



LSC TRANSPORTATION CONSULTANTS, INC.
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January 21, 2020

Mr. Jarrod Walker
Oakwood Homes
1290 Newport Road
Colorado Springs, CO 80916

RE: Banning Lewis Ranch Village B Phase 1
Colorado Springs, Colorado
Traffic Technical Memorandum
LSC #195080

Dear Mr. Walker:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic technical memorandum for the proposed Village B Phase 1 residential development to be located within the Banning Lewis Ranch subdivision in Colorado Springs, Colorado. The site location is shown in Figure 1. The report only analyzes the short-term impacts of the development under an interim condition/scenario - prior to the construction of Banning Lewis Parkway.

REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on the adjacent and nearby roadway system, including functional classification, widths, pavement markings, surface conditions, traffic control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes
- Weekday peak-hour turning movement traffic counts at the following intersection:
 - Dublin Boulevard/Vista del Tierra Drive
 - Vista del Pico Boulevard/Red Cloud Peak Drive
 - Dublin Boulevard/Vista del Valley Drive (pm only)
 - Vista del Pico Boulevard/Vista del Valley Drive (pm only)
- Estimated current average weekday traffic (AWT) volumes on the study area streets
- Short-term background traffic volumes on the study area streets
- The proposed site land use

- Estimates of average weekday and weekday peak-hour trip generation for the proposed development and the estimated directional distribution of site-generated vehicle-trips on the area street and roadway network
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the study area intersections
- Projected total daily (AWT) volumes on the study area streets
- Intersection level of service and queueing analysis at the study area intersections
- Findings and recommendations

LAND USE AND ACCESS

The proposed residential development is part of the larger Banning Lewis Ranch Villages A-D, which is located in the Banning Lewis Ranch Subdivision. The site is to be located east of the future Banning Lewis Parkway and north of the future extension of Red Cloud Peak Drive, as shown in Figure 2. The development is planned to include 167 single family homes with proposed interim access via an extension of Red Cloud Peak Drive only.

In the future, Red Cloud Peak Drive will access Banning Lewis Parkway. Prior to the construction of Banning Lewis Parkway, the development is planned to be accessed through Banning Lewis Village Two located west of the future Banning Lewis Parkway. It is anticipated that most traffic will access the development via the route from Dublin Boulevard to/from Vista del Tierra Dr/Vista del Pico Boulevard/Red Cloud Peak Drive.

During this interim phase, Banning Lewis Parkway will be constructed between Red Cloud Peak Drive to Street F (shown on Figure 2: Site Plan Figure 2). The intersections of Banning Lewis Parkway/Red Cloud Peak Drive and Banning Lewis Parkway/Street F will both be constructed as full-movement intersections. However, only the adjacent section of Banning Lewis Parkway will be constructed. The section north to Woodmen and the section south to Dublin are proposed to be built with future phases. During this interim phase (Phase 1 only), both intersections will be unsignalized. When Banning Lewis Parkway is fully constructed, the intersection with Street F will continue to operate as unsignalized, while the intersection with Red Cloud Peak Drive is planned to be signalized.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

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

- **Dublin Boulevard** is a Principal Arterial that currently extends east from Nevada Avenue to Vista del Tierra Drive. The section of Dublin Boulevard immediately east of Marksheffel Road has three through lanes in each direction and a raised median. East of Vista del Valley Drive, the roadway is reduced to two through lanes in each direction. Dublin Boulevard is proposed

to be extended east to US 24 in the future. The posted speed limit on Dublin Boulevard on this section is 35 mph.

- **Vista del Pico Boulevard** is a collector street that extends north from Dublin Boulevard through the Banning Lewis Ranch Village One and Village Two subdivisions. At the east end, Vista Del Pico Boulevard loops north. Vista del Pico Boulevard then continues west and then south and connects back with itself. The roadway loops around Inspiration Point Elementary School, Banning Lewis Preparatory Academy, and a park. Through the loop, Vista Del Pico has one through lane plus a bike lane in each direction. Currently the only auxiliary turn lane on Vista Del Pico in the vicinity of the site is a right-turn deceleration lane approaching Vista Del Valley Road.
- **Vista del Tierra Drive** is a collector street that extends north and south from Dublin Boulevard into Banning Lewis Ranch Village Two and Village Three, respectively. The roadway has one through lane in each direction, with auxiliary lanes for left and right turns at Dublin Boulevard.
- **Vista del Valley Drive** is a collector street that extends north from Dublin Boulevard into Banning Lewis Ranch Village Two. The roadway has one through lane in each direction.

Existing Traffic Volumes

Figure 3a shows the existing peak-hour traffic volumes at the intersections of Dublin Boulevard/Vista del Tierra Drive and Vista del Pico Boulevard/Red Cloud Peak Drive. In addition, evening peak-hour volumes are shown at Dublin Boulevard/Vista del Valley Drive and Vista del Pico Boulevard/Vista del Valley Drive. The traffic volumes are based on counts by LSC in December 2019 and January 2020. At the time of counts, Village One and Phase One of Village Two appeared to be fully constructed, the remainder of Village Two was partially constructed, and Village Three appeared to have very little constructed. Additionally, both the Preparatory Academy and Elementary School were open and school was in session on the days of the counts. The traffic count reports are attached.

Existing Level of Service

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

Table 1: Intersection Levels of Service Delay Ranges

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

The intersections of Dublin Boulevard/Vista del Tierra Drive, Vista del Pico Boulevard/Red Cloud Peak Drive, Dublin Boulevard/Vista del Valley Drive, and Vista del Pico Boulevard/Vista del Valley Drive have been analyzed to determine the existing levels of service based on the unsignalized method of analysis procedures found in the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The results of the analysis are shown in Figure 3b, along with the laneage and traffic control. All movements at the study intersections are currently operating at LOS C or better during the peak hours. The level of service reports are attached.

BACKGROUND TRAFFIC

Figure 4a shows the projected short-term background traffic volumes. Background traffic is the traffic estimated to be on the area streets and roadways without consideration of the proposed development. These background traffic volumes were based on existing traffic volumes (from Figure 3a), plus the traffic projected to be generated by completing the buildout of Banning Lewis Ranch Villages Two and Three.

TRIP GENERATION

Estimates of site-generated vehicle-trips were made using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). Table 2 below presents a summary of the estimated site trip generation. The detailed trip generation estimate for the development, including ITE rates for the proposed land use, is presented in Table 3.

Approximately 1,342 total daily trips are projected to enter and exit the site on the average weekday. During the morning peak hour, approximately 33 vehicles would enter, and 94 vehicles would exit the site. During the evening peak hour, approximately 108 vehicles would enter, and 61 vehicles would exit.

Table 2: Estimated Vehicle-Trip Generation

Analysis Period	Total Trips		
	In	Out	Total
A.M. Peak Hour	33	94	137
P.M. Peak Hour	108	61	169
Daily/24-Hour	671	671	1,342

DIRECTIONAL DISTRIBUTION

The directional distribution of the site-generated traffic volumes on the area roadways is an important factor in determining the site's traffic impacts. Figure 5 shows the directional distribution estimates for the site-generated traffic volumes.

These trips were assigned based on the location of homes within the development. The distribution estimates shown in Figure 5 are for trips assumed to be external to Banning Lewis Ranch. These estimates were based on the following factors: the site's location with respect to the nearby residential, employment, commercial, and activity centers and the balance of the Colorado Springs metropolitan area; the site's proposed land use; and the site's proposed access points. The directional distribution estimates assume Banning Lewis Parkway is not yet constructed.

SITE-GENERATED TRAFFIC

Figure 6 shows site-generated traffic volumes. The site-generated traffic volumes were calculated by applying the directional distribution percentages (from Figure 5) to the trip generation estimates from Table 2. The assignment assumes that most vehicles will use Vista del Tierra Drive or Vista del Valley Drive to exit Village Two.

TOTAL TRAFFIC

Figure 7a shows the projected total traffic volumes. The short-term total traffic volumes are the sum of the background traffic volumes (from Figure 4a) plus the site-generated traffic volumes from Figure 6.

PROJECTED LEVELS OF SERVICE

The intersections of Dublin Boulevard/Vista del Tierra Drive, Vista del Pico Boulevard/Vista del Tierra Drive, Dublin Boulevard/Vista del Valley Drive, Vista del Pico Boulevard/Vista del Valley

Drive and Vista del Pico Boulevard/Red Cloud Peak Drive were analyzed to determine the projected levels of service for the background and total traffic volumes based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The peak-hour factors were lowered to account for the higher concentration of school traffic on Vista del Pico Boulevard during the morning peak hour. The laneage and traffic control assumed in the analysis are depicted in Figure 4b and Figure 7b. The level of service reports are attached.

Dublin Boulevard/Vista del Tierra Drive

In the short-term background, the turning movements at the intersection of Dublin Boulevard/Vista del Tierra Drive are expected to operate at LOS C or better during the peak hours. In the short-term total, the turning movements are forecast to continue to operate at LOS C or better.

Vista del Pico Boulevard/Red Cloud Peak Drive

In the short-term background, the turning movements at the intersection of Vista del Pico Boulevard/Red Cloud Peak Drive are expected to operate at LOS C or better during the peak hours, with the exception of the westbound approach during the morning peak hour. This movement is projected to operate at LOS E due to the high number of vehicles exiting the residential area during the morning peak hour.

In the short-term total, the turning movements are forecast to continue to operate at LOS C or better, with the exception of the westbound approach during the morning peak hour. During the morning peak hour, the westbound approach is forecast to operate at LOS F. This movement is forecast to be above capacity and to experience delay in excess of three minutes. Due to the high delay and level of service F for the westbound approach, it is recommended that the intersection be modified to an all-way stop temporarily. When Banning Lewis Parkway is constructed, the traffic control could be revisited.

Vista del Pico Boulevard/Vista del Tierra Drive

In the short-term background, the turning movements at the intersection of Vista del Pico Boulevard/Vista del Tierra Drive are project to operate at LOS C or better during both peak hours. In the short-term total, the turning movements are forecast to continue to operate at LOS C or better.

Vista del Pico Boulevard/Vista del Valley Drive

In both the short-term background and short-term total scenarios, the turning movements at the intersection of Vista del Pico Boulevard/Vista del Valley Drive are projected to operate at LOS B or better during both peak hours.

Dublin Boulevard/Vista del Valley Drive

In the short-term background, the turning movements at the intersection of Dublin Boulevard/Vista del Valley Drive are projected to operate at LOS C or better during both peak hours. In the short-term total, the turning movements are forecast to continue to operate at LOS C or better.

QUEUING

Queuing was analyzed at the study intersections. None of the queues at the study intersections are forecast to affect adjacent access points in any of the analyzed scenarios. With an all-way stop at the intersection of Vista del Pico Boulevard/Red Cloud Peak Drive, the westbound approach will have a 95th percentile queue length of 75 feet in the total traffic conditions. Whereas with the existing two-lane stop control, the westbound approach is projected to have a queue length of 350 feet.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Trip Generation

- Banning Lewis Ranch Village B Phase 1 is expected to generate approximately 1,342 new vehicle-trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, about 33 vehicles would enter and 94 vehicles would exit the site. During the afternoon peak hour, approximately 108 vehicles would enter, and 61 vehicles would exit the site.

Intersection Analysis

- In the short-term background scenario, all turning movements are forecast to operate at LOS C or better, with the exception of the westbound approach at the intersection of Vista del Pico Boulevard/Red Cloud Peak Drive, which is forecast to operate at LOS E during the morning peak hour.
- In the short-term total scenario, all turning movements are forecast to operate at LOS C or better, with the exceptions of the westbound approach at the intersection of Vista del Pico Boulevard/Red Cloud Peak Drive, which is forecast to operate at LOS F during the morning peak hour.

Queuing

- Queuing at the study intersections is not forecast to impact adjacent access points in the short-term background or short-term total scenarios.

Recommendations

- This analysis is only for a temporary condition that will only exist until Banning Lewis Parkway is constructed. At that time, the residents of the proposed development will have access to Banning Lewis Parkway and will no longer need to travel through Village Two to access Dublin Boulevard. It is recommended that the intersection of Vista del Pico Boulevard/Red Cloud Peak Drive be converted to an all-way stop controlled intersection temporarily until the construction of Banning Lewis Parkway is completed.

* * * * *

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

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.



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

CRG:jas

Enclosures: Table 3
Figures 1-7
Traffic Count Reports
Level of Service Reports

Tables and Figures

Table 3: Detailed Trip Generation Estimate

Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates ⁽¹⁾						Total Trips Generated				
			Average Weekday Traffic ⁽²⁾	Morning Peak Hour		Afternoon Peak Hour		Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour		
				In	Out	In	Out		In	Out			
210	Single Family Housing	167 DU ⁽²⁾	8.03	0.20	0.56	0.65	0.36	1,342	33	94	108	61	
Notes:													
(1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE)													
(2) DU = dwelling unit													
Source: LSC Transportation Consultants, Inc.													



Figure 1
Vicinity
Map

Banning Lewis Ranch-Village B Phase 1 (LSC #195080)

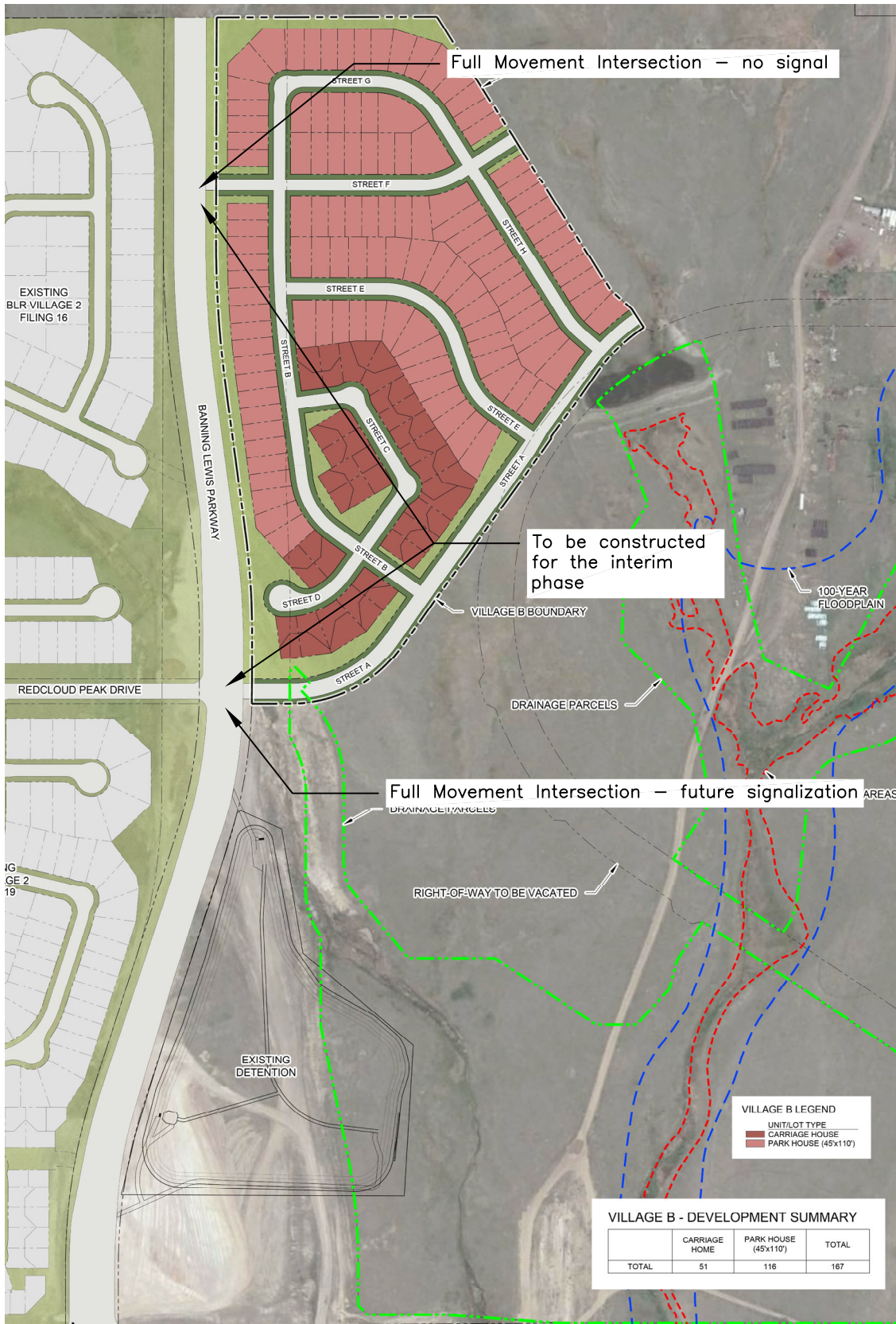
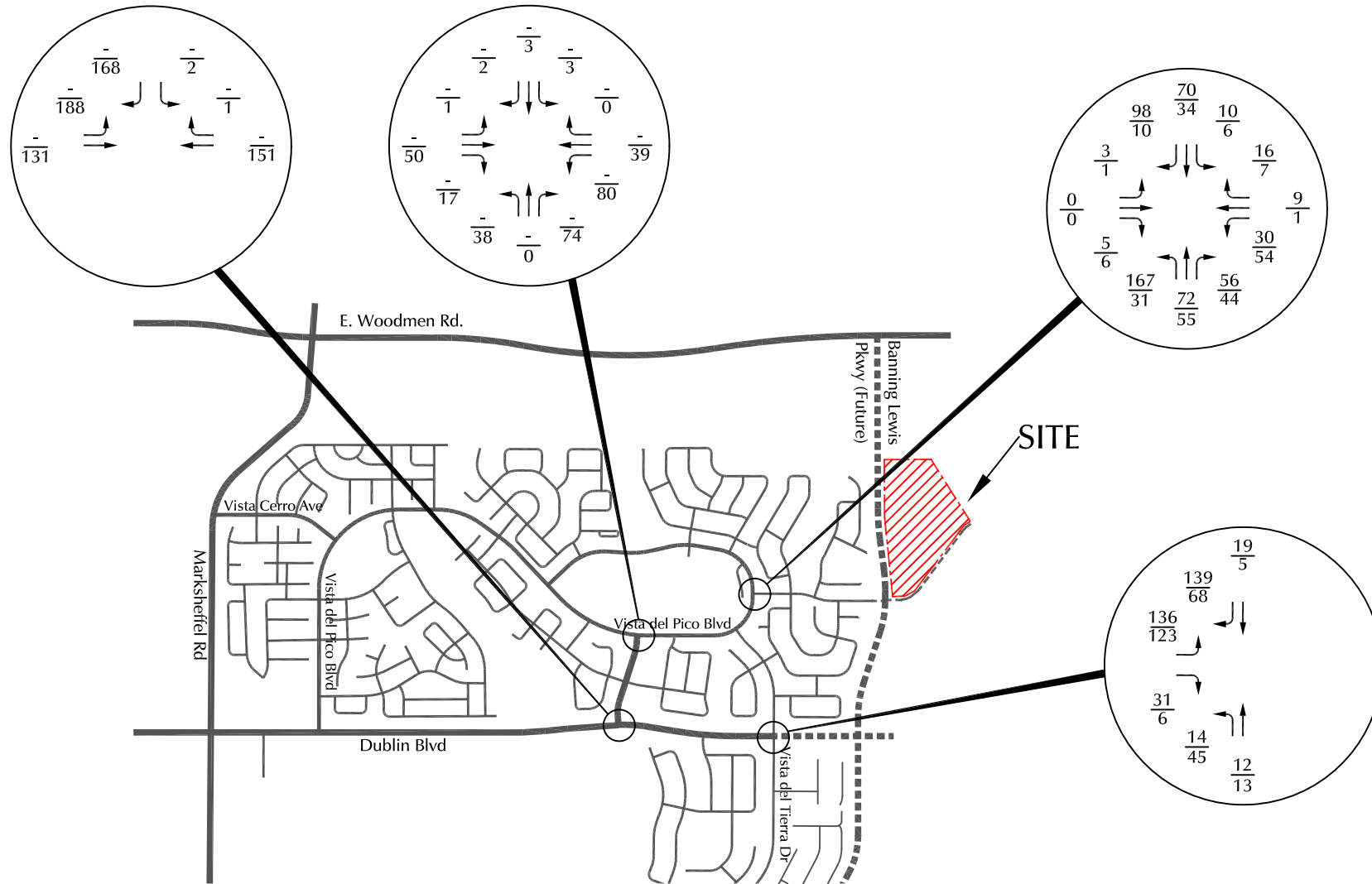


Figure 2
Site Plan

Banning Lewis Ranch-Village B Phase 1 (LSC #195080)





LEGEND:

$\frac{42}{26} = \frac{\text{AM Peak Hour Traffic Volumes}}{\text{PM Peak Hour Traffic Volumes}}$

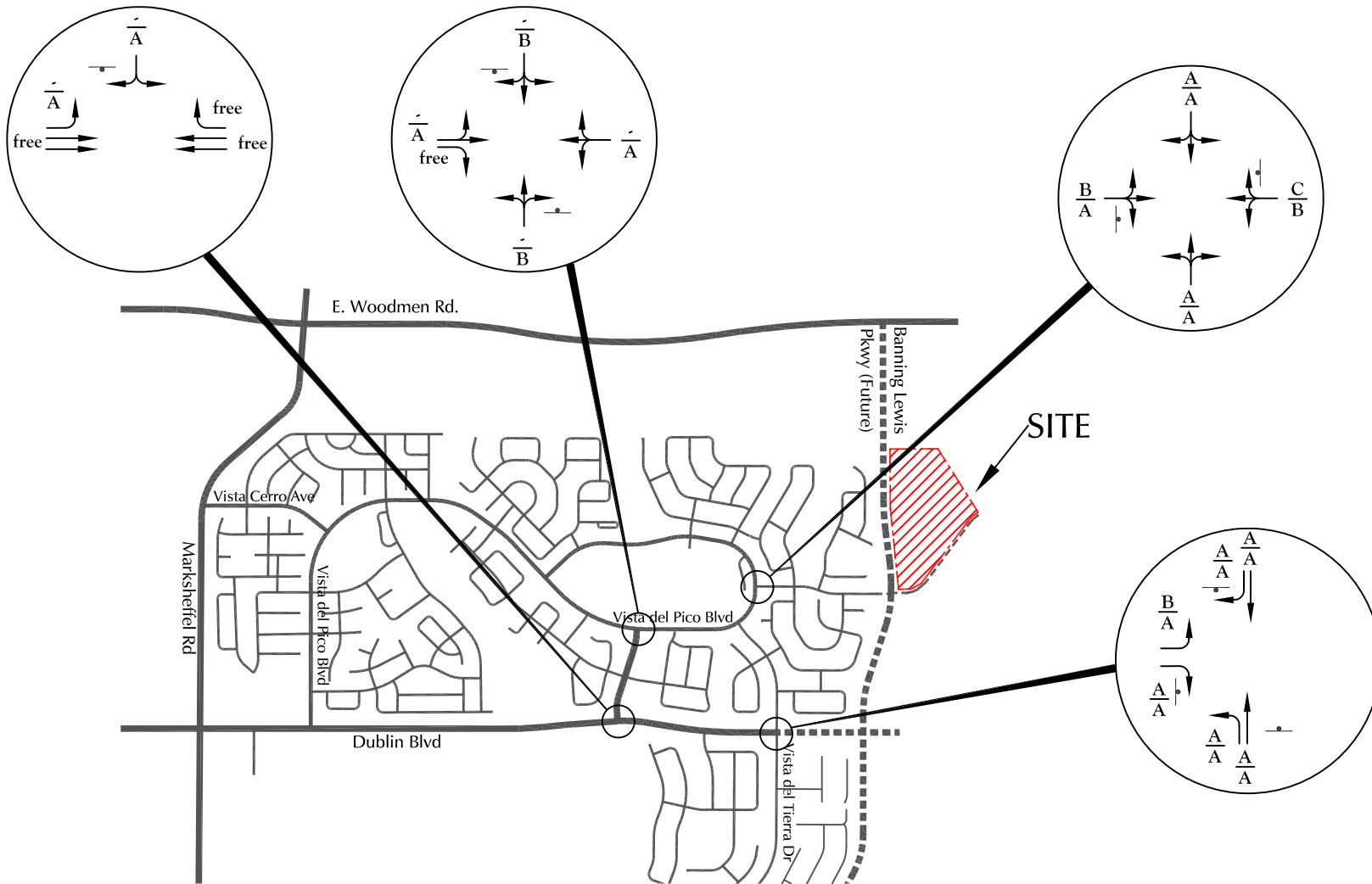
Based on counts by LSC
Dec. 2019 – Jan. 2020



Figure 3a

Existing Traffic

Banning Lewis Ranch-Village B Phase 1 (LSC #195080)



LEGEND:

⊥ = Stop Sign

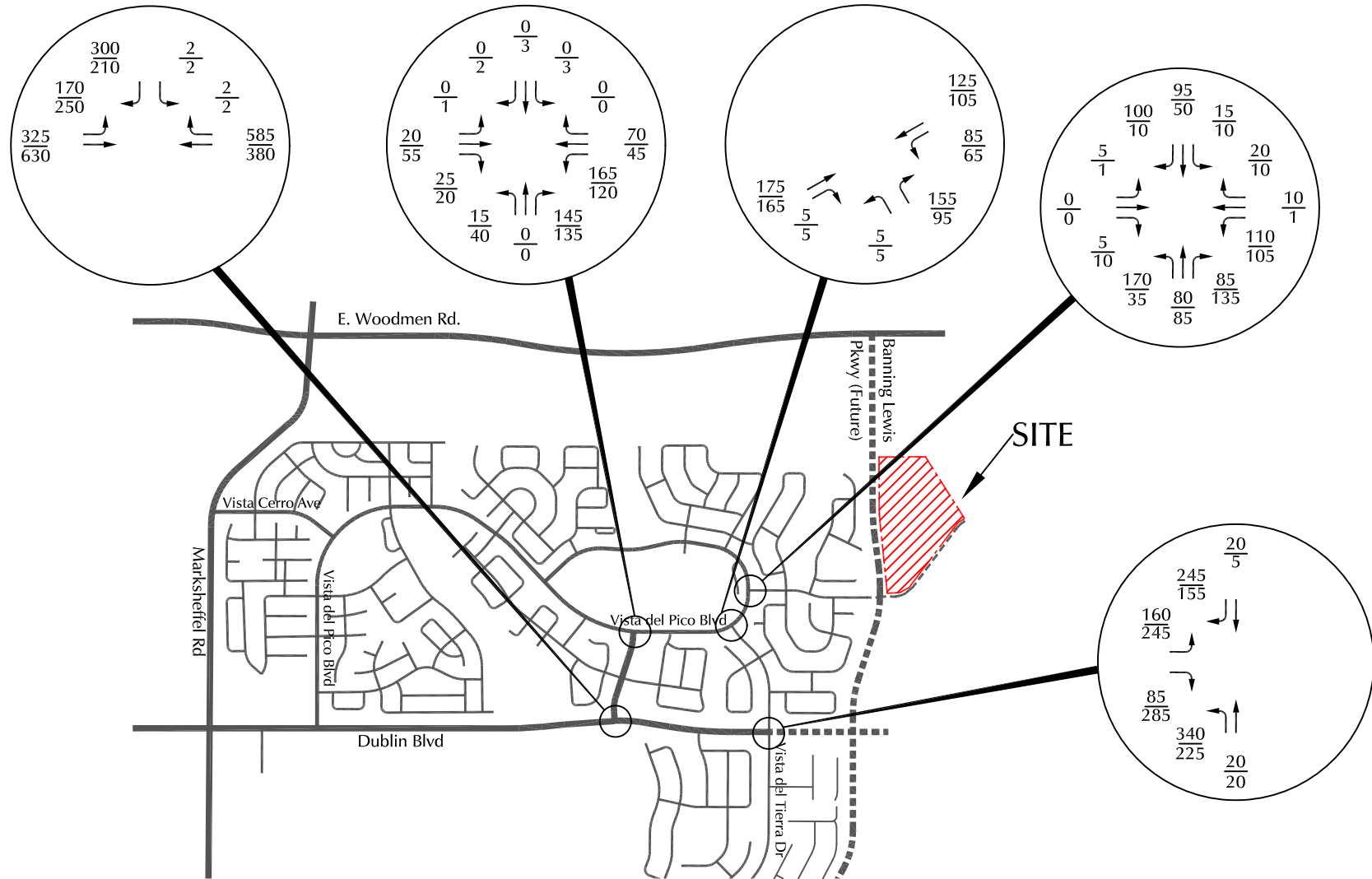
$\frac{A}{B}$ = $\frac{\text{AM Individual Movement Peak Hour Level of Service}}{\text{PM Individual Movement Peak Hour Level of Service}}$

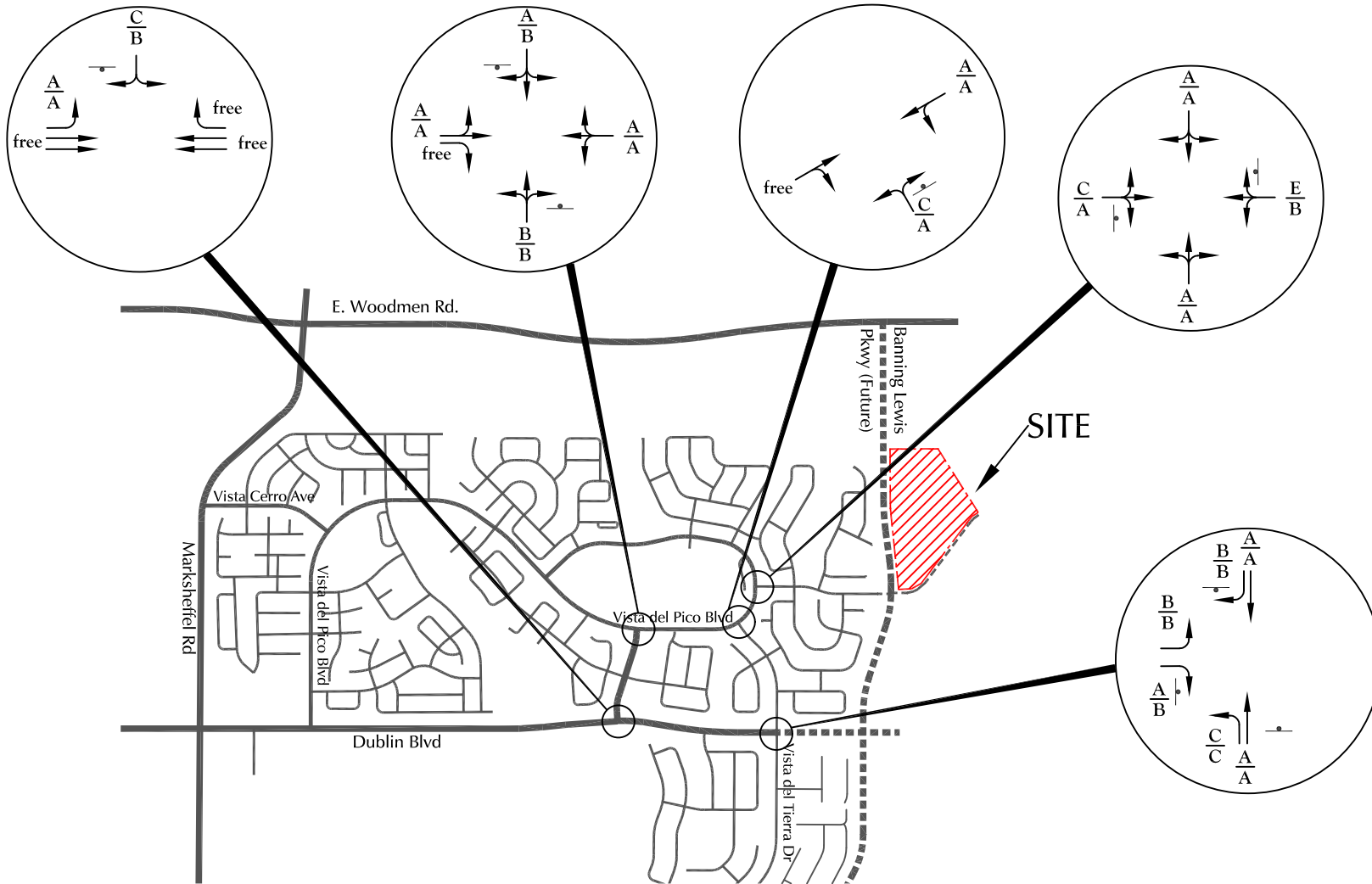


Existing Lane Geometry, Traffic Control and Level of Service

Banning Lewis Ranch-Village B Phase 1 (LSC #195080)

Figure 3b





LEGEND:

└ = Stop Sign

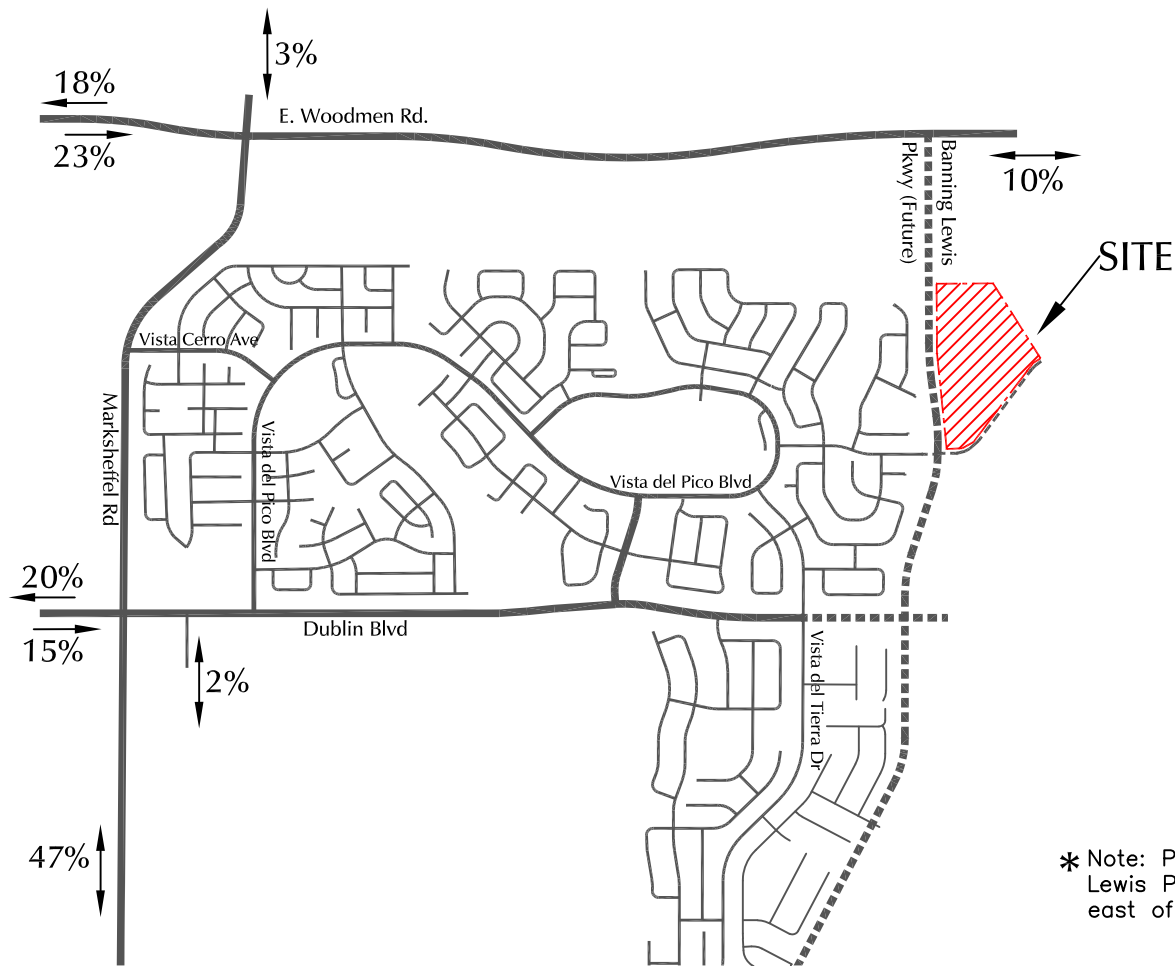
$\frac{A}{B}$ = $\frac{\text{AM Individual Movement Peak Hour Level of Service}}{\text{PM Individual Movement Peak Hour Level of Service}}$



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

Banning Lewis Ranch-Village B Phase 1 (LSC #195080)

Figure 4b



* Note: Prior to the construction of Banning Lewis Parkway and prior to extension of Dublin east of Vista del Tierra Road.

Figure 5

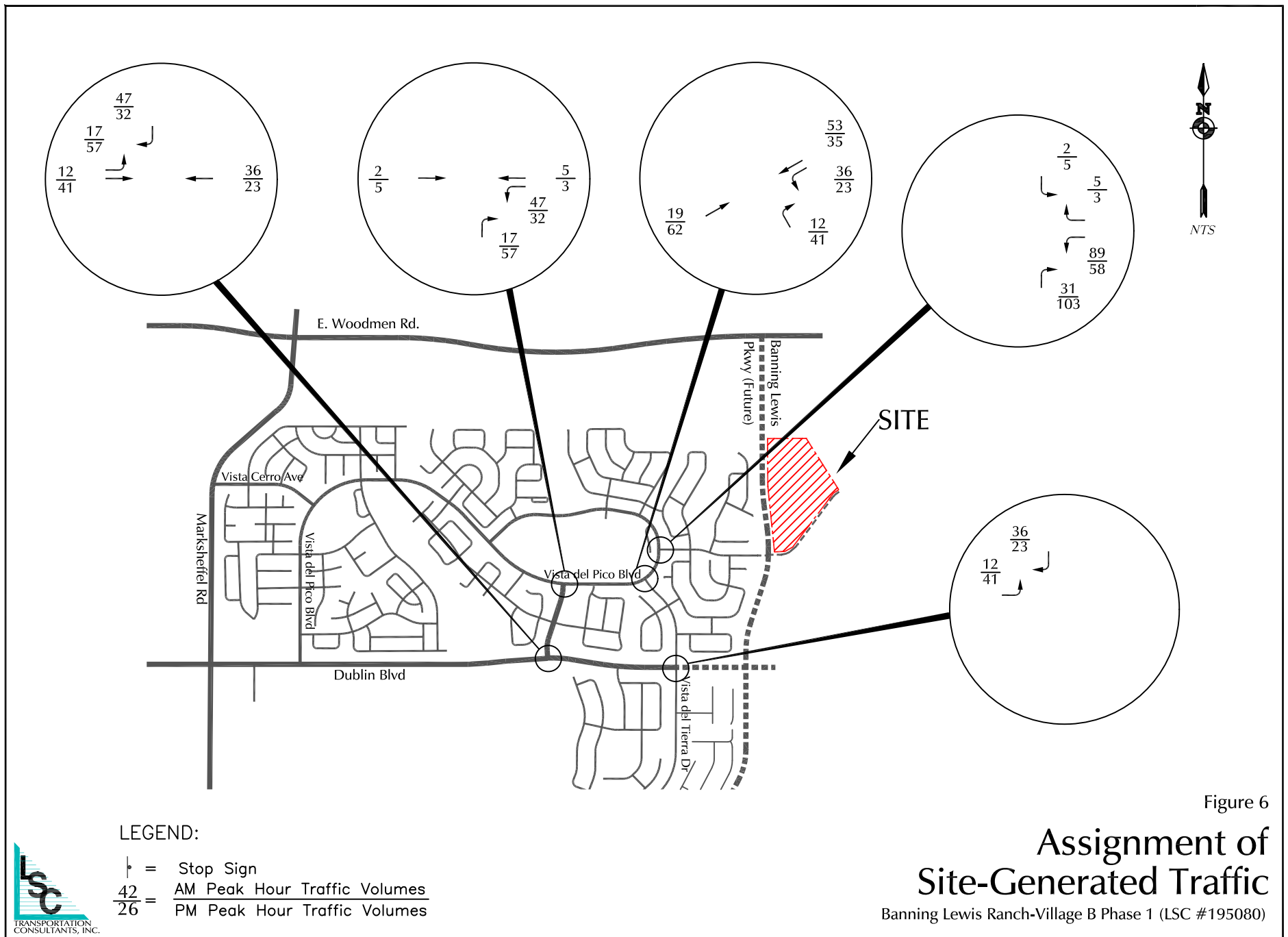
Short-Term* Directional Distribution of Site-Generated Traffic

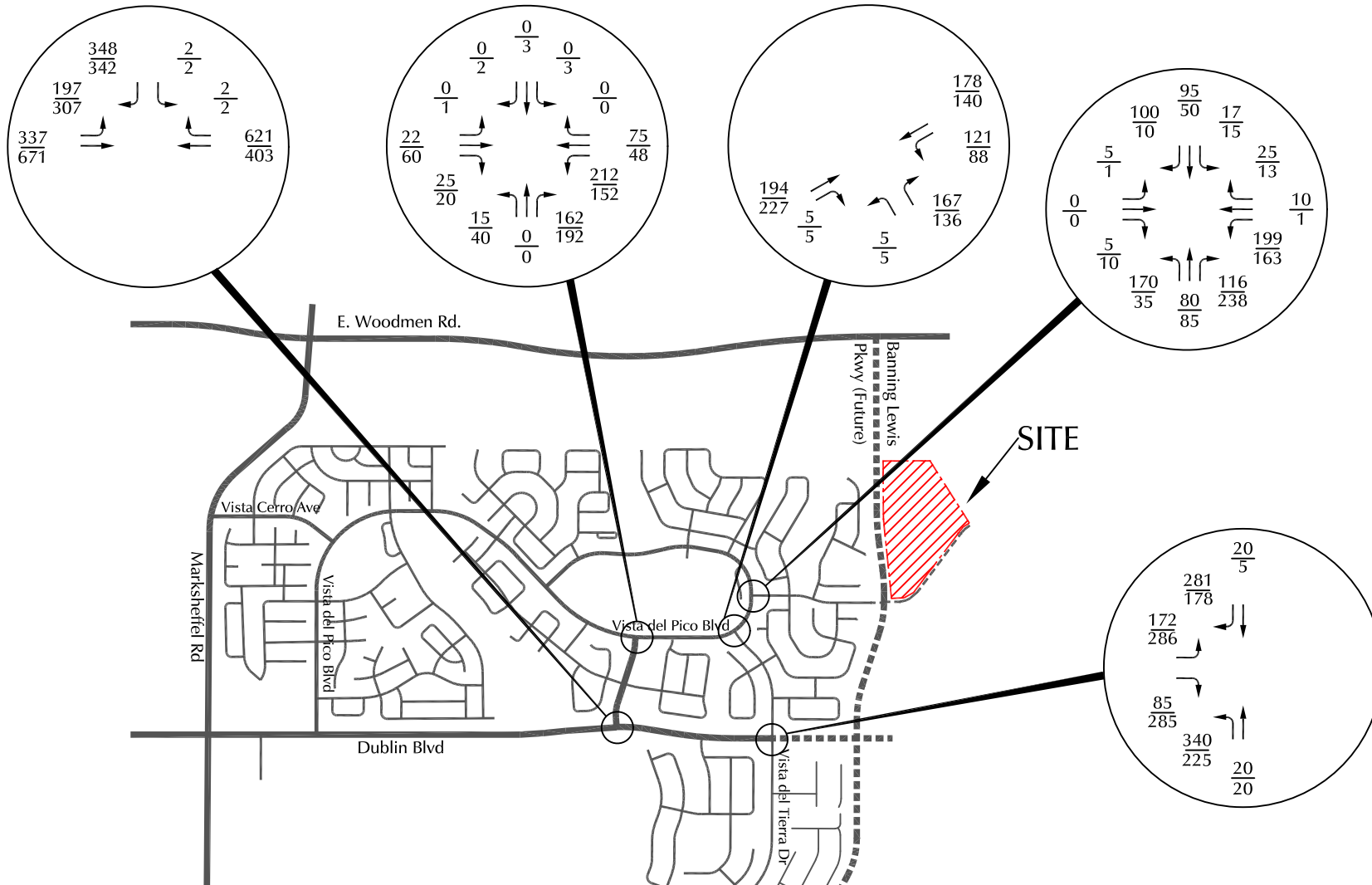
Banning Lewis Ranch-Village B Phase 1 (LSC #195080)

LEGEND:



35% = Percent Directional Distribution of Site-Generated Traffic External to Banning Lewis Ranch





LEGEND:

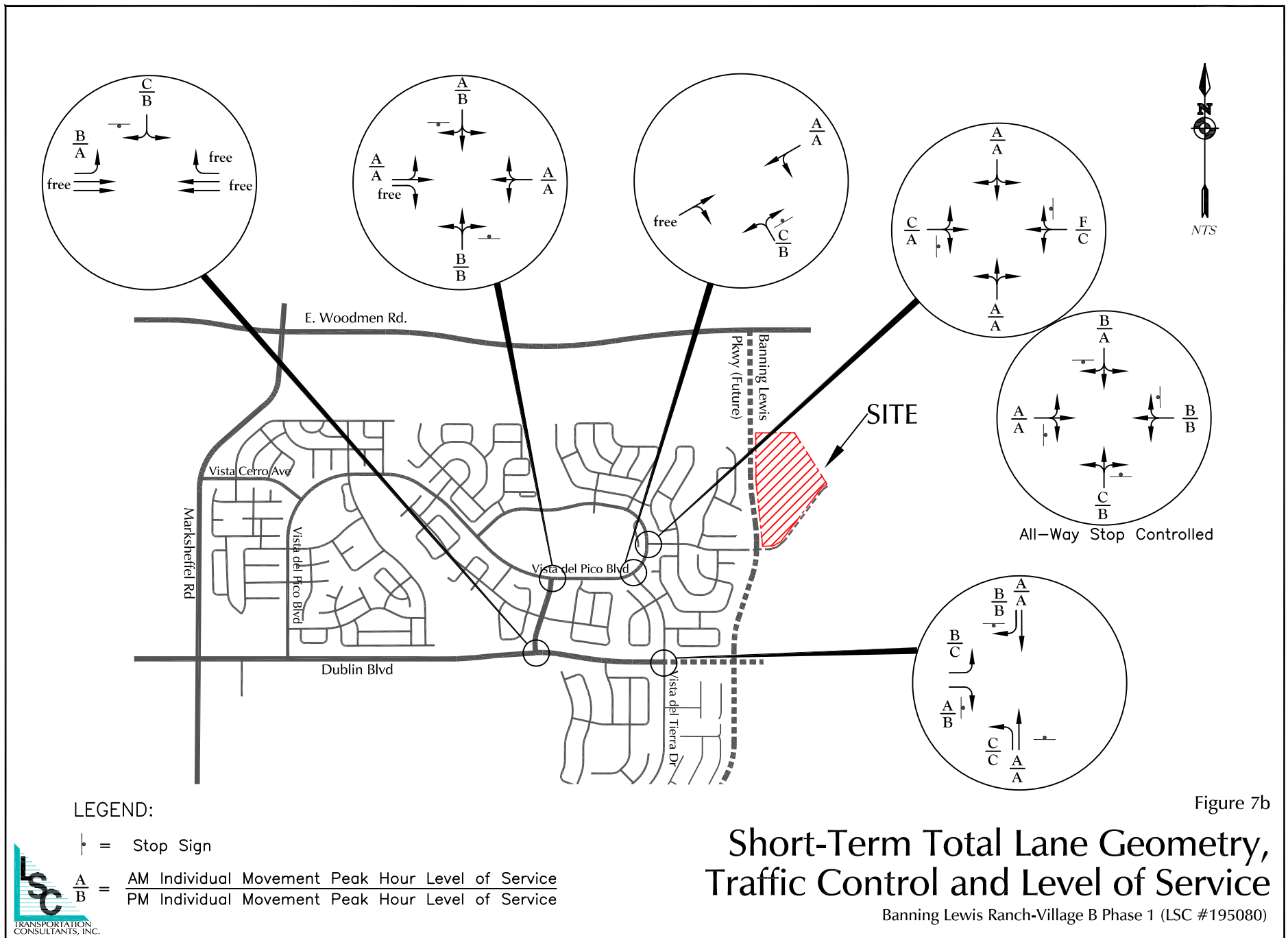
$\frac{42}{26} = \frac{\text{AM Peak Hour Traffic Volumes}}{\text{PM Peak Hour Traffic Volumes}}$



Figure 7a

Short-Term Total Traffic

Banning Lewis Ranch-Village B Phase 1 (LSC #195080)



Traffic Counts



LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

File Name : Vista Del Pico Blvd - Red Cloud Peak Dr AM

Site Code : 00195080

Start Date : 1/9/2020

Page No : 1

Groups Printed- Unshifted

Start Time	Vista Del Pico Blvd Southbound					Red Cloud Peak Dr Westbound					Vista Del Pico Blvd Northbound					Prep School Access Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
06:30 AM	0	4	0	0	4	2	0	0	0	2	1	2	1	0	4	0	0	0	0	0	10
06:35 AM	0	5	1	0	6	3	0	0	0	3	0	2	0	0	2	0	0	0	0	0	11
06:40 AM	0	6	0	0	6	3	0	0	0	3	1	2	1	0	4	0	0	1	0	1	14
06:45 AM	0	8	1	0	9	3	0	2	0	5	0	2	2	0	4	0	0	1	0	1	19
06:50 AM	0	7	0	0	7	6	0	1	0	7	3	3	5	0	11	0	0	0	0	0	25
06:55 AM	0	3	0	0	3	4	0	0	0	4	4	4	3	0	11	0	0	0	0	0	18
Total	0	33	2	0	35	21	0	3	0	24	9	15	12	0	36	0	0	2	0	2	97
07:00 AM	0	8	2	0	10	6	0	0	0	6	4	3	3	0	10	0	0	0	0	0	26
07:05 AM	1	4	0	0	5	4	0	0	0	4	8	1	4	0	13	0	0	0	0	0	22
07:10 AM	0	7	2	0	9	1	0	1	0	2	7	4	5	0	16	0	0	0	0	0	27
07:15 AM	0	8	7	0	15	3	1	1	0	5	22	0	2	0	24	0	0	1	0	1	45
07:20 AM	0	3	15	0	18	0	0	2	0	2	35	1	0	0	36	0	0	0	0	0	56
07:25 AM	0	5	23	0	28	0	0	0	0	0	34	1	2	0	37	0	0	0	0	0	65
07:30 AM	3	4	25	0	32	2	3	2	0	7	23	1	1	0	25	1	0	1	0	2	66
07:35 AM	0	1	27	0	28	1	3	3	0	7	34	1	3	0	38	2	0	4	0	6	79
07:40 AM	0	2	8	0	10	7	3	0	0	10	32	8	10	0	50	0	0	0	0	0	70
07:45 AM	0	2	0	0	2	3	0	0	0	3	6	2	7	0	15	0	0	0	0	0	20
07:50 AM	2	2	0	0	4	3	0	1	0	4	1	8	2	0	11	0	0	0	0	0	19
07:55 AM	0	4	0	0	4	2	0	1	0	3	0	5	5	0	10	0	0	0	0	0	17
Total	6	50	109	0	165	32	10	11	0	53	206	35	44	0	285	3	0	6	0	9	512
08:00 AM	0	5	0	0	5	2	0	0	0	2	1	7	9	0	17	0	0	0	0	0	24
08:05 AM	0	2	0	0	2	2	0	2	0	4	1	10	7	0	18	0	0	0	0	0	24
08:10 AM	2	8	0	0	10	1	0	2	0	3	0	12	3	0	15	0	0	0	0	0	28
08:15 AM	3	32	0	0	35	7	0	3	0	10	0	16	7	0	23	0	0	0	0	0	68
08:20 AM	2	31	0	0	33	1	0	1	0	2	0	13	5	0	18	0	0	0	0	0	53
08:25 AM	1	38	0	0	39	1	0	1	0	2	0	6	5	0	11	0	0	0	0	0	52
Grand Total	14	199	111	0	324	67	10	23	0	100	217	114	92	0	423	3	0	8	0	11	858
Apprch %	4.3	61.4	34.3	0		67	10	23	0		51.3	27	21.7	0		27.3	0	72.7	0		
Total %	1.6	23.2	12.9	0	37.8	7.8	1.2	2.7	0	11.7	25.3	13.3	10.7	0	49.3	0.3	0	0.9	0	1.3	



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Colorado Springs, CO 80905

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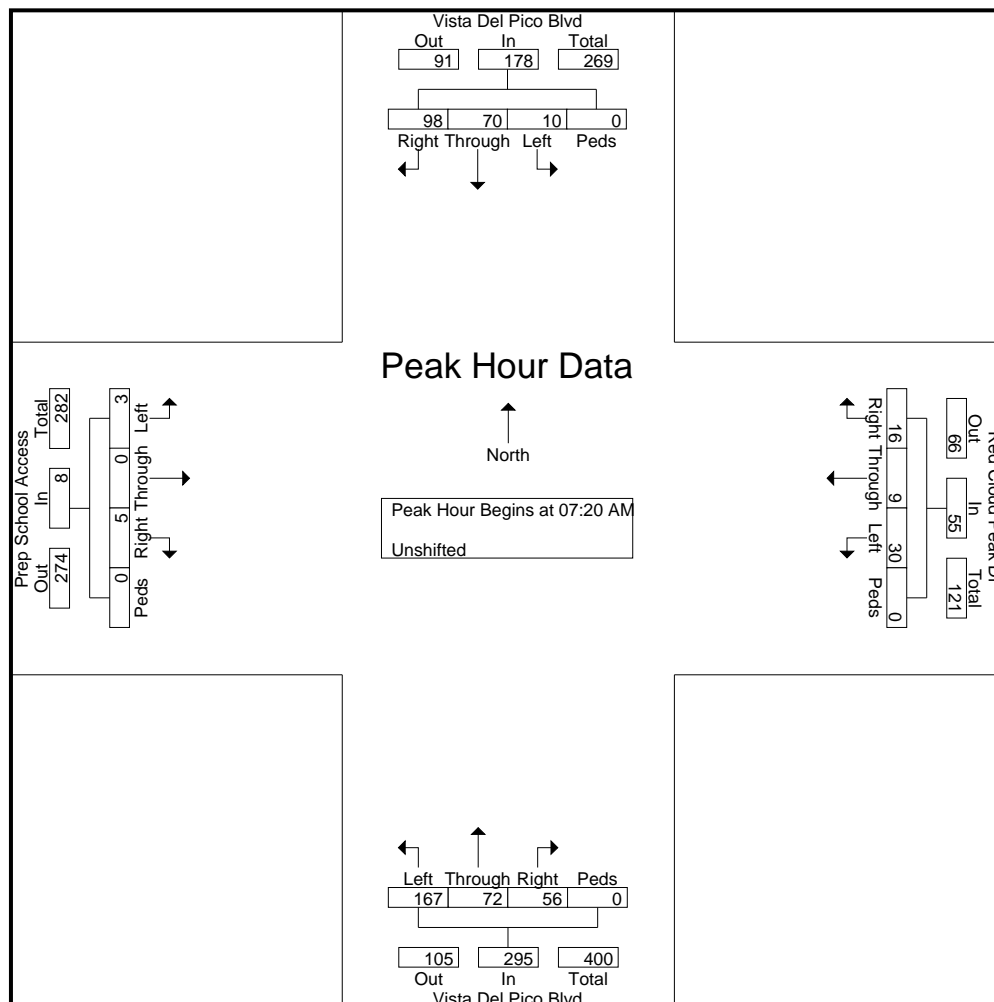
File Name : Vista Del Pico Blvd - Red Cloud Peak Dr AM

Site Code : 00195080

Start Date : 1/9/2020

Page No : 2

	Vista Del Pico Blvd Southbound					Red Cloud Peak Dr Westbound					Vista Del Pico Blvd Northbound					Prep School Access Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:20 AM																					
07:20 AM	0	3	15	0	18	0	0	2	0	2	35	1	0	0	36	0	0	0	0	0	56
07:25 AM	0	5	23	0	28	0	0	0	0	0	34	1	2	0	37	0	0	0	0	0	65
07:30 AM	3	4	25	0	32	2	3	2	0	7	23	1	1	0	25	1	0	1	0	2	66
07:35 AM	0	1	27	0	28	1	3	3	0	7	34	1	3	0	38	2	0	4	0	6	79
07:40 AM	0	2	8	0	10	7	3	0	0	10	32	8	10	0	50	0	0	0	0	0	70
07:45 AM	0	2	0	0	2	3	0	0	0	3	6	2	7	0	15	0	0	0	0	0	20
07:50 AM	2	2	0	0	4	3	0	1	0	4	1	8	2	0	11	0	0	0	0	0	19
07:55 AM	0	4	0	0	4	2	0	1	0	3	0	5	5	0	10	0	0	0	0	0	17
08:00 AM	0	5	0	0	5	2	0	0	0	2	1	7	9	0	17	0	0	0	0	0	24
08:05 AM	0	2	0	0	2	2	0	2	0	4	1	10	7	0	18	0	0	0	0	0	24
08:10 AM	2	8	0	0	10	1	0	2	0	3	0	12	3	0	15	0	0	0	0	0	28
08:15 AM	3	32	0	0	35	7	0	3	0	10	0	16	7	0	23	0	0	0	0	0	68
Total Volume	10	70	98	0	178	30	9	16	0	55	167	72	56	0	295	3	0	5	0	8	536
% App. Total	5.6	39.3	55.1	0		54.5	16.4	29.1	0		56.6	24.4	19	0		37.5	0	62.5	0		
PHF	.278	.182	.302	.000	.424	.357	.250	.444	.000	.458	.398	.375	.467	.000	.492	.125	.000	.104	.000	.111	.565





LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
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719-633-2868

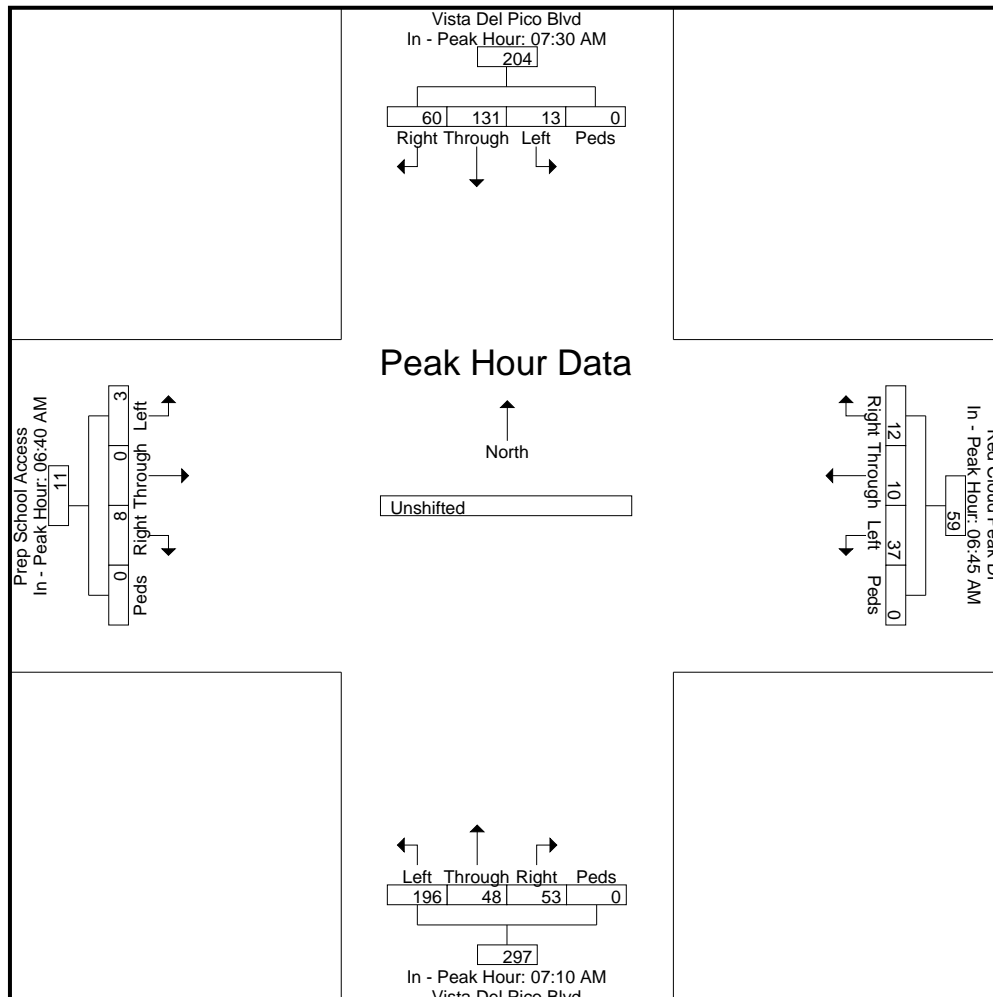
File Name : Vista Del Pico Blvd - Red Cloud Peak Dr AM

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Page No : 3

	Vista Del Pico Blvd Southbound					Red Cloud Peak Dr Westbound					Vista Del Pico Blvd Northbound					Prep School Access Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:25 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					06:45 AM					07:10 AM					06:40 AM					
+0 mins.	3	4	25	0	32	3	0	2	0	5	7	4	5	0	16	0	0	1	0	1	
+5 mins.	0	1	27	0	28	6	0	1	0	7	22	0	2	0	24	0	0	1	0	1	
+10 mins.	0	2	8	0	10	4	0	0	0	4	35	1	0	0	36	0	0	0	0	0	
+15 mins.	0	2	0	0	2	6	0	0	0	6	34	1	2	0	37	0	0	0	0	0	
+20 mins.	2	2	0	0	4	4	0	0	0	4	23	1	1	0	25	0	0	0	0	0	
+25 mins.	0	4	0	0	4	1	0	1	0	2	34	1	3	0	38	0	0	0	0	0	
+30 mins.	0	5	0	0	5	3	1	1	0	5	32	8	10	0	50	0	0	0	0	0	
+35 mins.	0	2	0	0	2	0	0	2	0	2	6	2	7	0	15	0	0	1	0	1	
+40 mins.	2	8	0	0	10	0	0	0	0	0	1	8	2	0	11	0	0	0	0	0	
+45 mins.	3	32	0	0	35	2	3	2	0	7	0	5	5	0	10	0	0	0	0	0	
+50 mins.	2	31	0	0	33	1	3	3	0	7	1	7	9	0	17	1	0	1	0	2	
+55 mins.	1	38	0	0	39	7	3	0	0	10	1	10	7	0	18	2	0	4	0	6	
Total Volume	13	131	60	0	204	37	10	12	0	59	196	48	53	0	297	3	0	8	0	11	
% App. Total	6.4	64.2	29.4	0		62.7	16.9	20.3	0		66	16.2	17.8	0		27.3	0	72.7	0		
PHF	.361	.287	.185	.000	.436	.440	.278	.333	.000	.492	.467	.400	.442	.000	.495	.125	.000	.167	.000	.153	



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719-633-2868

File Name : Vista Del Pico Blvd - Red Cloud Peak Dr PM

Site Code : 00195080

Start Date : 1/9/2020

Page No : 1

Groups Printed- Unshifted

Start Time	Vista Del Pico Blvd Southbound					Red Cloud Peak Dr Westbound					Vista Del Pico Blvd Northbound					Prep School Acces Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
04:00 PM	0	5	0	0	5	6	0	1	0	7	3	7	3	0	13	0	0	0	0	0	25
04:05 PM	0	5	1	0	6	5	0	2	0	7	1	5	1	0	7	0	0	1	0	1	21
04:10 PM	0	4	0	0	4	1	0	0	0	1	2	6	7	0	15	0	0	0	0	0	20
04:15 PM	0	4	0	0	4	5	0	0	0	5	0	3	4	0	7	0	0	0	0	0	16
04:20 PM	0	1	0	0	1	4	1	0	0	5	2	4	4	0	10	0	0	0	0	0	16
04:25 PM	0	6	0	0	6	5	0	0	0	5	2	2	4	0	8	0	0	2	0	2	21
04:30 PM	2	1	0	0	3	7	0	0	0	7	1	2	3	0	6	0	0	0	0	0	16
04:35 PM	1	3	2	0	6	5	0	0	0	5	2	7	6	0	15	0	0	0	0	0	26
04:40 PM	0	0	0	0	0	9	0	0	0	9	2	5	6	0	13	0	0	1	0	1	23
04:45 PM	1	1	0	0	2	3	0	1	0	4	1	7	4	0	12	0	0	0	0	0	18
04:50 PM	1	3	1	0	5	4	0	1	0	5	1	4	4	0	9	0	0	0	0	0	19
04:55 PM	0	3	0	0	3	5	0	2	0	7	2	5	1	0	8	0	0	0	0	0	18
Total	5	36	4	0	45	59	1	7	0	67	19	57	47	0	123	0	0	4	0	4	239
05:00 PM	0	1	3	0	4	2	0	0	0	2	2	3	6	0	11	0	0	1	0	1	18
05:05 PM	0	2	0	0	2	3	0	0	0	3	6	5	2	0	13	0	0	1	0	1	19
05:10 PM	0	8	1	0	9	3	0	2	0	5	3	2	3	0	8	1	0	0	0	1	23
05:15 PM	1	3	3	0	7	5	0	0	0	5	4	5	3	0	12	0	0	1	0	1	25
05:20 PM	0	3	0	0	3	3	1	1	0	5	5	8	2	0	15	0	0	0	0	0	23
05:25 PM	1	1	0	0	2	3	2	0	0	5	2	6	3	0	11	0	0	0	0	0	18
05:30 PM	0	5	0	0	5	1	0	0	0	1	1	6	1	0	8	0	0	0	0	0	14
05:35 PM	2	2	0	0	4	2	0	0	0	2	0	9	1	0	10	0	0	2	0	2	18
05:40 PM	0	2	0	0	2	1	0	0	0	1	1	7	1	0	9	1	0	1	0	2	14
05:45 PM	1	3	0	0	4	4	0	0	0	4	1	3	4	0	8	0	0	0	0	0	16
05:50 PM	0	2	1	0	3	3	0	0	0	3	1	4	3	0	8	0	0	0	0	0	14
05:55 PM	1	2	0	0	3	2	0	0	0	2	2	2	2	0	6	0	0	0	0	0	11
Total	6	34	8	0	48	32	3	3	0	38	28	60	31	0	119	2	0	6	0	8	213
Grand Total	11	70	12	0	93	91	4	10	0	105	47	117	78	0	242	2	0	10	0	12	452
Apprch %	11.8	75.3	12.9	0		86.7	3.8	9.5	0		19.4	48.3	32.2	0		16.7	0	83.3	0		
Total %	2.4	15.5	2.7	0	20.6	20.1	0.9	2.2	0	23.2	10.4	25.9	17.3	0	53.5	0.4	0	2.2	0	2.7	



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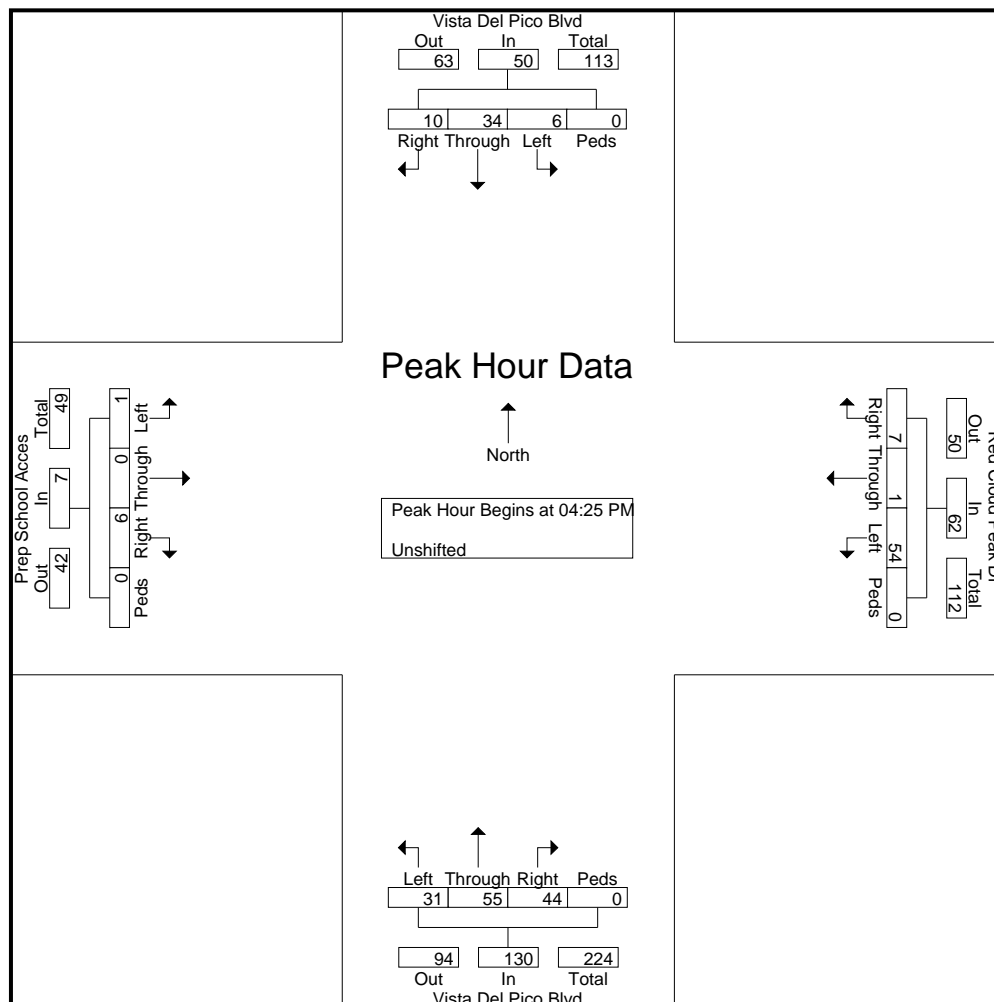
File Name : Vista Del Pico Blvd - Red Cloud Peak Dr PM

Site Code : 00195080

Start Date : 1/9/2020

Page No : 2

	Vista Del Pico Blvd Southbound					Red Cloud Peak Dr Westbound					Vista Del Pico Blvd Northbound					Prep School Acces Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:55 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:25 PM																					
04:25 PM	0	6	0	0	6	5	0	0	0	5	2	2	4	0	8	0	0	2	0	2	21
04:30 PM	2	1	0	0	3	7	0	0	0	7	1	2	3	0	6	0	0	0	0	0	16
04:35 PM	1	3	2	0	6	5	0	0	0	5	2	7	6	0	15	0	0	0	0	0	26
04:40 PM	0	0	0	0	0	9	0	0	0	9	2	5	6	0	13	0	0	1	0	1	23
04:45 PM	1	1	0	0	2	3	0	1	0	4	1	7	4	0	12	0	0	0	0	0	18
04:50 PM	1	3	1	0	5	4	0	1	0	5	1	4	4	0	9	0	0	0	0	0	19
04:55 PM	0	3	0	0	3	5	0	2	0	7	2	5	1	0	8	0	0	0	0	0	18
05:00 PM	0	1	3	0	4	2	0	0	0	2	2	3	6	0	11	0	0	1	0	1	18
05:05 PM	0	2	0	0	2	3	0	0	0	3	6	5	2	0	13	0	0	1	0	1	19
05:10 PM	0	8	1	0	9	3	0	2	0	5	3	2	3	0	8	1	0	0	0	1	23
05:15 PM	1	3	3	0	7	5	0	0	0	5	4	5	3	0	12	0	0	1	0	1	25
05:20 PM	0	3	0	0	3	3	1	1	0	5	5	8	2	0	15	0	0	0	0	0	23
Total Volume	6	34	10	0	50	54	1	7	0	62	31	55	44	0	130	1	0	6	0	7	249
% App. Total	12	68	20	0		87.1	1.6	11.3	0		23.8	42.3	33.8	0		14.3	0	85.7	0		
PHF	.250	.354	.278	.000	.463	.500	.083	.292	.000	.574	.431	.573	.611	.000	.722	.083	.000	.250	.000	.292	.798





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File Name : Vista Del Pico Blvd - Red Cloud Peak Dr PM

Site Code : 00195080

Start Date : 1/9/2020

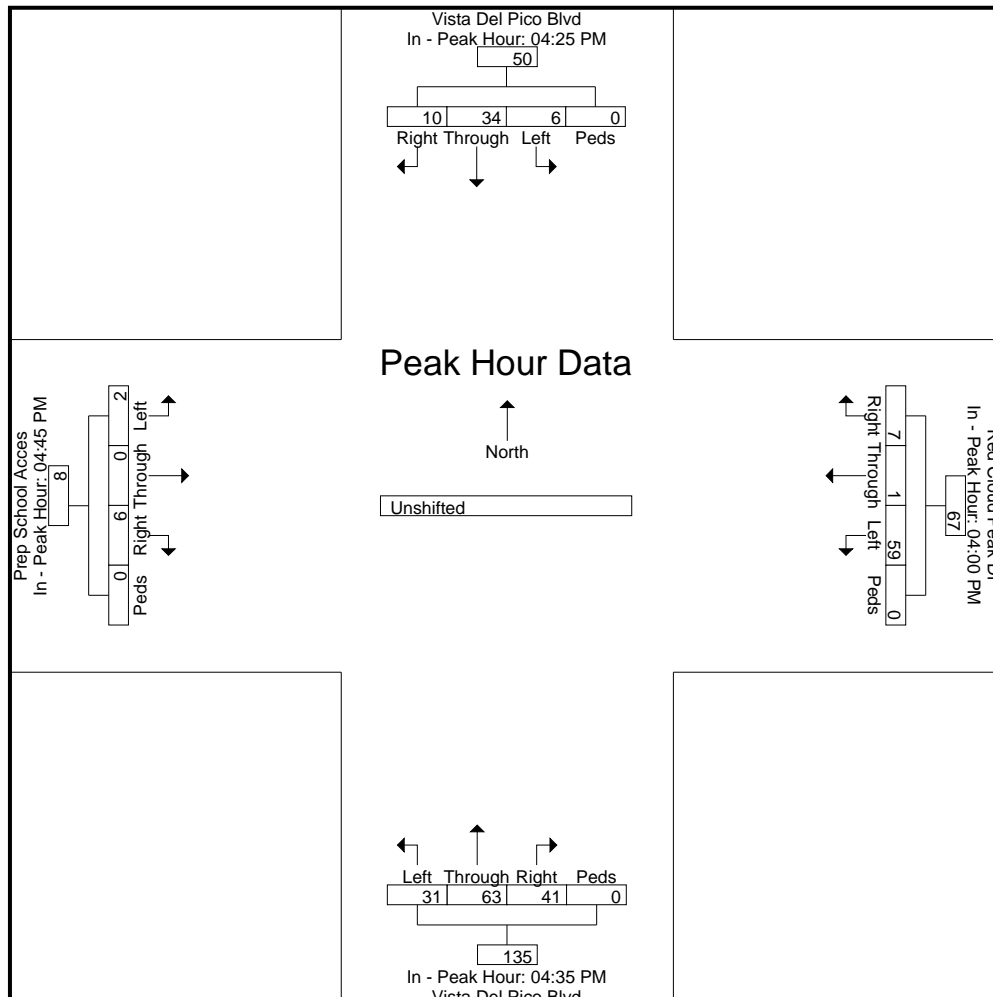
Page No : 3

	Vista Del Pico Blvd Southbound					Red Cloud Peak Dr Westbound					Vista Del Pico Blvd Northbound					Prep School Acces Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:25 PM					04:00 PM					04:35 PM					04:45 PM				
+0 mins.	0	6	0	0	6	6	0	1	0	7	2	7	6	0	15	0	0	0	0	0
+5 mins.	2	1	0	0	3	5	0	2	0	7	2	5	6	0	13	0	0	0	0	0
+10 mins.	1	3	2	0	6	1	0	0	0	1	1	7	4	0	12	0	0	0	0	0
+15 mins.	0	0	0	0	0	5	0	0	0	5	1	4	4	0	9	0	0	1	0	1
+20 mins.	1	1	0	0	2	4	1	0	0	5	2	5	1	0	8	0	0	1	0	1
+25 mins.	1	3	1	0	5	5	0	0	0	5	2	3	6	0	11	1	0	0	0	1
+30 mins.	0	3	0	0	3	7	0	0	0	7	6	5	2	0	13	0	0	1	0	1
+35 mins.	0	1	3	0	4	5	0	0	0	5	3	2	3	0	8	0	0	0	0	0
+40 mins.	0	2	0	0	2	9	0	0	0	9	4	5	3	0	12	0	0	0	0	0
+45 mins.	0	8	1	0	9	3	0	1	0	4	5	8	2	0	15	0	0	0	0	0
+50 mins.	1	3	3	0	7	4	0	1	0	5	2	6	3	0	11	0	0	2	0	2
+55 mins.	0	3	0	0	3	5	0	2	0	7	1	6	1	0	8	1	0	1	0	2
Total Volume	6	34	10	0	50	59	1	7	0	67	31	63	41	0	135	2	0	6	0	8
% App. Total	12	68	20	0		88.1	1.5	10.4	0		23	46.7	30.4	0		25	0	75	0	
PHF	.250	.354	.278	.000	.463	.546	.083	.292	.000	.620	.431	.656	.569	.000	.750	.167	.000	.250	.000	.333



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719-633-2868

File Name : Vista Del Tierra Dr - Dublin Blvd AM

Site Code : 195080

Start Date : 12/5/2019

Page No : 1

Groups Printed- Unshifted

Start Time	Vista Del Tierra Dr Southbound					Westbound					Vista Del Tierra Dr Northbound					Dublin Blvd Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
06:30 AM	0	0	34	0	34	0	0	0	0	0	1	0	0	0	1	3	0	3	0	6	41
06:45 AM	0	0	31	1	32	0	0	0	0	0	0	0	0	0	0	17	0	18	0	35	67
Total	0	0	65	1	66	0	0	0	0	0	1	0	0	0	1	20	0	21	0	41	108
07:00 AM	0	5	35	0	40	0	0	0	0	0	2	0	0	0	2	17	0	12	1	30	72
07:15 AM	0	0	31	0	31	0	0	0	0	0	1	4	0	0	5	43	0	3	0	46	82
07:30 AM	1	4	55	1	61	0	0	0	0	0	1	1	0	0	2	63	0	8	0	71	134
07:45 AM	0	4	29	0	33	0	0	0	0	0	5	5	0	0	10	24	5	2	0	31	74
Total	1	13	150	1	165	0	0	0	0	0	9	10	0	0	19	147	5	25	1	178	362
08:00 AM	0	3	22	0	25	0	2	1	0	3	4	3	0	0	7	22	0	11	0	33	68
08:15 AM	0	8	33	0	41	0	0	3	0	3	4	3	0	0	7	27	0	10	0	37	88
Grand Total	1	24	270	2	297	0	2	4	0	6	18	16	0	0	34	216	5	67	1	289	626
Apprch %	0.3	8.1	90.9	0.7		0	33.3	66.7	0		52.9	47.1	0	0		74.7	1.7	23.2	0.3		
Total %	0.2	3.8	43.1	0.3	47.4	0	0.3	0.6	0	1	2.9	2.6	0	0	5.4	34.5	0.8	10.7	0.2	46.2	



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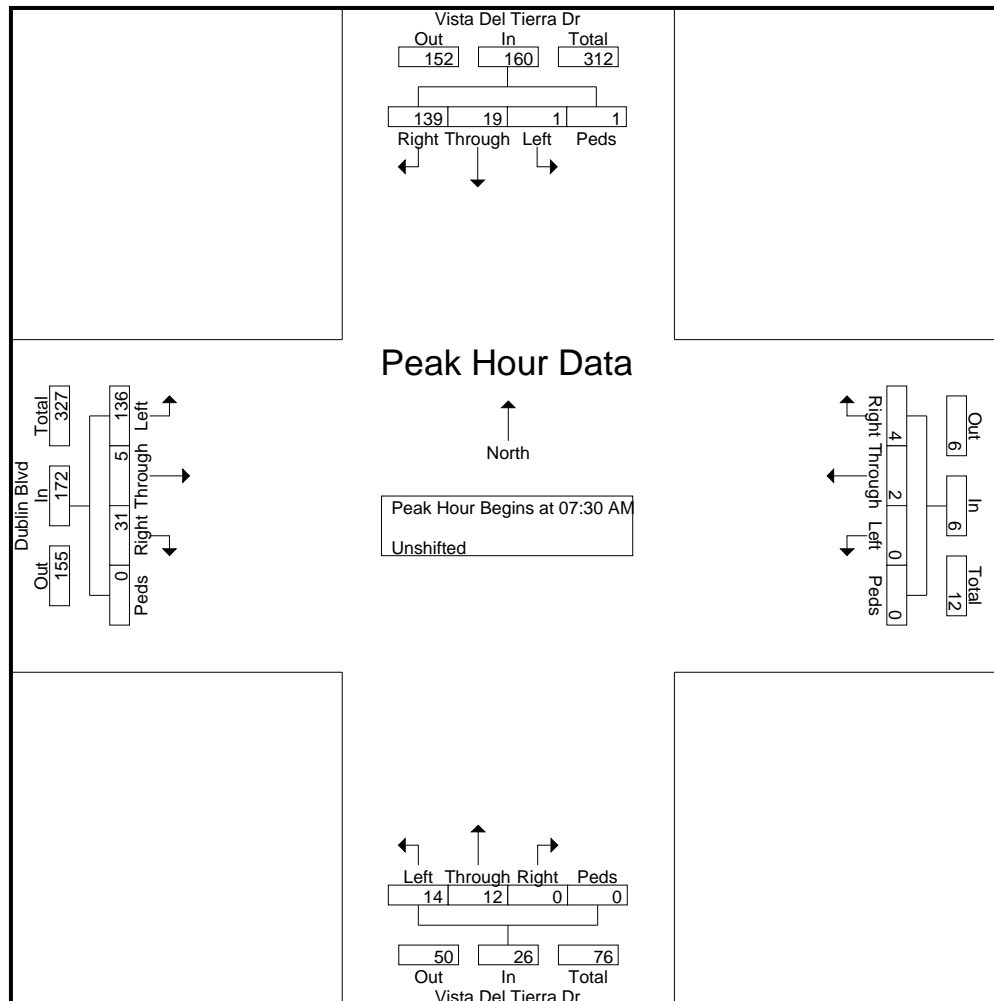
File Name : Vista Del Tierra Dr - Dublin Blvd AM

Site Code : 195080

Start Date : 12/5/2019

Page No : 2

	Vista Del Tierra Dr Southbound					Westbound					Vista Del Tierra Dr Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	4	55	1	61	0	0	0	0	0	1	1	0	0	2	63	0	8	0	71	134
07:45 AM	0	4	29	0	33	0	0	0	0	0	5	5	0	0	10	24	5	2	0	31	74
08:00 AM	0	3	22	0	25	0	2	1	0	3	4	3	0	0	7	22	0	11	0	33	68
08:15 AM	0	8	33	0	41	0	0	3	0	3	4	3	0	0	7	27	0	10	0	37	88
Total Volume	1	19	139	1	160	0	2	4	0	6	14	12	0	0	26	136	5	31	0	172	364
% App. Total	0.6	11.9	86.9	0.6		0	33.3	66.7	0		53.8	46.2	0	0		79.1	2.9	18	0		
PHF	.250	.594	.632	.250	.656	.000	.250	.333	.000	.500	.700	.600	.000	.000	.650	.540	.250	.705	.000	.606	.679





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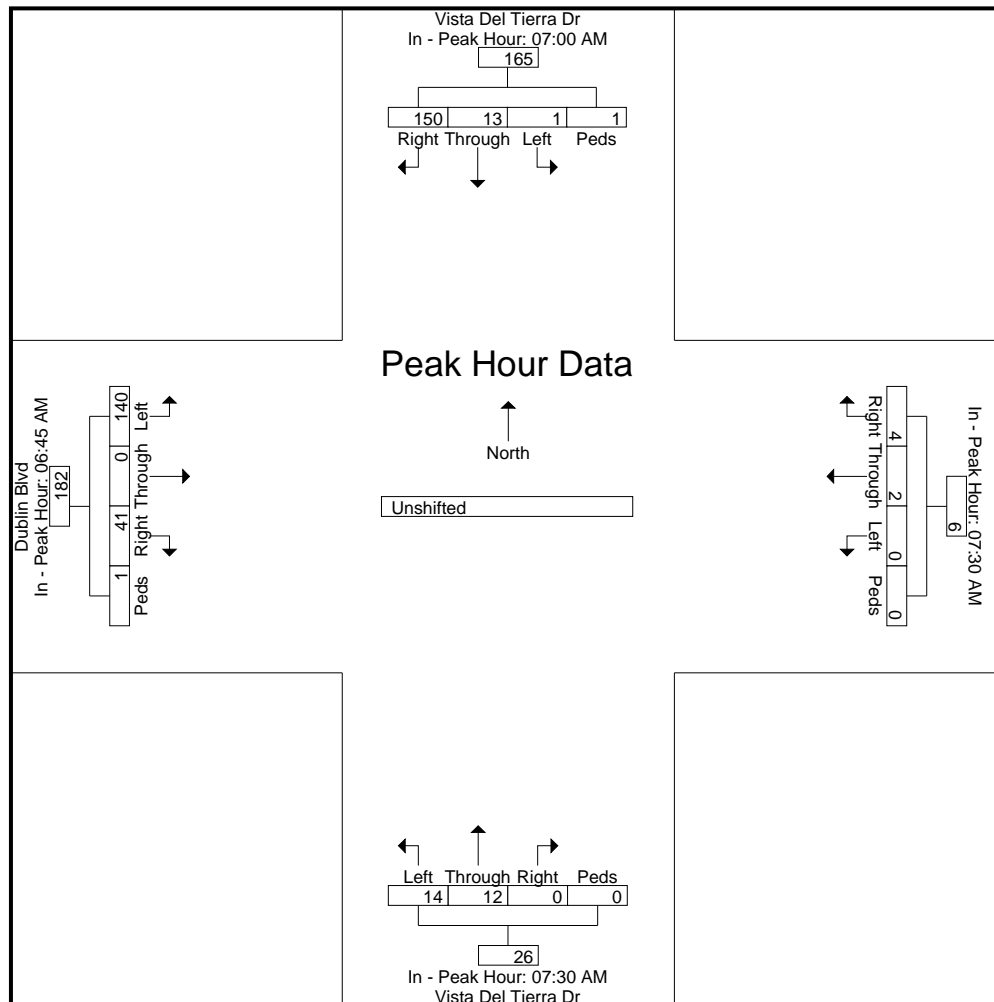
File Name : Vista Del Tierra Dr - Dublin Blvd AM

Site Code : 195080

Start Date : 12/5/2019

Page No : 3

	Vista Del Tierra Dr Southbound					Westbound					Vista Del Tierra Dr Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:00 AM					07:30 AM					07:30 AM					06:45 AM					
+0 mins.	0	5	35	0	40	0	0	0	0	0	1	1	0	0	2	17	0	18	0	35	
+15 mins.	0	0	31	0	31	0	0	0	0	0	5	5	0	0	10	17	0	12	1	30	
+30 mins.	1	4	55	1	61	0	2	1	0	3	4	3	0	0	7	43	0	3	0	46	
+45 mins.	0	4	29	0	33	0	0	3	0	3	4	3	0	0	7	63	0	8	0	71	
Total Volume	1	13	150	1	165	0	2	4	0	6	14	12	0	0	26	140	0	41	1	182	
% App. Total	0.6	7.9	90.9	0.6		0	33.3	66.7	0		53.8	46.2	0	0		76.9	0	22.5	0.5		
PHF	.250	.650	.682	.250	.676	.000	.250	.333	.000	.500	.700	.600	.000	.000	.650	.556	.000	.569	.250	.641	





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545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

File Name : Vista Del Tierra Dr - Dublin Blvd PM

Site Code : 00195080

Start Date : 12/12/2019

Page No : 1

Groups Printed- Unshifted

	Vista Del Tierra Southbound					Dublin Blvd Westbound					Vista Del Tierra Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
04:00 PM	1	4	16	0	21	0	2	1	0	3	8	1	0	0	9	25	0	1	0	26	59
04:15 PM	1	3	14	0	18	0	0	1	0	1	6	1	0	0	7	15	0	1	0	16	42
04:30 PM	0	2	20	0	22	0	1	0	0	1	5	2	0	0	7	22	1	3	0	26	56
04:45 PM	0	3	14	0	17	0	0	0	0	0	11	4	0	0	15	35	0	5	0	40	72
Total	2	12	64	0	78	0	3	2	0	5	30	8	0	0	38	97	1	10	0	108	229
05:00 PM	0	1	15	0	16	0	0	0	0	0	10	3	0	0	13	26	0	1	0	27	56
05:15 PM	1	1	27	0	29	0	0	0	0	0	7	6	0	0	13	30	0	0	0	30	72
05:30 PM	0	0	12	0	12	0	1	0	0	1	17	0	0	0	17	32	0	0	0	32	62
05:45 PM	0	0	13	0	13	0	0	0	0	0	4	0	0	0	4	30	0	0	0	30	47
Total	1	2	67	0	70	0	1	0	0	1	38	9	0	0	47	118	0	1	0	119	237
Grand Total	3	14	131	0	148	0	4	2	0	6	68	17	0	0	85	215	1	11	0	227	466
Apprch %	2	9.5	88.5	0		0	66.7	33.3	0		80	20	0	0		94.7	0.4	4.8	0		
Total %	0.6	3	28.1	0	31.8	0	0.9	0.4	0	1.3	14.6	3.6	0	0	18.2	46.1	0.2	2.4	0	48.7	



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719-633-2868

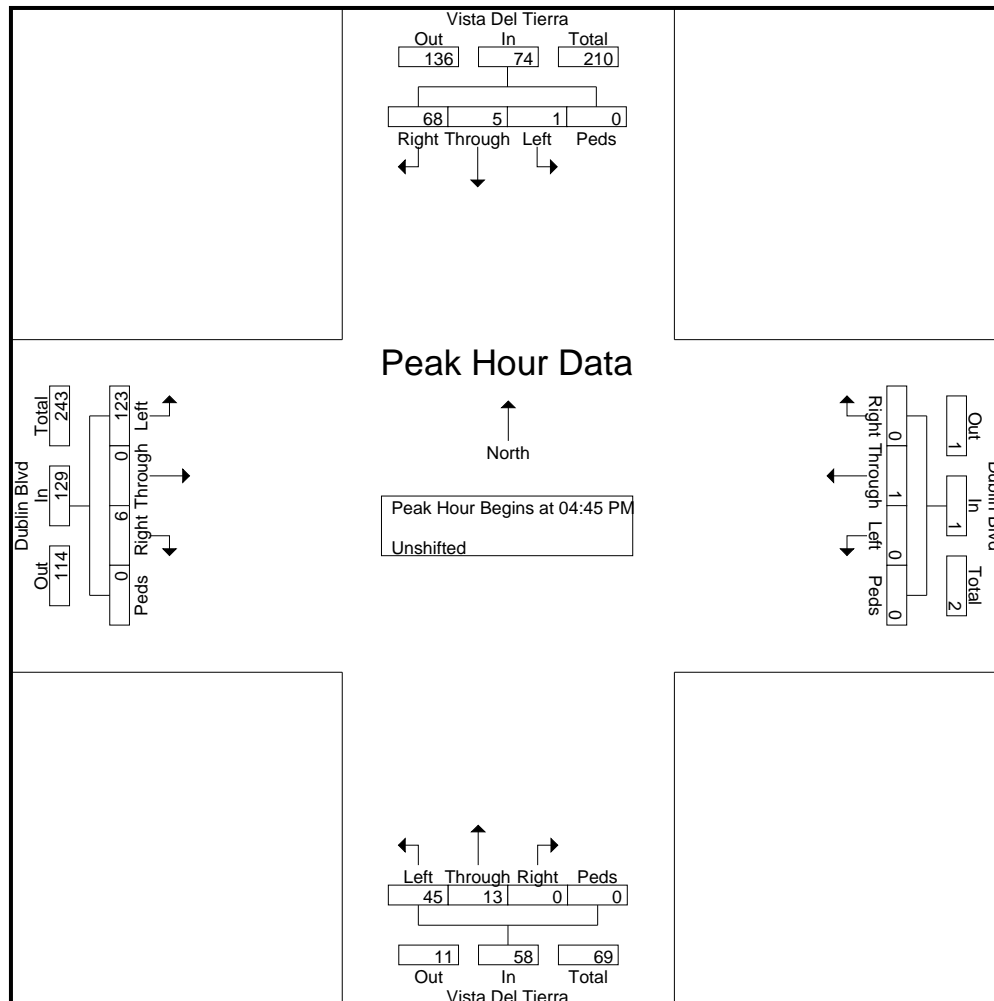
File Name : Vista Del Tierra Dr - Dublin Blvd PM

Site Code : 00195080

Start Date : 12/12/2019

Page No : 2

	Vista Del Tierra Southbound					Dublin Blvd Westbound					Vista Del Tierra Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	3	14	0	17	0	0	0	0	0	11	4	0	0	15	35	0	5	0	40	72
05:00 PM	0	1	15	0	16	0	0	0	0	0	10	3	0	0	13	26	0	1	0	27	56
05:15 PM	1	1	27	0	29	0	0	0	0	0	7	6	0	0	13	30	0	0	0	30	72
05:30 PM	0	0	12	0	12	0	1	0	0	1	17	0	0	0	17	32	0	0	0	32	62
Total Volume	1	5	68	0	74	0	1	0	0	1	45	13	0	0	58	123	0	6	0	129	262
% App. Total	1.4	6.8	91.9	0		0	100	0	0		77.6	22.4	0	0		95.3	0	4.7	0		
PHF	.250	.417	.630	.000	.638	.000	.250	.000	.000	.250	.662	.542	.000	.000	.853	.879	.000	.300	.000	.806	.910





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719-633-2868

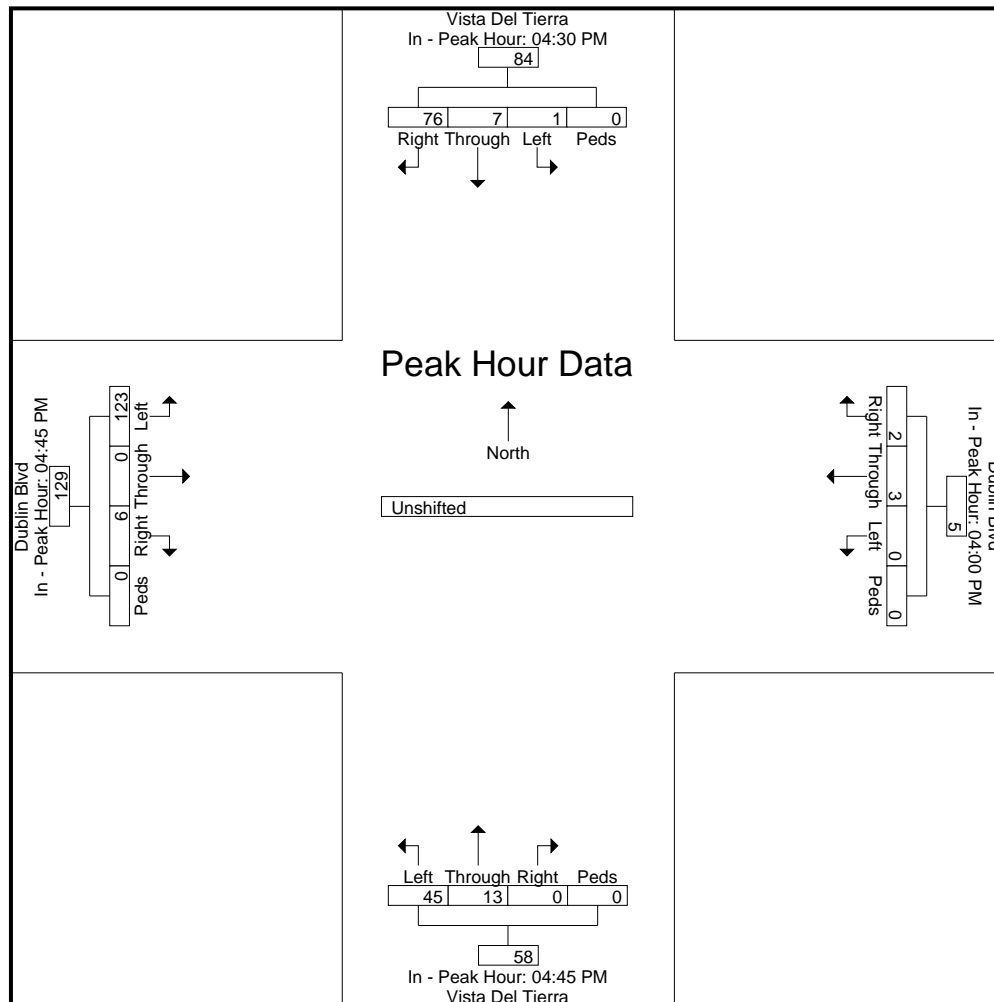
File Name : Vista Del Tierra Dr - Dublin Blvd PM

Site Code : 00195080

Start Date : 12/12/2019

Page No : 3

	Vista Del Tierra Southbound					Dublin Blvd Westbound					Vista Del Tierra Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					04:00 PM					04:45 PM					04:45 PM					
+0 mins.	0	2	20	0	22	0	2	1	0	3	11	4	0	0	15	35	0	5	0	40	
+15 mins.	0	3	14	0	17	0	0	1	0	1	10	3	0	0	13	26	0	1	0	27	
+30 mins.	0	1	15	0	16	0	1	0	0	1	7	6	0	0	13	30	0	0	0	30	
+45 mins.	1	1	27	0	29	0	0	0	0	0	17	0	0	0	17	32	0	0	0	32	
Total Volume	1	7	76	0	84	0	3	2	0	5	45	13	0	0	58	123	0	6	0	129	
% App. Total	1.2	8.3	90.5	0		0	60	40	0		77.6	22.4	0	0		95.3	0	4.7	0		
PHF	.250	.583	.704	.000	.724	.000	.375	.500	.000	.417	.662	.542	.000	.000	.853	.879	.000	.300	.000	.806	



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File Name : Vista Del Valley Dr - Dublin Blvd PM 5 Min

Site Code : 00195080

Start Date : 1/14/2020

Page No : 1

Groups Printed- Unshifted

	Vista Del Valley Dr Southbound					Dublin Blvd Westbound					Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	16	0	16	0	14	0	0	14	0	0	0	0	0	22	9	0	0	31	61
04:05 PM	0	0	13	0	13	0	15	0	0	15	0	0	0	0	0	16	12	0	1	29	57
04:10 PM	0	0	11	0	11	0	11	0	0	11	0	0	0	0	0	14	13	0	0	27	49
04:15 PM	0	0	15	0	15	0	14	0	0	14	0	0	0	0	0	10	9	0	2	21	50
04:20 PM	0	0	18	0	18	0	14	0	0	14	0	0	0	0	0	16	10	0	0	26	58
04:25 PM	0	0	11	0	11	0	8	0	0	8	0	0	0	0	0	17	11	0	0	28	47
04:30 PM	0	0	6	0	6	0	13	1	0	14	0	0	0	0	0	23	5	0	0	28	48
04:35 PM	0	0	20	0	20	0	15	0	0	15	0	0	0	0	0	12	11	0	0	23	58
04:40 PM	0	0	15	0	15	0	10	0	0	10	0	0	0	0	0	20	13	0	0	33	58
04:45 PM	1	0	12	0	13	0	15	0	0	15	0	0	0	0	0	11	7	0	0	18	46
04:50 PM	0	0	15	0	15	0	7	0	0	7	0	0	0	0	0	15	17	0	0	32	54
04:55 PM	0	0	11	0	11	0	14	0	0	14	0	0	0	0	0	9	9	0	0	18	43
Total	1	0	163	0	164	0	150	1	0	151	0	0	0	0	0	185	126	0	3	314	629
05:00 PM	0	0	14	0	14	0	22	0	0	22	0	0	0	0	0	16	8	0	0	24	60
05:05 PM	0	0	15	0	15	0	10	1	0	11	0	0	0	0	0	11	11	0	0	22	48
05:10 PM	0	0	17	0	17	0	12	0	0	12	0	0	0	0	0	18	9	0	0	27	56
05:15 PM	0	0	15	0	15	0	12	0	0	12	0	0	0	0	0	12	8	0	1	21	48
05:20 PM	1	0	9	0	10	0	12	0	0	12	0	0	0	0	0	25	10	0	0	35	57
05:25 PM	0	0	13	0	13	0	11	0	0	11	0	0	0	0	0	22	11	0	1	34	58
05:30 PM	0	0	12	0	12	0	11	0	0	11	0	0	0	0	0	17	17	0	0	34	57
05:35 PM	0	0	8	0	8	0	14	0	0	14	0	0	0	0	0	15	14	0	1	30	52
05:40 PM	0	0	12	0	12	0	14	0	0	14	0	0	0	0	0	17	10	0	0	27	53
05:45 PM	0	0	4	0	4	0	5	0	0	5	0	0	0	0	0	14	8	0	0	22	31
05:50 PM	0	0	8	0	8	0	7	0	0	7	0	0	0	0	0	13	6	0	0	19	34
05:55 PM	0	0	6	0	6	0	6	0	0	6	0	0	0	0	0	14	7	0	0	21	33
Total	1	0	133	0	134	0	136	1	0	137	0	0	0	0	0	194	119	0	3	316	587
Grand Total	2	0	296	0	298	0	286	2	0	288	0	0	0	0	0	379	245	0	6	630	1216
Apprch %	0.7	0	99.3	0		0	99.3	0.7	0		0	0	0	0		60.2	38.9	0	1		
Total %	0.2	0	24.3	0	24.5	0	23.5	0.2	0	23.7	0	0	0	0	0	31.2	20.1	0	0.5	51.8	

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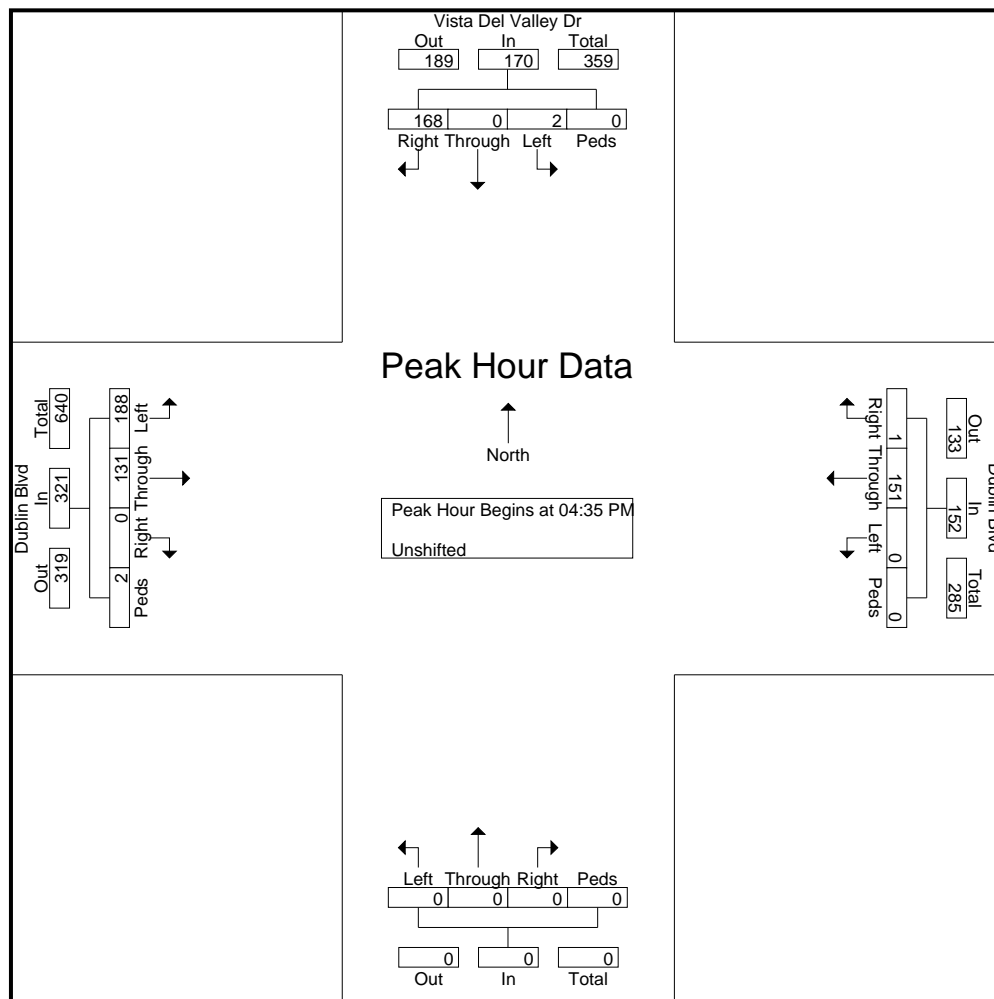
File Name : Vista Del Valley Dr - Dublin Blvd PM 5 Min

Site Code : 00195080

Start Date : 1/14/2020

Page No : 2

	Vista Del Valley Dr Southbound					Dublin Blvd Westbound					Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:55 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:35 PM																					
04:35 PM	0	0	20	0	20	0	15	0	0	15	0	0	0	0	0	12	11	0	0	23	58
04:40 PM	0	0	15	0	15	0	10	0	0	10	0	0	0	0	0	20	13	0	0	33	58
04:45 PM	1	0	12	0	13	0	15	0	0	15	0	0	0	0	0	11	7	0	0	18	46
04:50 PM	0	0	15	0	15	0	7	0	0	7	0	0	0	0	0	15	17	0	0	32	54
04:55 PM	0	0	11	0	11	0	14	0	0	14	0	0	0	0	0	9	9	0	0	18	43
05:00 PM	0	0	14	0	14	0	22	0	0	22	0	0	0	0	0	16	8	0	0	24	60
05:05 PM	0	0	15	0	15	0	10	1	0	11	0	0	0	0	0	11	11	0	0	22	48
05:10 PM	0	0	17	0	17	0	12	0	0	12	0	0	0	0	0	18	9	0	0	27	56
05:15 PM	0	0	15	0	15	0	12	0	0	12	0	0	0	0	0	12	8	0	1	21	48
05:20 PM	1	0	9	0	10	0	12	0	0	12	0	0	0	0	0	25	10	0	0	35	57
05:25 PM	0	0	13	0	13	0	11	0	0	11	0	0	0	0	0	22	11	0	1	34	58
05:30 PM	0	0	12	0	12	0	11	0	0	11	0	0	0	0	0	17	17	0	0	34	57
Total Volume	2	0	168	0	170	0	151	1	0	152	0	0	0	0	0	188	131	0	2	321	643
% App. Total	1.2	0	98.8	0		0	99.3	0.7	0		0	0	0	0	0	58.6	40.8	0	0.6		
PHF	.167	.000	.700	.000	.708	.000	.572	.083	.000	.576	.000	.000	.000	.000	.000	.627	.642	.000	.167	.764	.893



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File Name : Vista Del Valley Dr - Dublin Blvd PM 5 Min

Site Code : 00195080

Start Date : 1/14/2020

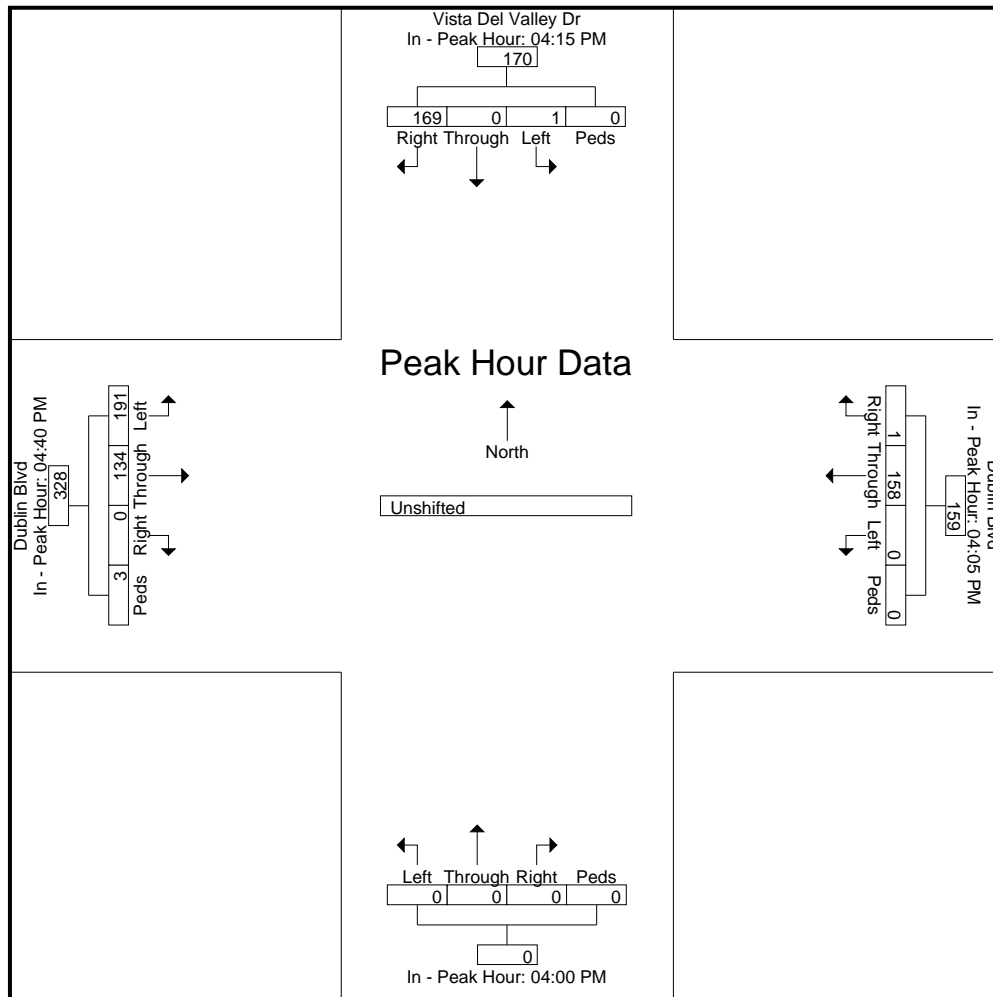
Page No : 3

	Vista Del Valley Dr Southbound					Dublin Blvd Westbound					Northbound					Dublin Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM					04:05 PM					04:00 PM					04:40 PM				
+0 mins.	0	0	15	0	15	0	15	0	0	15	0	0	0	0	0	20	13	0	0	33
+5 mins.	0	0	18	0	18	0	11	0	0	11	0	0	0	0	0	11	7	0	0	18
+10 mins.	0	0	11	0	11	0	14	0	0	14	0	0	0	0	0	15	17	0	0	32
+15 mins.	0	0	6	0	6	0	14	0	0	14	0	0	0	0	0	9	9	0	0	18
+20 mins.	0	0	20	0	20	0	8	0	0	8	0	0	0	0	0	16	8	0	0	24
+25 mins.	0	0	15	0	15	0	13	1	0	14	0	0	0	0	0	11	11	0	0	22
+30 mins.	1	0	12	0	13	0	15	0	0	15	0	0	0	0	0	18	9	0	0	27
+35 mins.	0	0	15	0	15	0	10	0	0	10	0	0	0	0	0	12	8	0	1	21
+40 mins.	0	0	11	0	11	0	15	0	0	15	0	0	0	0	0	25	10	0	0	35
+45 mins.	0	0	14	0	14	0	7	0	0	7	0	0	0	0	0	22	11	0	1	34
+50 mins.	0	0	15	0	15	0	14	0	0	14	0	0	0	0	0	17	17	0	0	34
+55 mins.	0	0	17	0	17	0	22	0	0	22	0	0	0	0	0	15	14	0	1	30
Total Volume	1	0	169	0	170	0	158	1	0	159	0	0	0	0	0	191	134	0	3	328
% App. Total	0.6	0	99.4	0		0	99.4	0.6	0		0	0	0	0	0	58.2	40.9	0	0.9	
PHF	.083	.000	.704	.000	.708	.000	.598	.083	.000	.602	.000	.000	.000	.000	.000	.637	.657	.000	.250	.781



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719-633-2868

File Name : Vista Del Valley Dr - Vista Del Pico Blvd PM 5 Min

Site Code : 00195080

Start Date : 1/15/2020

Page No : 1

Groups Printed- Unshifted

	Vista Park Access Southbound					Vista Del Pico Blvd Westbound					Vista del Valley Dr Northbound					Vista Del Pico Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
04:00 PM	1	0	0	0	1	8	13	3	0	24	4	0	4	0	8	0	8	1	0	9	42
04:05 PM	0	0	0	0	0	13	4	0	0	17	3	0	3	0	6	1	12	3	0	16	39
04:10 PM	1	0	1	0	2	4	5	1	0	10	3	0	4	0	7	0	3	2	0	5	24
04:15 PM	0	0	0	0	0	8	4	0	0	12	3	0	2	0	5	0	4	0	0	4	21
04:20 PM	0	0	0	0	0	7	5	0	0	12	2	0	4	0	6	0	1	4	0	5	23
04:25 PM	1	0	1	0	2	3	2	0	0	5	1	0	4	0	5	0	6	0	0	6	18
04:30 PM	0	0	0	0	0	4	3	1	0	8	4	2	6	0	12	0	9	1	0	10	30
04:35 PM	0	0	0	0	0	3	2	1	0	6	2	0	5	0	7	0	6	1	0	7	20
04:40 PM	0	0	0	0	0	2	2	1	0	5	2	0	3	0	5	0	4	3	0	7	17
04:45 PM	0	0	0	0	0	2	2	0	0	4	1	0	3	0	4	1	6	1	0	8	16
04:50 PM	0	0	0	0	0	4	4	0	0	8	6	0	3	0	9	0	6	1	0	7	24
04:55 PM	0	0	0	0	0	2	1	0	0	3	2	0	5	0	7	0	3	1	0	4	14
Total	3	0	2	0	5	60	47	7	0	114	33	2	46	0	81	2	68	18	0	88	288
05:00 PM	2	1	0	0	3	4	0	0	0	4	3	0	4	0	7	1	7	3	0	11	25
05:05 PM	1	0	0	0	1	12	1	0	0	13	4	0	2	0	6	0	3	1	0	4	24
05:10 PM	0	2	0	0	2	7	7	0	0	14	5	0	5	0	10	0	6	0	0	6	32
05:15 PM	0	0	0	0	0	9	4	0	0	13	3	0	7	0	10	0	2	2	0	4	27
05:20 PM	0	0	2	0	2	5	7	0	0	12	4	0	7	0	11	0	3	3	0	6	31
05:25 PM	0	0	0	0	0	6	4	0	0	10	2	0	4	0	6	0	3	2	0	5	21
05:30 PM	0	0	0	0	0	10	2	0	0	12	1	0	9	0	10	0	4	3	0	7	29
05:35 PM	0	0	0	0	0	6	4	0	0	10	5	0	9	0	14	0	6	0	0	6	30
05:40 PM	0	0	0	0	0	6	1	0	0	7	1	0	10	0	11	0	4	1	0	5	23
05:45 PM	0	0	0	0	0	9	4	0	0	13	2	0	9	0	11	0	3	0	0	3	27
05:50 PM	0	0	0	0	0	0	2	0	0	2	1	0	7	0	8	0	2	2	0	4	14
05:55 PM	0	0	0	0	0	0	3	0	0	3	2	0	6	0	8	0	3	0	0	3	14
Total	3	3	2	0	8	74	39	0	0	113	33	0	79	0	112	1	46	17	0	64	297
Grand Total	6	3	4	0	13	134	86	7	0	227	66	2	125	0	193	3	114	35	0	152	585
Apprch %	46.2	23.1	30.8	0		59	37.9	3.1	0		34.2	1	64.8	0		2	75	23	0		
Total %	1	0.5	0.7	0	2.2	22.9	14.7	1.2	0	38.8	11.3	0.3	21.4	0	33	0.5	19.5	6	0	26	

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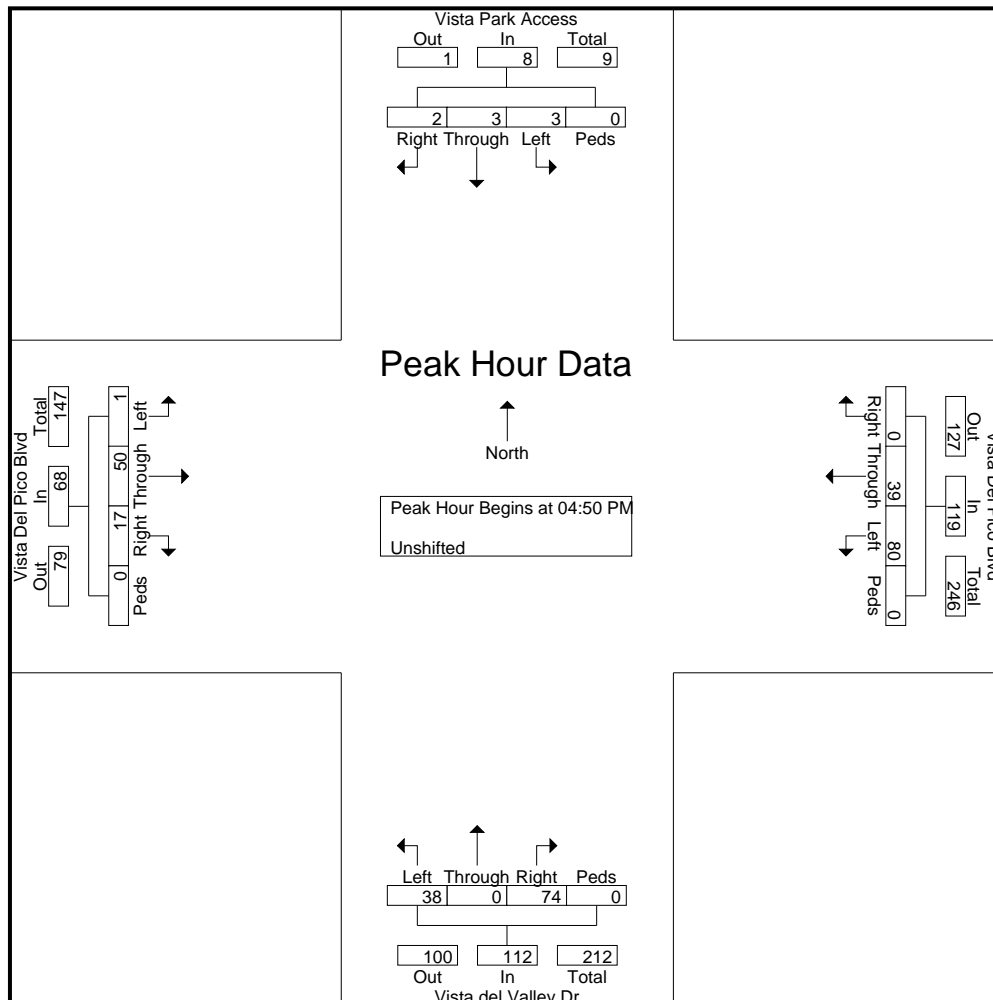
File Name : Vista Del Valley Dr - Vista Del Pico Blvd PM 5 Min

Site Code : 00195080

Start Date : 1/15/2020

Page No : 2

	Vista Park Access Southbound					Vista Del Pico Blvd Westbound					Vista del Valley Dr Northbound					Vista Del Pico Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:55 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:50 PM																					
04:50 PM	0	0	0	0	0	4	4	0	0	8	6	0	3	0	9	0	6	1	0	7	24
04:55 PM	0	0	0	0	0	2	1	0	0	3	2	0	5	0	7	0	3	1	0	4	14
05:00 PM	2	1	0	0	3	4	0	0	0	4	3	0	4	0	7	1	7	3	0	11	25
05:05 PM	1	0	0	0	1	12	1	0	0	13	4	0	2	0	6	0	3	1	0	4	24
05:10 PM	0	2	0	0	2	7	7	0	0	14	5	0	5	0	10	0	6	0	0	6	32
05:15 PM	0	0	0	0	0	9	4	0	0	13	3	0	7	0	10	0	2	2	0	4	27
05:20 PM	0	0	2	0	2	5	7	0	0	12	4	0	7	0	11	0	3	3	0	6	31
05:25 PM	0	0	0	0	0	6	4	0	0	10	2	0	4	0	6	0	3	2	0	5	21
05:30 PM	0	0	0	0	0	10	2	0	0	12	1	0	9	0	10	0	4	3	0	7	29
05:35 PM	0	0	0	0	0	6	4	0	0	10	5	0	9	0	14	0	6	0	0	6	30
05:40 PM	0	0	0	0	0	6	1	0	0	7	1	0	10	0	11	0	4	1	0	5	23
05:45 PM	0	0	0	0	0	9	4	0	0	13	2	0	9	0	11	0	3	0	0	3	27
Total Volume	3	3	2	0	8	80	39	0	0	119	38	0	74	0	112	1	50	17	0	68	307
% App. Total	37.5	37.5	25	0		67.2	32.8	0	0		33.9	0	66.1	0		1.5	73.5	25	0		
PHF	.125	.125	.083	.000	.222	.556	.464	.000	.000	.708	.528	.000	.617	.000	.667	.083	.595	.472	.000	.515	.799



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719-633-2868

File Name : Vista Del Valley Dr - Vista Del Pico Blvd PM 5 Min

Site Code : 00195080

Start Date : 1/15/2020

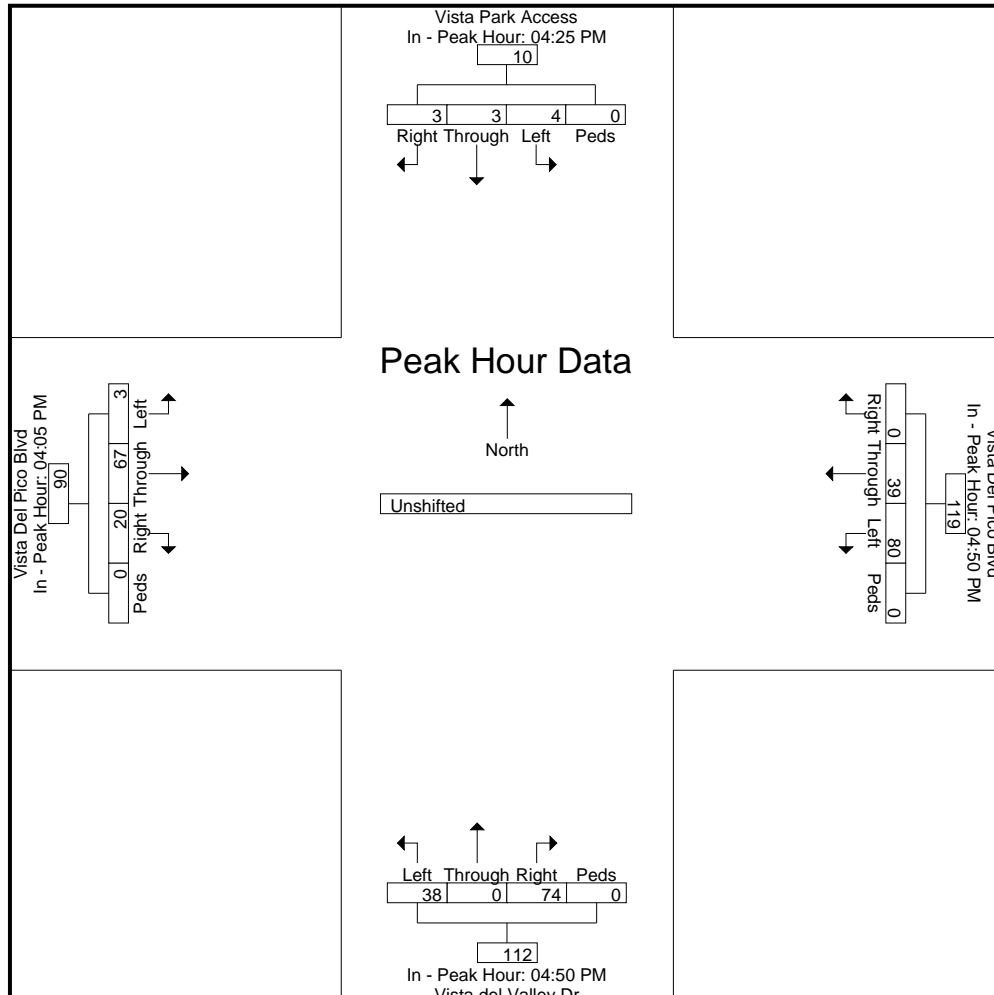
Page No : 3

	Vista Park Access Southbound					Vista Del Pico Blvd Westbound					Vista del Valley Dr Northbound					Vista Del Pico Blvd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:55 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:25 PM					04:50 PM					04:50 PM					04:05 PM				
+0 mins.	1	0	1	0	2	4	4	0	0	8	6	0	3	0	9	1	12	3	0	16
+5 mins.	0	0	0	0	0	2	1	0	0	3	2	0	5	0	7	0	3	2	0	5
+10 mins.	0	0	0	0	0	4	0	0	0	4	3	0	4	0	7	0	4	0	0	4
+15 mins.	0	0	0	0	0	12	1	0	0	13	4	0	2	0	6	0	1	4	0	5
+20 mins.	0	0	0	0	0	7	7	0	0	14	5	0	5	0	10	0	6	0	0	6
+25 mins.	0	0	0	0	0	9	4	0	0	13	3	0	7	0	10	0	9	1	0	10
+30 mins.	0	0	0	0	0	5	7	0	0	12	4	0	7	0	11	0	6	1	0	7
+35 mins.	2	1	0	0	3	6	4	0	0	10	2	0	4	0	6	0	4	3	0	7
+40 mins.	1	0	0	0	1	10	2	0	0	12	1	0	9	0	10	1	6	1	0	8
+45 mins.	0	2	0	0	2	6	4	0	0	10	5	0	9	0	14	0	6	1	0	7
+50 mins.	0	0	0	0	0	6	1	0	0	7	1	0	10	0	11	0	3	1	0	4
+55 mins.	0	0	2	0	2	9	4	0	0	13	2	0	9	0	11	1	7	3	0	11
Total Volume	4	3	3	0	10	80	39	0	0	119	38	0	74	0	112	3	67	20	0	90
% App. Total	40	30	30	0		67.2	32.8	0	0		33.9	0	66.1	0		3.3	74.4	22.2	0	
PHF	.167	.125	.125	.000	.278	.556	.464	.000	.000	.708	.528	.000	.617	.000	.667	.250	.465	.417	.000	.469



LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

Levels of Service







Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	5	30	9	16	167	72	56	10	70	98
Future Vol, veh/h	3	0	5	30	9	16	167	72	56	10	70	98
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	75	75	75	57	57	57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	5	33	10	17	223	96	75	18	123	172

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	838	862	209	828	911	134	295	0	0	171	0	0
Stage 1	245	245	-	580	580	-	-	-	-	-	-	-
Stage 2	593	617	-	248	331	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	286	293	831	290	274	915	1266	-	-	1406	-	-
Stage 1	759	703	-	500	500	-	-	-	-	-	-	-
Stage 2	492	481	-	756	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	228	232	831	242	217	915	1266	-	-	1406	-	-
Mov Cap-2 Maneuver	228	232	-	242	217	-	-	-	-	-	-	-
Stage 1	610	692	-	402	402	-	-	-	-	-	-	-
Stage 2	379	387	-	739	635	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.8		19.9		4.8		0.4	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1266	-	-	417 301	1406	-	-
HCM Lane V/C Ratio	0.176	-	-	0.021 0.199	0.012	-	-
HCM Control Delay (s)	8.4	0	-	13.8 19.9	7.6	0	-
HCM Lane LOS	A	A	-	B C	A	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0.1 0.7	0	-	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	136	0	31	0	0	0	14	12	0	0	19	139
Future Vol, veh/h	136	0	31	0	0	0	14	12	0	0	19	139
Peak Hour Factor	0.61	0.61	0.61	0.92	0.92	0.92	0.92	0.92	0.92	0.66	0.66	0.66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	223	0	51	0	0	0	15	13	0	0	29	211
Number of Lanes	1	0	1	0	0	0	1	1	0	0	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.7	8.7	9
HCM LOS	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	12	136	31	19	139
LT Vol	14	0	136	0	0	0
Through Vol	0	12	0	0	19	0
RT Vol	0	0	0	31	0	139
Lane Flow Rate	15	13	223	51	29	211
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.026	0.02	0.35	0.063	0.043	0.271
Departure Headway (Hd)	6.037	5.532	5.656	4.453	5.331	4.626
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	592	646	635	801	672	777
Service Time	3.782	3.277	3.399	2.196	3.06	2.354
HCM Lane V/C Ratio	0.025	0.02	0.351	0.064	0.043	0.272
HCM Control Delay	8.9	8.4	11.4	7.5	8.3	9.1
HCM Lane LOS	A	A	B	A	A	A
HCM 95th-tile Q	0.1	0.1	1.6	0.2	0.1	1.1

HCM 6th TWSC
13: Vista Del Valley Dr & Vista Del Pico Blvd

Existing
PM Peak Hour

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	1	50	17	80	39	0	38	0	74	3	3	2
Future Vol, veh/h	1	50	17	80	39	0	38	0	74	3	3	2
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	-	-	275	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	74	74	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	54	18	108	53	0	41	0	80	3	3	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	72	0	0	328	325	54	374	343	53
Stage 1	-	-	-	-	-	-	56	56	-	269	269	-
Stage 2	-	-	-	-	-	-	272	269	-	105	74	-
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	1553	-	-	1528	-	-	625	593	1013	583	579	1014
Stage 1	-	-	-	-	-	-	956	848	-	737	687	-
Stage 2	-	-	-	-	-	-	734	687	-	901	833	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1553	-	-	1528	-	-	586	549	1013	507	536	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	586	549	-	507	536	-
Stage 1	-	-	-	-	-	-	955	847	-	736	637	-
Stage 2	-	-	-	-	-	-	675	637	-	829	832	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			5.1			10.2			11.2		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	812	1553	-	-	1528	-	-	593				
HCM Lane V/C Ratio	0.15	0.001	-	-	0.071	-	-	0.015				
HCM Control Delay (s)	10.2	7.3	0	-	7.5	0	-	11.2				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0				

Intersection






Int Delay, s/veh 3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	6	54	1	7	31	55	44	6	34	10
Future Vol, veh/h	1	0	6	54	1	7	31	55	44	6	34	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	92	92	92	92	92	92	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	7	59	1	8	34	60	48	9	52	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	235	254	60	233	237	84	67	0	0	108	0	0
Stage 1	78	78	-	152	152	-	-	-	-	-	-	-
Stage 2	157	176	-	81	85	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	720	650	1005	722	664	975	1535	-	-	1483	-	-
Stage 1	931	830	-	850	772	-	-	-	-	-	-	-
Stage 2	845	753	-	927	824	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	697	631	1005	701	644	975	1535	-	-	1483	-	-
Mov Cap-2 Maneuver	697	631	-	701	644	-	-	-	-	-	-	-
Stage 1	909	825	-	830	753	-	-	-	-	-	-	-
Stage 2	817	735	-	915	819	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.8		10.5		1.8		0.9	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	945	723	1483	-
HCM Lane V/C Ratio	0.022	-	-	0.008	0.093	0.006	-
HCM Control Delay (s)	7.4	0	-	8.8	10.5	7.4	0
HCM Lane LOS	A	A	-	A	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	0.3	0	-







Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	188	131	151	1	2	168
Future Vol, veh/h	188	131	151	1	2	168
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	241	168	164	1	2	183

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	165	0	0	730	82
Stage 1	-	-	-	164	-
Stage 2	-	-	-	566	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	1411	-	-	357	961
Stage 1	-	-	-	848	-
Stage 2	-	-	-	532	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1411	-	-	296	961
Mov Cap-2 Maneuver	-	-	-	296	-
Stage 1	-	-	-	703	-
Stage 2	-	-	-	532	-

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	9.8
HCM LOS	A		

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1411	-	-	-	936
HCM Lane V/C Ratio	0.171	-	-	-	0.197
HCM Control Delay (s)	8.1	-	-	-	9.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.6	-	-	-	0.7

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	123	0	6	0	0	0	45	13	0	0	5	68
Future Vol, veh/h	123	0	6	0	0	0	45	13	0	0	5	68
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	152	0	7	0	0	0	49	14	0	0	5	74
Number of Lanes	1	0	1	0	0	0	1	1	0	0	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.6	8.5	7.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	13	123	6	5	68
LT Vol	45	0	123	0	0	0
Through Vol	0	13	0	0	5	0
RT Vol	0	0	0	6	0	68
Lane Flow Rate	49	14	152	7	5	74
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.075	0.02	0.227	0.009	0.008	0.089
Departure Headway (Hd)	5.552	5.05	5.378	4.176	5.05	4.346
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	647	711	670	859	711	827
Service Time	3.268	2.765	3.093	1.891	2.764	2.06
HCM Lane V/C Ratio	0.076	0.02	0.227	0.008	0.007	0.089
HCM Control Delay	8.7	7.9	9.7	6.9	7.8	7.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.9	0	0	0.3

Intersection

Int Delay, s/veh 5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	20	25	165	70	15	145
Future Vol, veh/h	20	25	165	70	15	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	275	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	92	92	50	50	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	27	179	140	30	158




Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	67
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1535
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1535
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.3	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	849	-	-	1535	-
HCM Lane V/C Ratio	0.221	-	-	0.117	-
HCM Control Delay (s)	10.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.4	-

Intersection

Int Delay, s/veh 5.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	175	5	85	125	5	155
Future Vol, veh/h	175	5	85	125	5	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	92	50	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	350	5	170	250	10	310

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	355
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1204
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1204
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	15.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	653	-	-	1204	-
HCM Lane V/C Ratio	0.49	-	-	0.141	-
HCM Control Delay (s)	15.7	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.7	-	-	0.5	-

Intersection







Int Delay, s/veh 10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	110	10	20	170	80	85	15	95	100
Future Vol, veh/h	5	0	5	110	10	20	170	80	85	15	95	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	75	75	75	57	57	57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	120	11	22	227	107	113	26	167	175







Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	941	981	255	927	1012	164	342	0	0	220	0	0
Stage 1	307	307	-	618	618	-	-	-	-	-	-	-
Stage 2	634	674	-	309	394	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	243	249	784	249	239	881	1217	-	-	1349	-	-
Stage 1	703	661	-	477	481	-	-	-	-	-	-	-
Stage 2	467	454	-	701	605	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	186	190	784	202	183	881	1217	-	-	1349	-	-
Mov Cap-2 Maneuver	186	190	-	202	183	-	-	-	-	-	-	-
Stage 1	551	645	-	374	377	-	-	-	-	-	-	-
Stage 2	347	356	-	679	590	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	17.4		49		4.4		0.6	
HCM LOS	C		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1217	-	-	301	225	1349	-
HCM Lane V/C Ratio	0.186	-	-	0.036	0.676	0.02	-
HCM Control Delay (s)	8.6	0	-	17.4	49	7.7	0
HCM Lane LOS	A	A	-	C	E	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	4.3	0.1	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	170	325	585	2	2	300
Future Vol, veh/h	170	325	585	2	2	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	250	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	185	353	636	2	2	326
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	638	0	-	0	1183	318
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	547	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	942	-	-	-	182	678
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	544	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	942	-	-	-	146	678
Mov Cap-2 Maneuver	-	-	-	-	146	-
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	544	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.3	0		15.7		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	942	-	-	-	662	
HCM Lane V/C Ratio	0.196	-	-	-	0.496	
HCM Control Delay (s)	9.8	-	-	-	15.7	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0.7	-	-	-	2.8	

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	160	0	85	0	0	0	340	20	0	0	20	245
Future Vol, veh/h	160	0	85	0	0	0	340	20	0	0	20	245
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	174	0	92	0	0	0	370	22	0	0	22	266
Number of Lanes	1	0	1	0	0	0	1	1	0	0	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11.8	18.9	11.1
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	340	20	160	85	20	245
LT Vol	340	0	160	0	0	0
Through Vol	0	20	0	0	20	0
RT Vol	0	0	0	85	0	245
Lane Flow Rate	370	22	174	92	22	266
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.641	0.035	0.333	0.146	0.036	0.387
Departure Headway (Hd)	6.247	5.741	6.891	5.677	5.946	5.235
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	580	624	522	631	602	687
Service Time	3.977	3.471	4.629	3.415	3.68	2.969
HCM Lane V/C Ratio	0.638	0.035	0.333	0.146	0.037	0.387
HCM Control Delay	19.5	8.7	13	9.4	8.9	11.3
HCM Lane LOS	C	A	B	A	A	B
HCM 95th-tile Q	4.6	0.1	1.4	0.5	0.1	1.8

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔			↔	
Traffic Vol, veh/h	1	55	20	120	45	0	40	0	135	3	3	2
Future Vol, veh/h	1	55	20	120	45	0	40	0	135	3	3	2
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	-	-	275	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	74	74	74	92	92	92	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	60	22	162	61	0	43	0	147	4	4	3




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	61	0	0	82	0	0	451	447	60	532	469	61
Stage 1	-	-	-	-	-	-	62	62	-	385	385	-
Stage 2	-	-	-	-	-	-	389	385	-	147	84	-
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	1542	-	-	1515	-	-	519	506	1005	458	492	1004
Stage 1	-	-	-	-	-	-	949	843	-	638	611	-
Stage 2	-	-	-	-	-	-	635	611	-	856	825	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1542	-	-	1515	-	-	470	449	1005	358	437	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	470	449	-	358	437	-
Stage 1	-	-	-	-	-	-	948	842	-	637	543	-
Stage 2	-	-	-	-	-	-	558	543	-	730	824	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	5.6	10.9	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	798	1542	-	-	1515	-	-	464
HCM Lane V/C Ratio	0.238	0.001	-	-	0.107	-	-	0.026
HCM Control Delay (s)	10.9	7.3	0	-	7.7	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.9	0	-	-	0.4	-	-	0.1

Intersection

Int Delay, s/veh 3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	5	65	105	5	95
Future Vol, veh/h	165	5	65	105	5	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	179	5	71	114	5	103

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	184
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1391
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1391
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	837	-	-	1391	-
HCM Lane V/C Ratio	0.13	-	-	0.051	-
HCM Control Delay (s)	9.9	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

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	1	0	10	105	1	10	35	85	135	10	50	10
Future Vol, veh/h	1	0	10	105	1	10	35	85	135	10	50	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	92	92	92	92	92	92	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	11	114	1	11	38	92	147	15	76	15







Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	362	429	84	361	363	166	91	0	0	239	0	0
Stage 1	114	114	-	242	242	-	-	-	-	-	-	-
Stage 2	248	315	-	119	121	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	594	518	975	595	565	878	1504	-	-	1328	-	-
Stage 1	891	801	-	762	705	-	-	-	-	-	-	-
Stage 2	756	656	-	885	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	567	496	975	569	541	878	1504	-	-	1328	-	-
Mov Cap-2 Maneuver	567	496	-	569	541	-	-	-	-	-	-	-
Stage 1	864	791	-	739	684	-	-	-	-	-	-	-
Stage 2	723	636	-	864	786	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	12.8	1	1.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1504	-	-	915	587	1328	-
HCM Lane V/C Ratio	0.025	-	-	0.014	0.215	0.011	-
HCM Control Delay (s)	7.5	0	-	9	12.8	7.7	0
HCM Lane LOS	A	A	-	A	B	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	0.8	0	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	250	630	380	2	2	210
Future Vol, veh/h	250	630	380	2	2	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	321	808	413	2	2	228
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	415	0	-	0	1459	207
Stage 1	-	-	-	-	413	-
Stage 2	-	-	-	-	1046	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1140	-	-	-	120	799
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	299	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1140	-	-	-	86	799
Mov Cap-2 Maneuver	-	-	-	-	86	-
Stage 1	-	-	-	-	457	-
Stage 2	-	-	-	-	299	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.7	0		12		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1140	-	-	-	741	
HCM Lane V/C Ratio	0.281	-	-	-	0.311	
HCM Control Delay (s)	9.4	-	-	-	12	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	1.2	-	-	-	1.3	

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	245	0	285	0	0	0	225	20	0	0	5	155
Future Vol, veh/h	245	0	285	0	0	0	225	20	0	0	5	155
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	266	0	310	0	0	0	245	22	0	0	5	168
Number of Lanes	1	0	1	0	0	0	1	1	0	0	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	13.3	14.9	10.7
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	225	20	245	285	5	155
LT Vol	225	0	245	0	0	0
Through Vol	0	20	0	0	5	0
RT Vol	0	0	0	285	0	155
Lane Flow Rate	245	22	266	310	5	168
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.464	0.038	0.473	0.446	0.01	0.272
Departure Headway (Hd)	6.837	6.328	6.396	5.187	6.529	5.815
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	528	566	565	694	548	618
Service Time	4.572	4.064	4.127	2.918	4.268	3.554
HCM Lane V/C Ratio	0.464	0.039	0.471	0.447	0.009	0.272
HCM Control Delay	15.4	9.3	14.8	12.1	9.3	10.7
HCM Lane LOS	C	A	B	B	A	B
HCM 95th-tile Q	2.4	0.1	2.5	2.3	0	1.1

HCM 6th TWSC
13: Vista Del Valley Dr & Vista Del Pico Blvd

Short Term Total
AM Peak Hour

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↗	
Traffic Vol, veh/h	22	25	212	75	15	162
Future Vol, veh/h	22	25	212	75	15	162
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	275	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	92	92	50	50	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	27	230	150	30	176
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	71	0	654	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	610	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1529	-	431	1026
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	360	1026
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	453	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		4.7		11	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	808	-	-	1529	-	
HCM Lane V/C Ratio	0.255	-	-	0.151	-	
HCM Control Delay (s)	11	-	-	7.8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	1	-	-	0.5	-	

HCM 6th TWSC
15: Vista Del Tierra Dr & Vista Del Pico Blvd

Short Term Total
AM Peak Hour

Intersection

Int Delay, s/veh 6.5

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations 

Traffic Vol, veh/h 194 5 121 178 5 167

Future Vol, veh/h 194 5 121 178 5 167

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 50 92 50 50 50 50

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 388 5 242 356 10 334

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 393 0 1231 391

Stage 1 - - - - 391 -

Stage 2 - - - - 840 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1166 - 196 658

Stage 1 - - - - 683 -

Stage 2 - - - - 424 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver - - 1166 - 145 658

Mov Cap-2 Maneuver - - - - 145 -

Stage 1 - - - - 683 -

Stage 2 - - - - 314 -

Approach EB WB NB

HCM Control Delay, s 0 3.6 18.9

HCM LOS C

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 597 - - 1166 -

HCM Lane V/C Ratio 0.576 - - 0.208 -

HCM Control Delay (s) 18.9 - - 8.9 0

HCM Lane LOS C - - A A

HCM 95th %tile Q(veh) 3.7 - - 0.8 -

Intersection

Int Delay, s/veh 43.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	199	10	25	170	80	116	17	95	100
Future Vol, veh/h	5	0	5	199	10	25	170	80	116	17	95	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	75	75	75	57	57	57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	216	11	27	227	107	155	30	167	175







Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	973	1031	255	956	1041	185	342	0	0	262	0	0
Stage 1	315	315	-	639	639	-	-	-	-	-	-	-
Stage 2	658	716	-	317	402	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	231	233	784	238	230	857	1217	-	-	1302	-	-
Stage 1	696	656	-	464	470	-	-	-	-	-	-	-
Stage 2	453	434	-	694	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	173	176	784	~ 192	173	857	1217	-	-	1302	-	-
Mov Cap-2 Maneuver	173	176	-	~ 192	173	-	-	-	-	-	-	-
Stage 1	541	637	-	361	365	-	-	-	-	-	-	-
Stage 2	331	337	-	669	583	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.2		182.2		4		0.6	
HCM LOS	C		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1217	-	-	283	208	1302	-
HCM Lane V/C Ratio	0.186	-	-	0.038	1.223	0.023	-
HCM Control Delay (s)	8.6	0	-	18.2	182.2	7.8	0
HCM Lane LOS	A	A	-	C	F	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	13.1	0.1	-

Notes

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







Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	197	337	621	2	2	348
Future Vol, veh/h	197	337	621	2	2	348
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	250	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	214	366	675	2	2	378

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	677	0	0 1286 338
Stage 1	-	-	- 675 -
Stage 2	-	-	- 611 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	911	-	- 156 658
Stage 1	-	-	- 467 -
Stage 2	-	-	- 504 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	911	-	- 119 658
Mov Cap-2 Maneuver	-	-	- 119 -
Stage 1	-	-	- 357 -
Stage 2	-	-	- 504 -

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	911	-	-	-	641
HCM Lane V/C Ratio	0.235	-	-	-	0.594
HCM Control Delay (s)	10.2	-	-	-	18.5
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.9	-	-	-	3.9

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	172	0	85	0	0	0	340	20	0	0	20	281
Future Vol, veh/h	172	0	85	0	0	0	340	20	0	0	20	281
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	187	0	92	0	0	0	370	22	0	0	22	305
Number of Lanes	1	0	1	0	0	0	1	1	0	0	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	12.3	19.7	12.1
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	340	20	172	85	20	281
LT Vol	340	0	172	0	0	0
Through Vol	0	20	0	0	20	0
RT Vol	0	0	0	85	0	281
Lane Flow Rate	370	22	187	92	22	305
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.653	0.035	0.363	0.148	0.036	0.45
Departure Headway (Hd)	6.36	5.854	6.998	5.783	6.02	5.309
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	569	612	514	619	595	678
Service Time	4.095	3.588	4.742	3.526	3.758	3.047
HCM Lane V/C Ratio	0.65	0.036	0.364	0.149	0.037	0.45
HCM Control Delay	20.3	8.8	13.7	9.5	9	12.3
HCM Lane LOS	C	A	B	A	A	B
HCM 95th-tile Q	4.7	0.1	1.6	0.5	0.1	2.3

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	199	10	25	170	80	116	17	95	100
Future Vol, veh/h	5	0	5	199	10	25	170	80	116	17	95	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.75	0.75	0.75	0.57	0.57	0.57
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	5	216	11	27	227	107	155	30	167	175
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	14.1	20.2	14.4
HCM LOS	A	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	46%	50%	85%	8%
Vol Thru, %	22%	0%	4%	45%
Vol Right, %	32%	50%	11%	47%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	366	10	234	212
LT Vol	170	5	199	17
Through Vol	80	0	10	95
RT Vol	116	5	25	100
Lane Flow Rate	488	11	254	372
Geometry Grp	1	1	1	1
Degree of Util (X)	0.71	0.02	0.439	0.541
Departure Headway (Hd)	5.241	6.586	6.207	5.239
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	688	539	577	684
Service Time	3.293	4.683	4.265	3.296
HCM Lane V/C Ratio	0.709	0.02	0.44	0.544
HCM Control Delay	20.2	9.8	14.1	14.4
HCM Lane LOS	C	A	B	B
HCM 95th-tile Q	5.9	0.1	2.2	3.3

HCM 2010 TWSC
13: Vista Del Valley Dr & Vista Del Pico Blvd

Short Term Total
PM Peak Hour

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	1	60	20	152	48	0	40	0	192	3	3	2
Future Vol, veh/h	1	60	20	152	48	0	40	0	192	3	3	2
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	-	-	275	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	74	74	74	92	92	92	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	65	22	205	65	0	43	0	209	4	4	3




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	87	0	0	546	542	65	658	564	65
Stage 1	-	-	-	-	-	-	67	67	-	475	475	-
Stage 2	-	-	-	-	-	-	479	475	-	183	89	-
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	1537	-	-	1509	-	-	448	447	999	378	435	999
Stage 1	-	-	-	-	-	-	943	839	-	570	557	-
Stage 2	-	-	-	-	-	-	568	557	-	819	821	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1537	-	-	1509	-	-	395	384	999	266	373	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	395	384	-	266	373	-
Stage 1	-	-	-	-	-	-	942	838	-	569	478	-
Stage 2	-	-	-	-	-	-	482	478	-	647	820	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			5.9			11.7			14.9		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	791	1537	-	-	1509	-	-	375
HCM Lane V/C Ratio	0.319	0.001	-	-	0.136	-	-	0.032
HCM Control Delay (s)	11.7	7.3	0	-	7.8	0	-	14.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0.5	-	-	0.1

Intersection

Int Delay, s/veh 3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	227	5	88	140	5	136
Future Vol, veh/h	227	5	88	140	5	136
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	247	5	96	152	5	148

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	252
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1313
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1313
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	766	-	-	1313	-
HCM Lane V/C Ratio	0.2	-	-	0.073	-
HCM Control Delay (s)	10.9	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

Intersection







Int Delay, s/veh 5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	10	163	1	13	35	85	238	15	50	10
Future Vol, veh/h	1	0	10	163	1	13	35	85	238	15	50	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	92	92	92	92	92	92	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	11	177	1	14	38	92	259	23	76	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	435	557	84	433	435	222	91	0	0	351	0	0
Stage 1	130	130	-	298	298	-	-	-	-	-	-	-
Stage 2	305	427	-	135	137	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	531	439	975	533	514	818	1504	-	-	1208	-	-
Stage 1	874	789	-	711	667	-	-	-	-	-	-	-
Stage 2	705	585	-	868	783	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	500	416	975	506	487	818	1504	-	-	1208	-	-
Mov Cap-2 Maneuver	500	416	-	506	487	-	-	-	-	-	-	-
Stage 1	845	773	-	688	645	-	-	-	-	-	-	-
Stage 2	669	566	-	841	767	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.1		15.9		0.7		1.6	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1504	-	-	897	520	1208	-
HCM Lane V/C Ratio	0.025	-	-	0.014	0.37	0.019	-
HCM Control Delay (s)	7.5	0	-	9.1	15.9	8	0
HCM Lane LOS	A	A	-	A	C	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	1.7	0.1	-







Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	307	671	403	2	2	342
Future Vol, veh/h	307	671	403	2	2	342
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	250	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	394	860	438	2	2	372

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	440	0	0	1656	219
Stage 1	-	-	-	438	-
Stage 2	-	-	-	1218	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	1116	-	-	89	785
Stage 1	-	-	-	618	-
Stage 2	-	-	-	243	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1116	-	-	58	785
Mov Cap-2 Maneuver	-	-	-	58	-
Stage 1	-	-	-	400	-
Stage 2	-	-	-	243	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1116	-	-	-	732
HCM Lane V/C Ratio	0.353	-	-	-	0.511
HCM Control Delay (s)	10	-	-	-	14.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	1.6	-	-	-	2.9

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	286	0	285	0	0	0	225	20	0	0	5	178
Future Vol, veh/h	286	0	285	0	0	0	225	20	0	0	5	178
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	311	0	310	0	0	0	245	22	0	0	5	193
Number of Lanes	1	0	1	0	0	0	1	1	0	0	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	14.8	15.5	11.4
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	225	20	286	285	5	178
LT Vol	225	0	286	0	0	0
Through Vol	0	20	0	0	5	0
RT Vol	0	0	0	285	0	178
Lane Flow Rate	245	22	311	310	5	193
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.477	0.039	0.561	0.455	0.01	0.32
Departure Headway (Hd)	7.017	6.508	6.492	5.282	6.678	5.963
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	514	550	556	682	535	602
Service Time	4.762	4.253	4.228	3.017	4.427	3.712
HCM Lane V/C Ratio	0.477	0.04	0.559	0.455	0.009	0.321
HCM Control Delay	16	9.5	17.2	12.4	9.5	11.5
HCM Lane LOS	C	A	C	B	A	B
HCM 95th-tile Q	2.5	0.1	3.4	2.4	0	1.4

Intersection

Intersection Delay, s/veh 10.3

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	10	163	1	13	35	85	238	15	50	10
Future Vol, veh/h	1	0	10	163	1	13	35	85	238	15	50	10
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92	0.66	0.66	0.66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	11	177	1	14	38	92	259	23	76	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	10.2	10.8	8.8
HCM LOS	A	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	9%	92%	20%
Vol Thru, %	24%	0%	1%	67%
Vol Right, %	66%	91%	7%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	358	11	177	75
LT Vol	35	1	163	15
Through Vol	85	0	1	50
RT Vol	238	10	13	10
Lane Flow Rate	389	12	192	114
Geometry Grp	1	1	1	1
Degree of Util (X)	0.458	0.017	0.277	0.153
Departure Headway (Hd)	4.235	4.788	5.179	4.852
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	739	689	735
Service Time	2.273	2.872	3.245	2.909
HCM Lane V/C Ratio	0.459	0.016	0.279	0.155
HCM Control Delay	10.8	8	10.2	8.8
HCM Lane LOS	B	A	B	A
HCM 95th-tile Q	2.4	0.1	1.1	0.5