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Branding Iron at Sterling Ranch Filing 2
Traffic Technical Memorandum
PCD File No. SF1918
(LSC #184282)
March 31, 2020

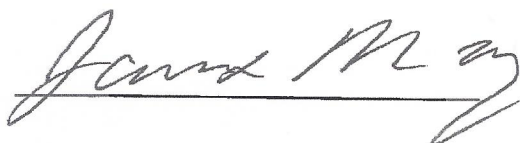
Traffic Engineer's Statement

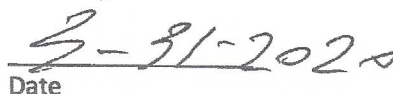
This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

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




Date



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March 31, 2020
Mr. Jim Morley
Morley-Bentley Investments, LLC
20 Boulder Crescent, 1st Floor
Colorado Springs, CO 80903

RE: Branding Iron at Sterling Ranch Filing 2
El Paso County, CO
Transportation Memorandum
LSC #184282

Dear Mr. Morley:

LSC Transportation Consultants, Inc. has prepared this updated Transportation Memorandum for Branding Iron at Sterling Ranch Filing 2. As shown on Figure 1, Sterling Ranch is located east of Vollmer Road near Lochwinnoch Lane between the future extensions of Marksheffel Road and Stapleton Drive in El Paso County, Colorado. This report is intended as a site-specific, final plat traffic report for the currently proposed filing.

REPORT CONTENTS

This report presents:

- A list of previous Sterling Ranch traffic reports and the context of this project
- A summary of the proposed land use and access plan
- The existing roadway and traffic conditions in the site's vicinity including the roadway widths, surface conditions, lane geometries, traffic controls, and posted speed limits
- Existing (2017) traffic volume data
- Estimates of projected short-term and intermediate-term traffic volumes
- The projected average weekday and peak-hour vehicle-trips to be generated by the proposed development
- The assignment of the projected site-generated traffic volumes to the area roadways
- The projected short-term total traffic volumes on the area roadways
- The projected levels of service at the key intersections in the vicinity of the site
- The recommended street classifications for the internal streets within the proposed development
- The project's obligation to the County roadway improvement fee program

PREVIOUS STERLING RANCH TRAFFIC REPORTS AND MEMORANDUM

LSC prepared a traffic impact study (TIS) for the entire Sterling Ranch development dated June 5, 2008. LSC also prepared a traffic impact analysis for the first phase of the Sterling Ranch development dated March 16, 2015; a memorandum for Phases 1-3 dated October 2, 2017; and a traffic impact analysis for the Sterling Ranch Phase 2 Preliminary Plan dated December 20, 2018. The following site-specific, final plat traffic reports have also been prepared:

- Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 dated December 19, 2017
- Sterling Ranch Filing No. 2 dated April 3, 2018
- Copper Chase at Sterling Ranch dated December 20, 2018
- Homestead at Sterling Ranch Filing No. 2 dated March 1, 2019

LAND USE AND ACCESS

Land Use

Figure 2 shows the location of the Sterling Ranch developments in the vicinity of the site that are either approved or currently under review. Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 have both been approved, but no homes have been constructed in either filing. Applications to plat both Branding Iron at Sterling Ranch Filing No. 2 and Homestead at Sterling Ranch Filing No. 2 have been submitted and are currently in the review process. It is our understanding that Sterling Ranch Filing No. 2, Copper Chase at Sterling Ranch and Sterling Ranch Phase 2 are all currently on hold, however, for the purposes of this report these developments were assumed to occur in the intermediate-term future.

This site-specific, final traffic report is for The Branding Iron at Sterling Ranch Filing 2. The currently proposed filing is planned to include 75 lots for single-family homes. Four full-movement access points are proposed to Dines Boulevard. The site plan is shown in Figure 3.

Access

Figure 4 shows the proposed short-term street connection plan. As shown on Figure 4 Dines Boulevard is planned to be constructed south from Vollmer Road to the future Sterling Ranch Road. A short half section of Briargate Parkway is planned to be constructed between Vollmer Road and Wheatland Drive and Wheatland Drive is planned to be constructed south from Briargate Parkway adjacent to and through the Homestead at Sterling Ranch Filings 1 and 2 to Dines Boulevard. The section of Sterling Ranch Road between Dines Boulevard and Marksheffel Road and the section of Marksheffel Road between Vollmer Road and Sterling Ranch Road are planned to be constructed with Sterling Ranch Filing 2, currently being processed through the

County. An emergency access road is constructed southwest from the terminus of Dines Boulevard to Vollmer Road.

Figure 4 also shows the street connection plan assumed for the purposes of this report. As shown in Figure 4 it was assumed that Marksheffel Road would be constructed from its current terminus just north of Woodmen Road to Vollmer Road and Sterling Ranch Road would be constructed from Marksheffel Road to Dines Boulevard in the intermediate-term future. If areas of Sterling Ranch other than those identified on Figure 2 as “intermediate-term” are developed prior to this occurring or if other intermediate-term street connections are constructed, this report may need to be revised.

ROADWAY AND TRAFFIC CONDITIONS

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

Vollmer Road is currently a five-lane urban street within the City of Colorado Springs limits between Black Forest Road and Cowpoke Road; and a two-lane, rural, paved roadway north of Cowpoke Road extending to north of Hodgen Road. In the southbound direction, Vollmer Road has a posted speed limit of 45 miles per hour (mph). South of Cowpoke Road, Vollmer Road has a 40-mph posted speed limit. The 2040 El Paso County *Major Transportation Corridors Plan* (MTCP) and the Sterling Ranch master traffic study show Vollmer Road as a four-lane Urban Minor Arterial in the vicinity of the site. In the interim, auxiliary turn lanes will be completed on Vollmer Road as shown in the memos by LSC dated October 2, 2017 and February 2, 2019.

Marksheffel Road is a Principal Arterial extending north from the City of Fountain to Woodmen Road. Marksheffel Road is planned to ultimately be widened to six lanes and extended north and west from Woodmen Road to connect to Research Parkway at Black Forest Road. Marksheffel Road is shown as a six-lane Principal Arterial through the site on the El Paso County MTCP.

Briargate Parkway is a six-lane, Principal Arterial that extends east from I-25 to Grand Lawn Circle (about one-half mile east of Powers Boulevard). Briargate Parkway is planned to ultimately extend to Towner Drive. With the Sterling Ranch Phase 1 development, Stapleton Road is planned to be constructed as a two-lane roadway between Vollmer Road and the proposed first site access intersection 750 feet east of Vollmer (Wheatland Drive). For this report of short-term conditions, it was assumed that only this section of Briargate Parkway would be constructed in the vicinity of the site.

Sterling Ranch Road is a planned Non-Residential Collector shown extending through the Sterling Ranch development between Marksheffel Road and Briargate Parkway.

EXISTING (2017) TRAFFIC VOLUMES

Figure 5 shows the existing (2017) daily and peak-hour traffic volumes on Vollmer Road in the vicinity of the site. The traffic volumes are from the attached traffic counts conducted adjacent to the site in September 2017 and June 2018.

BACKGROUND TRAFFIC

Background traffic is the traffic estimated to be on the adjacent roadways and at adjacent intersections without the proposed development's trip generation of site-generated traffic volumes. Background traffic includes the through traffic and the traffic generated by nearby developments, but assumes zero traffic generated by the site.

Figure 6 shows the projected short-term background traffic volumes. The short-term background volumes assume only the short-term street connections shown in Figure 4. The short-term background traffic includes the existing traffic volumes (from Figure 5) with increases in through traffic due to regional growth, plus traffic estimated to be generated by buildout of the Homestead at Sterling Ranch Filings 1 and 2, Branding Iron at Sterling Ranch Filing 1, and the proposed Retreat at Timber Ridge development to be located generally northeast of the intersection of Vollmer Road and Poco Road.

Figures 7a and 7b show the projected intermediate-term background traffic volumes. These volumes assume Marksheffel Road has been extended northwest from Woodmen Road to Vollmer Road, Sterling Ranch Road has been constructed northeast from Marksheffel Road to Dines Boulevard, and Dines Boulevard has been completed between Sterling Ranch Road and Vollmer Road. The intermediate traffic volumes are based on the short-term background traffic volumes shown in Figure 6 with some changes in traffic patterns due to the new street connections, plus traffic estimated to be generated by buildout of Sterling Ranch Filing 2, Copper Chase at Sterling Ranch and the residential portion of Sterling Ranch Phase 2. Figure 7a shows the intermediate-term background traffic volumes at the site access points to Dines Boulevard. Figure 7b shows the intermediate-term background traffic volumes at the key external intersections.

TRIP GENERATION

The site-generated vehicle-trips were estimated using the nationally-published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 1 shows the current trip generation estimate.

As shown in Table 1, Branding Iron at Sterling Ranch is projected to generate about 708 new vehicle-trips on the average weekday, with about one-half of the vehicles entering and one-half of the vehicles exiting in a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 14 vehicles would enter and 42 vehicles would

exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:30 and 6:30 p.m., about 47 vehicles would enter and 27 vehicles would exit the site.

SHORT-TERM DIRECTIONAL DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated traffic volumes on the street and roadway system serving the site is one of the most important factors in determining the site's traffic impacts. The specific short-term and intermediate-term distribution estimates are shown in Figure 8. The directional distribution estimates are based on the following factors: the location of the site with respect to the Colorado Springs metropolitan area, the planned access system for the site, the street and roadway system serving the site, and the land uses proposed for the site.

The short-term distribution estimate shown in Figure 8 assumes:

- Dines Boulevard has been constructed south of Vollmer Road to the southern-most access for the Branding Iron at Sterling Ranch Filing 1 (Kintla Court) only.
- No sections of Sterling Ranch Road have been constructed.
- Only the short section of Briargate Parkway between Vollmer Road and Wheatland Drive has been constructed in the vicinity of the site.
- The section Marksheffel Road east of Vollmer Road has **not** been constructed.

The intermediate-term distribution estimate shown in Figure 8 assumes:

- Marksheffel Road has been constructed between Woodmen Road and Vollmer Road, but not west of Vollmer Road.
- Sterling Ranch Road has been constructed between Marksheffel Road and Dines Boulevard, but not north of Dines Boulevard.
- The completion of Dines Boulevard between Sterling Ranch Road and Vollmer Road.
- Only the short section of Briargate Parkway between Vollmer Road and Wheatland Drive has been constructed in the vicinity of the site.

When the distribution percentages (from Figure 8) are applied to the trip generation estimates (from Table 1), the resulting site-generated traffic volumes can be determined. Figure 9 shows the short-term site-generated traffic volume estimate and Figure 10 shows the intermediate-term site-generated traffic volume estimate.

TOTAL TRAFFIC

Figure 11 shows the projected short-term total traffic. The short-term total traffic volumes include short-term background traffic volumes (from Figure 6) plus the short-term site-generated traffic volumes (from Figure 9). The short-term total traffic volumes assume only the short-term street connections shown in Figure 4.

Figures 12a and 12b shows the projected intermediate-term total traffic. The intermediate-term total traffic volumes include intermediate-term background traffic volumes (from Figures 7a and 7b) plus the intermediate-term site-generated traffic volumes (from Figure 10). Figure 12a shows the intermediate-term total traffic volumes at the site access points to Dines Boulevard. Figure 12b shows the intermediate-term total traffic volumes at the key external intersections. The intermediate-term total traffic volumes assume buildout of the residential portion of the Sterling Ranch development located in the vicinity of Marksheffel Road and Sterling Ranch Road. Applications for these developments have been previously submitted, but it is our understanding that these projects are currently on hold. If the areas east of the currently proposed short-term Sterling Ranch filings are developed prior to those assumed in the intermediate-term, the analysis may need to be updated.

LONG-TERM TRAFFIC

Please refer to the master traffic report—the June 5, 2008 *Sterling Ranch Updated Traffic Impact Analysis* by LSC—for the long-term peak-hour traffic volume projections and level of service analysis. The original report is for the entire Sterling Ranch Sketch Plan.

PROJECTED INTERSECTION LEVELS OF SERVICE

Level of service (LOS) is a quantitative measure of the level of congestion or 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 2 shows the level of service delay ranges.

Table 2		
Intersection Levels of Service Delay Ranges		
Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle)⁽¹⁾
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more
(1) For unsignalized intersections if V/C ratio is greater than 1.0 the level of service is LOS F regardless of the projected average control		

The key area intersection and site access points were analyzed to determine the projected levels of service for the short-term and intermediate-term background and total traffic volumes based on the unsignalized intersection analysis procedures from the *Highway Capacity Manual 6th Edition*. Figures 6, 7a, 7b, 11, 12a and 12b show the level of service analysis results. The level of service reports are attached.

The intersections of Dines/Vollmer and Briargate/Vollmer are projected to operate at LOS B or better during the peak hours for all movements as stop-sign controlled intersections based on the projected short-term and intermediate-term total traffic volumes.

All of the site access points are projected to operate at a Level of Service A for all movements during the peak hours as stop sign-controlled intersections, based on the projected intermediate-term total traffic volumes.

SUBDIVISION STREET CLASSIFICATIONS

Figure 13 shows the recommended street classifications for the internal streets within Branding Iron at Sterling Ranch Filing No. 2.

ROADWAY IMPROVEMENTS

Vollmer Road

Road improvements to Vollmer Road including auxiliary turn lanes as discussed in our October 2, 2017 transportation memorandum are required as part of the Subdivision Improvements Agreement (SIA) for Homestead at Sterling Ranch Filing No. 1 and Branding Iron at Sterling Ranch Filing No. 1. The applicant will be constructing an interim cross section for Vollmer Road between Marksheffel Road and Briargate Parkway no later than May 30, 2021. The interim road improvement would widen the roadway to the east side. There would continue to be one through lane in each direction, but the interim road improvements would allow for southbound left-turn and northbound right-turn lanes at the Briargate Parkway/Vollmer, and Dines/Vollmer intersections. The developer will be responsible for funding all road improvements.

Dines Boulevard

Based on the projected intermediate-term total traffic volumes, the criteria contained in the El Paso County *Engineering Criteria Manual* and the classification of Dines Boulevard as an Urban Collector, northbound left-turn lanes and southbound right-turn lanes would **not** be required approaching the site access points. Southbound left-turn lanes on Dines Boulevard would also not be necessary in the long-term future, as the southbound left-turn volumes would remain below the 25 vph ECM turning volume threshold requiring separate left-turn lanes.

TRANSPORTATION IMPROVEMENT FEE PROGRAM

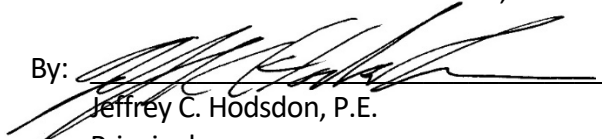
The applicant will be required to participate in the Countywide Transportation Improvement Fee Program. This project will annex into the 10 mil PID. Based on a per-lot upfront building permit fee of \$1,221 per dwelling unit, the total building permit fee amount for the 75 lots would be \$91,575.

* * * * *

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

Enclosures: Table 1
Figures 1-13
Branding Iron at Sterling Ranch Fil. No. 1 Emergency Access Rd – Alt. Route Plan
Traffic Count Reports
Level of Service Reports

Tables and Figures



Table 1
Trip Generation Estimate
Branding Iron at Sterling Ranch Filing 2

Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾						Total External Trips Generated			
			Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour		Average Weekday Traffic	Morning Peak Hour		Evening Peak Hour	
				In	Out	In	Out		In	Out	In	Out
210	Single-Family Detached Housing	75 DU ⁽²⁾	9.44	0.19	0.56	0.62	0.37	708	14	42	47	27
Notes: (1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE) (2) DU = dwelling unit												
Source: LSC Transportation Consultants, Inc.												



Approximate Scale
Scale: 1" = 3,000'

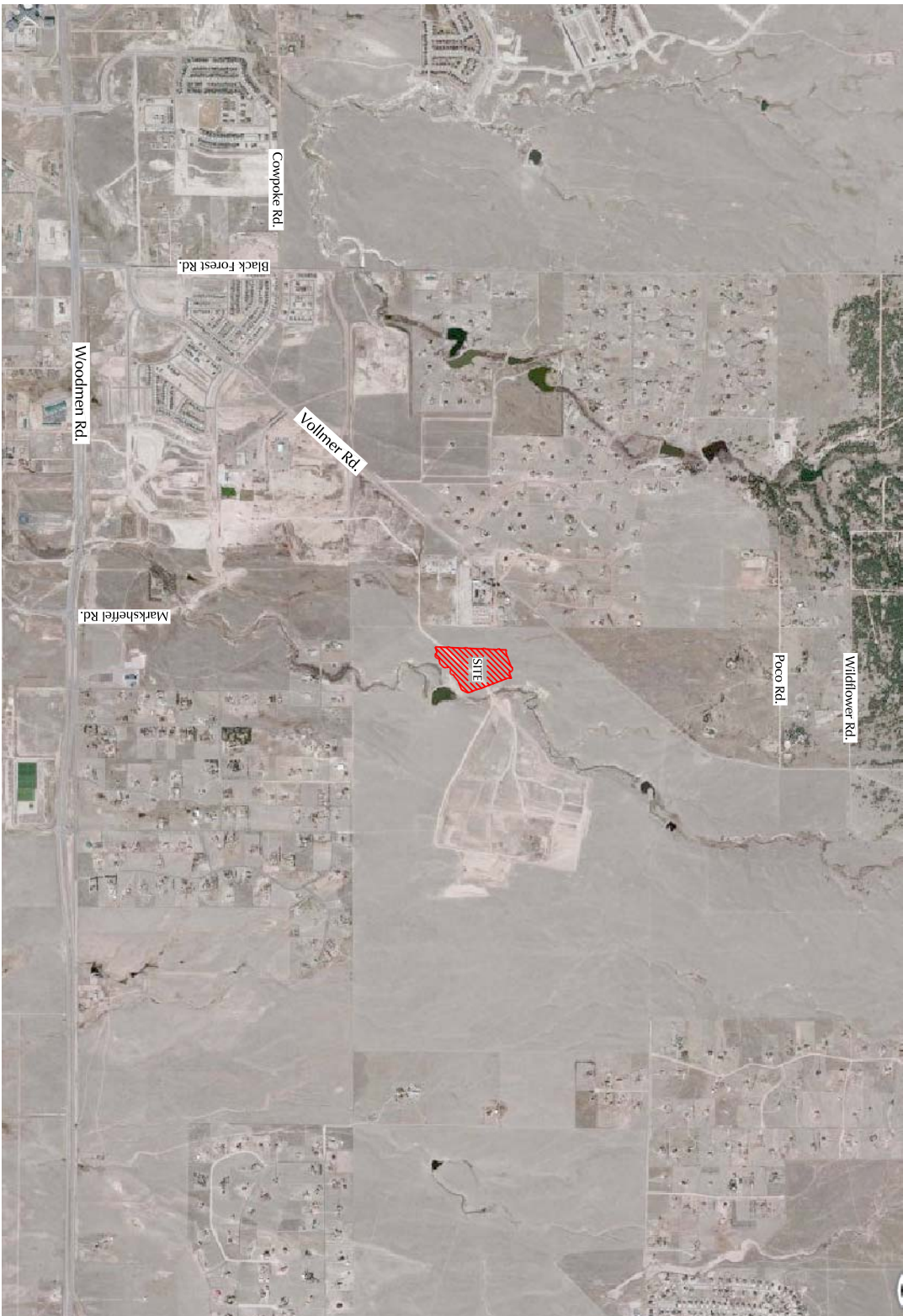


Figure 1
**Vicinity
Map**

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)

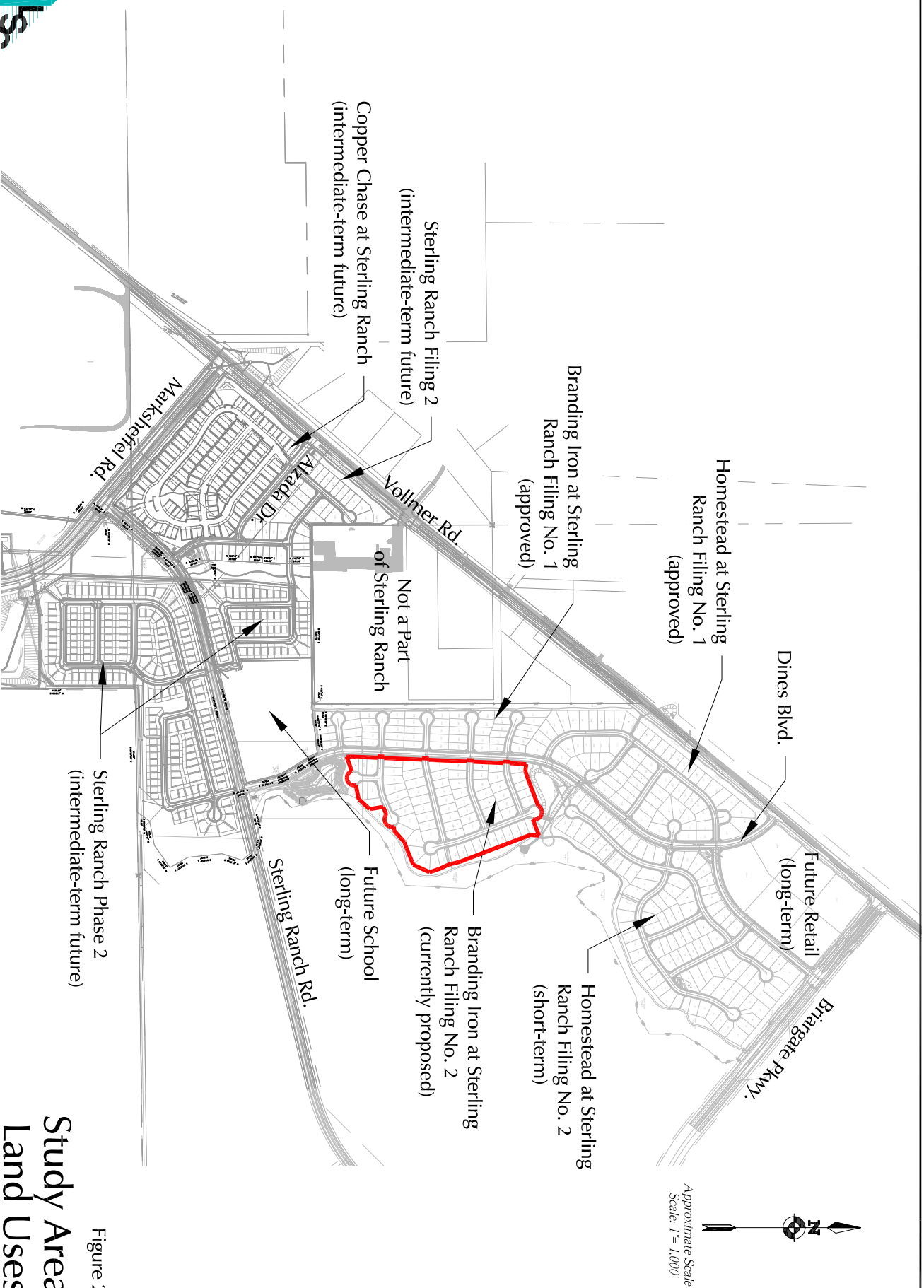
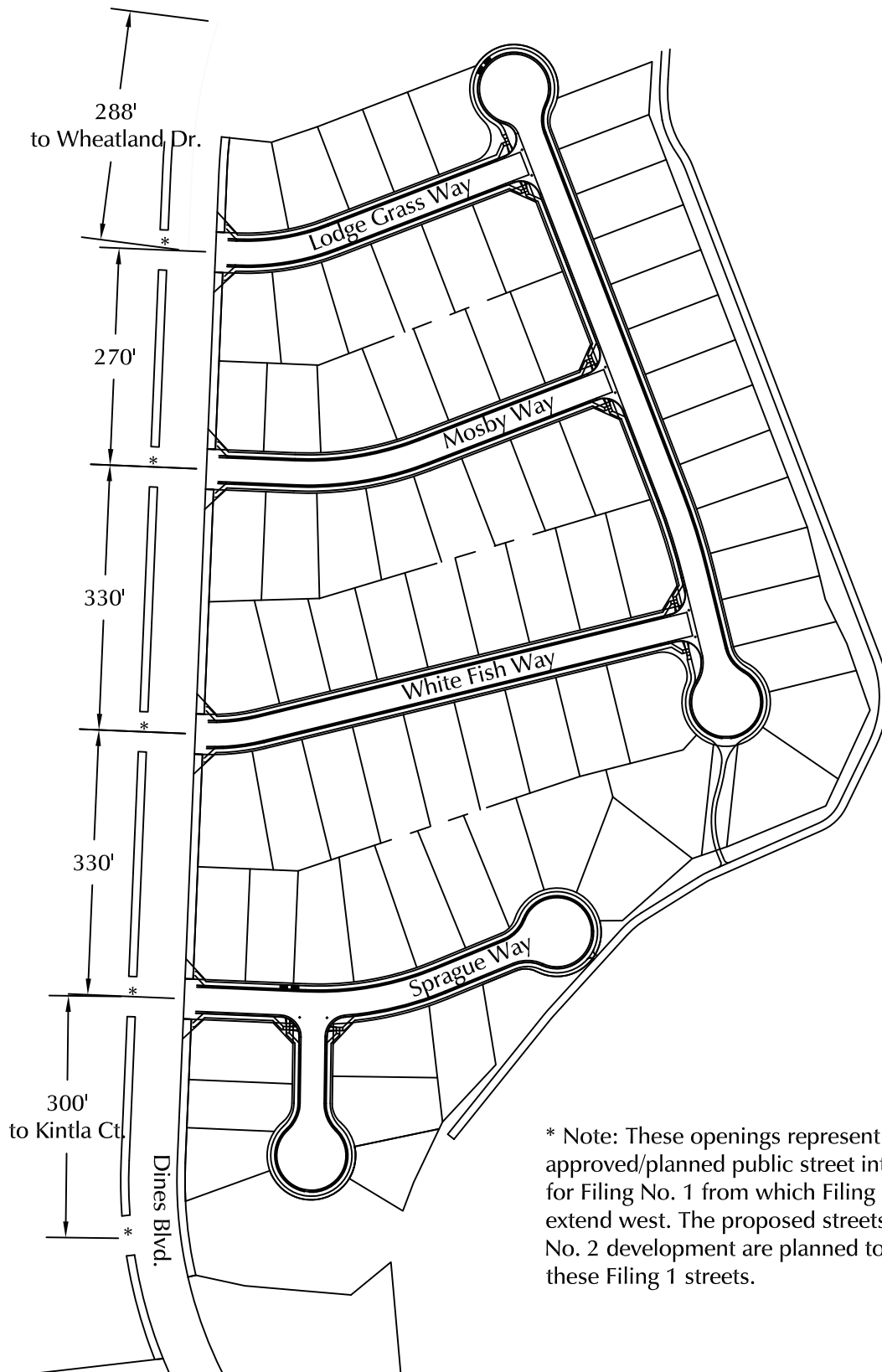


Figure 2

Study Area Land Uses

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184262)



Approximate Scale
Scale: 1"= 200'

* Note: These openings represent previously approved/planned public street intersections for Filing No. 1 from which Filing 1 streets will extend west. The proposed streets for this Filing No. 2 development are planned to align with these Filing 1 streets.

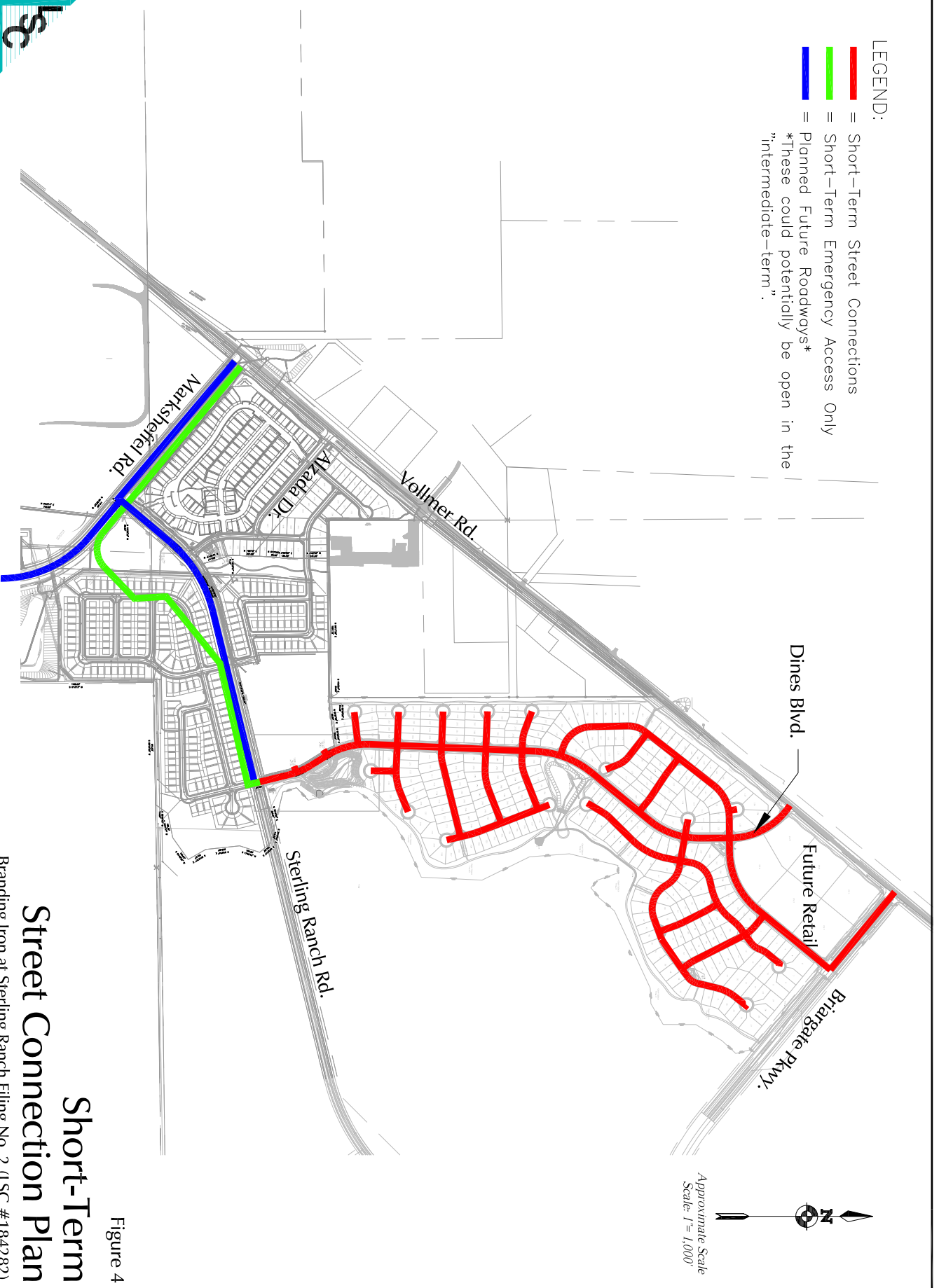
Figure 3

Site Plan

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)

LEGEND:

- = Short-Term Street Connections
- = Short-Term Emergency Access Only
- = Planned Future Roadways*
- *These could potentially be open in the "intermediate-term".



Approximate Scale
Scale: 1" = 1,000'

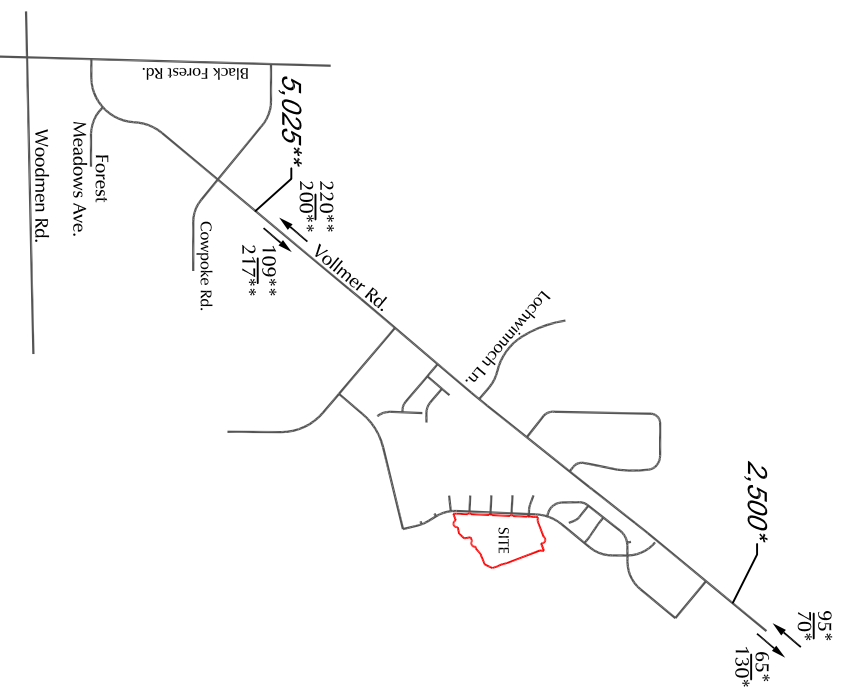
Figure 4

Short-Term Street Connection Plan

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184262)



Approximate Scale
Scale: 1" = 3,000'



LEGEND:

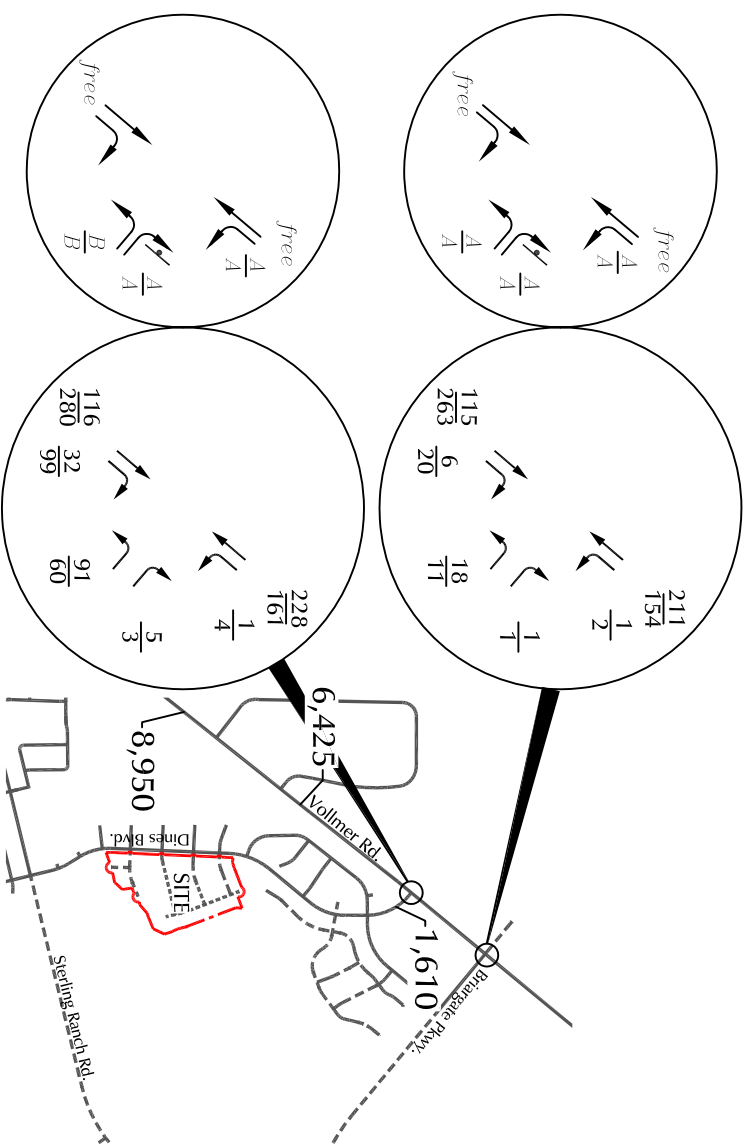
XX = AM Weekday Peak-Hour Traffic (vehicles per hour)
XX = PM Weekday Peak-Hour Traffic (vehicles per hour)

XXX = Average Weekday Traffic (vehicles per day) *September 2017
**June 2018

Figure 5

Existing Traffic Volumes

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)



LEGEND:

- Stop Sign
- $\frac{26}{31}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
PM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{A}{B}$ = AM Individual Movement Peak-Hour Level of Service
PM Individual Movement Peak-Hour Level of Service
- 500 = Average Weekday Traffic (vehicles per day)

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

Figure 6

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)

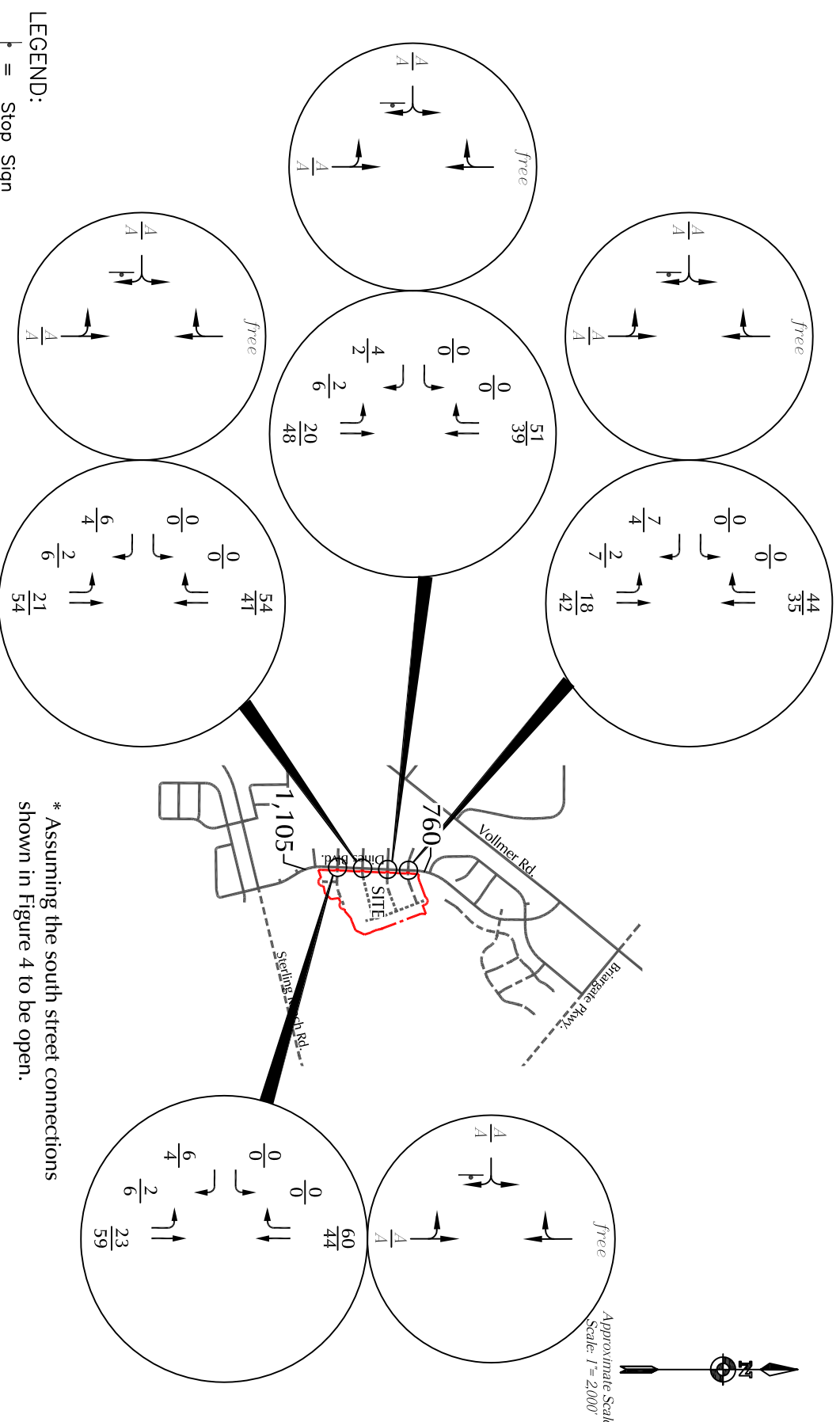
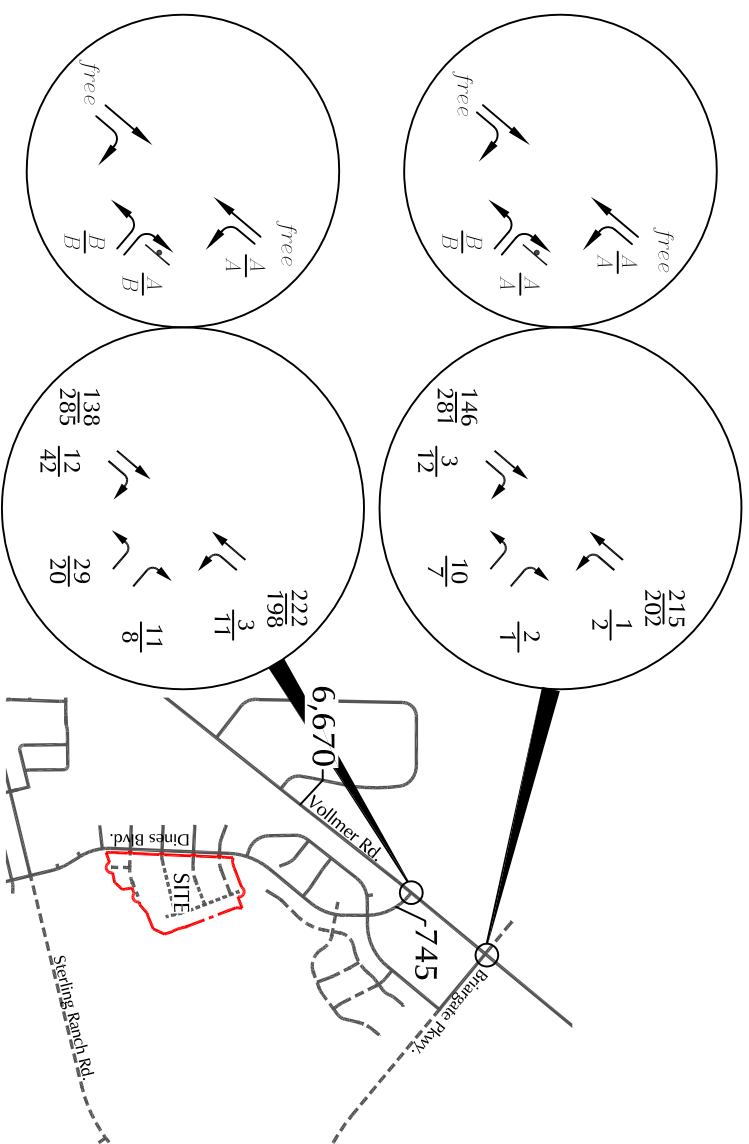


Figure 7a

Intermediate-Term Background Traffic, Lane Geometry, Traffic Control and Level of Service w/ South Street Connections*

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)



Approximate Scale
Scale: 1" = 2,000'

LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{31}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{31}{26}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{A}{B}$ = AM Individual Movement Peak-Hour Level of Service
- $\frac{B}{A}$ = PM Individual Movement Peak-Hour Level of Service
- 500 = Average Weekday Traffic (vehicles per day)

* Assuming the south street connections shown in Figure 4 not yet open.

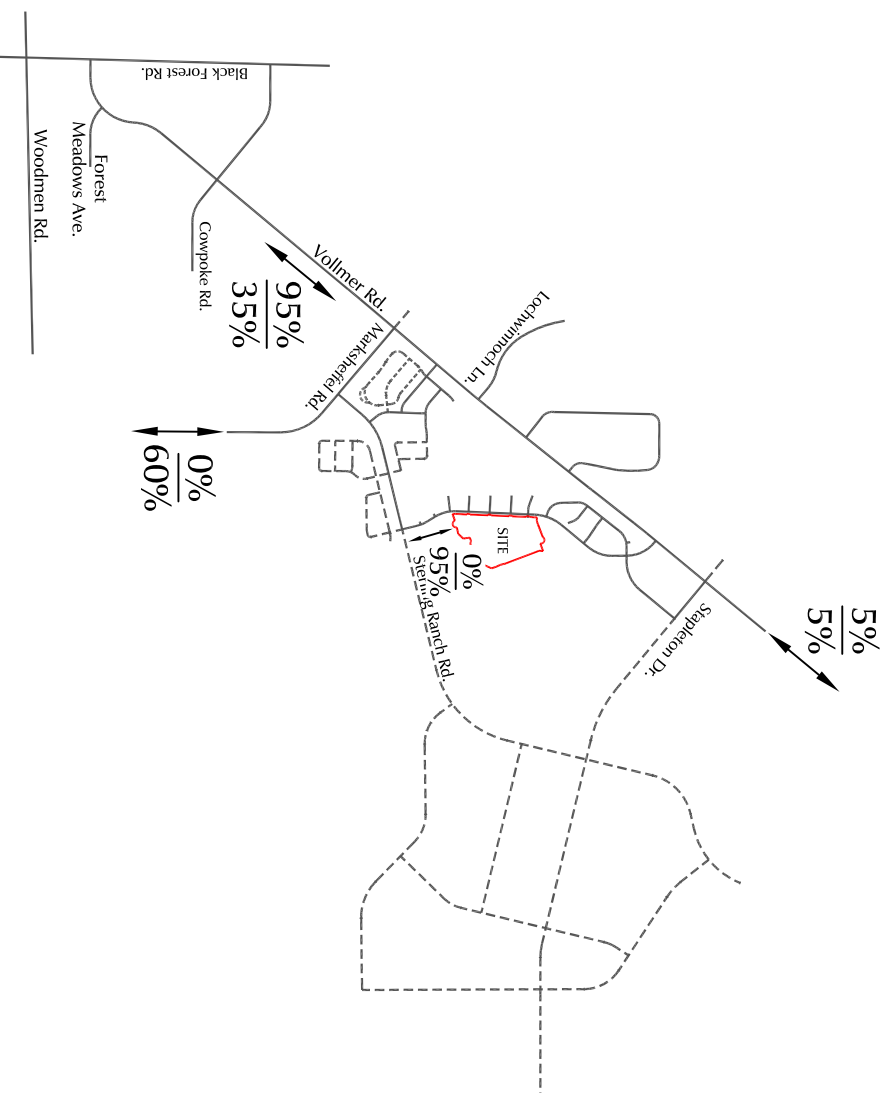
Figure 7b

Intermediate-Term Background Traffic, Lane Geometry, Traffic Control and Level of Service w/o South Street Connections*

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)



Approximate Scale
Scale: 1" = 3,000'



LEGEND:

$\frac{5\%}{5\%}$

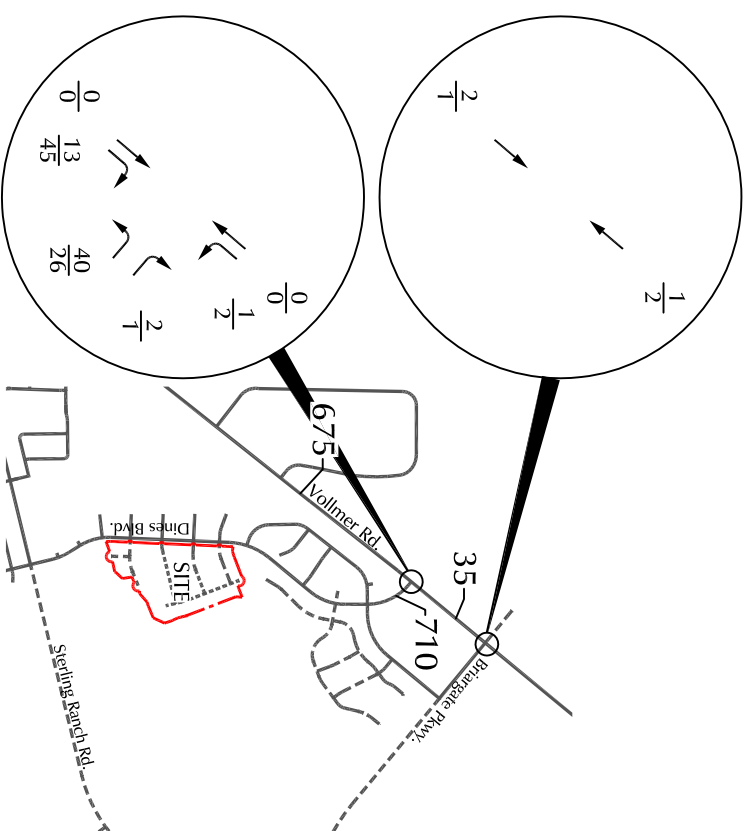
= $\frac{\text{Short-Term Percent Directional Distribution}}{\text{Intermediate-term Percent Directional Distribution}}$



Figure 8

Directional Distribution of Site-Generated Traffic

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)



Approximate Scale
Scale: 1" = 2,000'

Figure 9

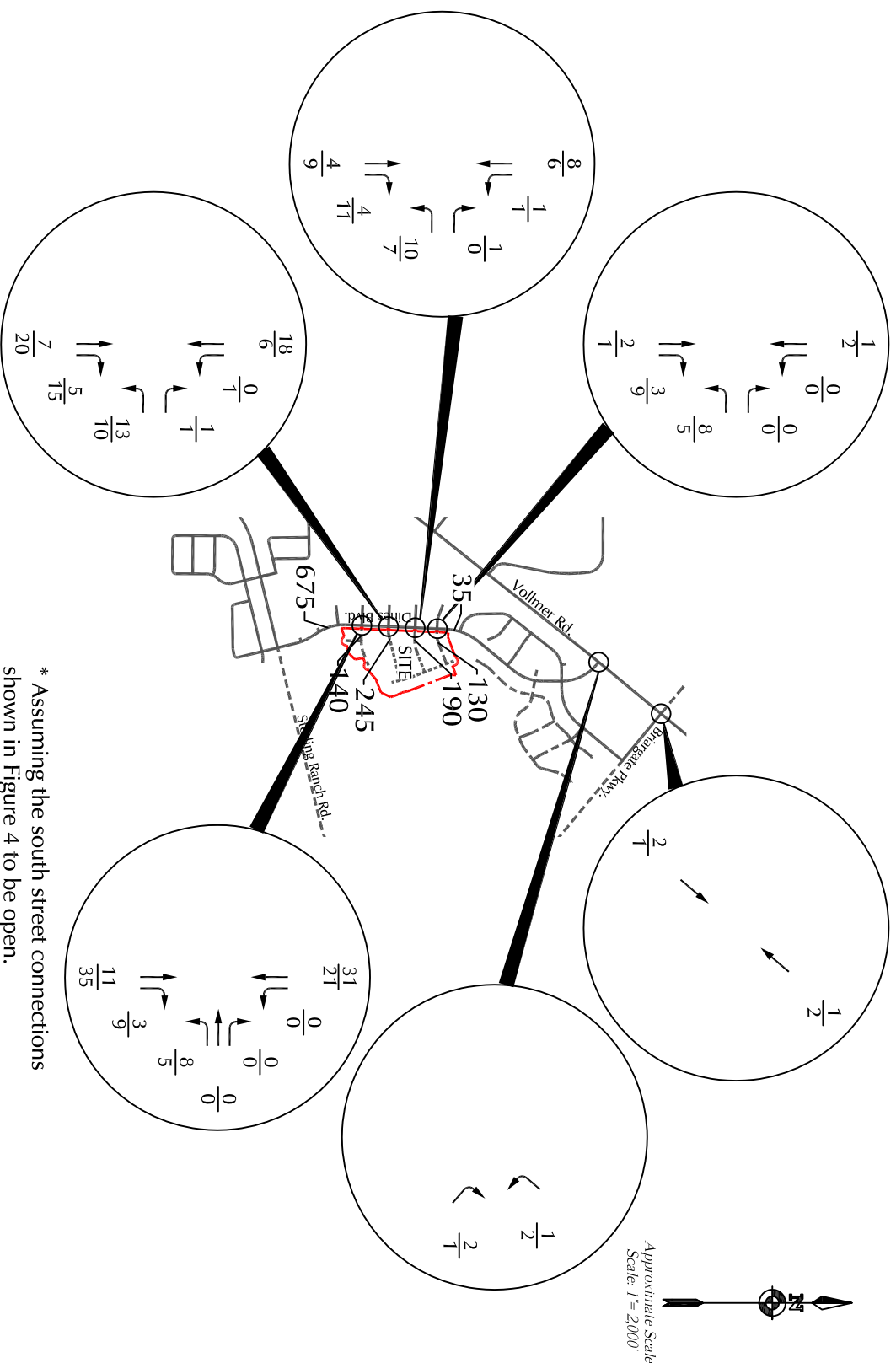
LEGEND:

$\frac{26}{31}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 PM Weekday Peak-Hour Traffic (vehicles per hour)
 500 = Average Weekday Traffic (vehicles per day)



Short-Term Assignment of Site-Generated Traffic

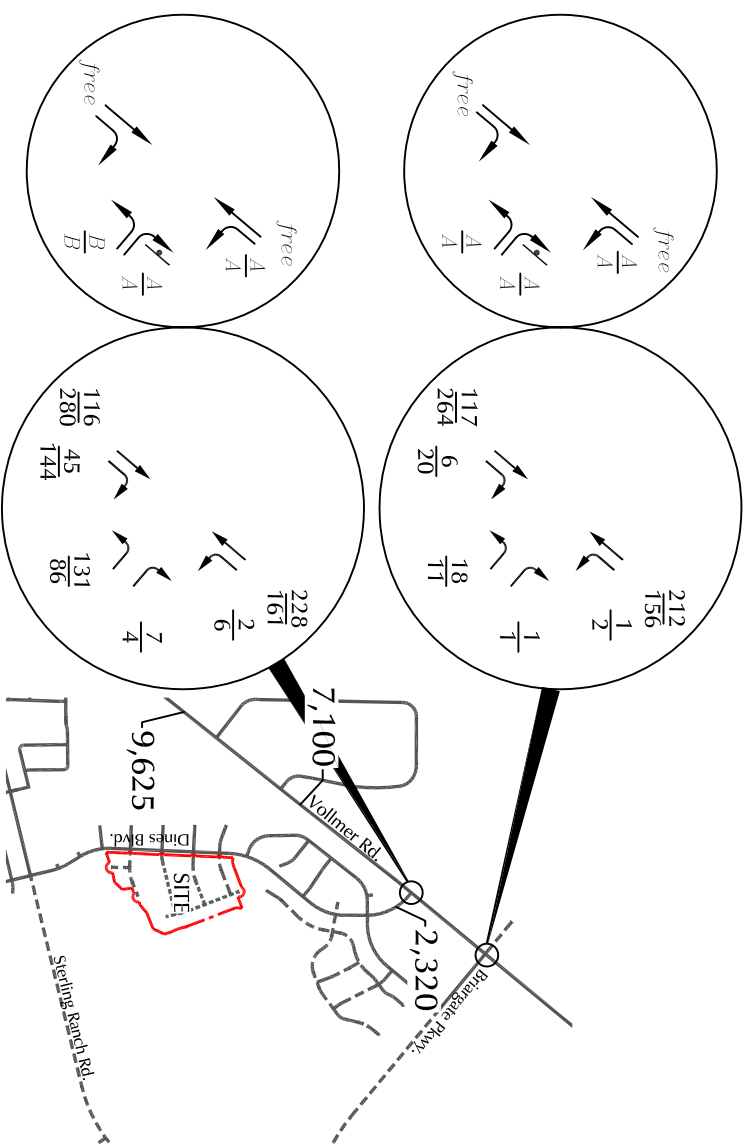
Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)



* Assuming the south street connections shown in Figure 4 to be open.

Intermediate-Term Assignment of Site-Generated Traffic w/ South Street Connections*

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)



Approximate Scale
Scale: 1" = 2,000'

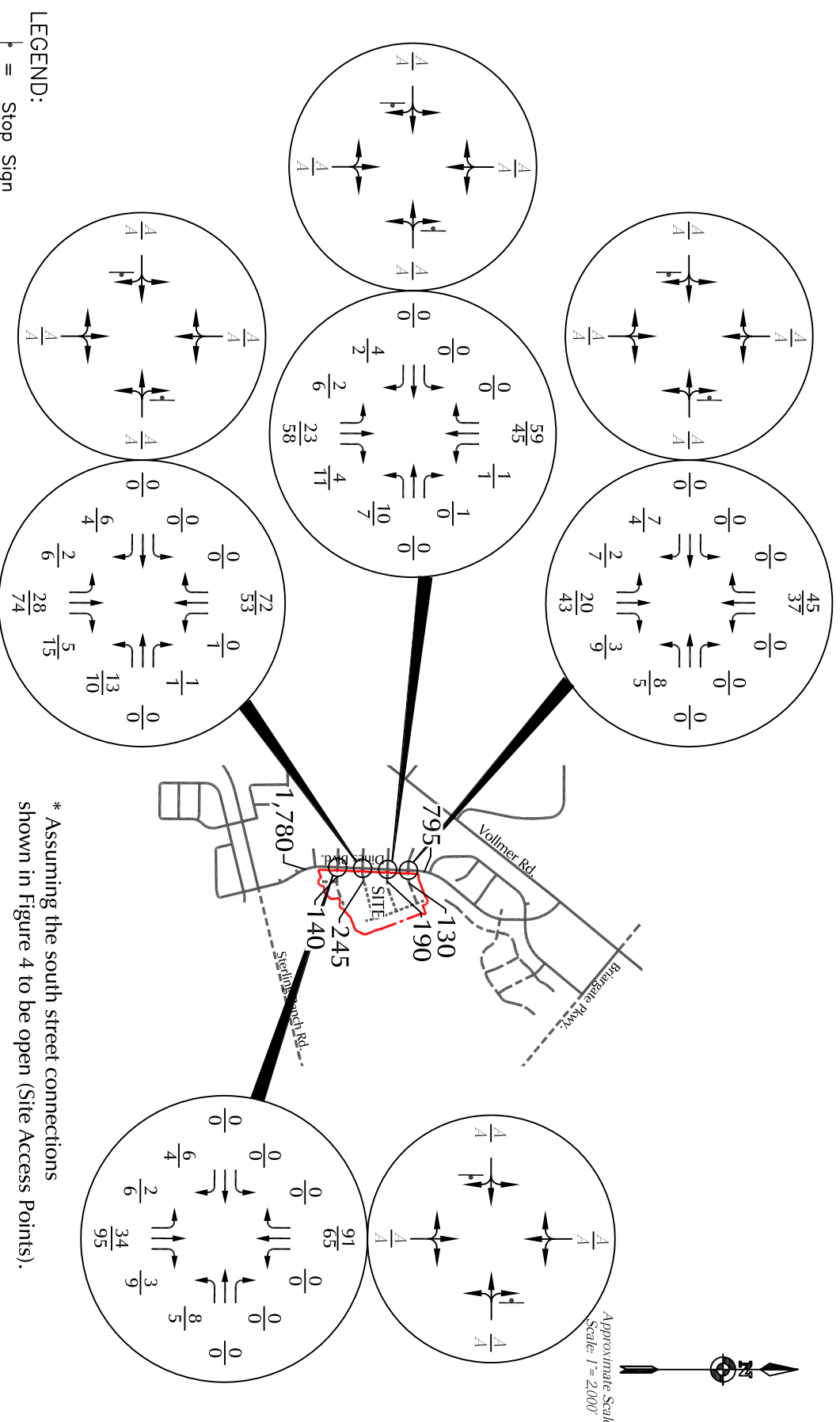
LEGEND:

- \downarrow = Stop Sign
- $\frac{26}{31}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{26}{31}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
- $\frac{A}{B}$ = AM Individual Movement Peak-Hour Level of Service
- $\frac{A}{B}$ = PM Individual Movement Peak-Hour Level of Service
- 500 = Average Weekday Traffic (vehicles per day)

Figure 11

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

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)

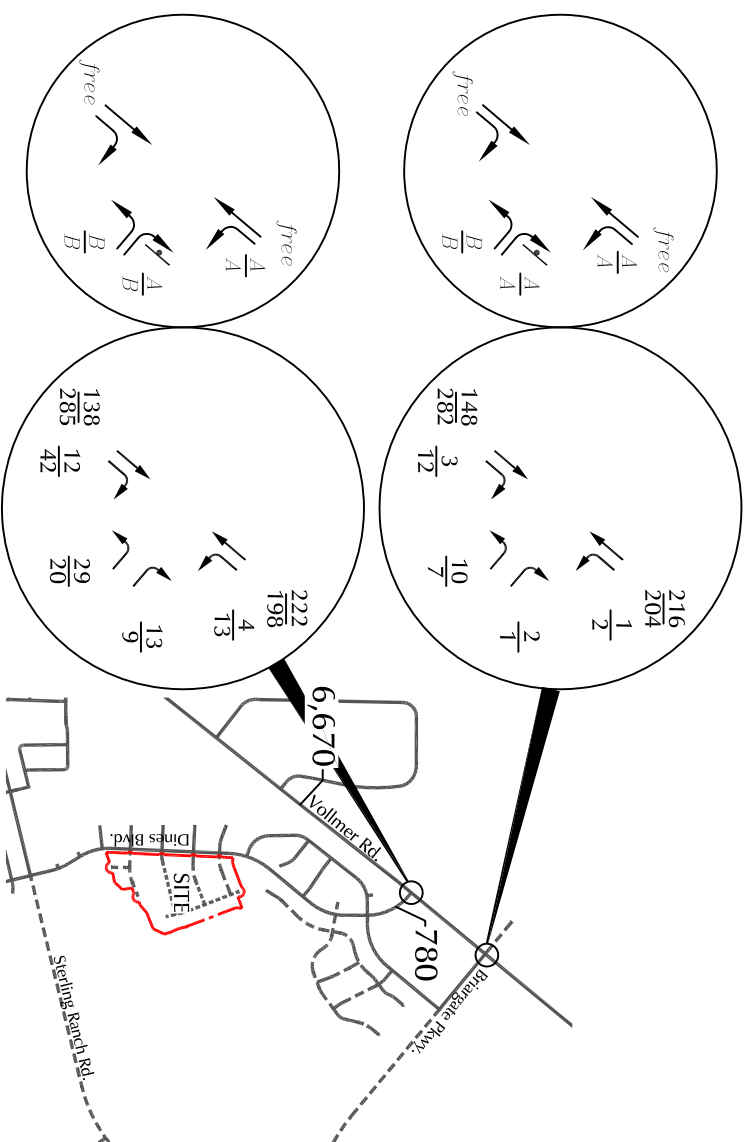


* Assuming the south street connections shown in Figure 4 to be open (Site Access Points).

Figure 12a

Intermediate-Term Total Traffic, Lane Geometry, Traffic Control and Level of Service w/ South Street Connections*

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)



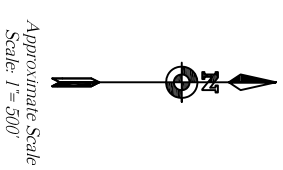
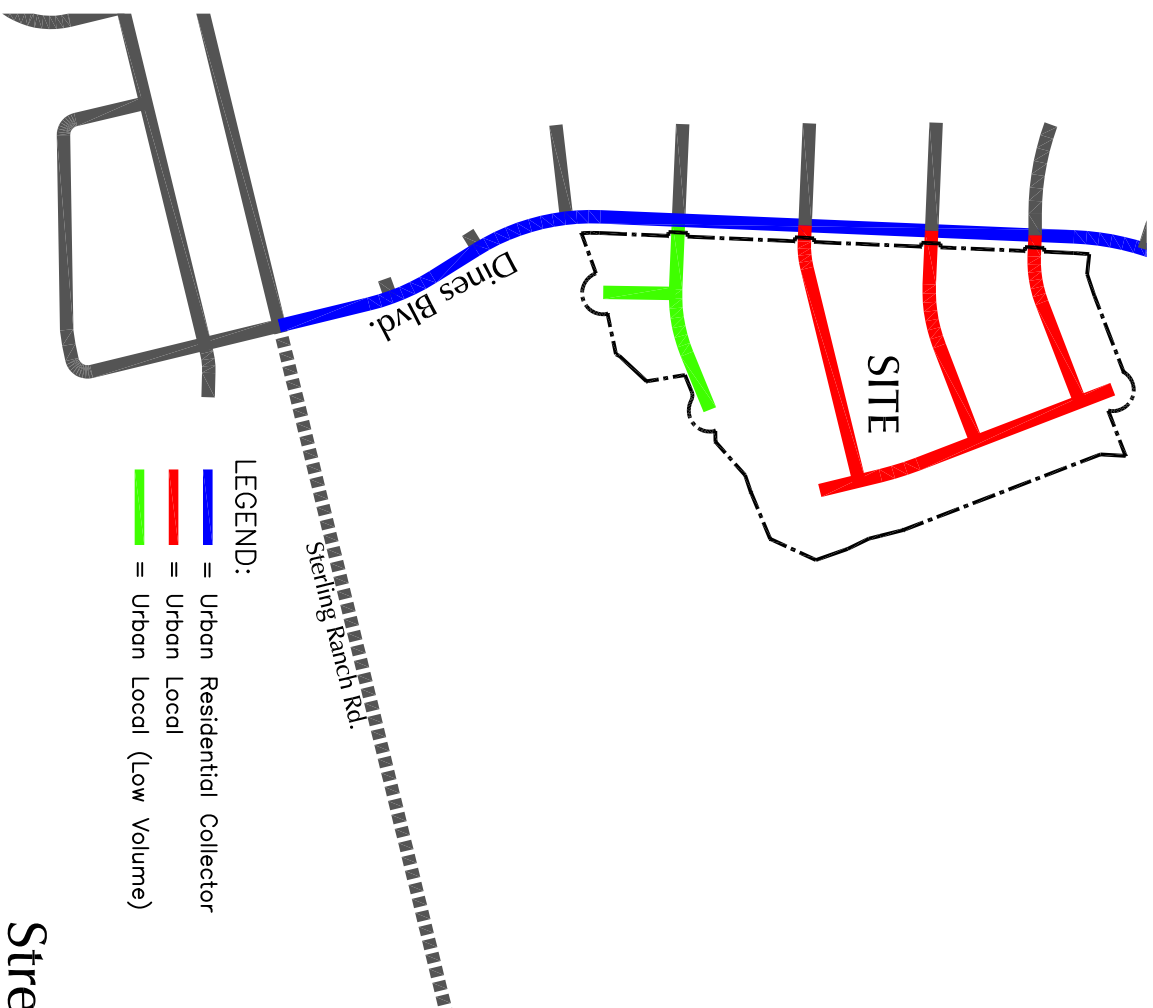


Figure 13

Recommended Street Classifications

Branding Iron at Sterling Ranch Filing No. 2 (LSC #184282)

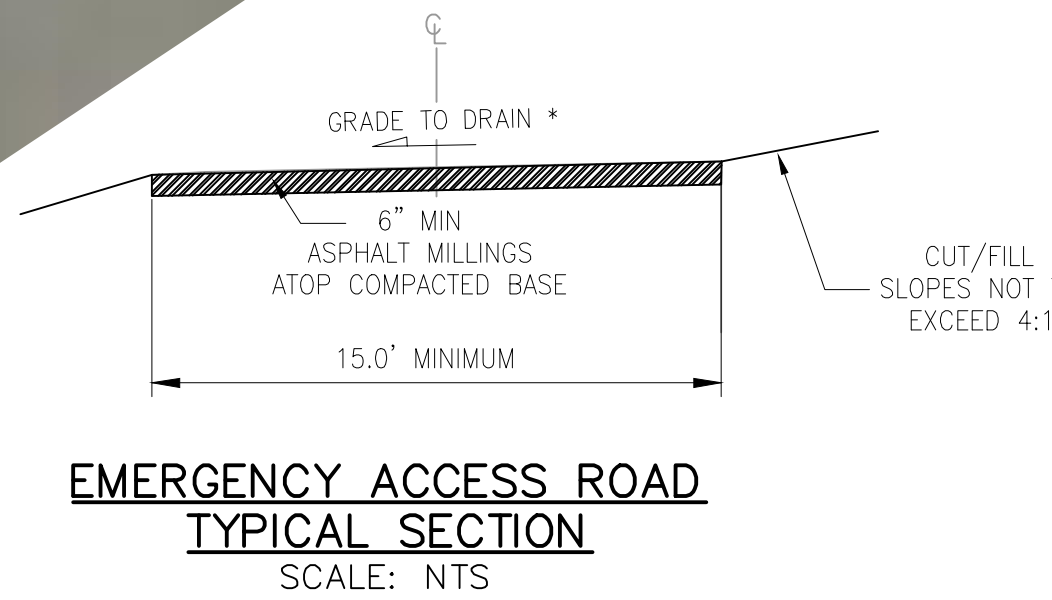
Additional Attachment

Branding Iron at Sterling Ranch Fil. No. 1 Emergency Access
Rd – Alt. Route Plan



GENERAL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO PROVIDE THE TYPICAL CROSS SECTION AND SCHEMATIC ROUTE FOR A TEMPORARY FIRE ACCESS ROADWAY TO THE DEVELOPED PORTION OF THE SITE, THE PLAN IS NOT INTENDED TO SERVE AS A DETAILED CONSTRUCTION DRAWING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE ROADWAY, UPON CONSTRUCTION, MEETS THE REQUIREMENTS OF THE BLACK FOREST FIRE PROTECTION DISTRICT.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
4. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
5. ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER THE SOILS ENGINEER'S RECOMMENDATIONS.
6. ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED) FOR ROADS SHALL BE PER DESIGN REPORT BY OWNER'S GEOTECHNICAL ENGINEER. OWNER'S GEOTECHNICAL ENGINEER TO BE ON SITE AT THE TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.
7. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT PUBLIC WORKS, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.



* DIRECTION OF DRAINAGE DEPENDANT UPON EXISTING LOCAL TOPOGRAPHY

APPROVALS:

BLACK FOREST FIRE PROTECTION DISTRICT:

THIS DOCUMENT HAVE BEEN REVIEWED AND APPROVED.

FOR AND ON BEHALF OF THE BLACK FOREST FIRE PROTECTION DISTRICT _____ DATE _____

OWNER/DEVELOPER STATEMENT:

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE THIS SET OF CONSTRUCTION DOCUMENTS.

JAMES F. MORLEY
SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
(719) 471-1742 _____ DATE _____

STERLING RANCH METROPOLITAN DISTRICT:

THIS DOCUMENT HAVE BEEN REVIEWED AND APPROVED.

FOR AND ON BEHALF OF THE STERLING RANCH METRO DISTRIC _____ DATE _____

CONDITIONS:



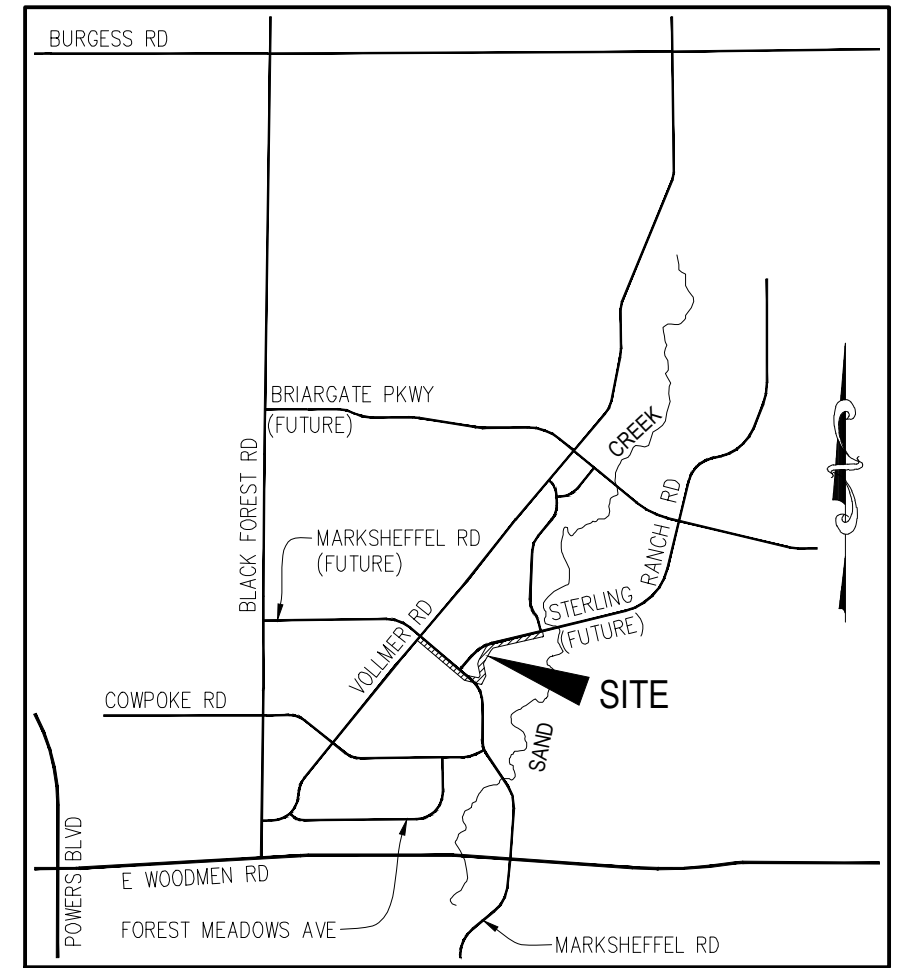
FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES

FOR BURIED UTILITY INFORMATION
48 HRS BEFORE YOU DIG
CALL 1-800-922-1987

AGENCIES

OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742	FIRE DISTRICT:	BLACK FOREST FIRE PROTECTION DISTRICT 11445 TEACHOUT ROAD COLORADO SPRINGS, CO 80908 CHIEF BRYAN JACK (719) 495-4300
CIVIL ENGINEER:	M & S CIVIL CONSULTANTS, INC. 20 BOULDER CRESCENT, SUITE 110 COLORADO SPRINGS, CO 80903 VIRGIL A. SANCHEZ P.E. (719) 955-5485	GAS DEPARTMENT:	COLORADO SPRINGS UTILITIES 7710 DURANT DR. COLORADO SPRINGS, CO 80947 TIM WENDT (719) 668-3556
COUNTY ENGINEERING:	EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS, CO 80910 JEFF RICE, P.E. (719) 520-6300	ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831 495-2283
TRAFFIC ENGINEERING:	EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922 JENNIFER IRVINE, P.E. (719) 520-6460	COMMUNICATIONS:	QWEST COMMUNICATIONS LOCATORS) (800) 922-1987 AT&T (LOCATORS) (719) 635-3674
WATER RESOURCES:	STERLING RANCH METRO DISTRICT ENGINEERS JDS-HYDRO CONSULTANTS 545 E. PIKES PEAK AVE., SUITE 300 COLORADO SPRINGS, CO 80903 JOHN MCGINN (719) 668-8769		

EMERGENCY ACCESS ROAD
ALT. ROUTE PLAN



VICINITY MAP
N.T.S.

BRANDING IRON AT STERLING RANCH FIL. NO. 1
EMERGENCY ACCESS RD - ALT ROUTE PLAN

PROJECT NO. 09-002
DESIGNED BY: DM
DRAWN BY: JWP
CHECKED BY: VAS

DATE: 11/14/2018
SCALE: HORIZONTAL: N/A
VERTICAL: N/A

SHEET 2 OF 6
S102

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485



CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

DARRIN L. MOFFETT, COLORADO P.E. NO. 38923

REVISIONS:
NO. DATE BY DESCRIPTION

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

Traffic Counts

COUNTER MEASURES INC.

Location: VOLLMER RD S/O POCO RD

City:

County: EL PASO

Direction: SOUTHBOUND-NORTHBOUND

1889 YORK STREET

DENVER, COLORADO 80206

303-333-7409

Site Code: 092712

Station ID: 092712

Start Time	28-Sep-17		SB		NB		Combined		29-Sep		SB		NB		Combined	
	Thu	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	Fri	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		
12:00		0	25	1	16	1	41		*	*	*	*	*	*		
12:15		0	12	0	25	0	37		*	*	*	*	*	*		
12:30		1	12	1	26	2	38		*	*	*	*	*	*		
12:45		0	18	0	18	0	36		*	*	*	*	*	*		
01:00		0	24	0	16	0	40		*	*	*	*	*	*		
01:15		0	16	0	23	0	39		*	*	*	*	*	*		
01:30		0	25	2	29	2	54		*	*	*	*	*	*		
01:45		0	17	0	20	0	37		*	*	*	*	*	*		
02:00		1	21	0	34	1	55		*	*	*	*	*	*		
02:15		0	22	2	23	2	45		*	*	*	*	*	*		
02:30		0	21	1	28	1	49		*	*	*	*	*	*		
02:45		0	14	0	37	0	51		*	*	*	*	*	*		
03:00		0	40	0	28	0	68		*	*	*	*	*	*		
03:15		0	15	1	27	1	42		*	*	*	*	*	*		
03:30		0	24	2	30	2	54		*	*	*	*	*	*		
03:45		3	18	0	31	3	49		*	*	*	*	*	*		
04:00		1	19	1	25	2	44		*	*	*	*	*	*		
04:15		3	18	1	30	4	48		*	*	*	*	*	*		
04:30		0	30	0	25	0	55		*	*	*	*	*	*		
04:45		6	18	0	30	6	48		*	*	*	*	*	*		
05:00		7	19	4	32	11	51		*	*	*	*	*	*		
05:15		4	13	0	28	4	41		*	*	*	*	*	*		
05:30		19	15	3	30	22	45		*	*	*	*	*	*		
05:45		5	16	2	30	7	46		*	*	*	*	*	*		
06:00		20	12	6	37	26	49		*	*	*	*	*	*		
06:15		16	14	6	18	22	32		*	*	*	*	*	*		
06:30		27	16	9	33	36	49		*	*	*	*	*	*		
06:45		18	20	4	12	22	32		*	*	*	*	*	*		
07:00		14	4	16	15	30	19		*	*	*	*	*	*		
07:15		27	2	14	16	41	18		*	*	*	*	*	*		
07:30		22	6	12	19	34	25		*	*	*	*	*	*		
07:45		16	4	21	16	37	20		*	*	*	*	*	*		
08:00		20	4	12	21	32	25		*	*	*	*	*	*		
08:15		26	3	16	14	42	17		*	*	*	*	*	*		
08:30		23	5	14	15	37	20		*	*	*	*	*	*		
08:45		16	5	18	14	34	19		*	*	*	*	*	*		
09:00		34	4	27	17	61	21		*	*	*	*	*	*		
09:15		19	7	11	4	30	11		*	*	*	*	*	*		
09:30		16	6	12	13	28	19		*	*	*	*	*	*		
09:45		18	4	12	6	30	10		*	*	*	*	*	*		
10:00		21	3	10	7	31	10		*	*	*	*	*	*		
10:15		18	4	28	1	46	5		*	*	*	*	*	*		
10:30		28	0	15	2	43	2		*	*	*	*	*	*		
10:45		28	1	16	1	44	2		*	*	*	*	*	*		
11:00		21	1	13	1	34	2		*	*	*	*	*	*		
11:15		13	0	18	1	31	1		*	*	*	*	*	*		
11:30		15	1	14	3	29	4		*	*	*	*	*	*		
11:45		14	0	20	3	34	3		*	*	*	*	*	*		
Total		540	598	365	930	905	1528		0	0	0	0	0	0		
Day Total		1138		1295		2433			0	0	0	0	0	0		
% Total		22.2%	24.6%	15.0%	38.2%				0.0%	0.0%	0.0%	0.0%				
Peak	-	08:15	02:15	08:15	05:15	08:15	02:45	-	-	-	-	-	-	-		
Vol.	-	99	97	75	125	174	215	-	-	-	-	-	-	-		
P.H.F.		0.728	0.606	0.694	0.845	0.713	0.790									
ADT	ADT 2,433	AADT 2,433														

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

Default Comments

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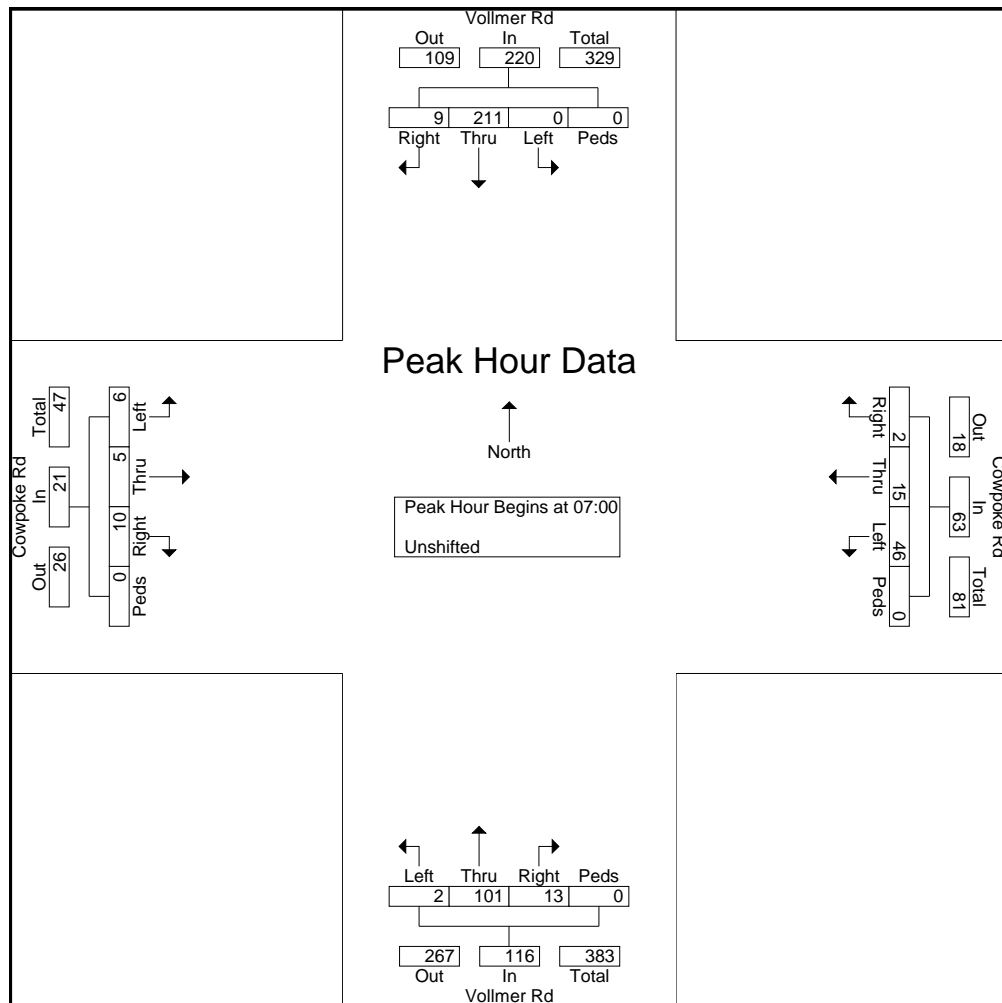
Then Click the Comments Tab

Groups Printed- Unshifted

	Vollmer Rd Southbound					Cowpoke Rd Westbound					Vollmer Rd Northbound					Cowpoke Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:30	0	45	1	0	46	7	4	0	0	11	0	16	1	0	17	0	0	1	0	1	75
06:45	1	47	1	0	49	9	5	0	0	14	1	18	2	0	21	0	0	2	0	2	86
Total	1	92	2	0	95	16	9	0	0	25	1	34	3	0	38	0	0	3	0	3	161
07:00	0	54	1	0	55	9	3	0	0	12	0	20	1	0	21	0	0	2	0	2	90
07:15	0	56	2	0	58	12	7	1	0	20	1	23	3	0	27	1	1	2	0	4	109
07:30	0	56	4	0	60	10	3	1	0	14	0	25	5	0	30	1	2	4	0	7	111
07:45	0	45	2	0	47	15	2	0	0	17	1	33	4	0	38	4	2	2	0	8	110
Total	0	211	9	0	220	46	15	2	0	63	2	101	13	0	116	6	5	10	0	21	420
08:00	0	36	0	0	36	10	5	1	0	16	3	22	9	0	34	2	0	0	0	2	88
08:15	0	55	3	0	58	11	2	1	0	14	1	29	1	0	31	1	1	2	0	4	107

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Colorado Springs, CO 80905
719-633-2868

	Vollmer Rd Southbound					Cowpoke Rd Westbound					Vollmer Rd Northbound					Cowpoke Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	0	54	1	0	55	9	3	0	0	12	0	20	1	0	21	0	0	2	0	2	90
07:15	0	56	2	0	58	12	7	1	0	20	1	23	3	0	27	1	1	2	0	4	109
07:30	0	56	4	0	60	10	3	1	0	14	0	25	5	0	30	1	2	4	0	7	111
07:45	0	45	2	0	47	15	2	0	0	17	1	33	4	0	38	4	2	2	0	8	110
Total Volume	0	211	9	0	220	46	15	2	0	63	2	101	13	0	116	6	5	10	0	21	420
% App. Total	0	95.9	4.1	0		73	23.8	3.2	0		1.7	87.1	11.2	0		28.6	23.8	47.6	0		
PHF	.000	.942	.563	.000	.917	.767	.536	.500	.000	.788	.500	.765	.650	.000	.763	.375	.625	.625	.000	.656	.946



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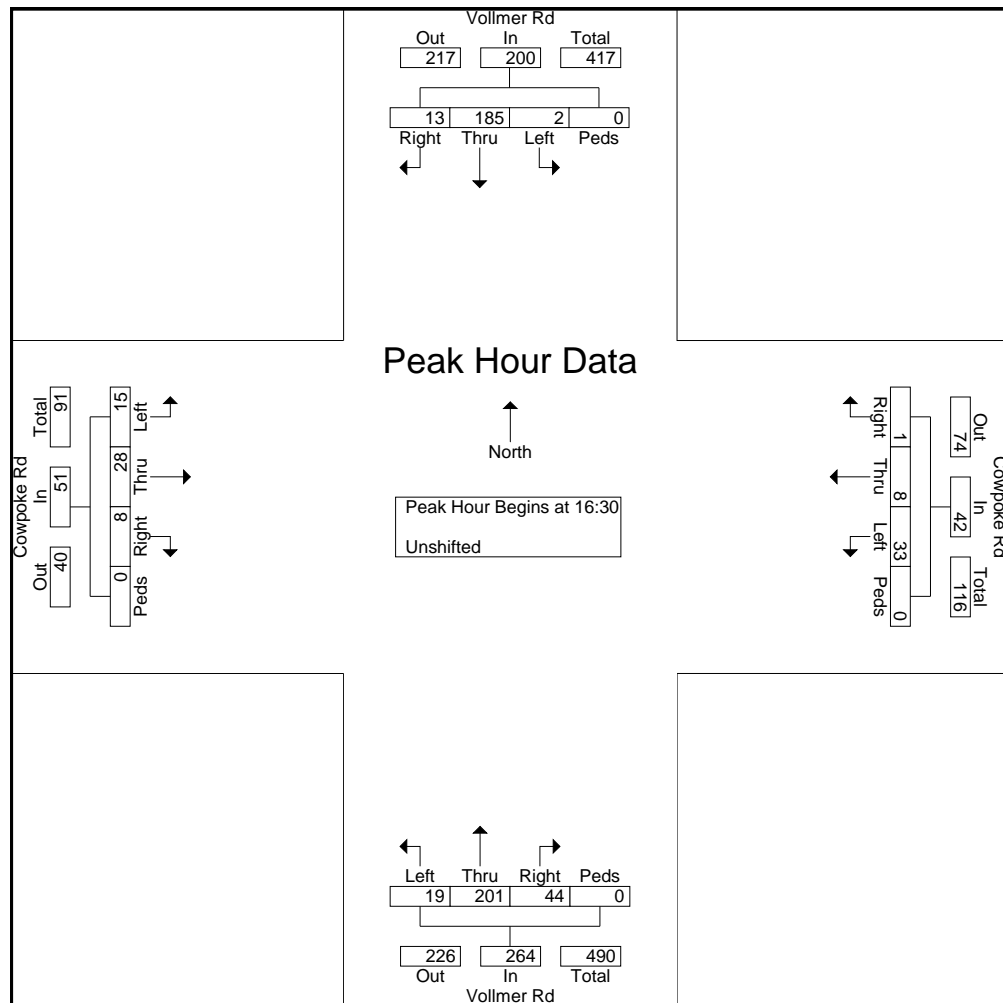
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Then Click the Comments Tab

Groups Printed- Unshifted







	Vollmer Rd Southbound					Cowpoke Rd Westbound					Vollmer Rd Northbound					Cowpoke Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
16:00	1	42	4	0	47	12	0	1	0	13	2	36	12	0	50	2	2	0	0	4	114
16:15	0	37	2	0	39	4	2	1	0	7	5	50	7	0	62	5	5	1	0	11	119
16:30	1	53	2	0	56	9	1	1	0	11	8	44	13	0	65	3	7	2	0	12	144
16:45	1	45	3	0	49	10	3	0	0	13	2	51	7	0	60	4	6	2	0	12	134
Total	3	177	11	0	191	35	6	3	0	44	17	181	39	0	237	14	20	5	0	39	511
17:00	0	44	4	0	48	6	3	0	0	9	5	61	15	0	81	3	5	4	0	12	150
17:15	0	43	4	0	47	8	1	0	0	9	4	45	9	0	58	5	10	0	0	15	129
17:30	0	42	3	0	45	7	1	0	0	8	5	56	12	0	73	4	6	5	0	15	141
17:45	0	41	2	0	43	6	1	0	0	7	4	48	9	0	61	3	5	3	0	11	122
Total	0	170	13	0	183	27	6	0	0	33	18	210	45	0	273	15	26	12	0	53	542

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

	Vollmer Rd Southbound					Cowpoke Rd Westbound					Vollmer Rd Northbound					Cowpoke Rd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	1	53	2	0	56	9	1	1	0	11	8	44	13	0	65	3	7	2	0	12	144
16:45	1	45	3	0	49	10	3	0	0	13	2	51	7	0	60	4	6	2	0	12	134
17:00	0	44	4	0	48	6	3	0	0	9	5	61	15	0	81	3	5	4	0	12	150
17:15	0	43	4	0	47	8	1	0	0	9	4	45	9	0	58	5	10	0	0	15	129
Total Volume	2	185	13	0	200	33	8	1	0	42	19	201	44	0	264	15	28	8	0	51	557
% App. Total	1	92.5	6.5	0		78.6	19	2.4	0		7.2	76.1	16.7	0		29.4	54.9	15.7	0		
PHF	.500	.873	.813	.000	.893	.825	.667	.250	.000	.808	.594	.824	.733	.000	.815	.750	.700	.500	.000	.850	.928









Levels of Service

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	91	5	116	32	1	228
Future Vol, veh/h	91	5	116	32	1	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	5	126	35	1	281

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	409	126	0
Stage 1	126	-	-
Stage 2	283	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	599	924	-
Stage 1	900	-	-
Stage 2	765	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	598	924	-
Mov Cap-2 Maneuver	598	-	-
Stage 1	899	-	-
Stage 2	765	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 598 924 1418	-	-
HCM Lane V/C Ratio	-	- 0.165 0.006 0.001	-	-
HCM Control Delay (s)	-	- 12.2 8.9 7.5	-	-
HCM Lane LOS	-	- B A A	-	-
HCM 95th %tile Q(veh)	-	- 0.6 0 0	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	1	115	6	1	211
Future Vol, veh/h	18	1	115	6	1	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	1	125	7	1	260

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	387	125	0
Stage 1	125	-	-
Stage 2	262	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	616	926	-
Stage 1	901	-	-
Stage 2	782	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	615	926	-
Mov Cap-2 Maneuver	615	-	-
Stage 1	900	-	-
Stage 2	782	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 615 926 1453	-	-
HCM Lane V/C Ratio	-	- 0.032 0.001 0.001	-	-
HCM Control Delay (s)	-	- 11 8.9 7.5	-	-
HCM Lane LOS	-	- B A A	-	-
HCM 95th %tile Q(veh)	-	- 0.1 0 0	-	-







Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	3	280	99	4	161
Future Vol, veh/h	60	3	280	99	4	161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	3	304	108	5	199







Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	513	304	0	0	412
Stage 1	304	-	-	-	-
Stage 2	209	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	521	736	-	-	1147
Stage 1	748	-	-	-	-
Stage 2	826	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	519	736	-	-	1147
Mov Cap-2 Maneuver	519	-	-	-	-
Stage 1	745	-	-	-	-
Stage 2	826	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 519 736	1147	-
HCM Lane V/C Ratio	-	- 0.126 0.004	0.004	-
HCM Control Delay (s)	-	- 12.9 9.9	8.2	-
HCM Lane LOS	-	- B A	A	-
HCM 95th %tile Q(veh)	-	- 0.4 0	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	1	263	20	2	154
Future Vol, veh/h	11	1	263	20	2	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1	286	22	2	190
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	480	286	0	0	308	0
Stage 1	286	-	-	-	-	-
Stage 2	194	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	545	753	-	-	1253	-
Stage 1	763	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	544	753	-	-	1253	-
Mov Cap-2 Maneuver	544	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.6	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 544 753 1253			-	
HCM Lane V/C Ratio	-	- 0.022 0.001 0.002			-	
HCM Control Delay (s)	-	- 11.8 9.8 7.9			-	
HCM Lane LOS	-	- B A A			-	
HCM 95th %tile Q(veh)	-	- 0.1 0 0			-	







Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	131	7	116	45	2	228
Future Vol, veh/h	131	7	116	45	2	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	8	126	49	2	281
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	411	126	0	0	175	0
Stage 1	126	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	597	924	-	-	1401	-
Stage 1	900	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	596	924	-	-	1401	-
Mov Cap-2 Maneuver	596	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.7	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 596 924 1401	-	-		
HCM Lane V/C Ratio	-	- 0.239 0.008 0.002	-	-		
HCM Control Delay (s)	-	- 12.9 8.9 7.6	-	-		
HCM Lane LOS	-	- B A A	-	-		
HCM 95th %tile Q(veh)	-	- 0.9 0 0	-	-		

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	1	117	6	1	212
Future Vol, veh/h	18	1	117	6	1	212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	1	127	7	1	262

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	391	127	0
Stage 1	127	-	-
Stage 2	264	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	613	923	-
Stage 1	899	-	-
Stage 2	780	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	612	923	-
Mov Cap-2 Maneuver	612	-	-
Stage 1	898	-	-
Stage 2	780	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		







Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 612 923 1451	-	-
HCM Lane V/C Ratio	-	- 0.032 0.001 0.001	-	-
HCM Control Delay (s)	-	- 11.1 8.9 7.5	-	-
HCM Lane LOS	-	- B A A	-	-
HCM 95th %tile Q(veh)	-	- 0.1 0 0	-	-







Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	86	4	280	144	6	161
Future Vol, veh/h	86	4	280	144	6	161
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	93	4	304	157	7	199







Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	517	304	0	0	461	0
Stage 1	304	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	518	736	-	-	1100	-
Stage 1	748	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	515	736	-	-	1100	-
Mov Cap-2 Maneuver	515	-	-	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 515 736 1100	-	-
HCM Lane V/C Ratio	-	- 0.182 0.006 0.007	-	-
HCM Control Delay (s)	-	- 13.5 9.9 8.3	-	-
HCM Lane LOS	-	- B A A	-	-
HCM 95th %tile Q(veh)	-	- 0.7 0 0	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	1	264	20	2	156
Future Vol, veh/h	11	1	264	20	2	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	1	287	22	2	193
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	484	287	0	0	309	0
Stage 1	287	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	542	752	-	-	1252	-
Stage 1	762	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	541	752	-	-	1252	-
Mov Cap-2 Maneuver	541	-	-	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.6	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 541 752 1252			-	
HCM Lane V/C Ratio	-	- 0.022 0.001 0.002			-	
HCM Control Delay (s)	-	- 11.8 9.8 7.9			-	
HCM Lane LOS	-	- B A A			-	
HCM 95th %tile Q(veh)	-	- 0.1 0 0			-	




Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	11	138	12	3	222
Future Vol, veh/h	29	11	138	12	3	222
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	12	150	13	4	274
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	432	150	0	0	163	0
Stage 1	150	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	581	896	-	-	1416	-
Stage 1	878	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	579	896	-	-	1416	-
Mov Cap-2 Maneuver	579	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.9	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 579 896 1416	-	-		
HCM Lane V/C Ratio	-	- 0.054 0.013 0.003	-	-		
HCM Control Delay (s)	-	- 11.6 9.1 7.5	-	-		
HCM Lane LOS	-	- B A A	-	-		
HCM 95th %tile Q(veh)	-	- 0.2 0 0	-	-		

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	2	146	3	1	215
Future Vol, veh/h	10	2	146	3	1	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	2	159	3	1	265

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	426	159	0	0	162	0
Stage 1	159	-	-	-	-	-
Stage 2	267	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	585	886	-	-	1417	-
Stage 1	870	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	584	886	-	-	1417	-
Mov Cap-2 Maneuver	584	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	778	-	-	-	-	-




Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		




Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	584 886	1417	-
HCM Lane V/C Ratio	-	-	0.019 0.002	0.001	-
HCM Control Delay (s)	-	-	11.3 9.1	7.5	-
HCM Lane LOS	-	-	B A	A	-
HCM 95th %tile Q(veh)	-	-	0.1 0	0	-




Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	2	18	44	0
Future Vol, veh/h	0	7	2	18	44	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	2	20	48	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	72	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	24	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	932	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	931	1021	1559	-	-	-
Mov Cap-2 Maneuver	931	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	999	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1559	-	1021	-	-	
HCM Lane V/C Ratio	0.001	-	0.007	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	







HCM 6th TWSC
64: Dines Blvd & Mosby Way







Intermediate-Term Background Traffic
AM Peak Hour




Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	2	20	51	0
Future Vol, veh/h	0	4	2	20	51	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	2	22	55	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	81	55	55	0	-	0
Stage 1	55	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	921	1012	1550	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	920	1012	1550	-	-	-
Mov Cap-2 Maneuver	920	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1550	-	1012	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	6	2	21	54	0
Future Vol, veh/h	0	6	2	21	54	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	2	23	59	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	86	59	59	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	27	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	915	1007	1545	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	914	1007	1545	-	-	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	996	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	0.6		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1545	-	1007	-	-	
HCM Lane V/C Ratio	0.001	-	0.006	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	6	2	23	60	0
Future Vol, veh/h	0	6	2	23	60	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	2	25	65	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	94	65	65	0	-	0
Stage 1	65	-	-	-	-	-
Stage 2	29	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	906	999	1537	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	994	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	999	1537	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	994	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	0.6		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1537	-	999	-	-	
HCM Lane V/C Ratio	0.001	-	0.007	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	




Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	8	285	42	11	198
Future Vol, veh/h	20	8	285	42	11	198
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	9	310	46	14	244
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	582	310	0	0	356	0
Stage 1	310	-	-	-	-	-
Stage 2	272	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	475	730	-	-	1203	-
Stage 1	744	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	469	730	-	-	1203	-
Mov Cap-2 Maneuver	469	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.1	0	0.4			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 469 730 1203	-	-		
HCM Lane V/C Ratio	-	- 0.046 0.012 0.011	-	-		
HCM Control Delay (s)	-	- 13 10 8	-	-		
HCM Lane LOS	-	- B B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.1 0 0	-	-		




Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	1	281	12	2	202
Future Vol, veh/h	7	1	281	12	2	202
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1	305	13	2	249
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	558	305	0	0	318	0
Stage 1	305	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	491	735	-	-	1242	-
Stage 1	748	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	490	735	-	-	1242	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.2	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 490 735 1242	-	-		
HCM Lane V/C Ratio	-	- 0.016 0.001 0.002	-	-		
HCM Control Delay (s)	-	- 12.5 9.9 7.9	-	-		
HCM Lane LOS	-	- B A A	-	-		
HCM 95th %tile Q(veh)	-	- 0 0 0	-	-		




Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	7	42	35	0
Future Vol, veh/h	0	4	7	42	35	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	8	46	38	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	100	38	38	0	-	0
Stage 1	38	-	-	-	-	-
Stage 2	62	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	899	1034	1572	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	895	1034	1572	-	-	-
Mov Cap-2 Maneuver	895	-	-	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1572	-	1034	-	-	
HCM Lane V/C Ratio	0.005	-	0.004	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	







HCM 6th TWSC
64: Dines Blvd & Mosby Way







Intermediate-Term Background Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	6	48	39	0
Future Vol, veh/h	0	2	6	48	39	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	7	52	42	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	108	42	42	0	-	0
Stage 1	42	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	889	1029	1567	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	885	1029	1567	-	-	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	0.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1567	-	1029	-	-	
HCM Lane V/C Ratio	0.004	-	0.002	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	6	54	41	0
Future Vol, veh/h	0	4	6	54	41	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	7	59	45	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	118	45	45	0	-	0
Stage 1	45	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	878	1025	1563	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	874	1025	1563	-	-	-
Mov Cap-2 Maneuver	874	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	950	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1563	-	1025	-	-	
HCM Lane V/C Ratio	0.004	-	0.004	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	6	59	44	0
Future Vol, veh/h	0	4	6	59	44	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	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	7	64	48	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	126	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	869	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	865	1021	1559	-	-	-
Mov Cap-2 Maneuver	865	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1559	-	1021	-	-	
HCM Lane V/C Ratio	0.004	-	0.004	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	13	138	12	4	222
Future Vol, veh/h	29	13	138	12	4	222
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	14	150	13	5	274
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	434	150	0	0	163	0
Stage 1	150	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	579	896	-	-	1416	-
Stage 1	878	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	577	896	-	-	1416	-
Mov Cap-2 Maneuver	577	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.8	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 577 896	1416	-		
HCM Lane V/C Ratio	-	- 0.055 0.016	0.003	-		
HCM Control Delay (s)	-	- 11.6 9.1	7.6	-		
HCM Lane LOS	-	- B A	A	-		
HCM 95th %tile Q(veh)	-	- 0.2 0	0	-		

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	2	148	3	1	216
Future Vol, veh/h	10	2	148	3	1	216
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	2	161	3	1	267

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	430	161	0	0	164
Stage 1	161	-	-	-	-
Stage 2	269	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	582	884	-	-	1414
Stage 1	868	-	-	-	-
Stage 2	776	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	581	884	-	-	1414
Mov Cap-2 Maneuver	581	-	-	-	-
Stage 1	867	-	-	-	-
Stage 2	776	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	581	884	1414
HCM Lane V/C Ratio	-	-	0.019	0.002	0.001
HCM Control Delay (s)	-	-	11.3	9.1	7.5
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0

HCM 6th TWSC
63: Dines Blvd & Lodge Grass Way

Intermediate Term Total Traffic
AM Peak Hour

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	7	8	0	0	2	20	3	0	45	0
Future Vol, veh/h	0	0	7	8	0	0	2	20	3	0	45	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	8	9	0	0	2	22	3	0	49	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	77	78	49	81	77	24	49	0	0	25	0	0
Stage 1	49	49	-	28	28	-	-	-	-	-	-	-
Stage 2	28	29	-	53	49	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	912	812	1020	907	813	1052	1558	-	-	1589	-	-
Stage 1	964	854	-	989	872	-	-	-	-	-	-	-
Stage 2	989	871	-	960	854	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	911	811	1020	900	812	1052	1558	-	-	1589	-	-
Mov Cap-2 Maneuver	911	811	-	900	812	-	-	-	-	-	-	-
Stage 1	963	854	-	988	871	-	-	-	-	-	-	-
Stage 2	988	870	-	953	854	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	9	0.6	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1558	-	-	1020	900	1589	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.01	-	-
HCM Control Delay (s)	7.3	0	-	8.6	9	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC
64: Dines Blvd & Mosby Way

Intermediate Term Total Traffic
AM Peak Hour

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	10	0	1	2	23	4	0	59	0
Future Vol, veh/h	0	0	4	10	0	1	2	23	4	0	59	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	11	0	1	2	25	4	0	64	0





Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	96	97	64	97	95	27	64	0	0	29	0	0
Stage 1	64	64	-	31	31	-	-	-	-	-	-	-
Stage 2	32	33	-	66	64	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	887	793	1000	885	795	1048	1538	-	-	1584	-	-
Stage 1	947	842	-	986	869	-	-	-	-	-	-	-
Stage 2	984	868	-	945	842	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	885	792	1000	881	794	1048	1538	-	-	1584	-	-
Mov Cap-2 Maneuver	885	792	-	881	794	-	-	-	-	-	-	-
Stage 1	946	842	-	985	868	-	-	-	-	-	-	-
Stage 2	982	867	-	941	842	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	9.1	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	1000 894	1584	-	-
HCM Lane V/C Ratio	0.001	-	-	0.004 0.013	-	-	-
HCM Control Delay (s)	7.3	0	-	8.6 9.1	0	-	-
HCM Lane LOS	A	A	-	A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0	0	-	-

HCM 6th TWSC
65: Dines Blvd & White Fish Way

Intermediate Term Total Traffic
AM Peak Hour

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	6	13	0	1	2	28	5	0	72	0
Future Vol, veh/h	0	0	6	13	0	1	2	28	5	0	72	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	14	0	1	2	30	5	0	78	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	115	117	78	119	115	33	78	0	0	35	0	0
Stage 1	78	78	-	37	37	-	-	-	-	-	-	-
Stage 2	37	39	-	82	78	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	862	773	983	857	775	1041	1520	-	-	1576	-	-
Stage 1	931	830	-	978	864	-	-	-	-	-	-	-
Stage 2	978	862	-	926	830	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	860	772	983	851	774	1041	1520	-	-	1576	-	-
Mov Cap-2 Maneuver	860	772	-	851	774	-	-	-	-	-	-	-
Stage 1	930	830	-	977	863	-	-	-	-	-	-	-
Stage 2	976	861	-	920	830	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.7		9.3		0.4		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1520	-	-	983	862	1576	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.007	0.018	-	-	-				
HCM Control Delay (s)	7.4	0	-	8.7	9.3	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

HCM 6th TWSC
66: Dines Blvd & Sprague Way







Intermediate Term Total Traffic
AM Peak Hour







Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	8	0	0	2	34	3	0	91	0
Future Vol, veh/h	0	0	6	8	0	0	2	34	3	0	91	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	9	0	0	2	37	3	0	99	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	142	143	99	146	142	39	99	0	0	40	0	0
Stage 1	99	99	-	43	43	-	-	-	-	-	-	-
Stage 2	43	44	-	103	99	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	828	748	957	823	749	1033	1494	-	-	1570	-	-
Stage 1	907	813	-	971	859	-	-	-	-	-	-	-
Stage 2	971	858	-	903	813	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	827	747	957	816	748	1033	1494	-	-	1570	-	-
Mov Cap-2 Maneuver	827	747	-	816	748	-	-	-	-	-	-	-
Stage 1	906	813	-	970	858	-	-	-	-	-	-	-
Stage 2	970	857	-	897	813	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.8		9.5		0.4		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1494	-	-	957	816	1570	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.011	-	-	-
HCM Control Delay (s)	7.4	0	-	8.8	9.5	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	9	285	42	13	198
Future Vol, veh/h	20	9	285	42	13	198
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	285	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	10	310	46	16	244
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	586	310	0	0	356	0
Stage 1	310	-	-	-	-	-
Stage 2	276	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	473	730	-	-	1203	-
Stage 1	744	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	467	730	-	-	1203	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.1	0	0.5			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 467 730 1203	-	-		
HCM Lane V/C Ratio	-	- 0.047 0.013 0.013	-	-		
HCM Control Delay (s)	-	- 13.1 10 8	-	-		
HCM Lane LOS	-	- B B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.1 0 0	-	-		

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	1	282	12	2	204
Future Vol, veh/h	7	1	282	12	2	204
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	205	0	-	235	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	1	307	13	2	252
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	563	307	0	0	320	0
Stage 1	307	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	487	733	-	-	1240	-
Stage 1	746	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	486	733	-	-	1240	-
Mov Cap-2 Maneuver	486	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.2	0	0.1			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 486 733 1240	-	-		
HCM Lane V/C Ratio	-	- 0.016 0.001 0.002	-	-		
HCM Control Delay (s)	-	- 12.5 9.9 7.9	-	-		
HCM Lane LOS	-	- B A A	-	-		
HCM 95th %tile Q(veh)	-	- 0 0 0	-	-		

HCM 6th TWSC
63: Dines Blvd & Lodge Grass Way

Intermediate-Term Total Traffic
PM Peak Hour

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	5	0	0	7	43	9	0	37	0
Future Vol, veh/h	0	0	4	5	0	0	7	43	9	0	37	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	5	0	0	8	47	10	0	40	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	108	113	40	110	108	52	40	0	0	57	0	0
Stage 1	40	40	-	68	68	-	-	-	-	-	-	-
Stage 2	68	73	-	42	40	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	871	777	1031	868	782	1016	1570	-	-	1547	-	-
Stage 1	975	862	-	942	838	-	-	-	-	-	-	-
Stage 2	942	834	-	972	862	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	868	773	1031	861	778	1016	1570	-	-	1547	-	-
Mov Cap-2 Maneuver	868	773	-	861	778	-	-	-	-	-	-	-
Stage 1	970	862	-	937	834	-	-	-	-	-	-	-
Stage 2	937	830	-	968	862	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.5		9.2		0.9		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1570	-	-	1031 861	1547	-	-
HCM Lane V/C Ratio	0.005	-	-	0.004 0.006	-	-	-
HCM Control Delay (s)	7.3	0	-	8.5 9.2	0	-	-
HCM Lane LOS	A	A	-	A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0	0	-	-

HCM 6th TWSC
64: Dines Blvd & Mosby Way

Intermediate-Term Total Traffic
PM Peak Hour

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	7	0	0	6	58	11	1	45	0
Future Vol, veh/h	0	0	2	7	0	0	6	58	11	1	45	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	2	8	0	0	7	63	12	1	49	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	134	140	49	135	134	69	49	0	0	75	0	0
Stage 1	51	51	-	83	83	-	-	-	-	-	-	-
Stage 2	83	89	-	52	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	838	751	1020	836	757	994	1558	-	-	1524	-	-
Stage 1	962	852	-	925	826	-	-	-	-	-	-	-
Stage 2	925	821	-	961	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	834	746	1020	830	752	994	1558	-	-	1524	-	-
Mov Cap-2 Maneuver	834	746	-	830	752	-	-	-	-	-	-	-
Stage 1	957	851	-	920	822	-	-	-	-	-	-	-
Stage 2	920	817	-	958	851	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.5		9.4		0.6		0.2	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1558	-	-	1020	830	1524	-
HCM Lane V/C Ratio	0.004	-	-	0.002	0.009	0.001	-
HCM Control Delay (s)	7.3	0	-	8.5	9.4	7.4	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC
65: Dines Blvd & White Fish Way

Intermediate-Term Total Traffic
PM Peak Hour

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	10	0	1	6	74	15	1	53	0
Future Vol, veh/h	0	0	4	10	0	1	6	74	15	1	53	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	11	0	1	7	80	16	1	58	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	163	170	58	164	162	88	58	0	0	96	0	0
Stage 1	60	60	-	102	102	-	-	-	-	-	-	-
Stage 2	103	110	-	62	60	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	802	723	1008	801	730	970	1546	-	-	1498	-	-
Stage 1	951	845	-	904	811	-	-	-	-	-	-	-
Stage 2	903	804	-	949	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	797	719	1008	794	726	970	1546	-	-	1498	-	-
Mov Cap-2 Maneuver	797	719	-	794	726	-	-	-	-	-	-	-
Stage 1	946	844	-	899	807	-	-	-	-	-	-	-
Stage 2	897	800	-	944	844	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.6		9.5		0.5		0.1	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1546	-	-	1008	807	1498	-	-
HCM Lane V/C Ratio	0.004	-	-	0.004	0.015	0.001	-	-
HCM Control Delay (s)	7.3	0	-	8.6	9.5	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
66: Dines Blvd & Sprague Way

Intermediate-Term Total Traffic
PM Peak Hour

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	5	0	0	6	95	9	0	65	0
Future Vol, veh/h	0	0	4	5	0	0	6	95	9	0	65	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	5	0	0	7	103	10	0	71	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	193	198	71	195	193	108	71	0	0	113	0	0
Stage 1	71	71	-	122	122	-	-	-	-	-	-	-
Stage 2	122	127	-	73	71	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	767	698	991	764	702	946	1529	-	-	1476	-	-
Stage 1	939	836	-	882	795	-	-	-	-	-	-	-
Stage 2	882	791	-	937	836	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	764	695	991	758	698	946	1529	-	-	1476	-	-
Mov Cap-2 Maneuver	764	695	-	758	698	-	-	-	-	-	-	-
Stage 1	934	836	-	878	791	-	-	-	-	-	-	-
Stage 2	878	787	-	933	836	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.6	9.8	0.4	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1529	-	-	991 758	1476	-	-
HCM Lane V/C Ratio	0.004	-	-	0.004 0.007	-	-	-
HCM Control Delay (s)	7.4	0	-	8.6 9.8	0	-	-
HCM Lane LOS	A	A	-	A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0	0	-	-