

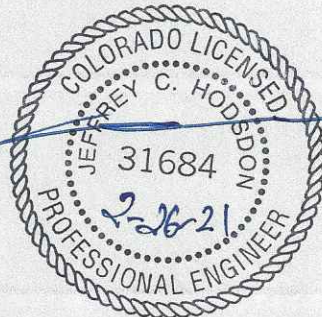


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Judge Orr Eastonville Commercial Center
Traffic Impact Study
PCD File No. SKP203
(LSC #194730)
February 5, 2021

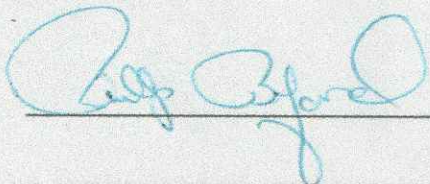
Traffic Engineer's Statement

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.



2-8-21
Date

Judge Orr Eastonville Commercial Center Master Traffic Impact Study

Prepared for:
Phillip W. Buford and Mary Jean Berg Buford
PO Box 100
17229 Highway 96
Ordway, CO 81063

FEBRUARY 5, 2021

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

LSC #194730



CONTENTS

REPORT CONTENTS 4

LIST OF OTHER TRAFFIC REPORTS USED IN THE PREPARATION OF THIS REPORT 5

LAND USE AND ACCESS 5

 Proposed Land Uses 5

 Proposed Site Access Locations 5

SIGHT DISTANCE 6

ROAD AND TRAFFIC CONDITIONS AND MTCP CLASSIFICATION 6

 Existing Traffic Volumes 7

PEDESTRIAN AND BICYCLE FACILITIES 8

TRIP GENERATION 8

 Pass-By and Diverted Trips 9

TRIP DISTRIBUTION AND ASSIGNMENT 10

 Trip Directional Distribution 10

 Site-Generated Traffic 10

 Existing + Site-Generated Traffic Volumes 10

 2040 Background Traffic Volumes 10

 2040 Total Traffic Volumes 11

LEVEL OF SERVICE ANALYSIS 12

 Judge Orr Road/Eastonville Road/Meridian Ranch 12

 Short Term 12

 Long Term 13

 Eastonville Road/Copenhagen Road (Proposed North Site Access) 13

 Short Term 13

 Long Term 13

 Judge Orr Road/Proposed South Site Access 13

 Short-Term 13

 Long Term 13

 US Highway 24/Judge Orr Road 14

 Short Term 14

 Long-Term 14

| | |
|---|----|
| Eastonville Road/Woodmen Hills Drive..... | 14 |
| Short Term | 14 |
| Long Term | 15 |
| VEHICLE QUEUING | 15 |
| Judge Orr Road/Proposed South Site Access..... | 15 |
| Eastonville Road/Copenhagen Road/Proposed North Site Access | 16 |
| US Hwy 24/Judge Orr Road..... | 17 |
| ROADWAY IMPROVEMENTS..... | 17 |
| Auxiliary Turn Lanes..... | 17 |
| Judge Orr Road/Proposed South Site Access..... | 17 |
| Eastonville Road/Proposed North Site Access..... | 18 |
| US Highway 24/Judge Orr Road..... | 19 |
| Judge Orr Road/Meridian Ranch Boulevard/Eastonville Road..... | 19 |
| Intersection Configuration and Traffic Control..... | 19 |
| ROADWAY CLASSIFICATIONS | 19 |
| COUNTY ROAD IMPROVEMENT FEE PROGRAM..... | 19 |
| Transportation Impact Fees..... | 19 |
| Reimbursable Improvements | 20 |
| MULTI-MODAL TRANSPORTATION AND TDM OPPORTUNITIES..... | 20 |
| DEVIATIONS | 20 |
| FINDINGS AND CONCLUSIONS..... | 20 |
| Enclosures: | 21 |

Tables 6 and 7

Figure 1 - Figure 8c

Traffic Count Reports

Synchro LOS Reports



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February 5, 2021

Phillip W. Buford and Mary Jean Berg Buford
PO Box 100
17229 Highway 96
Ordway, CO 81063

RE: Judge Orr Eastonville Commercial Center
El Paso County, CO
Master Traffic Impact Study
LSC #194730
PCD File No. SKP203

Dear Mr. and Mrs. Buford,

LSC Transportation Consultants, Inc. has prepared this Master Traffic Impact Study for the proposed Judge Orr Eastonville Commercial Center in El Paso County, CO. Located generally northeast of the intersection of Eastonville Road/Judge Orr Road (El Paso County parcel ID 4232302003), the 13.72-acre site is currently vacant. Access to the site is proposed to Judge Orr Road (south access) and Eastonville Road (west access). No direct access is proposed to US Highway 24 (US Hwy 24). 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 intersections of Judge Orr Road/Meridian Ranch Road/Eastonville Road and US Hwy 24/Judge Orr Road;
- Estimated average weekday traffic (AWT) volumes adjacent to the proposed development on Judge Orr Road, Eastonville Road, Meridian Ranch Road, and US Hwy 24;
- Projections of 20-year background traffic volumes on Judge Orr Road, Eastonville Road, Meridian Ranch 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 development 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: Judge Orr Road/Meridian Ranch Road/Eastonville Road and US Hwy 24/Judge Orr Road;
- Projected total daily and peak-hour traffic volumes at the study-area intersections;
- Intersection level of service (LOS) analysis at the study-area intersections;
- Evaluation of short- 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; and
- Findings and recommendations for submittal to El Paso County.

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

The following previously-completed traffic reports are located adjacent to the proposed Judge Orr Eastonville Commercial Center and were used to provide reference and background information

- "Meadowlake Ranch" – dated May 29, 2019
- "Falcon Crossing" – dated February 5, 2007
- "Liberty Tree Academy" – dated September 19, 2020
- Meridian Ranch – several reports
- Grandview Reserve – dated December 15, 2020

LAND USE AND ACCESS

Proposed Land Uses

Figure 1 shows the site location relative to the adjacent and nearby roadways. Located generally northeast of the intersection of Eastonville Road/Judge Orr Road (El Paso County parcel ID 4232302003), the site is currently vacant. Anticipated land uses for the 13.72-acre site include:

- 151 – Mini-Warehouse (500 storage units)
- 565 – Day Care Center (approximately 90 students)
- 820 – Shopping Center (18 acres, assuming a 15-percent floor area ratio)
- 912 – Drive-in Bank (7,000 square feet)

Proposed Site Access Locations

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. The access points may be private street/driveway connections or they

may be developed as public streets. This will be determined later, but this report and the deviations treat them as potential public street connections. Two full-movement access points/potential public street intersections are proposed:

- With Judge Orr Road – located approximately 1,235 feet east of Eastonville Road
- With Eastonville Road – future extension of Copenhagen Road

Per Standard 2.2.5.C of the ECM, ¼-mile (1,320 feet) is required on Urban Minor Arterials between public street intersections. The following proposed public street intersection spacings are currently shown on the conceptual site plan, as shown in Deviation Exhibit 1:

- 860 feet – on Eastonville Road between Judge Orr Road and the existing intersection of Eastonville/Copenhagen Road. The north site street connection is proposed to tie into this existing intersection.
- 360 feet – on Eastonville Road between the existing Eastonville/Tex Tan Road intersection and existing intersection of Eastonville/Copenhagen Road intersection. The north street connection for this site is proposed to tie into this latter existing intersection.
- 1,235 feet – along Judge Orr Road between Eastonville Road and the proposed south site street connection (which has been shifted, with this submittal, to align with the anticipated future street proposed for the property south of Judge Orr Road).
- 770 feet – along Judge Orr Road between the Meadowlake Ranch main entry street the proposed intersection of Judge Orr Road/the south site street connection/the anticipated future street proposed for the property south of Judge Orr Road

The proposed public street intersection spacings are less than one-quarter mile along both adjacent roads, which does **not** meet ECM criteria for intersection spacing. As such, deviation request(s) would be required for the proposed site public street intersection locations.

SIGHT DISTANCE

Intersection sight distances prescribed in Tables 2-21, in ECM Section 2.3.6.G will need to be maintained along the site frontage of Judge Orr Road and Eastonville Road for the proposed new intersection on Judge Orr Road and the new east leg of the Eastonville/Copenhagen Road intersection. Any site improvements including (but not limited to) landscaping, parking areas, buildings, monument signs, etc. must not impede the required lines of sight. Note: there are no significant vertical curves on Judge Orr Road or Eastonville Road in the vicinity of the site that would limit sight distance.

Note: Once the roadway intersection locations are solidified at the preliminary plan/final plat stage, a sight distance analysis and sight distance exhibit(s) will be provided.

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 24 (US Hwy 24) is a state highway extending locally from the City of Colorado Springs to Peyton in a northeasterly direction and then continuing east. US Hwy 24 is planned to be widened to four lanes through the Falcon area and is classified as an E-X – Expressway by the Colorado Department of Transportation (CDOT) and a 4-lane Principal Arterial on the *El Paso County Major Transportation Corridors Plan (MTCP)*. The posted speed limit on US Hwy 24 adjacent to the site is 65 miles per hour (mph). Auxiliary left-turn lanes currently exist on the northbound and southbound approaches at the signalized intersection of US Hwy 24/Judge Orr.

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 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.

Eastonville Road is shown as a two-lane Minor Arterial on the *El Paso County 2040 Major Transportation Corridors Plan* and the *Preserved Corridor Network Plan*. A two-lane roadway extending northeast from Meridian Road past Hodgen Road, Eastonville Road has a posted speed limit of 35 mph. All approaches at the four-way stop-sign-controlled intersection of Judge Orr Road/Eastonville Road have an exclusive left-turn lane, while the northwest-bound approach also has an auxiliary right-turn lane. South of Stapleton Drive, Eastonville Road's cross-section is consistent with a two-lane Urban Collector cross-section with a painted two-way left-turn lane (TWLTL).

Meridian Ranch Road extends from Eastonville Road to Sunset Crater Drive and is shown as a two-lane Collector on the MTCP. Judge Orr Road transitions to Meridian Road northwest of Eastonville Road and has a posted speed limit of 35 mph. The southeast-bound approach has a painted TWLTL with a shared through/right-turn lane.

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. on Wednesday, October 2, 2019:

- Judge Orr Road/Eastonville Road
- US Hwy 24/Judge Orr Road
- Woodmen Hills Drive/Eastonville Road

The Woodmen Hills Drive/Eastonville Road intersection has been added per staff comment. Vehicular turning-movement counts were conducted at the intersection of Woodmen Hills Drive/Eastonville Road (Thursday, December 3, 2020 from 6:30 – 8:30 a.m. and Wednesday, December 2, 2020 from 4:00 – 6:00 p.m.). Note: These volumes are likely affected by the COVID-

19 pandemic. Modified school schedules are likely having a significant effect on volumes. Given the numerous area schools, and atypical current volumes, this report focused on the long-term background and total volume projections for evaluating impacts at this intersection (although the actual December 2020 counted volumes have been included, along with “existing plus site” volumes, for completeness).

Per criteria in ECM Section B.2.3.A – Study Area Basis for Master TIS, “additional off-site major intersections where the project contributes a 10-percent impact to any approach leg of the intersection.”

The intersection of Stapleton/Eastonville is not included as a study-area intersection, as the 10-percent threshold is not exceeded.

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, including at the commercial access points north of the site. Raw count data is attached.

PEDESTRIAN AND BICYCLE FACILITIES

Judge Orr Road and Eastonville Road do not currently have sidewalks or bicycle lanes to accommodate pedestrians or bicycles, but sidewalks would be required along both roadways following site buildout. The proposed subdivision roads are likely to be Urban roadways and, per ECM criteria, would require sidewalks.

The applicant plans to create a trail corridor along the north side of Judge Orr Road that could potentially be part of a connection to the Rock Island Trail (along the north side of US Hwy 24).

TRIP GENERATION

Estimates of the vehicle trips projected to be generated by the proposed Judge Orr Eastonville Commercial Center development 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:

- 151 – Mini-Warehouse
- 565 – Day Care Center
- 820 – Shopping Center
- 912 – Drive-in Bank

Table 1 below presents a summary of the estimated external site trip generation. A detailed trip-generation estimate for the site, including ITE rates for the proposed land uses, is presented in Table 6 (attached). Figure 2 shows the layout within the proposed Judge Orr Eastonville Commercial Center site.

Table 1: Estimated External Site Vehicle-Trip Generation

| Analysis Period | Weekday | | |
|---------------------|---------|-------|-------|
| | In | Out | Total |
| Morning Peak Hour | 191 | 132 | 323 |
| Afternoon Peak Hour | 359 | 383 | 762 |
| Daily/24-hour | 3,399 | 3,399 | 6,798 |

The proposed Judge Orr Eastonville Commercial Center site is projected to generate about 6,798 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 191 entering vehicles and 132 exiting vehicles would be generated. Approximately 359 entering and 383 exiting vehicles would be generated by the site during the afternoon 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 6 (attached) shows the percentage of the trips generated that were assumed to be pass-by trips. Non-primary trip percentage 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.

LSC has used the average ITE percentage as pass-by trips for this site to include trips from adjacent Judge Orr Road and Eastonville Road. Diverted trips from adjacent US Hwy 24 are considered non-pass-by trips. These trips would be added to Judge Orr Road and would result in altered turning movements at the intersection of US Hwy 24/Judge Orr Road, but generally would not add “new impact” trips to US Hwy 24. ITE-average percent of non-primary trips for shopping-related land used for this study are summarized in Table 6. The resulting primary and non-primary trips are shown in Table 6.

ITE *Trip Generation* estimated that the proposed Judge Orr Eastonville Commercial Center development is projected to generate about 4,636 total non-pass-by vehicle trips on the average weekday during a 24-hour period, with about half entering the site and half exiting the site during the afternoon peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Directional Distribution

The directional-distribution estimate 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. Directional-distribution splits from LSC's previously-conducted Meadowlake Ranch traffic study (dated May 19, 2019) were considered when formulating the trip distribution percentages.

Site-Generated Traffic

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

- Judge Orr Road/Eastonville Road
- Judge Orr Road/proposed south full-movement site access
- Eastonville Road/Copenhagen Road/proposed north full-movement site access
- US Hwy 24/Judge Orr 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 6). Figure 5 shows the projected site-generated traffic volumes for the weekday morning and afternoon peak hours. The figure also shows the estimated average daily traffic volumes (ADTs).

Existing + Site-Generated Traffic Volumes

Figure 6 shows the sum of the 2023 background 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

Long-term background traffic volumes are estimates by LSC, based on projected 2040 volumes adjacent to the site shown in Map 9 of the MTCP. Additionally, traffic generated by planned adjacent and nearby developments, such as Meadowlake Ranch, Liberty Tree Academy, and Falcon Crossing, has been included in 2040 background traffic volumes.

Projected long-term background traffic volume projections along Eastonville Road in this vicinity may be conservative. These 2040 background volumes were based, in part, on site-generated traffic from several nearby studies. Oftentimes, combining site-generated volumes from several

TIS reports may result in over-estimation – for several reasons. Paired trips between developments are not likely accounted for. TIS reports typically assume buildout of the development, whereas buildout may not be reached by the horizon year. Additionally, cumulative projected 2040 background volumes on a roadway such as Eastonville may be subject to the effects of future congestion. Drivers may avoid busy intersections (such as this one) if congestion becomes problematic and, thus, would find alternative routes. Many of these can often be accounted for using a large macroscopic subarea or regional transportation model. The next iteration of the El Paso County MTCP transportation modeling will likely provide updated overall long-term estimates for many of these roadways. A separate scenario showing “moderate growth” estimates have been prepared.

Volumes and LOS results at the intersection of Woodmen Hills Drive/Eastonville Road are shown in Figure 7b, while those for Copenhagen Road/Eastonville Road are shown in Figure 7c. All other study-area volumes and LOS results are shown in Figure 7a.

Also included are estimates of “Moderated” total-traffic volumes. These have been shown specifically for intersections with LOS E and F turning movements (note: although “moderated” volumes under this alternate scenario have not been shown for every intersection, the moderated background volumes would pass through the other intersections as well). Please refer to the previous section for reasoning behind the moderated background traffic and resulting moderated total volumes shown in these figures for select intersections.

Future access to the currently-undeveloped parcel to the south would likely be required to align with this site’s access on Judge Orr Road. LSC has assumed single-family residential development on 49 acres, with the potential for additional future single-family residential dwelling units northeast of this area (east of the drainage channel. Approximately 60 percent of future residential traffic from this south parcel was assumed to orient to/from US Hwy 24, while the remainder would access the site via the Eastonville/Judge Orr/Meridian Ranch intersection to the west.

2040 Total Traffic Volumes

Figure 8a, Figure 8b, and Figure 8c show the sum of 2040 background traffic volumes (from Figure 7) plus site-generated traffic volumes (from Figure 5). Volumes and LOS results at the intersection of Woodmen Hills Drive/Eastonville Road are shown in Figure 8b, while those for Copenhagen Road/Eastonville Road are shown in Figure 8c. All other study-area volumes and LOS results are shown in Figure 8a.

Also included are estimates of “Moderated” total traffic volumes. These have been shown specifically for intersections with LOS E and F turning movements (note: although “moderated” volumes under this alternate scenario have not been shown for every intersection, the moderated background volumes would pass through the other intersections as well). Please refer to the previous section for reasoning behind the moderated background traffic and resulting moderated total volumes shown in these figures for select intersections.

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 sec or less | 10.0 sec or less |
| B | 10.1-20.0 sec | 10.1-15.0 sec |
| C | 20.1-35.0 sec | 15.1-25.0 sec |
| D | 35.1-55.0 sec | 25.1-35.0 sec |
| E | 55.1-80.0 sec | 35.1-50.0 sec |
| F | 80.1 sec or more | 50.1 sec or more |

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

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

- Figure 3: 2020 Existing Traffic, Lane Geometry, Traffic Control, and LOS
 - Figure 6: 2020 Background + 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
- Note: Figure 7 and Figure 8 consist of three separate parts (a, b, and c).**

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 LSC’s previously-conducted Meadowlake Ranch traffic study, dated May 19, 2019).

Judge Orr Road/Eastonville Road/Meridian Ranch

Short Term

The intersection of Judge Orr/Meridian Ranch/Eastonville is currently all-way, stop-sign-controlled (AWSC). All movements at this intersection currently operate at and are projected to remain at LOS C or better during both peak hours with the addition of site-generated traffic. No modifications would be required to this intersection during the short term.

Long Term

If the intersection of Judge Orr/Eastonville/Meridian Ranch remains AWSC, several turning movements and single-lane approaches would operate at LOS F during the peak hours, based on the projected long-term background and total volumes. However, if this intersection were either reconstructed as a modern roundabout or signalized, the intersection is projected to operate at LOS C and B during the 2040 morning and afternoon peak hours, respectively.

Eastonville Road/Copenhagen Road (Proposed North 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 during both peak hours. Please refer to Figure 6 for recommended lane configurations and LOS summaries at this intersection during the short-term scenario.

Long Term

Both the southeast-bound and northwest-bound approaches would operate at LOS E or F during both long-term peak hours, if the intersection were to remain two-way stop-sign-controlled. Given these LOS results, LSC prepared an analysis of this intersection assuming roundabout traffic control. Based on this analysis, all individual turning movements/approaches and the intersection overall would operate at LOS B or better. Note: although this analysis has been completed, this intersection may not be a good candidate for a roundabout or traffic signal control. Moreover, with increased delay in the future for this westbound left-turn movement during peak times, some of the volume shown here would likely shift and use the south access instead and make a right turn onto Judge Orr Road to travel to southbound Eastonville Road or westbound Meridian Ranch Boulevard.

Judge Orr Road/Proposed South 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 addition of an eastbound 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

Both the southbound and northbound left-turning movements would operate at LOS E or F during the long-term afternoon peak hour, if the intersection were to be two-way

stop-sign-controlled. However, all individual turning movements/approaches and the intersection overall would operate at LOS B or better if this south access intersection were to be roundabout-controlled during the long term.

US Highway 24/Judge Orr Road

Short Term

The intersection of US Hwy 24/Judge Orr is currently signalized. The *US 24 Access Control Plan* shows this intersection realigned to one of two alternate alignments that would provide an intersection angle closer to 90 degrees. All movements at this intersection are currently operating at LOS D or better during the peak hours.

Short-term analysis assumes the proposed realignment has not yet been constructed, but assumes future southbound right-turn deceleration, a southbound right-turn acceleration, and an eastbound right-turn lane. These turn lanes are shown at the intersection of US 24/Judge Orr in CDOT's *US 24 Planning & Environmental Linkages (PEL) Study*. Based on the short-term total traffic volumes and assumed laneage, all movements at this intersection are projected to operate at LOS D or better during the peak hours.

Long-Term

By 2040, it was assumed that this intersection would be realigned and both Judge Orr Road and US Hwy 24 would be widened to provide two through lanes in each direction. Based on the projected 2040 background and total traffic volumes and the lane geometry shown in Figure 7 and Figure 8, this intersection is projected to operate at an overall LOS D during the peak hours. Some of the minor movements are projected to operate at LOS E during the peak hours. These movements have projected delays in the LOS E range simply because of the likelihood of arrival at the traffic signal at the beginning of the red phase at an intersection with many phases and a long cycle length. This movement would not be considered "failing" since the volume-to-capacity ratio is less than 1.0. The justification is that to progress through traffic along an arterial corridor, the traffic signal offsets and left-turn and side street phase times have been adjusted to favor the through traffic band, which can often result in higher delay for the left-turn movements even though there is sufficient capacity for them.

Eastonville Road/Woodmen Hills Drive

Short Term

The intersection of Eastonville/Woodmen Hills is currently two-way, stop-sign-controlled (TWSC). All movements at this intersection currently operate at and are projected to remain at LOS B or

better during both peak hours with the addition of site-generated traffic. No modifications would be required to this intersection during the short term.

Long Term

If the intersection of Eastonville/Woodmen Hills were to remain TWSC, all minor-street turning movements and single-lane approaches would operate at LOS E or worse during the long-term peak hours, based on the projected long-term background and total volumes. Despite these E or worse individual-movement levels of service on the minor street approaches, analysis results show a volume-to-capacity (v/c) ratio to be well below 1.00 for all turning movements/approaches during the long-term buildout traffic scenario. This is not uncommon for minor street approaches on arterial streets to operate at levels of service E (or even F) during peak periods. It is unlikely that a traffic-signal warrant would be met at this intersection.

Note: long-term background traffic volume projections at this intersection are likely conservative, suggesting “high growth” in the vicinity. Projected 2040 background volumes were based on site-generated traffic from many nearby studies. Oftentimes, those volumes may be over-estimated because they do not account for trips going between future developments. Additionally, the projected 2040 background volumes may decrease due to future congestion, as drivers may avoid busy intersections (such as this one) if congestion becomes problematic and, thus, would find alternative routes.

VEHICLE QUEUING

This section contains the projected 95th-percentile queues for the following turning movements:

- Judge Orr Road between Eastonville Road and the proposed south access
- Eastonville Road/Copenhagen Road/proposed north site access

Projected queue lengths have also been shown for other key turning movements at both proposed site accesses. Table 3 and Table 4 present the projected short-term and long-term 95th-percentile queues during both peak hours

Judge Orr Road/Proposed South Site Access

Table 3 presents the projected short-term and long-term 95th-percentile queues for the eastbound-left turning movement at the intersection of Judge Orr Road/proposed south site access. Synchro scenario queue reports indicated that the 95th-percentile eastbound-left turning-movement queues would **not** exceed the available stacking length during either peak hour. Synchro queueing reports indicated a short-term 95th-percentile queue length of 25 feet in the morning and afternoon peak hours, (assuming TWSC traffic control remains). During the long term, the 95th-percentile queue length would remain approximately 25 feet during both peak hours (assuming roundabout traffic control).

**Table 3: 95th-Percentile Queues
 Judge Orr Road/Proposed South Site Access – Eastbound-Left Turning Movement**

| Major Street | Judge Orr Road | |
|---|----------------------------|-----------|
| Minor Street | Proposed South Site Access | |
| Turning Movement | Eastbound Left | |
| Analysis Period | A.M. Peak | P.M. Peak |
| Existing + Site (Two-Way Stop Sign Control) | | |
| Storage Length (ft) | 385' | 385' |
| Taper Length (ft) | 200' | 200' |
| 95 th -Percentile Queue (ft) | 25' | 25' |
| 2040 Background + Site (Roundabout) | | |
| Storage Length (ft) | - | - |
| Taper Length (ft) | - | - |
| 95 th -Percentile Queue (ft) | 25' | 25' |
| Note: Synchro assumes queue length per average vehicle is 25 ft | | |

Eastonville Road/Copenhagen Road/Proposed North Site Access Southbound

Table 4 presents the projected short-term and long-term 95th-percentile queues for the southbound-left turning movement at the intersection of Eastonville Road/Copenhagen Road/proposed north site access. Synchro scenario queue reports indicated that the 95th-percentile eastbound-left turning-movement queues would **not** exceed the available stacking length during either short-term or long-term peak hour. Synchro queueing reports indicated a 95th-percentile queue length of 1 vehicle (25 feet) during all short- and long-term peak hours.

**Table 4: 95th-Percentile Queues (2040 Background + Site)
 Eastonville Road/Proposed North Access – Southbound Left-Turn Lane**

| Major Street | Eastonville Road | |
|---|----------------------------|-----------|
| Minor Street | Proposed North Site Access | |
| Turning Movement | Southbound Left | |
| Analysis Period | A.M. Peak | P.M. Peak |
| Existing + Site (Two-Way Stop Sign Control) | | |
| Storage Length (ft) | 160' | 160' |
| Taper Length (ft) | 155' | 155' |
| 95 th -Percentile Queue (ft) | 25' | 25' |
| 2040 Background + Site (Roundabout) | | |
| Storage Length (ft) | - | - |
| Taper Length (ft) | - | - |
| 95 th -Percentile Queue (ft) | 25' | 25' |
| Note: Synchro assumes queue length per average vehicle is 25 ft | | |

US Hwy 24/Judge Orr Road

Table 5 presents the projected short-term and long-term 95th-percentile queues for several turning movements at the intersection of US Hwy 24/Judge Orr Road. Synchro scenario queue reports indicated that the 95th-percentile queues would **not** exceed the available stacking length during either short-term or long-term peak hour for the following turning movements: eastbound through/left (short-term), westbound approach (short-term), eastbound left (long-term), westbound left (long-term), and northbound left (short-term and long-term).

Table 5: 95th-Percentile Queues (US Highway 24/Judge Orr Road)

| Major Street | US Highway 24 | | | | | |
|--|----------------|-----------|------------|-----------|-----------------|-----------|
| Minor Street | Judge Orr Road | | | | | |
| Turning Movement | Eastbound* | | Westbound* | | Northbound Left | |
| Analysis Period | A.M. Peak | P.M. Peak | A.M. Peak | P.M. Peak | A.M. Peak | P.M. Peak |
| Existing + Site | | | | | | |
| Storage Length (ft) | - | - | - | - | 860' | 860' |
| Taper Length (ft) | - | - | - | - | 300' | 300' |
| Max Queue (ft) | 120' | 130' | 206' | 194' | 74' | 65' |
| 2040 Background + Site | | | | | | |
| Storage Length (ft) | 290' | 290' | 290' | 290' | 860' | 860' |
| Taper Length (ft) | 240' | 240' | 240' | 240' | 300' | 300' |
| Max Queue (ft) | 72' | 220' | 150' | 266' | 136' | 294' |
| Note: Synchro assumes queue length per average vehicle is 25 ft | | | | | | |
| * Analysis is for EB through/left lane during short-term, but EB left-turn lane for 2040 | | | | | | |

ROADWAY IMPROVEMENTS

Auxiliary Turn Lanes

The following design speeds were used to determine required turn lane lengths for each of the study-area roadways:

- US Highway 24 – 70 mph
- Judge Orr Road – 50 mph
- Eastonville Road – 40 mph
- Meridian Ranch Boulevard – 40 mph

Judge Orr Road/Proposed South Site Access

Eastbound Approach

According to the El Paso County *Engineering Criteria Manual* (ECM), exclusive left-turn lanes shall be provided for any access on a Minor Arterial or Collector with a projected peak-hour ingress

turning volume of 25 vehicles per hour (vph) or greater. The projected left-turn volume at the south site-access point is expected to exceed the minimum left-turn volume thresholds prescribing a turn lane outlined in the *ECM* upon site buildout. LSC recommends the following eastbound left-turn deceleration turn lane:

- 235-foot deceleration lane
- 200-foot approach taper
- 150 feet for storage (per *ECM* Table 2-30, with a DHV between 121-180 vehicles per hour)
- 45:1 redirect taper length

Westbound Approach

According to the El Paso County *Engineering Criteria Manual* (*ECM*), exclusive right-turn lanes shall be provided for any access on a Minor Arterial or Collector with a projected peak-hour ingress turning volume of 50 vehicles per hour (vph) or greater. The projected right-turn volume at the south site access point is expected to exceed the minimum right-turn volume thresholds prescribing a turn lane outlined in the *ECM* upon site buildout. LSC recommends the following westbound right-turn deceleration turn lane:

- 235-foot deceleration lane
- 200-foot approach taper

Eastonville Road/Proposed North Site Access

Southwest Approach

Eastonville Road is currently striped with a painted center two-way left-turn lane (TWLTL). The projected left-turn volume at the north site access point is expected to exceed the minimum left-turn volume thresholds prescribing a turn lane outlined in the *ECM* upon site buildout. LSC recommends the existing TWLTL be restriped for the following southwest-bound left-turn deceleration turn-lane dimensions:

- 155-foot deceleration lane
- 160-foot approach taper
- 50 feet for storage (per *ECM* Table 2-30, with a DHV less than 60 vehicles per hour)

Northeast Approach

According to the El Paso County *Engineering Criteria Manual* (*ECM*), exclusive right-turn lanes shall be provided for any access on a Minor Arterial or Collector with a projected peak-hour ingress turning volume of 50 vehicles per hour (vph) or greater. The projected right-turn volume at the north site access point is expected to exceed the minimum right-turn volume thresholds prescribing a turn lane outlined in the *ECM* upon site buildout. LSC recommends the following westbound right-turn deceleration turn lane:

- 155-foot deceleration lane
- 160-foot approach taper

Mr. and Mrs. Phillip Buford
Judge Orr Eastonville Commercial Center

US Highway 24/Judge Orr Road

Please revise these statements as CDOT has indicated that auxiliary turn lanes will be required with development of this site. Staff recommends acknowledging the required turn lane improvements of this intersections and adding text similar to what is provided in Table 7: roadway improvements.

Auxiliary turn lanes are planned to be added at this intersection as part of El Paso County intersection improvement project C14. This roadway improvement project has been identified as being needed by the year 2040 per Map 13 and Table 4 of El Paso County's 2016 MTCP:

- C14 – Judge Orr Road from Eastonville Road to Peyton Highway (\$38,248,000)
- Existing conditions – 2-lane Rural Minor Arterial
- Future conditions – 4-lane Rural Minor Arterial

As such, no modifications would be required by the applicant at the intersection of US Hwy 24/Judge Orr as a result of additional site-generated traffic from this development.

Judge Orr Road/Meridian Ranch Boulevard/Eastonville Road

No modifications to existing auxiliary turn lanes would be required at the intersection of Eastonville/Judge Orr/Meridian Ranch following site buildout.

Intersection Configuration and Traffic Control

Please refer to the Roadway Improvements Table (attached as Table 7)

ROADWAY CLASSIFICATIONS

All internal roadways within the Judge Orr Eastonville Commercial Center are proposed to be Urban **Non-Residential Collector** streets to be constructed to County standards (ECM Table 2-5 standards).

review 1: Based on the peak hour volumes provided at the intersection it appears that Auxiliary turn lane improvements may be required per criteria . Please address. Also please discuss whether any of the existing turn lanes require any modifications. Review 2: Unresolved. The figure 6 identifies that the northeast bound right turn lane exceeds the thresholds indicated in the ECM. Please also update the roadway improvements table as necessary.

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:

- C14 – Judge Orr Road from Eastonville Road to Peyton Highway (\$38,248,000)
 - Existing conditions – 2-lane Rural Minor Arterial
 - Future conditions – 4-lane Rural Minor Arterial
- U19 – Eastonville Road from McLaughlin Road to Latigo Boulevard (\$18,420,000)
 - Existing conditions (note: some sections following PPRTA improvements) – 2-lane Rural Unimproved County Road
 - Future conditions – 2-lane Rural Minor Arterial

See the attached MTCP maps for reference.

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:

- M8 – Judge Orr Road from Eastonville Road to South Peyton Highway
- Bicycle improvements (2.98 miles)

DEVIATIONS

The following deviations to ECM design criteria are proposed at the proposed site access intersections on Judge Orr Road and Eastonville Road:

- Section 2.2.5.C – Roadway Access Criteria (Urban Minor Arterial Access Standards)
- Section 2.3.2 – Design Standards by Function Classification

FINDINGS AND CONCLUSIONS

- The site is projected to generate about 6,798 new driveway vehicle-trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 191 vehicles would enter the site while 132 vehicles would exit.
- During the weekday afternoon peak hour of adjacent street traffic, 359 vehicles would enter the site while 383 vehicles would exit.
- All individual approaches and turn lanes at both site-access intersections would operate at LOS C or better during both short-term peak hours as two-way stop-sign-controlled intersections. During the long term, however, LSC recommends that both site access point intersections be converted to roundabouts in order to operate at acceptable levels of service. Please refer to the "Level of Service" section above for detailed LOS results and discussion regarding all study-area intersections.

- Auxiliary left-turn and right-turn deceleration lanes would be required at both site-access points based on projected buildout traffic volumes. Please refer to the “Auxiliary Turn-Lane Analysis” section for evaluation of potential turn-lane needs.
- All internal site access roadways are proposed to be Urban Local streets.
- Please refer to the “Queuing Analysis” section above for additional details. Synchro queue reports indicated that the 95th percentile left-turn queue at both site access points is **not** projected to exceed the recommended turn-lane lengths during either peak hour.
- Please refer to the “List of Improvements” (attached) for a summary of proposed improvements, including timing and financial responsibility for each improvement.
- The following deviations to *ECM* design criteria are proposed:
 - Section 2.2.5.C – Roadway Access Criteria (Urban Minor Arterial Access Standards)
 - Section 2.3.2 – Design Standards by Function Classification

* * * * *

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

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JAB:JCH:jas

Enclosures: Table 6 and 7
Figure 1 - Figure 8c
Traffic Count Reports
Synchro LOS Reports

Tables



Table 6: Detailed Trip Generation Estimate

| ITE | | Value | Units ¹ | Trip Generation Rates ² | | | | Internal Capture Rates ³ | Driveway Trips Generated | | | | | % Non-Pass-by | % Pass-by | Non-Pass-by Trips Generated | | | | | |
|--------------|-----------------|---------|--------------------|------------------------------------|------|------|-------|-------------------------------------|--------------------------|-------------|------------|------------|------------|---------------|-----------|-----------------------------|-------------|------------|-----------|------------|------------|
| Code | Description | | | Average Weekday | A.M. | | P.M. | | Average Weekday | A.M. | | P.M. | | | | Average Weekday | A.M. | | P.M. | | |
| | | | | In | Out | In | Out | | In | Out | In | Out | | | In | Out | In | Out | | | |
| 151 | Mini-Warehouse | 5.00 | SU (100s) | 18.04 | 0.62 | 0.60 | 0.98 | 0.98 | 0% | 91 | 4 | 3 | 5 | 5 | 100% | 0% | 91 | 4 | 3 | 5 | 5 |
| 565 | Day Care Center | 90 | Students | 4.09 | 0.41 | 0.37 | 0.37 | 0.42 | 0% | 369 | 38 | 33 | 34 | 38 | 100% | 0% | 369 | 38 | 33 | 34 | 38 |
| 820 | Shopping Center | 117.612 | KSF | 57.08 | 1.11 | 0.68 | 2.50 | 2.71 | 16% | 5640 | 110 | 68 | 248 | 268 | 66% | 34% | 3722 | 73 | 45 | 164 | 177 |
| 912 | Drive-in Bank | 7.000 | KSF | 99.60 | 5.51 | 3.99 | 10.23 | 10.23 | 0% | 698 | 39 | 28 | 72 | 72 | 65% | 35% | 454 | 25 | 18 | 47 | 47 |
| Total | | | | | | | | | | 6798 | 191 | 132 | 359 | 383 | | Total | 4636 | 140 | 99 | 249 | 267 |

¹ DU = dwelling units, KSF = 1,000 square feet, SU (100s) = storage units (multiples of 100)

² Source: Trip Generation, 10th Edition, 2017, by the Institute of Transportation Engineers (ITE); ITE Land Use 435 Weekday rate is an LSC estimate.

³ Source: Internal Trip Capture Estimation Tool from *NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments*

Urban Non residential collector is indicated in the text above (pg 19).
 Revise accordingly so that they are consistent with each other.

Table 7: Roadway Improvements

| Existing County Roadway Segment Improvements | | | |
|--|--|--|---|
| Item # | Improvement | Timing | Responsibility |
| 1.1 | <u>Eastonville Road</u> Widen to 2-Lane Rural Minor Arterial Shown in 2040 MTCP (Project U19) | The timing of this improvement may be identified with the Preliminary Plan/Plat, if not determined before that time by others. | <u>Details TBD</u> Any responsibility of this development for completing this improvement or a portion thereof will be identified with the Preliminary Plan/Plat. |
| 1.2 | <u>Judge Orr Road</u> Widen to 4-Lane Rural Minor Arterial Shown in 2040 MTCP (Project C14) | The timing of this improvement may be identified with the Preliminary Plan/Plat, if not determined before that time by others. | <u>Details TBD</u> Any responsibility of this development for completing this improvement or a portion thereof will be identified with the Preliminary Plan/Plat. |
| 1.3 | <u>Judge Orr Road</u> Add bicycle lanes from Eastonville Road to S. Peyton Highway Shown in 2040 MTCP (Project M8) | The timing of this improvement may be identified with the Preliminary Plan/Plat, if not determined before that time by others. | <u>Details TBD</u> Any responsibility of this development for completing this improvement or a portion thereof will be identified with the Preliminary Plan/Plat. |
| Proposed Internal Site Roadways | | | |
| Item # | Improvement | Timing | Responsibility |
| 2.1 | Construct internal streets to County Urban Local Standards; may also be developed with private streets. | With site development (may be phased). The timing of this improvement will be identified with the Preliminary Plan/Plat. | Applicant |
| Off-Site, CDOT Intersection | | | |
| US Highway 24/Judge Orr Road Intersection | | | |
| Item # | Improvement | Timing | Responsibility |
| 3.1 | <u>Long Term (or Prior to 2040)</u> Realign eastbound and westbound approaches to reduce the intersection skew angle. | TBD; Please refer to the US Highway 24 PEL Study and the CDOT US Highway 24 Corridor information. | This realignment is likely to be a CDOT project. |
| 3.2 | <u>Long Term (or Prior to 2040)</u> Southwest-bound right-turn deceleration lane | Timing be determined through the CDOT access permit process. That process will come at a later stage of development. The timing will likely be associated with prevailing turning movement volumes at that time and relative to Access Code thresholds for turn lanes. As indicated in the CDOT comment letter, site-generated southwest-to-westbound right turn movement at Hwy 24 and Judge Orr is projected to add 25 vehicles (short term) in the AM peak hour. The State Highway Access Code §3.7(4)(b) requires installation of right turn deceleration lane for any access with a projected right turn volume greater than 10 vehicles per hour. The timing/phasing of improvements or participation in future improvements will likely depend on the pace and intensity of development of this site and the rate of other area developments and associated background traffic growth. | The responsibility will be determined through the CDOT access permit process. That process will come at a later stage of development. This is a Master study. CDOT indicated "Land Use(s) will need to be determined prior to making application for the State Highway Access Permit. No determination of land use(s) we described in the Letter of Intent and was general in nature." The responsibility will be determined by CDOT and may involve this development contributing a fair share escrow amount toward identified future improvements and/or actually installing a turn lane(s) or other improvement. |
| 3.3 | <u>Long Term (or Prior to 2040)</u> Southwest-bound right-turn acceleration lane | Timing be determined through the CDOT access permit process. That process will come at a later stage of development. The timing will likely be associated with prevailing turning movement volumes at that time and relative to Access Code thresholds for turn lanes. As indicated in the CDOT comment letter, Site-generated east-to-southwest-bound right turn movement at Hwy 24 and Judge Orr is projected to add 73 vehicles (short term) in the PM peak hour. The State Highway Access Code §3.7(4)(c) requires installation of right turn acceleration lane for any access with a projected right turn volume greater than 10 vehicles per hour. The timing/phasing of improvements or participation in future improvements will likely depend on the pace and intensity of development of this site and the rate of other area developments and associated background traffic growth. | |
| 3.4 | <u>Long Term (or Prior to 2040)</u> Northeast-bound right-turn deceleration lane | Dependent on Background Traffic and/or timing of a CDOT or other project at this intersection. | Although this project may have some responsibility for improvement of this intersection. This project will not add to the right turn movement at this intersection. |
| Adjacent Intersections | | | |
| Eastonville Road/Woodmen Hills Drive/Judge Orr Road Intersection | | | |
| Item # | Improvement | Timing | Responsibility |
| 4.1 | <u>Long Term (or Prior to 2040)</u> 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. | <u>Details TBD</u> Any responsibility of this development for completing intersection improvements or a portion thereof will be identified with the Preliminary Plan/Plat. |
| Eastonville Road/Copenhagen/North Site Street Connection (Proposed) | | | |
| Item # | Improvement | Timing | Responsibility |
| 6.1 | <u>Short Term</u> Southwest-bound left-turn deceleration lane | With subdivision/plat filings, per ECM turning volume thresholds | Applicant |
| 6.2 | <u>Short Term</u> Northeast-bound right-turn deceleration lane | With subdivision/plat filings, per ECM turning volume thresholds | Applicant |
| Proposed New Public Street Intersection | | | |
| Judge Orr Road/South Site Street Connection/Future Street South of Judge Orr | | | |
| Item # | Improvement | Timing | Responsibility |
| 5.1 | <u>Short Term</u> Eastbound left-turn deceleration lane | With subdivision/plat filings, per ECM turning volume thresholds | Applicant |
| 5.2 | <u>Short Term</u> Westbound right-turn deceleration lane | With subdivision/plat filings, per ECM turning volume thresholds | Applicant |
| 5.3 | <u>Long Term</u> Reconstruct intersection as a modern roundabout | With subdivision/plat filings (if implemented) | Applicant and potentially the future development south of Judge Orr Road |

Source: LSC Transportation Consultants, Inc. (Revised 2/26/2021)

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

Figures

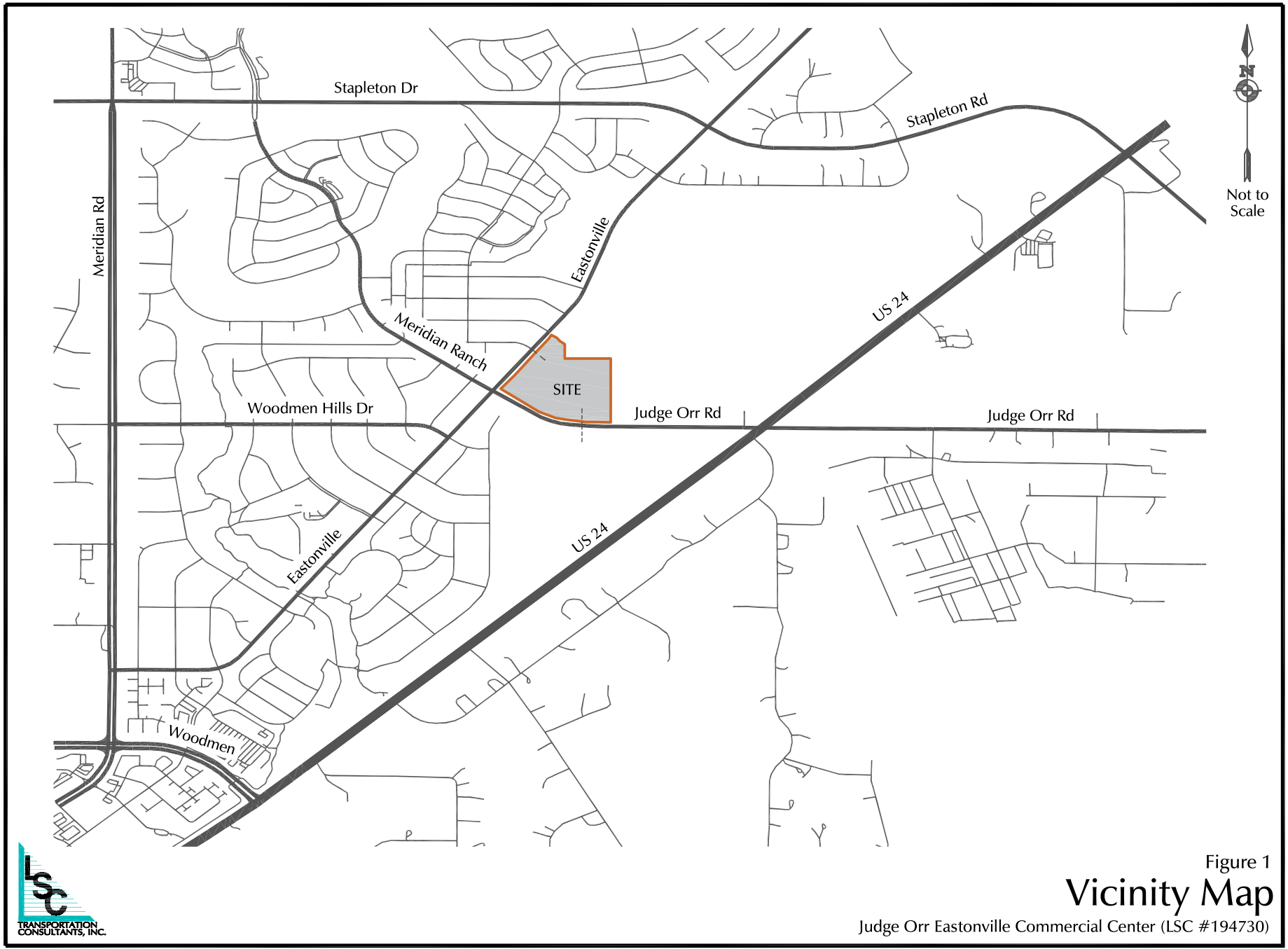


Figure 1
Vicinity Map

Judge Orr Eastonville Commercial Center (LSC #194730)

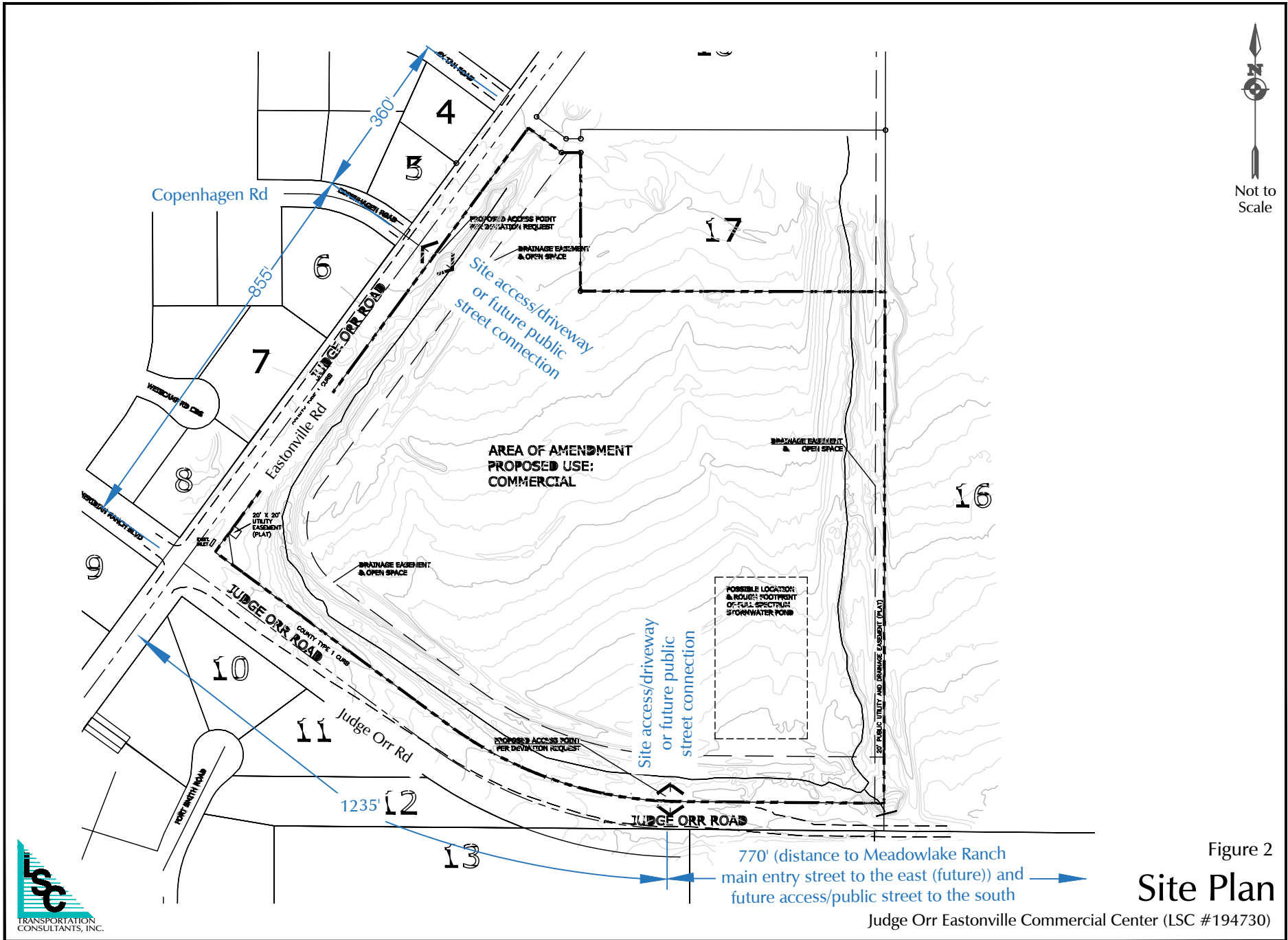
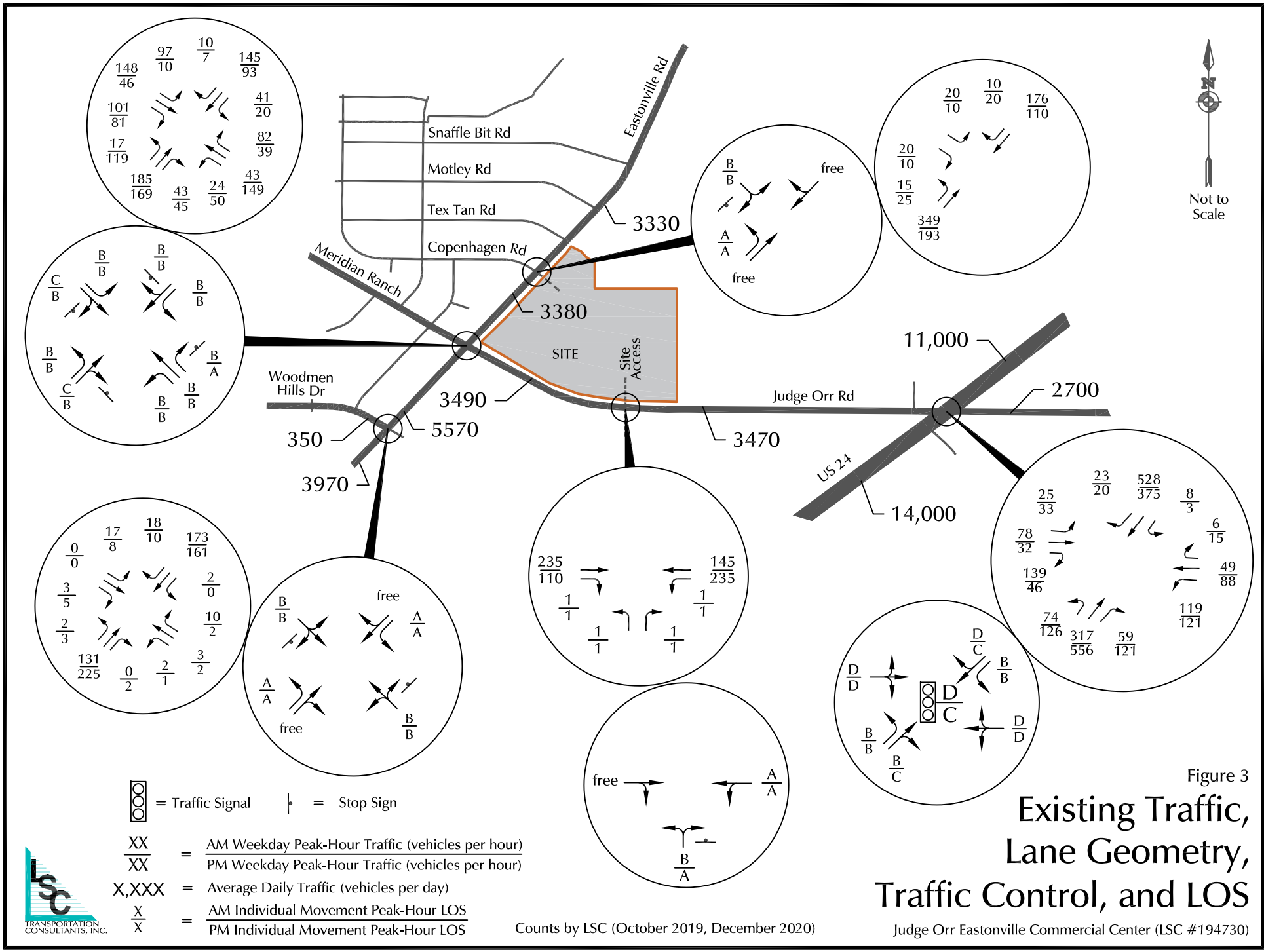
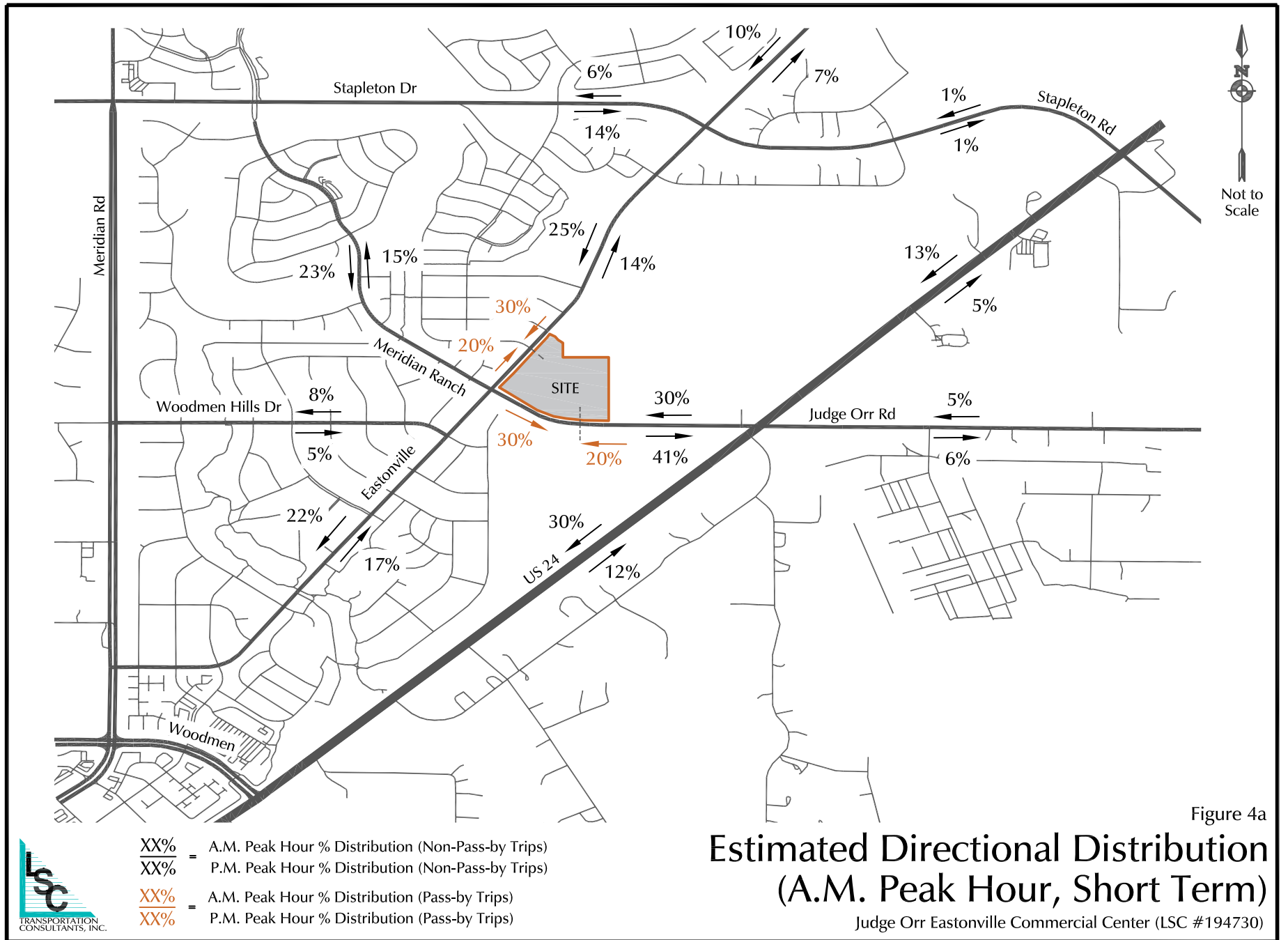


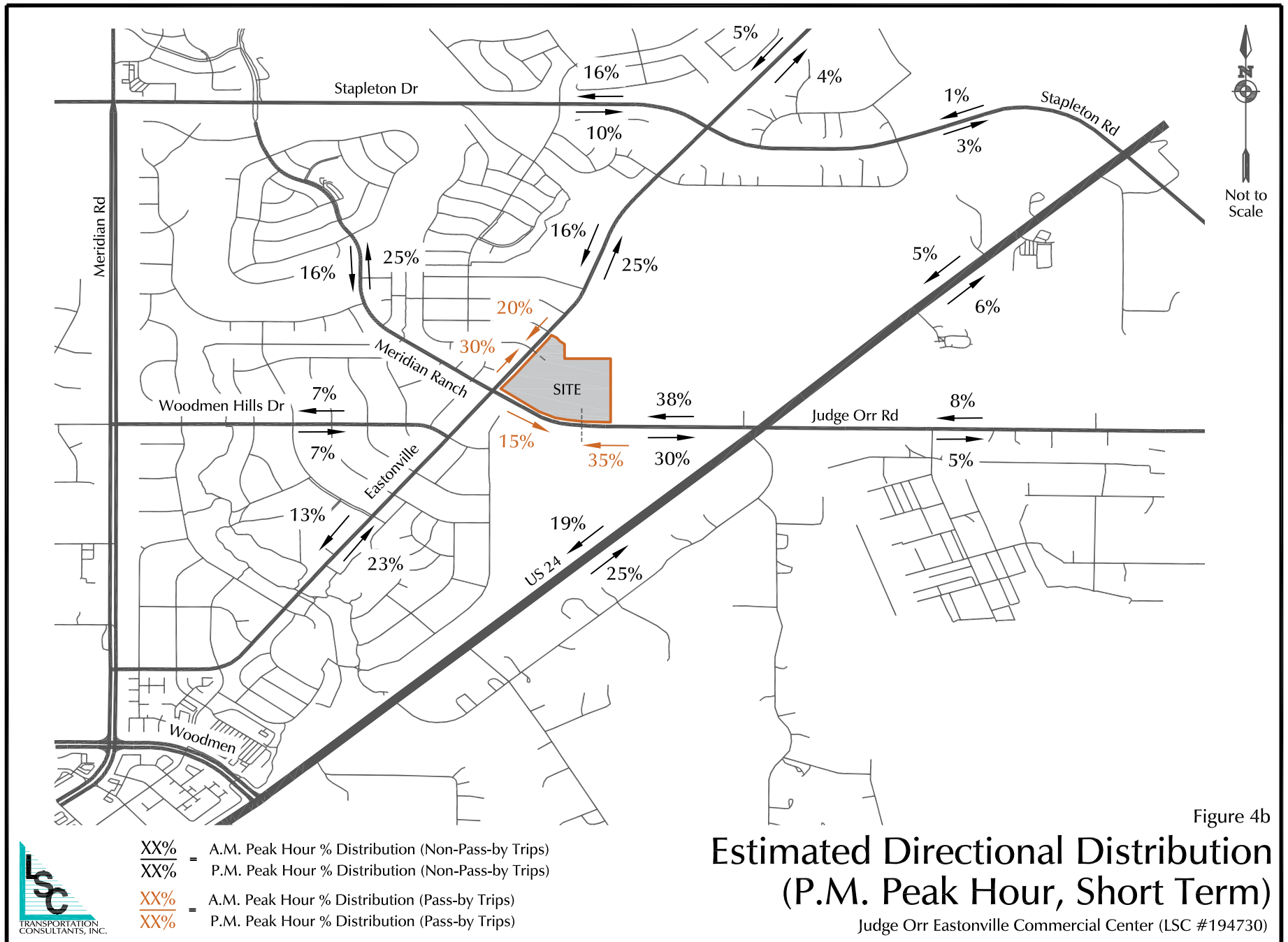
Figure 2

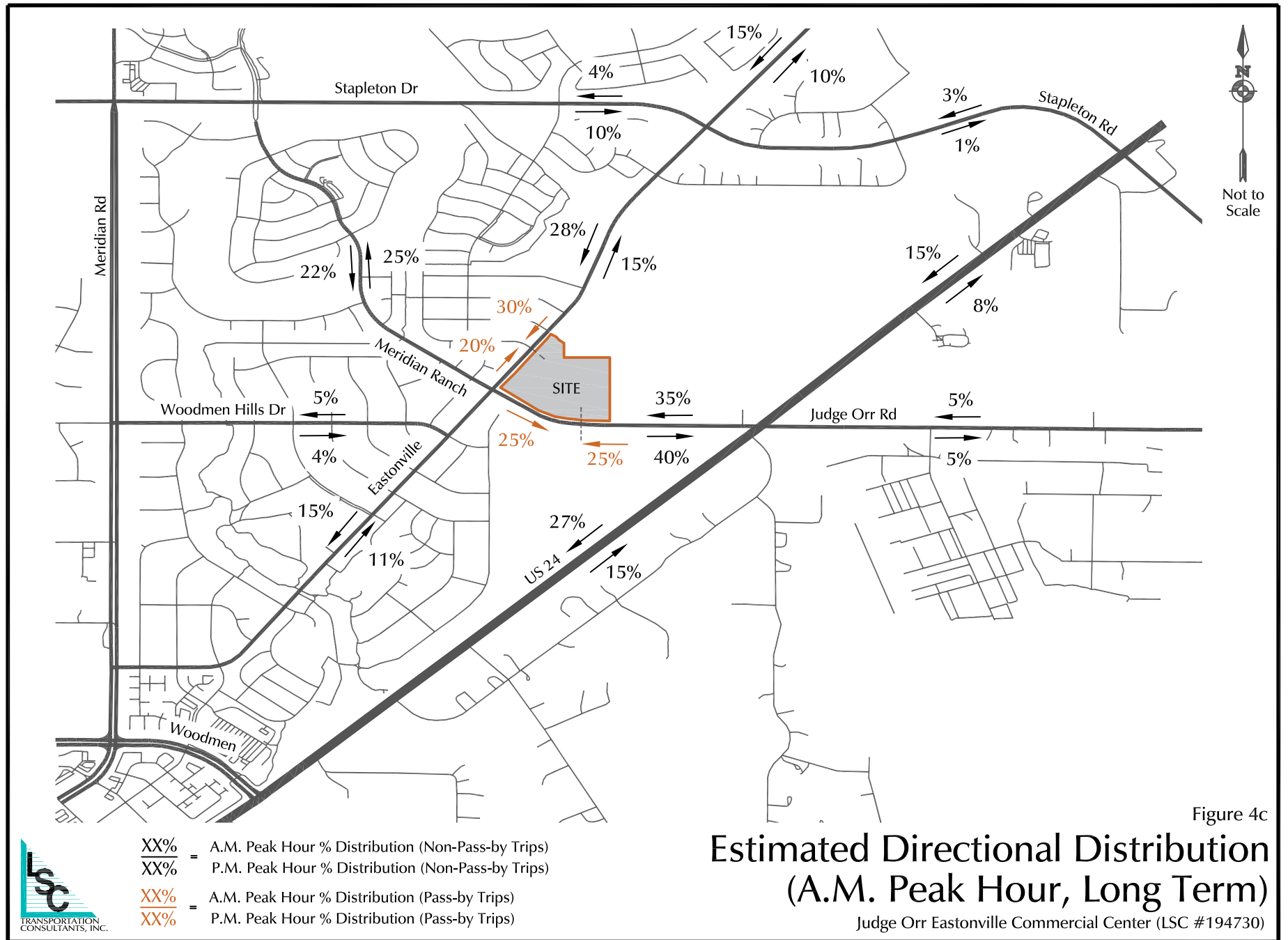
Site Plan

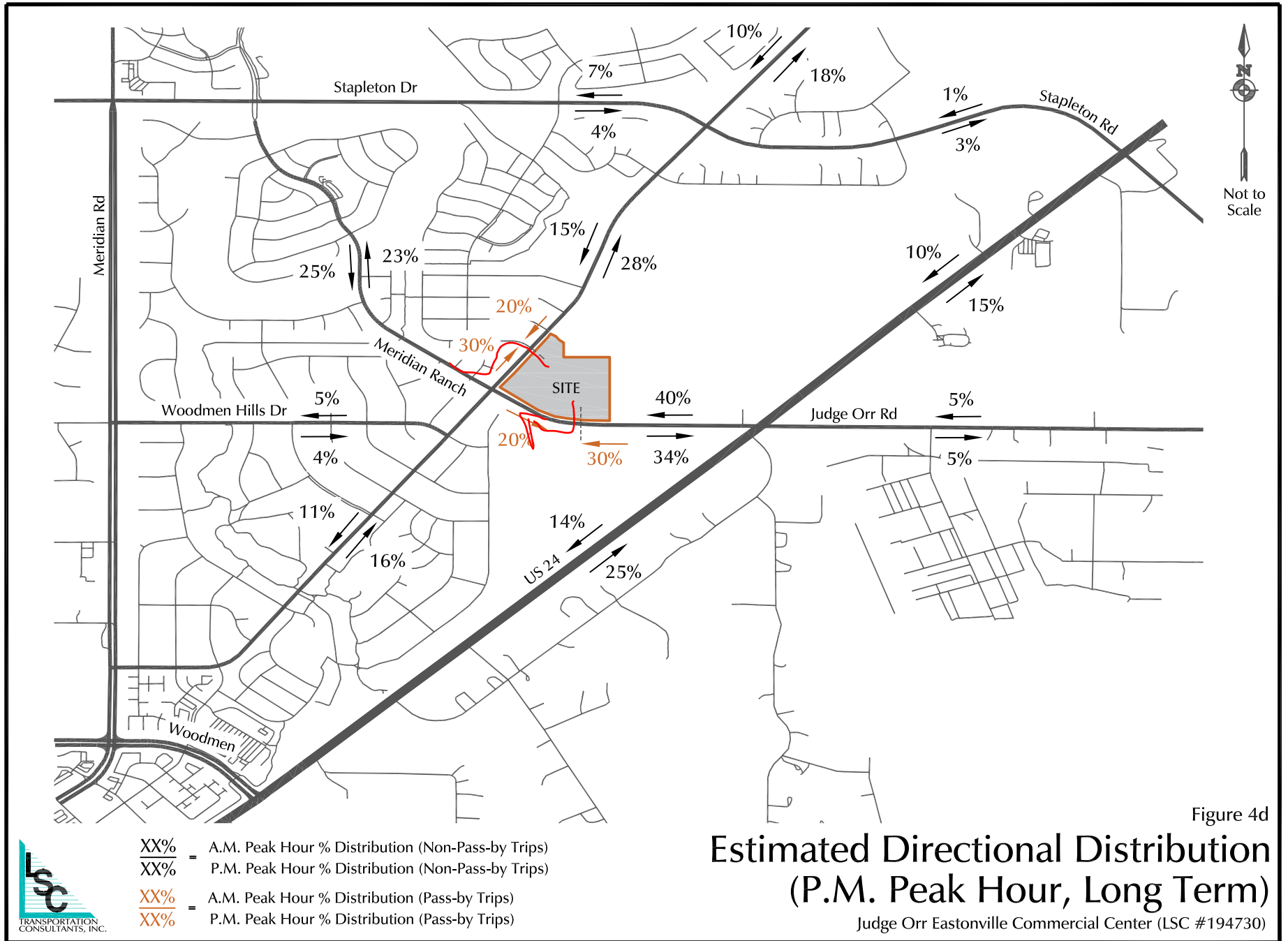
Judge Orr Eastonville Commercial Center (LSC #194730)

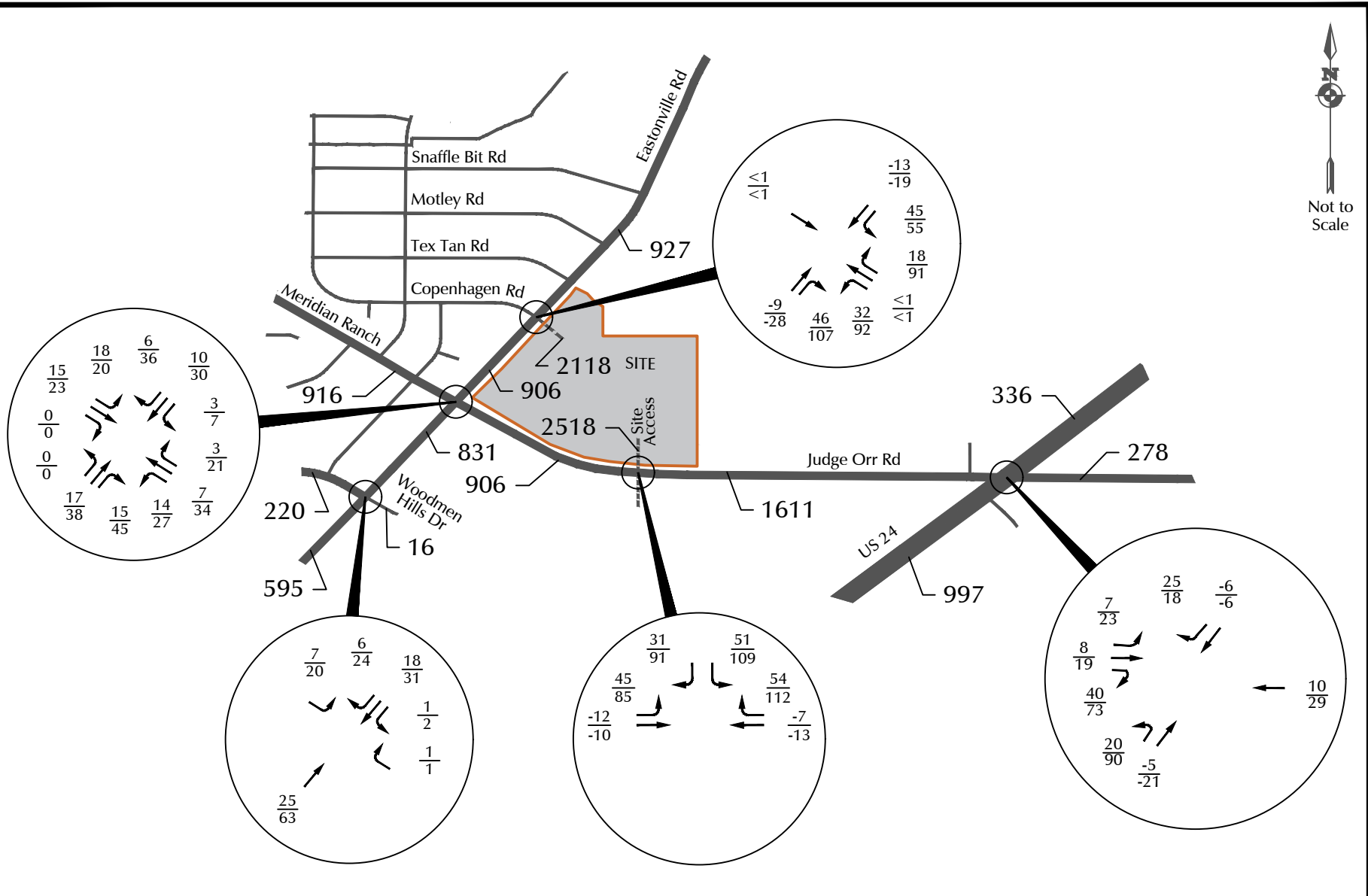






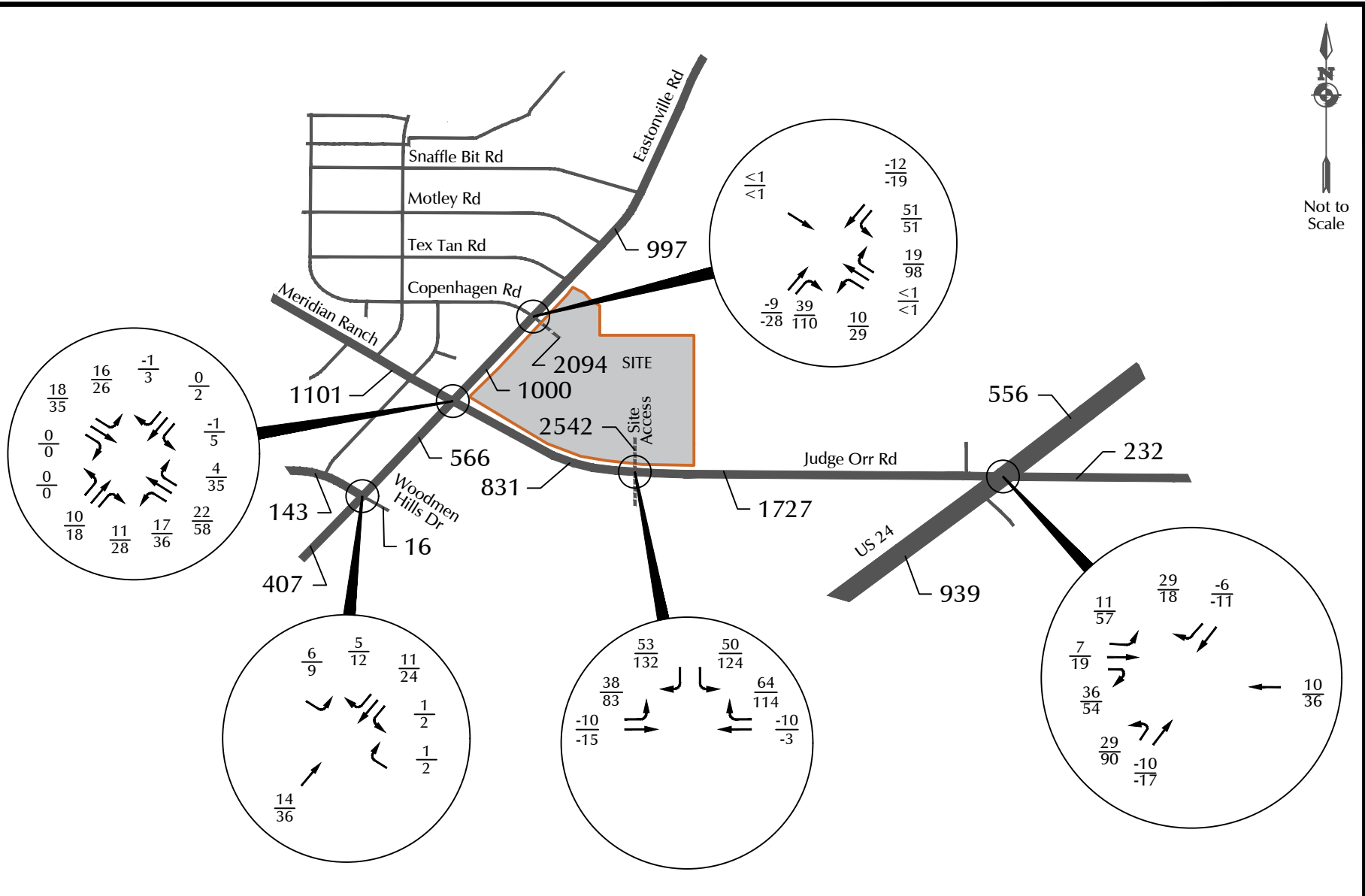






$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
 X,XXX = Average Daily Traffic (vehicles per day)

Figure 5a
Site-Generated Traffic (Short Term)
 Judge Orr Eastonville Commercial Center (LSC #194730)



$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
 X,XXX = Average Daily Traffic (vehicles per day)

Figure 5b
Site-Generated Traffic (Long-Term)
 Judge Orr Eastonville Commercial Center (LSC #194730)

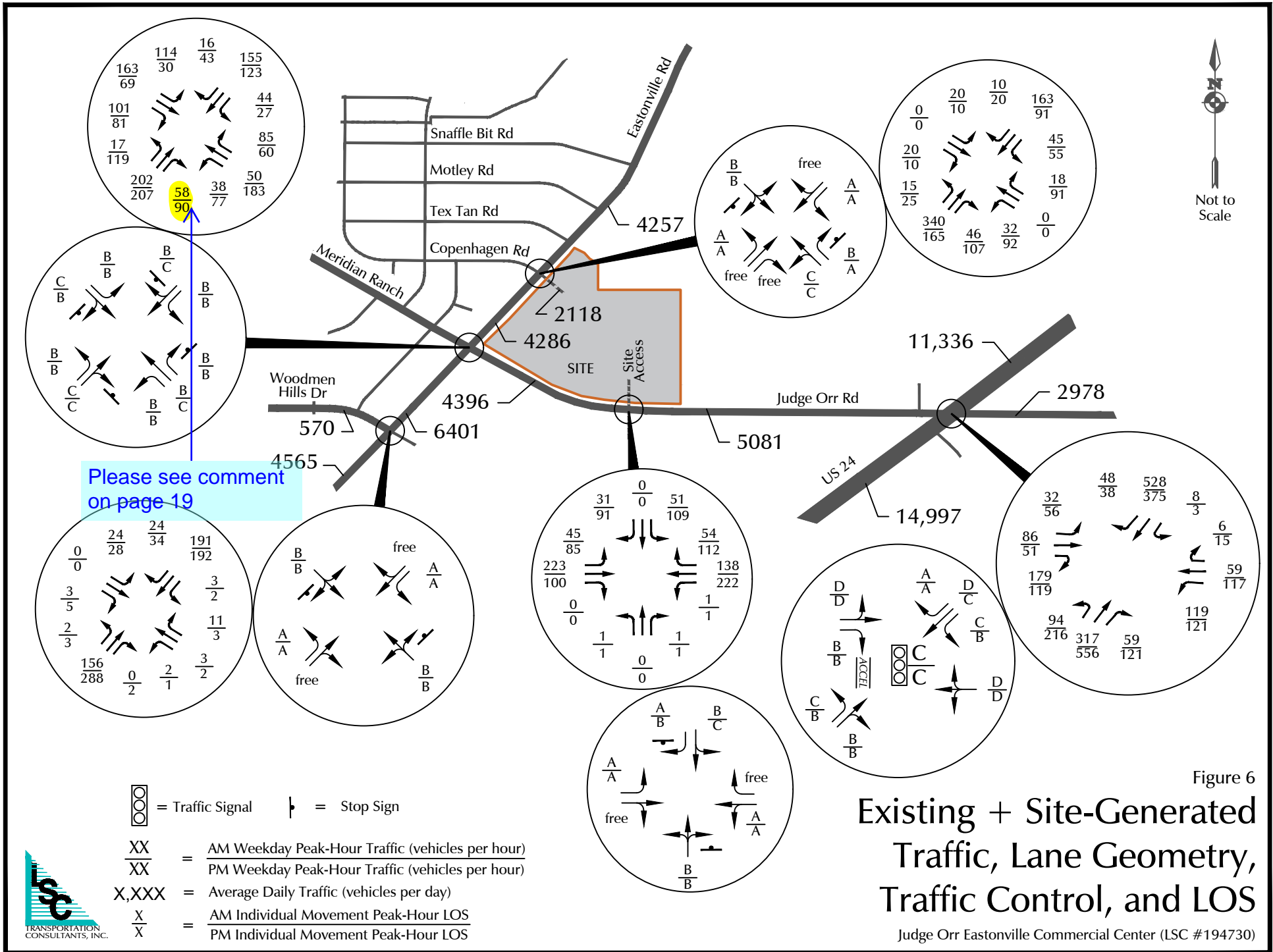


Figure 6
**Existing + Site-Generated
 Traffic, Lane Geometry,
 Traffic Control, and LOS**
 Judge Orr Eastonville Commercial Center (LSC #194730)



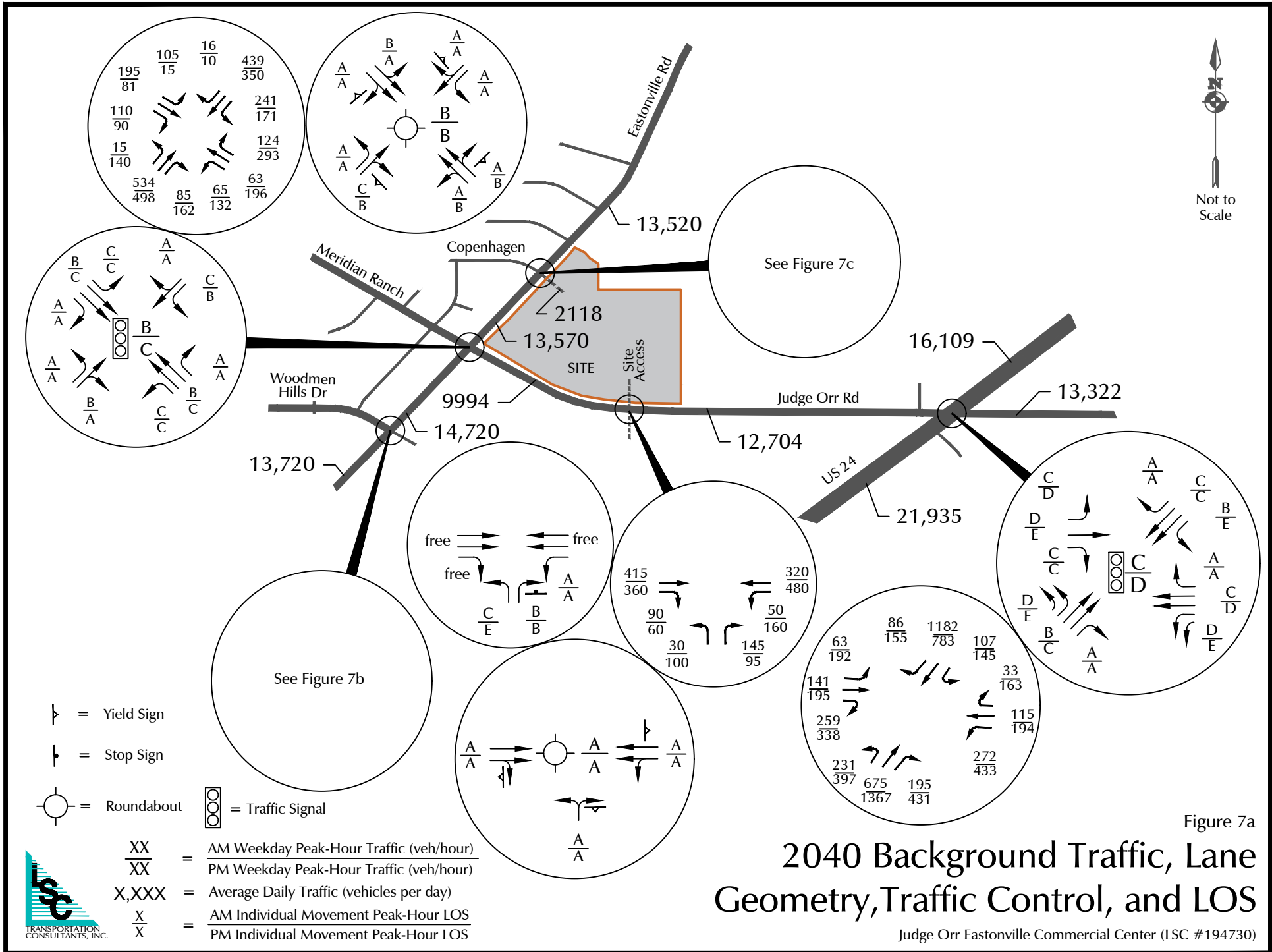
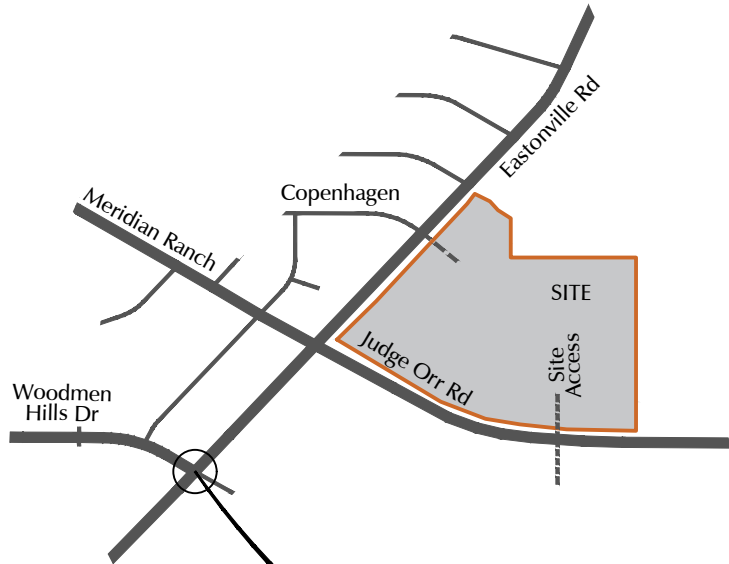


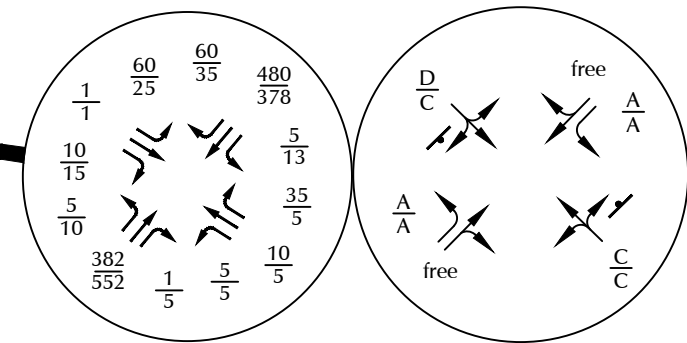
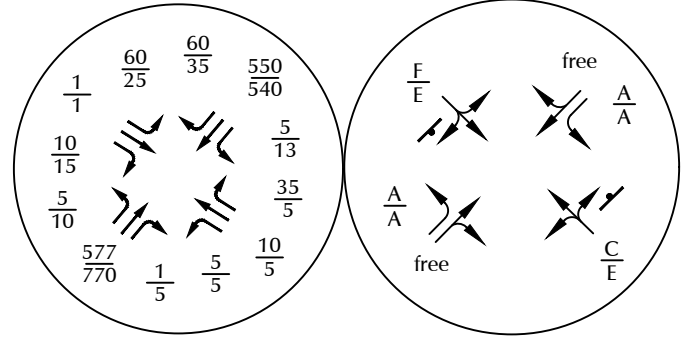
Figure 7a
**2040 Background Traffic, Lane
 Geometry, Traffic Control, and LOS**

Judge Orr Eastonville Commercial Center (LSC #194730)





Based on "2040 Background"
link volumes from Figure 7a



"Moderated Background"
2040 volumes


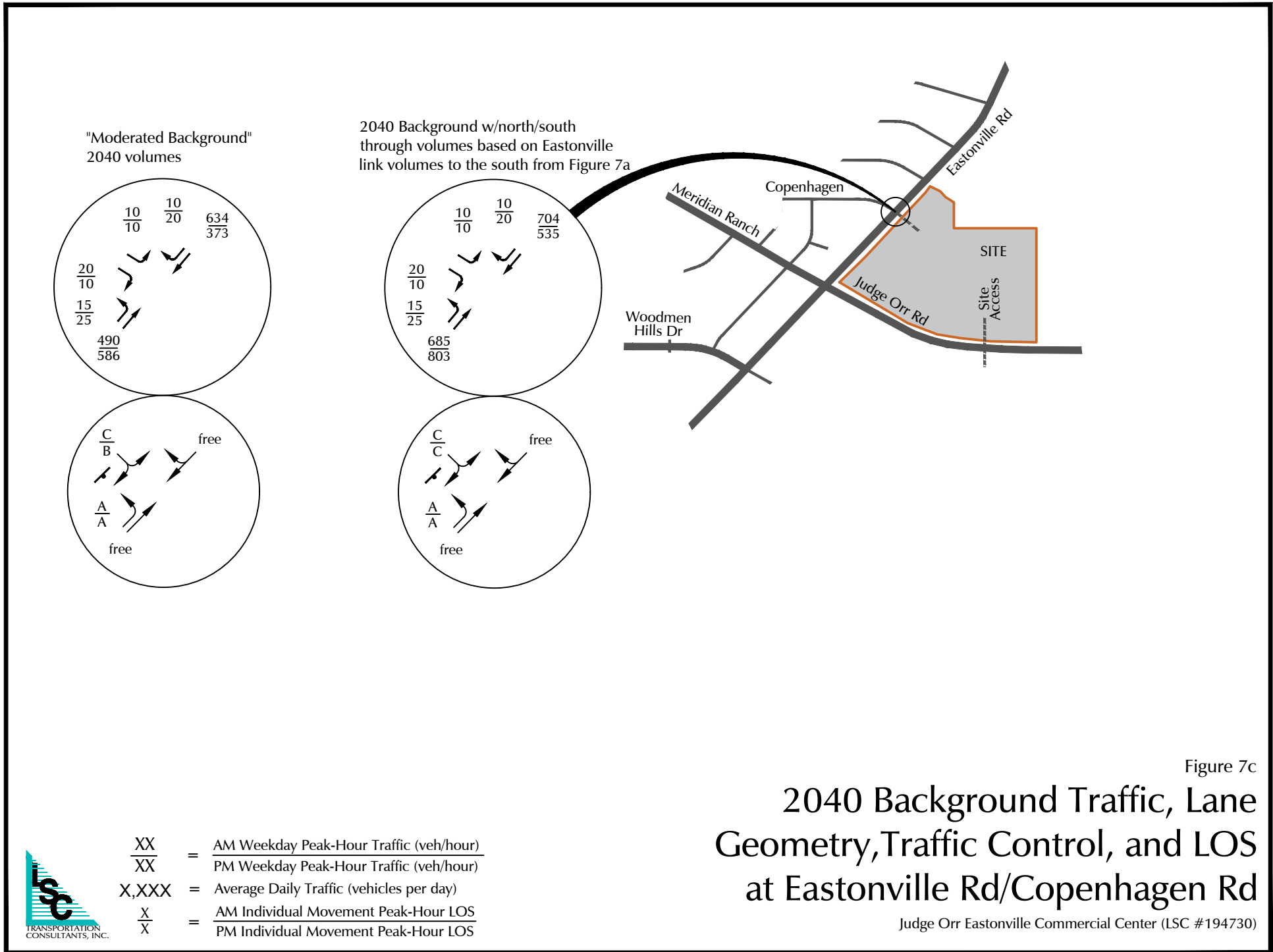
-  = Stop Sign
- $\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (veh/hour)
- $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (veh/hour)
- X,XXX = Average Daily Traffic (vehicles per day)
- $\frac{X}{X}$ = AM Individual Movement Peak-Hour LOS
- $\frac{X}{X}$ = PM Individual Movement Peak-Hour LOS

Figure 7b
**2040 Background Traffic, Lane
Geometry, Traffic Control, and LOS
at Eastonville Rd/Woodmen Hills Dr**

Judge Orr Eastonville Commercial Center (LSC #194730)





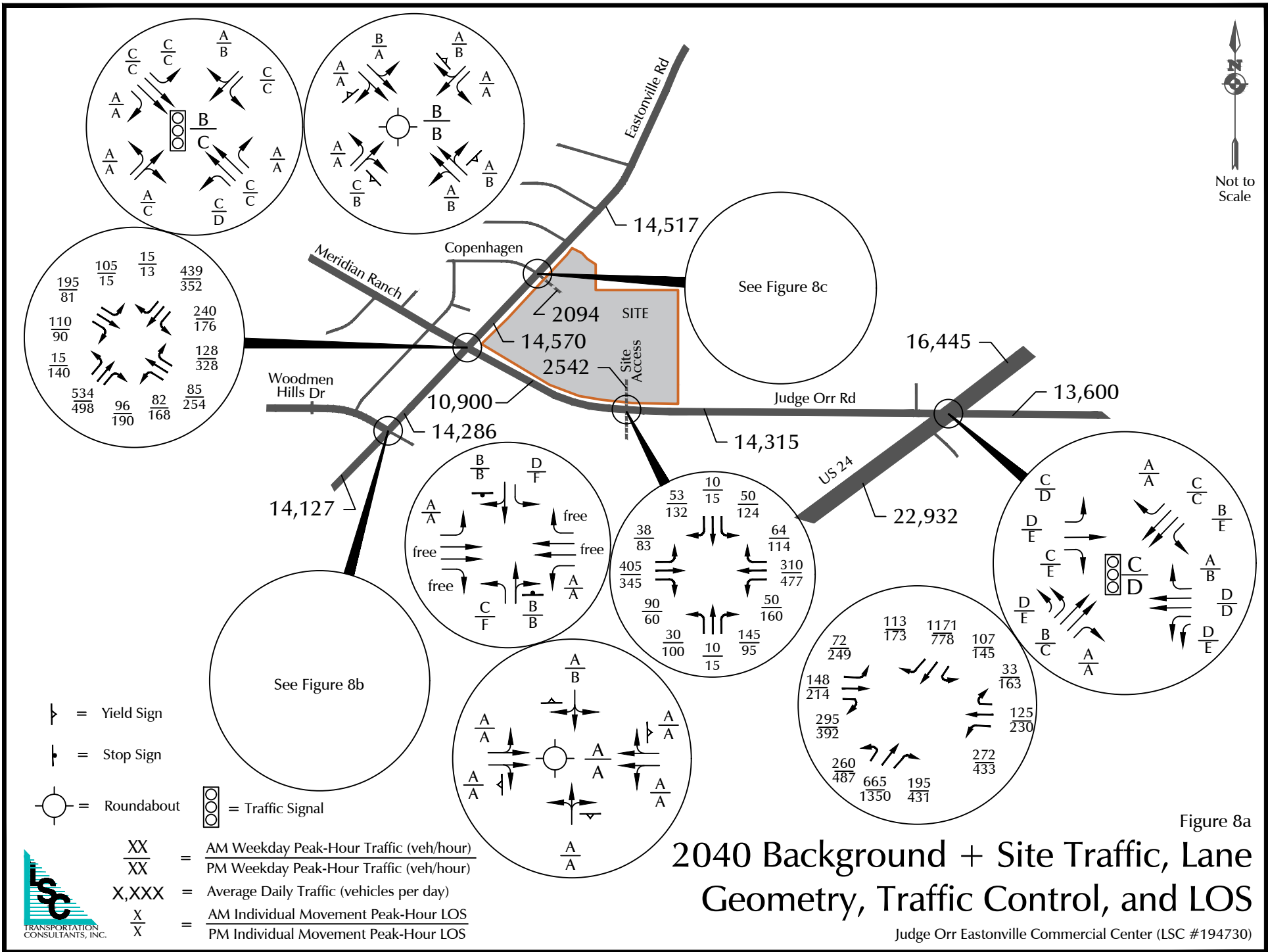
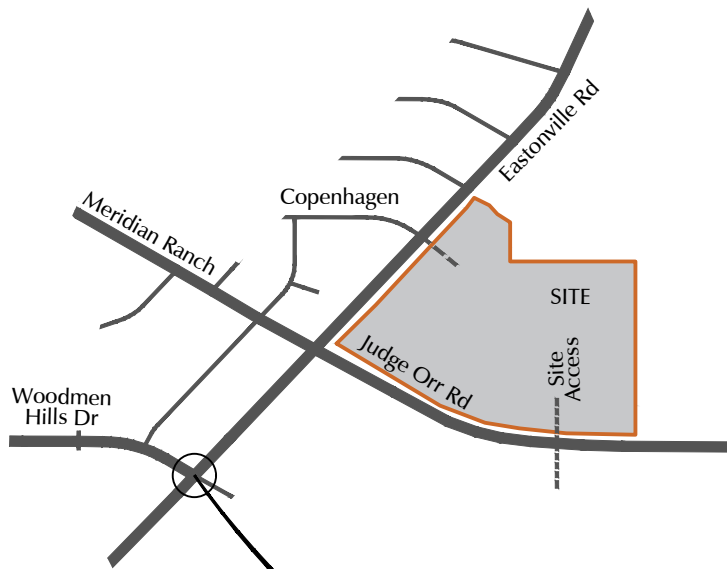


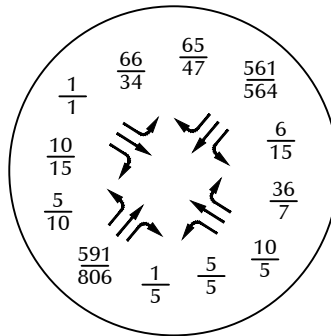
Figure 8a

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

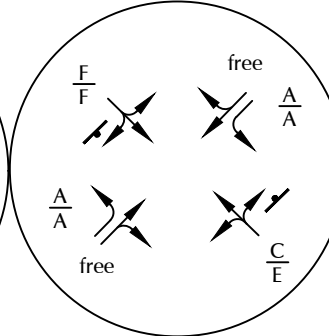
Judge Orr Eastonville Commercial Center (LSC #194730)



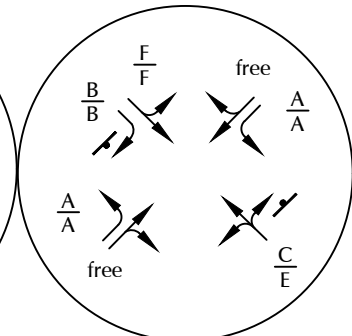
Site-Generated + 2040 Background w/
north/south through volumes based on
Eastonville link volumes to the north
from Figure 7a



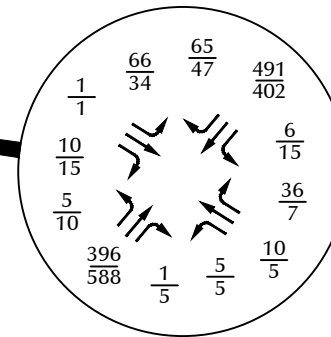
Single Lane SE Approach



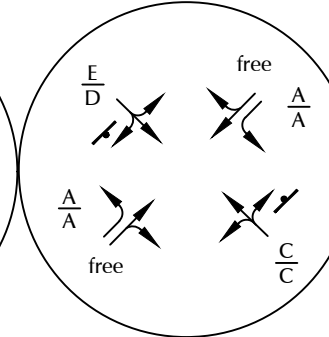
2-Lane SE Approach



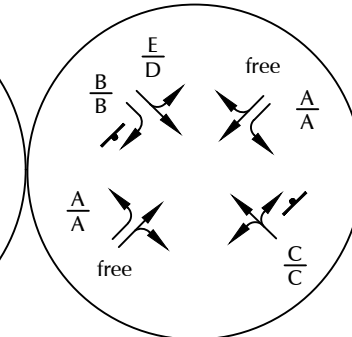
Based on "Moderated Background"
from Figure 7b + Site-Generated
volumes



Single Lane SE Approach



2-Lane SE Approach



- = Stop Sign
- $\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (veh/hour)}}{\text{PM Weekday Peak-Hour Traffic (veh/hour)}}$
- X,XXX = Average Daily Traffic (vehicles per day)
- $\frac{X}{X}$ = $\frac{\text{AM Individual Movement Peak-Hour LOS}}{\text{PM Individual Movement Peak-Hour LOS}}$

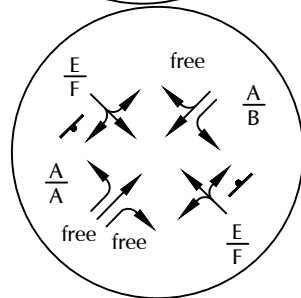
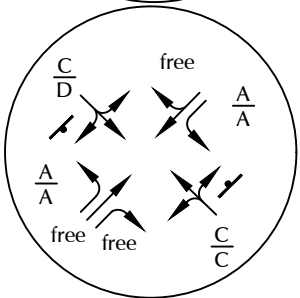
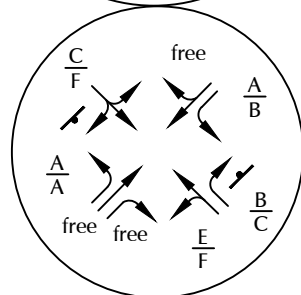
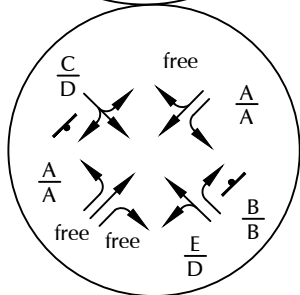
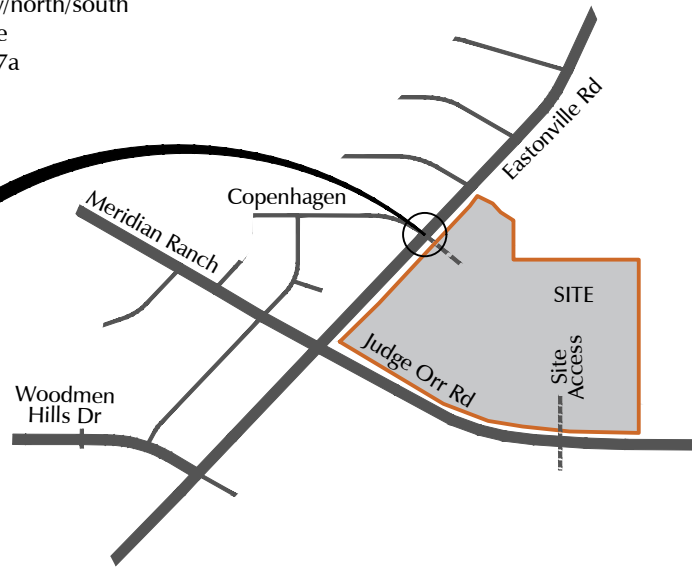
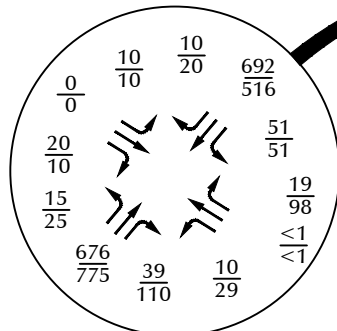
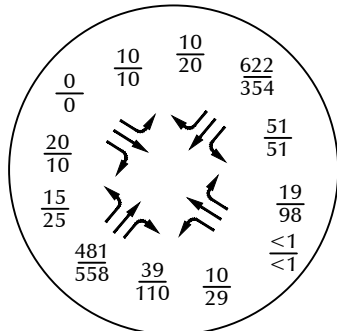
Figure 8b
2040 Background + Site Traffic, Lane
Geometry, Traffic Control, and LOS
at Eastonville Rd/Woodmen Hills Dr

Judge Orr Eastonville Commercial Center (LSC #194730)



Site-Generated volumes plus 2040 Background w/north/south through volumes based on Eastonville link volumes to the north from Figure 7a

Based on "Moderated Background" (from Figure 7c) + Site-Generated volumes



- XX = AM Weekday Peak-Hour Traffic (veh/hour)
- XX = PM Weekday Peak-Hour Traffic (veh/hour)
- X,XXX = Average Daily Traffic (vehicles per day)
- X/X = AM Individual Movement Peak-Hour LOS
- X/X = PM Individual Movement Peak-Hour LOS

Figure 8c
 2040 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS at Eastonville Rd/Copenhagen Rd

Judge Orr Eastonville Commercial Center (LSC #194730)



Traffic Counts





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545 E Pikes Peak Ave, Suite 210
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File Name : Eastonville Rd - Judge Orr Rd AM 10-19
 Site Code : 194730
 Start Date : 10/2/2019
 Page No : 1

Groups Printed- Unshifted

| Start Time | Eastonville Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Eastonville Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| 06:30 AM | 13 | 26 | 0 | 0 | 39 | 3 | 11 | 0 | 0 | 14 | 2 | 35 | 12 | 0 | 49 | 8 | 41 | 22 | 0 | 71 | 173 |
| 06:45 AM | 20 | 25 | 0 | 0 | 45 | 2 | 12 | 10 | 0 | 24 | 2 | 36 | 13 | 0 | 51 | 6 | 43 | 23 | 0 | 72 | 192 |
| Total | 33 | 51 | 0 | 0 | 84 | 5 | 23 | 10 | 0 | 38 | 4 | 71 | 25 | 0 | 100 | 14 | 84 | 45 | 0 | 143 | 365 |
| 07:00 AM | 6 | 35 | 1 | 0 | 42 | 6 | 6 | 24 | 0 | 36 | 3 | 63 | 10 | 0 | 76 | 24 | 37 | 21 | 0 | 82 | 236 |
| 07:15 AM | 7 | 48 | 6 | 0 | 61 | 10 | 9 | 25 | 0 | 44 | 5 | 54 | 14 | 0 | 73 | 47 | 36 | 26 | 0 | 109 | 287 |
| 07:30 AM | 8 | 37 | 3 | 0 | 48 | 6 | 16 | 23 | 0 | 45 | 7 | 32 | 6 | 0 | 45 | 20 | 32 | 31 | 0 | 83 | 221 |
| 07:45 AM | 9 | 30 | 0 | 0 | 39 | 7 | 9 | 11 | 0 | 27 | 5 | 40 | 6 | 0 | 51 | 10 | 28 | 29 | 0 | 67 | 184 |
| Total | 30 | 150 | 10 | 0 | 190 | 29 | 40 | 83 | 0 | 152 | 20 | 189 | 36 | 0 | 245 | 101 | 133 | 107 | 0 | 341 | 928 |
| 08:00 AM | 12 | 30 | 1 | 0 | 43 | 6 | 6 | 6 | 0 | 18 | 9 | 13 | 9 | 0 | 31 | 0 | 18 | 25 | 0 | 43 | 135 |
| 08:15 AM | 5 | 23 | 0 | 0 | 28 | 7 | 10 | 0 | 0 | 17 | 21 | 17 | 10 | 0 | 48 | 0 | 17 | 28 | 0 | 45 | 138 |
| Grand Total | 80 | 254 | 11 | 0 | 345 | 47 | 79 | 99 | 0 | 225 | 54 | 290 | 80 | 0 | 424 | 115 | 252 | 205 | 0 | 572 | 1566 |
| Apprch % | 23.2 | 73.6 | 3.2 | 0 | | 20.9 | 35.1 | 44 | 0 | | 12.7 | 68.4 | 18.9 | 0 | | 20.1 | 44.1 | 35.8 | 0 | | |
| Total % | 5.1 | 16.2 | 0.7 | 0 | 22 | 3 | 5 | 6.3 | 0 | 14.4 | 3.4 | 18.5 | 5.1 | 0 | 27.1 | 7.3 | 16.1 | 13.1 | 0 | 36.5 | |

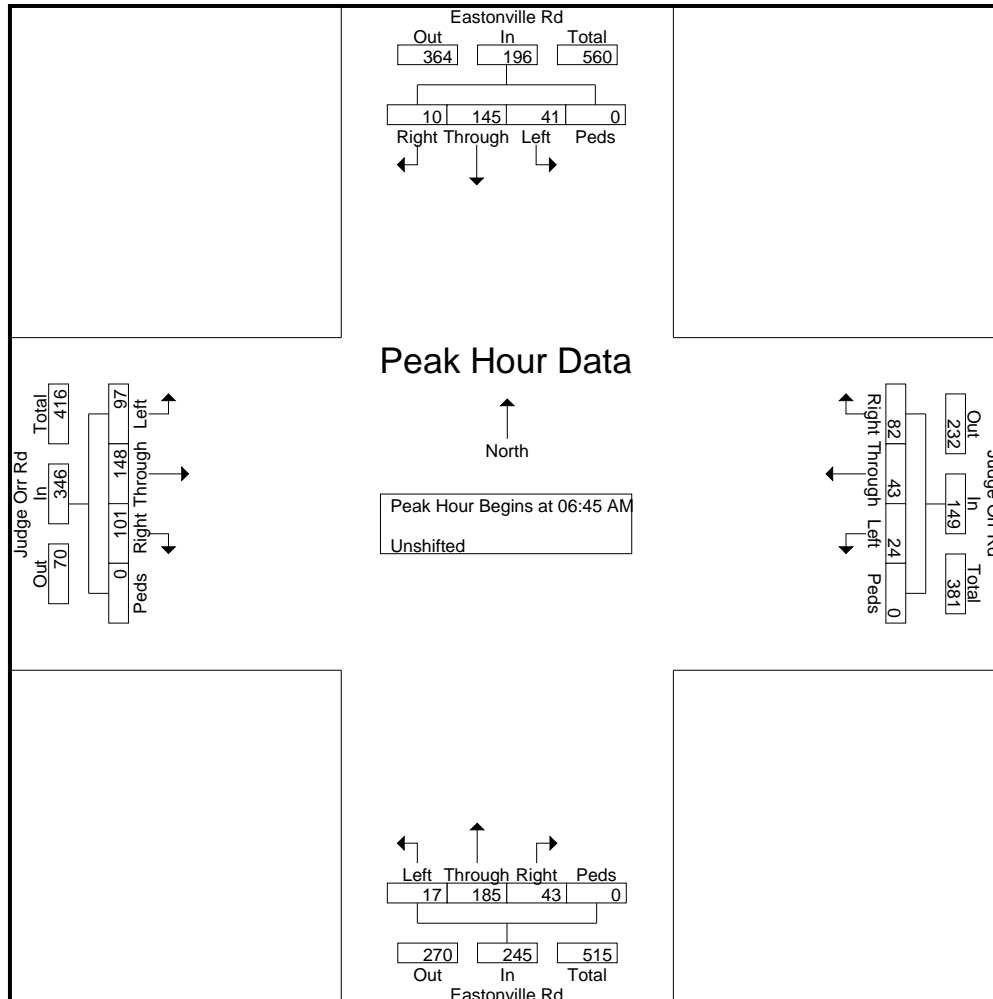


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 719-633-2868

File Name : Eastonville Rd - Judge Orr Rd AM 10-19
 Site Code : 194730
 Start Date : 10/2/2019
 Page No : 2

| Start Time | Eastonville Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Eastonville Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 | 20 | 25 | 0 | 0 | 45 | 2 | 12 | 10 | 0 | 24 | 2 | 36 | 13 | 0 | 51 | 6 | 43 | 23 | 0 | 72 | 192 |
| 07:00 AM | 6 | 35 | 1 | 0 | 42 | 6 | 6 | 24 | 0 | 36 | 3 | 63 | 10 | 0 | 76 | 24 | 37 | 21 | 0 | 82 | 236 |
| 07:15 AM | 7 | 48 | 6 | 0 | 61 | 10 | 9 | 25 | 0 | 44 | 5 | 54 | 14 | 0 | 73 | 47 | 36 | 26 | 0 | 109 | 287 |
| 07:30 AM | 8 | 37 | 3 | 0 | 48 | 6 | 16 | 23 | 0 | 45 | 7 | 32 | 6 | 0 | 45 | 20 | 32 | 31 | 0 | 83 | 221 |
| Total Volume | 41 | 145 | 10 | 0 | 196 | 24 | 43 | 82 | 0 | 149 | 17 | 185 | 43 | 0 | 245 | 97 | 148 | 101 | 0 | 346 | 936 |
| % App. Total | 20.9 | 74 | 5.1 | 0 | | 16.1 | 28.9 | 55 | 0 | | 6.9 | 75.5 | 17.6 | 0 | | 28 | 42.8 | 29.2 | 0 | | |
| PHF | .513 | .755 | .417 | .000 | .803 | .600 | .672 | .820 | .000 | .828 | .607 | .734 | .768 | .000 | .806 | .516 | .860 | .815 | .000 | .794 | .815 |



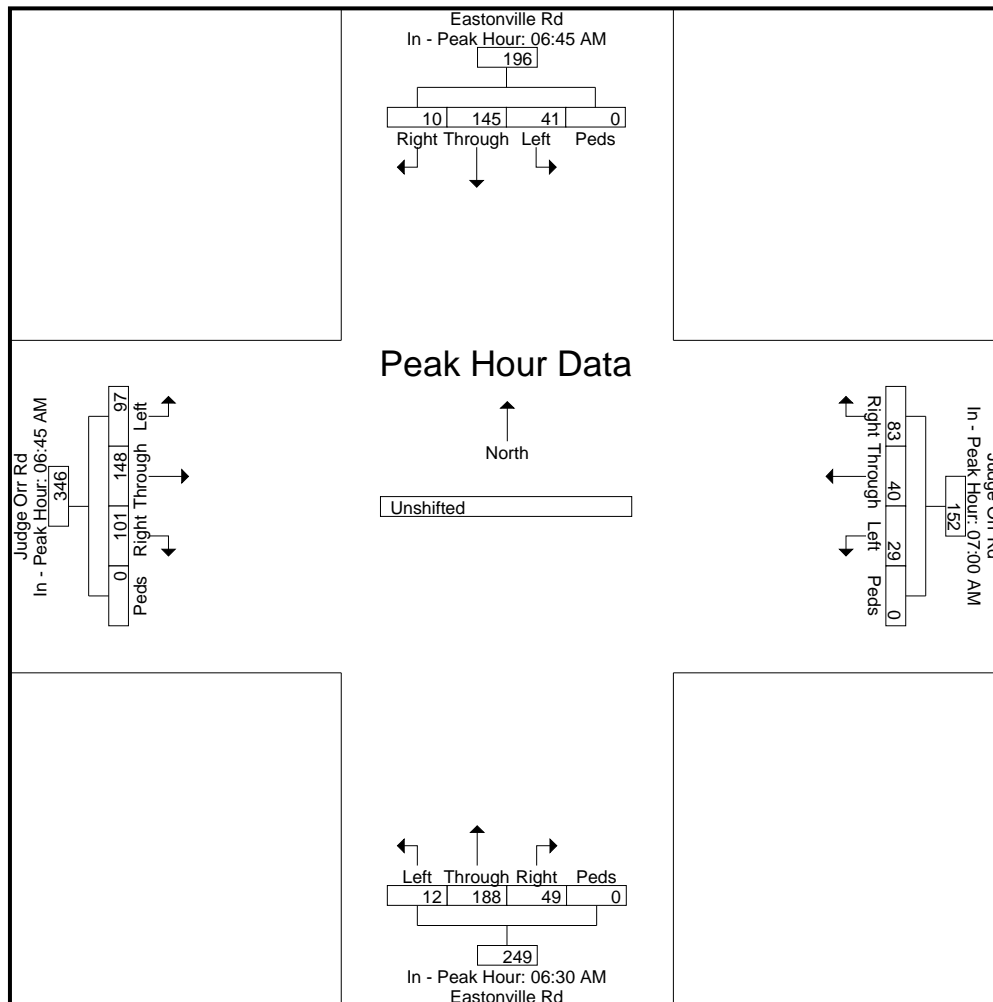


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File Name : Eastonville Rd - Judge Orr Rd AM 10-19
 Site Code : 194730
 Start Date : 10/2/2019
 Page No : 3

| Start Time | Eastonville Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Eastonville Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 | | | | | 07:00 AM | | | | | 06:30 AM | | | | | 06:45 AM | | | | | |
| +0 mins. | 20 | 25 | 0 | 0 | 45 | 6 | 6 | 24 | 0 | 36 | 2 | 35 | 12 | 0 | 49 | 6 | 43 | 23 | 0 | 72 | |
| +15 mins. | 6 | 35 | 1 | 0 | 42 | 10 | 9 | 25 | 0 | 44 | 2 | 36 | 13 | 0 | 51 | 24 | 37 | 21 | 0 | 82 | |
| +30 mins. | 7 | 48 | 6 | 0 | 61 | 6 | 16 | 23 | 0 | 45 | 3 | 63 | 10 | 0 | 76 | 47 | 36 | 26 | 0 | 109 | |
| +45 mins. | 8 | 37 | 3 | 0 | 48 | 7 | 9 | 11 | 0 | 27 | 5 | 54 | 14 | 0 | 73 | 20 | 32 | 31 | 0 | 83 | |
| Total Volume | 41 | 145 | 10 | 0 | 196 | 29 | 40 | 83 | 0 | 152 | 12 | 188 | 49 | 0 | 249 | 97 | 148 | 101 | 0 | 346 | |
| % App. Total | 20.9 | 74 | 5.1 | 0 | | 19.1 | 26.3 | 54.6 | 0 | | 4.8 | 75.5 | 19.7 | 0 | | 28 | 42.8 | 29.2 | 0 | | |
| PHF | .513 | .755 | .417 | .000 | .803 | .725 | .625 | .830 | .000 | .844 | .600 | .746 | .875 | .000 | .819 | .516 | .860 | .815 | .000 | .794 | |





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Colorado Springs, CO 80905

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File Name : Eastonville Rd - Judge Orr Rd PM 10-19

Site Code : 194730

Start Date : 10/2/2019

Page No : 1

Groups Printed- Unshifted

| Start Time | Eastonville Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Eastonville Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| 04:00 PM | 10 | 21 | 1 | 0 | 32 | 11 | 25 | 9 | 0 | 45 | 26 | 30 | 16 | 0 | 72 | 2 | 8 | 26 | 0 | 36 | 185 |
| 04:15 PM | 5 | 18 | 2 | 0 | 25 | 14 | 26 | 6 | 0 | 46 | 24 | 28 | 11 | 0 | 63 | 3 | 10 | 17 | 0 | 30 | 164 |
| 04:30 PM | 5 | 22 | 2 | 0 | 29 | 18 | 47 | 12 | 0 | 77 | 32 | 40 | 13 | 0 | 85 | 4 | 12 | 19 | 0 | 35 | 226 |
| 04:45 PM | 7 | 30 | 2 | 0 | 39 | 14 | 36 | 9 | 0 | 59 | 29 | 28 | 13 | 0 | 70 | 1 | 12 | 26 | 0 | 39 | 207 |
| Total | 27 | 91 | 7 | 0 | 125 | 57 | 134 | 36 | 0 | 227 | 111 | 126 | 53 | 0 | 290 | 10 | 42 | 88 | 0 | 140 | 782 |
| 05:00 PM | 4 | 20 | 0 | 0 | 24 | 12 | 33 | 11 | 0 | 56 | 26 | 44 | 8 | 0 | 78 | 1 | 11 | 16 | 0 | 28 | 186 |
| 05:15 PM | 4 | 21 | 3 | 0 | 28 | 6 | 33 | 7 | 0 | 46 | 32 | 57 | 11 | 0 | 100 | 4 | 11 | 20 | 0 | 35 | 209 |
| 05:30 PM | 5 | 33 | 2 | 0 | 40 | 5 | 28 | 12 | 0 | 45 | 22 | 44 | 7 | 0 | 73 | 2 | 9 | 14 | 0 | 25 | 183 |
| 05:45 PM | 8 | 36 | 2 | 0 | 46 | 6 | 24 | 5 | 0 | 35 | 25 | 41 | 11 | 0 | 77 | 1 | 16 | 18 | 0 | 35 | 193 |
| Total | 21 | 110 | 7 | 0 | 138 | 29 | 118 | 35 | 0 | 182 | 105 | 186 | 37 | 0 | 328 | 8 | 47 | 68 | 0 | 123 | 771 |
| Grand Total | 48 | 201 | 14 | 0 | 263 | 86 | 252 | 71 | 0 | 409 | 216 | 312 | 90 | 0 | 618 | 18 | 89 | 156 | 0 | 263 | 1553 |
| Apprch % | 18.3 | 76.4 | 5.3 | 0 | | 21 | 61.6 | 17.4 | 0 | | 35 | 50.5 | 14.6 | 0 | | 6.8 | 33.8 | 59.3 | 0 | | |
| Total % | 3.1 | 12.9 | 0.9 | 0 | 16.9 | 5.5 | 16.2 | 4.6 | 0 | 26.3 | 13.9 | 20.1 | 5.8 | 0 | 39.8 | 1.2 | 5.7 | 10 | 0 | 16.9 | |

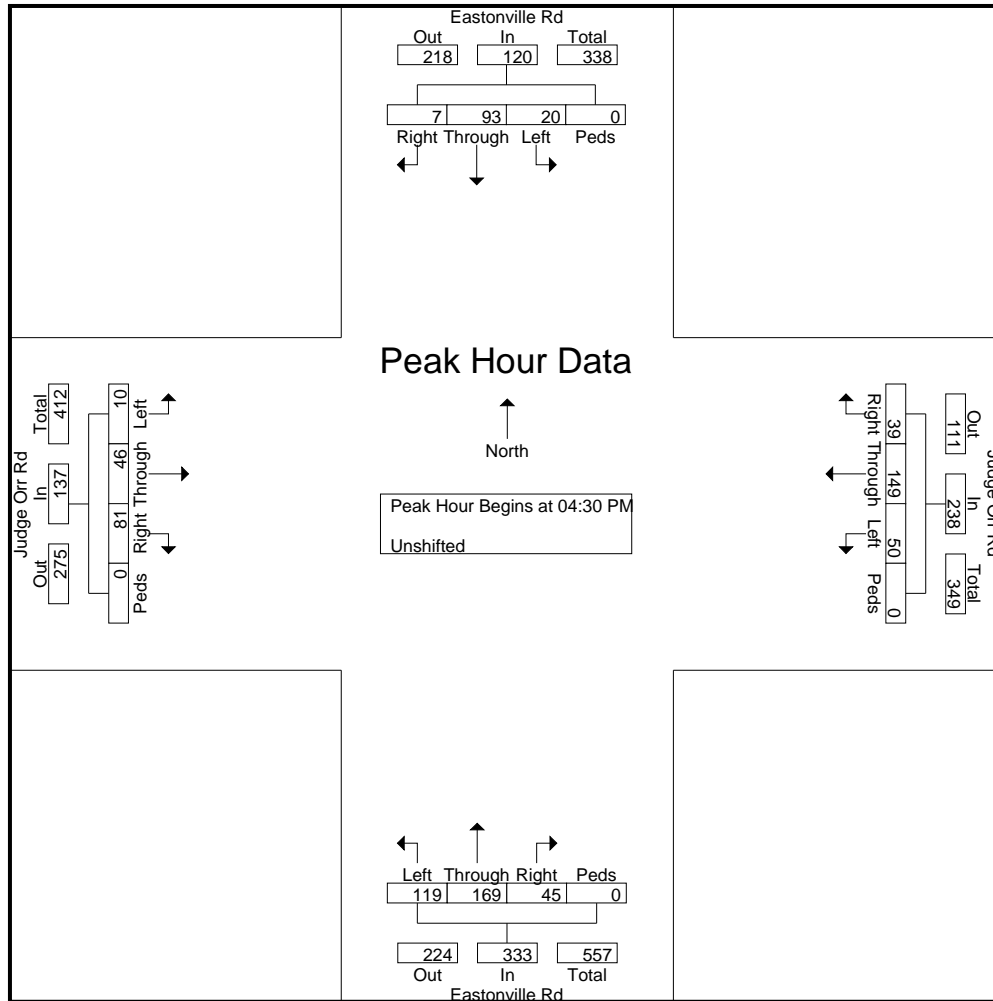


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 719-633-2868

File Name : Eastonville Rd - Judge Orr Rd PM 10-19
 Site Code : 194730
 Start Date : 10/2/2019
 Page No : 2

| Start Time | Eastonville Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Eastonville Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 | 5 | 22 | 2 | 0 | 29 | 18 | 47 | 12 | 0 | 77 | 32 | 40 | 13 | 0 | 85 | 4 | 12 | 19 | 0 | 35 | 226 |
| 04:45 PM | 7 | 30 | 2 | 0 | 39 | 14 | 36 | 9 | 0 | 59 | 29 | 28 | 13 | 0 | 70 | 1 | 12 | 26 | 0 | 39 | 207 |
| 05:00 PM | 4 | 20 | 0 | 0 | 24 | 12 | 33 | 11 | 0 | 56 | 26 | 44 | 8 | 0 | 78 | 1 | 11 | 16 | 0 | 28 | 186 |
| 05:15 PM | 4 | 21 | 3 | 0 | 28 | 6 | 33 | 7 | 0 | 46 | 32 | 57 | 11 | 0 | 100 | 4 | 11 | 20 | 0 | 35 | 209 |
| Total Volume | 20 | 93 | 7 | 0 | 120 | 50 | 149 | 39 | 0 | 238 | 119 | 169 | 45 | 0 | 333 | 10 | 46 | 81 | 0 | 137 | 828 |
| % App. Total | 16.7 | 77.5 | 5.8 | 0 | | 21 | 62.6 | 16.4 | 0 | | 35.7 | 50.8 | 13.5 | 0 | | 7.3 | 33.6 | 59.1 | 0 | | |
| PHF | .714 | .775 | .583 | .000 | .769 | .694 | .793 | .813 | .000 | .773 | .930 | .741 | .865 | .000 | .833 | .625 | .958 | .779 | .000 | .878 | .916 |



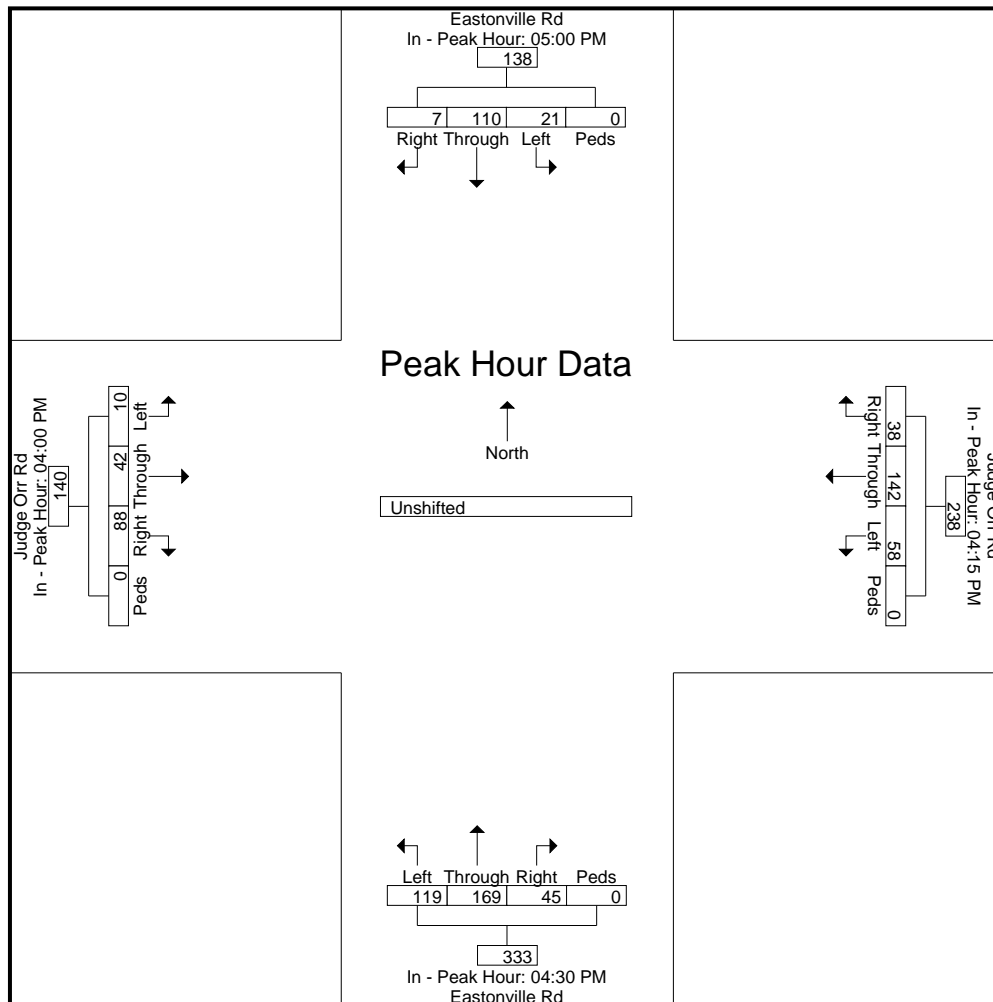


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 719-633-2868

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

| Start Time | Eastonville Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Eastonville Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|---------------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 05:00 PM | | | | | 04:15 PM | | | | | 04:30 PM | | | | | 04:00 PM | | | | | |
| +0 mins. | 4 | 20 | 0 | 0 | 24 | 14 | 26 | 6 | 0 | 46 | 32 | 40 | 13 | 0 | 85 | 2 | 8 | 26 | 0 | 36 | |
| +15 mins. | 4 | 21 | 3 | 0 | 28 | 18 | 47 | 12 | 0 | 77 | 29 | 28 | 13 | 0 | 70 | 3 | 10 | 17 | 0 | 30 | |
| +30 mins. | 5 | 33 | 2 | 0 | 40 | 14 | 36 | 9 | 0 | 59 | 26 | 44 | 8 | 0 | 78 | 4 | 12 | 19 | 0 | 35 | |
| +45 mins. | 8 | 36 | 2 | 0 | 46 | 12 | 33 | 11 | 0 | 56 | 32 | 57 | 11 | 0 | 100 | 1 | 12 | 26 | 0 | 39 | |
| Total Volume | 21 | 110 | 7 | 0 | 138 | 58 | 142 | 38 | 0 | 238 | 119 | 169 | 45 | 0 | 333 | 10 | 42 | 88 | 0 | 140 | |
| % App. Total | 15.2 | 79.7 | 5.1 | 0 | | 24.4 | 59.7 | 16 | 0 | | 35.7 | 50.8 | 13.5 | 0 | | 7.1 | 30 | 62.9 | 0 | | |
| PHF | .656 | .764 | .583 | .000 | .750 | .806 | .755 | .792 | .000 | .773 | .930 | .741 | .865 | .000 | .833 | .625 | .875 | .846 | .000 | .897 | |





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

Groups Printed- Unshifted

| Start Time | Hwy 24 Southbound | | | | | Judge Orr Rd Westbound | | | | | Hwy 24 Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 | |

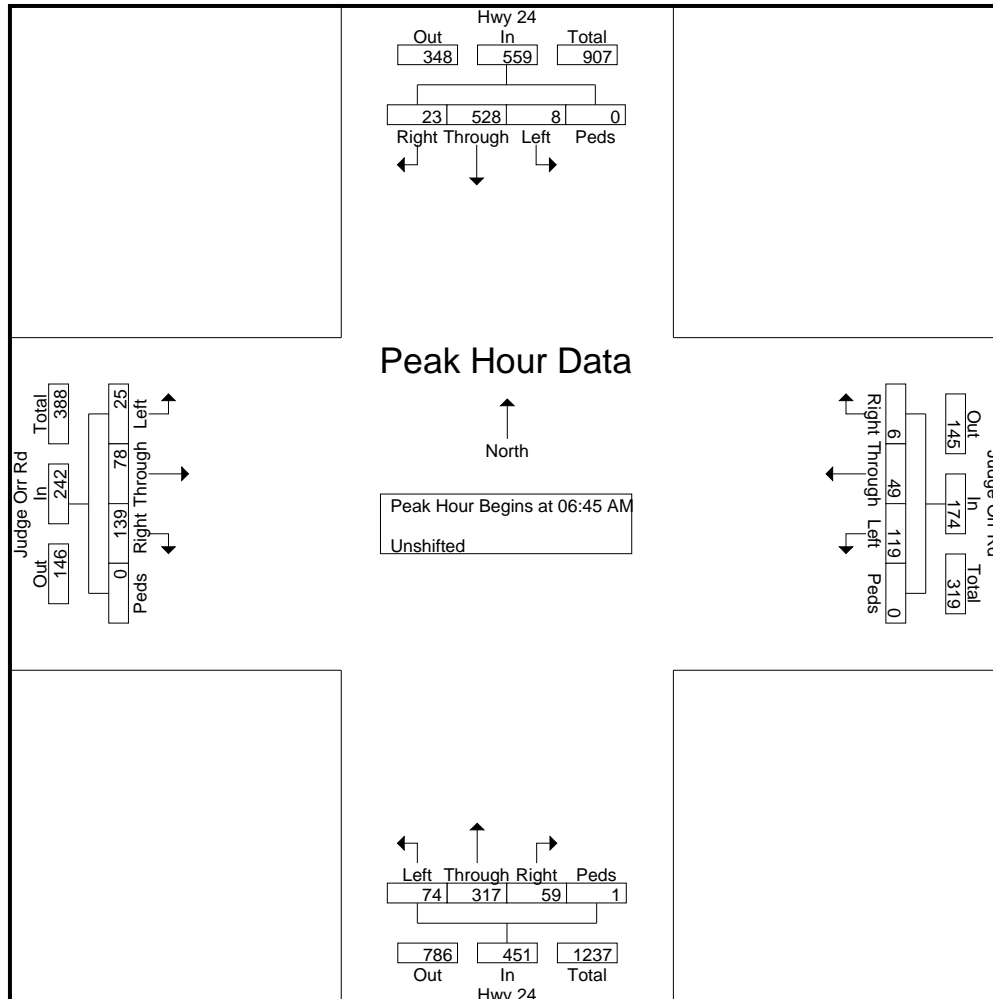


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 Colorado Springs, CO 80905
 719-633-2868

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

| Start Time | Hwy 24 Southbound | | | | | Judge Orr Rd Westbound | | | | | Hwy 24 Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 |



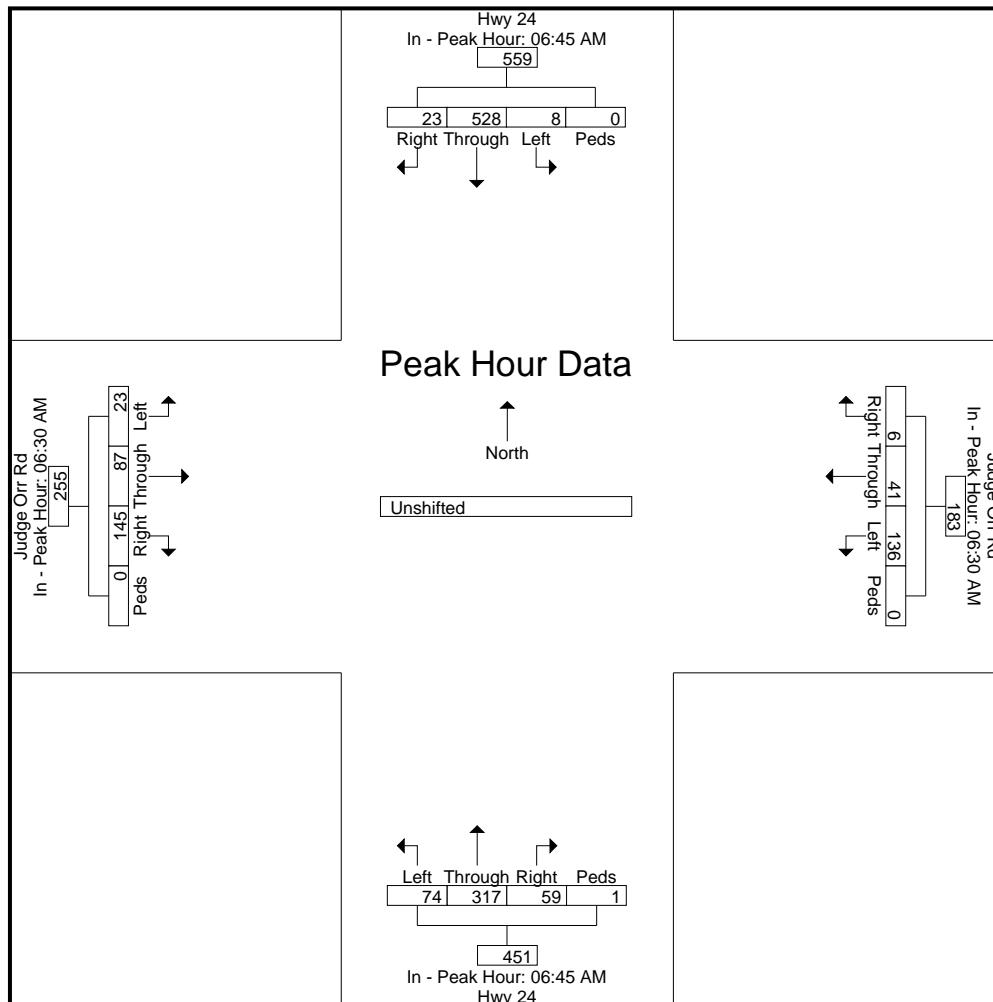


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 719-633-2868

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

| Start Time | Hwy 24 Southbound | | | | | Judge Orr Rd Westbound | | | | | Hwy 24 Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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

| Start Time | Hwy 24 Southbound | | | | | Judge Orr Rd Westbound | | | | | Hwy 24 Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 | |

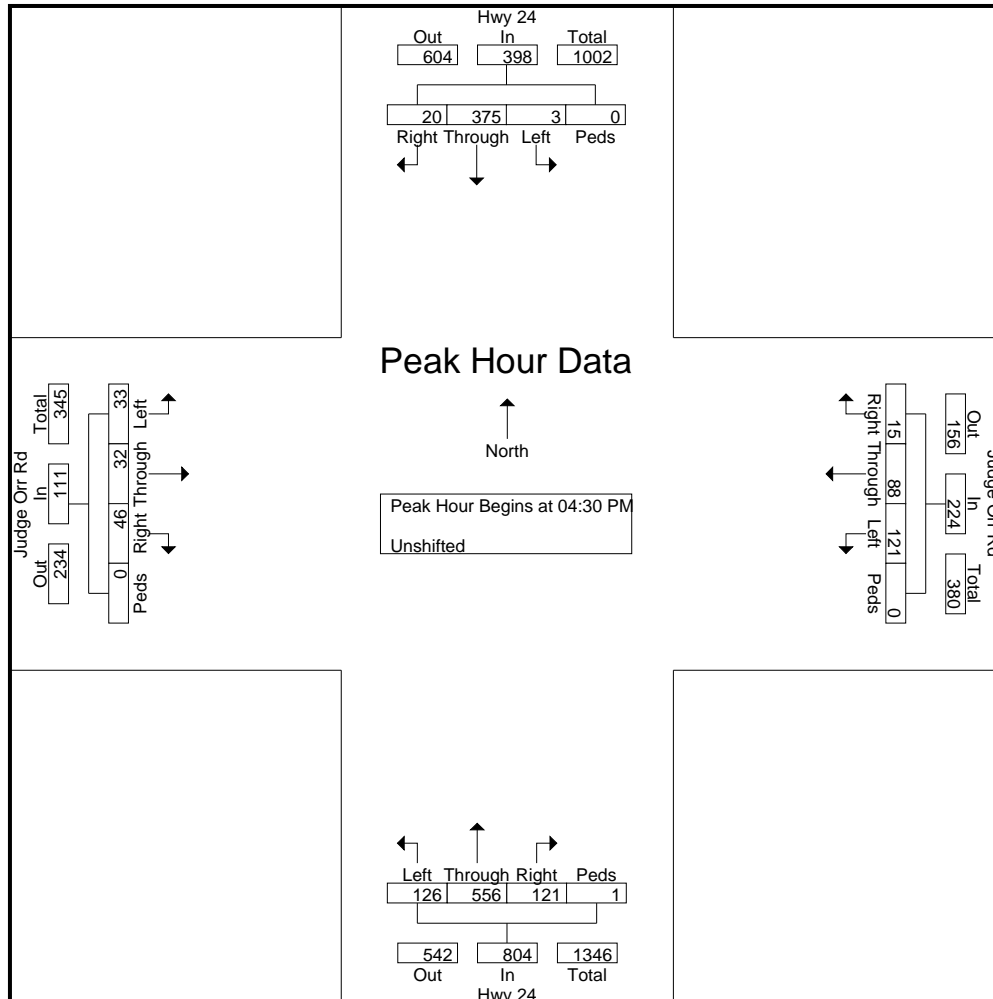


LSC Transportation Consultants, Inc.

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

| Start Time | Hwy 24 Southbound | | | | | Judge Orr Rd Westbound | | | | | Hwy 24 Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 |



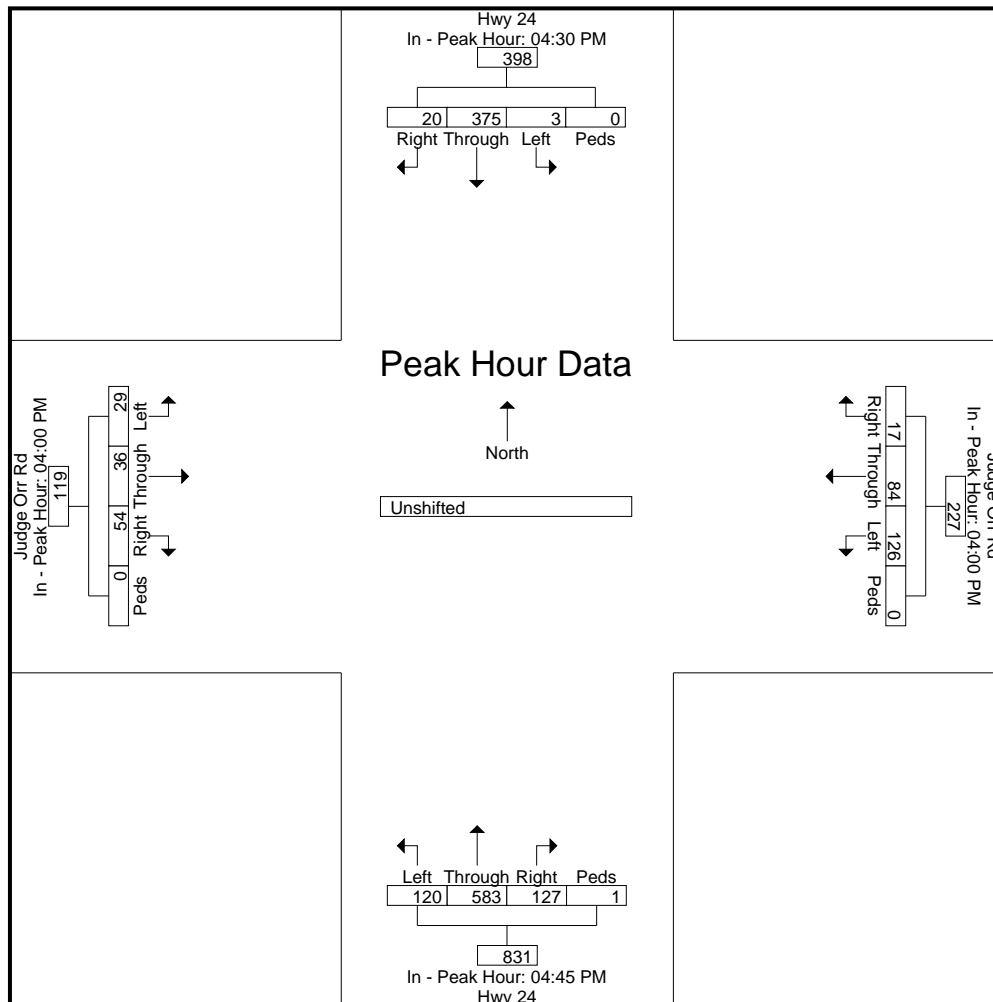


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 719-633-2868

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

| Start Time | Hwy 24 Southbound | | | | | Judge Orr Rd Westbound | | | | | Hwy 24 Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|---|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|-------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. 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 | |



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 719-633-2868

File Name : Eastonville Rd - Woodmen Hills Dr AM
 Site Code : 00194730
 Start Date : 12/3/2020
 Page No : 1

Groups Printed- Unshifted

| Start Time | Eastonville Rd Southbound | | | | | Woodmen Hills Dr Westbound | | | | | Eastonville Rd Northbound | | | | | Woodmen Hills Dr Eastbound | | | | | Int. Total |
|-------------|---------------------------|------|-----|---|------------|----------------------------|------|------|---|------------|---------------------------|------|---|---|------------|----------------------------|---|------|---|------------|------------|
| | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | |
| 07:00 AM | 0 | 24 | 2 | 0 | 26 | 0 | 0 | 5 | 0 | 5 | 0 | 25 | 0 | 0 | 25 | 1 | 0 | 1 | 0 | 2 | 58 |
| 07:15 AM | 2 | 33 | 4 | 0 | 39 | 0 | 1 | 3 | 0 | 4 | 0 | 36 | 0 | 0 | 36 | 7 | 0 | 0 | 0 | 7 | 86 |
| 07:30 AM | 0 | 68 | 5 | 0 | 73 | 0 | 0 | 1 | 0 | 1 | 1 | 37 | 0 | 0 | 38 | 7 | 0 | 1 | 0 | 8 | 120 |
| 07:45 AM | 0 | 48 | 7 | 0 | 55 | 2 | 2 | 1 | 0 | 5 | 1 | 33 | 0 | 0 | 34 | 2 | 0 | 1 | 0 | 3 | 97 |
| Total | 2 | 173 | 18 | 0 | 193 | 2 | 3 | 10 | 0 | 15 | 2 | 131 | 0 | 0 | 133 | 17 | 0 | 3 | 0 | 20 | 361 |
| 08:00 AM | 0 | 18 | 2 | 0 | 20 | 0 | 2 | 0 | 0 | 2 | 0 | 18 | 0 | 0 | 18 | 2 | 0 | 0 | 0 | 2 | 42 |
| 08:15 AM | 0 | 29 | 1 | 0 | 30 | 0 | 1 | 1 | 0 | 2 | 0 | 16 | 0 | 0 | 16 | 3 | 0 | 1 | 0 | 4 | 52 |
| 08:30 AM | 1 | 16 | 1 | 0 | 18 | 0 | 1 | 0 | 0 | 1 | 0 | 10 | 0 | 0 | 10 | 1 | 0 | 0 | 0 | 1 | 30 |
| 08:45 AM | 1 | 15 | 2 | 0 | 18 | 0 | 1 | 1 | 0 | 2 | 0 | 13 | 0 | 0 | 13 | 2 | 0 | 2 | 0 | 4 | 37 |
| Total | 2 | 78 | 6 | 0 | 86 | 0 | 5 | 2 | 0 | 7 | 0 | 57 | 0 | 0 | 57 | 8 | 0 | 3 | 0 | 11 | 161 |
| Grand Total | 4 | 251 | 24 | 0 | 279 | 2 | 8 | 12 | 0 | 22 | 2 | 188 | 0 | 0 | 190 | 25 | 0 | 6 | 0 | 31 | 522 |
| Apprch % | 1.4 | 90 | 8.6 | 0 | | 9.1 | 36.4 | 54.5 | 0 | | 1.1 | 98.9 | 0 | 0 | | 80.6 | 0 | 19.4 | 0 | | |
| Total % | 0.8 | 48.1 | 4.6 | 0 | 53.4 | 0.4 | 1.5 | 2.3 | 0 | 4.2 | 0.4 | 36 | 0 | 0 | 36.4 | 4.8 | 0 | 1.1 | 0 | 5.9 | |

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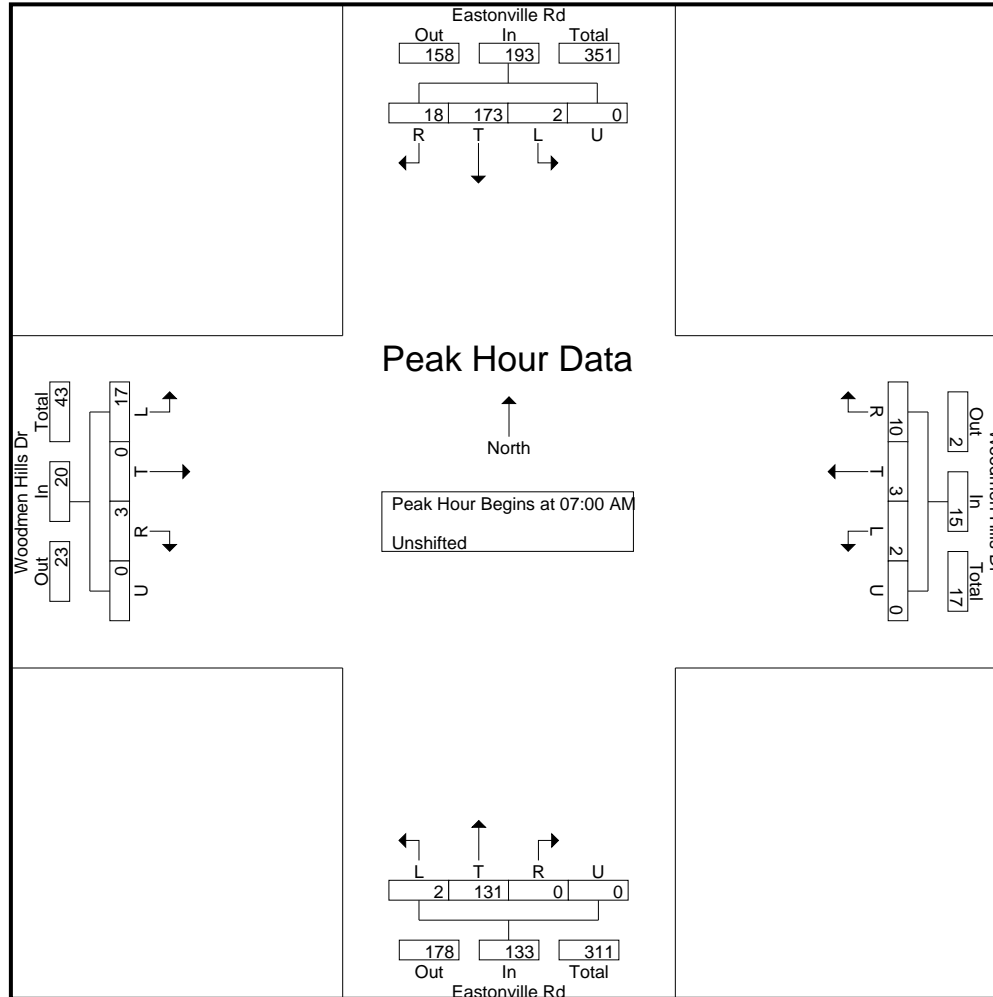
File Name : Eastonville Rd - Woodmen Hills Dr AM
 Site Code : 00194730
 Start Date : 12/3/2020
 Page No : 2

| Start Time | Eastonville Rd Southbound | | | | | Woodmen Hills Dr Westbound | | | | | Eastonville Rd Northbound | | | | | Woodmen Hills Dr Eastbound | | | | | Int. Total |
|---|---------------------------|------|------|------|------------|----------------------------|------|------|------|------------|---------------------------|------|------|------|------------|----------------------------|------|------|------|------------|------------|
| | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. 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 | 0 | 24 | 2 | 0 | 26 | 0 | 0 | 5 | 0 | 5 | 0 | 25 | 0 | 0 | 25 | 1 | 0 | 1 | 0 | 2 | 58 |
| 7:15:00 AM | 2 | 33 | 4 | 0 | 39 | 0 | 1 | 3 | 0 | 4 | 0 | 36 | 0 | 0 | 36 | 7 | 0 | 0 | 0 | 7 | 86 |
| 7:30:00 AM | 0 | 68 | 5 | 0 | 73 | 0 | 0 | 1 | 0 | 1 | 1 | 37 | 0 | 0 | 38 | 7 | 0 | 1 | 0 | 8 | 120 |
| 7:45:00 AM | 0 | 48 | 7 | 0 | 55 | 2 | 2 | 1 | 0 | 5 | 1 | 33 | 0 | 0 | 34 | 2 | 0 | 1 | 0 | 3 | 97 |
| Total Volume | 2 | 173 | 18 | 0 | 193 | 2 | 3 | 10 | 0 | 15 | 2 | 131 | 0 | 0 | 133 | 17 | 0 | 3 | 0 | 20 | 361 |
| % App. Total | 1 | 89.6 | 9.3 | 0 | | 13.3 | 20 | 66.7 | 0 | | 1.5 | 98.5 | 0 | 0 | | 85 | 0 | 15 | 0 | | |
| PHF | .250 | .636 | .643 | .000 | .661 | .250 | .375 | .500 | .000 | .750 | .500 | .885 | .000 | .000 | .875 | .607 | .000 | .750 | .000 | .625 | .752 |

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File Name : Eastonville Rd - Woodmen Hills Dr AM
 Site Code : 00194730
 Start Date : 12/3/2020
 Page No : 3



LSC Transportation Consultants, Inc.

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

File Name : Eastonville Rd - Woodmen Hills Dr AM
 Site Code : 00194730
 Start Date : 12/3/2020
 Page No : 4

| Start Time | Eastonville Rd Southbound | | | | | Woodmen Hills Dr Westbound | | | | | Eastonville Rd Northbound | | | | | Woodmen Hills Dr Eastbound | | | | | Int. Total |
|------------|---------------------------|---|---|---|------------|----------------------------|---|---|---|------------|---------------------------|---|---|---|------------|----------------------------|---|---|---|------------|------------|
| | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | |

Peak Hour Analysis From 7:00:00 AM to 8:45:00 AM - Peak 1 of 1

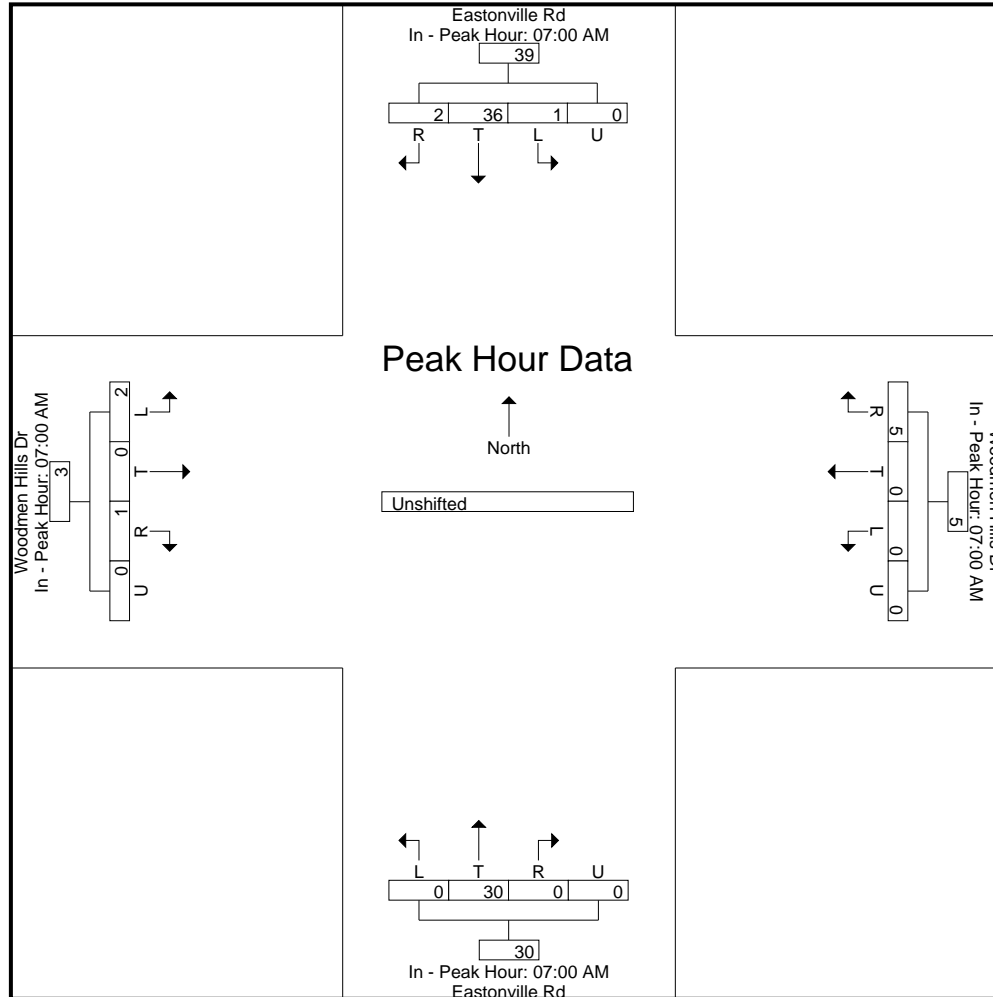
Peak Hour for Each Approach Begins at:

| | 7:00:00 AM | | | | | 7:00:00 AM | | | | | 7:00:00 AM | | | | | 7:00:00 AM | | | | |
|--------------|------------|------|------|------|------|------------|------|------|------|------|------------|------|------|------|------|------------|------|------|------|------|
| +0 mins. | 0 | 24 | 2 | 0 | 26 | 0 | 0 | 5 | 0 | 5 | 0 | 25 | 0 | 0 | 25 | 1 | 0 | 1 | 0 | 2 |
| +5 mins. | 2 | 33 | 4 | 0 | 39 | 0 | 1 | 3 | 0 | 4 | 0 | 36 | 0 | 0 | 36 | 7 | 0 | 0 | 0 | 7 |
| +10 mins. | 0 | 68 | 5 | 0 | 73 | 0 | 0 | 1 | 0 | 1 | 1 | 37 | 0 | 0 | 38 | 7 | 0 | 1 | 0 | 8 |
| +15 mins. | 0 | 48 | 7 | 0 | 55 | 2 | 2 | 1 | 0 | 5 | 1 | 33 | 0 | 0 | 34 | 2 | 0 | 1 | 0 | 3 |
| Total Volume | 2 | 173 | 18 | 0 | 193 | 2 | 3 | 10 | 0 | 15 | 2 | 131 | 0 | 0 | 133 | 17 | 0 | 3 | 0 | 20 |
| % App. Total | 1 | 89.6 | 9.3 | 0 | | 13.3 | 20 | 66.7 | 0 | | 1.5 | 98.5 | 0 | 0 | | 85 | 0 | 15 | 0 | |
| PHF | .250 | .636 | .643 | .000 | .661 | .250 | .375 | .500 | .000 | .750 | .500 | .885 | .000 | .000 | .875 | .607 | .000 | .750 | .000 | .625 |

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File Name : Eastonville Rd - Woodmen Hills Dr AM
 Site Code : 00194730
 Start Date : 12/3/2020
 Page No : 5



LSC Transportation Consultants, Inc.

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

File Name : Eastonville Rd - Woodmen Hills Dr PM
 Site Code : 00194730
 Start Date : 12/2/2020
 Page No : 1

Groups Printed- Unshifted

| Start Time | Eastonville Rd Southbound | | | | | Woodmen Hills Dr Westbound | | | | | Eastonville Rd Northbound | | | | | Woodmen Hills Dr Eastbound | | | | | Int. Total |
|-------------|---------------------------|------|-----|---|------------|----------------------------|------|------|---|------------|---------------------------|------|-----|---|------------|----------------------------|-----|------|---|------------|------------|
| | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | |
| 04:00 PM | 1 | 49 | 0 | 0 | 50 | 1 | 2 | 0 | 0 | 3 | 1 | 46 | 0 | 0 | 47 | 3 | 1 | 0 | 0 | 4 | 104 |
| 04:15 PM | 0 | 41 | 0 | 0 | 41 | 0 | 1 | 1 | 0 | 2 | 1 | 50 | 1 | 0 | 52 | 4 | 0 | 0 | 0 | 4 | 99 |
| 04:30 PM | 0 | 37 | 4 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 2 | 51 | 1 | 0 | 54 | 1 | 0 | 4 | 0 | 5 | 100 |
| 04:45 PM | 0 | 40 | 3 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 2 | 58 | 0 | 0 | 60 | 3 | 0 | 0 | 0 | 3 | 106 |
| Total | 1 | 167 | 7 | 0 | 175 | 1 | 3 | 1 | 0 | 5 | 6 | 205 | 2 | 0 | 213 | 11 | 1 | 4 | 0 | 16 | 409 |
| 05:00 PM | 0 | 43 | 3 | 0 | 46 | 1 | 1 | 1 | 0 | 3 | 1 | 66 | 0 | 0 | 67 | 0 | 0 | 1 | 0 | 1 | 117 |
| 05:15 PM | 2 | 29 | 1 | 0 | 32 | 1 | 1 | 2 | 0 | 4 | 0 | 46 | 3 | 0 | 49 | 2 | 0 | 1 | 0 | 3 | 88 |
| 05:30 PM | 1 | 28 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 2 | 65 | 0 | 0 | 67 | 2 | 0 | 1 | 0 | 3 | 99 |
| 05:45 PM | 2 | 34 | 1 | 0 | 37 | 0 | 1 | 1 | 0 | 2 | 1 | 61 | 2 | 0 | 64 | 1 | 0 | 0 | 0 | 1 | 104 |
| Total | 5 | 134 | 5 | 0 | 144 | 2 | 3 | 4 | 0 | 9 | 4 | 238 | 5 | 0 | 247 | 5 | 0 | 3 | 0 | 8 | 408 |
| Grand Total | 6 | 301 | 12 | 0 | 319 | 3 | 6 | 5 | 0 | 14 | 10 | 443 | 7 | 0 | 460 | 16 | 1 | 7 | 0 | 24 | 817 |
| Apprch % | 1.9 | 94.4 | 3.8 | 0 | | 21.4 | 42.9 | 35.7 | 0 | | 2.2 | 96.3 | 1.5 | 0 | | 66.7 | 4.2 | 29.2 | 0 | | |
| Total % | 0.7 | 36.8 | 1.5 | 0 | 39 | 0.4 | 0.7 | 0.6 | 0 | 1.7 | 1.2 | 54.2 | 0.9 | 0 | 56.3 | 2 | 0.1 | 0.9 | 0 | 2.9 | |

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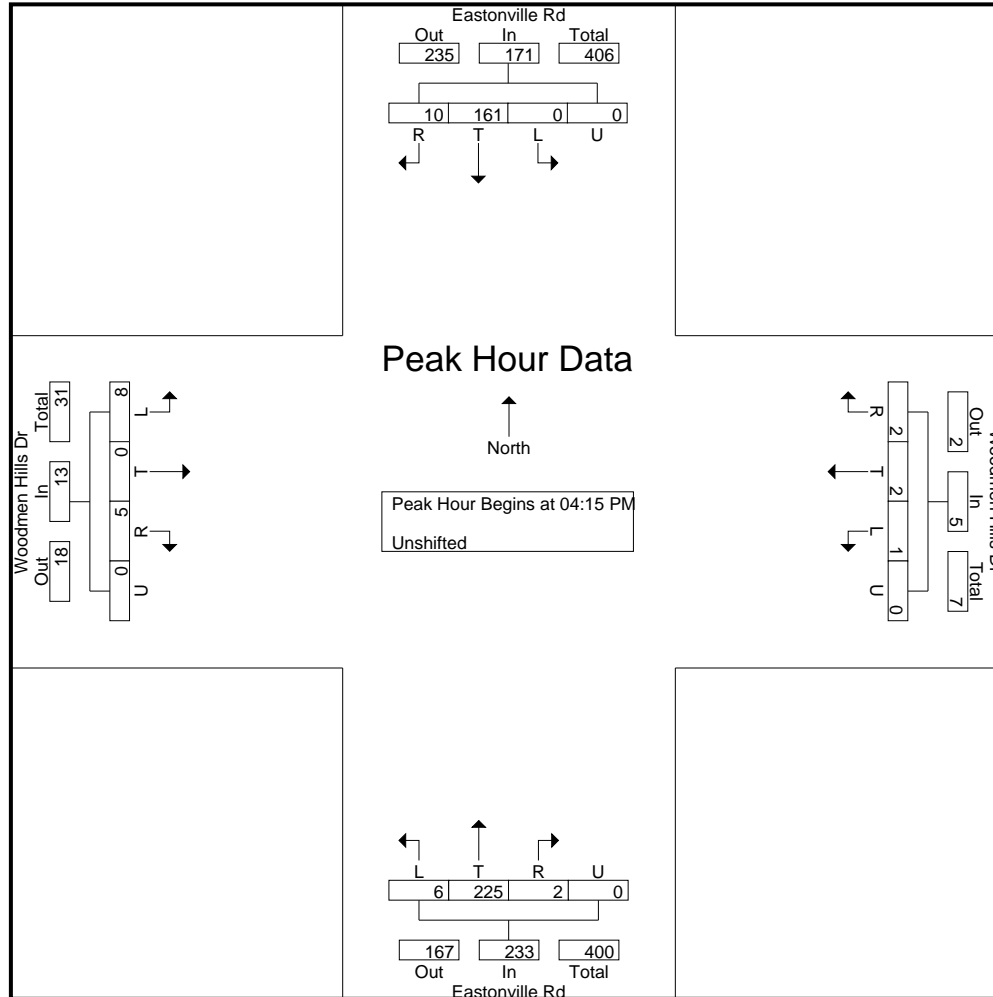
File Name : Eastonville Rd - Woodmen Hills Dr PM
 Site Code : 00194730
 Start Date : 12/2/2020
 Page No : 2

| Start Time | Eastonville Rd Southbound | | | | | Woodmen Hills Dr Westbound | | | | | Eastonville Rd Northbound | | | | | Woodmen Hills Dr Eastbound | | | | | Int. Total |
|---|---------------------------|------|------|------|------------|----------------------------|------|------|------|------------|---------------------------|------|------|------|------------|----------------------------|------|------|------|------------|------------|
| | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. 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 4:15:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 4:15:00 PM | 0 | 41 | 0 | 0 | 41 | 0 | 1 | 1 | 0 | 2 | 1 | 50 | 1 | 0 | 52 | 4 | 0 | 0 | 0 | 4 | 99 |
| 4:30:00 PM | 0 | 37 | 4 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 2 | 51 | 1 | 0 | 54 | 1 | 0 | 4 | 0 | 5 | 100 |
| 4:45:00 PM | 0 | 40 | 3 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 2 | 58 | 0 | 0 | 60 | 3 | 0 | 0 | 0 | 3 | 106 |
| 5:00:00 PM | 0 | 43 | 3 | 0 | 46 | 1 | 1 | 1 | 0 | 3 | 1 | 66 | 0 | 0 | 67 | 0 | 0 | 1 | 0 | 1 | 117 |
| Total Volume | 0 | 161 | 10 | 0 | 171 | 1 | 2 | 2 | 0 | 5 | 6 | 225 | 2 | 0 | 233 | 8 | 0 | 5 | 0 | 13 | 422 |
| % App. Total | 0 | 94.2 | 5.8 | 0 | | 20 | 40 | 40 | 0 | | 2.6 | 96.6 | 0.9 | 0 | | 61.5 | 0 | 38.5 | 0 | | |
| PHF | .000 | .936 | .625 | .000 | .929 | .250 | .500 | .500 | .000 | .417 | .750 | .852 | .500 | .000 | .869 | .500 | .000 | .313 | .000 | .650 | .902 |

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File Name : Eastonville Rd - Woodmen Hills Dr PM
 Site Code : 00194730
 Start Date : 12/2/2020
 Page No : 3



LSC Transportation Consultants, Inc.

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 719-633-2868

File Name : Eastonville Rd - Woodmen Hills Dr PM
 Site Code : 00194730
 Start Date : 12/2/2020
 Page No : 4

| Start Time | Eastonville Rd Southbound | | | | | Woodmen Hills Dr Westbound | | | | | Eastonville Rd Northbound | | | | | Woodmen Hills Dr Eastbound | | | | | Int. Total |
|------------|---------------------------|---|---|---|------------|----------------------------|---|---|---|------------|---------------------------|---|---|---|------------|----------------------------|---|---|---|------------|------------|
| | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | L | T | R | U | App. Total | |

Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1

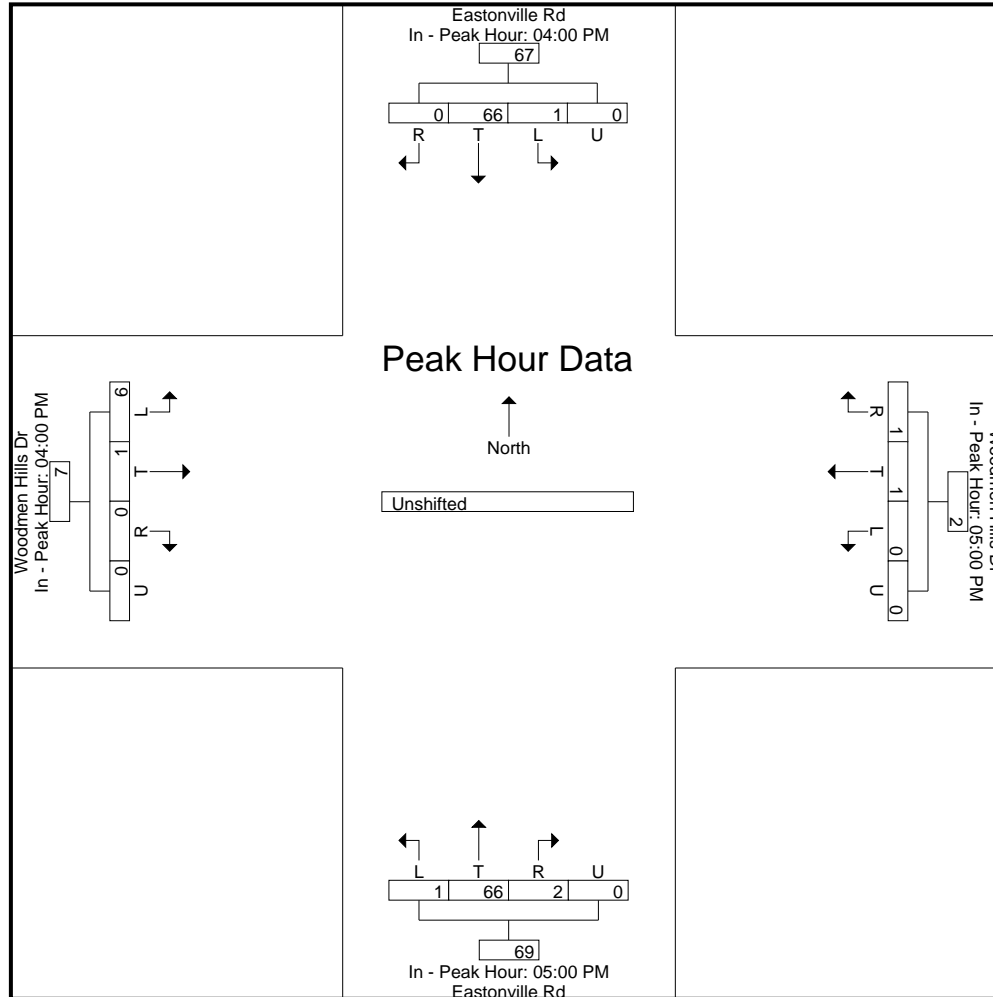
Peak Hour for Each Approach Begins at:

| | 4:00:00 PM | | | | | 5:00:00 PM | | | | | 5:00:00 PM | | | | | 4:00:00 PM | | | | |
|--------------|------------|-----------|------|------|-----------|------------|----------|------|------|------|------------|-----------|------|------|-----------|------------|----------|------|------|------|
| +0 mins. | 1 | 49 | 0 | 0 | 50 | 1 | 1 | 1 | 0 | 3 | 1 | 66 | 0 | 0 | 67 | 3 | 1 | 0 | 0 | 4 |
| +5 mins. | 0 | 41 | 0 | 0 | 41 | 1 | 1 | 2 | 0 | 4 | 0 | 46 | 3 | 0 | 49 | 4 | 0 | 0 | 0 | 4 |
| +10 mins. | 0 | 37 | 4 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 2 | 65 | 0 | 0 | 67 | 1 | 0 | 4 | 0 | 5 |
| +15 mins. | 0 | 40 | 3 | 0 | 43 | 0 | 1 | 1 | 0 | 2 | 1 | 61 | 2 | 0 | 64 | 3 | 0 | 0 | 0 | 3 |
| Total Volume | 1 | 167 | 7 | 0 | 175 | 2 | 3 | 4 | 0 | 9 | 4 | 238 | 5 | 0 | 247 | 11 | 1 | 4 | 0 | 16 |
| % App. Total | 0.6 | 95.4 | 4 | 0 | | 22.2 | 33.3 | 44.4 | 0 | | 1.6 | 96.4 | 2 | 0 | | 68.8 | 6.2 | 25 | 0 | |
| PHF | .250 | .852 | .438 | .000 | .875 | .500 | .750 | .500 | .000 | .563 | .500 | .902 | .417 | .000 | .922 | .688 | .250 | .250 | .000 | .800 |

LSC Transportation Consultants, Inc.

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

File Name : Eastonville Rd - Woodmen Hills Dr PM
 Site Code : 00194730
 Start Date : 12/2/2020
 Page No : 5



Levels of Service



Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

Existing
AM



| 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 | 26 |
| Future Volume (vph) | 25 | 78 | 139 | 119 | 49 | 6 | 74 | 317 | 59 | 8 | 528 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 860 | | 0 | 695 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 300 | | | 25 | | |
| 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 | | | 0.993 | |
| Flt Protected | | 0.995 | | | 0.967 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1711 | 0 | 0 | 1792 | 0 | 1770 | 1820 | 0 | 1770 | 1850 | 0 |
| Flt Permitted | | 0.995 | | | 0.967 | | 0.153 | | | 0.522 | | |
| Satd. Flow (perm) | 0 | 1711 | 0 | 0 | 1792 | 0 | 285 | 1820 | 0 | 972 | 1850 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 65 | | | 2 | | | 14 | | | | 3 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | | 55 |
| Link Distance (ft) | | 2032 | | | 1524 | | | 1735 | | | | 2505 |
| Travel Time (s) | | 30.8 | | | 23.1 | | | 21.5 | | | | 31.1 |
| 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) | 29 | 90 | 160 | 137 | 56 | 7 | 80 | 345 | 64 | 9 | 568 | 28 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 279 | 0 | 0 | 200 | 0 | 80 | 409 | 0 | 9 | 596 | 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 | Split | NA | | Split | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 4 | 4 | | 8 | 8 | | 5 | 2 | | | | 6 |
| Permitted Phases | | | | | | | 2 | | | 6 | | |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

Existing
AM



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase | 4 | 4 | | 8 | 8 | | 5 | 2 | | 6 | 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) | 24.0 | 24.0 | | 24.0 | 24.0 | | 9.5 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 21.0 | 21.0 | | 21.0 | 21.0 | | 10.0 | 48.0 | | 38.0 | 38.0 | |
| Total Split (%) | 23.3% | 23.3% | | 23.3% | 23.3% | | 11.1% | 53.3% | | 42.2% | 42.2% | |
| Maximum Green (s) | 15.0 | 15.0 | | 15.0 | 15.0 | | 5.5 | 42.0 | | 32.0 | 32.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 4.5 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | 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 | | Max | 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) | | 14.0 | | | 13.3 | | 43.6 | 42.1 | | 34.3 | 34.3 | |
| Actuated g/C Ratio | | 0.16 | | | 0.15 | | 0.50 | 0.48 | | 0.39 | 0.39 | |
| v/c Ratio | | 0.85 | | | 0.73 | | 0.34 | 0.46 | | 0.02 | 0.82 | |
| Control Delay | | 52.0 | | | 51.5 | | 16.6 | 17.4 | | 19.2 | 37.2 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 52.0 | | | 51.5 | | 16.6 | 17.4 | | 19.2 | 37.2 | |
| LOS | | D | | | D | | B | B | | B | D | |
| Approach Delay | | 52.0 | | | 51.5 | | | 17.2 | | | 36.9 | |
| Approach LOS | | D | | | D | | | B | | | D | |
| Queue Length 50th (ft) | | 119 | | | 107 | | 24 | 148 | | 3 | 316 | |
| Queue Length 95th (ft) | | #236 | | | #174 | | 48 | 228 | | 14 | #522 | |
| Internal Link Dist (ft) | | 1952 | | | 1444 | | | 1655 | | | 2425 | |
| Turn Bay Length (ft) | | | | | | | 860 | | | 695 | | |
| Base Capacity (vph) | | 348 | | | 309 | | 235 | 882 | | 380 | 726 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | | 0.80 | | | 0.65 | | 0.34 | 0.46 | | 0.02 | 0.82 | |

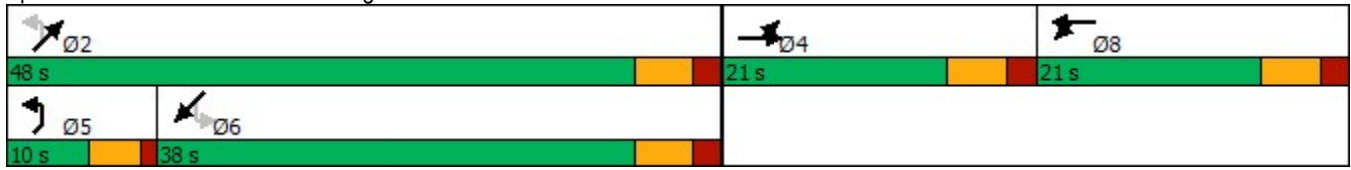
Intersection Summary

| | |
|---|------------------------|
| Area Type: | Other |
| Cycle Length: | 90 |
| Actuated Cycle Length: | 87.5 |
| Natural Cycle: | 85 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.85 |
| Intersection Signal Delay: | 35.3 |
| Intersection LOS: | D |
| Intersection Capacity Utilization: | 75.8% |
| ICU Level of Service: | D |
| Analysis Period (min): | 15 |
| # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. | |

Lanes, Volumes, Timings
 2: US 24 & Judge Orr Rd

Existing
 AM

Splits and Phases: 2: US 24 & Judge Orr Rd



HCM 6th AWSC
 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

Existing
 AM

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 14.1 |
| Intersection LOS | B |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | ↶ | ↶ | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 97 | 148 | 101 | 24 | 43 | 82 | 17 | 185 | 43 | 41 | 145 | 10 |
| Future Vol, veh/h | 97 | 148 | 101 | 24 | 43 | 82 | 17 | 185 | 43 | 41 | 145 | 10 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 105 | 161 | 110 | 28 | 49 | 94 | 18 | 201 | 47 | 47 | 167 | 11 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | SE | NW | NE | SW |
|----------------------------|------|------|------|------|
| Opposing Approach | NW | SE | SW | NE |
| Opposing Lanes | 3 | 2 | 2 | 2 |
| Conflicting Approach Left | SW | NE | SE | NW |
| Conflicting Lanes Left | 2 | 2 | 2 | 3 |
| Conflicting Approach Right | NE | SW | NW | SE |
| Conflicting Lanes Right | 2 | 2 | 3 | 2 |
| HCM Control Delay | 14.8 | 11.1 | 15.7 | 13.4 |
| HCM LOS | B | B | C | B |

| Lane | NELn1 | NELn2 | NWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SWLn1 | SWLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 81% | 0% | 100% | 0% | 0% | 59% | 0% | 94% |
| Vol Right, % | 0% | 19% | 0% | 0% | 100% | 0% | 41% | 0% | 6% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 17 | 228 | 24 | 43 | 82 | 97 | 249 | 41 | 155 |
| LT Vol | 17 | 0 | 24 | 0 | 0 | 97 | 0 | 41 | 0 |
| Through Vol | 0 | 185 | 0 | 43 | 0 | 0 | 148 | 0 | 145 |
| RT Vol | 0 | 43 | 0 | 0 | 82 | 0 | 101 | 0 | 10 |
| Lane Flow Rate | 18 | 248 | 28 | 49 | 94 | 105 | 271 | 47 | 178 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.039 | 0.481 | 0.061 | 0.103 | 0.177 | 0.218 | 0.499 | 0.101 | 0.356 |
| Departure Headway (Hd) | 7.628 | 6.988 | 7.988 | 7.476 | 6.761 | 7.44 | 6.641 | 7.747 | 7.194 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 470 | 515 | 449 | 479 | 531 | 483 | 544 | 463 | 501 |
| Service Time | 5.367 | 4.726 | 5.732 | 5.221 | 4.505 | 5.177 | 4.378 | 5.489 | 4.935 |
| HCM Lane V/C Ratio | 0.038 | 0.482 | 0.062 | 0.102 | 0.177 | 0.217 | 0.498 | 0.102 | 0.355 |
| HCM Control Delay | 10.7 | 16.1 | 11.3 | 11.1 | 11 | 12.2 | 15.8 | 11.4 | 13.9 |
| HCM Lane LOS | B | C | B | B | B | B | C | B | B |
| HCM 95th-tile Q | 0.1 | 2.6 | 0.2 | 0.3 | 0.6 | 0.8 | 2.8 | 0.3 | 1.6 |

HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

Existing
AM

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1 | | | | | |
| Movement | EBL | EBR | NEL | NET | SWT | SWR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 20 | 20 | 15 | 349 | 176 | 10 |
| Future Vol, veh/h | 20 | 20 | 15 | 349 | 176 | 10 |
| 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 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 78 | 78 | 92 | 92 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 26 | 26 | 16 | 379 | 202 | 11 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 619 | 208 | 213 | 0 | - | 0 |
| Stage 1 | 208 | - | - | - | - | - |
| Stage 2 | 411 | - | - | - | - | - |
| 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 | 452 | 832 | 1357 | - | - | - |
| Stage 1 | 827 | - | - | - | - | - |
| Stage 2 | 669 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 447 | 832 | 1357 | - | - | - |
| Mov Cap-2 Maneuver | 535 | - | - | - | - | - |
| Stage 1 | 817 | - | - | - | - | - |
| Stage 2 | 669 | - | - | - | - | - |

| Approach | EB | NE | SW |
|----------------------|----|-----|----|
| HCM Control Delay, s | 11 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 1357 | - | 651 | - | - |
| HCM Lane V/C Ratio | 0.012 | - | 0.079 | - | - |
| HCM Control Delay (s) | 7.7 | - | 11 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.3 | - | - |

HCM 6th TWSC
 12: Adjacent Driveway & Judge Orr Rd

Existing
 AM

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 235 | 1 | 1 | 145 | 1 | 1 |
| Future Vol, veh/h | 235 | 1 | 1 | 145 | 1 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 78 | 78 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 270 | 1 | 1 | 167 | 1 | 1 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 271 | 0 | 440 |
| Stage 1 | - | - | - | - | 271 |
| Stage 2 | - | - | - | - | 169 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1292 | - | 574 |
| Stage 1 | - | - | - | - | 775 |
| Stage 2 | - | - | - | - | 861 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1292 | - | 573 |
| Mov Cap-2 Maneuver | - | - | - | - | 573 |
| Stage 1 | - | - | - | - | 775 |
| Stage 2 | - | - | - | - | 860 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.1 | 10.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 656 | - | - | 1292 | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.001 | - |
| HCM Control Delay (s) | 10.5 | - | - | 7.8 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - |

HCM 6th TWSC
13: Eastonville Rd & Woodmen Hills Dr

Existing
AM

| 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 | 0 | 3 | 2 | 3 | 10 | 2 | 131 | 0 | 2 | 173 | 18 |
| Future Vol, veh/h | 17 | 0 | 3 | 2 | 3 | 10 | 2 | 131 | 0 | 2 | 173 | 18 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 83 | 83 | 83 | 87 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 0 | 4 | 3 | 4 | 13 | 2 | 158 | 0 | 2 | 199 | 21 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 385 | 376 | 210 | 378 | 386 | 158 | 220 | 0 | 0 | 158 | 0 | 0 |
| Stage 1 | 214 | 214 | - | 162 | 162 | - | - | - | - | - | - | - |
| Stage 2 | 171 | 162 | - | 216 | 224 | - | - | - | - | - | - | - |
| 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 | 573 | 555 | 830 | 580 | 548 | 887 | 1349 | - | - | 1422 | - | - |
| Stage 1 | 788 | 725 | - | 840 | 764 | - | - | - | - | - | - | - |
| Stage 2 | 831 | 764 | - | 786 | 718 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 560 | 554 | 830 | 576 | 547 | 887 | 1349 | - | - | 1422 | - | - |
| Mov Cap-2 Maneuver | 560 | 554 | - | 576 | 547 | - | - | - | - | - | - | - |
| Stage 1 | 787 | 724 | - | 839 | 763 | - | - | - | - | - | - | - |
| Stage 2 | 814 | 763 | - | 781 | 717 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|----|--|-----|--|-----|--|
| HCM Control Delay, s | 11.4 | | 10 | | 0.1 | | 0.1 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-----|
| Capacity (veh/h) | 1349 | - | - | 741 | 589 | 1422 | - |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.026 | 0.044 | 0.002 | - |
| HCM Control Delay (s) | 7.7 | - | - | 10 | 11.4 | 7.5 | - |
| HCM Lane LOS | A | - | - | B | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.1 | 0 | - |

HCM 6th AWSC
 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

Existing
 PM

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 11.9 |
| Intersection LOS | B |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | ↶ | ↶ | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 10 | 46 | 81 | 50 | 149 | 39 | 119 | 169 | 45 | 20 | 93 | 7 |
| Future Vol, veh/h | 10 | 46 | 81 | 50 | 149 | 39 | 119 | 169 | 45 | 20 | 93 | 7 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 53 | 93 | 54 | 162 | 42 | 129 | 184 | 49 | 23 | 107 | 8 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | SE | NW | NE | SW |
|----------------------------|------|------|------|------|
| Opposing Approach | NW | SE | SW | NE |
| Opposing Lanes | 3 | 2 | 2 | 2 |
| Conflicting Approach Left | SW | NE | SE | NW |
| Conflicting Lanes Left | 2 | 2 | 2 | 3 |
| Conflicting Approach Right | NE | SW | NW | SE |
| Conflicting Lanes Right | 2 | 2 | 3 | 2 |
| HCM Control Delay | 11.4 | 11.4 | 12.6 | 11.3 |
| HCM LOS | B | B | B | B |

| Lane | NELn1 | NELn2 | NWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SWLn1 | SWLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 79% | 0% | 100% | 0% | 0% | 36% | 0% | 93% |
| Vol Right, % | 0% | 21% | 0% | 0% | 100% | 0% | 64% | 0% | 7% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 119 | 214 | 50 | 149 | 39 | 10 | 127 | 20 | 100 |
| LT Vol | 119 | 0 | 50 | 0 | 0 | 10 | 0 | 20 | 0 |
| Through Vol | 0 | 169 | 0 | 149 | 0 | 0 | 46 | 0 | 93 |
| RT Vol | 0 | 45 | 0 | 0 | 39 | 0 | 81 | 0 | 7 |
| Lane Flow Rate | 129 | 233 | 54 | 162 | 42 | 11 | 146 | 23 | 115 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.245 | 0.398 | 0.108 | 0.298 | 0.07 | 0.024 | 0.261 | 0.047 | 0.217 |
| Departure Headway (Hd) | 6.817 | 6.164 | 7.13 | 6.623 | 5.913 | 7.394 | 6.43 | 7.342 | 6.786 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 525 | 582 | 501 | 541 | 602 | 482 | 555 | 486 | 526 |
| Service Time | 4.583 | 3.93 | 4.903 | 4.395 | 3.685 | 5.174 | 4.209 | 5.121 | 4.565 |
| HCM Lane V/C Ratio | 0.246 | 0.4 | 0.108 | 0.299 | 0.07 | 0.023 | 0.263 | 0.047 | 0.219 |
| HCM Control Delay | 11.8 | 13 | 10.8 | 12.2 | 9.1 | 10.4 | 11.5 | 10.5 | 11.5 |
| HCM Lane LOS | B | B | B | B | A | B | B | B | B |
| HCM 95th-tile Q | 1 | 1.9 | 0.4 | 1.2 | 0.2 | 0.1 | 1 | 0.1 | 0.8 |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

Existing
PM



| 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 | 860 | | 0 | 695 | | 0 |
| Storage Lanes | 0 | | 0 | 0 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 25 | | | 25 | | | 300 | | | 25 | | |
| 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 | | 0.944 | | | 0.991 | | | 0.973 | | | 0.992 | |
| Flt Protected | | 0.985 | | | 0.974 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1732 | 0 | 0 | 1798 | 0 | 1770 | 1812 | 0 | 1770 | 1848 | 0 |
| Flt Permitted | | 0.985 | | | 0.763 | | 0.287 | | | 0.219 | | |
| Satd. Flow (perm) | 0 | 1732 | 0 | 0 | 1408 | 0 | 535 | 1812 | 0 | 408 | 1848 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 31 | | | 4 | | | 16 | | | 3 | |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 2032 | | | 1524 | | | 1735 | | | 2505 | |
| Travel Time (s) | | 30.8 | | | 23.1 | | | 21.5 | | | 31.1 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.93 | 0.93 | 0.93 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 38 | 37 | 53 | 139 | 101 | 17 | 135 | 598 | 130 | 3 | 408 | 22 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 128 | 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 | Split | NA | | Perm | NA | | pm+pt | NA | | Perm | NA | |
| Protected Phases | 4 | 4 | | | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | 8 | | | 2 | | | 6 | | |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

Existing
PM



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Detector Phase | 4 | 4 | | 8 | 8 | | 5 | 2 | | 6 | 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) | 24.0 | 24.0 | | 24.0 | 24.0 | | 9.5 | 24.0 | | 24.0 | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 28.0 | 28.0 | | 10.6 | 48.0 | | 37.4 | 37.4 | |
| Total Split (%) | 15.6% | 15.6% | | 31.1% | 31.1% | | 11.8% | 53.3% | | 41.6% | 41.6% | |
| Maximum Green (s) | 8.0 | 8.0 | | 22.0 | 22.0 | | 6.1 | 42.0 | | 31.4 | 31.4 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 2.0 | 2.0 | | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | 4.5 | 6.0 | | 6.0 | 6.0 | |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | |
| Lead-Lag Optimize? | | | | | | | 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 | | Max | 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) | | 7.6 | | | 19.1 | | 43.6 | 42.1 | | 31.5 | 31.5 | |
| Actuated g/C Ratio | | 0.09 | | | 0.22 | | 0.50 | 0.48 | | 0.36 | 0.36 | |
| v/c Ratio | | 0.71 | | | 0.82 | | 0.38 | 0.82 | | 0.02 | 0.64 | |
| Control Delay | | 52.7 | | | 53.9 | | 15.9 | 29.3 | | 20.0 | 28.9 | |
| Queue Delay | | 0.0 | | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | | 52.7 | | | 53.9 | | 15.9 | 29.3 | | 20.0 | 28.9 | |
| LOS | | D | | | D | | B | C | | B | C | |
| Approach Delay | | 52.7 | | | 53.9 | | | 27.2 | | | 28.9 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | | 54 | | | 133 | | 41 | 344 | | 1 | 202 | |
| Queue Length 95th (ft) | | #130 | | | #232 | | 75 | #571 | | 7 | 308 | |
| Internal Link Dist (ft) | | 1952 | | | 1444 | | | 1655 | | | 2425 | |
| Turn Bay Length (ft) | | | | | | | 860 | | | 695 | | |
| Base Capacity (vph) | | 188 | | | 360 | | 355 | 886 | | 147 | 671 | |
| Starvation Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | | 0.68 | | | 0.71 | | 0.38 | 0.82 | | 0.02 | 0.64 | |






Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 86.9
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 33.6
 Intersection LOS: C
 Intersection Capacity Utilization 74.7%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
 2: US 24 & Judge Orr Rd

Existing
 PM

Splits and Phases: 2: US 24 & Judge Orr Rd

| | | | | | |
|--|--|--|--|--|--|
|  Ø2 48 s | |  Ø4 14 s | |  Ø8 28 s | |
|  Ø5 10.6 s |  Ø6 37.4 s | | | | |

HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

Existing
PM

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.1 | | | | | |
| Movement | EBL | EBR | NEL | NET | SWT | SWR |
| Lane Configurations | ↔ | | ↔ | ↑ | ↑ | ↔ |
| Traffic Vol, veh/h | 10 | 10 | 25 | 193 | 110 | 20 |
| Future Vol, veh/h | 10 | 10 | 25 | 193 | 110 | 20 |
| 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 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 78 | 78 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 13 | 29 | 222 | 126 | 23 |

| Major/Minor | Minor2 | Major1 | | Major2 | |
|----------------------|--------|--------|-------|--------|---|
| Conflicting Flow All | 418 | 138 | 149 | 0 | 0 |
| Stage 1 | 138 | - | - | - | - |
| Stage 2 | 280 | - | - | - | - |
| 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 | 591 | 910 | 1432 | - | - |
| Stage 1 | 889 | - | - | - | - |
| Stage 2 | 767 | - | - | - | - |
| Platoon blocked, % | | | | - | - |
| Mov Cap-1 Maneuver | 579 | 910 | 1432 | - | - |
| Mov Cap-2 Maneuver | 633 | - | - | - | - |
| Stage 1 | 871 | - | - | - | - |
| Stage 2 | 767 | - | - | - | - |

| Approach | EB | NE | SW |
|----------------------|----|-----|----|
| HCM Control Delay, s | 10 | 0.9 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 1432 | - | 747 | - | - |
| HCM Lane V/C Ratio | 0.02 | - | 0.034 | - | - |
| HCM Control Delay (s) | 7.6 | - | 10 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

HCM 6th TWSC
12: Adjacent Driveway & Judge Orr Rd

Existing
PM

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.1 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 110 | 1 | 1 | 235 | 1 | 1 |
| Future Vol, veh/h | 110 | 1 | 1 | 235 | 1 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 78 | 78 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 126 | 1 | 1 | 270 | 1 | 1 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 127 | 0 | 399 |
| Stage 1 | - | - | - | - | 127 |
| Stage 2 | - | - | - | - | 272 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1459 | - | 607 |
| Stage 1 | - | - | - | - | 899 |
| Stage 2 | - | - | - | - | 774 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1459 | - | 606 |
| Mov Cap-2 Maneuver | - | - | - | - | 606 |
| Stage 1 | - | - | - | - | 899 |
| Stage 2 | - | - | - | - | 773 |

| Approach | EB | WB | NB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 732 | - | - | 1459 | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.001 | - |
| HCM Control Delay (s) | 9.9 | - | - | 7.5 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - |

HCM 6th TWSC
13: Eastonville Rd & Woodmen Hills Dr

Existing
PM

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 8 | 0 | 5 | 1 | 2 | 2 | 3 | 225 | 2 | 0 | 161 | 10 |
| Future Vol, veh/h | 8 | 0 | 5 | 1 | 2 | 2 | 3 | 225 | 2 | 0 | 161 | 10 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 0 | 6 | 1 | 3 | 3 | 3 | 259 | 2 | 0 | 185 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 460 | 458 | 191 | 460 | 462 | 260 | 196 | 0 | 0 | 261 | 0 | 0 |
| Stage 1 | 191 | 191 | - | 266 | 266 | - | - | - | - | - | - | - |
| Stage 2 | 269 | 267 | - | 194 | 196 | - | - | - | - | - | - | - |
| 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 | 512 | 499 | 851 | 512 | 497 | 779 | 1377 | - | - | 1303 | - | - |
| Stage 1 | 811 | 742 | - | 739 | 689 | - | - | - | - | - | - | - |
| Stage 2 | 737 | 688 | - | 808 | 739 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 507 | 498 | 851 | 507 | 496 | 779 | 1377 | - | - | 1303 | - | - |
| Mov Cap-2 Maneuver | 507 | 498 | - | 507 | 496 | - | - | - | - | - | - | - |
| Stage 1 | 809 | 742 | - | 738 | 688 | - | - | - | - | - | - | - |
| Stage 2 | 730 | 687 | - | 802 | 739 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|----|--|
| HCM Control Delay, s | 11.2 | | 11.2 | | 0.1 | | 0 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|------|-----|
| Capacity (veh/h) | 1377 | - | - | 583 | 600 | 1303 | - |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.011 | 0.028 | - | - |
| HCM Control Delay (s) | 7.6 | - | - | 11.2 | 11.2 | 0 | - |
| HCM Lane LOS | A | - | - | B | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.1 | 0 | - |

HCM 6th AWSC
 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

Existing + Site
 AM

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 16.1 |
| Intersection LOS | C |

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | ↶ | ↶ | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 114 | 163 | 101 | 38 | 50 | 85 | 17 | 202 | 58 | 44 | 155 | 16 |
| Future Vol, veh/h | 114 | 163 | 101 | 38 | 50 | 85 | 17 | 202 | 58 | 44 | 155 | 16 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 124 | 177 | 110 | 44 | 57 | 98 | 18 | 220 | 63 | 48 | 168 | 17 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | SE | NW | NE | SW |
|----------------------------|------|------|----|------|
| Opposing Approach | NW | SE | SW | NE |
| Opposing Lanes | 3 | 2 | 2 | 2 |
| Conflicting Approach Left | SW | NE | SE | NW |
| Conflicting Lanes Left | 2 | 2 | 2 | 3 |
| Conflicting Approach Right | NE | SW | NW | SE |
| Conflicting Lanes Right | 2 | 2 | 3 | 2 |
| HCM Control Delay | 16.9 | 11.8 | 19 | 14.6 |
| HCM LOS | C | B | C | B |

| Lane | NELn1 | NELn2 | NWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SWLn1 | SWLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 78% | 0% | 100% | 0% | 0% | 62% | 0% | 91% |
| Vol Right, % | 0% | 22% | 0% | 0% | 100% | 0% | 38% | 0% | 9% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 17 | 260 | 38 | 50 | 85 | 114 | 264 | 44 | 171 |
| LT Vol | 17 | 0 | 38 | 0 | 0 | 114 | 0 | 44 | 0 |
| Through Vol | 0 | 202 | 0 | 50 | 0 | 0 | 163 | 0 | 155 |
| RT Vol | 0 | 58 | 0 | 0 | 85 | 0 | 101 | 0 | 16 |
| Lane Flow Rate | 18 | 283 | 44 | 57 | 98 | 124 | 287 | 48 | 186 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.041 | 0.574 | 0.102 | 0.126 | 0.194 | 0.268 | 0.559 | 0.109 | 0.393 |
| Departure Headway (Hd) | 7.977 | 7.31 | 8.385 | 7.872 | 7.154 | 7.798 | 7.013 | 8.185 | 7.608 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 448 | 492 | 426 | 454 | 500 | 460 | 514 | 437 | 472 |
| Service Time | 5.736 | 5.069 | 6.154 | 5.641 | 4.922 | 5.557 | 4.771 | 5.949 | 5.373 |
| HCM Lane V/C Ratio | 0.04 | 0.575 | 0.103 | 0.126 | 0.196 | 0.27 | 0.558 | 0.11 | 0.394 |
| HCM Control Delay | 11.1 | 19.5 | 12.1 | 11.8 | 11.7 | 13.4 | 18.4 | 12 | 15.3 |
| HCM Lane LOS | B | C | B | B | B | B | C | B | C |
| HCM 95th-tile Q | 0.1 | 3.6 | 0.3 | 0.4 | 0.7 | 1.1 | 3.4 | 0.4 | 1.8 |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

Existing + Site
AM



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 86 | 179 | 119 | 59 | 6 | 94 | 317 | 59 | 8 | 528 | 48 |
| Future Volume (vph) | 32 | 86 | 179 | 119 | 59 | 6 | 94 | 317 | 59 | 8 | 528 | 48 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 0 | 860 | | 0 | 695 | | 0 |
| Storage Lanes | 0 | | 1 | 0 | | 0 | 1 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 300 | | | 25 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | | 0.850 | | 0.996 | | | 0.977 | | | 0.999 | 0.850 |
| Flt Protected | | 0.987 | | | 0.969 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1839 | 1583 | 0 | 1798 | 0 | 1770 | 1820 | 0 | 1770 | 1768 | 1504 |
| Flt Permitted | | 0.987 | | | 0.729 | | 0.137 | | | 0.519 | | |
| Satd. Flow (perm) | 0 | 1839 | 1583 | 0 | 1353 | 0 | 255 | 1820 | 0 | 967 | 1768 | 1504 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 195 | | 2 | | | 13 | | | 1 | 164 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 2032 | | | 1524 | | | 1735 | | | 2505 | |
| Travel Time (s) | | 30.8 | | | 23.1 | | | 21.5 | | | 31.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 35 | 93 | 195 | 137 | 68 | 7 | 102 | 345 | 64 | 9 | 568 | 52 |
| Shared Lane Traffic (%) | | | | | | | | | | | | 10% |
| Lane Group Flow (vph) | 0 | 128 | 195 | 0 | 212 | 0 | 102 | 409 | 0 | 9 | 573 | 47 |
| 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 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | | 20 | 100 | | 20 | 100 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | | 20 | 6 | | 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 |
| 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 |
| Detector 1 Queue (s) | 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 |
| 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 | Split | NA | Perm | Perm | NA | | pm+pt | NA | | Perm | NA | Perm |
| Protected Phases | 4 | 4 | | | 8 | | 5 | 2 | | 6 | | 6 |
| Permitted Phases | | | 4 | 8 | | | 2 | | | 6 | | 6 |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

Existing + Site
AM



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-----|------|-------|-----|-------|-------|-------|
| Detector Phase | 4 | 4 | 4 | 8 | 8 | | 5 | 2 | | 6 | 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 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | | 9.5 | 24.0 | | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 21.0 | 21.0 | 21.0 | 25.0 | 25.0 | | 8.0 | 44.0 | | 36.0 | 36.0 | 36.0 |
| Total Split (%) | 23.3% | 23.3% | 23.3% | 27.8% | 27.8% | | 8.9% | 48.9% | | 40.0% | 40.0% | 40.0% |
| Maximum Green (s) | 15.0 | 15.0 | 15.0 | 19.0 | 19.0 | | 3.5 | 38.0 | | 30.0 | 30.0 | 30.0 |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | 3.5 | 4.0 | | 4.0 | 4.0 | 4.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | | 1.0 | 2.0 | | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 6.0 | 6.0 | | 6.0 | | 4.5 | 6.0 | | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | Lead | | | Lag | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | 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 |
| Recall Mode | None | None | None | None | None | | None | Max | | Max | Max | Max |
| Walk Time (s) | 7.0 | 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 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | | | 0 | | 0 | 0 | 0 |
| Act Effct Green (s) | | 10.9 | 10.9 | | 16.6 | | 39.7 | 38.2 | | 32.0 | 32.0 | 32.0 |
| Actuated g/C Ratio | | 0.13 | 0.13 | | 0.20 | | 0.47 | 0.46 | | 0.38 | 0.38 | 0.38 |
| v/c Ratio | | 0.54 | 0.52 | | 0.79 | | 0.55 | 0.49 | | 0.02 | 0.85 | 0.07 |
| Control Delay | | 43.1 | 10.7 | | 54.0 | | 28.0 | 19.1 | | 20.1 | 40.4 | 0.2 |
| Queue Delay | | 0.0 | 0.0 | | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | | 43.1 | 10.7 | | 54.0 | | 28.0 | 19.1 | | 20.1 | 40.4 | 0.2 |
| LOS | | D | B | | D | | C | B | | C | D | A |
| Approach Delay | | 23.5 | | | 54.0 | | | 20.9 | | | 37.1 | |
| Approach LOS | | C | | | D | | | C | | | D | |
| Queue Length 50th (ft) | | 66 | 0 | | 106 | | 31 | 149 | | 3 | 310 | 0 |
| Queue Length 95th (ft) | | 120 | 57 | | #206 | | #74 | 250 | | 14 | #564 | 0 |
| Internal Link Dist (ft) | | 1952 | | | 1444 | | | 1655 | | | 2425 | |
| Turn Bay Length (ft) | | | | | | | 860 | | | 695 | | |
| Base Capacity (vph) | | 331 | 444 | | 309 | | 184 | 836 | | 369 | 675 | 675 |
| Starvation Cap Reductn | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Spillback Cap Reductn | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Storage Cap Reductn | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 0 |
| Reduced v/c Ratio | | 0.39 | 0.44 | | 0.69 | | 0.55 | 0.49 | | 0.02 | 0.85 | 0.07 |

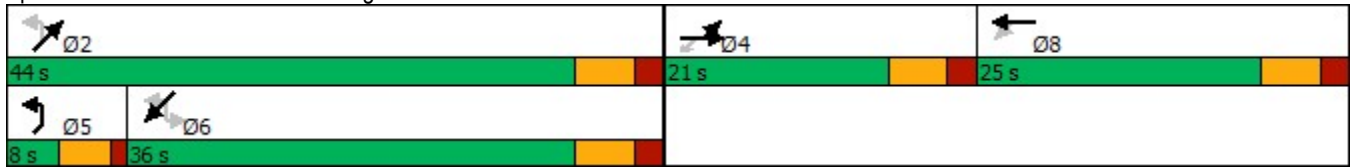
Intersection Summary

| | |
|---|------------------------|
| Area Type: | Other |
| Cycle Length: | 90 |
| Actuated Cycle Length: | 83.8 |
| Natural Cycle: | 85 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.85 |
| Intersection Signal Delay: | 31.7 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 64.9% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |
| # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. | |

Lanes, Volumes, Timings
 2: US 24 & Judge Orr Rd

Existing + Site
 AM

Splits and Phases: 2: US 24 & Judge Orr Rd



HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

Existing + Site
AM

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | | | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 20 | 0 | 20 | 32 | 0 | 18 | 15 | 340 | 46 | 45 | 163 | 10 |
| Future Vol, veh/h | 20 | 0 | 20 | 32 | 0 | 18 | 15 | 340 | 46 | 45 | 163 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | 50 | - | 155 | 200 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 92 | 78 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 26 | 0 | 26 | 35 | 0 | 20 | 16 | 370 | 50 | 49 | 187 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 728 | 743 | 193 | 706 | 698 | 370 | 198 | 0 | 0 | 420 | 0 | 0 |
| Stage 1 | 291 | 291 | - | 402 | 402 | - | - | - | - | - | - | - |
| Stage 2 | 437 | 452 | - | 304 | 296 | - | - | - | - | - | - | - |
| 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 | 339 | 343 | 849 | 351 | 364 | 676 | 1375 | - | - | 1139 | - | - |
| Stage 1 | 717 | 672 | - | 625 | 600 | - | - | - | - | - | - | - |
| Stage 2 | 598 | 570 | - | 705 | 668 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 316 | 324 | 849 | 326 | 344 | 676 | 1375 | - | - | 1139 | - | - |
| Mov Cap-2 Maneuver | 316 | 324 | - | 326 | 344 | - | - | - | - | - | - | - |
| Stage 1 | 708 | 643 | - | 618 | 593 | - | - | - | - | - | - | - |
| Stage 2 | 574 | 563 | - | 654 | 639 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 13.8 | | 14.9 | | 0.3 | | 1.6 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | WBLn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1375 | - | - | 461 | 326 | 676 | 1139 | - | - |
| HCM Lane V/C Ratio | 0.012 | - | - | 0.111 | 0.107 | 0.029 | 0.043 | - | - |
| HCM Control Delay (s) | 7.7 | - | - | 13.8 | 17.4 | 10.5 | 8.3 | - | - |
| HCM Lane LOS | A | - | - | B | C | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.4 | 0.4 | 0.1 | 0.1 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 45 | 223 | 0 | 1 | 138 | 54 | 1 | 0 | 0 | 51 | 0 | 31 |
| Future Vol, veh/h | 45 | 223 | 0 | 1 | 138 | 54 | 1 | 0 | 0 | 51 | 0 | 31 |
| 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 | 385 | - | - | - | - | 235 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 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 | 49 | 242 | 0 | 1 | 159 | 62 | 1 | 0 | 0 | 61 | 0 | 37 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | | | | | |
|----------------------|--------|---|--------|-------|--------|---|--------|-------|-------|-------|-------|-------|
| Conflicting Flow All | 221 | 0 | 0 | 242 | 0 | 0 | 551 | 563 | 242 | 501 | 501 | 159 |
| Stage 1 | - | - | - | - | - | - | 340 | 340 | - | 161 | 161 | - |
| Stage 2 | - | - | - | - | - | - | 211 | 223 | - | 340 | 340 | - |
| 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 | 1348 | - | - | 1324 | - | - | 445 | 435 | 797 | 480 | 472 | 886 |
| Stage 1 | - | - | - | - | - | - | 675 | 639 | - | 841 | 765 | - |
| Stage 2 | - | - | - | - | - | - | 791 | 719 | - | 675 | 639 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1348 | - | - | 1324 | - | - | 414 | 419 | 797 | 467 | 455 | 886 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 414 | 419 | - | 467 | 455 | - |
| Stage 1 | - | - | - | - | - | - | 651 | 616 | - | 811 | 764 | - |
| Stage 2 | - | - | - | - | - | - | 757 | 718 | - | 650 | 616 | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|------|------|
| HCM Control Delay, s | 1.3 | 0 | 13.7 | 12.1 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 414 | 1348 | - | - | 1324 | - | - | 467 | 886 |
| HCM Lane V/C Ratio | 0.003 | 0.036 | - | - | 0.001 | - | - | 0.132 | 0.042 |
| HCM Control Delay (s) | 13.7 | 7.8 | - | - | 7.7 | 0 | - | 13.9 | 9.2 |
| HCM Lane LOS | B | A | - | - | A | A | - | B | A |
| HCM 95th %tile Q(veh) | 0 | 0.1 | - | - | 0 | - | - | 0.5 | 0.1 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.4 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 24 | 0 | 3 | 2 | 3 | 11 | 2 | 156 | 0 | 3 | 191 | 24 |
| Future Vol, veh/h | 24 | 0 | 3 | 2 | 3 | 11 | 2 | 156 | 0 | 3 | 191 | 24 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 31 | 0 | 4 | 3 | 4 | 14 | 2 | 179 | 0 | 3 | 220 | 28 |

| Major/Minor | Minor2 | | Minor1 | | | Major1 | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|-------|--------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 432 | 423 | 234 | 425 | 437 | 179 | 248 | 0 | 0 | 179 | 0 | 0 |
| Stage 1 | 240 | 240 | - | 183 | 183 | - | - | - | - | - | - | - |
| Stage 2 | 192 | 183 | - | 242 | 254 | - | - | - | - | - | - | - |
| 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 | 534 | 522 | 805 | 540 | 513 | 864 | 1318 | - | - | 1397 | - | - |
| Stage 1 | 763 | 707 | - | 819 | 748 | - | - | - | - | - | - | - |
| Stage 2 | 810 | 748 | - | 762 | 697 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 521 | 520 | 805 | 536 | 511 | 864 | 1318 | - | - | 1397 | - | - |
| Mov Cap-2 Maneuver | 521 | 520 | - | 536 | 511 | - | - | - | - | - | - | - |
| Stage 1 | 761 | 706 | - | 817 | 747 | - | - | - | - | - | - | - |
| Stage 2 | 791 | 747 | - | 757 | 696 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | | NE | | SW | | |
|----------------------|------|--|------|--|--|-----|--|-----|--|--|
| HCM Control Delay, s | 12.1 | | 10.2 | | | 0.1 | | 0.1 | | |
| HCM LOS | B | | B | | | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-----|
| Capacity (veh/h) | 1318 | - | - | 716 | 542 | 1397 | - |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.029 | 0.064 | 0.002 | - |
| HCM Control Delay (s) | 7.7 | - | - | 10.2 | 12.1 | 7.6 | - |
| HCM Lane LOS | A | - | - | B | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 0.2 | 0 | - |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 16.4 |
| Intersection LOS | C |




















| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | ↶ | ↶ | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 30 | 69 | 81 | 77 | 183 | 60 | 119 | 207 | 90 | 27 | 123 | 43 |
| Future Vol, veh/h | 30 | 69 | 81 | 77 | 183 | 60 | 119 | 207 | 90 | 27 | 123 | 43 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 75 | 88 | 89 | 210 | 69 | 129 | 225 | 98 | 29 | 134 | 47 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | SE | NW | NE | SW |
|----------------------------|------|------|------|----|
| Opposing Approach | NW | SE | SW | NE |
| Opposing Lanes | 3 | 2 | 2 | 2 |
| Conflicting Approach Left | SW | NE | SE | NW |
| Conflicting Lanes Left | 2 | 2 | 2 | 3 |
| Conflicting Approach Right | NE | SW | NW | SE |
| Conflicting Lanes Right | 2 | 2 | 3 | 2 |
| HCM Control Delay | 14.3 | 14.6 | 19.5 | 15 |
| HCM LOS | B | B | C | B |

| Lane | NELn1 | NELn2 | NWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SWLn1 | SWLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 70% | 0% | 100% | 0% | 0% | 46% | 0% | 74% |
| Vol Right, % | 0% | 30% | 0% | 0% | 100% | 0% | 54% | 0% | 26% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 119 | 297 | 77 | 183 | 60 | 30 | 150 | 27 | 166 |
| LT Vol | 119 | 0 | 77 | 0 | 0 | 30 | 0 | 27 | 0 |
| Through Vol | 0 | 207 | 0 | 183 | 0 | 0 | 69 | 0 | 123 |
| RT Vol | 0 | 90 | 0 | 0 | 60 | 0 | 81 | 0 | 43 |
| Lane Flow Rate | 129 | 323 | 89 | 210 | 69 | 33 | 163 | 29 | 180 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.282 | 0.64 | 0.201 | 0.448 | 0.133 | 0.078 | 0.351 | 0.069 | 0.391 |
| Departure Headway (Hd) | 7.856 | 7.133 | 8.171 | 7.66 | 6.943 | 8.652 | 7.747 | 8.492 | 7.796 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 457 | 507 | 438 | 469 | 514 | 413 | 463 | 421 | 460 |
| Service Time | 5.617 | 4.894 | 5.938 | 5.426 | 4.709 | 6.428 | 5.522 | 6.265 | 5.568 |
| HCM Lane V/C Ratio | 0.282 | 0.637 | 0.203 | 0.448 | 0.134 | 0.08 | 0.352 | 0.069 | 0.391 |
| HCM Control Delay | 13.7 | 21.8 | 13 | 16.5 | 10.8 | 12.2 | 14.7 | 11.9 | 15.5 |
| HCM Lane LOS | B | C | B | C | B | B | B | B | C |
| HCM 95th-tile Q | 1.1 | 4.5 | 0.7 | 2.3 | 0.5 | 0.3 | 1.6 | 0.2 | 1.8 |

Lanes, Volumes, Timings
12: Judge Orr Rd & S Access

Existing + Site
PM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | | |  |  | |  | | |  |  |
| Traffic Volume (vph) | 85 | 100 | 0 | 1 | 222 | 112 | 1 | 0 | 1 | 109 | 0 | 91 |
| Future Volume (vph) | 85 | 100 | 0 | 1 | 222 | 112 | 1 | 0 | 1 | 109 | 0 | 91 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 385 | | 0 | 0 | | 235 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 0 | | 1 | 0 | | 0 | 0 | | 1 |
| Taper Length (ft) | 200 | | | 25 | | | 25 | | | 25 | | |
| 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 | | 0.932 | | | | 0.850 |
| Flt Protected | 0.950 | | | | | | | 0.976 | | | 0.950 | |
| Satd. Flow (prot) | 1770 | 1863 | 0 | 0 | 1863 | 1583 | 0 | 1694 | 0 | 0 | 1770 | 1583 |
| Flt Permitted | 0.950 | | | | | | | 0.976 | | | 0.950 | |
| Satd. Flow (perm) | 1770 | 1863 | 0 | 0 | 1863 | 1583 | 0 | 1694 | 0 | 0 | 1770 | 1583 |
| Link Speed (mph) | | 45 | | | 35 | | | 30 | | | 30 | |
| Link Distance (ft) | | 774 | | | 2032 | | | 432 | | | 585 | |
| Travel Time (s) | | 11.7 | | | 39.6 | | | 9.8 | | | 13.3 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.99 | 0.92 | 0.78 | 0.78 | 0.78 | 0.83 | 0.83 | 0.83 |
| Adj. Flow (vph) | 92 | 109 | 0 | 1 | 224 | 122 | 1 | 0 | 1 | 131 | 0 | 110 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 92 | 109 | 0 | 0 | 225 | 122 | 0 | 2 | 0 | 0 | 131 | 110 |
| 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 | | | 0 | | | 0 | |
| 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 |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |

Intersection Summary

| | |
|-----------------------------------|--------------|
| Area Type: | Other |
| Control Type: | Unsignalized |
| Intersection Capacity Utilization | 37.7% |
| ICU Level of Service | A |
| Analysis Period (min) | 15 |

HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

Existing + Site
PM

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | | | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 10 | 0 | 10 | 92 | 0 | 91 | 25 | 165 | 107 | 55 | 91 | 20 |
| Future Vol, veh/h | 10 | 0 | 10 | 92 | 0 | 91 | 25 | 165 | 107 | 55 | 91 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | 50 | - | 155 | 200 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 92 | 78 | 83 | 83 | 83 | 92 | 92 | 92 | 87 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 0 | 13 | 111 | 0 | 110 | 27 | 179 | 116 | 63 | 105 | 23 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 589 | 592 | 117 | 482 | 487 | 179 | 128 | 0 | 0 | 295 | 0 | 0 |
| Stage 1 | 243 | 243 | - | 233 | 233 | - | - | - | - | - | - | - |
| Stage 2 | 346 | 349 | - | 249 | 254 | - | - | - | - | - | - | - |
| 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 | 420 | 419 | 935 | 495 | 481 | 864 | 1458 | - | - | 1266 | - | - |
| Stage 1 | 761 | 705 | - | 770 | 712 | - | - | - | - | - | - | - |
| Stage 2 | 670 | 633 | - | 755 | 697 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 348 | 391 | 935 | 463 | 448 | 864 | 1458 | - | - | 1266 | - | - |
| Mov Cap-2 Maneuver | 348 | 391 | - | 463 | 448 | - | - | - | - | - | - | - |
| Stage 1 | 747 | 670 | - | 755 | 698 | - | - | - | - | - | - | - |
| Stage 2 | 574 | 621 | - | 708 | 662 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|
| HCM Control Delay, s | 12.5 | | 12.5 | | 0.6 | | 2.6 | | |
| HCM LOS | B | | B | | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | WBLn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1458 | - | - | 507 | 463 | 864 | 1266 | - | - |
| HCM Lane V/C Ratio | 0.019 | - | - | 0.051 | 0.239 | 0.127 | 0.05 | - | - |
| HCM Control Delay (s) | 7.5 | - | - | 12.5 | 15.2 | 9.8 | 8 | - | - |
| HCM Lane LOS | A | - | - | B | C | A | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.2 | 0.9 | 0.4 | 0.2 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | | ↖ | ↗ | | ↔ | | | ↖ | ↗ |
| Traffic Vol, veh/h | 85 | 100 | 0 | 1 | 222 | 112 | 1 | 0 | 1 | 109 | 0 | 91 |
| Future Vol, veh/h | 85 | 100 | 0 | 1 | 222 | 112 | 1 | 0 | 1 | 109 | 0 | 91 |
| 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 | 385 | - | - | - | - | 235 | - | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 99 | 92 | 78 | 78 | 78 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 92 | 109 | 0 | 1 | 224 | 122 | 1 | 0 | 1 | 131 | 0 | 110 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 346 | 0 | 0 | 109 | 0 | 0 | 635 | 641 | 109 | 520 | 519 | 224 |
| Stage 1 | - | - | - | - | - | - | 293 | 293 | - | 226 | 226 | - |
| Stage 2 | - | - | - | - | - | - | 342 | 348 | - | 294 | 293 | - |
| 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 | 1213 | - | - | 1481 | - | - | 391 | 393 | 945 | 467 | 461 | 815 |
| Stage 1 | - | - | - | - | - | - | 715 | 670 | - | 777 | 717 | - |
| Stage 2 | - | - | - | - | - | - | 673 | 634 | - | 714 | 670 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1213 | - | - | 1481 | - | - | 319 | 363 | 945 | 439 | 426 | 815 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 319 | 363 | - | 439 | 426 | - |
| Stage 1 | - | - | - | - | - | - | 661 | 619 | - | 718 | 716 | - |
| Stage 2 | - | - | - | - | - | - | 582 | 633 | - | 659 | 619 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 3.8 | | | 0 | | | 12.6 | | | 13.7 | | |
| HCM LOS | | | | | | | B | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|-------|-----|
| Capacity (veh/h) | 477 | 1213 | - | - | 1481 | - | - | 439 | 815 | |
| HCM Lane V/C Ratio | 0.005 | 0.076 | - | - | 0.001 | - | - | 0.299 | 0.135 | |
| HCM Control Delay (s) | 12.6 | 8.2 | - | - | 7.4 | 0 | - | 16.7 | 10.1 | |
| HCM Lane LOS | | B | A | - | - | A | A | - | C | B |
| HCM 95th %tile Q(veh) | | 0 | 0.2 | - | - | 0 | - | - | 1.2 | 0.5 |

| 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 | 28 | 0 | 5 | 1 | 2 | 3 | 3 | 288 | 2 | 2 | 192 | 34 |
| Future Vol, veh/h | 28 | 0 | 5 | 1 | 2 | 3 | 3 | 288 | 2 | 2 | 192 | 34 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 36 | 0 | 6 | 1 | 3 | 4 | 3 | 313 | 2 | 2 | 209 | 37 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 556 | 553 | 228 | 555 | 570 | 314 | 246 | 0 | 0 | 315 | 0 | 0 |
| Stage 1 | 232 | 232 | - | 320 | 320 | - | - | - | - | - | - | - |
| Stage 2 | 324 | 321 | - | 235 | 250 | - | - | - | - | - | - | - |
| 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 | 442 | 441 | 811 | 442 | 431 | 726 | 1320 | - | - | 1245 | - | - |
| Stage 1 | 771 | 713 | - | 692 | 652 | - | - | - | - | - | - | - |
| Stage 2 | 688 | 652 | - | 768 | 700 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 436 | 439 | 811 | 437 | 429 | 726 | 1320 | - | - | 1245 | - | - |
| Mov Cap-2 Maneuver | 436 | 439 | - | 437 | 429 | - | - | - | - | - | - | - |
| Stage 1 | 769 | 712 | - | 691 | 651 | - | - | - | - | - | - | - |
| Stage 2 | 680 | 651 | - | 761 | 699 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 13.4 | | 11.8 | | 0.1 | | 0.1 | |
| HCM LOS | B | | B | | | | | |























| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|------|-------|-----|
| Capacity (veh/h) | 1320 | - | - | 541 | 469 | 1245 | - |
| HCM Lane V/C Ratio | 0.002 | - | - | 0.014 | 0.09 | 0.002 | - |
| HCM Control Delay (s) | 7.7 | - | - | 11.8 | 13.4 | 7.9 | - |
| HCM Lane LOS | A | - | - | B | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.3 | 0 | - |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 12.1 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | SE | | NW | | NE | | SW | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | | 2 | | |
| Adj Approach Flow, veh/h | 446 | | 274 | | 681 | | 748 | | |
| Demand Flow Rate, veh/h | 454 | | 279 | | 694 | | 762 | | |
| Vehicles Circulating, veh/h | 817 | | 717 | | 596 | | 157 | | |
| Vehicles Exiting, veh/h | 102 | | 573 | | 675 | | 839 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 9.9 | | 7.1 | | 22.1 | | 6.3 | | |
| Approach LOS | A | | A | | C | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | TR | LT | TR | L | LTR | L | TR | |
| Assumed Moves | LT | TR | LT | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.469 | 0.531 | 0.470 | 0.530 | 0.023 | 0.977 | 0.346 | 0.654 | |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | |
| Entry Flow, veh/h | 213 | 241 | 131 | 148 | 16 | 678 | 264 | 498 | |
| Cap Entry Lane, veh/h | 637 | 709 | 698 | 772 | 780 | 856 | 1168 | 1243 | |
| Entry HV Adj Factor | 0.984 | 0.980 | 0.982 | 0.980 | 1.000 | 0.980 | 0.981 | 0.981 | |
| Flow Entry, veh/h | 210 | 236 | 129 | 145 | 16 | 665 | 259 | 489 | |
| Cap Entry, veh/h | 626 | 695 | 685 | 756 | 780 | 839 | 1146 | 1219 | |
| V/C Ratio | 0.335 | 0.340 | 0.188 | 0.192 | 0.021 | 0.792 | 0.226 | 0.401 | |
| Control Delay, s/veh | 10.3 | 9.5 | 7.4 | 6.8 | 4.8 | 22.5 | 5.2 | 6.9 | |
| LOS | B | A | A | A | A | C | A | A | |
| 95th %tile Queue, veh | 1 | 2 | 1 | 1 | 0 | 8 | 1 | 2 | |

| Intersection | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 4.6 | | | | |
| Intersection LOS | A | | | | |
| Approach | EB | | WB | | NB |
| Entry Lanes | 2 | | 2 | | 1 |
| Conflicting Circle Lanes | 2 | | 2 | | 2 |
| Adj Approach Flow, veh/h | 549 | | 402 | | 201 |
| Demand Flow Rate, veh/h | 560 | | 410 | | 205 |
| Vehicles Circulating, veh/h | 55 | | 35 | | 460 |
| Vehicles Exiting, veh/h | 390 | | 630 | | 155 |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 |
| Approach Delay, s/veh | 4.6 | | 4.0 | | 5.9 |
| Approach LOS | A | | A | | A |
| Lane | Left | Right | Left | Right | Left |
| Designated Moves | LT | TR | LT | TR | LR |
| Assumed Moves | LT | TR | LT | TR | LR |
| RT Channelized | | | | | |
| Lane Util | 0.470 | 0.530 | 0.471 | 0.529 | 1.000 |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.535 |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.328 |
| Entry Flow, veh/h | 263 | 297 | 193 | 217 | 205 |
| Cap Entry Lane, veh/h | 1283 | 1355 | 1307 | 1378 | 960 |
| Entry HV Adj Factor | 0.981 | 0.980 | 0.979 | 0.982 | 0.980 |
| Flow Entry, veh/h | 258 | 291 | 189 | 213 | 201 |
| Cap Entry, veh/h | 1259 | 1328 | 1280 | 1354 | 942 |
| V/C Ratio | 0.205 | 0.219 | 0.148 | 0.157 | 0.213 |
| Control Delay, s/veh | 4.6 | 4.6 | 4.0 | 3.9 | 5.9 |
| LOS | A | A | A | A | A |
| 95th %tile Queue, veh | 1 | 1 | 1 | 1 | 1 |

Lanes, Volumes, Timings
 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background
 AM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  | |  |  | |
| Traffic Volume (vph) | 105 | 195 | 110 | 65 | 63 | 124 | 15 | 534 | 85 | 241 | 439 | 16 |
| Future Volume (vph) | 105 | 195 | 110 | 65 | 63 | 124 | 15 | 534 | 85 | 241 | 439 | 16 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 95 | | 155 | 275 | | 275 | 250 | | 0 | 250 | | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 80 | | | 155 | | | 95 | | | 95 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | 0.979 | | | 0.995 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 | 1770 | 1824 | 0 | 1770 | 1853 | 0 |
| Flt Permitted | 0.710 | | | 0.619 | | | 0.453 | | | 0.347 | | |
| Satd. Flow (perm) | 1323 | 3539 | 1583 | 1153 | 3539 | 1583 | 844 | 1824 | 0 | 646 | 1853 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 120 | | | 135 | | 21 | | | 5 | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 641 | | | 820 | | | 951 | | | 875 | |
| Travel Time (s) | | 12.5 | | | 16.0 | | | 18.5 | | | 17.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 114 | 212 | 120 | 71 | 68 | 135 | 16 | 574 | 91 | 259 | 472 | 17 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 114 | 212 | 120 | 71 | 68 | 135 | 16 | 665 | 0 | 259 | 489 | 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) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | Yes | | | | | | Yes | | | Yes | |
| 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 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| 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 | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | |

Lanes, Volumes, Timings
 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background
 AM



| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-----|
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | | 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 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 47.5 | 47.5 | | 47.5 | 47.5 | |
| Total Split (%) | 32.1% | 32.1% | 32.1% | 32.1% | 32.1% | 32.1% | 67.9% | 67.9% | | 67.9% | 67.9% | |
| Maximum Green (s) | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 43.0 | 43.0 | | 43.0 | 43.0 | |
| Yellow Time (s) | 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 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 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 | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | 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 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 | 49.1 | 49.1 | | 49.1 | 49.1 | |
| Actuated g/C Ratio | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.70 | 0.70 | | 0.70 | 0.70 | |
| v/c Ratio | 0.51 | 0.35 | 0.33 | 0.36 | 0.11 | 0.35 | 0.03 | 0.52 | | 0.57 | 0.38 | |
| Control Delay | 33.2 | 26.1 | 7.4 | 29.3 | 23.0 | 7.4 | 4.7 | 7.3 | | 13.3 | 6.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 33.2 | 26.1 | 7.4 | 29.3 | 23.0 | 7.4 | 4.7 | 7.3 | | 13.3 | 6.0 | |
| LOS | C | C | A | C | C | A | A | A | | B | A | |
| Approach Delay | | 22.9 | | | 16.9 | | | 7.3 | | | 8.5 | |
| Approach LOS | | C | | | B | | | A | | | A | |
| Queue Length 50th (ft) | 46 | 43 | 0 | 28 | 13 | 0 | 2 | 99 | | 43 | 65 | |
| Queue Length 95th (ft) | 83 | 64 | 36 | 57 | 26 | 38 | 9 | 236 | | #164 | 153 | |
| Internal Link Dist (ft) | | 561 | | | 740 | | | 871 | | | 795 | |
| Turn Bay Length (ft) | 95 | | 155 | 275 | | 275 | 250 | | | 250 | | |
| Base Capacity (vph) | 340 | 910 | 496 | 296 | 910 | 507 | 592 | 1285 | | 453 | 1301 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.34 | 0.23 | 0.24 | 0.24 | 0.07 | 0.27 | 0.03 | 0.52 | | 0.57 | 0.38 | |

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 12.2 Intersection LOS: B
 Intersection Capacity Utilization 71.6% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd



Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

2040 Background
AM



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 63 | 141 | 259 | 272 | 115 | 33 | 231 | 675 | 195 | 107 | 1182 | 86 |
| Future Volume (vph) | 63 | 141 | 259 | 272 | 115 | 33 | 231 | 675 | 195 | 107 | 1182 | 86 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 235 | | 235 | 235 | | 235 | 860 | | 290 | 695 | | 290 |
| Storage Lanes | 1 | | 1 | 2 | | 1 | 2 | | 1 | 1 | | 1 |
| Taper Length (ft) | 200 | | | 200 | | | 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 | 0.673 | | | 0.950 | | | 0.950 | | | 0.352 | | |
| Satd. Flow (perm) | 1254 | 1863 | 1583 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | 656 | 3539 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 208 | | | 164 | | | 205 | | | 208 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 2032 | | | 1524 | | | 1735 | | | 2505 | |
| Travel Time (s) | | 30.8 | | | 23.1 | | | 21.5 | | | 31.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.95 | 0.95 | 0.95 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 68 | 153 | 282 | 296 | 125 | 36 | 243 | 711 | 205 | 115 | 1271 | 92 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 68 | 153 | 282 | 296 | 125 | 36 | 243 | 711 | 205 | 115 | 1271 | 92 |
| 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 |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

2040 Background
AM



| 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 | 24.0 | 24.0 | 9.5 | 24.0 | 24.0 | 9.5 | 24.0 | 24.0 | 9.5 | 24.0 | 24.0 |
| Total Split (s) | 11.0 | 24.4 | 24.4 | 19.0 | 32.4 | 32.4 | 17.0 | 55.6 | 55.6 | 11.0 | 49.6 | 49.6 |
| Total Split (%) | 10.0% | 22.2% | 22.2% | 17.3% | 29.5% | 29.5% | 15.5% | 50.5% | 50.5% | 10.0% | 45.1% | 45.1% |
| Maximum Green (s) | 6.5 | 18.4 | 18.4 | 14.5 | 26.4 | 26.4 | 12.5 | 49.6 | 49.6 | 6.5 | 43.6 | 43.6 |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 |
| 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) | 21.5 | 13.6 | 13.6 | 13.1 | 22.5 | 22.5 | 11.5 | 49.7 | 49.7 | 52.7 | 44.7 | 44.7 |
| Actuated g/C Ratio | 0.21 | 0.13 | 0.13 | 0.13 | 0.22 | 0.22 | 0.11 | 0.48 | 0.48 | 0.51 | 0.43 | 0.43 |
| v/c Ratio | 0.23 | 0.63 | 0.73 | 0.69 | 0.16 | 0.08 | 0.64 | 0.42 | 0.24 | 0.29 | 0.83 | 0.12 |
| Control Delay | 27.6 | 54.9 | 24.3 | 52.7 | 34.3 | 0.3 | 53.3 | 19.3 | 3.2 | 12.5 | 33.5 | 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 | 27.6 | 54.9 | 24.3 | 52.7 | 34.3 | 0.3 | 53.3 | 19.3 | 3.2 | 12.5 | 33.5 | 0.3 |
| LOS | C | D | C | D | C | A | D | B | A | B | C | A |
| Approach Delay | | 34.1 | | | 43.5 | | | 23.6 | | | 29.8 | |
| Approach LOS | | C | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 32 | 99 | 46 | 98 | 36 | 0 | 81 | 161 | 0 | 32 | 403 | 0 |
| Queue Length 95th (ft) | 64 | 165 | 138 | 150 | 62 | 0 | 128 | 227 | 41 | 63 | #577 | 0 |
| Internal Link Dist (ft) | | 1952 | | | 1444 | | | 1655 | | | 2425 | |
| Turn Bay Length (ft) | 235 | | 235 | 235 | | 235 | 860 | | 290 | 695 | | 290 |
| Base Capacity (vph) | 293 | 330 | 452 | 480 | 901 | 525 | 414 | 1693 | 864 | 402 | 1523 | 799 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.46 | 0.62 | 0.62 | 0.14 | 0.07 | 0.59 | 0.42 | 0.24 | 0.29 | 0.83 | 0.12 |

Intersection Summary

| | |
|---|------------------------|
| Area Type: | Other |
| Cycle Length: | 110 |
| Actuated Cycle Length: | 103.9 |
| Natural Cycle: | 90 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.83 |
| Intersection Signal Delay: | 30.1 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 71.9% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |
| # 95th percentile volume exceeds capacity, queue may be longer. | |
| Queue shown is maximum after two cycles. | |

Splits and Phases: 2: US 24 & Judge Orr Rd

| | | | |
|--|--|---|--|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 |
| 11 s | 55.6 s | 19 s | 24.4 s |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 |
| 17 s | 49.6 s | 11 s | 32.4 s |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBL | EBR | NEL | NET | SWT | SWR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 10 | 20 | 15 | 685 | 704 | 10 |
| Future Vol, veh/h | 10 | 20 | 15 | 685 | 704 | 10 |
| 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 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 78 | 78 | 92 | 92 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 26 | 16 | 745 | 809 | 11 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1592 | 815 | 820 | 0 | - | 0 |
| Stage 1 | 815 | - | - | - | - | - |
| Stage 2 | 777 | - | - | - | - | - |
| 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 | 118 | 377 | 809 | - | - | - |
| Stage 1 | 435 | - | - | - | - | - |
| Stage 2 | 453 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 116 | 377 | 809 | - | - | - |
| Mov Cap-2 Maneuver | 253 | - | - | - | - | - |
| Stage 1 | 426 | - | - | - | - | - |
| Stage 2 | 453 | - | - | - | - | - |

| Approach | EB | NE | SW |
|----------------------|------|-----|----|
| HCM Control Delay, s | 17.6 | 0.2 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|-----------------------|------|-----|-------|-----|-----|
| Capacity (veh/h) | 809 | - | 324 | - | - |
| HCM Lane V/C Ratio | 0.02 | - | 0.119 | - | - |
| HCM Control Delay (s) | 9.5 | - | 17.6 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.4 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↑ | ↑ | ↑↑ | ↑ | ↑ |
| Traffic Vol, veh/h | 415 | 90 | 50 | 320 | 30 | 145 |
| Future Vol, veh/h | 415 | 90 | 50 | 320 | 30 | 145 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 235 | 385 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 451 | 98 | 54 | 348 | 34 | 167 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 0 | 0 | 549 | 0 | 733 |
| Stage 1 | - | - | - | - | 451 |
| Stage 2 | - | - | - | - | 282 |
| Critical Hdwy | - | - | 4.14 | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 |
| Pot Cap-1 Maneuver | - | - | 1017 | - | 356 |
| Stage 1 | - | - | - | - | 609 |
| Stage 2 | - | - | - | - | 741 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1017 | - | 337 |
| Mov Cap-2 Maneuver | - | - | - | - | 337 |
| Stage 1 | - | - | - | - | 609 |
| Stage 2 | - | - | - | - | 702 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 1.2 | 11.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 337 | 777 | - | - | 1017 | - |
| HCM Lane V/C Ratio | 0.102 | 0.215 | - | - | 0.053 | - |
| HCM Control Delay (s) | 16.9 | 10.9 | - | - | 8.7 | - |
| HCM Lane LOS | C | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0.8 | - | - | 0.2 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.7 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 60 | 1 | 10 | 5 | 10 | 35 | 5 | 577 | 1 | 5 | 550 | 60 |
| Future Vol, veh/h | 60 | 1 | 10 | 5 | 10 | 35 | 5 | 577 | 1 | 5 | 550 | 60 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 69 | 1 | 11 | 6 | 12 | 42 | 5 | 620 | 1 | 5 | 591 | 65 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1292 | 1265 | 624 | 1271 | 1297 | 621 | 656 | 0 | 0 | 621 | 0 | 0 |
| Stage 1 | 634 | 634 | - | 631 | 631 | - | - | - | - | - | - | - |
| Stage 2 | 658 | 631 | - | 640 | 666 | - | - | - | - | - | - | - |
| 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 | 140 | 169 | 485 | 145 | 162 | 487 | 931 | - | - | 960 | - | - |
| Stage 1 | 467 | 473 | - | 469 | 474 | - | - | - | - | - | - | - |
| Stage 2 | 453 | 474 | - | 464 | 457 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 120 | 167 | 485 | 140 | 160 | 487 | 931 | - | - | 960 | - | - |
| Mov Cap-2 Maneuver | 120 | 167 | - | 140 | 160 | - | - | - | - | - | - | - |
| Stage 1 | 465 | 471 | - | 467 | 472 | - | - | - | - | - | - | - |
| Stage 2 | 401 | 472 | - | 450 | 455 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 65.9 | | 20.4 | | 0.1 | | 0.1 | |
| HCM LOS | F | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-----|
| Capacity (veh/h) | 931 | - | - | 294 | 135 | 960 | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.205 | 0.605 | 0.006 | - |
| HCM Control Delay (s) | 8.9 | - | - | 20.4 | 65.9 | 8.8 | - |
| HCM Lane LOS | A | - | - | C | F | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.8 | 3.1 | 0 | - |

HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

2040 Background
AM -- Moderate Growth

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.6 | | | | | |
| Movement | EBL | EBR | NEL | NET | SWT | SWR |
| Lane Configurations | ↔ | | ↔ | ↑ | ↑ | |
| Traffic Vol, veh/h | 10 | 20 | 15 | 490 | 634 | 10 |
| Future Vol, veh/h | 10 | 20 | 15 | 490 | 634 | 10 |
| 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 | - | 25 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 78 | 78 | 92 | 92 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 26 | 16 | 533 | 729 | 11 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1300 | 735 | 740 | 0 | - | 0 |
| Stage 1 | 735 | - | - | - | - | - |
| Stage 2 | 565 | - | - | - | - | - |
| 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 | 178 | 420 | 867 | - | - | - |
| Stage 1 | 474 | - | - | - | - | - |
| Stage 2 | 569 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 175 | 420 | 867 | - | - | - |
| Mov Cap-2 Maneuver | 312 | - | - | - | - | - |
| Stage 1 | 465 | - | - | - | - | - |
| Stage 2 | 569 | - | - | - | - | - |

| Approach | EB | NE | SW |
|----------------------|------|-----|----|
| HCM Control Delay, s | 15.6 | 0.3 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h) | 867 | - | 377 | - | - |
| HCM Lane V/C Ratio | 0.019 | - | 0.102 | - | - |
| HCM Control Delay (s) | 9.2 | - | 15.6 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↑ | ↑ | ↑↑ | ↑ | ↑ |
| Traffic Vol, veh/h | 415 | 90 | 50 | 320 | 30 | 145 |
| Future Vol, veh/h | 415 | 90 | 50 | 320 | 30 | 145 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 235 | 385 | - | 0 | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 451 | 98 | 54 | 348 | 34 | 167 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 0 | 0 | 549 | 0 | 733 |
| Stage 1 | - | - | - | - | 451 |
| Stage 2 | - | - | - | - | 282 |
| Critical Hdwy | - | - | 4.14 | - | 6.84 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.84 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.84 |
| Follow-up Hdwy | - | - | 2.22 | - | 3.52 |
| Pot Cap-1 Maneuver | - | - | 1017 | - | 356 |
| Stage 1 | - | - | - | - | 609 |
| Stage 2 | - | - | - | - | 741 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1017 | - | 337 |
| Mov Cap-2 Maneuver | - | - | - | - | 337 |
| Stage 1 | - | - | - | - | 609 |
| Stage 2 | - | - | - | - | 702 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 1.2 | 11.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 337 | 777 | - | - | 1017 | - |
| HCM Lane V/C Ratio | 0.102 | 0.215 | - | - | 0.053 | - |
| HCM Control Delay (s) | 16.9 | 10.9 | - | - | 8.7 | - |
| HCM Lane LOS | C | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.3 | 0.8 | - | - | 0.2 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.7 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 50 | 1 | 10 | 5 | 10 | 35 | 5 | 382 | 1 | 5 | 480 | 60 |
| Future Vol, veh/h | 50 | 1 | 10 | 5 | 10 | 35 | 5 | 382 | 1 | 5 | 480 | 60 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 57 | 1 | 11 | 6 | 12 | 42 | 5 | 411 | 1 | 5 | 516 | 65 |

| Major/Minor | Minor2 | | Minor1 | | | Major1 | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|-------|--------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1008 | 981 | 549 | 987 | 1013 | 412 | 581 | 0 | 0 | 412 | 0 | 0 |
| Stage 1 | 559 | 559 | - | 422 | 422 | - | - | - | - | - | - | - |
| Stage 2 | 449 | 422 | - | 565 | 591 | - | - | - | - | - | - | - |
| 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 | 219 | 249 | 535 | 226 | 239 | 640 | 993 | - | - | 1147 | - | - |
| Stage 1 | 513 | 511 | - | 609 | 588 | - | - | - | - | - | - | - |
| Stage 2 | 589 | 588 | - | 510 | 494 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 195 | 247 | 535 | 219 | 237 | 640 | 993 | - | - | 1147 | - | - |
| Mov Cap-2 Maneuver | 195 | 247 | - | 219 | 237 | - | - | - | - | - | - | - |
| Stage 1 | 510 | 509 | - | 606 | 585 | - | - | - | - | - | - | - |
| Stage 2 | 536 | 585 | - | 496 | 492 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | | NE | | SW | | |
|----------------------|----|--|------|--|--|-----|--|-----|--|--|
| HCM Control Delay, s | 29 | | 15.1 | | | 0.1 | | 0.1 | | |
| HCM LOS | D | | C | | | | | | | |























| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|------|-------|-----|
| Capacity (veh/h) | 993 | - | - | 418 | 219 | 1147 | - |
| HCM Lane V/C Ratio | 0.005 | - | - | 0.144 | 0.32 | 0.005 | - |
| HCM Control Delay (s) | 8.6 | - | - | 15.1 | 29 | 8.2 | - |
| HCM Lane LOS | A | - | - | C | D | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 1.3 | 0 | - |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 10.2 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | SE | | NW | | NE | | SW | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | | 2 | | |
| Adj Approach Flow, veh/h | 213 | | 668 | | 860 | | 571 | | |
| Demand Flow Rate, veh/h | 217 | | 681 | | 877 | | 583 | | |
| Vehicles Circulating, veh/h | 717 | | 717 | | 300 | | 514 | | |
| Vehicles Exiting, veh/h | 380 | | 460 | | 634 | | 884 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 6.6 | | 11.5 | | 11.4 | | 8.4 | | |
| Approach LOS | A | | B | | B | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | TR | LT | TR | L | TR | L | TR | |
| Assumed Moves | LT | TR | LT | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.470 | 0.530 | 0.470 | 0.530 | 0.176 | 0.824 | 0.322 | 0.678 | |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | |
| Entry Flow, veh/h | 102 | 115 | 320 | 361 | 154 | 723 | 188 | 395 | |
| Cap Entry Lane, veh/h | 698 | 772 | 698 | 772 | 1024 | 1100 | 841 | 917 | |
| Entry HV Adj Factor | 0.982 | 0.982 | 0.981 | 0.980 | 0.981 | 0.981 | 0.979 | 0.981 | |
| Flow Entry, veh/h | 100 | 113 | 314 | 354 | 151 | 709 | 184 | 387 | |
| Cap Entry, veh/h | 685 | 758 | 685 | 757 | 1004 | 1080 | 823 | 900 | |
| V/C Ratio | 0.146 | 0.149 | 0.458 | 0.468 | 0.150 | 0.657 | 0.223 | 0.431 | |
| Control Delay, s/veh | 6.9 | 6.3 | 11.9 | 11.2 | 5.0 | 12.8 | 6.7 | 9.1 | |
| LOS | A | A | B | B | A | B | A | A | |
| 95th %tile Queue, veh | 1 | 1 | 2 | 3 | 1 | 5 | 1 | 2 | |

| Intersection | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 5.3 | | | | |
| Intersection LOS | A | | | | |
| Approach | EB | | WB | | NB |
| Entry Lanes | 2 | | 2 | | 1 |
| Conflicting Circle Lanes | 2 | | 2 | | 2 |
| Adj Approach Flow, veh/h | 456 | | 688 | | 224 |
| Demand Flow Rate, veh/h | 465 | | 701 | | 228 |
| Vehicles Circulating, veh/h | 175 | | 117 | | 399 |
| Vehicles Exiting, veh/h | 643 | | 510 | | 241 |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 |
| Approach Delay, s/veh | 4.8 | | 5.5 | | 5.8 |
| Approach LOS | A | | A | | A |
| Lane | Left | Right | Left | Right | Left |
| Designated Moves | LT | TR | LT | TR | LR |
| Assumed Moves | LT | TR | LT | TR | LR |
| RT Channelized | | | | | |
| Lane Util | 0.471 | 0.529 | 0.469 | 0.531 | 1.000 |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.535 |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.328 |
| Entry Flow, veh/h | 219 | 246 | 329 | 372 | 228 |
| Cap Entry Lane, veh/h | 1149 | 1224 | 1212 | 1286 | 1012 |
| Entry HV Adj Factor | 0.979 | 0.983 | 0.982 | 0.980 | 0.982 |
| Flow Entry, veh/h | 214 | 242 | 323 | 364 | 224 |
| Cap Entry, veh/h | 1125 | 1203 | 1191 | 1260 | 994 |
| V/C Ratio | 0.191 | 0.201 | 0.271 | 0.289 | 0.225 |
| Control Delay, s/veh | 4.9 | 4.7 | 5.5 | 5.5 | 5.8 |
| LOS | A | A | A | A | A |
| 95th %tile Queue, veh | 1 | 1 | 1 | 1 | 1 |

Lanes, Volumes, Timings
1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background
PM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  | |  |  | |
| Traffic Volume (vph) | 15 | 81 | 90 | 132 | 196 | 293 | 140 | 498 | 162 | 171 | 350 | 10 |
| Future Volume (vph) | 15 | 81 | 90 | 132 | 196 | 293 | 140 | 498 | 162 | 171 | 350 | 10 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 95 | | 155 | 275 | | 275 | 250 | | 0 | 250 | | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 80 | | | 155 | | | 95 | | | 95 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | 0.963 | | | 0.996 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 | 1770 | 1794 | 0 | 1770 | 1855 | 0 |
| Flt Permitted | 0.620 | | | 0.694 | | | 0.515 | | | 0.313 | | |
| Satd. Flow (perm) | 1155 | 3539 | 1583 | 1293 | 3539 | 1583 | 959 | 1794 | 0 | 583 | 1855 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 103 | | | 315 | | 43 | | | 4 | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 641 | | | 820 | | | 951 | | | 875 | |
| Travel Time (s) | | 12.5 | | | 16.0 | | | 18.5 | | | 17.0 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 17 | 93 | 103 | 142 | 211 | 315 | 151 | 535 | 174 | 184 | 376 | 11 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 17 | 93 | 103 | 142 | 211 | 315 | 151 | 709 | 0 | 184 | 387 | 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) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | Yes | | | | | | Yes | | | Yes | |
| 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 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| 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 | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | |

Lanes, Volumes, Timings
 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background
 PM

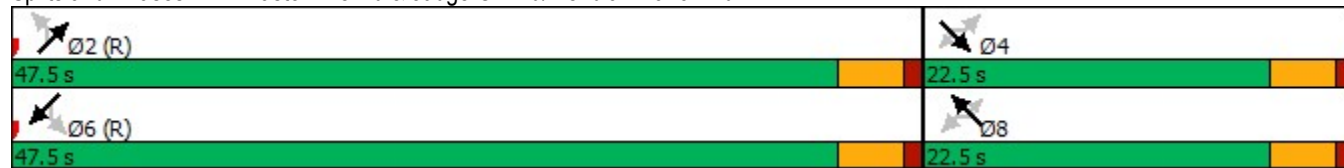


| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-----|
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | | 6 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 47.5 | 47.5 | | 47.5 | 47.5 | |
| Total Split (%) | 32.1% | 32.1% | 32.1% | 32.1% | 32.1% | 32.1% | 67.9% | 67.9% | | 67.9% | 67.9% | |
| Maximum Green (s) | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 43.0 | 43.0 | | 43.0 | 43.0 | |
| Yellow Time (s) | 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 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 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 | C-Max | C-Max | | C-Max | C-Max | |
| Walk Time (s) | 7.0 | 7.0 | 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 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Act Effct Green (s) | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 | 13.3 | 47.7 | 47.7 | | 47.7 | 47.7 | |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.68 | 0.68 | | 0.68 | 0.68 | |
| v/c Ratio | 0.08 | 0.14 | 0.27 | 0.58 | 0.31 | 0.57 | 0.23 | 0.57 | | 0.46 | 0.31 | |
| Control Delay | 21.5 | 22.2 | 7.0 | 34.5 | 24.5 | 7.4 | 6.3 | 8.6 | | 11.3 | 6.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 21.5 | 22.2 | 7.0 | 34.5 | 24.5 | 7.4 | 6.3 | 8.6 | | 11.3 | 6.0 | |
| LOS | C | C | A | C | C | A | A | A | | B | A | |
| Approach Delay | | 14.8 | | | 18.6 | | | 8.2 | | | 7.7 | |
| Approach LOS | | B | | | B | | | A | | | A | |
| Queue Length 50th (ft) | 6 | 17 | 0 | 56 | 41 | 0 | 21 | 125 | | 32 | 56 | |
| Queue Length 95th (ft) | 19 | 32 | 31 | 102 | 64 | 56 | 54 | 260 | | 97 | 115 | |
| Internal Link Dist (ft) | | 561 | | | 740 | | | 871 | | | 795 | |
| Turn Bay Length (ft) | 95 | | 155 | 275 | | 275 | 250 | | | 250 | | |
| Base Capacity (vph) | 297 | 910 | 483 | 332 | 910 | 641 | 654 | 1237 | | 397 | 1266 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.06 | 0.10 | 0.21 | 0.43 | 0.23 | 0.49 | 0.23 | 0.57 | | 0.46 | 0.31 | |

Intersection Summary

| | |
|------------------------------------|---|
| Area Type: | Other |
| Cycle Length: | 70 |
| Actuated Cycle Length: | 70 |
| Offset: | 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green |
| Natural Cycle: | 60 |
| Control Type: | Actuated-Coordinated |
| Maximum v/c Ratio: | 0.58 |
| Intersection Signal Delay: | 11.7 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 70.8% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd



Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

2040 Background
PM

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 192 | 195 | 338 | 433 | 194 | 163 | 397 | 1367 | 431 | 145 | 783 | 155 |
| Future Volume (vph) | 192 | 195 | 338 | 433 | 194 | 163 | 397 | 1367 | 431 | 145 | 783 | 155 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 235 | | 235 | 235 | | 235 | 860 | | 290 | 695 | | 290 |
| Storage Lanes | 1 | | 1 | 2 | | 1 | 2 | | 1 | 1 | | 1 |
| Taper Length (ft) | 200 | | | 200 | | | 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 | 0.621 | | | 0.950 | | | 0.950 | | | 0.101 | | |
| Satd. Flow (perm) | 1157 | 1863 | 1583 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | 188 | 3539 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 257 | | | 170 | | | 453 | | | 208 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 2032 | | | 1524 | | | 1735 | | | 2505 | |
| Travel Time (s) | | 30.8 | | | 23.1 | | | 21.5 | | | 31.1 | |
| 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) | 206 | 210 | 363 | 466 | 209 | 175 | 418 | 1439 | 454 | 153 | 824 | 163 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 206 | 210 | 363 | 466 | 209 | 175 | 418 | 1439 | 454 | 153 | 824 | 163 |
| 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 |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

2040 Background
PM



| 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 | 24.0 | 24.0 | 9.5 | 24.0 | 24.0 | 9.5 | 24.0 | 24.0 | 9.5 | 24.0 | 24.0 |
| Total Split (s) | 15.0 | 23.3 | 23.3 | 20.0 | 28.3 | 28.3 | 22.0 | 56.0 | 56.0 | 10.7 | 44.7 | 44.7 |
| Total Split (%) | 13.6% | 21.2% | 21.2% | 18.2% | 25.7% | 25.7% | 20.0% | 50.9% | 50.9% | 9.7% | 40.6% | 40.6% |
| Maximum Green (s) | 10.5 | 17.3 | 17.3 | 15.5 | 22.3 | 22.3 | 17.5 | 50.0 | 50.0 | 6.2 | 38.7 | 38.7 |
| Yellow Time (s) | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 | 3.5 | 4.0 | 4.0 |
| All-Red Time (s) | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 | 4.5 | 6.0 | 6.0 |
| 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) | 27.5 | 15.7 | 15.7 | 15.5 | 20.8 | 20.8 | 16.5 | 50.0 | 50.0 | 47.4 | 39.7 | 39.7 |
| Actuated g/C Ratio | 0.25 | 0.14 | 0.14 | 0.14 | 0.19 | 0.19 | 0.15 | 0.46 | 0.46 | 0.44 | 0.37 | 0.37 |
| v/c Ratio | 0.59 | 0.78 | 0.81 | 0.95 | 0.31 | 0.40 | 0.80 | 0.88 | 0.47 | 0.89 | 0.64 | 0.23 |
| Control Delay | 35.3 | 65.2 | 28.8 | 77.0 | 38.9 | 9.1 | 57.1 | 34.6 | 3.4 | 68.5 | 31.6 | 2.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.3 | 65.2 | 28.8 | 77.0 | 38.9 | 9.1 | 57.1 | 34.6 | 3.4 | 68.5 | 31.6 | 2.2 |
| LOS | D | E | C | E | D | A | E | C | A | E | C | A |
| Approach Delay | | 40.3 | | | 53.6 | | | 32.5 | | | 32.4 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 105 | 143 | 69 | 171 | 66 | 3 | 147 | 478 | 0 | 55 | 256 | 0 |
| Queue Length 95th (ft) | 168 | #242 | #211 | #273 | 101 | 60 | #203 | #592 | 56 | #182 | 325 | 22 |
| Internal Link Dist (ft) | | 1952 | | | 1444 | | | 1655 | | | 2425 | |
| Turn Bay Length (ft) | 235 | | 235 | 235 | | 235 | 860 | | 290 | 695 | | 290 |
| Base Capacity (vph) | 354 | 297 | 468 | 490 | 728 | 460 | 554 | 1632 | 974 | 172 | 1297 | 711 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.71 | 0.78 | 0.95 | 0.29 | 0.38 | 0.75 | 0.88 | 0.47 | 0.89 | 0.64 | 0.23 |

Intersection Summary

| | |
|---|------------------------|
| Area Type: | Other |
| Cycle Length: | 110 |
| Actuated Cycle Length: | 108.4 |
| Natural Cycle: | 90 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.95 |
| Intersection Signal Delay: | 37.2 |
| Intersection LOS: | D |
| Intersection Capacity Utilization: | 85.9% |
| ICU Level of Service: | E |
| Analysis Period (min): | 15 |
| # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. | |

Splits and Phases: 2: US 24 & Judge Orr Rd























| | | | |
|--|--|---|--|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 |
| 10.7 s | 56 s | 20 s | 23.3 s |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 |
| 22 s | 44.7 s | 15 s | 28.3 s |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 12.9 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | SE | | NW | | NE | | SW | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | | 2 | | |
| Adj Approach Flow, veh/h | 446 | | 339 | | 700 | | 746 | | |
| Demand Flow Rate, veh/h | 454 | | 346 | | 714 | | 760 | | |
| Vehicles Circulating, veh/h | 840 | | 724 | | 595 | | 212 | | |
| Vehicles Exiting, veh/h | 132 | | 585 | | 699 | | 858 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 10.2 | | 7.8 | | 23.8 | | 6.7 | | |
| Approach LOS | B | | A | | C | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | TR | LT | TR | L | TR | L | TR | |
| Assumed Moves | LT | TR | LT | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.469 | 0.531 | 0.471 | 0.529 | 0.022 | 0.978 | 0.346 | 0.654 | |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | |
| Entry Flow, veh/h | 213 | 241 | 163 | 183 | 16 | 698 | 263 | 497 | |
| Cap Entry Lane, veh/h | 623 | 695 | 694 | 767 | 781 | 856 | 1111 | 1186 | |
| Entry HV Adj Factor | 0.984 | 0.980 | 0.978 | 0.982 | 1.000 | 0.981 | 0.981 | 0.981 | |
| Flow Entry, veh/h | 210 | 236 | 159 | 180 | 16 | 684 | 258 | 488 | |
| Cap Entry, veh/h | 613 | 682 | 678 | 754 | 781 | 840 | 1090 | 1163 | |
| V/C Ratio | 0.342 | 0.347 | 0.235 | 0.238 | 0.020 | 0.815 | 0.237 | 0.419 | |
| Control Delay, s/veh | 10.6 | 9.8 | 8.1 | 7.5 | 4.8 | 24.2 | 5.5 | 7.4 | |
| LOS | B | A | A | A | A | C | A | A | |
| 95th %tile Queue, veh | 2 | 2 | 1 | 1 | 0 | 9 | 1 | 2 | |

| Intersection | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 5.1 | | | | | |
| Intersection LOS | A | | | | | |
| Approach | EB | | WB | | NB | SB |
| Entry Lanes | 2 | | 2 | | 1 | 1 |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | 2 |
| Adj Approach Flow, veh/h | 573 | | 461 | | 212 | 136 |
| Demand Flow Rate, veh/h | 585 | | 470 | | 216 | 138 |
| Vehicles Circulating, veh/h | 128 | | 88 | | 547 | 434 |
| Vehicles Exiting, veh/h | 444 | | 675 | | 166 | 124 |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | 0 |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | 1.000 |
| Approach Delay, s/veh | 5.1 | | 4.4 | | 6.6 | 5.0 |
| Approach LOS | A | | A | | A | A |
| Lane | Left | Right | Left | Right | Left | Left |
| Designated Moves | LT | TR | LT | TR | LTR | LTR |
| Assumed Moves | LT | TR | LT | TR | LTR | LTR |
| RT Channelized | | | | | | |
| Lane Util | 0.470 | 0.530 | 0.470 | 0.530 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.535 | 2.535 |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.328 | 4.328 |
| Entry Flow, veh/h | 275 | 310 | 221 | 249 | 216 | 138 |
| Cap Entry Lane, veh/h | 1200 | 1274 | 1245 | 1318 | 892 | 982 |
| Entry HV Adj Factor | 0.980 | 0.980 | 0.981 | 0.982 | 0.980 | 0.984 |
| Flow Entry, veh/h | 269 | 304 | 217 | 244 | 212 | 136 |
| Cap Entry, veh/h | 1176 | 1248 | 1221 | 1294 | 875 | 966 |
| V/C Ratio | 0.229 | 0.243 | 0.178 | 0.189 | 0.242 | 0.141 |
| Control Delay, s/veh | 5.1 | 5.0 | 4.5 | 4.4 | 6.6 | 5.0 |
| LOS | A | A | A | A | A | A |
| 95th %tile Queue, veh | 1 | 1 | 1 | 1 | 1 | 0 |

Lanes, Volumes, Timings
1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background + Site
AM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  | |  |  | |
| Traffic Volume (vph) | 126 | 216 | 110 | 78 | 80 | 128 | 15 | 548 | 99 | 247 | 452 | 33 |
| Future Volume (vph) | 126 | 216 | 110 | 78 | 80 | 128 | 15 | 548 | 99 | 247 | 452 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 95 | | 0 | 275 | | 275 | 250 | | 0 | 250 | | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 80 | | | 155 | | | 95 | | | 95 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | 0.977 | | | | 0.990 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 | 1770 | 1820 | 0 | 1770 | 1844 | 0 |
| Flt Permitted | 0.694 | | | 0.605 | | | 0.393 | | | 0.299 | | |
| Satd. Flow (perm) | 1293 | 3539 | 1583 | 1127 | 3539 | 1583 | 732 | 1820 | 0 | 557 | 1844 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 120 | | | 147 | | 24 | | | 10 | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 641 | | | 820 | | | 942 | | | 875 | |
| Travel Time (s) | | 12.5 | | | 16.0 | | | 18.4 | | | 17.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 | 0.92 | 0.92 | 0.92 | 0.87 | 0.87 | 0.87 |
| Adj. Flow (vph) | 137 | 235 | 120 | 90 | 92 | 147 | 16 | 596 | 108 | 284 | 520 | 38 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 137 | 235 | 120 | 90 | 92 | 147 | 16 | 704 | 0 | 284 | 558 | 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) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | Yes | | | | | | Yes | | | Yes | |
| 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 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| 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 | Perm | NA | Perm | custom | NA | custom | Perm | NA | | Perm | NA | |
| Protected Phases | | 4 | | | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | 8 | 8 | 2 | | 6 | | | |

Lanes, Volumes, Timings
1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background + Site
AM



| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-----|
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | | 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 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 52.5 | 52.5 | | 52.5 | 52.5 | |
| Total Split (%) | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% | 70.0% | 70.0% | | 70.0% | 70.0% | |
| Maximum Green (s) | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 48.0 | 48.0 | | 48.0 | 48.0 | |
| Yellow Time (s) | 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 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 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 | Min | Min | | Min | Min | |
| Walk Time (s) | 7.0 | 7.0 | 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 | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Act Effect Green (s) | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 36.8 | 36.8 | | 36.8 | 36.8 | |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.63 | 0.63 | | 0.63 | 0.63 | |
| v/c Ratio | 0.51 | 0.32 | 0.28 | 0.39 | 0.13 | 0.33 | 0.04 | 0.61 | | 0.82 | 0.48 | |
| Control Delay | 31.3 | 23.3 | 7.3 | 28.7 | 22.2 | 7.2 | 4.9 | 9.3 | | 31.4 | 7.5 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 31.3 | 23.3 | 7.3 | 28.7 | 22.2 | 7.2 | 4.9 | 9.3 | | 31.4 | 7.5 | |
| LOS | C | C | A | C | C | A | A | A | | C | A | |
| Approach Delay | | 21.6 | | | 17.3 | | | 9.2 | | | 15.5 | |
| Approach LOS | | C | | | B | | | A | | | B | |
| Queue Length 50th (ft) | 49 | 42 | 0 | 31 | 15 | 0 | 2 | 118 | | 62 | 84 | |
| Queue Length 95th (ft) | 106 | 76 | 38 | 72 | 34 | 38 | 9 | 254 | | #233 | 169 | |
| Internal Link Dist (ft) | | 561 | | | 740 | | | 862 | | | 795 | |
| Turn Bay Length (ft) | 95 | | | 275 | | 275 | 250 | | | 250 | | |
| Base Capacity (vph) | 434 | 1188 | 611 | 378 | 1188 | 629 | 591 | 1474 | | 449 | 1491 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.32 | 0.20 | 0.20 | 0.24 | 0.08 | 0.23 | 0.03 | 0.48 | | 0.63 | 0.37 | |

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 58.8
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 15.1
 Intersection LOS: B
 Intersection Capacity Utilization 74.7%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

| | |
|---|---|
|  52.5 s |  22.5 s |
|  52.5 s |  22.5 s |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

2040 Background + Site
AM



| 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 | | | 25 | | |
| 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 | 0.666 | | | 0.950 | | | 0.950 | | | 0.359 | | |
| Satd. Flow (perm) | 1241 | 1863 | 1583 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | 669 | 3539 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 272 | | | 149 | | | 210 | | | 149 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 2032 | | | 1524 | | | 1735 | | | 2505 | |
| Travel Time (s) | | 30.8 | | | 23.1 | | | 21.5 | | | 31.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 78 | 161 | 321 | 296 | 136 | 36 | 280 | 715 | 210 | 113 | 819 | 119 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 78 | 161 | 321 | 296 | 136 | 36 | 280 | 715 | 210 | 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 |

Lanes, Volumes, Timings
2: US 24 & Judge Orr Rd

2040 Background + Site
AM



| 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) | 17.0 | 23.6 | 23.6 | 19.0 | 25.6 | 25.6 | 23.0 | 56.0 | 56.0 | 11.4 | 44.4 | 44.4 |
| Total Split (%) | 15.5% | 21.5% | 21.5% | 17.3% | 23.3% | 23.3% | 20.9% | 50.9% | 50.9% | 10.4% | 40.4% | 40.4% |
| Maximum Green (s) | 12.5 | 19.1 | 19.1 | 14.5 | 21.1 | 21.1 | 18.5 | 51.5 | 51.5 | 6.9 | 39.9 | 39.9 |
| 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) | 22.9 | 14.2 | 14.2 | 13.1 | 20.8 | 20.8 | 13.7 | 51.7 | 51.7 | 51.4 | 44.7 | 44.7 |
| Actuated g/C Ratio | 0.22 | 0.14 | 0.14 | 0.13 | 0.20 | 0.20 | 0.13 | 0.50 | 0.50 | 0.50 | 0.43 | 0.43 |
| v/c Ratio | 0.24 | 0.63 | 0.71 | 0.69 | 0.19 | 0.08 | 0.62 | 0.41 | 0.23 | 0.28 | 0.54 | 0.16 |
| Control Delay | 27.9 | 54.0 | 18.1 | 52.7 | 36.6 | 0.4 | 49.1 | 18.0 | 3.0 | 12.5 | 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 | 27.9 | 54.0 | 18.1 | 52.7 | 36.6 | 0.4 | 49.1 | 18.0 | 3.0 | 12.5 | 25.0 | 2.5 |
| LOS | C | D | B | D | D | A | D | B | A | B | C | A |
| Approach Delay | | 29.8 | | | 44.0 | | | 22.6 | | | 21.1 | |
| Approach LOS | | C | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 37 | 104 | 30 | 98 | 41 | 0 | 92 | 155 | 0 | 30 | 211 | 0 |
| Queue Length 95th (ft) | 72 | 172 | 123 | 150 | 71 | 0 | 136 | 221 | 39 | 62 | 314 | 23 |
| Internal Link Dist (ft) | | 1952 | | | 1444 | | | 1655 | | | 2425 | |
| Turn Bay Length (ft) | 290 | | | 290 | | 290 | 860 | | 290 | 695 | | 290 |
| Base Capacity (vph) | 383 | 344 | 514 | 481 | 749 | 452 | 614 | 1762 | 894 | 406 | 1525 | 766 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | 0.47 | 0.62 | 0.62 | 0.18 | 0.08 | 0.46 | 0.41 | 0.23 | 0.28 | 0.54 | 0.16 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 110 |
| Actuated Cycle Length: | 103.7 |
| Natural Cycle: | 70 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.71 |
| 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: 2: US 24 & Judge Orr Rd

| | | | |
|--|--|---|--|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 |
| 11.4 s | 56 s | 19 s | 23.6 s |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 |
| 23 s | 44.4 s | 17 s | 25.6 s |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.6 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | ↔ | | ↔ | | ↔ | ↔ | | ↔ | ↔ | |
| Traffic Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 396 | 1 | 6 | 491 | 65 |
| Future Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 396 | 1 | 6 | 491 | 65 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 80 | 1 | 12 | 6 | 12 | 43 | 5 | 426 | 1 | 6 | 528 | 70 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1039 | 1012 | 563 | 1019 | 1047 | 427 | 598 | 0 | 0 | 427 | 0 | 0 |
| Stage 1 | 575 | 575 | - | 437 | 437 | - | - | - | - | - | - | - |
| Stage 2 | 464 | 437 | - | 582 | 610 | - | - | - | - | - | - | - |
| 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 | 209 | 239 | 526 | 215 | 228 | 628 | 979 | - | - | 1132 | - | - |
| Stage 1 | 503 | 503 | - | 598 | 579 | - | - | - | - | - | - | - |
| Stage 2 | 578 | 579 | - | 499 | 485 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 185 | 237 | 526 | 208 | 226 | 628 | 979 | - | - | 1132 | - | - |
| Mov Cap-2 Maneuver | 185 | 237 | - | 208 | 226 | - | - | - | - | - | - | - |
| Stage 1 | 500 | 500 | - | 595 | 576 | - | - | - | - | - | - | - |
| Stage 2 | 524 | 576 | - | 484 | 483 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|----|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 35 | | 15.4 | | 0.1 | | 0.1 | |
| HCM LOS | E | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SELn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 979 | - | - | 406 | 186 | 526 | 1132 | - |
| HCM Lane V/C Ratio | 0.005 | - | - | 0.151 | 0.434 | 0.023 | 0.006 | - |
| HCM Control Delay (s) | 8.7 | - | - | 15.4 | 38.4 | 12 | 8.2 | - |
| HCM Lane LOS | A | - | - | C | E | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 2 | 0.1 | 0 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.8 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 396 | 1 | 6 | 491 | 66 |
| Future Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 396 | 1 | 6 | 491 | 66 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 80 | 1 | 12 | 6 | 12 | 43 | 5 | 426 | 1 | 6 | 528 | 71 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1040 | 1013 | 564 | 1019 | 1048 | 427 | 599 | 0 | 0 | 427 | 0 | 0 |
| Stage 1 | 576 | 576 | - | 437 | 437 | - | - | - | - | - | - | - |
| Stage 2 | 464 | 437 | - | 582 | 611 | - | - | - | - | - | - | - |
| 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 | 208 | 239 | 525 | 215 | 228 | 628 | 978 | - | - | 1132 | - | - |
| Stage 1 | 503 | 502 | - | 598 | 579 | - | - | - | - | - | - | - |
| Stage 2 | 578 | 579 | - | 499 | 484 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 184 | 237 | 525 | 208 | 226 | 628 | 978 | - | - | 1132 | - | - |
| Mov Cap-2 Maneuver | 184 | 237 | - | 208 | 226 | - | - | - | - | - | - | - |
| Stage 1 | 500 | 499 | - | 595 | 576 | - | - | - | - | - | - | - |
| Stage 2 | 524 | 576 | - | 484 | 482 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 37.1 | | 15.4 | | 0.1 | | 0.1 | |
| HCM LOS | E | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-----|
| Capacity (veh/h) | 978 | - | - | 406 | 202 | 1132 | - |
| HCM Lane V/C Ratio | 0.005 | - | - | 0.151 | 0.459 | 0.006 | - |
| HCM Control Delay (s) | 8.7 | - | - | 15.4 | 37.1 | 8.2 | - |
| HCM Lane LOS | A | - | - | C | E | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 2.2 | 0 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.1 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↖ | ↗ | | ↔ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 591 | 1 | 6 | 561 | 65 |
| Future Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 591 | 1 | 6 | 561 | 65 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 80 | 1 | 12 | 6 | 12 | 43 | 5 | 635 | 1 | 6 | 603 | 70 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1323 | 1296 | 638 | 1303 | 1331 | 636 | 673 | 0 | 0 | 636 | 0 | 0 |
| Stage 1 | 650 | 650 | - | 646 | 646 | - | - | - | - | - | - | - |
| Stage 2 | 673 | 646 | - | 657 | 685 | - | - | - | - | - | - | - |
| 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 | 133 | 162 | 477 | 138 | 154 | 478 | 918 | - | - | 947 | - | - |
| Stage 1 | 458 | 465 | - | 460 | 467 | - | - | - | - | - | - | - |
| Stage 2 | 445 | 467 | - | 454 | 448 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 113 | 160 | 477 | 132 | 152 | 478 | 918 | - | - | 947 | - | - |
| Mov Cap-2 Maneuver | 113 | 160 | - | 132 | 152 | - | - | - | - | - | - | - |
| Stage 1 | 456 | 462 | - | 458 | 465 | - | - | - | - | - | - | - |
| Stage 2 | 392 | 465 | - | 439 | 445 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 82.1 | | 21.1 | | 0.1 | | 0.1 | |
| HCM LOS | F | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SELn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 918 | - | - | 285 | 113 | 477 | 947 | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.216 | 0.714 | 0.025 | 0.007 | - |
| HCM Control Delay (s) | 8.9 | - | - | 21.1 | 92.5 | 12.7 | 8.8 | - |
| HCM Lane LOS | A | - | - | C | F | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.8 | 3.8 | 0.1 | 0 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.5 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↗ | ↘ | | ↗ | ↘ | |
| Traffic Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 591 | 1 | 6 | 561 | 65 |
| Future Vol, veh/h | 66 | 1 | 10 | 5 | 10 | 36 | 5 | 591 | 1 | 6 | 561 | 65 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 80 | 1 | 12 | 6 | 12 | 43 | 5 | 635 | 1 | 6 | 603 | 70 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1323 | 1296 | 638 | 1303 | 1331 | 636 | 673 | 0 | 0 | 636 | 0 | 0 |
| Stage 1 | 650 | 650 | - | 646 | 646 | - | - | - | - | - | - | - |
| Stage 2 | 673 | 646 | - | 657 | 685 | - | - | - | - | - | - | - |
| 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 | 133 | 162 | 477 | 138 | 154 | 478 | 918 | - | - | 947 | - | - |
| Stage 1 | 458 | 465 | - | 460 | 467 | - | - | - | - | - | - | - |
| Stage 2 | 445 | 467 | - | 454 | 448 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 113 | 160 | 477 | 132 | 152 | 478 | 918 | - | - | 947 | - | - |
| Mov Cap-2 Maneuver | 113 | 160 | - | 132 | 152 | - | - | - | - | - | - | - |
| Stage 1 | 456 | 462 | - | 458 | 465 | - | - | - | - | - | - | - |
| Stage 2 | 392 | 465 | - | 439 | 445 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 88.2 | | 21.1 | | 0.1 | | 0.1 | |
| HCM LOS | F | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-----|
| Capacity (veh/h) | 918 | - | - | 285 | 126 | 947 | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.216 | 0.736 | 0.007 | - |
| HCM Control Delay (s) | 8.9 | - | - | 21.1 | 88.2 | 8.8 | - |
| HCM Lane LOS | A | - | - | C | F | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.8 | 4.2 | 0 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↖↖ | ↖ | ↖ | ↖↖ | ↖ | ↖ | ↖ | ↖ | ↖ | ↖ | ↖ |
| Traffic Vol, veh/h | 38 | 405 | 90 | 50 | 310 | 64 | 30 | 10 | 145 | 50 | 10 | 53 |
| Future Vol, veh/h | 38 | 405 | 90 | 50 | 310 | 64 | 30 | 10 | 145 | 50 | 10 | 53 |
| 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 | 385 | - | 235 | 385 | - | 235 | 0 | - | - | 0 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 92 | 92 | 92 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 435 | 97 | 54 | 337 | 70 | 34 | 11 | 167 | 57 | 11 | 61 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 407 | 0 | 0 | 532 | 0 | 0 | 799 | 1032 | 218 | 750 | 1059 | 169 |
| Stage 1 | - | - | - | - | - | - | 517 | 517 | - | 445 | 445 | - |
| Stage 2 | - | - | - | - | - | - | 282 | 515 | - | 305 | 614 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 1148 | - | - | 1032 | - | - | 276 | 231 | 786 | 300 | 223 | 845 |
| Stage 1 | - | - | - | - | - | - | 509 | 532 | - | 562 | 573 | - |
| Stage 2 | - | - | - | - | - | - | 701 | 533 | - | 680 | 481 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1148 | - | - | 1032 | - | - | 229 | 211 | 786 | 212 | 204 | 845 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 229 | 211 | - | 212 | 204 | - |
| Stage 1 | - | - | - | - | - | - | 491 | 513 | - | 542 | 543 | - |
| Stage 2 | - | - | - | - | - | - | 603 | 505 | - | 505 | 464 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.6 | | | 1 | | | 14.1 | | | 19.3 | | |
| HCM LOS | | | | | | | B | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 229 | 668 | 1148 | - | - | 1032 | - | - | 212 | 564 |
| HCM Lane V/C Ratio | 0.151 | 0.267 | 0.036 | - | - | 0.053 | - | - | 0.271 | 0.128 |
| HCM Control Delay (s) | 23.5 | 12.3 | 8.3 | - | - | 8.7 | - | - | 28.2 | 12.3 |
| HCM Lane LOS | C | B | A | - | - | A | - | - | D | B |
| HCM 95th %tile Q(veh) | 0.5 | 1.1 | 0.1 | - | - | 0.2 | - | - | 1.1 | 0.4 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | | | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 676 | 39 | 51 | 622 | 10 |
| Future Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 676 | 39 | 51 | 622 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | 50 | - | 155 | 200 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 0 | 26 | 12 | 0 | 23 | 16 | 727 | 42 | 55 | 669 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1577 | 1586 | 675 | 1557 | 1549 | 727 | 680 | 0 | 0 | 769 | 0 | 0 |
| Stage 1 | 785 | 785 | - | 759 | 759 | - | - | - | - | - | - | - |
| Stage 2 | 792 | 801 | - | 798 | 790 | - | - | - | - | - | - | - |
| 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 | 89 | 108 | 454 | 92 | 114 | 424 | 912 | - | - | 845 | - | - |
| Stage 1 | 386 | 404 | - | 399 | 415 | - | - | - | - | - | - | - |
| Stage 2 | 382 | 397 | - | 380 | 402 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 79 | 99 | 454 | 81 | 105 | 424 | 912 | - | - | 845 | - | - |
| Mov Cap-2 Maneuver | 79 | 99 | - | 81 | 105 | - | - | - | - | - | - | - |
| Stage 1 | 379 | 378 | - | 392 | 408 | - | - | - | - | - | - | - |
| Stage 2 | 355 | 390 | - | 335 | 376 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 31.1 | | 28.9 | | 0.2 | | 0.7 | |
| HCM LOS | D | | D | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | WBLn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 912 | - | - | 176 | 81 | 424 | 845 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | - | 0.219 | 0.149 | 0.054 | 0.065 | - | - |
| HCM Control Delay (s) | 9 | - | - | 31.1 | 57.1 | 14 | 9.6 | - | - |
| HCM Lane LOS | A | - | - | D | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.8 | 0.5 | 0.2 | 0.2 | - | - |

HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

2040 Background + Site
AM -- Moderate Growth

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ |
| Traffic Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 481 | 39 | 51 | 622 | 10 |
| Future Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 481 | 39 | 51 | 622 | 10 |
| 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 | - | - | - | - | - | - | 50 | - | 155 | 200 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 0 | 26 | 13 | 0 | 24 | 16 | 517 | 42 | 55 | 669 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1367 | 1376 | 675 | 1347 | 1339 | 517 | 680 | 0 | 0 | 559 | 0 | 0 |
| Stage 1 | 785 | 785 | - | 549 | 549 | - | - | - | - | - | - | - |
| Stage 2 | 582 | 591 | - | 798 | 790 | - | - | - | - | - | - | - |
| 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 | 124 | 145 | 454 | 128 | 153 | 558 | 912 | - | - | 1012 | - | - |
| Stage 1 | 386 | 404 | - | 520 | 516 | - | - | - | - | - | - | - |
| Stage 2 | 499 | 494 | - | 380 | 402 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 112 | 135 | 454 | 114 | 142 | 558 | 912 | - | - | 1012 | - | - |
| Mov Cap-2 Maneuver | 112 | 135 | - | 114 | 142 | - | - | - | - | - | - | - |
| Stage 1 | 379 | 382 | - | 511 | 507 | - | - | - | - | - | - | - |
| Stage 2 | 469 | 485 | - | 339 | 380 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 24.3 | | 22.9 | | 0.3 | | 0.7 | |
| HCM LOS | C | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 912 | - | - | 225 | 238 | 1012 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | - | 0.171 | 0.156 | 0.054 | - | - |
| HCM Control Delay (s) | 9 | - | - | 24.3 | 22.9 | 8.8 | - | - |
| HCM Lane LOS | A | - | - | C | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.6 | 0.5 | 0.2 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ | ↕ |
| Traffic Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 481 | 39 | 51 | 622 | 10 |
| Future Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 481 | 39 | 51 | 622 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | 50 | - | 155 | 200 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 0 | 26 | 12 | 0 | 23 | 16 | 517 | 42 | 55 | 669 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1367 | 1376 | 675 | 1347 | 1339 | 517 | 680 | 0 | 0 | 559 | 0 | 0 |
| Stage 1 | 785 | 785 | - | 549 | 549 | - | - | - | - | - | - | - |
| Stage 2 | 582 | 591 | - | 798 | 790 | - | - | - | - | - | - | - |
| 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 | 124 | 145 | 454 | 128 | 153 | 558 | 912 | - | - | 1012 | - | - |
| Stage 1 | 386 | 404 | - | 520 | 516 | - | - | - | - | - | - | - |
| Stage 2 | 499 | 494 | - | 380 | 402 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 112 | 135 | 454 | 114 | 142 | 558 | 912 | - | - | 1012 | - | - |
| Mov Cap-2 Maneuver | 112 | 135 | - | 114 | 142 | - | - | - | - | - | - | - |
| Stage 1 | 379 | 382 | - | 511 | 507 | - | - | - | - | - | - | - |
| Stage 2 | 470 | 485 | - | 339 | 380 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | | SW | | |
|----------------------|------|--|------|--|-----|--|--|-----|--|--|
| HCM Control Delay, s | 24.3 | | 21.6 | | 0.3 | | | 0.7 | | |
| HCM LOS | C | | C | | | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | WBLn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 912 | - | - | 225 | 114 | 558 | 1012 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | - | 0.171 | 0.106 | 0.041 | 0.054 | - | - |
| HCM Control Delay (s) | 9 | - | - | 24.3 | 40.3 | 11.7 | 8.8 | - | - |
| HCM Lane LOS | A | - | - | C | E | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.6 | 0.3 | 0.1 | 0.2 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↑ | ↑ | ↕ | ↕ | ↕ |
| Traffic Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 676 | 39 | 51 | 692 | 10 |
| Future Vol, veh/h | 10 | 0 | 20 | 10 | 0 | 19 | 15 | 676 | 39 | 51 | 692 | 10 |
| 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 | - | - | - | - | - | - | 50 | - | 155 | 200 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 83 | 83 | 83 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 0 | 26 | 12 | 0 | 23 | 16 | 727 | 42 | 55 | 744 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1652 | 1661 | 750 | 1632 | 1624 | 727 | 755 | 0 | 0 | 769 | 0 | 0 |
| Stage 1 | 860 | 860 | - | 759 | 759 | - | - | - | - | - | - | - |
| Stage 2 | 792 | 801 | - | 873 | 865 | - | - | - | - | - | - | - |
| 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 | 79 | 97 | 411 | 81 | 102 | 424 | 855 | - | - | 845 | - | - |
| Stage 1 | 351 | 373 | - | 399 | 415 | - | - | - | - | - | - | - |
| Stage 2 | 382 | 397 | - | 345 | 371 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 70 | 89 | 411 | 71 | 94 | 424 | 855 | - | - | 845 | - | - |
| Mov Cap-2 Maneuver | 70 | 89 | - | 71 | 94 | - | - | - | - | - | - | - |
| Stage 1 | 344 | 349 | - | 391 | 407 | - | - | - | - | - | - | - |
| Stage 2 | 355 | 389 | - | 302 | 347 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | | |
|----------------------|------|--|------|--|-----|--|-----|--|--|
| HCM Control Delay, s | 35.2 | | 34.6 | | 0.2 | | 0.6 | | |
| HCM LOS | E | | D | | | | | | |
























| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 855 | - | - | 157 | 156 | 845 | - | - |
| HCM Lane V/C Ratio | 0.019 | - | - | 0.245 | 0.224 | 0.065 | - | - |
| HCM Control Delay (s) | 9.3 | - | - | 35.2 | 34.6 | 9.6 | - | - |
| HCM Lane LOS | A | - | - | E | D | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.9 | 0.8 | 0.2 | - | - |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 11.4 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | SE | | NW | | NE | | SW | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | | 2 | | |
| Adj Approach Flow, veh/h | 202 | | 807 | | 871 | | 581 | | |
| Demand Flow Rate, veh/h | 206 | | 823 | | 888 | | 593 | | |
| Vehicles Circulating, veh/h | 764 | | 700 | | 299 | | 613 | | |
| Vehicles Exiting, veh/h | 442 | | 487 | | 671 | | 910 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 6.9 | | 13.6 | | 11.8 | | 9.6 | | |
| Approach LOS | A | | B | | B | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | R | LT | TR | L | TR | L | TR | |
| Assumed Moves | LT | R | LT | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.515 | 0.485 | 0.470 | 0.530 | 0.169 | 0.831 | 0.325 | 0.675 | |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | |
| Entry Flow, veh/h | 106 | 100 | 387 | 436 | 150 | 738 | 193 | 400 | |
| Cap Entry Lane, veh/h | 668 | 742 | 709 | 783 | 1025 | 1101 | 768 | 843 | |
| Entry HV Adj Factor | 0.983 | 0.980 | 0.980 | 0.980 | 0.980 | 0.980 | 0.979 | 0.981 | |
| Flow Entry, veh/h | 104 | 98 | 379 | 427 | 147 | 724 | 189 | 392 | |
| Cap Entry, veh/h | 657 | 727 | 694 | 768 | 1005 | 1080 | 752 | 827 | |
| V/C Ratio | 0.159 | 0.135 | 0.546 | 0.557 | 0.146 | 0.670 | 0.251 | 0.474 | |
| Control Delay, s/veh | 7.3 | 6.4 | 14.0 | 13.2 | 4.9 | 13.2 | 7.6 | 10.6 | |
| LOS | A | A | B | B | A | B | A | B | |
| 95th %tile Queue, veh | 1 | 0 | 3 | 3 | 1 | 5 | 1 | 3 | |

| Intersection | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 7.5 | | | | | |
| Intersection LOS | A | | | | | |
| Approach | EB | | WB | | NB | SB |
| Entry Lanes | 2 | | 2 | | 1 | 1 |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | 2 |
| Adj Approach Flow, veh/h | 530 | | 810 | | 241 | 311 |
| Demand Flow Rate, veh/h | 540 | | 825 | | 245 | 317 |
| Vehicles Circulating, veh/h | 339 | | 226 | | 620 | 817 |
| Vehicles Exiting, veh/h | 795 | | 639 | | 259 | 234 |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | 0 |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | 1.000 |
| Approach Delay, s/veh | 6.2 | | 6.9 | | 7.6 | 11.5 |
| Approach LOS | A | | A | | A | B |
| Lane | Left | Right | Left | Right | Left | Left |
| Designated Moves | LT | TR | LT | TR | LTR | LTR |
| Assumed Moves | LT | TR | LT | TR | LTR | LTR |
| RT Channelized | | | | | | |
| Lane Util | 0.470 | 0.530 | 0.470 | 0.530 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.667 | 2.535 | 2.667 | 2.535 | 2.535 | 2.535 |
| Critical Headway, s | 4.645 | 4.328 | 4.645 | 4.328 | 4.328 | 4.328 |
| Entry Flow, veh/h | 254 | 286 | 388 | 437 | 245 | 317 |
| Cap Entry Lane, veh/h | 988 | 1065 | 1096 | 1172 | 838 | 709 |
| Entry HV Adj Factor | 0.980 | 0.981 | 0.981 | 0.982 | 0.982 | 0.980 |
| Flow Entry, veh/h | 249 | 281 | 381 | 429 | 241 | 311 |
| Cap Entry, veh/h | 968 | 1045 | 1075 | 1151 | 824 | 695 |
| V/C Ratio | 0.257 | 0.269 | 0.354 | 0.373 | 0.292 | 0.447 |
| Control Delay, s/veh | 6.3 | 6.1 | 6.9 | 6.8 | 7.6 | 11.5 |
| LOS | A | A | A | A | A | B |
| 95th %tile Queue, veh | 1 | 1 | 2 | 2 | 1 | 2 |

Lanes, Volumes, Timings
1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background + Site
PM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  | |  |  |  |
| Traffic Volume (vph) | 15 | 81 | 90 | 168 | 254 | 328 | 140 | 498 | 190 | 176 | 352 | 13 |
| Future Volume (vph) | 15 | 81 | 90 | 168 | 254 | 328 | 140 | 498 | 190 | 176 | 352 | 13 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 95 | | 155 | 275 | | 275 | 250 | | 0 | 250 | | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 80 | | | 155 | | | 95 | | | 95 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | 0.959 | | | 0.995 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 | 1770 | 1786 | 0 | 1770 | 1853 | 0 |
| Flt Permitted | 0.584 | | | 0.478 | | | 0.446 | | | 0.109 | | |
| Satd. Flow (perm) | 1088 | 3539 | 1583 | 890 | 3539 | 1583 | 831 | 1786 | 0 | 203 | 1853 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 127 | | | 353 | | 28 | | | 3 | |
| Link Speed (mph) | | 35 | | | 35 | | | 35 | | | 35 | |
| Link Distance (ft) | | 689 | | | 820 | | | 951 | | | 875 | |
| Travel Time (s) | | 13.4 | | | 16.0 | | | 18.5 | | | 17.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 16 | 88 | 98 | 181 | 273 | 353 | 151 | 535 | 204 | 189 | 378 | 14 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 16 | 88 | 98 | 181 | 273 | 353 | 151 | 739 | 0 | 189 | 392 | 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) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | Yes | | | | | | Yes | | | Yes | |
| 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 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | | 20 | 100 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | | 20 | 6 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| 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 | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | | 6 | | |

Lanes, Volumes, Timings
1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

2040 Background + Site
PM



| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-----|
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 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 | | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | |
| Total Split (s) | 9.5 | 22.5 | 22.5 | 9.8 | 22.8 | 22.8 | 11.4 | 44.7 | | 13.0 | 46.3 | |
| Total Split (%) | 10.6% | 25.0% | 25.0% | 10.9% | 25.3% | 25.3% | 12.7% | 49.7% | | 14.4% | 51.4% | |
| Maximum Green (s) | 5.0 | 18.0 | 18.0 | 5.3 | 18.3 | 18.3 | 6.9 | 40.2 | | 8.5 | 41.8 | |
| Yellow Time (s) | 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 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 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 | | Lead | Lag | |
| Lead-Lag Optimize? | 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 | |
| Recall Mode | None | None | None | None | None | None | None | Min | | None | Min | |
| Walk Time (s) | | 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 | |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | | | 0 | |
| Act Effct Green (s) | 12.4 | 8.9 | 8.9 | 16.1 | 15.2 | 15.2 | 42.1 | 35.2 | | 44.9 | 36.6 | |
| Actuated g/C Ratio | 0.17 | 0.12 | 0.12 | 0.22 | 0.20 | 0.20 | 0.57 | 0.47 | | 0.60 | 0.49 | |
| v/c Ratio | 0.07 | 0.21 | 0.33 | 0.68 | 0.38 | 0.58 | 0.27 | 0.86 | | 0.63 | 0.43 | |
| Control Delay | 24.0 | 32.9 | 6.5 | 41.0 | 28.6 | 8.0 | 7.6 | 29.8 | | 22.9 | 14.6 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 24.0 | 32.9 | 6.5 | 41.0 | 28.6 | 8.0 | 7.6 | 29.8 | | 22.9 | 14.6 | |
| LOS | C | C | A | D | C | A | A | C | | C | B | |
| Approach Delay | | 19.4 | | | 22.3 | | | 26.1 | | | 17.3 | |
| Approach LOS | | B | | | C | | | C | | | B | |
| Queue Length 50th (ft) | 6 | 21 | 0 | 79 | 60 | 0 | 23 | 277 | | 30 | 108 | |
| Queue Length 95th (ft) | 21 | 42 | 26 | #138 | 108 | 72 | 63 | #607 | | #143 | 221 | |
| Internal Link Dist (ft) | | 609 | | | 740 | | | 871 | | | 795 | |
| Turn Bay Length (ft) | 95 | | 155 | 275 | | 275 | 250 | | | 250 | | |
| Base Capacity (vph) | 229 | 889 | 493 | 266 | 904 | 667 | 564 | 1015 | | 310 | 1083 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.07 | 0.10 | 0.20 | 0.68 | 0.30 | 0.53 | 0.27 | 0.73 | | 0.61 | 0.36 | |

Intersection Summary

| | |
|---|------------------------|
| Area Type: | Other |
| Cycle Length: | 90 |
| Actuated Cycle Length: | 74.3 |
| Natural Cycle: | 90 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.86 |
| Intersection Signal Delay: | 22.3 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 74.8% |
| ICU Level of Service: | D |
| Analysis Period (min): | 15 |
| # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. | |

Splits and Phases: 1: Eastonville Rd & Judge Orr Rd/Meridian Ranch Rd

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 |  Ø3 |  Ø4 |
| 13 s | 44.7 s | 9.8 s | 22.5 s |
|  Ø5 |  Ø6 |  Ø7 |  Ø8 |
| 11.4 s | 46.3 s | 9.5 s | 22.8 s |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.9 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↖ | ↗ | | ↔ | | ↖ | ↗ | | ↖ | ↗ | |
| Traffic Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 588 | 5 | 15 | 402 | 47 |
| Future Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 588 | 5 | 15 | 402 | 47 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 78 | 78 | 78 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 1 | 18 | 6 | 6 | 9 | 11 | 632 | 5 | 16 | 432 | 51 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1154 | 1149 | 458 | 1156 | 1172 | 635 | 483 | 0 | 0 | 637 | 0 | 0 |
| Stage 1 | 490 | 490 | - | 657 | 657 | - | - | - | - | - | - | - |
| Stage 2 | 664 | 659 | - | 499 | 515 | - | - | - | - | - | - | - |
| 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 | 174 | 198 | 603 | 174 | 192 | 478 | 1080 | - | - | 947 | - | - |
| Stage 1 | 560 | 549 | - | 454 | 462 | - | - | - | - | - | - | - |
| Stage 2 | 450 | 461 | - | 554 | 535 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 163 | 193 | 603 | 165 | 187 | 478 | 1080 | - | - | 947 | - | - |
| Mov Cap-2 Maneuver | 163 | 193 | - | 165 | 187 | - | - | - | - | - | - | - |
| Stage 1 | 554 | 540 | - | 449 | 457 | - | - | - | - | - | - | - |
| Stage 2 | 431 | 456 | - | 527 | 526 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 27.4 | | 21.7 | | 0.1 | | 0.3 | |
| HCM LOS | D | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SELn2 | SWL | SWT | SWR |
|-----------------------|------|-----|----------|-------|-------|------|-------|-----|
| Capacity (veh/h) | 1080 | - | - | 237 | 164 | 603 | 947 | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 0.092 | 0.257 | 0.03 | 0.017 | - |
| HCM Control Delay (s) | 8.4 | - | - | 21.7 | 34.4 | 11.2 | 8.9 | - |
| HCM Lane LOS | A | - | - | C | D | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.3 | 1 | 0.1 | 0.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 588 | 5 | 15 | 402 | 47 |
| Future Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 588 | 5 | 15 | 402 | 47 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 78 | 78 | 78 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 1 | 18 | 6 | 6 | 9 | 11 | 632 | 5 | 16 | 432 | 51 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1154 | 1149 | 458 | 1156 | 1172 | 635 | 483 | 0 | 0 | 637 | 0 | 0 |
| Stage 1 | 490 | 490 | - | 657 | 657 | - | - | - | - | - | - | - |
| Stage 2 | 664 | 659 | - | 499 | 515 | - | - | - | - | - | - | - |
| 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 | 174 | 198 | 603 | 174 | 192 | 478 | 1080 | - | - | 947 | - | - |
| Stage 1 | 560 | 549 | - | 454 | 462 | - | - | - | - | - | - | - |
| Stage 2 | 450 | 461 | - | 554 | 535 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 163 | 193 | 603 | 165 | 187 | 478 | 1080 | - | - | 947 | - | - |
| Mov Cap-2 Maneuver | 163 | 193 | - | 165 | 187 | - | - | - | - | - | - | - |
| Stage 1 | 554 | 540 | - | 449 | 457 | - | - | - | - | - | - | - |
| Stage 2 | 431 | 456 | - | 527 | 526 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 28.9 | | 21.7 | | 0.1 | | 0.3 | |
| HCM LOS | D | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|------|-----|----------|-------|-------|-------|-----|
| Capacity (veh/h) | 1080 | - | - | 237 | 210 | 947 | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 0.092 | 0.287 | 0.017 | - |
| HCM Control Delay (s) | 8.4 | - | - | 21.7 | 28.9 | 8.9 | - |
| HCM Lane LOS | A | - | - | C | D | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.3 | 1.1 | 0.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | ↔ | | ↔ | | ↔ | ↔ | | ↔ | ↔ | |
| Traffic Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 806 | 5 | 15 | 564 | 47 |
| Future Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 806 | 5 | 15 | 564 | 47 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 78 | 78 | 78 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 1 | 18 | 6 | 6 | 9 | 11 | 867 | 5 | 16 | 606 | 51 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1563 | 1558 | 632 | 1565 | 1581 | 870 | 657 | 0 | 0 | 872 | 0 | 0 |
| Stage 1 | 664 | 664 | - | 892 | 892 | - | - | - | - | - | - | - |
| Stage 2 | 899 | 894 | - | 673 | 689 | - | - | - | - | - | - | - |
| 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 | 91 | 112 | 480 | 90 | 109 | 351 | 931 | - | - | 773 | - | - |
| Stage 1 | 450 | 458 | - | 337 | 360 | - | - | - | - | - | - | - |
| Stage 2 | 334 | 360 | - | 445 | 446 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 82 | 108 | 480 | 84 | 105 | 351 | 931 | - | - | 773 | - | - |
| Mov Cap-2 Maneuver | 82 | 108 | - | 84 | 105 | - | - | - | - | - | - | - |
| Stage 1 | 445 | 448 | - | 333 | 356 | - | - | - | - | - | - | - |
| Stage 2 | 316 | 356 | - | 418 | 437 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|----|--|-----|--|-----|--|
| HCM Control Delay, s | 64.5 | | 37 | | 0.1 | | 0.2 | |
| HCM LOS | F | | E | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SELn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 931 | - | - | 134 | 83 | 480 | 773 | - |
| HCM Lane V/C Ratio | 0.012 | - | - | 0.163 | 0.508 | 0.038 | 0.021 | - |
| HCM Control Delay (s) | 8.9 | - | - | 37 | 86.6 | 12.8 | 9.8 | - |
| HCM Lane LOS | A | - | - | E | F | B | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.6 | 2.2 | 0.1 | 0.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.3 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↕ | | | ↕ | | ↕ | ↕ | | ↕ | ↕ | |
| Traffic Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 806 | 5 | 15 | 564 | 47 |
| Future Vol, veh/h | 34 | 1 | 15 | 5 | 5 | 7 | 10 | 806 | 5 | 15 | 564 | 47 |
| 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 | - | - | - | - | - | - | 50 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 83 | 83 | 83 | 78 | 78 | 78 | 93 | 93 | 93 | 93 | 93 | 93 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 1 | 18 | 6 | 6 | 9 | 11 | 867 | 5 | 16 | 606 | 51 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1563 | 1558 | 632 | 1565 | 1581 | 870 | 657 | 0 | 0 | 872 | 0 | 0 |
| Stage 1 | 664 | 664 | - | 892 | 892 | - | - | - | - | - | - | - |
| Stage 2 | 899 | 894 | - | 673 | 689 | - | - | - | - | - | - | - |
| 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 | 91 | 112 | 480 | 90 | 109 | 351 | 931 | - | - | 773 | - | - |
| Stage 1 | 450 | 458 | - | 337 | 360 | - | - | - | - | - | - | - |
| Stage 2 | 334 | 360 | - | 445 | 446 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 82 | 108 | 480 | 84 | 105 | 351 | 931 | - | - | 773 | - | - |
| Mov Cap-2 Maneuver | 82 | 108 | - | 84 | 105 | - | - | - | - | - | - | - |
| Stage 1 | 445 | 448 | - | 333 | 356 | - | - | - | - | - | - | - |
| Stage 2 | 316 | 356 | - | 418 | 437 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|----|--|-----|--|-----|--|
| HCM Control Delay, s | 71.7 | | 37 | | 0.1 | | 0.2 | |
| HCM LOS | F | | E | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | SELn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|----------|-------|-------|-------|-----|
| Capacity (veh/h) | 931 | - | - | 134 | 110 | 773 | - |
| HCM Lane V/C Ratio | 0.012 | - | - | 0.163 | 0.548 | 0.021 | - |
| HCM Control Delay (s) | 8.9 | - | - | 37 | 71.7 | 9.8 | - |
| HCM Lane LOS | A | - | - | E | F | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.6 | 2.6 | 0.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 92.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↘ | ↗ | ↘ | | ↗ | ↘ | | ↗ | ↘ | | ↗ | ↘ |
| Traffic Vol, veh/h | 83 | 345 | 60 | 160 | 477 | 114 | 100 | 15 | 95 | 124 | 15 | 132 |
| Future Vol, veh/h | 83 | 345 | 60 | 160 | 477 | 114 | 100 | 15 | 95 | 124 | 15 | 132 |
| 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 | 385 | - | 235 | - | - | 235 | - | - | 0 | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 93 | 93 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 90 | 375 | 65 | 174 | 513 | 123 | 115 | 17 | 109 | 143 | 17 | 152 |

| Major/Minor | Major1 | | Major2 | | Minor1 | | Minor2 | | | | | |
|----------------------|--------|---|--------|------|--------|---|--------|------|------|------|------|------|
| Conflicting Flow All | 636 | 0 | 0 | 440 | 0 | 0 | 1168 | 1539 | 188 | 1237 | 1481 | 257 |
| Stage 1 | - | - | - | - | - | - | 555 | 555 | - | 861 | 861 | - |
| Stage 2 | - | - | - | - | - | - | 613 | 984 | - | 376 | 620 | - |
| Critical Hdwy | 4.14 | - | - | 4.14 | - | - | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.54 | 5.54 | - | 6.54 | 5.54 | - |
| Follow-up Hdwy | 2.22 | - | - | 2.22 | - | - | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 |
| Pot Cap-1 Maneuver | 943 | - | - | 1116 | - | - | 149 | 115 | 822 | ~132 | 124 | 742 |
| Stage 1 | - | - | - | - | - | - | 484 | 511 | - | 317 | 371 | - |
| Stage 2 | - | - | - | - | - | - | 446 | 325 | - | 617 | 478 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 943 | - | - | 1116 | - | - | ~76 | 78 | 822 | ~72 | 85 | 742 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~76 | 78 | - | ~72 | 85 | - |
| Stage 1 | - | - | - | - | - | - | 438 | 462 | - | 287 | 280 | - |
| Stage 2 | - | - | - | - | - | - | 251 | 245 | - | 466 | 433 | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|-----|--|-------|--|----------|--|
| HCM Control Delay, s | 1.6 | | 1.9 | | 263.6 | | \$ 348.2 | |
| HCM LOS | | | | | F | | F | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|----------|-------|-------|-----|-----|-------|-----|-----|----------|-------|
| Capacity (veh/h) | 76 | 822 | 943 | - | - | 1116 | - | - | 73 | 742 |
| HCM Lane V/C Ratio | 1.739 | 0.133 | 0.096 | - | - | 0.156 | - | - | 2.189 | 0.204 |
| HCM Control Delay (s) | \$ 473.1 | 10 | 9.2 | - | - | 8.8 | - | - | \$ 668.3 | 11.1 |
| HCM Lane LOS | F | B | A | - | - | A | - | - | F | B |
| HCM 95th %tile Q(veh) | 11.4 | 0.5 | 0.3 | - | - | 0.6 | - | - | 14.9 | 0.8 |

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

HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

2040 Background + Site
PM -- Moderate-Growth

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | | | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 10 | 0 | 10 | 29 | 0 | 98 | 25 | 558 | 110 | 51 | 354 | 20 |
| Future Vol, veh/h | 10 | 0 | 10 | 29 | 0 | 98 | 25 | 558 | 110 | 51 | 354 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | 50 | - | 155 | 155 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 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 | 13 | 0 | 13 | 33 | 0 | 113 | 27 | 600 | 118 | 55 | 385 | 22 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1276 | 1278 | 396 | 1167 | 1171 | 600 | 407 | 0 | 0 | 718 | 0 | 0 |
| Stage 1 | 506 | 506 | - | 654 | 654 | - | - | - | - | - | - | - |
| Stage 2 | 770 | 772 | - | 513 | 517 | - | - | - | - | - | - | - |
| 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 | 144 | 166 | 653 | 171 | 193 | 501 | 1152 | - | - | 883 | - | - |
| Stage 1 | 549 | 540 | - | 456 | 463 | - | - | - | - | - | - | - |
| Stage 2 | 393 | 409 | - | 544 | 534 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 104 | 152 | 653 | 157 | 177 | 501 | 1152 | - | - | 883 | - | - |
| Mov Cap-2 Maneuver | 104 | 152 | - | 157 | 177 | - | - | - | - | - | - | - |
| Stage 1 | 536 | 507 | - | 446 | 452 | - | - | - | - | - | - | - |
| Stage 2 | 297 | 400 | - | 500 | 501 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 28.4 | | 18.8 | | 0.3 | | 1.1 | |
| HCM LOS | D | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | WBLn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1152 | - | - | 179 | 157 | 501 | 883 | - | - |
| HCM Lane V/C Ratio | 0.023 | - | - | 0.143 | 0.212 | 0.225 | 0.063 | - | - |
| HCM Control Delay (s) | 8.2 | - | - | 28.4 | 34 | 14.3 | 9.3 | - | - |
| HCM Lane LOS | A | - | - | D | D | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.5 | 0.8 | 0.9 | 0.2 | - | - |

HCM 6th TWSC
3: Eastonville Rd & Copenhagen Rd

2040 Background + Site
PM -- Moderate-Growth

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | | | ↔ | | ↗ | ↖ | ↗ | ↖ | ↗ | ↖ |
| Traffic Vol, veh/h | 10 | 0 | 10 | 29 | 0 | 98 | 25 | 558 | 110 | 51 | 354 | 20 |
| Future Vol, veh/h | 10 | 0 | 10 | 29 | 0 | 98 | 25 | 558 | 110 | 51 | 354 | 20 |
| 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 | - | - | - | - | - | - | 50 | - | 155 | 155 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 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 | 13 | 0 | 13 | 33 | 0 | 113 | 27 | 600 | 118 | 55 | 385 | 22 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1276 | 1278 | 396 | 1167 | 1171 | 600 | 407 | 0 | 0 | 718 | 0 | 0 |
| Stage 1 | 506 | 506 | - | 654 | 654 | - | - | - | - | - | - | - |
| Stage 2 | 770 | 772 | - | 513 | 517 | - | - | - | - | - | - | - |
| 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 | 144 | 166 | 653 | 171 | 193 | 501 | 1152 | - | - | 883 | - | - |
| Stage 1 | 549 | 540 | - | 456 | 463 | - | - | - | - | - | - | - |
| Stage 2 | 393 | 409 | - | 544 | 534 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 104 | 152 | 653 | 157 | 177 | 501 | 1152 | - | - | 883 | - | - |
| Mov Cap-2 Maneuver | 104 | 152 | - | 157 | 177 | - | - | - | - | - | - | - |
| Stage 1 | 536 | 507 | - | 446 | 452 | - | - | - | - | - | - | - |
| Stage 2 | 297 | 400 | - | 500 | 501 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 28.4 | | 23.9 | | 0.3 | | 1.1 | |
| HCM LOS | D | | C | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1152 | - | - | 179 | 334 | 883 | - | - |
| HCM Lane V/C Ratio | 0.023 | - | - | 0.143 | 0.437 | 0.063 | - | - |
| HCM Control Delay (s) | 8.2 | - | - | 28.4 | 23.9 | 9.3 | - | - |
| HCM Lane LOS | A | - | - | D | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.5 | 2.1 | 0.2 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | | ↔ | | | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Vol, veh/h | 10 | 0 | 10 | 29 | 0 | 98 | 25 | 775 | 110 | 51 | 516 | 20 |
| Future Vol, veh/h | 10 | 0 | 10 | 29 | 0 | 98 | 25 | 775 | 110 | 51 | 516 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | 50 | - | 155 | 155 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 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 | 13 | 0 | 13 | 33 | 0 | 113 | 27 | 833 | 118 | 55 | 561 | 22 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1685 | 1687 | 572 | 1576 | 1580 | 833 | 583 | 0 | 0 | 951 | 0 | 0 |
| Stage 1 | 682 | 682 | - | 887 | 887 | - | - | - | - | - | - | - |
| Stage 2 | 1003 | 1005 | - | 689 | 693 | - | - | - | - | - | - | - |
| 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 | 75 | 94 | 520 | 89 | 109 | 369 | 991 | - | - | 722 | - | - |
| Stage 1 | 440 | 450 | - | 339 | 362 | - | - | - | - | - | - | - |
| Stage 2 | 292 | 319 | - | 436 | 445 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 48 | 85 | 520 | 80 | 98 | 369 | 991 | - | - | 722 | - | - |
| Mov Cap-2 Maneuver | 48 | 85 | - | 80 | 98 | - | - | - | - | - | - | - |
| Stage 1 | 428 | 416 | - | 330 | 352 | - | - | - | - | - | - | - |
| Stage 2 | 197 | 310 | - | 393 | 411 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 61.9 | | 32.7 | | 0.2 | | 0.9 | |
| HCM LOS | F | | D | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NER | EBLn1 | WBLn1 | WBLn2 | SWL | SWT | SWR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 991 | - | - | 88 | 80 | 369 | 722 | - | - |
| HCM Lane V/C Ratio | 0.027 | - | - | 0.291 | 0.417 | 0.305 | 0.077 | - | - |
| HCM Control Delay (s) | 8.7 | - | - | 61.9 | 79 | 19 | 10.4 | - | - |
| HCM Lane LOS | A | - | - | F | F | C | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 1.1 | 1.7 | 1.3 | 0.2 | - | - |