.8	0.6	1.3

16: Curtis & Minden Performance by movement

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.8	4.3	3.4	0.7	0.1	1.4

Total Zone Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	81.7

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	400	438	469	485
Demand Flow Rate, veh/h	408	447	479	495
Vehicles Circulating, veh/h	515	471	143	471
Vehicles Exiting, veh/h	450	150	780	447
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.3	8.7	4.9	9.6
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.044	0.956	0.103	0.897	0.326	0.674	0.091	0.909
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	18	390	46	401	156	323	45	450
Cap Entry Lane, veh/h	889	889	925	925	1247	1247	925	925
Entry HV Adj Factor	1.000	0.981	0.978	0.979	0.981	0.979	0.978	0.979
Flow Entry, veh/h	18	382	45	393	153	316	44	441
Cap Entry, veh/h	889	871	905	906	1223	1220	904	906
V/C Ratio	0.020	0.439	0.050	0.434	0.125	0.259	0.049	0.486
Control Delay, s/veh	4.2	9.5	4.4	9.1	4.0	5.3	4.4	10.1
LOS	A	A	A	A	A	A	A	B
95th %tile Queue, veh	0	2	0	2	0	1	0	3

Intersection	
Intersection Delay, s/veh	9.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	351	306	395	700
Demand Flow Rate, veh/h	358	312	402	714
Vehicles Circulating, veh/h	674	456	161	350
Vehicles Exiting, veh/h	390	107	871	418
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.9	6.8	4.5	12.6
Approach LOS	A	A	A	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.179	0.821	0.096	0.904	0.408	0.592	0.060	0.940
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	64	294	30	282	164	238	43	671
Cap Entry Lane, veh/h	769	769	938	938	1227	1227	1033	1033
Entry HV Adj Factor	0.984	0.979	0.967	0.982	0.982	0.981	0.977	0.981
Flow Entry, veh/h	63	288	29	277	161	234	42	658
Cap Entry, veh/h	757	753	906	921	1204	1204	1009	1013
V/C Ratio	0.083	0.382	0.032	0.301	0.134	0.194	0.042	0.650
Control Delay, s/veh	5.6	9.6	4.3	7.1	4.1	4.7	3.9	13.1
LOS	A	A	A	A	A	A	A	B
95th %tile Queue, veh	0	2	0	1	0	1	0	5

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	42	391	766
Demand Flow Rate, veh/h	43	399	781
Vehicles Circulating, veh/h	672	29	42
Vehicles Exiting, veh/h	151	686	386
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.0	5.4	9.7
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	43	399	781
Cap Entry Lane, veh/h	695	1340	1322
Entry HV Adj Factor	0.977	0.980	0.981
Flow Entry, veh/h	42	391	766
Cap Entry, veh/h	679	1313	1296
V/C Ratio	0.062	0.298	0.591
Control Delay, s/veh	6.0	5.4	9.7
LOS	A	A	A
95th %tile Queue, veh	0	1	4

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	58	406	681
Demand Flow Rate, veh/h	60	414	695
Vehicles Circulating, veh/h	643	31	44
Vehicles Exiting, veh/h	96	672	401
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.1	5.5	8.5
Approach LOS	A	A	A

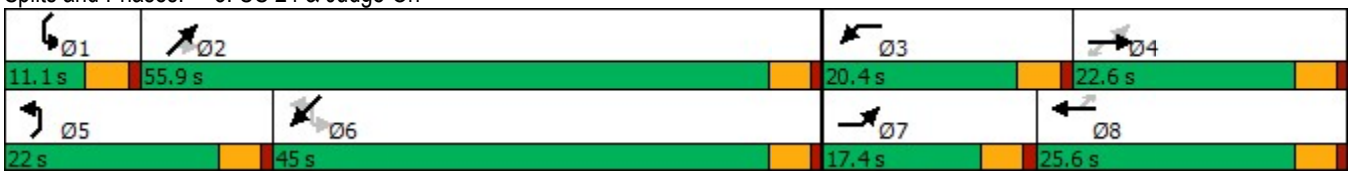
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	60	414	695
Cap Entry Lane, veh/h	716	1337	1319
Entry HV Adj Factor	0.967	0.980	0.980
Flow Entry, veh/h	58	406	681
Cap Entry, veh/h	692	1310	1293
V/C Ratio	0.084	0.310	0.527
Control Delay, s/veh	6.1	5.5	8.5
LOS	A	A	A
95th %tile Queue, veh	0	1	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	249	214	392	433	230	163	487	1521	431	145	1171	173
Future Volume (vph)	249	214	392	433	230	163	487	1521	431	145	1171	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	290		0	290		290	860		290	695		290
Storage Lanes	1		1	2		1	2		1	1		1
Taper Length (ft)	240			240			300			300		
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	3433	3539	1583	3433	3539	1583	1770	3539	1583
Flt Permitted	0.599			0.950			0.950			0.099		
Satd. Flow (perm)	1116	1863	1583	3433	3539	1583	3433	3539	1583	184	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			223			159			417			182
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		801			1041			1315			2758	
Travel Time (s)		12.1			15.8			16.3			34.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	268	230	422	466	247	175	513	1601	454	153	1233	182
Shared Lane Traffic (%)												
Lane Group Flow (vph)	268	230	422	466	247	175	513	1601	454	153	1233	182
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4			8			2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	17.4	22.6	22.6	20.4	25.6	25.6	22.0	55.9	55.9	11.1	45.0	45.0
Total Split (%)	15.8%	20.5%	20.5%	18.5%	23.3%	23.3%	20.0%	50.8%	50.8%	10.1%	40.9%	40.9%
Maximum Green (s)	12.9	18.1	18.1	15.9	21.1	21.1	17.5	51.4	51.4	6.6	40.5	40.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	30.1	17.4	17.4	15.9	20.6	20.6	17.5	51.4	51.4	47.1	40.5	40.5
Actuated g/C Ratio	0.28	0.16	0.16	0.15	0.19	0.19	0.16	0.47	0.47	0.43	0.37	0.37
v/c Ratio	0.70	0.78	0.96	0.93	0.37	0.41	0.93	0.96	0.47	0.88	0.94	0.26
Control Delay	39.8	62.7	56.6	73.8	40.5	11.0	71.2	43.6	4.3	66.8	48.2	4.5
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	39.8	62.7	56.6	73.8	40.5	11.0	71.2	43.6	4.3	66.8	48.2	4.5
LOS	D	E	E	E	D	B	E	D	A	E	D	A
Approach Delay		53.2			52.2			42.2			45.0	
Approach LOS		D			D			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 109.3			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 46.1		Intersection LOS: D	
Intersection Capacity Utilization 88.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: US 24 & Judge Orr

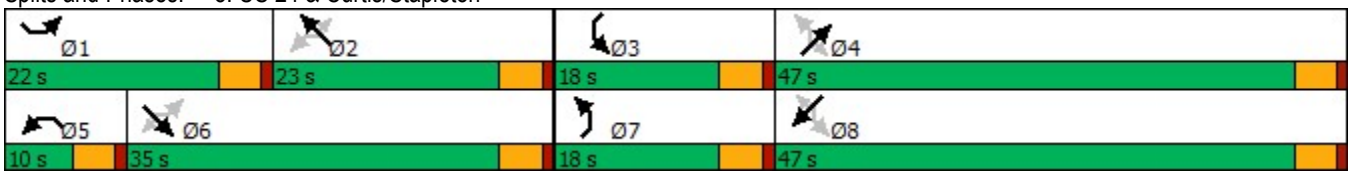


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	347	352	378	125	503	202	645	828	150	165	493	349
Future Volume (vph)	347	352	378	125	503	202	645	828	150	165	493	349
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	190		325	215		215	890		1000	790		790
Storage Lanes	2		1	2		0	2		1	2		1
Taper Length (ft)	240			200			190			190		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.189			0.525			0.268			0.191		
Satd. Flow (perm)	683	3539	1583	1897	3539	1583	968	3539	1583	690	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			390			220			161			326
Link Speed (mph)		45			45			55			55	
Link Distance (ft)		1349			1298			2758			1426	
Travel Time (s)		20.4			19.7			34.2			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	377	383	411	136	547	220	694	890	161	179	536	379
Shared Lane Traffic (%)												
Lane Group Flow (vph)	377	383	411	136	547	220	694	890	161	179	536	379
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6	6	5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.0	35.0	35.0	10.0	23.0	23.0	18.0	47.0	47.0	18.0	47.0	47.0
Total Split (%)	20.0%	31.8%	31.8%	9.1%	20.9%	20.9%	16.4%	42.7%	42.7%	16.4%	42.7%	42.7%
Maximum Green (s)	17.5	30.5	30.5	5.5	18.5	18.5	13.5	42.5	42.5	13.5	42.5	42.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	34.3	24.5	24.5	23.5	17.8	17.8	41.8	29.3	29.3	31.5	23.6	23.6
Actuated g/C Ratio	0.40	0.29	0.29	0.27	0.21	0.21	0.49	0.34	0.34	0.37	0.28	0.28
v/c Ratio	0.57	0.38	0.56	0.22	0.74	0.44	0.80	0.74	0.25	0.35	0.55	0.56
Control Delay	21.8	26.8	7.1	19.3	40.9	8.2	23.1	29.1	4.5	14.7	28.6	8.4
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	21.8	26.8	7.1	19.3	40.9	8.2	23.1	29.1	4.5	14.7	28.6	8.4
LOS	C	C	A	B	D	A	C	C	A	B	C	A
Approach Delay		18.3			29.7			24.5			19.3	
Approach LOS		B			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 85.8			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 22.8		Intersection LOS: C	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: US 24 & Curtis/Stapleton

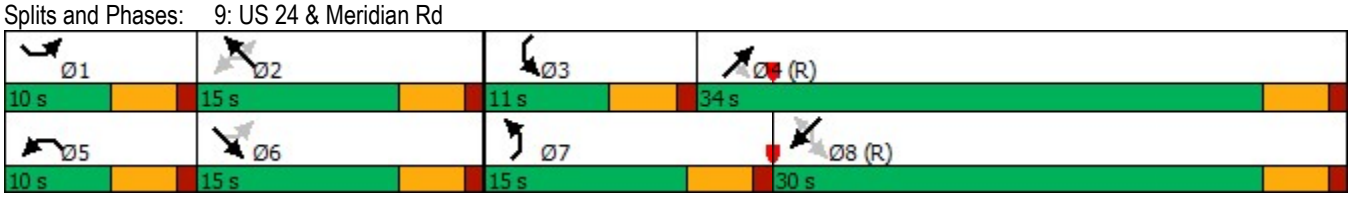


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	84	623	257	60	299	257	421	2030	80	209	1166	35
Future Volume (vph)	84	623	257	60	299	257	421	2030	80	209	1166	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195		195	195		195	555		490	555		490
Storage Lanes	1		1	1		1	2		1	1		1
Taper Length (ft)	180			180			300			300		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.461			0.299			0.950			0.169		
Satd. Flow (perm)	859	3539	1583	557	3539	1583	3433	5085	1583	315	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			271			265			164			164
Link Speed (mph)		40			40			65			65	
Link Distance (ft)		873			1300			985			695	
Travel Time (s)		14.9			22.2			10.3			7.3	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	88	656	271	65	322	276	443	2137	84	220	1227	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	656	271	65	322	276	443	2137	84	220	1227	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Free	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		Free	2		2			4	8		8

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	1	6		5	2	2	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	15.0		10.0	15.0	15.0	15.0	34.0	34.0	11.0	30.0	30.0
Total Split (%)	14.3%	21.4%		14.3%	21.4%	21.4%	21.4%	48.6%	48.6%	15.7%	42.9%	42.9%
Maximum Green (s)	5.5	10.5		5.5	10.5	10.5	10.5	29.5	29.5	6.5	25.5	25.5
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min		None	Min	Min	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0			11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0			0	0		0	0		0	0
Act Effct Green (s)	17.8	14.5	70.0	16.9	12.5	12.5	10.5	29.5	29.5	32.0	25.5	25.5
Actuated g/C Ratio	0.25	0.21	1.00	0.24	0.18	0.18	0.15	0.42	0.42	0.46	0.36	0.36
v/c Ratio	0.30	0.90	0.17	0.28	0.51	0.55	0.86	1.00	0.11	0.79	0.66	0.05
Control Delay	21.7	49.3	0.2	21.8	30.3	9.4	48.0	40.7	0.4	34.1	20.8	0.1
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	21.7	49.3	0.2	21.8	30.3	9.4	48.0	40.7	0.4	34.1	20.8	0.1
LOS	C	D	A	C	C	A	D	D	A	C	C	A
Approach Delay		33.8			20.8			40.6			22.2	
Approach LOS		C			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 4:NET and 8:SWTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 32.5		Intersection LOS: C	
Intersection Capacity Utilization 87.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 9: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	126	66	47	725	384	103
Future Vol, veh/h	126	66	47	725	384	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	245	-	-	195
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	137	72	51	788	474	127

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1364	474	601	0	-	0
Stage 1	474	-	-	-	-	-
Stage 2	890	-	-	-	-	-
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	163	590	976	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	401	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	155	590	976	-	-	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	593	-	-	-	-	-
Stage 2	401	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	70.8	0.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	976	-	155	590	-	-
HCM Lane V/C Ratio	0.052	-	0.884	0.122	-	-
HCM Control Delay (s)	8.9	-	101.6	11.9	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	6.1	0.4	-	-

Intersection	
Int Delay, s/veh	14.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	136	125	73	636	405	67
Future Vol, veh/h	136	125	73	636	405	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	148	136	79	691	500	83

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1349	500	583	0	-	0
Stage 1	500	-	-	-	-	-
Stage 2	849	-	-	-	-	-
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	166	571	991	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 145	571	991	-	-	-
Mov Cap-2 Maneuver	~ 145	-	-	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	419	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	79.8	0.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	991	-	145	571	-	-
HCM Lane V/C Ratio	0.08	-	1.019	0.238	-	-
HCM Control Delay (s)	8.9	-	141	13.3	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	7.6	0.9	-	-

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

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	88	395	497	48	0	154
Future Vol, veh/h	88	395	497	48	0	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	260	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	88	395	497	48	0	167

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	545	0	-	0	-	497
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1024	-	-	-	0	573
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1024	-	-	-	-	573
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1024	-	-	-	573
HCM Lane V/C Ratio	0.086	-	-	-	0.292
HCM Control Delay (s)	8.8	-	-	-	13.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.2

13: Curtis & Sunriver Performance by movement Interval #1 7:30

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.8	2.8	2.7	0.4	0.4	2.7

13: Curtis & Sunriver Performance by movement Interval #2 7:45

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	9.4	2.9	2.9	0.3	0.5	2.4

13: Curtis & Sunriver Performance by movement Interval #3 8:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	10.8	2.9	3.0	0.2	0.4	0.5	2.6

13: Curtis & Sunriver Performance by movement Interval #4 8:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0		0.0	0.0	0.0
Total Del/Veh (s)	8.3	3.3	2.7		0.3	0.3	2.1

13: Curtis & Sunriver Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.1	3.1	2.9	0.2	0.4	0.4	2.5

16: Curtis & Minden Performance by movement Interval #1 7:30

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.6	3.3	2.7	0.5	0.2	3.0

16: Curtis & Minden Performance by movement Interval #2 7:45

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.6	3.5	3.6	0.5	0.2	3.1

16: Curtis & Minden Performance by movement Interval #3 8:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.8	3.3	3.2	0.0	0.6	0.1	3.0

13: Curtis & Sunriver Performance by movement

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	10.1	3.1	3.0	0.7	0.3	2.9

16: Curtis & Minden Performance by movement

Movement	EBL	EBR	NBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	12.1	4.2	4.2	1.0	0.2	3.5

Total Zone Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	91.8

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	455	299	1135	518
Demand Flow Rate, veh/h	465	305	1157	529
Vehicles Circulating, veh/h	547	1126	384	558
Vehicles Exiting, veh/h	539	415	628	873
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.7	15.8	16.0	9.8
Approach LOS	B	C	C	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	L	TR	L	TR
Assumed Moves	L	TR	L	TR	L	TR	L	TR
RT Channelized								
Lane Util	0.062	0.938	0.144	0.856	0.315	0.685	0.202	0.798
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	29	436	44	261	365	792	107	422
Cap Entry Lane, veh/h	863	863	510	510	1001	1001	855	855
Entry HV Adj Factor	0.966	0.980	0.977	0.981	0.981	0.981	0.981	0.979
Flow Entry, veh/h	28	427	43	256	358	777	105	413
Cap Entry, veh/h	833	846	498	500	982	982	839	837
V/C Ratio	0.034	0.505	0.086	0.512	0.365	0.791	0.125	0.494
Control Delay, s/veh	4.6	11.0	8.3	17.1	7.6	19.9	5.5	10.9
LOS	A	B	A	C	A	C	A	B
95th %tile Queue, veh	0	3	0	3	2	9	0	3

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	413	396	995	662
Demand Flow Rate, veh/h	421	404	1015	675
Vehicles Circulating, veh/h	573	1044	514	672
Vehicles Exiting, veh/h	774	485	480	776
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.5	16.0	15.1	14.1
Approach LOS	A	C	C	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	L	TR	L	TR
Assumed Moves	LT	R	LT	R	L	TR	L	TR
RT Channelized								
Lane Util	0.810	0.190	0.775	0.225	0.354	0.646	0.256	0.744
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	341	80	313	91	359	656	173	502
Cap Entry Lane, veh/h	843	843	549	549	890	890	770	770
Entry HV Adj Factor	0.981	0.975	0.981	0.978	0.981	0.980	0.983	0.981
Flow Entry, veh/h	335	78	307	89	352	643	170	492
Cap Entry, veh/h	827	822	539	537	872	872	757	756
V/C Ratio	0.405	0.095	0.570	0.166	0.404	0.737	0.225	0.652
Control Delay, s/veh	9.3	5.3	18.0	8.9	8.9	18.5	7.3	16.5
LOS	A	A	C	A	A	C	A	C
95th %tile Queue, veh	2	0	4	1	2	7	1	5

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	209	839	601
Demand Flow Rate, veh/h	213	856	613
Vehicles Circulating, veh/h	483	140	52
Vehicles Exiting, veh/h	182	556	944
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	7.1	14.0	7.6
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	213	856	613
Cap Entry Lane, veh/h	843	1196	1309
Entry HV Adj Factor	0.981	0.980	0.980
Flow Entry, veh/h	209	839	601
Cap Entry, veh/h	827	1173	1282
V/C Ratio	0.253	0.716	0.468
Control Delay, s/veh	7.1	14.0	7.6
LOS	A	B	A
95th %tile Queue, veh	1	7	3

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	284	770	583
Demand Flow Rate, veh/h	290	786	595
Vehicles Circulating, veh/h	510	151	81
Vehicles Exiting, veh/h	166	649	856
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.7	12.3	7.8
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	290	786	595
Cap Entry Lane, veh/h	820	1183	1270
Entry HV Adj Factor	0.979	0.980	0.980
Flow Entry, veh/h	284	770	583
Cap Entry, veh/h	803	1159	1245
V/C Ratio	0.354	0.664	0.468
Control Delay, s/veh	8.7	12.3	7.8
LOS	A	B	A
95th %tile Queue, veh	2	5	3