

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lsc@lscdenver.com



June 23, 2023

Ms. Krysta Houtchens
Entitlement and Engineering Solutions, Inc.
501 S. Cherry Street, Suite 300
Glendale, CO 80246

Re: K&G Store #2293
Traffic Impact Analysis
Parker, CO
LSC #220740

Dear Ms. Houtchens:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated traffic impact analysis for the proposed K&G Store #2293 development to address Town comments. As shown on Figure 1, the site is located south of N. Pinery Parkway and east of Bayou Gulch Road in Parker, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

LAND USE AND ACCESS

The site is proposed to include a C-Store and gas station with 16 fueling positions. Access is proposed to N. Pinery Parkway and Bayou Gulch Road as shown in the conceptual site plan in Figure 2. A right-in-only access proposed on N. Pinery Parkway is the only direct access to the site. A right-in/right-out access on Bayou Gulch Road is proposed south of the site so an off-site connection to it will be needed in the short term. The site also has indirect access east to Alpine Phlox Street which has connectivity north to N. Pinery Parkway and south to Vista Arroyo Street. The nearby planned land uses are residential with some commercial planned adjacent to the site.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

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

- **N. Pinery Parkway** is an east-west, two-lane collector roadway north of the site. The intersection with Bayou Gulch Road is stop-sign controlled but planned to be signalized when warranted.
- **Bayou Gulch Road** is a north-south, two-lane arterial roadway west of the site. The intersection with N. Pinery Parkway is stop-sign controlled but planned to be signalized when warranted. It is planned to be four lanes by 2043.

Existing Traffic Conditions

Figure 3 shows the existing lane geometries, traffic controls, posted speed limits, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in August, 2022.

2024 and 2043 Background Traffic

Figure 4 shows the estimated 2024 background traffic, lane geometry, and traffic control and Figure 5 shows the estimated 2043 background traffic, lane geometry, and traffic control. The 2024 estimates are based on considerable growth based on ongoing home construction in the area. The 2043 estimates are based on the buildout traffic volumes in Figure 10a from the 2018 *Trails at Crowfoot TIA* by LSC less site-generated traffic.

Existing, 2024, and 2043 Background 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 is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in Figures 3 through 5 were analyzed as appropriate to determine the existing, 2024, and 2043 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **N. Pinery Parkway/Bayou Gulch Road:** All movements at this unsignalized intersection currently operate at LOS "A" during both morning and afternoon peak-hours and are expected to operate at LOS "B" or better through 2024. By 2043, this intersection is expected to be signalized and operate at an overall LOS "C" during both peak-hours.
2. **N. Pinery Parkway/Site Access:** All movements at this unsignalized intersection are expected to operate at LOS "A" during both morning and afternoon peak-hours through 2043 because none of the movements are required to yield to others. The existing eastbound right-turn lane on N. Pinery Parkway between Bayou Gulch Road and Alpine Phlox Street

will accommodate this proposed access because the access has no outbound movement so no conflicts are expected.

3. **N. Pinery Parkway/Alpine Phlox Street:** All movements at this unsignalized intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2043.
4. **Alpine Phlox Street/Internal Collector:** All movements at this unsignalized intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2043.
5. **Bayou Gulch Road/Internal Collector:** All movements at this unsignalized intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2043.
6. **Bayou Gulch Road/Vista Arroyo Drive:** All movements at this unsignalized intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2043.

TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE) for the proposed land use.

The site is projected to generate about 4,242 one-way vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 128 vehicles would enter and about 128 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 147 vehicles would enter and about 147 vehicles would exit. These totals are expected to be reduced due to pass-by trips as shown in Table 2.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the primary site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site’s proposed land use.

TRIP ASSIGNMENT

Figure 7a shows the estimated primary site-generated traffic volumes based on the directional distribution percentages (from Figure 6) and the primary trip generation estimate (from Table 2).

Figure 7b shows the estimated passby site-generated traffic volumes based on the passby trip generation estimate (from Table 2) and the existing and projected traffic volumes.

2024 AND 2043 TOTAL TRAFFIC

Figure 8 shows the 2024 total traffic which is the sum of the 2024 background traffic volumes (from Figure 4) and the site-generated traffic volumes (from Figures 7a and 7b). Figure 8 also shows the recommended 2024 lane geometry and traffic control.

Figure 9 shows the 2043 total traffic which is the sum of the 2043 background traffic volumes (from Figure 5) and the site-generated traffic volumes (from Figures 7a and 7b). Figure 9 also shows the recommended 2043 lane geometry and traffic control.

PROJECTED LEVELS OF SERVICE

The intersections in Figures 8 and 9 were analyzed to determine the 2024 and 2043 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- 1. N. Pinery Parkway/Bayou Gulch Road:** All movements at this unsignalized intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2024. By 2043, this intersection is expected to be signalized and operate at an overall LOS “C” during both peak-hours.
- 2. N. Pinery Parkway/Site Access:** All movements at this unsignalized intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2043 because none of the movements are required to yield to others. The existing eastbound right-turn lane on N. Pinery Parkway between Bayou Gulch Road and Alpine Phlox Street will accommodate this proposed access because the access has no outbound movement so no conflicts are expected.
- 3. N. Pinery Parkway/Alpine Phlox Street:** All movements at this unsignalized intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2043.
- 4. Alpine Phlox Street/Internal Collector:** All movements at this unsignalized intersection are expected to operate at LOS “A” during both morning and afternoon peak-hours through 2043.
- 5. Bayou Gulch Road/Internal Collector:** All movements at this unsignalized intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2043.
- 6. Bayou Gulch Road/Vista Arroyo Drive:** All movements at this unsignalized intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2043.

QUEUING ANALYSIS

Table 3 shows the 95th percentile queue lengths at the Bayou Gulch Road/N. Pinery Parkway intersection (#1). It also shows the proposed turn lane lengths from the Master TIA.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. The site is projected to generate about 4,242 one-way vehicle-trips on the average week-day, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 128 vehicles would enter and about 128 vehicles would exit the site. During the afternoon peak-hour, about 147 vehicles would enter and about 147 vehicles would exit. These totals are expected to be reduced due to pass-by trips as shown in Table 2.

Projected Levels of Service

2. The future signalized N. Pinery Parkway/Bayou Gulch Road intersection is expected to operate at an overall LOS “C” during both peak-hours through 2043.
3. All movements at the unsignalized intersections analyzed are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2043.

Conclusions

4. The impact of the proposed K&G Store #2293 development can be accommodated by the existing and planned roadway network.

Recommended Improvements

5. The N. Pinery Parkway/Bayou Gulch Road intersection will be signalized by the Master Developer once warrants are met.
6. A northbound right-turn lane is warranted at Intersection #5 (Bayou Gulch Road/Internal Collector) per Town standards because the projected peak-hour turning volume is expected to exceed 50 vph. The Town has asked this lane be based on CDOT standards for 40 mph. The length required for the CDOT NR-B classification would be to provide vehicle storage and a transition taper of 12:1. It is recommended a 12:1 transition taper start just north of the proposed Vista Arroyo Street three-quarter movement intersection to the south with the turn lane being the balance of the roughly 300 feet available for this lane.
7. The roadways surrounding the site will be built out as the area builds out.

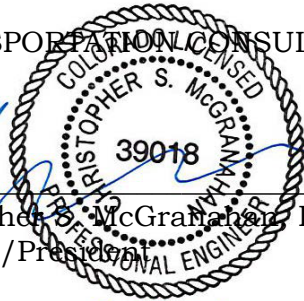
* * * * *

We trust our findings will assist you in gaining approval of the proposed K&G Store #2293 development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By  _____
Christopher S. McGranahan, PE
Principal/President



CSM/wc

6-23-23

- Enclosures:
- Tables 1 - 3
 - Figures 1 - 9
 - TIS Checklist
 - Traffic Count Reports
 - Figure 10a from 2018 *Trails at Crowfoot TIA* by LSC
 - Level of Service Definitions
 - Level of Service Reports

**Table 1
Intersection Levels of Service Analysis
K & G Store #2293
Parker, CO
LSC #220740; June, 2023**

Intersection Location	Traffic Control	Existing Traffic		2024 Background Traffic		2024 Total Traffic		2043 Background Traffic		2043 Total Traffic	
		Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1) <u>N. Pinery Parkway/Bayou Gulch Road</u>		TWSC									
NB Left		A	A	B	B	B	B	--	--	--	--
NB Through/Right		A	A	B	B	B	B	--	--	--	--
EB Left		A	A	A	A	A	A	--	--	--	--
WB Left		A	A	A	A	A	A	--	--	--	--
SB Left		A	A	B	B	B	B	--	--	--	--
SB Through/Right		A	A	B	B	B	B	--	--	--	--
Critical Movement Delay		9.3	9.4	11.9	11.5	13.0	11.2	--	--	--	--
		Signalized									
EB Left		--	--	--	--	--	--	D	D	D	D
EB Through		--	--	--	--	--	--	D	D	D	D
EB Right		--	--	--	--	--	--	A	A	A	A
WB Left		--	--	--	--	--	--	C	D	C	D
WB Through		--	--	--	--	--	--	D	E	D	D
WB Right		--	--	--	--	--	--	C	B	C	B
NB Left		--	--	--	--	--	--	B	A	B	A
NB Through		--	--	--	--	--	--	C	D	C	D
NB Right		--	--	--	--	--	--	A	A	A	A
SB Left		--	--	--	--	--	--	D	D	D	D
SB Through		--	--	--	--	--	--	B	B	B	B
SB Right		--	--	--	--	--	--	A	A	A	A
Entire Intersection Delay (sec /veh)		--	--	--	--	--	--	27.6	28.8	27.9	30.9
Entire Intersection LOS		--	--	--	--	--	--	C	C	C	C
2) <u>N. Pinery Parkway/Site Access</u>		Right-In-Only									
3) <u>N. Pinery Parkway/Alpine Phlox Street</u>		TWSC									
NB Right		--	--	A	A	A	A	B	B	B	B
WB Left		--	--	A	A	A	A	A	A	A	A
SB Right		--	--	A	A	A	A	B	B	B	B
Critical Movement Delay		--	--	8.9	8.8	9.0	8.8	11.6	11.2	11.5	11.6
4) <u>Alpine Phlox Street/Internal Collector</u>		TWSC									
NB Left/Through		--	--	--	--	A	A	A	A	A	A
EB Approach		--	--	--	--	A	A	A	A	A	A
Critical Movement Delay		--	--	--	--	9.0	9.3	8.8	9.1	9.3	9.6
5) <u>Bayou Gulch Road/Internal Collector</u>		TWSC									
WB Right		--	--	--	--	A	A	B	B	C	C
Critical Movement Delay		--	--	--	--	8.9	8.9	14.0	14.6	15.9	17.2
6) <u>Bayou Gulch Road/Vista Arroyo Street</u>		TWSC									
WB Right		--	--	A	A	A	A	B	C	B	C
SB Left		--	--	A	A	A	A	C	C	C	C
Critical Movement Delay		--	--	8.7	8.6	8.8	8.6	19.6	16.5	20.0	16.8

Table 2
ESTIMATED TRAFFIC GENERATION
K&G Store #2293
Parker, CO
LSC #220740; June, 2023

Trip Generating Category	Quantity	Trip Generation Rates ⁽¹⁾				Total Trips Generated					
		Average Weekday	AM Peak-Hour In	PM Peak-Hour Out	PM Peak-Hour In	Average Weekday	AM Peak-Hour In	PM Peak-Hour Out	PM Peak-Hour In	PM Peak-Hour Out	
Currently Proposed Land Use											
Gas Station ⁽²⁾	16 VFP ⁽³⁾	265.12	8.030	8.030	9.210	9.210	4,242	128	128	147	147
							2,503	79	79	82	82
							1,739	49	49	65	65
Future Adjacent Land Use											
Retail ⁽⁵⁾	30 KSF ⁽⁶⁾	54.45	1.416	0.944	3.295	3.295	1,634	42	28	99	99

Notes:

- (1) Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition, 2021.
- (2) ITE Land Use No. 945 - Convenience Store/Gas Station - VFP (16-24)
- (3) VFP = Vehicle Fueling Positions
- (4) Passby trips are assumed to be 59% for daily trips, 62% for morning peak-hour trips, and 56% for afternoon peak-hour trips for the gas station and 34% for the retail land use based on the *Trip Generation Handbook*, 3rd Edition.
- (5) ITE Land Use No. 822 - Strip Retail Plaza (<40k)
- (6) KSF = 1,000 square feet

Table 3
95th Percentile Queue Lengths
K & G Store #2293
Parker, CO
LSC #220740; June, 2023

Intersection No. & Location	Master TIA Recommended Turn Lane Lengths (feet)	95th Percentile Queue Length	
		2043 Total	
		AM Peak (feet)	PM Peak (feet)
1) <u>N. Pinery Parkway/Bayou Gulch Road</u>			
EB Left	350	126	179
EB Through	--	89	126
EB Right	190	0	0
WB Left	240	24	67
WB Through	--	87	114
WB Right	Continuous	193	66
NB Left	250	28	20
NB Through	--	637	652
NB Right	Continuous	0	0
SB Left	2 @ 250	203	267
SB Through	--	342	214
SB Right	Continuous	9	32

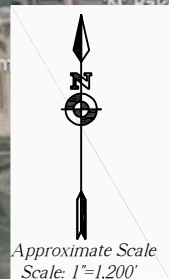
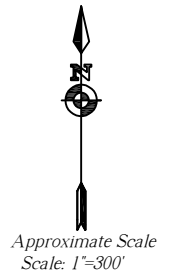
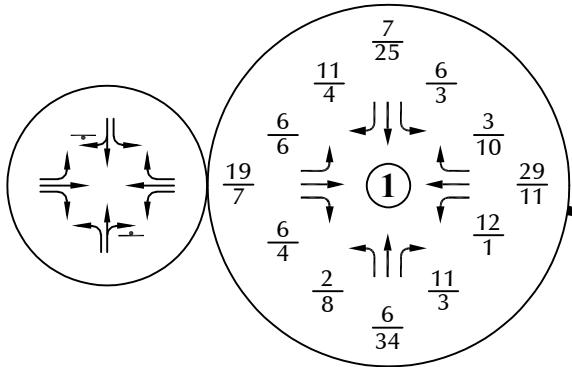


Figure 1
Vicinity Map

K&G Store #2293 (LSC #220740)



LEGEND:



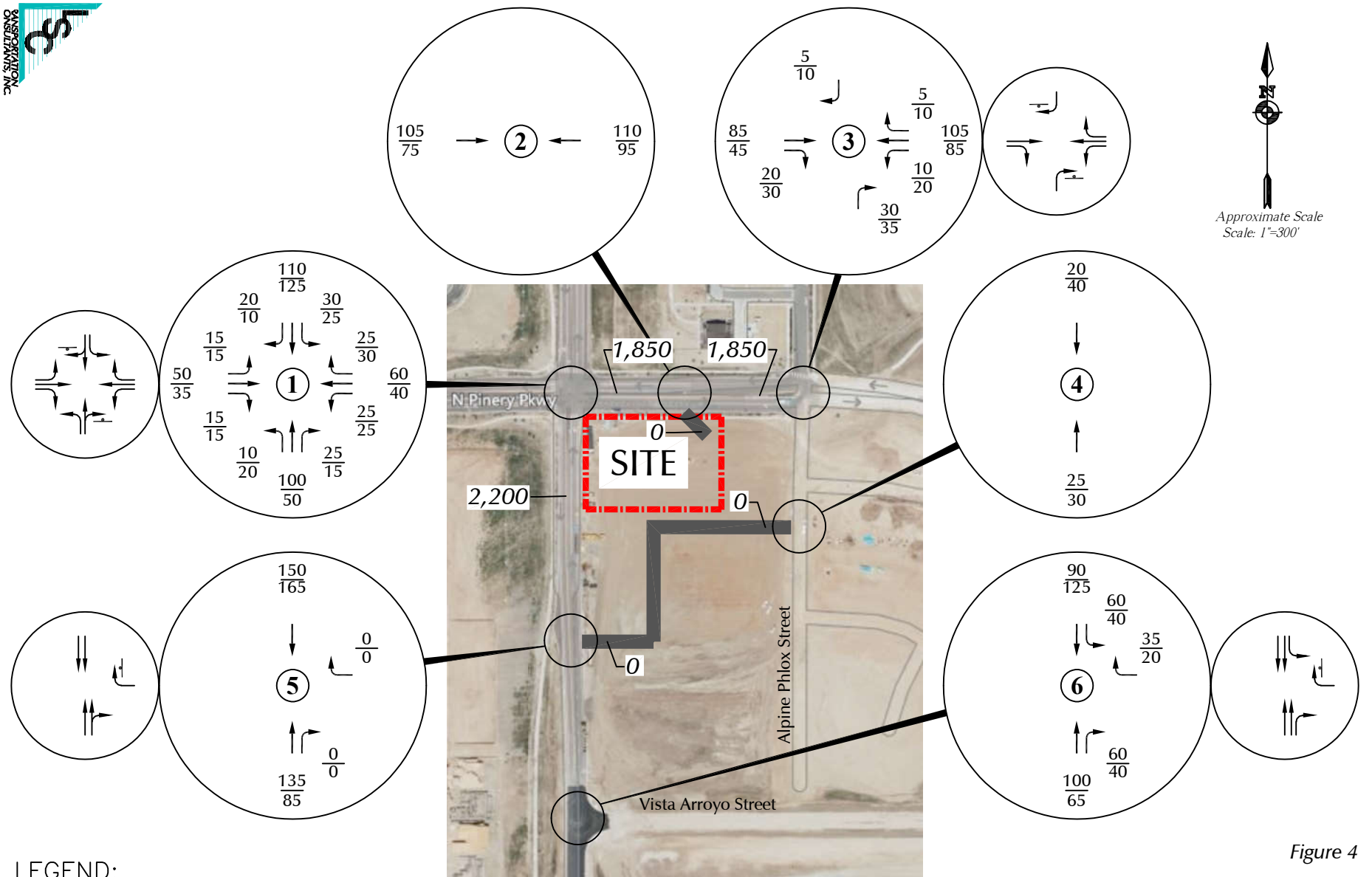
-  = Stop Sign
-  = Expected Speed Limit at Buildout
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

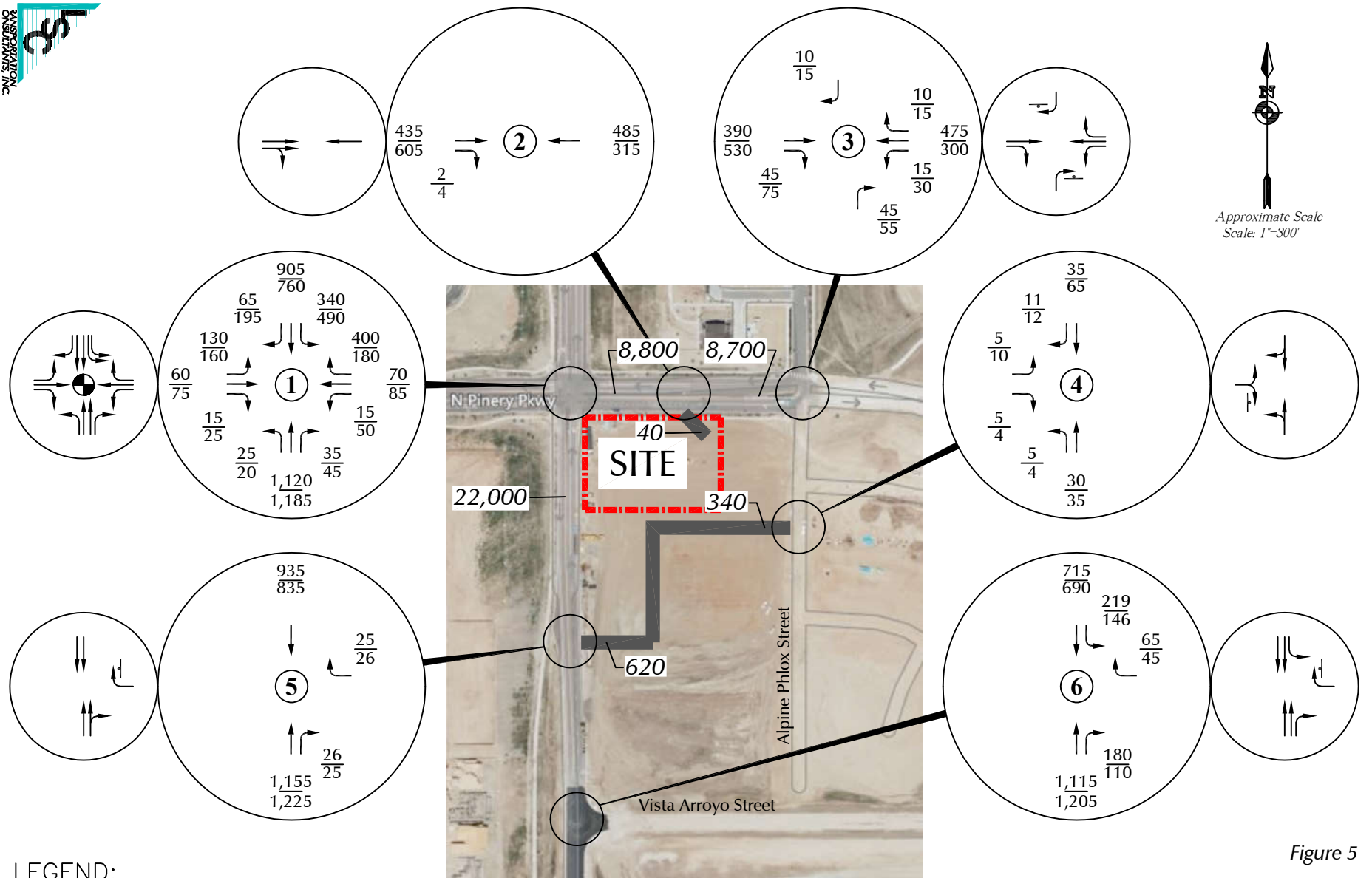
Figure 3
**Existing Traffic, Lane
 Geometry and Traffic Control**



LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

Figure 4
**Year 2024 Background Traffic,
Lane Geometry and Traffic Control**



LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

Figure 5
**Year 2043 Background Traffic,
 Lane Geometry and Traffic Control**



Approximate Scale
Scale: 1"=300'

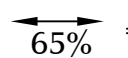
LEGEND:
 = Percent Directional Distribution

Figure 6a
Directional Distribution of Primary Site-Generated Traffic
 K&G Store #2293 (LSC #220740)



Approximate Scale
Scale: 1"=300'

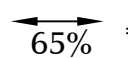
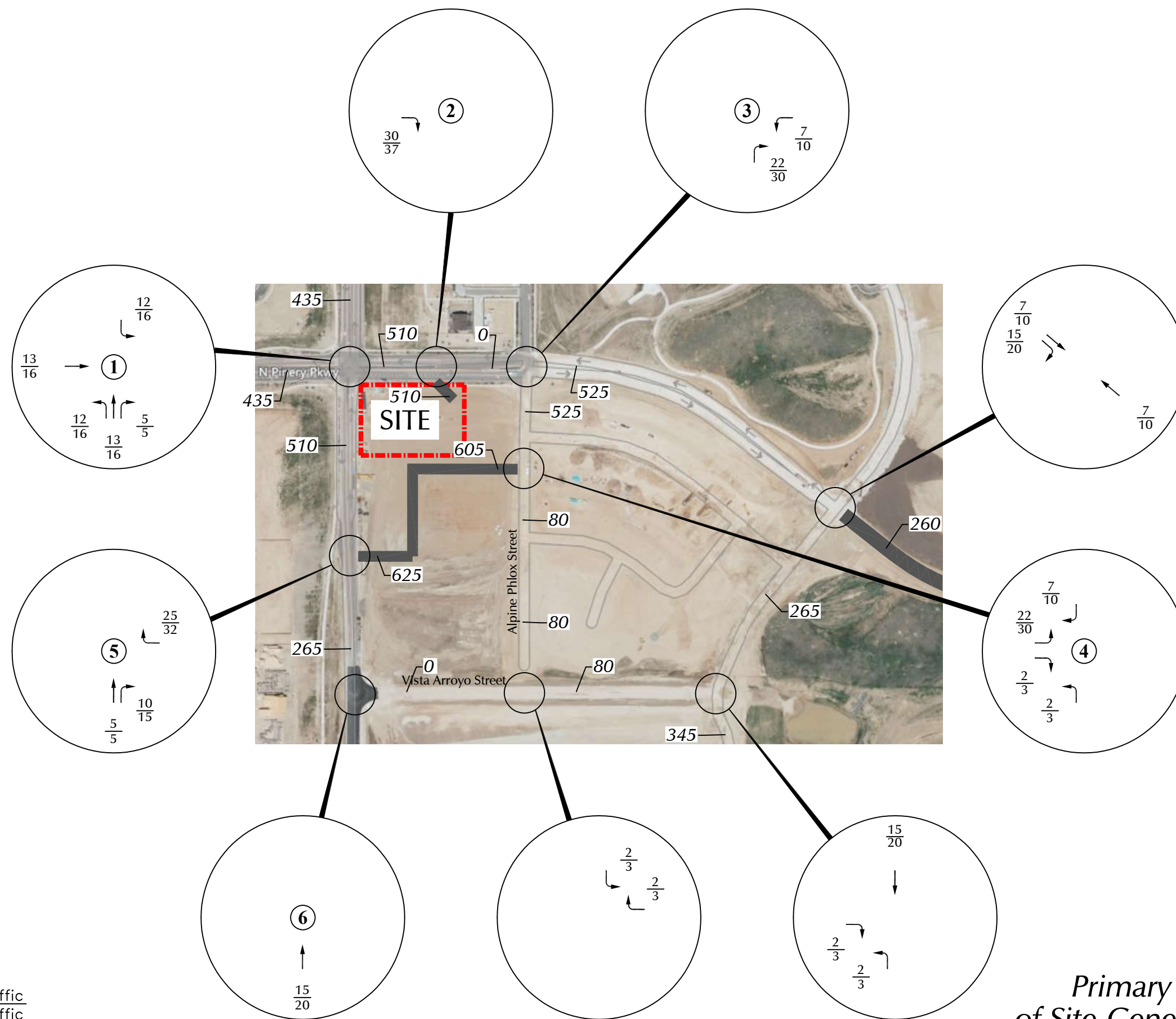
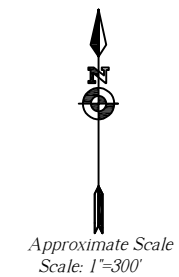
LEGEND:
 = Percent Directional Distribution

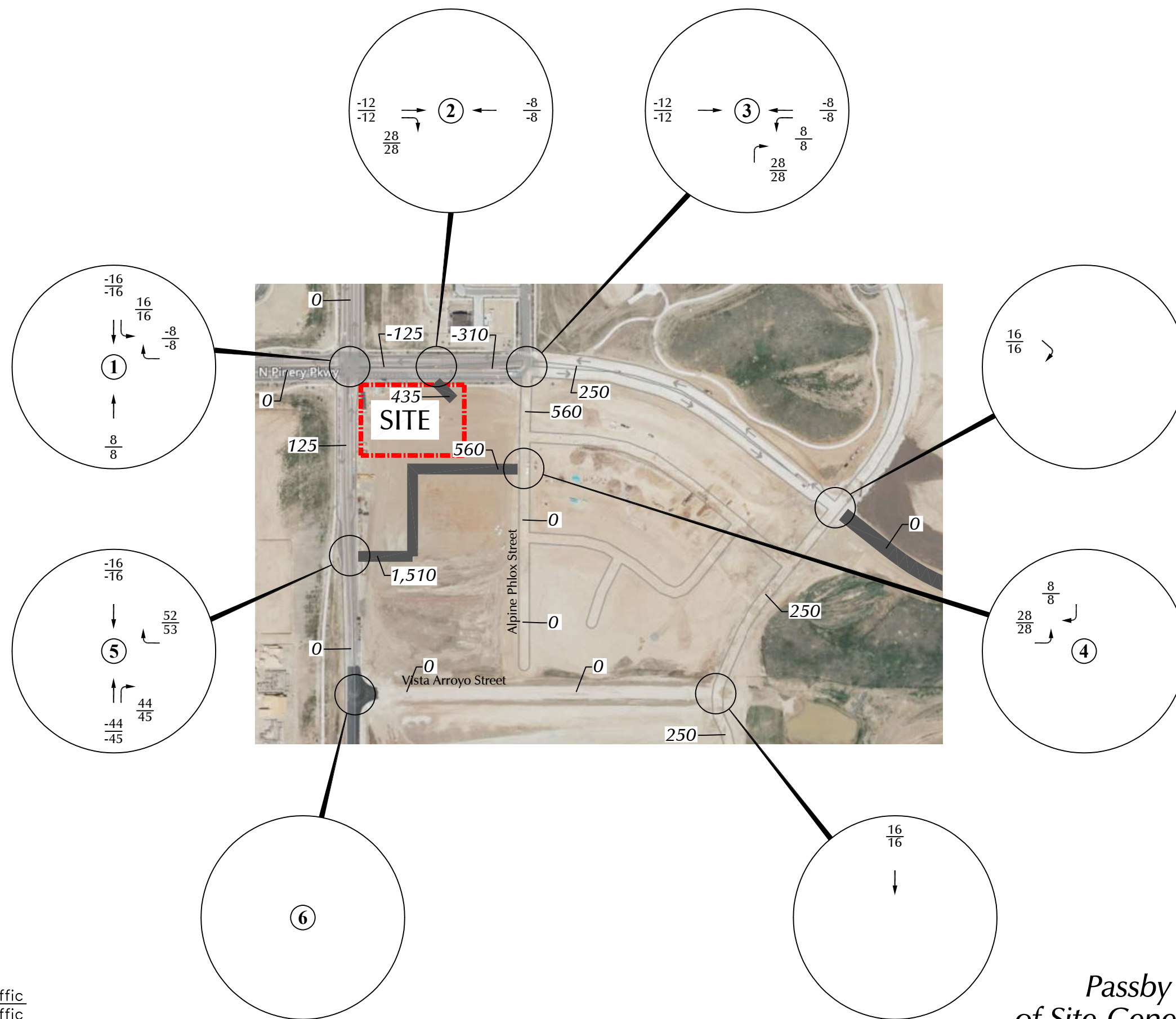
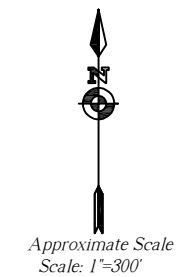
Figure 6b
Directional Distribution of Passby Site-Generated Traffic
 K&G Store #2293 (LSC #220740)



LEGEND:
 $\frac{26}{35}$ = AM Peak Hour Traffic
 $\frac{35}{35}$ = PM Peak Hour Traffic
 1,000 = Average Daily Traffic

Figure 7a
**Primary Assignment
 of Site-Generated Traffic**
 K&G Store #2293 (LSC #220740)

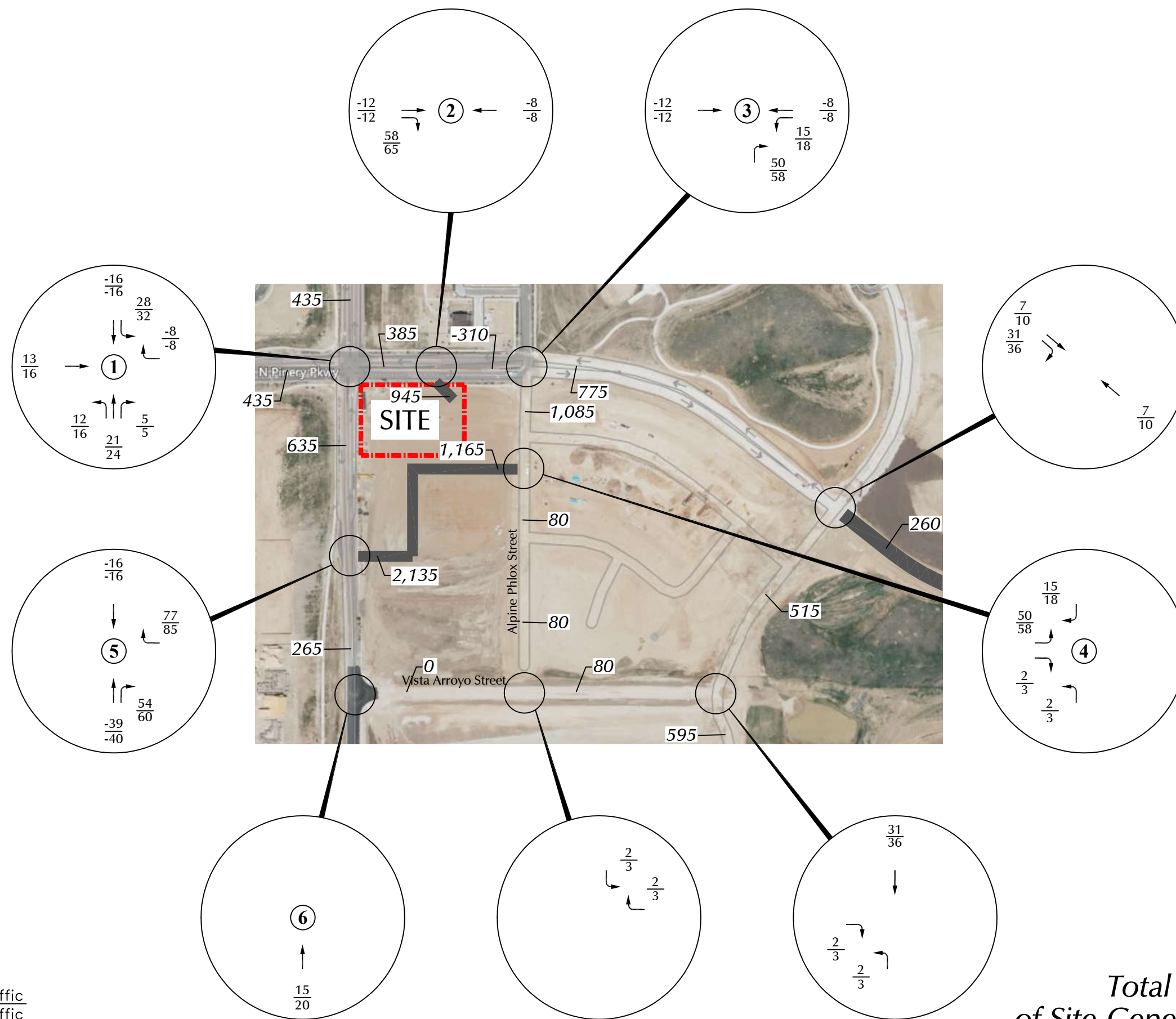
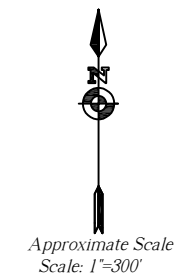




LEGEND:
 $\frac{26}{35}$ = AM Peak Hour Traffic
 $\frac{35}{26}$ = PM Peak Hour Traffic
 1,000 = Average Daily Traffic

Figure 7b
**Passby Assignment
 of Site-Generated Traffic**
 K&G Store #2293 (LSC #220740)

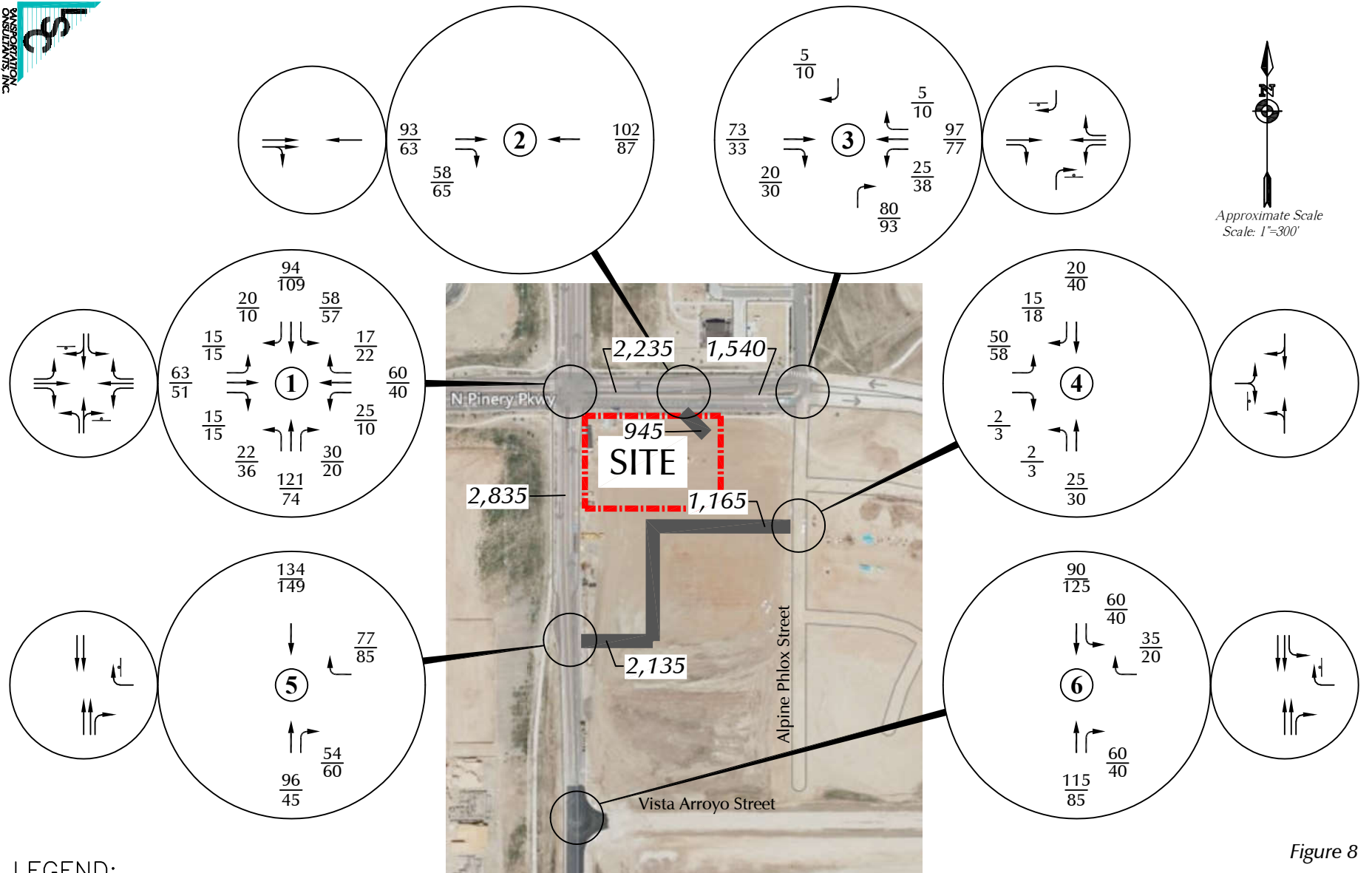




LEGEND:
 $\frac{26}{35}$ = AM Peak Hour Traffic
 $\frac{35}{35}$ = PM Peak Hour Traffic
 1,000 = Average Daily Traffic



Figure 7c
**Total Assignment
 of Site-Generated Traffic**
 K&G Store #2293 (LSC #220740)



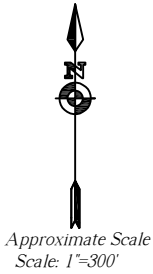
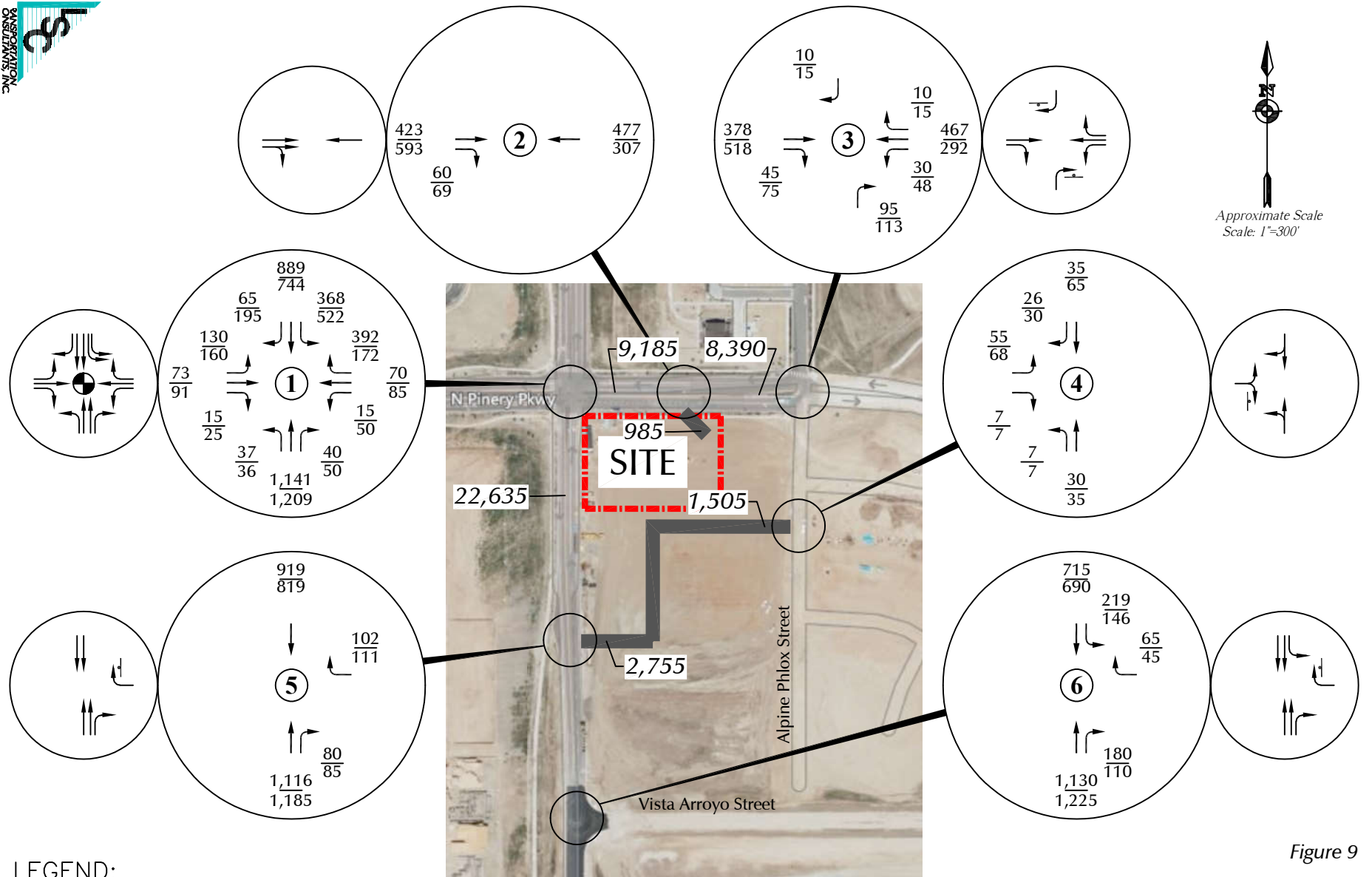
Approximate Scale
Scale: 1"=300'

LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

Note: These volumes are the sum of the volumes in Figures 4 and 7c.

Figure 8
**Year 2024 Total Traffic,
Lane Geometry and Traffic Control**



LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

Note: These volumes are the sum of the volumes in Figures 5 and 7c.

Figure 9
Year 2043 Total Traffic, Lane Geometry and Traffic Control



TIS Standard Checklist

Development: K&G #2293

Filing: _____

Consultant: LSC Transportation Consultants, Inc.

Date: 02/24/23

Submittal Number: _____

Reviewed By: _____

Required Discussions - To be completed by the Transportation Consultant Engineer:

REPORT SECTION	COMPLETED	N/A	COMMENTS
GENERAL	<input type="checkbox"/>	<input type="checkbox"/>	
Original & Revision Dates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Dated, Checked, Sealed & Signed by P.E.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
INTRODUCTION	<input type="checkbox"/>	<input type="checkbox"/>	
Vicinity Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Proposed Project Site Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Proposed Development Phasing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No Phasing
Existing & Proposed Land Uses Surrounding Site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EXISTING CONDITIONS	<input type="checkbox"/>	<input type="checkbox"/>	
Roadway Counts < One Year Old	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intersection Counts < Six Months Old	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Existing LOS Summary (Table)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PROPOSED CONDITIONS	<input type="checkbox"/>	<input type="checkbox"/>	
Trip Generation Summary (Table)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Internal Trip Reduction Justification (< 10%)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None Assumed
Pass-by Trip Reduction Justification (< 15%)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Trip Distribution Assumptions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Site Trip Distribution (Figure)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Projected Site Traffic Volumes (Figure) - Each Phase	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

REPORT SECTION	COMPLETED	N/A	COMMENTS
FUTURE CONDITIONS	<input type="checkbox"/>	<input type="checkbox"/>	
Background Transportation Improvements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Background Growth Method & Assumptions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Background Traffic Volumes (Figure) - Each Phase	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Total Traffic Volumes (Figure) - Each Phase	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SITE CIRCULATION & DESIGN EVALUATION	<input type="checkbox"/>	<input type="checkbox"/>	
Level of Service Analysis - Each Phase (Figures/Table)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Queuing Analysis - Vehicle Storage Lengths	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Traffic Signal Warrant Analysis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Done with Master TIA
Traffic Signal Progression	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Required
Safety Analysis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PROPOSED MITIGATION MEASURES	<input type="checkbox"/>	<input type="checkbox"/>	
Level of Service for Each Intersection Movement (Table)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CONCLUSIONS/RECOMMENDATIONS	<input type="checkbox"/>	<input type="checkbox"/>	
Improvements/Lane Configurations (Figure)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Figures 8 and 9
Recommended Construction Phasing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
APPENDIX	<input type="checkbox"/>	<input type="checkbox"/>	
Traffic Count Data	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Traffic Analysis Software Output Reports (All Periods)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Time-space Diagrams	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Required

"I have reviewed the attached report with this checklist and all required items have been included except as noted above."



 Signature of Professional Engineer

COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: BAYOU GULCH RD
E/W STREET: N. PINERY PKWY
CITY: PARKER
COUNTY: DOUGLAS

File Name : BAYOPINERY
Site Code : 0000011
Start Date : 8/10/2022
Page No : 1

Groups Printed- VEHICLES

Start Time	BAYOU GULCH RD Southbound				N. PINERY PKWY Westbound				BAYOU GULCH RD Northbound				N. PINERY PKWY Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	0	1	0	2	5	4	0	0	0	0	1	0	4	1	0	18
06:45 AM	1	3	4	0	5	11	1	0	0	0	0	0	1	3	1	0	30
Total	1	3	5	0	7	16	5	0	0	0	0	1	1	7	2	0	48
07:00 AM	1	1	3	0	2	11	2	0	1	2	1	1	1	9	1	0	36
07:15 AM	1	2	3	0	4	4	1	0	0	2	2	0	0	4	2	0	25
07:30 AM	2	2	2	0	3	7	0	1	1	0	1	0	4	0	0	0	23
07:45 AM	2	2	3	0	3	7	0	1	0	2	7	1	1	6	3	0	38
Total	6	7	11	0	12	29	3	2	2	6	11	2	6	19	6	0	122
08:00 AM	0	2	0	0	1	6	2	0	1	3	1	1	0	7	0	0	24
08:15 AM	0	4	3	0	3	7	2	0	0	1	3	0	2	3	1	0	29
Total	0	6	3	0	4	13	4	0	1	4	4	1	2	10	1	0	53
04:00 PM	1	6	0	0	0	3	2	0	1	4	0	0	1	3	2	0	23
04:15 PM	1	4	1	0	0	1	3	0	3	9	1	1	3	0	2	0	29
04:30 PM	1	8	3	0	1	6	5	0	0	9	0	0	0	2	1	2	38
04:45 PM	0	5	0	0	0	2	1	1	2	7	2	0	2	1	1	0	24
Total	3	23	4	0	1	12	11	1	6	29	3	1	6	6	6	2	114
05:00 PM	1	8	0	0	0	2	1	0	3	9	0	0	1	4	0	0	29
05:15 PM	0	7	2	0	1	0	3	2	1	9	0	0	0	0	3	0	28
05:30 PM	0	14	1	0	0	2	1	0	1	8	1	0	1	1	2	0	32
05:45 PM	1	1	0	0	0	3	1	1	0	3	1	0	2	1	0	0	14
Total	2	30	3	0	1	7	6	3	5	29	2	0	4	6	5	0	103
Grand Total	12	69	26	0	25	77	29	6	14	68	20	5	19	48	20	2	440
Apprch %	11.2	64.5	24.3	0.0	18.2	56.2	21.2	4.4	13.1	63.6	18.7	4.7	21.3	53.9	22.5	2.2	
Total %	2.7	15.7	5.9	0.0	5.7	17.5	6.6	1.4	3.2	15.5	4.5	1.1	4.3	10.9	4.5	0.5	

COUNTER MEASURES INC.

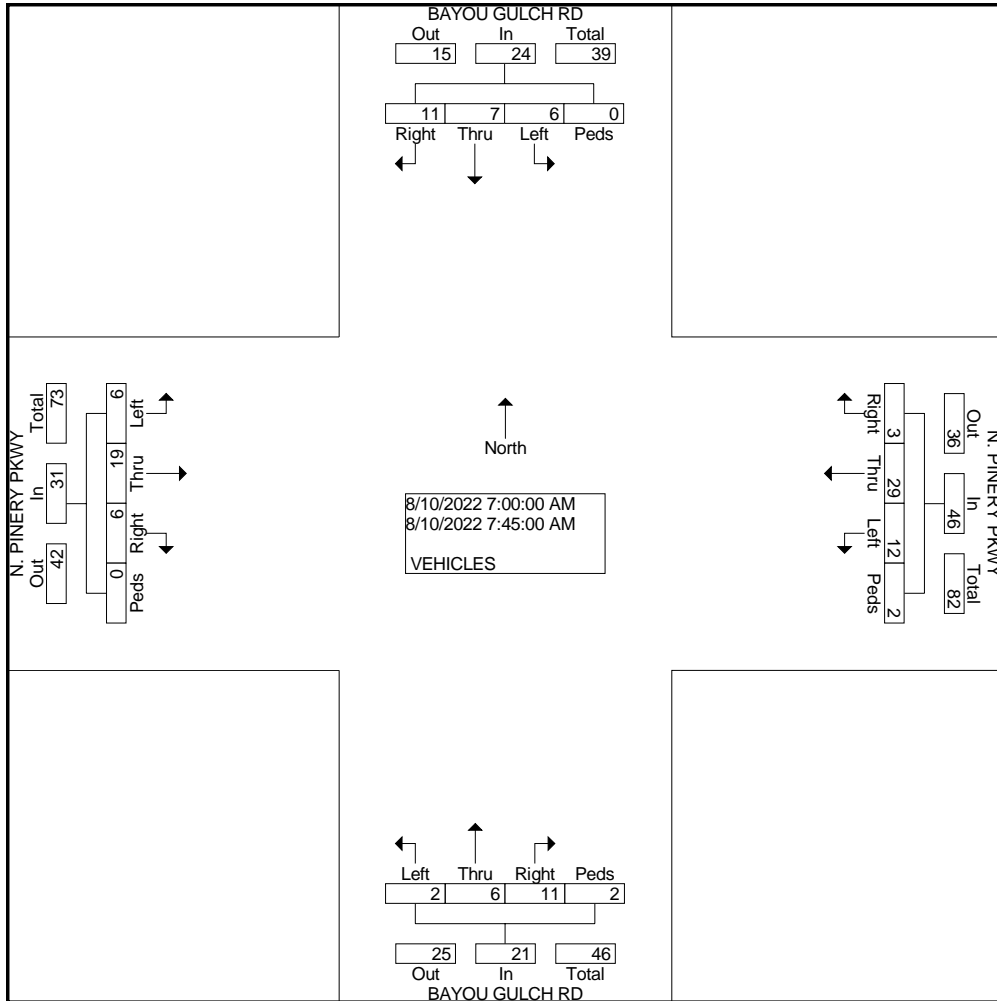
1889 YORK STREET
DENVER, COLORADO
303-333-7409

N/S STREET: BAYOU GULCH RD
E/W STREET: N. PINERY PKWY
CITY: PARKER
COUNTY: DOUGLAS

File Name : BAYOPINERY
Site Code : 0000011
Start Date : 8/10/2022
Page No : 2

Start Time	BAYOU GULCH RD Southbound					N. PINERY PKWY Westbound					BAYOU GULCH RD Northbound					N. PINERY PKWY Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	6	7	11	0	24	12	29	3	2	46	2	6	11	2	21	6	19	6	0	31	122
Percent	25.0	29.2	45.8	0.0		26.1	63.0	6.5	4.3		9.5	28.6	52.4	9.5		19.4	61.3	19.4	0.0		
07:45 AM	2	2	3	0	7	3	7	0	1	11	0	2	7	1	10	1	6	3	0	10	38
Peak Factor																					0.803
High Int. Volume	2	2	3	0	7	2	11	2	0	15	0	2	7	1	10	1	9	1	0	11	
Peak Factor					0.85					0.76					0.52					0.70	5

Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1



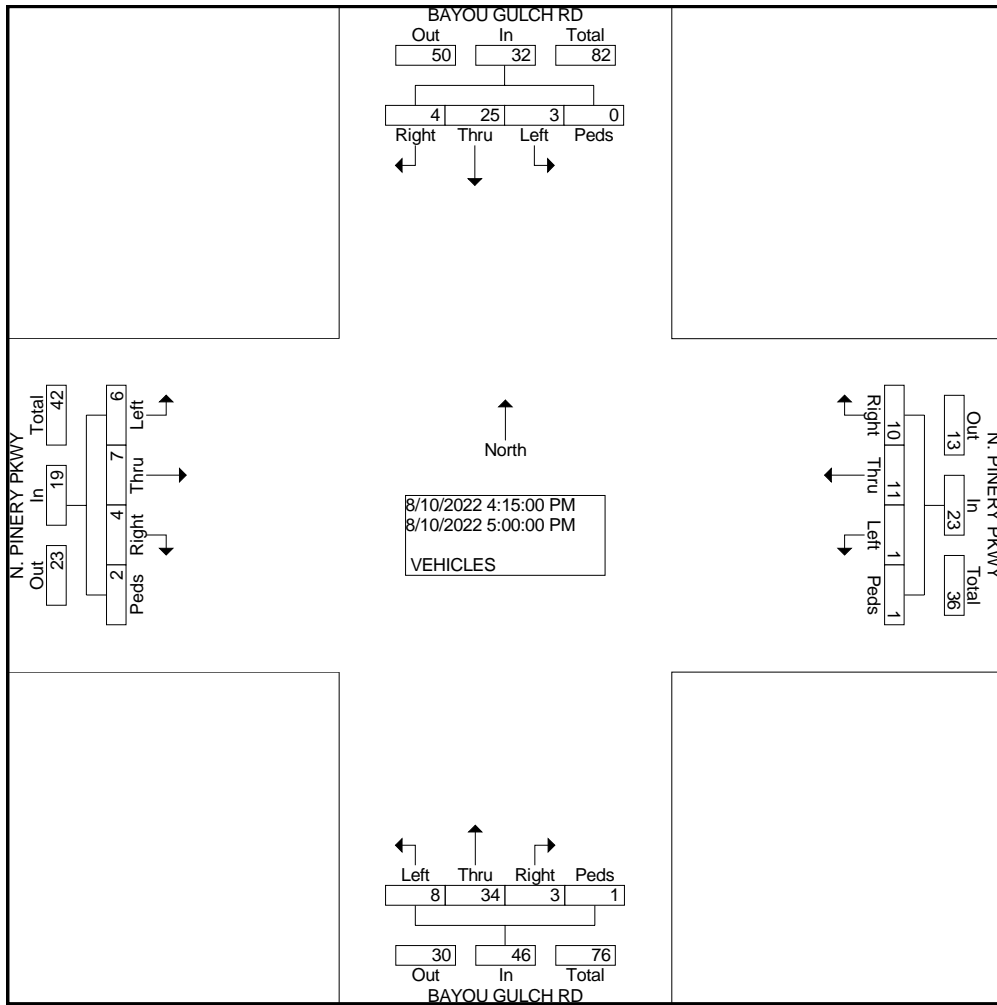
COUNTER MEASURES INC.

1889 YORK STREET
DENVER, COLORADO
303-333-7409

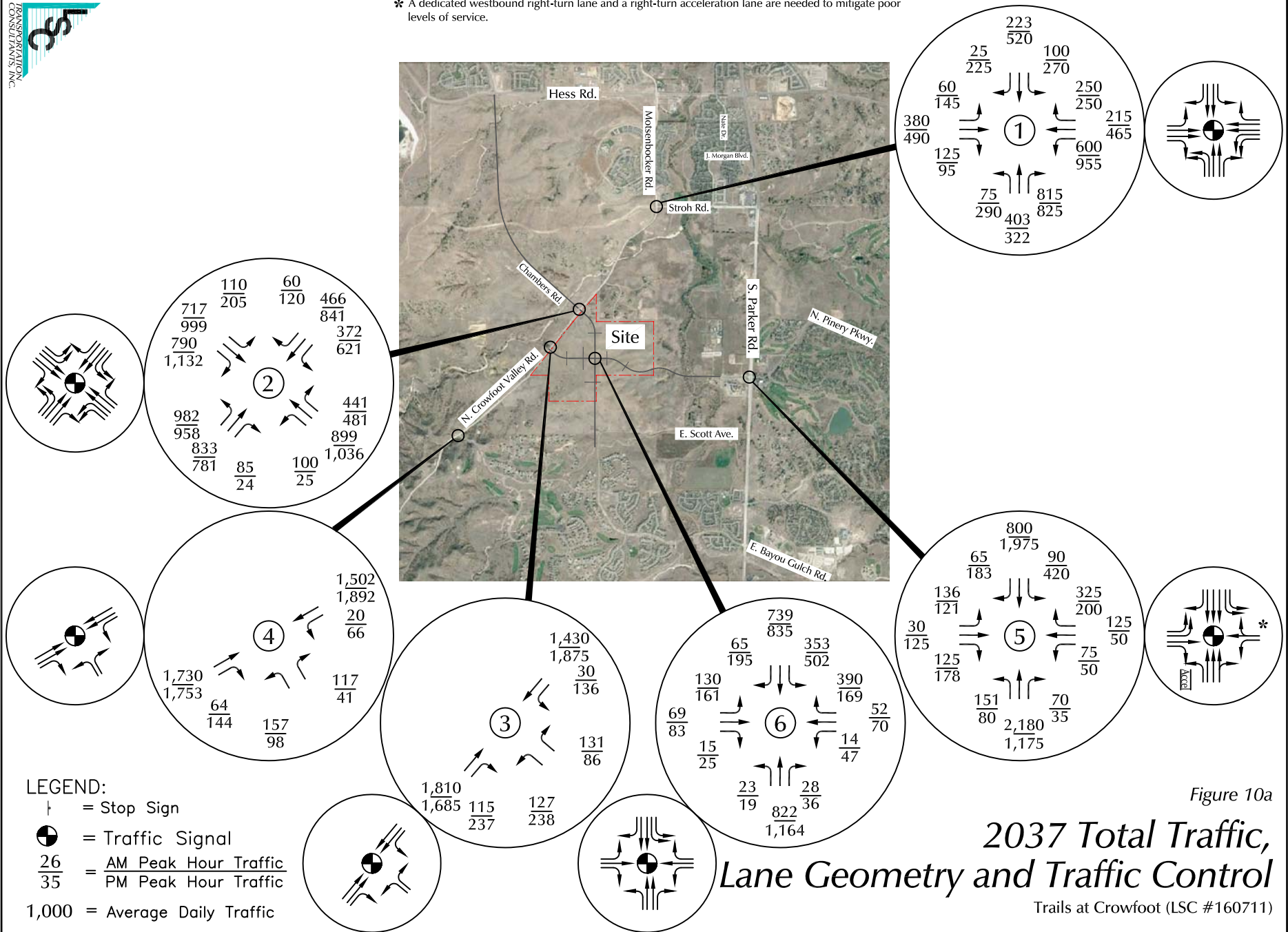
N/S STREET: BAYOU GULCH RD
E/W STREET: N. PINERY PKWY
CITY: PARKER
COUNTY: DOUGLAS

File Name : BAYOPINERY
Site Code : 0000011
Start Date : 8/10/2022
Page No : 3

Start Time	BAYOU GULCH RD Southbound					N. PINERY PKWY Westbound					BAYOU GULCH RD Northbound					N. PINERY PKWY Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersect on	04:15 PM																				
Volume	3	25	4	0	32	1	11	10	1	23	8	34	3	1	46	6	7	4	2	19	120
Percent	9.4	78.1	12.5	0.0		4.3	47.8	43.5	4.3		17.4	73.9	6.5	2.2		31.6	36.8	21.1	10.5		
04:30 Volume	1	8	3	0	12	1	6	5	0	12	0	9	0	0	9	0	2	1	2	5	38
Peak Factor	0.789																				
High Int. Volume	04:30 PM					04:30 PM					04:15 PM					04:15 PM					
Peak Factor	0.667					0.479					0.821					0.950					



* A dedicated westbound right-turn lane and a right-turn acceleration lane are needed to mitigate poor levels of service.



LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2016, 6th Edition

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

<u>LOS</u>	<u>Average Vehicle Delay</u> sec/vehicle	<u>Operational Characteristics</u>
A	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
F	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2016, 6th Edition

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	<u>Operational Characteristics</u>
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. <u>The delay could be up to 15 seconds.</u> Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. <u>Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.</u>
D	25 to 35 seconds	<u>This is the point at which a traffic signal may be warranted for this intersection.</u> The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. <u>There is a high probability that this intersection will meet traffic signal warrants.</u> The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. <u>The only remedy for these long delays is installing a traffic signal or restricting the accesses.</u> The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

HCM 6th TWSC
1: Bayou Gulch Road & N. Pinery Parkway

Existing
AM Peak

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	19	6	12	29	3	2	6	11	6	7	11
Future Vol, veh/h	6	19	6	12	29	3	2	6	11	6	7	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	340	-	190	200	-	200	335	-	-	250	-	-
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	7	21	7	13	32	3	2	7	12	7	8	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	35	0	0	28	0	0	105	96	21	106	100	32
Stage 1	-	-	-	-	-	-	35	35	-	58	58	-
Stage 2	-	-	-	-	-	-	70	61	-	48	42	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1576	-	-	1585	-	-	875	794	1056	873	790	1042
Stage 1	-	-	-	-	-	-	981	866	-	954	847	-
Stage 2	-	-	-	-	-	-	940	844	-	965	860	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1576	-	-	1585	-	-	851	784	1056	849	781	1042
Mov Cap-2 Maneuver	-	-	-	-	-	-	851	784	-	849	781	-
Stage 1	-	-	-	-	-	-	977	863	-	950	840	-
Stage 2	-	-	-	-	-	-	913	837	-	943	857	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	2	8.9	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	851	941	1576	-	-	1585	-	-	849	922
HCM Lane V/C Ratio	0.003	0.02	0.004	-	-	0.008	-	-	0.008	0.021
HCM Control Delay (s)	9.2	8.9	7.3	-	-	7.3	-	-	9.3	9
HCM Lane LOS	A	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.1	0	-	-	0	-	-	0	0.1

HCM 6th TWSC
1: Bayou Gulch Road & N. Pinery Parkway

Existing
PM Peak

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	7	4	1	11	10	8	34	3	3	25	4
Future Vol, veh/h	6	7	4	1	11	10	8	34	3	3	25	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	340	-	190	200	-	200	335	-	-	250	-	-
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	7	8	4	1	12	11	9	37	3	3	27	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	12	0	0	57	47	8	58	40	12
Stage 1	-	-	-	-	-	-	22	22	-	14	14	-
Stage 2	-	-	-	-	-	-	35	25	-	44	26	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1592	-	-	1607	-	-	940	845	1074	939	852	1069
Stage 1	-	-	-	-	-	-	996	877	-	1006	884	-
Stage 2	-	-	-	-	-	-	981	874	-	970	874	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1592	-	-	1607	-	-	910	841	1074	901	848	1069
Mov Cap-2 Maneuver	-	-	-	-	-	-	910	841	-	901	848	-
Stage 1	-	-	-	-	-	-	992	873	-	1002	883	-
Stage 2	-	-	-	-	-	-	946	873	-	922	871	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.6			0.3			9.3			9.3		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	910	856	1592	-	-	1607	-	-	901	873
HCM Lane V/C Ratio	0.01	0.047	0.004	-	-	0.001	-	-	0.004	0.036
HCM Control Delay (s)	9	9.4	7.3	-	-	7.2	-	-	9	9.3
HCM Lane LOS	A	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0	0.1	0	-	-	0	-	-	0	0.1

HCM 6th TWSC
1: Bayou Gulch Road & N. Pinery Parkway

2024 Background
AM Peak

Intersection												
Int Delay, s/veh	7.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↗		↖	↗	
Traffic Vol, veh/h	15	50	15	25	60	25	10	100	25	30	110	20
Future Vol, veh/h	15	50	15	25	60	25	10	100	25	30	110	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	340	-	190	200	-	200	335	-	-	250	-	-
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	16	54	16	27	65	27	11	109	27	33	120	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	70	0	0	290	232	54	281	221	65
Stage 1	-	-	-	-	-	-	86	86	-	119	119	-
Stage 2	-	-	-	-	-	-	204	146	-	162	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1503	-	-	1531	-	-	662	668	1013	671	678	999
Stage 1	-	-	-	-	-	-	922	824	-	885	797	-
Stage 2	-	-	-	-	-	-	798	776	-	840	811	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1503	-	-	1531	-	-	545	649	1013	557	658	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	545	649	-	557	658	-
Stage 1	-	-	-	-	-	-	912	815	-	875	783	-
Stage 2	-	-	-	-	-	-	650	762	-	701	802	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.7			11.4			11.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	545	699	1503	-	-	1531	-	-	557	694
HCM Lane V/C Ratio	0.02	0.194	0.011	-	-	0.018	-	-	0.059	0.204
HCM Control Delay (s)	11.7	11.4	7.4	-	-	7.4	-	-	11.9	11.5
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.7	0	-	-	0.1	-	-	0.2	0.8

HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2024 Background
 AM Peak

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	85	20	10	105	5	0	0	30	0	0	5
Future Vol, veh/h	0	85	20	10	105	5	0	0	30	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	92	22	11	114	5	0	0	33	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	114	0	0	-	-	92	-	-	114
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	1475	-	-	0	0	965	0	0	939
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1475	-	-	-	-	965	-	-	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			8.9			8.9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	965	-	-	1475	-	-	939
HCM Lane V/C Ratio	0.034	-	-	0.007	-	-	0.006
HCM Control Delay (s)	8.9	-	-	7.5	-	-	8.9
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕↕	↗		↕↕
Traffic Vol, veh/h	0	35	100	60	60	90
Future Vol, veh/h	0	35	100	60	60	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	38	109	65	65	98

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	55	0	0	174
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	1000	-	-	1400
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1000	-	-	1400
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	3.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1000	1400
HCM Lane V/C Ratio	-	-	0.038	0.047
HCM Control Delay (s)	-	-	8.7	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th TWSC
1: Bayou Gulch Road & N. Pinery Parkway

2024 Background
PM Peak

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↗		↙	↗	
Traffic Vol, veh/h	15	35	15	25	40	30	20	50	15	25	125	10
Future Vol, veh/h	15	35	15	25	40	30	20	50	15	25	125	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	340	-	190	200	-	200	335	-	-	250	-	-
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	16	38	16	27	43	33	22	54	16	27	136	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	76	0	0	54	0	0	257	200	38	210	183	43
Stage 1	-	-	-	-	-	-	70	70	-	97	97	-
Stage 2	-	-	-	-	-	-	187	130	-	113	86	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1523	-	-	1551	-	-	696	696	1034	747	711	1027
Stage 1	-	-	-	-	-	-	940	837	-	910	815	-
Stage 2	-	-	-	-	-	-	815	789	-	892	824	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1523	-	-	1551	-	-	573	677	1034	676	691	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	677	-	676	691	-
Stage 1	-	-	-	-	-	-	930	828	-	900	801	-
Stage 2	-	-	-	-	-	-	658	776	-	812	815	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			1.9			10.7			11.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	573	736	1523	-	-	1551	-	-	676	708
HCM Lane V/C Ratio	0.038	0.096	0.011	-	-	0.018	-	-	0.04	0.207
HCM Control Delay (s)	11.5	10.4	7.4	-	-	7.4	-	-	10.5	11.4
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.3	0	-	-	0.1	-	-	0.1	0.8

HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2024 Background
 PM Peak

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↘	↑	↗			↗			↗
Traffic Vol, veh/h	0	45	30	20	85	10	0	0	35	0	0	10
Future Vol, veh/h	0	45	30	20	85	10	0	0	35	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	49	33	22	92	11	0	0	38	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	82	0	0	-	-	49	-	-	92
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	1515	-	-	0	0	1020	0	0	965
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1515	-	-	-	-	1020	-	-	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.3			8.7			8.8		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1020	-	-	1515	-	-	965
HCM Lane V/C Ratio	0.037	-	-	0.014	-	-	0.011
HCM Control Delay (s)	8.7	-	-	7.4	-	-	8.8
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	20	65	40	40	125
Future Vol, veh/h	0	20	65	40	40	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	22	71	43	43	136

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	36	0	0	114
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	1029	-	-	1473
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	1029	-	-	1473
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1029	1473
HCM Lane V/C Ratio	-	-	0.021	0.03
HCM Control Delay (s)	-	-	8.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th TWSC
1: Bayou Gulch Road & N. Pinery Parkway

2024 Total
AM Peak

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↗		↖	↗	
Traffic Vol, veh/h	15	63	15	25	60	17	22	121	30	58	94	20
Future Vol, veh/h	15	63	15	25	60	17	22	121	30	58	94	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	340	-	190	200	-	200	335	-	-	250	-	-
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	16	68	16	27	65	18	24	132	33	63	102	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	84	0	0	290	237	68	310	235	65
Stage 1	-	-	-	-	-	-	100	100	-	119	119	-
Stage 2	-	-	-	-	-	-	190	137	-	191	116	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1513	-	-	662	664	995	642	666	999
Stage 1	-	-	-	-	-	-	906	812	-	885	797	-
Stage 2	-	-	-	-	-	-	812	783	-	811	800	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1514	-	-	1513	-	-	557	645	995	513	647	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	557	645	-	513	647	-
Stage 1	-	-	-	-	-	-	896	803	-	875	783	-
Stage 2	-	-	-	-	-	-	678	769	-	649	791	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			1.8			11.8			11.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	557	693	1514	-	-	1513	-	-	513	690
HCM Lane V/C Ratio	0.043	0.237	0.011	-	-	0.018	-	-	0.123	0.18
HCM Control Delay (s)	11.8	11.8	7.4	-	-	7.4	-	-	13	11.4
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.1	0.9	0	-	-	0.1	-	-	0.4	0.7

HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2024 Total
 AM Peak

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↘	↑	↗			↗			↗
Traffic Vol, veh/h	0	73	20	25	97	5	0	0	80	0	0	5
Future Vol, veh/h	0	73	20	25	97	5	0	0	80	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	79	22	27	105	5	0	0	87	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	101	0	0	-	-	79	-	-	105
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	1491	-	-	0	0	981	0	0	949
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1491	-	-	-	-	981	-	-	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	9	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	981	-	-	1491	-	-	949
HCM Lane V/C Ratio	0.089	-	-	0.018	-	-	0.006
HCM Control Delay (s)	9	-	-	7.5	-	-	8.8
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0

HCM 6th TWSC
 4: Alpine Phlox Street & Internal Collector

2024 Total
 AM Peak

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	2	2	25	20	15
Future Vol, veh/h	50	2	2	25	20	15
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	2	2	27	22	16

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	61	30	38	0	0
Stage 1	30	-	-	-	-
Stage 2	31	-	-	-	-
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	945	1044	1572	-	-
Stage 1	993	-	-	-	-
Stage 2	992	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	944	1044	1572	-	-
Mov Cap-2 Maneuver	944	-	-	-	-
Stage 1	992	-	-	-	-
Stage 2	992	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1572	-	947	-	-
HCM Lane V/C Ratio	0.001	-	0.06	-	-
HCM Control Delay (s)	7.3	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
5: Bayou Gulch Road & Internal Collector

2024 Total
AM Peak

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	77	96	54	0	134
Future Vol, veh/h	0	77	96	54	0	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	84	104	59	0	146

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	52	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1005	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1005	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 1005	-
HCM Lane V/C Ratio	-	- 0.083	-
HCM Control Delay (s)	-	- 8.9	-
HCM Lane LOS	-	- A	-
HCM 95th %tile Q(veh)	-	- 0.3	-

HCM 6th TWSC
6: Bayou Gulch Road & Vista Arroyo Street

2024 Total
AM Peak

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	35	115	60	60	90
Future Vol, veh/h	0	35	115	60	60	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	38	125	65	65	98

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	63	0	0	190
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22
Pot Cap-1 Maneuver	0	988	-	-	1381
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	-	988	-	-	1381
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	3.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	988	1381
HCM Lane V/C Ratio	-	-	0.039	0.047
HCM Control Delay (s)	-	-	8.8	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th TWSC
1: Bayou Gulch Road & N. Pinery Parkway

2024 Total
PM Peak

Intersection												
Int Delay, s/veh	7.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↗		↙	↗	
Traffic Vol, veh/h	15	51	15	10	40	22	36	74	20	57	109	10
Future Vol, veh/h	15	51	15	10	40	22	36	74	20	57	109	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	340	-	190	200	-	200	335	-	-	250	-	-
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	16	55	16	11	43	24	39	80	22	62	118	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	67	0	0	71	0	0	229	176	55	211	168	43
Stage 1	-	-	-	-	-	-	87	87	-	65	65	-
Stage 2	-	-	-	-	-	-	142	89	-	146	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1535	-	-	1529	-	-	726	717	1012	746	725	1027
Stage 1	-	-	-	-	-	-	921	823	-	946	841	-
Stage 2	-	-	-	-	-	-	861	821	-	857	810	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1535	-	-	1529	-	-	619	705	1012	657	713	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	619	705	-	657	713	-
Stage 1	-	-	-	-	-	-	912	815	-	937	835	-
Stage 2	-	-	-	-	-	-	726	815	-	748	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	1	10.7	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	619	754	1535	-	-	1529	-	-	657	732
HCM Lane V/C Ratio	0.063	0.136	0.011	-	-	0.007	-	-	0.094	0.177
HCM Control Delay (s)	11.2	10.5	7.4	-	-	7.4	-	-	11	11
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	0.2	0.5	0	-	-	0	-	-	0.3	0.6

HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2024 Total
 PM Peak

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↘	↑	↗			↗			↗
Traffic Vol, veh/h	0	33	30	38	77	10	0	0	93	0	0	10
Future Vol, veh/h	0	33	30	38	77	10	0	0	93	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	36	33	41	84	11	0	0	101	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	69	0	0	-	-	36	-	-	84
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	1532	-	-	0	0	1037	0	0	975
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1532	-	-	-	-	1037	-	-	975
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.3			8.8			8.7		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1037	-	-	1532	-	-	975
HCM Lane V/C Ratio	0.097	-	-	0.027	-	-	0.011
HCM Control Delay (s)	8.8	-	-	7.4	-	-	8.7
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0

HCM 6th TWSC
4: Alpine Phlox Street & Internal Collector

2024 Total
PM Peak

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	3	3	30	40	18
Future Vol, veh/h	58	3	3	30	40	18
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	3	3	33	43	20

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	92	53	63	0	0
Stage 1	53	-	-	-	-
Stage 2	39	-	-	-	-
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	908	1014	1540	-	-
Stage 1	970	-	-	-	-
Stage 2	983	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	906	1014	1540	-	-
Mov Cap-2 Maneuver	906	-	-	-	-
Stage 1	968	-	-	-	-
Stage 2	983	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	911	-	-
HCM Lane V/C Ratio	0.002	-	0.073	-	-
HCM Control Delay (s)	7.3	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
5: Bayou Gulch Road & Internal Collector

2024 Total
PM Peak

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	77	96	54	0	134
Future Vol, veh/h	0	77	96	54	0	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	84	104	59	0	146

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	52	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	1005	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1005	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	1005
HCM Lane V/C Ratio	-	-	0.083
HCM Control Delay (s)	-	-	8.9
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.3

HCM 6th TWSC
6: Bayou Gulch Road & Vista Arroyo Street

2024 Total
PM Peak

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	20	85	40	40	125
Future Vol, veh/h	0	20	85	40	40	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	22	92	43	43	136

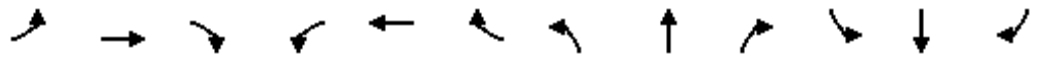
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	46	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	1014	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	1014	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1014	1447
HCM Lane V/C Ratio	-	-	0.021	0.03
HCM Control Delay (s)	-	-	8.6	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Lanes, Volumes, Timings
1: Bayou Gulch Road & N. Pinery Parkway

2043 Background
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	60	15	15	70	400	25	1120	35	340	905	65
Future Volume (vph)	130	60	15	15	70	400	25	1120	35	340	905	65
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	340		190	200		200	335		200	250		200
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.587			0.715			0.277			0.950		
Satd. Flow (perm)	1093	1863	1583	1332	1863	1583	516	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			312			155			109
Link Speed (mph)		35			35			40				40
Link Distance (ft)		350			248			559				456
Travel Time (s)		6.8			4.8			9.5				7.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	141	65	16	16	76	435	27	1217	38	370	984	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	65	16	16	76	435	27	1217	38	370	984	71
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			6

HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2043 Background
 AM Peak

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	390	45	15	475	10	0	0	45	0	0	10
Future Vol, veh/h	0	390	45	15	475	10	0	0	45	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	424	49	16	516	11	0	0	49	0	0	11

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	473	0	0	-	-	424	-	-	516
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	1102	-	-	0	0	*770	0	0	559
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	-	-	-	1102	-	-	-	-	*770	-	-	559
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	10	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	770	-	-	1102	-	-	559
HCM Lane V/C Ratio	0.064	-	-	0.015	-	-	0.019
HCM Control Delay (s)	10	-	-	8.3	-	-	11.6
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	0	-	-	0.1

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

HCM 6th TWSC
4: Alpine Phlox Street & Internal Collector

2043 Background
AM Peak

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	5	5	5	30	35	11
Future Vol, veh/h	5	5	5	30	35	11
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	5	33	38	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	87	44	50	0	-	0
Stage 1	44	-	-	-	-	-
Stage 2	43	-	-	-	-	-
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	914	1026	1557	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	911	1026	1557	-	-	-
Mov Cap-2 Maneuver	911	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1557	-	965	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	25	1155	26	0	935
Future Vol, veh/h	0	25	1155	26	0	935
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	27	1255	28	0	1016

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	628	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	426	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	426	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	426
HCM Lane V/C Ratio	-	-	0.064
HCM Control Delay (s)	-	-	14
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗	↖	↕
Traffic Vol, veh/h	0	65	1115	180	219	715
Future Vol, veh/h	0	65	1115	180	219	715
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	1212	196	238	777

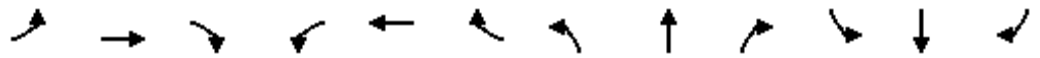
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	606	0 0 1408 0
Stage 1	-	-	- - - -
Stage 2	-	-	- - - -
Critical Hdwy	-	6.94	- - 4.14 -
Critical Hdwy Stg 1	-	-	- - - -
Critical Hdwy Stg 2	-	-	- - - -
Follow-up Hdwy	-	3.32	- - 2.22 -
Pot Cap-1 Maneuver	0	440	- - 481 -
Stage 1	0	-	- - - -
Stage 2	0	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	-	440	- - 481 -
Mov Cap-2 Maneuver	-	-	- - - -
Stage 1	-	-	- - - -
Stage 2	-	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	14.7	0	4.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	440	481
HCM Lane V/C Ratio	-	-	0.161	0.495
HCM Control Delay (s)	-	-	14.7	19.6
HCM Lane LOS	-	-	B	C
HCM 95th %tile Q(veh)	-	-	0.6	2.7

Lanes, Volumes, Timings
1: Bayou Gulch Road & N. Pinery Parkway

2043 Background
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	75	25	50	85	180	20	1185	45	490	760	195
Future Volume (vph)	160	75	25	50	85	180	20	1185	45	490	760	195
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	340		190	200		200	335		200	250		200
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.513			0.704			0.341			0.950		
Satd. Flow (perm)	956	1863	1583	1311	1863	1583	635	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			196			155			212
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		350			248			559			456	
Travel Time (s)		6.8			4.8			9.5			7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	82	27	54	89	196	22	1288	49	533	826	212
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	82	27	54	89	196	22	1288	49	533	826	212
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			6

HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2043 Background
 PM Peak

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	530	75	30	300	15	0	0	55	0	0	15
Future Vol, veh/h	0	530	75	30	300	15	0	0	55	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	576	82	33	326	16	0	0	60	0	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	658	0	0	-	-	576	-	-	326
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	900	-	-	0	0	*641	0	0	715
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	-	-	-	900	-	-	-	-	*641	-	-	715
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.8			11.2			10.2		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	641	-	-	900	-	-	715
HCM Lane V/C Ratio	0.093	-	-	0.036	-	-	0.023
HCM Control Delay (s)	11.2	-	-	9.2	-	-	10.2
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-	-	0.1

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

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	4	4	35	65	12
Future Vol, veh/h	10	4	4	35	65	12
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	4	4	38	71	13

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	124	78	84	0	0
Stage 1	78	-	-	-	-
Stage 2	46	-	-	-	-
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	871	983	1513	-	-
Stage 1	945	-	-	-	-
Stage 2	976	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	868	983	1513	-	-
Mov Cap-2 Maneuver	868	-	-	-	-
Stage 1	942	-	-	-	-
Stage 2	976	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1513	-	898	-	-
HCM Lane V/C Ratio	0.003	-	0.017	-	-
HCM Control Delay (s)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	26	1225	25	0	835
Future Vol, veh/h	0	26	1225	25	0	835
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	28	1332	27	0	908

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	666	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	402	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	402	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	402
HCM Lane V/C Ratio	-	-	0.07
HCM Control Delay (s)	-	-	14.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗	↘	↕
Traffic Vol, veh/h	0	45	1205	110	146	690
Future Vol, veh/h	0	45	1205	110	146	690
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	1310	120	159	750

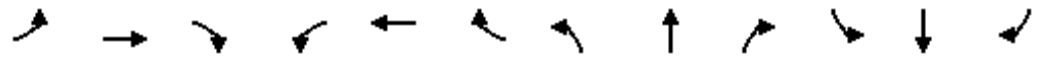
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	655	0 0 1430 0
Stage 1	-	-	- - - -
Stage 2	-	-	- - - -
Critical Hdwy	-	6.94	- - 4.14 -
Critical Hdwy Stg 1	-	-	- - - -
Critical Hdwy Stg 2	-	-	- - - -
Follow-up Hdwy	-	3.32	- - 2.22 -
Pot Cap-1 Maneuver	0	409	- - 471 -
Stage 1	0	-	- - - -
Stage 2	0	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	-	409	- - 471 -
Mov Cap-2 Maneuver	-	-	- - - -
Stage 1	-	-	- - - -
Stage 2	-	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	15	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	409	471
HCM Lane V/C Ratio	-	-	0.12	0.337
HCM Control Delay (s)	-	-	15	16.5
HCM Lane LOS	-	-	C	C
HCM 95th %tile Q(veh)	-	-	0.4	1.5

Lanes, Volumes, Timings
1: Bayou Gulch Road & N. Pinery Parkway

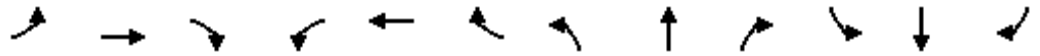
2043 Total
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	73	15	15	70	392	36	1141	40	368	889	65
Future Volume (vph)	130	73	15	15	70	392	36	1141	40	368	889	65
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	340		190	200		200	335		200	250		200
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.583			0.706			0.289			0.950		
Satd. Flow (perm)	1086	1863	1583	1315	1863	1583	538	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			311			155			109
Link Speed (mph)		35			35			40				40
Link Distance (ft)		350			248			559				456
Travel Time (s)		6.8			4.8			9.5				7.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	141	79	16	16	76	426	39	1240	43	400	966	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	79	16	16	76	426	39	1240	43	400	966	71
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			6

Lanes, Volumes, Timings
 1: Bayou Gulch Road & N. Pinery Parkway

2043 Total
 AM Peak

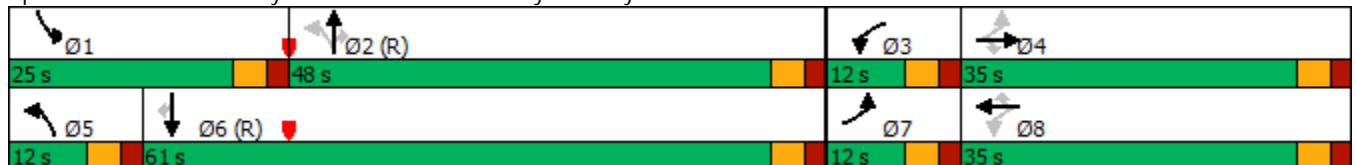


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	12.0	35.0	35.0	12.0	35.0	35.0	12.0	48.0	48.0	25.0	61.0	61.0
Total Split (%)	10.0%	29.2%	29.2%	10.0%	29.2%	29.2%	10.0%	40.0%	40.0%	20.8%	50.8%	50.8%
Maximum Green (s)	7.0	30.0	30.0	7.0	30.0	30.0	7.0	43.0	43.0	20.0	56.0	56.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.5	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	28.3	25.1	25.1	25.1	17.8	17.8	66.1	58.8	58.8	19.8	75.1	75.1
Actuated g/C Ratio	0.24	0.21	0.21	0.21	0.15	0.15	0.55	0.49	0.49	0.16	0.63	0.63
v/c Ratio	0.47	0.20	0.04	0.05	0.27	0.85	0.11	0.71	0.05	0.71	0.44	0.07
Control Delay	40.4	39.4	0.1	29.6	44.5	29.4	10.5	29.2	0.1	54.4	14.8	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	39.4	0.1	29.6	44.5	29.4	10.5	29.2	0.1	54.4	14.8	1.1
LOS	D	D	A	C	D	C	B	C	A	D	B	A
Approach Delay		37.3			31.6			27.7			25.2	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 27.9
 Intersection LOS: C
 Intersection Capacity Utilization 73.0%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Bayou Gulch Road & N. Pinery Parkway



HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2043 Total
 AM Peak

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	378	45	30	467	10	0	0	95	0	0	10
Future Vol, veh/h	0	378	45	30	467	10	0	0	95	0	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	411	49	33	508	11	0	0	103	0	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	460	0	0	-	-	411	-	-	508
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	1119	-	-	0	0	*770	0	0	565
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	-	-	-	1119	-	-	-	-	*770	-	-	565
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.5			10.4			11.5		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	770	-	-	1119	-	-	565
HCM Lane V/C Ratio	0.134	-	-	0.029	-	-	0.019
HCM Control Delay (s)	10.4	-	-	8.3	-	-	11.5
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-	-	0.1

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

HCM 6th TWSC
4: Alpine Phlox Street & Internal Collector

2043 Total
AM Peak

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	55	7	7	30	35	26
Future Vol, veh/h	55	7	7	30	35	26
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	8	8	33	38	28

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	101	52	66	0	0
Stage 1	52	-	-	-	-
Stage 2	49	-	-	-	-
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	898	1016	1536	-	-
Stage 1	970	-	-	-	-
Stage 2	973	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	894	1016	1536	-	-
Mov Cap-2 Maneuver	894	-	-	-	-
Stage 1	965	-	-	-	-
Stage 2	973	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1536	-	906	-	-
HCM Lane V/C Ratio	0.005	-	0.074	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
5: Bayou Gulch Road & Internal Collector

2043 Total
AM Peak

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	102	1116	80	0	919
Future Vol, veh/h	0	102	1116	80	0	919
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	111	1213	87	0	999

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	607	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	439	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	439	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	439
HCM Lane V/C Ratio	-	-	0.253
HCM Control Delay (s)	-	-	15.9
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1

HCM 6th TWSC
6: Bayou Gulch Road & Vista Arroyo Street

2043 Total
AM Peak

Intersection

Int Delay, s/veh 2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗	↖	↕
Traffic Vol, veh/h	0	65	1130	180	219	715
Future Vol, veh/h	0	65	1130	180	219	715
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	71	1228	196	238	777

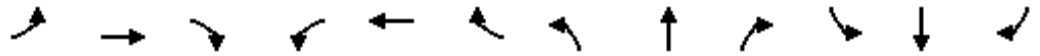
Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	614	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	435	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	435	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	4.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	435	474
HCM Lane V/C Ratio	-	-	0.162	0.502
HCM Control Delay (s)	-	-	14.9	20
HCM Lane LOS	-	-	B	C
HCM 95th %tile Q(veh)	-	-	0.6	2.8

Lanes, Volumes, Timings
 1: Bayou Gulch Road & N. Pinery Parkway

2043 Total
 PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	91	25	50	85	172	36	1209	50	522	744	195
Future Volume (vph)	160	91	25	50	85	172	36	1209	50	522	744	195
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	340		190	200		200	335		200	250		200
Storage Lanes	1		1	1		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	3433	3539	1583
Flt Permitted	0.520			0.673			0.346			0.950		
Satd. Flow (perm)	969	1863	1583	1254	1863	1583	645	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			155			187			155			212
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		350			248			559			456	
Travel Time (s)		6.8			4.8			9.5			7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.95	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	99	27	54	89	187	39	1314	54	567	809	212
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	99	27	54	89	187	39	1314	54	567	809	212
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2			6

Lanes, Volumes, Timings
 1: Bayou Gulch Road & N. Pinery Parkway

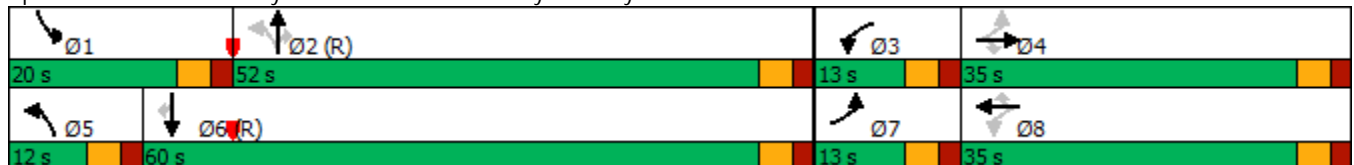
2043 Total
 PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	13.0	35.0	35.0	13.0	35.0	35.0	12.0	52.0	52.0	20.0	60.0	60.0
Total Split (%)	10.8%	29.2%	29.2%	10.8%	29.2%	29.2%	10.0%	43.3%	43.3%	16.7%	50.0%	50.0%
Maximum Green (s)	8.0	30.0	30.0	8.0	30.0	30.0	7.0	47.0	47.0	15.0	55.0	55.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-1.0	-1.0	-1.0	-2.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	3.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	24.3	15.3	15.3	20.9	13.6	12.6	57.3	50.0	50.0	32.4	79.4	79.4
Actuated g/C Ratio	0.20	0.13	0.13	0.17	0.11	0.10	0.48	0.42	0.42	0.27	0.66	0.66
v/c Ratio	0.66	0.42	0.08	0.21	0.42	0.56	0.10	0.89	0.07	0.61	0.35	0.19
Control Delay	53.2	54.5	0.5	39.1	54.8	13.6	9.4	41.4	0.2	42.4	10.6	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	54.5	0.5	39.1	54.8	13.6	9.4	41.4	0.2	42.4	10.6	1.9
LOS	D	D	A	D	D	B	A	D	A	D	B	A
Approach Delay		48.9			28.9			38.9			20.8	
Approach LOS		D			C			D			C	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 30.9
 Intersection LOS: C
 Intersection Capacity Utilization 73.8%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Bayou Gulch Road & N. Pinery Parkway



HCM 6th TWSC
 3: Alpine Phlox Street & N. Pinery Parkway

2043 Total
 PM Peak

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↘	↑	↗			↗			↗
Traffic Vol, veh/h	0	518	75	48	292	15	0	0	113	0	0	15
Future Vol, veh/h	0	518	75	48	292	15	0	0	113	0	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	200	-	200	-	-	0	-	-	0
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	563	82	52	317	16	0	0	123	0	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	645	0	0	-	-	563	-	-	317
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.12	-	-	-	-	6.22	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.218	-	-	-	-	3.318	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	911	-	-	0	0	*667	0	0	724
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	-	-	-	911	-	-	-	-	*667	-	-	724
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.2			11.6			10.1		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	667	-	-	911	-	-	724
HCM Lane V/C Ratio	0.184	-	-	0.057	-	-	0.023
HCM Control Delay (s)	11.6	-	-	9.2	-	-	10.1
HCM Lane LOS	B	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-	-	0.1

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

HCM 6th TWSC
4: Alpine Phlox Street & Internal Collector

2043 Total
PM Peak

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	68	7	7	35	65	30
Future Vol, veh/h	68	7	7	35	65	30
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	8	8	38	71	33

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	142	88	104	0	0
Stage 1	88	-	-	-	-
Stage 2	54	-	-	-	-
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	851	970	1488	-	-
Stage 1	935	-	-	-	-
Stage 2	969	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	847	970	1488	-	-
Mov Cap-2 Maneuver	847	-	-	-	-
Stage 1	930	-	-	-	-
Stage 2	969	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1488	-	857	-	-
HCM Lane V/C Ratio	0.005	-	0.095	-	-
HCM Control Delay (s)	7.4	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 6th TWSC
5: Bayou Gulch Road & Internal Collector

2043 Total
PM Peak

Intersection

Int Delay, s/veh 0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗		↕
Traffic Vol, veh/h	0	111	1185	85	0	819
Future Vol, veh/h	0	111	1185	85	0	819
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	-	-
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	121	1288	92	0	890

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	644	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	416	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	416	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	416
HCM Lane V/C Ratio	-	-	0.29
HCM Control Delay (s)	-	-	17.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.2

HCM 6th TWSC
6: Bayou Gulch Road & Vista Arroyo Street

2043 Total
PM Peak

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕	↗	↖	↕
Traffic Vol, veh/h	0	45	1225	110	146	690
Future Vol, veh/h	0	45	1225	110	146	690
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	1332	120	159	750

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	666	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	402	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	-	402	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	402	462
HCM Lane V/C Ratio	-	-	0.122	0.343
HCM Control Delay (s)	-	-	15.2	16.8
HCM Lane LOS	-	-	C	C
HCM 95th %tile Q(veh)	-	-	0.4	1.5

Queues

2043 Total

1: Bayou Gulch Road & N. Pinery Parkway

AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	141	79	16	16	76	426	39	1240	43	400	966	71
v/c Ratio	0.47	0.20	0.04	0.05	0.27	0.85	0.11	0.71	0.05	0.71	0.44	0.07
Control Delay	40.4	39.4	0.1	29.6	44.5	29.4	10.5	29.2	0.1	54.4	14.8	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	39.4	0.1	29.6	44.5	29.4	10.5	29.2	0.1	54.4	14.8	1.1
Queue Length 50th (ft)	91	49	0	10	54	89	9	382	0	151	204	0
Queue Length 95th (ft)	126	89	0	24	87	193	28	#637	0	203	342	9
Internal Link Dist (ft)		270			168			479				376
Turn Bay Length (ft)	340		190	200		200	335		200	250		200
Base Capacity (vph)	301	481	523	313	481	639	381	1735	855	621	2215	1031
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.16	0.03	0.05	0.16	0.67	0.10	0.71	0.05	0.64	0.44	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Queues

2043 Total

1: Bayou Gulch Road & N. Pinery Parkway

PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	174	99	27	54	89	187	39	1314	54	567	809	212
v/c Ratio	0.66	0.42	0.08	0.21	0.42	0.56	0.10	0.89	0.07	0.61	0.35	0.19
Control Delay	53.2	54.5	0.5	39.1	54.8	13.6	9.4	41.4	0.2	42.4	10.6	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	54.5	0.5	39.1	54.8	13.6	9.4	41.4	0.2	42.4	10.6	1.9
Queue Length 50th (ft)	117	74	0	34	65	0	8	475	0	203	148	0
Queue Length 95th (ft)	179	126	0	67	114	66	20	#652	0	267	214	32
Internal Link Dist (ft)		270			168			479			376	
Turn Bay Length (ft)	340		190	200		200	335		200	250		200
Base Capacity (vph)	263	481	523	264	496	547	387	1475	750	926	2341	1119
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.21	0.05	0.20	0.18	0.34	0.10	0.89	0.07	0.61	0.35	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.