

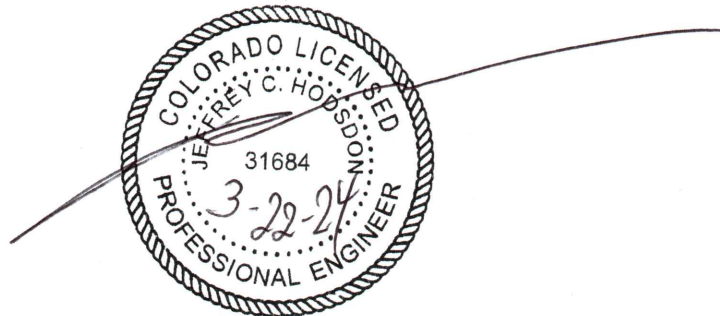


LSC TRANSPORTATION CONSULTANTS, INC.  
2504 East Pikes Peak Avenue, Suite 304  
Colorado Springs, CO 80909  
(719) 633-2868  
FAX (719) 633-5430  
E-mail: [lsc@lsctrans.com](mailto:lsc@lsctrans.com)  
Website: <http://www.lsctrans.com>

Shops at Meridian Ranch  
Lot 2, Filing No. 1  
Traffic Impact Study  
PCD File No. PPR2322  
(LSC #S234020)  
March 22, 2024

**Traffic Engineer's Statement**

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



**Developer's Statement**

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

\_\_\_\_\_

\_\_\_\_\_

Date

# Shops at Meridian Ranch

## Lot 2, Filing No.1

### Traffic Impact Study

Prepared for:

Hunjan Gas Stations LLC  
c/o Brad Nichols  
Planner  
YOW Architects

MARCH 22, 2024

---

LSC Transportation Consultants, Inc.

Prepared by: Jeffrey C. Hodsdon, P.E. and Kirstin D. Ferrin, P.E.

LSC #S234020

PCD File No.: [PPR2322](#)



**CONTENTS**

REPORT CONTENTS ..... 1

PREVIOUS TRAFFIC REPORTS COMPLETED IN THE AREA ..... 2

STUDY AREA DETERMINATION ..... 2

LAND USE AND ACCESS ..... 2

    Land Use..... 2

    Site Access..... 3

    Pedestrian and Bicycle Analysis ..... 3

ROADWAY AND TRAFFIC CONDITIONS ..... 4

    Area Roadways ..... 4

    Existing Traffic Volumes..... 4

    Existing Levels of Service ..... 4

BACKGROUND TRAFFIC..... 5

TRIP GENERATION..... 6

DIRECTIONAL DISTRIBUTION AND ASSIGNMENT ..... 7

TOTAL TRAFFIC..... 7

PROJECTED LEVELS OF SERVICE ..... 8

    The Shops at Meridian Ranch access to Stapleton Drive ..... 8

SIGNAL WARRANT ANALYSIS ..... 8

ACCESS CONFIGURATION AND CIRCULATION RECOMMENDATIONS ..... 9

ROADWAY IMPROVEMENT FEE PROGRAM ..... 10

CONCLUSIONS AND RECOMMENDATIONS..... 10

    Trip Generation..... 10

    Recommendations ..... 10

Enclosures: ..... 11

    Tables 2-4

    Figures 1-10

    Traffic Count Reports

    Level of Service Reports

    MTCP Maps

    Appendix Tables 1 and 2



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

March 22, 2024

Hunjan Gas Stations LLC  
c/o Brad Nichols  
Planner  
YOW Architects

RE: Shops at Meridian Ranch  
Lot 2, Filing No. 1  
El Paso County, Colorado  
Traffic Impact Study  
PCD File No.: [PPR2322](#)  
LSC #S234020

Dear Mr. Nichols:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact study for the currently proposed development of a portion of Lot 2 Filing No. 1 of the Shops at Meridian Ranch. As shown in Figure 1, the site is located northeast of the intersection of Meridian Road and Stapleton Drive in El Paso County, Colorado. LSC completed a traffic technical memorandum for Meridian Ranch Commercial and Residential Filing 4B dated July 11, 2014 as part of the Shops at Meridian Ranch 1 Preliminary Plan ([EPD No. SP147](#)) submittal that included this parcel.

## REPORT CONTENTS

This report is being prepared as part of a submittal to El Paso County. It identifies the traffic impacts of the proposed development. The report contains the following:

- The traffic count data and street conditions;
- Short-term and 2044 baseline/background traffic volume estimates;
- The projected average weekday and peak-hour vehicle trips to be generated by the site and a comparison to the trip-generation estimate assumed in the 2014 *Meridian Ranch Commercial and Residential Filing 4B Traffic Technical Memorandum*;
- 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 and queueing analysis, at key intersections;
- The project's obligation to the County roadway improvement fee program; and
- Findings and recommendations.

### PREVIOUS TRAFFIC REPORTS COMPLETED IN THE AREA

A list of other traffic studies in the area of study completed within the past five years (that LSC is aware of) is attached for reference (Appendix Table 1).

The El Paso County Department of Public Works recently released a draft traffic report prepared by Wilson & Company (December 9, 2021) as part of Briargate-Stapleton Corridor Study. The forecast 2045 total traffic volumes in that study were developed using the PPACG 2045 fiscally constrained RTP model.

### STUDY AREA DETERMINATION

Per Section B.2.3.B of El Paso County's *Engineering Criteria Manual (ECM)*:

*The limits of the transportation network to be studied shall be based on the size and extent of the proposed development, the existing and future land uses, and traffic conditions on and near the site.*

Additionally, off-site intersections which should be included for a full traffic impact study (TIS) include those which meet the following criteria:

*Additional offsite major intersections where: the project contributes a 10 percent impact (during either the A.M. or P.M. peak hour) to any approach leg of the intersection where the intersection is operating at a LOS of C or better in the Short-Range Horizon*

LSC has calculated the percent increase in traffic for projected site-generated traffic volumes versus the existing traffic volumes at the intersections adjacent to the Shops at Meridian Ranch site access to Stapleton Drive. Based on the analysis, the intersection of Stapleton Drive/Meridian Road was included in this TIS but not the intersection of Stapleton Drive/Meridian Ranch Boulevard. Please refer to Appendix Table 2 for the analysis.

### LAND USE AND ACCESS

#### Land Use

as discussed per our conversation please include this intersection in your analysis as this is considered an adjacent intersection per ECM b.2.3.B

The site plan used in the July 22, 2014 traffic technical memorandum for the buildout of the Meridian Ranch Commercial site showed 58,005 square feet of retail floor space, plus a gas station with 20 vehicle fueling positions. However, as at the time most of the site plan was

conceptual only, it was decided that the trip-generation estimate and analysis of traffic impacts should be studied for a maximum potential land use of up to 90,000 square feet of retail floor space in addition to the gas station.

Since completion of that report, 58,027 square feet of retail floor space have been constructed within the Shops at Meridian Ranch. About 9,097 square feet of the existing floor area was unoccupied in January 2023 when traffic counts were conducted.

The currently proposed plan is for a commercial building with 14,000 square feet of floor space. The building will include a 4,000-square-foot convenience store, a 7,500-square-foot liquor store, and 2,500 square feet for general retail uses. The proposed plan also includes 12 vehicle fueling positions. The site plan is shown in Figure 2.

If the currently vacant parcels within the Shops a Meridian Ranch (Lots 1 and 2 of the Shops at Meridian Ranch Filing No. 1) are developed as shown on the July 22, 2014 site plan, the resulting buildout land use would total about 76,427 square feet of retail floor space plus the currently proposed gas station. This would be 13,573 square feet below the maximum potential land use of 90,000 square feet used in the July 2014 trip-generation estimate and traffic analysis.

### **Site Access**

There are three existing access points for the greater Shops at Meridian Ranch development, including a full-movement access to Stapleton Drive, a full-movement access to Tourmaline Drive, and a right-in-only access to Meridian Road. Two internal, individual-lot access points are proposed for this convenience store/gas station site development to the Shops at Meridian Ranch internal roadway system. The access to the east/west roadway is planned to be full movement. The access to the north/south roadway (on the east side of the site) is located about 165 feet north of Stapleton Drive (existing centerline spacing). The access to the east-west internal drive is shown about 240 feet west of the north-south entry drive extending south to Stapleton Drive. The access to the east-west internal drive is planned to be restricted to right-in/right-out only.

### **Pedestrian and Bicycle Analysis**

There are currently detached sidewalks along the frontage of the Shops at Meridian Ranch including on the north side of Stapleton Drive between Meridian Road and Meridian Ranch Boulevard and on the east side of Meridian Road between Stapleton Drive and Tourmaline Drive. There are currently no sidewalks on the south side of Stapleton Road, as only the north half of the ultimate cross section has been constructed. Section 3.1 of the draft *Briargate Parkway-Stapleton Road Corridor Study Appendix D: Access Control Plan* dated December 9, 2021, identifies an ultimate hybrid section for Briargate/Stapleton between Black Forest Road and Meridian Road that will resemble the City of Colorado Springs typical section that includes a six-foot outside shoulder to provide a shared facility for bicycles and a six-foot detached sidewalk.

Although not included in the corridor study, it is likely that a similar ultimate cross section will be constructed for the section between Meridian Road and US Highway 24.

Sidewalks are planned on the north and south side of the proposed development adjacent to the internal drives.

## **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 (CPP) with the site location identified on them have been attached to this report.

**Stapleton Drive** currently extends east from Towner Drive to US Highway (Hwy) 24 and then continues southeast as Curtis Road. It is planned to be ultimately extended west to connect with the Briargate Parkway extension. Adjacent to the site, Stapleton Drive is currently a two-lane roadway with a posted speed limit of 45 miles per hour (mph). It is shown as an Urban four-lane Principal Arterial on the El Paso County Major Transportation Corridors Plan and El Paso County Corridor Preservation Plan (CPP).

**Meridian Road** extends north from South Blaney Road to County Line Road. The posted speed limit on Meridian Road in the vicinity of Stapleton Drive 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 MTCP.

### **Existing Traffic Volumes**

Figure 3 shows the existing morning and afternoon peak-hour traffic volumes at the Shops at Meridian Ranch site access to Stapleton Drive and at the intersection of Meridian Road/Stapleton Drive. These volumes are based on manual intersection turning-movement counts conducted by LSC in January 2023 and February 2024. The count-data sheets are attached for reference. The data sheets also include counts for off-peak hours utilized in the signal warrant evaluation.

### **Existing Levels of Service**

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

**Table 1: Intersection Levels of Service Delay Ranges**

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle) <sup>(1)</sup>
A	10 sec or less	10 sec or less
B	10-20 sec	10-15 sec
C	20-35 sec	15-25 sec
D	35-55 sec	25-35 sec
E	55-80 sec	35-50 sec
F	80 sec or more	50 sec or more

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

Figure 3 presents the results of the existing intersection level of service analysis, based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6<sup>th</sup> Edition* by the Transportation Research Board. The peak-hour factors used for each approach are based on the traffic volumes for the peak fifteen minutes of the entire intersection. If the peak 15 minutes for an approach occurs during an interval other than the peak 15 minutes of the entire intersection, the suggested peak-hour value based on the total approach volume from Table 9-1 of the *Synchro Studio 10 User Guide* was used instead. The level of service reports are attached. As shown in Figure 3 the southbound left-turn movement currently operates at LOS C during both the morning and afternoon peak hours.

A signal warrant evaluation of existing conditions is included on page 7 of this report.

The southbound left-turn movement at the stop-sign-controlled access for the Shops at Meridian Ranch site access to Stapleton Drive is currently operating at LOS C during both the morning and afternoon peak hours.

The signal-controlled intersection of Meridian/Stapleton is currently operating at an overall LOS C during the morning peak hour and LOS B during the afternoon peak hour.

**BACKGROUND TRAFFIC**

Background traffic is the traffic estimated to be on the adjacent roadways without the proposed development’s trip generation of site-generated traffic volumes. Background traffic includes the through traffic and the traffic generated by development of other lots within the Shops at Meridian Ranch but assumes zero traffic generated by the currently proposed gas station.

Figure 4 shows the projected short-term background traffic volumes for the year 2028. These volumes are based on the existing traffic volumes from Figure 3 plus about 3 percent per year of



growth through traffic on Stapleton Road and Meridian Road plus traffic projected to be generated once the recently constructed building southwest of Tourmaline Drive/Fleece Flower Way is occupied.

Figure 5 shows the projected 20-year background traffic volumes for the year 2044. These volumes assume Stapleton Drive has been extended west (as Briargate Parkway/Stapleton Drive) to connect with the existing section of Briargate Parkway. The 2044 background traffic volumes were based on the volumes shown in the *Briargate-Stapleton Corridor Study (Draft)* by Wilson & Company dated December 9, 2021 and on previous work completed by LSC in the area.

### **TRIP GENERATION**

The site-generated vehicle trips were estimated using the nationally published trip-generation rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE). Table 2 shows the trip-generation estimates. Also shown in the table, for comparison are the original buildout trip-generation estimates as presented in the July 22, 2014 traffic study.

The total number of vehicle trips generated has been reduced to account for the “pass-by” phenomena. A pass-by trip is made by a motorist who would already be on the adjacent roadways regardless of the proposed development, but who stops in at the site while passing by. The motorist would then continue on his or her way to a final destination in the original direction. The pass-by percentages shown in Table 2 are from the *Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2017* by ITE.

At buildout, the proposed development is expected to generate about 1,796 new external vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, about 113 vehicles would enter and 109 vehicles would exit the site. During the afternoon peak hour, about 170 vehicles would enter and 172 vehicles would exit the site.

Assuming the currently vacant parcels within the Shops at Meridian Ranch are developed with about 18,400 additional square feet of retail floor space, the entire Shops at Meridian Ranch development is projected to generate about 5,108 new external vehicle-trips on the average weekday. This is about 323 fewer vehicle trips per day than was estimated in the July 2014 study. During the morning peak hour, about 182 vehicles would enter and 151 vehicles would exit the entire Shops at Meridian Ranch development. This is about 10 more entering vehicles and 6 more exiting vehicles than was estimated in the July 2014 study. During the afternoon peak hour about 359 vehicles would enter and 368 vehicles would exit the entire Shops at Meridian Ranch development. This is about 52 fewer entering vehicles and 54 fewer exiting vehicles than was estimated in the July 2014 study.

The increase in the projected morning peak-hour trip generation despite the decrease in total floor area is due to changes in the trip-generation rates from the 9th edition of Trip Generation

which were used in the 2014 report and the rates shown in the 11th edition which were used for the current trip generation estimate.

The minor increase in trip-generation estimate during the average morning peak hour should not present a problem, however, as the access points and adjacent intersections will be designed for the afternoon peak-hour traffic, which is significantly higher than the morning peak hour.

### **DIRECTIONAL DISTRIBUTION AND ASSIGNMENT**

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 6 shows the short-term and long-term directional-distribution estimates for the site-generated traffic volumes. The directional-distribution estimate has been based on the location of the site with respect to area residential, employment, school, commercial, and activity centers; the land use proposed; the access/roadway connections assumed; and the roadway network. The short-term directional-distribution estimate assumes the existing street network. The long-term directional-distribution estimate assumes the Briargate Parkway/Stapleton Drive corridor has been constructed and/or improved to its final Urban Principal cross section between Black Forest Road and US Highway 24.

When the external trip-distribution percentages (from Figure 6) are applied to the trip-generation estimates (from Table 2), the resulting site-generated traffic volumes can be determined. The pass-by trips have been assigned separately, based on the 2028 and 2044 background traffic volumes on Stapleton Drive shown in Figures 4 and 5, respectively. Figure 7 shows the short-term site-generated traffic volumes and Figure 8 shows the long-term site-generated traffic volumes.

### **TOTAL TRAFFIC**

Figure 9 shows the projected 2028 total traffic volumes. The short-term total traffic volumes are the sum of the 2028 background traffic volumes (from Figure 4) plus the short-term site-generated traffic volumes (from Figure 7).

Figure 10 shows the projected 2044 total traffic volumes. The 2044 total traffic volumes are the sum of the 2044 background traffic volumes (from Figure 5) plus the long-term site-generated traffic volumes (from Figure 8).

## 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, 6<sup>th</sup> Edition* by the Transportation Research Board and Synchro signalized intersection procedures. The results of the analysis are contained in Figures 4, 5, 9, and 10. The level of service reports are attached.

Staff will discuss with Engineering Manger as to the implementation of this recommendation.

### The Shops at Meridian Ranch access to Stapleton Drive

The Shops at Meridian Ranch access to Stapleton Drive is currently stop-sign controlled. If this access remains stop-sign controlled, the southbound left-turn movement is projected to operate at LOS E during the morning peak hour and LOS F during the afternoon peak hour, based on the 2028 total traffic volumes. If the east leg of Stapleton Drive is restriped as a two-way, left-turn lane, all movements are projected to operate at LOS D or better during the peak hours through 2028. If this intersection is converted to traffic-signal control, all movements are projected to operate at LOS D or better during the peak hours through 2044. However, traffic-signal warrants may not be met in the short term.

All allowable turning movements at the proposed access to the north/south internal road are projected to operate at LOS B or better through 2044.

### Stapleton/Meridian

The intersection of Stapleton/Meridian is currently traffic-signal controlled with protected/permitted phasing for the northbound and southbound left-turn movements only. All movements at this intersection are projected to operate at LOS D or better during the peak hours, based on the projected short-term total traffic volumes, if protected/permitted phasing is added for the eastbound and westbound left-turn movements. By 2044, it was assumed that Briargate Parkway would be constructed between Black Forest Road and Towner Avenue and that Stapleton Drive would be improved to its final Principal Arterial cross section. Based on the projected 2044 total peak-hour traffic volumes and the lane geometry shown in Figure 9, this intersection is projected to operate at an overall LOS C or better during the peak hours.

## SIGNAL WARRANT ANALYSIS

*The Meridian Ranch Commercial and Residential Filing 4B Traffic Technical Memorandum* dated July 22, 2014 included a traffic-signal warrant analysis of the Shops at Meridian Ranch access to Stapleton Drive. That analysis identified that Four-Hour and Eight-Hour Vehicular Volume traffic signal warrants would likely be met when about 55,000 square feet of retail floor space and the gas station are occupied. As currently more than 55,000 square feet of retail floor space have been constructed, besides the currently-proposed filing which includes the planned gas station, these signal warrants have been updated based on the existing traffic conditions. The satisfaction

of warrants does not indicate that a signal must be installed. The decision to allow a signal to be installed rests with the County.

Tables 3 and 4 show the results of the analysis of existing conditions, projected existing plus site-generated conditions, 2028 total conditions and 2044 total condition. Table 3 assumes the southbound left-turn movement only as the “minor approach” and all of the eastbound and westbound traffic volumes (left, through, and right-turn movements) as the “major street”. Table 4 assumes the eastbound left-turn movement as the “minor approach” and only the westbound through and right-turn movements as the “major street”. The off-peak existing traffic volumes were based on traffic counts conducted by LSC in January 2023 and the off-peak site-generated future hourly volumes and 2028 background hourly volumes for the balance of the shopping center have been estimated based on vehicle time-of-day distribution data for shopping center, gas station with convenience store, and liquor store land uses published by the Institute of Transportation Engineers.

As shown in Tables 3 and 4, neither a Four-Hour nor an Eight-Hour Vehicular-Volume Traffic-Signal Warrant is projected to be met in the short term. Both the Four-Hour and Eight-Hour Vehicular-Volume Traffic Signal Warrants are projected to be met by 2044. This traffic-signal warrant analysis should be updated with any future filings submitted within the Shops at Meridian Ranch.

## ACCESS CONFIGURATION AND CIRCULATION RECOMMENDATIONS

Figure 11 shows the recommended signing and striping plan for the internal drives.

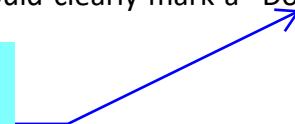
The north/south entry drive from Stapleton and the intersecting east/west internal drive is planned, by the master developer, to be configured for east/west stop-sign control and a free northbound approach (no stop sign).

- As shown in Figure 11, stop signs should control the eastbound and westbound approaches. Supplemental signs under these stop signs should indicate that northbound (inbound) traffic has an uncontrolled/free movement and does NOT stop. Stop-line markings should be installed on the eastbound and westbound approaches (it appears that the eastbound approach stop bar already exists).

Regarding the proposed lot access to the north/south, internal/private shopping center entry drive/street (on the east side of the site) located about 165 feet north of Stapleton Drive (centerline spacing):

- This access point should be signed and marked for no entering (northbound) left turns and no exiting (eastbound) left turns.
- Pavement markings within the southbound lanes and signs should be installed for southbound traffic on the north-south access drive upstream (north of) the internal gas station access. The pavement markings and signs should clearly mark a “Do Not Block” zone at the gas station access point.

what is the purpose of this as no left turns are allowed at this right-in-right out access and a solid yellow line is striped at this location preventing left turns. Revise



## ROADWAY IMPROVEMENT FEE PROGRAM

The property is located in the Woodmen Road Metro District and, therefore, does not pay road impact fees to El Paso County per resolution 13-041. It is our understanding that an agreement to pay any required fees to the Metro District is in process.

## CONCLUSIONS AND RECOMMENDATIONS

### Trip Generation

- At buildout, the proposed gas station is expected to generate about 1,796 new external vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, about 113 vehicles would enter and 109 vehicles would exit the site. During the afternoon peak hour, about 170 vehicles would enter and 172 vehicles would exit the site.

### Recommendations

- The existing eastbound left-turn lane and westbound right-turn deceleration and acceleration lane at The Shops at Meridian Ranch access to Stapleton Drive meet the criteria contained in the El Paso County *Engineering Criteria Manual*. No additional improvements are anticipated to be required on Stapleton Drive, Meridian Road, or Tourmaline Drive with the construction of the proposed gas station.
- The intersection of Stapleton/Meridian is currently traffic-signal controlled with protected/permitted phasing for the northbound and southbound left-turn movements only. Protected/permitted phasing for the eastbound and westbound left-turn movements will likely be needed in the short term to maintain an acceptable level of service for the westbound left-turn movement.
- Please refer to the section entitled "Access Configuration and Circulation Recommendations."
- The Shops at Meridian Ranch access to Stapleton Drive is **not** projected to meet either an Eight-Hour or a Four-Hour Vehicular-Volume traffic-signal warrant based on the 2028 background traffic plus projected traffic volumes associated with the development of the currently-proposed filing. This intersection is projected to operate at a satisfactory level of service (LOS D or better) during peak hours as a stop-sign-controlled intersection if Stapleton Drive is restriped with a two-way, left-turn center lane east of the access. Traffic-signal warrant(s) are anticipated to be met with buildout of the remaining vacant parcels within the Shops and Meridian Ranch and/or growth of through traffic on Stapleton Drive. It is our understanding that the applicant will be party to a cost sharing "agreement" with the overall shopping center, The Shops at Meridian Ranch LLC, and this agreement will be added to the Association CC&Rs that all offsite improvements such as the traffic signal.

Please also indicate that Shops at Meridian Ranch LLC will enter into a development agreement with the County for the installation of the signal when it is warranted.

- The property is located in the Woodmen Road Metro District and, therefore, does not pay road impact fees to El Paso County per resolution 13-041. It is our understanding that an agreement to pay any required fees to the Metro District is in process.

\* \* \* \* \*

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  
Figures 1-10  
Traffic Count Reports  
Level of Service Reports  
MTCP Maps  
Appendix Tables 1 and 2

# Tables 2-4



**Table 2**  
**Trip Generation Estimate**  
 The Shops at Meridian Ranch Lot 2, Filing 1

Lot	Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates <sup>(1)</sup>				Total Trips Generated				Internal Trips	Total External Trips Generated					Pass-By Trips <sup>(2)</sup>	New External Trips Generated Average Weekday Traffic			
				Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out	Afternoon Peak Hour In	Afternoon Peak Hour Out	Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out		Afternoon Peak Hour In	Afternoon Peak Hour Out	Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out			Afternoon Peak Hour In	Afternoon Peak Hour Out	
<b>Currently Proposed Land Use</b>																						
2	945	Gasoline/Service Station with Convenience Market (VFP <sup>(3)</sup> 9-15)	4.0 KSF <sup>(4)</sup>	700.43	28.26	28.26	27.26	27.26	2,802	113	113	109	109	5%	2,662	107	107	104	104	56%	1,171	
	899	Liquor Store	7.5 KSF	107.21	0.47	0.12	8.31	8.31	804	3	1	62	63	2.75%	782	3	1	60	61	34%	516	
	821	Shopping Plaza (40-150 KSF With No Supermarket)	2.5 KSF	67.52	1.07	0.66	2.54	2.65	169	3	1	6	7	2.75%	164	3	1	6	7	34%	108	
			<b>14.0 KSF</b>												<b>3,608</b>	<b>113</b>	<b>109</b>	<b>170</b>	<b>172</b>		<b>1,796</b>	
<b>For Reference Only:</b>																						
<b>Existing Land Use</b>																						
3	821	Shopping Plaza (40-150 KSF With No Supermarket)	29.260 KSF	67.52	1.07	0.66	2.54	2.65	1,976	31	19	74	77	2.75%	1,921	31	19	72	75	34%	1,268	
4D	821	Shopping Plaza (40-150 KSF With No Supermarket)	17.352 KSF	67.52	1.07	0.66	2.54	2.65	1,172	19	11	44	46	2.75%	1,139	18	11	43	45	34%	752	
4E	821	Shopping Plaza (40-150 KSF With No Supermarket)	11.415 KSF	67.52	1.07	0.66	2.54	2.65	771	12	8	29	30	2.75%	750	12	7	28	29	34%	495	
		Existing Total	58.027 KSF												3,810	61	37	144	149		2,515	
															<b>Existing Plus Currently Proposed</b>	<b>7,418</b>	<b>174</b>	<b>146</b>	<b>314</b>	<b>321</b>		<b>4,310</b>
<b>Future Land Use</b>																						
1	821	Shopping Plaza (40-150 KSF With No Supermarket)	13 KSF	67.52	1.07	0.66	2.54	2.65	878	14	9	33	34	2.75%	854	14	8	32	33	34%	563	
2	821	Shopping Plaza (40-150 KSF With No Supermarket)	5.4 KSF	67.52	1.07	0.66	2.54	2.65	365	6	4	14	14	2.75%	355	6	3	13	14	34%	234	
		Future Total	18.400 KSF												1,208	19	12	46	47		797	
		Background Total (not including the Lot 2, Filing 1)	76.427 KSF												5,018	80	49	189	197		3,312	
															<b>Buildout Total</b>	<b>8,626</b>	<b>193</b>	<b>158</b>	<b>359</b>	<b>368</b>		<b>5,108</b>
<b>Trip Generation Estimate Shown in the Meridian Ranch Commercial and Residential Filing 4B Traffic Technical Memorandum by LSC, July 11, 2014</b>																						
---	820	Shopping Center	90 KSF	70.46	0.98	0.63	3.23	3.36	6,342	88	56	290	302	2.75%	6,167	86	55	282	294	34%	4,070	
	945	Gasoline/Service Station with Convenience Market	20 VFP	162.78	5.08	5.08	6.76	6.76	3,256	102	102	135	135	5%	3,093	97	97	128	128	56%	1,361	
									<b>9,597</b>	<b>190</b>	<b>158</b>	<b>426</b>	<b>437</b>		<b>9,260</b>	<b>182</b>	<b>151</b>	<b>411</b>	<b>422</b>		<b>5,431</b>	
															<b>Change in Trip Generation Estimate</b>	<b>-634</b>	<b>10</b>	<b>6</b>	<b>-52</b>	<b>-54</b>		<b>-323</b>

Notes:  
 (1) Source: "Trip Generation, 11th Edition, 2021" by the Institute of Transportation Engineers (ITE)  
 (2) Source: "Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2017" by ITE  
 (3) VFP = vehicle fueling position  
 (4) KSF = thousand square feet



**Table 3**  
**Traffic Signal Warrant Analysis**  
 Shops at Meridian Ranch Access/Stapleton Drive  
 Shops at Meridian Ranch Lot 2 Filing No. 1

Warrant Analysis<sup>(1)</sup>

Hour	Traffic Volumes (vehicles per hour)		Warrant 1: Eight Hour Vehicular Volume Evaluation						Warrant 2: Four Hour Vehicular Volume	
			Warrant Thresholds				Warrant Threshold Met?		70% Warrant Threshold Minor Minimum	Warrant Threshold Met?
	Condition A (70%)		Condition B (70%)		North Leg		North Leg			
	Major <sup>(2)</sup>	Minor Leg <sup>(3)</sup>	Major	Minor	Major	Minor		Condition A	Condition B	

**Existing Traffic**

6:30 AM	767	6	350	105	525	53	No	No	70	No
7:30 AM	798	11	350	105	525	53	No	No	70	No
8:30 AM	474	12	350	105	525	53	No	No	160	No
11:45 AM	428	21	350	105	525	53	No	No	160	No
12:45 PM	422	26	350	105	525	53	No	No	160	No
1:45 PM	457	17	350	105	525	53	No	No	160	No
3:00 PM	826	19	350	105	525	53	No	No	60	No
4:00 PM	780	36	350	105	525	53	No	No	70	No
5:00 PM	796	27	350	105	525	53	No	No	70	No

Numbers of Hours the Warrant Thresholds Are Met	0	0	0
Warrant Met?	No		No

**Existing Plus Site-Generated Traffic**

6:30 AM	809	34	350	105	525	53	No	No	60	No
7:30 AM	852	47	350	105	525	53	No	No	60	No
8:30 AM	530	49	350	105	525	53	No	No	125	No
11:45 AM	492	72	350	105	525	53	No	No	160	No
12:45 PM	487	75	350	105	525	53	No	No	160	No
1:45 PM	529	71	350	105	525	53	No	Yes	125	No
3:00 PM	912	83	350	105	525	53	No	Yes	60	Yes
4:00 PM	867	100	350	105	525	53	No	Yes	60	Yes
5:00 PM	899	102	350	105	525	53	No	Yes	60	Yes

Numbers of Hours the Warrant Thresholds Are Met	0	4	3
Warrant Met?	No		No

**2028 Total Traffic**

6:30 AM	929	34	350	105	525	53	No	No	60	No
7:30 AM	972	47	350	105	525	53	No	No	60	No
8:30 AM	594	49	350	105	525	53	No	No	125	No
11:45 AM	556	76	350	105	525	53	No	Yes	125	No
12:45 PM	548	79	350	105	525	53	No	Yes	125	No
1:45 PM	599	75	350	105	525	53	No	Yes	125	No
3:00 PM	1035	87	350	105	525	53	No	Yes	60	Yes
4:00 PM	981	104	350	105	525	53	No	Yes	60	Yes
5:00 PM	1016	106	350	105	525	53	Yes	Yes	60	Yes

Numbers of Hours the Warrant Thresholds Are Met	1	6	3
Warrant Met?	No		No

**2044 Total Traffic**

6:30 AM	1150	36	350	105	525	53	No	No	60	No
7:30 AM	1161	53	350	105	525	53	No	Yes	60	No
8:30 AM	706	58	350	105	525	53	No	Yes	70	No
11:45 AM	808	89	350	105	525	53	No	Yes	60	Yes
12:45 PM	792	92	350	105	525	53	No	Yes	70	Yes
1:45 PM	852	88	350	105	525	53	No	Yes	60	Yes
3:00 PM	1474	100	350	105	525	53	No	Yes	60	Yes
4:00 PM	1390	117	350	105	525	53	Yes	Yes	60	Yes
5:00 PM	1414	119	350	105	525	53	Yes	Yes	60	Yes

Numbers of Hours the Warrant Thresholds Are Met	2	8	6
Warrant Met?	Yes		Yes

**Notes:**

- (1) Thresholds are based on 1 lane on the major approach and 1 lane on the minor approach with the 70% factor applied for a posted speed limit above 40 mph
- (2) The major street traffic includes all movements (left, through, and right) on Stapleton Drive
- (3) The minor street traffic includes left-turn volume only from the Shops at Meridian Ranch access

**Table 4**  
**Traffic Signal Warrant Analysis**  
**With The Eastbound Left-Turn as the Minor Approach**

**Existing and Projected 2028 Total Traffic Conditions**  
**Shops at Meridian Ranch Access/Stapleton Drive**  
**Shops at Meridian Ranch Lot 2 Filing No. 1**

**Warrant Analysis<sup>(1)</sup>**

Hour	Traffic Volumes (vehicles per hour)		Warrant 1: Eight Hour Vehicular Volume Evaluation						Warrant 2: Four Hour Vehicular Volume	
			Warrant Thresholds				Warrant Threshold Met?		70% Warrant Threshold Minimum	Warrant Threshold Met?
	Major <sup>(2)</sup> (WB Only)	Minor <sup>(3)</sup> (EB LT)	Condition A (70%)		Condition B (70%)		North Leg			
			Major (WB)	Minor (EB LT)	Major (WB)	Minor (EB LT)	Condition A	Condition B	Minor (EB LT)	

**Existing Traffic**

6:30 AM	543	11	350	105	525	53	No	No	125	No
7:30 AM	436	23	350	105	525	53	No	No	160	No
8:30 AM	254	46	350	105	525	53	No	No	Low Vol	No
11:45 AM	217	31	350	105	525	53	No	No	Low Vol	No
12:45 PM	217	42	350	105	525	53	No	No	Low Vol	No
1:45 PM	199	21	350	105	525	53	No	No	Low Vol	No
3:00 PM	367	42	350	105	525	53	No	No	205	No
4:00 PM	349	46	350	105	525	53	No	No	205	No
5:00 PM	311	44	350	105	525	53	No	No	205	No

Numbers of Hours the Warrant Thresholds Are Met	0	0	0
Warrant Met?	No		No

**Existing Plus Site-Generated Traffic**

6:30 AM	551	65	350	105	525	53	No	Yes	125	No
7:30 AM	446	92	350	105	525	53	No	No	160	No
8:30 AM	264	117	350	105	525	53	No	No	Low Vol	No
11:45 AM	230	121	350	105	525	53	No	No	Low Vol	No
12:45 PM	230	133	350	105	525	53	No	No	Low Vol	No
1:45 PM	213	120	350	105	525	53	No	No	Low Vol	No
3:00 PM	385	156	350	105	525	53	Yes	No	205	No
4:00 PM	367	161	350	105	525	53	Yes	No	205	No
5:00 PM	332	179	350	105	525	53	No	No	205	No

Numbers of Hours the Warrant Thresholds Are Met	2	1	0
Warrant Met?	No		No

**2028 Total Traffic**

6:30 AM	637	65	350	105	525	53	No	Yes	90	No
7:30 AM	512	92	350	105	525	53	No	No	125	No
8:30 AM	300	117	350	105	525	53	No	No	205	No
11:45 AM	265	123	350	105	525	53	No	No	Low Vol	No
12:45 PM	265	135	350	105	525	53	No	No	Low Vol	No
1:45 PM	245	122	350	105	525	53	No	No	Low Vol	No
3:00 PM	442	158	350	105	525	53	Yes	No	160	No
4:00 PM	420	163	350	105	525	53	Yes	No	160	Yes
5:00 PM	379	181	350	105	525	53	Yes	No	205	No

Numbers of Hours the Warrant Thresholds Are Met	3	1	1
Warrant Met?	No		No

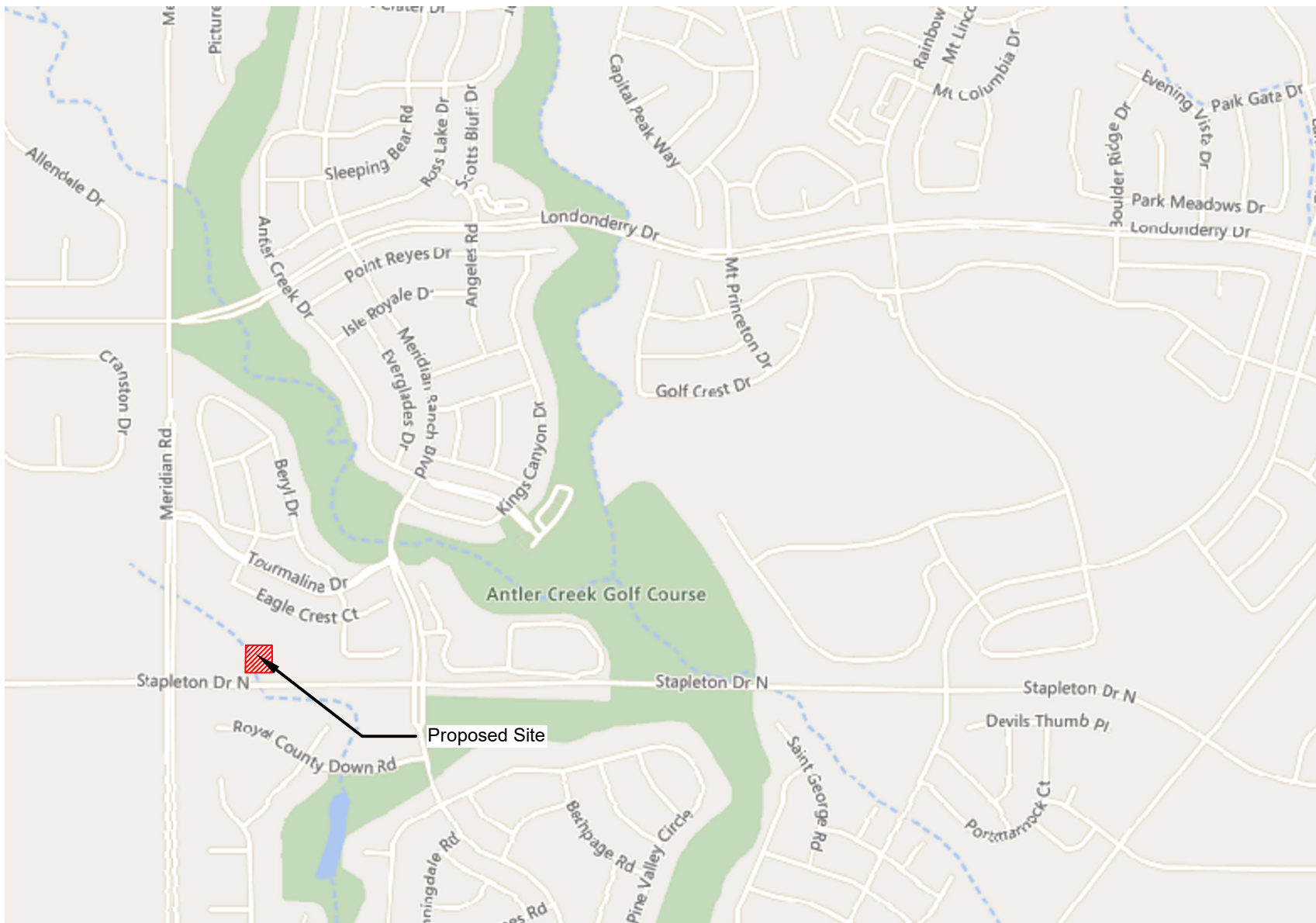
**Notes:**

- (1) Thresholds are based on 1 lane on the major approach and 1 lane on the minor approach with the 70% factor applied for a posted speed limit above 40 mph
- (2) The major street traffic includes only the westbound through and right-turn movements on Stapleton Drive
- (3) The minor street traffic includes the eastbound left-turn (EB LT) volume only

# Figures 1-10

---





Not to scale



Figure 1  
Vicinity Map

The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)



Approximate  
Scale  
1" = 250'

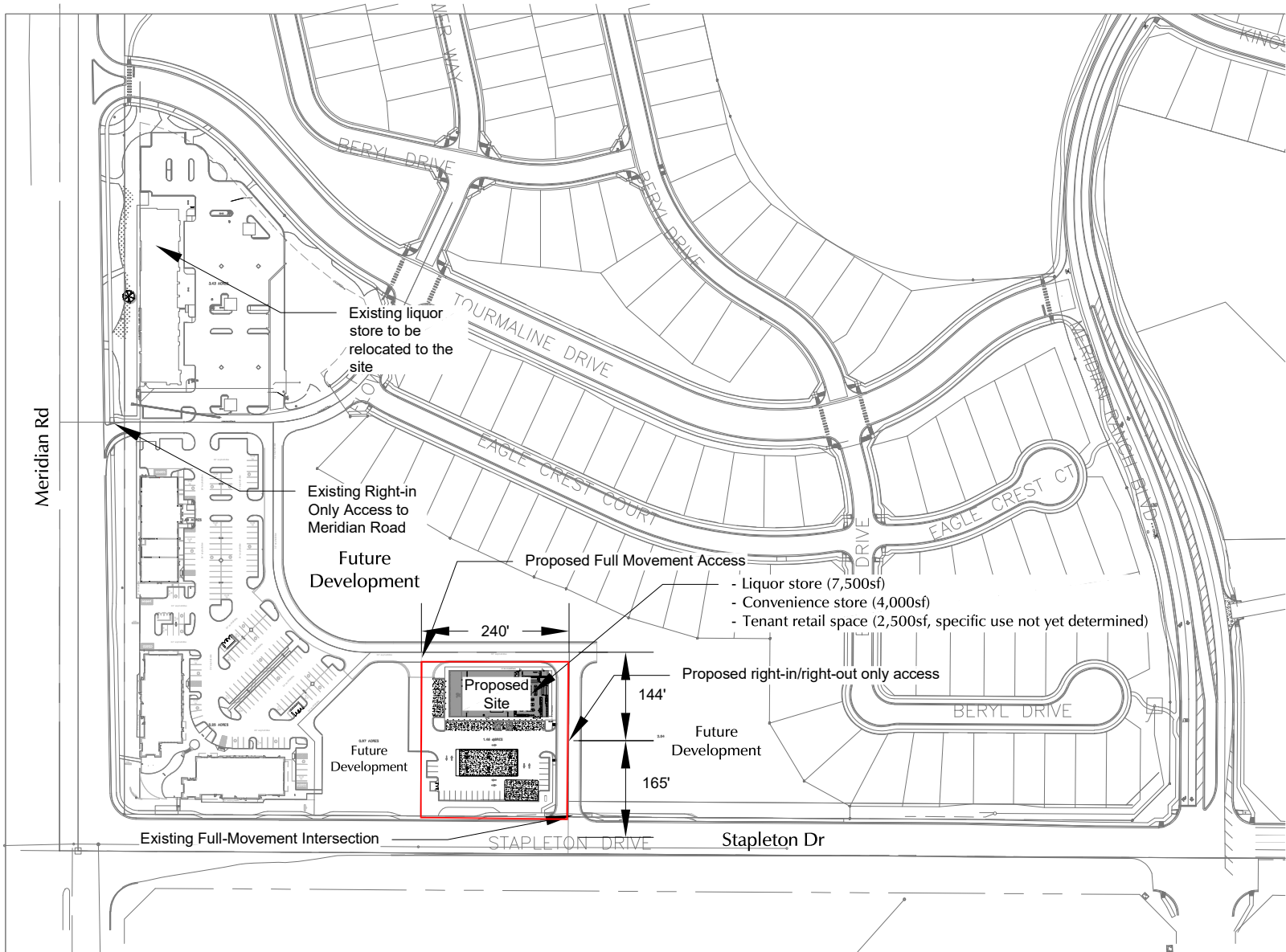
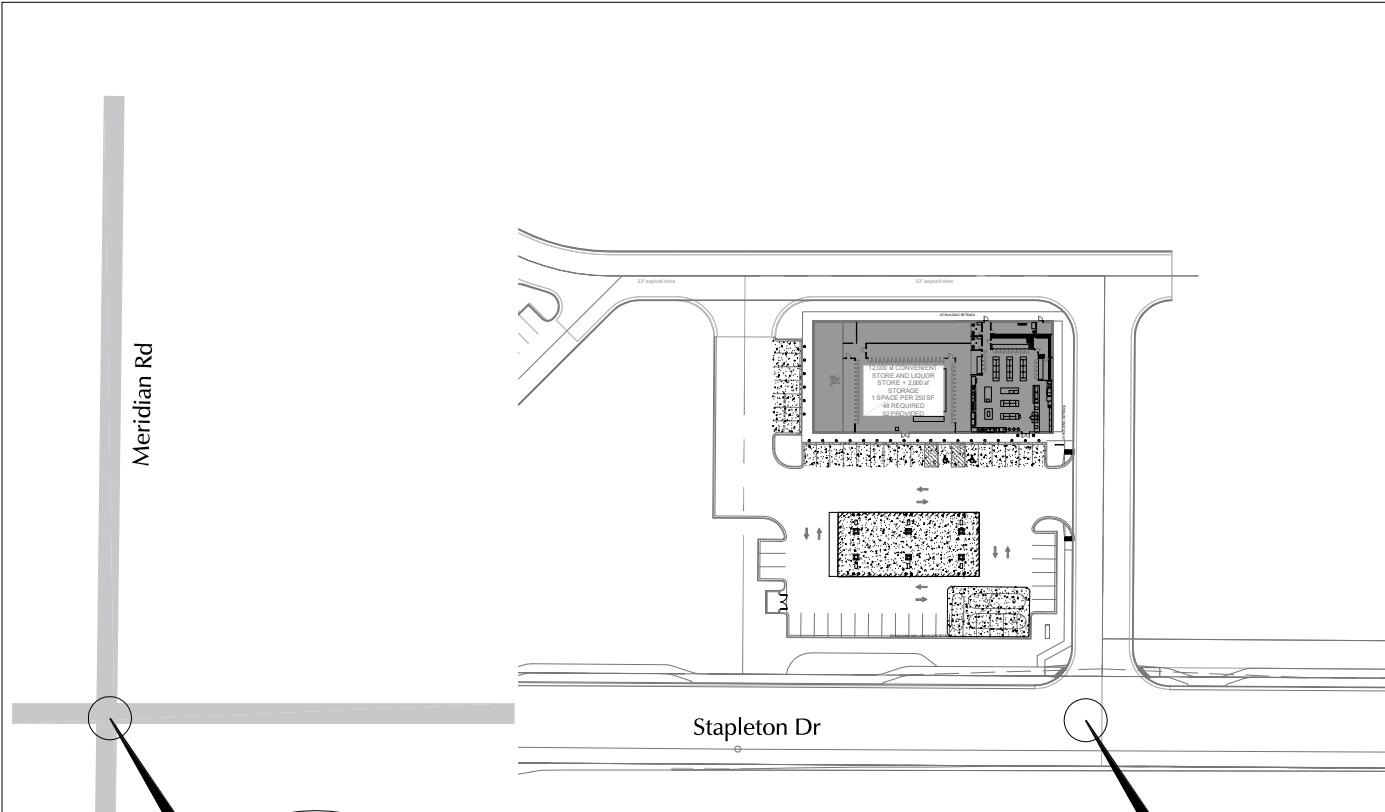


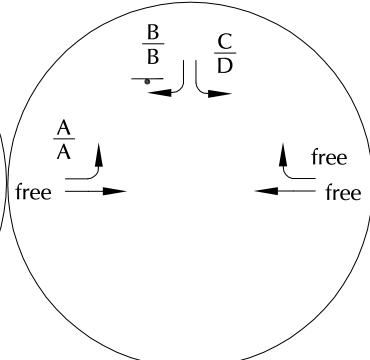
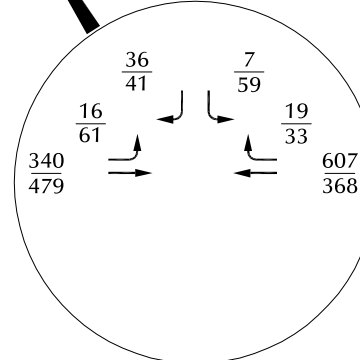
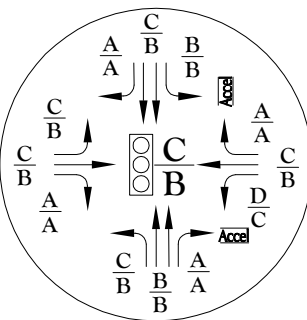
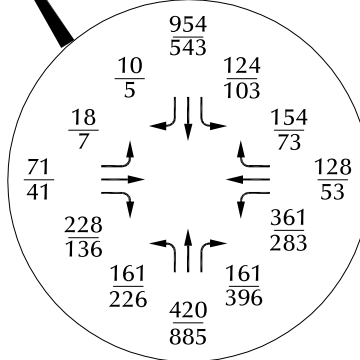
Figure 2  
**Site Plan**

The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)



Meridian Rd

Stapleton Dr



LEGEND:  $\frac{XX}{XX}$  = AM Peak-Hour Traffic (veh/hr) / PM Peak-Hour Traffic (veh/hr) Counts by LSC January 2023 and February 2024\*

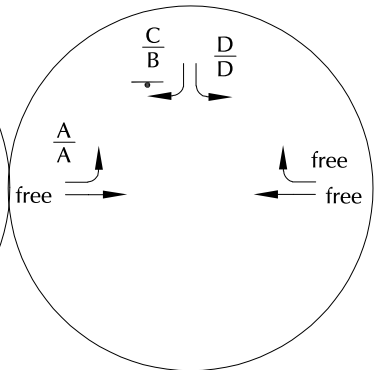
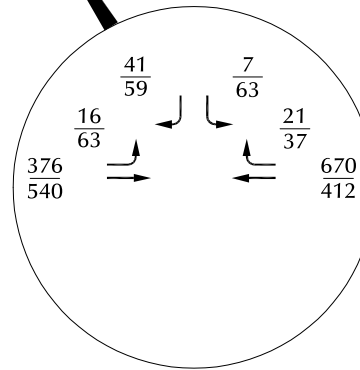
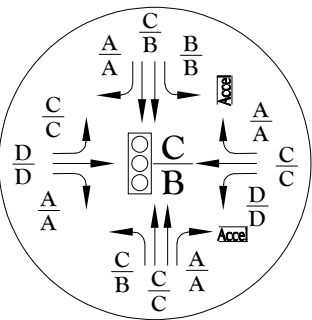
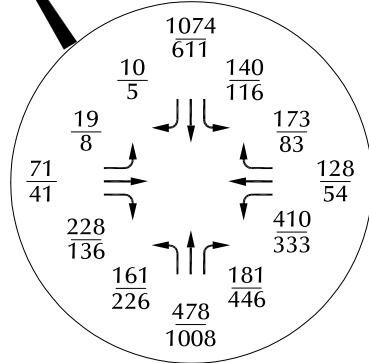
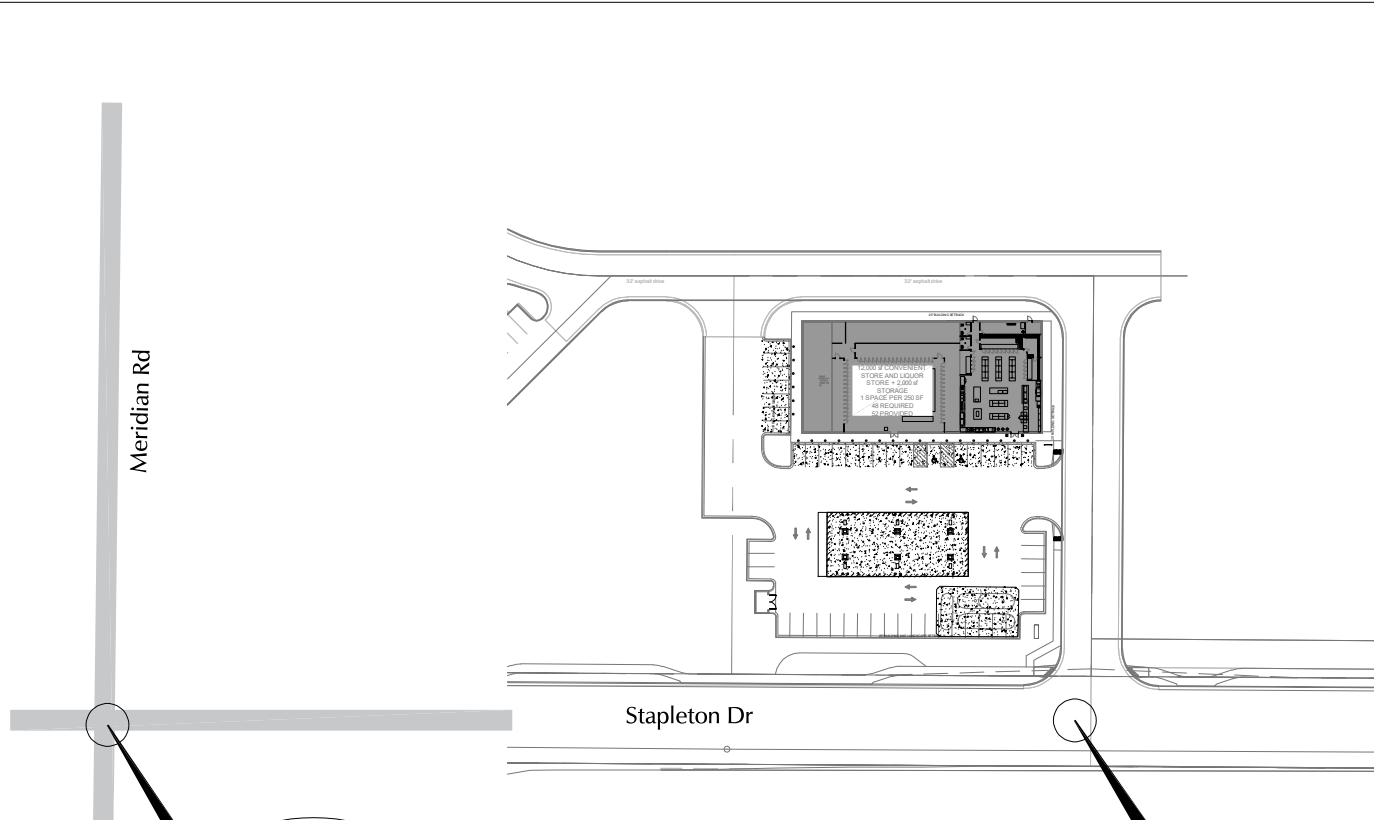
$\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service / PM Individual Movement Peak-Hour Level of Service

⊥ = Stop Sign \*Note: Additional off-peak count data in the appendix



Figure 3  
**Existing Conditions**

The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)



LEGEND:

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

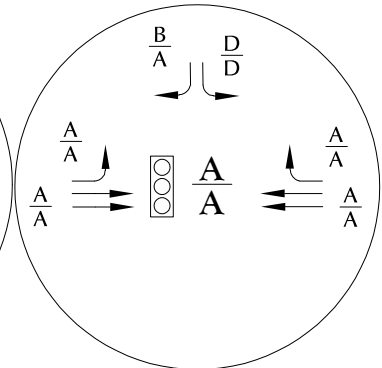
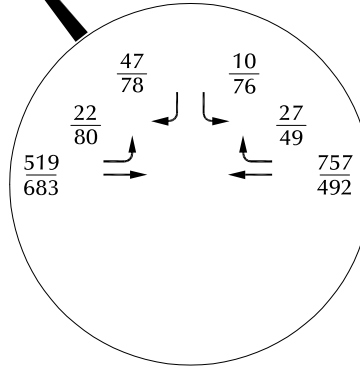
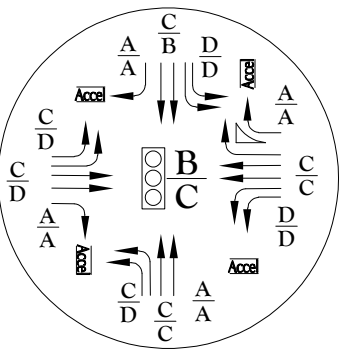
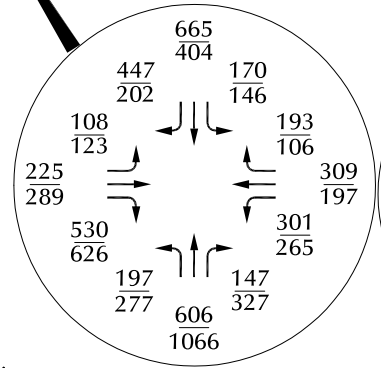
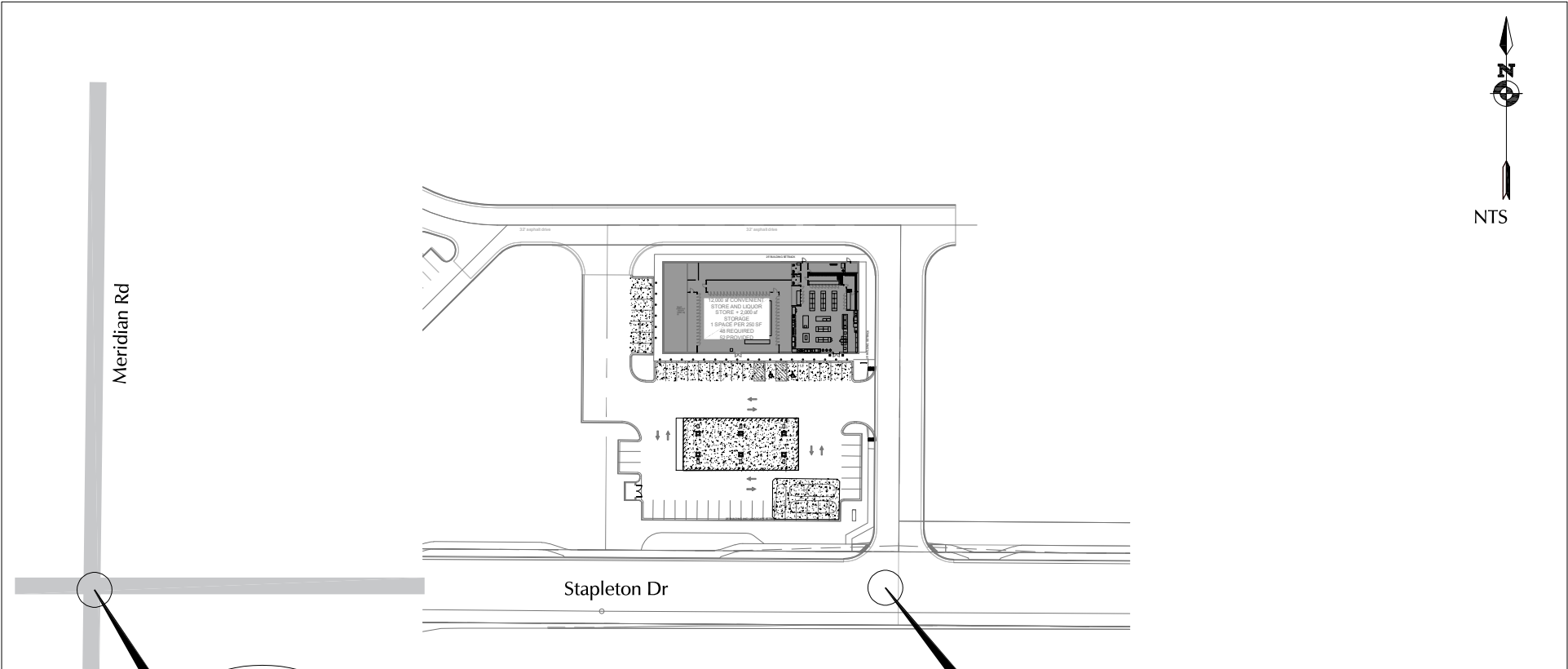
$\frac{A}{B}$  = AM Individual Movement Peak-Hour Level of Service  
 $\frac{A}{B}$  = PM Individual Movement Peak-Hour Level of Service

⊥ = Stop Sign

Figure 4  
**2028 Projected Background Conditions**

The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)





LEGEND:

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

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

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

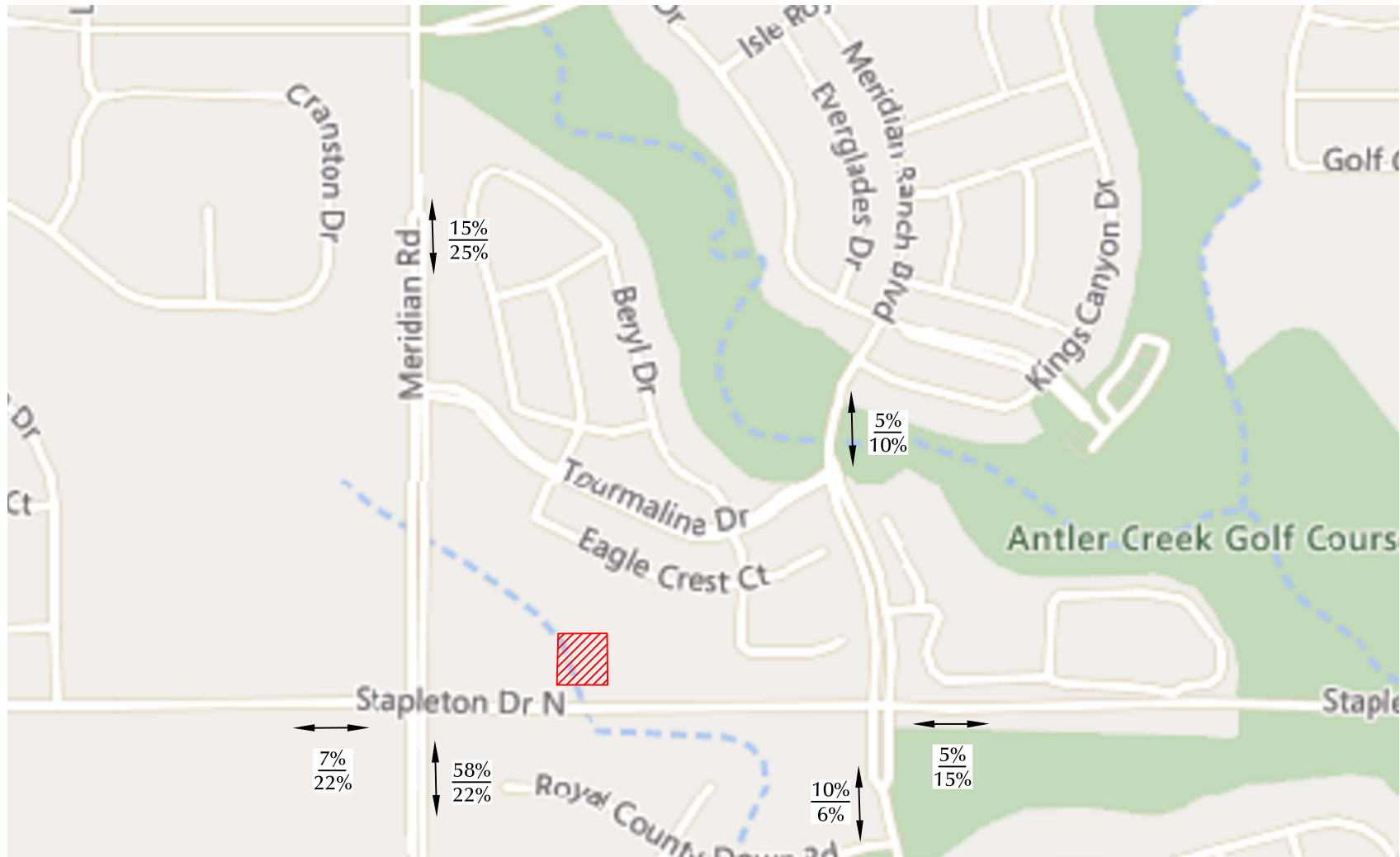
= Stop Sign    = Traffic Signal



Figure 5  
**2044 Background Conditions**

The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)





Not to scale



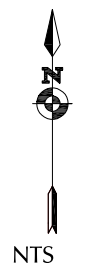
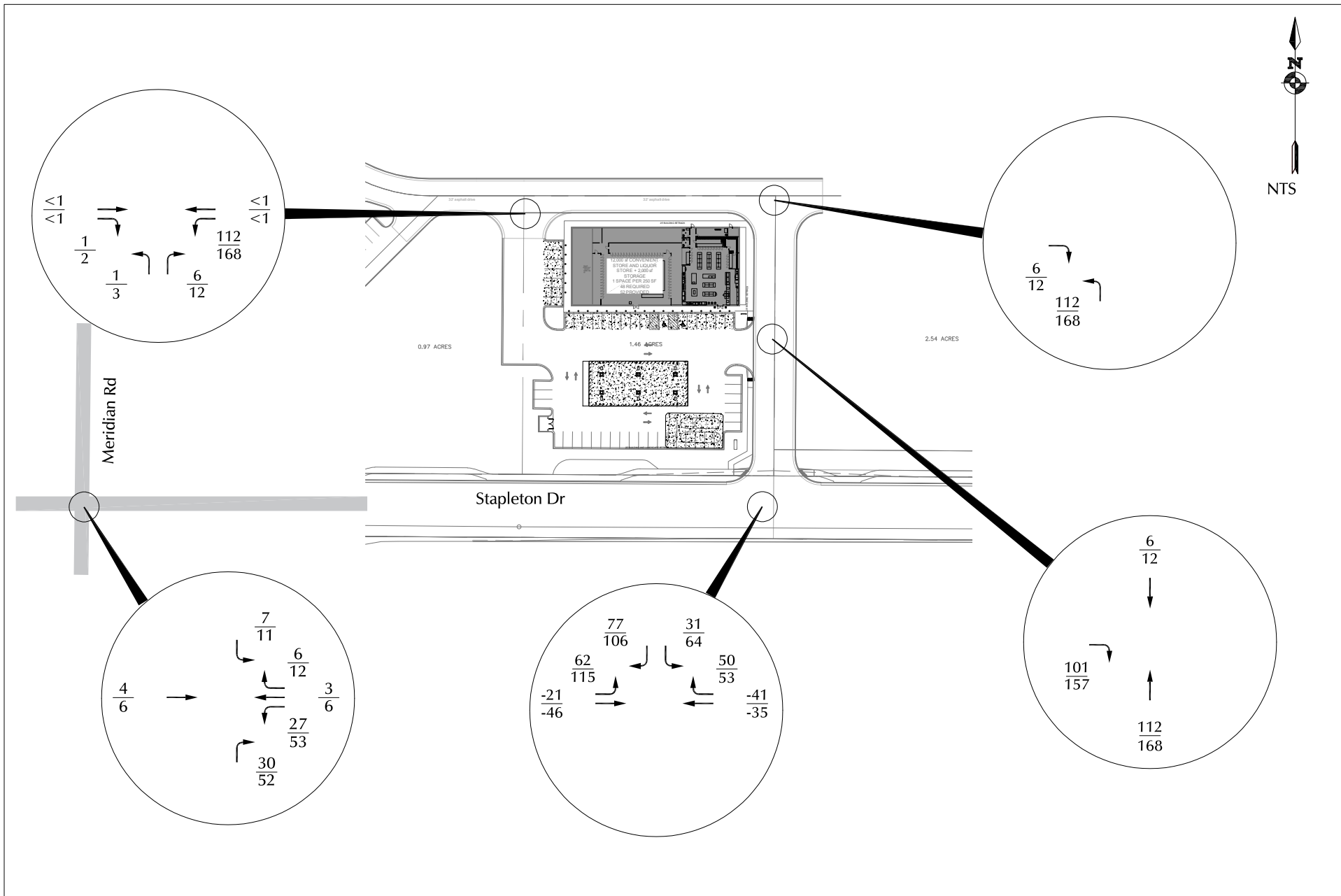
$$\frac{XX\%}{XX\%} = \frac{\text{Short-Term Percent Directional Distribution}}{\text{Long-Term Percent Directional Distribution}}$$

Note: Passby trips have been assigned separately - generally based on the magnitude and direction of traffic on the adjacent Stapleton Drive.

Figure 6  
**Estimated Directional Distribution  
of Site-Generated Traffic**

The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)





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

Figure 7  
**Short-Term Site-Generated Traffic**  
 The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)



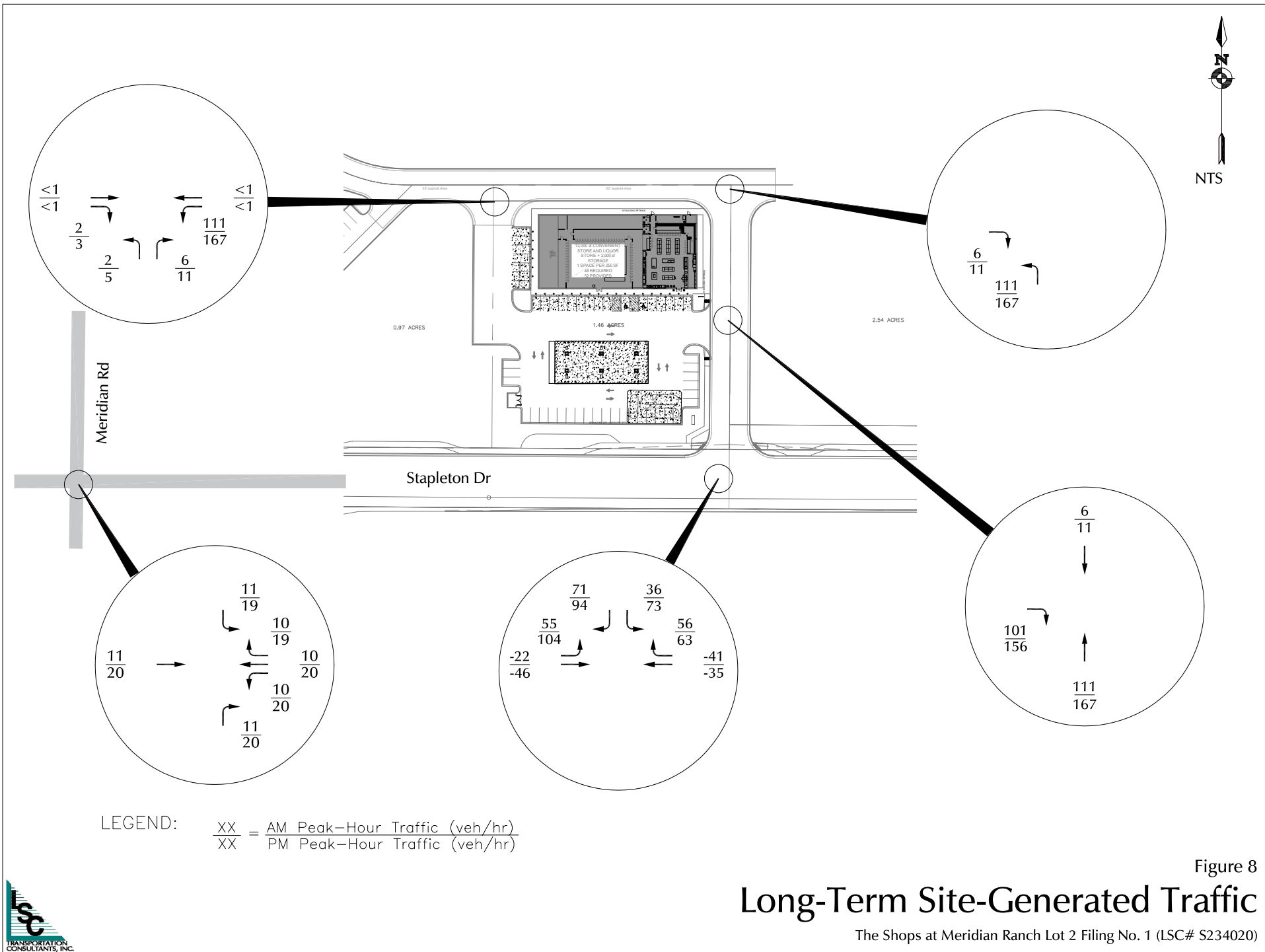
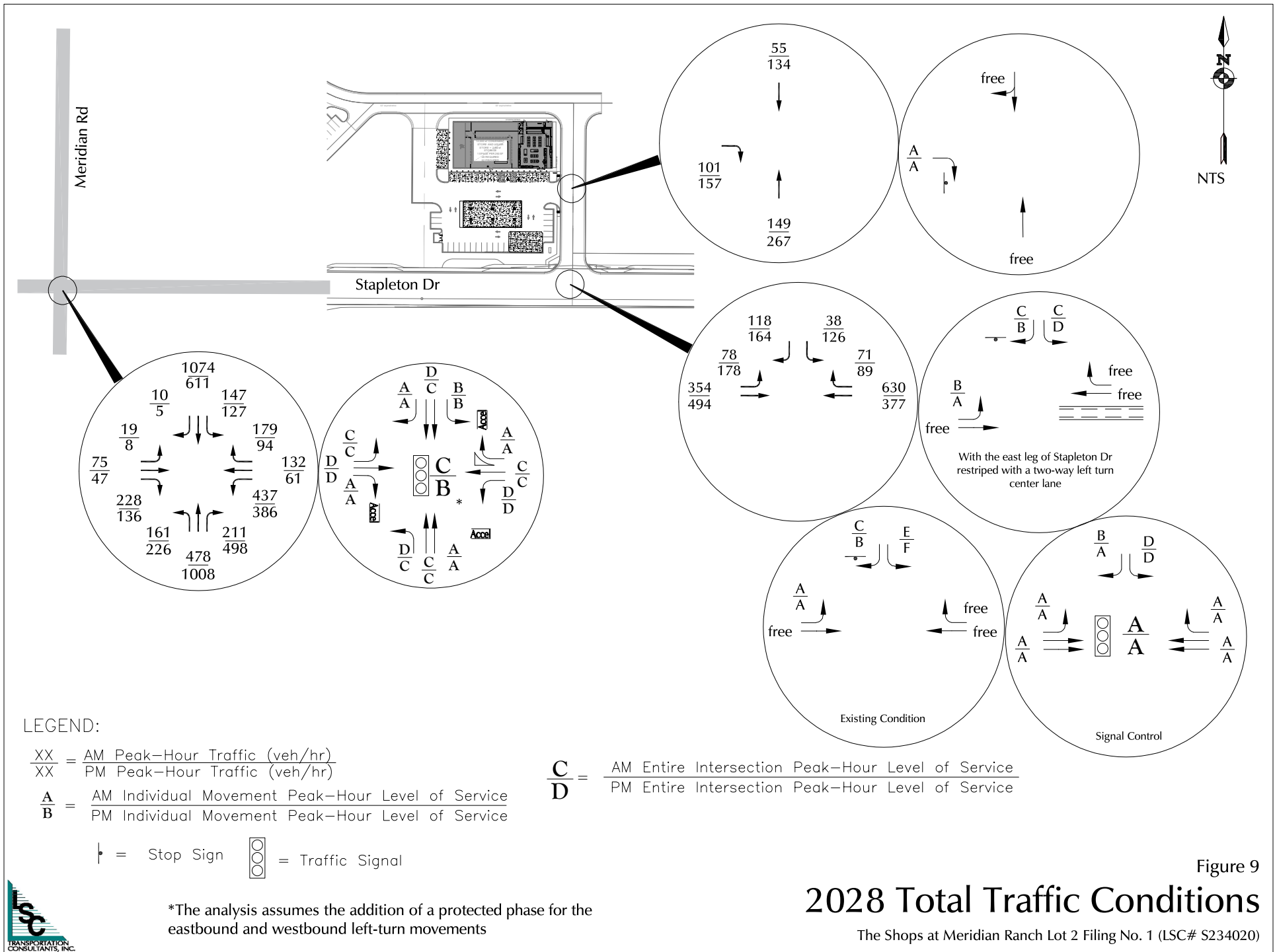
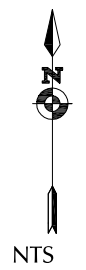
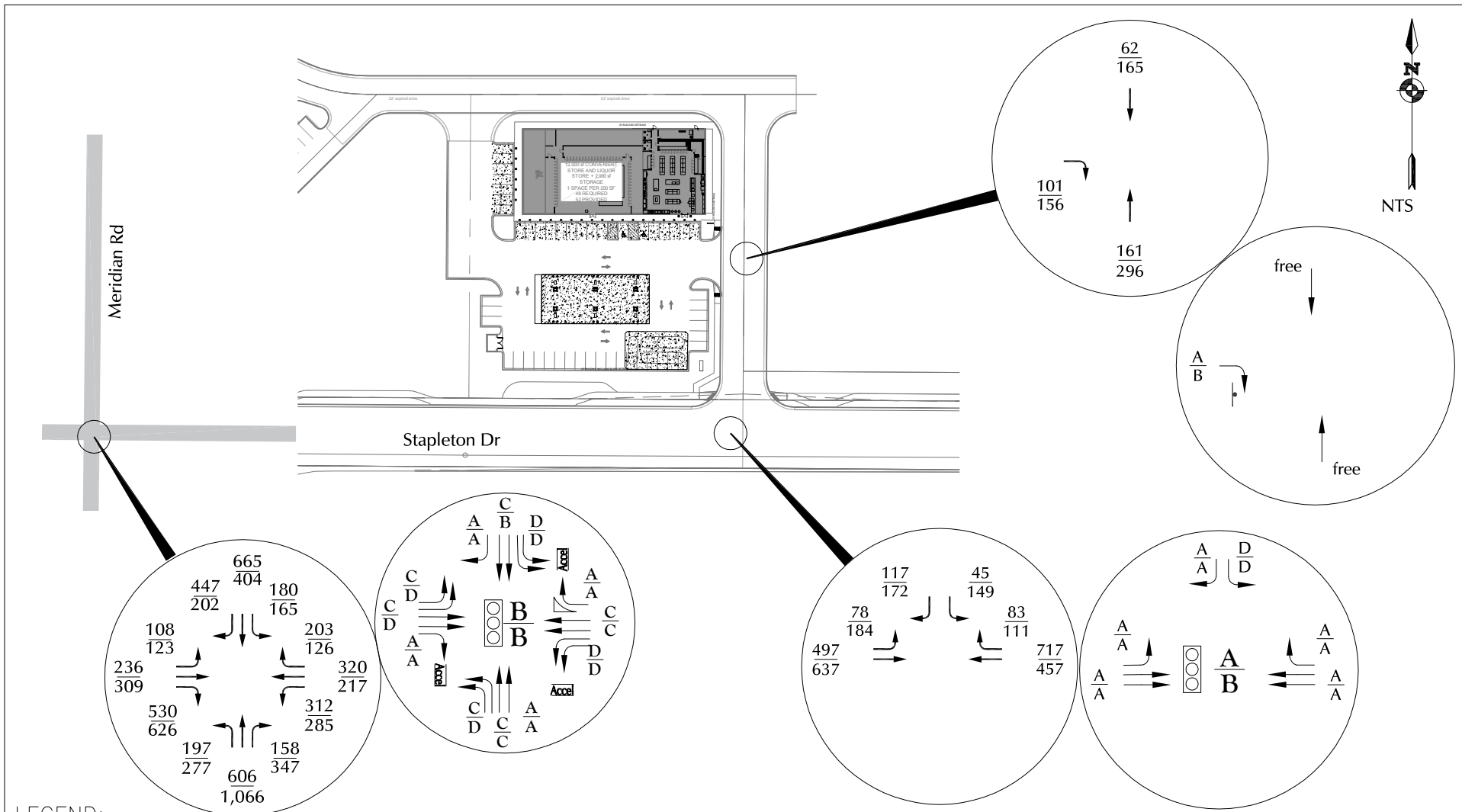


Figure 8  
**Long-Term Site-Generated Traffic**  
 The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)





LEGEND:

XX = AM Peak-Hour Traffic (veh/hr)  
 XX = PM Peak-Hour Traffic (veh/hr)

A = AM Individual Movement Peak-Hour Level of Service  
 B = PM Individual Movement Peak-Hour Level of Service

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

T = Stop Sign      [Traffic Signal Icon] = Traffic Signal



Figure 10  
**2044 Total Traffic Conditions\***  
 The Shops at Meridian Ranch Lot 2 Filing No. 1 (LSC# S234020)

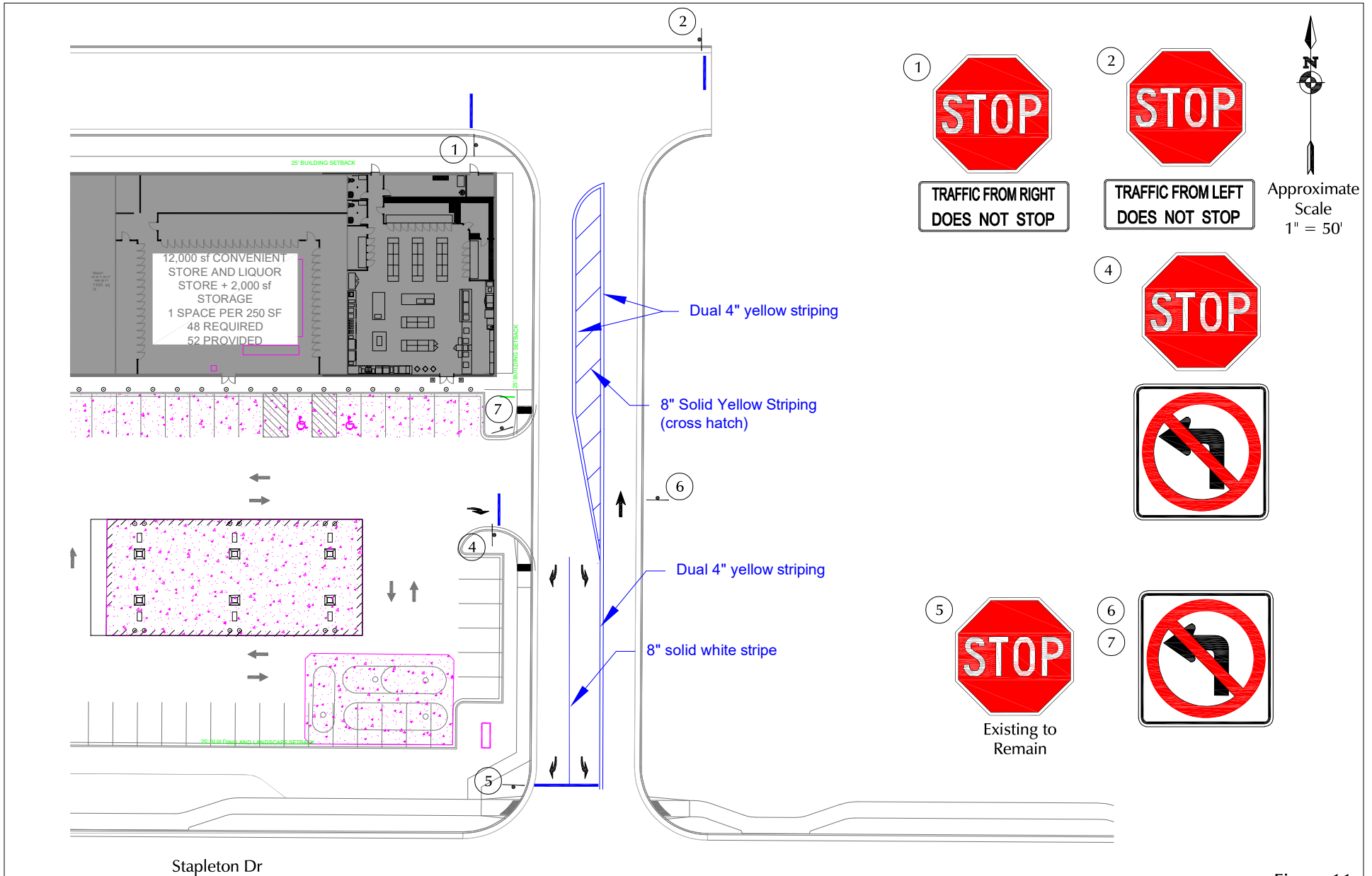


Figure 11  
 Access Drive Signing & Pavement  
 Markings Recommendations

(Concept only - not  
 for construction)

The Shops at Meridian Ranch Lot 2 (LSC# S234020)

# Traffic Counts

---



# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Meridian Rd - Stapleton Rd AM 2-29-24

Site Code : S234020

Start Date : 2/29/2024

Page No : 1

### Groups Printed- Unshifted

Start Time	Meridian Rd Southbound					Stapleton Dr Westbound					Meridian Rd Northbound					Stapleton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:30	0	47	5	0	52	4	1	28	0	33	6	9	6	0	21	16	1	0	0	17	123
06:35	1	63	5	0	69	6	2	23	0	31	7	16	2	0	25	16	2	0	0	18	143
06:40	0	60	2	0	62	3	0	24	0	27	5	17	3	0	25	23	3	0	0	26	140
06:45	0	66	3	0	69	1	2	33	0	36	6	23	9	0	38	13	6	1	0	20	163
06:50	0	65	4	0	69	6	2	39	0	47	13	19	3	0	35	10	6	0	0	16	167
06:55	0	66	5	0	71	9	1	30	0	40	12	15	4	0	31	16	3	0	0	19	161
<b>Total</b>	<b>1</b>	<b>367</b>	<b>24</b>	<b>0</b>	<b>392</b>	<b>29</b>	<b>8</b>	<b>177</b>	<b>0</b>	<b>214</b>	<b>49</b>	<b>99</b>	<b>27</b>	<b>0</b>	<b>175</b>	<b>94</b>	<b>21</b>	<b>1</b>	<b>0</b>	<b>116</b>	<b>897</b>
07:00	1	63	7	0	71	7	3	34	0	44	12	11	12	0	35	21	7	1	0	29	179
07:05	0	83	6	0	89	9	16	39	0	64	16	21	9	0	46	16	3	2	0	21	220
07:10	1	74	12	0	87	8	4	31	0	43	17	29	17	0	63	22	6	0	0	28	221
07:15	0	53	8	0	61	9	15	45	0	69	15	21	14	0	50	17	6	1	0	24	204
07:20	1	100	8	0	109	12	12	22	0	46	11	40	15	0	66	25	9	1	0	35	256
07:25	1	70	7	0	78	15	29	30	0	74	8	28	23	0	59	36	10	2	0	48	259
07:30	1	85	15	0	101	16	17	32	0	65	14	37	25	0	76	9	5	5	0	19	261
07:35	1	88	8	0	97	25	22	29	0	76	9	31	16	0	56	21	7	0	0	28	257
07:40	2	96	7	0	105	18	2	30	0	50	12	50	13	0	75	23	8	1	0	32	262
07:45	2	80	20	0	102	22	7	30	0	59	9	40	6	0	55	19	7	3	0	29	245
07:50	0	76	10	0	86	11	4	29	0	44	16	44	10	0	70	14	6	2	0	22	222
07:55	1	87	15	0	103	6	0	19	0	25	20	37	6	0	63	7	3	1	0	11	202
<b>Total</b>	<b>11</b>	<b>955</b>	<b>123</b>	<b>0</b>	<b>1089</b>	<b>158</b>	<b>131</b>	<b>370</b>	<b>0</b>	<b>659</b>	<b>159</b>	<b>389</b>	<b>166</b>	<b>0</b>	<b>714</b>	<b>230</b>	<b>77</b>	<b>19</b>	<b>0</b>	<b>326</b>	<b>2788</b>
08:00	0	62	8	0	70	3	0	25	0	28	14	42	7	0	63	19	1	0	0	20	181
08:05	0	44	9	0	53	6	3	28	0	37	9	33	6	0	48	5	1	0	0	6	144
08:10	0	59	10	0	69	8	1	16	0	25	16	40	9	0	65	5	0	0	0	5	164
08:15	0	50	3	0	53	9	1	37	0	47	17	30	2	0	49	12	1	1	0	14	163
08:20	1	60	7	0	68	4	1	26	0	31	20	20	8	0	48	13	3	0	0	16	163
08:25	0	67	7	0	74	6	1	23	0	30	16	27	5	0	48	12	0	0	0	12	164
<b>Grand Total</b>	<b>13</b>	<b>1664</b>	<b>191</b>	<b>0</b>	<b>1868</b>	<b>223</b>	<b>146</b>	<b>702</b>	<b>0</b>	<b>1071</b>	<b>300</b>	<b>680</b>	<b>230</b>	<b>0</b>	<b>1210</b>	<b>390</b>	<b>104</b>	<b>21</b>	<b>0</b>	<b>515</b>	<b>4664</b>
<b>Apprch %</b>	<b>0.7</b>	<b>89.1</b>	<b>10.2</b>	<b>0</b>		<b>20.8</b>	<b>13.6</b>	<b>65.5</b>	<b>0</b>		<b>24.8</b>	<b>56.2</b>	<b>19</b>	<b>0</b>		<b>75.7</b>	<b>20.2</b>	<b>4.1</b>	<b>0</b>		
<b>Total %</b>	<b>0.3</b>	<b>35.7</b>	<b>4.1</b>	<b>0</b>	<b>40.1</b>	<b>4.8</b>	<b>3.1</b>	<b>15.1</b>	<b>0</b>	<b>23</b>	<b>6.4</b>	<b>14.6</b>	<b>4.9</b>	<b>0</b>	<b>25.9</b>	<b>8.4</b>	<b>2.2</b>	<b>0.5</b>	<b>0</b>	<b>11</b>	



# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

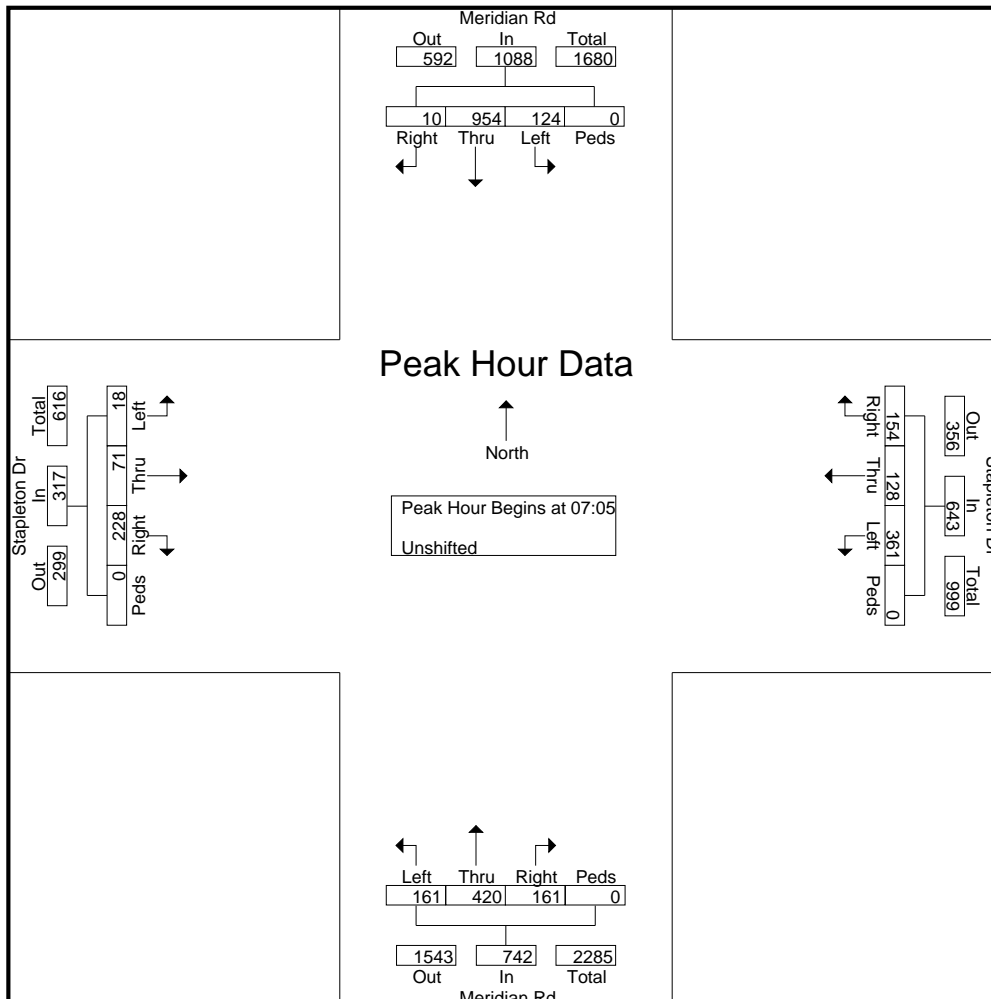
File Name : Meridian Rd - Stapleton Rd AM 2-29-24

Site Code : S234020

Start Date : 2/29/2024

Page No : 2

Start Time	Meridian Rd Southbound					Stapleton Dr Westbound					Meridian Rd Northbound					Stapleton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:05																					
07:05	0	83	6	0	89	9	16	39	0	64	16	21	9	0	46	16	3	2	0	21	220
07:10	1	74	12	0	87	8	4	31	0	43	17	29	17	0	63	22	6	0	0	28	221
07:15	0	53	8	0	61	9	15	45	0	69	15	21	14	0	50	17	6	1	0	24	204
07:20	1	100	8	0	109	12	12	22	0	46	11	40	15	0	66	25	9	1	0	35	256
07:25	1	70	7	0	78	15	29	30	0	74	8	28	23	0	59	36	10	2	0	48	259
07:30	1	85	15	0	101	16	17	32	0	65	14	37	25	0	76	9	5	5	0	19	261
07:35	1	88	8	0	97	25	22	29	0	76	9	31	16	0	56	21	7	0	0	28	257
07:40	2	96	7	0	105	18	2	30	0	50	12	50	13	0	75	23	8	1	0	32	262
07:45	2	80	20	0	102	22	7	30	0	59	9	40	6	0	55	19	7	3	0	29	245
07:50	0	76	10	0	86	11	4	29	0	44	16	44	10	0	70	14	6	2	0	22	222
07:55	1	87	15	0	103	6	0	19	0	25	20	37	6	0	63	7	3	1	0	11	202
08:00	0	62	8	0	70	3	0	25	0	28	14	42	7	0	63	19	1	0	0	20	181
Total Volume	10	954	124	0	1088	154	128	361	0	643	161	420	161	0	742	228	71	18	0	317	2790
% App. Total	0.9	87.7	11.4	0		24	19.9	56.1	0		21.7	56.6	21.7	0		71.9	22.4	5.7	0		
PHF	.417	.795	.517	.000	.832	.513	.368	.669	.000	.705	.671	.700	.537	.000	.814	.528	.592	.300	.000	.550	.887



# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Meridian Rd - Stapleton Rd PM 2-29-24

Site Code : S234020

Start Date : 2/28/2024

Page No : 1

### Groups Printed- Unshifted

Start Time	Meridian Rd Southbound					Stapleton Dr Westbound					Meridian Rd Northbound					Stapleton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
16:00	0	46	8	0	54	9	3	20	0	32	27	82	17	0	126	10	2	1	0	13	225
16:05	1	56	12	0	69	3	4	24	0	31	33	75	15	0	123	11	1	0	0	12	235
16:10	0	48	6	0	54	5	5	31	0	41	29	62	15	0	106	11	1	0	0	12	213
16:15	1	42	4	0	47	11	5	28	0	44	35	75	17	0	127	11	3	1	0	15	233
16:20	0	45	8	0	53	7	2	18	0	27	29	72	10	0	111	11	2	0	0	13	204
16:25	1	46	5	0	52	6	6	12	0	24	37	93	19	0	149	3	3	1	0	7	232
16:30	1	40	4	0	45	8	2	21	0	31	16	58	9	0	83	13	1	2	0	16	175
16:35	1	41	6	0	48	9	4	22	0	35	40	71	12	0	123	12	3	1	0	16	222
16:40	1	56	9	0	66	6	1	23	0	30	30	69	22	0	121	9	3	0	0	12	229
16:45	0	43	8	0	51	9	2	23	0	34	32	67	19	0	118	12	5	1	0	18	221
16:50	0	50	9	0	59	6	2	23	0	31	42	89	12	0	143	6	2	0	0	8	241
16:55	0	50	6	0	56	6	2	24	0	32	31	52	11	0	94	12	0	2	0	14	196
<b>Total</b>	<b>6</b>	<b>563</b>	<b>85</b>	<b>0</b>	<b>654</b>	<b>85</b>	<b>38</b>	<b>269</b>	<b>0</b>	<b>392</b>	<b>381</b>	<b>865</b>	<b>178</b>	<b>0</b>	<b>1424</b>	<b>121</b>	<b>26</b>	<b>9</b>	<b>0</b>	<b>156</b>	<b>2626</b>
17:00	0	35	20	0	55	4	5	19	0	28	28	85	19	0	132	15	3	0	0	18	233
17:05	1	41	3	0	45	4	5	31	0	40	38	78	18	0	134	9	1	0	0	10	229
17:10	0	59	12	0	71	7	5	19	0	31	32	78	16	0	126	12	2	1	0	15	243
17:15	0	36	9	0	45	6	3	36	0	45	33	40	18	0	91	7	5	1	0	13	194
17:20	1	49	4	0	54	7	4	20	0	31	38	101	26	0	165	8	3	0	0	11	261
17:25	0	31	7	0	38	4	10	24	0	38	25	63	17	0	105	20	4	1	0	25	206
17:30	1	48	9	0	58	5	7	19	0	31	34	89	24	0	147	12	6	1	0	19	255
17:35	1	45	7	0	53	9	7	22	0	38	33	74	24	0	131	14	7	0	0	21	243
17:40	0	51	6	0	57	5	4	19	0	28	33	74	20	0	127	6	2	0	0	8	220
17:45	1	41	8	0	50	6	6	19	0	31	39	78	16	0	133	4	3	2	0	9	223
17:50	0	51	10	0	61	6	7	24	0	37	26	51	9	0	86	9	3	1	0	13	197
17:55	0	36	8	0	44	6	4	23	0	33	37	49	16	0	102	9	2	0	0	11	190
<b>Total</b>	<b>5</b>	<b>523</b>	<b>103</b>	<b>0</b>	<b>631</b>	<b>69</b>	<b>67</b>	<b>275</b>	<b>0</b>	<b>411</b>	<b>396</b>	<b>860</b>	<b>223</b>	<b>0</b>	<b>1479</b>	<b>125</b>	<b>41</b>	<b>7</b>	<b>0</b>	<b>173</b>	<b>2694</b>
<b>Grand Total</b>	<b>11</b>	<b>1086</b>	<b>188</b>	<b>0</b>	<b>1285</b>	<b>154</b>	<b>105</b>	<b>544</b>	<b>0</b>	<b>803</b>	<b>777</b>	<b>1725</b>	<b>401</b>	<b>0</b>	<b>2903</b>	<b>246</b>	<b>67</b>	<b>16</b>	<b>0</b>	<b>329</b>	<b>5320</b>
<b>Apprch %</b>	<b>0.9</b>	<b>84.5</b>	<b>14.6</b>	<b>0</b>		<b>19.2</b>	<b>13.1</b>	<b>67.7</b>	<b>0</b>		<b>26.8</b>	<b>59.4</b>	<b>13.8</b>	<b>0</b>		<b>74.8</b>	<b>20.4</b>	<b>4.9</b>	<b>0</b>		
<b>Total %</b>	<b>0.2</b>	<b>20.4</b>	<b>3.5</b>	<b>0</b>	<b>24.2</b>	<b>2.9</b>	<b>2</b>	<b>10.2</b>	<b>0</b>	<b>15.1</b>	<b>14.6</b>	<b>32.4</b>	<b>7.5</b>	<b>0</b>	<b>54.6</b>	<b>4.6</b>	<b>1.3</b>	<b>0.3</b>	<b>0</b>	<b>6.2</b>	

# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

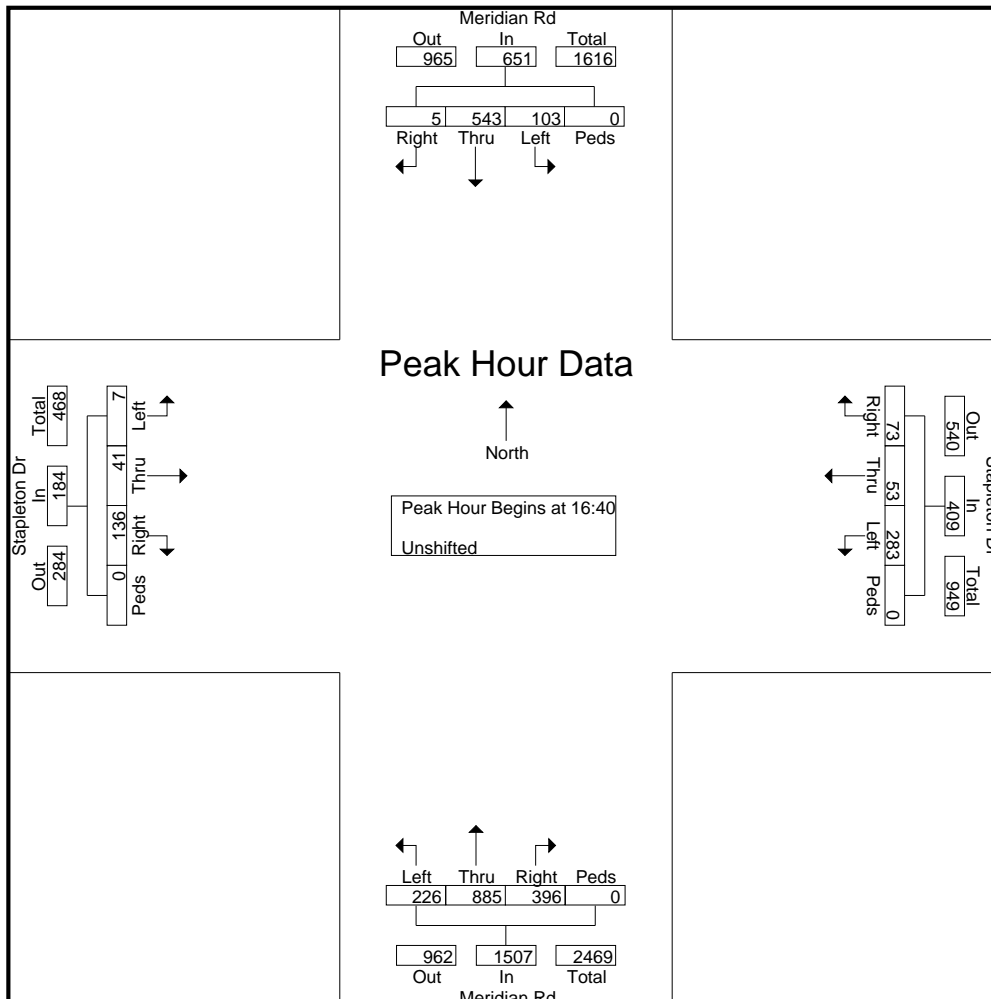
File Name : Meridian Rd - Stapleton Rd PM 2-29-24

Site Code : S234020

Start Date : 2/28/2024

Page No : 2

Start Time	Meridian Rd Southbound					Stapleton Dr Westbound					Meridian Rd Northbound					Stapleton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:40																					
16:40	1	56	9	0	66	6	1	23	0	30	30	69	22	0	121	9	3	0	0	12	229
16:45	0	43	8	0	51	9	2	23	0	34	32	67	19	0	118	12	5	1	0	18	221
16:50	0	50	9	0	59	6	2	23	0	31	42	89	12	0	143	6	2	0	0	8	241
16:55	0	50	6	0	56	6	2	24	0	32	31	52	11	0	94	12	0	2	0	14	196
17:00	0	35	20	0	55	4	5	19	0	28	28	85	19	0	132	15	3	0	0	18	233
17:05	1	41	3	0	45	4	5	31	0	40	38	78	18	0	134	9	1	0	0	10	229
17:10	0	59	12	0	71	7	5	19	0	31	32	78	16	0	126	12	2	1	0	15	243
17:15	0	36	9	0	45	6	3	36	0	45	33	40	18	0	91	7	5	1	0	13	194
17:20	1	49	4	0	54	7	4	20	0	31	38	101	26	0	165	8	3	0	0	11	261
17:25	0	31	7	0	38	4	10	24	0	38	25	63	17	0	105	20	4	1	0	25	206
17:30	1	48	9	0	58	5	7	19	0	31	34	89	24	0	147	12	6	1	0	19	255
17:35	1	45	7	0	53	9	7	22	0	38	33	74	24	0	131	14	7	0	0	21	243
Total Volume	5	543	103	0	651	73	53	283	0	409	396	885	226	0	1507	136	41	7	0	184	2751
% App. Total	0.8	83.4	15.8	0		17.8	13	69.2	0		26.3	58.7	15	0		73.9	22.3	3.8	0		
PHF	.417	.767	.429	.000	.764	.676	.442	.655	.000	.757	.786	.730	.724	.000	.761	.567	.488	.292	.000	.613	.878



# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Meridian Ranch Retail Access - Stapelton Dr AM

Site Code : S234020

Start Date : 1/24/2023

Page No : 1

## Groups Printed- Unshifted

Start Time	Meridian Ranch Retail Access Southbound					Stapelton Dr Westbound					Northbound					Stapelton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:30	1	0	0	0	1	0	36	0	0	36	0	0	0	0	0	0	12	2	0	14	51
06:35	7	0	0	0	7	1	26	0	0	27	0	0	0	0	0	0	10	1	0	11	45
06:40	0	0	1	0	1	0	24	0	0	24	0	0	0	0	0	0	13	1	0	14	39
06:45	6	0	0	0	6	0	26	0	0	26	0	0	0	0	0	0	15	0	0	15	47
06:50	3	0	1	0	4	0	32	0	0	32	0	0	0	0	0	0	9	0	0	9	45
06:55	5	0	0	0	5	1	42	0	0	43	0	0	0	0	0	0	18	1	0	19	67
<b>Total</b>	<b>22</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>24</b>	<b>2</b>	<b>186</b>	<b>0</b>	<b>0</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>77</b>	<b>5</b>	<b>0</b>	<b>82</b>	<b>294</b>
07:00	2	0	0	0	2	1	47	0	0	48	0	0	0	0	0	0	20	1	0	21	71
07:05	2	0	0	0	2	3	52	0	0	55	0	0	0	0	0	0	23	2	0	25	82
07:10	6	0	1	0	7	1	54	0	0	55	0	0	0	0	0	0	23	0	0	23	85
07:15	2	0	3	0	5	0	55	0	0	55	0	0	0	0	0	0	25	0	0	25	85
07:20	2	0	0	0	2	2	63	0	0	65	0	0	0	0	0	0	24	1	0	25	92
07:25	3	0	0	0	3	1	76	0	0	77	0	0	0	0	0	0	21	2	0	23	103
07:30	2	0	0	0	2	1	64	0	0	65	0	0	0	0	0	0	27	1	0	28	95
07:35	4	0	1	0	5	1	50	0	0	51	0	0	0	0	0	0	35	2	0	37	93
07:40	3	0	0	0	3	2	54	0	0	56	0	0	0	0	0	0	28	1	0	29	88
07:45	1	0	0	0	1	1	48	0	0	49	0	0	0	0	0	0	36	1	0	37	87
07:50	4	0	2	0	6	5	29	0	0	34	0	0	0	0	0	0	35	4	0	39	79
07:55	3	0	1	0	4	3	21	0	0	24	0	0	0	0	0	0	32	2	0	34	62
<b>Total</b>	<b>34</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>42</b>	<b>21</b>	<b>613</b>	<b>0</b>	<b>0</b>	<b>634</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>329</b>	<b>17</b>	<b>0</b>	<b>346</b>	<b>1022</b>
08:00	1	0	0	0	1	0	22	0	0	22	0	0	0	0	0	0	30	1	0	31	54
08:05	4	0	1	0	5	0	23	0	0	23	0	0	0	0	0	0	22	0	0	22	50
08:10	0	0	2	0	2	2	25	0	0	27	0	0	0	0	0	0	26	3	0	29	58
08:15	1	0	1	0	2	5	24	0	0	29	0	0	0	0	0	0	38	6	0	44	75
08:20	2	0	1	0	3	4	26	0	0	30	0	0	0	0	0	0	14	2	0	16	49
08:25	1	0	2	0	3	4	22	0	0	26	0	0	0	0	0	0	16	0	0	16	45
08:30	4	0	1	0	5	0	28	0	0	28	0	0	0	0	0	0	15	4	0	19	52
08:35	3	0	0	0	3	1	13	0	0	14	0	0	0	0	0	0	17	4	0	21	38
08:40	1	0	2	0	3	3	15	0	0	18	0	0	0	0	0	0	12	1	0	13	34
08:45	3	0	0	0	3	1	22	0	0	23	0	0	0	0	0	0	19	2	0	21	47
08:50	4	0	2	0	6	3	17	0	0	20	0	0	0	0	0	0	8	4	0	12	38
08:55	3	0	1	0	4	10	14	0	0	24	0	0	0	0	0	0	16	8	0	24	52
<b>Total</b>	<b>27</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>40</b>	<b>33</b>	<b>251</b>	<b>0</b>	<b>0</b>	<b>284</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>233</b>	<b>35</b>	<b>0</b>	<b>268</b>	<b>592</b>
Grand Total	83	0	23	0	106	56	1050	0	0	1106	0	0	0	0	0	0	639	57	0	696	1908
Apprch %	78.3	0	21.7	0		5.1	94.9	0	0		0	0	0	0	0	0	91.8	8.2	0		
Total %	4.4	0	1.2	0	5.6	2.9	55	0	0	58	0	0	0	0	0	0	33.5	3	0	36.5	

# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

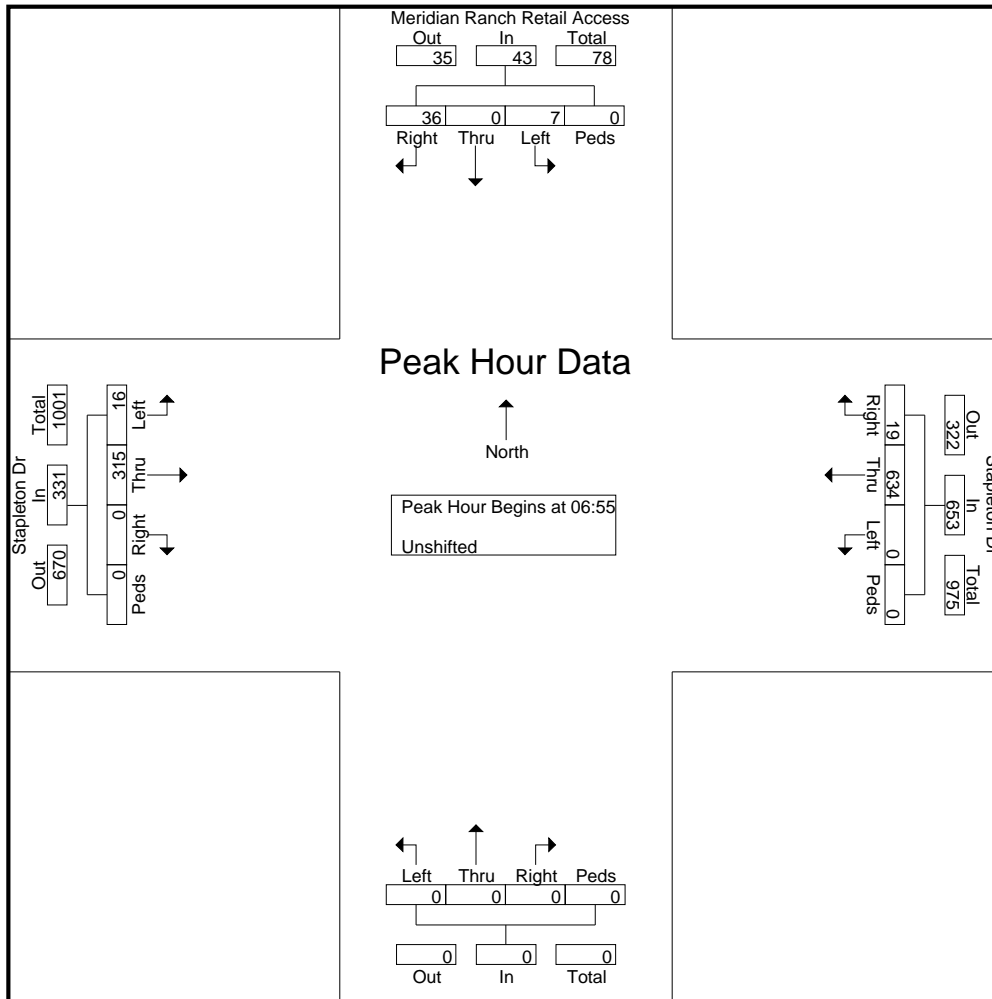
File Name : Meridian Ranch Retail Access - Stapleton Dr AM

Site Code : S234020

Start Date : 1/24/2023

Page No : 2

Start Time	Meridian Ranch Retail Access Southbound					Stapleton Dr Westbound					Northbound					Stapleton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:30 to 08:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:55																					
06:55	5	0	0	0	5	1	42	0	0	43	0	0	0	0	0	0	18	1	0	19	67
07:00	2	0	0	0	2	1	47	0	0	48	0	0	0	0	0	0	20	1	0	21	71
07:05	2	0	0	0	2	3	52	0	0	55	0	0	0	0	0	0	23	2	0	25	82
07:10	<b>6</b>	0	1	0	<b>7</b>	1	54	0	0	55	0	0	0	0	0	0	23	0	0	23	85
07:15	2	0	<b>3</b>	0	5	0	55	0	0	55	0	0	0	0	0	0	25	0	0	25	85
07:20	2	0	0	0	2	2	63	0	0	65	0	0	0	0	0	0	24	1	0	25	92
07:25	3	0	0	0	3	1	<b>76</b>	0	0	<b>77</b>	0	0	0	0	0	0	21	2	0	23	<b>103</b>
07:30	2	0	0	0	2	1	64	0	0	65	0	0	0	0	0	0	27	1	0	28	95
07:35	4	0	1	0	5	1	50	0	0	51	0	0	0	0	0	0	35	2	0	37	93
07:40	3	0	0	0	3	2	54	0	0	56	0	0	0	0	0	0	28	1	0	29	88
07:45	1	0	0	0	1	1	48	0	0	49	0	0	0	0	0	0	<b>36</b>	1	0	37	87
07:50	4	0	2	0	6	<b>5</b>	29	0	0	34	0	0	0	0	0	0	35	<b>4</b>	0	<b>39</b>	79
Total Volume	36	0	7	0	43	19	634	0	0	653	0	0	0	0	0	0	315	16	0	331	1027
% App. Total	83.7	0	16.3	0		2.9	97.1	0	0		0	0	0	0		0	95.2	4.8	0		
PHF	.500	.000	.194	.000	.512	.317	.695	.000	.000	.707	.000	.000	.000	.000	.000	.000	.729	.333	.000	.707	.831



# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Meridian Ranch Retail Access - Stapelton Dr Mid

Site Code : S234020

Start Date : 1/17/2023

Page No : 1

### Groups Printed- Unshifted

Start Time	Meridian Ranch Retail Access Southbound					Stapelton Dr Westbound					Northbound					Stapelton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:45	4	0	2	0	6	1	21	0	0	22	0	0	0	0	0	0	13	4	0	17	45
11:50	4	0	1	0	5	3	15	0	0	18	0	0	0	0	0	0	9	3	0	12	35
11:55	3	0	2	0	5	0	20	0	0	20	0	0	0	0	0	0	20	2	0	22	47
<b>Total</b>	<b>11</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>16</b>	<b>4</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>9</b>	<b>0</b>	<b>51</b>	<b>127</b>
12:00	5	0	4	0	9	1	13	0	0	14	0	0	0	0	0	0	21	3	0	24	47
12:05	6	0	3	0	9	2	7	0	0	9	0	0	0	0	0	0	10	3	0	13	31
12:10	6	0	1	0	7	1	17	0	0	18	0	0	0	0	0	0	20	3	0	23	48
12:15	5	0	1	0	6	4	13	0	0	17	0	0	0	0	0	0	14	0	0	14	37
12:20	3	0	2	0	5	2	21	0	0	23	0	0	0	0	0	0	12	6	0	18	46
12:25	3	0	2	0	5	1	15	0	0	16	0	0	0	0	0	0	15	3	0	18	39
12:30	4	0	2	0	6	1	21	0	0	22	0	0	0	0	0	0	14	0	0	14	42
12:35	3	0	1	0	4	3	20	0	0	23	0	0	0	0	0	0	12	2	0	14	41
12:40	3	0	0	0	3	0	15	0	0	15	0	0	0	0	0	0	20	2	0	22	40
12:45	8	0	1	0	9	3	22	0	0	25	0	0	0	0	0	0	19	5	0	24	58
12:50	3	0	2	0	5	2	21	0	0	23	0	0	0	0	0	0	9	3	0	12	40
12:55	6	0	2	0	8	2	14	0	0	16	0	0	0	0	0	0	12	4	0	16	40
<b>Total</b>	<b>55</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>76</b>	<b>22</b>	<b>199</b>	<b>0</b>	<b>0</b>	<b>221</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>178</b>	<b>34</b>	<b>0</b>	<b>212</b>	<b>509</b>
13:00	12	0	3	0	15	1	16	0	0	17	0	0	0	0	0	0	9	5	0	14	46
13:05	9	0	0	0	9	1	15	0	0	16	0	0	0	0	0	0	14	3	0	17	42
13:10	5	0	1	0	6	2	20	0	0	22	0	0	0	0	0	0	12	2	0	14	42
13:15	4	0	5	0	9	1	16	0	0	17	0	0	0	0	0	0	13	3	0	16	42
13:20	5	0	2	0	7	0	21	0	0	21	0	0	0	0	0	0	19	5	0	24	52
13:25	5	0	3	0	8	0	14	0	0	14	0	0	0	0	0	0	15	4	0	19	41
13:30	2	0	3	0	5	1	8	0	0	9	0	0	0	0	0	0	18	3	0	21	35
13:35	2	0	4	0	6	1	12	0	0	13	0	0	0	0	0	0	15	2	0	17	36
13:40	7	0	0	0	7	3	21	0	0	24	0	0	0	0	0	0	8	3	0	11	42
13:45	4	0	4	0	8	3	17	0	0	20	0	0	0	0	0	0	28	5	0	33	61
13:50	2	0	5	0	7	4	19	0	0	23	0	0	0	0	0	0	19	1	0	20	50
13:55	1	0	2	0	3	0	12	0	0	12	0	0	0	0	0	0	28	0	0	28	43
<b>Total</b>	<b>58</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>90</b>	<b>17</b>	<b>191</b>	<b>0</b>	<b>0</b>	<b>208</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>198</b>	<b>36</b>	<b>0</b>	<b>234</b>	<b>532</b>
14:00	3	0	0	0	3	2	16	0	0	18	0	0	0	0	0	0	14	3	0	17	38
14:05	6	0	0	0	6	1	16	0	0	17	0	0	0	0	0	0	22	1	0	23	46
14:10	5	0	2	0	7	0	13	0	0	13	0	0	0	0	0	0	18	1	0	19	39
Grand Total	138	0	60	0	198	46	491	0	0	537	0	0	0	0	0	0	472	84	0	556	1291
Apprch %	69.7	0	30.3	0		8.6	91.4	0	0		0	0	0	0		0	84.9	15.1	0		
Total %	10.7	0	4.6	0	15.3	3.6	38	0	0	41.6	0	0	0	0	0	0	36.6	6.5	0	43.1	

# LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304  
 Colorado Springs, CO 80909  
 719-633-2868

File Name : Meridian Ranch Retail Access - Stapelton Dr PM

Site Code : S234020

Start Date : 1/17/2023

Page No : 1

### Groups Printed- Unshifted

Start Time	Meridian Ranch Retail Access Southbound					Stapelton Dr Westbound					Northbound					Stapelton Dr Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
15:00	4	0	0	0	4	1	34	0	0	35	0	0	0	0	0	0	21	2	0	23	62
15:05	3	0	1	0	4	2	24	0	0	26	0	0	0	0	0	0	43	7	0	50	80
15:10	8	0	1	0	9	3	24	0	0	27	0	0	0	0	0	0	45	4	0	49	85
15:15	2	0	6	0	8	1	33	0	0	34	0	0	0	0	0	0	47	3	0	50	92
15:20	5	0	0	0	5	3	31	0	0	34	0	0	0	0	0	0	33	3	0	36	75
15:25	1	0	1	0	2	1	18	0	0	19	0	0	0	0	0	0	47	4	0	51	72
15:30	8	0	3	0	11	3	37	0	0	40	0	0	0	0	0	0	27	0	0	27	78
15:35	0	0	4	0	4	1	23	0	0	24	0	0	0	0	0	0	28	6	0	34	62
15:40	3	0	0	0	3	2	25	0	0	27	0	0	0	0	0	0	27	2	0	29	59
15:45	0	0	0	0	0	4	32	0	0	36	0	0	0	0	0	0	41	2	0	43	79
15:50	3	0	2	0	5	0	25	0	0	25	0	0	0	0	0	0	25	6	0	31	61
15:55	4	0	1	0	5	4	36	0	0	40	0	0	0	0	0	0	33	3	0	36	81
<b>Total</b>	<b>41</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>60</b>	<b>25</b>	<b>342</b>	<b>0</b>	<b>0</b>	<b>367</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>417</b>	<b>42</b>	<b>0</b>	<b>459</b>	<b>886</b>
16:00	2	0	4	0	6	0	39	0	0	39	0	0	0	0	0	0	37	2	0	39	84
16:05	3	0	1	0	4	3	32	0	0	35	0	0	0	0	0	0	30	1	0	31	70
16:10	4	0	5	0	9	6	27	0	0	33	0	0	0	0	0	0	37	2	0	39	81
16:15	2	0	0	0	2	1	32	0	0	33	0	0	0	0	0	0	34	4	0	38	73
16:20	3	0	2	0	5	0	19	0	0	19	0	0	0	0	0	0	37	1	0	38	62
16:25	1	0	1	0	2	1	18	0	0	19	0	0	0	0	0	0	31	5	0	36	57
16:30	6	0	4	0	10	3	21	0	0	24	0	0	0	0	0	0	27	5	0	32	66
16:35	8	0	2	0	10	6	22	0	0	28	0	0	0	0	0	0	39	7	0	46	84
16:40	8	0	5	0	13	2	32	0	0	34	0	0	0	0	0	0	30	4	0	34	81
16:45	5	0	3	0	8	3	19	0	0	22	0	0	0	0	0	0	27	5	0	32	62
16:50	4	0	3	0	7	5	24	0	0	29	0	0	0	0	0	0	24	4	0	28	64
16:55	4	0	6	0	10	4	30	0	0	34	0	0	0	0	0	0	32	6	0	38	82
<b>Total</b>	<b>50</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>86</b>	<b>34</b>	<b>315</b>	<b>0</b>	<b>0</b>	<b>349</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>385</b>	<b>46</b>	<b>0</b>	<b>431</b>	<b>866</b>
17:00	4	0	3	0	7	1	28	0	0	29	0	0	0	0	0	0	43	3	0	46	82
17:05	7	0	4	0	11	2	32	0	0	34	0	0	0	0	0	0	44	3	0	47	92
17:10	3	0	0	0	3	2	27	0	0	29	0	0	0	0	0	0	21	10	0	31	63
17:15	4	0	2	0	6	3	30	0	0	33	0	0	0	0	0	0	32	4	0	36	75
17:20	2	0	4	0	6	1	20	0	0	21	0	0	0	0	0	0	37	5	0	42	69
17:25	4	0	5	0	9	1	19	0	0	20	0	0	0	0	0	0	38	5	0	43	72
17:30	4	0	3	0	7	2	12	0	0	14	0	0	0	0	0	0	35	0	0	35	56
17:35	8	0	1	0	9	3	20	0	0	23	0	0	0	0	0	0	31	4	0	35	67
17:40	4	0	2	0	6	3	16	0	0	19	0	0	0	0	0	0	42	7	0	49	74
17:45	4	0	0	0	4	5	25	0	0	30	0	0	0	0	0	0	38	2	0	40	74
17:50	3	0	1	0	4	4	23	0	0	27	0	0	0	0	0	0	39	0	0	39	70
17:55	4	0	2	0	6	5	27	0	0	32	0	0	0	0	0	0	41	1	0	42	80
<b>Total</b>	<b>51</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>78</b>	<b>32</b>	<b>279</b>	<b>0</b>	<b>0</b>	<b>311</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>441</b>	<b>44</b>	<b>0</b>	<b>485</b>	<b>874</b>
<b>Grand Total</b>	<b>142</b>	<b>0</b>	<b>82</b>	<b>0</b>	<b>224</b>	<b>91</b>	<b>936</b>	<b>0</b>	<b>0</b>	<b>1027</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1243</b>	<b>132</b>	<b>0</b>	<b>1375</b>	<b>2626</b>
<b>Apprch %</b>	<b>63.4</b>	<b>0</b>	<b>36.6</b>	<b>0</b>		<b>8.9</b>	<b>91.1</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>90.4</b>	<b>9.6</b>	<b>0</b>		
<b>Total %</b>	<b>5.4</b>	<b>0</b>	<b>3.1</b>	<b>0</b>	<b>8.5</b>	<b>3.5</b>	<b>35.6</b>	<b>0</b>	<b>0</b>	<b>39.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>47.3</b>	<b>5</b>	<b>0</b>	<b>52.4</b>	

# Level of Service Reports

---





Timings  
7: Meridian Rd & Stapleton Dr

Existing Traffic  
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	71	228	361	128	154	161	420	161	124	954	10
Future Volume (vph)	18	71	228	361	128	154	161	420	161	124	954	10
Turn Type	Perm	NA	Free	Perm	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	33.0	33.0		33.0	33.0		12.0	45.0		12.0	45.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		13.3%	50.0%		13.3%	50.0%	
Yellow Time (s)	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	
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		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	28.2	28.2	80.0	28.2	28.2	80.0	36.9	29.8	80.0	36.6	29.7	80.0
Actuated g/C Ratio	0.35	0.35	1.00	0.35	0.35	1.00	0.46	0.37	1.00	0.46	0.37	1.00
v/c Ratio	0.05	0.14	0.18	0.91	0.22	0.11	0.71	0.35	0.11	0.29	0.78	0.01
Control Delay	20.3	20.5	0.3	53.0	21.2	0.1	29.2	18.5	0.1	11.4	26.7	0.0
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	20.3	20.5	0.3	53.0	21.2	0.1	29.2	18.5	0.1	11.4	26.7	0.0
LOS	C	C	A	D	C	A	C	B	A	B	C	A
Approach Delay		5.9			34.0			16.8			24.7	
Approach LOS		A			C			B			C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 80  
 Natural Cycle: 70  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 22.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.5%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 7: Meridian Rd & Stapleton Dr



HCM 6th TWSC  
 8: Stapleton Dr & Shops at Meridian Ranch

Existing Traffic  
 AM Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	16	340	607	19	7	36
Future Vol, veh/h	16	340	607	19	7	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	85	85	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	391	714	22	9	46

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	736	0	-	0	1141 714
Stage 1	-	-	-	-	714 -
Stage 2	-	-	-	-	427 -
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	870	-	-	-	222 431
Stage 1	-	-	-	-	485 -
Stage 2	-	-	-	-	658 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	870	-	-	-	217 431
Mov Cap-2 Maneuver	-	-	-	-	217 -
Stage 1	-	-	-	-	475 -
Stage 2	-	-	-	-	658 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	870	-	-	-	217	431
HCM Lane V/C Ratio	0.021	-	-	-	0.041	0.107
HCM Control Delay (s)	9.2	-	-	-	22.3	14.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	0.4

Timings  
7: Meridian Rd & Stapleton Dr

Existing Traffic  
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	41	136	283	53	73	226	885	396	103	543	5
Future Volume (vph)	7	41	136	283	53	73	226	885	396	103	543	5
Turn Type	Perm	NA	Free	Perm	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	30.0	30.0		30.0	30.0		12.0	48.0		12.0	48.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		13.3%	53.3%		13.3%	53.3%	
Yellow Time (s)	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	
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		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	19.4	19.4	64.7	19.4	19.4	64.7	31.1	25.8	64.7	29.2	22.3	64.7
Actuated g/C Ratio	0.30	0.30	1.00	0.30	0.30	1.00	0.48	0.40	1.00	0.45	0.34	1.00
v/c Ratio	0.02	0.10	0.12	0.74	0.10	0.05	0.54	0.64	0.26	0.34	0.48	0.00
Control Delay	18.1	18.4	0.2	34.1	18.4	0.1	14.4	19.8	0.4	11.2	18.1	0.0
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	18.1	18.4	0.2	34.1	18.4	0.1	14.4	19.8	0.4	11.2	18.1	0.0
LOS	B	B	A	C	B	A	B	B	A	B	B	A
Approach Delay		4.9			26.0			13.9			16.9	
Approach LOS		A			C			B			B	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 64.7  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 15.6  
 Intersection Capacity Utilization 65.0%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service C

Splits and Phases: 7: Meridian Rd & Stapleton Dr



HCM 6th TWSC  
8: Stapleton Dr & Shops at Meridian Ranch

Existing Traffic  
PM Peak Hour

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	61	479	368	33	59	41
Future Vol, veh/h	61	479	368	33	59	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	521	400	36	71	49

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	436	0	-	0	1053 400
Stage 1	-	-	-	-	400 -
Stage 2	-	-	-	-	653 -
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	1124	-	-	-	251 650
Stage 1	-	-	-	-	677 -
Stage 2	-	-	-	-	518 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1124	-	-	-	236 650
Mov Cap-2 Maneuver	-	-	-	-	236 -
Stage 1	-	-	-	-	637 -
Stage 2	-	-	-	-	518 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	20.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1124	-	-	-	236	650
HCM Lane V/C Ratio	0.059	-	-	-	0.301	0.076
HCM Control Delay (s)	8.4	-	-	-	26.7	11
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.2	0.2

Timings  
7: Meridian Rd & Stapleton Dr

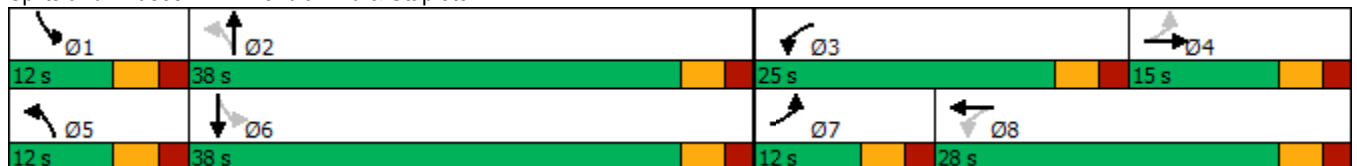
2028 Background Traffic  
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	71	228	410	128	173	161	478	181	140	1074	10
Future Volume (vph)	19	71	228	410	128	173	161	478	181	140	1074	10
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	12.0	15.0		25.0	28.0		12.0	38.0		12.0	38.0	
Total Split (%)	13.3%	16.7%		27.8%	31.1%		13.3%	42.2%		13.3%	42.2%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	13.4	8.7	83.8	30.4	26.0	83.8	38.3	31.1	83.8	37.9	30.9	83.8
Actuated g/C Ratio	0.16	0.10	1.00	0.36	0.31	1.00	0.46	0.37	1.00	0.45	0.37	1.00
v/c Ratio	0.10	0.47	0.18	0.90	0.25	0.13	0.73	0.40	0.12	0.36	0.89	0.01
Control Delay	20.1	46.3	0.3	46.9	25.2	0.2	34.6	21.3	0.2	14.9	35.2	0.0
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	20.1	46.3	0.3	46.9	25.2	0.2	34.6	21.3	0.2	14.9	35.2	0.0
LOS	C	D	A	D	C	A	C	C	A	B	D	A
Approach Delay		11.7			31.6			19.2			32.6	
Approach LOS		B			C			B			C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 83.8  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 26.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 80.5%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	16	376	670	21	7	41
Future Vol, veh/h	16	376	670	21	7	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	85	85	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	432	788	25	9	53

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	813	0	-	0	1256 788
Stage 1	-	-	-	-	788 -
Stage 2	-	-	-	-	468 -
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	814	-	-	-	189 391
Stage 1	-	-	-	-	448 -
Stage 2	-	-	-	-	630 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	814	-	-	-	185 391
Mov Cap-2 Maneuver	-	-	-	-	185 -
Stage 1	-	-	-	-	438 -
Stage 2	-	-	-	-	630 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	814	-	-	-	185	391
HCM Lane V/C Ratio	0.023	-	-	-	0.049	0.134
HCM Control Delay (s)	9.5	-	-	-	25.4	15.6
HCM Lane LOS	A	-	-	-	D	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.5

Timings  
7: Meridian Rd & Stapleton Dr

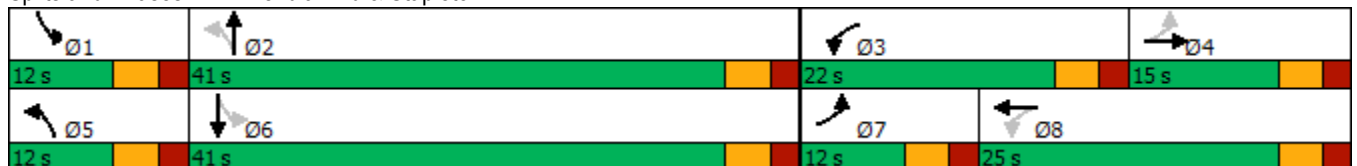
2028 Background Traffic  
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	41	136	333	54	83	226	1008	446	116	611	5
Future Volume (vph)	8	41	136	333	54	83	226	1008	446	116	611	5
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	12.0	15.0		22.0	25.0		12.0	41.0		12.0	41.0	
Total Split (%)	13.3%	16.7%		24.4%	27.8%		13.3%	45.6%		13.3%	45.6%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	10.9	8.1	73.1	22.5	20.6	73.1	36.1	30.9	73.1	34.0	26.7	73.1
Actuated g/C Ratio	0.15	0.11	1.00	0.31	0.28	1.00	0.49	0.42	1.00	0.47	0.37	1.00
v/c Ratio	0.05	0.28	0.12	0.78	0.11	0.05	0.60	0.69	0.29	0.45	0.51	0.00
Control Delay	20.4	39.2	0.2	36.2	23.1	0.1	19.2	22.6	0.5	15.6	20.0	0.0
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	20.4	39.2	0.2	36.2	23.1	0.1	19.2	22.6	0.5	15.6	20.0	0.0
LOS	C	D	A	D	C	A	B	C	A	B	B	A
Approach Delay		9.7			28.4			16.3			19.2	
Approach LOS		A			C			B			B	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 73.1  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 18.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 71.9%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	63	540	412	37	63	59
Future Vol, veh/h	63	540	412	37	63	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	587	448	40	76	71

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	488	0	0
Stage 1	-	-	448
Stage 2	-	-	723
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1075	-	213
Stage 1	-	-	644
Stage 2	-	-	481
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1075	-	200
Mov Cap-2 Maneuver	-	-	200
Stage 1	-	-	603
Stage 2	-	-	481

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	23
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1075	-	-	-	200	611
HCM Lane V/C Ratio	0.064	-	-	-	0.38	0.116
HCM Control Delay (s)	8.6	-	-	-	33.6	11.7
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.7	0.4



Timings  
7: Meridian Rd & Stapleton Dr

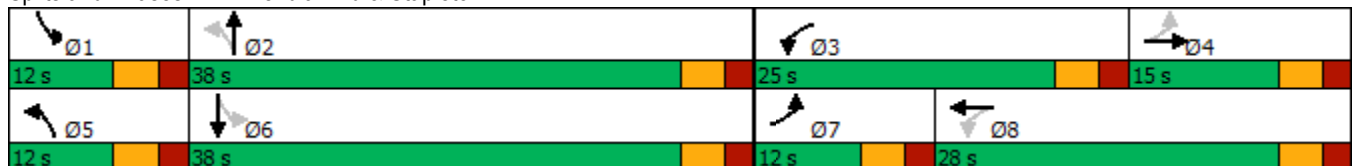
2028 Total Traffic  
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	75	228	437	132	179	161	478	211	147	1074	10
Future Volume (vph)	19	75	228	437	132	179	161	478	211	147	1074	10
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	12.0	15.0		25.0	28.0		12.0	38.0		12.0	38.0	
Total Split (%)	13.3%	16.7%		27.8%	31.1%		13.3%	42.2%		13.3%	42.2%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	13.5	8.8	84.7	31.3	26.9	84.7	38.3	31.2	84.7	38.0	31.0	84.7
Actuated g/C Ratio	0.16	0.10	1.00	0.37	0.32	1.00	0.45	0.37	1.00	0.45	0.37	1.00
v/c Ratio	0.10	0.49	0.18	0.94	0.26	0.13	0.74	0.40	0.14	0.39	0.89	0.01
Control Delay	20.1	47.1	0.3	52.9	25.2	0.2	36.1	21.5	0.2	15.4	36.0	0.0
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	20.1	47.1	0.3	52.9	25.2	0.2	36.1	21.5	0.2	15.4	36.0	0.0
LOS	C	D	A	D	C	A	D	C	A	B	D	A
Approach Delay		12.3			35.4			19.0			33.3	
Approach LOS		B			D			B			C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 84.7  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 27.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 82.0%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Intersection						
Int Delay, s/veh	3.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	78	354	630	71	38	118
Future Vol, veh/h	78	354	630	71	38	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	85	85	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	407	741	84	49	151

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	825	0	0
Stage 1	-	-	741
Stage 2	-	-	587
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	805	-	171
Stage 1	-	-	471
Stage 2	-	-	556
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	805	-	152
Mov Cap-2 Maneuver	-	-	152
Stage 1	-	-	418
Stage 2	-	-	556

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	23.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	805	-	-	-	152	416
HCM Lane V/C Ratio	0.111	-	-	-	0.321	0.364
HCM Control Delay (s)	10	-	-	-	39.5	18.5
HCM Lane LOS	B	-	-	-	E	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.3	1.6

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	78	354	630	71	38	118
Future Vol, veh/h	78	354	630	71	38	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	85	85	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	407	741	84	49	151

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	825	0	-	0	1328 741
Stage 1	-	-	-	-	741 -
Stage 2	-	-	-	-	587 -
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	805	-	-	-	171 416
Stage 1	-	-	-	-	471 -
Stage 2	-	-	-	-	556 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	805	-	-	-	152 416
Mov Cap-2 Maneuver	-	-	-	-	285 -
Stage 1	-	-	-	-	418 -
Stage 2	-	-	-	-	556 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	805	-	-	-	285	416
HCM Lane V/C Ratio	0.111	-	-	-	0.171	0.364
HCM Control Delay (s)	10	-	-	-	20.2	18.5
HCM Lane LOS	B	-	-	-	C	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.6	1.6

Timings  
8: Stapleton Dr & Shops at Meridian Ranch

2028 Total Traffic  
AM Peak Hour



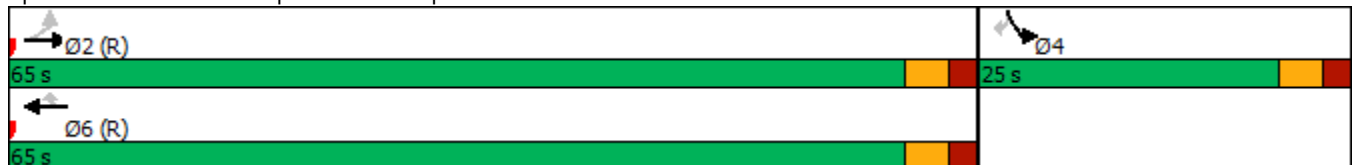
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Volume (vph)	78	354	630	71	38	118
Future Volume (vph)	78	354	630	71	38	118
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	65.0	65.0	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	72.2%	72.2%	27.8%	27.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	71.9	71.9	71.9	71.9	8.1	8.1
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.09	0.09
v/c Ratio	0.18	0.27	0.50	0.07	0.31	0.54
Control Delay	3.4	3.1	4.7	0.7	42.4	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.4	3.1	4.7	0.7	42.4	14.2
LOS	A	A	A	A	D	B
Approach Delay		3.1	4.3		21.1	
Approach LOS		A	A		C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 55  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.54  
 Intersection Signal Delay: 6.1  
 Intersection Capacity Utilization 54.1%  
 Analysis Period (min) 15

Intersection LOS: A  
 ICU Level of Service A

Splits and Phases: 8: Stapleton Dr & Shops at Meridian Ranch



Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	101	0	149	55	0
Future Vol, veh/h	0	101	0	149	55	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	106	0	157	58	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	58	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	1008	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	1008	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 1008	-	-
HCM Lane V/C Ratio	- 0.105	-	-
HCM Control Delay (s)	- 9	-	-
HCM Lane LOS	- A	-	-
HCM 95th %tile Q(veh)	- 0.4	-	-

Timings  
7: Meridian Rd & Stapleton Dr

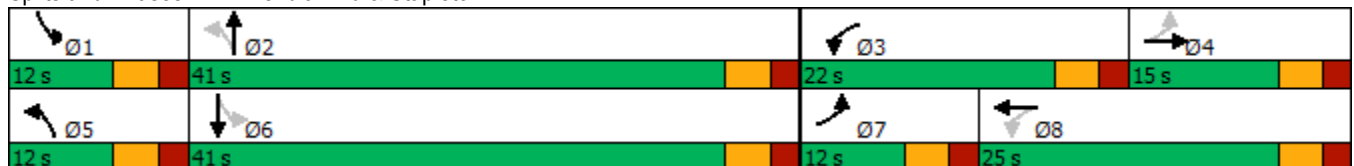
2028 Total Traffic  
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	47	136	386	61	94	226	1008	498	127	611	5
Future Volume (vph)	8	47	136	386	61	94	226	1008	498	127	611	5
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	12.0	15.0		22.0	25.0		12.0	41.0		12.0	41.0	
Total Split (%)	13.3%	16.7%		24.4%	27.8%		13.3%	45.6%		13.3%	45.6%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	12.6	8.2	76.9	26.4	24.4	76.9	36.2	31.1	76.9	34.1	27.0	76.9
Actuated g/C Ratio	0.16	0.11	1.00	0.34	0.32	1.00	0.47	0.40	1.00	0.44	0.35	1.00
v/c Ratio	0.04	0.33	0.12	0.82	0.11	0.06	0.64	0.72	0.32	0.54	0.53	0.00
Control Delay	20.4	41.1	0.2	38.7	22.8	0.1	22.2	24.8	0.5	19.8	21.6	0.0
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	20.4	41.1	0.2	38.7	22.8	0.1	22.2	24.8	0.5	19.8	21.6	0.0
LOS	C	D	A	D	C	A	C	C	A	B	C	A
Approach Delay		11.0			30.2			17.5			21.1	
Approach LOS		B			C			B			C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 76.9  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 19.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 75.5%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Intersection						
Int Delay, s/veh	18.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗	↖	↖	↖
Traffic Vol, veh/h	178	494	377	89	126	164
Future Vol, veh/h	178	494	377	89	126	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	193	537	410	97	152	198

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	507	0	-	0	1333 410
Stage 1	-	-	-	-	410 -
Stage 2	-	-	-	-	923 -
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	1058	-	-	-	170 642
Stage 1	-	-	-	-	670 -
Stage 2	-	-	-	-	387 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1058	-	-	-	~ 139 642
Mov Cap-2 Maneuver	-	-	-	-	~ 139 -
Stage 1	-	-	-	-	548 -
Stage 2	-	-	-	-	387 -

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	79.7
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1058	-	-	-	139	642
HCM Lane V/C Ratio	0.183	-	-	-	1.092	0.308
HCM Control Delay (s)	9.2	-	-	-	166.3	13.1
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.7	-	-	-	8.4	1.3

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

Intersection						
Int Delay, s/veh	6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	178	494	377	89	126	164
Future Vol, veh/h	178	494	377	89	126	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	155	-	-	-	60	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	193	537	410	97	152	198

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	507	0	-	0	1333 410
Stage 1	-	-	-	-	410 -
Stage 2	-	-	-	-	923 -
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	1058	-	-	-	170 642
Stage 1	-	-	-	-	670 -
Stage 2	-	-	-	-	387 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1058	-	-	-	~ 139 642
Mov Cap-2 Maneuver	-	-	-	-	268 -
Stage 1	-	-	-	-	548 -
Stage 2	-	-	-	-	387 -

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	22.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1058	-	-	-	268	642
HCM Lane V/C Ratio	0.183	-	-	-	0.566	0.308
HCM Control Delay (s)	9.2	-	-	-	34.6	13.1
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.7	-	-	-	3.2	1.3

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



Timings  
8: Stapleton Dr & Shops at Meridian Ranch

2028 Total Traffic  
PM Peak Hour



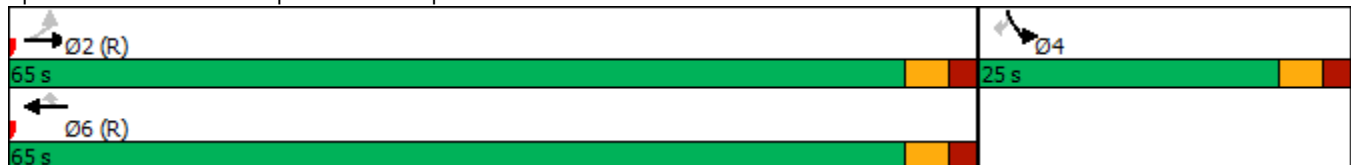
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕	↗	↖	↗	↘	↘
Traffic Volume (vph)	178	494	377	89	126	164
Future Volume (vph)	178	494	377	89	126	164
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		2	6		4	
Permitted Phases	2			6		4
Detector Phase	2	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	65.0	65.0	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	72.2%	72.2%	27.8%	27.8%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effect Green (s)	67.0	67.0	67.0	67.0	13.0	13.0
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.14	0.14
v/c Ratio	0.27	0.39	0.30	0.08	0.60	0.50
Control Delay	5.5	5.6	4.9	1.1	45.2	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	5.6	4.9	1.1	45.2	9.6
LOS	A	A	A	A	D	A
Approach Delay		5.5	4.2		25.1	
Approach LOS		A	A		C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 9.4  
 Intersection Capacity Utilization 49.2%  
 Analysis Period (min) 15

Intersection LOS: A  
 ICU Level of Service A

Splits and Phases: 8: Stapleton Dr & Shops at Meridian Ranch



Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	157	0	267	134	0
Future Vol, veh/h	0	157	0	267	134	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	165	0	281	141	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	141	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	907	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	907	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 907	-	-
HCM Lane V/C Ratio	- 0.182	-	-
HCM Control Delay (s)	- 9.9	-	-
HCM Lane LOS	- A	-	-
HCM 95th %tile Q(veh)	- 0.7	-	-

Timings  
7: Meridian Rd & Stapleton Dr

2044 Background Traffic  
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	225	530	301	309	193	197	606	147	170	665	447
Future Volume (vph)	108	225	530	301	309	193	197	606	147	170	665	447
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	63.0		12.0	60.0	
Total Split (%)	12.5%	25.0%		12.5%	25.0%		12.5%	52.5%		10.0%	50.0%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.0	10.9	71.2	10.1	15.8	71.2	9.3	22.8	71.2	7.1	20.5	71.2
Actuated g/C Ratio	0.11	0.15	1.00	0.14	0.22	1.00	0.13	0.32	1.00	0.10	0.29	1.00
v/c Ratio	0.30	0.44	0.35	0.65	0.42	0.13	0.46	0.56	0.10	0.52	0.69	0.30
Control Delay	33.2	30.9	0.6	38.3	28.5	0.2	34.0	22.2	0.1	38.8	26.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	30.9	0.6	38.3	28.5	0.2	34.0	22.2	0.1	38.8	26.5	0.5
LOS	C	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		12.6			25.4			21.2			19.1	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 71.2  
 Natural Cycle: 55  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 19.4  
 Intersection Capacity Utilization 55.5%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Timings  
8: Stapleton Dr & Shops at Meridian Ranch

2044 Background Traffic  
AM Peak Hour

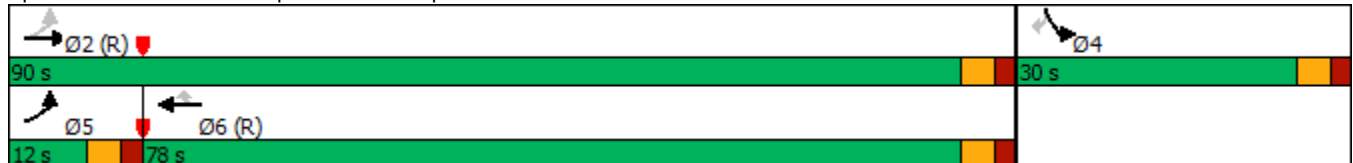


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↕↕	↕↕	↗	↖	↗
Traffic Volume (vph)	22	519	757	27	10	47
Future Volume (vph)	22	519	757	27	10	47
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	90.0	78.0	78.0	30.0	30.0
Total Split (%)	10.0%	75.0%	65.0%	65.0%	25.0%	25.0%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	85.0	85.0	78.3	78.3	25.0	25.0
Actuated g/C Ratio	0.71	0.71	0.65	0.65	0.21	0.21
v/c Ratio	0.05	0.22	0.35	0.03	0.03	0.13
Control Delay	5.5	6.3	3.8	1.4	38.3	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	6.3	3.8	1.4	38.3	11.6
LOS	A	A	A	A	D	B
Approach Delay		6.2	3.7		16.5	
Approach LOS		A	A		B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 14 (12%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.35  
 Intersection Signal Delay: 5.2  
 Intersection LOS: A  
 Intersection Capacity Utilization 33.4%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 8: Stapleton Dr & Shops at Meridian Ranch



Timings  
7: Meridian Rd & Stapleton Dr

2044 Background Traffic  
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	289	626	265	197	106	277	1066	327	146	404	202
Future Volume (vph)	123	289	626	265	197	106	277	1066	327	146	404	202
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	63.0		12.0	60.0	
Total Split (%)	12.5%	25.0%		12.5%	25.0%		12.5%	52.5%		10.0%	50.0%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.5	13.0	84.8	10.2	14.6	84.8	10.2	34.2	84.8	7.1	31.2	84.8
Actuated g/C Ratio	0.10	0.15	1.00	0.12	0.17	1.00	0.12	0.40	1.00	0.08	0.37	1.00
v/c Ratio	0.37	0.56	0.42	0.68	0.34	0.07	0.71	0.79	0.22	0.54	0.33	0.13
Control Delay	41.3	38.6	0.8	47.5	34.4	0.1	48.9	26.5	0.3	47.6	19.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	38.6	0.8	47.5	34.4	0.1	48.9	26.5	0.3	47.6	19.8	0.2
LOS	D	D	A	D	C	A	D	C	A	D	B	A
Approach Delay		16.1			34.1			25.1			19.9	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 84.8  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 23.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 65.8%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Timings  
8: Stapleton Dr & Shops at Meridian Ranch

2044 Background Traffic  
PM Peak Hour



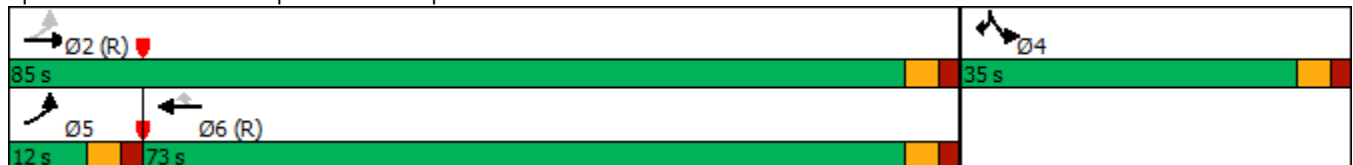
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↶↶	↶↶	↷	↶	↷
Traffic Volume (vph)	80	683	492	49	76	78
Future Volume (vph)	80	683	492	49	76	78
Turn Type	pm+pt	NA	NA	Perm	Prot	Prot
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	85.0	73.0	73.0	35.0	35.0
Total Split (%)	10.0%	70.8%	60.8%	60.8%	29.2%	29.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	80.0	80.0	70.4	70.4	30.0	30.0
Actuated g/C Ratio	0.67	0.67	0.59	0.59	0.25	0.25
v/c Ratio	0.15	0.30	0.25	0.05	0.18	0.18
Control Delay	7.7	8.8	7.2	3.8	36.7	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	8.8	7.2	3.8	36.7	8.5
LOS	A	A	A	A	D	A
Approach Delay		8.7	6.9		22.5	
Approach LOS		A	A		C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 14 (12%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.30  
 Intersection Signal Delay: 9.4  
 Intersection Capacity Utilization 34.7%  
 Analysis Period (min) 15

Intersection LOS: A  
 ICU Level of Service A

Splits and Phases: 8: Stapleton Dr & Shops at Meridian Ranch



Timings  
7: Meridian Rd & Stapleton Dr

2044 Total Traffic  
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	236	530	312	320	203	197	606	158	180	665	447
Future Volume (vph)	108	236	530	312	320	203	197	606	158	180	665	447
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	63.0		12.0	60.0	
Total Split (%)	12.5%	25.0%		12.5%	25.0%		12.5%	52.5%		10.0%	50.0%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.0	11.1	71.5	10.1	16.0	71.5	9.3	22.9	71.5	7.1	20.6	71.5
Actuated g/C Ratio	0.11	0.16	1.00	0.14	0.22	1.00	0.13	0.32	1.00	0.10	0.29	1.00
v/c Ratio	0.30	0.45	0.35	0.67	0.43	0.14	0.46	0.56	0.10	0.56	0.69	0.30
Control Delay	33.5	31.0	0.6	39.5	28.6	0.2	34.3	22.3	0.1	40.1	26.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	31.0	0.6	39.5	28.6	0.2	34.3	22.3	0.1	40.1	26.6	0.5
LOS	C	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		12.9			25.7			21.1			19.4	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 71.5	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 56.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Timings  
8: Stapleton Dr & Shops at Meridian Ranch

2044 Total Traffic  
AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗↗	↖↖	↖	↘	↘
Traffic Volume (vph)	78	497	717	83	45	117
Future Volume (vph)	78	497	717	83	45	117
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2			6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	90.0	78.0	78.0	30.0	30.0
Total Split (%)	10.0%	75.0%	65.0%	65.0%	25.0%	25.0%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	85.0	85.0	75.5	75.5	25.0	25.0
Actuated g/C Ratio	0.71	0.71	0.63	0.63	0.21	0.21
v/c Ratio	0.17	0.21	0.34	0.08	0.13	0.29
Control Delay	6.2	6.2	3.4	1.2	39.8	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	6.2	3.4	1.2	39.8	8.7
LOS	A	A	A	A	D	A
Approach Delay		6.2	3.2		17.3	
Approach LOS		A	A		B	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 14 (12%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.34  
 Intersection Signal Delay: 5.8  
 Intersection Capacity Utilization 40.8%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service A

Splits and Phases: 8: Stapleton Dr & Shops at Meridian Ranch





Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	101	0	161	62	0
Future Vol, veh/h	0	101	0	161	62	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	106	0	169	65	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	65	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	999	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	999	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	999	-	-
HCM Lane V/C Ratio	-	0.106	-	-
HCM Control Delay (s)	-	9	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Timings  
7: Meridian Rd & Stapleton Dr

2043 Total Traffic  
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	309	626	285	217	126	277	1066	347	165	404	202
Future Volume (vph)	123	309	626	285	217	126	277	1066	347	165	404	202
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	15.0	30.0		15.0	30.0		15.0	63.0		12.0	60.0	
Total Split (%)	12.5%	25.0%		12.5%	25.0%		12.5%	52.5%		10.0%	50.0%	
Yellow Time (s)	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	
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		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	8.5	13.5	85.7	10.2	15.1	85.7	10.2	34.6	85.7	7.1	31.5	85.7
Actuated g/C Ratio	0.10	0.16	1.00	0.12	0.18	1.00	0.12	0.40	1.00	0.08	0.37	1.00
v/c Ratio	0.38	0.58	0.42	0.74	0.36	0.08	0.72	0.79	0.23	0.61	0.33	0.13
Control Delay	41.9	39.1	0.8	50.9	34.6	0.1	49.9	26.8	0.3	50.9	20.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	39.1	0.8	50.9	34.6	0.1	49.9	26.8	0.3	50.9	20.0	0.2
LOS	D	D	A	D	C	A	D	C	A	D	B	A
Approach Delay		16.7			35.1			25.1			21.4	
Approach LOS		B			D			C			C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 85.7  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 23.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 67.5%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 7: Meridian Rd & Stapleton Dr



Timings  
8: Stapleton Dr & Shops at Meridian Ranch

2043 Total Traffic  
PM Peak Hour

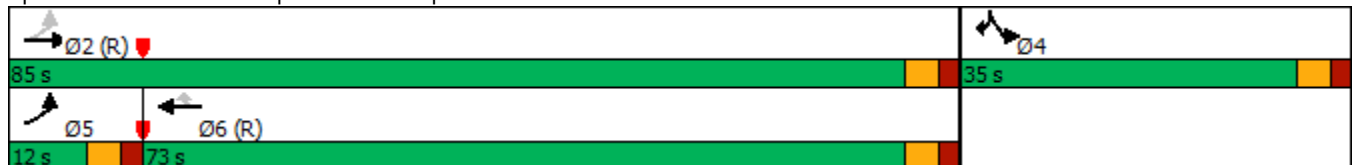


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↶↶	↶↶	↷	↶	↷
Traffic Volume (vph)	184	637	457	111	149	172
Future Volume (vph)	184	637	457	111	149	172
Turn Type	pm+pt	NA	NA	Perm	Prot	Prot
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	85.0	73.0	73.0	35.0	35.0
Total Split (%)	10.0%	70.8%	60.8%	60.8%	29.2%	29.2%
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	80.0	80.0	68.0	68.0	30.0	30.0
Actuated g/C Ratio	0.67	0.67	0.57	0.57	0.25	0.25
v/c Ratio	0.33	0.28	0.24	0.12	0.36	0.34
Control Delay	9.2	8.6	7.7	4.3	39.8	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	8.6	7.7	4.3	39.8	7.0
LOS	A	A	A	A	D	A
Approach Delay		8.7	7.1		22.2	
Approach LOS		A	A		C	

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 14 (12%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.36  
 Intersection Signal Delay: 10.7  
 Intersection Capacity Utilization 43.6%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 8: Stapleton Dr & Shops at Meridian Ranch



Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑	↘	
Traffic Vol, veh/h	0	156	0	296	165	0
Future Vol, veh/h	0	156	0	296	165	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	164	0	312	174	0

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	174	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-
Pot Cap-1 Maneuver	0	869	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	869	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

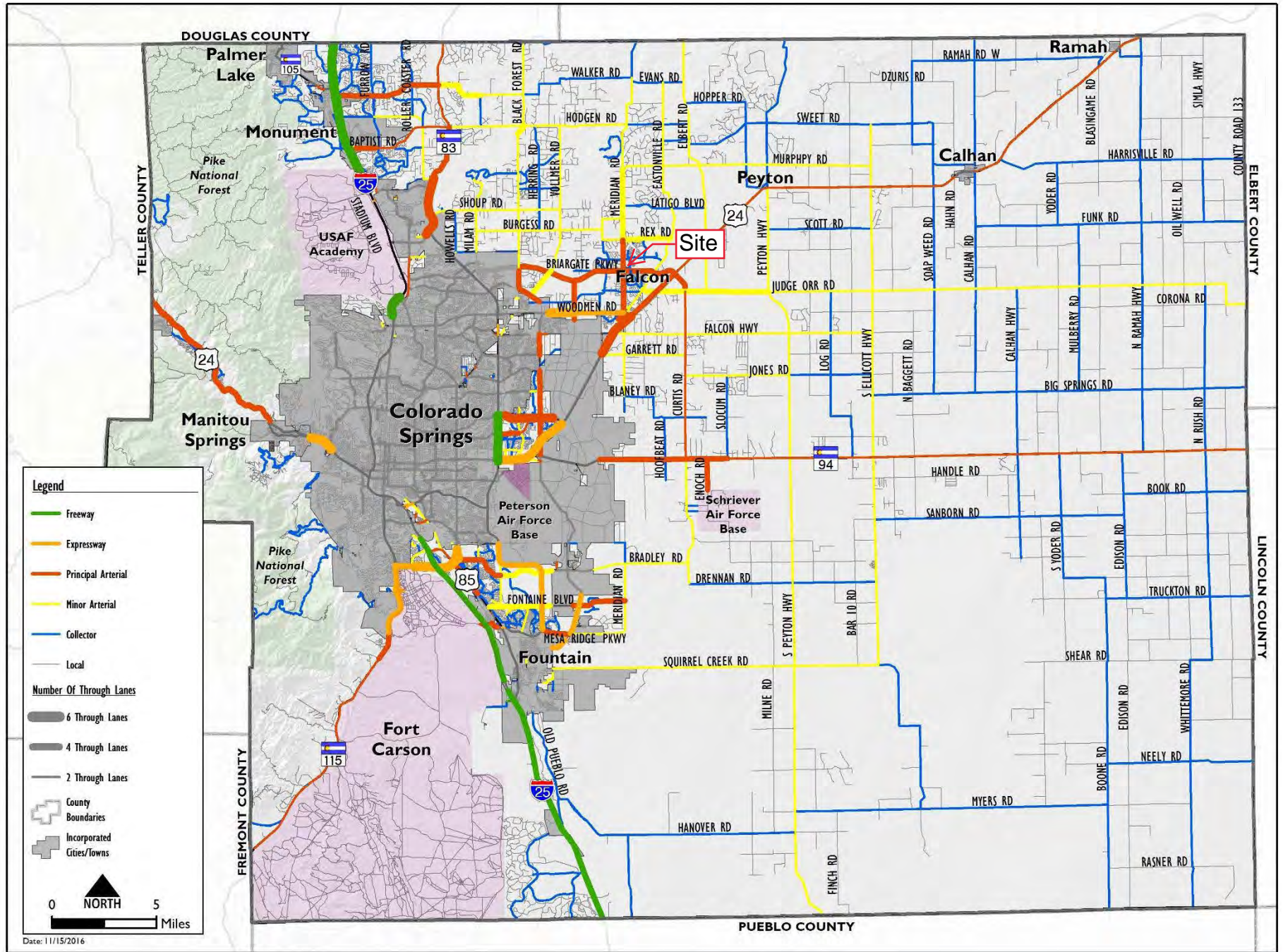
Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	869	-	-
HCM Lane V/C Ratio	-	0.189	-	-
HCM Control Delay (s)	-	10.1	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

# MTCP Maps

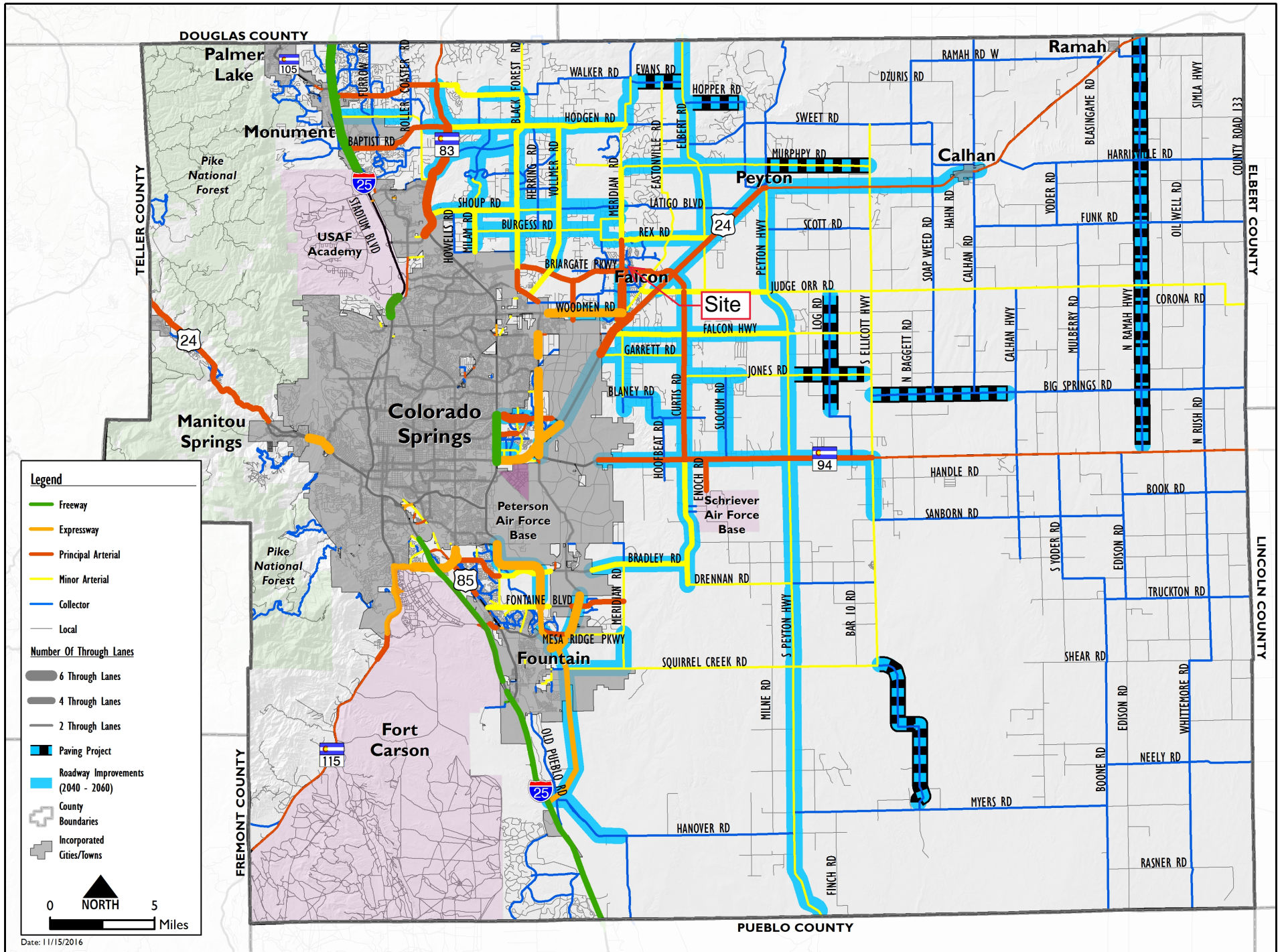
---





Map 14: 2040 Roadway Plan (Classification and Lanes)

# Map 17: 2060 Corridor Preservation



# Appendix Tables 1 and 2





**Appendix Table 1**  
**Area Traffic Impact Studies**  
**Shops at Meridian Ranch Lot 2**

<b>Study</b>	<b>PCD File No<sup>(1)</sup></b>	<b>Consultant</b>	<b>Date</b>
Meridian Ranch Commercial and Residential Filing 4B Traffic Technical Memorandum	<a href="#">SP147</a>	LSC Transportation Consultants, Inc	July 11, 2014
The Shops at Meridian Ranch Lot 4 Traffic Technical Memorandum	<a href="#">PPR223</a>	LSC Transportation Consultants, Inc	May 15, 2019
Autumn Acres Master Traffic Impact Analysis	<a href="#">SKP231</a>	LSC Transportation Consultants, Inc	December 23, 2022
Briargate-Stapleton Corridor Study (DRAFT)	<a href="http://briargate-stapleton.com">briargate-stapleton.com</a>	Wilson & Company	December 9, 2021
Notes:			
(1) Follow the links listed below to obtain the most recent version of each listed study. To obtain a copy of the version of each study used in preparing this report please contact LSC			
Source: LSC Transportation Consultants, Inc.			<i>Feb-23</i>

**Appendix Table 2  
Percent Impact  
Shops at Meridian Ranch Lot 2 Filing No. 1**

<b>Intersection/ Intersection Approach</b>		<b>Time Period</b>	<b>Short-Term Site- Generated Traffic (vph)</b>	<b>Existing Traffic (vph)</b>	<b>Percent Increase</b>
<b>Meridian Road/Stapleton Drive</b>					
Westbound	AM Peak Hour		37	670	5.5%
	PM Peak Hour		71	345	20.6%
<b>Meridian Ranch Road/Stapleton Drive</b>					
Eastbound	AM Peak Hour		9	322	2.8%
	PM Peak Hour		18	453	4.0%

*Source: LSC Transportation Consultants, Inc.*

*Feb-24*