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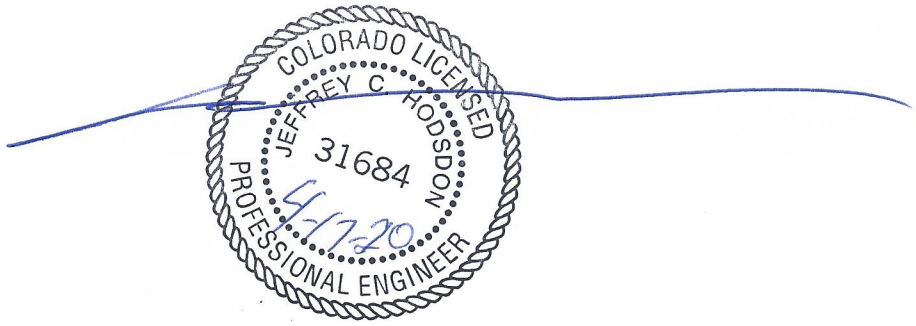
# Rolling Hills Ranch at Meridian Ranch
# PUDSP
# Traffic Impact Analysis
(LSC #194180)
PCD File No. PUDSP199
March 9, 2020

**Traffic Engineer's Statement**

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




**Developer's Statement**

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

4/17/20
Date

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March 9, 2020

Mr. Raul Guzman
Tech Contractors
P.O. Box 80036
San Diego, CA 92138

RE: Rolling Hills Ranch at Meridian Ranch
El Paso County, Colorado
Updated Traffic Impact Analysis
(Revised 4/17/2020)
LSC #194180

Dear Mr. Guzman:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated traffic impact analysis for the Rolling Hills Ranch at Meridian Ranch Filings 1, 2, and 3 in El Paso County, Colorado. As shown in Figure 1, the site is located generally south of Rex Road and west of Eastonville Road in El Paso County, Colorado. LSC completed a study for the recently approved Meridian Ranch Sketch Plan amendment. The supporting traffic report date is October 3, 2017.

**REPORT CONTENTS**

This report is being prepared as part of a submittal to El Paso County. It identifies the traffic impacts of the Rolling Hills Ranch at Meridian Ranch residential development. The report contains the following:

- The traffic count data and street conditions;
- Short-term and 2040 baseline/background traffic volume estimates;
- The projected average weekday and peak-hour vehicle-trips to be generated by the site;
- The assignment of the site's projected traffic volumes to the key area streets and intersections for the short and long term and the resulting total traffic volumes for the short and long term;
- The resulting traffic impacts including level of service analysis at the Rex Road intersections and the intersection of Meridian Road and Londonderry Drive (Please refer to the October 3, 2017 TIS report for the Sketch Plan Amendment for evaluation of the impacts at other Londonderry and Stapleton intersections);

- Recommendations for auxiliary turn lanes at access points and intersections on the proposed extension of Rex Road to Eastonville Road and the recommended street cross section and right-of-way;
- Queuing analysis at planned intersections on Rex Road;
- A traffic signal warrant analysis at Meridian Road/Rex Road;
- The recommended street classifications for the internal streets within the proposed development.

**Previous Traffic Reports Completed in the Area**

A list of other traffic studies in the study area completed within the past five years (that LSC is aware of) is attached for reference. This study accounts for the land use, trip generation, and the roadway network included in these studies.

**LAND USE AND ACCESS**

**Land Use**

Figure 2 shows the proposed site plan for the Rolling Hills Ranch at Meridian Ranch Filing Nos. 1, 2, and 3. The site is planned to include a total of 725 lots for single family homes.

As part of this development, Rex Road is planned to be constructed from its existing terminus at the intersection of Rex Road/Sunrise Ridge Drive to a proposed new full-movement intersection about 1,244 feet to the east. A full-movement access is proposed to Sunrise Ridge Drive about 400 feet south of Rex Road. Lambert Road would also be extended north to provide access to this development.

**Conformance to the 2017 Sketch Plan Amendment**

The currently proposed land use, internal circulation, connectivity, and access for this project is generally comparable to the 2017 Sketch Plan Amendment and the associated LSC traffic report dated October 3, 2017. Additional detail has been provided for Rex Road intersections to assist with design, as one of the access points has been removed since the Sketch Plan Amendment. Also, this report includes current evaluation of the signal warrants at Meridian/Rex. Please refer to the October 3, 2017 TIS report for the Sketch Plan Amendment for evaluation of the impacts at Londonderry and Stapleton intersections.

**Pedestrian Routes to Schools**

Figure 3 shows the potential pedestrian routes to schools within two miles of the site (Falcon High School, Meridian Ranch Elementary and a future school site located just north of Falcon High School). There are existing sidewalks along all paths and no major street crossings would be required.

**Sight Distance**

Figure 4 shows a sight distance analysis at the future intersection to Rex Road just east of Sunrise Ridge Drive. Based on a design speed of 40 miles per hour (mph) on Rex Road and the criteria contained in Table 2-21 of the ECM, the required intersection sight distance at the future intersection to Rex is 445 feet. Based on the criteria contained in Table 2-17 of the ECM, the required stopping sight distance approaching this intersection is 305 feet.

Figure 5 shows a sight distance analysis at the future site access to Sunrise Ridge Drive. Based on a design speed of 25 mph on Sunrise Ridge Drive and the criteria contained in Table 2-21 of the ECM, the required intersection sight distance at the site access is 280 feet. Based on the criteria contained in Table 2-17 of the ECM, the required stopping sight distance approaching the access point is 155 feet. As shown in Figure 5, these criteria can be met for both intersections

**ROADWAY AND TRAFFIC CONDITIONS**

**Area Roadways**

The major roadways in the site's vicinity are shown in Figure 1 and are described below. Copies of the 2016 El Paso County Major Transportation Corridors Plan (MTCP) 2040 Roadway Plan and 2016 MTCP 2060 Corridor Preservation Plan with the site location identified on them have been attached to this report.

- **Rex Road** extends east from Goodson Road to Pyramid Peak Drive within the Meridian Ranch development. The posted speed limit on Rex Road is 45 miles per hour (mph) between Meridian Road and Mt. Gateway Drive and 35 mph east of Mt. Gateway Drive. Rex Road will be extended east to Eastonville Road in the intermediate term, as shown on the 2016 MTCP 2040 Roadway Plan, and may ultimately be extended to US Highway 24 (US Hwy 24), as shown on the 2016 MTCP 2060 Corridor Preservation Plan. The extension of Rex Road east of Eastonville Road is in the planning process as part of the Grandview Reserve development located southeast of the future intersection of Eastonville/Rex. It is anticipated that this roadway segment would be installed prior to 2040. Rex Road is classified as a 4-Lane Minor Arterial roadway by El Paso County. Rex Road was previously shown as a Collector roadway in older versions of the MTCP. A copy of the 2040 MTCP Roadway plan from the *El Paso County 2040 Major Transportation Corridors Plan* adopted October 4, 2011 has been attached.

  Regarding the existing Urban Collector cross section in the vicinity of Pyramid Peak Drive, at the time of application and approval of Meridian Ranch Estates Filing 2, Rex Road was classified as a Collector on the MTCP. It is our understanding that as part of the final plat process for Estates Filing No. 2, the County and GTL Development agreed that the four-lane cross section, built with the initial section of Rex Road east of Meridian, did not need to be

carried farther east. As such, an agreement was reached to construct a County-standard Urban Residential Collector cross section.

- **Meridian Road** extends north from South Blaney Road to County Line Road. The posted speed limit on Meridian Road in the vicinity of Rex Road is 55 mph. Meridian Road is shown as a four-lane Principal Arterial south of Rex Road, a four-lane Minor Arterial north of Rex Road, and a two-lane Minor Arterial north of Murphy Road on the El Paso County *Major Transportation Corridors Plan (MTCP)*.

- **Eastonville Road** is shown as a two-lane Minor Arterial on the El Paso County *Major Transportation Corridors Plan (MTCP)*. Eastonville Road is a two-lane roadway extending northeast from Meridian Road past Hodgen Road. The posted speed limit on Eastonville Road north of Londonderry Road is 45 mph. The Eastonville Road cross section south of Stapleton Drive is consistent with a two-lane Urban Collector cross section. The section north of Stapleton Drive has been identified as a two-lane Rural Minor Arterial on the MTCP. However, the actual design has yet to be completed and the design could potentially identify a cross section different from the standard ECM Rural Minor Arterial cross section.

**Existing Traffic Volumes**

Figure 6 shows the existing traffic volumes at the intersections of Meridian Road/Rex Road and Meridian/Londonderry. These volumes are based on manual intersection turning movement counts conducted by LSC in March 2019 and February 2020. The count data sheets are attached for reference.

**Existing Levels of Service**

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

**Table 1: Level of Service Delay Ranges**

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

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

Figure 6 presents the results of the existing intersection level of service analysis. The levels of service for the intersection of Meridian/Rex are based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The levels of service for the intersection of Londonderry/Meridian are based on the Synchro signalized intersection procedures. The level of service reports are attached.

The intersection of Rex Road and Meridian Road is currently two-way, stop sign-controlled. The westbound left-turn movement at this intersection is currently operating at LOS F during the morning and afternoon peak hours.

All movements at the signalized intersection of Meridian/Londonderry is currently operating at an overall LOS C or better during the peak hours.

**BACKGROUND TRAFFIC**

Background traffic is the traffic estimated to be on the study area streets without consideration of the proposed development. It includes through traffic and traffic generated by adjacent/nearby developments.

Figure 7 shows the projected background traffic volumes for the short term. These background traffic volumes have been based on the existing traffic volumes (from Figure 6) plus estimates of additional traffic due to buildout of residential filings within Meridian Ranch that are either approved or currently under review including Meridian Ranch Filing 9, Meridian Ranch Estates, and the Estates at Rolling Hills Ranch Filing 1. The short-term background traffic volumes do not include traffic from Rolling Hills Ranch at Meridian Ranch. The short-term background analysis assumes Rex Road has been extended east to the proposed full-movement intersection just east of Sunrise Ridge Drive only.

Figure 8 shows the projected 20-year background traffic volumes for the year 2040. The 2040 background/baseline traffic volumes are based on the *Meridian Ranch Sketch Plan Amendment Traffic Impact Analysis* dated October 3, 2017 and assume buildout of the Meridian Ranch development and other known approved developments within the vicinity of the site including Grandview Reserve, Waterbury, and The Trails. The 2040 background traffic volumes do not include traffic from Rolling Hills Ranch at Meridian Ranch Filing Nos 1, 2, and 3.

**TRIP GENERATION**

The site-generated vehicle-trips were estimated using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 2 shows the trip generation estimates by phase.

Rolling Hills Ranch at Meridian Ranch Filing Nos. 1, 2, and 3 is expected to generate about 6,844 vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 a.m. and 8:30 a.m., about 134 vehicles would enter and 402 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 a.m. and 6:15 p.m., about 452 vehicles would enter and 266 vehicles would exit the site.

**DIRECTIONAL DISTRIBUTION**

The directional distribution of the site-generated traffic volumes on the area roadways is an important factor in determining the site's traffic impacts. Figure 9 shows the short-term and long-term external directional distribution estimates for the site-generated traffic volumes. The estimates have been based on the following factors: the recent traffic count data; the site's location with respect to the nearby employment, commercial, and activity centers and the balance of the Falcon and Colorado Springs metropolitan area; the site's proposed land use; the site's proposed access points; and the phasing of the existing and future roadway system serving the site. The short-term distribution assumes the existing area street network with Rex Road extended east to the proposed full-movement intersection just east of Sunrise Ridge Drive only and Lambert Road completed between the south boundary of the site and Stapleton Drive. The long-term distribution is based on the distribution estimate shown in the study for the most recent Meridian Ranch Sketch Plan amendment dated October 3, 2017 and takes into account the future extension of Stapleton west to Briargate Parkway and extension of Rex Road east to US Hwy 24.

**SITE-GENERATED TRAFFIC**

The site-generated traffic volumes were calculated by applying the directional distribution percentages (from Figure 9) to the trip generation estimates from Table 2. The traffic assignment to the street network was made by first dividing the site into ten traffic analysis zones (see Exhibit 1). The traffic projected to be generated by each zone to and from areas outside of Meridian Ranch was then assigned to the street network based on the shortest path. For

example, based on the planned internal street network, vehicles generated by homes within the northern traffic analysis zones wishing to travel to and from south were assumed to use Rex Road rather than travel through the neighborhood to Lambert Road. Internal trips within the overall Meridian Ranch development have been assigned separately based on the location of the neighborhood commercial parcel, schools, parks, and community centers. Appendix Table 2 shows the percentage of the total traffic generated by each traffic analysis zone that was assigned to each of the approaches to the site. Figures 10 and 11 show the projected short-term and long-term site-generated traffic volumes, respectively.

**TOTAL TRAFFIC**

Figure 12 shows the projected short-term total traffic volumes. The short-term total traffic volumes are the sum of the short-term background traffic volumes (from Figure 7) plus the short-term site-generated traffic volumes from Figure 10.

Figure 13 shows the projected 2040 total traffic volumes. The 2040 total traffic volumes are the sum of the 2040 background traffic volumes (from Figure 8) plus the 2040 site-generated traffic volumes from Figure 11.

**PROJECTED LEVELS OF SERVICE**

The key area intersections and site access points have been analyzed to determine the projected future levels of service based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board and Synchro signalized intersection procedures. Figures 7, 8, 12 and 13 show the level of service analysis results. The laneage and traffic control assumed in the analysis are depicted on the figures. The level of service reports are attached.

**Meridian/Rex**

The intersection of Meridian/Rex is currently two-way, stop sign-controlled. The westbound left-turn movement at this intersection is currently operating at a LOS F during the morning and afternoon peak hours. If this intersection were to be converted to signal control, all movements are projected to operate at LOS D or better during the peak hours, based on the projected short-term and 2040 total traffic volumes.

**Meridian/Londonderry**

All movements at the signalized intersection of Meridian/Londonderry are projected to operate at LOS D or better during the peak hour, based on the projected short-term and 2040 total traffic volumes.

**Sunrise Ridge/Rex and Site Access/Rex**

The intersection of Sunrise Ridge/Rex and the proposed full-movement intersection to the east are projected to operate at a LOS C or better for all movements as two-way, stop sign-controlled intersections based on the projected short-term and 2040 total peak hour traffic volumes.

**Eastonville/Rex**

Rex Road is planned to be extended east to the proposed full-movement intersection just east of Sunrise Ridge Drive only in the short term. By 2040 it was assumed that Rex Road would be extended east to US Hwy 24. The intersection of Eastonville/Rex is projected to operate at LOS D or better for all movements as a stop sign-controlled intersection based on the projected 2040 total peak hour traffic volumes.

**QUEUING ANALYSIS**

A queuing analysis was performed using Synchro/SimTraffic for Rex Road between the currently proposed full-movement intersection on the south side of Rex Road about 1,244 feet east of Sunrise Ridge Drive and a future intersection on the north side of Rex Road about 560 feet further east. The 2040 total morning and afternoon peak-hour traffic volumes were entered into the Synchro model. The simulation was run five times and the results were averaged. The queuing reports are attached.

The projected maximum westbound left-turn queue on Rex Road approaching the currently proposed full-movement intersection is 28 feet during the morning peak hour and 54 feet during the afternoon peak hour. The projected maximum eastbound left-turn queue length on Rex Road approaching the future full-movement intersection is 31 feet during the morning peak hour and 54 feet during the afternoon peak hour. The projected queues could be accommodated within the proposed 560 foot spacing between these two intersections.

**TRAFFIC SIGNAL WARRANT ANALYSIS**

Provide all warrant analysis or explain why a specific warrant analysis is not applicable.

**Rex/Meridian**

The intersection of Rex Road and Meridian Road was analyzed to determine if a traffic signal warrant, based on either vehicular volume or crash history, is either currently met or would be met in the short term.

**Note: The County approved a contract with AECOM approved in July to prepare a traffic study for Meridian Road just north of the Rex Road/Meridian Road intersection. It is our understanding that the purpose of this study is primarily to address the vertical profile of Meridian road as it affects the intersection sight distance at the Meridian Road/Rex Road intersection. The services include project coordination, project management, traffic study**

**update, concept update, and preliminary design. Optional/Additional services may include final design, property acquisition and/or engineering support during the construction phase.**

Vehicular Volume Traffic Signal Warrants

The combination of major street approach volumes (includes the sum of northbound and southbound approach volumes) and minor street volumes (eastbound and westbound approaches analyzed separately) at the subject intersection were analyzed to determine if the combination currently exceeds or would exceed the threshold criteria for Eight-Hour and/or Four-Hour Vehicular Volume Traffic Signal Warrants in the *2009 Manual on Uniform Traffic Control Devices* (MUTCD). Table 3 shows the warrant evaluation.

Five of the eight hours analyzed currently meet the thresholds for both a Four-Hour Vehicular Volume Warrant. These same five hours currently meet the criteria for an Eight Hour Vehicular Volume Warrant based on Condition B – Interruption of Continuous Traffic. All eight hours analyzed could potentially meet the Condition B criteria with growth of through traffic on Meridian Road and the projected additional traffic on Rex Road due to buildout of the approved Meridian Ranch residential filings. All eight hours analyzed are projected to meet the Condition A – Minimum Vehicular Volume once the currently proposed Rolling Hills Ranch at Meridian Ranch Filing Nos. 1, 2, and 3 are built out.

Warrant 7 Analysis (Crash Experience)

The following is from the MUTCD:

> *Support:*
> *01 The Crash Experience signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.*
> *Standard:*
> *02 The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:*
> *A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and*
> *B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and*
> *C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the*

> *Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.*

The Colorado State Patrol provided LSC with crash data for the intersection of Rex Road and Meridian Road from 2016 through 2018. There were five reported crashes at this intersection in 2018. Four of the crashes would clearly be considered susceptible to correction by a traffic control signal. The fifth crash was a rear end crash involving two eastbound vehicles that could potentially also be susceptible to correction by a traffic control signal. A sixth crash occurred two weeks outside of the 12-month window that would be susceptible to correction by a traffic control signal. A copy of these data is attached for reference.

Based on analysis of the available data, item B above has likely been satisfied, as five crashes susceptible to correction by a traffic control signal were reported in a twelve-month period. Item C is also currently satisfied. Item A would likely be reviewed by AECOM as part of their contracted work with El Paso County. Based on the analysis contained in this report, this would be the final remaining item before the warrant is satisfied.

As this Rolling Hills subdivision develops, further evaluation will occur with each plat submittal. Each plat study would project if, based on short term baseline plus site-generated traffic projections, a signal would likely be warranted or would be close to meeting warrants. The study would estimate timing based on occupied dwelling units and subsequently recommend a monitoring program for traffic volumes, crash history and other factors such that a signal construction could commence once warrants are met based on actual data in the field. Following the acceptance of the final plat traffic report finding that a signal is likely to meet warrants in the short term, the applicant will begin the design plans for the traffic control signal and obtain County approval. Therefore, once warrants are met in the field, the signal can be installed. The study should make a recommendation regarding the timing for placing order(s) for materials such as signal poles, which may have long lead times.

**Londonderry/Lambert**

The signal warrants for this intersection were addressed in the 2017 Sketch Plan Amendment TIS report. The following is an excerpt from that report:

> *As shown in the Table 7, the thresholds for a Four-Hour Vehicular Volume Traffic Signal Warrant are not projected to be exceeded based on the morning peak and afternoon peak hours until full buildout of the Meridian Ranch development. It should be noted that these volumes do not include traffic projected to be generated by school to be located north of Falcon High School. All-way stop-sign control may be needed in the short term.*

It is our understanding that the AWSC was approved with WindingWalk and the intersection will be converted to all-way, stop sign control in the Spring 2020 with the completion of Lambert

Road between Stapleton Drive and Londonderry Drive. As this Rolling Hills subdivision develops, evaluation will occur with each plat submittal. Each plat study would project if, based on short-term baseline plus site-generated traffic projections, a signal would likely be warranted or would be close to meeting warrants. The study would estimate timing based on occupied dwelling units and subsequently recommend a monitoring program for traffic volumes, crash history and other factors such that a signal construction could commence once warrants are met, based on actual data in the field. Following the acceptance of the final plat traffic report finding that a signal is likely to meet warrants in the short term, the applicant will begin the design plans for the traffic control signal and obtain County approval. Therefore, once warrants are met in the field, the signal can be installed. The study should make a recommendation regarding the timing for placing order(s) for materials such as signal poles, which may have long lead times.

## CONCLUSIONS AND RECOMMENDATIONS

### Trip Generation

- Rolling Hills Ranch at Meridian Ranch Filing Nos 1, 2, and 3 is expected to generate about 6,844 vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, about 134 vehicles would enter and 402 vehicles would exit the site. During the afternoon peak hour, about 452 vehicles would enter and 266 vehicles would exit the site.

### Required Improvements

- A list of all improvements in the vicinity of the site is presented in Table 4.

### Street Classifications

- Figure 14 shows the recommended internal street classifications based on the projected buildout traffic volumes for Rolling Hills Ranch at Meridian Ranch Filing Nos 1, 2 and 3.

### Intersection Traffic Control

- The intersection of Rex/Meridian is likely close to meeting a traffic signal.

- The intersection of Lambert/Londonderry is currently TWSC, but will be converted to AWSC once the Lambert connection to the Rainbow Bridge intersection is completed. In the future, this intersection may need to be signalized. Please refer to the “Traffic Signal Warrant Analysis” section above for details.

- As this Rolling Hills subdivision develops, evaluation of these two intersections will occur with each plat submittal. Each plat study would project if, based on short term baseline plus site-generated traffic projections, a signal(s) would likely be warranted or would be close to meeting warrants. The study would estimate timing based on occupied dwelling units and subsequently recommend a monitoring program for traffic volumes, crash history, and other factors such that a signal construction could commence once warrants are met, based on actual data in the field. Following the acceptance of the final plat traffic report finding that a signal is likely to meet warrants in the short term, the applicant will begin the design plans for the traffic control signal(s) and obtain County approval. Therefore, once warrants are met in the field, the signal(s) can be installed. The study should make a recommendation regarding the timing for placing order(s) for materials such as signal poles, which may have long lead times.

**Anticipated Deviation Requests**

- A deviation may be needed to construct Rex Road as a two-lane Minor Arterial versus a four-lane Minor Arterial and any design elements not meeting criteria for a Minor Arterial that are associated with the connection to the existing section of Rex Road just to the west (due to limited ROW).

- A deviation for cul-de-sac length has been prepared (by Tech Contractors) and is included with this resubmittal.

**Transportation Improvement Fee Program**

- Rolling Hills Ranch at Meridian Ranch will not be required to participate in the Countywide Transportation Improvement Fee Program, as Meridian Ranch is located within **the Woodmen Road Metropolitan District.** Woodmen Road district fees would apply.

* * * * *

(This section left blank intentionally.)

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

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JCH:KDF:jas

Enclosures: Tables 2-4
Appendix Table 1-2
Figures 1-14
MTCP Maps
Traffic Count Reports
Level of Service Reports
Queuing Reports
Crash History
Exhibits

# Tables

TRANSPORTATION
CONSULTANTS, INC.

**Table 2**
**Trip Generation Estimate**
**Rolling Hills Ranch**

| Filing | Land Use Code | Land Use Description | Trip Generation Units | Trip Generation Rates [1] Average Weekday Traffic | Trip Generation Rates [1] Morning Peak Hour In | Trip Generation Rates [1] Morning Peak Hour Out | Trip Generation Rates [1] Afternoon Peak Hour In | Trip Generation Rates [1] Afternoon Peak Hour Out | Total Trips Generated Average Weekday Traffic | Total Trips Generated Morning Peak Hour In | Total Trips Generated Morning Peak Hour Out | Total Trips Generated Afternoon Peak Hour In | Total Trips Generated Afternoon Peak Hour Out |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 210 | Single-Family Detached Housing | 272 DU[2] | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 2,568 | 50 | 151 | 170 | 100 |
| 2 | 210 | Single-Family Detached Housing | 244 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 2,303 | 45 | 135 | 152 | 89 |
| 3 | 210 | Single-Family Detached Housing | 209 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 1,973 | 39 | 116 | 130 | 77 |
| | | | **725 DU** | | | | | | **6,844** | **134** | **402** | **452** | **266** |

Notes:
(1) Source: "*Trip Generation, 10th Edition, 2017*" by the Institute of Transportation Engineers (ITE)
(2) DU = dwelling units

*Source: LSC Transportation Consultants, Inc.*

**Table 3**
**Rolling Hills at Meridian Ranch**
**Traffic Signal Warrant Analysis of Rex Road/Meridian Road**

| | Traffic Volumes | | | | | | | | | | | | | | | Warrant 1, Eight Hour Vehicular Volume Evaluation[5] | | | | | | | | | | Warrant 2, Four Hour Vehicular Volume Evaluation[6] | | | | Warrant 7, Crash Experience[6] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Short-Term Background Traffic | | | | | | Short-Term Total Traffic | | | | | | Warrant Thresholds | | | | Warrant Threshold Met? | | | | | | | Warrant Threshold Met? | | | | Warrant Volume Thresholds | | | | Warrant Threshold Met? | | | | | |
| | Existing [1] | | | Buildout of Meridian Ranch Estates Fil 3 and Meridian Ranch Fil 9 | | | Existing + Approved | | | Rolling Hills Ranch at Meridian Ranch Fil 1-3 | | | Existing + Approved + Currently Proposed | | | Condition A (70%) | | Condition B (70%) | | Existing | | Short-Term Background | | Short-Term Total | | Warrant Threshold Minor Minimum | Existing | Existing + Approved + Currently Proposed | Short-Term Future | Condition A (56%) | | Condition B (56%) | | Existing | | Existing + Approved + Currently Proposed | | Short-Term Future | |
| Hour | Major[2] | EB[3] | WB[4] | Major | EB | WB | Major | EB | WB | Major | EB | WB | Major | EB | WB | Major | Minor | Major | Minor | A | B | A | B | A | B | | | | | Major | Minor | Major | Minor | A | B | A | B | A | B |
| **6:30 AM** | 783 | 80 | 192 | 5 | 2 | 18 | 788 | 85 | 210 | 12 | 3 | 49 | 800 | 85 | 259 | 350 | 105 | 525 | 53 | Yes | Yes | Yes | Yes | Yes | Yes | 62 | Yes | Yes | Yes | 336 | 84 | 504 | 42 | Yes | Yes | Yes | Yes | Yes | Yes |
| **7:30 AM** | 809 | 75 | 93 | 9 | 3 | 30 | 818 | 84 | 123 | 22 | 5 | 84 | 840 | 83 | 207 | 350 | 105 | 525 | 53 | No | Yes | Yes | Yes | Yes | Yes | 60 | Yes | Yes | Yes | 336 | 84 | 504 | 42 | Yes | Yes | Yes | Yes | Yes | Yes |
| **11:30 AM** | 472 | 82 | 75 | 16 | 5 | 13 | 488 | 98 | 88 | 58 | 11 | 42 | 546 | 98 | 130 | 350 | 105 | 525 | 53 | No | No | No | No | Yes | Yes | 135 | No | No | No | 336 | 84 | 504 | 42 | No | No | Yes | No | Yes | Yes |
| **12:30 PM** | 461 | 85 | 59 | 17 | 5 | 14 | 478 | 102 | 73 | 59 | 11 | 46 | 537 | 101 | 119 | 350 | 105 | 525 | 53 | No | No | No | No | Yes | Yes | 139 | No | No | No | 336 | 84 | 504 | 42 | Yes | No | Yes | No | Yes | Yes |
| **1:45 PM** | 471 | 71 | 51 | 21 | 6 | 16 | 492 | 92 | 67 | 75 | 14 | 51 | 567 | 91 | 118 | 350 | 105 | 525 | 53 | No | No | No | No | Yes | Yes | 135 | No | No | No | 336 | 84 | 504 | 42 | No | No | Yes | No | Yes | Yes |
| **2:45 PM** | 852 | 129 | 80 | 25 | 7 | 15 | 877 | 154 | 95 | 91 | 17 | 50 | 968 | 153 | 145 | 350 | 105 | 525 | 53 | Yes | Yes | Yes | Yes | Yes | Yes | 60 | Yes | Yes | Yes | 336 | 84 | 504 | 42 | Yes | Yes | Yes | Yes | Yes | Yes |
| **4:00 PM** | 693 | 159 | 61 | 31 | 9 | 19 | 724 | 190 | 80 | 113 | 21 | 62 | 837 | 189 | 142 | 350 | 105 | 525 | 53 | Yes | Yes | Yes | Yes | Yes | Yes | 71 | Yes | Yes | Yes | 336 | 84 | 504 | 42 | Yes | Yes | Yes | Yes | Yes | Yes |
| **5:00 PM** | 769 | 204 | 65 | 31 | 9 | 19 | 800 | 235 | 84 | 111 | 21 | 61 | 911 | 234 | 145 | 350 | 105 | 525 | 53 | Yes | Yes | Yes | Yes | Yes | Yes | 63 | Yes | Yes | Yes | 336 | 84 | 504 | 42 | Yes | Yes | Yes | Yes | Yes | Yes |
| | | | | | | | | | | | | | | | | | | | | 4 | 5 | 5 | 5 | 8 | 8 | | 5 | 5 | 5 | | | | | 6 | 5 | 8 | 5 | 8 | 8 |
| | | | | | | | | | | | | | | | | | | | | No | No | No | No | Yes | Yes | | Yes | Yes | Yes | | | | | No | No | Yes | No | Yes | Yes |

Notes:
(1) Based on counts by LSC in March 2019.
(2) Meridian Road northbound and southbound left-turn, through, and right-turn volumes.
(3) Rex Road Eastbound left-turn, through, and right-turn volumes.
(4) Rex Road Westbound left-turn and through volumes only. Right-Turn volumes have been excluded as there is an existing exclusive lane for this turning movement
(5) Thresholds are based on 1 lane on the major approach and 1 lane on the minor approach with the 70% factor used as the major street speed exceeds 40 mph.
(6) Note: The traffic volume threshold evaluation is only one of several elements of Warrant No. 7. Please refer to the report narrative for details.

*Source: LSC Transportation Consultants, Inc.*

## Table 4

**Rolling Hills Ranch at Meridian Ranch Filing Nos. 1, 2 and 3**

**Roadway Improvements**

| Item # | Improvement | Timing | Responsibility |
|---|---|---|---|
| | **Roadway Segment Improvements** | | |
| 1 | Eastonville Road - Rex Road to Latigo final grading and paving | TBD by EPC; PPRTA "A-List" Project | PPRTA(2) |
| 2 | Eastonville Road - Roadway Design - Stapleton to Rex Road | As per EPC direction | Meridian Ranch |
| 3 | Eastonville Road - Roadway Upgrade - Stapleton to Rex Road | TBD by EPC; PPRTA "A-List" Project | PPRTA(2) |
| 4 | Construct Rex Road as an Urban 2-Lane Minor Arterial from Sunrise Ridge Drive to the proposed east site access. | With this subdivision | Meridian Ranch |
| 5 | Construct Rex Road as an Urban 2-Lane Minor Arterial from the proposed east site access to Eastonville Road | With future Meridian Ranch subdivisions | Meridian Ranch |
| 6 | Rex Road from Eastonville Road to US 24 | With Grandview Estates | Grandview Estates |
| 7 | Meridian Road - Widen to provide two northbound and two southbound through lanes from just north of Indian Paint Trail to Murphy Road. | Shown on 2040 MTCP Roadway Plan | El Paso County |
| 8 | Construct Lambert Road as an Urban Residential Collector from current terminus to its planned terminus within the Rolling Hills Ranch at Meridian Ranch site | Rolling Hills Ranch at Meridian Ranch Filing No. 1 | Meridian Ranch |
| | **Rex/Meridian** | | |
| 9 | Rex/Meridian intersection traffic control (Traffic Signal) | As this Rolling Hills subdivision develops, evaluation will occur with each plat submittal. Each plat study would project if, based on short term baseline plus site-generated traffic projections, a signal would likely be warranted or would be close to meeting warrants. The study would estimate timing based on occupied dwelling units and subsequently recommend a monitoring program for traffic volumes, crash history and other factors such that a signal construction could commence once warrants are met based on actual data in the field. Following the acceptance of the final plat traffic report finding that a signal is likely to meet warrants in the short term, the applicant will begin the design plans for the traffic control signal and obtain County approval. Therefore, once warrants are met in the field the signal can be installed. The study should make a recommendation regarding the timing for placing order(s) for materials such as signal poles, which may have long lead times. | Applicant/El Paso County |
| | Potentially improve the vertical roadway profile on Meridian Road north of the intersection if the such an improvement in the vertical roadway profile would improve the sight distance and as a result, the safety of the intersection. | Currently under study by El Paso County | El Paso County |
| 10 | Potentially Improve the west leg of this intersection to improve lane alignment, potentially reduce the skew, provide separate left and right-turn lanes, and potentially other improvements (potentially including restriping/reconfigure the east leg as needed). If determined as part of the study by EPC that safety and operations would be improved as a result. | Currently under study by El Paso County; | El Paso County |
| | **Rex/Eastonville** | | |
| 11 | Include a northbound left-turn lane on Eastonville Road at Rex Road into the design of the Eastonville Road PPRTA project. | TBD by EPC; PPRTA "A-List" Project | PPRTA |
| 12 | Include a southbound right turn lane on Eastonville Road at Rex Road into the design of the Eastonville Road PPRTA project. | TBD by EPC; PPRTA "A-List" Project | PPRTA |
| 13 | Construct 205' eastbound left-turn plus 160' taper on Rex Road approaching Eastonville Road | To be included in the design and construction (lane will be included in roadway cross section). | Meridian Ranch |
| 14 | Reserve ROW for 155' eastbound right-turn deceleration lane plus 160 foot taper on Rex Road approaching Eastonville Road | With development of projects adjacent to this section of Rex Road | ROW Preservation ONLY - with development projects |
| | **Lambert/Londonderry** | | |
| 15 | Monitor traffic volumes, operations and crash reports at this intersection to identify any necessary traffic control changes (IE conversion to AWSC then signalization) as this subdivision develops. | As this Rolling Hills subdivision develops, evaluation will occur with each plat submittal. Each plat study would project if, based on short term baseline plus site-generated traffic projections, a signal would likely be warranted or would be close to meeting warrants. The study would estimate timing based on occupied dwelling units and subsequently recommend a monitoring program for traffic volumes, crash history and other factors such that a signal construction could commence once warrants are met based on actual data in the field. Following the acceptance of the final plat traffic report finding that a signal is likely to meet warrants in the short term, the applicant will begin the design plans for the traffic control signal and obtain County approval. Therefore, once warrants are met in the field the signal can be installed. The study should make a recommendation regarding the timing for placing order(s) for materials such as signal poles, which may have long lead times. | Meridian Ranch/EPC |
| | **Rex/Rolling Hills Ranch at Meridian Ranch Site Access** | | |
| 16 | Construct a 205-foot westbound left-turn lane plus 160-foot taper on Rex Road approaching the site access | Rolling Hills Ranch at Meridian Ranch Filing No. 1 | Meridian Ranch |

Notes:

(1) The design of Eastonville Road is being performed by the Meridian Ranch developer. The projected will be constructed by El Paso County as PPRTA project.

*Source: LSC Transportation Consultants, Inc. (3/9/2020)*

# Appendix Tables

TRANSPORTATION
CONSULTANTS, INC.

**Appendix Table 1**
**Area Trafffic Impact Studies by LSC**
**Rolling Hills Ranch Filing Nos. 1-3**

| Study | Date |
|---|---|
| **Meridian Ranch** | |
| Meridian Ranch Sketch Plan TIA | April 11, 2011 |
| Meridian Ranch Filing 11 Updated TIA | November 26, 2013 |
| Stonebridge at Meridian Ranch Filing No. 1 Updated TIA | April 23, 2014 |
| Stonebridge at Meridian Ranch Transportation Memorandum | July 28, 2015 |
| Meridian Ranch Filing 8 Updated TIA | December 23, 2014 |
| Meridian Ranch Filing 9 Updated TIA | May 21, 2015 |
| Meridian Ranch Sketch Plan 2015 Amendment TIA | July 30, 2015 |
| The Vistas at Meridian Ranch TIA | March 24, 2016 |
| Meridian Ranch Estates Filing No. 2 Transportation Memorandum | August 27, 2015 |
| The Vistas at Meridian Ranch Updated Transportation Memorandum | June 20, 2017 |
| Londonderry Drive Pedestrian Operations and Safety Study | February 8, 2017 |
| Stonebridge Filing 3 at Meridian Ranch Updated TIA | March 20, 2017 |
| Meridian Ranch Sketch Plan 2017 Amendment TIA | October 3, 2017 |
| WindingWalk at Meridian Ranch and The Enclave at Stonebridge at Meridian Ranch Updated Traffic Impact Analysis | May 10, 2018 |
| **Waterbury/4-Way Ranch** | |
| Waterbury PUD Development Plan Updated TIA | January 10, 2013 |
| Waterbury Preliminary Plan No. 1 Updated TIA | June 5, 2013 |
| Waterbury Phase 2 Preliminary Plan | August 3, 2017 |
| Waterbury Phase 1 Filing Nos. 2 and 3 | October 16, 2017 |
| Grandview Reserve Traffic Impact Analysis | January 11, 2019 |

*Source: LSC Transportation Consultants, Inc.*

**Appendix Table 2**
**Trip Assignment**
**Rolling Hills Ranch**

**ASSIGNMENT LONG TERM SITE-GENERATED TRAFFIC EXTERNAL TO MERIDIAN RANCH**

| Filing | Zone[(1)] | To/From the South on Sunset Ridge Drive | | To/From the West on Rex Road | | To/From the East on Rex Road | | To/From the South on Lambert Road | | To/From the New School Site East of Lambert Road | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fil 1 | 1 | 0 | 0% | 590 | 44% | 364 | 27% | 394 | 29% | 0 | 0% | 1348 |
| | 2 | 0 | 0% | 14 | 10% | 22 | 16% | 98 | 73% | 0 | 0% | 134 |
| | 3 | 0 | 0% | 78 | 10% | 8 | 1% | 686 | 89% | 0 | 0% | 772 |
| Fil 2 | 1 | 0 | 0% | 62 | 10% | 6 | 1% | 545 | 89% | 0 | 0% | 613 |
| | 2 | 0 | 0% | 26 | 10% | 2 | 1% | 235 | 89% | 0 | 0% | 263 |
| | 3 | 0 | 0% | 162 | 23% | 8 | 1% | 550 | 76% | 0 | 0% | 720 |
| | 4 | 0 | 0% | 130 | 31% | 4 | 1% | 288 | 68% | 0 | 0% | 422 |
| Fil 3 | 1 | 0 | 0% | 144 | 47% | 162 | 53% | 0 | 0% | 0 | 0% | 306 |
| | 2 | 0 | 0% | 218 | 41% | 216 | 40% | 104 | 19% | 0 | 0% | 538 |
| | 3 | 0 | 0% | 414 | 47% | 404 | 46% | 68 | 8% | 0 | 0% | 886 |
| TOTAL | | **0** | **0%** | **1838** | **31%** | **1196** | **20%** | **2968** | **49%** | **0** | **0%** | **6002** |

**LONG TERM ASSIGNMENT SITE-GENERATED TRAFFIC INTERNAL TO MERIDIAN RANCH**

| Filing | Zone | To/From the South on Sunset Ridge Drive | | To/From the West on Rex Road | | To/From the East on Rex Road | | To/From the South on Lambert Road | | To/From the New School Site East of Lambert Road | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fil 1 | 1 | 28 | 15% | 67 | 37% | 8 | 4% | 30 | 17% | 48 | 27% | 181 |
| | 2 | 0 | 0% | 0 | 0% | 0 | 0% | 13 | 72% | 5 | 28% | 18 |
| | 3 | 0 | 0% | 0 | 0% | 4 | 4% | 76 | 70% | 28 | 26% | 108 |
| Fil 2 | 1 | 4 | 5% | 0 | 0% | 4 | 5% | 58 | 66% | 22 | 25% | 88 |
| | 2 | 0 | 0% | 0 | 0% | 2 | 5% | 26 | 68% | 10 | 26% | 38 |
| | 3 | 4 | 4% | 0 | 0% | 4 | 4% | 67 | 66% | 26 | 26% | 101 |
| | 4 | 4 | 7% | 2 | 3% | 2 | 3% | 35 | 60% | 15 | 26% | 58 |
| Fil 3 | 1 | 6 | 14% | 17 | 40% | 2 | 5% | 7 | 16% | 11 | 26% | 43 |
| | 2 | 9 | 11% | 20 | 25% | 4 | 5% | 26 | 33% | 20 | 25% | 79 |
| | 3 | 10 | 8% | 44 | 35% | 6 | 5% | 34 | 27% | 32 | 25% | 126 |
| | | **65** | **8%** | **150** | **18%** | **36** | **4%** | **372** | **44%** | **217** | **26%** | **840** |

**LONG TERM ASSIGNMENT OF ALL SITE-GENERATED TRAFFIC**

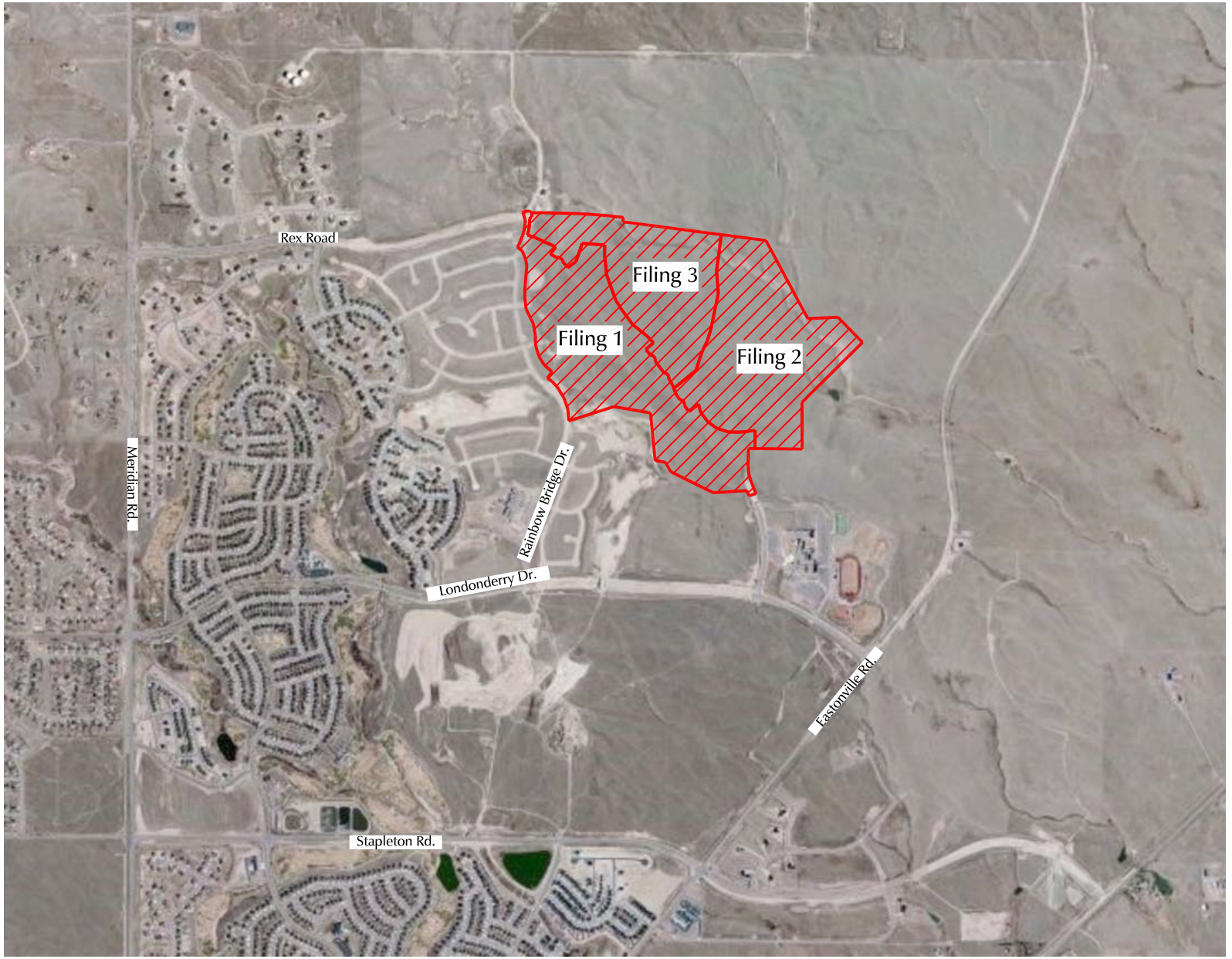
| Filing | Zone | To/From the South on Sunset Ridge Drive | | To/From the West on Rex Road | | To/From the East on Rex Road | | To/From the South on Lambert Road | | To/From the New School Site East of Lambert Road | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fil 1 | 1 | 28 | 2% | 657 | 43% | 372 | 24% | 424 | 28% | 48 | 3% | 1529 |
| | 2 | 0 | 0% | 14 | 9% | 22 | 14% | 111 | 73% | 5 | 3% | 152 |
| | 3 | 0 | 0% | 78 | 9% | 12 | 1% | 762 | 87% | 28 | 3% | 880 |
| Fil 2 | 1 | 4 | 1% | 62 | 9% | 10 | 1% | 603 | 86% | 22 | 3% | 701 |
| | 2 | 0 | 0% | 26 | 9% | 4 | 1% | 261 | 87% | 10 | 3% | 301 |
| | 3 | 4 | 0% | 162 | 20% | 12 | 1% | 617 | 75% | 26 | 3% | 821 |
| | 4 | 4 | 1% | 132 | 28% | 6 | 1% | 323 | 67% | 15 | 3% | 480 |
| Fil 3 | 1 | 6 | 2% | 161 | 46% | 164 | 47% | 7 | 2% | 11 | 3% | 349 |
| | 2 | 9 | 1% | 238 | 39% | 220 | 36% | 130 | 21% | 20 | 3% | 617 |
| | 3 | 10 | 1% | 458 | 45% | 410 | 41% | 102 | 10% | 32 | 3% | 1012 |
| | | **65** | **1%** | **1988** | **29%** | **1232** | **18%** | **3340** | **49%** | **217** | **3%** | **6842** |

Notes:
(1) See attached traffic analysis zone map

*Source: LSC Transportation Consultants, Inc.*

# Figures

TRANSPORTATION
CONSULTANTS, INC.




*Approximate Scale*
*Scale: 1"= 2,000'*

Figure 1

# Vicinity Map

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

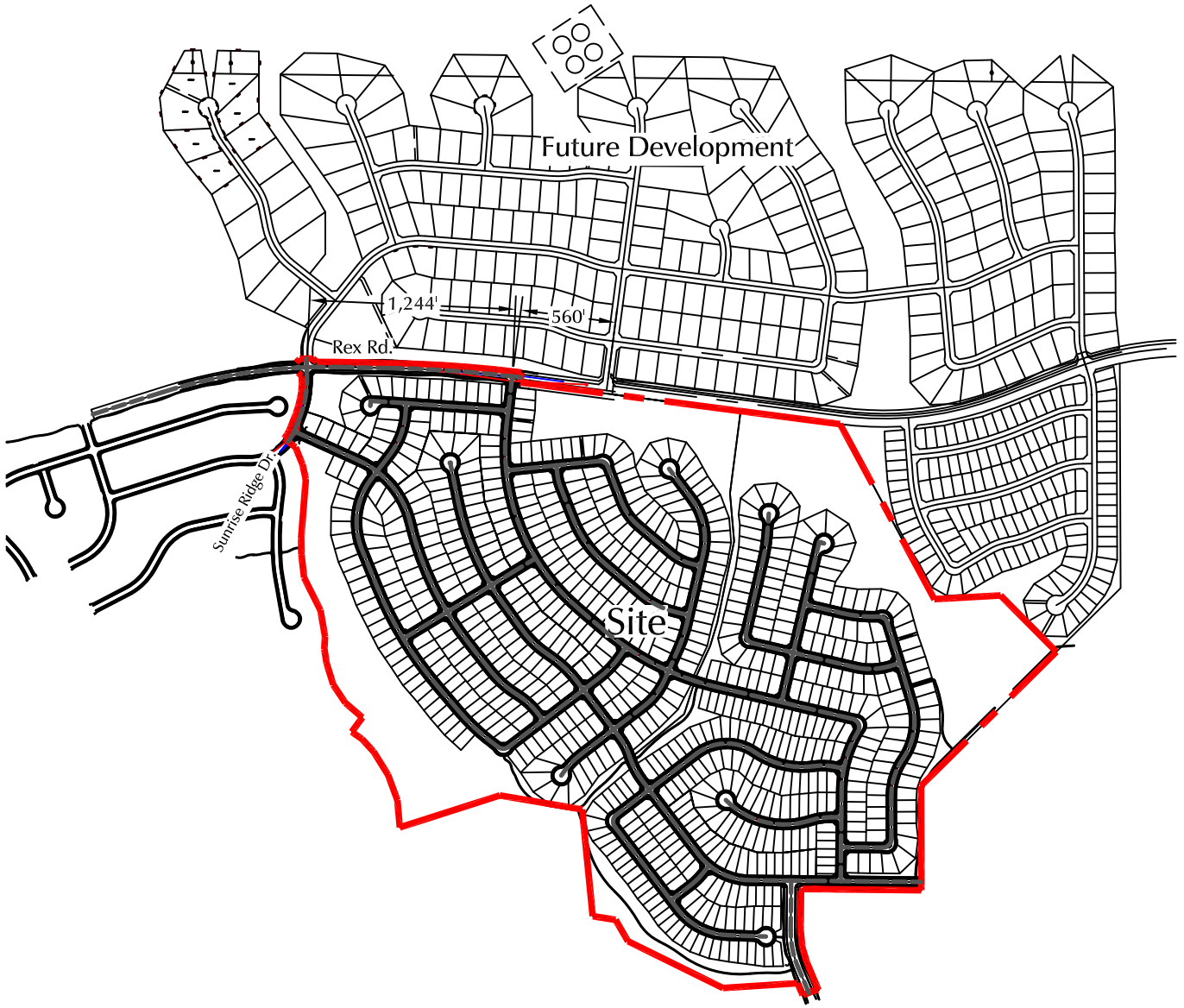



Figure 2

# Site Plan

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

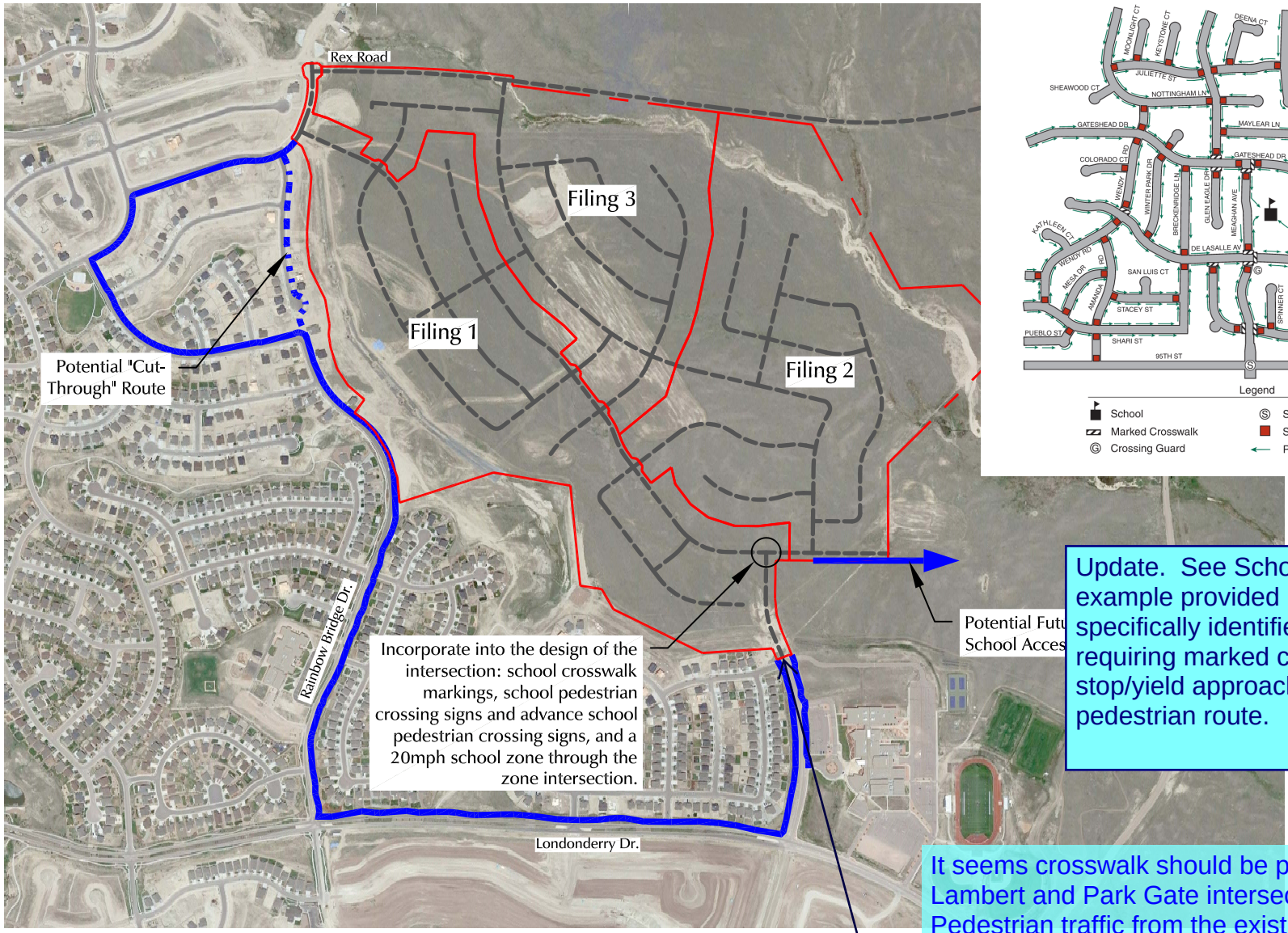



Figure 7A-1. Example of School Route Plan Map




Update. See School Route example provided in MUTCD. It specifically identifies the legs requiring marked cross walks, stop/yield approaches and the pedestrian route.

It seems crosswalk should be provided at Lambert and Park Gate intersection. Pedestrian traffic from the existing subdivision to the west appears to be funneled through this intersection and likely to cross at this intersection. Update the school route or update the narrative on page 3 to explain why crosswalk is not recommended at Lambert and Park Gate Drive.

LEGEND:

= Pedestrian Route

Figure 3
School
Pedestrian Routes
#194180)

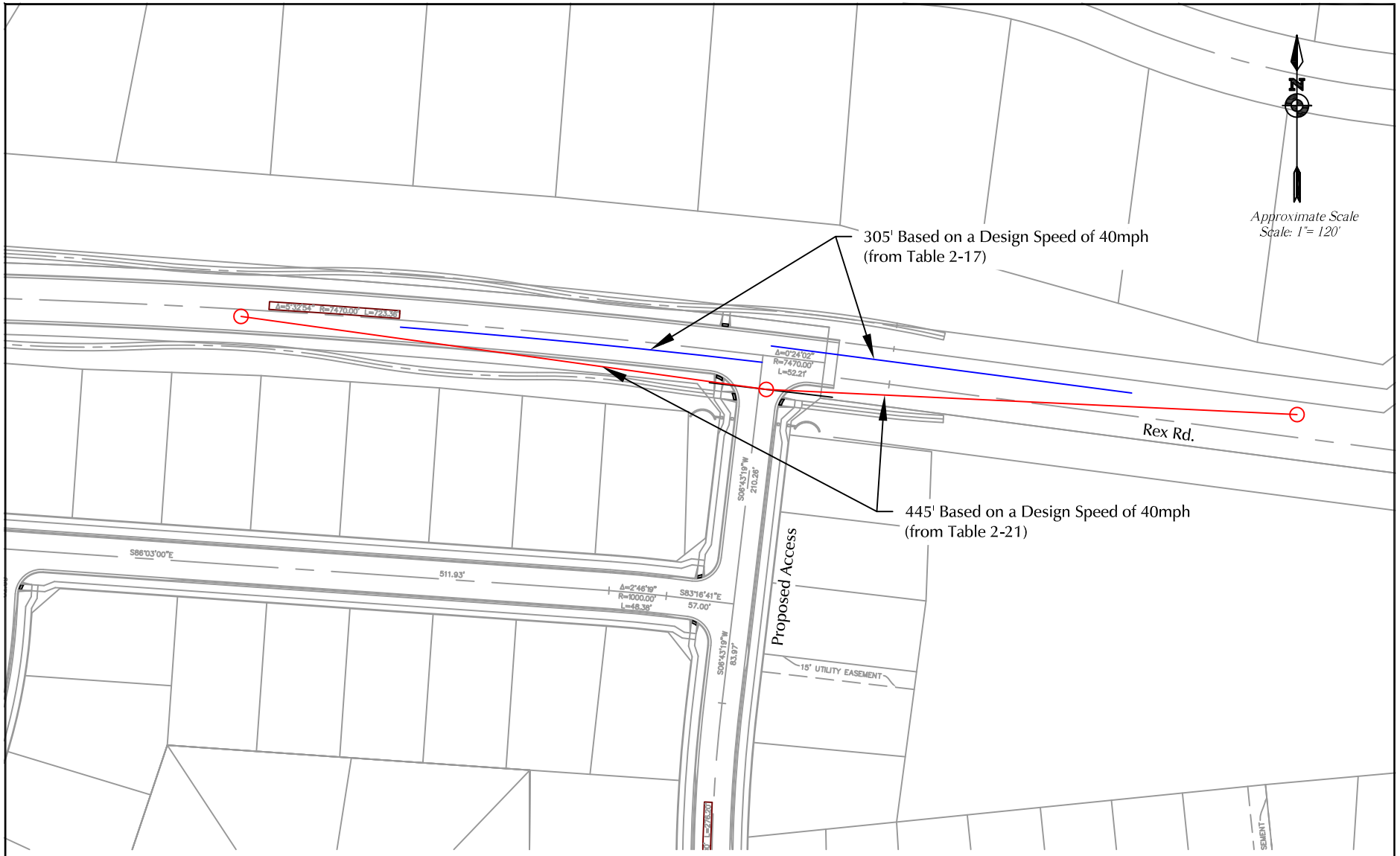



Figure 4

# Rex Road Sight Distance Analysis

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

LEGEND:

= ECM Required Intersection Sight Distance

= ECM Required Stopping Sight Distance

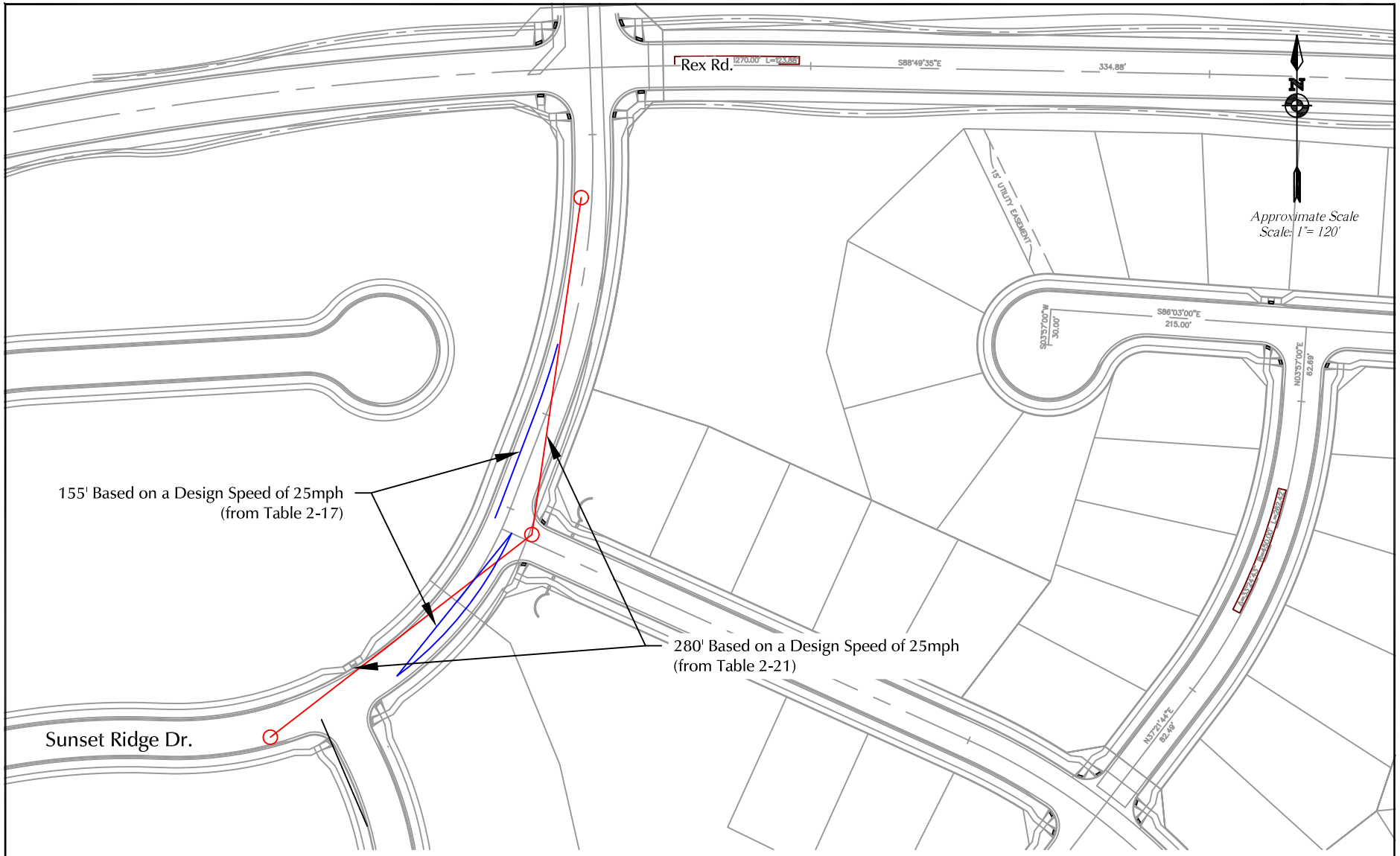



Figure 5

# Sunset Ridge Dr.
# Sight Distance Analysis

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

LEGEND:

= ECM Required Intersection Sight Distance

= ECM Required Stopping Sight Distance


LEGEND:

⊦ = Stop Sign

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$ Base on counts by LSC March 2019 and February 2020

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

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

Figure 6

# Existing Traffic, Lane Geometry, Traffic Control, and Level of Service

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

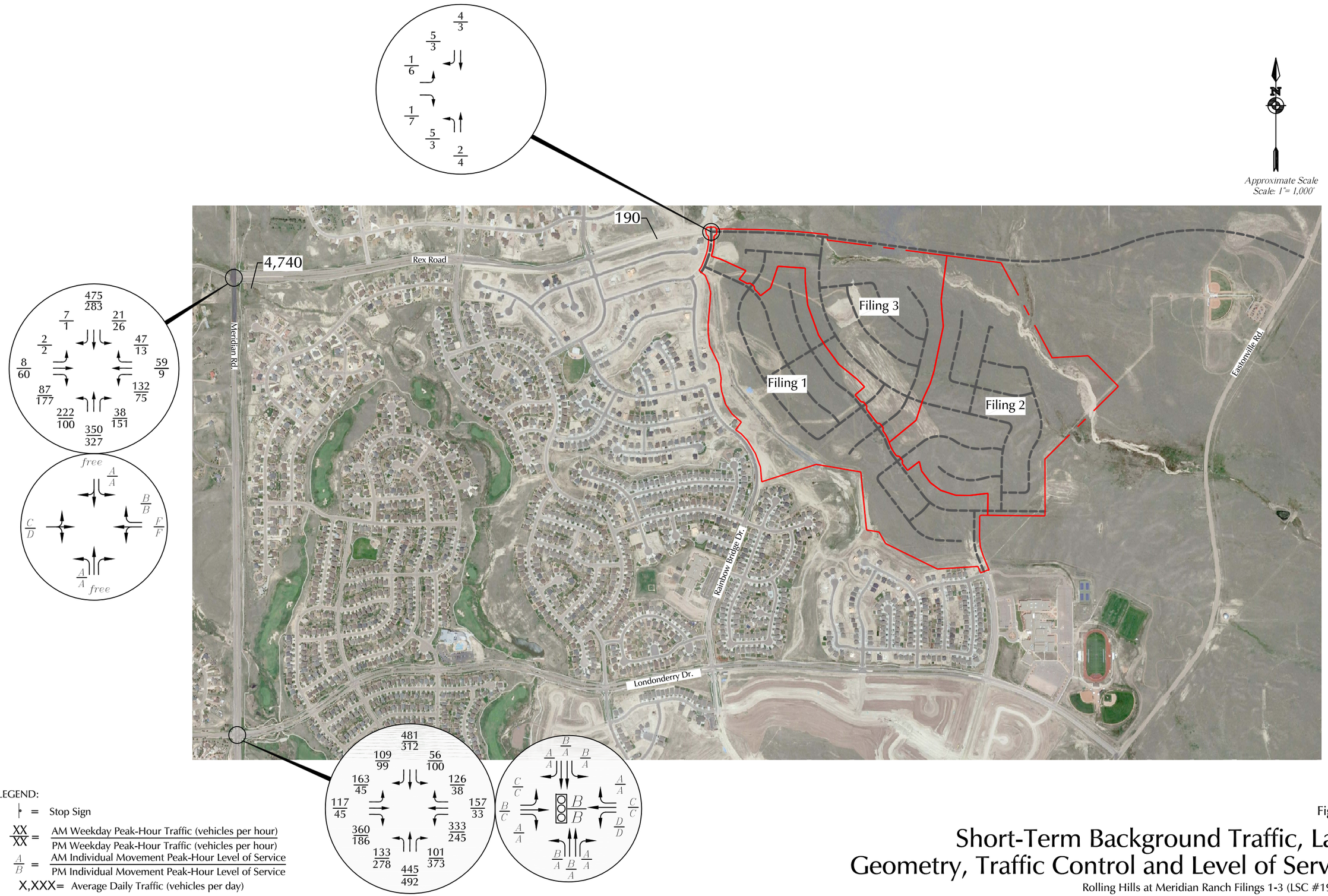



Figure 7

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

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

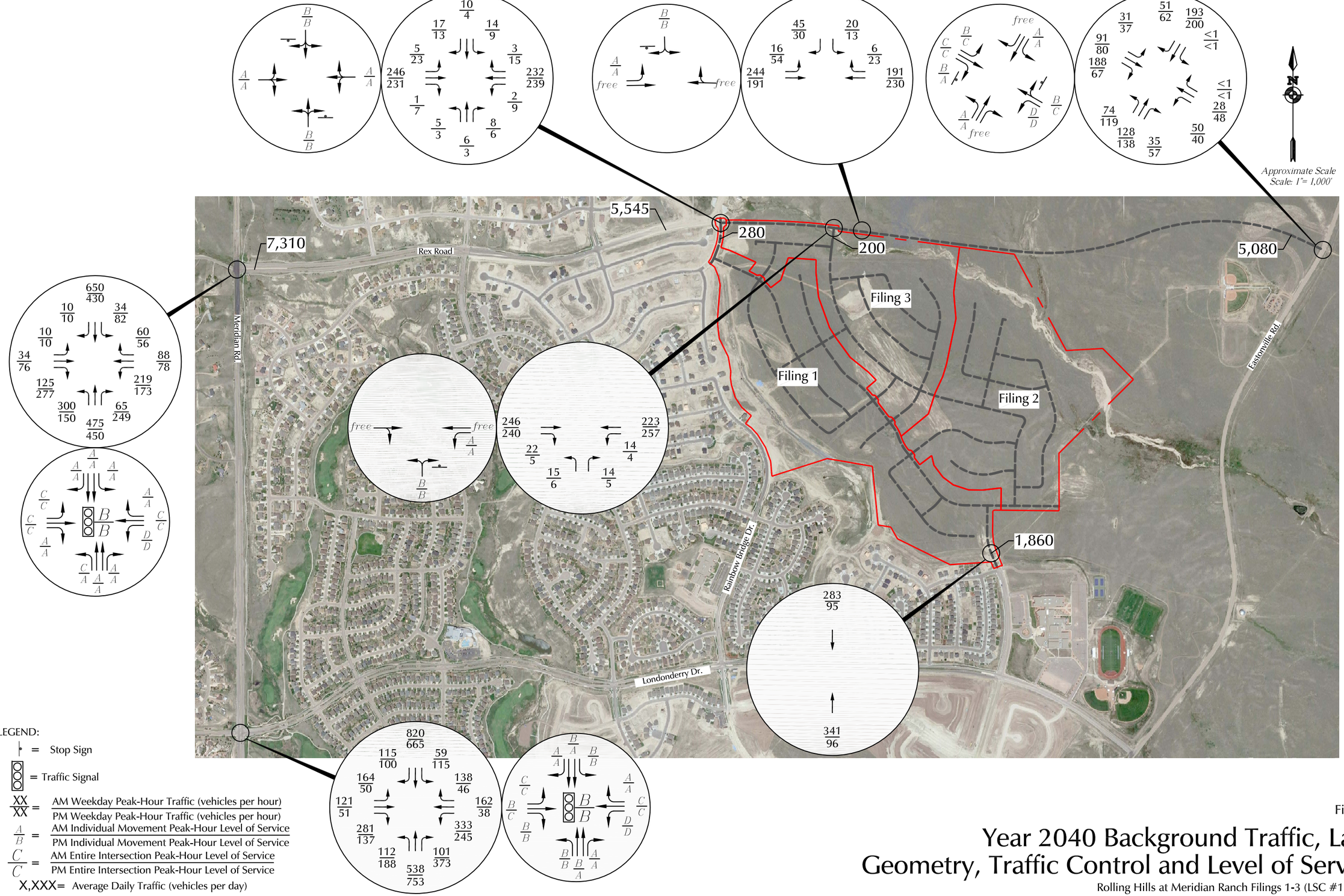
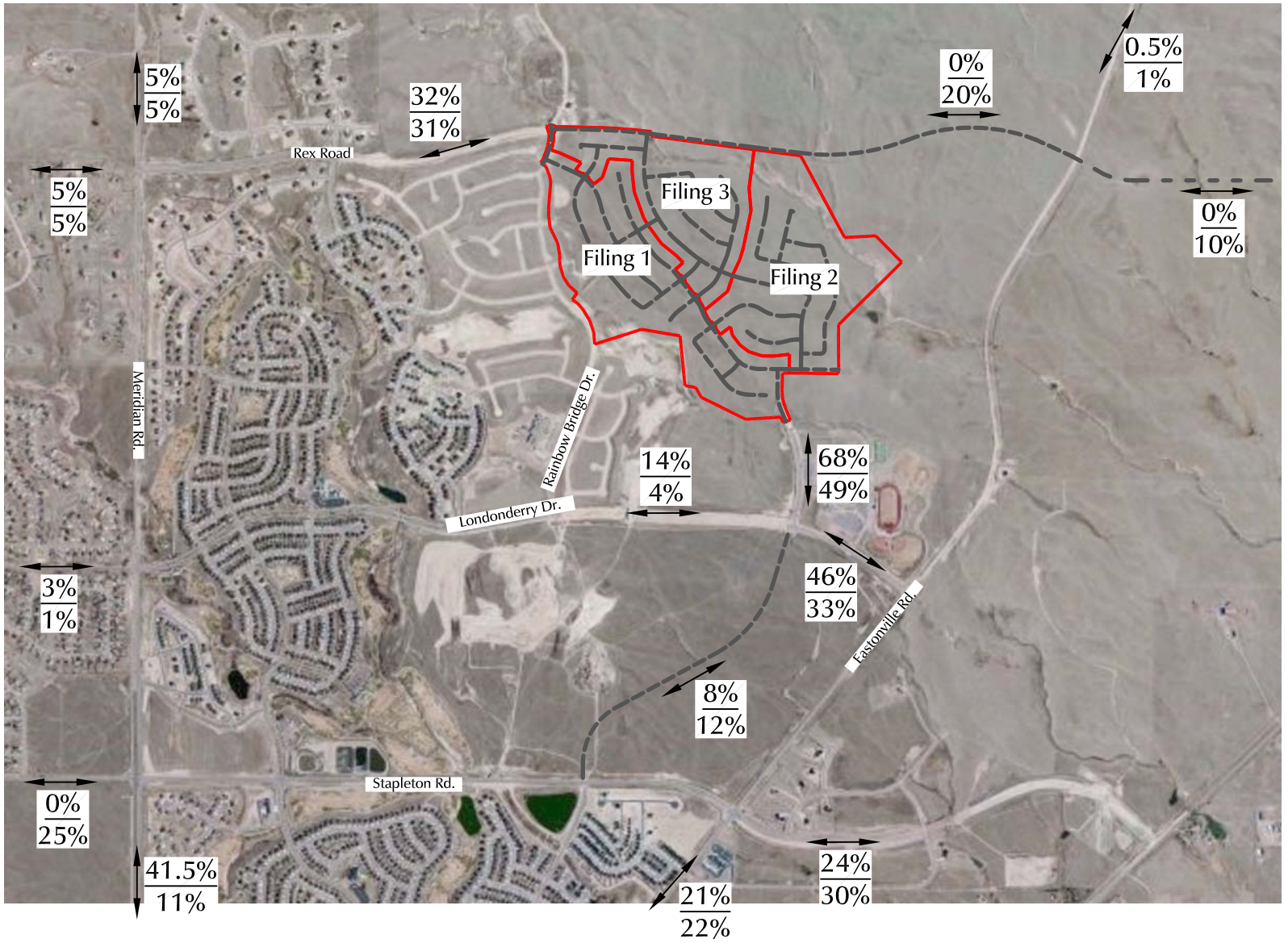



Figure 8

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

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)




Approximate Scale
Scale: 1"= 2,000'

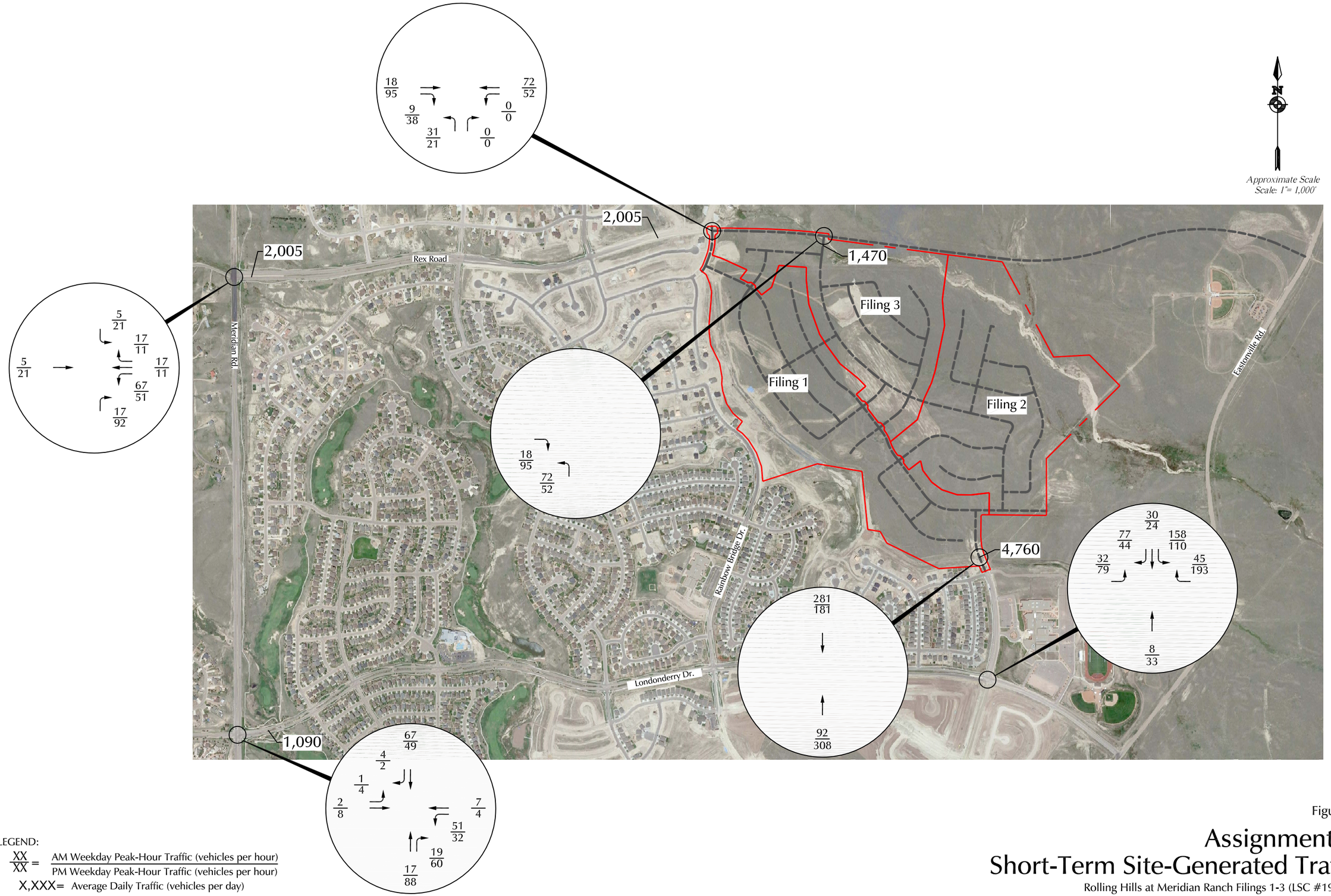
Figure 9

# Directional Distribution of Site-Generated Traffic

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

LEGEND:

XX% / XX% = Short-Term Percent Directional Distribution External to Meridian Ranch
2040 Percent Directional Distribution External to Meridian Ranch




LEGEND:

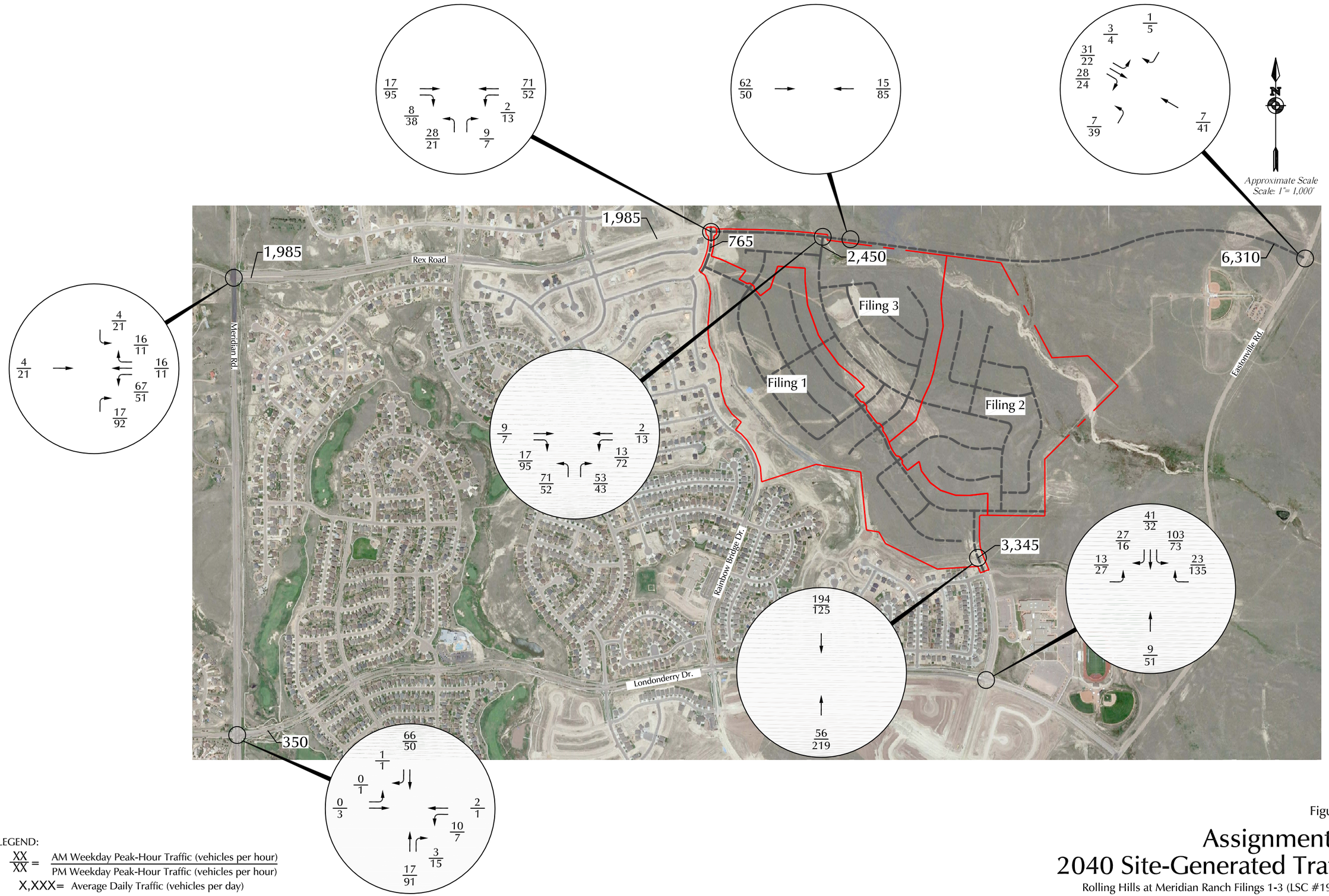
XX/XX = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour)

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

Figure 10

# Assignment of Short-Term Site-Generated Traffic

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)




LEGEND:

XX/XX = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour)

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

Figure 11

# Assignment of 2040 Site-Generated Traffic

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

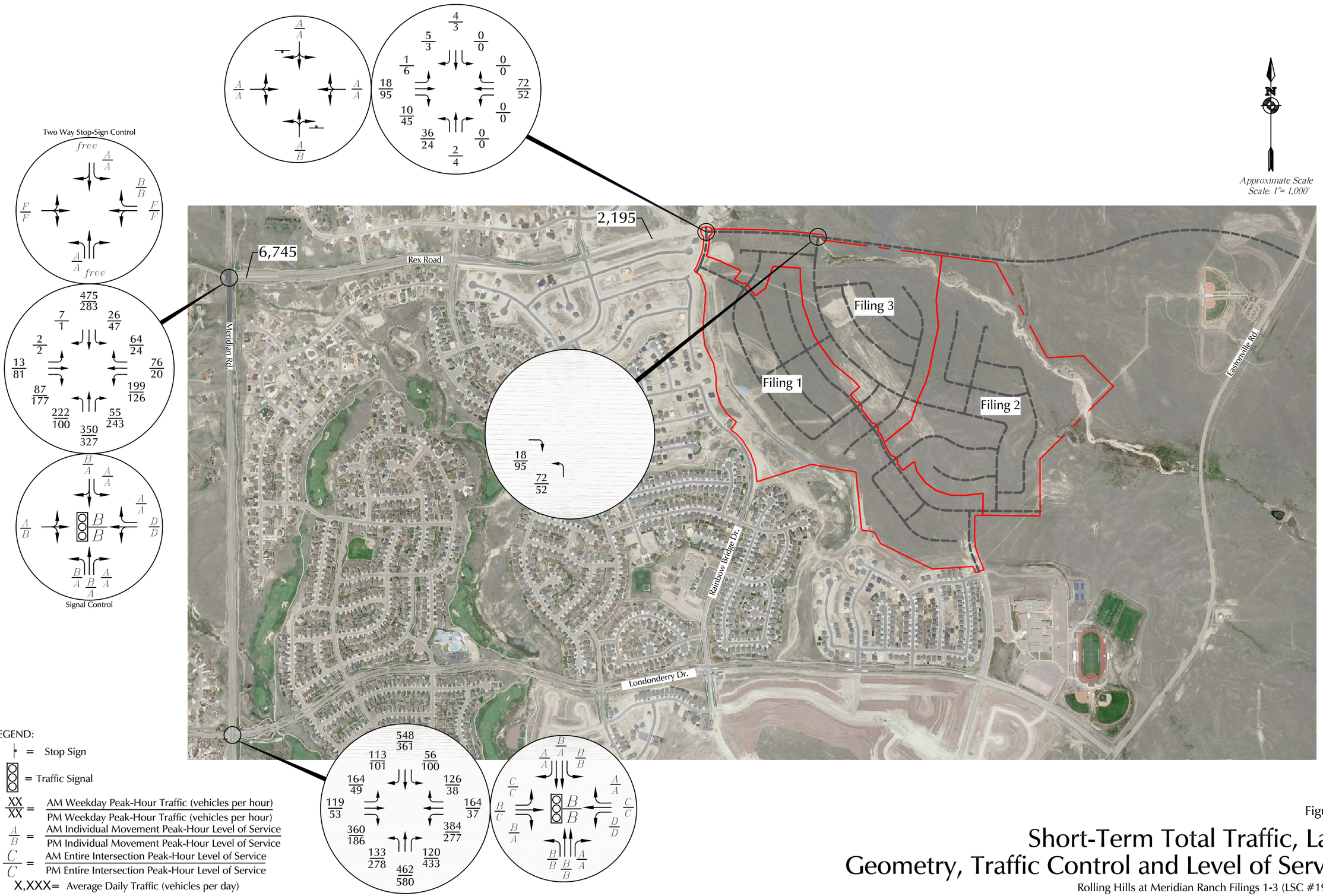



Figure 12

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

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

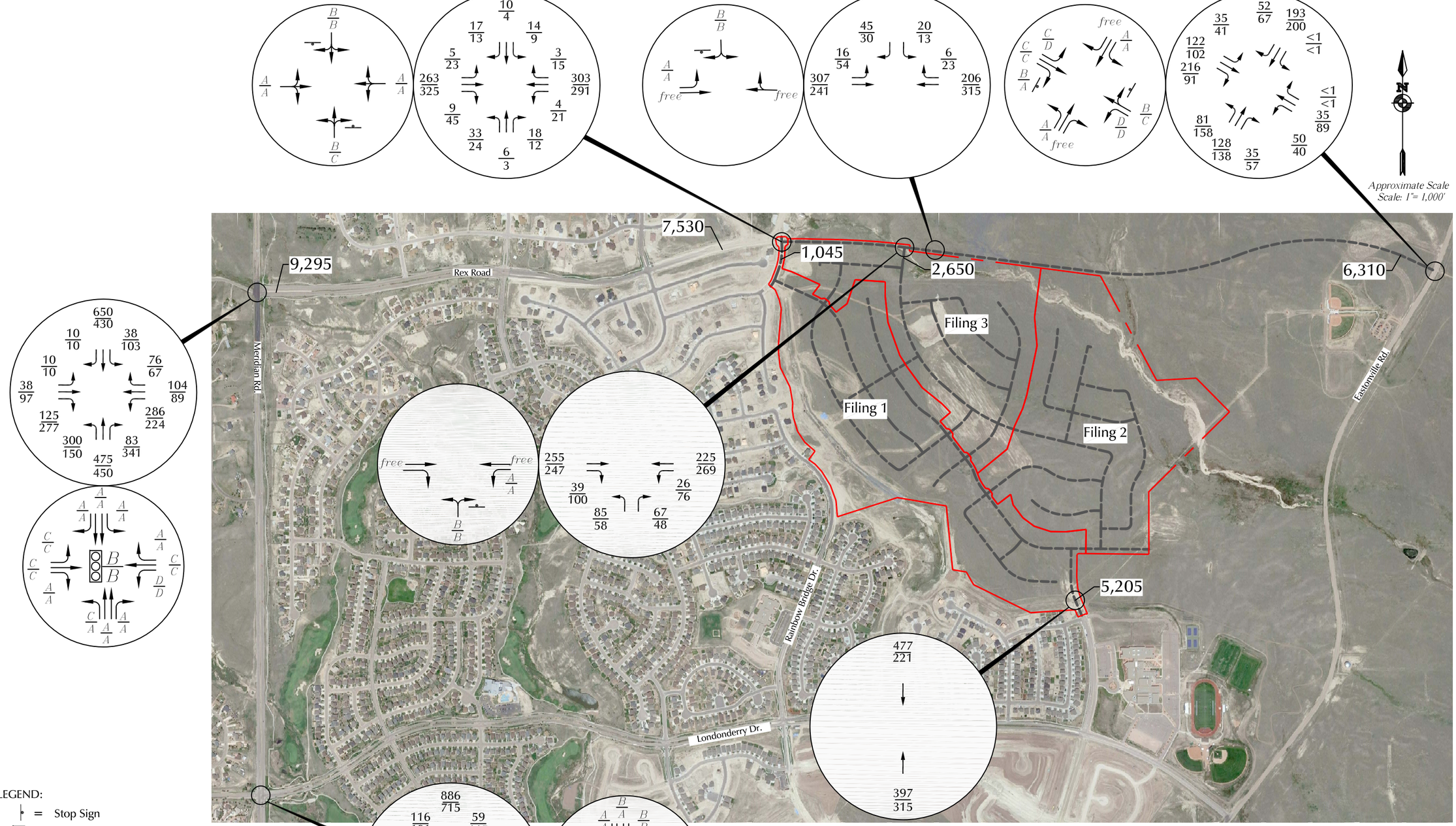



Figure 13

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

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

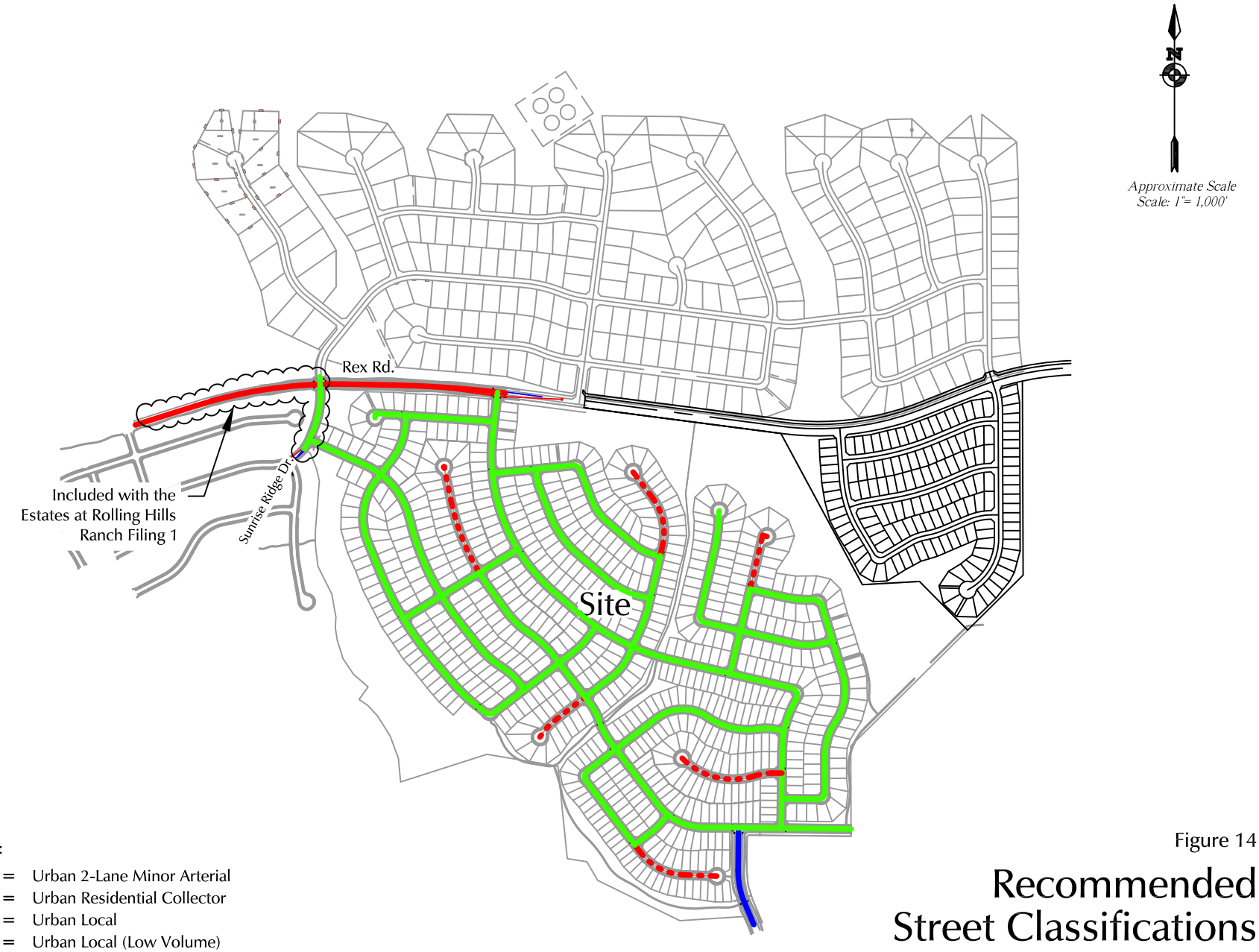


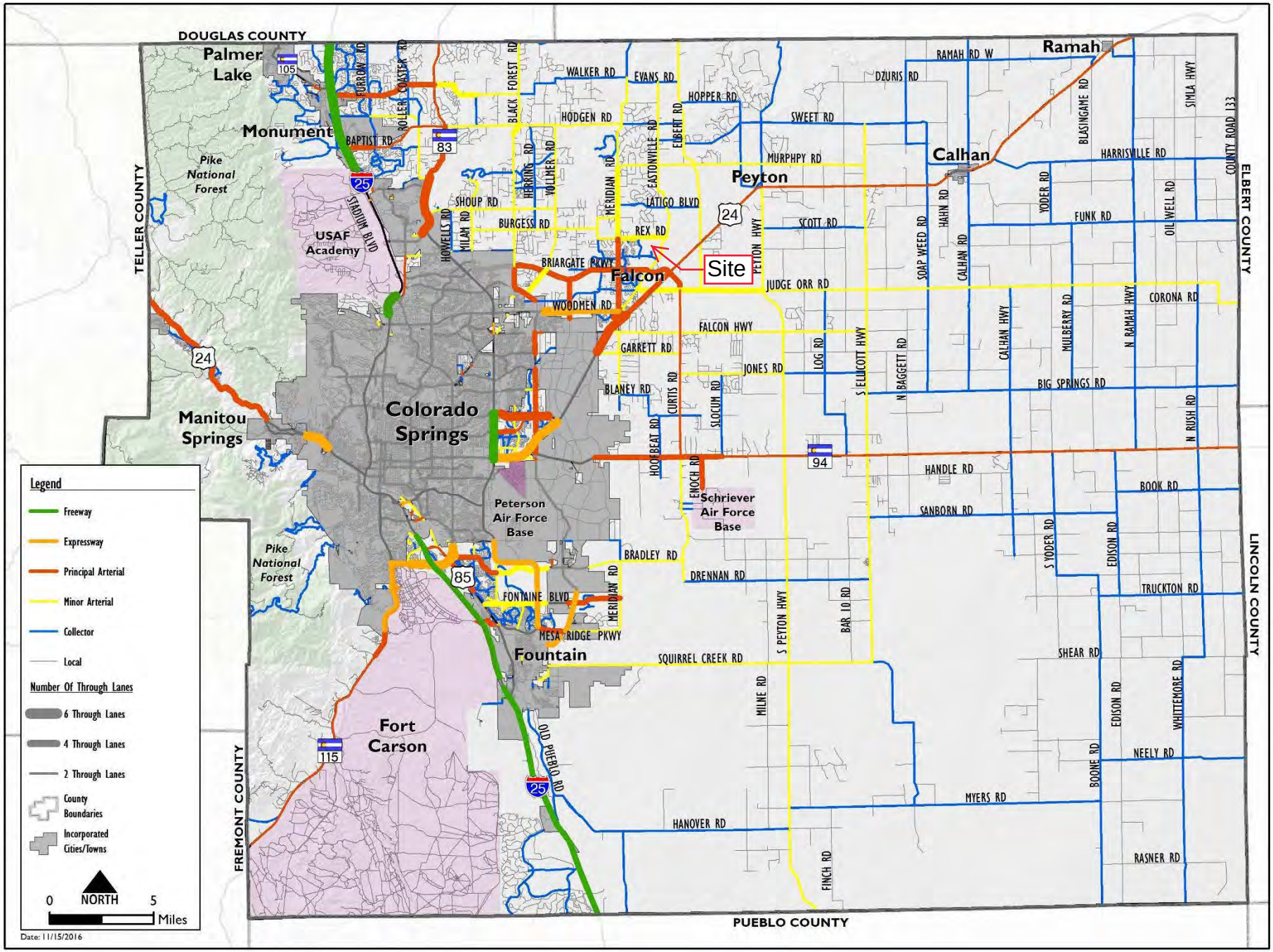

Figure 14

# Recommended Street Classifications

Rolling Hills at Meridian Ranch Filings 1-3 (LSC #194180)

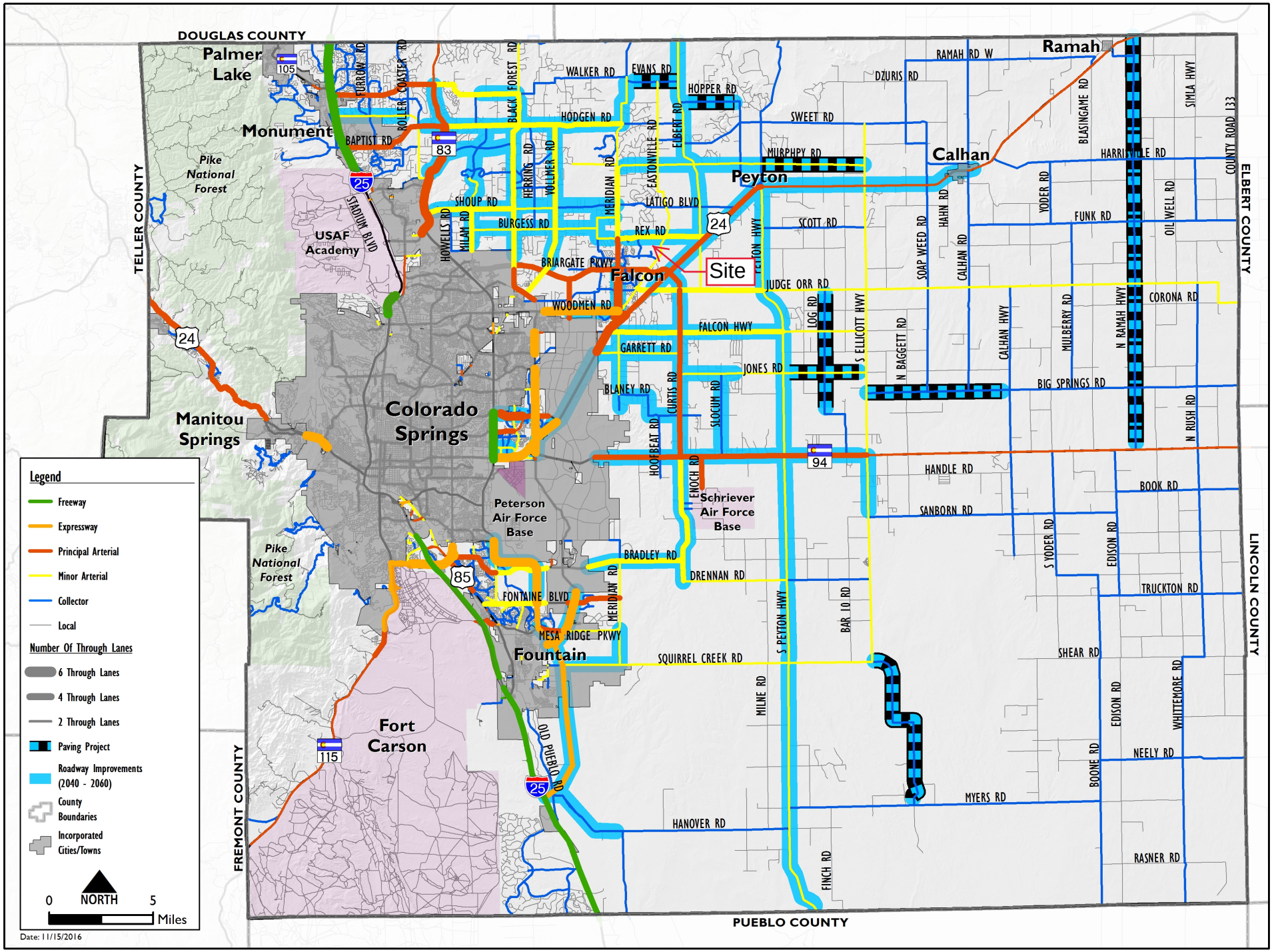
# MTCP Maps

TRANSPORTATION
CONSULTANTS, INC.




**Map 14: 2040 Roadway Plan (Classification and Lanes)**

# Map 17: 2060 Corridor Preservation



El Paso County

Major Transportation Corridors Plan

Corridors to the Future 2010 - 2040

El Paso County
Colorado

# El Paso County
# 2040 Major Transportation Corridors Plan

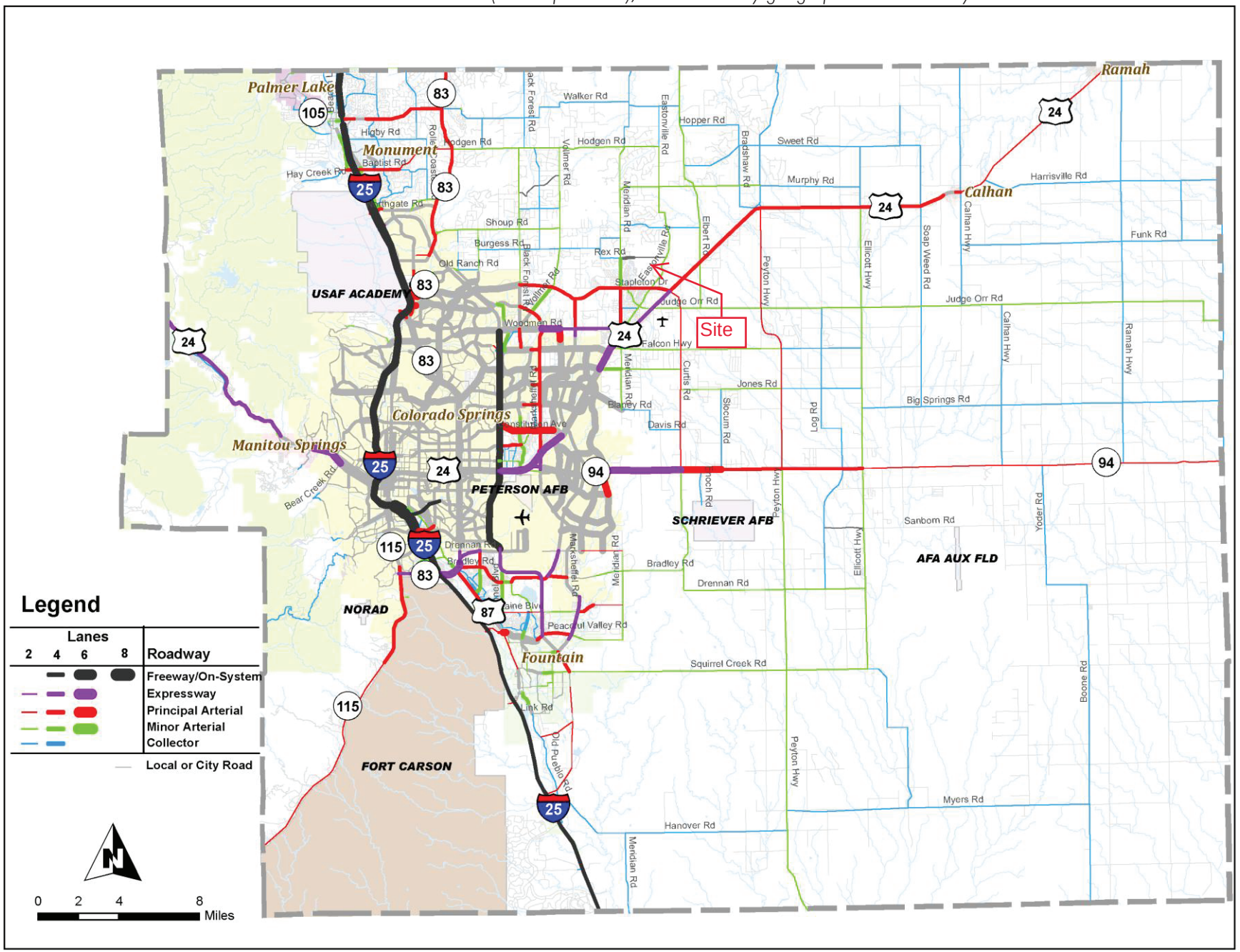
Adopted October 4, 2011
By the Planning Commission

LSA
LSA ASSOCIATES, INC.

Catalyst, Inc.

## FIGURE 4-8: 2040 MTCP ROADWAY PLAN

*Source: PPACG travel model network (with adjustments); El Paso County geographic information system data*



# Traffic Counts

TRANSPORTATION
CONSULTANTS, INC.

# LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Londonderry Dr AM
Site Code : 00194180
Start Date : 2/20/2020
Page No : 1

**Groups Printed- Unshifted**

| | Meridian Rd Southbound | | | | | Londonderry Dr Westbound | | | | | Meridian Rd Northbound | | | | | Londonderry Dr Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **Int. Total** |
| 06:30 AM | 0 | 97 | 2 | 0 | 99 | 74 | 4 | 4 | 0 | 82 | 2 | 30 | 5 | 0 | 37 | 6 | 8 | 32 | 0 | 46 | 264 |
| 06:45 AM | 7 | 123 | 4 | 0 | 134 | 108 | 8 | 17 | 0 | 133 | 0 | 45 | 20 | 0 | 65 | 12 | 15 | 33 | 0 | 60 | 392 |
| Total | 7 | 220 | 6 | 0 | 233 | 182 | 12 | 21 | 0 | 215 | 2 | 75 | 25 | 0 | 102 | 18 | 23 | 65 | 0 | 106 | 656 |
| | | | | | | | | | | | | | | | | | | | | | |
| 07:00 AM | 15 | 71 | 14 | 0 | 100 | 114 | 40 | 34 | 0 | 188 | 9 | 73 | 25 | 0 | 107 | 29 | 27 | 38 | 0 | 94 | 489 |
| 07:15 AM | 9 | 108 | 31 | 0 | 148 | 81 | 76 | 28 | 0 | 185 | 22 | 101 | 25 | 0 | 148 | 32 | 33 | 38 | 0 | 103 | 584 |
| 07:30 AM | 12 | 116 | 36 | 0 | 164 | 68 | 31 | 41 | 4 | 144 | 27 | 147 | 13 | 0 | 187 | 36 | 33 | 61 | 0 | 130 | 625 |
| 07:45 AM | 17 | 121 | 16 | 0 | 154 | 58 | 5 | 13 | 0 | 76 | 21 | 104 | 34 | 0 | 159 | 34 | 18 | 65 | 1 | 118 | 507 |
| Total | 53 | 416 | 97 | 0 | 566 | 321 | 152 | 116 | 4 | 593 | 79 | 425 | 97 | 0 | 601 | 131 | 111 | 202 | 1 | 445 | 2205 |
| | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 13 | 110 | 9 | 0 | 132 | 78 | 7 | 13 | 0 | 98 | 21 | 51 | 38 | 0 | 110 | 8 | 10 | 17 | 0 | 35 | 375 |
| 08:15 AM | 11 | 71 | 1 | 0 | 83 | 96 | 10 | 18 | 0 | 124 | 10 | 66 | 38 | 0 | 114 | 6 | 8 | 26 | 0 | 40 | 361 |
| Grand Total | 84 | 817 | 113 | 0 | 1014 | 677 | 181 | 168 | 4 | 1030 | 112 | 617 | 198 | 0 | 927 | 163 | 152 | 310 | 1 | 626 | 3597 |
| Apprch % | 8.3 | 80.6 | 11.1 | 0 | | 65.7 | 17.6 | 16.3 | 0.4 | | 12.1 | 66.6 | 21.4 | 0 | | 26 | 24.3 | 49.5 | 0.2 | | |
| Total % | 2.3 | 22.7 | 3.1 | 0 | 28.2 | 18.8 | 5 | 4.7 | 0.1 | 28.6 | 3.1 | 17.2 | 5.5 | 0 | 25.8 | 4.5 | 4.2 | 8.6 | 0 | 17.4 | |

# LSC Transportation Consultants, Inc.

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


File Name : Meridian Rd - Londonderry Dr AM
Site Code : 00194180
Start Date : 2/20/2020


| | Meridian Rd Southbound | | | | | Londonderry Dr Westbound | | | | | Meridian Rd Northbound | | | | | Londonderry Dr Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **Int. Total** |
| **Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1** | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 7:00:00 AM | | | | | | | | | | | | | | | | | | | | | |
| 7:00:00 AM | 15 | 71 | 14 | 0 | 100 | **114** | 40 | 34 | 0 | **188** | 9 | 73 | 25 | 0 | 107 | 29 | 27 | 38 | 0 | 94 | 489 |
| 7:15:00 AM | 9 | 108 | 31 | 0 | 148 | 81 | **76** | 28 | 0 | 185 | 22 | 101 | 25 | 0 | 148 | 32 | **33** | 38 | 0 | 103 | 584 |
| 7:30:00 AM | 12 | 116 | **36** | 0 | **164** | 68 | 31 | **41** | **4** | 144 | **27** | **147** | 13 | 0 | **187** | **36** | 33 | 61 | 0 | **130** | **625** |
| 7:45:00 AM | **17** | **121** | 16 | 0 | 154 | 58 | 5 | 13 | 0 | 76 | 21 | 104 | **34** | 0 | 159 | 34 | 18 | **65** | **1** | 118 | 507 |
| Total Volume | 53 | 416 | 97 | 0 | 566 | 321 | 152 | 116 | 4 | 593 | 79 | 425 | 97 | 0 | 601 | 131 | 111 | 202 | 1 | 445 | 2205 |
| % App. Total | 9.4 | 73.5 | 17.1 | 0 | | 54.1 | 25.6 | 19.6 | 0.7 | | 13.1 | 70.7 | 16.1 | 0 | | 29.4 | 24.9 | 45.4 | 0.2 | | |
| PHF | .779 | .860 | .674 | .000 | .863 | .704 | .500 | .707 | .250 | .789 | .731 | .723 | .713 | .000 | .803 | .910 | .841 | .777 | .250 | .856 | .882 |

**LSC Transportation Consultants, Inc.**
545 E Pikes Peak Ave, Suite 210
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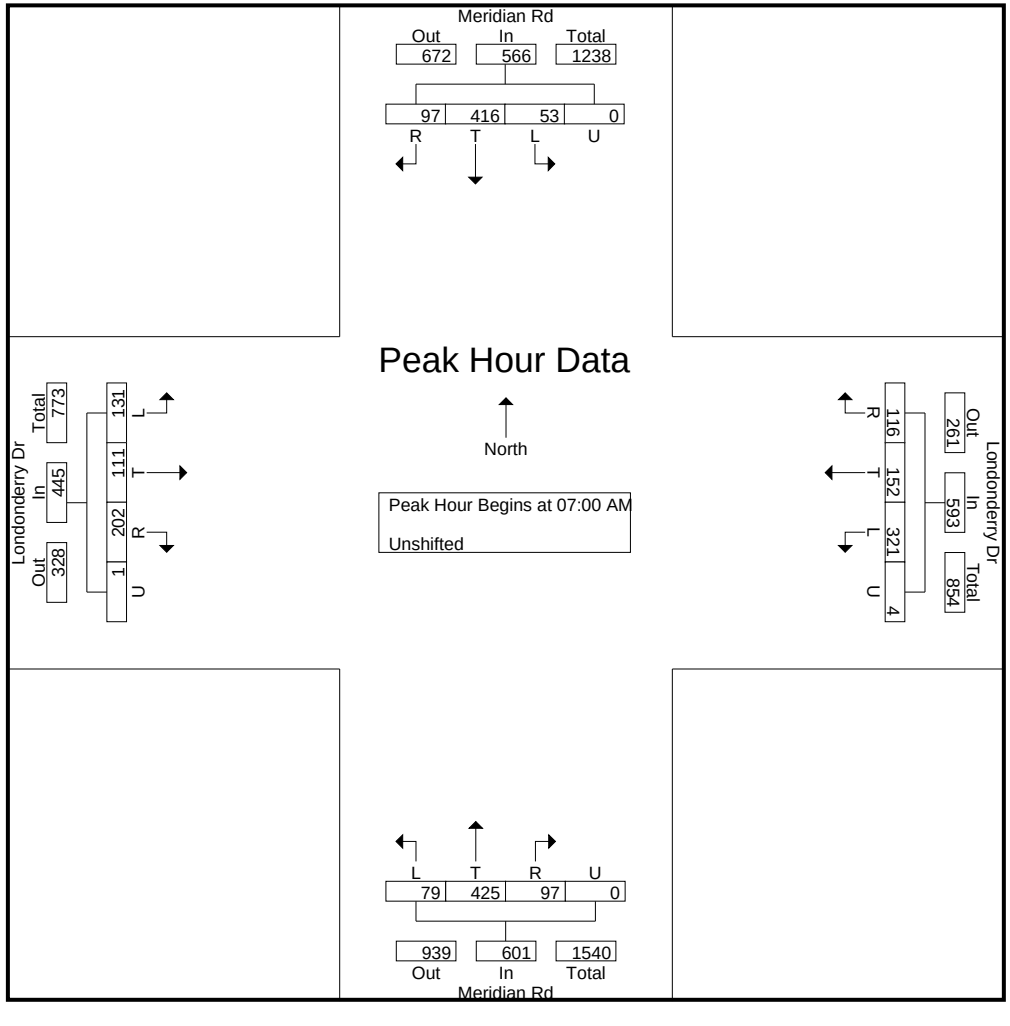
719-633-2868

File Name : Meridian Rd - Londonderry Dr AM
Site Code : 00194180
Start Date : 2/20/2020
Page No : 3



# LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Londonderry Dr PM
Site Code : 00194180
Start Date : 2/20/2020
Page No : 1

**Groups Printed- Unshifted**

| | Meridian Rd Southbound | | | | | Londonderry Dr Westbound | | | | | Meridian Rd Northbound | | | | | Londonderry Dr Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **Int. Total** |
| 04:00 PM | 10 | 104 | 23 | 0 | 137 | 49 | 5 | 4 | 0 | 58 | 37 | 84 | 56 | 0 | 177 | 6 | 1 | 9 | 0 | 16 | 388 |
| 04:15 PM | 21 | 79 | 16 | 0 | 116 | 41 | 5 | 8 | 0 | 54 | 28 | 105 | 70 | 0 | 203 | 11 | 6 | 26 | 0 | 43 | 416 |
| 04:30 PM | 14 | 85 | 13 | 0 | 112 | 60 | 4 | 7 | 0 | 71 | 34 | 114 | 82 | 0 | 230 | 5 | 9 | 22 | 0 | 36 | 449 |
| 04:45 PM | 19 | 67 | 17 | 0 | 103 | 47 | 14 | 8 | 0 | 69 | 27 | 97 | 88 | 0 | 212 | 5 | 3 | 20 | 0 | 28 | 412 |
| Total | 64 | 335 | 69 | 0 | 468 | 197 | 28 | 27 | 0 | 252 | 126 | 400 | 296 | 0 | 822 | 27 | 19 | 77 | 0 | 123 | 1665 |
| 05:00 PM | 17 | 76 | 14 | 0 | 107 | 52 | 9 | 7 | 0 | 68 | 23 | 122 | 83 | 0 | 228 | 11 | 19 | 20 | 0 | 50 | 453 |
| 05:15 PM | 25 | 78 | 21 | 0 | 124 | 58 | 5 | 8 | 0 | 71 | 22 | 117 | 81 | 0 | 220 | 5 | 7 | 22 | 0 | 34 | 449 |
| 05:30 PM | 15 | 83 | 18 | 0 | 116 | 64 | 4 | 7 | 0 | 75 | 27 | 117 | 89 | 0 | 233 | 4 | 2 | 23 | 0 | 29 | 453 |
| 05:45 PM | 14 | 65 | 9 | 0 | 88 | 62 | 7 | 8 | 0 | 77 | 28 | 97 | 102 | 0 | 227 | 3 | 8 | 16 | 0 | 27 | 419 |
| Total | 71 | 302 | 62 | 0 | 435 | 236 | 25 | 30 | 0 | 291 | 100 | 453 | 355 | 0 | 908 | 23 | 36 | 81 | 0 | 140 | 1774 |
| Grand Total | 135 | 637 | 131 | 0 | 903 | 433 | 53 | 57 | 0 | 543 | 226 | 853 | 651 | 0 | 1730 | 50 | 55 | 158 | 0 | 263 | 3439 |
| Apprch % | 15 | 70.5 | 14.5 | 0 | | 79.7 | 9.8 | 10.5 | 0 | | 13.1 | 49.3 | 37.6 | 0 | | 19 | 20.9 | 60.1 | 0 | | |
| Total % | 3.9 | 18.5 | 3.8 | 0 | 26.3 | 12.6 | 1.5 | 1.7 | 0 | 15.8 | 6.6 | 24.8 | 18.9 | 0 | 50.3 | 1.5 | 1.6 | 4.6 | 0 | 7.6 | |

# LSC Transportation Consultants, Inc.

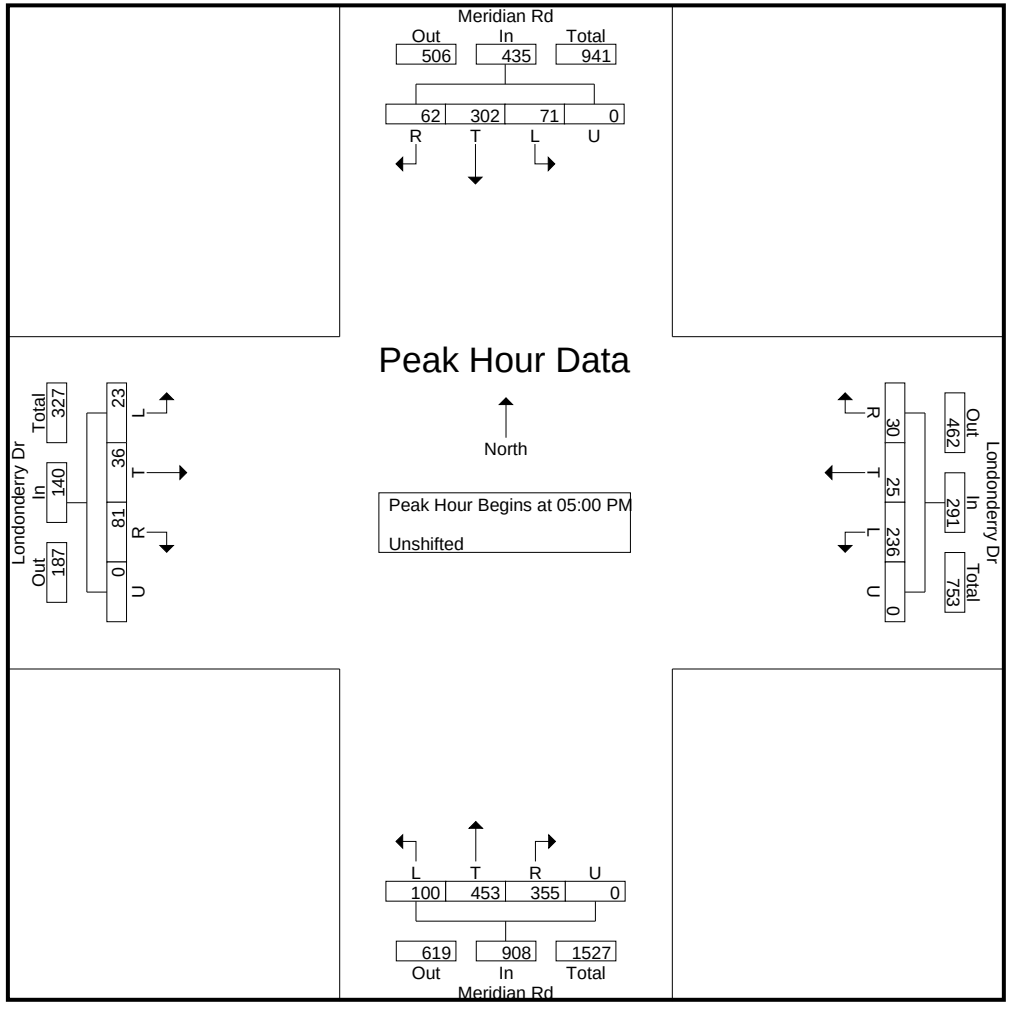
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868


File Name : Meridian Rd - Londonderry Dr PM
Site Code : 00194180
Start Date : 2/20/2020


| | Meridian Rd Southbound | | | | | Londonderry Dr Westbound | | | | | Meridian Rd Northbound | | | | | Londonderry Dr Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **L** | **T** | **R** | **U** | **App. Total** | **Int. Total** |
| **Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1** | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 5:00:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 5:00:00 PM | 17 | 76 | 14 | 0 | 107 | 52 | **9** | 7 | 0 | 68 | 23 | **122** | 83 | 0 | 228 | **11** | **19** | 20 | 0 | **50** | **453** |
| 5:15:00 PM | **25** | 78 | **21** | 0 | **124** | 58 | 5 | **8** | 0 | 71 | 22 | 117 | 81 | 0 | 220 | 5 | 7 | 22 | 0 | 34 | 449 |
| 5:30:00 PM | 15 | **83** | 18 | 0 | 116 | **64** | 4 | 7 | 0 | 75 | 27 | 117 | 89 | 0 | **233** | 4 | 2 | **23** | 0 | 29 | 453 |
| 5:45:00 PM | 14 | 65 | 9 | 0 | 88 | 62 | 7 | 8 | 0 | **77** | **28** | 97 | **102** | 0 | 227 | 3 | 8 | 16 | 0 | 27 | 419 |
| Total Volume | 71 | 302 | 62 | 0 | 435 | 236 | 25 | 30 | 0 | 291 | 100 | 453 | 355 | 0 | 908 | 23 | 36 | 81 | 0 | 140 | 1774 |
| % App. Total | 16.3 | 69.4 | 14.3 | 0 | | 81.1 | 8.6 | 10.3 | 0 | | 11 | 49.9 | 39.1 | 0 | | 16.4 | 25.7 | 57.9 | 0 | | |
| PHF | .710 | .910 | .738 | .000 | .877 | .922 | .694 | .938 | .000 | .945 | .893 | .928 | .870 | .000 | .974 | .523 | .474 | .880 | .000 | .700 | .979 |

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

File Name : Meridian Rd - Londonderry Dr PM
Site Code : 00194180
Start Date : 2/20/2020
Page No : 3



# LSC Transportation Consultants, Inc.

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


File Name : Meridian Rd-Rex Rd AM
Site Code : 194180
Start Date : 3/5/2019
Page No : 1

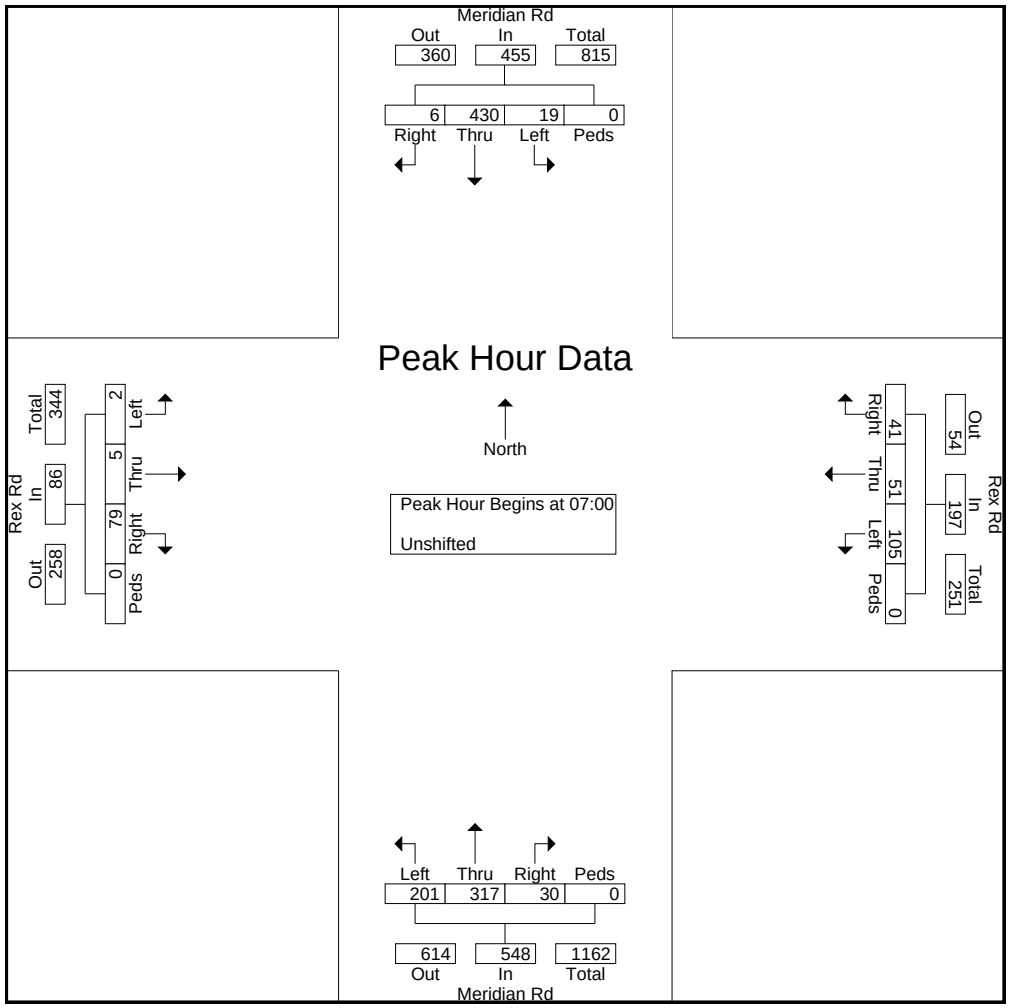
**Groups Printed- Unshifted**

| | Meridian Rd Southbound | | | | Rex Rd Westbound | | | | Meridian Rd Northbound | | | | Rex Rd Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Int. Total |
| 06:30 | 1 | 66 | 0 | 0 | 28 | 14 | 1 | 0 | 23 | 41 | 6 | 0 | 0 | 1 | 18 | 0 | 199 |
| 06:45 | 2 | 73 | 1 | 0 | 28 | 16 | 3 | 0 | 50 | 33 | 9 | 0 | 0 | 1 | 18 | 0 | 234 |
| Total | 3 | 139 | 1 | 0 | 56 | 30 | 4 | 0 | 73 | 74 | 15 | 0 | 0 | 2 | 36 | 0 | 433 |
| 07:00 | 1 | 97 | 1 | 0 | 41 | 20 | 7 | 0 | 59 | 58 | 6 | 0 | 1 | 0 | 19 | 0 | 310 |
| 07:15 | 6 | 102 | 0 | 0 | 31 | 14 | 8 | 0 | 64 | 75 | 9 | 0 | 0 | 2 | 20 | 0 | 331 |
| 07:30 | 6 | 113 | 2 | 0 | 16 | 9 | 14 | 0 | 52 | 98 | 9 | 0 | 1 | 0 | 19 | 0 | 339 |
| 07:45 | 6 | 118 | 3 | 0 | 17 | 8 | 12 | 0 | 26 | 86 | 6 | 0 | 0 | 3 | 21 | 0 | 306 |
| Total | 19 | 430 | 6 | 0 | 105 | 51 | 41 | 0 | 201 | 317 | 30 | 0 | 2 | 5 | 79 | 0 | 1286 |
| 08:00 | 3 | 81 | 0 | 0 | 15 | 7 | 6 | 0 | 25 | 40 | 9 | 0 | 0 | 1 | 16 | 0 | 203 |
| 08:15 | 2 | 54 | 0 | 0 | 16 | 5 | 7 | 0 | 20 | 34 | 16 | 0 | 0 | 3 | 11 | 0 | 168 |
| Grand Total | 27 | 704 | 7 | 0 | 192 | 93 | 58 | 0 | 319 | 465 | 70 | 0 | 2 | 11 | 142 | 0 | 2090 |
| Apprch % | 3.7 | 95.4 | 0.9 | 0 | 56 | 27.1 | 16.9 | 0 | 37.4 | 54.4 | 8.2 | 0 | 1.3 | 7.1 | 91.6 | 0 | |
| Total % | 1.3 | 33.7 | 0.3 | 0 | 9.2 | 4.4 | 2.8 | 0 | 15.3 | 22.2 | 3.3 | 0 | 0.1 | 0.5 | 6.8 | 0 | |

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

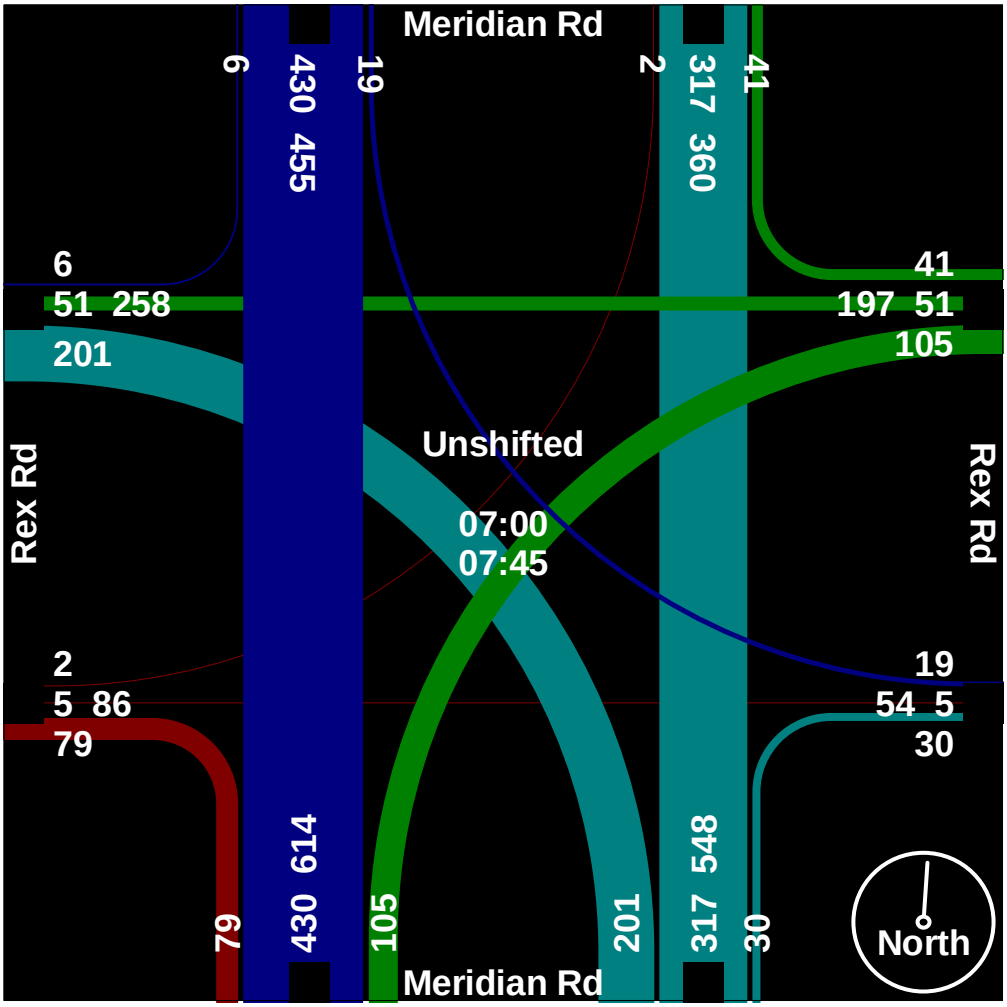
File Name : Meridian Rd-Rex Rd AM
Site Code : 194180
Start Date : 3/5/2019
Page No : 2

| | Meridian Rd Southbound | | | | | Rex Rd Westbound | | | | | Meridian Rd Northbound | | | | | Rex Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 | | | | | | | | | | | | | | | | | | | | | |
| 07:00 | 1 | 97 | 1 | 0 | 99 | **41** | **20** | 7 | 0 | **68** | 59 | 58 | 6 | 0 | 123 | **1** | 0 | 19 | 0 | 20 | 310 |
| 07:15 | **6** | 102 | 0 | 0 | 108 | 31 | 14 | 8 | 0 | 53 | **64** | 75 | **9** | 0 | 148 | 0 | 2 | 20 | 0 | 22 | 331 |
| 07:30 | 6 | 113 | 2 | 0 | 121 | 16 | 9 | **14** | 0 | 39 | 52 | **98** | 9 | 0 | **159** | 1 | 0 | 19 | 0 | 20 | **339** |
| 07:45 | 6 | **118** | **3** | 0 | **127** | 17 | 8 | 12 | 0 | 37 | 26 | 86 | 6 | 0 | 118 | 0 | **3** | **21** | 0 | **24** | 306 |
| Total Volume | 19 | 430 | 6 | 0 | 455 | 105 | 51 | 41 | 0 | 197 | 201 | 317 | 30 | 0 | 548 | 2 | 5 | 79 | 0 | 86 | 1286 |
| % App. Total | 4.2 | 94.5 | 1.3 | 0 | | 53.3 | 25.9 | 20.8 | 0 | | 36.7 | 57.8 | 5.5 | 0 | | 2.3 | 5.8 | 91.9 | 0 | | |
| PHF | .792 | .911 | .500 | .000 | .896 | .640 | .638 | .732 | .000 | .724 | .785 | .809 | .833 | .000 | .862 | .500 | .417 | .940 | .000 | .896 | .948 |



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

File Name : Meridian Rd-Rex Rd AM
Site Code : 194180
Start Date : 3/5/2019
Page No : 3



# LSC Transportation Consultants, Inc.

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


File Name : Meridian Rd - Rex Rd Mid
Site Code : 00194180
Start Date : 3/12/2019
Page No : 1

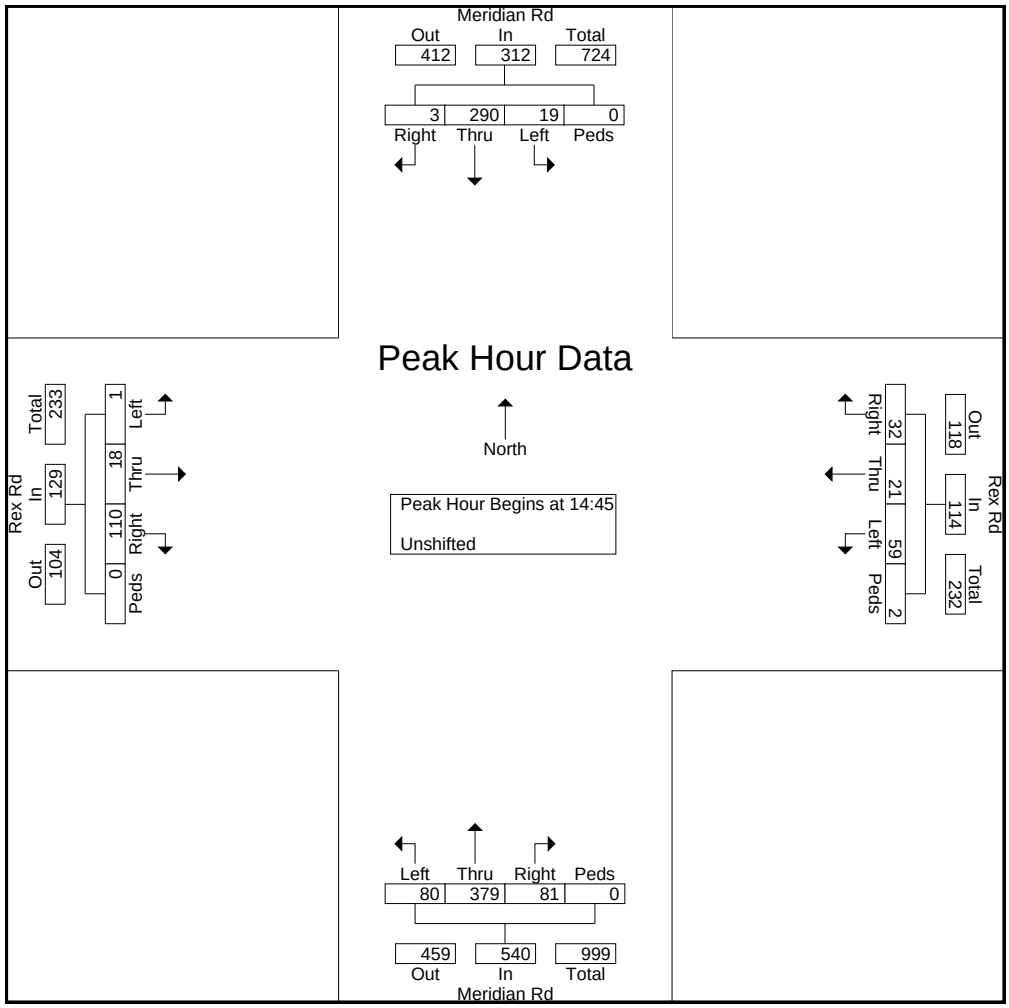
**Groups Printed- Unshifted**

| | Meridian Rd Southbound | | | | Rex Rd Westbound | | | | Meridian Rd Northbound | | | | Rex Rd Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Int. Total |
| 13:45 | 2 | 39 | 0 | 0 | 9 | 1 | 0 | 0 | 12 | 39 | 9 | 0 | 0 | 7 | 11 | 0 | 129 |
| Total | 2 | 39 | 0 | 0 | 9 | 1 | 0 | 0 | 12 | 39 | 9 | 0 | 0 | 7 | 11 | 0 | 129 |
| | | | | | | | | | | | | | | | | | |
| 14:00 | 3 | 24 | 1 | 0 | 9 | 4 | 4 | 0 | 10 | 50 | 19 | 0 | 0 | 3 | 9 | 0 | 136 |
| 14:15 | 2 | 52 | 1 | 0 | 10 | 4 | 5 | 0 | 22 | 54 | 16 | 0 | 1 | 4 | 16 | 0 | 187 |
| 14:30 | 3 | 37 | 0 | 0 | 12 | 2 | 1 | 0 | 18 | 45 | 13 | 0 | 0 | 4 | 16 | 0 | 151 |
| 14:45 | 2 | 47 | 0 | 0 | 21 | 5 | 4 | 0 | 20 | 116 | 16 | 0 | 1 | 4 | 24 | 0 | 260 |
| Total | 10 | 160 | 2 | 0 | 52 | 15 | 14 | 0 | 70 | 265 | 64 | 0 | 2 | 15 | 65 | 0 | 734 |
| | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 56 | 1 | 0 | 14 | 7 | 10 | 1 | 19 | 74 | 28 | 0 | 0 | 4 | 28 | 0 | 242 |
| 15:15 | 3 | 84 | 1 | 0 | 11 | 6 | 12 | 0 | 19 | 101 | 16 | 0 | 0 | 6 | 29 | 0 | 288 |
| 15:30 | 14 | 103 | 1 | 0 | 13 | 3 | 6 | 1 | 22 | 88 | 21 | 0 | 0 | 4 | 29 | 0 | 305 |
| Grand Total | 29 | 442 | 5 | 0 | 99 | 32 | 42 | 2 | 142 | 567 | 138 | 0 | 2 | 36 | 162 | 0 | 1698 |
| Apprch % | 6.1 | 92.9 | 1.1 | 0 | 56.6 | 18.3 | 24 | 1.1 | 16.8 | 66.9 | 16.3 | 0 | 1 | 18 | 81 | 0 | |
| Total % | 1.7 | 26 | 0.3 | 0 | 5.8 | 1.9 | 2.5 | 0.1 | 8.4 | 33.4 | 8.1 | 0 | 0.1 | 2.1 | 9.5 | 0 | |

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

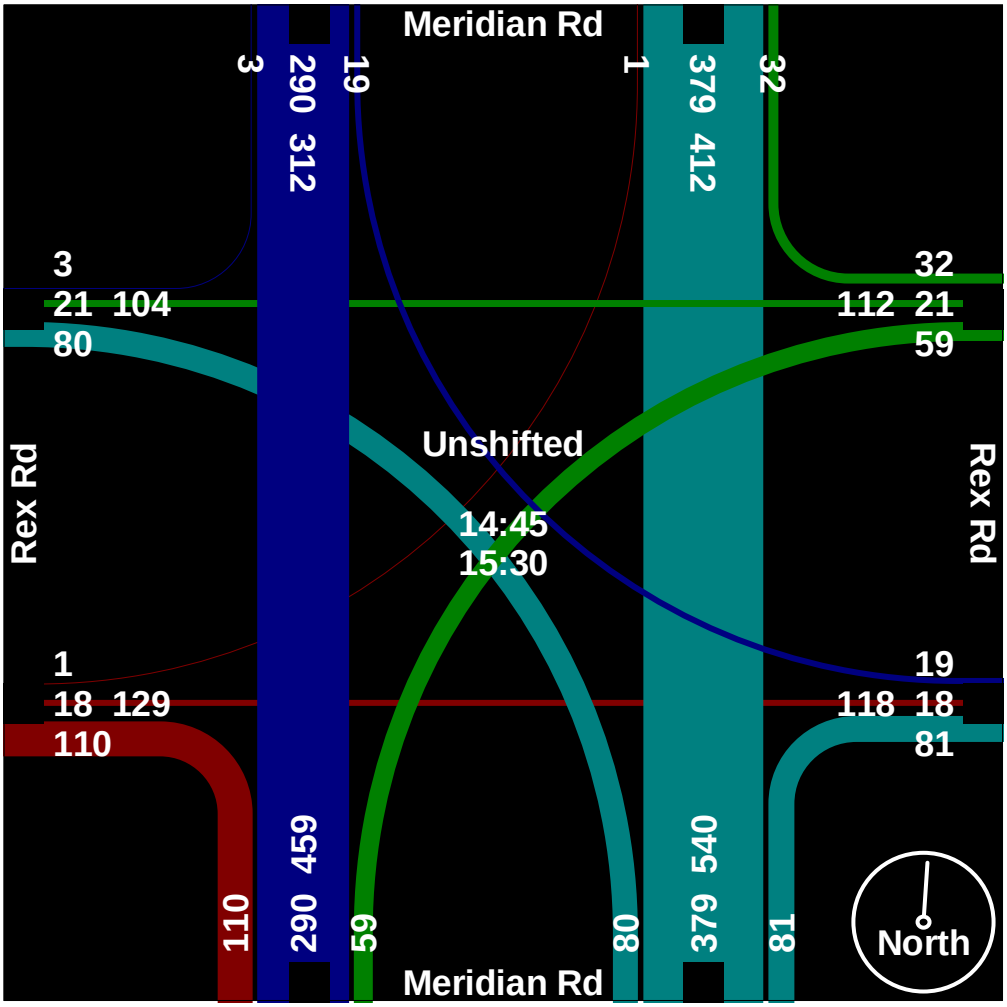
File Name : Meridian Rd - Rex Rd Mid
Site Code : 00194180
Start Date : 3/12/2019
Page No : 2

| | Meridian Rd Southbound | | | | | Rex Rd Westbound | | | | | Meridian Rd Northbound | | | | | Rex Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 13:45 to 15:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:45 | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 2 | 47 | 0 | 0 | 49 | **21** | 5 | 4 | 0 | 30 | 20 | **116** | 16 | 0 | **152** | **1** | 4 | 24 | 0 | 29 | 260 |
| 15:00 | 0 | 56 | **1** | 0 | 57 | 14 | **7** | 10 | **1** | **32** | 19 | 74 | **28** | 0 | 121 | 0 | 4 | 28 | 0 | 32 | 242 |
| 15:15 | 3 | 84 | 1 | 0 | 88 | 11 | 6 | **12** | 0 | 29 | 19 | 101 | 16 | 0 | 136 | 0 | **6** | **29** | 0 | **35** | 288 |
| 15:30 | **14** | **103** | 1 | 0 | **118** | 13 | 3 | 6 | 1 | 23 | **22** | 88 | 21 | 0 | 131 | 0 | 4 | 29 | 0 | 33 | **305** |
| Total Volume | 19 | 290 | 3 | 0 | 312 | 59 | 21 | 32 | 2 | 114 | 80 | 379 | 81 | 0 | 540 | 1 | 18 | 110 | 0 | 129 | 1095 |
| % App. Total | 6.1 | 92.9 | 1 | 0 | | 51.8 | 18.4 | 28.1 | 1.8 | | 14.8 | 70.2 | 15 | 0 | | 0.8 | 14 | 85.3 | 0 | | |
| PHF | .339 | .704 | .750 | .000 | .661 | .702 | .750 | .667 | .500 | .891 | .909 | .817 | .723 | .000 | .888 | .250 | .750 | .948 | .000 | .921 | .898 |



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

File Name : Meridian Rd - Rex Rd Mid
Site Code : 00194180
Start Date : 3/12/2019
Page No : 3



# LSC Transportation Consultants, Inc.

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


File Name : Meridian Rd - Rex Rd Noon
Site Code : 00194180
Start Date : 3/12/2019
Page No : 1

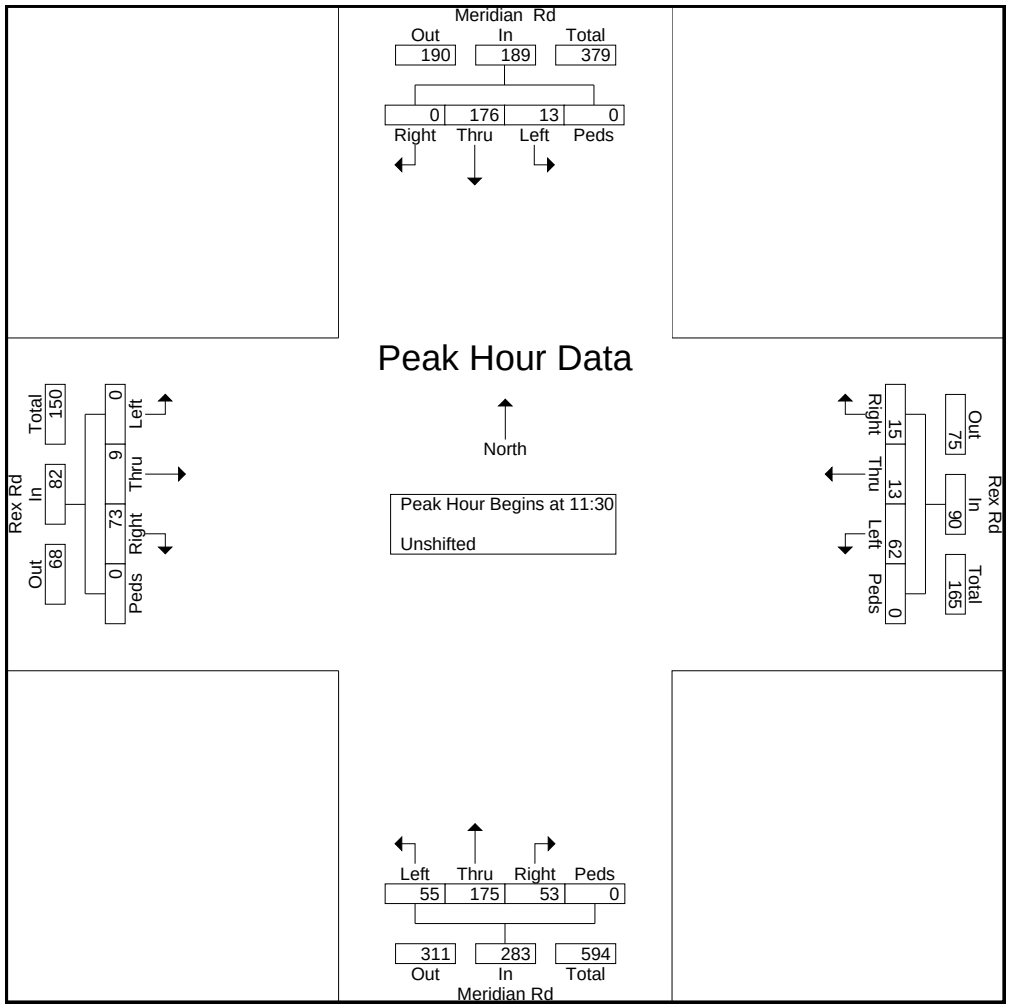
**Groups Printed- Unshifted**

| | Meridian Rd Southbound | | | | Rex Rd Westbound | | | | Meridian Rd Northbound | | | | Rex Rd Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Int. Total |
| 11:30 | 2 | 43 | 0 | 0 | 19 | 5 | 3 | 0 | 15 | 37 | 16 | 0 | 0 | 1 | 17 | 0 | 158 |
| 11:45 | 3 | 36 | 0 | 0 | 9 | 2 | 4 | 0 | 15 | 64 | 10 | 0 | 0 | 6 | 19 | 0 | 168 |
| Total | 5 | 79 | 0 | 0 | 28 | 7 | 7 | 0 | 30 | 101 | 26 | 0 | 0 | 7 | 36 | 0 | 326 |
| 12:00 | 6 | 53 | 0 | 0 | 20 | 3 | 3 | 0 | 11 | 34 | 16 | 0 | 0 | 2 | 16 | 0 | 164 |
| 12:15 | 2 | 44 | 0 | 0 | 14 | 3 | 5 | 0 | 14 | 40 | 11 | 0 | 0 | 0 | 21 | 0 | 154 |
| 12:30 | 2 | 42 | 0 | 0 | 17 | 0 | 2 | 0 | 12 | 45 | 6 | 0 | 0 | 1 | 25 | 0 | 152 |
| 12:45 | 4 | 60 | 0 | 0 | 13 | 1 | 0 | 0 | 16 | 43 | 12 | 0 | 0 | 2 | 14 | 0 | 165 |
| Total | 14 | 199 | 0 | 0 | 64 | 7 | 10 | 0 | 53 | 162 | 45 | 0 | 0 | 5 | 76 | 0 | 635 |
| 13:00 | 1 | 46 | 1 | 0 | 10 | 2 | 3 | 0 | 19 | 38 | 10 | 0 | 0 | 3 | 17 | 0 | 150 |
| 13:15 | 5 | 42 | 0 | 0 | 13 | 3 | 2 | 0 | 19 | 28 | 10 | 0 | 0 | 3 | 20 | 0 | 145 |
| Grand Total | 25 | 366 | 1 | 0 | 115 | 19 | 22 | 0 | 121 | 329 | 91 | 0 | 0 | 18 | 149 | 0 | 1256 |
| Apprch % | 6.4 | 93.4 | 0.3 | 0 | 73.7 | 12.2 | 14.1 | 0 | 22.4 | 60.8 | 16.8 | 0 | 0 | 10.8 | 89.2 | 0 | |
| Total % | 2 | 29.1 | 0.1 | 0 | 9.2 | 1.5 | 1.8 | 0 | 9.6 | 26.2 | 7.2 | 0 | 0 | 1.4 | 11.9 | 0 | |

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

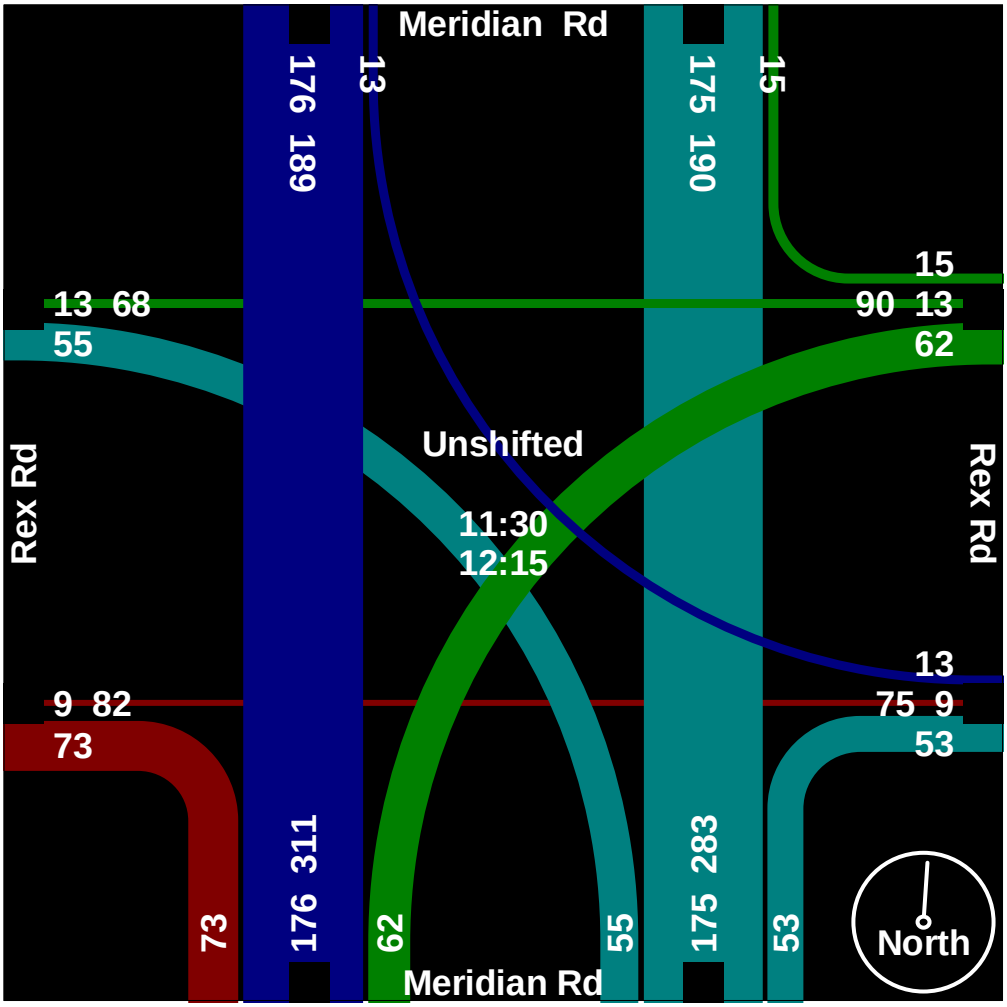
File Name : Meridian Rd - Rex Rd Noon
Site Code : 00194180
Start Date : 3/12/2019
Page No : 2

| | Meridian Rd Southbound | | | | | Rex Rd Westbound | | | | | Meridian Rd Northbound | | | | | Rex Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 11:30 to 13:15 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 11:30 | | | | | | | | | | | | | | | | | | | | | |
| 11:30 | 2 | 43 | 0 | 0 | 45 | 19 | **5** | 3 | 0 | **27** | **15** | 37 | **16** | 0 | 68 | 0 | 1 | 17 | 0 | 18 | 158 |
| 11:45 | 3 | 36 | 0 | 0 | 39 | 9 | 2 | 4 | 0 | 15 | 15 | **64** | 10 | 0 | **89** | 0 | **6** | 19 | 0 | **25** | **168** |
| 12:00 | **6** | **53** | 0 | 0 | **59** | **20** | 3 | 3 | 0 | 26 | 11 | 34 | 16 | 0 | 61 | 0 | 2 | 16 | 0 | 18 | 164 |
| 12:15 | 2 | 44 | 0 | 0 | 46 | 14 | 3 | **5** | 0 | 22 | 14 | 40 | 11 | 0 | 65 | 0 | 0 | **21** | 0 | 21 | 154 |
| Total Volume | 13 | 176 | 0 | 0 | 189 | 62 | 13 | 15 | 0 | 90 | 55 | 175 | 53 | 0 | 283 | 0 | 9 | 73 | 0 | 82 | 644 |
| % App. Total | 6.9 | 93.1 | 0 | 0 | | 68.9 | 14.4 | 16.7 | 0 | | 19.4 | 61.8 | 18.7 | 0 | | 0 | 11 | 89 | 0 | | |
| PHF | .542 | .830 | .000 | .000 | .801 | .775 | .650 | .750 | .000 | .833 | .917 | .684 | .828 | .000 | .795 | .000 | .375 | .869 | .000 | .820 | .958 |



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

File Name : Meridian Rd - Rex Rd Noon
Site Code : 00194180
Start Date : 3/12/2019
Page No : 3



# LSC Transportation Consultants, Inc.

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


File Name : Meridian Rd-Rex Rd PM
Site Code : 194180
Start Date : 3/5/2019
Page No : 1

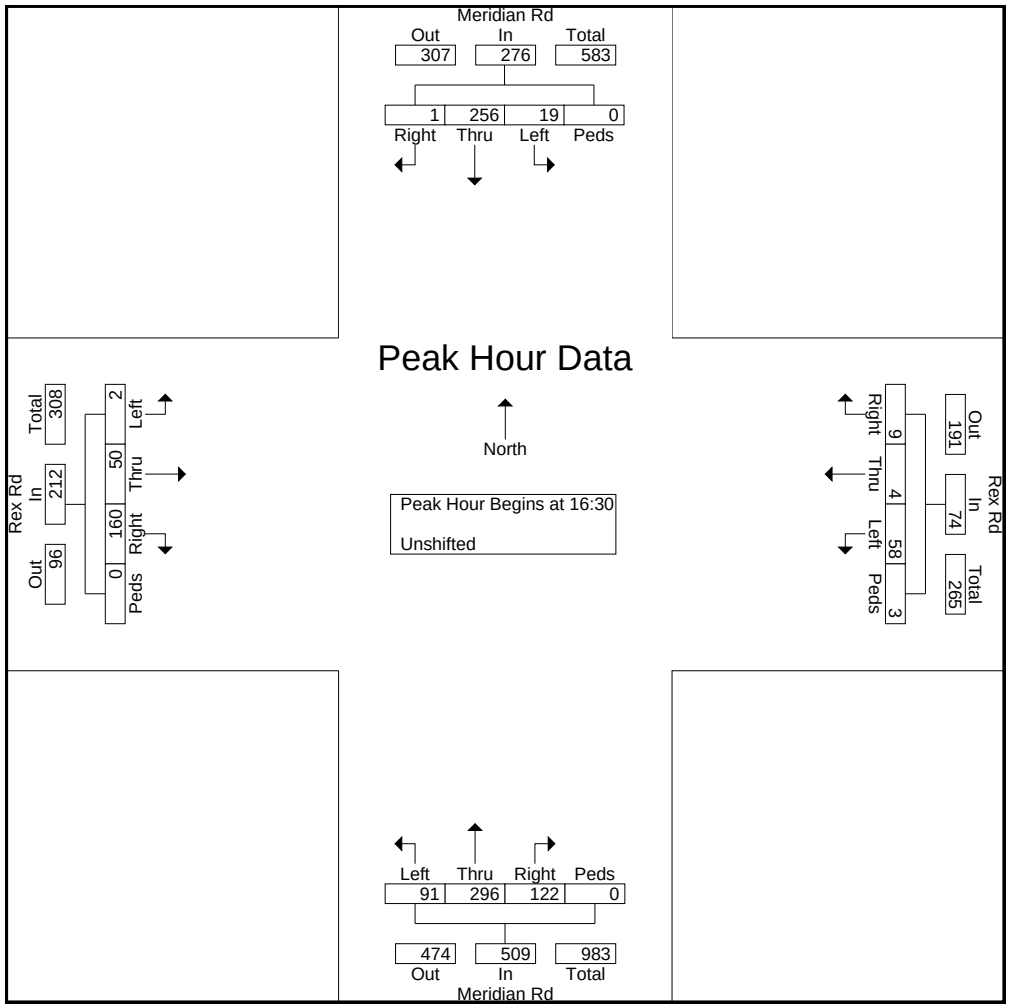
**Groups Printed- Unshifted**

| | Meridian Rd Southbound | | | | Rex Rd Westbound | | | | Meridian Rd Northbound | | | | Rex Rd Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Int. Total |
| 16:00 | 3 | 59 | 0 | 0 | 14 | 2 | 2 | 0 | 15 | 61 | 17 | 0 | 2 | 5 | 17 | 0 | 197 |
| 16:15 | 4 | 43 | 2 | 0 | 13 | 4 | 7 | 0 | 19 | 83 | 30 | 0 | 0 | 10 | 29 | 0 | 244 |
| 16:30 | 3 | 43 | 0 | 0 | 15 | 0 | 0 | 0 | 23 | 78 | 26 | 0 | 1 | 7 | 43 | 0 | 239 |
| 16:45 | 7 | 57 | 0 | 0 | 13 | 0 | 2 | 0 | 23 | 63 | 34 | 0 | 1 | 14 | 30 | 0 | 244 |
| Total | 17 | 202 | 2 | 0 | 55 | 6 | 11 | 0 | 80 | 285 | 107 | 0 | 4 | 36 | 119 | 0 | 924 |
| | | | | | | | | | | | | | | | | | |
| 17:00 | 5 | 88 | 0 | 0 | 16 | 1 | 4 | 2 | 21 | 72 | 27 | 0 | 0 | 15 | 39 | 0 | 290 |
| 17:15 | 4 | 68 | 1 | 0 | 14 | 3 | 3 | 1 | 24 | 83 | 35 | 0 | 0 | 14 | 48 | 0 | 298 |
| 17:30 | 4 | 55 | 1 | 0 | 14 | 2 | 3 | 0 | 23 | 62 | 28 | 0 | 0 | 7 | 36 | 0 | 235 |
| 17:45 | 3 | 56 | 0 | 0 | 13 | 2 | 2 | 1 | 21 | 59 | 29 | 0 | 0 | 11 | 34 | 0 | 231 |
| Total | 16 | 267 | 2 | 0 | 57 | 8 | 12 | 4 | 89 | 276 | 119 | 0 | 0 | 47 | 157 | 0 | 1054 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 33 | 469 | 4 | 0 | 112 | 14 | 23 | 4 | 169 | 561 | 226 | 0 | 4 | 83 | 276 | 0 | 1978 |
| Apprch % | 6.5 | 92.7 | 0.8 | 0 | 73.2 | 9.2 | 15 | 2.6 | 17.7 | 58.7 | 23.6 | 0 | 1.1 | 22.9 | 76 | 0 | |
| Total % | 1.7 | 23.7 | 0.2 | 0 | 5.7 | 0.7 | 1.2 | 0.2 | 8.5 | 28.4 | 11.4 | 0 | 0.2 | 4.2 | 14 | 0 | |

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

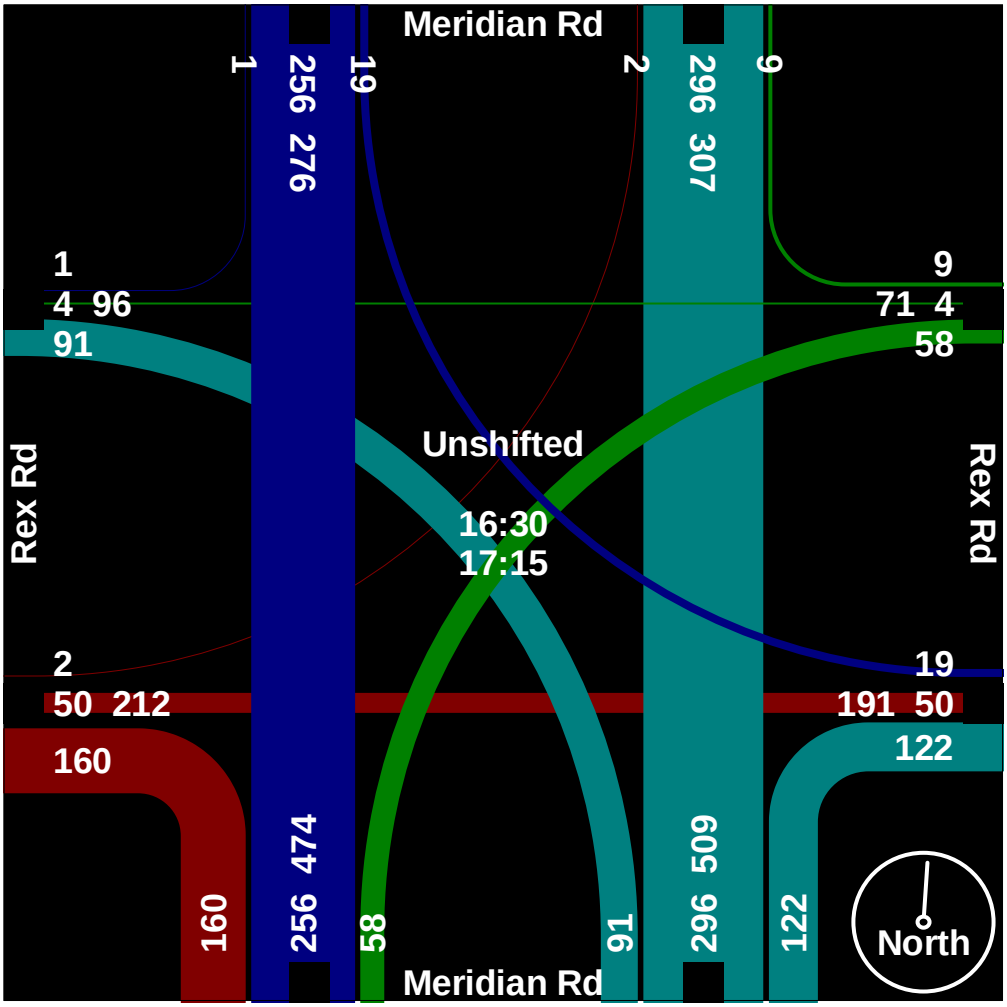
File Name : Meridian Rd-Rex Rd PM
Site Code : 194180
Start Date : 3/5/2019
Page No : 2

| | Meridian Rd Southbound | | | | | Rex Rd Westbound | | | | | Meridian Rd Northbound | | | | | Rex Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:30 | | | | | | | | | | | | | | | | | | | | | |
| 16:30 | 3 | 43 | 0 | 0 | 46 | 15 | 0 | 0 | 0 | 15 | 23 | 78 | 26 | 0 | 127 | **1** | 7 | 43 | 0 | 51 | 239 |
| 16:45 | **7** | 57 | 0 | 0 | 64 | 13 | 0 | 2 | 0 | 15 | 23 | 63 | 34 | 0 | 120 | 1 | 14 | 30 | 0 | 45 | 244 |
| 17:00 | 5 | **88** | 0 | 0 | **93** | **16** | 1 | **4** | **2** | **23** | 21 | 72 | 27 | 0 | 120 | 0 | **15** | 39 | 0 | 54 | 290 |
| 17:15 | 4 | 68 | **1** | 0 | 73 | 14 | **3** | 3 | 1 | 21 | **24** | **83** | **35** | 0 | **142** | 0 | 14 | **48** | 0 | **62** | **298** |
| Total Volume | 19 | 256 | 1 | 0 | 276 | 58 | 4 | 9 | 3 | 74 | 91 | 296 | 122 | 0 | 509 | 2 | 50 | 160 | 0 | 212 | 1071 |
| % App. Total | 6.9 | 92.8 | 0.4 | 0 | | 78.4 | 5.4 | 12.2 | 4.1 | | 17.9 | 58.2 | 24 | 0 | | 0.9 | 23.6 | 75.5 | 0 | | |
| PHF | .679 | .727 | .250 | .000 | .742 | .906 | .333 | .563 | .375 | .804 | .948 | .892 | .871 | .000 | .896 | .500 | .833 | .833 | .000 | .855 | .898 |



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

File Name : Meridian Rd-Rex Rd PM
Site Code : 194180
Start Date : 3/5/2019
Page No : 3



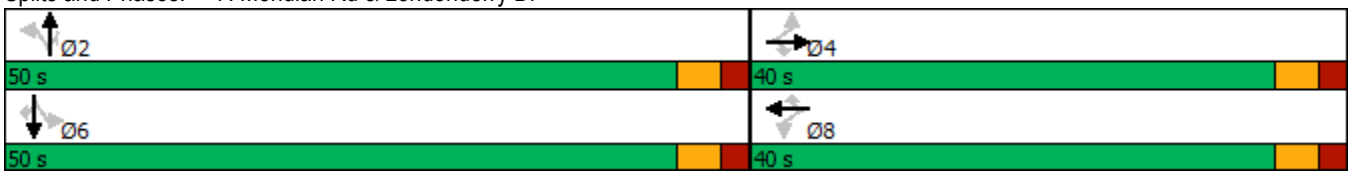
# Levels of Service

TRANSPORTATION
CONSULTANTS, INC.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 131 | 111 | 202 | 321 | 152 | 116 | 79 | 425 | 97 | 53 | 416 | 97 |
| Future Volume (vph) | 131 | 111 | 202 | 321 | 152 | 116 | 79 | 425 | 97 | 53 | 416 | 97 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Total Split (%) | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 27.2 | 27.2 | 27.2 | 27.2 | 27.2 | 27.2 | 45.3 | 45.3 | 45.3 | 45.3 | 45.3 | 45.3 |
| Actuated g/C Ratio | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| v/c Ratio | 0.39 | 0.21 | 0.35 | 0.85 | 0.27 | 0.21 | 0.21 | 0.27 | 0.13 | 0.14 | 0.25 | 0.12 |
| Control Delay | 23.9 | 20.1 | 4.2 | 44.9 | 20.8 | 4.5 | 13.1 | 11.5 | 2.8 | 12.4 | 11.3 | 2.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.9 | 20.1 | 4.2 | 44.9 | 20.8 | 4.5 | 13.1 | 11.5 | 2.8 | 12.4 | 11.3 | 2.9 |
| LOS | C | C | A | D | C | A | B | B | A | B | B | A |
| Approach Delay | | 14.0 | | | 30.7 | | | 10.3 | | | 10.0 | |
| Approach LOS | | B | | | C | | | B | | | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 82.6 | | | |
| Natural Cycle: 50 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.85 | | | |
| Intersection Signal Delay: 16.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 56.2% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr



| Intersection | |
|---|---|
| Int Delay, s/veh | 73.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 5 | 79 | 105 | 51 | 41 | 201 | 317 | 30 | 19 | 430 | 6 |
| Future Vol, veh/h | 2 | 5 | 79 | 105 | 51 | 41 | 201 | 317 | 30 | 19 | 430 | 6 |
| 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 | 390 | - | 390 | 465 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 86 | 86 | 86 | 87 | 87 | 87 | 94 | 94 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 6 | 101 | 122 | 59 | 48 | 231 | 364 | 34 | 20 | 457 | 6 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1397 | 1360 | 460 | 1380 | 1329 | 364 | 463 | 0 | 0 | 398 | 0 | 0 |
| Stage 1 | 500 | 500 | - | 826 | 826 | - | - | - | - | - | - | - |
| Stage 2 | 897 | 860 | - | 554 | 503 | - | - | - | - | - | - | - |
| 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 | 118 | 148 | 601 | ~ 122 | 155 | 681 | 1098 | - | - | 1161 | - | - |
| Stage 1 | 553 | 543 | - | 366 | 387 | - | - | - | - | - | - | - |
| Stage 2 | 334 | 373 | - | 517 | 541 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 57 | 115 | 601 | ~ 81 | 120 | 681 | 1098 | - | - | 1161 | - | - |
| Mov Cap-2 Maneuver | 57 | 115 | - | ~ 81 | 120 | - | - | - | - | - | - | - |
| Stage 1 | 437 | 534 | - | 289 | 306 | - | - | - | - | - | - | - |
| Stage 2 | 198 | 295 | - | 417 | 532 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 17 | $ 446 | 3.4 | 0.3 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1098 | - | - | 409 | 91 | 681 | 1161 | - | - |
| HCM Lane V/C Ratio | 0.21 | - | - | 0.27 | 1.993 | 0.07 | 0.017 | - | - |
| HCM Control Delay (s) | 9.2 | - | - | 17 | $ 560.4 | 10.7 | 8.2 | - | - |
| HCM Lane LOS | A | - | - | C | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | - | 1.1 | 15.6 | 0.2 | 0.1 | - | - |

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

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 23 | 36 | 81 | 236 | 25 | 30 | 100 | 453 | 355 | 71 | 302 | 62 |
| Future Volume (vph) | 23 | 36 | 81 | 236 | 25 | 30 | 100 | 453 | 355 | 71 | 302 | 62 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 55.8 | 55.8 | 55.8 | 55.8 | 55.8 | 55.8 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.08 | 0.10 | 0.21 | 0.83 | 0.06 | 0.08 | 0.17 | 0.22 | 0.33 | 0.15 | 0.15 | 0.07 |
| Control Delay | 25.1 | 25.1 | 6.8 | 52.4 | 24.6 | 9.1 | 7.9 | 7.2 | 1.7 | 7.9 | 6.9 | 2.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 25.1 | 25.1 | 6.8 | 52.4 | 24.6 | 9.1 | 7.9 | 7.2 | 1.7 | 7.9 | 6.9 | 2.1 |
| LOS | C | C | A | D | C | A | A | A | A | A | A | A |
| Approach Delay | | 14.5 | | | 45.5 | | | 5.1 | | | 6.4 | |
| Approach LOS | | B | | | D | | | A | | | A | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 90 | | |
| Actuated Cycle Length: 86.8 | | |
| Natural Cycle: 50 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.83 | | |
| Intersection Signal Delay: 13.0 | Intersection LOS: B | |
| Intersection Capacity Utilization 48.9% | ICU Level of Service A | |
| Analysis Period (min) 15 | | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr

| Intersection | |
|---|---|
| Int Delay, s/veh | 8.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 50 | 160 | 58 | 4 | 9 | 91 | 296 | 122 | 19 | 256 | 11 |
| Future Vol, veh/h | 2 | 50 | 160 | 58 | 4 | 9 | 91 | 296 | 122 | 19 | 256 | 11 |
| 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 | 390 | - | 390 | 465 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 89 | 89 | 89 | 90 | 90 | 90 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 59 | 188 | 65 | 4 | 10 | 101 | 329 | 136 | 20 | 269 | 12 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 921 | 982 | 275 | 970 | 852 | 329 | 281 | 0 | 0 | 465 | 0 | 0 |
| Stage 1 | 315 | 315 | - | 531 | 531 | - | - | - | - | - | - | - |
| Stage 2 | 606 | 667 | - | 439 | 321 | - | - | - | - | - | - | - |
| 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 | 251 | 249 | 764 | 233 | 297 | 712 | 1282 | - | - | 1096 | - | - |
| Stage 1 | 696 | 656 | - | 532 | 526 | - | - | - | - | - | - | - |
| Stage 2 | 484 | 457 | - | 597 | 652 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 226 | 225 | 764 | 130 | 268 | 712 | 1282 | - | - | 1096 | - | - |
| Mov Cap-2 Maneuver | 226 | 225 | - | 130 | 268 | - | - | - | - | - | - | - |
| Stage 1 | 641 | 644 | - | 490 | 484 | - | - | - | - | - | - | - |
| Stage 2 | 435 | 421 | - | 401 | 640 | - | - | - | - | - | - | - |

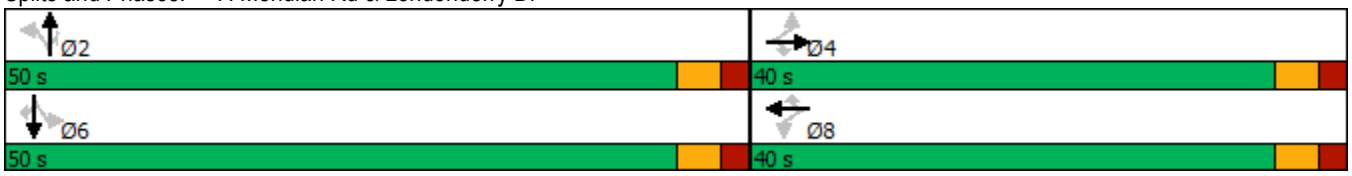
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 20.3 | 51.8 | 1.4 | 0.6 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1282 | - | - | 481 | 134 | 712 | 1096 | - | - |
| HCM Lane V/C Ratio | 0.079 | - | - | 0.519 | 0.52 | 0.014 | 0.018 | - | - |
| HCM Control Delay (s) | 8 | - | - | 20.3 | 57.8 | 10.1 | 8.3 | - | - |
| HCM Lane LOS | A | - | - | C | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 2.9 | 2.5 | 0 | 0.1 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 163 | 117 | 360 | 333 | 157 | 126 | 133 | 445 | 101 | 56 | 481 | 109 |
| Future Volume (vph) | 163 | 117 | 360 | 333 | 157 | 126 | 133 | 445 | 101 | 56 | 481 | 109 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Total Split (%) | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 | 45.3 | 45.3 | 45.3 | 45.3 | 45.3 | 45.3 |
| Actuated g/C Ratio | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 |
| v/c Ratio | 0.48 | 0.22 | 0.60 | 0.86 | 0.27 | 0.22 | 0.39 | 0.29 | 0.14 | 0.15 | 0.29 | 0.14 |
| Control Delay | 25.8 | 20.0 | 12.3 | 45.9 | 20.7 | 4.3 | 16.6 | 12.0 | 2.8 | 12.9 | 12.0 | 2.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 25.8 | 20.0 | 12.3 | 45.9 | 20.7 | 4.3 | 16.6 | 12.0 | 2.8 | 12.9 | 12.0 | 2.8 |
| LOS | C | B | B | D | C | A | B | B | A | B | B | A |
| Approach Delay | | 17.2 | | | 31.0 | | | 11.5 | | | 10.5 | |
| Approach LOS | | B | | | C | | | B | | | B | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 90 | | |
| Actuated Cycle Length: 83.8 | | |
| Natural Cycle: 50 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.86 | | |
| Intersection Signal Delay: 17.0 | Intersection LOS: B | |
| Intersection Capacity Utilization 66.5% | ICU Level of Service C | |
| Analysis Period (min) 15 | | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr



| Intersection | |
|---|---|
| Int Delay, s/veh | 168.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 8 | 87 | 132 | 59 | 47 | 222 | 350 | 38 | 21 | 475 | 7 |
| Future Vol, veh/h | 2 | 8 | 87 | 132 | 59 | 47 | 222 | 350 | 38 | 21 | 475 | 7 |
| 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 | 390 | - | 390 | 465 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 87 | 87 | 87 | 86 | 86 | 86 | 94 | 94 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 10 | 112 | 152 | 68 | 54 | 258 | 407 | 44 | 22 | 505 | 7 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1559 | 1520 | 509 | 1537 | 1479 | 407 | 512 | 0 | 0 | 451 | 0 | 0 |
| Stage 1 | 553 | 553 | - | 923 | 923 | - | - | - | - | - | - | - |
| Stage 2 | 1006 | 967 | - | 614 | 556 | - | - | - | - | - | - | - |
| 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 | 119 | 564 | ~ 95 | 126 | 644 | 1053 | - | - | 1109 | - | - |
| Stage 1 | 517 | 514 | - | 323 | 349 | - | - | - | - | - | - | - |
| Stage 2 | 291 | 333 | - | 479 | 513 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 28 | 88 | 564 | ~ 56 | 93 | 644 | 1053 | - | - | 1109 | - | - |
| Mov Cap-2 Maneuver | 28 | 88 | - | ~ 56 | 93 | - | - | - | - | - | - | - |
| Stage 1 | 390 | 504 | - | 244 | 263 | - | - | - | - | - | - | - |
| Stage 2 | 149 | 251 | - | 369 | 503 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 24.6 | $ 988.7 | 3.5 | 0.3 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1053 | - | - | 306 | 64 | 644 | 1109 | - | - |
| HCM Lane V/C Ratio | 0.245 | - | - | 0.406 | 3.43 | 0.084 | 0.02 | - | - |
| HCM Control Delay (s) | 9.5 | - | - | 24.5 | $ 1229.2 | 11.1 | 8.3 | - | - |
| HCM Lane LOS | A | - | - | C | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 1 | - | - | 1.9 | 23 | 0.3 | 0.1 | - | - |

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

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 45 | 45 | 186 | 245 | 33 | 38 | 278 | 492 | 373 | 100 | 312 | 99 |
| Future Volume (vph) | 45 | 45 | 186 | 245 | 33 | 38 | 278 | 492 | 373 | 100 | 312 | 99 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 21.6 | 21.6 | 21.6 | 21.6 | 21.6 | 21.6 | 55.2 | 55.2 | 55.2 | 55.2 | 55.2 | 55.2 |
| Actuated g/C Ratio | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.16 | 0.12 | 0.40 | 0.84 | 0.08 | 0.10 | 0.48 | 0.24 | 0.35 | 0.22 | 0.16 | 0.11 |
| Control Delay | 26.2 | 25.3 | 6.0 | 53.9 | 24.8 | 8.5 | 12.2 | 7.6 | 1.7 | 8.8 | 7.1 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.2 | 25.3 | 6.0 | 53.9 | 24.8 | 8.5 | 12.2 | 7.6 | 1.7 | 8.8 | 7.1 | 1.8 |
| LOS | C | C | A | D | C | A | B | A | A | A | A | A |
| Approach Delay | | 12.4 | | | 45.4 | | | 6.8 | | | 6.4 | |
| Approach LOS | | B | | | D | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 86.8 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.84 | |
| Intersection Signal Delay: 13.0 | Intersection LOS: B |
| Intersection Capacity Utilization 56.8% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr

| Intersection | |
|---|---|
| Int Delay, s/veh | 18.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 60 | 177 | 75 | 9 | 13 | 100 | 327 | 151 | 26 | 283 | 1 |
| Future Vol, veh/h | 2 | 60 | 177 | 75 | 9 | 13 | 100 | 327 | 151 | 26 | 283 | 1 |
| 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 | 390 | - | 390 | 465 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 89 | 89 | 89 | 90 | 90 | 90 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 71 | 208 | 84 | 10 | 15 | 111 | 363 | 168 | 27 | 298 | 1 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1035 | 1106 | 299 | 1077 | 938 | 363 | 299 | 0 | 0 | 531 | 0 | 0 |
| Stage 1 | 353 | 353 | - | 585 | 585 | - | - | - | - | - | - | - |
| Stage 2 | 682 | 753 | - | 492 | 353 | - | - | - | - | - | - | - |
| 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 | 210 | 210 | 741 | 197 | 264 | 682 | 1262 | - | - | 1036 | - | - |
| Stage 1 | 664 | 631 | - | 497 | 498 | - | - | - | - | - | - | - |
| Stage 2 | 440 | 417 | - | 558 | 631 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 182 | 186 | 741 | 92 | 234 | 682 | 1262 | - | - | 1036 | - | - |
| Mov Cap-2 Maneuver | 182 | 186 | - | 92 | 234 | - | - | - | - | - | - | - |
| Stage 1 | 606 | 615 | - | 453 | 454 | - | - | - | - | - | - | - |
| Stage 2 | 384 | 380 | - | 346 | 615 | - | - | - | - | - | - | - |

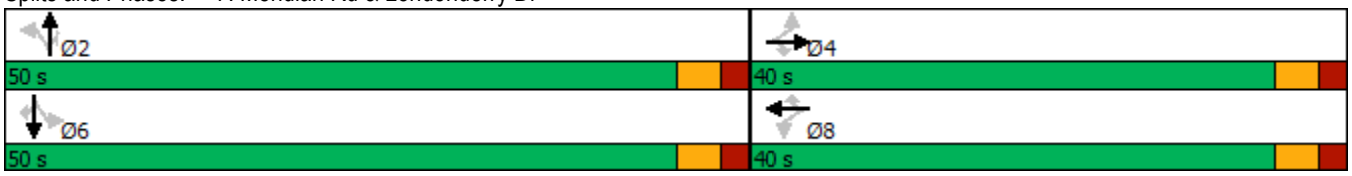
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 29.6 | 139.9 | 1.4 | 0.7 |
| HCM LOS | D | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1262 | - | - | 418 | 98 | 682 | 1036 | - | - |
| HCM Lane V/C Ratio | 0.088 | - | - | 0.673 | 0.963 | 0.021 | 0.026 | - | - |
| HCM Control Delay (s) | 8.1 | - | - | 29.6 | 159.9 | 10.4 | 8.6 | - | - |
| HCM Lane LOS | A | - | - | D | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 4.8 | 5.7 | 0.1 | 0.1 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 164 | 119 | 360 | 384 | 164 | 126 | 133 | 462 | 120 | 56 | 548 | 113 |
| Future Volume (vph) | 164 | 119 | 360 | 384 | 164 | 126 | 133 | 462 | 120 | 56 | 548 | 113 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Total Split (%) | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 31.9 | 31.9 | 31.9 | 31.9 | 31.9 | 31.9 | 45.1 | 45.1 | 45.1 | 45.1 | 45.1 | 45.1 |
| Actuated g/C Ratio | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 |
| v/c Ratio | 0.45 | 0.21 | 0.60 | 0.92 | 0.26 | 0.21 | 0.47 | 0.32 | 0.17 | 0.17 | 0.35 | 0.15 |
| Control Delay | 24.7 | 19.4 | 14.6 | 53.3 | 20.1 | 4.2 | 20.0 | 13.2 | 2.7 | 13.8 | 13.6 | 2.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 24.7 | 19.4 | 14.6 | 53.3 | 20.1 | 4.2 | 20.0 | 13.2 | 2.7 | 13.8 | 13.6 | 2.8 |
| LOS | C | B | B | D | C | A | B | B | A | B | B | A |
| Approach Delay | | 18.1 | | | 36.1 | | | 12.7 | | | 11.9 | |
| Approach LOS | | B | | | D | | | B | | | B | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 90 | | |
| Actuated Cycle Length: 87.1 | | |
| Natural Cycle: 50 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.92 | | |
| Intersection Signal Delay: 19.1 | Intersection LOS: B | |
| Intersection Capacity Utilization 71.2% | ICU Level of Service C | |
| Analysis Period (min) 15 | | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr



| Intersection | |
|---|---|
| Int Delay, s/veh | 3.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 1 | 18 | 10 | 0 | 72 | 0 | 36 | 2 | 0 | 0 | 4 | 5 |
| Future Vol, veh/h | 1 | 18 | 10 | 0 | 72 | 0 | 36 | 2 | 0 | 0 | 4 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| Heavy Vehicles, % | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 23 | 13 | 0 | 92 | 0 | 46 | 3 | 0 | 0 | 5 | 6 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 92 | 0 | 0 | 36 | 0 | 0 | 130 | 124 | 30 | 125 | 130 | 92 |
| Stage 1 | - | - | - | - | - | - | 32 | 32 | - | 92 | 92 | - |
| Stage 2 | - | - | - | - | - | - | 98 | 92 | - | 33 | 38 | - |
| 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 | 1503 | - | - | 1575 | - | - | 843 | 766 | 1044 | 849 | 761 | 965 |
| Stage 1 | - | - | - | - | - | - | 984 | 868 | - | 915 | 819 | - |
| Stage 2 | - | - | - | - | - | - | 908 | 819 | - | 983 | 863 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1503 | - | - | 1575 | - | - | 832 | 765 | 1044 | 846 | 760 | 965 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 832 | 765 | - | 846 | 760 | - |
| Stage 1 | - | - | - | - | - | - | 983 | 867 | - | 914 | 819 | - |
| Stage 2 | - | - | - | - | - | - | 896 | 819 | - | 979 | 862 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 9.6 | 9.2 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 828 | 1503 | - | - | 1575 | - | - | 862 |
| HCM Lane V/C Ratio | 0.059 | 0.001 | - | - | - | - | - | 0.013 |
| HCM Control Delay (s) | 9.6 | 7.4 | 0 | - | 0 | - | - | 9.2 |
| HCM Lane LOS | A | A | A | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.2 | 0 | - | - | 0 | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 392.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 13 | 87 | 199 | 76 | 64 | 222 | 350 | 55 | 26 | 475 | 7 |
| Future Vol, veh/h | 2 | 13 | 87 | 199 | 76 | 64 | 222 | 350 | 55 | 26 | 475 | 7 |
| 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 | 390 | - | 390 | 465 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 87 | 87 | 87 | 86 | 86 | 86 | 94 | 94 | 94 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 17 | 112 | 229 | 87 | 74 | 258 | 407 | 64 | 28 | 505 | 7 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1601 | 1552 | 509 | 1552 | 1491 | 407 | 512 | 0 | 0 | 471 | 0 | 0 |
| Stage 1 | 565 | 565 | - | 923 | 923 | - | - | - | - | - | - | - |
| Stage 2 | 1036 | 987 | - | 629 | 568 | - | - | - | - | - | - | - |
| 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 | 85 | 113 | 564 | ~ 92 | 124 | 644 | 1053 | - | - | 1091 | - | - |
| Stage 1 | 510 | 508 | - | 323 | 349 | - | - | - | - | - | - | - |
| Stage 2 | 280 | 325 | - | 470 | 506 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 9 | 83 | 564 | ~ 50 | 91 | 644 | 1053 | - | - | 1091 | - | - |
| Mov Cap-2 Maneuver | 9 | 83 | - | ~ 50 | 91 | - | - | - | - | - | - | - |
| Stage 1 | 385 | 495 | - | 244 | 263 | - | - | - | - | - | - | - |
| Stage 2 | 125 | 245 | - | 355 | 493 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 57 | $ 1777.1 | 3.4 | 0.4 |
| HCM LOS | F | F | | |

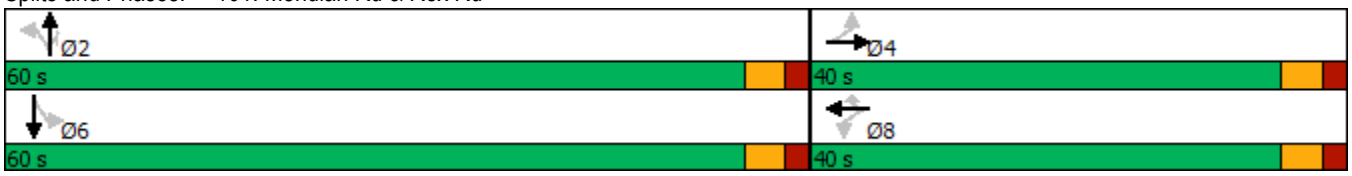
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1053 | - | - | 191 | 57 | 644 | 1091 | - | - |
| HCM Lane V/C Ratio | 0.245 | - | - | 0.685 | 5.545 | 0.114 | 0.025 | - | - |
| HCM Control Delay (s) | 9.5 | - | - | 57 | $ 2188 | 11.3 | 8.4 | - | - |
| HCM Lane LOS | A | - | - | F | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 1 | - | - | 4.2 | 35.7 | 0.4 | 0.1 | - | - |

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

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 13 | 199 | 76 | 64 | 222 | 350 | 55 | 26 | 475 |
| Future Volume (vph) | 2 | 13 | 199 | 76 | 64 | 222 | 350 | 55 | 26 | 475 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 4 | | 8 | | | 2 | | | 6 |
| Permitted Phases | 4 | | 8 | | 8 | 2 | | 2 | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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) | | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | Max | Max | Max | Max | Max |
| Act Effct Green (s) | | 26.2 | | 26.2 | 26.2 | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 |
| Actuated g/C Ratio | | 0.29 | | 0.29 | 0.29 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| v/c Ratio | | 0.24 | | 0.86 | 0.15 | 0.58 | 0.36 | 0.07 | 0.05 | 0.46 |
| Control Delay | | 7.5 | | 52.7 | 6.3 | 19.9 | 11.6 | 3.0 | 9.9 | 12.8 |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 7.5 | | 52.7 | 6.3 | 19.9 | 11.6 | 3.0 | 9.9 | 12.8 |
| LOS | | A | | D | A | B | B | A | A | B |
| Approach Delay | | 7.5 | | 43.9 | | | 13.7 | | | 12.7 |
| Approach LOS | | A | | D | | | B | | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 100 | |
| Actuated Cycle Length: 91.6 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.86 | |
| Intersection Signal Delay: 19.5 | Intersection LOS: B |
| Intersection Capacity Utilization 71.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 101: Meridian Rd & Rex Rd



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 49 | 53 | 186 | 277 | 37 | 38 | 278 | 580 | 433 | 100 | 361 | 101 |
| Future Volume (vph) | 49 | 53 | 186 | 277 | 37 | 38 | 278 | 580 | 433 | 100 | 361 | 101 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 | 55.0 |
| Total Split (%) | 38.9% | 38.9% | 38.9% | 38.9% | 38.9% | 38.9% | 61.1% | 61.1% | 61.1% | 61.1% | 61.1% | 61.1% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 50.2 | 50.2 | 50.2 | 50.2 | 50.2 | 50.2 |
| Actuated g/C Ratio | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| v/c Ratio | 0.15 | 0.12 | 0.37 | 0.84 | 0.08 | 0.09 | 0.54 | 0.30 | 0.42 | 0.27 | 0.20 | 0.12 |
| Control Delay | 22.7 | 22.0 | 5.0 | 48.1 | 21.5 | 7.2 | 15.9 | 9.6 | 2.2 | 11.7 | 8.9 | 2.3 |
| 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 | 22.7 | 22.0 | 5.0 | 48.1 | 21.5 | 7.2 | 15.9 | 9.6 | 2.2 | 11.7 | 8.9 | 2.3 |
| LOS | C | C | A | D | C | A | B | A | A | B | A | A |
| Approach Delay | | 11.2 | | | 40.9 | | | 8.5 | | | 8.2 | |
| Approach LOS | | B | | | D | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 84.3 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.84 | |
| Intersection Signal Delay: 13.4 | Intersection LOS: B |
| Intersection Capacity Utilization 59.9% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 6 | 95 | 45 | 0 | 52 | 0 | 24 | 4 | 0 | 0 | 3 | 3 |
| Future Vol, veh/h | 6 | 95 | 45 | 0 | 52 | 0 | 24 | 4 | 0 | 0 | 3 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| Heavy Vehicles, % | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 8 | 122 | 58 | 0 | 67 | 0 | 31 | 5 | 0 | 0 | 4 | 4 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 67 | 0 | 0 | 180 | 0 | 0 | 238 | 234 | 151 | 237 | 263 | 67 |
| Stage 1 | - | - | - | - | - | - | 167 | 167 | - | 67 | 67 | - |
| Stage 2 | - | - | - | - | - | - | 71 | 67 | - | 170 | 196 | - |
| 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 | 1535 | - | - | 1396 | - | - | 716 | 666 | 895 | 717 | 642 | 997 |
| Stage 1 | - | - | - | - | - | - | 835 | 760 | - | 943 | 839 | - |
| Stage 2 | - | - | - | - | - | - | 939 | 839 | - | 832 | 739 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1535 | - | - | 1396 | - | - | 707 | 662 | 895 | 710 | 638 | 997 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 707 | 662 | - | 710 | 638 | - |
| Stage 1 | - | - | - | - | - | - | 830 | 755 | - | 937 | 839 | - |
| Stage 2 | - | - | - | - | - | - | 931 | 839 | - | 821 | 735 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 10.4 | 9.7 |
| HCM LOS | | | B | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 700 | 1535 | - | - | 1396 | - | - | 778 |
| HCM Lane V/C Ratio | 0.051 | 0.005 | - | - | - | - | - | 0.01 |
| HCM Control Delay (s) | 10.4 | 7.4 | 0 | - | 0 | - | - | 9.7 |
| HCM Lane LOS | B | A | A | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 0.2 | 0 | - | - | 0 | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 104.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 81 | 177 | 126 | 20 | 24 | 100 | 327 | 243 | 47 | 283 | 1 |
| Future Vol, veh/h | 2 | 81 | 177 | 126 | 20 | 24 | 100 | 327 | 243 | 47 | 283 | 1 |
| 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 | 390 | - | 390 | 465 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 89 | 89 | 89 | 90 | 90 | 90 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 95 | 208 | 142 | 22 | 27 | 111 | 363 | 270 | 49 | 298 | 1 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1142 | 1252 | 299 | 1133 | 982 | 363 | 299 | 0 | 0 | 633 | 0 | 0 |
| Stage 1 | 397 | 397 | - | 585 | 585 | - | - | - | - | - | - | - |
| Stage 2 | 745 | 855 | - | 548 | 397 | - | - | - | - | - | - | - |
| 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 | 177 | 172 | 741 | 180 | 249 | 682 | 1262 | - | - | 950 | - | - |
| Stage 1 | 629 | 603 | - | 497 | 498 | - | - | - | - | - | - | - |
| Stage 2 | 406 | 375 | - | 521 | 603 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 141 | 149 | 741 | ~ 57 | 215 | 682 | 1262 | - | - | 950 | - | - |
| Mov Cap-2 Maneuver | 141 | 149 | - | ~ 57 | 215 | - | - | - | - | - | - | - |
| Stage 1 | 574 | 572 | - | 453 | 454 | - | - | - | - | - | - | - |
| Stage 2 | 338 | 342 | - | 296 | 572 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 71.8 | $ 746.2 | 1.2 | 1.3 |
| HCM LOS | F | F | | |

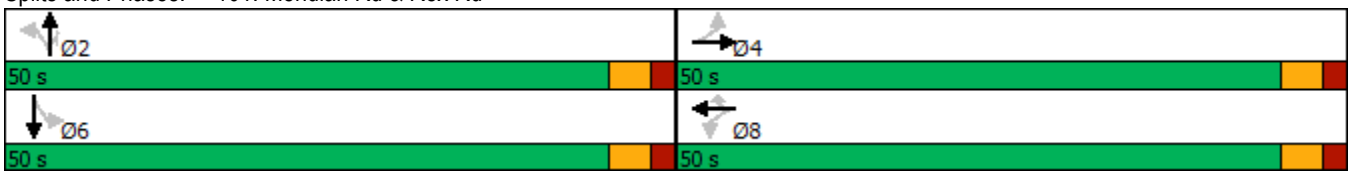
| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1262 | - | - | 326 | 63 | 682 | 950 | - | - |
| HCM Lane V/C Ratio | 0.088 | - | - | 0.938 | 2.604 | 0.04 | 0.052 | - | - |
| HCM Control Delay (s) | 8.1 | - | - | 71.8 | $ 867.1 | 10.5 | 9 | - | - |
| HCM Lane LOS | A | - | - | F | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 9.5 | 16.4 | 0.1 | 0.2 | - | - |

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

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 81 | 126 | 20 | 24 | 100 | 327 | 243 | 47 | 283 |
| Future Volume (vph) | 2 | 81 | 126 | 20 | 24 | 100 | 327 | 243 | 47 | 283 |
| Turn Type | Perm | NA | Perm | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 4 | | 8 | | | 2 | | | 6 |
| Permitted Phases | 4 | | 8 | | 8 | 2 | | 2 | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Total Split (%) | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% | 50.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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) | | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | Max | Max | Max | Max | Max |
| Act Effct Green (s) | | 21.3 | | 21.3 | 21.3 | 45.1 | 45.1 | 45.1 | 45.1 | 45.1 |
| Actuated g/C Ratio | | 0.28 | | 0.28 | 0.28 | 0.59 | 0.59 | 0.59 | 0.59 | 0.59 |
| v/c Ratio | | 0.53 | | 0.76 | 0.06 | 0.18 | 0.33 | 0.26 | 0.09 | 0.27 |
| Control Delay | | 15.9 | | 48.3 | 8.3 | 8.6 | 9.4 | 1.8 | 7.9 | 8.8 |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 15.9 | | 48.3 | 8.3 | 8.6 | 9.4 | 1.8 | 7.9 | 8.8 |
| LOS | | B | | D | A | A | A | A | A | A |
| Approach Delay | | 15.9 | | 42.6 | | | 6.5 | | | 8.7 |
| Approach LOS | | B | | D | | | A | | | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 100 | |
| Actuated Cycle Length: 76.4 | |
| Natural Cycle: 50 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.76 | |
| Intersection Signal Delay: 13.1 | Intersection LOS: B |
| Intersection Capacity Utilization 70.5% | ICU Level of Service C |
| Analysis Period (min) 15 | |

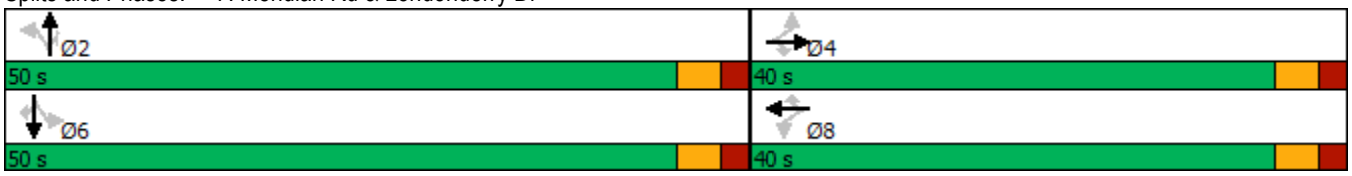
Splits and Phases: 101: Meridian Rd & Rex Rd



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 164 | 121 | 281 | 333 | 162 | 138 | 112 | 538 | 101 | 59 | 820 | 115 |
| Future Volume (vph) | 164 | 121 | 281 | 333 | 162 | 138 | 112 | 538 | 101 | 59 | 820 | 115 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Total Split (%) | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 45.4 | 45.4 | 45.4 | 45.4 | 45.4 | 45.4 |
| Actuated g/C Ratio | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| v/c Ratio | 0.45 | 0.21 | 0.49 | 0.84 | 0.28 | 0.23 | 0.42 | 0.29 | 0.12 | 0.15 | 0.45 | 0.13 |
| Control Delay | 25.1 | 19.9 | 15.8 | 44.3 | 20.9 | 4.3 | 19.5 | 11.7 | 2.9 | 12.6 | 13.3 | 2.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 25.1 | 19.9 | 15.8 | 44.3 | 20.9 | 4.3 | 19.5 | 11.7 | 2.9 | 12.6 | 13.3 | 2.8 |
| LOS | C | B | B | D | C | A | B | B | A | B | B | A |
| Approach Delay | | 19.4 | | | 29.6 | | | 11.7 | | | 12.0 | |
| Approach LOS | | B | | | C | | | B | | | B | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 90 | | |
| Actuated Cycle Length: 82.9 | | |
| Natural Cycle: 50 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.84 | | |
| Intersection Signal Delay: 17.1 | Intersection LOS: B | |
| Intersection Capacity Utilization 71.0% | ICU Level of Service C | |
| Analysis Period (min) 15 | | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr



| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 5 | 246 | 1 | 2 | 232 | 3 | 5 | 6 | 8 | 14 | 10 | 17 |
| Future Vol, veh/h | 5 | 246 | 1 | 2 | 232 | 3 | 5 | 6 | 8 | 14 | 10 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |
| Mvmt Flow | 5 | 259 | 1 | 2 | 244 | 3 | 5 | 6 | 8 | 15 | 11 | 18 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 247 | 0 | 0 | 260 | 0 | 0 | 534 | 521 | 260 | 527 | 520 | 246 |
| Stage 1 | - | - | - | - | - | - | 270 | 270 | - | 250 | 250 | - |
| Stage 2 | - | - | - | - | - | - | 264 | 251 | - | 277 | 270 | - |
| Critical Hdwy | 4.11 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.11 | 6.52 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Follow-up Hdwy | 2.209 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.509 | 4.018 | 3.309 |
| Pot Cap-1 Maneuver | 1325 | - | - | 1304 | - | - | 457 | 460 | 779 | 463 | 461 | 795 |
| Stage 1 | - | - | - | - | - | - | 736 | 686 | - | 756 | 700 | - |
| Stage 2 | - | - | - | - | - | - | 741 | 699 | - | 732 | 686 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1325 | - | - | 1304 | - | - | 437 | 457 | 779 | 451 | 458 | 795 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 437 | 457 | - | 451 | 458 | - |
| Stage 1 | - | - | - | - | - | - | 733 | 683 | - | 753 | 699 | - |
| Stage 2 | - | - | - | - | - | - | 712 | 698 | - | 715 | 683 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.2 | 0.1 | 11.9 | 12.1 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 545 | 1325 | - | - | 1304 | - | - | 552 |
| HCM Lane V/C Ratio | 0.037 | 0.004 | - | - | 0.002 | - | - | 0.078 |
| HCM Control Delay (s) | 11.9 | 7.7 | 0 | - | 7.8 | 0 | - | 12.1 |
| HCM Lane LOS | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 16 | 244 | 191 | 6 | 20 | 45 |
| Future Vol, veh/h | 16 | 244 | 191 | 6 | 20 | 45 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 257 | 201 | 6 | 21 | 47 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 207 | 0 | - | 0 | 495 | 204 |
| Stage 1 | - | - | - | - | 204 | - |
| Stage 2 | - | - | - | - | 291 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1364 | - | - | - | 534 | 837 |
| Stage 1 | - | - | - | - | 830 | - |
| Stage 2 | - | - | - | - | 759 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1364 | - | - | - | 528 | 837 |
| Mov Cap-2 Maneuver | - | - | - | - | 528 | - |
| Stage 1 | - | - | - | - | 820 | - |
| Stage 2 | - | - | - | - | 759 | - |

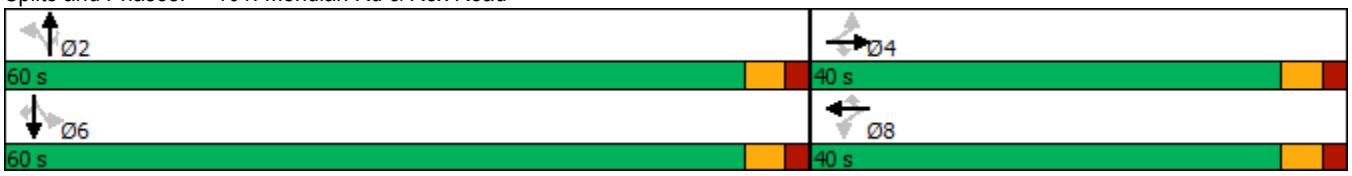
| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0 | 10.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1364 | - | - | - | 709 |
| HCM Lane V/C Ratio | 0.012 | - | - | - | 0.097 |
| HCM Control Delay (s) | 7.7 | - | - | - | 10.6 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.3 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 34 | 125 | 219 | 88 | 60 | 300 | 475 | 65 | 34 | 650 | 10 |
| Future Volume (vph) | 10 | 34 | 125 | 219 | 88 | 60 | 300 | 475 | 65 | 34 | 650 | 10 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 |
| Actuated g/C Ratio | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 |
| v/c Ratio | 0.04 | 0.08 | 0.29 | 0.74 | 0.22 | 0.15 | 0.69 | 0.22 | 0.06 | 0.06 | 0.30 | 0.01 |
| Control Delay | 24.2 | 25.0 | 6.4 | 44.8 | 27.0 | 7.7 | 21.1 | 6.9 | 2.2 | 7.2 | 7.4 | 1.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 24.2 | 25.0 | 6.4 | 44.8 | 27.0 | 7.7 | 21.1 | 6.9 | 2.2 | 7.2 | 7.4 | 1.7 |
| LOS | C | C | A | D | C | A | C | A | A | A | A | A |
| Approach Delay | | 11.3 | | | 34.5 | | | 11.6 | | | 7.3 | |
| Approach LOS | | B | | | C | | | B | | | A | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 100 | | |
| Actuated Cycle Length: 84.4 | | |
| Natural Cycle: 60 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.74 | | |
| Intersection Signal Delay: 14.2 | Intersection LOS: B | |
| Intersection Capacity Utilization 65.9% | ICU Level of Service C | |
| Analysis Period (min) 15 | | |

Splits and Phases: 101: Meridian Rd & Rex Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 7.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 31 | 91 | 188 | 50 | 28 | 1 | 74 | 128 | 35 | 0 | 193 | 52 |
| Future Vol, veh/h | 31 | 91 | 188 | 50 | 28 | 1 | 74 | 128 | 35 | 0 | 193 | 52 |
| 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 | 300 | - | 150 | 150 | - | - | 250 | - | 250 | 250 | - | 250 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 |
| Mvmt Flow | 33 | 96 | 198 | 53 | 29 | 1 | 78 | 135 | 37 | 0 | 203 | 55 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 528 | 531 | 203 | 669 | 549 | 135 | 258 | 0 | 0 | 172 | 0 | 0 |
| Stage 1 | 203 | 203 | - | 291 | 291 | - | - | - | - | - | - | - |
| Stage 2 | 325 | 328 | - | 378 | 258 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.11 | 6.52 | 6.21 | 7.12 | 6.52 | 6.22 | 4.11 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.509 | 4.018 | 3.309 | 3.518 | 4.018 | 3.318 | 2.209 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 463 | 454 | 840 | 371 | 443 | 914 | 1313 | - | - | 1405 | - | - |
| Stage 1 | 801 | 733 | - | 717 | 672 | - | - | - | - | - | - | - |
| Stage 2 | 690 | 647 | - | 644 | 694 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 418 | 427 | 840 | 224 | 417 | 914 | 1313 | - | - | 1405 | - | - |
| Mov Cap-2 Maneuver | 418 | 427 | - | 224 | 417 | - | - | - | - | - | - | - |
| Stage 1 | 754 | 733 | - | 675 | 632 | - | - | - | - | - | - | - |
| Stage 2 | 618 | 609 | - | 428 | 694 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 12.5 | 21.6 | 2.5 | 0 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1313 | - | - | 418 | 427 | 840 | 224 | 425 | 1405 | - | - |
| HCM Lane V/C Ratio | 0.059 | - | - | 0.078 | 0.224 | 0.236 | 0.235 | 0.072 | - | - | - |
| HCM Control Delay (s) | 7.9 | - | - | 14.3 | 15.9 | 10.6 | 25.9 | 14.1 | 0 | - | - |
| HCM Lane LOS | A | - | - | B | C | B | D | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.3 | 0.8 | 0.9 | 0.9 | 0.2 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 246 | 22 | 14 | 223 | 15 | 14 |
| Future Vol, veh/h | 246 | 22 | 14 | 223 | 15 | 14 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 200 | 250 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 259 | 23 | 15 | 235 | 16 | 15 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 282 | 0 | 524 | 259 |
| Stage 1 | - | - | - | - | 259 | - |
| Stage 2 | - | - | - | - | 265 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1280 | - | 514 | 780 |
| Stage 1 | - | - | - | - | 784 | - |
| Stage 2 | - | - | - | - | 779 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1280 | - | 508 | 780 |
| Mov Cap-2 Maneuver | - | - | - | - | 508 | - |
| Stage 1 | - | - | - | - | 775 | - |
| Stage 2 | - | - | - | - | 779 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.5 | 11.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 611 | - | - | 1280 | - |
| HCM Lane V/C Ratio | 0.05 | - | - | 0.012 | - |
| HCM Control Delay (s) | 11.2 | - | - | 7.8 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 50 | 51 | 137 | 245 | 38 | 46 | 188 | 753 | 373 | 115 | 665 | 100 |
| Future Volume (vph) | 50 | 51 | 137 | 245 | 38 | 46 | 188 | 753 | 373 | 115 | 665 | 100 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 20.4 | 55.5 | 55.5 | 55.5 | 55.5 | 55.5 | 55.5 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| v/c Ratio | 0.16 | 0.12 | 0.30 | 0.81 | 0.09 | 0.12 | 0.45 | 0.35 | 0.34 | 0.31 | 0.31 | 0.10 |
| Control Delay | 26.4 | 25.5 | 6.3 | 50.9 | 25.1 | 8.3 | 12.8 | 8.0 | 1.7 | 10.5 | 7.7 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.4 | 25.5 | 6.3 | 50.9 | 25.1 | 8.3 | 12.8 | 8.0 | 1.7 | 10.5 | 7.7 | 1.8 |
| LOS | C | C | A | D | C | A | B | A | A | B | A | A |
| Approach Delay | | 14.7 | | | 42.0 | | | 6.9 | | | 7.4 | |
| Approach LOS | | B | | | D | | | A | | | A | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 90 | | |
| Actuated Cycle Length: 85.9 | | |
| Natural Cycle: 60 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.81 | | |
| Intersection Signal Delay: 11.9 | Intersection LOS: B | |
| Intersection Capacity Utilization 61.5% | ICU Level of Service B | |
| Analysis Period (min) 15 | | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 23 | 231 | 7 | 9 | 239 | 15 | 3 | 3 | 6 | 9 | 4 | 13 |
| Future Vol, veh/h | 23 | 231 | 7 | 9 | 239 | 15 | 3 | 3 | 6 | 9 | 4 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |
| Mvmt Flow | 24 | 243 | 7 | 9 | 252 | 16 | 3 | 3 | 6 | 9 | 4 | 14 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 268 | 0 | 0 | 250 | 0 | 0 | 582 | 581 | 247 | 577 | 576 | 260 |
| Stage 1 | - | - | - | - | - | - | 295 | 295 | - | 278 | 278 | - |
| Stage 2 | - | - | - | - | - | - | 287 | 286 | - | 299 | 298 | - |
| Critical Hdwy | 4.11 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.11 | 6.52 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Follow-up Hdwy | 2.209 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.509 | 4.018 | 3.309 |
| Pot Cap-1 Maneuver | 1302 | - | - | 1316 | - | - | 424 | 425 | 792 | 429 | 428 | 781 |
| Stage 1 | - | - | - | - | - | - | 713 | 669 | - | 731 | 680 | - |
| Stage 2 | - | - | - | - | - | - | 720 | 675 | - | 712 | 667 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1302 | - | - | 1316 | - | - | 404 | 413 | 792 | 414 | 416 | 781 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 404 | 413 | - | 414 | 416 | - |
| Stage 1 | - | - | - | - | - | - | 698 | 655 | - | 716 | 675 | - |
| Stage 2 | - | - | - | - | - | - | 697 | 670 | - | 688 | 653 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.7 | 0.3 | 11.8 | 12 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 539 | 1302 | - | - | 1316 | - | - | 542 |
| HCM Lane V/C Ratio | 0.023 | 0.019 | - | - | 0.007 | - | - | 0.05 |
| HCM Control Delay (s) | 11.8 | 7.8 | 0 | - | 7.8 | 0 | - | 12 |
| HCM Lane LOS | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.1 | 0.1 | - | - | 0 | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 54 | 191 | 230 | 23 | 13 | 30 |
| Future Vol, veh/h | 54 | 191 | 230 | 23 | 13 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 57 | 201 | 242 | 24 | 14 | 32 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 266 | 0 | - | 0 | 569 | 254 |
| Stage 1 | - | - | - | - | 254 | - |
| Stage 2 | - | - | - | - | 315 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1298 | - | - | - | 484 | 785 |
| Stage 1 | - | - | - | - | 788 | - |
| Stage 2 | - | - | - | - | 740 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1298 | - | - | - | 463 | 785 |
| Mov Cap-2 Maneuver | - | - | - | - | 463 | - |
| Stage 1 | - | - | - | - | 753 | - |
| Stage 2 | - | - | - | - | 740 | - |

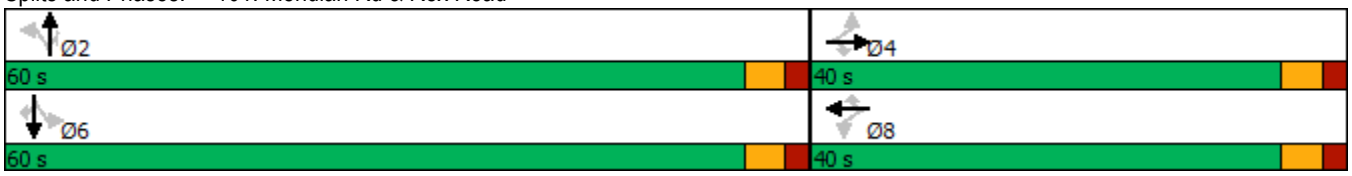
| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.7 | 0 | 11 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1298 | - | - | - | 649 |
| HCM Lane V/C Ratio | 0.044 | - | - | - | 0.07 |
| HCM Control Delay (s) | 7.9 | - | - | - | 11 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.2 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 76 | 277 | 173 | 78 | 56 | 150 | 450 | 249 | 82 | 430 | 10 |
| Future Volume (vph) | 10 | 76 | 277 | 173 | 78 | 56 | 150 | 450 | 249 | 82 | 430 | 10 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 16.3 | 55.2 | 55.2 | 55.2 | 55.2 | 55.2 | 55.2 |
| Actuated g/C Ratio | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 |
| v/c Ratio | 0.04 | 0.21 | 0.53 | 0.69 | 0.22 | 0.16 | 0.25 | 0.20 | 0.22 | 0.14 | 0.19 | 0.01 |
| Control Delay | 25.3 | 27.8 | 7.2 | 43.9 | 27.9 | 8.4 | 7.4 | 5.8 | 1.4 | 6.6 | 5.7 | 1.5 |
| 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 | 25.3 | 27.8 | 7.2 | 43.9 | 27.9 | 8.4 | 7.4 | 5.8 | 1.4 | 6.6 | 5.7 | 1.5 |
| LOS | C | C | A | D | C | A | A | A | A | A | A | A |
| Approach Delay | | 12.0 | | | 33.4 | | | 4.8 | | | 5.8 | |
| Approach LOS | | B | | | C | | | A | | | A | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 100 | | |
| Actuated Cycle Length: 81.5 | | |
| Natural Cycle: 45 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.69 | | |
| Intersection Signal Delay: 10.6 | Intersection LOS: B | |
| Intersection Capacity Utilization 51.1% | ICU Level of Service A | |
| Analysis Period (min) 15 | | |

Splits and Phases: 101: Meridian Rd & Rex Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 5.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 37 | 80 | 67 | 40 | 48 | 0 | 67 | 119 | 57 | 1 | 200 | 62 |
| Future Vol, veh/h | 37 | 80 | 67 | 40 | 48 | 0 | 67 | 119 | 57 | 1 | 200 | 62 |
| 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 | 300 | - | 150 | 150 | - | - | 250 | - | 250 | 250 | - | 250 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 |
| Mvmt Flow | 39 | 84 | 71 | 42 | 51 | 0 | 71 | 125 | 60 | 1 | 211 | 65 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 536 | 540 | 211 | 590 | 545 | 125 | 276 | 0 | 0 | 185 | 0 | 0 |
| Stage 1 | 213 | 213 | - | 267 | 267 | - | - | - | - | - | - | - |
| Stage 2 | 323 | 327 | - | 323 | 278 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.11 | 6.52 | 6.21 | 7.12 | 6.52 | 6.22 | 4.11 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.509 | 4.018 | 3.309 | 3.518 | 4.018 | 3.318 | 2.209 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 457 | 449 | 832 | 419 | 446 | 926 | 1293 | - | - | 1390 | - | - |
| Stage 1 | 791 | 726 | - | 738 | 688 | - | - | - | - | - | - | - |
| Stage 2 | 691 | 648 | - | 689 | 680 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 398 | 424 | 832 | 312 | 421 | 926 | 1293 | - | - | 1390 | - | - |
| Mov Cap-2 Maneuver | 398 | 424 | - | 312 | 421 | - | - | - | - | - | - | - |
| Stage 1 | 747 | 725 | - | 697 | 650 | - | - | - | - | - | - | - |
| Stage 2 | 602 | 612 | - | 557 | 679 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 13.3 | 16.3 | 2.2 | 0 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1293 | - | - | 398 | 424 | 832 | 312 | 421 | 1390 | - | - |
| HCM Lane V/C Ratio | 0.055 | - | - | 0.098 | 0.199 | 0.085 | 0.135 | 0.12 | 0.001 | - | - |
| HCM Control Delay (s) | 7.9 | - | - | 15 | 15.6 | 9.7 | 18.3 | 14.7 | 7.6 | - | - |
| HCM Lane LOS | A | - | - | C | C | A | C | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.3 | 0.7 | 0.3 | 0.5 | 0.4 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 240 | 5 | 4 | 257 | 6 | 5 |
| Future Vol, veh/h | 240 | 5 | 4 | 257 | 6 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 200 | 250 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 253 | 5 | 4 | 271 | 6 | 5 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 258 | 0 | 532 | 253 |
| Stage 1 | - | - | - | - | 253 | - |
| Stage 2 | - | - | - | - | 279 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1307 | - | 508 | 786 |
| Stage 1 | - | - | - | - | 789 | - |
| Stage 2 | - | - | - | - | 768 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1307 | - | 506 | 786 |
| Mov Cap-2 Maneuver | - | - | - | - | 506 | - |
| Stage 1 | - | - | - | - | 787 | - |
| Stage 2 | - | - | - | - | 768 | - |

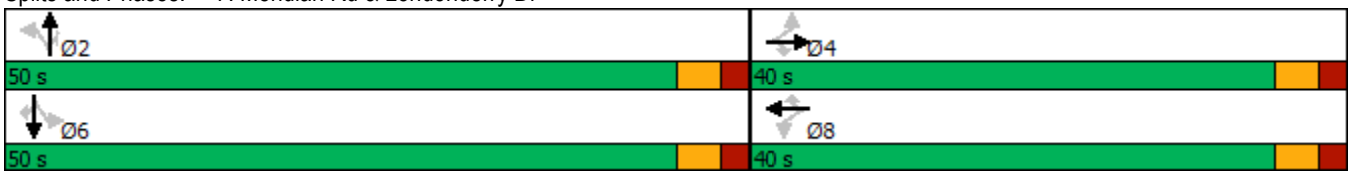
| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.1 | 11.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 604 | - | - | 1307 | - |
| HCM Lane V/C Ratio | 0.019 | - | - | 0.003 | - |
| HCM Control Delay (s) | 11.1 | - | - | 7.8 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 164 | 121 | 281 | 343 | 164 | 138 | 112 | 555 | 104 | 59 | 886 | 116 |
| Future Volume (vph) | 164 | 121 | 281 | 343 | 164 | 138 | 112 | 555 | 104 | 59 | 886 | 116 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Total Split (%) | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 44.4% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% | 55.6% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 28.1 | 28.1 | 28.1 | 28.1 | 28.1 | 28.1 | 45.3 | 45.3 | 45.3 | 45.3 | 45.3 | 45.3 |
| Actuated g/C Ratio | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 |
| v/c Ratio | 0.44 | 0.20 | 0.50 | 0.85 | 0.28 | 0.23 | 0.48 | 0.30 | 0.12 | 0.15 | 0.49 | 0.13 |
| Control Delay | 24.9 | 19.8 | 17.5 | 45.2 | 20.8 | 4.3 | 22.6 | 12.0 | 2.9 | 12.8 | 14.0 | 2.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 24.9 | 19.8 | 17.5 | 45.2 | 20.8 | 4.3 | 22.6 | 12.0 | 2.9 | 12.8 | 14.0 | 2.8 |
| LOS | C | B | B | D | C | A | C | B | A | B | B | A |
| Approach Delay | | 20.1 | | | 30.3 | | | 12.3 | | | 12.7 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 90 | | |
| Actuated Cycle Length: 83.5 | | |
| Natural Cycle: 50 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.85 | | |
| Intersection Signal Delay: 17.7 | Intersection LOS: B | |
| Intersection Capacity Utilization 73.4% | ICU Level of Service D | |
| Analysis Period (min) 15 | | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr



| Intersection | |
|---|---|
| Int Delay, s/veh | 2.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 5 | 263 | 9 | 4 | 303 | 3 | 33 | 6 | 18 | 14 | 10 | 17 |
| Future Vol, veh/h | 5 | 263 | 9 | 4 | 303 | 3 | 33 | 6 | 18 | 14 | 10 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |
| Mvmt Flow | 5 | 277 | 9 | 4 | 319 | 3 | 35 | 6 | 19 | 15 | 11 | 18 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 322 | 0 | 0 | 286 | 0 | 0 | 635 | 622 | 282 | 633 | 625 | 321 |
| Stage 1 | - | - | - | - | - | - | 292 | 292 | - | 329 | 329 | - |
| Stage 2 | - | - | - | - | - | - | 343 | 330 | - | 304 | 296 | - |
| Critical Hdwy | 4.11 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.11 | 6.52 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Follow-up Hdwy | 2.209 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.509 | 4.018 | 3.309 |
| Pot Cap-1 Maneuver | 1244 | - | - | 1276 | - | - | 391 | 403 | 757 | 394 | 401 | 722 |
| Stage 1 | - | - | - | - | - | - | 716 | 671 | - | 686 | 646 | - |
| Stage 2 | - | - | - | - | - | - | 672 | 646 | - | 708 | 668 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1244 | - | - | 1276 | - | - | 371 | 399 | 757 | 377 | 397 | 722 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 371 | 399 | - | 377 | 397 | - |
| Stage 1 | - | - | - | - | - | - | 712 | 668 | - | 683 | 643 | - |
| Stage 2 | - | - | - | - | - | - | 642 | 643 | - | 680 | 665 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0.1 | 14.3 | 13.3 |
| HCM LOS | | | B | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 446 | 1244 | - | - | 1276 | - | - | 477 |
| HCM Lane V/C Ratio | 0.135 | 0.004 | - | - | 0.003 | - | - | 0.09 |
| HCM Control Delay (s) | 14.3 | 7.9 | 0 | - | 7.8 | 0 | - | 13.3 |
| HCM Lane LOS | B | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.5 | 0 | - | - | 0 | - | - | 0.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 16 | 307 | 206 | 6 | 20 | 45 |
| Future Vol, veh/h | 16 | 307 | 206 | 6 | 20 | 45 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 323 | 217 | 6 | 21 | 47 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 223 | 0 | - | 0 | 577 | 220 |
| Stage 1 | - | - | - | - | 220 | - |
| Stage 2 | - | - | - | - | 357 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1346 | - | - | - | 478 | 820 |
| Stage 1 | - | - | - | - | 817 | - |
| Stage 2 | - | - | - | - | 708 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1346 | - | - | - | 472 | 820 |
| Mov Cap-2 Maneuver | - | - | - | - | 472 | - |
| Stage 1 | - | - | - | - | 806 | - |
| Stage 2 | - | - | - | - | 708 | - |

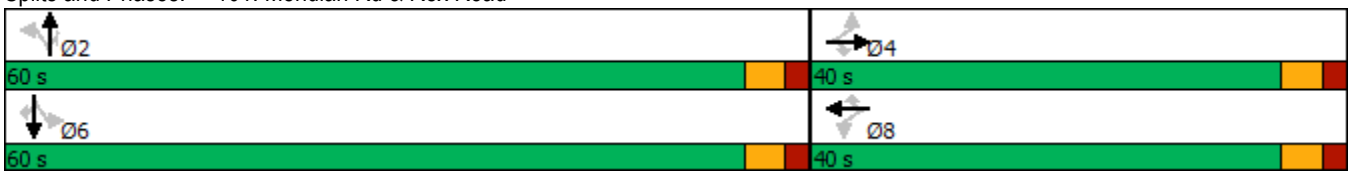
| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 11 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1346 | - | - | - | 668 |
| HCM Lane V/C Ratio | 0.013 | - | - | - | 0.102 |
| HCM Control Delay (s) | 7.7 | - | - | - | 11 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.3 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 38 | 125 | 286 | 104 | 76 | 300 | 475 | 83 | 38 | 650 | 10 |
| Future Volume (vph) | 10 | 38 | 125 | 286 | 104 | 76 | 300 | 475 | 83 | 38 | 650 | 10 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 24.3 | 24.3 | 24.3 | 24.3 | 24.3 | 24.3 | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 |
| Actuated g/C Ratio | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| v/c Ratio | 0.03 | 0.08 | 0.25 | 0.81 | 0.21 | 0.16 | 0.75 | 0.23 | 0.09 | 0.07 | 0.32 | 0.01 |
| Control Delay | 22.6 | 23.4 | 5.5 | 47.5 | 25.4 | 6.3 | 28.2 | 9.0 | 2.5 | 9.4 | 9.6 | 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 | 22.6 | 23.4 | 5.5 | 47.5 | 25.4 | 6.3 | 28.2 | 9.0 | 2.5 | 9.4 | 9.6 | 2.2 |
| LOS | C | C | A | D | C | A | C | A | A | A | A | A |
| Approach Delay | | 10.4 | | | 35.8 | | | 15.1 | | | 9.5 | |
| Approach LOS | | B | | | D | | | B | | | A | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 100 | | |
| Actuated Cycle Length: 89.7 | | |
| Natural Cycle: 60 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.81 | | |
| Intersection Signal Delay: 17.4 | Intersection LOS: B | |
| Intersection Capacity Utilization 69.6% | ICU Level of Service C | |
| Analysis Period (min) 15 | | |

Splits and Phases: 101: Meridian Rd & Rex Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 8.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 35 | 122 | 216 | 50 | 35 | 1 | 81 | 128 | 35 | 0 | 193 | 52 |
| Future Vol, veh/h | 35 | 122 | 216 | 50 | 35 | 1 | 81 | 128 | 35 | 0 | 193 | 52 |
| 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 | 300 | - | 150 | 150 | - | - | 250 | - | 250 | 250 | - | 250 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 |
| Mvmt Flow | 37 | 128 | 227 | 53 | 37 | 1 | 85 | 135 | 37 | 0 | 203 | 55 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 546 | 545 | 203 | 713 | 563 | 135 | 258 | 0 | 0 | 172 | 0 | 0 |
| Stage 1 | 203 | 203 | - | 305 | 305 | - | - | - | - | - | - | - |
| Stage 2 | 343 | 342 | - | 408 | 258 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.11 | 6.52 | 6.21 | 7.12 | 6.52 | 6.22 | 4.11 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.509 | 4.018 | 3.309 | 3.518 | 4.018 | 3.318 | 2.209 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 450 | 446 | 840 | 347 | 435 | 914 | 1313 | - | - | 1405 | - | - |
| Stage 1 | 801 | 733 | - | 705 | 662 | - | - | - | - | - | - | - |
| Stage 2 | 674 | 638 | - | 620 | 694 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 398 | 417 | 840 | 184 | 407 | 914 | 1313 | - | - | 1405 | - | - |
| Mov Cap-2 Maneuver | 398 | 417 | - | 184 | 407 | - | - | - | - | - | - | - |
| Stage 1 | 749 | 733 | - | 659 | 619 | - | - | - | - | - | - | - |
| Stage 2 | 592 | 597 | - | 373 | 694 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 13.4 | 24.8 | 2.6 | 0 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1313 | - | - | 398 | 417 | 840 | 184 | 413 | 1405 | - | - |
| HCM Lane V/C Ratio | 0.065 | - | - | 0.093 | 0.308 | 0.271 | 0.286 | 0.092 | - | - | - |
| HCM Control Delay (s) | 7.9 | - | - | 15 | 17.4 | 10.9 | 32.2 | 14.6 | 0 | - | - |
| HCM Lane LOS | A | - | - | C | C | B | D | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.3 | 1.3 | 1.1 | 1.1 | 0.3 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.3 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 255 | 39 | 26 | 225 | 85 | 67 |
| Future Vol, veh/h | 255 | 39 | 26 | 225 | 85 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 200 | 250 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 268 | 41 | 27 | 237 | 89 | 71 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 309 | 0 | 559 | 268 |
| Stage 1 | - | - | - | - | 268 | - |
| Stage 2 | - | - | - | - | 291 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1252 | - | 490 | 771 |
| Stage 1 | - | - | - | - | 777 | - |
| Stage 2 | - | - | - | - | 759 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1252 | - | 479 | 771 |
| Mov Cap-2 Maneuver | - | - | - | - | 479 | - |
| Stage 1 | - | - | - | - | 760 | - |
| Stage 2 | - | - | - | - | 759 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0.8 | 13.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 575 | - | - | 1252 | - |
| HCM Lane V/C Ratio | 0.278 | - | - | 0.022 | - |
| HCM Control Delay (s) | 13.7 | - | - | 7.9 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 1.1 | - | - | 0.1 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 51 | 54 | 137 | 252 | 39 | 46 | 188 | 844 | 388 | 115 | 715 | 101 |
| Future Volume (vph) | 51 | 54 | 137 | 252 | 39 | 46 | 188 | 844 | 388 | 115 | 715 | 101 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 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 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 33.3% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% | 66.7% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 20.8 | 20.8 | 20.8 | 20.8 | 20.8 | 20.8 | 55.4 | 55.4 | 55.4 | 55.4 | 55.4 | 55.4 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.17 | 0.13 | 0.29 | 0.82 | 0.09 | 0.11 | 0.49 | 0.39 | 0.35 | 0.35 | 0.33 | 0.10 |
| Control Delay | 26.4 | 25.5 | 6.3 | 52.0 | 25.1 | 8.3 | 14.2 | 8.5 | 1.7 | 11.9 | 8.0 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 26.4 | 25.5 | 6.3 | 52.0 | 25.1 | 8.3 | 14.2 | 8.5 | 1.7 | 11.9 | 8.0 | 1.8 |
| LOS | C | C | A | D | C | A | B | A | A | B | A | A |
| Approach Delay | | 14.8 | | | 42.9 | | | 7.4 | | | 7.8 | |
| Approach LOS | | B | | | D | | | A | | | A | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 86.2 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.82 | |
| Intersection Signal Delay: 12.2 | Intersection LOS: B |
| Intersection Capacity Utilization 63.3% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Meridian Rd & Londonderry Dr

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 23 | 325 | 45 | 21 | 291 | 15 | 24 | 3 | 12 | 9 | 4 | 13 |
| Future Vol, veh/h | 23 | 325 | 45 | 21 | 291 | 15 | 24 | 3 | 12 | 9 | 4 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |
| Mvmt Flow | 24 | 342 | 47 | 22 | 306 | 16 | 25 | 3 | 13 | 9 | 4 | 14 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 322 | 0 | 0 | 389 | 0 | 0 | 781 | 780 | 366 | 780 | 795 | 314 |
| Stage 1 | - | - | - | - | - | - | 414 | 414 | - | 358 | 358 | - |
| Stage 2 | - | - | - | - | - | - | 367 | 366 | - | 422 | 437 | - |
| Critical Hdwy | 4.11 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.11 | 6.52 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.11 | 5.52 | - |
| Follow-up Hdwy | 2.209 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.509 | 4.018 | 3.309 |
| Pot Cap-1 Maneuver | 1244 | - | - | 1170 | - | - | 312 | 327 | 679 | 314 | 320 | 729 |
| Stage 1 | - | - | - | - | - | - | 616 | 593 | - | 662 | 628 | - |
| Stage 2 | - | - | - | - | - | - | 653 | 623 | - | 611 | 579 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1244 | - | - | 1170 | - | - | 292 | 312 | 679 | 295 | 305 | 729 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 292 | 312 | - | 295 | 305 | - |
| Stage 1 | - | - | - | - | - | - | 601 | 578 | - | 645 | 614 | - |
| Stage 2 | - | - | - | - | - | - | 622 | 609 | - | 581 | 565 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0.5 | 16.4 | 14.1 |
| HCM LOS | | | C | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 356 | 1244 | - | - | 1170 | - | - | 423 |
| HCM Lane V/C Ratio | 0.115 | 0.019 | - | - | 0.019 | - | - | 0.065 |
| HCM Control Delay (s) | 16.4 | 8 | 0 | - | 8.1 | 0 | - | 14.1 |
| HCM Lane LOS | C | A | A | - | A | A | - | B |
| HCM 95th %tile Q(veh) | 0.4 | 0.1 | - | - | 0.1 | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 54 | 241 | 315 | 23 | 13 | 30 |
| Future Vol, veh/h | 54 | 241 | 315 | 23 | 13 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 57 | 254 | 332 | 24 | 14 | 32 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 356 | 0 | - | 0 | 712 | 344 |
| Stage 1 | - | - | - | - | 344 | - |
| Stage 2 | - | - | - | - | 368 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1203 | - | - | - | 399 | 699 |
| Stage 1 | - | - | - | - | 718 | - |
| Stage 2 | - | - | - | - | 700 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1203 | - | - | - | 380 | 699 |
| Mov Cap-2 Maneuver | - | - | - | - | 380 | - |
| Stage 1 | - | - | - | - | 684 | - |
| Stage 2 | - | - | - | - | 700 | - |

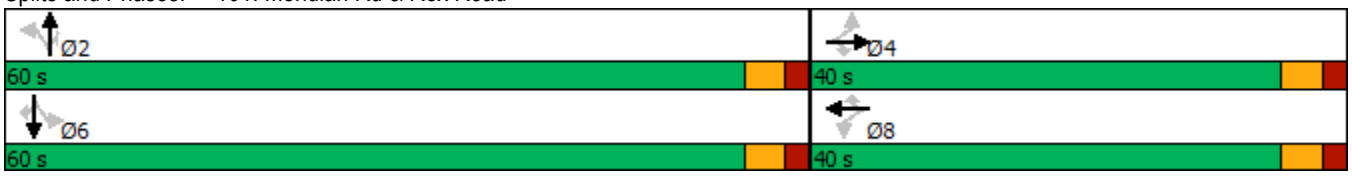
| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.5 | 0 | 12 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1203 | - | - | - | 558 |
| HCM Lane V/C Ratio | 0.047 | - | - | - | 0.081 |
| HCM Control Delay (s) | 8.1 | - | - | - | 12 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 97 | 277 | 224 | 89 | 67 | 150 | 450 | 341 | 103 | 430 | 10 |
| Future Volume (vph) | 10 | 97 | 277 | 224 | 89 | 67 | 150 | 450 | 341 | 103 | 430 | 10 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | 2 | | | 6 | |
| Permitted Phases | 4 | | 4 | 8 | | 8 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 4 | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| Total Split (s) | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 | 60.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (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 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (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 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Recall Mode | None | None | None | None | None | None | Max | Max | Max | Max | Max | Max |
| Act Effct Green (s) | 20.7 | 20.7 | 20.7 | 20.7 | 20.7 | 20.7 | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 | 55.3 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 |
| v/c Ratio | 0.03 | 0.23 | 0.48 | 0.76 | 0.21 | 0.16 | 0.27 | 0.21 | 0.31 | 0.19 | 0.20 | 0.01 |
| Control Delay | 23.6 | 26.5 | 6.0 | 45.7 | 26.2 | 7.0 | 9.6 | 7.6 | 1.8 | 8.9 | 7.5 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.6 | 26.5 | 6.0 | 45.7 | 26.2 | 7.0 | 9.6 | 7.6 | 1.8 | 8.9 | 7.5 | 2.0 |
| LOS | C | C | A | D | C | A | A | A | A | A | A | A |
| Approach Delay | | 11.6 | | | 34.3 | | | 5.8 | | | 7.7 | |
| Approach LOS | | B | | | C | | | A | | | A | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 100 | | |
| Actuated Cycle Length: 86.1 | | |
| Natural Cycle: 45 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.76 | | |
| Intersection Signal Delay: 12.1 | Intersection LOS: B | |
| Intersection Capacity Utilization 53.9% | ICU Level of Service A | |
| Analysis Period (min) 15 | | |

Splits and Phases: 101: Meridian Rd & Rex Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 9.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 41 | 102 | 91 | 40 | 89 | 0 | 158 | 138 | 57 | 1 | 200 | 67 |
| Future Vol, veh/h | 41 | 102 | 91 | 40 | 89 | 0 | 158 | 138 | 57 | 1 | 200 | 67 |
| 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 | 300 | - | 150 | 150 | - | - | 250 | - | 250 | 250 | - | 250 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 |
| Mvmt Flow | 43 | 107 | 96 | 42 | 94 | 0 | 166 | 145 | 60 | 1 | 211 | 71 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 767 | 750 | 211 | 827 | 761 | 145 | 282 | 0 | 0 | 205 | 0 | 0 |
| Stage 1 | 213 | 213 | - | 477 | 477 | - | - | - | - | - | - | - |
| Stage 2 | 554 | 537 | - | 350 | 284 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.11 | 6.52 | 6.21 | 7.12 | 6.52 | 6.22 | 4.11 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.11 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.509 | 4.018 | 3.309 | 3.518 | 4.018 | 3.318 | 2.209 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 320 | 340 | 832 | 291 | 335 | 902 | 1286 | - | - | 1366 | - | - |
| Stage 1 | 791 | 726 | - | 569 | 556 | - | - | - | - | - | - | - |
| Stage 2 | 519 | 523 | - | 666 | 676 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 218 | 296 | 832 | 168 | 291 | 902 | 1286 | - | - | 1366 | - | - |
| Mov Cap-2 Maneuver | 218 | 296 | - | 168 | 291 | - | - | - | - | - | - | - |
| Stage 1 | 689 | 725 | - | 496 | 484 | - | - | - | - | - | - | - |
| Stage 2 | 365 | 456 | - | 502 | 675 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 18.7 | 26.3 | 3.7 | 0 |
| HCM LOS | C | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1286 | - | - | 218 | 296 | 832 | 168 | 291 | 1366 | - | - |
| HCM Lane V/C Ratio | 0.129 | - | - | 0.198 | 0.363 | 0.115 | 0.251 | 0.322 | 0.001 | - | - |
| HCM Control Delay (s) | 8.2 | - | - | 25.5 | 23.9 | 9.9 | 33.4 | 23.1 | 7.6 | - | - |
| HCM Lane LOS | A | - | - | D | C | A | D | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0.7 | 1.6 | 0.4 | 0.9 | 1.4 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 247 | 100 | 76 | 269 | 58 | 48 |
| Future Vol, veh/h | 247 | 100 | 76 | 269 | 58 | 48 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 200 | 250 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 260 | 105 | 80 | 283 | 61 | 51 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 365 | 0 | 703 | 260 |
| Stage 1 | - | - | - | - | 260 | - |
| Stage 2 | - | - | - | - | 443 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1194 | - | 404 | 779 |
| Stage 1 | - | - | - | - | 783 | - |
| Stage 2 | - | - | - | - | 647 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1194 | - | 377 | 779 |
| Mov Cap-2 Maneuver | - | - | - | - | 377 | - |
| Stage 1 | - | - | - | - | 731 | - |
| Stage 2 | - | - | - | - | 647 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 1.8 | 14.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 492 | - | - | 1194 | - |
| HCM Lane V/C Ratio | 0.227 | - | - | 0.067 | - |
| HCM Control Delay (s) | 14.5 | - | - | 8.2 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.9 | - | - | 0.2 | - |

# Queuing Reports

TRANSPORTATION
CONSULTANTS, INC.

# Queuing and Blocking Report

## Intersection: 41: Rex Road & Estates Access

| Movement | EB | SB |
|---|---|---|
| Directions Served | L | LR |
| Maximum Queue (ft) | 31 | 68 |
| Average Queue (ft) | 5 | 33 |
| 95th Queue (ft) | 23 | 55 |
| Link Distance (ft) | | 305 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | 200 | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Intersection: 208: Rolling Hills Ranch Access & Rex Road

| Movement | WB | NB |
|---|---|---|
| Directions Served | L | LR |
| Maximum Queue (ft) | 28 | 112 |
| Average Queue (ft) | 3 | 51 |
| 95th Queue (ft) | 16 | 93 |
| Link Distance (ft) | | 204 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | 250 | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Zone Summary

Zone wide Queuing Penalty: 0

# Queuing and Blocking Report

## Intersection: 41: Rex Road & Estates Access

| Movement | EB | SB |
|---|---|---|
| Directions Served | L | LR |
| Maximum Queue (ft) | 54 | 54 |
| Average Queue (ft) | 12 | 25 |
| 95th Queue (ft) | 38 | 51 |
| Link Distance (ft) | | 305 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | 200 | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Intersection: 208: Rolling Hills Ranch Access & Rex Road

| Movement | EB | WB | NB |
|---|---|---|---|
| Directions Served | R | L | LR |
| Maximum Queue (ft) | 22 | 54 | 71 |
| Average Queue (ft) | 1 | 20 | 34 |
| 95th Queue (ft) | 7 | 51 | 54 |
| Link Distance (ft) | | | 204 |
| Upstream Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |
| Storage Bay Dist (ft) | 200 | 250 | |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

## Zone Summary

Zone wide Queuing Penalty: 0

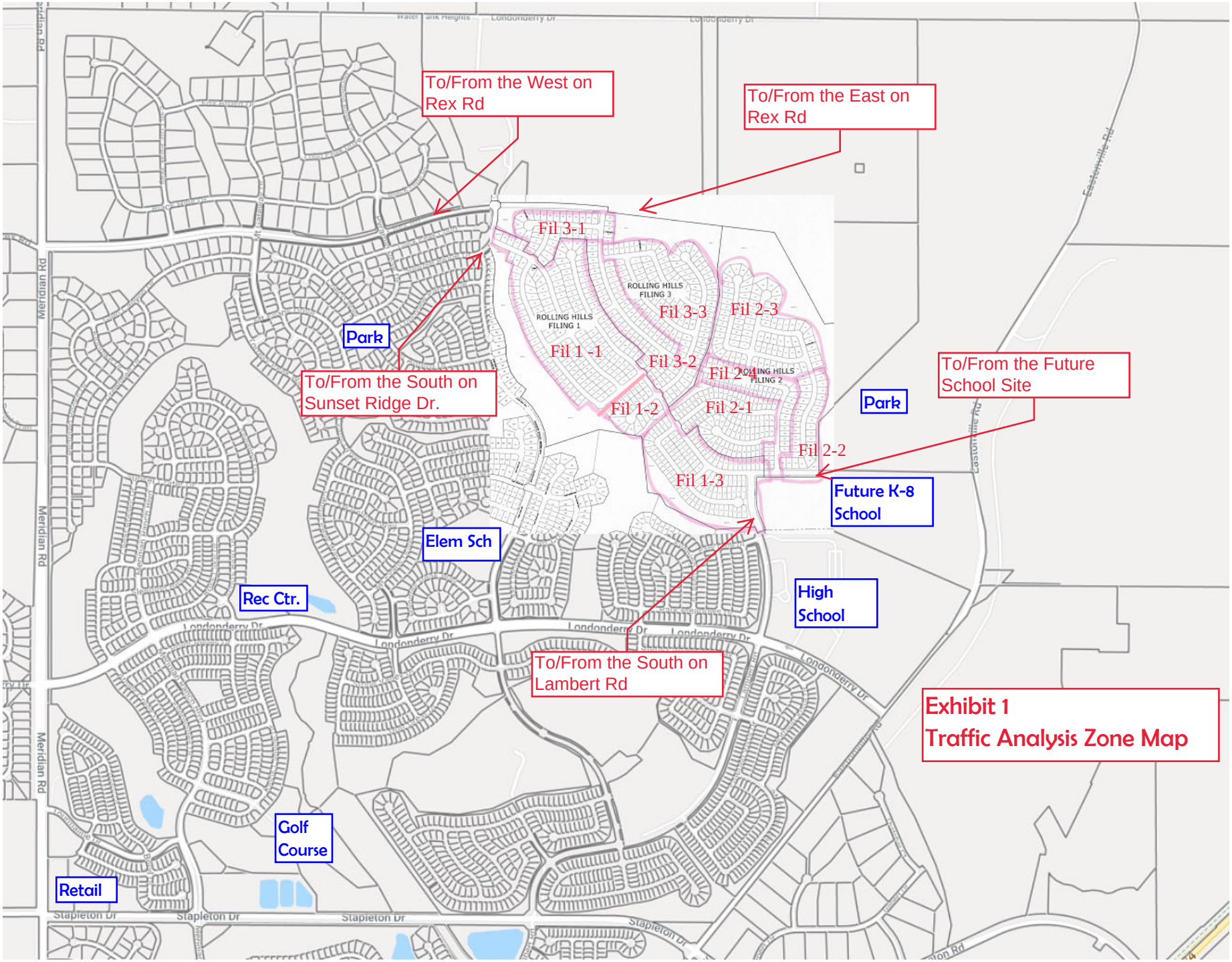
# Crash History

TRANSPORTATION
CONSULTANTS, INC.

| Year | Month | Day | AccidentTime | FIP | ReferencePointName | ReferencePointAtName | AccidentNarrative |
|---|---|---|---|---|---|---|---|
| 2016 | 1 | 7 | 7:50:00 PM | Injury | MERIDIAN RD | REX RD | Vehicle #1 was southbound on Meridian Rd. Vehicle #2 was northbound on Meridian Rd. Driver #1 lost control of vehicle #1 on the icy roads, and it rotated counter clockwise. Vehicle #1 traveled into the northbound lane, where its front collided with the driver's side of vehicle #2. After this collision, vehicle #2 continued north, rotating counter-clockwise, and then clockwise, traveling onto the right shoulder, where it came to rest, facing south. Vehicle #1 was moved prior to investigation. |
| 2016 | 10 | 12 | 2:56:00 PM | Property | MERIDIAN RD | REX RD | Vehicle 1, a pickup with trailer, was driving westbound on Rex Road, approaching the intersection with Meridian Road. Vehicle 2 was traveling northbound on Meridian Road approaching an intersection with Rex Road. After stopping, Vehicle 1 entered the intersection and was impacted by Vehicle 2. Both vehicles were moved to a safer location prior to investigation. No point or impact or final rest measurements were made due to both vehicles leaving the scene. |
| 2017 | 6 | 9 | 5:40:00 PM | Property | MERIDIAN RD | REX RD | Vehicles 1 and 2 were northbound on Meridian Rd just north of Rex Rd. Vehicle 1 pulled onto the shoulder then began to make a U-turn. Vehicle 1 turned into the path of vehicle 2. Vehicle 1 collided its side with the side of vehicle 2. Both vehicles were moved prior to investigation. |
| 2017 | 9 | 27 | 5:05:00 AM | Property | MERIDIAN RD | REX RD | Vehicle #1 was southbound on Meridian Rd. A deer ran into the roadway and vehicle #1 collided its front with the deer. Vehicle #1 was moved prior to investigation. |
| 2017 | 11 | 30 | 7:50:00 AM | Property | MERIDIAN RD | REX RD | VEHICLE #1 WAS TRAVELING WESTBOUND ON REX RD, CROSSING THE INTERSECTION OF MERIDIAN RD, AFTER STOPPING AT THE STOP SIGN. VEHICLE #2 WAS TRAVELING SOUTHBOUND ON MERIDIAN RD, AT THE INTERSECTION OF REX RD. VEHICLE #2 COLLIDED ITS FRONT WITH THE PASSENGER REAR QUARTER PANEL OF VEHICLE #1. VEHICLE #1 AND VEHICLE #2 CAME TO REST IN THE NORTHBOUND LANE OF TRAFFIC ON MERIDIAN RD. BOTH VEHICLES WERE MOVED OUT OF TRAFFIC PRIOR TO ARRIVAL. |
| 2018 | 5 | 22 | 4:03:00 PM | Property | MERIDIAN RD | REX RD | Vehicle #1 was westbound on Rex Road proceeding from a stop sign, turning left onto southbound Meridian Road. Vehicle #2 was northbound on Meridian Road. The front of vehicle #1 collided with the right front of vehicle #2 approximately 40' south of the north road edge of Rex Road and 25' west of the east road edge of Meriden Road. Vehicles were moved prior to investigation. |
| 2018 | 10 | 7 | 8:21:00 PM | Injury | MERIDIAN RD | REX RD | Vehicle #1 was westbound on Rex Road. Vehicle #2 was northbound on Meridian Road. The front of vehicle #2 collided with the left front side of vehicle #1 approximately 22' west of the east road edge of Meridian Road and 34' south of the north road edge of Rex Road. Vehicle #2 continued northbound going off the right side of the road coming to final rest on all four wheels facing east. Vehicle #1 went of the right side of the road coming to final rest on all four wheels facing west. Vehicles were moved prior to investigation. |
| 2018 | 10 | 17 | 5:20:00 PM | Property | MERIDIAN RD | REX RD | Vehicle #2 was stopped at a stop sign on Rex Rd at the intersection of Meridian Rd facing eastbound. Vehicle #1 was directly behind Vehicle #2. Vehicle #1 collided with Vehicle #2 with the front driver's side of the vehicle into the rear passenger side of Vehicle #2. Both vehicles moved prior to my arrival. |
| 2018 | 10 | 24 | 3:29:00 PM | Property | MERIDIAN RD | REX RD | Vehicle #1 was stopped at the stop sign on Rex Rd at the intersection of Meridian Rd facing east, west of Meridian Rd. Vehicle #2 was traveling northbound on Meridian Rd crossing the intersection of Rex Rd. Vehicle #3 was stopped at the stop on Rex Rd at the intersection of Meridian Rd facing westbound on the east side of Meridian Rd. Vehicle #4 was directly behind Vehicle #3.<br><br>Vehicle #1 entered the intersection of Meridian Rd causing Vehicle #2 to collide into the passenger side of Vehicle #1. Vehicle #2 rotated clockwise and went into the divided median on Rex Rd, east of Meridian Rd, striking a sign. Vehicle #1 struck Vehicle #3 with the front passenger side into the front driver's side of Vehicle #3. The collision pushed Vehicle #3 backwards causing the trailer being towed by Vehicle #3 to hit the front of Vehicle #4. Vehicle #2 came to final rest on the divided median facing eastbound. Vehicle #1 came to final rest in the eastbound lanes of Rex Rd facing eastbound. Vehicle #3 and #4 remained in their original positions. |
| 2018 | 12 | 14 | 11:09:00 AM | Property | MERIDIAN RD | REX RD | Vehicle #1 was westbound on Rex Rd, approaching Meridian Rd. Vehicle #2 was southbound on Meridian Rd approaching Rex Rd. Vehicle #1 did not stop for the stop sign at Meridian and drove into the path of vehicle #2. Vehicle #2's front collided with the right side of vehicle #1. This collision forced vehicle #1 to rotate counter clockwise, and its right side collided with the left side of vehicle #2. Both vehicles were moved prior to investigation. |

# Exhibits

TRANSPORTATION
CONSULTANTS, INC.


To/From the West on Rex Rd
To/From the East on Rex Rd
To/From the South on Sunset Ridge Dr.
To/From the Future School Site
To/From the South on Lambert Rd
Park
Park
Elem Sch
Rec Ctr.
Future K-8 School
High School
Golf Course
Retail
Fil 3-1
Fil 3-3
Fil 2-3
Fil 1 -1
Fil 3-2
Fil 2-4
Fil 1-2
Fil 2-1
Fil 2-2
Fil 1-3
ROLLING HILLS FILING 1
ROLLING HILLS FILING 3
ROLLING HILLS FILING 2
Meridian Rd
Londonderry Dr
Stapleton Dr
Exhibit 1
Traffic Analysis Zone Map