KUNZMAN ASSOCIATES, INC.

REDLANDS DISTRIBUTION CENTER BUILDING 13

TRAFFIC IMPACT ANALYSIS (REVISED)

June 12, 2013

Traffic Engineering | Transportation Planning | Parking | Noise/Vibration | Expert Witness
Air Quality | Global Climate Change | Health Risk Assessment

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Prepared by:

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I. Introduction

The purpose of this report is to provide an assessment of the traffic impacts resulting from the proposed development of the Redlands Distribution Center Building 13 project, and to identify the traffic mitigation measures necessary to maintain the established Level of Service standard for the elements of the impacted roadway system. The traffic issues related to the proposed land uses and development have been evaluated in the context of the California Environmental Quality Act.

The County of San Bernardino is the lead agency responsible for preparation of the traffic impact analysis, in accordance with the California Environmental Quality Act authorizing legislation. This report analyzes traffic impacts for the anticipated opening date with full occupancy of the development in Year 2014, at which time it will be generating traffic at its full potential, and for the Year 2035.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

A. Project Description

The proposed development is east of Alabama Street between River Bluff Avenue and Palmetto Avenue in the County of San Bernardino. A vicinity map showing the project location is provided on Figure 1.

The project site is proposed to be developed with 289,327 square feet of high-cube warehouse distribution center. Figure 2 illustrates the project site plan.

B. Study Area

Regional access to the project site is provided by the I-10 Freeway and I-210 Freeway. Local access is provided by various roadways in the vicinity of the site. The east-west roadways which will be most affected by the project include River Bluff Avenue, Palmetto Avenue, Pioneer Avenue, and San Bernardino Avenue. The north-south roadway which will be most affected by the project includes Alabama Street.

A series of scoping discussions were conducted with the County of San Bernardino to define the desired analysis locations for each future analysis year. In addition, staff from the County of San Bernardino has also been contacted to discuss the project and its associated travel patterns.

No analysis is required further than 5 miles from the project site. The roadway elements that must be analyzed are dependent on both the analysis year (project Opening Year or Year 2035) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, was based on an estimate of the two-way traffic volumes on the roadway segments near the project site. All arterial

segments have been included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways.

The project does not contribute traffic greater than the freeway threshold volume of 100 two-way peak hour trips. The project does not contribute traffic greater than the arterial link threshold volume of 50 two-way trips in the morning and evening peak hours in the adjacent City of Redlands.

C. Analysis Methodology

The analysis of the traffic impacts from the proposed development and the assessment of the required mitigation measures were based on an evaluation of the existing and forecast traffic conditions in the vicinity of the site with and without the project. The following analysis years are considered in this report:

- Existing Conditions (2012)
- Existing Plus Project Conditions
- Project Opening Year Conditions (2014)
- Horizon Year Conditions (2035)

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associates, Inc. in November 2011 and October 2012 (see Appendix B).

In addition, truck classification counts were conducted at the study area intersections. The existing percent of trucks were used in the conversion of trucks to Passenger Car Equivalent's (see Appendix C).

Trip generation has been estimated based on the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012 and Truck Trip Generation Study, City of Fontana, August 2003.

To determine the trip distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development and traffic impacts in the area were reviewed.

The average daily traffic volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2035 average daily traffic volume forecasts (see Appendix C). Appendix D contains the traffic model plots. This difference defines the growth in traffic over the 35 year period. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between Year 2012 and Year 2035. For this purpose, linear growth between the Year 2000 base condition and the forecast Year 2035 condition was assumed. Since the increment between Year 2012 and Year 2035 is 23 years of the 35 year time frame, a factor of 0.66 (i.e., 23/35) was used.

The Year 2035 without project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2035 peak hour volumes. The growth increment calculation worksheets are shown in Appendix C. Current peak hour intersection approach/departure data is a necessary input to this approach. The existing traffic count data serves as both the starting point for the refinement process, and also provides important insight into current travel patterns and the relationship between peak hour and daily traffic conditions. The initial turning movement proportions are estimated based upon the relationship of each approach leg's forecast traffic volume to the other legs forecast volumes at the intersection. The initial estimate of turning movement proportions is then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program Report 255. A linear programming algorithm is used to calculate individual turning movements that match the known directional roadway segment volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

The Opening Year (2014) traffic volumes have been interpolated from the Year 2035 traffic volumes based upon a portion of the future growth increment.

Project traffic volumes were then added to the East Valley Traffic Model traffic volumes. Quality control checks and forecast adjustments were performed as necessary to ensure that all future traffic volume forecasts reflect a minimum of 10% growth over existing traffic volumes. The result of this traffic forecasting procedure is a series of traffic volumes suitable for traffic operations analysis.

The technique used to assess the capacity needs of an intersection is known as the Intersection Delay Method (see Appendix E) based on the 2000 Highway Capacity Manual – Transportation Research Board Special Report 209. To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection. The signalized intersections are considered deficient (Level of Service F) if the overall intersection critical volume to capacity ratio equals or exceeds 1.0, even if the level of service defined by the delay value is below the defined Level of Service standard. The volume to capacity ratio is defined as the critical volumes divided by the intersection capacity. A volume to capacity ratio greater than 1.0 implies an infinite queue.

The Level of Service analysis for signalized intersections has been performed using optimized signal timing. This analysis has included an assumed lost time of two seconds per phase. Signal timing optimization has considered pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossings has also been considered in the signalized intersection analysis. The following formula has been used to calculate the pedestrian minimum times for all Highway Capacity Manual runs:

[(Curb to curb distance) / (4 feet/second)] + 7 seconds.

For existing and Opening Year traffic conditions, saturation flow rates of 1,800 vehicles per hour of green for through and right turn lanes and 1,700 vehicles per lane for single left turn

lanes, 1,600 vehicles per lane for dual left turn lanes and 1,500 vehicles per lane for triple left turn lanes have been assumed for the capacity analysis.

For Year 2035 traffic conditions, saturation flow rates of 1,900 vehicles per hour of green for through and right turn lanes and 1,800 vehicles per lane for single left turn lanes, 1,700 vehicles per lane for dual left turn lanes and 1,800 vehicles per lane for double right turn lanes have been assumed for the capacity analysis.

The peak hour traffic volumes have been adjusted to peak 15 minute volumes for analysis purposes using the existing observed peak 15 minute to peak hour factors for all scenarios analyzed. Where feasible improvements in accordance with the local jurisdiction's General Plan and which result in acceptable operations cannot be identified, the Year 2035 peak hour factor has been adjusted upwards to 0.95. This is to account for the effects of congestion on peak spreading. Peak spreading refers to the tendency of traffic to spread more evenly across time as congestion increases.

The traffic mitigation needs anticipated at the time of the project opening with full occupancy and for the Year 2035 were combined into a summary of mitigation requirements and costs. The mitigation cost responsibility for the proposed development was estimated based on the percent of the increase in traffic from the existing condition to the Year 2035 that was attributed to the project-generated traffic.

D. Definition of Deficiency and Significant Impact

The following definitions of deficiencies and significant impacts have been developed in accordance with the County of San Bernardino requirements.

1. Definition of Deficiency

The definition of an intersection deficiency has been obtained from the County of San Bernardino General Plan. The General Plan states that peak hour intersection operations of Level of Service D or better are generally acceptable. Therefore, any intersection operating at Level of Service E or F will be considered deficient.

For freeway facilities, the Congestion Management Program controls the definition of deficiency for purposes of this study. The Congestion Management Program definition of deficiency is based on maintaining a Level of Service standard of Level of Service E or better, except where an existing Level of Service F condition is identified in the Congestion Management Program document (San Bernardino County Congestion Management Program Table 2-1). A Congestion Management Program deficiency is, therefore, defined as any freeway segment operating or projected to operate at Level of Service F, unless the segment is identified explicitly in the Congestion Management Program document.

The identification of a Congestion Management Program deficiency requires further analysis in satisfaction of Congestion Management Program requirements, including:

- Evaluation of the mitigation measures required to restore traffic operations to an acceptable level with respect to Congestion Management Program Level of Service standards.

- Calculation of the project share of new traffic on the impacted Congestion Management Program facility during peak hours of traffic.

- Estimation of the cost required to implement the improvements required to restore traffic operations to an acceptable Level of Service as described above.

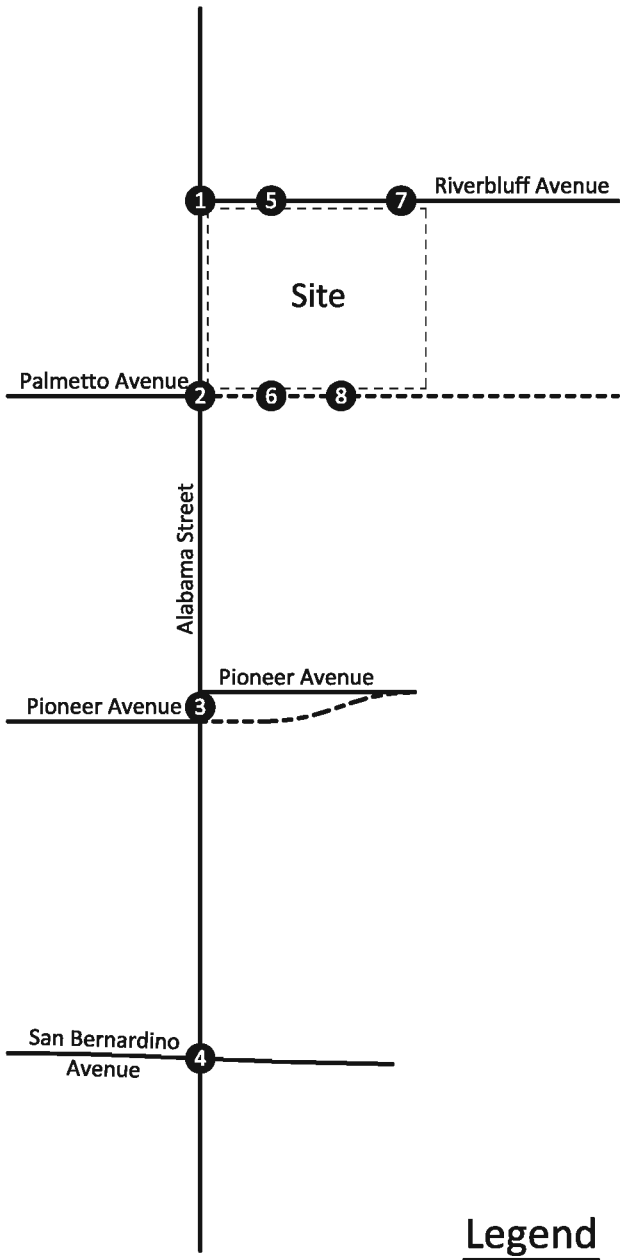
This study incorporates each of these aspects for all locations where a Congestion Management Program deficiency is identified.

2. Definition of Significant Impact

The identification of significant impacts is a requirement of the California Environmental Quality Act. The County of San Bernardino General Plan and Circulation Element have been adopted in accordance with California Environmental Quality Act requirements, and any roadway improvements within the County of San Bernardino that are consistent with these documents are not considered a significant impact, so long as the project contributes its "fair share" funding for improvements.

A traffic impact is considered significant if the project both: i) contributes measurable traffic to and ii) substantially and adversely changes the Level of Service at any off-site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the County of San Bernardino General Plan cannot be constructed.

Figure 1
Project Location Map



Legend

1 = Intersection Reference Number

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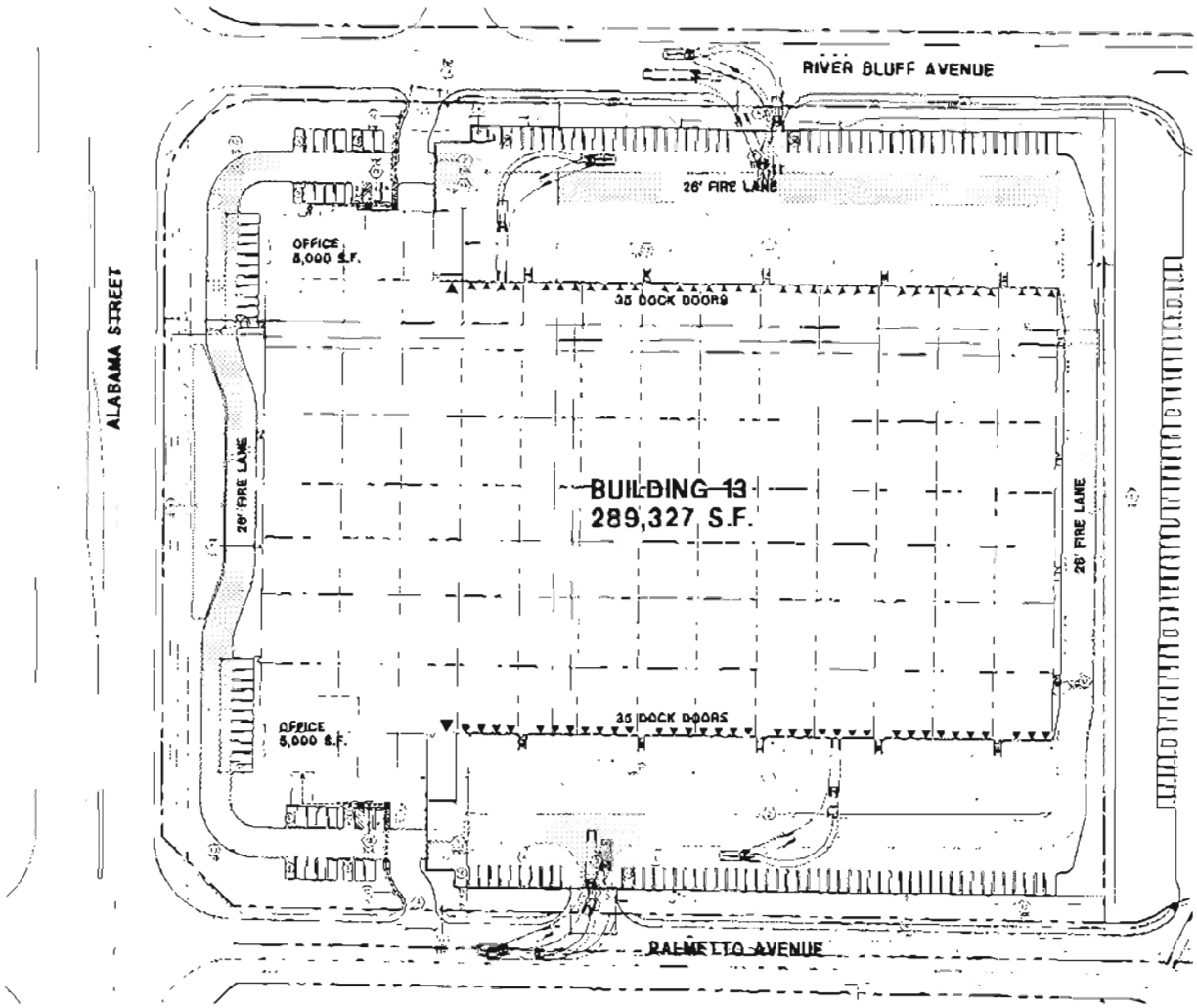
Figure 2
Site Plan



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II. Existing Conditions

A. Existing Roadway System

Figure 3 identifies the existing conditions for study area roadways. The number of through lanes for existing roadways and the existing intersection controls are identified.

Regional access to the project site is provided by the I-10 Freeway and I-210 Freeway. Local access is provided by various roadways in the vicinity of the site. The east-west roadways which will be most affected by the project include River Bluff Avenue, Palmetto Avenue, Pioneer Avenue, and San Bernardino Avenue. The north-south roadway which will be most affected by the project includes Alabama Street.

B. Existing Volumes

Figure 4 depicts the existing average daily traffic volumes. The existing average daily traffic volumes were obtained by Kunzman Associates, Inc. using the following formula for each intersection leg:

PM Peak Hour (Approach + Exit Volume) x 11.5 = Daily Leg Volume.

This is a conservative estimate and may over estimate the average daily traffic volumes.

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associates, Inc. from November 2011 and October 2012 (see Appendix B) and shown on Figures 5 and 6, respectively. Explicit peak hour factors have been calculated using the data collected for this effort as well. The morning and evening peak hour traffic volumes were identified by counting the two-hour periods from 7:00 AM – 9:00 AM and 4:00 PM – 6:00 PM.

In addition, truck classification counts were conducted at the study area intersections. The existing percent of trucks were used in the conversion of trucks to Passenger Car Equivalent's (see Appendix C).

C. Existing Level of Service

The Existing delay and Level of Service for intersections in the vicinity of the project are shown in Table 1. The study area intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions. Existing delay worksheets are provided in Appendix E.

D. Planned Transportation Improvements and Relationship to General Plan

The County of San Bernardino General Plan Circulation Element is shown on Figure 7. Existing and future roadways are included in the Circulation Element of the General Plan and are graphically depicted on Figure 7. This figure shows the nature and extent of arterial

highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The County of San Bernardino General Plan roadway cross-sections are shown on Figure 8.

Table 1

Existing Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Alabama Street (NS) at:															
Riverbluff Avenue (EW) - #1	TS	0	1	1	1	1	0	0	0	0	1	0	1	11.9-B	4.2-A
Palmetto Avenue (EW) - #2	CSS	0.5	0.5	0	0	0.5	0.5	0	1	0	0	0	0	23.3-C	32.3-D
Pioneer Avenue (EW)[4] - #3	TS	1	1	1	1	1.5	0.5	0.5	0.5	1	0	1	0	36.8-D	34.3-C
San Bernardino Avenue (EW) - #4	TS	1	1.5	0.5	1	2	1	1	1	1	1	2	1	23.8-C	28.9-C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

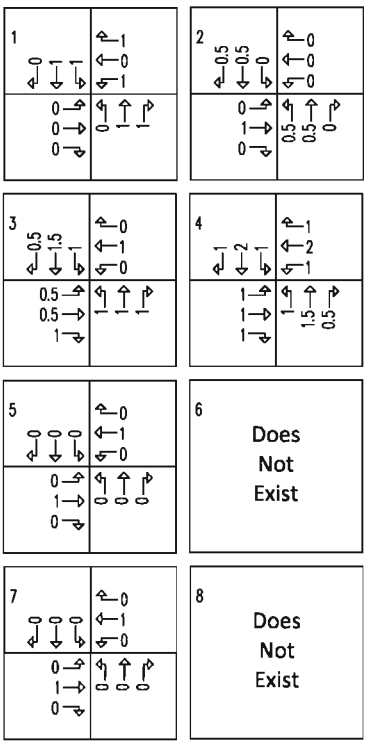
L = Left; T = Through; R = Right

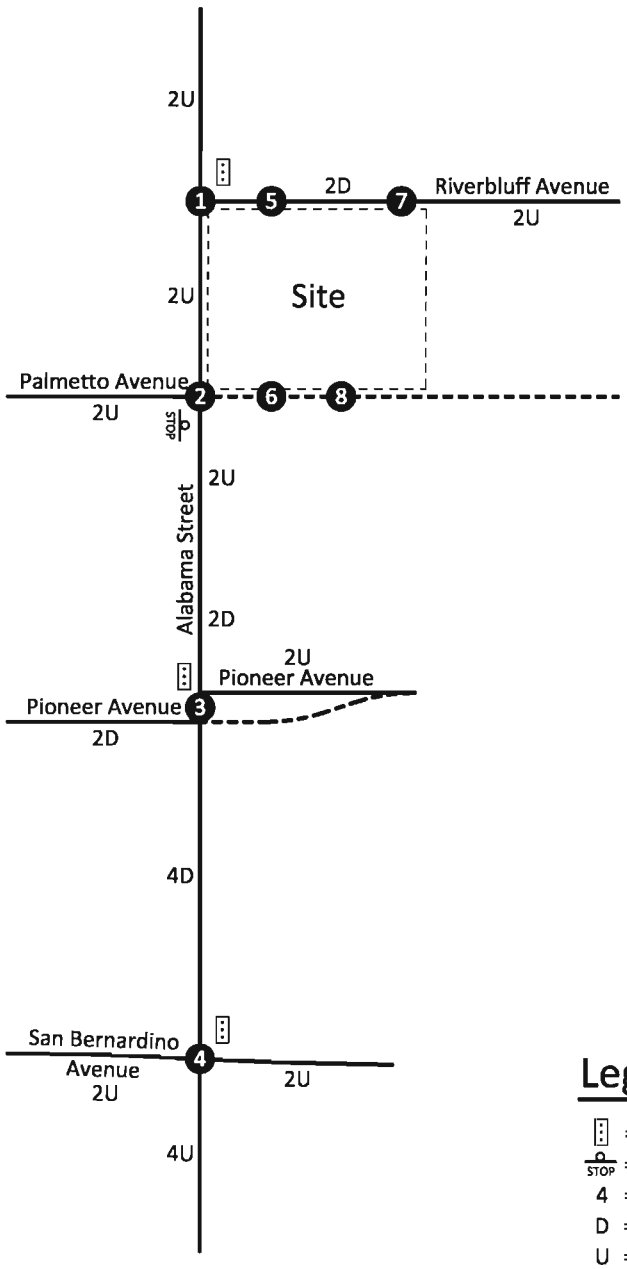
[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

[4] There is a proposed project at the southeast corner of Alabama Street and Pioneer Avenue and as a result Pioneer Avenue will be realigned.

Figure 3
Existing Through Travel Lanes and Intersection Controls





Legend

- = Traffic Signal
- STOP = Stop Sign
- 4 = Through Travel Lanes
- D = Divided
- U = Undivided

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KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

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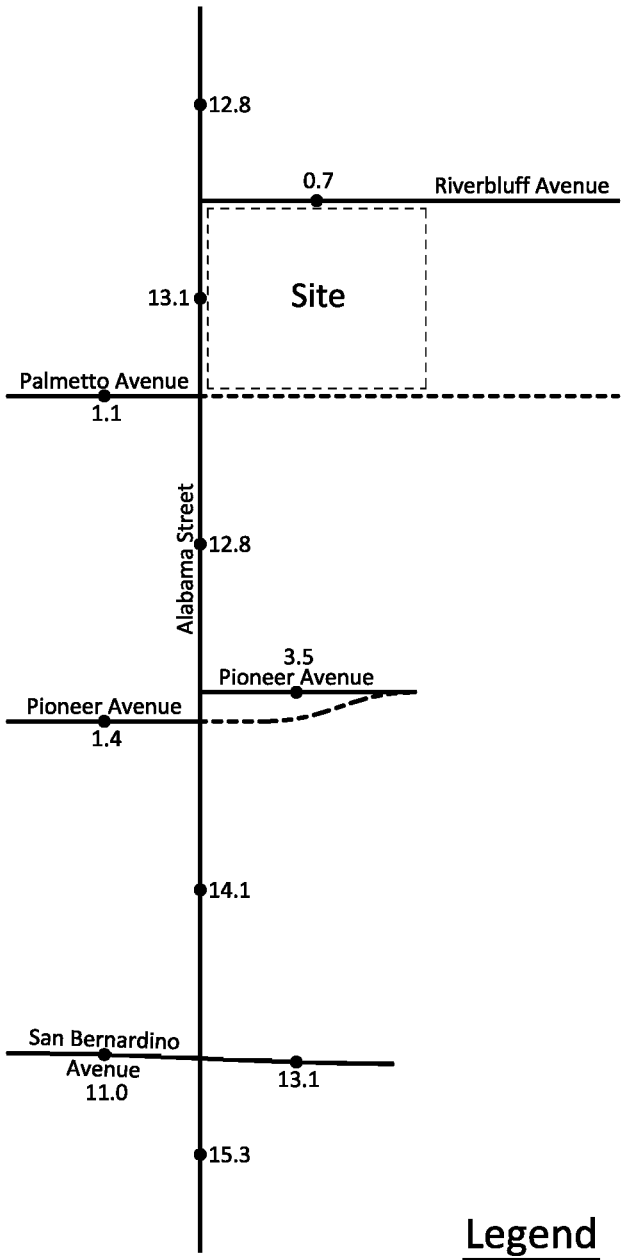
Figure 4
Existing Average Daily Traffic Volumes



Legend

15.3 = Vehicles Per Day (1,000's)

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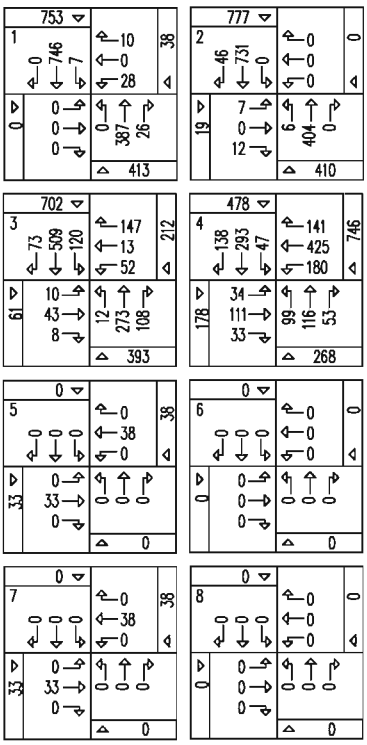
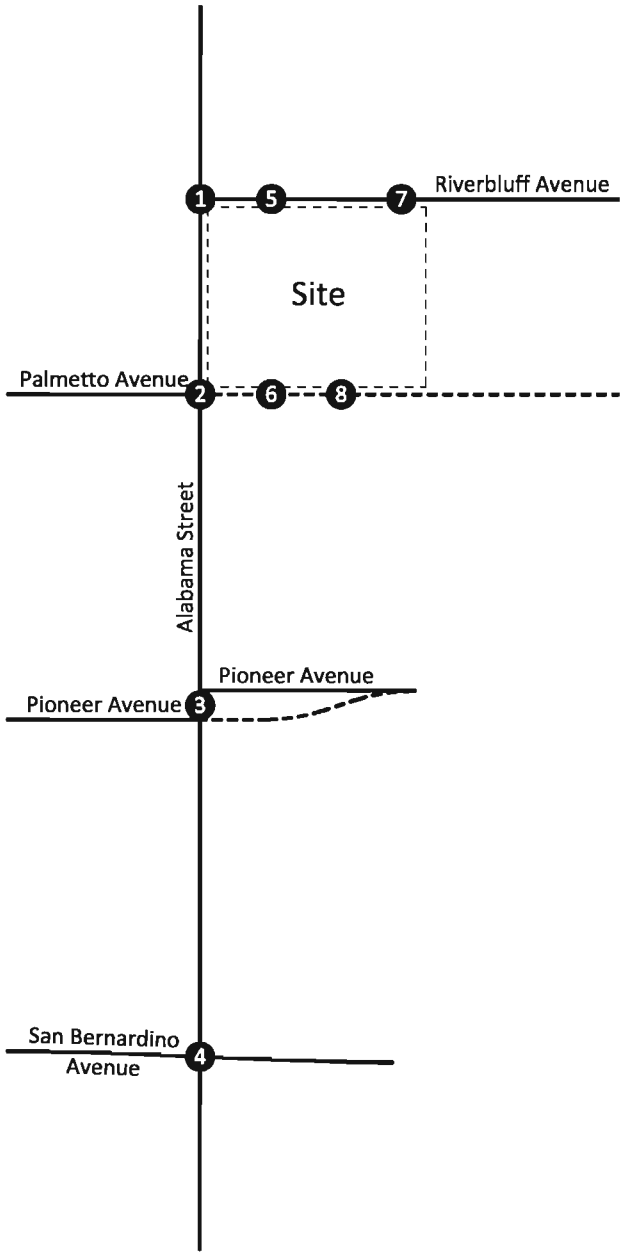
Figure 5
Existing Morning Peak Hour Intersection Turning Movement Volumes





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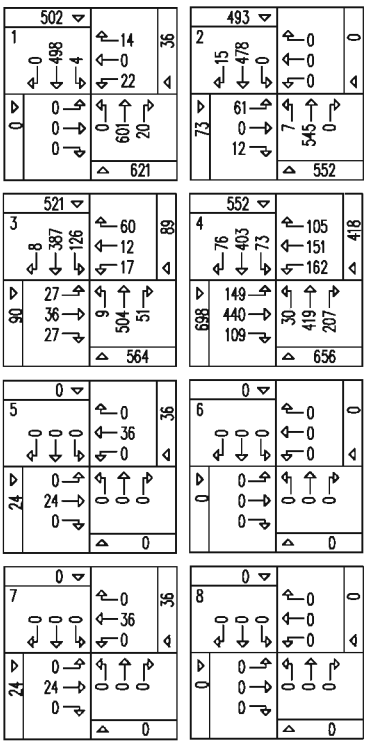
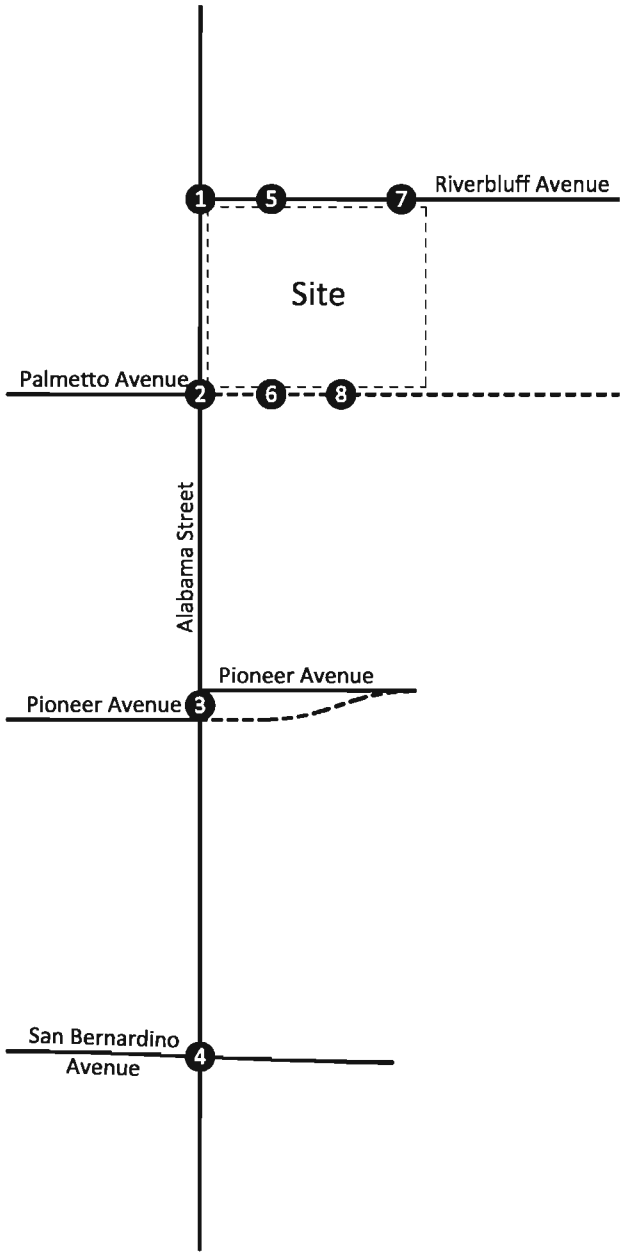
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 6
Existing Evening Peak Hour Intersection Turning Movement Volumes





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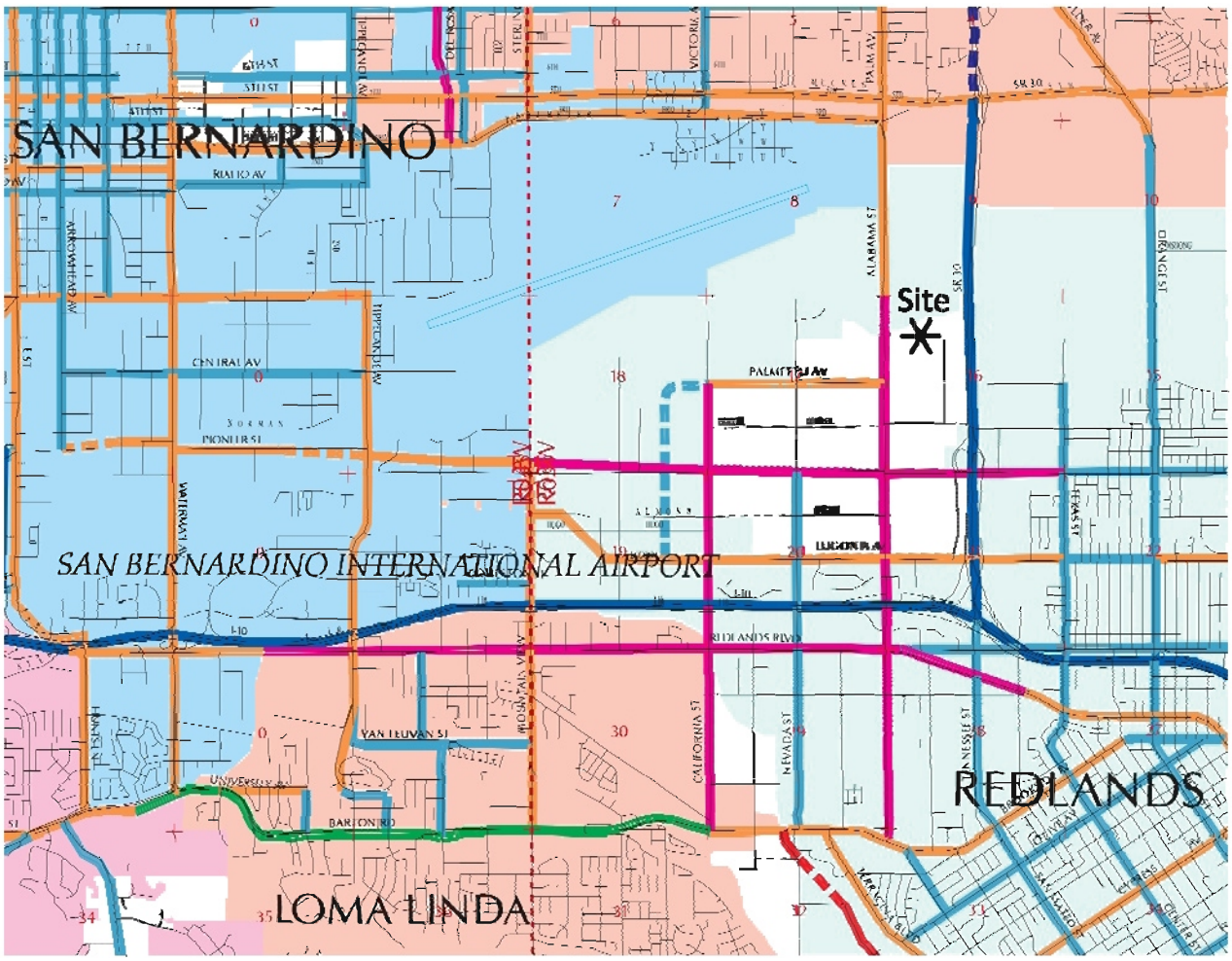
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 7
County of San Bernardino General Plan Circulation Element



Source: County of San Bernardino

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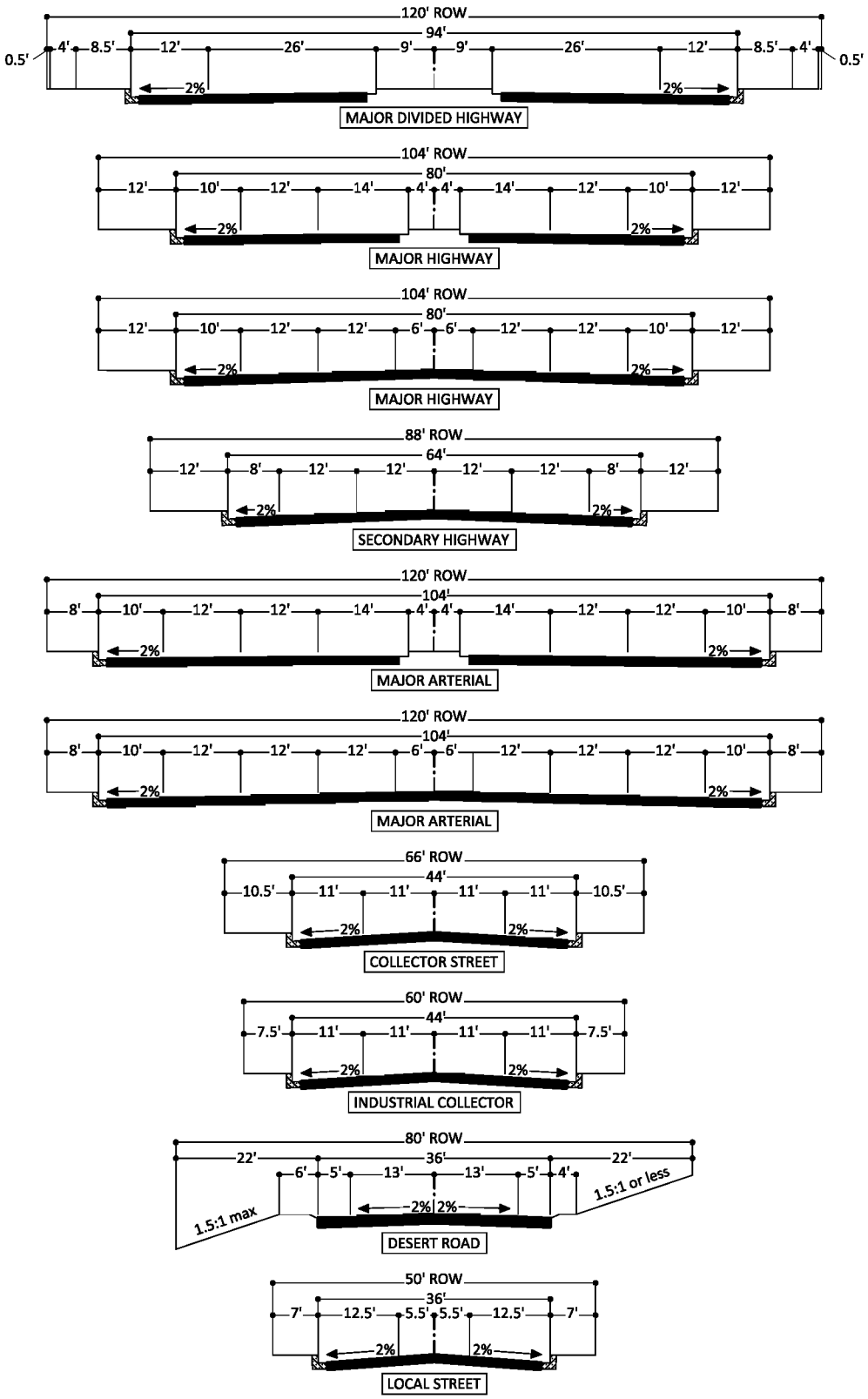
Figure 8
County of San Bernardino General Plan Roadway Cross-Sections



Source: County of San Bernardino

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III. Project Traffic

A. Project Description

The project site is proposed to be developed with 289,327 square feet of high-cube warehouse distribution center. The project will have access to River Bluff Avenue and Palmetto Avenue.

B. Trip Generation

The trips generated by the project are determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic and morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land use. By multiplying the trip generation rates by the land use quantity, the traffic volumes are determined. Table 2 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012 and Truck Trip Generation Study, City of Fontana, August 2003.

As shown in Table 2, the proposed development is projected to generate approximately 639 daily vehicle trips in Passenger Car Equivalents, 41 Passenger Car Equivalents of which will occur during the morning peak hour and 45 Passenger Car Equivalents of which will occur during the evening peak hour.

C. Trip Distribution

Figures 9 and 10 contain the directional distributions of the project traffic for the proposed land use.

To determine the trip distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development and traffic impacts in the area were reviewed.

D. Trip Assignment

Based on the identified trip generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 11. Morning and evening peak hour intersection turning movement volumes expected from the project are shown on Figures 12 and 13, respectively.

E. Traffic Contribution Test

No analysis is required further than 5 miles from the project site. The roadway elements that must be analyzed are dependent on both the analysis year (project Opening Year or Year 2035) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, was based on an estimate of the two-way traffic volumes on the roadway segments near the project site. All arterial segments have been included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways. Figure 14 graphically depicts the project traffic contribution test volumes on all of the roadway segments adjacent to the potential intersection analysis locations until the project volume contribution has clearly dropped below the 50 trip threshold.

The project does not contribute traffic greater than the freeway threshold volume of 100 two-way peak hour trips. The project does not contribute traffic greater than the arterial link threshold volume of 50 two-way trips in the morning and evening peak hours in the adjacent City of Redlands.

Table 2

Project Trip Generation[1]

Descriptor	Quantity	Units[2]	Type of Vehicle: Passenger Car	2 Axle Truck	3 Axle Truck	4+ Axle Truck	Total Trucks	Total
Land Use: High Cube	289.327	TSF	79.6%	3.5%	4.6%	12.3%	20.4%	100%
Traffic Generation Rates in trips per TSF								
Daily			1.337	0.058	0.078	0.207	0.343	1.68
Morning Peak Hour			0.088	0.004	0.005	0.014	0.023	0.11
Evening Peak Hour			0.096	0.004	0.006	0.015	0.025	0.12
Traffic Generation in Vehicles								
Daily			387	17	23	60	100	487
Morning Peak Hour								
Inbound			18	1	1	3	5	23
Outbound			7	-	-	1	1	8
Total			25	1	1	4	6	31
Evening Peak Hour								
Inbound			9	-	1	1	2	11
Outbound			18	1	1	3	5	23
Total			27	1	2	4	7	34
Passenger Car Equivalent's (PCE'S) Factor[3]			1.00	1.50	2.00	3.00		
Traffic Generation in PCE's								
Daily			387	26	46	180	252	639
Morning Peak Hour								
Inbound			18	2	2	9	13	31
Outbound			7	-	-	3	3	10
Total			25	2	2	12	16	41
Evening Peak Hour								
Inbound			9	-	2	3	5	14
Outbound			18	2	2	9	13	31
Total			27	2	4	12	18	45

[1] Source: Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Category 152 and Truck Trip Generation Study, City of Fontana, August 2003.

[2] TSF = Thousand Square Feet

[3] Passenger Car Equivalent factors are recommended by San Bernardino Associated Governments.

Figure 9
Project Trip Distribution - Cars

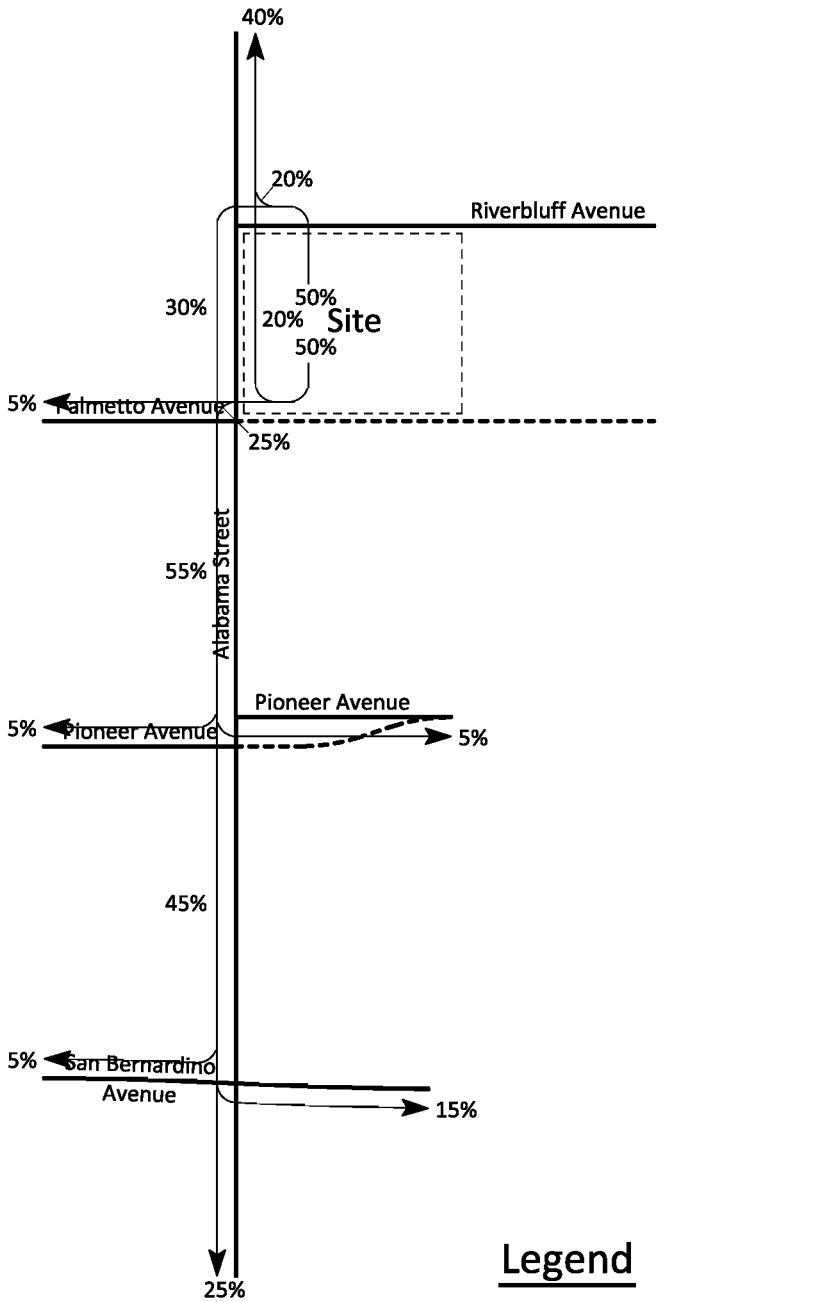

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Figure 10
Project Trip Distribution - Trucks

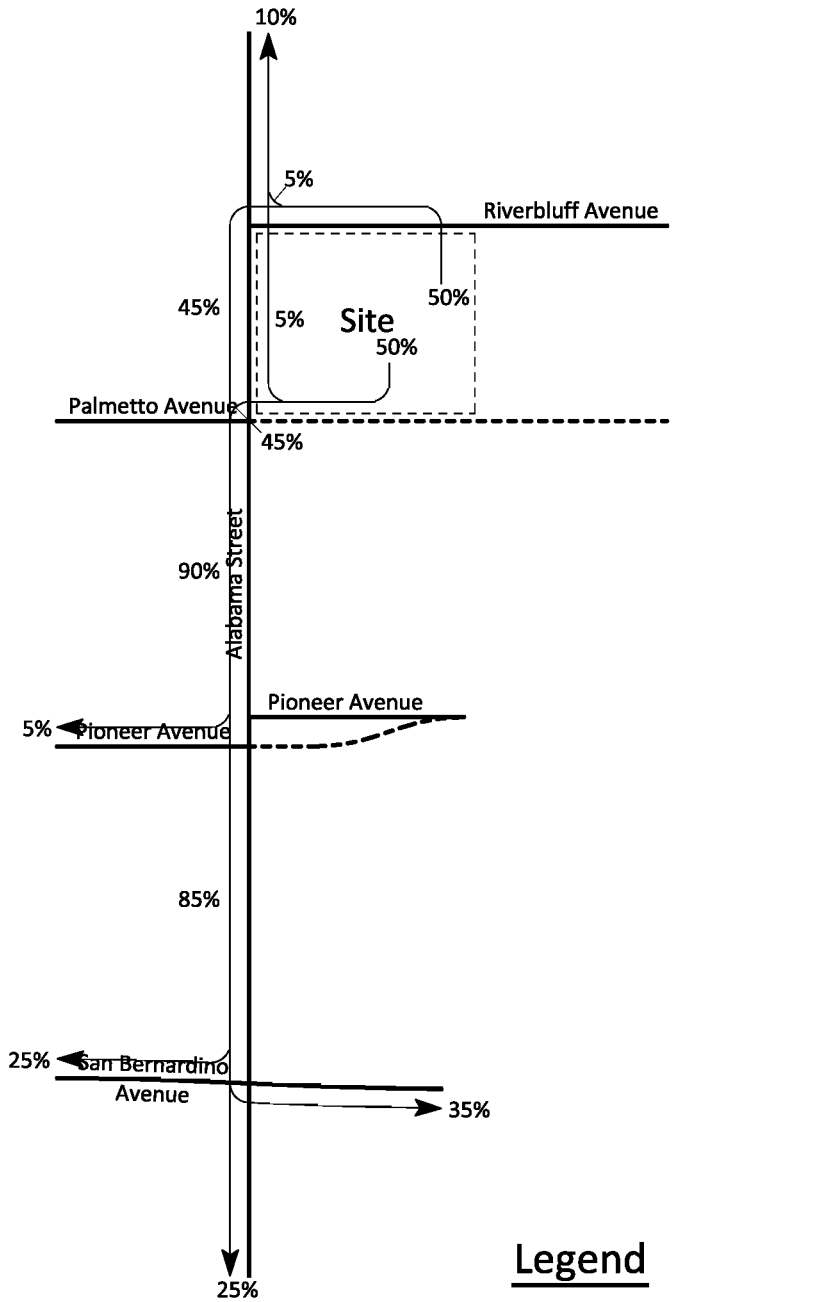

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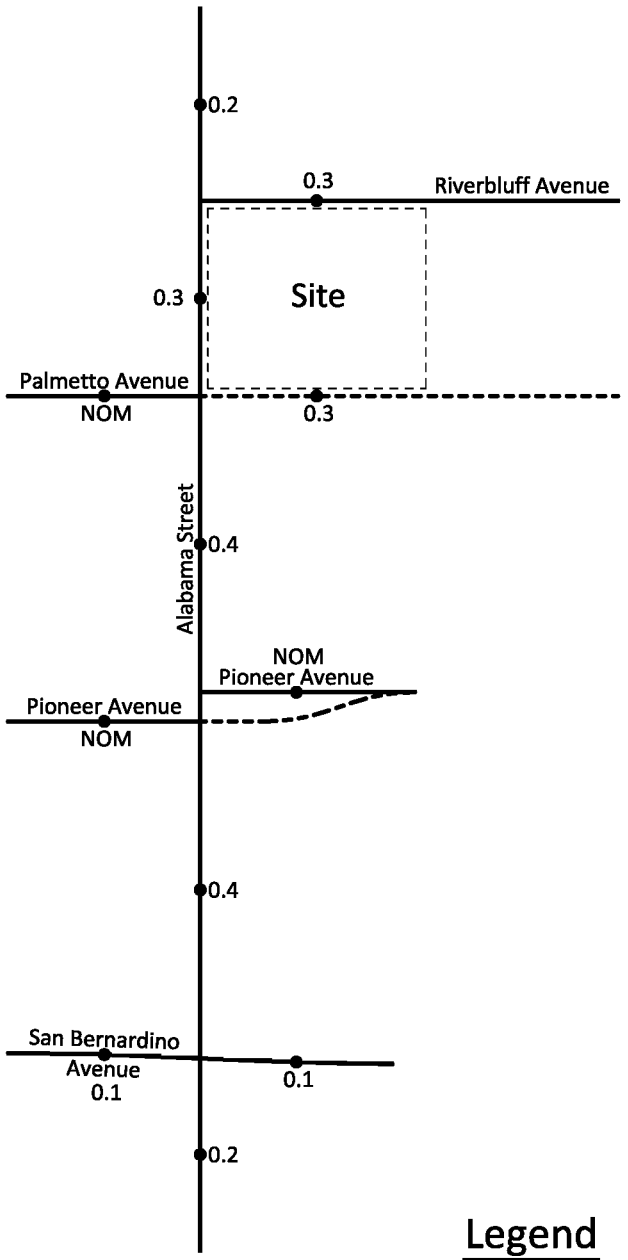
Figure 11
Project Average Daily Traffic Volumes



Legend

0.2 = Vehicles Per Day (1,000's)
NOM = Nominal, Less Than 50 Vehicles Per Day

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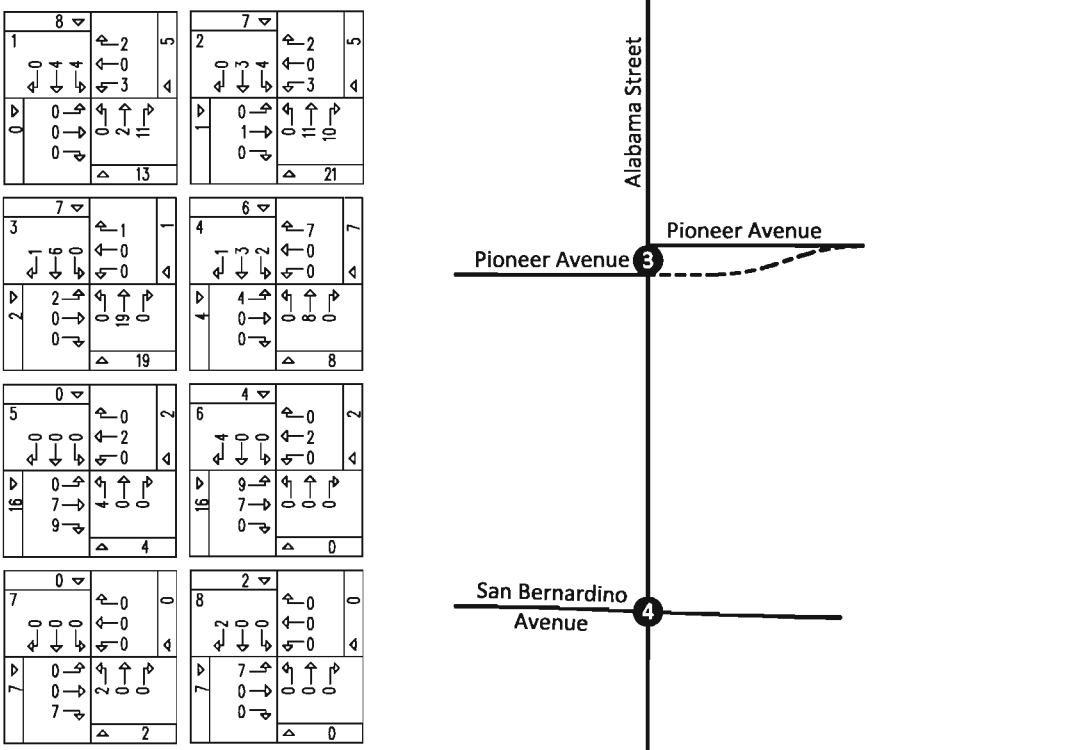
Figure 12
Project Morning Peak Hour Intersection Turning Movement Volumes



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KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

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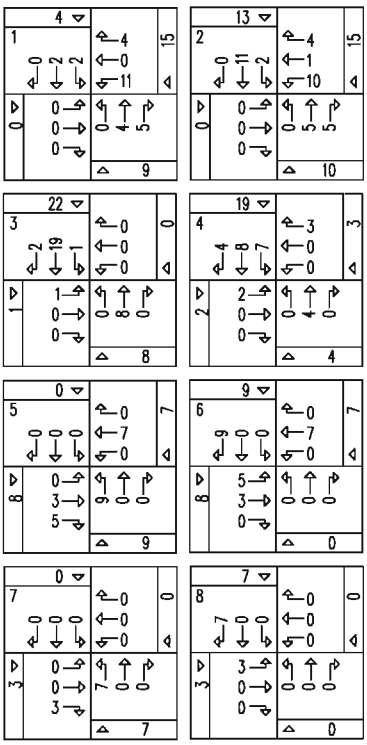
Figure 13
Project Evening Peak Hour Intersection Turning Movement Volumes



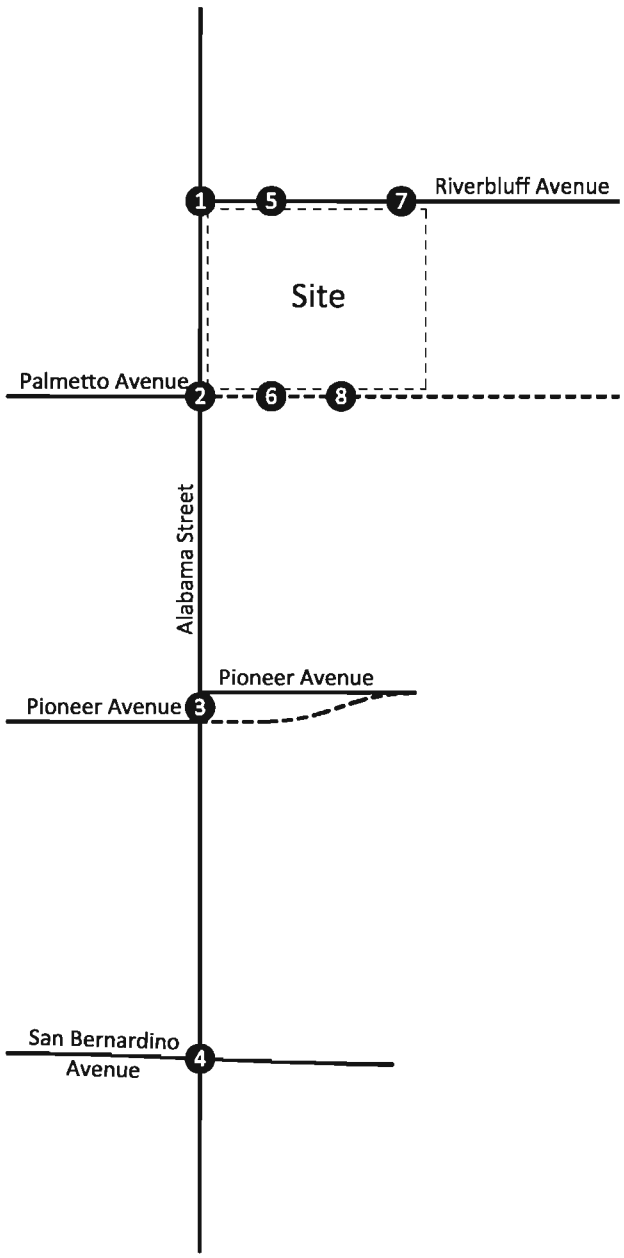


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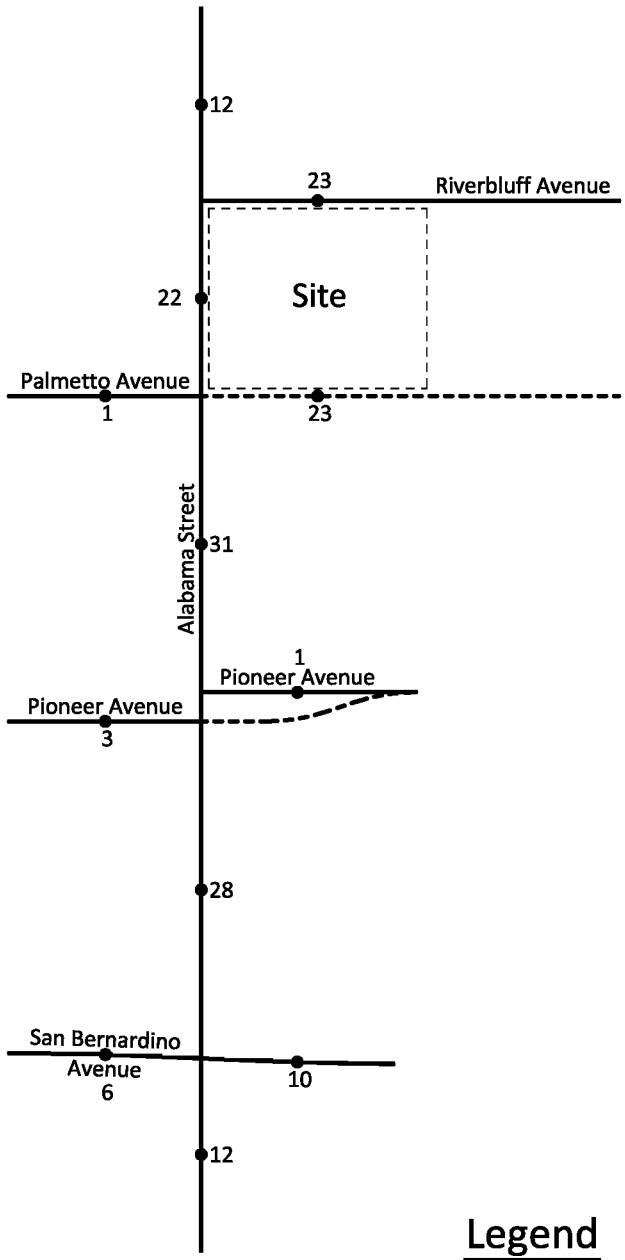
Figure 14
Project Traffic Contribution Test Volumes



Legend

12 = Project Evening Peak hour Volumes

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OVER 35 YEARS OF EXCELLENT SERVICE

IV. Future Conditions

A. Future Volumes

As described within Section I.C., the Year 2035 average daily traffic volume forecasts with the project are developed using a growth increment process based on volumes predicted by the East Valley Traffic Model Year 2000 and Year 2035 traffic models. The growth increment for Year 2035 on each roadway segment is the increase in East Valley Traffic Model volumes from existing Year 2012 to Year 2035. The final Year 2035 roadway segment volume used for analysis purposes is then determined by adding the Year 2035 growth increment volume to the existing counted volume.

The Opening Year (2014) traffic projections have been interpolated between Year 2035 traffic volumes and existing traffic volumes utilizing a portion of the growth increment (see Section I.C.). Project traffic volumes for all future projections were estimated using the manual approach.

Table 3 lists the proposed land uses for the surrounding other development. Table 3 shows the daily and peak hour vehicle trips generated by the surrounding other development in the study area. The other development average daily traffic volumes are shown on Figure 15. Other development morning and evening peak hour intersection turning movement volumes are shown on Figures 16 and 17, respectively.

1. Existing Plus Project

   The average daily traffic volumes for Existing Plus Project traffic conditions have been determined. Existing Plus Project average daily traffic volumes are shown on Figure 18.

2. Opening Year (2014) Without Project

   The average daily traffic volumes for Opening Year (2014) Without Project traffic conditions have been determined as described above using the growth interpolation process (see Section I.C.). Opening Year (2014) Without Project average daily traffic volumes are shown on Figure 19.

3. Opening Year (2014) With Project

   The average daily traffic volumes for Opening Year (2014) With Project traffic conditions have been determined as described above using the volume addition process (see Section I.C.). Opening Year (2014) With Project average daily traffic volumes are shown on Figure 20.

4. Year 2035 Without Project

The average daily traffic volumes for Year 2035 Without Project traffic conditions have been determined as described above using the growth increment process (see Section I.C.). Year 2035 Without Project average daily traffic volumes are shown on Figure 21.

5. Year 2035 With Project

The average daily traffic volumes for Year 2035 With Project traffic conditions have been determined as described above using the volume addition process (see Section I.C.). Year 2035 With Project average daily traffic volumes are shown on Figure 22.

B. Future Level of Service

1. Existing Plus Project

The Existing Plus Project delay and Level of Service for the study area roadway network are shown in Table 4. Table 4 shows delay values based on the existing geometrics at the study area intersections. Existing Plus Project delay calculation worksheets are provided in Appendix E. Existing Plus Project morning and evening peak hour intersection turning movement volumes are shown on Figures 23 and 24, respectively.

For Existing Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Palmetto Avenue (EW) - #2

For Existing Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

2. Opening Year (2014) Without Project

The Opening Year (2014) Without Project delay and Level of Service for the study area roadway network without the proposed project are shown in Table 5. Table 5 shows delay values based on the existing geometrics at the study area intersections. Opening Year (2014) Without Project delay calculation worksheets are provided in Appendix E. Opening Year (2014) Without Project morning and evening peak hour intersection turning movement volumes are shown on Figures 25 and 26, respectively.

For Opening Year (2014) Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Palmetto Avenue (EW) - #2

For Opening Year (2014) Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

3. Opening Year (2014) With Project

The Opening Year (2014) With Project delay and Level of Service for the study area roadway network with the proposed project are shown in Table 6. Table 6 shows delay values based on the existing geometrics at the study area intersections. Opening Year (2014) With Project delay calculation worksheets are provided in Appendix E. Opening Year (2014) With Project morning and evening peak hour intersection turning movement volumes are shown on Figures 27 and 28, respectively.

For Opening Year (2014) With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Palmetto Avenue (EW) - #2

For Opening Year (2014) With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

4. Year 2035 Without Project

The Year 2035 delay and Level of Service for the study area roadway network without the proposed project are shown in Table 7. Table 7 shows delay values based on the geometrics at the study area intersections without and with traffic signal improvements. Year 2035 Without Project delay calculation worksheets are provided in Appendix E. Year 2035 Without Project morning and evening peak hour intersection turning movement volumes are shown on Figures 29 and 30, respectively.

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Riverbluff Avenue (EW) - #1
Palmetto Avenue (EW) - #2
Pioneer Avenue (EW) - #3
San Bernardino Avenue (EW) - #4

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

5. Year 2035 With Project

The Year 2035 With Project delay and Level of Service for the study area roadway network with the proposed project are shown in Table 8. Table 8 shows delay values based on the geometrics at the study area intersections without and with traffic signal improvements. Year 2035 With Project delay calculation worksheets are provided in Appendix E. Year 2035 With Project morning and evening peak hour intersection turning movement volumes are shown on Figures 31 and 32, respectively.

For Year 2035 With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
- Riverbluff Avenue (EW) - #1
- Palmetto Avenue (EW) - #2
- Pioneer Avenue (EW) - #3
- San Bernardino Avenue (EW) - #4

For Year 2035 With Project traffic conditions, the study area intersections are projected to operate with acceptable Levels of Service during the peak hours, with improvements.

C. Future Traffic Signal Warrant Analysis

A traffic signal is projected to be warranted at the following study area intersection for Opening Year (2014) Without Project traffic conditions (see Appendix F):

Alabama Street (NS) at:
- Palmetto Avenue (EW) - #2

The unsignalized intersection has been evaluated for a traffic signal using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the Manual of Uniform Traffic Control Devices 2003 California Supplement, dated January 21, 2010.

Table 3

Other Development Trip Generation

Other Development	Peak Hour						Daily
	Morning			Evening			
	Inbound	Outbound	Total	Inbound	Outbound	Total	
Prologis Redlands Distribution Center[1]							
Building 9							
- Cars	24	12	36	10	29	39	448
- Trucks	32	38	70	31	33	64	1,080
Subtotal	56	50	106	41	62	103	1,528
Prologis Redlands Distribution Center[1]							
Building 10							
- Cars	16	8	24	7	19	26	304
- Trucks	22	26	48	21	22	43	734
Subtotal	38	34	72	28	41	69	1,038
Rossmore Enterprises Project[2]							
- Cars	26	13	39	13	30	43	614
- Trucks	18	10	28	10	25	35	495
Subtotal	44	23	67	23	55	78	1,109
Total	138	107	245	92	158	250	3,675

[1] Source: Prologis Redlands Distribution Center Buildings 9 & 10 Focused Traffic Analysis, Kunzman Associates, Inc. (September 28, 2011).

[2] Source: Rossmore Enterprises Project Traffic Impact Analysis, Kunzman Associates, Inc. (May 29, 2012).

Table 4

Existing Plus Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Alabama Street (NS) at:															
Riverbluff Avenue (EW) - #1	TS	0	1	1	1	1	0	0	0	0	1	0	1	12.1-B	5.1-A
Palmetto Avenue (EW) - #2															
- Without Improvements	CSS	0.5	0.5	0	0	0.5	0.5	0	1	0	0	0	0	30.8-D	51.2-F
- With Improvements	**TS**	**1**	0.5	0.5	**1**	0.5	0.5	0	1	0	0	**1**	0	13.3-B	14.3-B
Pioneer Avenue (EW)[4] - #3	TS	1	1	1	1	1.5	0.5	0.5	0.5	1	0	1	0	37.9-D	34.4-C
San Bernardino Avenue (EW) - #4	TS	1	1.5	0.5	1	2	1	1	1	1	1	2	1	24.1-C	29.1-C
Project West Driveway (NS) at:															
Riverbluff Avenue (EW) - #5	**CSS**	**0.5**	0	**0.5**	0	0	0	0	0.5	0.5	1	1	0	8.9-A	8.9-A
Palmetto Avenue (EW) - #6	**CSS**	0	0	0	**0.5**	0	**0.5**	**0.5**	**0.5**	0	0	**0.5**	**0.5**	8.3-A	8.4-A
Project East Driveway (NS) at:															
Riverbluff Avenue (EW) - #7	**CSS**	**0.5**	0	**0.5**	0	0	0	0	0.5	0.5	0.5	0.5	0	8.9-A	8.8-A
Palmetto Avenue (EW) - #8	**CSS**	0	0	0	**0.5**	0	**0.5**	**0.5**	**0.5**	0	0	**0.5**	**0.5**	9.0-A	9.0-A

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right;**1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

[4] There is a proposed project at the southeast corner of Alabama Street and Pioneer Avenue and as a result Pioneer Avenue will be realigned.

Table 5

Opening Year (2014) Without Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Alabama Street (NS) at:															
Riverbluff Avenue (EW) - #1	TS	0	1	1	1	1	0	0	0	0	1	0	1	14.3-B	5.5-A
Palmetto Avenue (EW) - #2															
- Without Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	99.9-F[4]	99.9-F
- With Improvements	**TS**	**1**	0.5	0.5	**1**	0.5	0.5	0	1	0	0	**1**	0	19.2-B	17.3-B
Pioneer Avenue (EW)[5] - #3	TS	1	1	1	1	1.5	0.5	0.5	0.5	1	0	1	0	46.7-D	48.0-D
San Bernardino Avenue (EW) - #4	TS	1	1.5	0.5	1	2	1	1	1	1	1	2	1	26.0-C	36.0-D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; **1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[5] There is a proposed project at the southeast corner of Alabama Street and Pioneer Avenue and as a result Pioneer Avenue will be realigned.

Table 6

Opening Year (2014) With Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Alabama Street (NS) at:															
Riverbluff Avenue (EW) - #1	TS	0	1	1	1	1	0	0	0	0	1	0	1	14.6-B	6.5-A
Palmetto Avenue (EW) - #2															
- Without Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	99.9-F[4]	99.9-F
- With Improvements	**TS**	**1**	0.5	0.5	**1**	0.5	0.5	0	1	0	0	**1**	0	19.4-B	17.5-B
Pioneer Avenue (EW)[5] - #3	TS	1	1	1	1	1.5	0.5	0.5	0.5	1	0	1	0	48.4-D	48.5-D
San Bernardino Avenue (EW) - #4	TS	1	1.5	0.5	1	2	1	1	1	1	1	2	1	27.0-C	36.3-D
Project West Driveway (NS) at:															
Riverbluff Avenue (EW) - #5	**CSS**	**0.5**	0	**0.5**	0	0	0	0	0.5	0.5	1	1	0	9.0-A	9.0-A
Palmetto Avenue (EW) - #6	**CSS**	0	0	0	**0.5**	0	**0.5**	**0.5**	**0.5**	0	0	**0.5**	**0.5**	8.6-A	8.7-A
Project East Driveway (NS) at:															
Riverbluff Avenue (EW) - #7	**CSS**	**0.5**	0	**0.5**	0	0	0	0	0.5	0.5	0.5	0.5	0	9.0-A	9.0-A
Palmetto Avenue (EW) - #8	**CSS**	0	0	0	**0.5**	0	**0.5**	**0.5**	**0.5**	0	0	**0.5**	**0.5**	8.6-A	8.6-A

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; **1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[5] There is a proposed project at the southeast corner of Alabama Street and Pioneer Avenue and as a result Pioneer Avenue will be realigned.

Table 7

Year 2035 Without Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Alabama Street (NS) at:															
Riverbluff Avenue (EW) - #1															
- Without Improvements	TS	0	1	1	1	1	0	0	0	0	1	0	1	99.9-F[4]	99.9-F
- With Improvements	TS	0	**1.5**	0.5	1	**2**	0	0	0	0	1	0	1	6.6-A	2.1-A
Palmetto Avenue (EW) - #2															
- Without Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	99.9-F	99.9-F
- With Improvements	**TS**	**1**	**1.5**	0.5	**1**	**1.5**	0.5	0	1	0	0	**1**	0	14.0-B	31.2-C
Pioneer Avenue (EW)[5] - #3															
- Without Improvements	TS	1	1	1	1	1.5	0.5	0.5	0.5	1	0	1	0	99.9-F	99.9-F
- With Improvements	TS	1	**1.5**	**0.5**	1	1.5	0.5	**1**	0.5	**0.5**	**1**	**0.5**	**0.5**	19.9-B	24.1-C
San Bernardino Avenue (EW) - #4															
- Without Improvements	TS	1	1.5	0.5	1	2	1	1	1	1	1	2	1	60.7-E	99.9-F
- With Improvements	TS	1	1.5	0.5	1	2	1	**2**	**2**	1	**2**	2	1	53.6-D	49.7-D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right;**1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[5] There is a proposed project at the southeast corner of Alabama Street and Pioneer Avenue and as a result Pioneer Avenue will be realigned.

Table 8

Year 2035 With Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Alabama Street (NS) at:															
Riverbluff Avenue (EW) - #1															
- Without Improvements	TS	0	1	1	1	1	0	0	0	0	1	0	1	99.9-F[4]	99.9-F
- With Improvements	TS	0	**1.5**	0.5	1	**2**	0	0	0	0	1	0	1	6.8-A	2.5-A
Palmetto Avenue (EW) - #2															
- Without Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	99.9-F	99.9-F
- With Improvements	**TS**	**1**	**1.5**	0.5	**1**	**1.5**	0.5	0	1	0	0	**1**	0	14.1-B	31.4-C
Pioneer Avenue (EW)[5] - #3															
- Without Improvements	TS	1	1	1	1	1.5	0.5	0.5	0.5	1	0	1	0	99.9-F	99.9-F
- With Improvements	TS	1	**1.5**	**0.5**	1	1.5	0.5	**1**	0.5	**0.5**	**1**	**0.5**	**0.5**	20.1-C	24.2-C
San Bernardino Avenue (EW) - #4															
- Without Improvements	TS	1	2	1	1	2	1	1	1	1	1	2	1	60.8-E	99.9-F
- With Improvements	TS	1	2	1	1	2	1	**2**	**2**	1	**2**	2	1	53.8-D	50.6-D
Project West Driveway (NS) at:															
Riverbluff Avenue (EW) - #5	**CSS**	**0.5**	0	**0.5**	0	0	0	0	0.5	0.5	1	1	0	9.0-A	9.0-A
Palmetto Avenue (EW) - #6	**CSS**	0	0	0	**0.5**	0	**0.5**	**0.5**	**0.5**	0	0	**0.5**	**0.5**	8.6-A	8.7-A
Project East Driveway (NS) at:															
Riverbluff Avenue (EW) - #7	**CSS**	**0.5**	0	**0.5**	0	0	0	0	0.5	0.5	0.5	0.5	0	9.0-A	8.9-A
Palmetto Avenue (EW) - #8	**CSS**	0	0	0	**0.5**	0	**0.5**	**0.5**	**0.5**	0	0	**0.5**	**0.5**	8.6-A	8.6-A

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

[5] There is a proposed project at the southeast corner of Alabama Street and Pioneer Avenue and as a result Pioneer Avenue will be realigned.

Figure 15
Other Development Average Daily Traffic Volumes

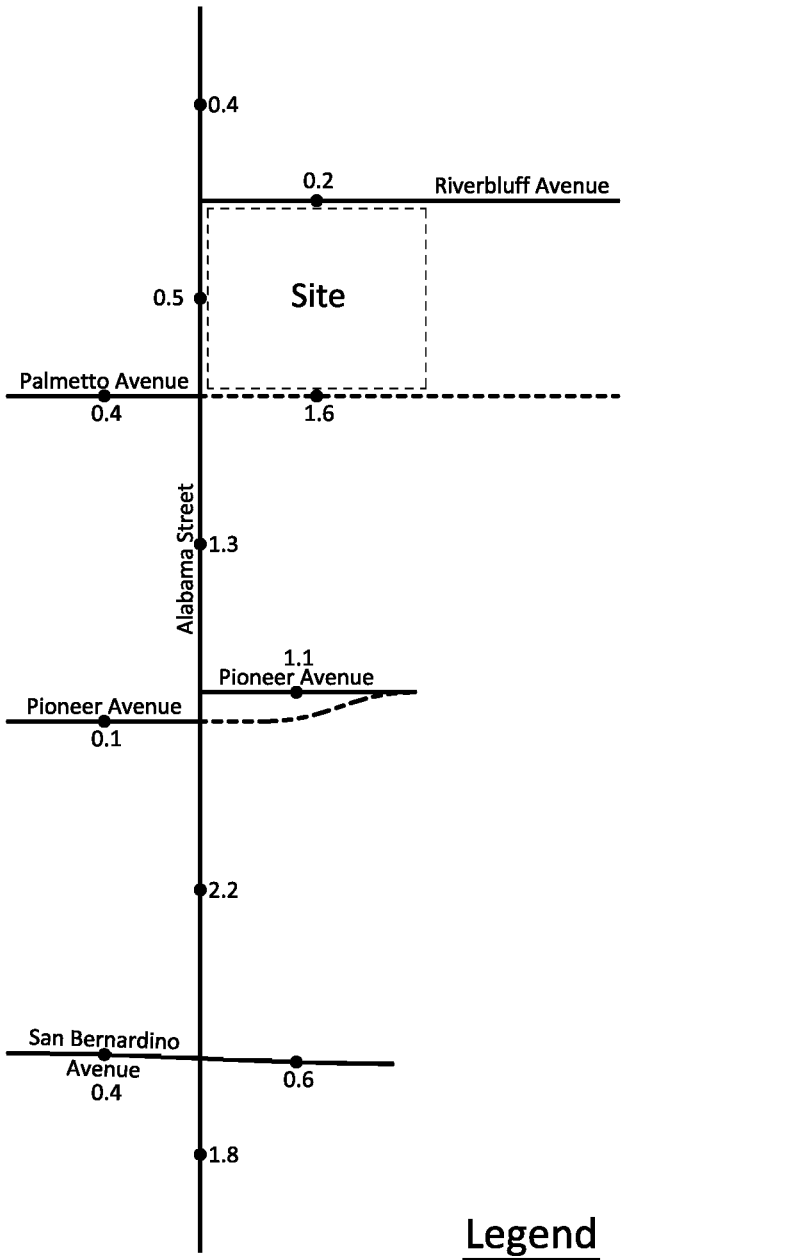

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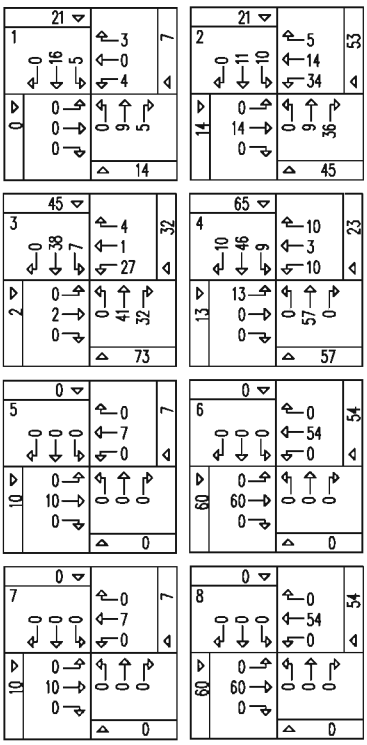
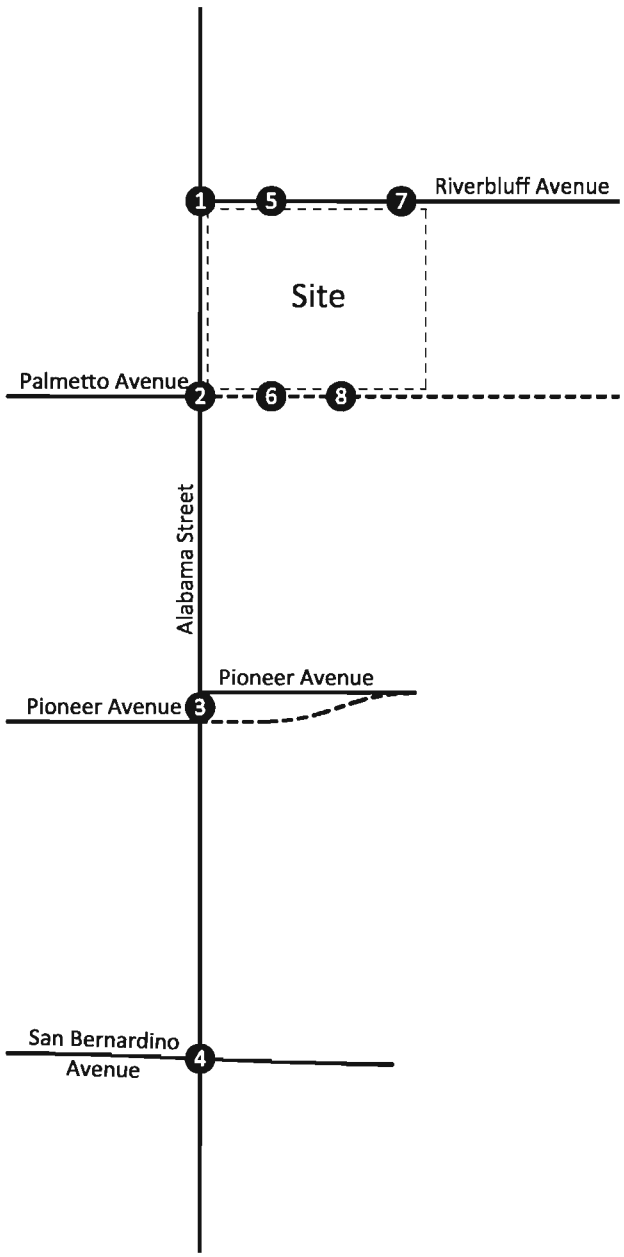
Figure 16
Other Development
Morning Peak Hour Intersection Turning Movement Volumes





N

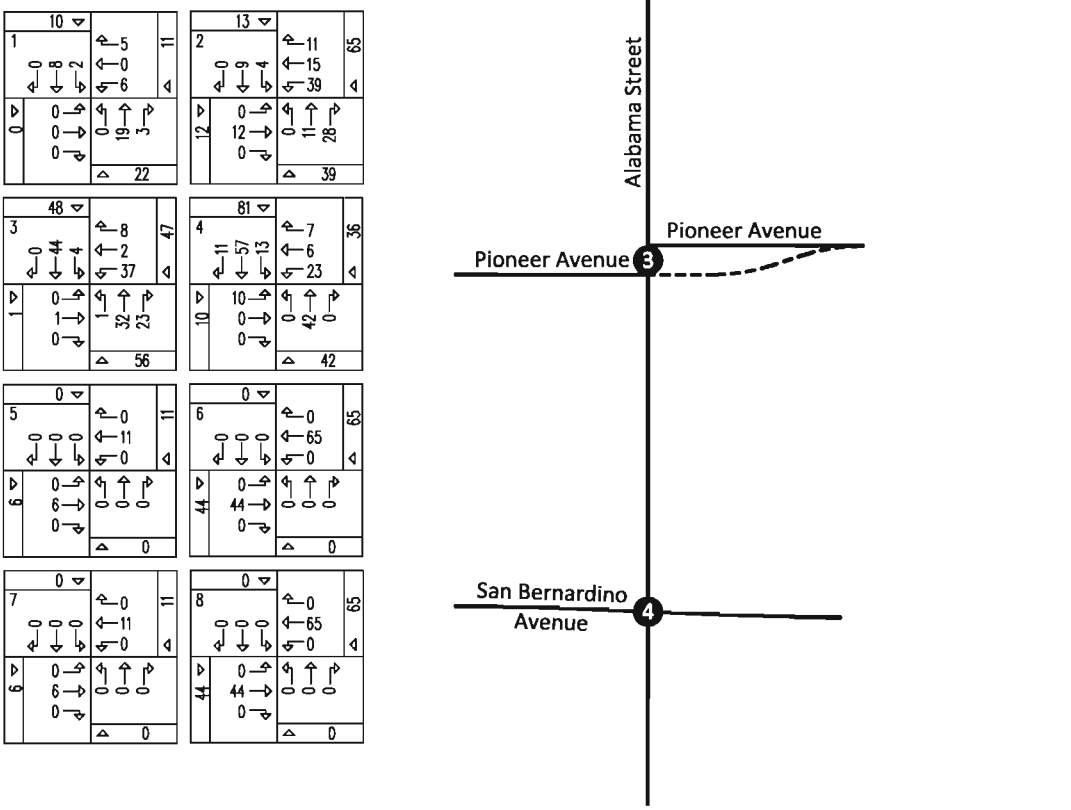
NTS

5206c/16

KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 17
Other Development
Evening Peak Hour Intersection Turning Movement Volumes



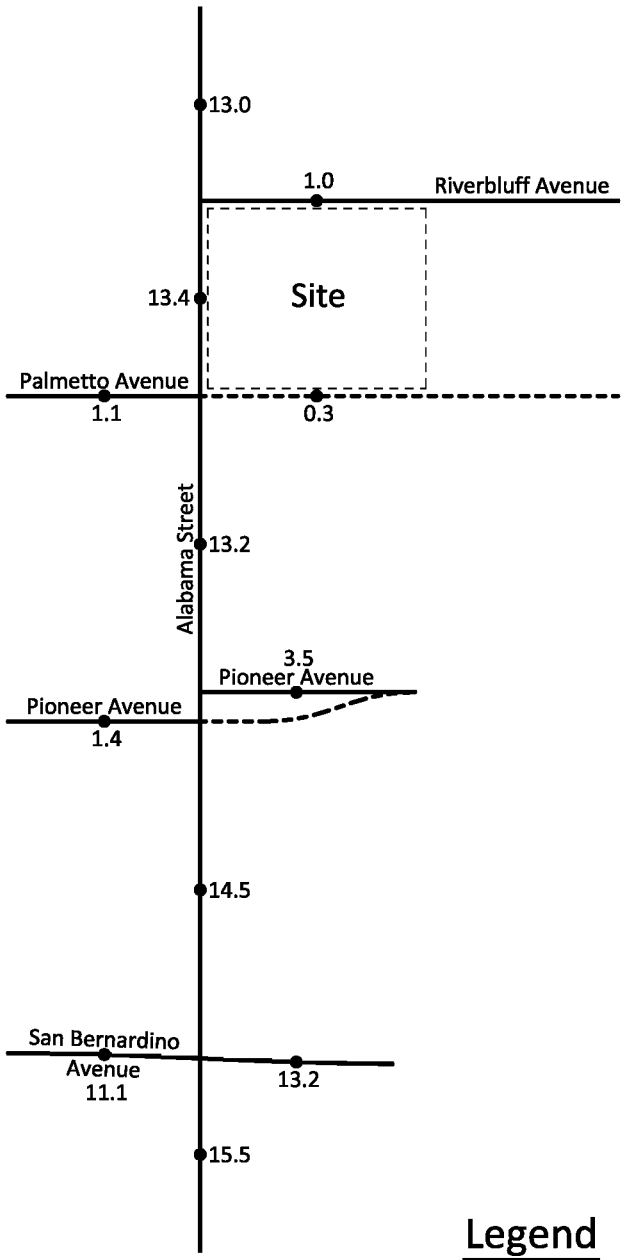
NTS

5206c/17

KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 18
Existing Plus Project Average Daily Traffic Volumes



Legend

15.5 = Vehicles Per Day (1,000's)

N

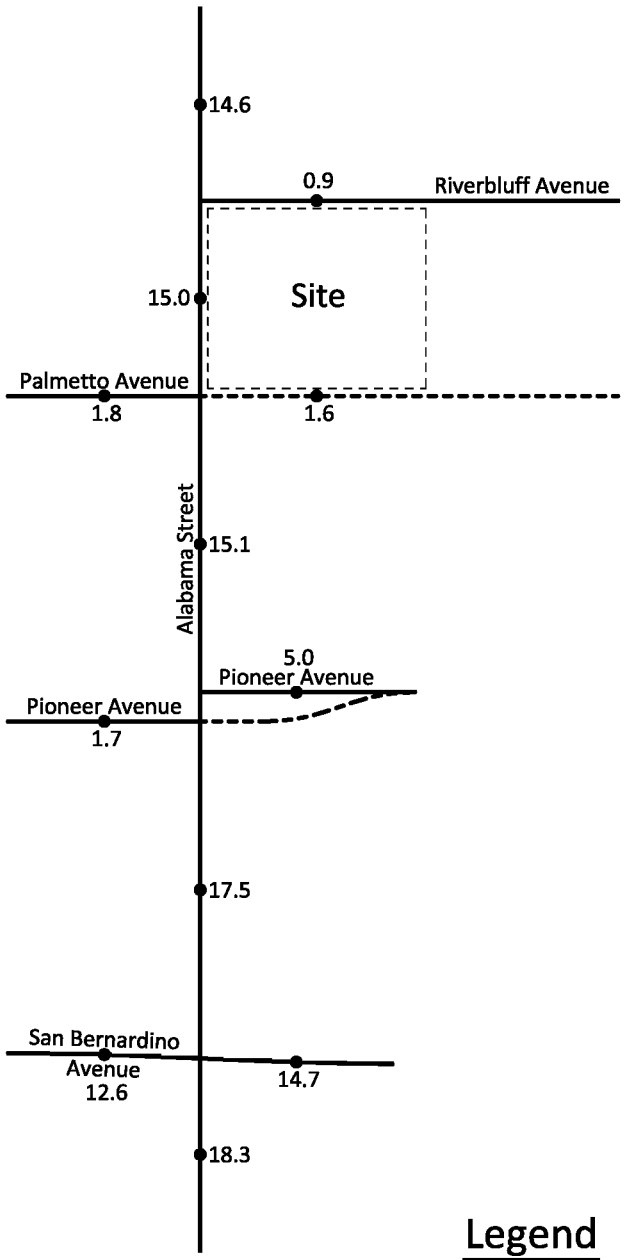
NTS

5206c/18

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 19
Opening Year (2014) Without Project
Average Daily Traffic Volumes



Legend

18.3 = Vehicles Per Day (1,000's)

N

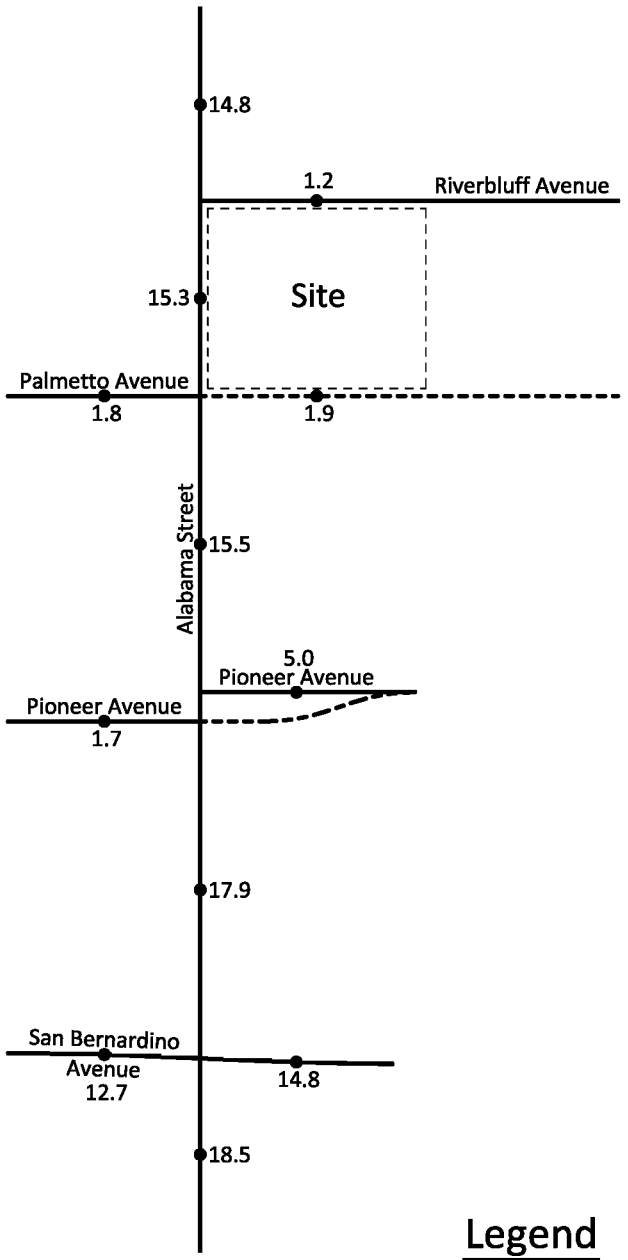
NTS

5206c/19

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 20
Opening Year (2014) With Project
Average Daily Traffic Volumes



Legend

18.5 = Vehicles Per Day (1,000's)

N

NTS

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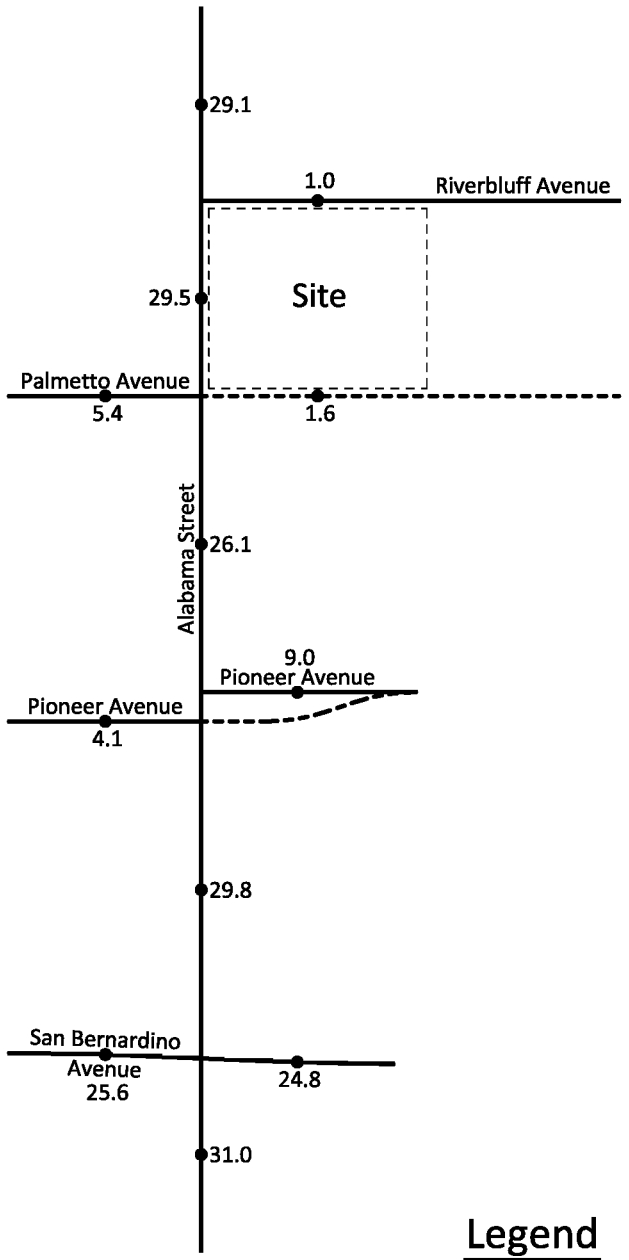
KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 21
Year 2035 Without Project
Average Daily Traffic Volumes



Legend

31.0 = Vehicles Per Day (1,000's)

N

NTS

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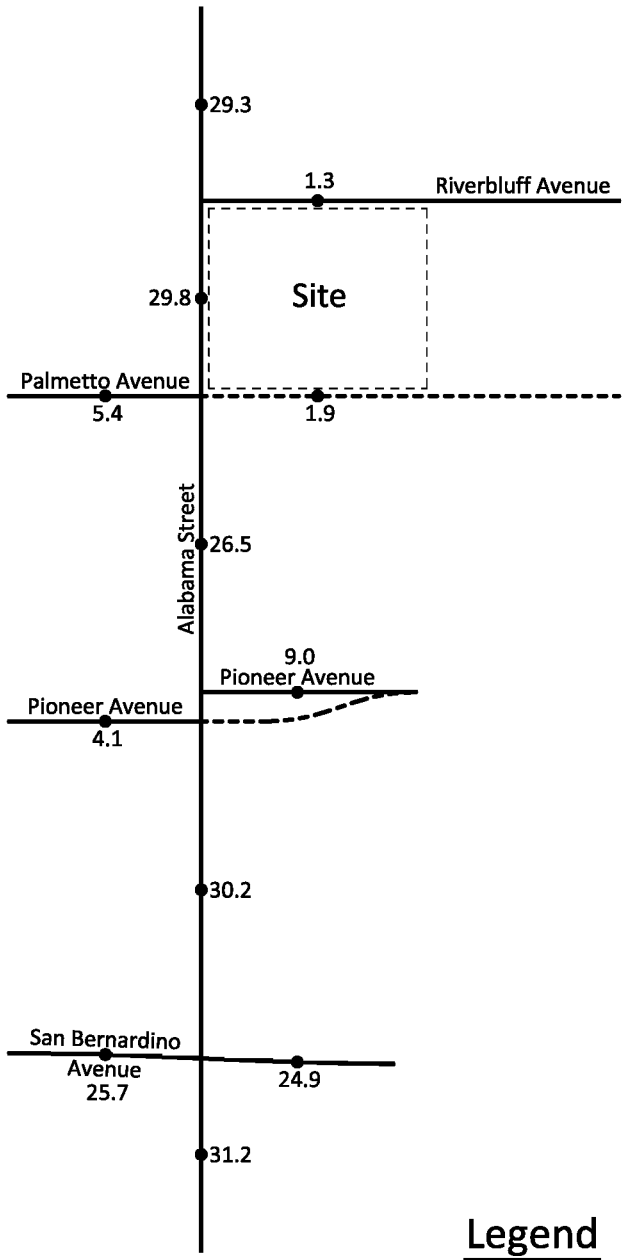
KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 22
Year 2035 With Project
Average Daily Traffic Volumes



Legend

31.2 = Vehicles Per Day (1,000's)

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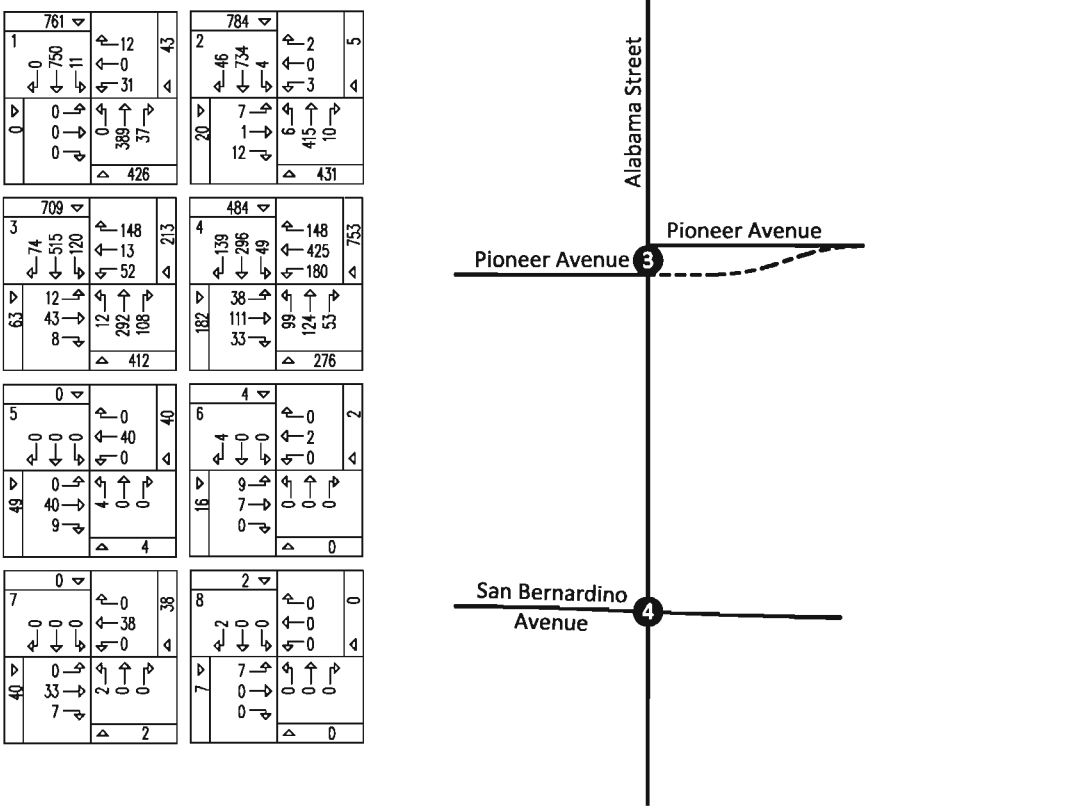
KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 23
Existing Plus Project
Morning Peak Hour Intersection Turning Movement Volumes



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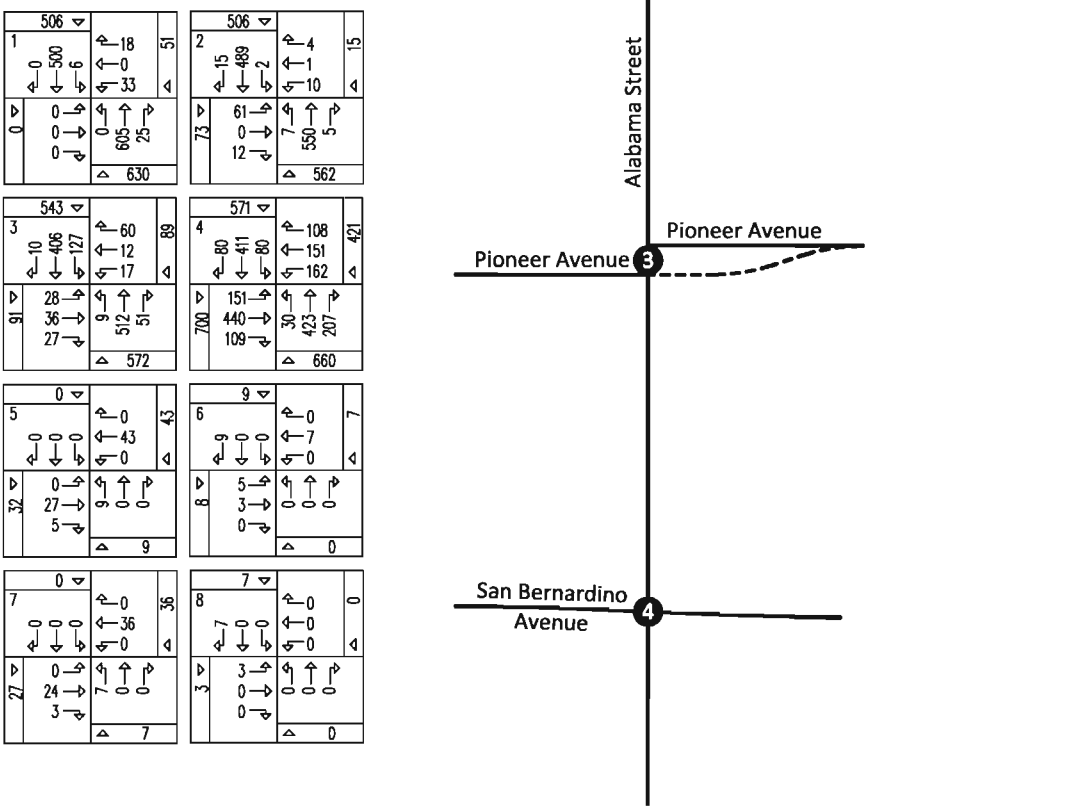
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 24
Existing Plus Project
Evening Peak Hour Intersection Turning Movement Volumes



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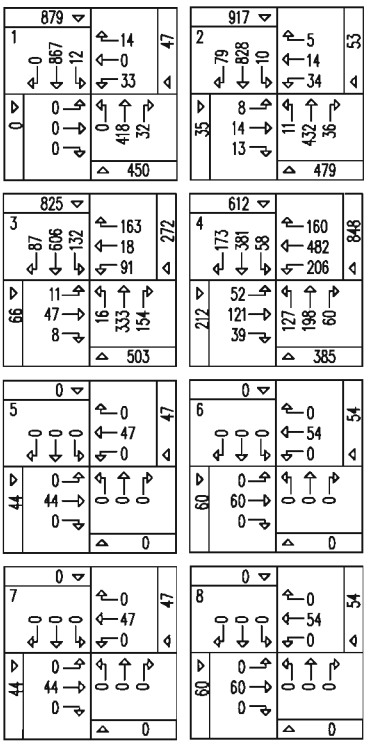
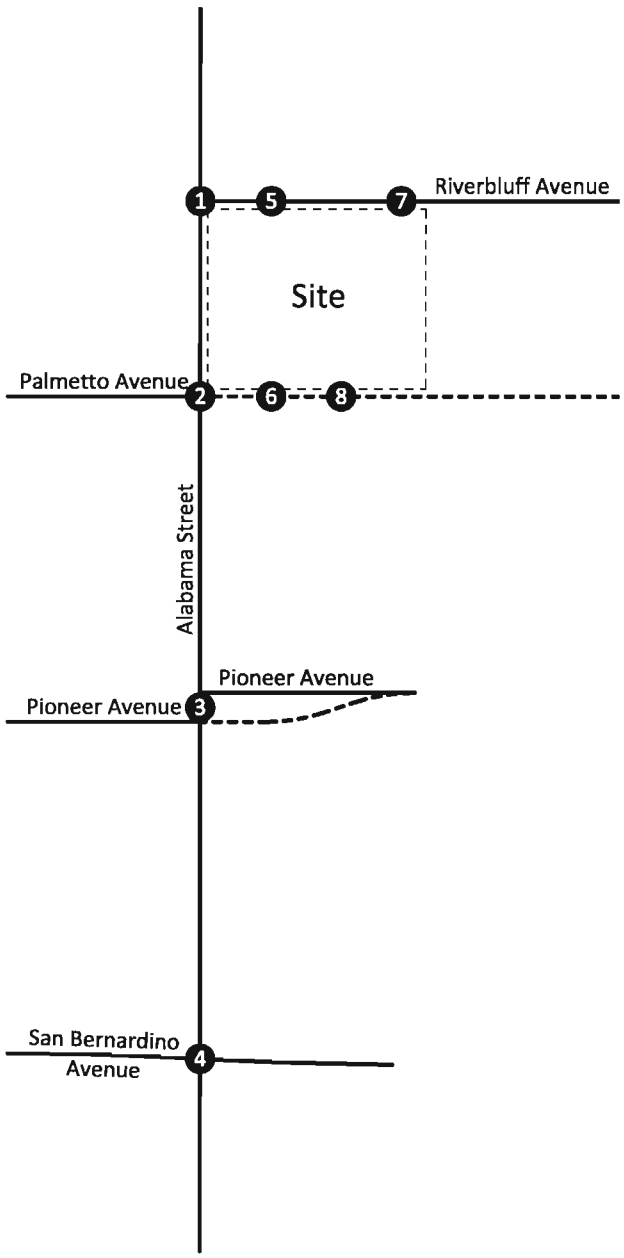
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 25
Opening Year (2014) Without Project
Morning Peak Hour Intersection Turning Movement Volumes





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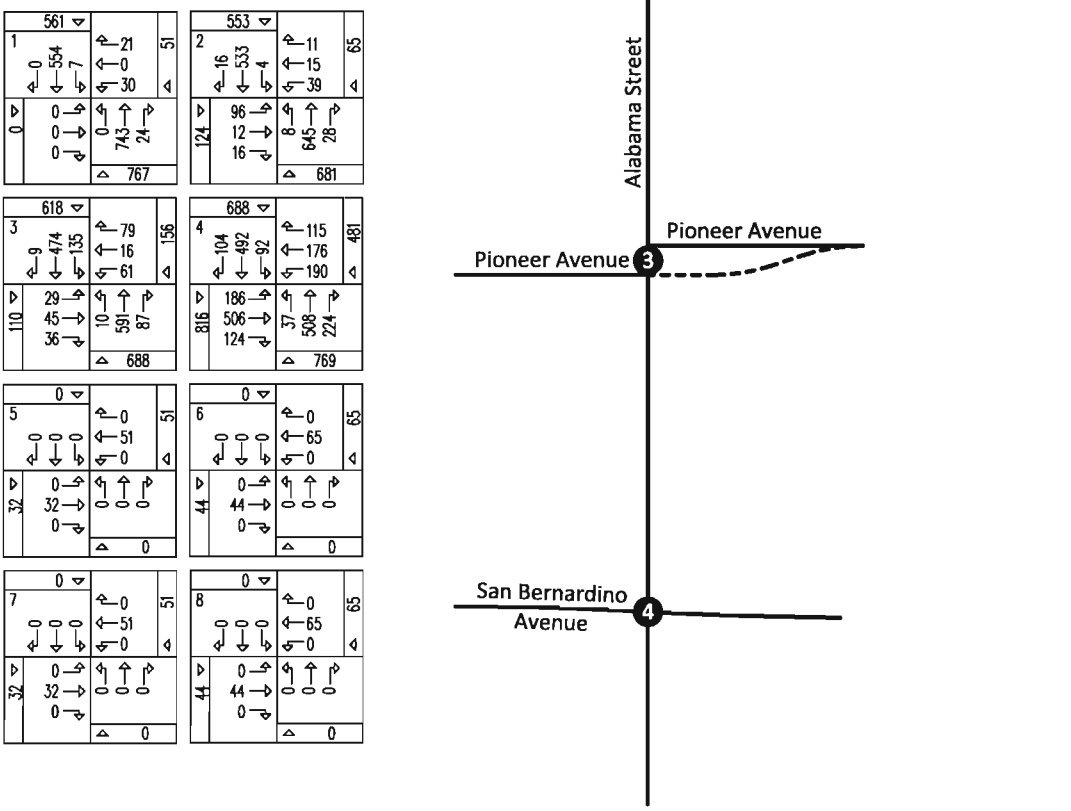
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 26
Opening Year (2014) Without Project
Evening Peak Hour Intersection Turning Movement Volumes



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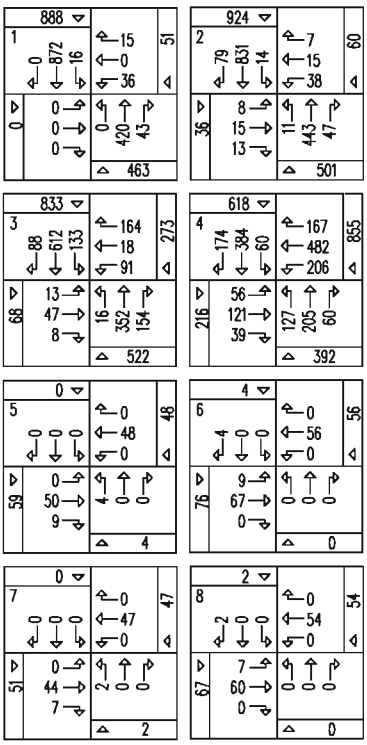
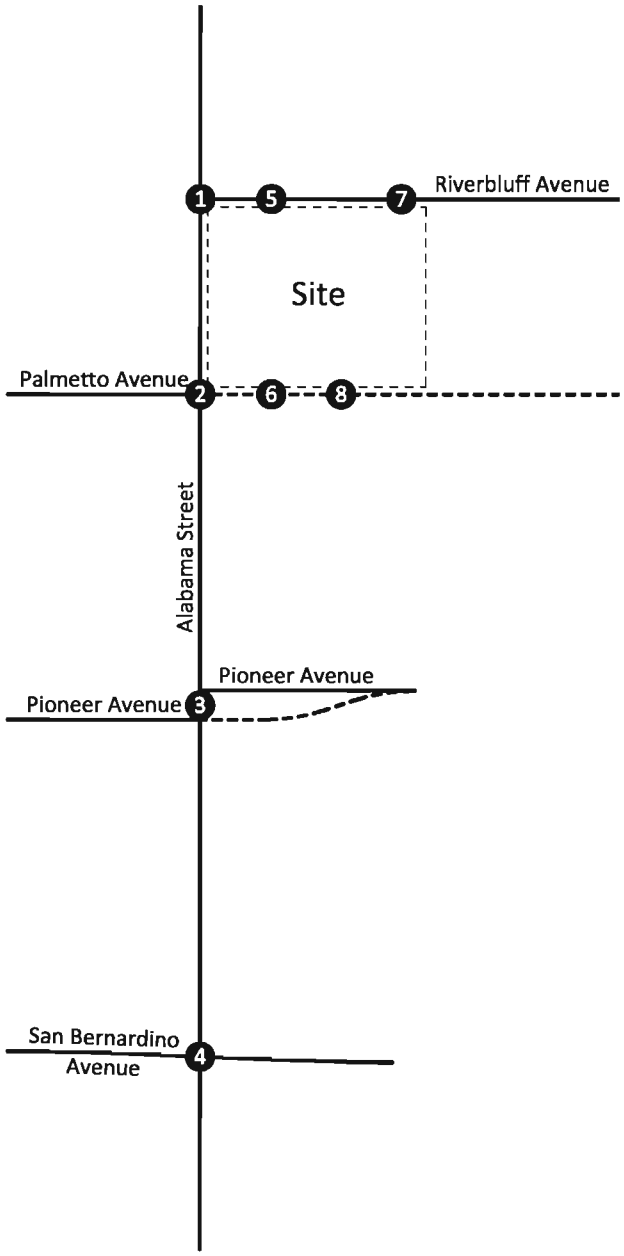
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 27
Opening Year (2014) With Project
Morning Peak Hour Intersection Turning Movement Volumes





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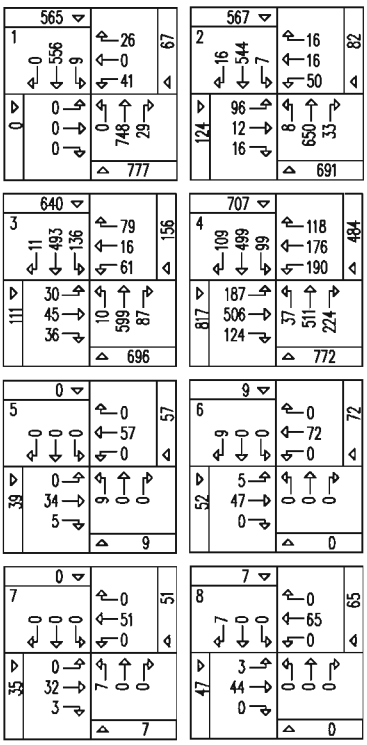
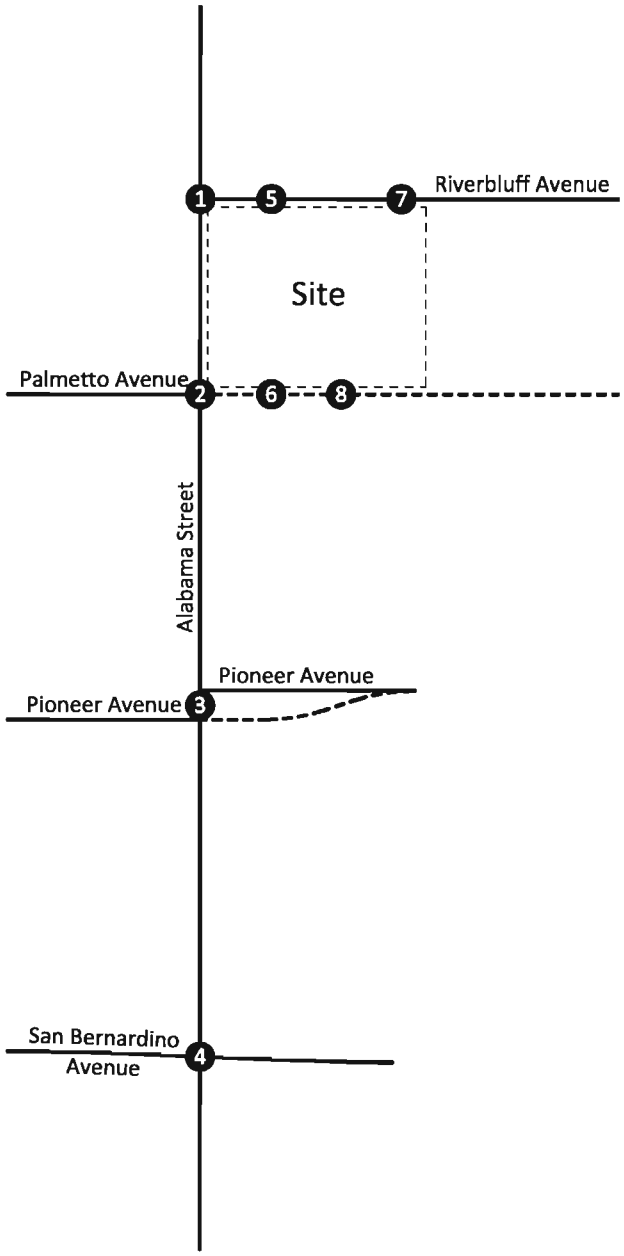
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 28
Opening Year (2014) With Project
Evening Peak Hour Intersection Turning Movement Volumes





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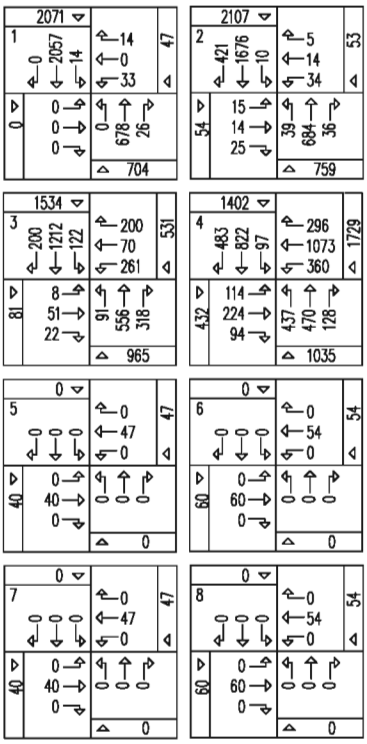
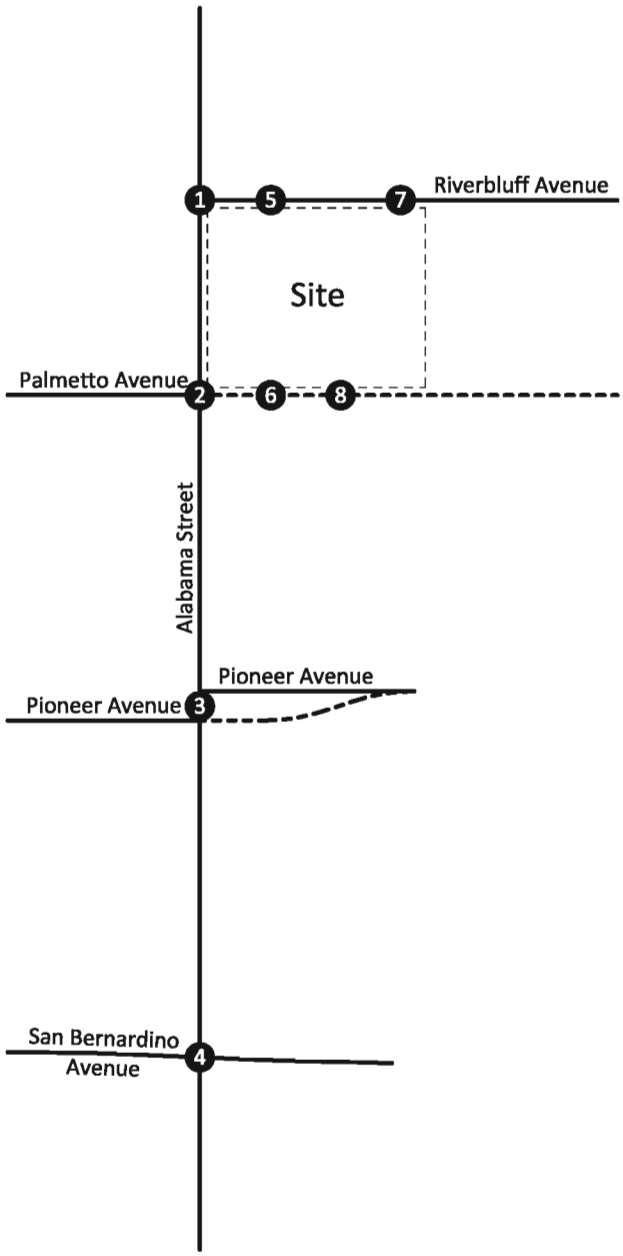
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 29
Year 2035 Without Project
Morning Peak Hour Intersection Turning Movement Volumes





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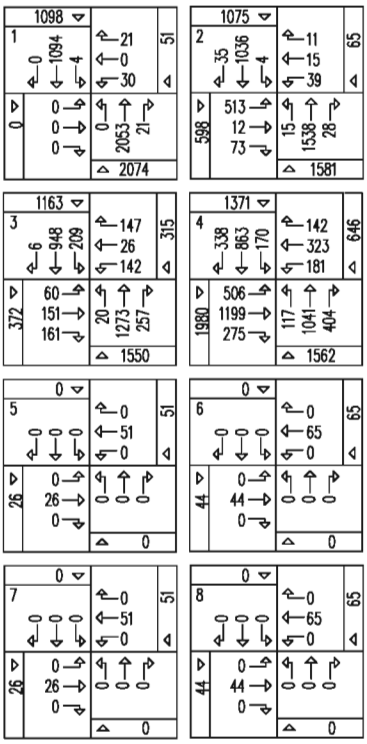
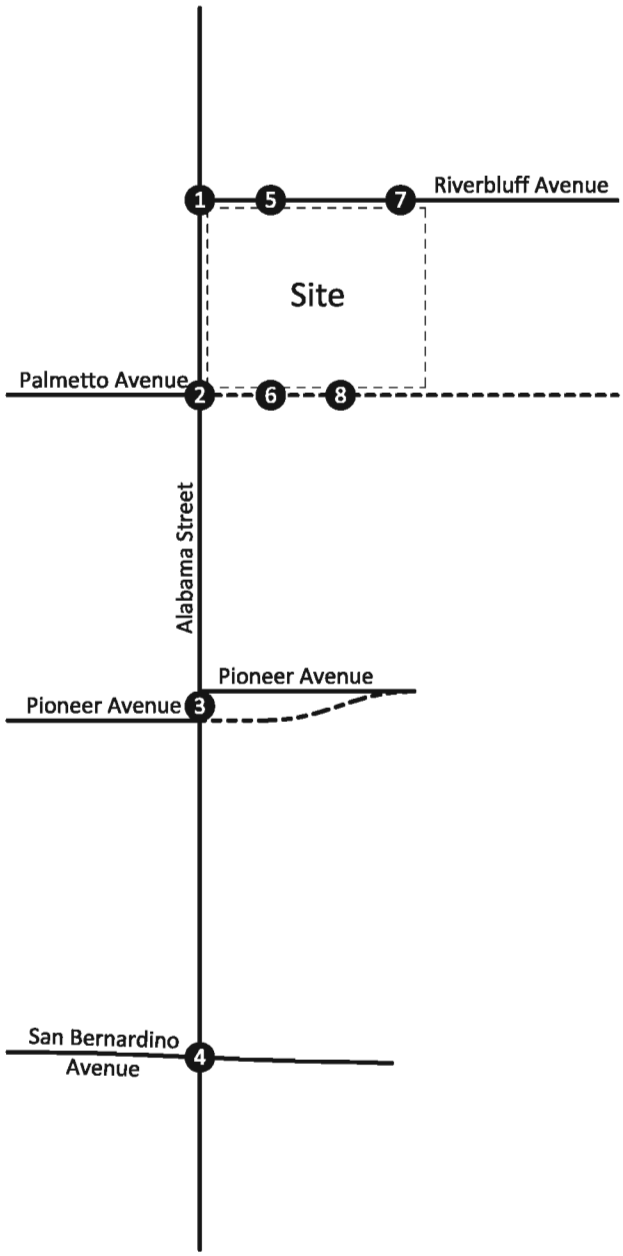
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 30
Year 2035 Without Project
Evening Peak Hour Intersection Turning Movement Volumes





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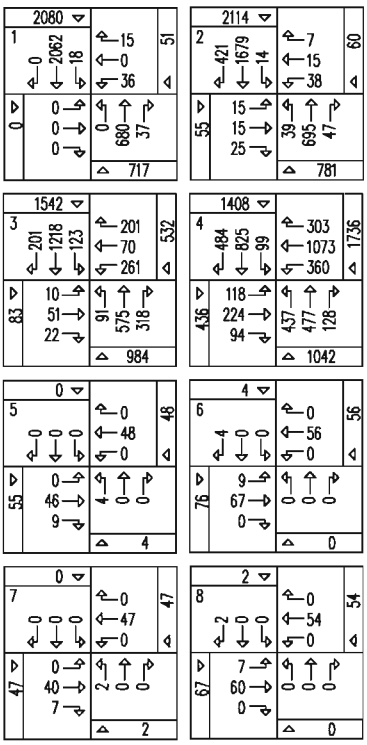
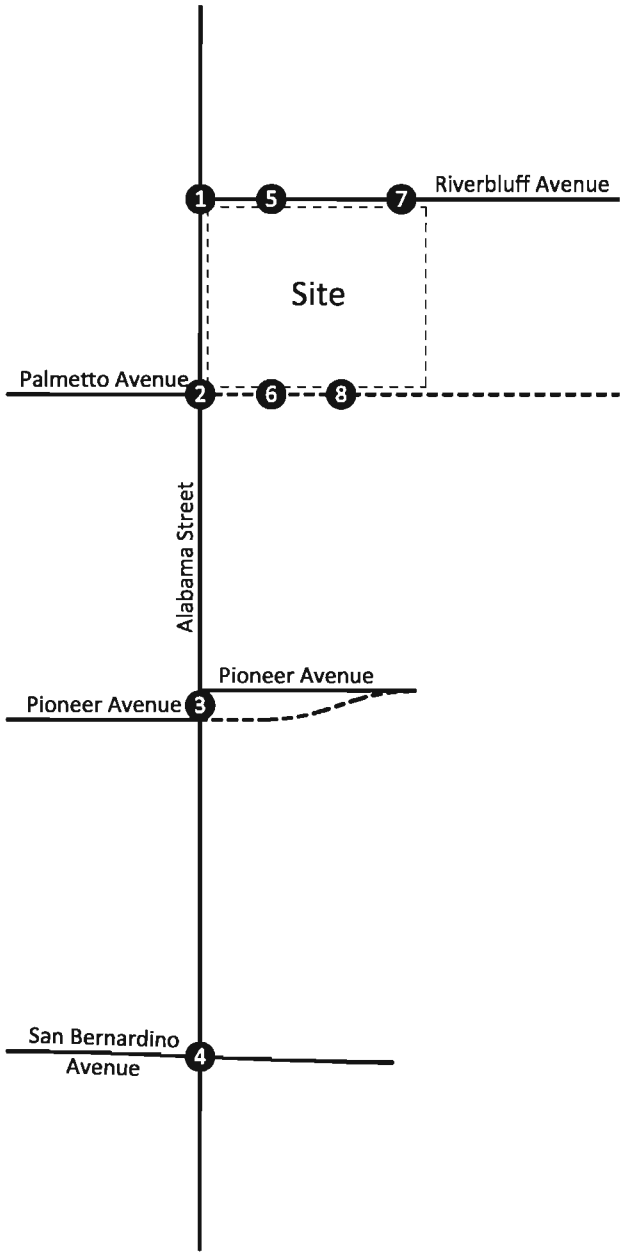
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 31
Year 2035 With Project
Morning Peak Hour Intersection Turning Movement Volumes





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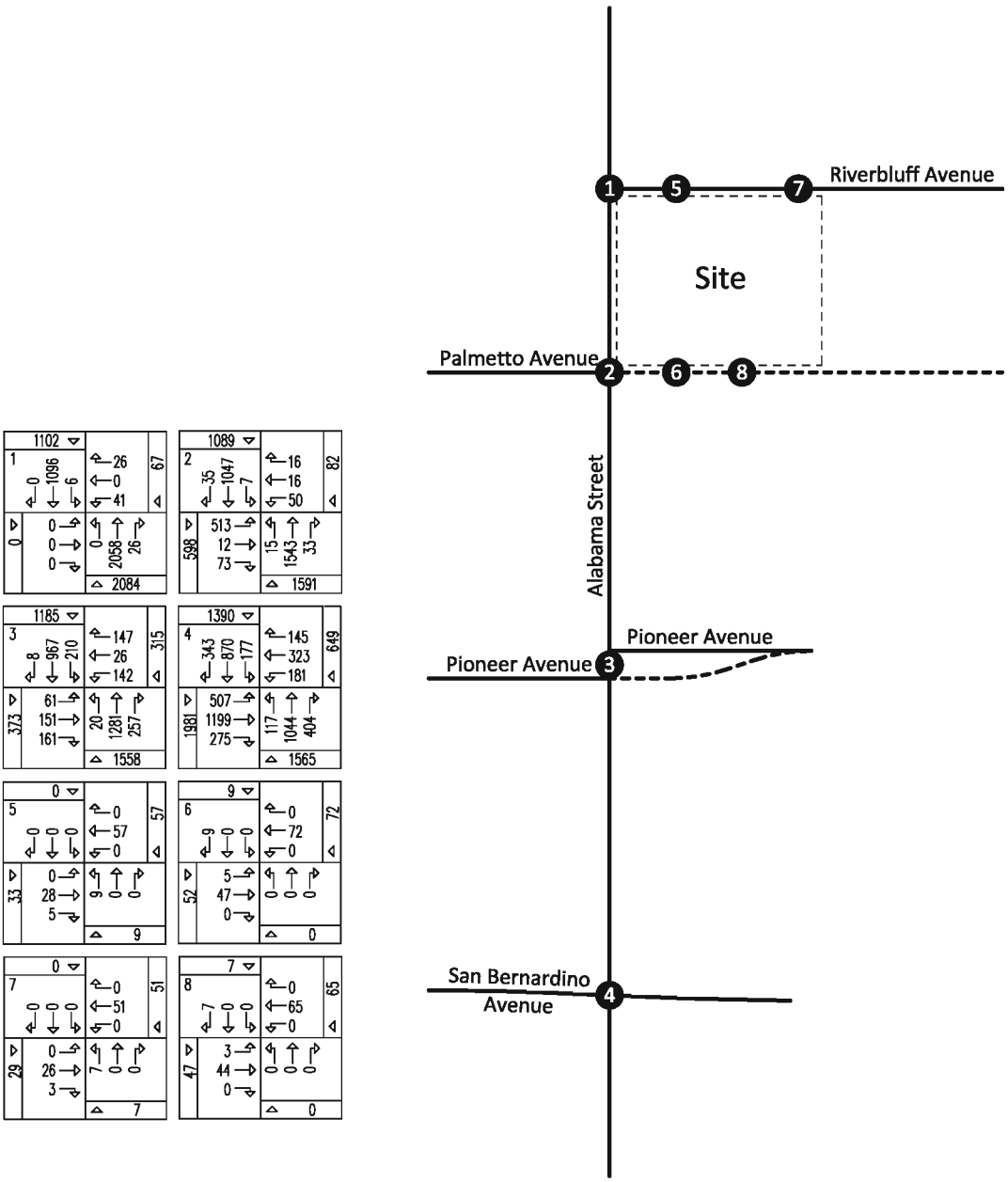
KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 32
Year 2035 With Project
Evening Peak Hour Intersection Turning Movement Volumes


Riverbluff Avenue
Site
Palmetto Avenue
Alabama Street
Pioneer Avenue
Pioneer Avenue
San Bernardino Avenue
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4
5
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7
8
1102
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1096
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2084
1089
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1047
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1185
3
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210
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315
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161
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1281
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1558
1390
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870
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145
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181
649
1981
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KUNZMAN ASSOCIATES, INC.
5206c/32
Intersection reference numbers are in upper left corner of turning movement boxes.
OVER 35 YEARS OF EXCELLENT SERVICE

V. Project Mitigation

A. Required Improvements and Costs

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Existing Plus Project, Opening Year (2014), and Year 2035 traffic conditions. The improvements were determined through the operations analysis of Section IV.

The approximate costs for the Year 2035 improvements have generally been estimated using cost guidelines in the Congestion Management Program Handbook (see Appendix G). A unit cost of $400,000 for installation of a traffic signal has been substituted for the somewhat lower value cited in the Congestion Management Program materials. For adding a through lane, a unit cost of $289,720 has been assumed. The needed improvements and resulting costs are summarized in Table 9 for the study area intersections.

The total cost of needed and unfunded intersection improvements is $1,278,880.

B. Project Contribution and Fair Share Costs

The project fair share contributions have also been calculated for Year 2035 improvement locations. The project share of cost has been based on the proportion of project peak hour traffic contributed to the improvement location relative to the total new peak hour Year 2035 traffic volume.

Table 10 presents a summary of improvement cost and project cost shares at the Year 2035 intersection improvement locations. The intersection fair share cost calculations are based on the average of the peak hour traffic volumes. As shown in Table 10, the project's fair share of identified intersection costs is $19,090.

The dollar figures are rough order of magnitude estimates only. They are intended only for the discussion purposes of this traffic impact analysis, and do not imply any legal responsibility or formula for contributions or mitigation.

As mitigation for the potential traffic impacts, the proposed project shall contribute through an adopted traffic impact fee program in addition to any fair share contributions shown within the traffic study which is not covered within this fee program.

Table 9

Summary of Intersection Improvements and Costs

Intersection	Improvement	Cost
Alabama Street (NS) at:		
Riverbluff Avenue (EW) - #1	Restripe NB Right Turn Lane to a Through/Right Turn Lane	--[1]
	Construct SB Through Lane	$ 289,720
	Subtotal	$ 289,720
Palmetto Avenue (EW) - #2	Construct NB Left Turn Lane	--[2]
	Construct NB Through Lane	$ 289,720
	Construct SB Left Turn Lane	--[2]
	Construct SB Through Lane	$ 289,720
	Install Traffic Signal	--[2]
	Subtotal	$ 579,440
Pioneer Avenue (EW) - #3	Restripe NB Right Turn Lane to a Through/Right Turn Lane	$ 10,000
	Stripe EB Left Turn Lane	$ 10,000
	Subtotal	$ 20,000
San Bernardino Avenue (EW) - #4	Construct EB Left Turn Lane	$ 50,000
	Construct EB Through Lane	$ 289,720
	Construct WB Left Turn Lane	$ 50,000
	Subtotal	$ 389,720
Total		$ 1,278,880

[1] Improvement is part of project construction.

[2] See Appendix H.

Table 10

Project Fair Share Intersection Traffic Contribution

Intersection	Cost	Peak Hour	Existing Traffic	Year 2035 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic	Project Cost Share[1]
Alabama Street (NS) at:								
Riverbluff Avenue (EW) - #1	$ 289,720	Morning	1,204	2,857	26	1,653	1.6%	$ 4,640
		Evening	1,159	3,262	26	2,103	1.2%	
Alabama Street (NS) at:								
Palmetto Avenue (EW) - #2	$ 579,440	Morning	1,206	3,028	34	1,822	1.9%	$ 11,010
		Evening	1,118	3,381	34	2,263	1.5%	
Alabama Street (NS) at:								
Pioneer Avenue (EW) - #3	$ 20,000	Morning	1,368	3,151	29	1,783	1.6%	$ 320
		Evening	1,264	3,444	29	2,180	1.3%	
Alabama Street (NS) at:								
San Bernardino Avenue (EW) - #4	$ 389,720	Morning	1,670	4,636	25	2,966	0.8%	$ 3,120
		Evening	2,324	5,601	25	3,277	0.8%	
Total	$ 1,278,880							$ 19,090

[1] The intersection fair share cost calculations are based on the average of the peak hour traffic volumes.

VI. Conclusions and Recommendations

A. Summary

The traffic issues related to the proposed land use and development have been evaluated in the context of the California Environmental Quality Act.

The County of San Bernardino is the lead agency responsible for preparation of the traffic impact analysis, in accordance with the California Environmental Quality Act authorizing legislation. This report analyzes traffic impacts for the anticipated opening date with full occupancy of the development in Year 2014, at which time it will be generating traffic at its full potential, and for the Year 2035.

A series of scoping discussions were conducted with the County of San Bernardino to define the desired analysis locations for each future analysis year. In addition, staff from the County of San Bernardino has also been contacted to discuss the project and its associated travel patterns.

No analysis is required further than 5 miles from the project site. The roadway elements that must be analyzed are dependent on both the analysis year (project Opening Year or Year 2035) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, was based on an estimate of the two-way traffic volumes on the roadway segments near the project site. All arterial segments have been included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways.

The project does not contribute traffic greater than the freeway threshold volume of 100 two-way peak hour trips. The project does not contribute traffic greater than the arterial link threshold volume of 50 two-way trips in the morning and evening peak hours in the adjacent City of Redlands.

The average daily traffic volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2035 average daily traffic volume forecasts (see Appendix C). Appendix D contains the traffic model plots. This difference defines the growth in traffic over the 35 year period. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between Year 2012 and Year 2035. For this purpose, linear growth between the Year 2000 base condition and the forecast Year 2035 condition was assumed. Since the increment between Year 2012 and Year 2035 is 23 years of the 35 year time frame, a factor of 0.66 (i.e., 23/35) was used.

The Year 2035 without project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2035 peak hour volumes. The growth increment calculation worksheets are shown in Appendix C. Current peak hour intersection

approach/departure data is a necessary input to this approach. The existing traffic count data serves as both the starting point for the refinement process, and also provides important insight into current travel patterns and the relationship between peak hour and daily traffic conditions. The initial turning movement proportions are estimated based upon the relationship of each approach leg's forecast traffic volume to the other legs forecast volumes at the intersection. The initial estimate of turning movement proportions is then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program Report 255. A linear programming algorithm is used to calculate individual turning movements that match the known directional roadway segment volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

The Opening Year (2014) traffic volumes have been interpolated from the Year 2035 traffic volumes based upon a portion of the future growth increment.

Project traffic volumes were then added to the East Valley Traffic Model traffic volumes. Quality control checks and forecast adjustments were performed as necessary to ensure that all future traffic volume forecasts reflect a minimum of 10% growth over existing traffic volumes. The result of this traffic forecasting procedure is a series of traffic volumes suitable for traffic operations analysis.

B. Existing Conditions

Regional access to the project site is provided by the I-10 Freeway and I-210 Freeway. Local access is provided by various roadways in the vicinity of the site. The east-west roadways which will be most affected by the project include River Bluff Avenue, Palmetto Avenue, Pioneer Avenue, and San Bernardino Avenue. The north-south roadway which will be most affected by the project includes Alabama Street.

The study area intersections currently operate within acceptable Levels of Service during the peak hours for Existing traffic conditions.

C. Project Traffic

Trip generation rates were determined for daily traffic and morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land use. By multiplying the trip generation rates by the land use quantity, the traffic volumes are determined. Project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012 and Truck Trip Generation Study, City of Fontana, August 2003.

The proposed development is projected to generate approximately 639 daily vehicle trips in Passenger Car Equivalents, 41 Passenger Car Equivalents of which will occur during the morning peak hour and 45 Passenger Car Equivalents of which will occur during the evening peak hour.

To determine the trip distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development and traffic impacts in the area were reviewed.

D. Future Conditions

An Existing Plus Project, Opening Year (2014) analysis, and Year 2035 analysis are included in this report. The Existing Plus Project traffic operations analysis is summarized in Table 4. Opening Year (2014) traffic operations analysis has been completed for the morning and evening peak hours and are shown in Tables 5 and 6. Morning and evening peak hour traffic operations analysis are summarized in Tables 7 and 8 for the Year 2035.

1. Existing Plus Project

For Existing Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Palmetto Avenue (EW) - #2

For Existing Plus Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

2. Opening Year (2014) Without Project

For Opening Year (2014) Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Palmetto Avenue (EW) - #2

For Opening Year (2014) Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

A traffic signal is projected to be warranted at the following study area intersection for Opening Year (2014) Without Project traffic conditions (see Appendix F):

Alabama Street (NS) at:
Palmetto Avenue (EW) - #2

The unsignalized intersection has been evaluated for a traffic signal using the California Department of Transportation Warrant 3 Peak Hour traffic signal warrant analysis, as specified in the Manual of Uniform Traffic Control Devices 2003 California Supplement, dated January 21, 2010.

3. Opening Year (2014) With Project

For Opening Year (2014) With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Palmetto Avenue (EW) - #2

For Opening Year (2014) With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

4. Year 2035 Without Project

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Riverbluff Avenue (EW) - #1
Palmetto Avenue (EW) - #2
Pioneer Avenue (EW) - #3
San Bernardino Avenue (EW) - #4

For Year 2035 Without Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

5. Year 2035 With Project

For Year 2035 With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, except for the following study area intersection that is projected to operate at unacceptable Levels of Service during the peak hours:

Alabama Street (NS) at:
Riverbluff Avenue (EW) - #1
Palmetto Avenue (EW) - #2
Pioneer Avenue (EW) - #3
San Bernardino Avenue (EW) - #4

For Year 2035 With Project traffic conditions, the study area intersections are projected to operate within acceptable Levels of Service during the peak hours, with improvements.

E. Cost Summary

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Existing Plus Project, Opening Year (2014), and Year 2035 traffic conditions. The improvements were determined through the operations analysis of Section IV.

The total cost of needed and unfunded intersection improvements is $1,278,880.

Table 10 presents a summary of improvement cost and project cost shares at the Year 2035 intersection improvement locations. The intersection fair share cost calculations are based on the evening peak hour traffic volumes. As shown in Table 10, the project's fair share of identified intersection costs is $19,090.

The dollar figures are rough order of magnitude estimates only. They are intended only for the discussion purposes of this traffic impact analysis, and do not imply any legal responsibility or formula for contributions or mitigation.

As mitigation for the potential traffic impacts, the proposed project shall contribute through an adopted traffic impact fee program in addition to any fair share contributions shown within the traffic study which is not covered within this fee program.

F. Recommendations

The recommendations in this section address on-site improvements, off-site improvements and the phasing of all necessary study area transportation improvements.

1. On-Site Improvements

On-site improvements and improvements adjacent to the site will be required in conjunction with the proposed development to ensure adequate circulation within the project itself (see Figure 33).

Construct Alabama Street from River Bluff Avenue to Palmetto Avenue at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Construct River Bluff Avenue from Alabama Street to the east project boundary at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Construct Palmetto Avenue from Alabama Street to the east project boundary at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/County of San Bernardino standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

The site should provide sufficient parking spaces to meet County of San Bernardino parking code requirements in order to service on-site parking demand.

2. Off-Site Improvements

The necessary off-site improvement recommendations were described in previous sections of this report. The project should contribute towards the cost of necessary study area improvements on a fair share or "pro-rata" basis.

As is the case for any roadway design, the County of San Bernardino should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

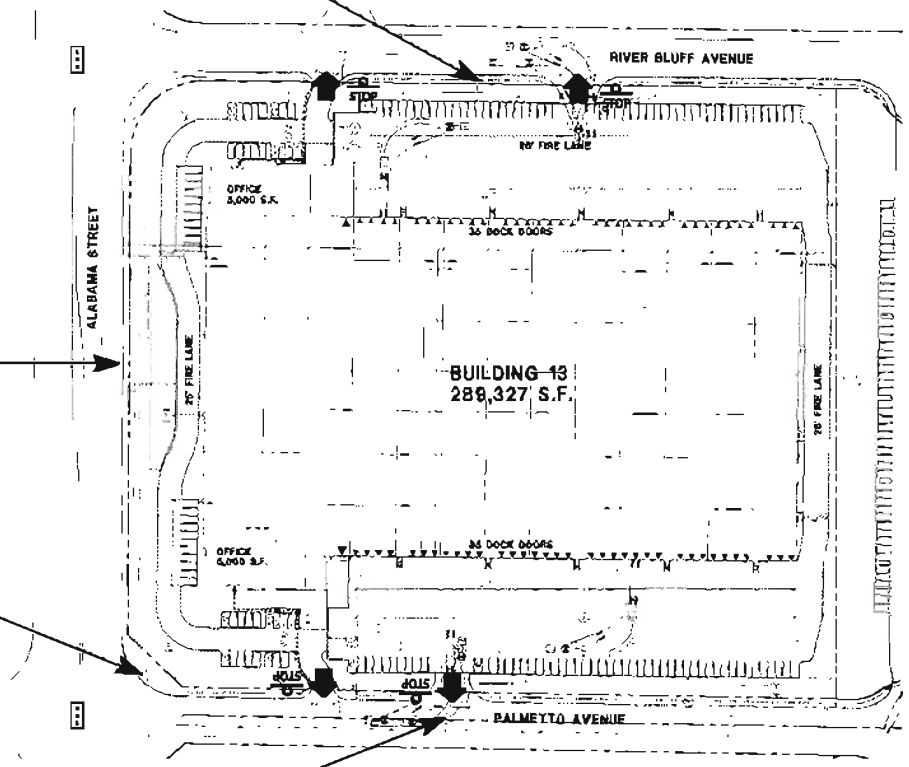
Participate in the phased construction of off-site traffic signals through payment of traffic signal mitigation fees. The traffic signals within the study area at buildout should specifically include an interconnect of the traffic signals to function in a coordinated system.

Figure 33
Circulation Recommendations

Construct River Bluff Avenue from Alabama Street to the east project boundary at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Construct Alabama Street from River Bluff Avenue to Palmetto Avenue at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Traffic signal modifications may be required at the northeast corner of Alabama Street and Palmetto Avenue.



Construct Palmetto Avenue from Alabama Street to the east project boundary at its ultimate half-section width including landscaping and parkway improvements in conjunction with development, as necessary.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/County of San Bernardino standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

The site should provide sufficient parking spaces to meet County of San Bernardino parking code requirements in order to service on-site parking demand.

The project should contribute towards the cost of necessary study area improvements on a fair share or "pro-rata" basis.

As is the case for any roadway design, the County of San Bernardino should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Participate in the phased construction of off-site traffic signals through payment of traffic signal mitigation fees. The traffic signals within the study area at buildout should specifically include and interconnect of the traffic signals to function in a coordinated system.

Legend

= Traffic Signal
= Stop Sign
= Full Access Driveway

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OVER 35 YEARS OF EXCELLENT SERVICE

Appendices

Appendix A – Glossary of Transportation Terms

Appendix B – Traffic Count Worksheets

Appendix C – Future Growth Increment Calculation Worksheets

Appendix D – Traffic Model Plots

Appendix E – Explanation and Calculation of Intersection Delay

Appendix F – Traffic Signal Warrant Worksheet

Appendix G – Preliminary Construction Cost Estimates for Congestion Management Program

Appendix H – Alabama Street Traffic Signal Plans

APPENDIX A

Glossary of Transportation Terms

GLOSSARY OF TRANSPORTATION TERMS

COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
Caltrans:	California Department of Transportation
DU:	Dwelling Unit
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A constriction along a travelway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

ORIGIN-DESTINATION SURVEY: A survey to determine the point of origin and the point of destination for a given vehicle trip.

PASSENGER CAR EQUIVALENTS (PCE): One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quality of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

Traffic Count Worksheets

Counts Unlimited Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Redlands
N/S: Alabama Street
E/W: Riverbluff Avenue
Weather: Sunny

File Name : REDALRBAM
Site Code : 00000097
Start Date : 10/16/2012
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	185	187	2	1	3	73	2	75	265
07:15 AM	0	207	207	3	1	4	101	3	104	315
07:30 AM	0	122	122	2	1	3	88	3	91	216
07:45 AM	3	182	185	4	1	5	84	4	88	278
Total	5	696	701	11	4	15	346	12	358	1074
08:00 AM	3	91	94	2	2	4	64	2	66	164
08:15 AM	0	90	90	3	1	4	47	6	53	147
08:30 AM	1	81	82	4	0	4	57	3	60	146
08:45 AM	3	100	103	4	1	5	50	6	56	164
Total	7	362	369	13	4	17	218	17	235	621
Grand Total	12	1058	1070	24	8	32	564	29	593	1695
Apprch %	1.1	98.9		75	25		95.1	4.9		
Total %	0.7	62.4	63.1	1.4	0.5	1.9	33.3	1.7	35	
Passenger Vehicles	10	991	1001	4	3	7	513	8	521	1529
% Passenger Vehicles	83.3	93.7	93.6	16.7	37.5	21.9	91	27.6	87.9	90.2
Large 2 Axle Vehicles	0	18	18	3	1	4	12	7	19	41
% Large 2 Axle Vehicles	0	1.7	1.7	12.5	12.5	12.5	2.1	24.1	3.2	2.4
3 Axle Vehicles	1	6	7	4	0	4	10	2	12	23
% 3 Axle Vehicles	8.3	0.6	0.7	16.7	0	12.5	1.8	6.9	2	1.4
4+ Axle Trucks	1	43	44	13	4	17	29	12	41	102
% 4+ Axle Trucks	8.3	4.1	4.1	54.2	50	53.1	5.1	41.4	6.9	6

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	185	187	2	**1**	3	73	2	75	265
07:15 AM	0	**207**	**207**	3	1	4	**101**	3	**104**	**315**
07:30 AM	0	122	122	2	1	3	88	3	91	216
07:45 AM	**3**	182	185	**4**	1	**5**	84	**4**	88	278
Total Volume	5	696	701	11	4	15	346	12	358	1074
% App. Total	0.7	99.3		73.3	26.7		96.6	3.4		
PHF	.417	.841	.847	.688	1.00	.750	.856	.750	.861	.852

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City of Redlands
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Weather: Sunny

File Name : REDALRBAM
Site Code : 00000097
Start Date : 10/16/2012
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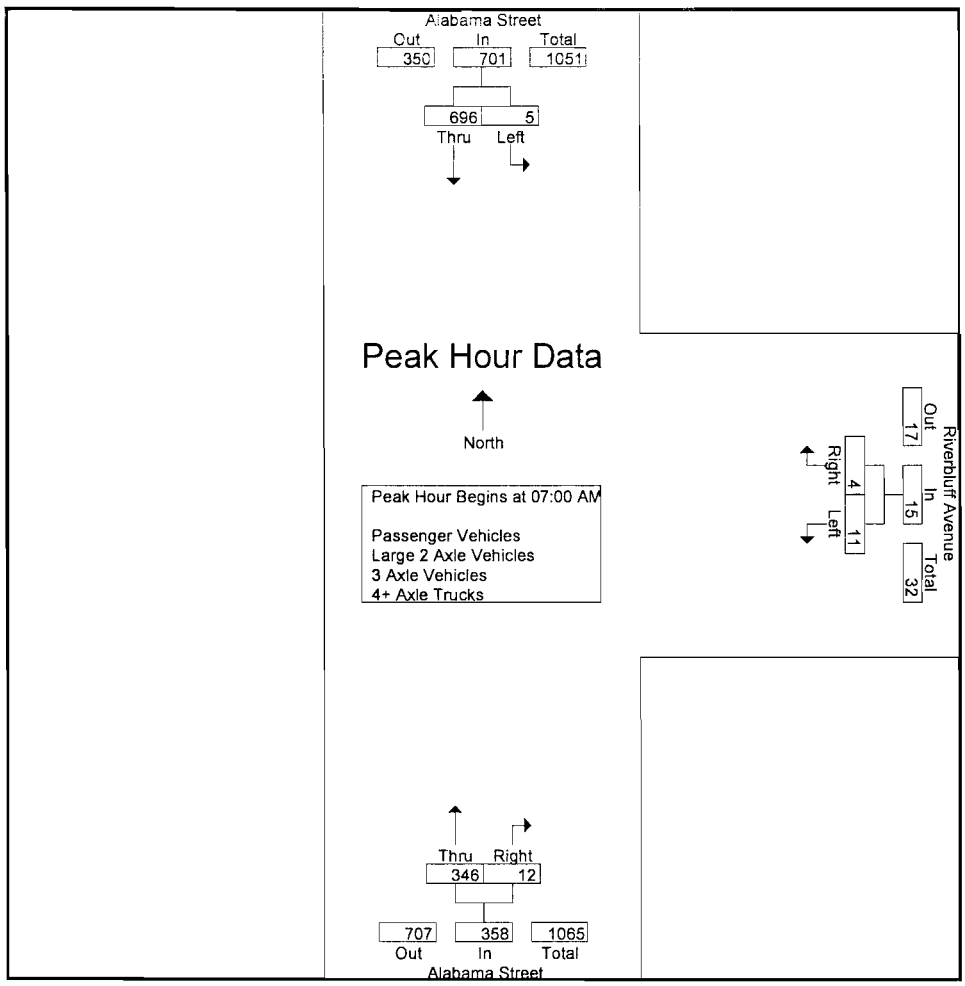

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:45 AM			07:00 AM		
+0 mins.	2	185	187	**4**	1	**5**	73	2	75
+15 mins.	0	**207**	**207**	2	**2**	4	**101**	3	**104**
+30 mins.	0	122	122	3	1	4	88	3	91
+45 mins.	**3**	182	185	4	0	4	84	**4**	88
Total Volume	5	696	701	13	4	17	346	12	358
% App. Total	0.7	99.3		76.5	23.5		96.6	3.4	
PHF	.417	.841	.847	.813	.500	.850	.856	.750	.861

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City of Redlands
N/S: Alabama Street
E/W: Riverbluff Avenue
Weather: Sunny

File Name . REDALRBAM
Site Code . 00000097
Start Date . 10/16/2012
Page No 1

Groups Printed- Passenger Vehicles

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	178	180	1	0	1	69	0	69	250
07:15 AM	0	198	198	0	1	1	90	1	91	290
07:30 AM	0	113	113	0	0	0	81	0	81	194
07:45 AM	2	173	175	0	0	0	78	1	79	254
Total	4	662	666	1	1	2	318	2	320	988
08:00 AM	2	82	84	0	1	1	59	1	60	145
08:15 AM	0	84	84	0	0	0	42	1	43	127
08:30 AM	1	71	72	1	0	1	51	1	52	125
08:45 AM	3	92	95	2	1	3	43	3	46	144
Total	6	329	335	3	2	5	195	6	201	541
Grand Total	10	991	1001	4	3	7	513	8	521	1529
Apprch %	1	99		57.1	42.9		98.5	1.5		
Total %	0.7	64.8	65.5	0.3	0.2	0.5	33.6	0.5	34.1	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**2**	178	180	**1**	0	**1**	69	0	69	250
07:15 AM	0	**198**	**198**	0	**1**	1	**90**	**1**	**91**	**290**
07:30 AM	0	113	113	0	0	0	81	0	81	194
07:45 AM	2	173	175	0	0	0	78	1	79	254
Total Volume	4	662	666	1	1	2	318	2	320	988
% App. Total	0.6	99.4		50	50		99.4	0.6		
PHF	.500	.836	.841	.250	.250	.500	.883	.500	.879	.852

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City of Redlands
N/S: Alabama Street
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File Name . REDALRBAM
Site Code . 00000097
Start Date . 10/16/2012
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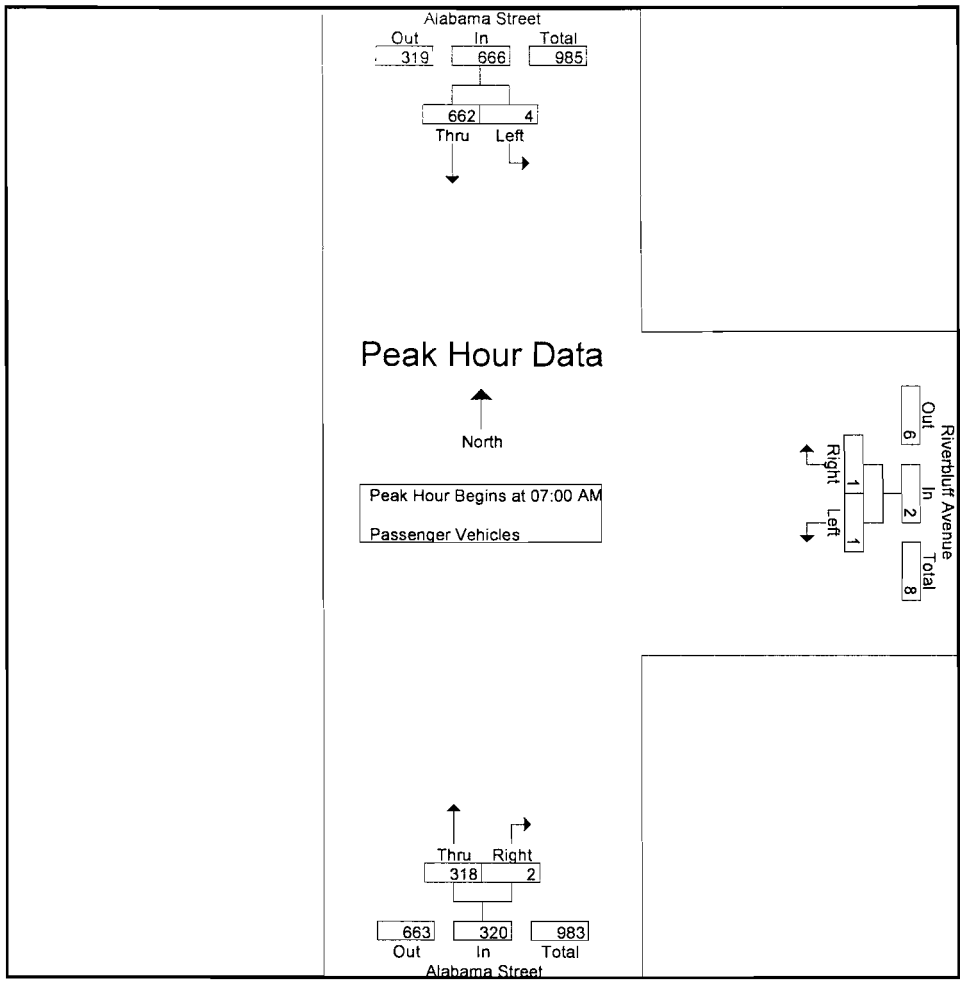

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**2**	178	180	**1**	0	**1**	69	0	69
+15 mins.	0	**198**	**198**	0	**1**	1	**90**	**1**	**91**
+30 mins.	0	113	113	0	0	0	81	0	81
+45 mins.	2	173	175	0	0	0	78	1	79
Total Volume	4	662	666	1	1	2	318	2	320
% App. Total	0.6	99.4		50	50		99.4	0.6	
PHF	.500	.836	.841	.250	.250	.500	.883	.500	.879

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City of Redlands
N/S: Alabama Street
E/W: Riverbluff Avenue
Weather: Sunny

File Name : REDALRBAM
Site Code : 00000097
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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	2	0	0	0	0	1	1	3
07:15 AM	0	1	1	0	0	0	5	0	5	6
07:30 AM	0	3	3	0	0	0	2	1	3	6
07:45 AM	0	4	4	1	0	1	1	2	3	8
Total	0	10	10	1	0	1	8	4	12	23
08:00 AM	0	2	2	0	1	1	1	0	1	4
08:15 AM	0	3	3	1	0	1	0	2	2	6
08:30 AM	0	3	3	0	0	0	1	0	1	4
08:45 AM	0	0	0	1	0	1	2	1	3	4
Total	0	8	8	2	1	3	4	3	7	18
Grand Total	0	18	18	3	1	4	12	7	19	41
Apprch %	0	100		75	25		63.2	36.8		
Total %	0	43.9	43.9	7.3	2.4	9.8	29.3	17.1	46.3	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	2	2	0	0	0	0	1	1	3
07:15 AM	0	1	1	0	0	0	**5**	0	**5**	6
07:30 AM	0	3	3	0	0	0	2	1	3	6
07:45 AM	0	**4**	**4**	**1**	0	**1**	1	**2**	3	**8**
Total Volume	0	10	10	1	0	1	8	4	12	23
% App. Total	0	100		100	0		66.7	33.3		
PHF	.000	.625	.625	.250	.000	.250	.400	.500	.600	.719

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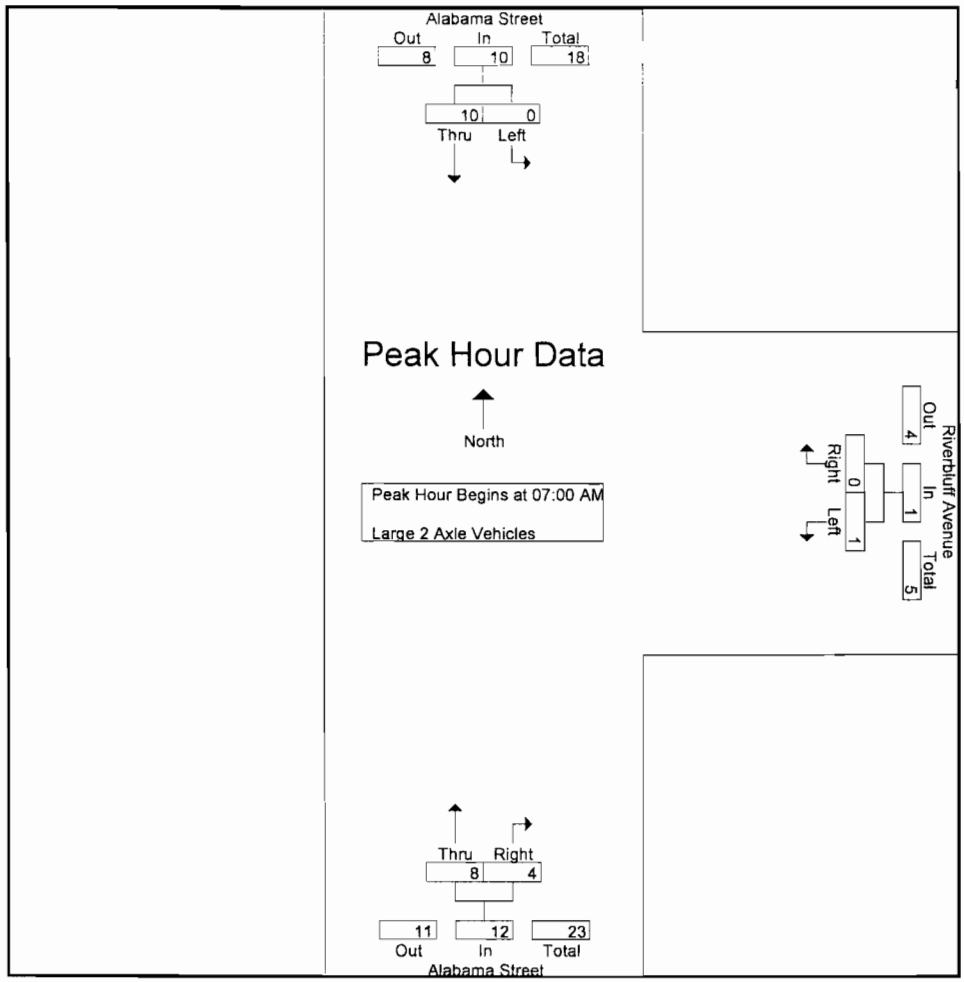

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	2	2	0	0	0	0	1	1
+15 mins.	0	1	1	0	0	0	**5**	0	**5**
+30 mins.	0	3	3	0	0	0	2	1	3
+45 mins.	0	**4**	**4**	**1**	0	**1**	1	**2**	3
Total Volume	0	10	10	1	0	1	8	4	12
% App. Total	0	100		100	0		66.7	33.3	
PHF	.000	.625	.625	.250	.000	.250	.400	.500	.600

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City of Redlands
N/S: Alabama Street
E/W: Riverbluff Avenue
Weather: Sunny

File Name : REDALRBAM
Site Code : 00000097
Start Date : 10/16/2012
Page No : 1

Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	2	0	0	0	1	0	1	3
07:15 AM	0	1	1	1	0	1	0	0	0	2
07:30 AM	0	0	0	0	0	0	2	0	2	2
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	3	3	2	0	2	3	0	3	8
08:00 AM	1	0	1	1	0	1	2	1	3	5
08:15 AM	0	0	0	1	0	1	2	1	3	4
08:30 AM	0	1	1	0	0	0	1	0	1	2
08:45 AM	0	2	2	0	0	0	2	0	2	4
Total	1	3	4	2	0	2	7	2	9	15
Grand Total	1	6	7	4	0	4	10	2	12	23
Apprch %	14.3	85.7		100	0		83.3	16.7		
Total %	4.3	26.1	30.4	17.4	0	17.4	43.5	8.7	52.2	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**2**	**2**	0	0	0	1	0	1	**3**
07:15 AM	0	1	1	**1**	0	**1**	0	0	0	2
07:30 AM	0	0	0	0	0	0	**2**	0	**2**	2
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	3	3	2	0	2	3	0	3	8
% App. Total	0	100		100	0		100	0		
PHF	.000	.375	.375	.500	.000	.500	.375	.000	.375	.667

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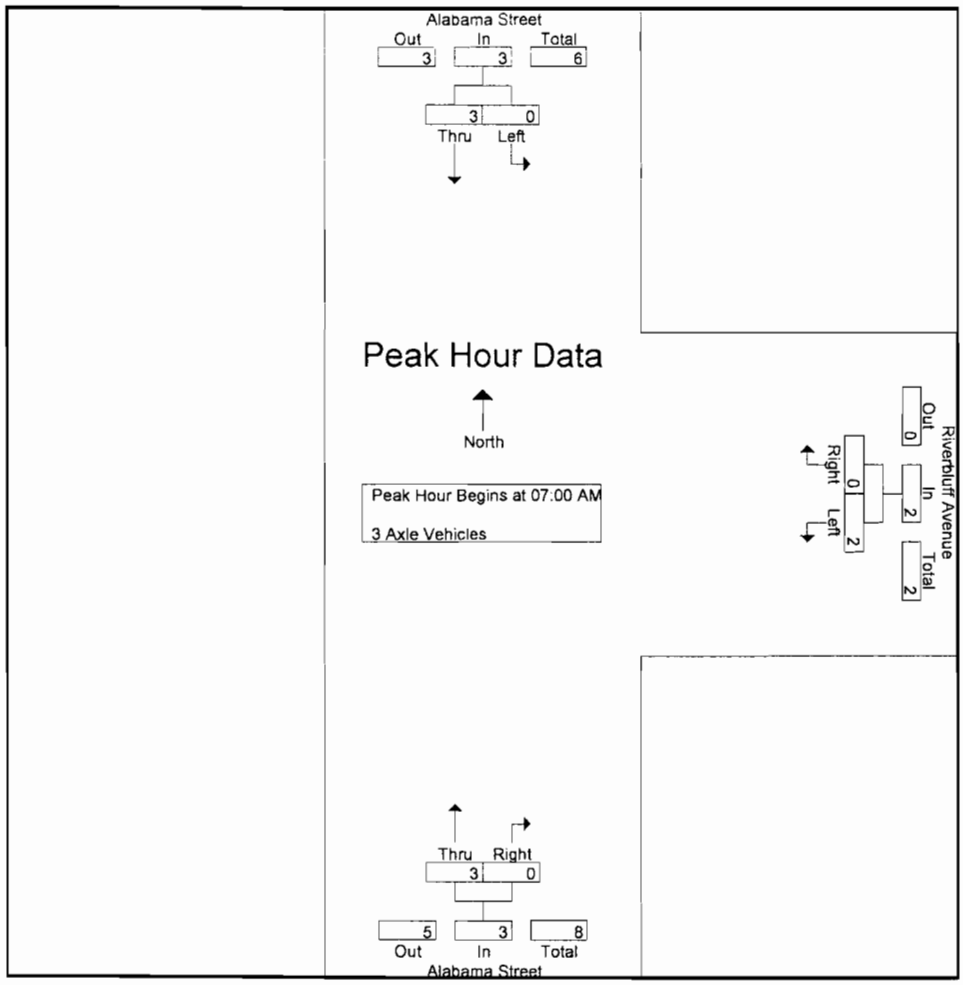

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**2**	**2**	0	0	0	1	0	1
+15 mins.	0	1	1	**1**	0	**1**	0	0	0
+30 mins.	0	0	0	0	0	0	**2**	0	**2**
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	3	3	2	0	2	3	0	3
% App. Total	0	100		100	0		100	0	
PHF	.000	.375	.375	.500	.000	.500	.375	.000	.375

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City of Redlands
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Site Code : 00000097
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Groups Printed- 4+ Axle Trucks

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	3	1	1	2	3	1	4	9
07:15 AM	0	7	7	2	0	2	6	2	8	17
07:30 AM	0	6	6	2	1	3	3	2	5	14
07:45 AM	1	5	6	2	1	3	5	1	6	15
Total	1	21	22	7	3	10	17	6	23	55
08:00 AM	0	7	7	1	0	1	2	0	2	10
08:15 AM	0	3	3	1	1	2	3	2	5	10
08:30 AM	0	6	6	3	0	3	4	2	6	15
08:45 AM	0	6	6	1	0	1	3	2	5	12
Total	0	22	22	6	1	7	12	6	18	47
Grand Total	1	43	44	13	4	17	29	12	41	102
Apprch %	2.3	97.7		76.5	23.5		70.7	29.3		
Total %	1	42.2	43.1	12.7	3.9	16.7	28.4	11.8	40.2	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	3	3	1	**1**	2	3	1	4	9
07:15 AM	0	**7**	**7**	**2**	0	2	**6**	**2**	**8**	**17**
07:30 AM	0	6	6	2	1	**3**	3	2	5	14
07:45 AM	**1**	5	6	2	1	3	5	1	6	15
Total Volume	1	21	22	7	3	10	17	6	23	55
% App. Total	4.5	95.5		70	30		73.9	26.1		
PHF	.250	.750	.786	.875	.750	.833	.708	.750	.719	.809

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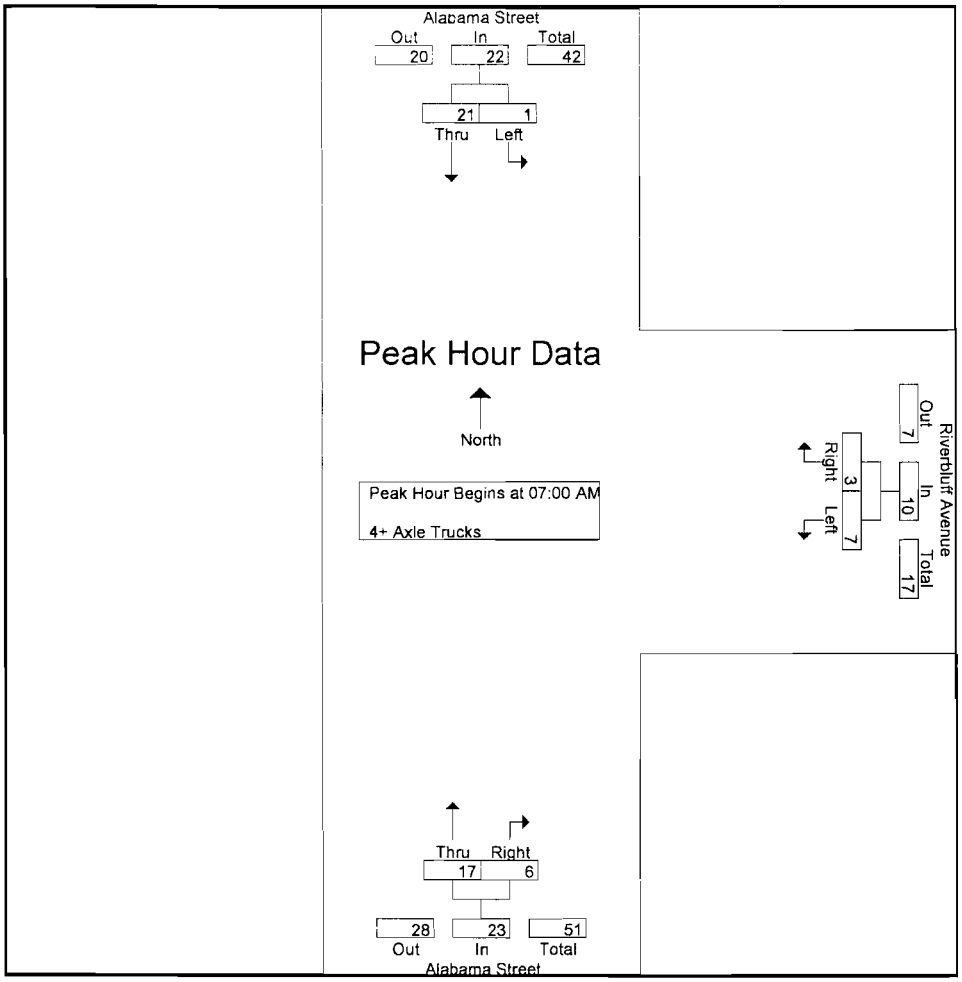

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	3	3	1	**1**	2	3	1	4
+15 mins.	0	**7**	**7**	**2**	0	2	**6**	**2**	**8**
+30 mins.	0	6	6	2	1	**3**	3	2	5
+45 mins.	**1**	5	6	2	1	3	5	1	6
Total Volume	1	21	22	7	3	10	17	6	23
% App. Total	4.5	95.5		70	30		73.9	26.1	
PHF	.250	.750	.786	.875	.750	.833	.708	.750	.719

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City of Redlands
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Weather: Sunny

File Name : REDALRBPM
Site Code : 00000097
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	102	102	4	3	7	111	3	114	223
04:15 PM	2	67	69	5	3	8	163	3	166	243
04:30 PM	2	104	106	3	1	4	137	3	140	250
04:45 PM	0	112	112	4	3	7	129	4	133	252
Total	4	385	389	16	10	26	540	13	553	968
05:00 PM	1	122	123	5	4	9	151	0	151	283
05:15 PM	1	121	122	5	1	6	165	3	168	296
05:30 PM	0	127	127	0	2	2	150	3	153	282
05:45 PM	0	84	84	1	2	3	135	3	138	225
Total	2	454	456	11	9	20	601	9	610	1086
Grand Total	6	839	845	27	19	46	1141	22	1163	2054
Apprch %	0.7	99.3		58.7	41.3		98.1	1.9		
Total %	0.3	40.8	41.1	1.3	0.9	2.2	55.6	1.1	56.6	
Passenger Vehicles	3	823	826	18	17	35	1126	9	1135	1996
% Passenger Vehicles	50	98.1	97.8	66.7	89.5	76.1	98.7	40.9	97.6	97.2
Large 2 Axle Vehicles	0	8	8	2	0	2	11	0	11	21
% Large 2 Axle Vehicles	0	1	0.9	7.4	0	4.3	1	0	0.9	1
3 Axle Vehicles	0	0	0	1	0	1	1	1	2	3
% 3 Axle Vehicles	0	0	0	3.7	0	2.2	0.1	4.5	0.2	0.1
4+ Axle Trucks	3	8	11	6	2	8	3	12	15	34
% 4+ Axle Trucks	50	1	1.3	22.2	10.5	17.4	0.3	54.5	1.3	1.7

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	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	112	112	4	3	7	129	**4**	133	252
05:00 PM	**1**	122	123	**5**	**4**	**9**	151	0	151	283
05:15 PM	1	121	122	5	1	6	**165**	3	**168**	**296**
05:30 PM	0	**127**	**127**	0	2	2	150	3	153	282
Total Volume	2	482	484	14	10	24	595	10	605	1113
% App. Total	0.4	99.6		58.3	41.7		98.3	1.7		
PHF	.500	.949	.953	.700	.625	.667	.902	.625	.900	.940

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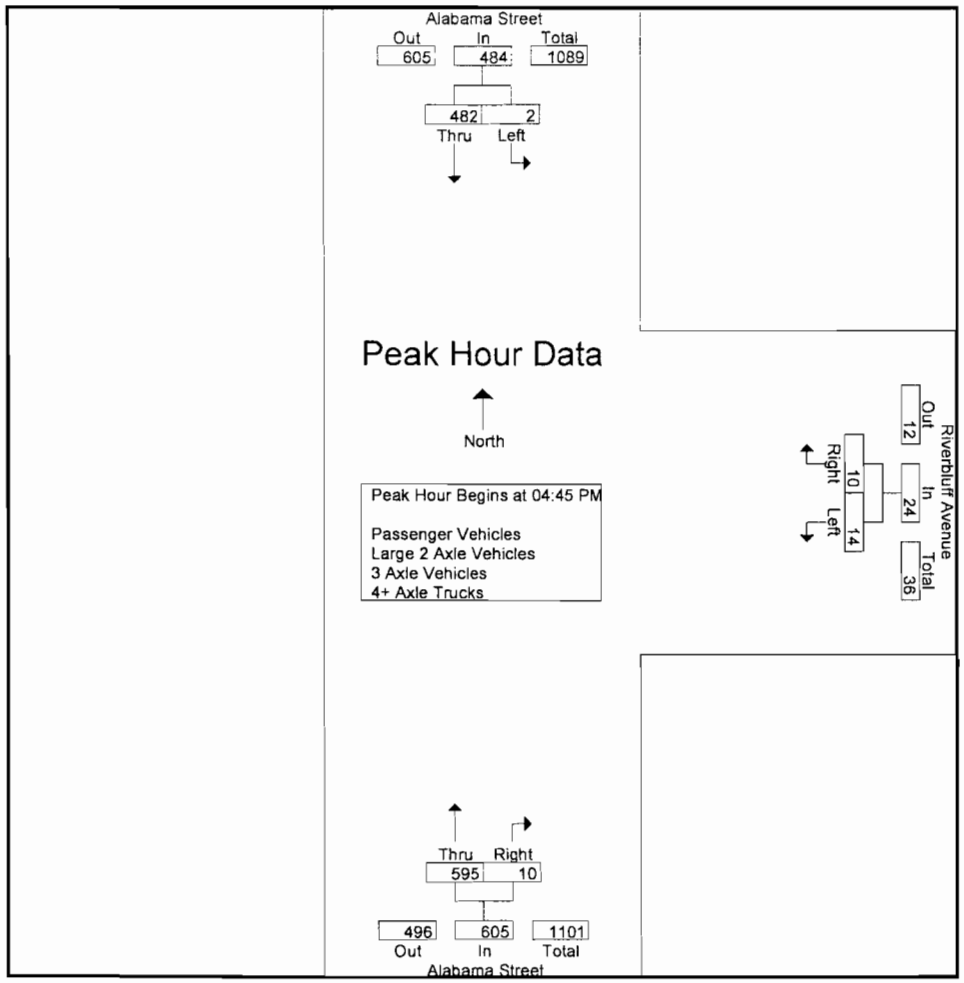

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			05:00 PM		
+0 mins.	0	112	112	**5**	3	8	151	0	151
+15 mins.	**1**	122	123	3	1	4	**165**	**3**	**168**
+30 mins.	1	121	122	4	3	7	150	3	153
+45 mins.	0	**127**	**127**	5	4	**9**	135	3	138
Total Volume	2	482	484	17	11	28	601	9	610
% App. Total	0.4	99.6		60.7	39.3		98.5	1.5	
PHF	.500	.949	.953	.850	.688	.778	.911	.750	.908

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Groups Printed- Passenger Vehicles

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	100	100	2	3	5	110	0	110	215
04:15 PM	1	67	68	3	3	6	160	2	162	236
04:30 PM	1	103	104	3	1	4	133	1	134	242
04:45 PM	0	108	108	3	2	5	126	2	128	241
Total	2	378	380	11	9	20	529	5	534	934
05:00 PM	0	119	119	3	4	7	150	0	150	276
05:15 PM	1	116	117	3	0	3	164	2	166	286
05:30 PM	0	126	126	0	2	2	150	1	151	279
05:45 PM	0	84	84	1	2	3	133	1	134	221
Total	1	445	446	7	8	15	597	4	601	1062
Grand Total	3	823	826	18	17	35	1126	9	1135	1996
Apprch %	0.4	99.6		51.4	48.6		99.2	0.8		
Total %	0.2	41.2	41.4	0.9	0.9	1.8	56.4	0.5	56.9	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	108	108	**3**	2	5	126	**2**	128	241
05:00 PM	0	119	119	3	**4**	**7**	150	0	150	276
05:15 PM	**1**	116	117	3	0	3	**164**	2	**166**	**286**
05:30 PM	0	**126**	**126**	0	2	2	150	1	151	279
Total Volume	1	469	470	9	8	17	590	5	595	1082
% App. Total	0.2	99.8		52.9	47.1		99.2	0.8		
PHF	.250	.931	.933	.750	.500	.607	.899	.625	.896	.946

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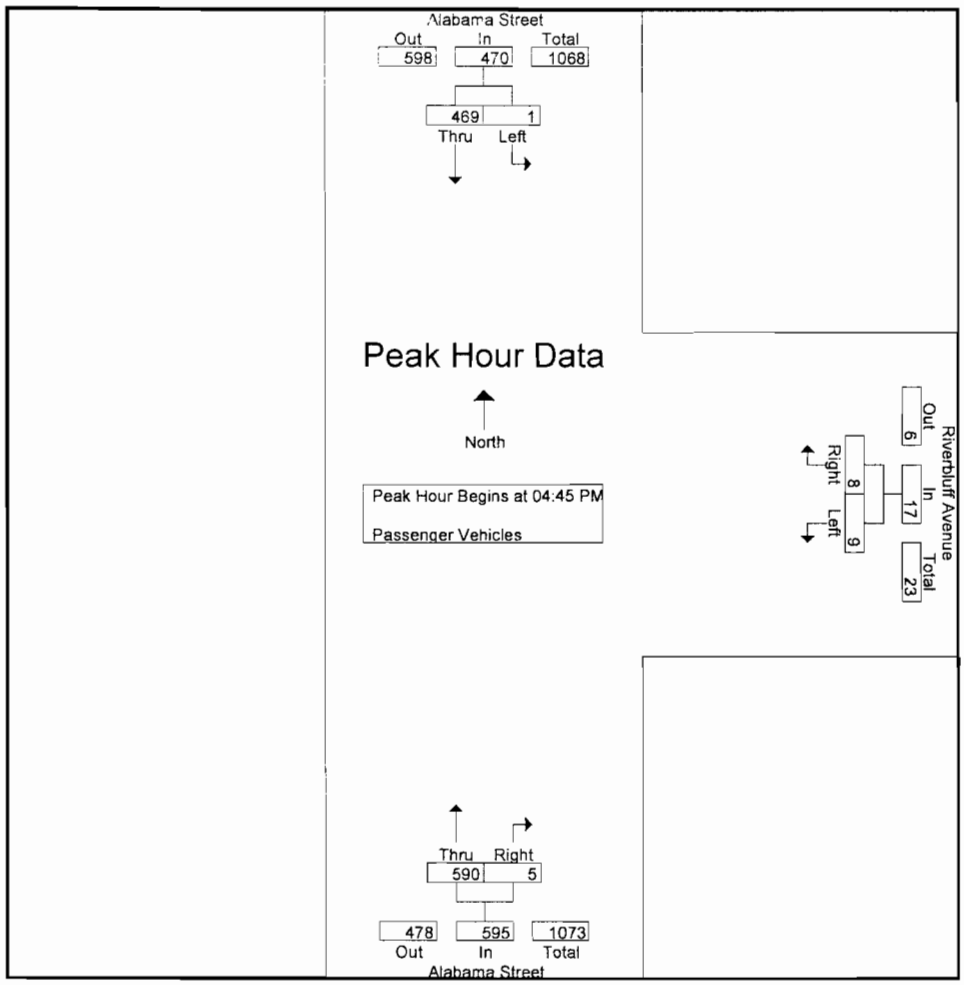

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	108	108	**3**	2	5	126	**2**	128
+15 mins.	0	119	119	3	**4**	7	150	0	150
+30 mins.	**1**	116	117	3	0	3	**164**	2	**166**
+45 mins.	0	**126**	**126**	0	2	2	150	1	151
Total Volume	1	469	470	9	8	17	590	5	595
% App. Total	0.2	99.8		52.9	47.1		99.2	0.8	
PHF	.250	.931	.933	.750	.500	.607	.899	.625	.896

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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	0	0	1	0	1	3	0	3	4
04:30 PM	0	0	0	0	0	0	2	0	2	2
04:45 PM	0	2	2	0	0	0	2	0	2	4
Total	0	3	3	1	0	1	8	0	8	12
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	4	4	1	0	1	1	0	1	6
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	2	0	2	2
Total	0	5	5	1	0	1	3	0	3	9
Grand Total	0	8	8	2	0	2	11	0	11	21
Apprch %	0	100		100	0		100	0		
Total %	0	38.1	38.1	9.5	0	9.5	52.4	0	52.4	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	2	2	0	0	0	**2**	0	**2**	4
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	**4**	**4**	**1**	0	**1**	1	0	1	**6**
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	7	7	1	0	1	3	0	3	11
% App. Total	0	100		100	0		100	0		
PHF	.000	.438	.438	.250	.000	.250	.375	.000	.375	.458

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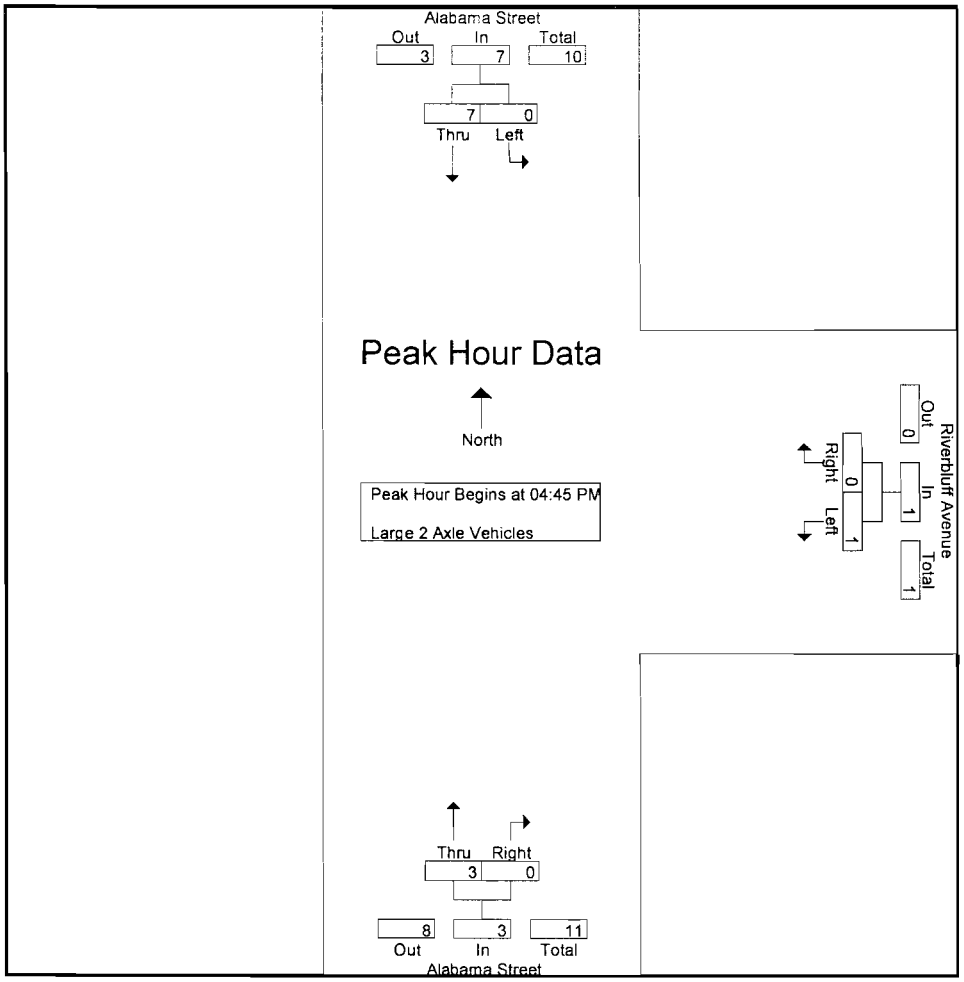

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	2	2	0	0	0	**2**	0	**2**
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	**4**	**4**	**1**	0	**1**	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	7	7	1	0	1	3	0	3
% App. Total	0	100		100	0		100	0	
PHF	.000	.438	.438	.250	.000	.250	.375	.000	.375

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Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	1	0	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	1	0	1	0	1	1	2
Grand Total	0	0	0	1	0	1	1	1	2	3
Apprch %	0	0		100	0		50	50		
Total %	0	0	0	33.3	0	33.3	33.3	33.3	66.7	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	**1**	0	**1**	0	0	0	**1**
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	0	0	1
% App. Total	0	0		100	0		0	0		
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000	.250

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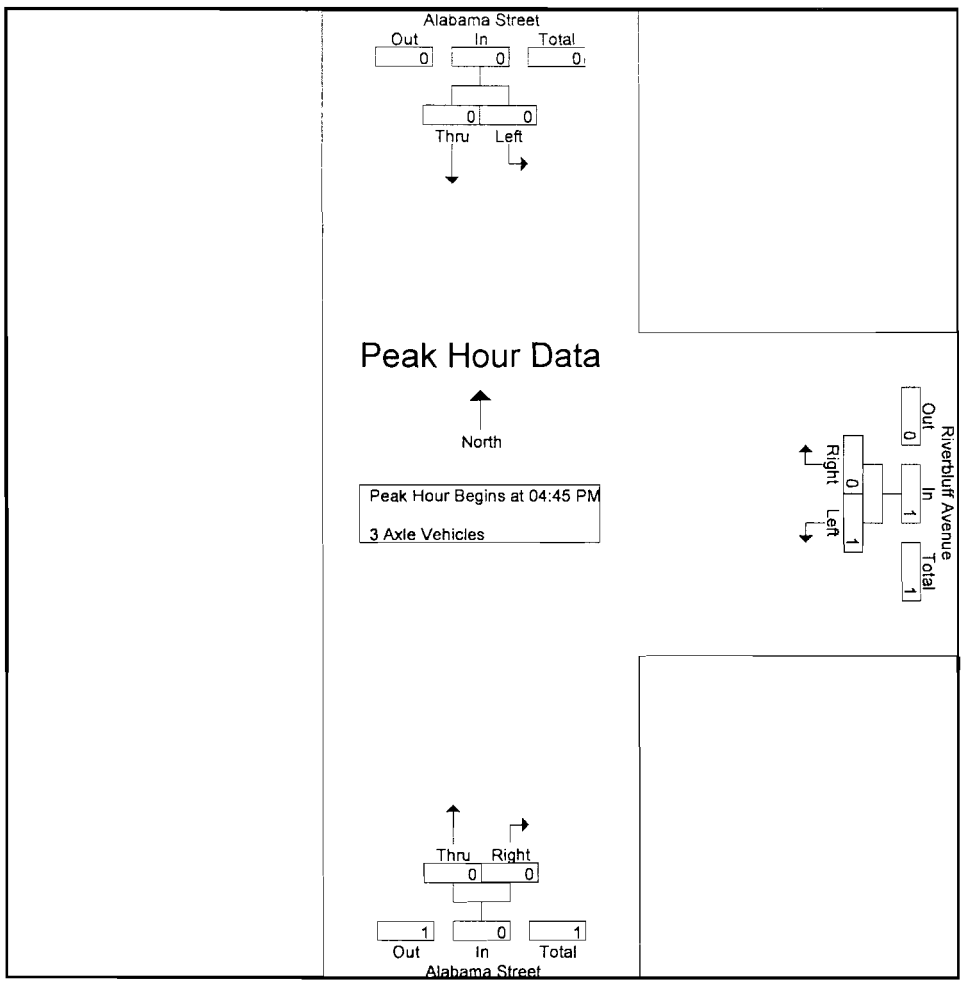

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	0	0
% App. Total	0	0		100	0		0	0	
PHF	.000	.000	.000	.250	.000	.250	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	2	0	2	0	3	3	6
04:15 PM	1	0	1	1	0	1	0	1	1	3
04:30 PM	1	1	2	0	0	0	1	2	3	5
04:45 PM	0	2	2	1	1	2	1	2	3	7
Total	2	4	6	4	1	5	2	8	10	21
05:00 PM	1	2	3	1	0	1	1	0	1	5
05:15 PM	0	1	1	1	1	2	0	1	1	4
05:30 PM	0	1	1	0	0	0	0	2	2	3
05:45 PM	0	0	0	0	0	0	0	1	1	1
Total	1	4	5	2	1	3	1	4	5	13
Grand Total	3	8	11	6	2	8	3	12	15	34
Apprch %	27.3	72.7		75	25		20	80		
Total %	8.8	23.5	32.4	17.6	5.9	23.5	8.8	35.3	44.1	

	Alabama Street Southbound			Riverbluff Avenue Westbound			Alabama Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**2**	2	**1**	**1**	**2**	**1**	**2**	**3**	7
05:00 PM	**1**	2	**3**	1	0	1	1	0	1	5
05:15 PM	0	1	1	1	1	2	0	1	1	4
05:30 PM	0	1	1	0	0	0	0	2	2	3
Total Volume	1	6	7	3	2	5	2	5	7	19
% App. Total	14.3	85.7		60	40		28.6	71.4		
PHF	.250	.750	.583	.750	.500	.625	.500	.625	.583	.679

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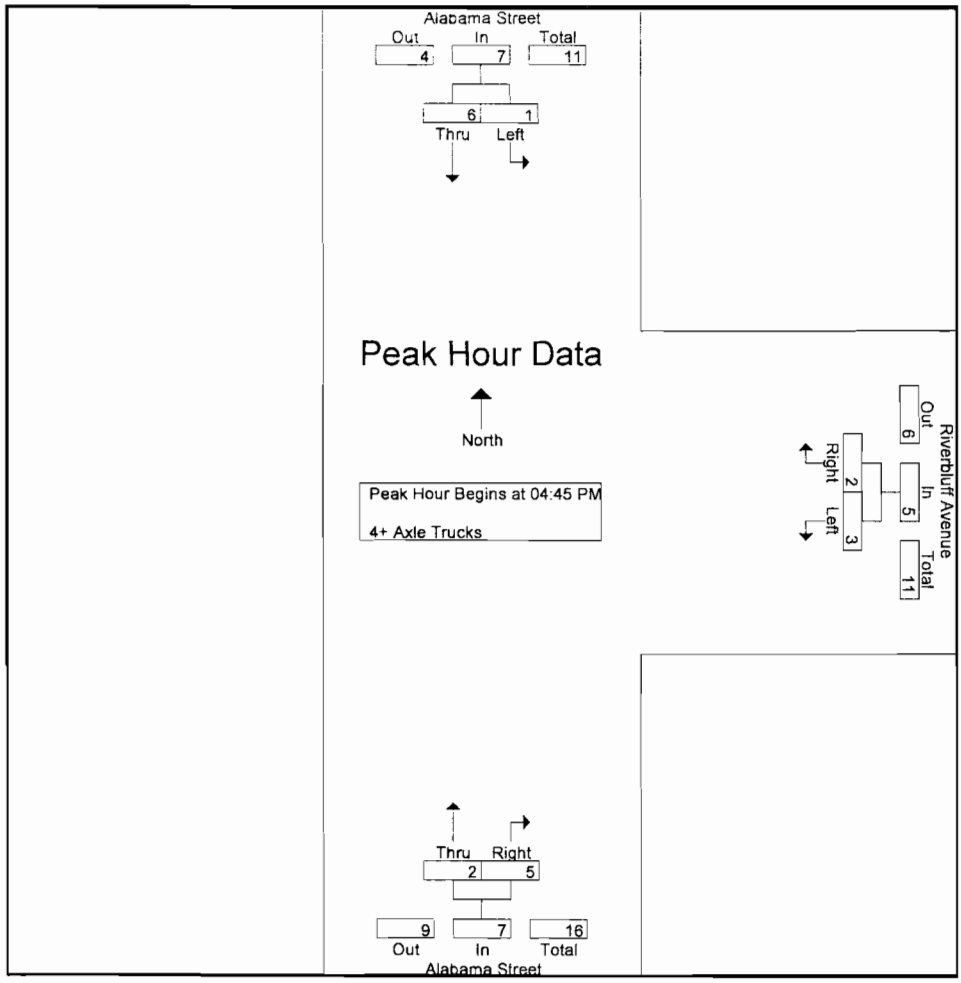

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**2**	2	**1**	**1**	**2**	**1**	**2**	**3**
+15 mins.	**1**	2	**3**	1	0	1	1	0	1
+30 mins.	0	1	1	1	1	2	0	1	1
+45 mins.	0	1	1	0	0	0	0	2	2
Total Volume	1	6	7	3	2	5	2	5	7
% App. Total	14.3	85.7		60	40		28.6	71.4	
PHF	.250	.750	.583	.750	.500	.625	.500	.625	.583

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	165	8	173	0	79	79	2	2	4	256
07:15 AM	223	8	231	1	103	104	1	3	4	339
07:30 AM	115	12	127	4	84	88	0	2	2	217
07:45 AM	173	16	189	1	86	87	3	1	4	280
Total	676	44	720	6	352	358	6	8	14	1092
08:00 AM	94	4	98	2	59	61	3	4	7	166
08:15 AM	87	5	92	3	61	64	0	3	3	159
08:30 AM	85	5	90	4	56	60	4	3	7	157
08:45 AM	97	2	99	3	51	54	3	0	3	156
Total	363	16	379	12	227	239	10	10	20	638
Grand Total	1039	60	1099	18	579	597	16	18	34	1730
Apprch %	94.5	5.5		3	97		47.1	52.9		
Total %	60.1	3.5	63.5	1	33.5	34.5	0.9	1	2	
Passenger Vehicles	961	57	1018	16	514	530	13	14	27	1575
% Passenger Vehicles	92.5	95	92.6	88.9	88.8	88.8	81.2	77.8	79.4	91
Large 2 Axle Vehicles	11	2	13	1	12	13	3	2	5	31
% Large 2 Axle Vehicles	1.1	3.3	1.2	5.6	2.1	2.2	18.8	11.1	14.7	1.8
3 Axle Vehicles	22	1	23	1	14	15	0	1	1	39
% 3 Axle Vehicles	2.1	1.7	2.1	5.6	2.4	2.5	0	5.6	2.9	2.3
4+ Axle Trucks	45	0	45	0	39	39	0	1	1	85
% 4+ Axle Trucks	4.3	0	4.1	0	6.7	6.5	0	5.6	2.9	4.9

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	165	8	173	0	79	79	2	2	**4**	256
07:15 AM	**223**	8	**231**	1	**103**	**104**	1	**3**	4	**339**
07:30 AM	115	12	127	**4**	84	88	0	2	2	217
07:45 AM	173	**16**	189	1	86	87	**3**	1	**4**	280
Total Volume	676	44	720	6	352	358	6	8	14	1092
% App. Total	93.9	6.1		1.7	98.3		42.9	57.1		
PHF	.758	.688	.779	.375	.854	.861	.500	.667	.875	.805

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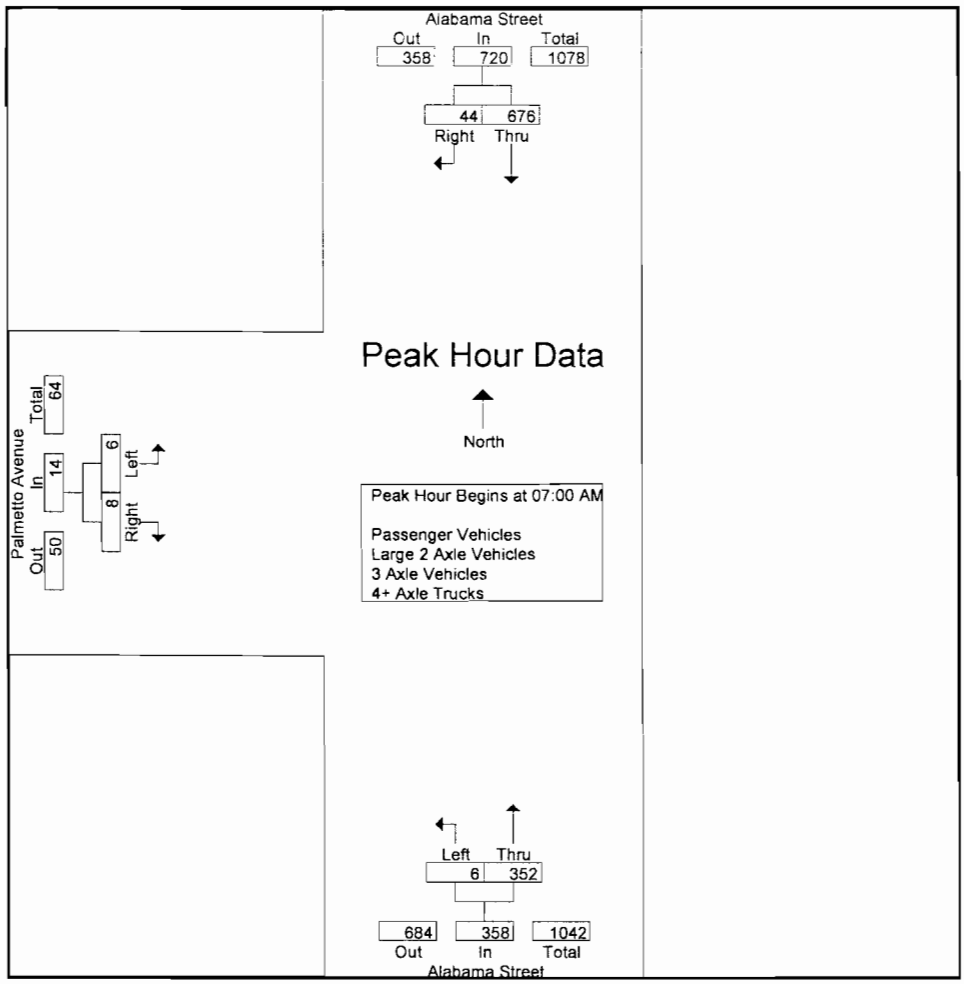

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:45 AM		
+0 mins.	165	8	173	0	79	79	3	1	4
+15 mins.	**223**	8	**231**	1	**103**	**104**	3	**4**	**7**
+30 mins.	115	12	127	**4**	84	88	0	3	3
+45 mins.	173	**16**	189	1	86	87	**4**	3	7
Total Volume	676	44	720	6	352	358	10	11	21
% App. Total	93.9	6.1		1.7	98.3		47.6	52.4	
PHF	.758	.688	.779	.375	.854	.861	.625	.688	.750

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City of Redlands
N/S: Alabama Street
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Weather: Sunny

File Name : REDALPAAM
Site Code : 00000005
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Groups Printed- Passenger Vehicles

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	160	6	166	0	73	73	2	0	2	241
07:15 AM	211	8	219	1	93	94	0	1	1	314
07:30 AM	107	12	119	4	76	80	0	2	2	201
07:45 AM	161	16	177	1	78	79	2	1	3	259
Total	639	42	681	6	320	326	4	4	8	1015
08:00 AM	81	4	85	2	54	56	3	4	7	148
08:15 AM	80	5	85	3	53	56	0	3	3	144
08:30 AM	73	5	78	3	46	49	4	3	7	134
08:45 AM	88	1	89	2	41	43	2	0	2	134
Total	322	15	337	10	194	204	9	10	19	560
Grand Total	961	57	1018	16	514	530	13	14	27	1575
Apprch %	94.4	5.6		3	97		48.1	51.9		
Total %	61	3.6	64.6	1	32.6	33.7	0.8	0.9	1.7	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	160	6	166	0	73	73	**2**	0	2	241
07:15 AM	**211**	8	**219**	1	**93**	**94**	0	1	1	**314**
07:30 AM	107	12	119	**4**	76	80	0	**2**	2	201
07:45 AM	161	**16**	177	1	78	79	2	1	**3**	259
Total Volume	639	42	681	6	320	326	4	4	8	1015
% App. Total	93.8	6.2		1.8	98.2		50	50		
PHF	.757	.656	.777	.375	.860	.867	.500	.500	.667	.808

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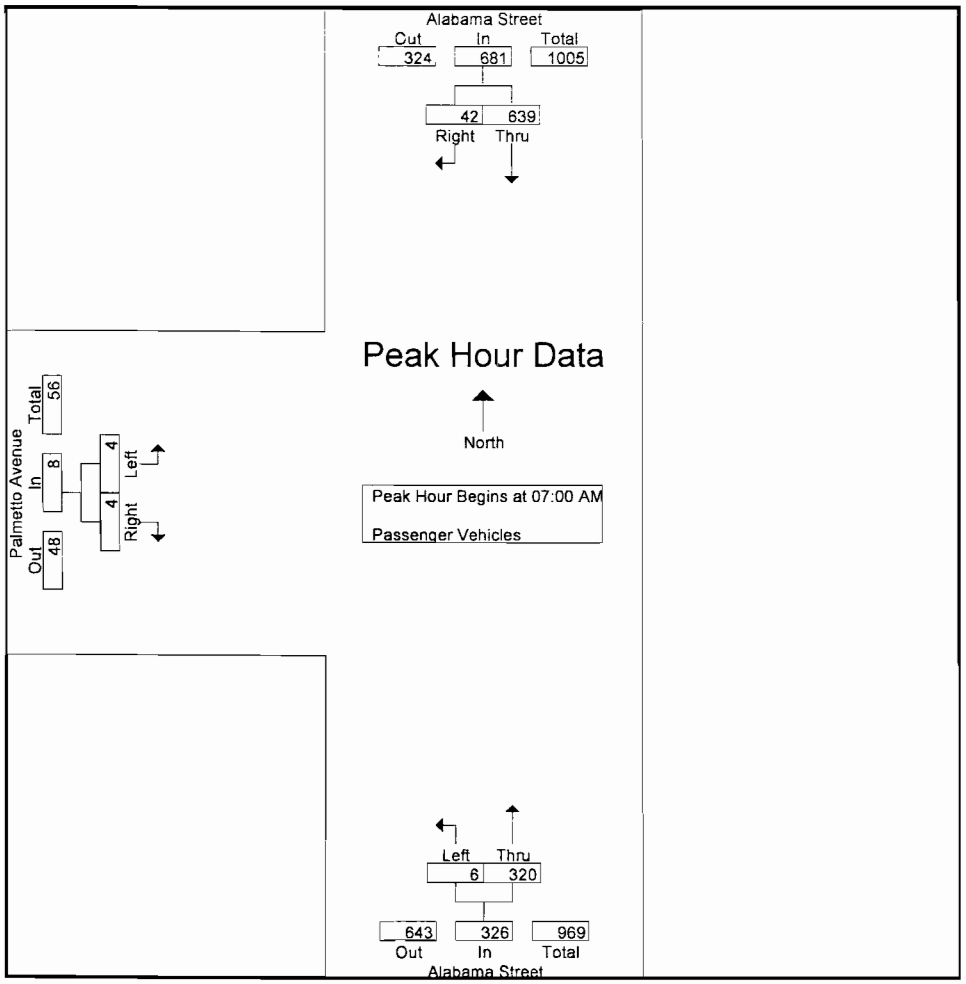

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	160	6	166	0	73	73	**2**	0	2
+15 mins.	**211**	8	**219**	1	**93**	**94**	0	1	1
+30 mins.	107	12	119	**4**	76	80	0	**2**	2
+45 mins.	161	**16**	177	1	78	79	2	1	**3**
Total Volume	639	42	681	6	320	326	4	4	8
% App. Total	93.8	6.2		1.8	98.2		50	50	
PHF	.757	.656	.777	.375	.860	.867	.500	.500	.667

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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	1	1	0	2	2	4
07:15 AM	1	0	1	0	2	2	1	0	1	4
07:30 AM	1	0	1	0	2	2	0	0	0	3
07:45 AM	4	0	4	0	1	1	1	0	1	6
Total	6	1	7	0	6	6	2	2	4	17
08:00 AM	1	0	1	0	1	1	0	0	0	2
08:15 AM	2	0	2	0	1	1	0	0	0	3
08:30 AM	2	0	2	1	2	3	0	0	0	5
08:45 AM	0	1	1	0	2	2	1	0	1	4
Total	5	1	6	1	6	7	1	0	1	14
Grand Total	11	2	13	1	12	13	3	2	5	31
Apprch %	84.6	15.4		7.7	92.3		60	40		
Total %	35.5	6.5	41.9	3.2	38.7	41.9	9.7	6.5	16.1	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	1	0	1	1	0	**2**	**2**	4
07:15 AM	1	0	1	0	**2**	**2**	**1**	0	1	4
07:30 AM	1	0	1	0	2	2	0	0	0	3
07:45 AM	**4**	0	**4**	0	1	1	1	0	1	**6**
Total Volume	6	1	7	0	6	6	2	2	4	17
% App. Total	85.7	14.3		0	100		50	50		
PHF	.375	.250	.438	.000	.750	.750	.500	.250	.500	.708

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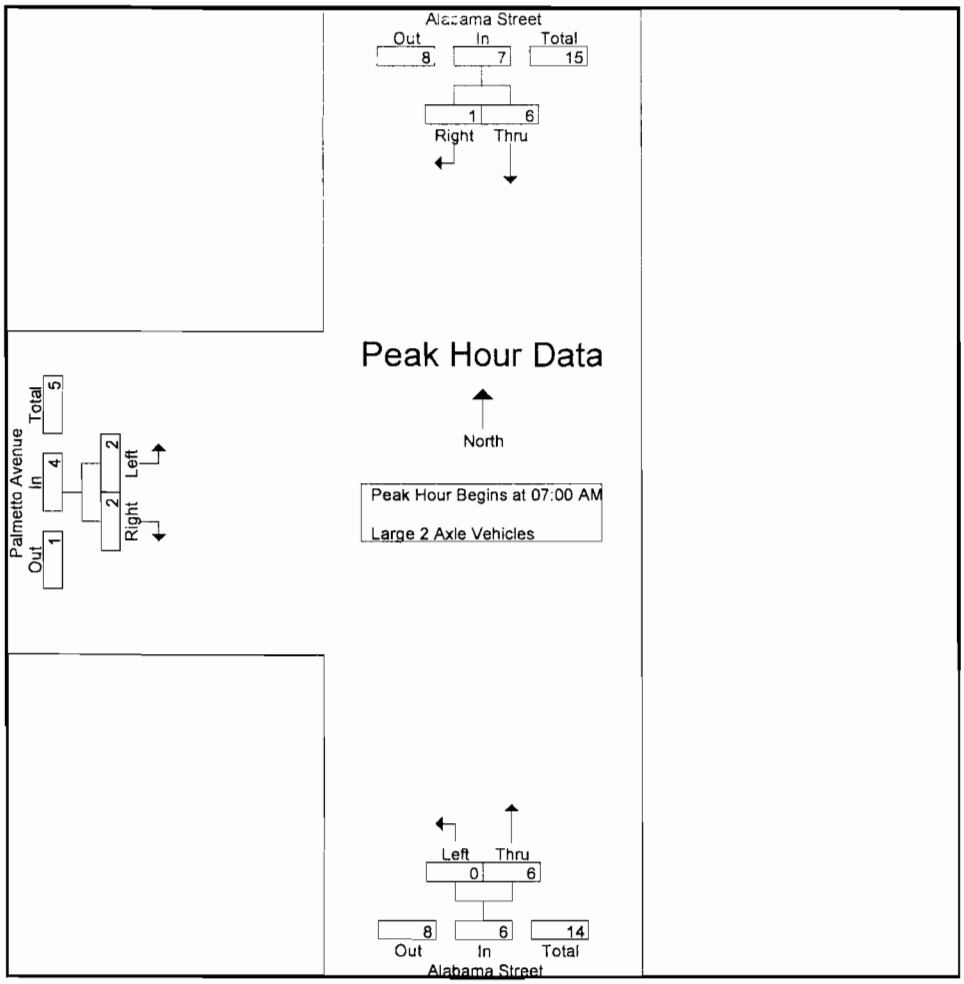

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	1	0	1	1	0	**2**	**2**
+15 mins.	1	0	1	0	**2**	**2**	**1**	0	1
+30 mins.	1	0	1	0	2	2	0	0	0
+45 mins.	**4**	0	**4**	0	1	1	1	0	1
Total Volume	6	1	7	0	6	6	2	2	4
% App. Total	85.7	14.3		0	100		50	50	
PHF	.375	.250	.438	.000	.750	.750	.500	.250	.500

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Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	1	1	2	0	1	1	0	0	0	3
07:15 AM	4	0	4	0	0	0	0	1	1	5
07:30 AM	1	0	1	0	2	2	0	0	0	3
07:45 AM	4	0	4	0	0	0	0	0	0	4
Total	10	1	11	0	3	3	0	1	1	15
08:00 AM	4	0	4	0	2	2	0	0	0	6
08:15 AM	2	0	2	0	3	3	0	0	0	5
08:30 AM	3	0	3	0	3	3	0	0	0	6
08:45 AM	3	0	3	1	3	4	0	0	0	7
Total	12	0	12	1	11	12	0	0	0	24
Grand Total	22	1	23	1	14	15	0	1	1	39
Apprch %	95.7	4.3		6.7	93.3		0	100		
Total %	56.4	2.6	59	2.6	35.9	38.5	0	2.6	2.6	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	**1**	2	0	1	**1**	0	0	0	3
07:15 AM	**4**	0	**4**	0	0	0	0	**1**	**1**	**5**
07:30 AM	1	0	1	0	**2**	**2**	0	0	0	3
07:45 AM	4	0	4	0	0	0	0	0	0	4
Total Volume	10	1	11	0	3	3	0	1	1	15
% App. Total	90.9	9.1		0	100		0	100		
PHF	.625	.250	.688	.000	.375	.375	.000	.250	.250	.750

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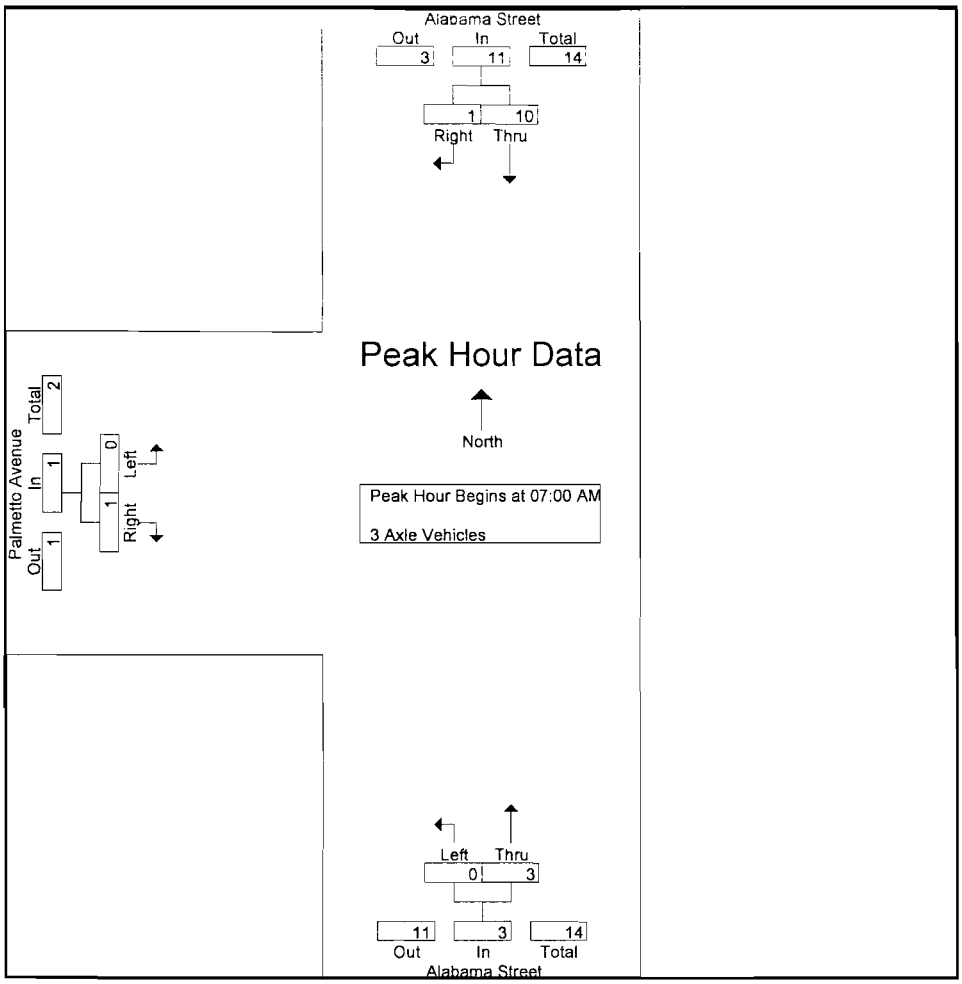

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07.00 AM		
+0 mins.	1	**1**	2	0	1	1	0	0	0
+15 mins.	**4**	0	**4**	0	0	0	0	**1**	**1**
+30 mins.	1	0	1	0	**2**	**2**	0	0	0
+45 mins.	4	0	4	0	0	0	0	0	0
Total Volume	10	1	11	0	3	3	0	1	1
% App. Total	90.9	9.1		0	100		0	100	
PHF	.625	.250	.688	000	.375	.375	.000	.250	.250

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Groups Printed- 4+ Axle Trucks

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	4	0	4	0	4	4	0	0	0	8
07:15 AM	7	0	7	0	8	8	0	1	1	16
07:30 AM	6	0	6	0	4	4	0	0	0	10
07:45 AM	4	0	4	0	7	7	0	0	0	11
Total	21	0	21	0	23	23	0	1	1	45
08:00 AM	8	0	8	0	2	2	0	0	0	10
08:15 AM	3	0	3	0	4	4	0	0	0	7
08:30 AM	7	0	7	0	5	5	0	0	0	12
08:45 AM	6	0	6	0	5	5	0	0	0	11
Total	24	0	24	0	16	16	0	0	0	40
Grand Total	45	0	45	0	39	39	0	1	1	85
Apprch %	100	0		0	100		0	100		
Total %	52.9	0	52.9	0	45.9	45.9	0	1.2	1.2	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	4	0	4	0	4	4	0	0	0	8
07:15 AM	**7**	0	**7**	0	**8**	**8**	0	**1**	**1**	**16**
07:30 AM	6	0	6	0	4	4	0	0	0	10
07:45 AM	4	0	4	0	7	7	0	0	0	11
Total Volume	21	0	21	0	23	23	0	1	1	45
% App. Total	100	0		0	100		0	100		
PHF	.750	.000	.750	.000	.719	.719	.000	.250	.250	.703

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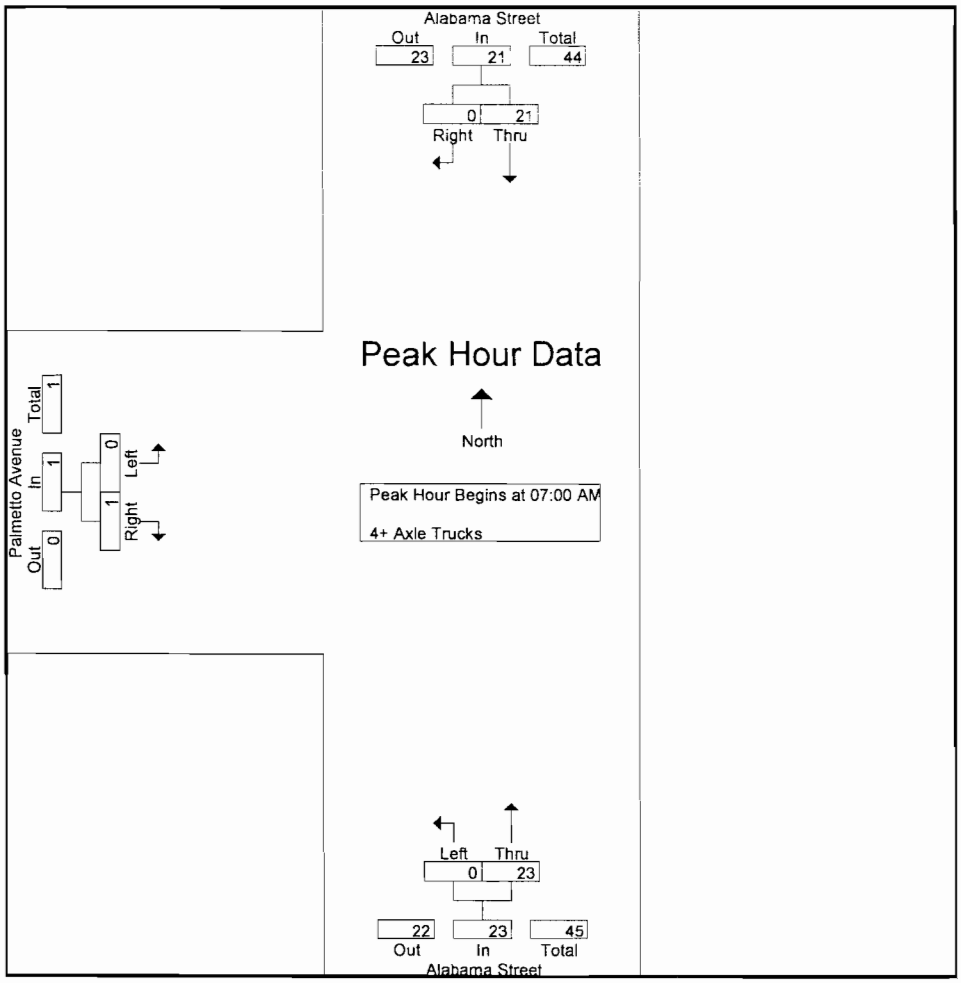

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	4	0	4	0	4	4	0	0	0
+15 mins.	**7**	0	**7**	0	**8**	**8**	0	**1**	**1**
+30 mins.	6	0	6	0	4	4	0	0	0
+45 mins.	4	0	4	0	7	7	0	0	0
Total Volume	21	0	21	0	23	23	0	1	1
% App. Total	100	0		0	100		0	100	
PHF	.750	.000	.750	.000	.719	.719	.000	.250	.250

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	112	2	114	2	97	99	12	4	16	229
04:15 PM	75	0	75	2	143	145	16	4	20	240
04:30 PM	112	0	112	0	124	124	18	2	20	256
04:45 PM	116	4	120	1	134	135	8	5	13	268
Total	415	6	421	5	498	503	54	15	69	993
05:00 PM	108	2	110	3	128	131	11	2	13	254
05:15 PM	124	4	128	1	132	133	30	3	33	294
05:30 PM	109	5	114	1	137	138	12	2	14	266
05:45 PM	88	2	90	0	139	139	7	0	7	236
Total	429	13	442	5	536	541	60	7	67	1050
Grand Total	844	19	863	10	1034	1044	114	22	136	2043
Apprch %	97.8	2.2		1	99		83.8	16.2		
Total %	41.3	0.9	42.2	0.5	50.6	51.1	5.6	1.1	6.7	
Passenger Vehicles	821	19	840	9	1011	1020	114	21	135	1995
% Passenger Vehicles	97.3	100	97.3	90	97.8	97.7	100	95.5	99.3	97.7
Large 2 Axle Vehicles	10	0	10	1	6	7	0	0	0	17
% Large 2 Axle Vehicles	1.2	0	1.2	10	0.6	0.7	0	0	0	0.8
3 Axle Vehicles	0	0	0	0	4	4	0	0	0	4
% 3 Axle Vehicles	0	0	0	0	0.4	0.4	0	0	0	0.2
4+ Axle Trucks	13	0	13	0	13	13	0	1	1	27
% 4+ Axle Trucks	1.5	0	1.5	0	1.3	1.2	0	4.5	0.7	1.3

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	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	116	4	120	1	134	135	8	**5**	13	268
05:00 PM	108	2	110	**3**	128	131	11	2	13	254
05:15 PM	**124**	4	**128**	1	132	133	**30**	3	**33**	**294**
05:30 PM	109	**5**	114	1	**137**	**138**	12	2	14	266
Total Volume	457	15	472	6	531	537	61	12	73	1082
% App. Total	96.8	3.2		1.1	98.9		83.6	16.4		
PHF	.921	.750	.922	.500	.969	.973	.508	.600	.553	.920

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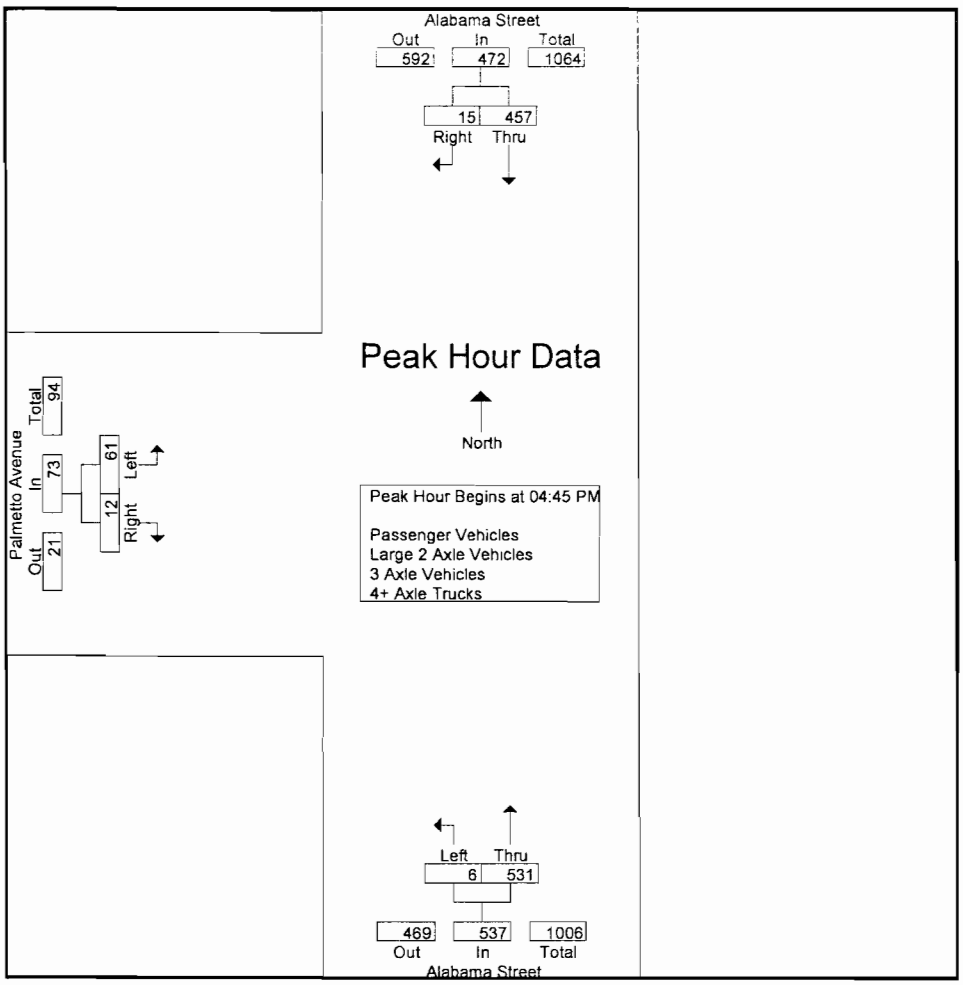

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			05:00 PM			04:30 PM		
+0 mins.	116	4	120	**3**	128	131	18	2	20
+15 mins.	108	2	110	1	132	133	8	**5**	13
+30 mins.	**124**	4	**128**	1	137	138	11	2	13
+45 mins.	109	**5**	114	0	**139**	**139**	**30**	3	**33**
Total Volume	457	15	472	5	536	541	67	12	79
% App. Total	96.8	3.2		0.9	99.1		84.8	15.2	
PHF	.921	.750	.922	.417	.964	.973	.558	.600	.598

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Groups Printed- Passenger Vehicles

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	108	2	110	2	92	94	12	4	16	220
04:15 PM	74	0	74	2	143	145	16	3	19	238
04:30 PM	110	0	110	0	119	119	18	2	20	249
04:45 PM	112	4	116	1	131	132	8	5	13	261
Total	404	6	410	5	485	490	54	14	68	968
05:00 PM	103	2	105	2	125	127	11	2	13	245
05:15 PM	119	4	123	1	131	132	30	3	33	288
05:30 PM	108	5	113	1	135	136	12	2	14	263
05:45 PM	87	2	89	0	135	135	7	0	7	231
Total	417	13	430	4	526	530	60	7	67	1027
Grand Total	821	19	840	9	1011	1020	114	21	135	1995
Apprch %	97.7	2.3		0.9	99.1		84.4	15.6		
Total %	41.2	1	42.1	0.5	50.7	51.1	5.7	1.1	6.8	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	112	4	116	1	131	132	8	**5**	13	261
05:00 PM	103	2	105	**2**	125	127	11	2	13	245
05:15 PM	**119**	4	**123**	1	131	132	**30**	3	**33**	**288**
05:30 PM	108	**5**	113	1	**135**	**136**	12	2	14	263
Total Volume	442	15	457	5	522	527	61	12	73	1057
% App. Total	96.7	3.3		0.9	99.1		83.6	16.4		
PHF	.929	.750	.929	.625	967	.969	.508	.600	.553	.918

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File Name : REDALPAPM
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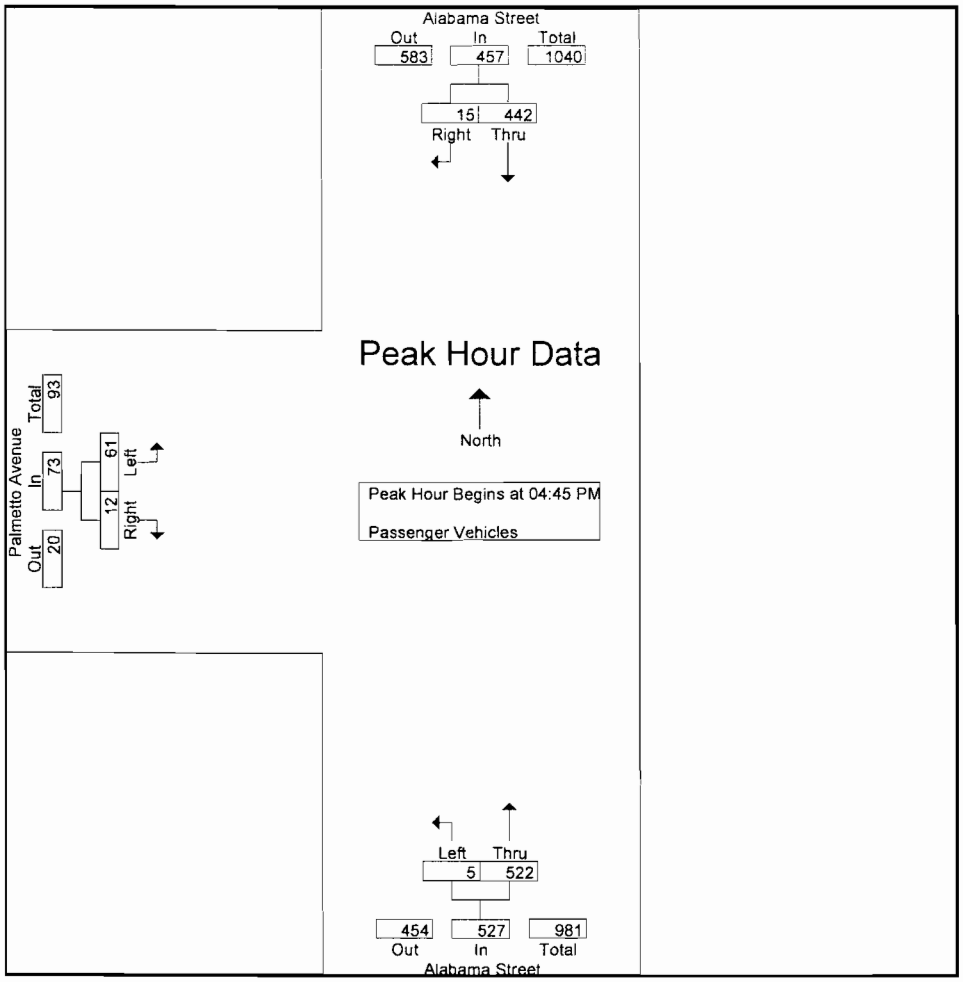
Start Date : 10/16/2012



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	112	4	116	1	131	132	8	**5**	13
+15 mins.	103	2	105	**2**	125	127	11	2	13
+30 mins.	**119**	4	**123**	1	131	132	**30**	3	**33**
+45 mins.	108	**5**	113	1	**135**	**136**	12	2	14
Total Volume	442	15	457	5	522	527	61	12	73
% App. Total	96.7	3.3		0.9	99.1		83.6	16.4	
PHF	.929	.750	.929	.625	.967	.969	.508	.600	.553

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City of Redlands
N/S: Alabama Street
E/W: Palmetto Avenue
Weather: Sunny

File Name : REDALPAPM
Site Code : 00000005
Start Date : 10/16/2012
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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	2	0	2	0	1	1	0	0	0	3
04:15 PM	1	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	1	0	1	0	1	1	0	0	0	2
Total	4	0	4	0	3	3	0	0	0	7
05:00 PM	2	0	2	1	1	2	0	0	0	4
05:15 PM	3	0	3	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	1	0	2	2	0	0	0	3
Total	6	0	6	1	3	4	0	0	0	10
Grand Total	10	0	10	1	6	7	0	0	0	17
Apprch %	100	0		14.3	85.7		0	0		
Total %	58.8	0	58.8	5.9	35.3	41.2	0	0	0	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	1	0	1	0	**1**	1	0	0	0	2
05:00 PM	2	0	2	**1**	1	**2**	0	0	0	**4**
05:15 PM	**3**	0	**3**	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	6	0	6	1	2	3	0	0	0	9
% App. Total	100	0		33.3	66.7		0	0		
PHF	.500	.000	.500	.250	.500	.375	.000	.000	.000	.563

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File Name . REDALPAPM
Site Code . 00000005
Start Date . 10/16/2012
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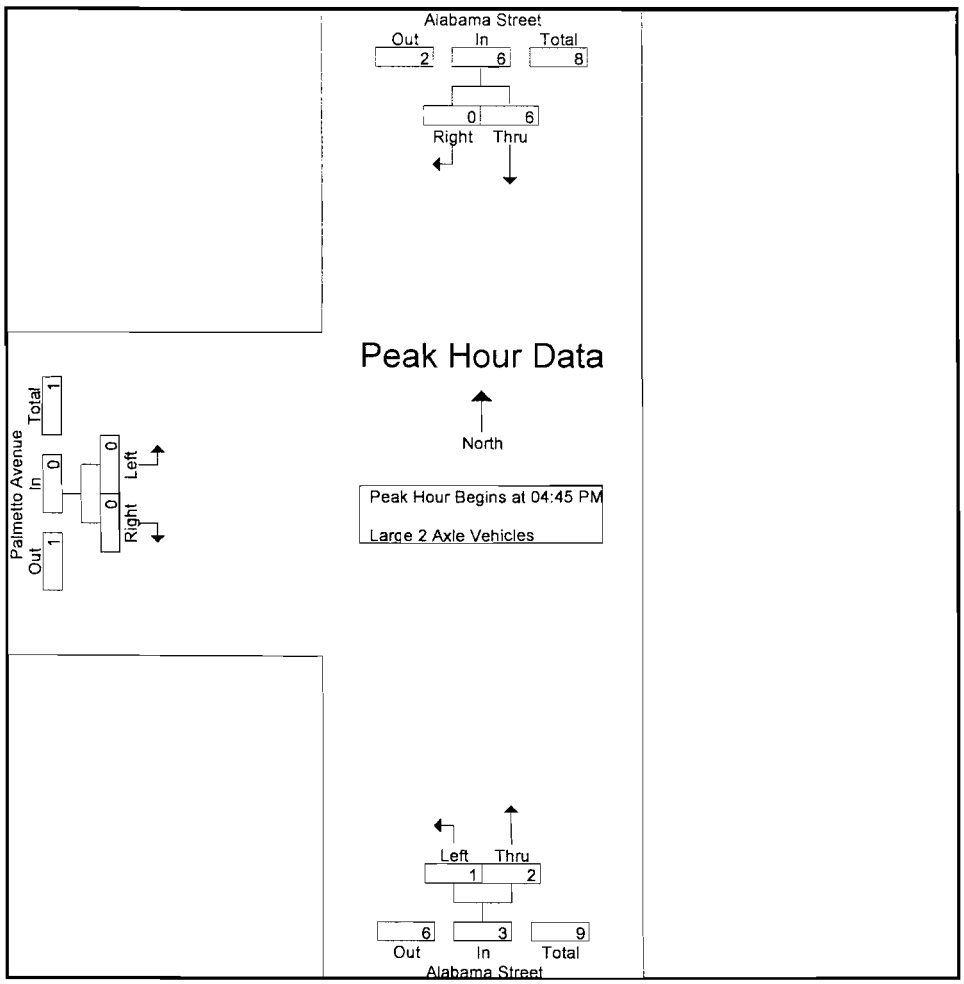

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	1	0	1	0	**1**	1	0	0	0
+15 mins.	2	0	2	**1**	1	**2**	0	0	0
+30 mins.	**3**	0	**3**	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	6	0	6	1	2	3	0	0	0
% App. Total	100	0		33.3	66.7		0	0	
PHF	.500	.000	.500	.250	.500	.375	.000	.000	.000

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Site Code : 00000005
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Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	2	0	0	0	2
05:00 PM	0	0	0	0	1	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	0	2	2	0	0	0	2
Grand Total	0	0	0	0	4	4	0	0	0	4
Apprch %	0	0		0	100		0	0		
Total %	0	0	0	0	100	100	0	0	0	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	1	1	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

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Site Code : 00000005
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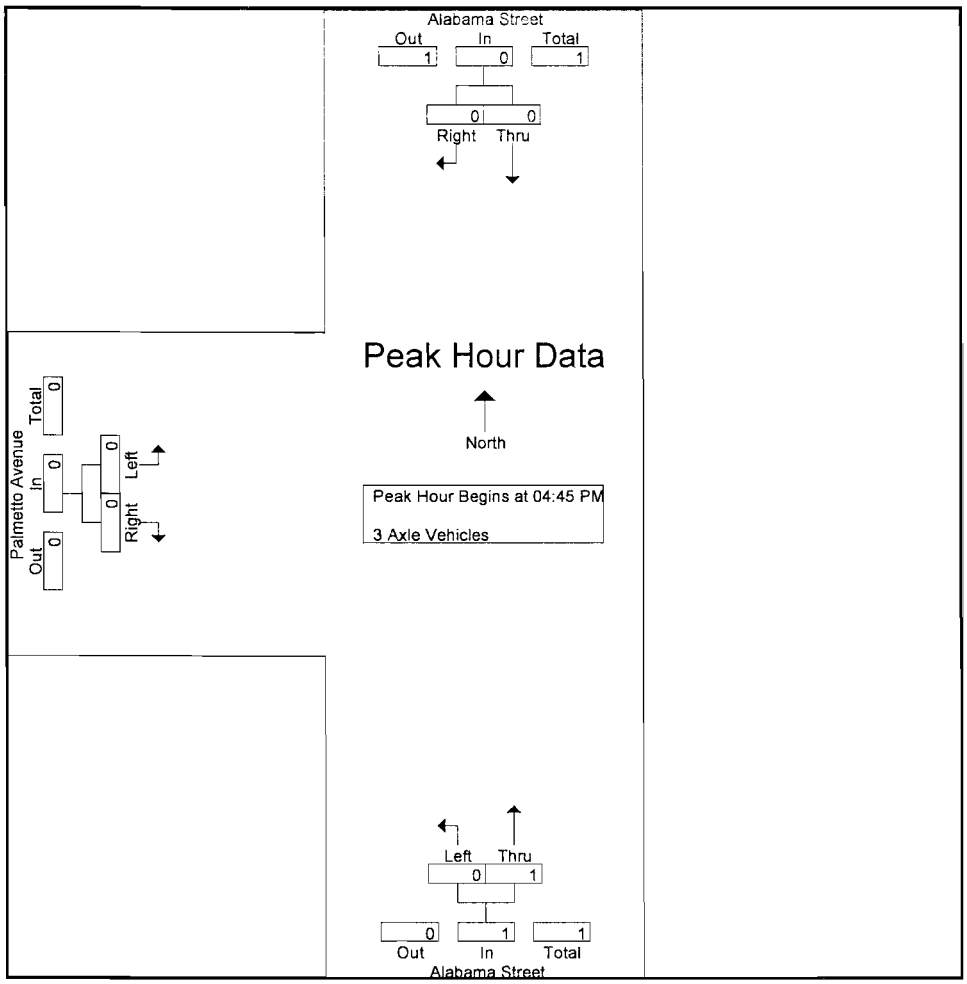

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	**1**	**1**	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0		0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	2	0	2	0	3	3	0	0	0	5
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	2	0	2	0	3	3	0	0	0	5
04:45 PM	3	0	3	0	2	2	0	0	0	5
Total	7	0	7	0	8	8	0	1	1	16
05:00 PM	3	0	3	0	1	1	0	0	0	4
05:15 PM	2	0	2	0	1	1	0	0	0	3
05:30 PM	1	0	1	0	2	2	0	0	0	3
05:45 PM	0	0	0	0	1	1	0	0	0	1
Total	6	0	6	0	5	5	0	0	0	11
Grand Total	13	0	13	0	13	13	0	1	1	27
Apprch %	100	0		0	100		0	100		
Total %	48.1	0	48.1	0	48.1	48.1	0	3.7	3.7	

	Alabama Street Southbound			Alabama Street Northbound			Palmetto Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**3**	0	**3**	0	**2**	**2**	0	0	0	**5**
05:00 PM	3	0	3	0	1	1	0	0	0	4
05:15 PM	2	0	2	0	1	1	0	0	0	3
05:30 PM	1	0	1	0	2	2	0	0	0	3
Total Volume	9	0	9	0	6	6	0	0	0	15
% App. Total	100	0		0	100		0	0		
PHF	.750	.000	.750	.000	.750	.750	.000	.000	.000	.750

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File Name : REDALPAPM
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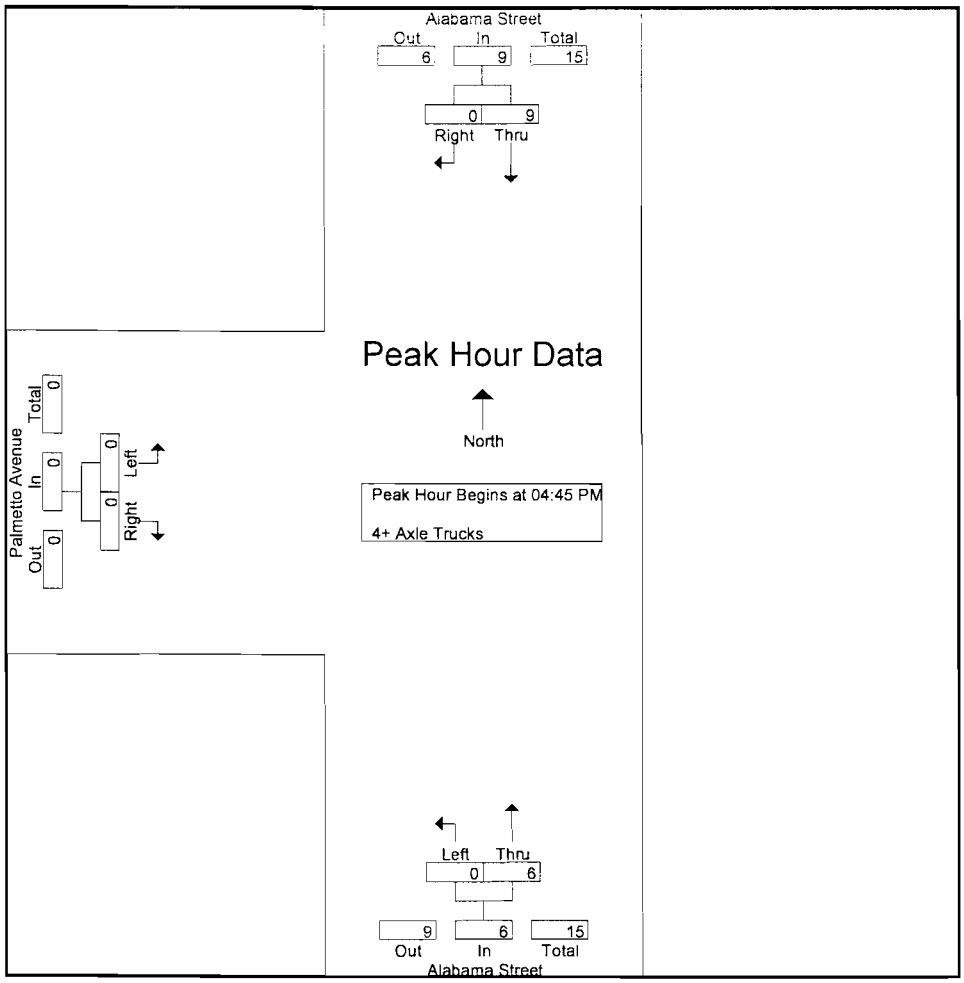

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**3**	0	**3**	0	**2**	**2**	0	0	0
+15 mins.	3	0	3	0	1	1	0	0	0
+30 mins.	2	0	2	0	1	1	0	0	0
+45 mins.	1	0	1	0	2	2	0	0	0
Total Volume	9	0	9	0	6	6	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.750	.000	.750	.000	.750	.750	.000	.000	.000

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Site Code : 00000125
Start Date : 10/16/2012
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle trucks

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	55	77	19	151	12	2	34	48	1	51	41	93	4	18	2	24	316
07:15 AM	53	124	33	210	15	4	45	64	4	47	64	115	2	24	4	30	419
07:30 AM	9	86	9	104	18	5	46	69	3	55	0	58	1	1	1	3	234
07:45 AM	2	159	10	171	4	2	17	23	3	66	2	71	2	0	0	2	267
Total	119	446	71	636	49	13	142	204	11	219	107	337	9	43	7	59	1236
08:00 AM	6	99	3	108	9	3	9	21	2	65	4	71	1	0	4	5	205
08:15 AM	9	72	9	90	9	3	13	25	1	46	5	52	0	3	1	4	171
08:30 AM	8	72	2	82	8	0	6	14	3	48	3	54	0	0	3	3	153
08:45 AM	5	88	5	98	7	4	8	19	4	51	2	57	2	0	3	5	179
Total	28	331	19	378	33	10	36	79	10	210	14	234	3	3	11	17	708
Grand Total	147	777	90	1014	82	23	178	283	21	429	121	571	12	46	18	76	1944
Apprch %	14.5	76.6	8.9		29	8.1	62.9		3.7	75.1	21.2		15.8	60.5	23.7		
Total %	7.6	40	4.6	52.2	4.2	1.2	9.2	14.6	1.1	22.1	6.2	29.4	0.6	2.4	0.9	3.9	
Passenger Vehicles	145	685	85	915	76	22	169	267	17	352	116	485	10	45	13	68	1735
% Passenger Vehicles	98.6	88.2	94.4	90.2	92.7	95.7	94.9	94.3	81	82.1	95.9	84.9	83.3	97.8	72.2	89.5	89.2
Large 2 Axle Vehicles	2	26	3	31	4	0	4	8	3	28	3	34	2	1	4	7	80
% Large 2 Axle Vehicles	1.4	3.3	3.3	3.1	4.9	0	2.2	2.8	14.3	6.5	2.5	6	16.7	2.2	22.2	9.2	4.1
3 Axle Vehicles	0	19	1	20	1	1	5	7	0	10	1	11	0	0	0	0	38
% 3 Axle Vehicles	0	2.4	1.1	2	1.2	4.3	2.8	2.5	0	2.3	0.8	1.9	0	0	0	0	2
4+ Axle trucks	0	47	1	48	1	0	0	1	1	39	1	41	0	0	1	1	91
% 4+ Axle trucks	0	6	1.1	4.7	1.2	0	0	0.4	4.8	9.1	0.8	7.2	0	0	5.6	1.3	4.7

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**55**	77	19	151	12	2	34	48	1	51	41	93	**4**	18	2	24	316
07:15 AM	53	124	**33**	**210**	15	4	45	64	**4**	47	**64**	**115**	2	**24**	**4**	**30**	**419**
07:30 AM	9	86	9	104	**18**	**5**	**46**	**69**	3	55	0	58	1	1	1	3	234
07:45 AM	2	**159**	10	171	4	2	17	23	3	**66**	2	71	2	0	0	2	267
Total Volume	119	446	71	636	49	13	142	204	11	219	107	337	9	43	7	59	1236
% App. Total	18.7	70.1	11.2		24	6.4	69.6		3.3	65	31.8		15.3	72.9	11.9		
PHF	.541	.701	.538	.757	.681	.650	.772	.739	.688	.830	.418	.733	.563	.448	.438	.492	.737

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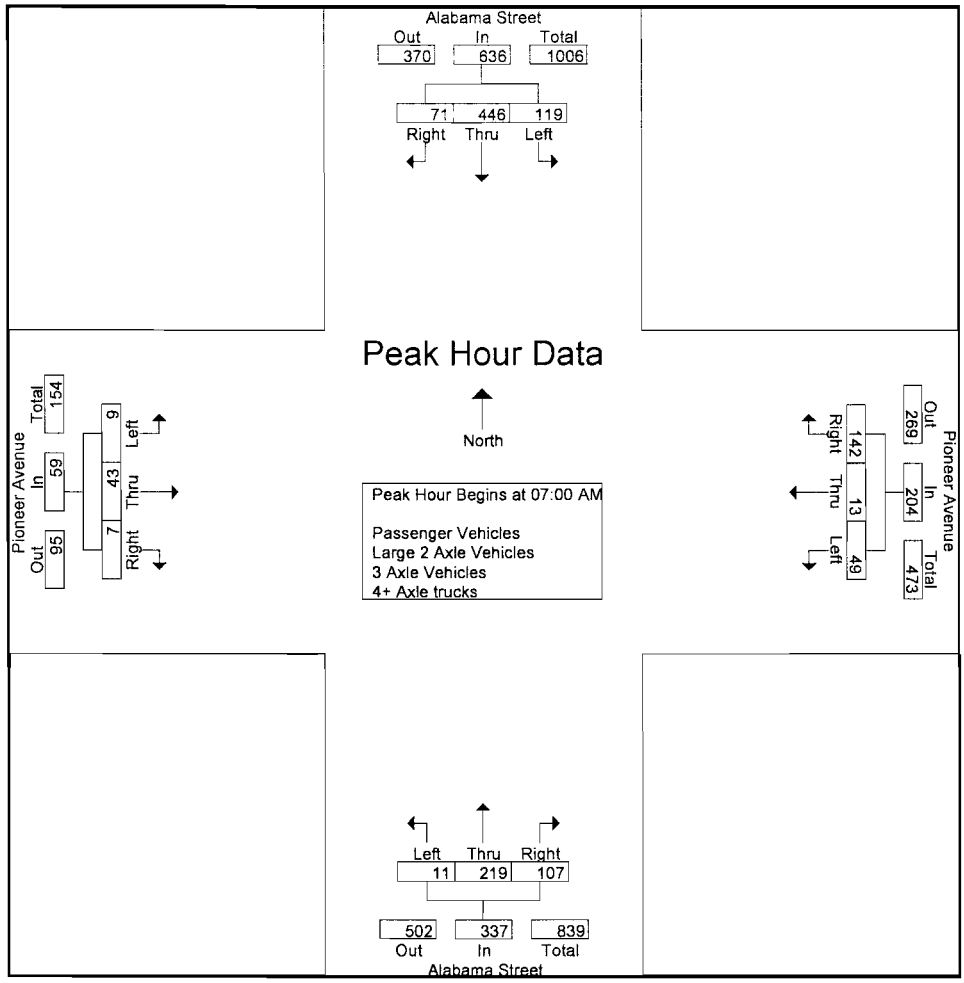

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**55**	77	19	151	12	2	34	48	1	51	41	93	**4**	18	2	24
+15 mins.	53	124	**33**	**210**	15	4	45	64	**4**	47	**64**	**115**	2	**24**	**4**	**30**
+30 mins.	9	86	9	104	**18**	**5**	**46**	**69**	3	55	0	58	1	1	1	3
+45 mins.	2	**159**	10	171	4	2	17	23	3	**66**	2	71	2	0	0	2
Total Volume	119	446	71	636	49	13	142	204	11	219	107	337	9	43	7	59
% App. Total	18.7	70.1	11.2		24	6.4	69.6		3.3	65	31.8		15.3	72.9	11.9	
PHF	.541	.701	.538	.757	.681	.650	.772	.739	.688	.830	.418	.733	.563	.448	.438	.492

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File Name : REDALPIAM
Site Code : 00000125
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Groups Printed- Passenger Vehicles

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	54	68	19	141	12	2	33	47	1	43	41	85	4	18	1	23	296
07:15 AM	53	112	32	197	14	4	45	63	3	38	63	104	2	24	4	30	394
07:30 AM	9	80	9	98	17	5	41	63	3	43	0	46	1	1	1	3	210
07:45 AM	2	142	10	154	4	2	17	23	3	58	2	63	1	0	0	1	241
Total	118	402	70	590	47	13	136	196	10	182	106	298	8	43	6	57	1141
08:00 AM	5	88	2	95	7	2	8	17	1	53	3	57	1	0	2	3	172
08:15 AM	9	56	7	72	8	3	12	23	1	36	4	41	0	2	0	2	138
08:30 AM	8	60	1	69	7	0	6	13	2	36	2	40	0	0	3	3	125
08:45 AM	5	79	5	89	7	4	7	18	3	45	1	49	1	0	2	3	159
Total	27	283	15	325	29	9	33	71	7	170	10	187	2	2	7	11	594
Grand Total	145	685	85	915	76	22	169	267	17	352	116	485	10	45	13	68	1735
Apprch %	15.8	74.9	9.3		28.5	8.2	63.3		3.5	72.6	23.9		14.7	66.2	19.1		
Total %	8.4	39.5	4.9	52.7	4.4	1.3	9.7	15.4	1	20.3	6.7	28	0.6	2.6	0.7	3.9	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**54**	68	19	141	12	2	33	47	1	43	41	85	**4**	18	1	23	296
07:15 AM	53	112	**32**	**197**	14	**4**	**45**	**63**	**3**	38	**63**	**104**	2	**24**	**4**	**30**	**394**
07:30 AM	9	80	9	98	**17**	**5**	41	63	3	43	0	46	1	1	1	3	210
07:45 AM	2	**142**	10	154	4	2	17	23	3	**58**	2	63	1	0	0	1	241
Total Volume	118	402	70	590	47	13	136	196	10	182	106	298	8	43	6	57	1141
% App. Total	20	68.1	11.9		24	6.6	69.4		3.4	61.1	35.6		14	75.4	10.5		
PHF	.546	.708	.547	.749	.691	.650	.756	.778	.833	.784	.421	.716	.500	.448	.375	.475	.724

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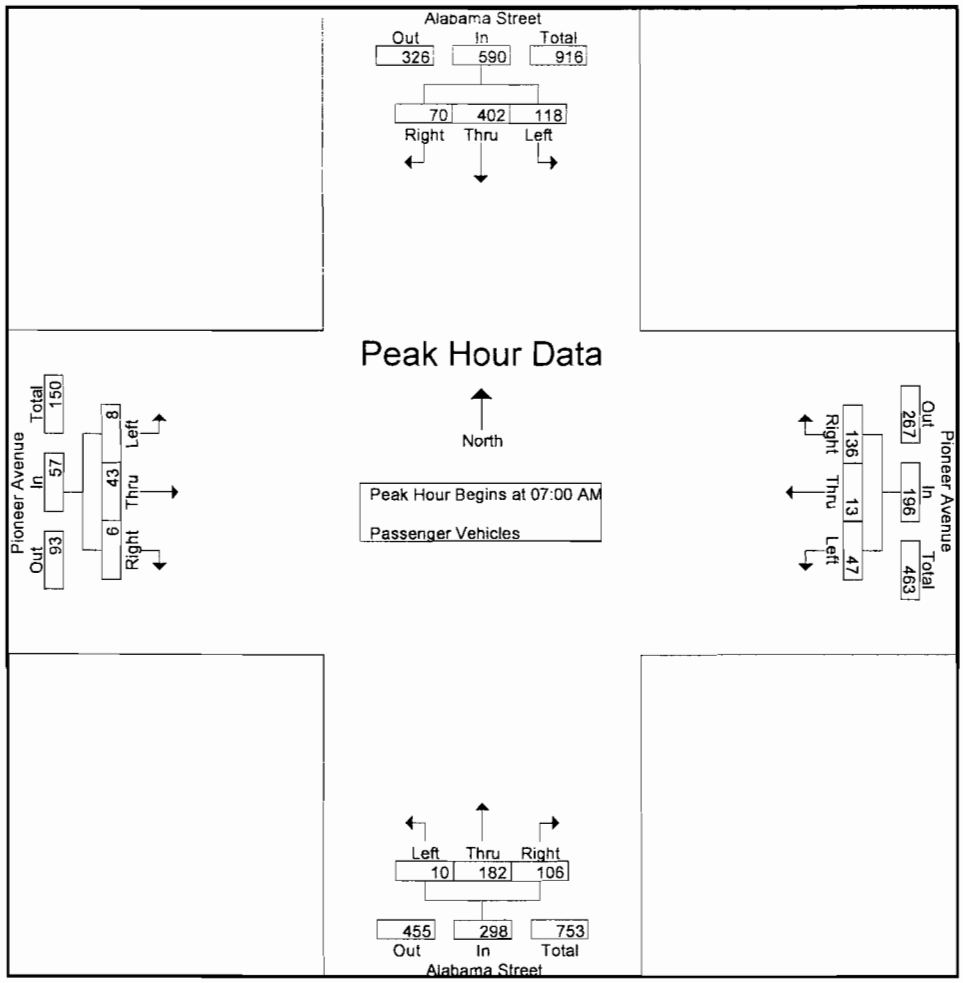

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**54**	68	19	141	12	2	33	47	1	43	41	85	**4**	18	1	23
+15 mins.	53	112	**32**	**197**	14	4	**45**	**63**	**3**	38	**63**	**104**	2	**24**	**4**	**30**
+30 mins.	9	80	9	98	**17**	**5**	41	63	3	43	0	46	1	1	1	3
+45 mins.	2	**142**	10	154	4	2	17	23	3	**58**	2	63	1	0	0	1
Total Volume	118	402	70	590	47	13	136	196	10	182	106	298	8	43	6	57
% App. Total	20	68.1	11.9		24	6.6	69.4		3.4	61.1	35.6		14	75.4	10.5	
PHF	.546	.708	.547	.749	.691	.650	.756	.778	.833	.784	.421	.716	.500	.448	.375	.475

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City of Redlands
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Weather: Sunny

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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
07:15 AM	0	1	0	1	0	0	0	0	1	4	0	5	0	0	0	0	6
07:30 AM	0	1	0	1	1	0	2	3	0	7	0	7	0	0	0	0	11
07:45 AM	0	8	0	8	0	0	0	0	0	1	0	1	1	0	0	1	10
Total	1	10	0	11	1	0	2	3	1	13	0	14	1	0	1	2	30
08:00 AM	1	3	1	5	1	0	1	2	1	8	1	10	0	0	1	1	18
08:15 AM	0	10	2	12	1	0	1	2	0	2	1	3	0	1	1	2	19
08:30 AM	0	3	0	3	1	0	0	1	1	4	0	5	0	0	0	0	9
08:45 AM	0	0	0	0	0	0	0	0	0	1	1	2	1	0	1	2	4
Total	1	16	3	20	3	0	2	5	2	15	3	20	1	1	3	5	50
Grand Total	2	26	3	31	4	0	4	8	3	28	3	34	2	1	4	7	80
Apprch %	6.5	83.9	9.7		50	0	50		8.8	82.4	8.8		28.6	14.3	57.1		
Total %	2.5	32.5	3.8	38.8	5	0	5	10	3.8	35	3.8	42.5	2.5	1.2	5	8.8	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	0	0	1	0	0	0	0	0	1	0	1	0	0	**1**	**1**	3
07:15 AM	0	1	0	1	0	0	0	0	**1**	4	0	5	0	0	0	0	6
07:30 AM	0	1	0	1	**1**	0	**2**	**3**	0	7	0	7	0	0	0	0	**11**
07:45 AM	0	**8**	0	**8**	0	0	0	0	0	1	0	1	**1**	0	0	1	10
Total Volume	1	10	0	11	1	0	2	3	1	13	0	14	1	0	1	2	30
% App. Total	9.1	90.9	0		33.3	0	66.7		7.1	92.9	0		50	0	50		
PHF	.250	.313	.000	.344	.250	.000	.250	.250	.250	.464	.000	.500	.250	.000	.250	.500	.682

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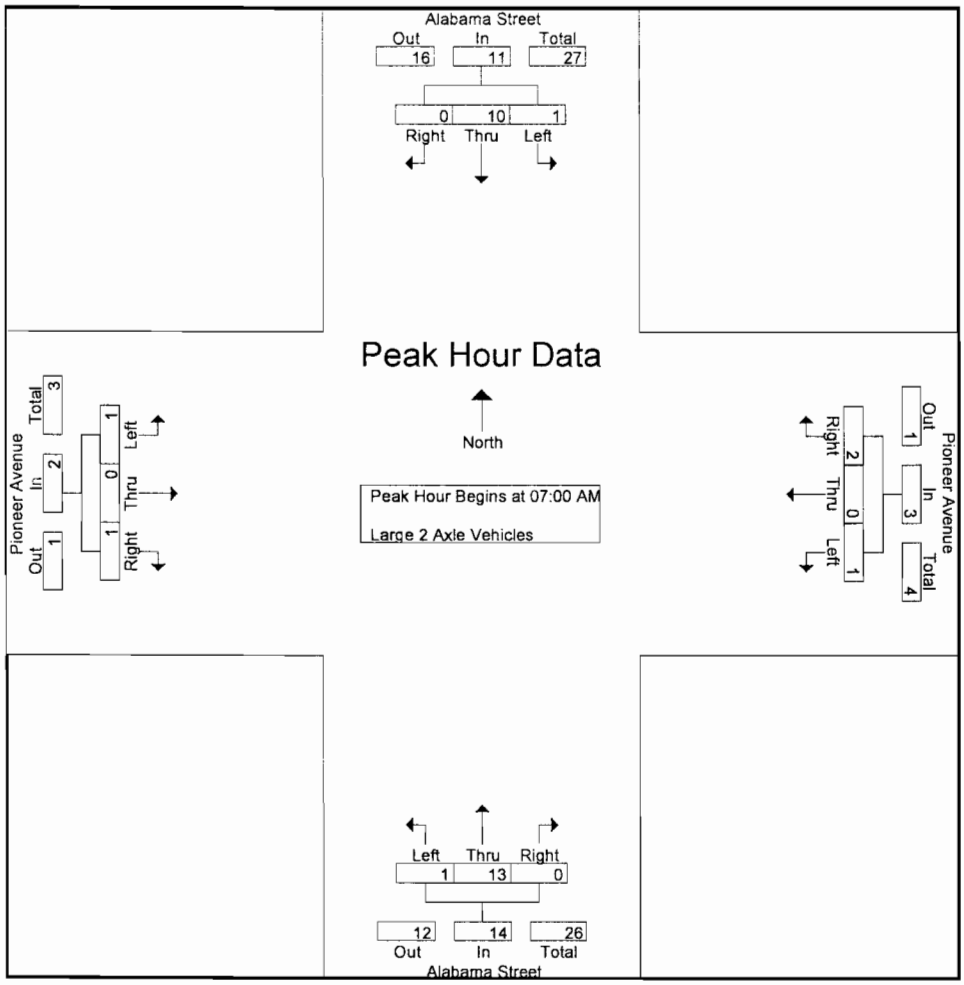

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**1**	0	0	1	0	0	0	0	0	1	0	1	0	0	**1**	**1**
+15 mins.	0	1	0	1	0	0	0	0	**1**	4	0	5	0	0	0	0
+30 mins.	0	1	0	1	**1**	0	**2**	**3**	0	**7**	0	**7**	0	0	0	0
+45 mins.	0	**8**	0	**8**	0	0	0	0	0	1	0	1	**1**	0	0	1
Total Volume	1	10	0	11	1	0	2	3	1	13	0	14	1	0	1	2
% App. Total	9.1	90.9	0		33.3	0	66.7		7.1	92.9	0		50	0	50	
PHF	.250	.313	.000	.344	.250	.000	.250	.250	.250	.464	.000	.500	.250	.000	.250	.500

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Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	5	0	5	0	0	1	1	0	0	0	0	0	0	0	0	6
07:15 AM	0	3	0	3	0	0	0	0	0	0	1	1	0	0	0	0	4
07:30 AM	0	1	0	1	0	0	3	3	0	1	0	1	0	0	0	0	5
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	10	0	10	0	0	4	4	0	1	1	2	0	0	0	0	16
08:00 AM	0	2	0	2	1	1	0	2	0	1	0	1	0	0	0	0	5
08:15 AM	0	2	0	2	0	0	0	0	0	4	0	4	0	0	0	0	6
08:30 AM	0	2	1	3	0	0	0	0	0	2	0	2	0	0	0	0	5
08:45 AM	0	3	0	3	0	0	1	1	0	2	0	2	0	0	0	0	6
Total	0	9	1	10	1	1	1	3	0	9	0	9	0	0	0	0	22
Grand Total	0	19	1	20	1	1	5	7	0	10	1	11	0	0	0	0	38
Apprch %	0	95	5		14.3	14.3	71.4		0	90.9	9.1		0	0	0		
Total %	0	50	2.6	52.6	2.6	2.6	13.2	18.4	0	26.3	2.6	28.9	0	0	0	0	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**5**	0	**5**	0	0	1	1	0	0	0	0	0	0	0	0	**6**
07:15 AM	0	3	0	3	0	0	0	0	0	0	**1**	**1**	0	0	0	0	4
07:30 AM	0	1	0	1	0	0	**3**	**3**	0	**1**	0	1	0	0	0	0	5
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	10	0	10	0	0	4	4	0	1	1	2	0	0	0	0	16
% App. Total	0	100	0		0	0	100		0	50	50		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.333	.333	.000	.250	.250	.500	.000	.000	.000	.000	.667

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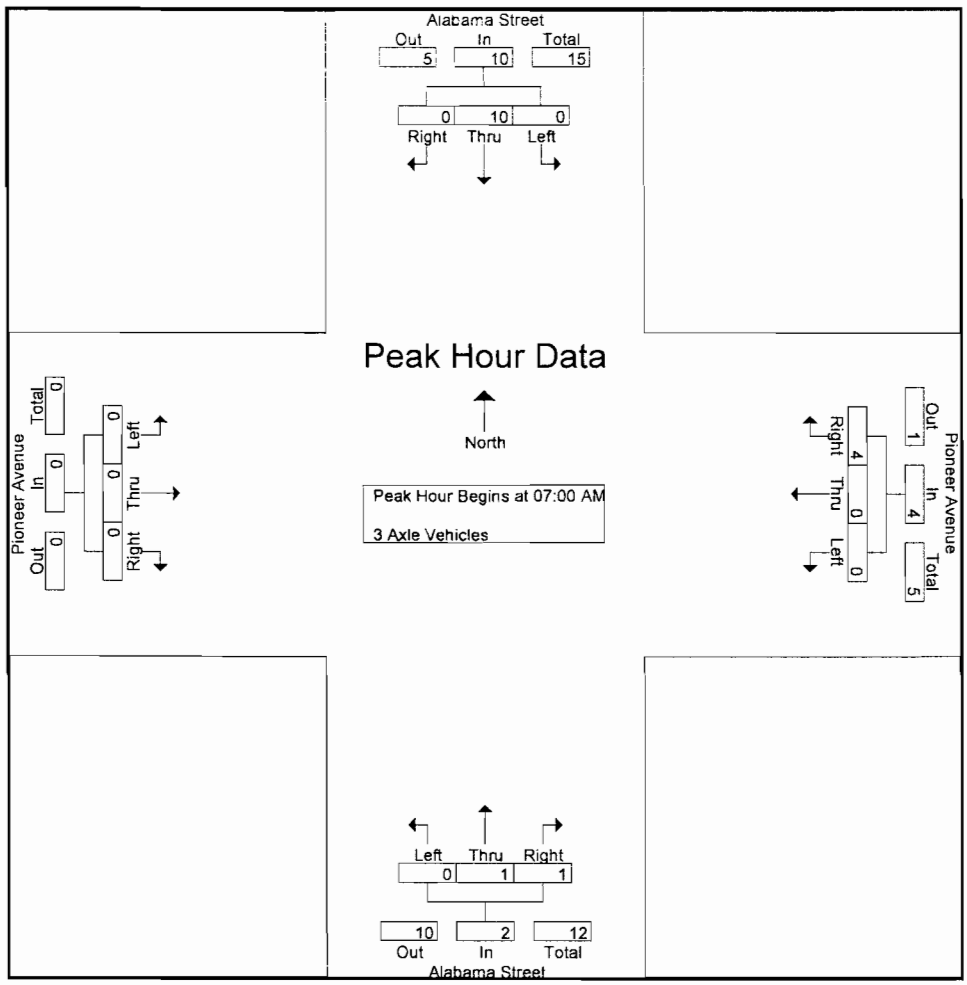

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	**5**	0	**5**	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	3	0	3	0	0	0	0	0	0	**1**	**1**	0	0	0	0
+30 mins.	0	1	0	1	0	0	**3**	**3**	0	**1**	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	10	0	10	0	0	4	4	0	1	1	2	0	0	0	0
% App. Total	0	100	0		0	0	100		0	50	50		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.333	.333	.000	.250	.250	.500	.000	.000	.000	.000

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Groups Printed- 4+ Axle trucks

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	0	4	0	0	0	0	0	7	0	7	0	0	0	0	11
07:15 AM	0	8	1	9	1	0	0	1	0	5	0	5	0	0	0	0	15
07:30 AM	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
07:45 AM	0	8	0	8	0	0	0	0	0	7	0	7	0	0	0	0	15
Total	0	24	1	25	1	0	0	1	0	23	0	23	0	0	0	0	49
08:00 AM	0	6	0	6	0	0	0	0	0	3	0	3	0	0	1	1	10
08:15 AM	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
08:30 AM	0	7	0	7	0	0	0	0	0	6	1	7	0	0	0	0	14
08:45 AM	0	6	0	6	0	0	0	0	1	3	0	4	0	0	0	0	10
Total	0	23	0	23	0	0	0	0	1	16	1	18	0	0	1	1	42
Grand Total	0	47	1	48	1	0	0	1	1	39	1	41	0	0	1	1	91
Apprch %	0	97.9	2.1		100	0	0		2.4	95.1	2.4		0	0	100		
Total %	0	51.6	1.1	52.7	1.1	0	0	1.1	1.1	42.9	1.1	45.1	0	0	1.1	1.1	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	4	0	4	0	0	0	0	0	7	0	7	0	0	0	0	11
07:15 AM	0	**8**	**1**	**9**	**1**	0	0	**1**	0	5	0	5	0	0	0	0	**15**
07:30 AM	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
07:45 AM	0	8	0	8	0	0	0	0	0	7	0	7	0	0	0	0	15
Total Volume	0	24	1	25	1	0	0	1	0	23	0	23	0	0	0	0	49
% App. Total	0	96	4		100	0	0		0	100	0		0	0	0		
PHF	.000	.750	.250	.694	.250	.000	.000	.250	.000	.821	.000	.821	.000	.000	.000	.000	.817

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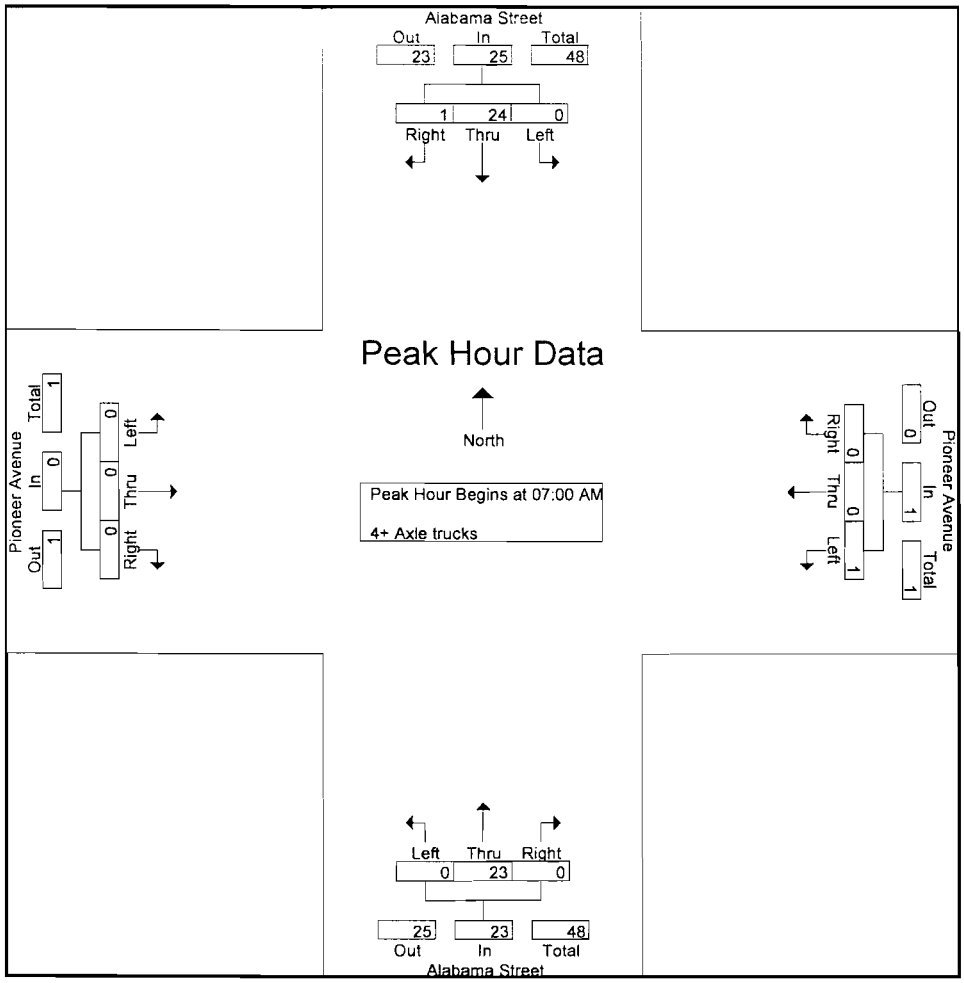

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	4	0	4	0	0	0	0	0	7	0	7	0	0	0	0
+15 mins.	0	**8**	**1**	**9**	**1**	0	0	**1**	0	5	0	5	0	0	0	0
+30 mins.	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0
+45 mins.	0	8	0	8	0	0	0	0	0	7	0	7	0	0	0	0
Total Volume	0	24	1	25	1	0	0	1	0	23	0	23	0	0	0	0
% App. Total	0	96	4		100	0	0		0	100	0		0	0	0	
PHF	.000	.750	.250	.694	.250	.000	.000	.250	.000	.821	.000	.821	.000	.000	.000	.000

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle trucks

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	17	81	1	99	16	4	17	37	2	78	9	89	4	3	4	11	236
04:15 PM	12	72	1	85	2	2	17	21	1	104	6	111	26	5	9	40	257
04:30 PM	18	81	3	102	4	1	13	18	0	101	11	112	13	9	15	37	269
04:45 PM	38	87	2	127	3	1	9	13	3	107	5	115	8	6	5	19	274
Total	85	321	7	413	25	8	56	89	6	390	31	427	51	23	33	107	1036
05:00 PM	28	86	3	117	2	4	14	20	1	107	20	128	1	9	5	15	280
05:15 PM	29	101	1	131	3	4	14	21	0	128	17	145	7	16	7	30	327
05:30 PM	28	94	0	122	9	3	22	34	2	146	8	156	8	4	3	15	327
05:45 PM	27	76	1	104	2	5	17	24	0	118	6	124	7	8	3	18	270
Total	112	357	5	474	16	16	67	99	3	499	51	553	23	37	18	78	1204
Grand Total	197	678	12	887	41	24	123	188	9	889	82	980	74	60	51	185	2240
Apprch %	22.2	76.4	1.4		21.8	12.8	65.4		0.9	90.7	8.4		40	32.4	27.6		
Total %	8.8	30.3	0.5	39.6	1.8	1.1	5.5	8.4	0.4	39.7	3.7	43.8	3.3	2.7	2.3	8.3	
Passenger Vehicles	191	647	11	849	41	24	120	185	6	861	81	948	71	57	43	171	2153
% Passenger Vehicles	97	95.4	91.7	95.7	100	100	97.6	98.4	66.7	96.9	98.8	96.7	95.9	95	84.3	92.4	96.1
Large 2 Axle Vehicles	6	13	0	19	0	0	3	3	0	12	1	13	1	2	1	4	39
% Large 2 Axle Vehicles	3	1.9	0	2.1	0	0	2.4	1.6	0	1.3	1.2	1.3	1.4	3.3	2	2.2	1.7
3 Axle Vehicles	0	4	0	4	0	0	0	0	1	2	0	3	0	1	3	4	11
% 3 Axle Vehicles	0	0.6	0	0.5	0	0	0	0	11.1	0.2	0	0.3	0	1.7	5.9	2.2	0.5
4+ Axle trucks	0	14	1	15	0	0	0	0	2	14	0	16	2	0	4	6	37
% 4+ Axle trucks	0	2.1	8.3	1.7	0	0	0	0	22.2	1.6	0	1.6	2.7	0	7.8	3.2	1.7

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**38**	87	2	127	3	1	9	13	**3**	107	5	115	**8**	6	5	19	274
05:00 PM	28	86	**3**	117	2	**4**	14	20	1	107	**20**	128	1	9	5	15	280
05:15 PM	29	**101**	1	**131**	3	4	14	21	0	128	17	145	7	**16**	7	**30**	**327**
05:30 PM	28	94	0	122	**9**	3	**22**	**34**	2	**146**	8	**156**	8	4	3	15	327
Total Volume	123	368	6	497	17	12	59	88	6	488	50	544	24	35	20	79	1208
% App. Total	24.7	74	1.2		19.3	13.6	67		1.1	89.7	9.2		30.4	44.3	25.3		
PHF	.809	.911	.500	.948	.472	.750	.670	.647	.500	.836	.625	.872	.750	.547	.714	.658	.924

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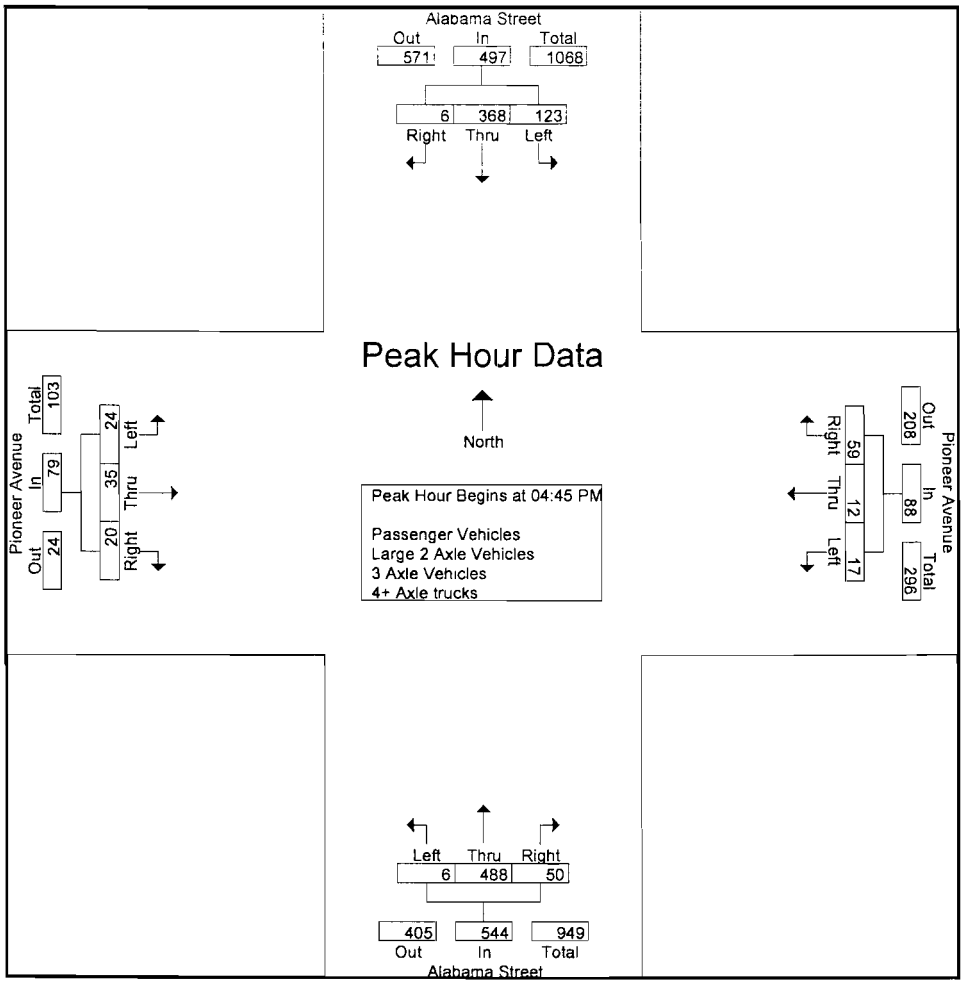

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	**38**	87	2	127	3	1	9	13	**3**	107	5	115	**8**	6	5	19
+15 mins.	28	86	**3**	117	2	**4**	14	20	1	107	**20**	128	1	9	5	15
+30 mins.	29	**101**	1	**131**	3	4	14	21	0	128	17	145	7	**16**	7	**30**
+45 mins.	28	94	0	122	**9**	3	**22**	**34**	2	**146**	8	**156**	8	4	3	15
Total Volume	123	368	6	497	17	12	59	88	6	488	50	544	24	35	20	79
% App. Total	24.7	74	1.2		19.3	13.6	67		1.1	89.7	9.2		30.4	44.3	25.3	
PHF	.809	.911	.500	.948	.472	.750	.670	.647	.500	.836	.625	.872	.750	.547	.714	.658

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Groups Printed- Passenger Vehicles

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	17	72	1	90	16	4	17	37	1	72	9	82	3	2	3	8	217
04:15 PM	12	70	1	83	2	2	17	21	1	101	6	108	26	5	8	39	251
04:30 PM	18	79	3	100	4	1	12	17	0	97	11	108	13	9	14	36	261
04:45 PM	37	84	2	123	3	1	9	13	1	102	5	108	7	6	4	17	261
Total	84	305	7	396	25	8	55	88	3	372	31	406	49	22	29	100	990
05:00 PM	25	81	2	108	2	4	13	19	1	104	19	124	0	9	4	13	264
05:15 PM	27	95	1	123	3	4	14	21	0	125	17	142	7	15	5	27	313
05:30 PM	28	92	0	120	9	3	21	33	2	144	8	154	8	3	3	14	321
05:45 PM	27	74	1	102	2	5	17	24	0	116	6	122	7	8	2	17	265
Total	107	342	4	453	16	16	65	97	3	489	50	542	22	35	14	71	1163
Grand Total	191	647	11	849	41	24	120	185	6	861	81	948	71	57	43	171	2153
Apprch %	22.5	76.2	1.3		22.2	13	64.9		0.6	90.8	8.5		41.5	33.3	25.1		
Total %	8.9	30.1	0.5	39.4	1.9	1.1	5.6	8.6	0.3	40	3.8	44	3.3	2.6	2	7.9	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**37**	84	**2**	**123**	3	1	9	13	1	102	5	108	7	6	4	17	261
05:00 PM	25	81	2	108	2	**4**	13	19	1	104	**19**	124	0	9	4	13	264
05:15 PM	27	**95**	1	123	3	4	14	21	0	125	17	142	7	**15**	**5**	**27**	313
05:30 PM	28	92	0	120	**9**	3	**21**	**33**	**2**	**144**	8	**154**	**8**	3	3	14	**321**
Total Volume	117	352	5	474	17	12	57	86	4	475	49	528	22	33	16	71	1159
% App. Total	24.7	74.3	1.1		19.8	14	66.3		0.8	90	9.3		31	46.5	22.5		
PHF	.791	.926	.625	.963	.472	.750	.679	.652	.500	.825	.645	.857	.688	.550	.800	.657	.903

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City of Redlands
N/S: Alabama Street
E/W: Pioneer Avenue
Weather: Sunny

File Name : REDALPIPM
Site Code : 00000125
Start Date : 10/16/2012
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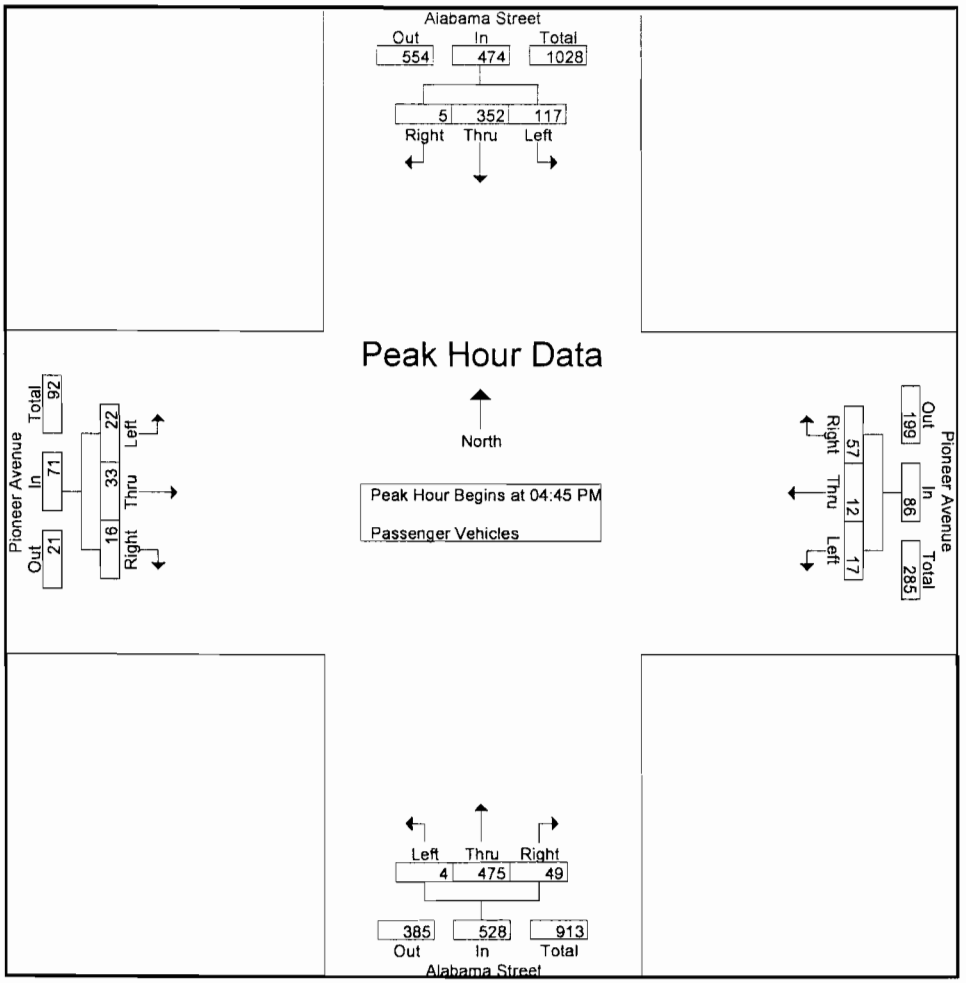

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	**37**	84	**2**	**123**	3	1	9	13	1	102	5	108	7	6	4	17
+15 mins.	25	81	2	108	2	**4**	13	19	1	104	**19**	124	0	9	4	13
+30 mins.	27	**95**	1	123	3	4	14	21	0	125	17	142	7	**15**	**5**	**27**
+45 mins.	28	92	0	120	**9**	3	**21**	**33**	**2**	**144**	8	**154**	**8**	3	3	14
Total Volume	117	352	5	474	17	12	57	86	4	475	49	528	22	33	16	71
% App. Total	24.7	74.3	1.1		19.8	14	66.3		0.8	90	9.3		31	46.5	22.5	
PHF	.791	.926	.625	.963	.472	.750	.679	.652	.500	.825	.645	.857	.688	.550	.800	.657

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Weather: Sunny

File Name . REDALPIPM
Site Code : 00000125
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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	4	0	4	0	0	0	0	0	2	0	2	0	0	0	0	6
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
04:45 PM	1	0	0	1	0	0	0	0	0	2	0	2	1	0	0	1	4
Total	1	4	0	5	0	0	1	1	0	7	0	7	1	0	0	1	14
05:00 PM	3	3	0	6	0	0	1	1	0	2	1	3	0	0	0	0	10
05:15 PM	2	3	0	5	0	0	0	0	0	2	0	2	0	1	0	1	8
05:30 PM	0	2	0	2	0	0	1	1	0	1	0	1	0	1	0	1	5
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Total	5	9	0	14	0	0	2	2	0	5	1	6	0	2	1	3	25
Grand Total	6	13	0	19	0	0	3	3	0	12	1	13	1	2	1	4	39
Apprch %	31.6	68.4	0		0	0	100		0	92.3	7.7		25	50	25		
Total %	15.4	33.3	0	48.7	0	0	7.7	7.7	0	30.8	2.6	33.3	2.6	5.1	2.6	10.3	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	0	0	1	0	0	0	0	0	**2**	0	2	**1**	0	0	**1**	4
05:00 PM	**3**	**3**	0	**6**	0	0	**1**	**1**	0	2	**1**	**3**	0	0	0	0	**10**
05:15 PM	2	3	0	5	0	0	0	0	0	2	0	2	0	**1**	0	1	8
05:30 PM	0	2	0	2	0	0	1	1	0	1	0	1	0	1	0	1	5
Total Volume	6	8	0	14	0	0	2	2	0	7	1	8	1	2	0	3	27
% App. Total	42.9	57.1	0		0	0	100		0	87.5	12.5		33.3	66.7	0		
PHF	.500	.667	.000	.583	.000	.000	.500	.500	.000	.875	.250	.667	.250	.500	.000	.750	.675

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City of Redlands
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File Name : REDALPIPM
Site Code . 00000125
Start Date : 10/16/2012
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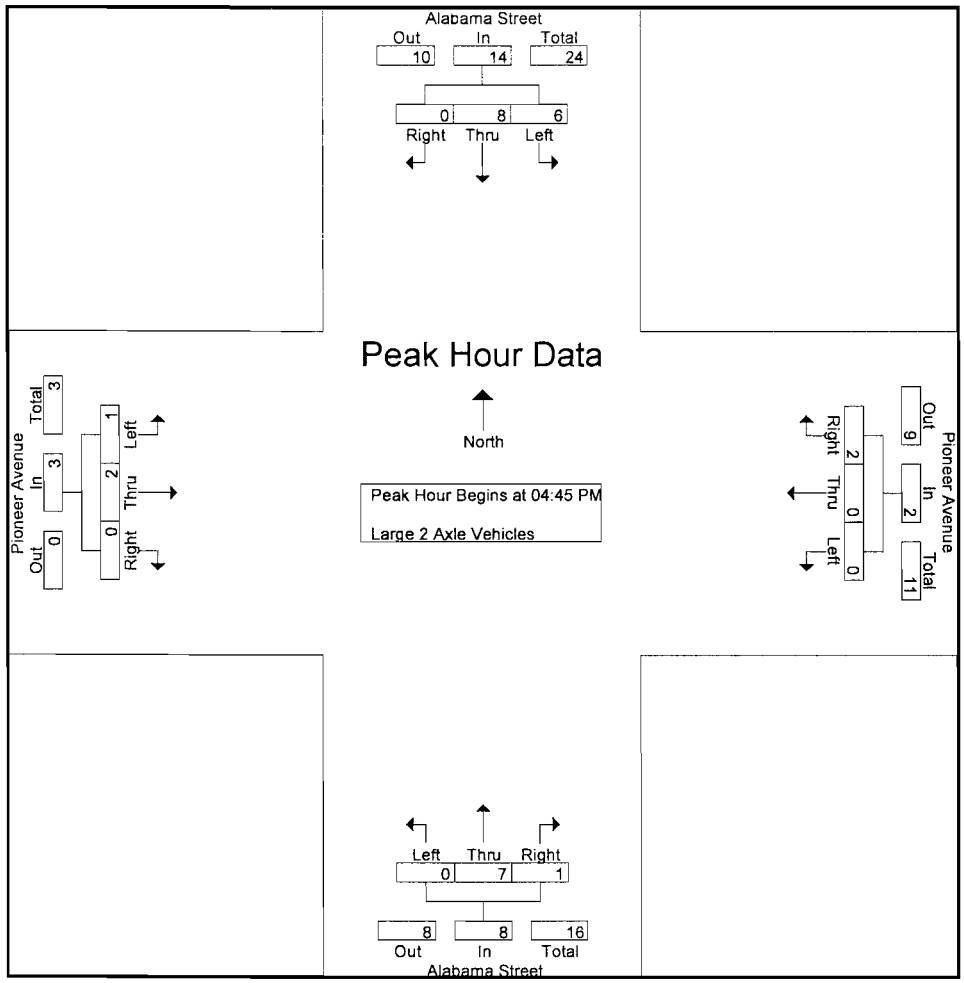

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	1	0	0	1	0	0	0	0	0	**2**	0	2	**1**	0	0	**1**
+15 mins.	**3**	**3**	0	**6**	0	0	**1**	**1**	0	2	**1**	**3**	0	0	0	0
+30 mins.	2	3	0	5	0	0	0	0	0	2	0	2	0	**1**	0	1
+45 mins.	0	2	0	2	0	0	1	1	0	1	0	1	0	1	0	1
Total Volume	6	8	0	14	0	0	2	2	0	7	1	8	1	2	0	3
% App. Total	42.9	57.1	0		0	0	100		0	87.5	12.5		33.3	66.7	0	
PHF	.500	.667	.000	.583	.000	.000	.500	.500	.000	.875	.250	.667	.250	.500	.000	.750

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Site Code : 00000125
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Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	1	1	2	4
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	3	0	3	0	0	0	0	1	1	0	2	0	1	2	3	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
Grand Total	0	4	0	4	0	0	0	0	1	2	0	3	0	1	3	4	11
Apprch %	0	100	0		0	0	0		33.3	66.7	0		0	25	75		
Total %	0	36.4	0	36.4	0	0	0	0	9.1	18.2	0	27.3	0	9.1	27.3	36.4	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	**1**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
05:15 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	1	3
% App. Total	0	100	0		0	0	0		100	0	0		0	0	100		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	.750

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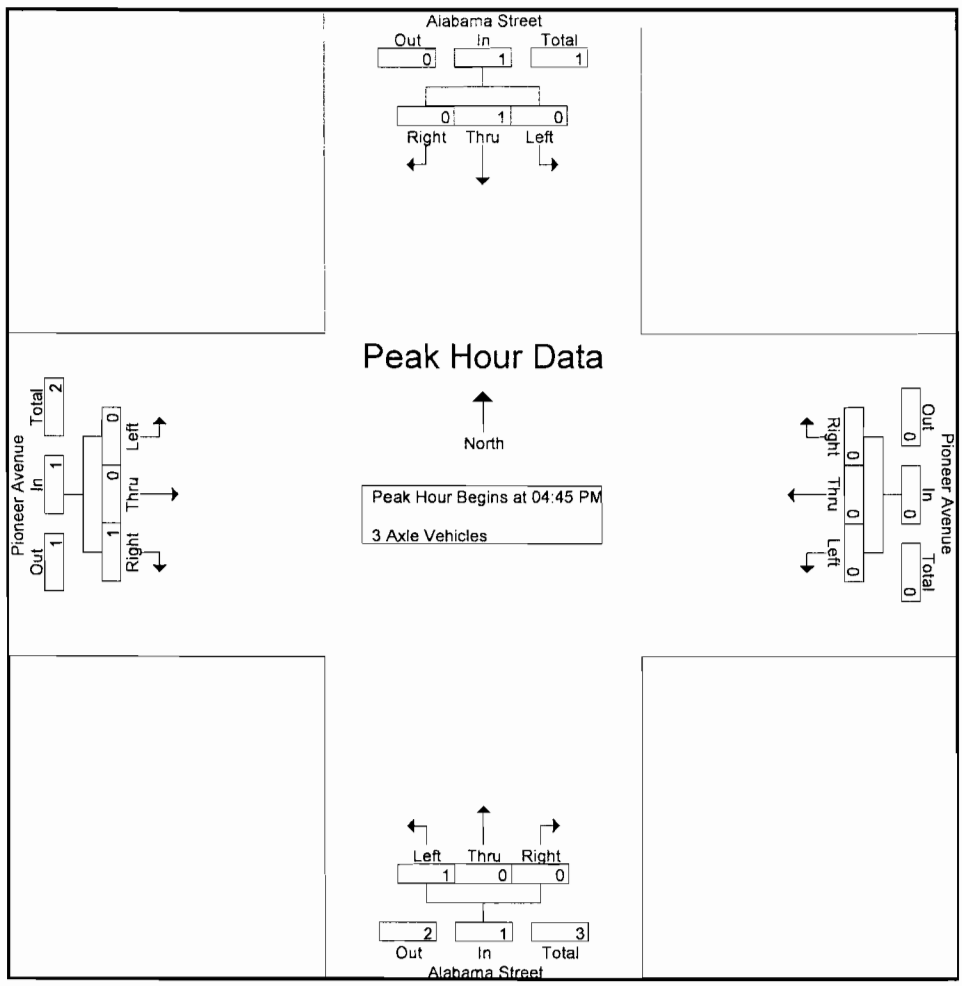
City of Redlands
N/S: Alabama Street
E/W: Pioneer Avenue
Weather: Sunny

File Name : REDALPIPM
Site Code : 00000125
Start Date : 10/16/2012



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	1	0	0	1	0	0	1	1
% App. Total	0	100	0		0	0	0		100	0	0		0	0	100	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250

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City of Redlands
N/S: Alabama Street
E/W: Pioneer Avenue
Weather: Sunny

File Name . REDALPIPM
Site Code . 00000125
Start Date . 10/16/2012
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Groups Printed- 4+ Axle trucks

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	3	0	3	0	0	0	0	1	4	0	5	1	0	0	1	9
04:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
04:30 PM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
04:45 PM	0	3	0	3	0	0	0	0	1	3	0	4	0	0	1	1	8
Total	0	9	0	9	0	0	0	0	2	10	0	12	1	0	2	3	24
05:00 PM	0	2	1	3	0	0	0	0	0	1	0	1	1	0	0	1	5
05:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	2	2	5
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	5	1	6	0	0	0	0	0	4	0	4	1	0	2	3	13
Grand Total	0	14	1	15	0	0	0	0	2	14	0	16	2	0	4	6	37
Apprch %	0	93.3	6.7		0	0	0		12.5	87.5	0		33.3	0	66.7		
Total %	0	37.8	2.7	40.5	0	0	0	0	5.4	37.8	0	43.2	5.4	0	10.8	16.2	

	Alabama Street Southbound				Pioneer Avenue Westbound				Alabama Street Northbound				Pioneer Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**3**	0	**3**	0	0	0	0	**1**	**3**	0	**4**	0	0	1	1	**8**
05:00 PM	0	2	**1**	3	0	0	0	0	0	1	0	1	**1**	0	0	1	5
05:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	**2**	**2**	5
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	7	1	8	0	0	0	0	1	6	0	7	1	0	3	4	19
% App. Total	0	87.5	12.5		0	0	0		14.3	85.7	0		25	0	75		
PHF	.000	.583	.250	.667	.000	.000	.000	.000	.250	.500	.000	.438	.250	.000	.375	.500	.594

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City of Redlands
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Weather: Sunny

File Name . REDALPIPM
Site Code : 00000125
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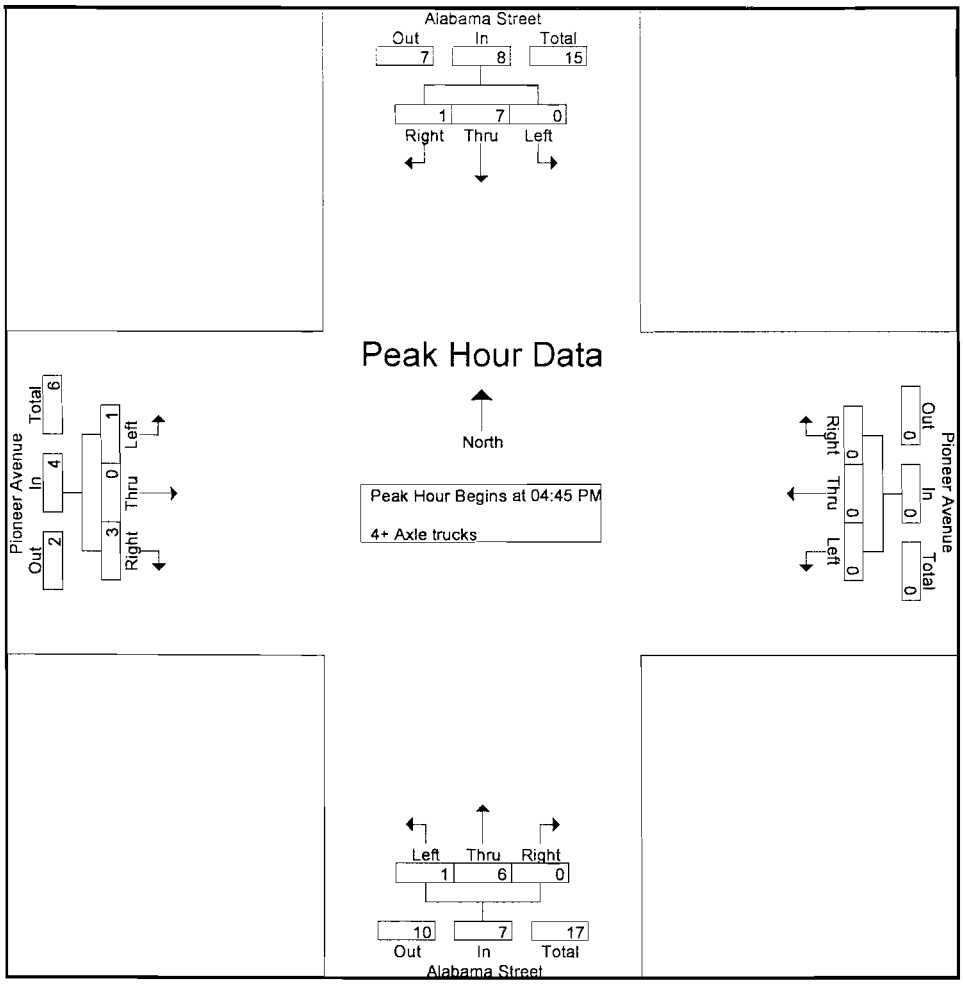

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	**3**	0	**3**	0	0	0	0	**1**	**3**	0	**4**	0	0	1	1
+15 mins.	0	2	**1**	3	0	0	0	0	0	1	0	1	**1**	0	0	1
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	**2**	**2**
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	7	1	8	0	0	0	0	1	6	0	7	1	0	3	4
% App. Total	0	87.5	12.5		0	0	0		14.3	85.7	0		25	0	75	
PHF	.000	.583	.250	.667	.000	.000	.000	.000	.250	.500	.000	.438	.250	.000	.375	.500

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City of San Bernardino
N/S: Alabama Street
E/W: San Bernardino Avenue
Weather: Sunny

File Name : SBCALSBAM
Site Code : 11286009
Start Date : 11/29/2011
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	47	16	69	29	81	72	182	22	27	6	55	14	22	4	40	346
07:15 AM	11	61	38	110	46	105	32	183	26	27	11	64	6	27	5	38	395
07:30 AM	11	70	29	110	48	99	12	159	21	24	11	56	6	18	8	32	357
07:45 AM	13	88	50	151	45	114	12	171	25	28	16	69	6	28	8	42	433
Total	41	266	133	440	168	399	128	695	94	106	44	244	32	95	25	152	1531
08:00 AM	9	42	19	70	38	76	12	126	14	43	12	69	8	36	9	53	318
08:15 AM	4	48	16	68	33	77	9	119	14	29	14	57	7	36	19	62	306
08:30 AM	6	52	12	70	45	58	9	112	11	32	13	56	5	22	4	31	269
08:45 AM	8	61	18	87	50	62	6	118	9	38	17	64	8	23	9	40	309
Total	27	203	65	295	166	273	36	475	48	142	56	246	28	117	41	186	1202
Grand Total	68	469	198	735	334	672	164	1170	142	248	100	490	60	212	66	338	2733
Apprch %	9.3	63.8	26.9		28.5	57.4	14		29	50.6	20.4		17.8	62.7	19.5		
Total %	2.5	17.2	7.2	26.9	12.2	24.6	6	42.8	5.2	9.1	3.7	17.9	2.2	7.8	2.4	12.4	
Passenger Vehicles	53	402	181	636	290	596	136	1022	128	199	81	408	51	166	49	266	2332
% Passenger Vehicles	77.9	85.7	91.4	86.5	86.8	88.7	82.9	87.4	90.1	80.2	81	83.3	85	78.3	74.2	78.7	85.3
Large 2 Axle Vehicles	12	48	15	75	44	68	23	135	14	30	17	61	7	37	11	55	326
% Large 2 Axle Vehicles	17.6	10.2	7.6	10.2	13.2	10.1	14	11.5	9.9	12.1	17	12.4	11.7	17.5	16.7	16.3	11.9
3 Axle Vehicles	1	8	2	11	0	4	2	6	0	1	0	1	0	4	2	6	24
% 3 Axle Vehicles	1.5	1.7	1	1.5	0	0.6	1.2	0.5	0	0.4	0	0.2	0	1.9	3	1.8	0.9
4+ Axle Trucks	2	11	0	13	0	4	3	7	0	18	2	20	2	5	4	11	51
% 4+ Axle Trucks	2.9	2.3	0	1.8	0	0.6	1.8	0.6	0	7.3	2	4.1	3.3	2.4	6.1	3.3	1.9

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	47	16	69	29	81	**72**	182	22	27	6	55	**14**	22	4	40	346
07:15 AM	11	61	38	110	46	105	32	**183**	**26**	27	11	64	6	27	5	38	395
07:30 AM	11	70	29	110	**48**	99	12	159	21	24	11	56	6	18	**8**	32	357
07:45 AM	**13**	**88**	**50**	**151**	45	**114**	12	171	25	**28**	**16**	**69**	6	**28**	8	**42**	**433**
Total Volume	41	266	133	440	168	399	128	695	94	106	44	244	32	95	25	152	1531
% App. Total	9.3	60.5	30.2		24.2	57.4	18.4		38.5	43.4	18		21.1	62.5	16.4		
PHF	.788	.756	.665	.728	.875	.875	.444	.949	.904	.946	.688	.884	.571	.848	.781	.905	.884

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City of San Bernardino
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Weather: Sunny

File Name SBCALSBAM
Site Code . 11286009
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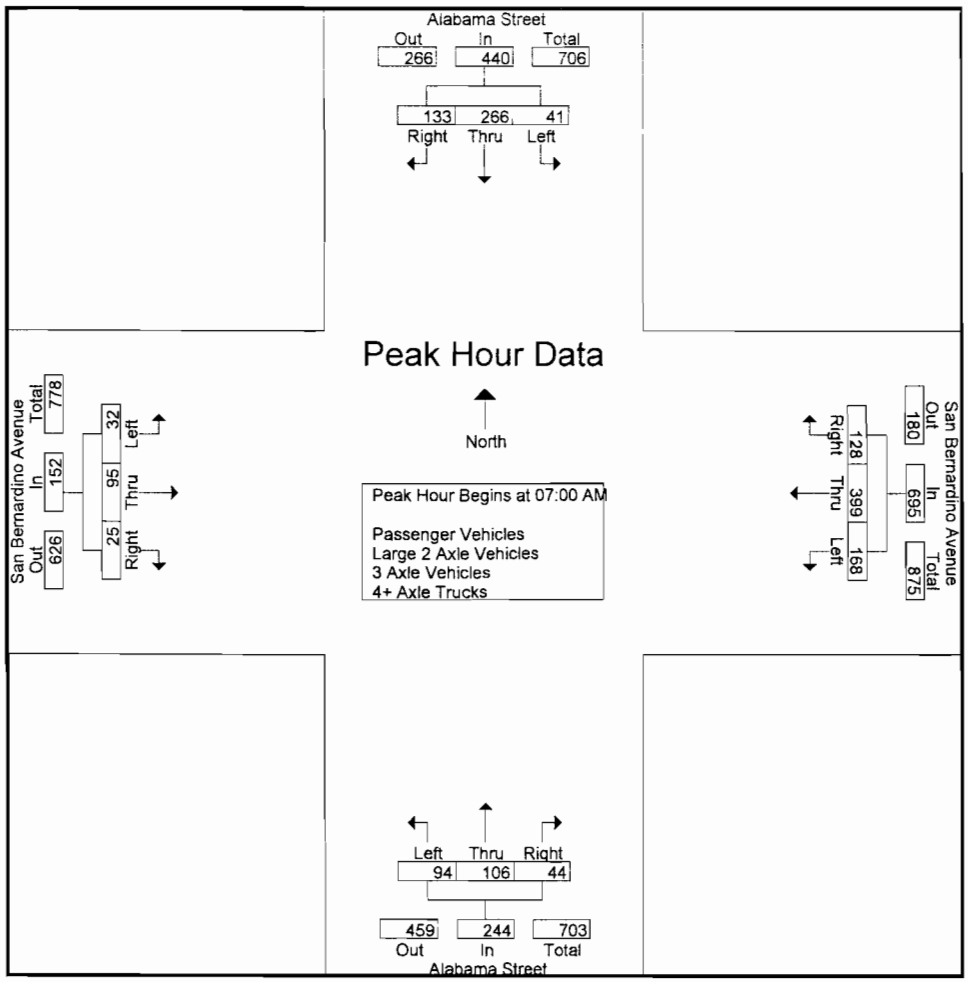

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:15 AM				07:30 AM			
+0 mins.	11	61	38	110	29	81	**72**	182	**26**	27	11	64	6	18	8	32
+15 mins.	11	70	29	110	46	105	32	**183**	21	24	11	56	6	28	8	42
+30 mins.	**13**	**88**	**50**	**151**	**48**	99	12	159	25	28	**16**	**69**	**8**	**36**	9	53
+45 mins.	9	42	19	70	45	**114**	12	171	14	**43**	12	69	7	36	**19**	**62**
Total Volume	44	261	136	441	168	399	128	695	86	122	50	258	27	118	44	189
% App. Total	10	59.2	30.8		24.2	57.4	18.4		33.3	47.3	19.4		14.3	62.4	23.3	
PHF	.846	.741	.680	.730	.875	.875	.444	.949	.827	.709	.781	.935	.844	.819	.579	.762

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File Name : SBCALSBAM
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Groups Printed- Passenger Vehicles

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	40	14	60	24	75	64	163	20	26	4	50	14	16	4	34	307
07:15 AM	9	53	37	99	37	89	26	152	23	24	10	57	5	19	4	28	336
07:30 AM	8	59	27	94	45	92	9	146	20	21	8	49	4	11	4	19	308
07:45 AM	10	78	46	134	39	99	10	148	21	24	10	55	6	27	5	38	375
Total	33	230	124	387	145	355	109	609	84	95	32	211	29	73	17	119	1326
08:00 AM	8	35	16	59	34	72	10	116	12	31	8	51	7	31	8	46	272
08:15 AM	1	41	15	57	28	69	7	104	13	25	13	51	5	29	15	49	261
08:30 AM	6	41	11	58	35	50	6	91	10	23	12	45	3	16	4	23	217
08:45 AM	5	55	15	75	48	50	4	102	9	25	16	50	7	17	5	29	256
Total	20	172	57	249	145	241	27	413	44	104	49	197	22	93	32	147	1006
Grand Total	53	402	181	636	290	596	136	1022	128	199	81	408	51	166	49	266	2332
Apprch %	8.3	63.2	28.5		28.4	58.3	13.3		31.4	48.8	19.9		19.2	62.4	18.4		
Total %	2.3	17.2	7.8	27.3	12.4	25.6	5.8	43.8	5.5	8.5	3.5	17.5	2.2	7.1	2.1	11.4	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	40	14	60	24	75	**64**	**163**	20	**26**	4	50	**14**	16	4	34	307
07:15 AM	9	53	37	99	37	89	26	152	**23**	24	**10**	**57**	5	19	4	28	336
07:30 AM	8	59	27	94	**45**	92	9	146	20	21	8	49	4	11	4	19	308
07:45 AM	**10**	**78**	**46**	**134**	39	**99**	10	148	21	24	10	55	6	**27**	**5**	**38**	**375**
Total Volume	33	230	124	387	145	355	109	609	84	95	32	211	29	73	17	119	1326
% App. Total	8.5	59.4	32		23.8	58.3	17.9		39.8	45	15.2		24.4	61.3	14.3		
PHF	.825	.737	.674	.722	.806	.896	.426	.934	.913	.913	.800	.925	.518	.676	.850	.783	.884

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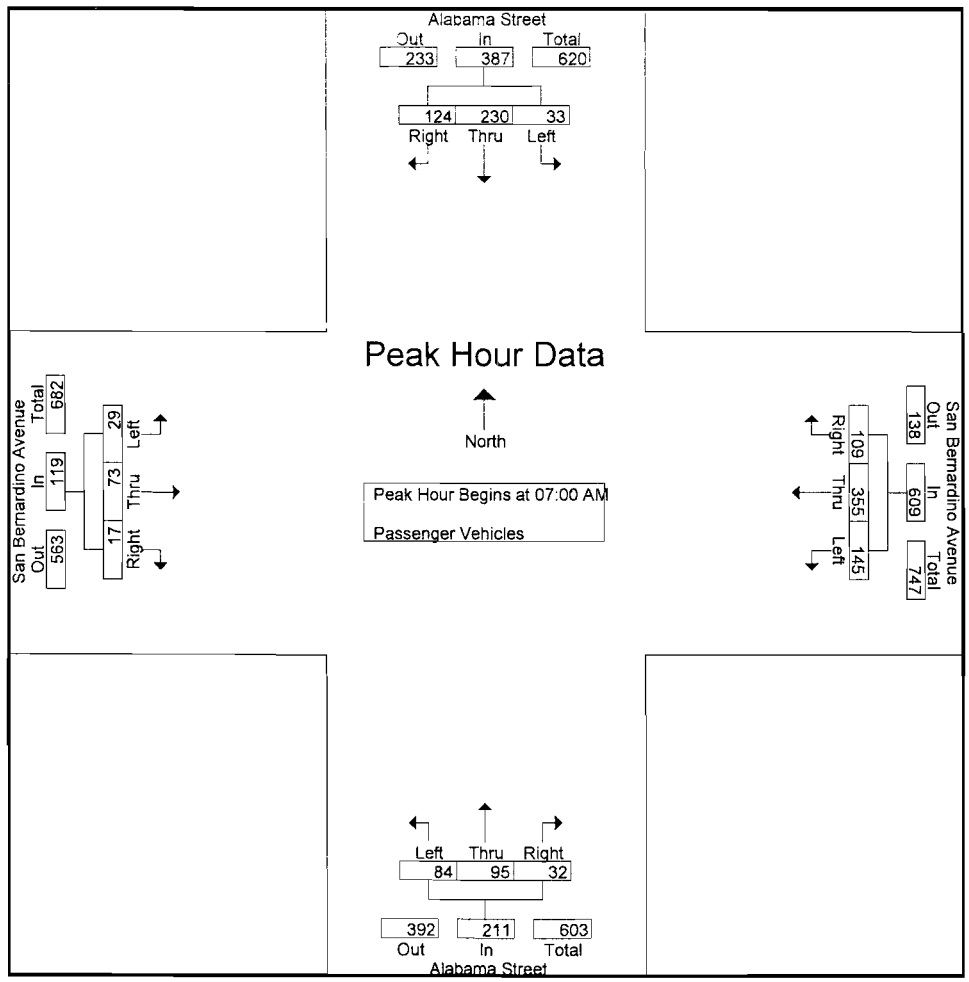

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	6	40	14	60	24	75	**64**	**163**	20	**26**	4	50	**14**	16	4	34
+15 mins.	9	53	37	99	37	89	26	152	**23**	24	**10**	**57**	5	19	4	28
+30 mins.	8	59	27	94	**45**	92	9	146	20	21	8	49	4	11	4	19
+45 mins.	**10**	**78**	**46**	**134**	39	**99**	10	148	21	24	10	55	6	**27**	**5**	**38**
Total Volume	33	230	124	387	145	355	109	609	84	95	32	211	29	73	17	119
% App. Total	8.5	59.4	32		23.8	58.3	17.9		39.8	45	15.2		24.4	61.3	14.3	
PHF	.825	.737	.674	.722	.806	.896	.426	.934	.913	.913	.800	.925	.518	.676	.850	.783

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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	2	5	5	6	8	19	2	0	1	3	0	5	0	5	32
07:15 AM	1	5	1	7	9	15	6	30	3	3	0	6	1	4	1	6	49
07:30 AM	3	10	2	15	3	5	1	9	1	3	3	7	2	6	2	10	41
07:45 AM	3	8	4	15	6	15	2	23	4	2	6	12	0	1	1	2	52
Total	7	26	9	42	23	41	17	81	10	8	10	28	3	16	4	23	174
08:00 AM	1	7	3	11	4	3	1	8	2	7	4	13	1	5	1	7	39
08:15 AM	2	3	1	6	5	8	1	14	1	3	1	5	1	6	3	10	35
08:30 AM	0	7	1	8	10	6	3	19	1	4	1	6	1	5	0	6	39
08:45 AM	2	5	1	8	2	10	1	13	0	8	1	9	1	5	3	9	39
Total	5	22	6	33	21	27	6	54	4	22	7	33	4	21	7	32	152
Grand Total	12	48	15	75	44	68	23	135	14	30	17	61	7	37	11	55	326
Apprch %	16	64	20		32.6	50.4	17		23	49.2	27.9		12.7	67.3	20		
Total %	3.7	14.7	4.6	23	13.5	20.9	7.1	41.4	4.3	9.2	5.2	18.7	2.1	11.3	3.4	16.9	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	3	2	5	5	6	**8**	19	2	0	1	3	0	5	0	5	32
07:15 AM	1	5	1	7	**9**	**15**	6	**30**	3	**3**	0	6	1	4	1	6	49
07:30 AM	**3**	**10**	2	**15**	3	5	1	9	1	3	3	7	**2**	**6**	**2**	**10**	41
07:45 AM	3	8	**4**	15	6	15	2	23	**4**	2	**6**	**12**	0	1	1	2	**52**
Total Volume	7	26	9	42	23	41	17	81	10	8	10	28	3	16	4	23	174
% App. Total	16.7	61.9	21.4		28.4	50.6	21		35.7	28.6	35.7		13	69.6	17.4		
PHF	.583	.650	.563	.700	.639	.683	.531	.675	.625	.667	.417	.583	.375	.667	.500	.575	.837

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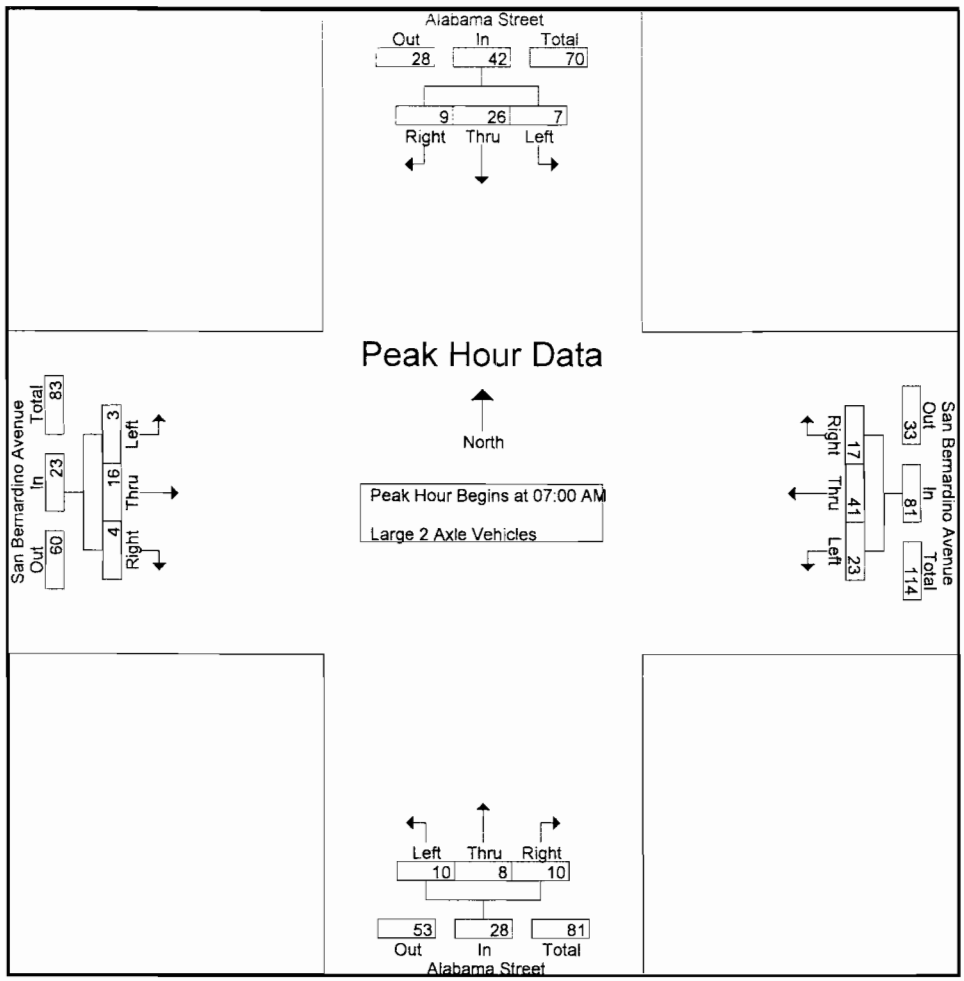

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	3	2	5	5	6	**8**	19	2	0	1	3	0	5	0	5
+15 mins.	1	5	1	7	**9**	**15**	6	**30**	3	**3**	0	6	1	4	1	6
+30 mins.	**3**	**10**	2	**15**	3	5	1	9	1	3	3	7	**2**	**6**	**2**	**10**
+45 mins.	3	8	**4**	15	6	15	2	23	**4**	2	**6**	**12**	0	1	1	2
Total Volume	7	26	9	42	23	41	17	81	10	8	10	28	3	16	4	23
% App. Total	16.7	61.9	21.4		28.4	50.6	21		35.7	28.6	35.7		13	69.6	17.4	
PHF	.583	.650	.563	.700	.639	.683	.531	.675	.625	.667	.417	.583	.375	.667	.500	.575

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Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
07:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	2	0	2	4
07:30 AM	0	1	0	1	0	1	0	1	0	0	0	0	0	1	2	3	5
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	6	0	6	0	1	0	1	0	0	0	0	0	4	2	6	13
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	1	1	0	2	0	0	1	1	0	0	0	0	0	0	0	0	3
08:30 AM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
08:45 AM	0	0	2	2	0	1	1	2	0	0	0	0	0	0	0	0	4
Total	1	2	2	5	0	3	2	5	0	1	0	1	0	0	0	0	11
Grand Total	1	8	2	11	0	4	2	6	0	1	0	1	0	4	2	6	24
Apprch %	9.1	72.7	18.2		0	66.7	33.3		0	100	0		0	66.7	33.3		
Total %	4.2	33.3	8.3	45.8	0	16.7	8.3	25	0	4.2	0	4.2	0	16.7	8.3	25	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	1	0	1	3
07:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	**2**	0	2	4
07:30 AM	0	1	0	1	0	**1**	0	**1**	0	0	0	0	0	1	**2**	**3**	**5**
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	6	0	6	0	1	0	1	0	0	0	0	0	4	2	6	13
% App. Total	0	100	0		0	100	0		0	0	0		0	66.7	33.3		
PHF	.000	.750	.000	.750	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.250	.500	.650

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File Name : SBCALSBAM
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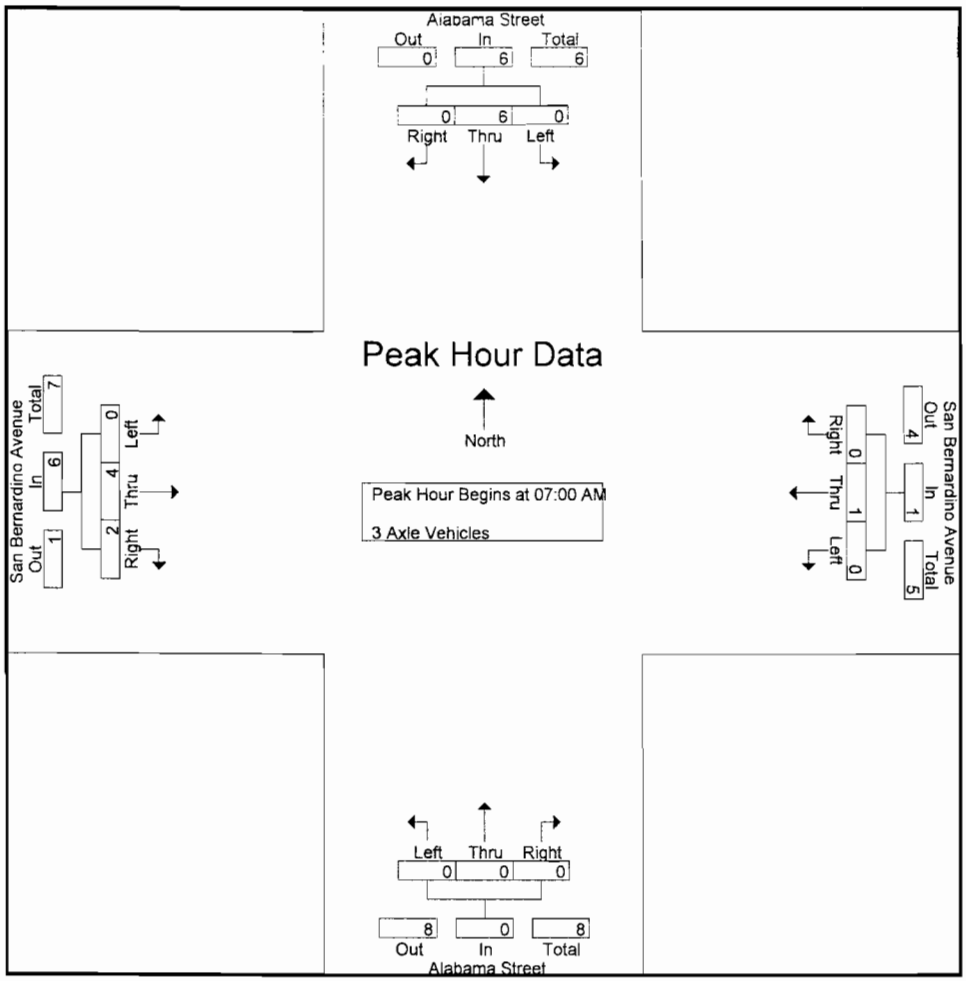

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	**2**	0	2
+30 mins.	0	1	0	1	0	**1**	0	**1**	0	0	0	0	0	1	**2**	**3**
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	6	0	6	0	1	0	1	0	0	0	0	0	4	2	6
% App. Total	0	100	0		0	100	0		0	0	0		0	66.7	33.3	
PHF	.000	.750	.000	.750	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.250	.500

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Groups Printed- 4+ Axle Trucks

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
07:15 AM	1	1	0	2	0	1	0	1	0	0	1	1	0	2	0	2	6
07:30 AM	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	3
07:45 AM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	2	2	5
Total	1	4	0	5	0	2	2	4	0	3	2	5	0	2	2	4	18
08:00 AM	0	0	0	0	0	1	1	2	0	4	0	4	0	0	0	0	6
08:15 AM	0	3	0	3	0	0	0	0	0	1	0	1	1	1	1	3	7
08:30 AM	0	3	0	3	0	0	0	0	0	5	0	5	1	1	0	2	10
08:45 AM	1	1	0	2	0	1	0	1	0	5	0	5	0	1	1	2	10
Total	1	7	0	8	0	2	1	3	0	15	0	15	2	3	2	7	33
Grand Total	2	11	0	13	0	4	3	7	0	18	2	20	2	5	4	11	51
Apprch %	15.4	84.6	0		0	57.1	42.9		0	90	10		18.2	45.5	36.4		
Total %	3.9	21.6	0	25.5	0	7.8	5.9	13.7	0	35.3	3.9	39.2	3.9	9.8	7.8	21.6	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**2**	0	**2**	0	0	0	0	0	1	**1**	**2**	0	0	0	0	4
07:15 AM	**1**	1	0	2	0	**1**	0	1	0	0	1	1	0	**2**	0	**2**	**6**
07:30 AM	0	0	0	0	0	1	**2**	**3**	0	0	0	0	0	0	0	0	3
07:45 AM	0	1	0	1	0	0	0	0	0	**2**	0	2	0	0	**2**	2	5
Total Volume	1	4	0	5	0	2	2	4	0	3	2	5	0	2	2	4	18
% App. Total	20	80	0		0	50	50		0	60	40		0	50	50		
PHF	.250	.500	.000	.625	.000	.500	.250	.333	.000	.375	.500	.625	.000	.250	.250	.500	.750

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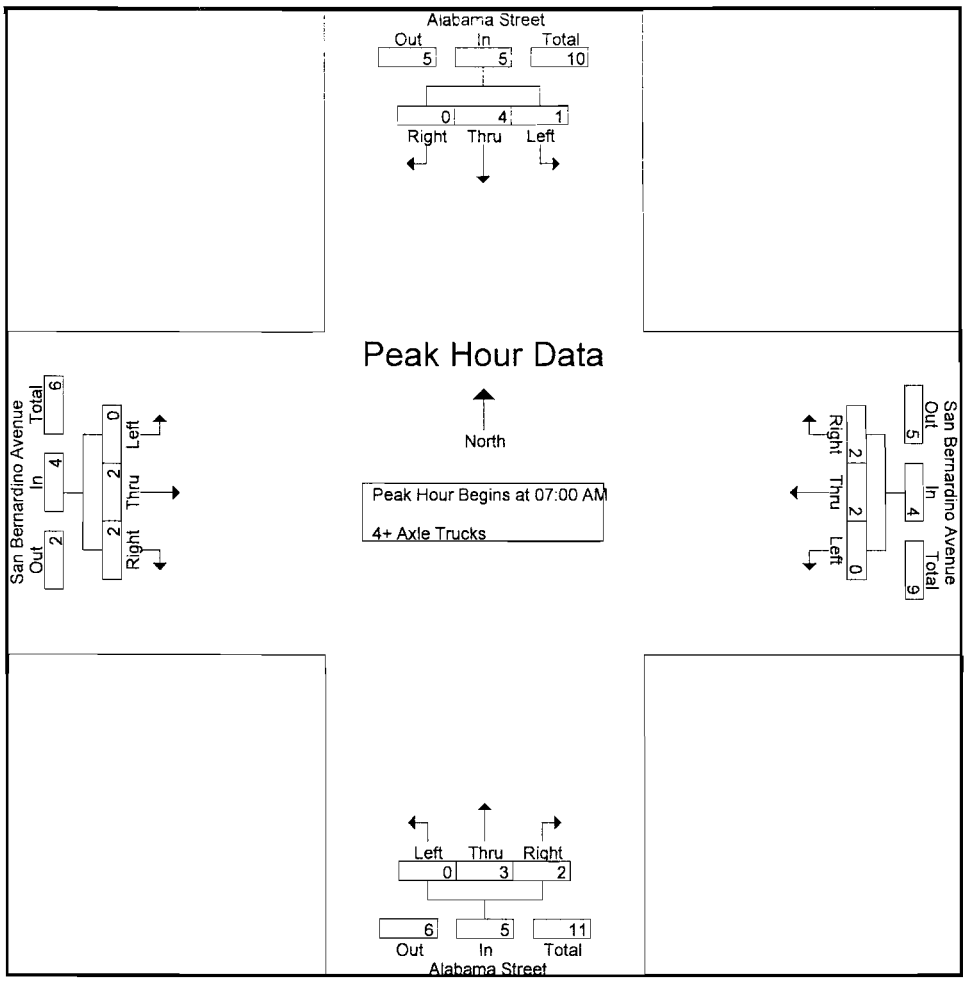

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	**2**	0	**2**	0	0	0	0	0	1	**1**	**2**	0	0	0	0
+15 mins.	**1**	1	0	2	0	**1**	0	1	0	0	1	1	0	**2**	0	**2**
+30 mins.	0	0	0	0	0	1	**2**	**3**	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	**2**	0	2	0	0	**2**	2
Total Volume	1	4	0	5	0	2	2	4	0	3	2	5	0	2	2	4
% App. Total	20	80	0		0	50	50		0	60	40		0	50	50	
PHF	.250	.500	.000	.625	.000	.500	.250	.333	.000	.375	.500	.625	.000	.250	.250	.500

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	10	66	7	83	37	29	10	76	10	72	48	130	14	107	15	136	425
04:15 PM	13	78	24	115	41	38	6	85	7	100	41	148	13	103	34	150	498
04:30 PM	27	94	6	127	29	33	17	79	7	96	46	149	25	97	19	141	496
04:45 PM	20	90	20	130	46	41	4	91	7	97	49	153	29	93	36	158	532
Total	70	328	57	455	153	141	37	331	31	365	184	580	81	400	104	585	1951
05:00 PM	14	80	11	105	28	31	16	75	11	112	65	188	37	119	22	178	546
05:15 PM	21	115	22	158	38	34	36	108	1	86	38	125	34	119	26	179	570
05:30 PM	16	94	17	127	45	40	33	118	10	90	53	153	42	86	20	148	546
05:45 PM	16	88	12	116	31	19	22	72	9	69	44	122	19	54	20	93	403
Total	67	377	62	506	142	124	107	373	31	357	200	588	132	378	88	598	2065
Grand Total	137	705	119	961	295	265	144	704	62	722	384	1168	213	778	192	1183	4016
Apprch %	14.3	73.4	12.4		41.9	37.6	20.5		5.3	61.8	32.9		18	65.8	16.2		
Total %	3.4	17.6	3	23.9	7.3	6.6	3.6	17.5	1.5	18	9.6	29.1	5.3	19.4	4.8	29.5	
Passenger Vehicles	123	645	109	877	268	242	124	634	60	660	367	1087	196	709	180	1085	3683
% Passenger Vehicles	89.8	91.5	91.6	91.3	90.8	91.3	86.1	90.1	96.8	91.4	95.6	93.1	92	91.1	93.8	91.7	91.7
Large 2 Axle Vehicles	10	32	6	48	27	21	12	60	1	38	17	56	16	61	10	87	251
% Large 2 Axle Vehicles	7.3	4.5	5	5	9.2	7.9	8.3	8.5	1.6	5.3	4.4	4.8	7.5	7.8	5.2	7.4	6.2
3 Axle Vehicles	0	2	1	3	0	1	0	1	0	3	0	3	0	0	0	0	7
% 3 Axle Vehicles	0	0.3	0.8	0.3	0	0.4	0	0.1	0	0.4	0	0.3	0	0	0	0	0.2
4+ Axle Trucks	4	26	3	33	0	1	8	9	1	21	0	22	1	8	2	11	75
% 4+ Axle Trucks	2.9	3.7	2.5	3.4	0	0.4	5.6	1.3	1.6	2.9	0	1.9	0.5	1	1	0.9	1.9

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	20	90	20	130	**46**	**41**	4	91	7	97	49	153	29	93	**36**	158	532
05:00 PM	14	80	11	105	28	31	16	75	**11**	**112**	**65**	**188**	37	**119**	22	178	546
05:15 PM	**21**	**115**	**22**	**158**	38	34	**36**	108	1	86	38	125	34	119	26	**179**	**570**
05:30 PM	16	94	17	127	45	40	33	**118**	10	90	53	153	**42**	86	20	148	546
Total Volume	71	379	70	520	157	146	89	392	29	385	205	619	142	417	104	663	2194
% App. Total	13.7	72.9	13.5		40.1	37.2	22.7		4.7	62.2	33.1		21.4	62.9	15.7		
PHF	.845	.824	.795	.823	.853	.890	.618	.831	.659	.859	.788	.823	.845	.876	.722	.926	.962

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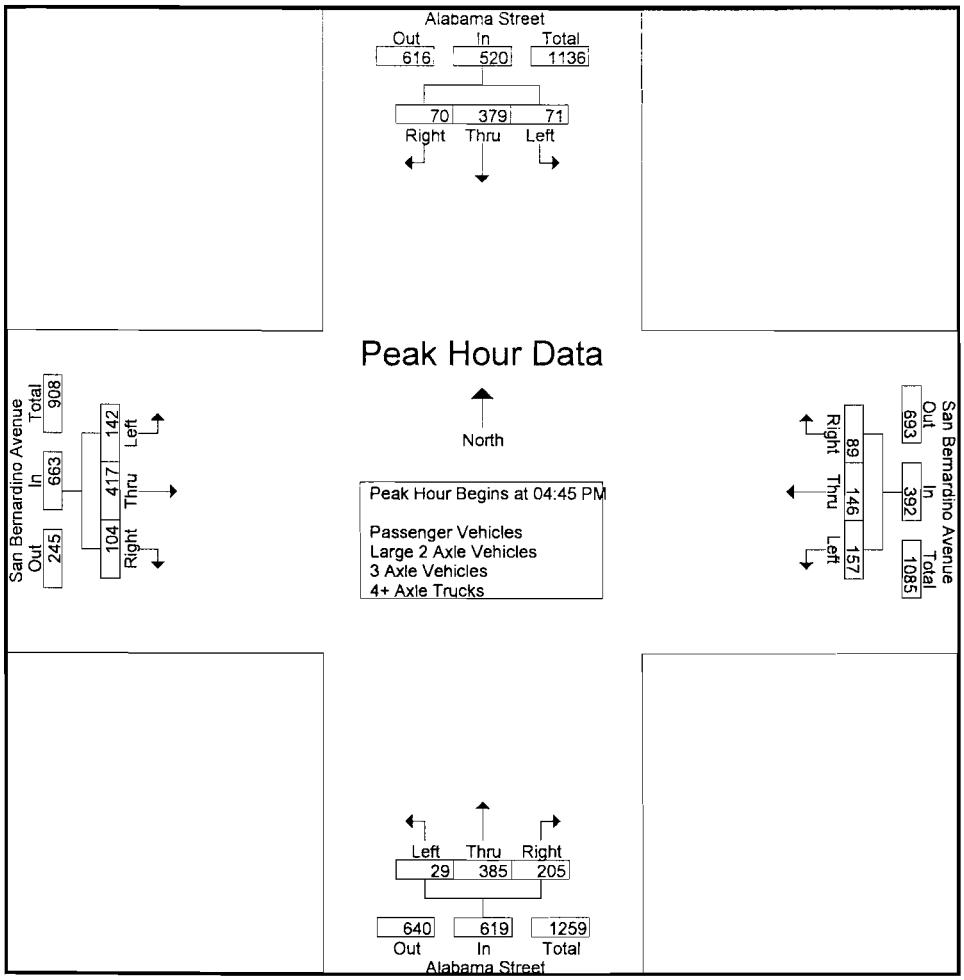

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM				04:45 PM				04:15 PM				04:45 PM			
+0 mins.	**27**	94	6	127	**46**	**41**	4	91	7	100	41	148	29	93	**36**	158
+15 mins.	20	90	20	130	28	31	16	75	7	96	46	149	37	**119**	22	178
+30 mins.	14	80	11	105	38	34	**36**	108	7	97	49	153	34	119	26	**179**
+45 mins.	21	**115**	**22**	**158**	45	40	33	**118**	**11**	**112**	**65**	**188**	**42**	86	20	148
Total Volume	82	379	59	520	157	146	89	392	32	405	201	638	142	417	104	663
% App. Total	15.8	72.9	11.3		40.1	37.2	22.7		5	63.5	31.5		21.4	62.9	15.7	
PHF	.759	.824	.670	.823	.853	.890	.618	.831	.727	.904	.773	.848	.845	.876	.722	.926

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Groups Printed- Passenger Vehicles

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	8	54	7	69	34	25	8	67	10	61	44	115	14	96	15	125	376
04:15 PM	11	70	22	103	36	31	5	72	7	91	37	135	13	88	29	130	440
04:30 PM	22	85	3	110	26	31	14	71	6	89	43	138	20	90	18	128	447
04:45 PM	19	86	20	125	44	39	2	85	6	89	48	143	25	77	31	133	486
Total	60	295	52	407	140	126	29	295	29	330	172	531	72	351	93	516	1749
05:00 PM	12	73	10	95	28	29	13	70	11	103	65	179	33	112	22	167	511
05:15 PM	21	110	22	153	36	31	33	100	1	81	35	117	32	113	25	170	540
05:30 PM	15	87	13	115	40	38	28	106	10	80	53	143	41	82	20	143	507
05:45 PM	15	80	12	107	24	18	21	63	9	66	42	117	18	51	20	89	376
Total	63	350	57	470	128	116	95	339	31	330	195	556	124	358	87	569	1934
Grand Total	123	645	109	877	268	242	124	634	60	660	367	1087	196	709	180	1085	3683
Apprch %	14	73.5	12.4		42.3	38.2	19.6		5.5	60.7	33.8		18.1	65.3	16.6		
Total %	3.3	17.5	3	23.8	7.3	6.6	3.4	17.2	1.6	17.9	10	29.5	5.3	19.3	4.9	29.5	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	19	86	20	125	**44**	**39**	2	85	6	89	48	143	25	77	**31**	133	486
05:00 PM	12	73	10	95	28	29	13	70	**11**	**103**	**65**	**179**	33	112	22	167	511
05:15 PM	**21**	**110**	**22**	**153**	36	31	**33**	100	1	81	35	117	32	**113**	25	**170**	**540**
05:30 PM	15	87	13	115	40	38	28	**106**	10	80	53	143	**41**	82	20	143	507
Total Volume	67	356	65	488	148	137	76	361	28	353	201	582	131	384	98	613	2044
% App. Total	13.7	73	13.3		41	38	21.1		4.8	60.7	34.5		21.4	62.6	16		
PHF	.798	.809	.739	.797	.841	.878	.576	.851	.636	.857	.773	.813	.799	.850	.790	.901	.946

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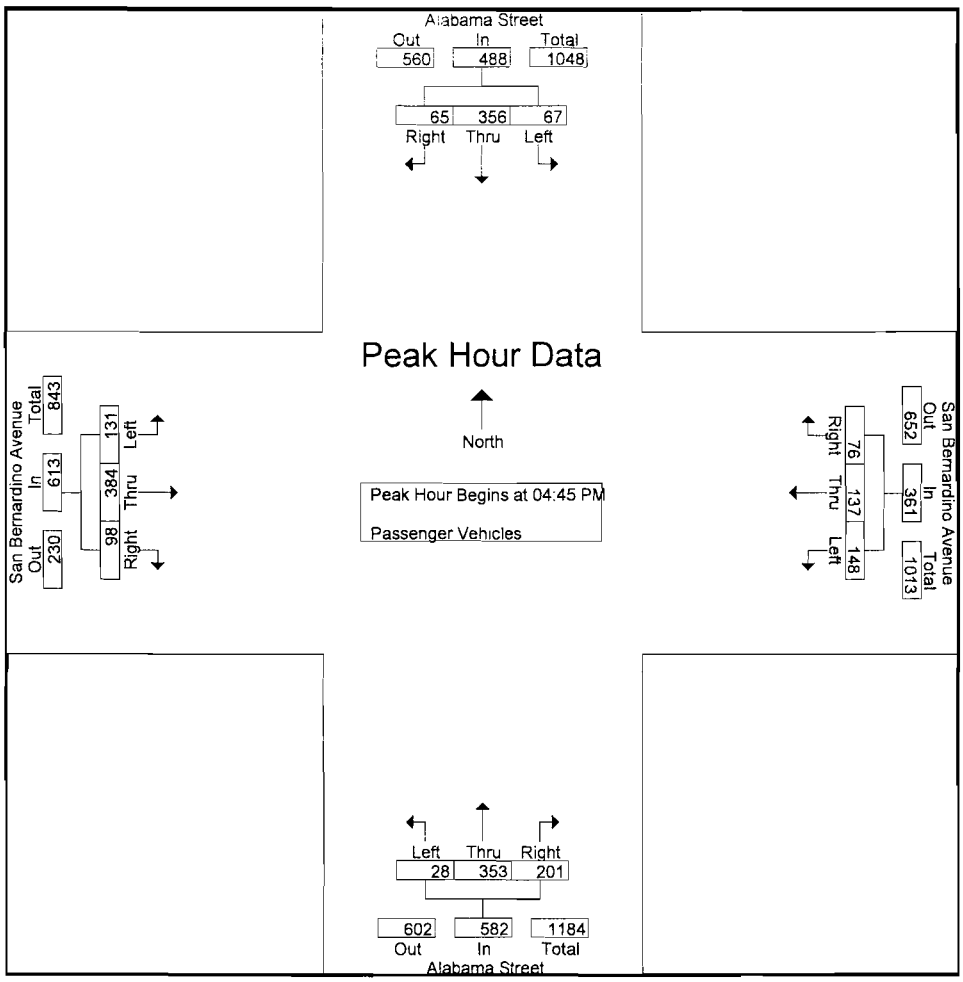

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	19	86	20	125	**44**	**39**	2	85	6	89	48	143	25	77	**31**	133
+15 mins.	12	73	10	95	28	29	13	70	**11**	**103**	**65**	**179**	33	112	22	167
+30 mins.	**21**	**110**	**22**	**153**	36	31	**33**	100	1	81	35	117	32	**113**	25	**170**
+45 mins.	15	87	13	115	40	38	28	**106**	10	80	53	143	**41**	82	20	143
Total Volume	67	356	65	488	148	137	76	361	28	353	201	582	131	384	98	613
% App. Total	13.7	73	13.3		41	38	21.1		4.8	60.7	34.5		21.4	62.6	16	
PHF	.798	.809	.739	.797	.841	.878	.576	.851	.636	.857	.773	.813	.799	.850	.790	.901

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Groups Printed- Large 2 Axle Vehicles

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	7	0	8	3	3	2	8	0	8	4	12	0	9	0	9	37
04:15 PM	1	6	1	8	5	6	1	12	0	4	4	8	0	14	4	18	46
04:30 PM	4	2	2	8	3	2	2	7	0	5	3	8	5	6	1	12	35
04:45 PM	1	2	0	3	2	2	1	5	1	6	1	8	4	14	4	22	38
Total	7	17	3	27	13	13	6	32	1	23	12	36	9	43	9	61	156
05:00 PM	2	4	1	7	0	2	1	3	0	7	0	7	3	6	0	9	26
05:15 PM	0	4	0	4	2	3	1	6	0	2	3	5	2	6	1	9	24
05:30 PM	1	4	2	7	5	2	4	11	0	4	0	4	1	3	0	4	26
05:45 PM	0	3	0	3	7	1	0	8	0	2	2	4	1	3	0	4	19
Total	3	15	3	21	14	8	6	28	0	15	5	20	7	18	1	26	95
Grand Total	10	32	6	48	27	21	12	60	1	38	17	56	16	61	10	87	251
Apprch %	20.8	66.7	12.5		45	35	20		1.8	67.9	30.4		18.4	70.1	11.5		
Total %	4	12.7	2.4	19.1	10.8	8.4	4.8	23.9	0.4	15.1	6.8	22.3	6.4	24.3	4	34.7	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	2	0	3	2	2	1	5	**1**	6	1	**8**	**4**	**14**	**4**	**22**	**38**
05:00 PM	**2**	**4**	1	7	0	2	1	3	0	**7**	0	7	3	6	0	9	26
05:15 PM	0	4	0	4	2	**3**	1	6	0	2	**3**	5	2	6	1	9	24
05:30 PM	1	4	**2**	7	**5**	2	**4**	**11**	0	4	0	4	1	3	0	4	26
Total Volume	4	14	3	21	9	9	7	25	1	19	4	24	10	29	5	44	114
% App. Total	19	66.7	14.3		36	36	28		4.2	79.2	16.7		22.7	65.9	11.4		
PHF	.500	.875	.375	.750	.450	.750	.438	.568	.250	.679	.333	.750	.625	.518	.313	.500	.750

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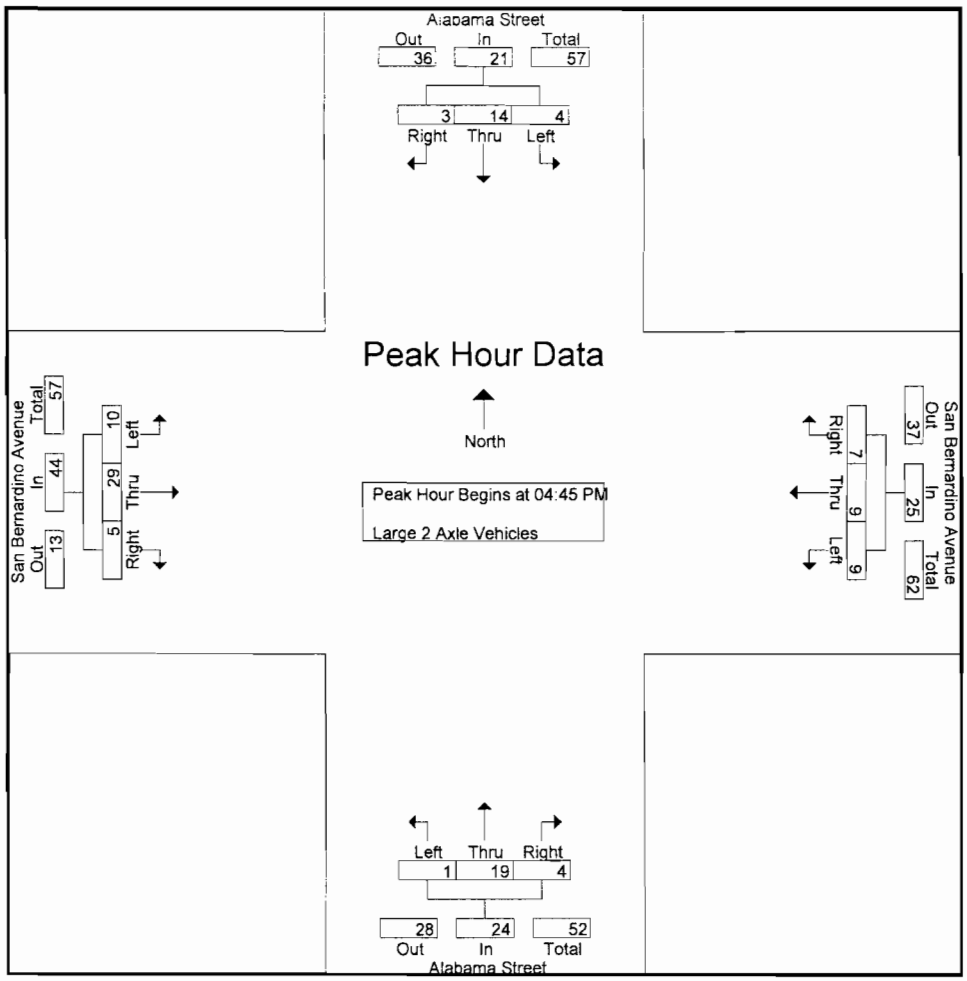

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	1	2	0	3	2	2	1	5	**1**	6	1	**8**	**4**	**14**	**4**	**22**
+15 mins.	**2**	**4**	1	**7**	0	2	1	3	0	**7**	0	7	3	6	0	9
+30 mins.	0	4	0	4	2	**3**	1	6	0	2	**3**	5	2	6	1	9
+45 mins.	1	4	**2**	7	**5**	2	**4**	**11**	0	4	0	4	1	3	0	4
Total Volume	4	14	3	21	9	9	7	25	1	19	4	24	10	29	5	44
% App. Total	19	66.7	14.3		36	36	28		4.2	79.2	16.7		22.7	65.9	11.4	
PHF	.500	.875	.375	.750	.450	.750	.438	.568	.250	.679	.333	.750	.625	.518	.313	.500

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Groups Printed- 3 Axle Vehicles

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	1	3	0	1	0	1	0	1	0	1	0	0	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Grand Total	0	2	1	3	0	1	0	1	0	3	0	3	0	0	0	0	7
Apprch %	0	66.7	33.3		0	100	0		0	100	0		0	0	0		
Total %	0	28.6	14.3	42.9	0	14.3	0	14.3	0	42.9	0	42.9	0	0	0	0	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**2**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.375

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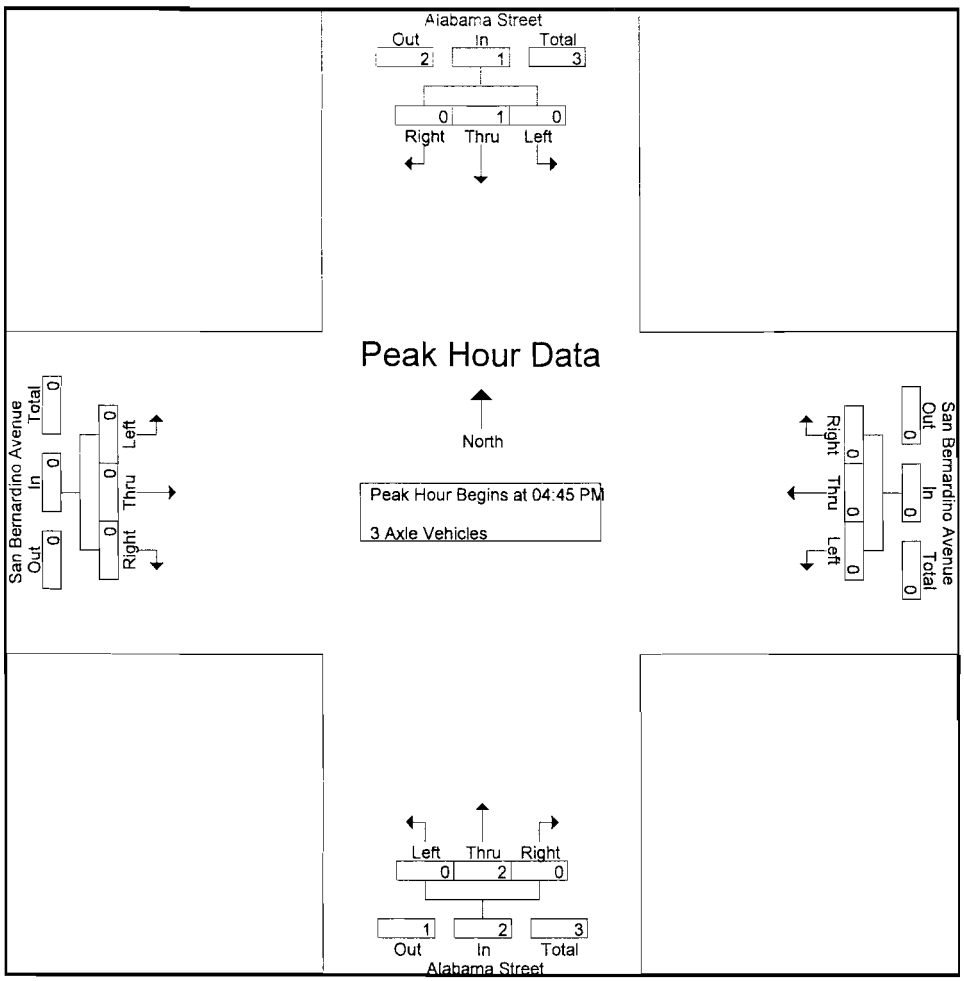

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

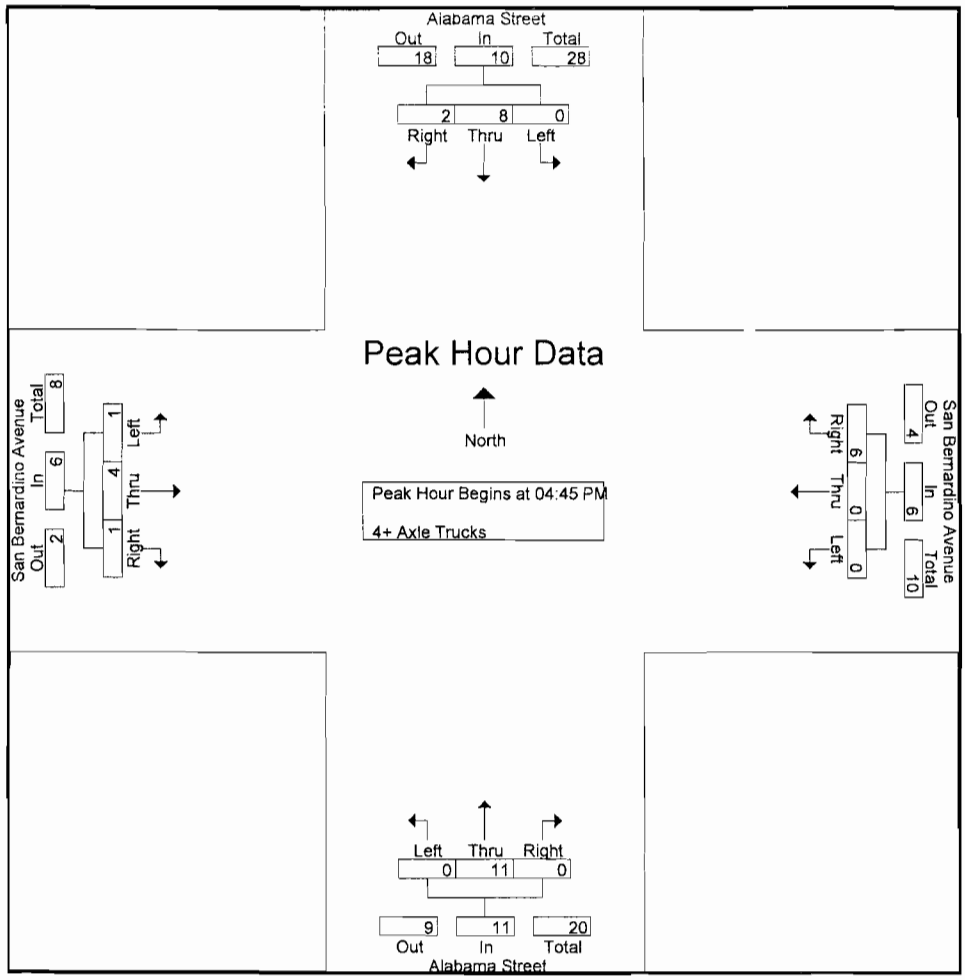
	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	5	0	6	0	0	0	0	0	3	0	3	0	2	0	2	11
04:15 PM	1	2	0	3	0	1	0	1	0	4	0	4	0	1	1	2	10
04:30 PM	1	6	1	8	0	0	1	1	1	2	0	3	0	1	0	1	13
04:45 PM	0	1	0	1	0	0	1	1	0	2	0	2	0	2	1	3	7
Total	3	14	1	18	0	1	2	3	1	11	0	12	0	6	2	8	41
05:00 PM	0	3	0	3	0	0	2	2	0	2	0	2	1	1	0	2	9
05:15 PM	0	1	0	1	0	0	2	2	0	1	0	1	0	0	0	0	4
05:30 PM	0	3	2	5	0	0	1	1	0	6	0	6	0	1	0	1	13
05:45 PM	1	5	0	6	0	0	1	1	0	1	0	1	0	0	0	0	8
Total	1	12	2	15	0	0	6	6	0	10	0	10	1	2	0	3	34
Grand Total	4	26	3	33	0	1	8	9	1	21	0	22	1	8	2	11	75
Apprch %	12.1	78.8	9.1		0	11.1	88.9		4.5	95.5	0		9.1	72.7	18.2		
Total %	5.3	34.7	4	44	0	1.3	10.7	12	1.3	28	0	29.3	1.3	10.7	2.7	14.7	

	Alabama Street Southbound				San Bernardino Avenue Westbound				Alabama Street Northbound				San Bernardino Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	1	0	1	0	0	1	1	0	2	0	2	0	**2**	**1**	**3**	7
05:00 PM	0	**3**	0	3	0	0	**2**	**2**	0	2	0	2	**1**	1	0	2	9
05:15 PM	0	1	0	1	0	0	2	2	0	1	0	1	0	0	0	0	4
05:30 PM	0	3	**2**	**5**	0	0	1	1	0	**6**	0	**6**	0	1	0	1	**13**
Total Volume	0	8	2	10	0	0	6	6	0	11	0	11	1	4	1	6	33
% App. Total	0	80	20		0	0	100		0	100	0		16.7	66.7	16.7		
PHF	.000	.667	.250	.500	.000	.000	.750	.750	.000	.458	.000	.458	.250	.500	.250	.500	.635

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of San Bernardino
N/S: Alabama Street
E/W: San Bernardino Avenue
Weather: Sunny

File Name : SBCALSBPM
Site Code : 11286009
Start Date : 11/29/2011
Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	0	1	0	1	0	0	1	1	0	2	0	2	0	**2**	**1**	**3**
+15 mins.	0	**3**	0	3	0	0	**2**	**2**	0	2	0	2	**1**	1	0	2
+30 mins.	0	1	0	1	0	0	2	2	0	1	0	1	0	0	0	0
+45 mins.	0	3	**2**	**5**	0	0	1	1	0	**6**	0	**6**	0	1	0	1
Total Volume	0	8	2	10	0	0	6	6	0	11	0	11	1	4	1	6
% App. Total	0	80	20		0	0	100		0	100	0		16.7	66.7	16.7	
PHF	.000	.667	.250	.500	.000	.000	.750	.750	.000	.458	.000	.458	.250	.500	.250	.500

APPENDIX C

Future Growth Increment Calculation Worksheets

INTERSECTION	LEG	MODEL 2000 ADT	EXISTING **2012** ADT	MODEL 2030 ADT	FUTURE **2035** ADT[1]	OPENING **2014** ADT
Alabama Street (NS) / Riverbluff Avenue (EW)	North	4,364	**12,800**	25,083	28,700	14,200
	South	4,364	**13,100**	25,083	29,000	14,500
	East	-	**700**	-	800	700
	West	-	**-**	-	-	-
Alabama Street (NS) / Palmetto Avenue (EW)	North	4,364	**12,600**	25,083	28,500	14,000
	South	4,364	**12,000**	21,080	24,800	13,100
	East	-	**-**	-	-	-
	West	-	**1,100**	5,067	5,000	1,400
Alabama Street (NS) / Pioneer Avenue (EW)	North	4,384	**12,800**	19,218	24,200	13,800
	South	4,659	**11,400**	22,286	24,900	12,600
	East	659	**3,500**	6,355	7,900	3,900
	West	30	**1,400**	3,458	4,000	1,600
Alabama Street (NS) / San Bernardino Avenue (EW)	North	4,659	**14,100**	22,286	27,600	15,300
	South	6,714	**15,300**	24,854	29,200	16,500
	East	4,417	**13,100**	18,845	24,200	14,100
	West	2,745	**11,000**	21,311	25,200	12,200

[1] Adjusted for minimum 10% growth over existing average daily traffic volumes for Year 2035.

ALABAMA STREET (NS) / RIVERBLUFF AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

			0	662	4			
			<	v	>			
		0 ^				^	1	
		0 >				<	0	
		0 v				v	1	
			<	^	>			
			0	318	2			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

				666	319			
				v	^			
			0 <	IN =	988	<	2	
			0 >	OUT =	988	>	6	
				v	^			
				663	320			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	84	3			
			<	v	>			
		0 ^				^	9	
		0 >				<	0	
		0 v				v	27	
PCE FACTORS BY AXLE:			<	^	>			
2: 1.5 3: 2.0 4+: 3.0			0	69	24			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

			0	746	7			
			<	v	>			
		0 ^				^	10	
		0 >				<	0	
		0 v				v	28	
			<	^	>			
			0	387	26			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				746	292			
				v	^			
			0 <	IN =	1038	<	0	
			0 >	OUT =	1038	>	0	
				v	^			
				746	292			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				18	2			
				v	^			
			0 <	IN =	20	<	0	
			0 >	OUT =	20	>	0	
				v	^			
				18	2			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38				289	112			
PHF FOR TRUCKS: 0.333				v	^			
			0 <	IN =	401	<	0	
			0 >	OUT =	401	>	0	
				v	^			
				289	112			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				5087	1018			
				v	^			
			0 <	IN =	6105	<	0	
			0 >	OUT =	6105	>	0	
				v	^			
				5087	1018			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				99	192			
				v	^			
			0 <	IN =	291	<	0	
			0 >	OUT =	291	>	0	
				v	^			
				99	192			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38				1966	451			
PHF FOR TRUCKS: 0.333				v	^			
			0 <	IN =	2417	<	0	
			0 >	OUT =	2417	>	0	
				v	^			
				1966	451			

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

				1690	371			
				v	^			
			0 <			<	0	
			0 >			>	0	
				v	^			
				1690	371			

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

				1690	370			
				v	^			
			0 <	IN =	2060	<	0	
			0 >	OUT =	2060	>	0	
				v	^			
				1690	370			

FUTURE YEAR GROWTH: 2012 TO 2014

2 YEARS

				110	20			
				v	^			
			0 <			<	0	
			0 >			>	0	
				v	^			
				110	20			

INITIAL FUTURE YEAR VOLUMES:

2014

				860	420			
				v	^			
			0 <	IN =	1330	<	40	
			0 >	OUT =	1330	>	30	
				v	^			
				880	430			

BALANCED FUTURE YEAR VOLUMES:

2014

				860	420			
				v	^			
			0 <	IN =	1330	<	40	
			0 >	OUT =	1330	>	30	
				v	^			
				880	430			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

			0	469	1			
			<	v	>			
		0 ^				^	8	
		0 >				<	0	
		0 v				v	9	
			<	^	>			
			0	590	5			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

				470	598			
				v	^			
			0 <	IN =	1082	<	17	
			0 >	OUT =	1082	>	6	
				v	^			
				478	595			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	29	3			
			<	v	>			
		0 ^				^	6	
		0 >				<	0	
		0 v				v	13	
PCE FACTORS BY AXLE:			<	^	>			
2: 1.5 3: 2 4+: 3.0			0	11	15			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

			0	498	4			
			<	v	>			
		0 ^				^	14	
		0 >				<	0	
		0 v				v	22	
			<	^	>			
			0	601	20			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				719	1368			
				v	^			
			0 <	IN =	2087	<	0	
			0 >	OUT =	2087	>	0	
				v	^			
				719	1368			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

				53	4			
				v	^			
			0 <	IN =	57	<	0	
			0 >	OUT =	57	>	0	
				v	^			
				53	4			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28				215	384			
PHF FOR TRUCKS: 0.25				v	^			
			0 <	IN =	599	<	0	
			0 >	OUT =	599	>	0	
				v	^			
				215	384			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				3385	7869			
				v	^			
			0 <	IN =	11254	<	0	
			0 >	OUT =	11254	>	0	
				v	^			
				3385	7869			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				121	102			
				v	^			
			0 <	IN =	223	<	0	
			0 >	OUT =	223	>	0	
				v	^			
				121	102			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS. 0.28				978	2229			
PHF FOR TRUCKS: 0.25				v	^			
			0 <	IN =	3207	<	0	
			0 >	OUT =	3207	>	0	
				v	^			
				978	2229			

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

				772	1857			
				v	^			
			0 <			<	0	
			0 >			>	0	
				v	^			
				772	1857			

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

				770	1860			
				v	^			
			0 <	IN =	2630	<	0	
			0 >	OUT =	2630	>	0	
				v	^			
				770	1860			

FUTURE YEAR GROWTH: 2012 TO 2014

2 YEARS

				50	120			
				v	^			
			0 <			<	0	
			0 >			>	0	
				v	^			
				50	120			

INITIAL FUTURE YEAR VOLUMES:

2014

				550	740			
				v	^			
			0 <	IN =	1330	<	40	
			0 >	OUT =	1330	>	20	
				v	^			
				570	740			

BALANCED FUTURE YEAR VOLUMES:

2014

				550	740			
				v	^			
			0 <	IN =	1330	<	40	
			0 >	OUT =	1330	>	20	
				v	^			
				570	740			

ALABAMA STREET (NS) / RIVERBLUFF AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2014) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	**0**	SOUTH LEG		NORTH BOUND	LEFT	**0**	SOUTH LEG	
	THRU	**387**	IN ...	**430**		THRU	**601**	IN ...	**740**
	RIGHT	**26**	OUT ...	**880**		RIGHT	**20**	OUT ...	**570**
SOUTH BOUND	LEFT	**7**	NORTH LEG		SOUTH BOUND	LEFT	**4**	NORTH LEG	
	THRU	**746**	IN ...	**860**		THRU	**498**	IN ...	**550**
	RIGHT	**0**	OUT ...	**420**		RIGHT	**0**	OUT ...	**740**
EAST BOUND	LEFT	**0**	WEST LEG		EAST BOUND	LEFT	**0**	WEST LEG	
	THRU	**0**	IN ...	**0**		THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
WEST BOUND	LEFT	**28**	EAST LEG		WEST BOUND	LEFT	**22**	EAST LEG	
	THRU	**0**	IN ...	**40**		THRU	**0**	IN ...	**40**
	RIGHT	**10**	OUT ...	**30**		RIGHT	**14**	OUT ...	**20**

OPENING YEAR (2014) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	**0**	**0**	NORTH LEG	NORTH BOUND	LEFT	**0**	**0**	NORTH LEG
	THRU	**387**	**409**	RATIO **9.0%**		THRU	**601**	**724**	RATIO **9.1%**
	RIGHT	**26**	**27**	ADT 14,200		RIGHT	**20**	**21**	ADT 14,200
SOUTH BOUND	LEFT	**7**	**7**	SOUTH LEG	SOUTH BOUND	LEFT	**4**	**5**	SOUTH LEG
	THRU	**746**	**851**	RATIO **9.1%**		THRU	**498**	**546**	RATIO **9.1%**
	RIGHT	**0**	**0**	ADT 14,500		RIGHT	**0**	**0**	ADT 14,500
EAST BOUND	LEFT	**0**	**0**	EAST LEG	EAST BOUND	LEFT	**0**	**0**	EAST LEG
	THRU	**0**	**0**	RATIO **10.6%**		THRU	**0**	**0**	RATIO **9.4%**
	RIGHT	**0**	**0**	ADT 700		RIGHT	**0**	**0**	ADT 700
WEST BOUND	LEFT	**28**	**29**	WEST LEG	WEST BOUND	LEFT	**22**	**24**	WEST LEG
	THRU	**0**	**0**	RATIO **#DIV/0!**		THRU	**0**	**0**	RATIO **#DIV/0!**
	RIGHT	**10**	**11**	ADT 0		RIGHT	**14**	**16**	ADT 0

ALABAMA STREET (NS) / RIVERBLUFF AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				0	662	4			
				<	v	>			
		0	^				^	1	
		0	>				<	0	
		0	v				v	1	
				<	^	>			
				0	318	2			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					666	319			
					v	^			
		0	<	IN =		988	<	2	
		0	>	OUT =		988	>	6	
					v	^			
					663	320			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				0	84	3			
				<	v	>			
		0	^				^	9	
		0	>				<	0	
		0	v				v	27	

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

				<	^	>			
				0	69	24			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				0	746	7			
				<	v	>			
		0	^				^	10	
		0	>				<	0	
		0	v				v	28	
				<	^	>			
				0	387	26			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					746	292			
					v	^			
		0	<	IN =		1038	<	0	
		0	>	OUT =		1038	>	0	
					v	^			
					746	292			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					18	2			
					v	^			
		0	<	IN =		20	<	0	
		0	>	OUT =		20	>	0	
					v	^			
					18	2			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					289	112			
					v	^			
		0	<	IN =		401	<	0	
		0	>	OUT =		401	>	0	
					v	^			
					289	112			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					5087	1018			
					v	^			
		0	<	IN =		6105	<	0	
		0	>	OUT =		6105	>	0	
					v	^			
					5087	1018			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					99	192			
					v	^			
		0	<	IN =		291	<	0	
		0	>	OUT =		291	>	0	
					v	^			
					99	192			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					1966	451			
					v	^			
		0	<	IN =		2417	<	0	
		0	>	OUT =		2417	>	0	
					v	^			
					1966	451			

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					1690	371			
					v	^			
		0	<				<	0	
		0	>				>	0	
					v	^			
					1690	371			

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					1690	370			
					v	^			
		0	<	IN =		2060	<	0	
		0	>	OUT =		2060	>	0	
					v	^			
					1690	370			

FUTURE YEAR GROWTH: 2012 TO 2035

23 YEARS

					1300	280			
					v	^			
		0	<				<	0	
		0	>				>	0	
					v	^			
					1300	280			

INITIAL FUTURE YEAR VOLUMES:

2035

					2050	680			
					v	^			
		0	<	IN =		2780	<	40	
		0	>	OUT =		2780	>	30	
					v	^			
					2070	690			

BALANCED FUTURE YEAR VOLUMES:

2035

					2050	680			
					v	^			
		0	<	IN =		2780	<	40	
		0	>	OUT =		2780	>	30	
					v	^			
					2070	690			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				0	469	1			
				<	v	>			
		0	^				^	8	
		0	>				<	0	
		0	v				v	9	
				<	^	>			
				0	590	5			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					470	598			
					v	^			
		0	<	IN =		1082	<	17	
		0	>	OUT =		1082	>	6	
					v	^			
					478	595			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				0	29	3			
				<	v	>			
		0	^				^	6	
		0	>				<	0	
		0	v				v	13	

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

				<	^	>			
				0	11	15			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				0	498	4			
				<	v	>			
		0	^				^	14	
		0	>				<	0	
		0	v				v	22	
				<	^	>			
				0	601	20			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					719	1368			
					v	^			
		0	<	IN =		2087	<	0	
		0	>	OUT =		2087	>	0	
					v	^			
					719	1368			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

					53	4			
					v	^			
		0	<	IN =		57	<	0	
		0	>	OUT =		57	>	0	
					v	^			
					53	4			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					215	384			
					v	^			
		0	<	IN =		599	<	0	
		0	>	OUT =		599	>	0	
					v	^			
					215	384			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3385	7869			
					v	^			
		0	<	IN =		11254	<	0	
		0	>	OUT =		11254	>	0	
					v	^			
					3385	7869			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					121	102			
					v	^			
		0	<	IN =		223	<	0	
		0	>	OUT =		223	>	0	
					v	^			
					121	102			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					978	2229			
					v	^			
		0	<	IN =		3207	<	0	
		0	>	OUT =		3207	>	0	
					v	^			
					978	2229			

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					772	1857			
					v	^			
		0	<				<	0	
		0	>				>	0	
					v	^			
					772	1857			

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					770	1860			
					v	^			
		0	<	IN =		2630	<	0	
		0	>	OUT =		2630	>	0	
					v	^			
					770	1860			

FUTURE YEAR GROWTH: 2012 TO 2035

23 YEARS

					590	1430			
					v	^			
		0	<				<	0	
		0	>				>	0	
					v	^			
					590	1430			

INITIAL FUTURE YEAR VOLUMES:

2035

					1090	2050			
					v	^			
		0	<	IN =		3180	<	40	
		0	>	OUT =		3180	>	20	
					v	^			
					1110	2050			

BALANCED FUTURE YEAR VOLUMES:

2035

					1090	2050			
					v	^			
		0	<	IN =		3180	<	40	
		0	>	OUT =		3180	>	20	
					v	^			
					1110	2050			

ALABAMA STREET (NS) / RIVERBLUFF AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	**0**	SOUTH LEG		NORTH BOUND	LEFT	**0**	SOUTH LEG	
	THRU	**387**	IN ...	**690**		THRU	**601**	IN ...	**2,050**
	RIGHT	**26**	OUT ...	**2,070**		RIGHT	**20**	OUT ...	**1,110**
SOUTH BOUND	LEFT	**7**	NORTH LEG		SOUTH BOUND	LEFT	**4**	NORTH LEG	
	THRU	**746**	IN ...	**2,050**		THRU	**498**	IN ...	**1,090**
	RIGHT	**0**	OUT ...	**680**		RIGHT	**0**	OUT ...	**2,050**
EAST BOUND	LEFT	**0**	WEST LEG		EAST BOUND	LEFT	**0**	WEST LEG	
	THRU	**0**	IN ...	**0**		THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
WEST BOUND	LEFT	**28**	EAST LEG		WEST BOUND	LEFT	**22**	EAST LEG	
	THRU	**0**	IN ...	**40**		THRU	**0**	IN ...	**40**
	RIGHT	**10**	OUT ...	**30**		RIGHT	**14**	OUT ...	**20**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	**0**	**0**	NORTH LEG	NORTH BOUND	LEFT	**0**	**0**	NORTH LEG
	THRU	**387**	**669**	RATIO **9.5%**		THRU	**601**	**2,034**	RATIO **10.9%**
	RIGHT	**26**	**21**	ADT 28,700		RIGHT	**20**	**18**	ADT 28,700
SOUTH BOUND	LEFT	**7**	**9**	SOUTH LEG	SOUTH BOUND	LEFT	**4**	**2**	SOUTH LEG
	THRU	**746**	**2,041**	RATIO **9.5%**		THRU	**498**	**1,086**	RATIO **10.9%**
	RIGHT	**0**	**0**	ADT 29,000		RIGHT	**0**	**0**	ADT 29,000
EAST BOUND	LEFT	**0**	**0**	EAST LEG	EAST BOUND	LEFT	**0**	**0**	EAST LEG
	THRU	**0**	**0**	RATIO **8.8%**		THRU	**0**	**0**	RATIO **7.5%**
	RIGHT	**0**	**0**	ADT 800		RIGHT	**0**	**0**	ADT 800
WEST BOUND	LEFT	**28**	**29**	WEST LEG	WEST BOUND	LEFT	**22**	**24**	WEST LEG
	THRU	**0**	**0**	RATIO **#DIV/0!**		THRU	**0**	**0**	RATIO **#DIV/0!**
	RIGHT	**10**	**11**	ADT 0		RIGHT	**14**	**16**	ADT 0

ALABAMA STREET (NS) / PALMETTO AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				42	639	0		
				<	v	>		
		4	^				^	0
		0	>				<	0
		4	v				v	0
				<	^	>		
				6	320	0		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					681	324		
					v	^		
		48	<	IN =	1015	<		0
		8	>	OUT =	1015	>		0
					v	^		
					643	326		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				4	92	0		
				<	v	>		
		3	^				^	0
		0	>				<	0
		8	v				v	0

PCE FACTORS BY AXLE:

				<	^	>		
2:	1.5	3:	2.0	4+:	3.0	0	84	0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				46	731	0		
				<	v	>		
		7	^				^	0
		0	>				<	0
		12	v				v	0
				<	^	>		
				6	404	0		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					746	292		
					v	^		
		0	<	IN =	1038	<		0
		0	>	OUT =	1038	>		0
					v	^		
					746	292		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					18	2		
					v	^		
		0	<	IN =	20	<		0
		0	>	OUT =	20	>		0
					v	^		
					18	2		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					289	112		
					v	^		
		0	<	IN =	401	<		0
		0	>	OUT =	401	>		0
					v	^		
					289	112		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					5087	1018		
					v	^		
		1383	<	IN =	6278	<		0
		78	>	OUT =	6278	>		0
					v	^		
					3877	1113		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					99	192		
					v	^		
		0	<	IN =	291	<		0
		0	>	OUT =	291	>		0
					v	^		
					99	192		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					1966	451		
					v	^		
		526	<	IN =	2483	<		0
		30	>	OUT =	2483	>		0
					v	^		
					1506	487		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					1690	371		
					v	^		
		526	<			<		0
		30	>			>		0
					v	^		
					1230	407		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					1690	370		
					v	^		
		530	<	IN =	2130	<		0
		30	>	OUT =	2130	>		0
					v	^		
					1230	410		

FUTURE YEAR GROWTH: 2012 TO 2014

2 YEARS

					110	20		
					v	^		
		40	<			<		0
		0	>			>		0
					v	^		
					80	30		

INITIAL FUTURE YEAR VOLUMES:

2014

					890	430		
					v	^		
		90	<	IN =	1350	<		0
		20	>	OUT =	1340	>		0
					v	^		
					820	440		

BALANCED FUTURE YEAR VOLUMES:

2014

					890	430		
					v	^		
		90	<	IN =	1350	<		0
		20	>	OUT =	1350	>		0
					v	^		
					830	440		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				15	442	0		
				<	v	>		
		61	^				^	0
		0	>				<	0
		12	v				v	0
				<	^	>		
				5	522	0		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					457	583		
					v	^		
		20	<	IN =	1057	<		0
		73	>	OUT =	1057	>		0
					v	^		
					454	527		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				0	36	0		
				<	v	>		
		0	^				^	0
		0	>				<	0
		0	v				v	0

PCE FACTORS BY AXLE:

				<	^	>		
2	1.5	3:	2	4+:	3.0	2	23	0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				15	478	0		
				<	v	>		
		61	^				^	0
		0	>				<	0
		12	v				v	0
				<	^	>		
				7	545	0		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					719	1368		
					v	^		
		0	<	IN =	2087	<		0
		0	>	OUT =	2087	>		0
					v	^		
					719	1368		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

					53	4		
					v	^		
		0	<	IN =	57	<		0
		0	>	OUT =	57	>		0
					v	^		
					53	4		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					215	384		
					v	^		
		0	<	IN =	599	<		0
		0	>	OUT =	599	>		0
					v	^		
					215	384		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3385	7869		
					v	^		
		134	<	IN =	11456	<		0
		2352	>	OUT =	11454	>		0
					v	^		
					3451	5719		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					121	102		
					v	^		
		0	<	IN =	223	<		0
		0	>	OUT =	223	>		0
					v	^		
					121	102		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					978	2229		
					v	^		
		38	<	IN =	3263	<		0
		659	>	OUT =	3263	>		0
					v	^		
					997	1627		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					772	1857		
					v	^		
		38	<			<		0
		659	>			>		0
					v	^		
					790	1255		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					770	1860		
					v	^		
		40	<	IN =	2690	<		0
		660	>	OUT =	2690	>		0
					v	^		
					790	1260		

FUTURE YEAR GROWTH: 2012 TO 2014

2 YEARS

					50	120		
					v	^		
		0	<			<		0
		40	>			>		0
					v	^		
					50	80		

INITIAL FUTURE YEAR VOLUMES:

2014

					540	730		
					v	^		
		20	<	IN =	1280	<		0
		110	>	OUT =	1290	>		0
					v	^		
					540	630		

BALANCED FUTURE YEAR VOLUMES:

2014

					540	730		
					v	^		
		20	<	IN =	1280	<		0
		110	>	OUT =	1290	>		0
					v	^		
					540	630		

ALABAMA STREET (NS) / PALMETTO AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2014) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	**6**	SOUTH LEG		NORTH BOUND	LEFT	**7**	SOUTH LEG	
	THRU	**404**	IN ...	**440**		THRU	**545**	IN ...	**630**
	RIGHT	**0**	OUT ...	**830**		RIGHT	**0**	OUT ...	**540**
SOUTH BOUND	LEFT	**0**	NORTH LEG		SOUTH BOUND	LEFT	**0**	NORTH LEG	
	THRU	**731**	IN ...	**890**		THRU	**478**	IN ...	**540**
	RIGHT	**46**	OUT ...	**430**		RIGHT	**15**	OUT ...	**730**
EAST BOUND	LEFT	**7**	WEST LEG		EAST BOUND	LEFT	**61**	WEST LEG	
	THRU	**0**	IN ...	**20**		THRU	**0**	IN ...	**110**
	RIGHT	**12**	OUT ...	**90**		RIGHT	**12**	OUT ...	**20**
WEST BOUND	LEFT	**0**	EAST LEG		WEST BOUND	LEFT	**0**	EAST LEG	
	THRU	**0**	IN ...	**0**		THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**

OPENING YEAR (2014) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	**6**	**11**	NORTH LEG	NORTH BOUND	LEFT	**7**	**8**	NORTH LEG
	THRU	**404**	**423**	RATIO **9.5%**		THRU	**545**	**634**	RATIO **9.1%**
	RIGHT	**0**	**0**	ADT 14,000		RIGHT	**0**	**0**	ADT 14,000
SOUTH BOUND	LEFT	**0**	**0**	SOUTH LEG	SOUTH BOUND	LEFT	**0**	**0**	SOUTH LEG
	THRU	**731**	**817**	RATIO **9.7%**		THRU	**478**	**524**	RATIO **9.0%**
	RIGHT	**46**	**79**	ADT 13,100		RIGHT	**15**	**16**	ADT 13,100
EAST BOUND	LEFT	**7**	**8**	EAST LEG	EAST BOUND	LEFT	**61**	**96**	EAST LEG
	THRU	**0**	**0**	RATIO **#DIV/0!**		THRU	**0**	**0**	RATIO **#DIV/0!**
	RIGHT	**12**	**13**	ADT 0		RIGHT	**12**	**16**	ADT 0
WEST BOUND	LEFT	**0**	**0**	WEST LEG	WEST BOUND	LEFT	**0**	**0**	WEST LEG
	THRU	**0**	**0**	RATIO **7.9%**		THRU	**0**	**0**	RATIO **9.7%**
	RIGHT	**0**	**0**	ADT 1,400		RIGHT	**0**	**0**	ADT 1,400

ALABAMA STREET (NS) / PALMETTO AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				42	639	0		
				<	v	>		
		4	^				^	0
		0	>				<	0
		4	v				v	0
				<	^	>		
				6	320	0		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					681	324		
					v	^		
		48	<	IN =	1015	<		0
		8	>	OUT =	1015	>		0
					v	^		
					643	326		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				4	92	0		
				<	v	>		
		3	^				^	0
		0	>				<	0
		8	v				v	0

PCE FACTORS BY AXLE:

2:	1.5	3:	2.0	4+:	3.0	<	^	>		
						0	84	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				46	731	0		
				<	v	>		
		7	^				^	0
		0	>				<	0
		12	v				v	0
				<	^	>		
				6	404	0		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					746	292		
					v	^		
		0	<	IN =	1038	<		0
		0	>	OUT =	1038	>		0
					v	^		
					746	292		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					18	2		
					v	^		
		0	<	IN =	20	<		0
		0	>	OUT =	20	>		0
					v	^		
					18	2		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					289	112		
					v	^		
		0	<	IN =	401	<		0
		0	>	OUT =	401	>		0
					v	^		
					289	112		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					5087	1018		
					v	^		
		1383	<	IN =	6278	<		0
		78	>	OUT =	6278	>		0
					v	^		
					3877	1113		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					99	192		
					v	^		
		0	<	IN =	291	<		0
		0	>	OUT =	291	>		0
					v	^		
					99	192		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					1966	451		
					v	^		
		526	<	IN =	2483	<		0
		30	>	OUT =	2483	>		0
					v	^		
					1506	487		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					1690	371		
					v	^		
		526	<			<		0
		30	>			>		0
					v	^		
					1230	407		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					1690	370		
					v	^		
		530	<	IN =	2130	<		0
		30	>	OUT =	2130	>		0
					v	^		
					1230	410		

FUTURE YEAR GROWTH: 2012 TO 2035

23 YEARS

					1300	280		
					v	^		
		410	<			<		0
		20	>			>		0
					v	^		
					940	310		

INITIAL FUTURE YEAR VOLUMES:

2035

					2080	690		
					v	^		
		460	<	IN =	2840	<		0
		40	>	OUT =	2830	>		0
					v	^		
					1680	720		

BALANCED FUTURE YEAR VOLUMES:

2035

					2080	690		
					v	^		
		460	<	IN =	2840	<		0
		40	>	OUT =	2840	>		0
					v	^		
					1690	720		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				15	442	0		
				<	v	>		
		61	^				^	0
		0	>				<	0
		12	v				v	0
				<	^	>		
				5	522	0		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					457	583		
					v	^		
		20	<	IN =	1057	<		0
		73	>	OUT =	1057	>		0
					v	^		
					454	527		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				0	36	0		
				<	v	>		
		0	^				^	0
		0	>				<	0
		0	v				v	0

PCE FACTORS BY AXLE:

2:	1.5	3:	2	4+.	3.0	<	^	>		
						2	23	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				15	478	0		
				<	v	>		
		61	^				^	0
		0	>				<	0
		12	v				v	0
				<	^	>		
				7	545	0		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					719	1368		
					v	^		
		0	<	IN =	2087	<		0
		0	>	OUT =	2087	>		0
					v	^		
					719	1368		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

					53	4		
					v	^		
		0	<	IN =	57	<		0
		0	>	OUT =	57	>		0
					v	^		
					53	4		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					215	384		
					v	^		
		0	<	IN =	599	<		0
		0	>	OUT =	599	>		0
					v	^		
					215	384		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3385	7869		
					v	^		
		134	<	IN =	11456	<		0
		2352	>	OUT =	11454	>		0
					v	^		
					3451	5719		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					121	102		
					v	^		
		0	<	IN =	223	<		0
		0	>	OUT =	223	>		0
					v	^		
					121	102		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					978	2229		
					v	^		
		38	<	IN =	3263	<		0
		659	>	OUT =	3263	>		0
					v	^		
					997	1627		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					772	1857		
					v	^		
		38	<			<		0
		659	>			>		0
					v	^		
					790	1255		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					770	1860		
					v	^		
		40	<	IN =	2690	<		0
		660	>	OUT =	2690	>		0
					v	^		
					790	1260		

FUTURE YEAR GROWTH: 2012 TO 2035

23 YEARS

					590	1430		
					v	^		
		30	<			<		0
		510	>			>		0
					v	^		
					610	970		

INITIAL FUTURE YEAR VOLUMES:

2035

					1080	2040		
					v	^		
		50	<	IN =	3180	<		0
		580	>	OUT =	3190	>		0
					v	^		
					1100	1520		

BALANCED FUTURE YEAR VOLUMES:

2035

					1080	2040		
					v	^		
		50	<	IN =	3180	<		0
		580	>	OUT =	3190	>		0
					v	^		
					1100	1520		

ALABAMA STREET (NS) / PALMETTO AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	**6**	SOUTH LEG		NORTH	LEFT	**7**	SOUTH LEG	
BOUND	THRU	**404**	IN ...	**720**	BOUND	THRU	**545**	IN ...	**1,520**
	RIGHT	**0**	OUT ...	**1,690**		RIGHT	**0**	OUT ...	**1,100**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**731**	IN ...	**2,080**	BOUND	THRU	**478**	IN ...	**1,080**
	RIGHT	**46**	OUT ...	**690**		RIGHT	**15**	OUT ...	**2,040**
EAST	LEFT	**7**	WEST LEG		EAST	LEFT	**61**	WEST LEG	
BOUND	THRU	**0**	IN ...	**40**	BOUND	THRU	**0**	IN ...	**580**
	RIGHT	**12**	OUT ...	**460**		RIGHT	**12**	OUT ...	**50**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**6**	**39**	NORTH LEG	NORTH	LEFT	**7**	**15**	NORTH LEG
BOUND	THRU	**404**	**675**	RATIO **9.7%**	BOUND	THRU	**545**	**1,527**	RATIO **10.9%**
	RIGHT	**0**	**0**	ADT 28,500		RIGHT	**0**	**0**	ADT 28,500
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**731**	**1,665**	RATIO **9.7%**	BOUND	THRU	**478**	**1,027**	RATIO **10.7%**
	RIGHT	**46**	**421**	ADT 24,800		RIGHT	**15**	**35**	ADT 24,800
EAST	LEFT	**7**	**15**	EAST LEG	EAST	LEFT	**61**	**513**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO **#DIV/0!**	BOUND	THRU	**0**	**0**	RATIO **#DIV/0!**
	RIGHT	**12**	**25**	ADT 0		RIGHT	**12**	**73**	ADT 0
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **10.0%**	BOUND	THRU	**0**	**0**	RATIO **12.7%**
	RIGHT	**0**	**0**	ADT 5,000		RIGHT	**0**	**0**	ADT 5,000

ALABAMA STREET (NS) / PIONEER AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				70	402	118		
				<	v	>		
			8	^			^	136
			43	>			<	13
			6	v			v	47
				<	^	>		
				10	182	106		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					590	326		
					v	^		
			93	<	IN =	1141	<	196
			57	>	OUT =	1141	>	267
					v	^		
					455	298		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				3	107	2		
				<	v	>		
			2	^			^	11
			0	>			<	0
			2	v			v	5
PCE FACTORS BY AXLE:				<	^	>		
2: 1.5 3: 2.0 4+: 3.0				2	91	2		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				73	509	120		
				<	v	>		
			10	^			^	147
			43	>			<	13
			8	v			v	52
				<	^	>		
				12	273	108		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					738	304		
					v	^		
			2	<	IN =	1149	<	118
			3	>	OUT =	1149	>	19
					v	^		
					824	290		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					18	2		
					v	^		
			0	<	IN =	24	<	4
			0	>	OUT =	24	>	0
					v	^		
					22	2		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					286	116		
					v	^		
			1	<	IN =	445	<	46
			1	>	OUT =	445	>	7
					v	^		
					320	111		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3320	1058		
					v	^		
			895	<	IN =	6198	<	1030
			64	>	OUT =	6198	>	634
					v	^		
					3611	1784		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					92	187		
					v	^		
			10	<	IN =	354	<	69
			6	>	OUT =	353	>	5
					v	^		
					151	187		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					1292	464		
					v	^		
			343	<	IN =	2473	<	414
			26	>	OUT =	2473	>	243
					v	^		
					1422	740		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2030
FACTOR = 1.50

					1018	379		
					v	^		
			344	<			<	379
			26	>			>	236
					v	^		
					1123	660		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					1020	380		
					v	^		
			340	<	IN =	2090	<	380
			30	>	OUT =	2080	>	240
					v	^		
					1120	660		

FUTURE YEAR GROWTH: 2012 TO 2014
2 YEARS

					70	30		
					v	^		
			20	<			<	30
			0	>			>	20
					v	^		
					70	40		

INITIAL FUTURE YEAR VOLUMES:

2014

					770	460		
					v	^		
			120	<	IN =	1500	<	240
			60	>	OUT =	1510	>	290
					v	^		
					640	430		

BALANCED FUTURE YEAR VOLUMES:

2014

					780	460		
					v	^		
			120	<	IN =	1510	<	240
			60	>	OUT =	1510	>	290
					v	^		
					640	430		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				5	352	117		
				<	v	>		
			22	^			^	57
			33	>			<	12
			16	v			v	17
				<	^	>		
				4	475	49		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					474	554		
					v	^		
			21	<	IN =	1159	<	86
			71	>	OUT =	1159	>	199
					v	^		
					385	528		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				3	35	9		
				<	v	>		
			5	^			^	3
			3	>			<	0
			11	v			v	0
PCE FACTORS BY AXLE:				<	^	>		
2: 1.5 3: 2 4+: 3.0				5	29	2		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				8	387	126		
				<	v	>		
			27	^			^	60
			36	>			<	12
			27	v			v	17
				<	^	>		
				9	504	51		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					728	1364		
					v	^		
			4	<	IN =	2282	<	111
			5	>	OUT =	2282	>	173
					v	^		
					741	1438		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

					53	4		
					v	^		
			0	<	IN =	61	<	4
			0	>	OUT =	61	>	0
					v	^		
					57	4		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					217	383		
					v	^		
			1	<	IN =	654	<	32
			1	>	OUT =	654	>	48
					v	^		
					222	404		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3348	5208		
					v	^		
			119	<	IN =	11351	<	943
			1314	>	OUT =	11351	>	1903
					v	^		
					4121	5746		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					117	100		
					v	^		
			3	<	IN =	255	<	13
			7	>	OUT =	258	>	41
					v	^		
					114	118		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					967	1483		
					v	^		
			34	<	IN =	3242	<	267
			370	>	OUT =	3243	>	543
					v	^		
					1182	1638		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO. 2030
FACTOR = 1.50

					758	1112		
					v	^		
			33	<			<	236
			369	>			>	500
					v	^		
					968	1249		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					760	1110		
					v	^		
			30	<	IN =	2620	<	240
			370	>	OUT =	2610	>	500
					v	^		
					970	1250		

FUTURE YEAR GROWTH: 2012 TO 2014
2 YEARS

					50	70		
					v	^		
			0	<			<	20
			20	>			>	30
					v	^		
					60	80		

INITIAL FUTURE YEAR VOLUMES:

2014

					570	660		
					v	^		
			30	<	IN =	1430	<	110
			110	>	OUT =	1420	>	240
					v	^		
					490	640		

BALANCED FUTURE YEAR VOLUMES:

2014

					570	660		
					v	^		
			30	<	IN =	1430	<	110
			110	>	OUT =	1420	>	240
					v	^		
					490	640		

ALABAMA STREET (NS) / PIONEER AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2014) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	**12**	SOUTH LEG		NORTH BOUND	LEFT	**9**	SOUTH LEG	
	THRU	**273**	IN ...	**430**		THRU	**504**	IN ...	**640**
	RIGHT	**108**	OUT ...	**640**		RIGHT	**51**	OUT ...	**490**
SOUTH BOUND	LEFT	**120**	NORTH LEG		SOUTH BOUND	LEFT	**126**	NORTH LEG	
	THRU	**509**	IN ...	**780**		THRU	**387**	IN ...	**570**
	RIGHT	**73**	OUT ...	**460**		RIGHT	**8**	OUT ...	**660**
EAST BOUND	LEFT	**10**	WEST LEG		EAST BOUND	LEFT	**27**	WEST LEG	
	THRU	**43**	IN ...	**60**		THRU	**36**	IN ...	**110**
	RIGHT	**8**	OUT ...	**120**		RIGHT	**27**	OUT ...	**30**
WEST BOUND	LEFT	**52**	EAST LEG		WEST BOUND	LEFT	**17**	EAST LEG	
	THRU	**13**	IN ...	**240**		THRU	**12**	IN ...	**110**
	RIGHT	**147**	OUT ...	**290**		RIGHT	**60**	OUT ...	**240**

OPENING YEAR (2014) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	**12**	**16**	NORTH LEG	NORTH BOUND	LEFT	**9**	**9**	NORTH LEG
	THRU	**273**	**292**	RATIO **9.0%**		THRU	**504**	**559**	RATIO **8.9%**
	RIGHT	**108**	**122**	ADT 13,800		RIGHT	**51**	**64**	ADT 13,800
SOUTH BOUND	LEFT	**120**	**125**	SOUTH LEG	SOUTH BOUND	LEFT	**126**	**131**	SOUTH LEG
	THRU	**509**	**568**	RATIO **8.5%**		THRU	**387**	**430**	RATIO **8.9%**
	RIGHT	**73**	**87**	ADT 12,600		RIGHT	**8**	**9**	ADT 12,600
EAST BOUND	LEFT	**10**	**11**	EAST LEG	EAST BOUND	LEFT	**27**	**29**	EAST LEG
	THRU	**43**	**45**	RATIO **13.7%**		THRU	**36**	**44**	RATIO **8.9%**
	RIGHT	**8**	**8**	ADT 3,900		RIGHT	**27**	**36**	ADT 3,900
WEST BOUND	LEFT	**52**	**64**	WEST LEG	WEST BOUND	LEFT	**17**	**24**	WEST LEG
	THRU	**13**	**17**	RATIO **11.5%**		THRU	**12**	**14**	RATIO **8.8%**
	RIGHT	**147**	**159**	ADT 1,600		RIGHT	**60**	**71**	ADT 1,600

ALABAMA STREET (NS) / PIONEER AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				70	402	118		
				<	v	>		
		8	^				^	136
		43	>				<	13
		6	v				v	47
				<	^	>		
				10	182	106		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					590	326		
					v	^		
		93	<	IN =	1141	<		196
		57	>	OUT =	1141	>		267
					v	^		
					455	298		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				3	107	2		
				<	v	>		
		2	^				^	11
		0	>				<	0
		2	v				v	5
PCE FACTORS BY AXLE:				<	^	>		
2: 1.5 3: 2.0 4+: 3.0				2	91	2		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				73	509	120		
				<	v	>		
		10	^				^	147
		43	>				<	13
		8	v				v	52
				<	^	>		
				12	273	108		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					738	**304**		
					v	^		
		2	<	IN =	1149	<		118
		3	>	OUT =	1149	>		19
					v	^		
					824	**290**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					18	**2**		
					v	^		
		0	<	IN =	24	<		4
		0	>	OUT =	24	>		0
					v	^		
					22	**2**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					286	116		
					v	^		
		1	<	IN =	445	<		46
		1	>	OUT =	445	>		7
					v	^		
					320	111		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3320	**1058**		
					v	^		
		895	<	IN =	6198	<		1030
		64	>	OUT =	6198	>		634
					v	^		
					3611	**1784**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					92	**187**		
					v	^		
		10	<	IN =	354	<		69
		6	>	OUT =	353	>		5
					v	^		
					151	**187**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					1292	464		
					v	^		
		343	<	IN =	2473	<		414
		26	>	OUT =	2473	>		243
					v	^		
					1422	740		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2030
FACTOR = 1.50

					1018	379		
					v	^		
		344	<			<		379
		26	>			>		236
					v	^		
					1123	660		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					1020	380		
					v	^		
		340	<	IN =	2090	<		380
		30	>	OUT =	2080	>		240
					v	^		
					1120	660		

FUTURE YEAR GROWTH: 2012 TO 2035
23 YEARS

					780	290		
					v	^		
		260	<			<		290
		20	>			>		180
					v	^		
					860	510		

INITIAL FUTURE YEAR VOLUMES:

2035

					1480	720		
					v	^		
		360	<	IN =	2960	<		500
		80	>	OUT =	2960	>		450
					v	^		
					1430	900		

BALANCED FUTURE YEAR VOLUMES:

2035

					1480	720		
					v	^		
		360	<	IN =	2960	<		500
		80	>	OUT =	2960	>		450
					v	^		
					1430	900		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				5	352	117		
				<	v	>		
		22	^				^	57
		33	>				<	12
		16	v				v	17
				<	^	>		
				4	475	49		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					474	554		
					v	^		
		21	<	IN =	1159	<		86
		71	>	OUT =	1159	>		199
					v	^		
					385	528		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				3	35	9		
				<	v	>		
		5	^				^	3
		3	>				<	0
		11	v				v	0
PCE FACTORS BY AXLE:				<	^	>		
2: 1.5 3: 2 4+: 3.0				5	29	2		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				8	387	126		
				<	v	>		
		27	^				^	60
		36	>				<	12
		27	v				v	17
				<	^	>		
				9	504	51		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					728	**1364**		
					v	^		
		4	<	IN =	2282	<		111
		5	>	OUT =	2282	>		173
					v	^		
					741	**1438**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

					53	**4**		
					v	^		
		0	<	IN =	61	<		4
		0	>	OUT =	61	>		0
					v	^		
					57	**4**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					217	383		
					v	^		
		1	<	IN =	654	<		32
		1	>	OUT =	654	>		48
					v	^		
					222	404		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3348	**5208**		
					v	^		
		119	<	IN =	11351	<		943
		1314	>	OUT =	11351	>		1903
					v	^		
					4121	**5746**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					117	**100**		
					v	^		
		3	<	IN =	255	<		13
		7	>	OUT =	258	>		41
					v	^		
					114	**118**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					967	1483		
					v	^		
		34	<	IN =	3242	<		267
		370	>	OUT =	3243	>		543
					v	^		
					1182	1638		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2030
FACTOR = 1.50

					758	1112		
					v	^		
		33	<			<		236
		369	>			>		500
					v	^		
					968	1249		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					760	1110		
					v	^		
		30	<	IN =	2620	<		240
		370	>	OUT =	2610	>		500
					v	^		
					970	1250		

FUTURE YEAR GROWTH: 2012 TO 2035
23 YEARS

					580	850		
					v	^		
		20	<			<		180
		280	>			>		380
					v	^		
					740	960		

INITIAL FUTURE YEAR VOLUMES:

2035

					1100	1440		
					v	^		
		50	<	IN =	3260	<		270
		370	>	OUT =	3250	>		590
					v	^		
					1170	1520		

BALANCED FUTURE YEAR VOLUMES:

2035

					1100	1440		
					v	^		
		50	<	IN =	3260	<		270
		370	>	OUT =	3250	>		590
					v	^		
					1170	1520		

ALABAMA STREET (NS) / PIONEER AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	**12**	SOUTH LEG		NORTH	LEFT	**9**	SOUTH LEG	
BOUND	THRU	**273**	IN ...	**900**	BOUND	THRU	**504**	IN ...	**1,520**
	RIGHT	**108**	OUT ...	**1,430**		RIGHT	**51**	OUT ...	**1,170**
SOUTH	LEFT	**120**	NORTH LEG		SOUTH	LEFT	**126**	NORTH LEG	
BOUND	THRU	**509**	IN ...	**1,480**	BOUND	THRU	**387**	IN ...	**1,100**
	RIGHT	**73**	OUT ...	**720**		RIGHT	**8**	OUT ...	**1,440**
EAST	LEFT	**10**	WEST LEG		EAST	LEFT	**27**	WEST LEG	
BOUND	THRU	**43**	IN ...	**80**	BOUND	THRU	**36**	IN ...	**370**
	RIGHT	**8**	OUT ...	**360**		RIGHT	**27**	OUT ...	**50**
WEST	LEFT	**52**	EAST LEG		WEST	LEFT	**17**	EAST LEG	
BOUND	THRU	**13**	IN ...	**500**	BOUND	THRU	**12**	IN ...	**270**
	RIGHT	**147**	OUT ...	**450**		RIGHT	**60**	OUT ...	**590**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**12**	**91**	NORTH LEG	NORTH	LEFT	**9**	**19**	NORTH LEG
BOUND	THRU	**273**	**515**	RATIO **9.1%**	BOUND	THRU	**504**	**1,241**	RATIO **10.6%**
	RIGHT	**108**	**286**	ADT 24,200		RIGHT	**51**	**234**	ADT 24,200
SOUTH	LEFT	**120**	**115**	SOUTH LEG	SOUTH	LEFT	**126**	**205**	SOUTH LEG
BOUND	THRU	**509**	**1,174**	RATIO **9.3%**	BOUND	THRU	**387**	**904**	RATIO **10.7%**
	RIGHT	**73**	**200**	ADT 24,900		RIGHT	**8**	**6**	ADT 24,900
EAST	LEFT	**10**	**8**	EAST LEG	EAST	LEFT	**27**	**60**	EAST LEG
BOUND	THRU	**43**	**49**	RATIO **12.0%**	BOUND	THRU	**36**	**150**	RATIO **10.9%**
	RIGHT	**8**	**22**	ADT 7,900		RIGHT	**27**	**161**	ADT 7,900
WEST	LEFT	**52**	**234**	WEST LEG	WEST	LEFT	**17**	**105**	WEST LEG
BOUND	THRU	**13**	**69**	RATIO **11.0%**	BOUND	THRU	**12**	**24**	RATIO **10.5%**
	RIGHT	**147**	**196**	ADT 4,000		RIGHT	**60**	**139**	ADT 4,000

ALABAMA STREET (NS) / SAN BERNARDINO AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				124	230	33		
				<	v	>		
		29	^				^	109
		73	>				<	355
		17	v				v	145
				<	^	>		
				84	95	32		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					387	233		
					v	^		
		563	<	IN =	1326	<		609
		119	>	OUT =	1326	>		138
					v	^		
					392	211		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				14	63	14		
				<	v	>		
		5	^				^	32
		38	>				<	70
		16	v				v	35
PCE FACTORS BY AXLE.				<	^	>		
2: 1.5 3: 2.0 4+: 3.0				15	21	21		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				138	293	47		
				<	v	>		
		34	^				^	141
		111	>				<	425
		33	v				v	180
				<	^	>		
				99	116	53		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					824	290		
					v	^		
		692	<	IN =	2383	<		1133
		66	>	OUT =	2385	>		84
					v	^		
					1319	360		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					22	2		
					v	^		
		0	<	IN =	31	<		7
		0	>	OUT =	31	>		0
					v	^		
					29	2		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					320	111		
					v	^		
		263	<	IN =	916	<		433
		25	>	OUT =	917	>		32
					v	^		
					511	137		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3611	1784		
					v	^		
		4607	<	IN =	10819	<		4077
		756	>	OUT =	10820	>		745
					v	^		
					3684	2375		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					151	187		
					v	^		
		470	<	IN =	850	<		263
		103	>	OUT =	847	>		101
					v	^		
					89	333		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					1422	740		
					v	^		
		1907	<	IN =	4394	<		1637
		322	>	OUT =	4394	>		317
					v	^		
					1430	1013		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2030
FACTOR = 1.50

					1123	660		
					v	^		
		1722	<			<		1247
		314	>			>		302
					v	^		
					929	931		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					1120	660		
					v	^		
		1720	<	IN =	3610	<		1250
		310	>	OUT =	3610	>		300
					v	^		
					930	930		

FUTURE YEAR GROWTH: 2012 TO 2014
2 YEARS

					70	40		
					v	^		
		110	<			<		80
		20	>			>		20
					v	^		
					60	60		

INITIAL FUTURE YEAR VOLUMES:

2014

					550	330		
					v	^		
		770	<	IN =	1910	<		830
		200	>	OUT =	1900	>		230
					v	^		
					570	330		

BALANCED FUTURE YEAR VOLUMES:

2014

					550	330		
					v	^		
		770	<	IN =	1910	<		830
		200	>	OUT =	1900	>		230
					v	^		
					570	330		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				65	356	67		
				<	v	>		
		131	^				^	76
		384	>				<	137
		98	v				v	148
				<	^	>		
				28	353	201		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					488	560		
					v	^		
		230	<	IN =	2044	<		361
		613	>	OUT =	2044	>		652
					v	^		
					602	582		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S).

				11	47	6		
				<	v	>		
		18	^				^	29
		56	>				<	14
		11	v				v	14
PCE FACTORS BY AXLE:				<	^	>		
2: 1.5 3 2 4+: 3.0				2	66	6		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				76	403	73		
				<	v	>		
		149	^				^	105
		440	>				<	151
		109	v				v	162
				<	^	>		
				30	419	207		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					741	1438		
					v	^		
		252	<	IN =	3971	<		664
		1062	>	OUT =	3971	>		1015
					v	^		
					1266	1504		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

					57	4		
					v	^		
		0	<	IN =	69	<		2
		6	>	OUT =	71	>		6
					v	^		
					61	4		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					222	404		
					v	^		
		71	<	IN =	1129	<		186
		299	>	OUT =	1130	>		286
					v	^		
					370	422		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					4121	5746		
					v	^		
		2444	<	IN =	17097	<		1424
		6204	>	OUT =	17099	>		5091
					v	^		
					3818	5348		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					114	118		
					v	^		
		103	<	IN =	941	<		107
		596	>	OUT =	940	>		586
					v	^		
					133	124		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					1182	1638		
					v	^		
		710	<	IN =	5022	<		425
		1886	>	OUT =	5023	>		1572
					v	^		
					1102	1528		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2030
FACTOR = 1.50

					968	1249		
					v	^		
		652	<			<		252
		1661	>			>		1359
					v	^		
					742	1121		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					970	1250		
					v	^		
		650	<	IN =	4000	<		250
		1660	>	OUT =	4000	>		1360
					v	^		
					740	1120		

FUTURE YEAR GROWTH: 2012 TO 2014
2 YEARS

					60	80		
					v	^		
		40	<			<		20
		110	>			>		90
					v	^		
					50	70		

INITIAL FUTURE YEAR VOLUMES:

2014

					610	750		
					v	^		
		300	<	IN =	2590	<		440
		810	>	OUT =	2580	>		810
					v	^		
					720	730		

BALANCED FUTURE YEAR VOLUMES:

2014

					610	750		
					v	^		
		300	<	IN =	2590	<		440
		810	>	OUT =	2580	>		810
					v	^		
					720	730		

ALABAMA STREET (NS) / SAN BERNARDINO AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2014) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	**99**	SOUTH LEG		NORTH	LEFT	**30**	SOUTH LEG	
BOUND	THRU	**116**	IN ...	**330**	BOUND	THRU	**419**	IN ...	**730**
	RIGHT	**53**	OUT ...	**570**		RIGHT	**207**	OUT ...	**720**
SOUTH	LEFT	**47**	NORTH LEG		SOUTH	LEFT	**73**	NORTH LEG	
BOUND	THRU	**293**	IN ...	**550**	BOUND	THRU	**403**	IN ...	**610**
	RIGHT	**138**	OUT ...	**330**		RIGHT	**76**	OUT ...	**750**
EAST	LEFT	**34**	WEST LEG		EAST	LEFT	**149**	WEST LEG	
BOUND	THRU	**111**	IN ...	**200**	BOUND	THRU	**440**	IN ...	**810**
	RIGHT	**33**	OUT ...	**770**		RIGHT	**109**	OUT ...	**300**
WEST	LEFT	**180**	EAST LEG		WEST	LEFT	**162**	EAST LEG	
BOUND	THRU	**425**	IN ...	**830**	BOUND	THRU	**151**	IN ...	**440**
	RIGHT	**141**	OUT ...	**230**		RIGHT	**105**	OUT ...	**810**

OPENING YEAR (2014) TRAFFIC CONDITIONS										
MORNING PEAK HOUR RESULTS						EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP		APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**99**	**127**	NORTH LEG		NORTH	LEFT	**30**	**37**	NORTH LEG	
BOUND	THRU	**116**	**141**	RATIO	**5.7%**	BOUND	THRU	**419**	**466**	RATIO	**8.9%**
	RIGHT	**53**	**60**	ADT	15,300		RIGHT	**207**	**224**	ADT	15,300
SOUTH	LEFT	**47**	**49**	SOUTH LEG		SOUTH	LEFT	**73**	**79**	SOUTH LEG	
BOUND	THRU	**293**	**335**	RATIO	**5.4%**	BOUND	THRU	**403**	**435**	RATIO	**8.8%**
	RIGHT	**138**	**163**	ADT	16,500		RIGHT	**76**	**93**	ADT	16,500
EAST	LEFT	**34**	**39**	EAST LEG		EAST	LEFT	**149**	**176**	EAST LEG	
BOUND	THRU	**111**	**121**	RATIO	**7.5%**	BOUND	THRU	**440**	**506**	RATIO	**8.9%**
	RIGHT	**33**	**39**	ADT	14,100		RIGHT	**109**	**124**	ADT	14,100
WEST	LEFT	**180**	**196**	WEST LEG		WEST	LEFT	**162**	**167**	WEST LEG	
BOUND	THRU	**425**	**479**	RATIO	**7.9%**	BOUND	THRU	**151**	**170**	RATIO	**9.1%**
	RIGHT	**141**	**150**	ADT	12,200		RIGHT	**105**	**108**	ADT	12,200

ALABAMA STREET (NS) / SAN BERNARDINO AVENUE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				124	230	33		
				<	v	>		
		29	^				^	109
		73	>				<	355
		17	v				v	145
				<	^	>		
				84	95	32		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2012

					387	233		
					v	^		
		563	<	IN =	1326	<	609	
		119	>	OUT =	1326	>	138	
					v	^		
					392	211		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				14	63	14		
				<	v	>		
		5	^				^	32
		38	>				<	70
		16	v				v	35
				<	^	>		
				15	21	21		

PCE FACTORS BY AXLE.

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				138	293	47		
				<	v	>		
		34	^				^	141
		111	>				<	425
		33	v				v	180
				<	^	>		
				99	116	53		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					824	290		
					v	^		
		692	<	IN =	2383	<	1133	
		66	>	OUT =	2385	>	84	
					v	^		
					1319	360		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					22	2		
					v	^		
		0	<	IN =	31	<	7	
		0	>	OUT =	31	>	0	
					v	^		
					29	2		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					320	111		
					v	^		
		263	<	IN =	916	<	433	
		25	>	OUT =	917	>	32	
					v	^		
					511	137		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					3611	1784		
					v	^		
		4607	<	IN =	10819	<	4077	
		756	>	OUT =	10820	>	745	
					v	^		
					3684	2375		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					151	187		
					v	^		
		470	<	IN =	850	<	263	
		103	>	OUT =	847	>	101	
					v	^		
					89	333		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					1422	740		
					v	^		
		1907	<	IN =	4394	<	1637	
		322	>	OUT =	4394	>	317	
					v	^		
					1430	1013		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					1123	660		
					v	^		
		1722	<			<	1247	
		314	>			>	302	
					v	^		
					929	931		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					1120	660		
					v	^		
		1720	<	IN =	3610	<	1250	
		310	>	OUT =	3610	>	300	
					v	^		
					930	930		

FUTURE YEAR GROWTH: 2012 TO 2035

23 YEARS

					860	510		
					v	^		
		1320	<			<	960	
		240	>			>	230	
					v	^		
					710	710		

INITIAL FUTURE YEAR VOLUMES:

2035

					1340	800		
					v	^		
		1980	<	IN =	4450	<	1710	
		420	>	OUT =	4440	>	440	
					v	^		
					1220	980		

BALANCED FUTURE YEAR VOLUMES:

2035

					1340	800		
					v	^		
		1980	<	IN =	4450	<	1710	
		420	>	OUT =	4440	>	440	
					v	^		
					1220	980		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2012

				65	356	67		
				<	v	>		
		131	^				^	76
		384	>				<	137
		98	v				v	148
				<	^	>		
				28	353	201		

EXISTING PEAK HOUR COUNT YEAR (AUTOS).

2012

					488	560		
					v	^		
		230	<	IN =	2044	<	361	
		613	>	OUT =	2044	>	652	
					v	^		
					602	582		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				11	47	6		
				<	v	>		
		18	^				^	29
		56	>				<	14
		11	v				v	14
				<	^	>		
				2	66	6		

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2012

				76	403	73		
				<	v	>		
		149	^				^	105
		440	>				<	151
		109	v				v	162
				<	^	>		
				30	419	207		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					741	1438		
					v	^		
		252	<	IN =	3971	<	664	
		1062	>	OUT =	3971	>	1015	
					v	^		
					1266	1504		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

1994

					57	4		
					v	^		
		0	<	IN =	69	<	2	
		6	>	OUT =	71	>	6	
					v	^		
					61	4		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					222	404		
					v	^		
		71	<	IN =	1129	<	186	
		299	>	OUT =	1130	>	286	
					v	^		
					370	422		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					4121	5746		
					v	^		
		2444	<	IN =	17097	<	1424	
		6204	>	OUT =	17099	>	5091	
					v	^		
					3818	5348		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					114	118		
					v	^		
		103	<	IN =	941	<	107	
		596	>	OUT =	940	>	586	
					v	^		
					133	124		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					1182	1638		
					v	^		
		710	<	IN =	5022	<	425	
		1886	>	OUT =	5023	>	1572	
					v	^		
					1102	1528		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2030

FACTOR = 1.50

					968	1249		
					v	^		
		652	<			<	252	
		1661	>			>	1359	
					v	^		
					742	1121		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					970	1250		
					v	^		
		650	<	IN =	4000	<	250	
		1660	>	OUT =	4000	>	1360	
					v	^		
					740	1120		

FUTURE YEAR GROWTH. 2012 TO 2035

23 YEARS

					740	960		
					v	^		
		500	<			<	190	
		1270	>			>	1040	
					v	^		
					570	860		

INITIAL FUTURE YEAR VOLUMES:

2035

					1290	1630		
					v	^		
		760	<	IN =	5390	<	610	
		1970	>	OUT =	5390	>	1760	
					v	^		
					1240	1520		

BALANCED FUTURE YEAR VOLUMES:

2035

					1290	1630		
					v	^		
		760	<	IN =	5390	<	610	
		1970	>	OUT =	5390	>	1760	
					v	^		
					1240	1520		

ALABAMA STREET (NS) / SAN BERNARDINO AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

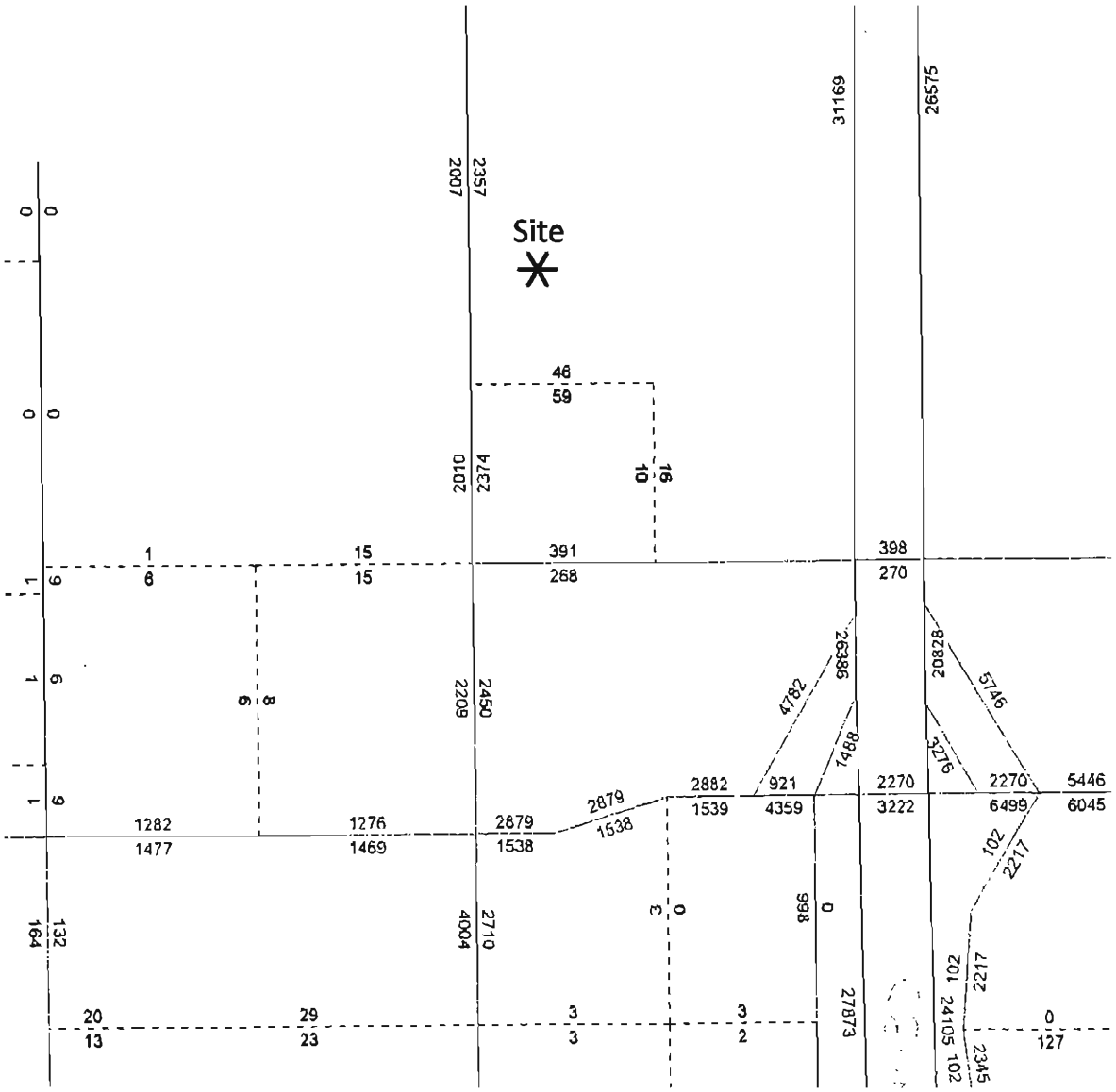
YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	**99**	SOUTH LEG		NORTH	LEFT	**30**	SOUTH LEG	
BOUND	THRU	**116**	IN ...	**980**	BOUND	THRU	**419**	IN ...	**1,520**
	RIGHT	**53**	OUT ...	**1,220**		RIGHT	**207**	OUT ...	**1,240**
SOUTH	LEFT	**47**	NORTH LEG		SOUTH	LEFT	**73**	NORTH LEG	
BOUND	THRU	**293**	IN ...	**1,340**	BOUND	THRU	**403**	IN ...	**1,290**
	RIGHT	**138**	OUT ...	**800**		RIGHT	**76**	OUT ...	**1,630**
EAST	LEFT	**34**	WEST LEG		EAST	LEFT	**149**	WEST LEG	
BOUND	THRU	**111**	IN ...	**420**	BOUND	THRU	**440**	IN ...	**1,970**
	RIGHT	**33**	OUT ...	**1,980**		RIGHT	**109**	OUT ...	**760**
WEST	LEFT	**180**	EAST LEG		WEST	LEFT	**162**	EAST LEG	
BOUND	THRU	**425**	IN ...	**1,710**	BOUND	THRU	**151**	IN ...	**610**
	RIGHT	**141**	OUT ...	**440**		RIGHT	**105**	OUT ...	**1,760**

YEAR 2035 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2035 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**99**	**437**	NORTH LEG	NORTH	LEFT	**30**	**117**	NORTH LEG
BOUND	THRU	**116**	**413**	RATIO **7.7%**	BOUND	THRU	**419**	**999**	RATIO **10.6%**
	RIGHT	**53**	**128**	ADT 27,600		RIGHT	**207**	**404**	ADT 27,600
SOUTH	LEFT	**47**	**88**	SOUTH LEG	SOUTH	LEFT	**73**	**157**	SOUTH LEG
BOUND	THRU	**293**	**776**	RATIO **7.5%**	BOUND	THRU	**403**	**806**	RATIO **9.5%**
	RIGHT	**138**	**473**	ADT 29,200		RIGHT	**76**	**327**	ADT 29,200
EAST	LEFT	**34**	**101**	EAST LEG	EAST	LEFT	**149**	**496**	EAST LEG
BOUND	THRU	**111**	**224**	RATIO **8.9%**	BOUND	THRU	**440**	**1,199**	RATIO **9.8%**
	RIGHT	**33**	**94**	ADT 24,200		RIGHT	**109**	**275**	ADT 24,200
WEST	LEFT	**180**	**350**	WEST LEG	WEST	LEFT	**162**	**158**	WEST LEG
BOUND	THRU	**425**	**1,070**	RATIO **9.5%**	BOUND	THRU	**151**	**317**	RATIO **10.8%**
	RIGHT	**141**	**286**	ADT 25,200		RIGHT	**105**	**135**	ADT 25,200

APPENDIX D

Traffic Model Plots

Figure D-1
Base Year ADT Plot



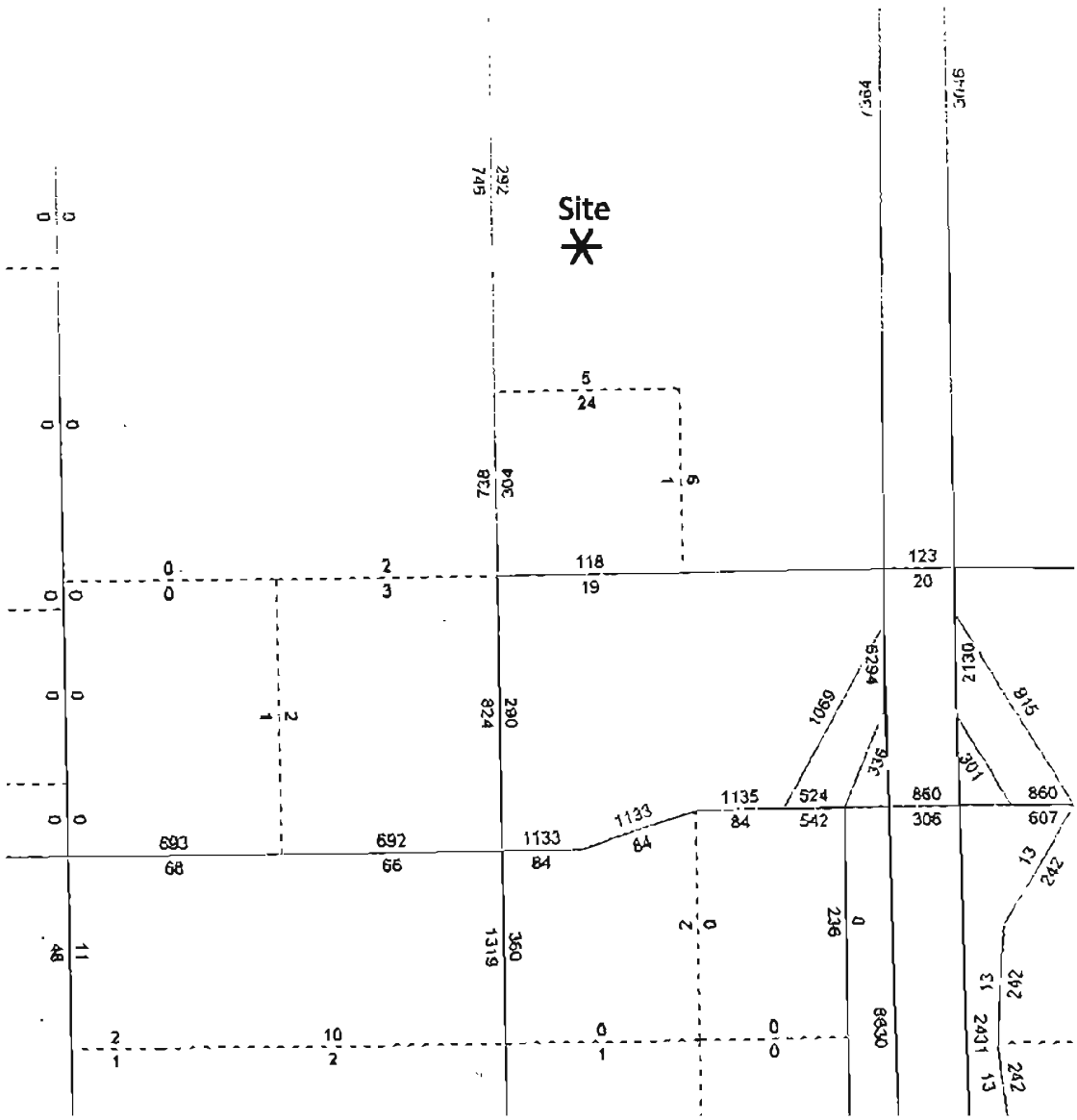
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-1

Figure D-2
Base Year AM Peak Period Plot



N

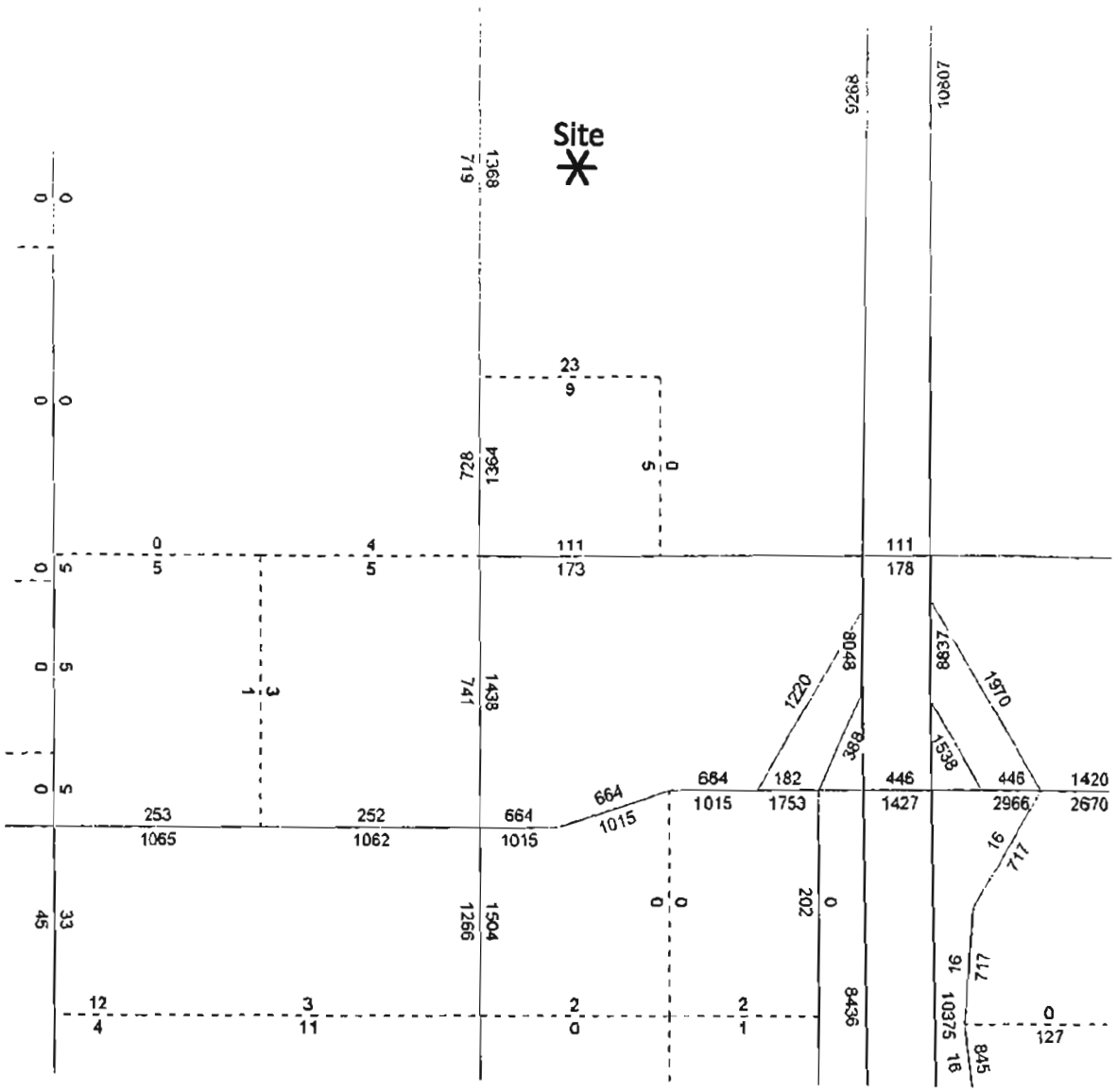
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-2

Figure D-3
Base Year PM Peak Period Plot



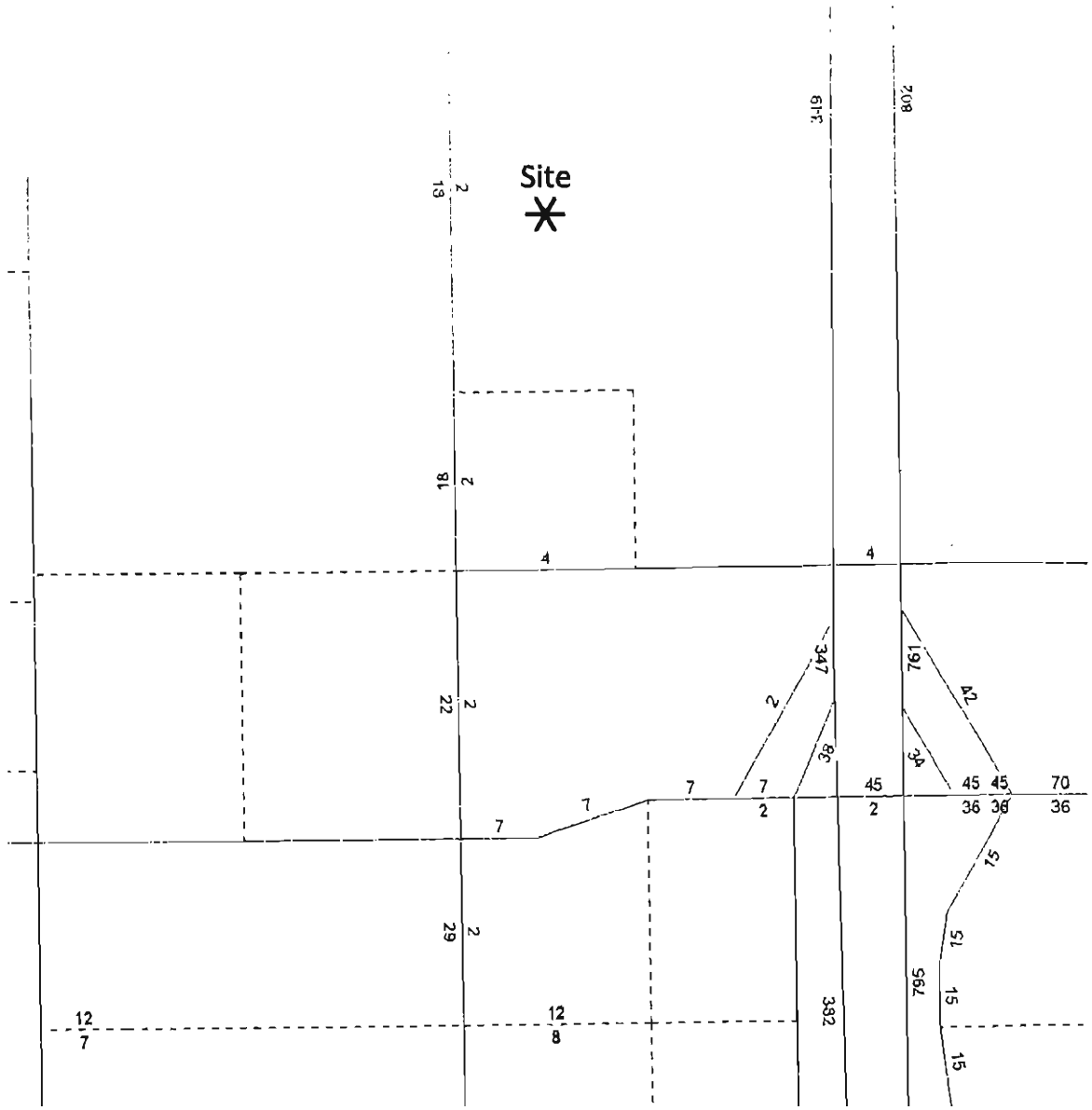
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-3

Figure D-4
Base Year AM Peak Period Truck Plot



N

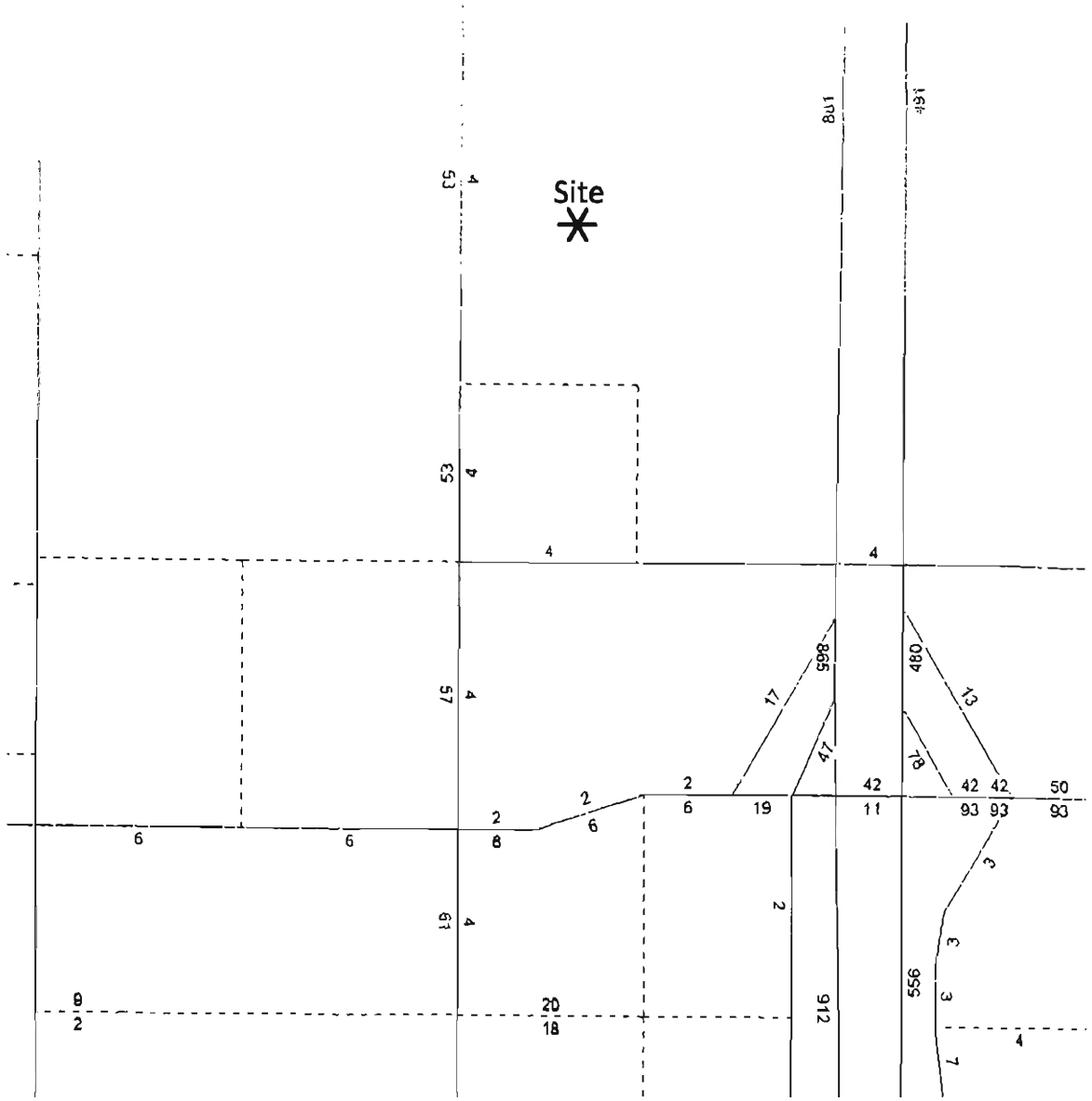
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-4

Figure D-5
Base Year PM Peak Period Truck Plot



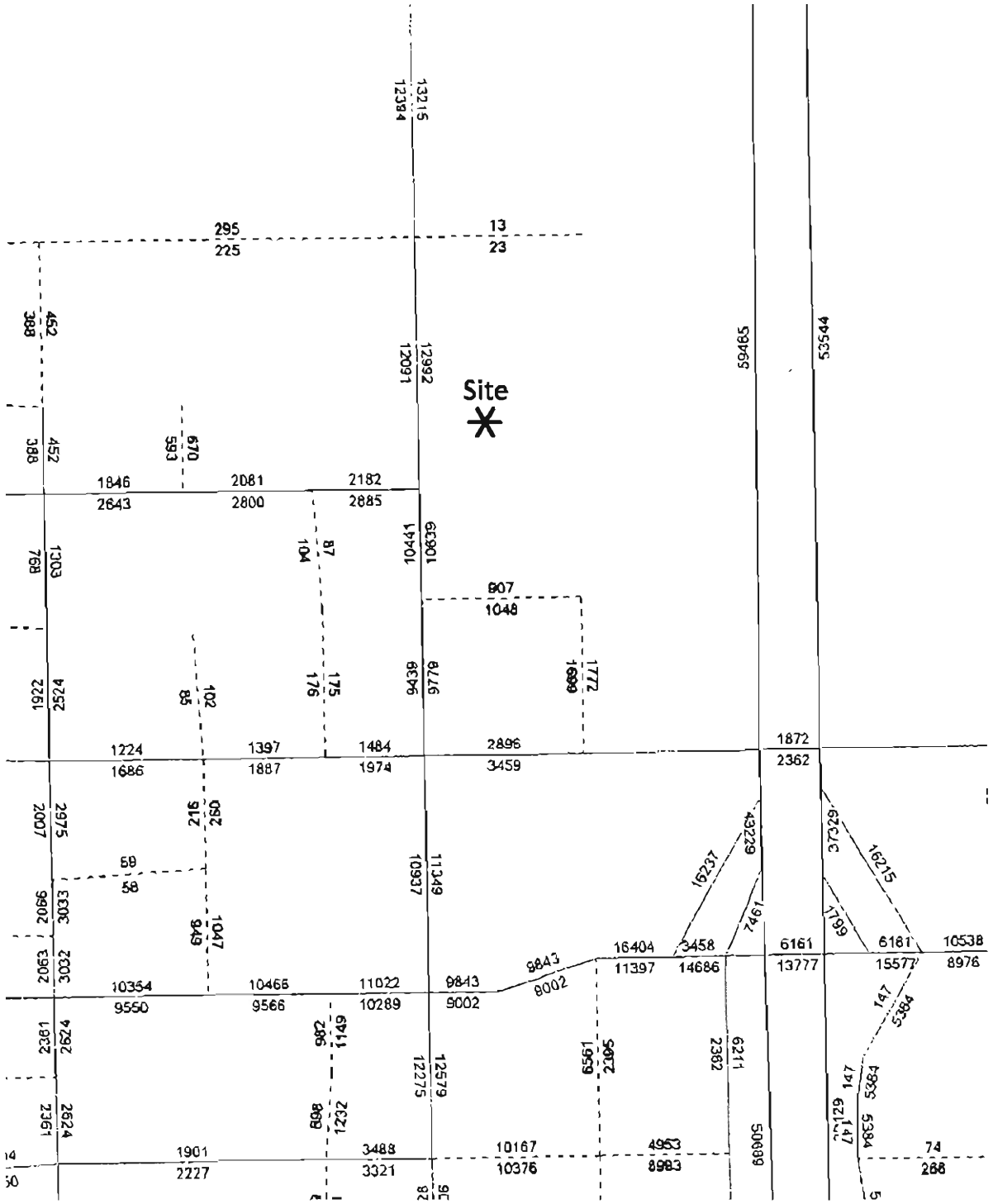
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-5

Figure D-6
Future Year ADT Plot

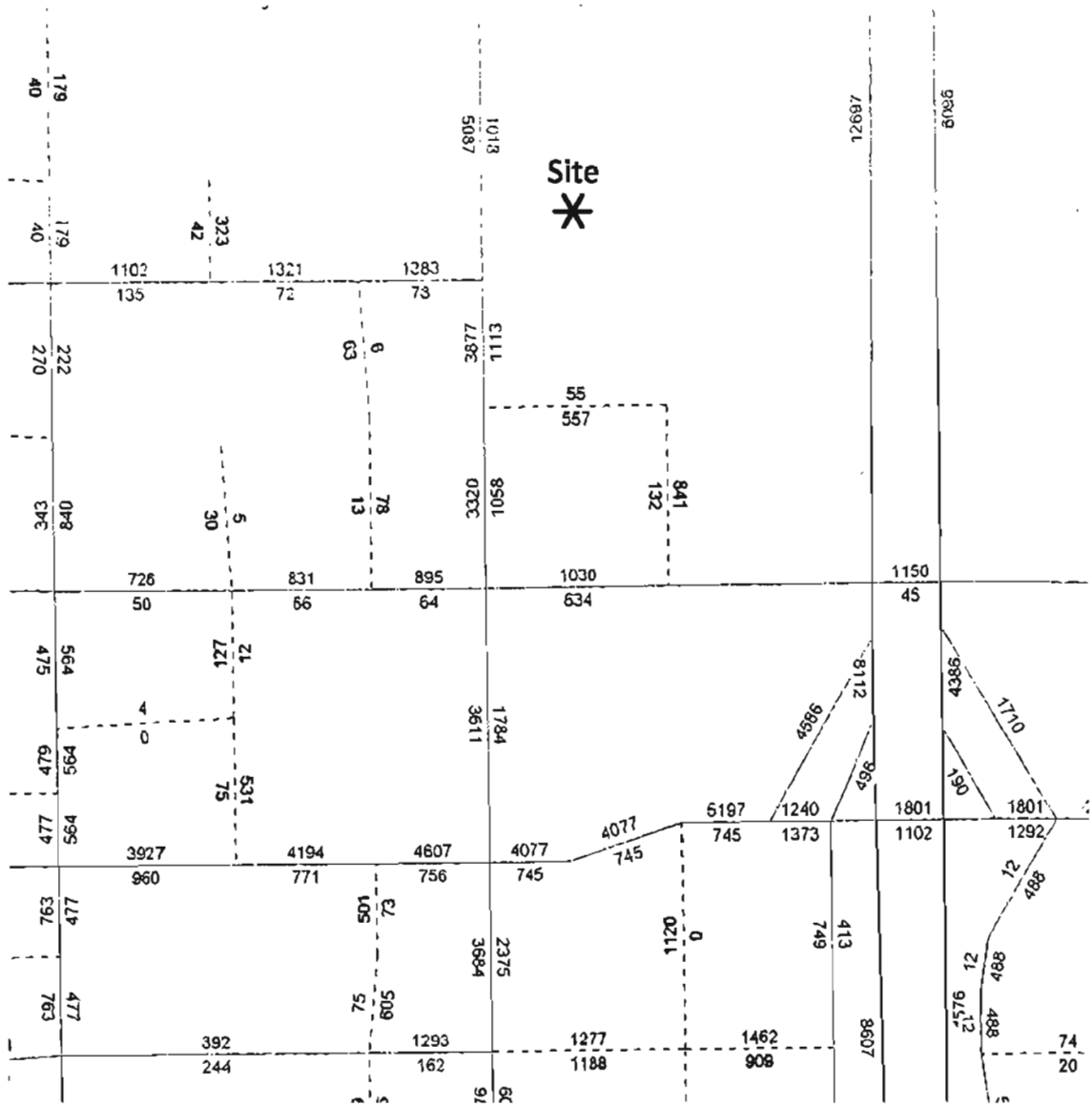


KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-6

Figure D-7
Future Year AM Peak Period Plot



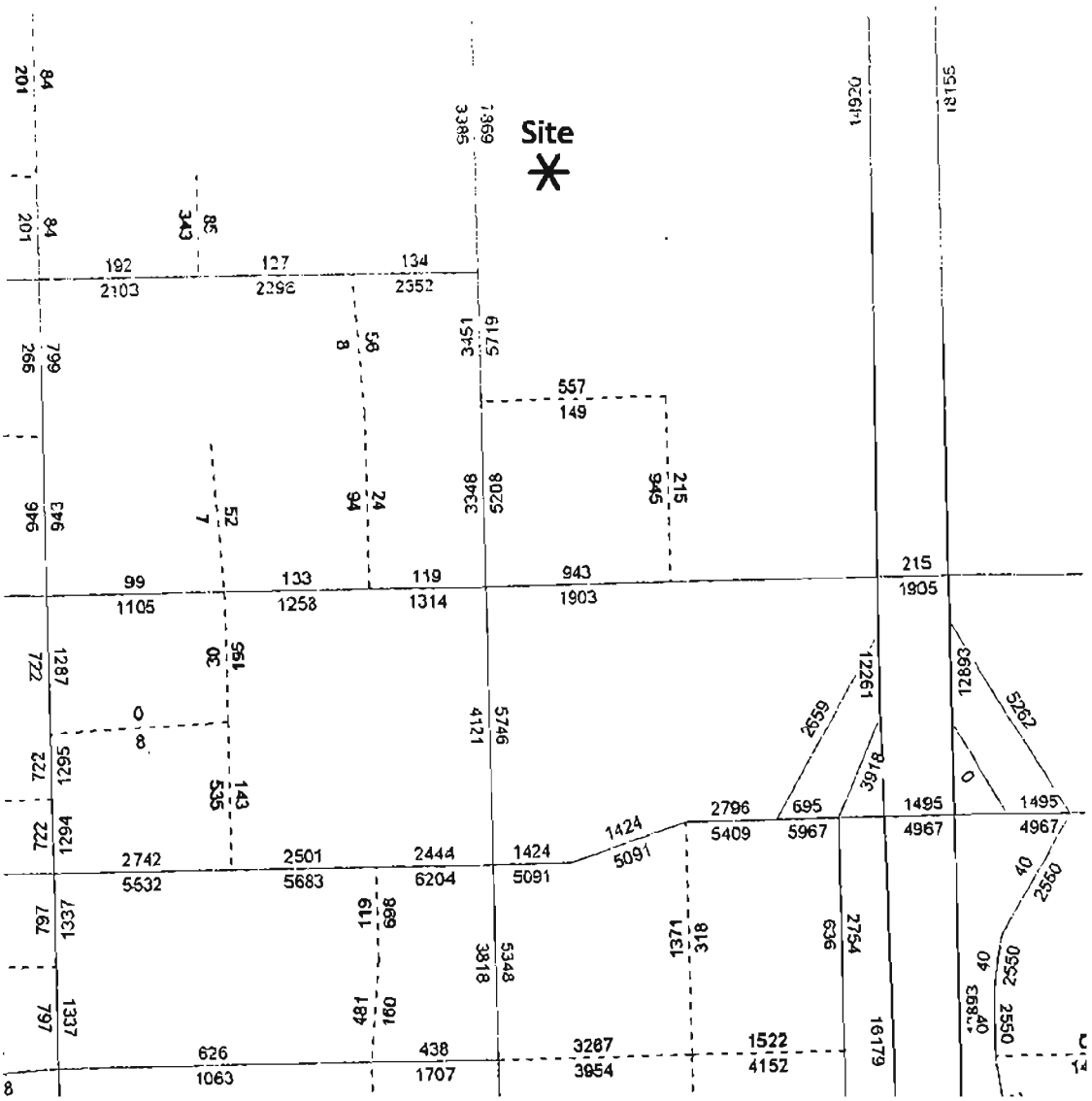
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-7

Figure D-8
Future Year PM Peak Period Plot



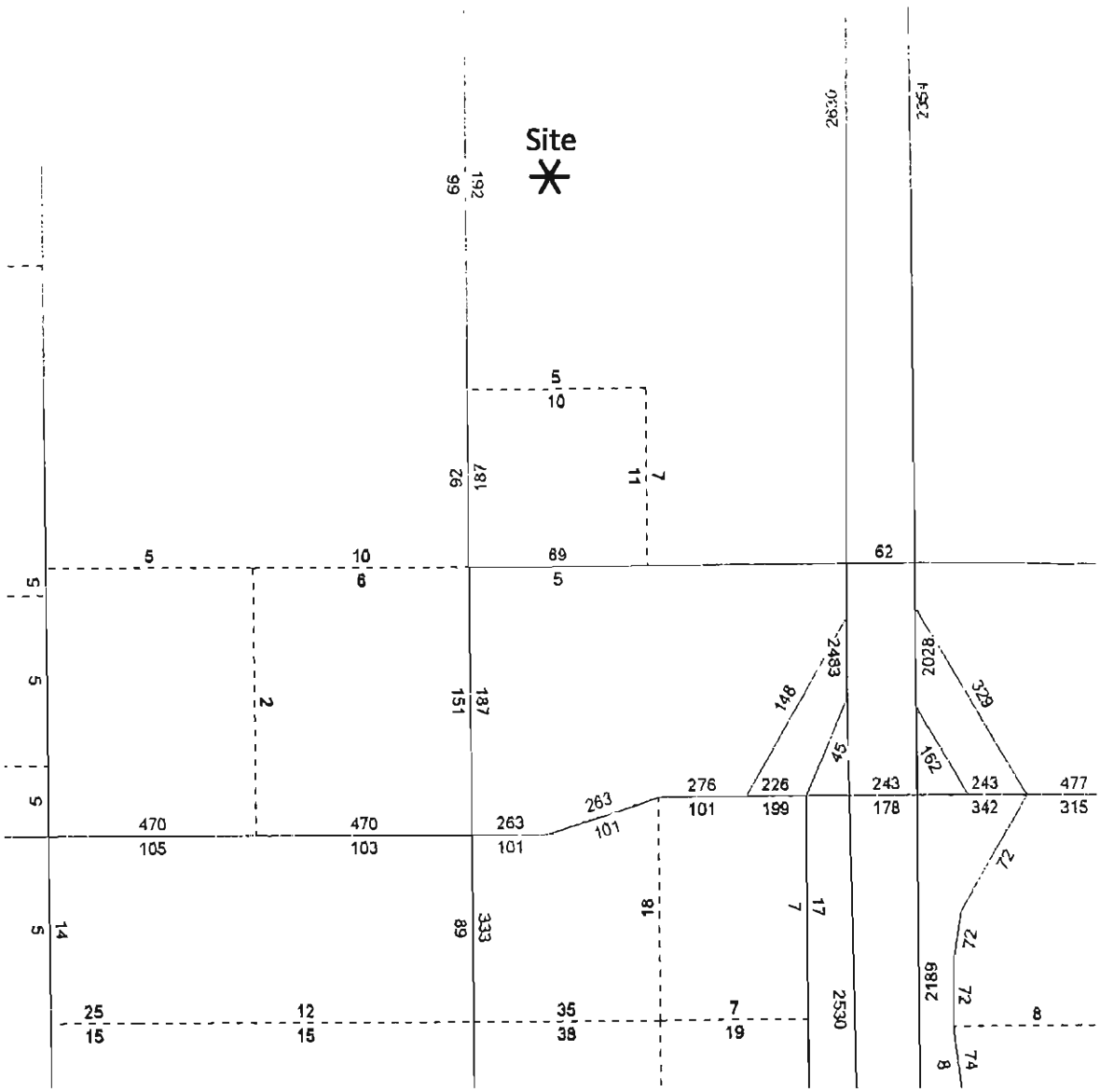
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-8

Figure D-9
Future Year AM Peak Period Truck Plot



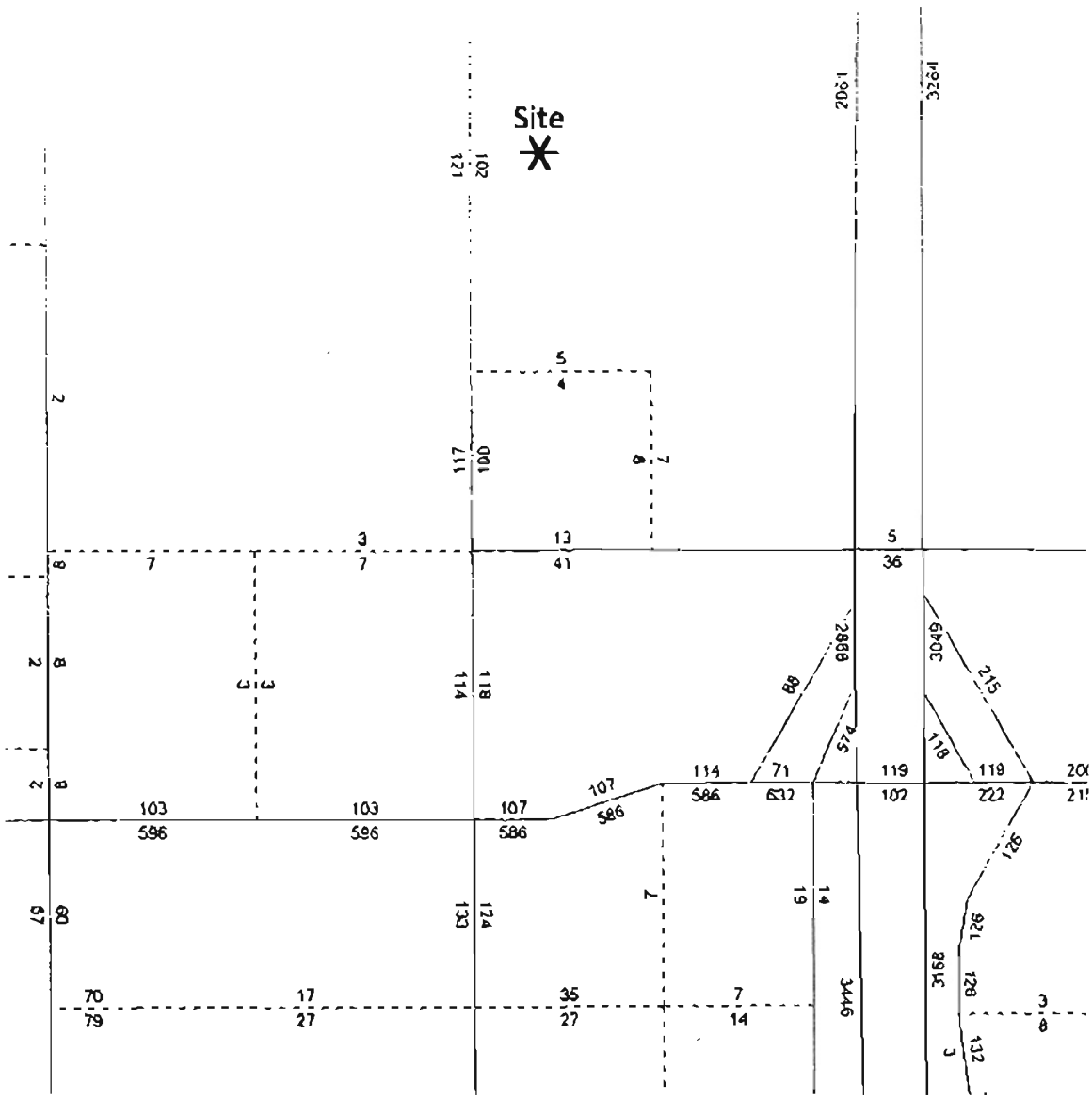
NTS

KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-9

Figure D-10
Future Year PM Peak Period Truck Plot



KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5206/D-10

APPENDIX E

Explanation and Calculation of Intersection Delay

EXPLANATION AND CALCULATION OF INTERSECTION LEVEL OF SERVICE USING DELAY METHODOLOGY

The levels of service at the unsignalized and signalized intersections are calculated using the delay methodology in the 2000 Highway Capacity Manual. This methodology views an intersection as consisting of several lane groups. A lane group is a set of lanes serving a movement. If there are two northbound left turn lanes, then the lane group serving the northbound left turn movement has two lanes. Similarly, there may be three lanes in the lane group serving the northbound through movement, one lane in the lane group serving the northbound right turn movement, and so forth. It is also possible for one lane to serve two lane groups. A shared lane might result in there being 1.5 lanes in the northbound left turn lane group and 2.5 lanes in the northbound through lane group.

For each lane group, there is a capacity. That capacity is calculated by multiplying the number of lanes in the lane group times a theoretical maximum lane capacity per lane time's 12 adjustment factors.

Each of the 12 adjustment factors has a value of approximately 1.00. A value less than 1.00 is generally assigned when a less than desirable condition occurs.

The 12 adjustment factors are as follows:

1. Peak hour factor (to account for peaking within the peak hour)
2. Lane utilization factor (to account for not all lanes loading equally)
3. Lane width
4. Percent of heavy trucks
5. Approach grade
6. Parking
7. Bus stops at intersections
8. Area type (CBD or other)
9. Right turns
10. Left turns

11. Pedestrian activity

12. Signal progression

The maximum theoretical lane capacity and the 12 adjustment factors for it are all unknowns for which approximate estimates have been recommended in the 2000 HCM. For the most part, the recommended values are not based on statistical analysis but rather on educated estimates. However, it is possible to use the delay method and get reasonable results as will be discussed below.

Once the lane group volume is known and the lane group capacity is known, a volume to capacity ratio can be calculated for the lane group.

With a volume to capacity ratio calculated, average delay per vehicle in a lane group can be estimated. The average delay per vehicle in a lane group is calculated using a complex formula provided by the 2000 HCM, which can be simplified and described as follows:

Delay per vehicle in a lane group is a function of the following:

1. Cycle length

2. Amount of red time faced by a lane group

3. Amount of yellow time for that lane group

4. The volume to capacity ratio of the lane group

The average delay per vehicle for each lane group is calculated, and eventually an overall average delay for all vehicles entering the intersection is calculated. This average delay per vehicle is then used to judge Level of Service. The Level of Services are defined in the table that follows this discussion.

Experience has shown that when a maximum lane capacity of 1,900 vehicles per hour is used (as recommended in the 2000 Highway Capacity Manual), little or no yellow time penalty is used, and none of the 12 penalty factors are applied, calculated delay is realistic. The delay calculation for instance assumes that yellow time is totally unused. Yet experience shows that most of the yellow time is used.

An idiosyncrasy of the delay methodology is that it is possible to add traffic to an intersection and reduce the average total delay per vehicle. If the average total delay is 30 seconds per vehicle for all vehicles traveling through an intersection, and traffic is added to a movement that has an average total delay of 15 seconds per vehicle, then the overall average total delay is reduced.

The delay calculation for a lane group is based on a concept that the delay is a function of the amount of unused capacity available. As the volume approaches capacity and there is no more unused capacity available, then the delay rapidly increases. Delay is not proportional to volume, but rather increases rapidly as the unused capacity approaches zero.

Because delay is not linearly related to volumes, the delay does not reflect how close an intersection is to overloading. If an intersection is operating at Level of Service C and has an average total delay of 18 seconds per vehicle, you know very little as to what percent the traffic can increase before Level of Service E is reached.

LEVEL OF SERVICE DESCRIPTION[1]

Level Of Service	Description	Average Total Delay Per Vehicle (Seconds)	
		Signalized	Unsignalized
A	Level of Service A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 10.00	0 to 10.00
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average total delay.	10.01 to 20.00	10.01 to 15.00
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	20.01 to 35.00	15.01 to 25.00
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.01 to 55.00	25.01 to 35.00
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	55.01 to 80.00	35.01 to 50.00
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	80.01 and up	50.01 and up

[1] Source: Highway Capacity Manual Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 2000.

Existing

Redlands Distribution Center Building 13
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.568
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	OPTIMIZED	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	1 0	1	0 0	0 0	0	0 0 0	1 0	0	0 1
Volume Module:												
Base Vol:	0	387	26	7	746	0	0	0	0	28	0	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	387	26	7	746	0	0	0	0	28	0	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.85	0.85	0.85	1.00	1.00	1.00	0.75	0.75	0.75
PHF Volume:	0	449	30	8	881	0	0	0	0	37	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	449	30	8	881	0	0	0	0	37	0	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	449	30	8	881	0	0	0	0	37	0	13
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.02	0.00	0.49	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.57	0.87	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Volume/Cap:	0.00	0.83	0.06	0.01	0.56	0.00	0.00	0.00	0.00	0.31	0.00	0.29
Delay/Veh:	0.0	30.2	15.0	5.5	1.4	0.0	0.0	0.0	0.0	30.2	0.0	32.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	30.2	15.0	5.5	1.4	0.0	0.0	0.0	0.0	30.2	0.0	32.1
LOS by Move:	A	C	B	A	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	11	0	0	5	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec): 70 Critical Vol./Cap.(X): 0.430
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 4.2
Optimal Cycle: OPTIMIZED Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	601	20	4	498	0	0	0	0	22	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	601	20	4	498	0	0	0	0	22	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.95	0.95	0.95	1.00	1.00	1.00	0.67	0.67	0.67
PHF Volume:	0	668	22	4	523	0	0	0	0	33	0	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	668	22	4	523	0	0	0	0	33	0	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	668	22	4	523	0	0	0	0	33	0	21
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.37	0.01	0.00	0.29	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.73	0.73	0.14	0.88	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Volume/Cap:	0.00	0.51	0.02	0.02	0.33	0.00	0.00	0.00	0.00	0.32	0.00	0.30
Delay/Veh:	0.0	4.3	2.5	25.8	0.9	0.0	0.0	0.0	0.0	34.6	0.0	35.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	4.3	2.5	25.8	0.9	0.0	0.0	0.0	0.0	34.6	0.0	35.2
LOS by Move:	A	A	A	C	A	A	A	A	A	C	A	D
HCM2kAvgQ:	0	7	0	0	2	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

****

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[23.3]

****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	0	1	0	0	0		0	0	0	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	6	404	0				0	731	46				7	0	12				0	0	0			
Growth Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Initial Bse:	6	404	0				0	731	46				7	0	12				0	0	0			
User Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Adj:	0.86	0.86	0.86				0.78	0.78	0.78				0.88	0.88	0.88				1.00	1.00	1.00			
PHF Volume:	7	469	0				0	938	59				8	0	14				0	0	0			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	7	469	0				0	938	59				8	0	14				0	0	0			
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.4	6.5	6.2	xxxxx	xxxx	xxxxx						
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5	4.0	3.3	xxxxx	xxxx	xxxxx						
Capacity Module:																								
Cnflict Vol:	997	xxxx	xxxxx	xxxx	xxxx	xxxxx							1451	1451	968	xxxx	xxxx	xxxxx						
Potent Cap.:	702	xxxx	xxxxx	xxxx	xxxx	xxxxx							145	132	311	xxxx	xxxx	xxxxx						
Move Cap.:	702	xxxx	xxxxx	xxxx	xxxx	xxxxx							144	131	311	xxxx	xxxx	xxxxx						
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx							0.06	0.00	0.04	xxxx	xxxx	xxxx						
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx							xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx						
Control Del:	10.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
LOS by Move:	B	*	*	*	*	*							*	*	*	*	*	*						
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx							xxxx	218	xxxxx	xxxx	xxxx	xxxxx						
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx						
Shrd ConDel:	10.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							xxxxx	23.3	xxxxx	xxxxx	xxxx	xxxxx						
Shared LOS:	B	*	*	*	*	*							*	C	*	*	*	*						
ApproachDel:	xxxxxx			xxxxxx									23.3			xxxxxx								
ApproachLOS:	*			*									C			*								

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: D[32.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	0 0	0	0 0	0 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	7 545	0	0	478	15	61	0	12	0	0	0	
Growth Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	7 545	0	0	478	15	61	0	12	0	0	0	
User Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.97 0.97	0.97	0.92	0.92	0.92	0.55	0.55	0.55	1.00	1.00	1.00	
PHF Volume:	7 560	0	0	518	16	110	0	22	0	0	0	
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	7 560	0	0	518	16	110	0	22	0	0	0	
Critical Gap Module:												
Critical Gp:	4.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx		
Capacity Module:												
Cnflict Vol:	535 xxxx xxxxx	xxxx	xxxx	xxxxx	1101	1101	527	xxxx	xxxx	xxxxx		
Potent Cap.:	1043 xxxx xxxxx	xxxx	xxxx	xxxxx	237	214	555	xxxx	xxxx	xxxxx		
Move Cap.:	1043 xxxx xxxxx	xxxx	xxxx	xxxxx	235	212	555	xxxx	xxxx	xxxxx		
Volume/Cap:	0.01 xxxx xxxx	xxxx	xxxx	xxxx	0.47	0.00	0.04	xxxx	xxxx	xxxx		
Level Of Service Module:												
2Way95thQ:	0.0 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Control Del:	8.5 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
LOS by Move:	A *	*	*	*	*	*	*	*	*	*		
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx xxxx xxxxx		xxxx	xxxx	xxxxx	xxxx	260	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	0.0 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.7	xxxxx	xxxxx	xxxx	xxxxx		
Shrd ConDel:	8.5 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	32.3	xxxxx	xxxxx	xxxx	xxxxx		
Shared LOS:	A *	*	*	*	*	*	D	*	*	*	*	
ApproachDel:	xxxxxx		xxxxxx			32.3			xxxxxx			
ApproachLOS:	*		*			D			*			

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.775
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	36.8
Optimal Cycle: OPTIMIZED		Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0	1 0	0 1	0 0	1! 0	0
Volume Module:												
Base Vol:	12	273	108	120	509	73	10	43	8	52	13	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	273	108	120	509	73	10	43	8	52	13	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.73	0.73	0.73	0.76	0.76	0.76	0.49	0.49	0.49	0.74	0.74	0.74
PHF Volume:	16	372	147	159	672	96	20	87	16	70	18	199
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	372	147	159	672	96	20	87	16	70	18	199
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	372	147	159	672	96	20	87	16	70	18	199
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.75	0.25	0.20	0.80	1.00	0.26	0.06	0.68
Final Sat.:	1700	1800	1800	1700	3148	452	336	1444	1800	435	109	1230
Capacity Analysis Module:												
Vol/Sat:	0.01	0.21	0.08	0.09	0.21	0.21	0.06	0.06	0.01	0.16	0.16	0.16
Crit Moves:		****		****				****				****
Green/Cycle:	0.02	0.27	0.27	0.12	0.37	0.37	0.08	0.08	0.08	0.21	0.21	0.21
Volume/Cap:	0.58	0.78	0.31	0.78	0.58	0.58	0.78	0.78	0.12	0.78	0.78	0.78
Delay/Veh:	72.4	39.9	28.2	57.4	24.6	24.6	66.4	66.4	41.1	45.4	45.4	45.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.4	39.9	28.2	57.4	24.6	24.6	66.4	66.4	41.1	45.4	45.4	45.4
LOS by Move:	E	D	C	E	C	C	E	E	D	D	D	D
HCM2kAvgQ:	1	12	4	7	9	9	5	5	1	10	10	10

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	105	Critical Vol./Cap.(X):	0.754
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	34.3
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	9	504	51	126	387	8	27	36	27	17	12	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	504	51	126	387	8	27	36	27	17	12	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.95	0.95	0.95	0.66	0.66	0.66	0.65	0.65	0.65
PHF Volume:	10	578	58	133	408	8	41	55	41	26	19	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	578	58	133	408	8	41	55	41	26	19	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	578	58	133	408	8	41	55	41	26	19	93
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.96	0.04	0.44	0.56	1.00	0.20	0.13	0.67
Final Sat.:	1700	1800	1800	1700	3527	73	752	1003	1800	340	240	1200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.32	0.03	0.08	0.12	0.12	0.05	0.05	0.02	0.08	0.08	0.08
Crit Moves:		****		****			****					****
Green/Cycle:	0.03	0.43	0.43	0.10	0.50	0.50	0.07	0.07	0.07	0.10	0.10	0.10
Volume/Cap:	0.23	0.75	0.08	0.75	0.23	0.23	0.75	0.75	0.32	0.75	0.75	0.75
Delay/Veh:	52.7	29.7	17.9	62.4	14.7	14.7	70.0	70.0	47.6	62.0	62.0	62.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.7	29.7	17.9	62.4	14.7	14.7	70.0	70.0	47.6	62.0	62.0	62.0
LOS by Move:	D	C	B	E	B	B	E	E	D	E	E	E
HCM2kAvgQ:	1	17	1	6	4	4	5	5	2	6	6	6

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 75 Critical Vol./Cap.(X): 0.400
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 23.8
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	99	116	53	47	293	138	34	111	33	180	425	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	99	116	53	47	293	138	34	111	33	180	425	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.73	0.73	0.73	0.91	0.91	0.91	0.95	0.95	0.95
PHF Volume:	112	131	60	65	402	190	38	123	36	190	448	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	131	60	65	402	190	38	123	36	190	448	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	131	60	65	402	190	38	123	36	190	448	149
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.37	0.63	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2471	1129	1700	3600	1800	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.07	0.05	0.05	0.04	0.11	0.11	0.02	0.07	0.02	0.11	0.12	0.08
Crit Moves:	****				****			****		****		
Green/Cycle:	0.13	0.24	0.24	0.13	0.24	0.24	0.14	0.37	0.37	0.15	0.38	0.38
Volume/Cap:	0.49	0.22	0.22	0.28	0.47	0.44	0.16	0.18	0.05	0.76	0.32	0.22
Delay/Veh:	31.8	23.0	23.0	30.0	24.8	24.9	28.9	15.9	15.1	43.6	16.4	15.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.8	23.0	23.0	30.0	24.8	24.9	28.9	15.9	15.1	43.6	16.4	15.7
LOS by Move:	C	C	C	C	C	C	C	B	B	D	B	B
HCM2kAvgQ:	3	2	2	2	4	4	1	2	1	6	4	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 80 Critical Vol./Cap.(X): 0.713
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 28.9
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	30	419	207	73	403	76	149	440	109	162	151	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	419	207	73	403	76	149	440	109	162	151	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.82	0.82	0.82	0.93	0.93	0.93	0.83	0.83	0.83
PHF Volume:	36	509	252	89	490	92	161	475	118	195	182	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	509	252	89	490	92	161	475	118	195	182	126
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	509	252	89	490	92	161	475	118	195	182	126
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.34	0.66	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2410	1190	1700	3600	1800	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.21	0.21	0.05	0.14	0.05	0.09	0.26	0.07	0.11	0.05	0.07
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.28	0.28	0.13	0.26	0.26	0.13	0.35	0.35	0.15	0.37	0.37
Volume/Cap:	0.15	0.77	0.77	0.42	0.53	0.20	0.72	0.75	0.19	0.77	0.14	0.19
Delay/Veh:	30.3	30.3	30.3	33.6	26.1	23.5	44.2	28.1	18.2	45.8	16.9	17.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.3	30.3	30.3	33.6	26.1	23.5	44.2	28.1	18.2	45.8	16.9	17.3
LOS by Move:	C	C	C	C	C	C	D	C	B	D	B	B
HCM2kAvgQ:	1	11	11	3	6	2	6	12	2	7	2	2

Note: Queue reported is the number of cars per lane.

Existing Plus Project

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.574
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 12.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	387	26	7	746	0	0	0	0	28	0	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	387	26	7	746	0	0	0	0	28	0	10
Added Vol:	0	2	11	4	4	0	0	0	0	3	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	389	37	11	750	0	0	0	0	31	0	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.85	0.85	0.85	1.00	1.00	1.00	0.75	0.75	0.75
PHF Volume:	0	452	43	13	885	0	0	0	0	41	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	452	43	13	885	0	0	0	0	41	0	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	452	43	13	885	0	0	0	0	41	0	16
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.02	0.01	0.49	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.57	0.87	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Volume/Cap:	0.00	0.84	0.08	0.01	0.56	0.00	0.00	0.00	0.00	0.34	0.00	0.31
Delay/Veh:	0.0	30.6	15.1	5.6	1.5	0.0	0.0	0.0	0.0	30.3	0.0	32.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	30.6	15.1	5.6	1.5	0.0	0.0	0.0	0.0	30.3	0.0	32.1
LOS by Move:	A	C	B	A	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	11	1	0	5	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.451
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 5.1
Optimal Cycle: OPTIMIZED Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	1 0	1	0 0	0 0	0	0 0	1 0	0	0 1
Volume Module:												
Base Vol:	0	601	20	4	498	0	0	0	0	22	0	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	601	20	4	498	0	0	0	0	22	0	14
Added Vol:	0	4	5	2	2	0	0	0	0	11	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	605	25	6	500	0	0	0	0	33	0	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.95	0.95	0.95	1.00	1.00	1.00	0.67	0.67	0.67
PHF Volume:	0	672	28	6	525	0	0	0	0	49	0	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	672	28	6	525	0	0	0	0	49	0	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	672	28	6	525	0	0	0	0	49	0	27
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.37	0.02	0.00	0.29	0.00	0.00	0.00	0.00	0.03	0.00	0.01
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.68	0.68	0.17	0.85	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Volume/Cap:	0.00	0.55	0.02	0.02	0.34	0.00	0.00	0.00	0.00	0.41	0.00	0.28
Delay/Veh:	0.0	5.4	3.1	20.9	1.1	0.0	0.0	0.0	0.0	29.8	0.0	28.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	5.4	3.1	20.9	1.1	0.0	0.0	0.0	0.0	29.8	0.0	28.9
LOS by Move:	A	A	A	C	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	7	0	0	2	0	0	0	0	2	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: D[30.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Volume Module:												
Base Vol:	6	404	0	0	731	46	7	0	12	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	404	0	0	731	46	7	0	12	0	0	0
Added Vol:	0	11	10	4	3	0	0	1	0	3	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	415	10	4	734	46	7	1	12	3	0	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.78	0.78	0.78	0.88	0.88	0.88	0.95	0.95	0.95
PHF Volume:	7	482	12	5	942	59	8	1	14	3	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	482	12	5	942	59	8	1	14	3	0	2
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1001	xxxx	xxxxx	494	xxxx	xxxxx	1485	1490	972	1491	1513	488
Potent Cap.:	699	xxxx	xxxxx	1080	xxxx	xxxxx	104	125	309	103	121	584
Move Cap.:	699	xxxx	xxxxx	1080	xxxx	xxxxx	102	123	309	97	119	584
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	0.08	0.01	0.04	0.03	0.00	0.00
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	10.2	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	173	xxxxx	xxxx	145	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	28.9	xxxxx	xxxxx	30.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	D	*
ApproachDel:	xxxxxx			xxxxxx			28.9			30.8		
ApproachLOS:	*			*			D			D		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: F[51.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0
Volume Module:												
Base Vol:	7	545	0	0	478	15	61	0	12	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	545	0	0	478	15	61	0	12	0	0	0
Added Vol:	0	5	5	2	11	0	0	0	0	10	1	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	550	5	2	489	15	61	0	12	10	1	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.92	0.92	0.92	0.55	0.55	0.55	0.95	0.95	0.95
PHF Volume:	7	565	5	2	530	16	110	0	22	11	1	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	565	5	2	530	16	110	0	22	11	1	4
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	547	xxxx	xxxxx	570	xxxx	xxxxx	1128	1128	539	1136	1133	568
Potent Cap.:	1033	xxxx	xxxxx	1012	xxxx	xxxxx	183	206	547	181	205	526
Move Cap.:	1033	xxxx	xxxxx	1012	xxxx	xxxxx	180	204	547	172	203	526
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	0.61	0.00	0.04	0.06	0.01	0.01
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.5	xxxx	xxxxx	8.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	202	xxxxx	xxxx	213	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.9	xxxxx	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	51.2	xxxxx	xxxxx	23.3	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			51.2			23.3		
ApproachLOS:	*			*			F			C		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	0.601
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	13.3
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	18	18	18	18	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	6	404	0	0	731	46	7	0	12	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	404	0	0	731	46	7	0	12	0	0	0
Added Vol:	0	11	10	4	3	0	0	1	0	3	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	415	10	4	734	46	7	1	12	3	0	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.78	0.78	0.78	0.88	0.88	0.88	0.95	0.95	0.95
PHF Volume:	7	482	12	5	942	59	8	1	14	3	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	482	12	5	942	59	8	1	14	3	0	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	482	12	5	942	59	8	1	14	3	0	2
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.98	0.02	1.00	0.94	0.06	0.36	0.05	0.59	0.61	0.00	0.39
Final Sat.:	1700	1758	42	1700	1694	106	617	88	1058	1043	0	695
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.27	0.00	0.56	0.56	0.01	0.01	0.01	0.00	0.00	0.00
Crit Moves:	****				****			****				
Green/Cycle:	0.08	0.64	0.64	0.18	0.74	0.74	0.14	0.14	0.14	0.14	0.00	0.14
Volume/Cap:	0.05	0.43	0.43	0.02	0.75	0.75	0.09	0.09	0.09	0.02	0.00	0.02
Delay/Veh:	55.8	12.1	12.1	44.0	12.5	12.5	49.0	49.0	49.0	48.4	0.0	48.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.8	12.1	12.1	44.0	12.5	12.5	49.0	49.0	49.0	48.4	0.0	48.4
LOS by Move:	E	B	B	D	B	B	D	D	D	D	A	D
HCM2kAvgQ:	0	10	10	0	24	24	1	1	1	0	0	0

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec):	105	Critical Vol./Cap.(X):	0.419
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	18	18	18	18	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	7	545	0	0	478	15	61	0	12	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	545	0	0	478	15	61	0	12	0	0	0
Added Vol:	0	5	5	2	11	0	0	0	0	10	1	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	550	5	2	489	15	61	0	12	10	1	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.92	0.92	0.92	0.55	0.55	0.55	0.95	0.95	0.95
PHF Volume:	7	565	5	2	530	16	110	0	22	11	1	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	565	5	2	530	16	110	0	22	11	1	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	565	5	2	530	16	110	0	22	11	1	4
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.99	0.01	1.00	0.97	0.03	0.84	0.00	0.16	0.68	0.06	0.26
Final Sat.:	1700	1784	16	1700	1746	54	1434	0	282	1155	115	462
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.32	0.00	0.30	0.30	0.08	0.00	0.08	0.01	0.01	0.01
Crit Moves:		****		****			****					
Green/Cycle:	0.18	0.68	0.68	0.10	0.59	0.59	0.17	0.00	0.17	0.17	0.17	0.17
Volume/Cap:	0.02	0.47	0.47	0.01	0.52	0.52	0.45	0.00	0.45	0.05	0.05	0.05
Delay/Veh:	35.1	8.3	8.3	43.1	13.3	13.3	40.1	0.0	40.1	36.4	36.4	36.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.1	8.3	8.3	43.1	13.3	13.3	40.1	0.0	40.1	36.4	36.4	36.4
LOS by Move:	D	A	A	D	B	B	D	A	D	D	D	D
HCM2kAvgQ:	0	9	9	0	11	11	4	0	4	0	0	0

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	37.9
Optimal Cycle: OPTIMIZED		Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	12	273	108	120	509	73	10	43	8	52	13	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	273	108	120	509	73	10	43	8	52	13	147
Added Vol:	0	19	0	0	6	1	2	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	292	108	120	515	74	12	43	8	52	13	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.73	0.73	0.73	0.76	0.76	0.76	0.49	0.49	0.49	0.74	0.74	0.74
PHF Volume:	16	398	147	159	680	98	24	87	16	70	18	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	398	147	159	680	98	24	87	16	70	18	200
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	398	147	159	680	98	24	87	16	70	18	200
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.75	0.25	0.23	0.77	1.00	0.25	0.06	0.69
Final Sat.:	1700	1800	1800	1700	3148	452	388	1389	1800	433	108	1233
Capacity Analysis Module:												
Vol/Sat:	0.01	0.22	0.08	0.09	0.22	0.22	0.06	0.06	0.01	0.16	0.16	0.16
Crit Moves:		****		****				****		****		
Green/Cycle:	0.02	0.28	0.28	0.12	0.38	0.38	0.08	0.08	0.08	0.20	0.20	0.20
Volume/Cap:	0.58	0.80	0.30	0.80	0.58	0.58	0.80	0.80	0.12	0.80	0.80	0.80
Delay/Veh:	72.1	41.0	27.4	61.3	24.2	24.2	70.3	70.3	41.1	48.2	48.2	48.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.1	41.0	27.4	61.3	24.2	24.2	70.3	70.3	41.1	48.2	48.2	48.2
LOS by Move:	E	D	C	E	C	C	E	E	D	D	D	D
HCM2kAvgQ:	1	13	3	7	9	9	5	5	1	10	10	10

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.763
Loss Time (sec): 31 (Y+R=5.0 sec) Average Delay (sec/veh): 34.4
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	9	504	51	126	387	8	27	36	27	17	12	60
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	504	51	126	387	8	27	36	27	17	12	60
Added Vol:	0	8	0	1	19	2	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	512	51	127	406	10	28	36	27	17	12	60
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.95	0.95	0.95	0.66	0.66	0.66	0.65	0.65	0.65
PHF Volume:	10	587	58	134	428	11	43	55	41	26	19	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	587	58	134	428	11	43	55	41	26	19	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	587	58	134	428	11	43	55	41	26	19	93
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.95	0.05	0.45	0.55	1.00	0.20	0.13	0.67
Final Sat.:	1700	1800	1800	1700	3513	87	768	987	1800	340	240	1200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.33	0.03	0.08	0.12	0.12	0.06	0.06	0.02	0.08	0.08	0.08
Crit Moves:		****		****				****				****
Green/Cycle:	0.03	0.43	0.43	0.10	0.51	0.51	0.07	0.07	0.07	0.10	0.10	0.10
Volume/Cap:	0.24	0.76	0.08	0.76	0.24	0.24	0.76	0.76	0.31	0.76	0.76	0.76
Delay/Veh:	53.1	30.1	17.8	63.6	14.7	14.7	71.2	71.2	47.6	63.3	63.3	63.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.1	30.1	17.8	63.6	14.7	14.7	71.2	71.2	47.6	63.3	63.3	63.3
LOS by Move:	D	C	B	E	B	B	E	E	D	E	E	E
HCM2kAvgQ:	1	17	1	6	4	4	5	5	2	6	6	6

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 80 Critical Vol./Cap.(X): 0.398
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	99	116	53	47	293	138	34	111	33	180	425	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	99	116	53	47	293	138	34	111	33	180	425	141
Added Vol:	0	8	0	2	3	1	4	0	0	0	0	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	99	124	53	49	296	139	38	111	33	180	425	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.73	0.73	0.73	0.91	0.91	0.91	0.95	0.95	0.95
PHF Volume:	112	140	60	67	407	191	42	123	36	190	448	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	140	60	67	407	191	42	123	36	190	448	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	112	140	60	67	407	191	42	123	36	190	448	156
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.40	0.60	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2522	1078	1700	3600	1800	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.07	0.06	0.06	0.04	0.11	0.11	0.02	0.07	0.02	0.11	0.12	0.09
Crit Moves:	****				****			****		****		
Green/Cycle:	0.13	0.23	0.23	0.13	0.23	0.23	0.14	0.35	0.35	0.20	0.41	0.41
Volume/Cap:	0.53	0.25	0.25	0.32	0.50	0.47	0.17	0.19	0.06	0.56	0.31	0.21
Delay/Veh:	35.2	25.6	25.6	32.7	27.6	27.7	30.3	18.3	17.3	30.9	16.3	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.2	25.6	25.6	32.7	27.6	27.7	30.3	18.3	17.3	30.9	16.3	15.6
LOS by Move:	D	C	C	C	C	C	C	B	B	C	B	B
HCM2kAvgQ:	4	2	2	2	5	5	1	2	1	5	4	3

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec):	80	Critical Vol./Cap.(X):	0.721
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	29.1
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	30	419	207	73	403	76	149	440	109	162	151	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	419	207	73	403	76	149	440	109	162	151	105
Added Vol:	0	4	0	7	8	4	2	0	0	0	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	423	207	80	411	80	151	440	109	162	151	108
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.82	0.82	0.82	0.93	0.93	0.93	0.83	0.83	0.83
PHF Volume:	36	514	252	97	499	97	163	475	118	195	182	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	514	252	97	499	97	163	475	118	195	182	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	514	252	97	499	97	163	475	118	195	182	130
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.34	0.66	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2417	1183	1700	3600	1800	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.21	0.21	0.06	0.14	0.05	0.10	0.26	0.07	0.11	0.05	0.07
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.28	0.28	0.13	0.26	0.26	0.13	0.35	0.35	0.15	0.37	0.37
Volume/Cap:	0.15	0.77	0.77	0.46	0.54	0.21	0.73	0.75	0.19	0.77	0.14	0.20
Delay/Veh:	30.3	30.4	30.4	34.0	26.2	23.5	45.0	28.1	18.2	46.2	16.9	17.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.3	30.4	30.4	34.0	26.2	23.5	45.0	28.1	18.2	46.2	16.9	17.4
LOS by Move:	C	C	C	C	C	C	D	C	B	D	B	B
HCM2kAvgQ:	1	11	11	3	6	2	6	12	2	7	2	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project West Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: A[8.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0 0	0	0 0	0 0	0	0 0	0 1	0	1 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	33	0	0	38	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	33	0	0	38	0
Added Vol:	4	0	0	0	0	0	0	7	9	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	0	0	0	0	0	0	40	9	0	40	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	4	0	0	0	0	0	0	42	9	0	42	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	4	0	0	0	0	0	0	42	9	0	42	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	89	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	917	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	917	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #5 Project West Driveway (NS) at Riverbluff Avenue (EW)

****

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: A[8.9]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0 0	0	0 0	0 0	0	0 0	0 1	0	1 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	24	0	0	36	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	24	0	0	36	0
Added Vol:	9	0	0	0	0	0	0	3	5	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	0	0	0	0	0	0	27	5	0	43	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	0	0	0	0	0	0	28	5	0	45	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	0	0	0	0	0	0	28	5	0	45	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	76	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	932	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	932	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

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Note: Queue reported is the number of cars per lane.

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Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #6 Project West Driveway (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 4.5 Worst Case Level Of Service: A[8.3]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	4	9	7	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	4	9	7	0	0	2	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	4	9	7	0	0	2	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	4	9	7	0	0	2	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	2	2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1088	1633	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1088	1633	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.3	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.3			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #6 Project West Driveway (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: A[8.4]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	0 0	1	0 1	0 0	0	0 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	9	5	3	0	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	9	5	3	0	0	7	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	9	5	3	0	0	7	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	9	5	3	0	0	7	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	7	7	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1081	1626	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1081	1626	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.4	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.4			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Project East Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[8.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 0	0	0 0	0 0	0	0 0	0 1	0	0 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	33	0	0	38	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	33	0	0	38	0
Added Vol:	2	0	0	0	0	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	0	0	0	0	0	0	33	7	0	38	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	0	0	0	0	0	0	35	7	0	40	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	0	0	0	0	0	35	7	0	40	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	78	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	929	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	929	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	8.9			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #7 Project East Driveway (NS) at Riverbluff Avenue (EW)

****

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: A[8.8]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0 0	0	0 0	0 0	0	0 0	0 1	0	0 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	24	0	0	36	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	24	0	0	36	0
Added Vol:	7	0	0	0	0	0	0	0	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	0	0	0	0	0	0	24	3	0	36	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	7	0	0	0	0	0	0	25	3	0	38	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	0	0	0	0	0	0	25	3	0	38	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	65	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	946	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	946	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		8.8			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Existing Plus Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Project East Driveway (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound				West Bound			
Movement:	L	T	R	L	T	R	L	T	R		L	T	R	
Control:	Stop Sign			Stop Sign			Uncontrolled				Uncontrolled			
Rights:	Include			Include			Include				Include			
Lanes:	0 0 0 0 0			0 0 0 0 1			1 0 0 0 0				0 0 0 1 0			
Volume Module:														
Base Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	0	0	0	0	0	0	0		0	0	0	
Added Vol:	0	0	0	0	0	2	7	0	0		0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0		0	0	0	
Initial Fut:	0	0	0	0	0	2	7	0	0		0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	0	0	0	0	0	2	7	0	0		0	0	0	
Reduct Vol:	0	0	0	0	0	0	0	0	0		0	0	0	
FinalVolume:	0	0	0	0	0	2	7	0	0		0	0	0	
Critical Gap Module:														
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Capacity Module:														
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	0	0	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	900	900	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	900	900	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx		
Level Of Service Module:														
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.0	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*		
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*	*	*	*	*	*	*		*	*	*	
ApproachDel:	xxxxxx			9.0			xxxxxx				xxxxxx			
ApproachLOS:	*			A			*				*			

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Existing Plus Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #8 Project East Driveway (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 9.0 Worst Case Level Of Service: A[9.0]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 0 0 1			1 0 0 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	7	3	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	7	3	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	7	3	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	7	3	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	0	0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	900	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	900	900	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.0	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			9.0			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

****

Note: Queue reported is the number of cars per lane.

****

Opening Year (2014) Without Project

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.661
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	409	27	7	851	0	0	0	0	29	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	409	27	7	851	0	0	0	0	29	0	11
Added Vol:	0	9	5	5	16	0	0	0	0	4	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	418	32	12	867	0	0	0	0	33	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.85	0.85	0.85	1.00	1.00	1.00	0.75	0.75	0.75
PHF Volume:	0	485	37	14	1024	0	0	0	0	44	0	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	485	37	14	1024	0	0	0	0	44	0	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	485	37	14	1024	0	0	0	0	44	0	19
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.02	0.01	0.57	0.00	0.00	0.00	0.00	0.03	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.57	0.87	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Volume/Cap:	0.00	0.90	0.07	0.01	0.65	0.00	0.00	0.00	0.00	0.37	0.00	0.39
Delay/Veh:	0.0	38.0	15.1	5.5	2.1	0.0	0.0	0.0	0.0	30.6	0.0	34.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	38.0	15.1	5.5	2.1	0.0	0.0	0.0	0.0	30.6	0.0	34.0
LOS by Move:	A	D	B	A	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	13	1	0	7	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	75	Critical Vol./Cap.(X):	0.532
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	5.5
Optimal Cycle: OPTIMIZED		Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	1 0	1 0	0	0 0	0	0 0	1 0	0	0 1
Volume Module:												
Base Vol:	0	724	21	5	546	0	0	0	0	24	0	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	724	21	5	546	0	0	0	0	24	0	16
Added Vol:	0	19	3	2	8	0	0	0	0	6	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	743	24	7	554	0	0	0	0	30	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.95	0.95	0.95	1.00	1.00	1.00	0.67	0.67	0.67
PHF Volume:	0	826	27	7	581	0	0	0	0	45	0	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	826	27	7	581	0	0	0	0	45	0	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	826	27	7	581	0	0	0	0	45	0	31
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.46	0.01	0.00	0.32	0.00	0.00	0.00	0.00	0.03	0.00	0.02
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.74	0.74	0.13	0.88	0.00	0.00	0.00	0.00	0.04	0.00	0.04
Volume/Cap:	0.00	0.62	0.02	0.03	0.37	0.00	0.00	0.00	0.00	0.47	0.00	0.41
Delay/Veh:	0.0	5.4	2.5	28.3	1.0	0.0	0.0	0.0	0.0	38.6	0.0	38.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	5.4	2.5	28.3	1.0	0.0	0.0	0.0	0.0	38.6	0.0	38.4
LOS by Move:	A	A	A	C	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	10	0	0	3	0	0	0	0	2	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 6.2 Worst Case Level Of Service: F[155.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	11	423	0	0	817	79	8	0	13	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	423	0	0	817	79	8	0	13	0	0	0
Added Vol:	0	9	36	10	11	0	0	14	0	34	14	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	432	36	10	828	79	8	14	13	34	14	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.78	0.78	0.78	0.88	0.88	0.88	0.95	0.95	0.95
PHF Volume:	13	502	42	13	1063	101	9	16	15	36	15	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	502	42	13	1063	101	9	16	15	36	15	5
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	1164	xxxx	xxxxx	544	xxxx	xxxxx	1697	1708	1114	1703	1738	523
Potent Cap.:	607	xxxx	xxxxx	1036	xxxx	xxxxx	74	92	256	73	88	558
Move Cap.:	607	xxxx	xxxxx	1036	xxxx	xxxxx	62	89	256	58	85	558
Volume/Cap:	0.02	xxxx	xxxx	0.01	xxxx	xxxx	0.15	0.18	0.06	0.62	0.17	0.01
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	11.1	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	104	xxxxx	xxxx	70	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.6	xxxxx	xxxxx	3.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	60.1	xxxxx	xxxxx	155	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			60.1			155.2		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 52.1 Worst Case Level Of Service: F[353.8]

****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	8	634		0			0	524		16			96		0		16		0		0		0	
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	8	634		0			0	524		16			96		0		16		0		0		0	
Added Vol:	0	11		28			4	9		0			0		12		0		39		15		11	
PasserByVol:	0	0		0			0	0		0			0		0		0		0		0		0	
Initial Fut:	8	645		28			4	533		16			96		12		16		39		15		11	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.97	0.97		0.97			0.92	0.92		0.92			0.55		0.55		0.55		0.95		0.95		0.95	
PHF Volume:	8	663		29			4	578		17			174		22		29		41		16		12	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	8	663		29			4	578		17			174		22		29		41		16		12	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1	6.5		6.2			7.1	6.5		6.2		
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5	4.0		3.3			3.5	4.0		3.3		
Capacity Module:																								
Cnflict Vol:	595	xxxx	xxxxx				692	xxxx	xxxxx				1303	1304		587			1314	1298		677		
Potent Cap.:	991	xxxx	xxxxx				913	xxxx	xxxxx				139	162		513			136	163		456		
Move Cap.:	991	xxxx	xxxxx				913	xxxx	xxxxx				124	160		513			114	161		456		
Volume/Cap:	0.01	xxxx	xxxx				0.00	xxxx	xxxx				1.40	0.14		0.06			0.36	0.10		0.03		
Level Of Service Module:																								
2Way95thQ:	0.0	xxxx	xxxxx				0.0	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
Control Del:	8.7	xxxx	xxxxx				9.0	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*				A	*	*				*	*	*				*	*	*			
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	141	xxxxx				xxxx	142	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	15.8	xxxxx				xxxxx	2.3	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx	354	xxxxx				xxxxx	52.1	xxxxx			
Shared LOS:	*	*	*				*	*	*				*	F	*				*	F	*			
ApproachDel:	xxxxxx						xxxxxx						353.8						52.1					
ApproachLOS:	*						*						F						F					

****

Note: Queue reported is the number of cars per lane.

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Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	10	18		18	10	18		18	18	18		18	18	18		18
Lanes:	1	0	0	1 0	1	0	0	1 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	11	423		0	0	817		79	8		0	13	0		0	0
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	11	423		0	0	817		79	8		0	13	0		0	0
Added Vol:	0	9		36	10	11		0	0		14	0	34		14	5
PasserByVol:	0	0		0	0	0		0	0		0	0	0		0	0
Initial Fut:	11	432		36	10	828		79	8		14	13	34		14	5
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	0.86	0.86		0.86	0.78	0.78		0.78	0.88		0.88	0.88	0.95		0.95	0.95
PHF Volume:	13	502		42	13	1063		101	9		16	15	36		15	5
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Reduced Vol:	13	502		42	13	1063		101	9		16	15	36		15	5
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
FinalVolume:	13	502		42	13	1063		101	9		16	15	36		15	5
Saturation Flow Module:																
Sat/Lane:	1800	1800		1800	1800	1800		1800	1800		1800	1800	1800		1800	1800
Adjustment:	0.94	1.00		1.00	0.94	1.00		1.00	0.94		1.00	1.00	0.94		1.00	1.00
Lanes:	1.00	0.92		0.08	1.00	0.91		0.09	0.24		0.39	0.37	0.66		0.25	0.09
Final Sat.:	1700	1662		138	1700	1643		157	406		710	660	1113		458	164
Capacity Analysis Module:																
Vol/Sat:	0.01	0.30		0.30	0.01	0.65		0.65	0.02		0.02	0.02	0.03		0.03	0.03
Crit Moves:	****					****									****	
Green/Cycle:	0.08	0.65		0.65	0.17	0.74		0.74	0.14		0.14	0.14	0.14		0.14	0.14
Volume/Cap:	0.10	0.46		0.46	0.05	0.88		0.88	0.16		0.16	0.16	0.23		0.23	0.23
Delay/Veh:	56.1	11.7		11.7	45.7	19.4		19.4	49.7		49.7	49.7	50.3		50.3	50.3
User DelAdj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:	56.1	11.7		11.7	45.7	19.4		19.4	49.7		49.7	49.7	50.3		50.3	50.3
LOS by Move:	E	B		B	D	B		B	D		D	D	D		D	D
HCM2kAvgQ:	1	11		11	0	37		37	1		1	1	2		2	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec): 85 Critical Vol./Cap.(X): 0.556
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	18	18	18	18	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	8	634	0	0	524	16	96	0	16	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	634	0	0	524	16	96	0	16	0	0	0
Added Vol:	0	11	28	4	9	0	0	12	0	39	15	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	645	28	4	533	16	96	12	16	39	15	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.92	0.92	0.92	0.55	0.55	0.55	0.95	0.95	0.95
PHF Volume:	8	663	29	4	578	17	174	22	29	41	16	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	663	29	4	578	17	174	22	29	41	16	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	663	29	4	578	17	174	22	29	41	16	12
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.96	0.04	1.00	0.97	0.03	0.79	0.09	0.12	0.62	0.22	0.16
Final Sat.:	1700	1725	75	1700	1748	52	1333	167	222	1043	401	294
Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.38	0.00	0.33	0.33	0.13	0.13	0.13	0.04	0.04	0.04
Crit Moves:		****		****				****				
Green/Cycle:	0.19	0.60	0.60	0.12	0.53	0.53	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.03	0.64	0.64	0.02	0.62	0.62	0.62	0.62	0.62	0.19	0.19	0.19
Delay/Veh:	28.2	12.4	12.4	33.2	15.4	15.4	33.5	33.5	33.5	27.7	27.7	27.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.2	12.4	12.4	33.2	15.4	15.4	33.5	33.5	33.5	27.7	27.7	27.7
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	0	12	12	0	11	11	6	6	6	2	2	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.862
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	46.7
Optimal Cycle: OPTIMIZED		Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	16	292	122	125	568	87	11	45	8	64	17	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	292	122	125	568	87	11	45	8	64	17	159
Added Vol:	0	41	32	7	38	0	0	2	0	27	1	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	333	154	132	606	87	11	47	8	91	18	163
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.73	0.73	0.73	0.76	0.76	0.76	0.49	0.49	0.49	0.74	0.74	0.74
PHF Volume:	22	454	210	174	801	115	22	96	16	123	24	221
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	454	210	174	801	115	22	96	16	123	24	221
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	454	210	174	801	115	22	96	16	123	24	221
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.75	0.25	0.20	0.80	1.00	0.35	0.06	0.59
Final Sat.:	1700	1800	1800	1700	3148	452	338	1443	1800	591	117	1058
Capacity Analysis Module:												
Vol/Sat:	0.01	0.25	0.12	0.10	0.25	0.25	0.07	0.07	0.01	0.21	0.21	0.21
Crit Moves:		****		****			****				****	
Green/Cycle:	0.02	0.29	0.29	0.12	0.39	0.39	0.08	0.08	0.08	0.24	0.24	0.24
Volume/Cap:	0.65	0.86	0.40	0.86	0.65	0.65	0.86	0.86	0.12	0.86	0.86	0.86
Delay/Veh:	92.7	52.1	33.1	79.1	29.6	29.6	91.7	91.7	49.8	58.0	58.0	58.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	92.7	52.1	33.1	79.1	29.6	29.6	91.7	91.7	49.8	58.0	58.0	58.0
LOS by Move:	F	D	C	E	C	C	F	F	D	E	E	E
HCM2kAvgQ:	2	18	6	9	14	14	7	7	1	16	16	16

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	0.868
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	48.0
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	9	559	64	131	430	9	29	44	36	24	14	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	559	64	131	430	9	29	44	36	24	14	71
Added Vol:	1	32	23	4	44	0	0	1	0	37	2	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	591	87	135	474	9	29	45	36	61	16	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.95	0.95	0.95	0.66	0.66	0.66	0.65	0.65	0.65
PHF Volume:	11	678	100	142	500	9	44	68	55	94	25	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	678	100	142	500	9	44	68	55	94	25	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	678	100	142	500	9	44	68	55	94	25	122
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.96	0.04	0.41	0.59	1.00	0.40	0.10	0.50
Final Sat.:	1700	1800	1800	1700	3533	67	690	1070	1800	688	180	891
Capacity Analysis Module:												
Vol/Sat:	0.01	0.38	0.06	0.08	0.14	0.14	0.06	0.06	0.03	0.14	0.14	0.14
Crit Moves:		****		****				****		****		
Green/Cycle:	0.02	0.43	0.43	0.10	0.51	0.51	0.07	0.07	0.07	0.16	0.16	0.16
Volume/Cap:	0.28	0.87	0.13	0.87	0.28	0.28	0.87	0.87	0.41	0.87	0.87	0.87
Delay/Veh:	66.0	43.7	22.1	93.6	18.6	18.6	101.8	102	59.6	77.4	77.4	77.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.0	43.7	22.1	93.6	18.6	18.6	101.8	102	59.6	77.4	77.4	77.4
LOS by Move:	E	D	C	F	B	B	F	F	E	E	E	E
HCM2kAvgQ:	1	27	2	9	6	6	7	7	3	12	12	12

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 80 Critical Vol./Cap.(X): 0.480
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 26.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	10		18		18		10		18		18		10		28		28		10		28		28	
Lanes:	1	0	1	1	0		1	0	2	0	1		1	0	1	0	1		1	0	2	0	1	
Volume Module:																								
Base Vol:	127	141			60		49	335			163		39	121			39		196	479			150	
Growth Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
Initial Bse:	127	141			60		49	335			163		39	121			39		196	479			150	
Added Vol:	0	57			0		9	46			10		13	0			0		10	3			10	
PasserByVol:	0	0			0		0	0			0		0	0			0		0	0			0	
Initial Fut:	127	198			60		58	381			173		52	121			39		206	482			160	
User Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
PHF Adj:	0.88	0.88			0.88		0.73	0.73			0.73		0.91	0.91			0.91		0.95	0.95			0.95	
PHF Volume:	144	224			68		80	523			238		57	134			43		217	508			169	
Reduct Vol:	0	0			0		0	0			0		0	0			0		0	0			0	
Reduced Vol:	144	224			68		80	523			238		57	134			43		217	508			169	
PCE Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
MLF Adj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
FinalVolume:	144	224			68		80	523			238		57	134			43		217	508			169	
Saturation Flow Module:																								
Sat/Lane:	1800	1800			1800		1800	1800			1800		1800	1800			1800		1800	1800			1800	
Adjustment:	0.94	1.00			1.00		0.94	1.00			1.00		1.00	1.00			1.00		0.94	1.00			1.00	
Lanes:	1.00	1.53			0.47		1.00	2.00			1.00		1.00	1.00			1.00		1.00	2.00			1.00	
Final Sat.:	1700	2763			837		1700	3600			1800		1700	1800			1800		1700	3600			1800	
Capacity Analysis Module:																								
Vol/Sat:	0.08	0.08			0.08		0.05	0.15			0.13		0.03	0.07			0.02		0.13	0.14			0.09	
Crit Moves:	****							****						****					****					
Green/Cycle:	0.13	0.23			0.23		0.13	0.23			0.23		0.14	0.35			0.35		0.20	0.40			0.40	
Volume/Cap:	0.65	0.36			0.36		0.37	0.65			0.59		0.24	0.21			0.07		0.65	0.35			0.23	
Delay/Veh:	40.0	26.2			26.2		33.1	29.9			29.9		30.9	18.4			17.4		34.3	16.8			15.9	
User DelAdj:	1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00		1.00	1.00			1.00	
AdjDel/Veh:	40.0	26.2			26.2		33.1	29.9			29.9		30.9	18.4			17.4		34.3	16.8			15.9	
LOS by Move:	D		C		C		C		C		C		C		B		B		C		B		B	
HCM2kAvgQ:	5		3		3		2		7		6		2		2		1		6		4		3	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec):	80	Critical Vol./Cap.(X):	0.834
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	36.0
Optimal Cycle: OPTIMIZED		Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	37	466	224	79	435	93	176	506	124	167	170	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	466	224	79	435	93	176	506	124	167	170	108
Added Vol:	0	42	0	13	57	11	10	0	0	23	6	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	508	224	92	492	104	186	506	124	190	176	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.82	0.82	0.82	0.93	0.93	0.93	0.83	0.83	0.83
PHF Volume:	45	617	272	112	598	126	201	546	134	229	212	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	617	272	112	598	126	201	546	134	229	212	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	617	272	112	598	126	201	546	134	229	212	138
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.39	0.61	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2498	1102	1700	3600	1800	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.25	0.25	0.07	0.17	0.07	0.12	0.30	0.07	0.13	0.06	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.28	0.28	0.13	0.26	0.26	0.13	0.35	0.35	0.15	0.37	0.37
Volume/Cap:	0.19	0.90	0.90	0.53	0.65	0.27	0.90	0.87	0.21	0.90	0.16	0.21
Delay/Veh:	30.6	38.7	38.7	35.2	28.0	24.1	68.3	36.5	18.4	64.4	17.0	17.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.6	38.7	38.7	35.2	28.0	24.1	68.3	36.5	18.4	64.4	17.0	17.4
LOS by Move:	C	D	D	D	C	C	E	D	B	E	B	B
HCM2kAvgQ:	1	14	14	3	8	3	9	16	2	9	2	2

Note: Queue reported is the number of cars per lane.

Opening Year (2014) With Project

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.667
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	14.6
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0 1		1 0	1 0 0		0 0	0 0 0		1 0	0 0 1	
Volume Module:												
Base Vol:	0	409	27	7	851	0	0	0	0	29	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	409	27	7	851	0	0	0	0	29	0	11
Added Vol:	0	11	16	9	21	0	0	0	0	7	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	420	43	16	872	0	0	0	0	36	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.85	0.85	0.85	1.00	1.00	1.00	0.75	0.75	0.75
PHF Volume:	0	488	50	19	1030	0	0	0	0	48	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	488	50	19	1030	0	0	0	0	48	0	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	488	50	19	1030	0	0	0	0	48	0	20
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.27	0.03	0.01	0.57	0.00	0.00	0.00	0.00	0.03	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.57	0.87	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Volume/Cap:	0.00	0.90	0.09	0.02	0.66	0.00	0.00	0.00	0.00	0.40	0.00	0.39
Delay/Veh:	0.0	38.6	15.2	5.6	2.2	0.0	0.0	0.0	0.0	30.8	0.0	33.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	38.6	15.2	5.6	2.2	0.0	0.0	0.0	0.0	30.8	0.0	33.5
LOS by Move:	A	D	B	A	A	A	A	A	A	C	A	C
HCM2kAvgQ:	0	13	1	0	7	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	65	Critical Vol./Cap.(X):	0.555
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	6.5
Optimal Cycle: OPTIMIZED		Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	1 0	1	0 0	0 0	0	0 0 0	1 0	0	0 1
Volume Module:												
Base Vol:	0	724	21	5	546	0	0	0	0	24	0	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	724	21	5	546	0	0	0	0	24	0	16
Added Vol:	0	24	8	4	10	0	0	0	0	17	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	748	29	9	556	0	0	0	0	41	0	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.95	0.95	0.95	1.00	1.00	1.00	0.67	0.67	0.67
PHF Volume:	0	831	32	9	583	0	0	0	0	61	0	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	831	32	9	583	0	0	0	0	61	0	39
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	831	32	9	583	0	0	0	0	61	0	39
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1800	1800	1700	1800	0	0	0	0	1700	0	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.46	0.02	0.01	0.32	0.00	0.00	0.00	0.00	0.04	0.00	0.02
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.70	0.70	0.15	0.85	0.00	0.00	0.00	0.00	0.05	0.00	0.05
Volume/Cap:	0.00	0.66	0.03	0.04	0.38	0.00	0.00	0.00	0.00	0.55	0.00	0.40
Delay/Veh:	0.0	6.8	3.0	23.5	1.2	0.0	0.0	0.0	0.0	36.0	0.0	32.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.8	3.0	23.5	1.2	0.0	0.0	0.0	0.0	36.0	0.0	32.3
LOS by Move:	A	A	A	C	A	A	A	A	A	D	A	C
HCM2kAvgQ:	0	10	0	0	3	0	0	0	0	2	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 8.5 Worst Case Level Of Service: F[203.9]

****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1!	0	0		0	0	1!	0	0		0	0	1!	0	0		0	0	1!	0	0	
Volume Module:																								
Base Vol:	11	423		0			0	817		79			8		0		13		0		0		0	
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	11	423		0			0	817		79			8		0		13		0		0		0	
Added Vol:	0	20		47			14	14		0			0		15		0		38		15		7	
PasserByVol:	0	0		0			0	0		0			0		0		0		0		0		0	
Initial Fut:	11	443		47			14	831		79			8		15		13		38		15		7	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.86	0.86		0.86			0.78	0.78		0.78			0.88		0.88		0.88		0.95		0.95		0.95	
PHF Volume:	13	515		55			18	1067		101			9		17		15		40		16		7	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	13	515		55			18	1067		101			9		17		15		40		16		7	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx				4.1	xxxx	xxxxx				7.1		6.5		6.2		7.1		6.5		6.2	
FollowUpTim:	2.2	xxxx	xxxxx				2.2	xxxx	xxxxx				3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	1168	xxxx	xxxxx				569	xxxx	xxxxx				1732		1748		1117		1737		1771		542	
Potent Cap.:	605	xxxx	xxxxx				1013	xxxx	xxxxx				70		87		254		69		84		544	
Move Cap.:	605	xxxx	xxxxx				1013	xxxx	xxxxx				57		84		254		53		81		544	
Volume/Cap:	0.02	xxxx	xxxx				0.02	xxxx	xxxx				0.16		0.21		0.06		0.75		0.20		0.01	
Level Of Service Module:																								
2Way95thQ:	0.1	xxxx	xxxxx				0.1	xxxx	xxxxx				xxxx		xxxx		xxxxx		xxxx		xxxx		xxxxx	
Control Del:	11.1	xxxx	xxxxx				8.6	xxxx	xxxxx				xxxxx		xxxx		xxxxx		xxxxx		xxxx		xxxxx	
LOS by Move:	B	*		*			A	*		*			*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx		97		xxxxx		xxxx		66		xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		1.8		xxxxx		xxxxx		4.7		xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				xxxxx		67.1		xxxxx		xxxxx		204		xxxxx	
Shared LOS:	*	*		*			*	*		*			*		F		*		*		F		*	
ApproachDel:	xxxxxx						xxxxxx						67.1						203.9					
ApproachLOS:	*						*						F						F					

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 59.1 Worst Case Level Of Service: F[404.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	8	634	0	0	524	16	96	0	16	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	634	0	0	524	16	96	0	16	0	0	0
Added Vol:	0	16	33	7	20	0	0	12	0	50	16	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	650	33	7	544	16	96	12	16	50	16	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.92	0.92	0.92	0.55	0.55	0.55	0.95	0.95	0.95
PHF Volume:	8	668	34	8	590	17	174	22	29	53	17	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	668	34	8	590	17	174	22	29	53	17	17
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	607	xxxx	xxxxx	702	xxxx	xxxxx	1332	1332	599	1341	1324	685
Potent Cap.:	981	xxxx	xxxxx	905	xxxx	xxxxx	133	156	506	131	157	452
Move Cap.:	981	xxxx	xxxxx	905	xxxx	xxxxx	116	153	506	109	155	452
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	1.50	0.14	0.06	0.48	0.11	0.04
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.7	xxxx	xxxxx	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	132	xxxxx	xxxx	137	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.6	xxxxx	xxxxx	3.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	404	xxxxx	xxxxx	68.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx			xxxxxx			404.3			68.2		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	0.726
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	19.4
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	18	18	18	18	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	11	423	0	0	817	79	8	0	13	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	423	0	0	817	79	8	0	13	0	0	0
Added Vol:	0	20	47	14	14	0	0	15	0	38	15	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	443	47	14	831	79	8	15	13	38	15	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.86	0.86	0.86	0.78	0.78	0.78	0.88	0.88	0.88	0.95	0.95	0.95
PHF Volume:	13	515	55	18	1067	101	9	17	15	40	16	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	515	55	18	1067	101	9	17	15	40	16	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	515	55	18	1067	101	9	17	15	40	16	7
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.90	0.10	1.00	0.91	0.09	0.23	0.41	0.36	0.65	0.24	0.11
Final Sat.:	1700	1627	173	1700	1644	156	395	740	642	1099	434	202
Capacity Analysis Module:												
Vol/Sat:	0.01	0.32	0.32	0.01	0.65	0.65	0.02	0.02	0.02	0.04	0.04	0.04
Crit Moves:	****				****						****	
Green/Cycle:	0.08	0.66	0.66	0.16	0.74	0.74	0.14	0.14	0.14	0.14	0.14	0.14
Volume/Cap:	0.10	0.48	0.48	0.07	0.88	0.88	0.17	0.17	0.17	0.26	0.26	0.26
Delay/Veh:	56.1	11.6	11.6	46.5	19.7	19.7	49.7	49.7	49.7	50.7	50.7	50.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.1	11.6	11.6	46.5	19.7	19.7	49.7	49.7	49.7	50.7	50.7	50.7
LOS by Move:	E	B	B	D	B	B	D	D	D	D	D	D
HCM2kAvgQ:	1	11	11	1	37	37	2	2	2	2	2	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec):	85	Critical Vol./Cap.(X):	0.565
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	17.5
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	18	18	18	18	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	8	634	0	0	524	16	96	0	16	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	634	0	0	524	16	96	0	16	0	0	0
Added Vol:	0	16	33	7	20	0	0	12	0	50	16	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	650	33	7	544	16	96	12	16	50	16	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.92	0.92	0.92	0.55	0.55	0.55	0.95	0.95	0.95
PHF Volume:	8	668	34	8	590	17	174	22	29	53	17	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	668	34	8	590	17	174	22	29	53	17	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	668	34	8	590	17	174	22	29	53	17	17
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.95	0.05	1.00	0.97	0.03	0.79	0.09	0.12	0.62	0.19	0.19
Final Sat.:	1700	1713	87	1700	1749	51	1333	167	222	1060	339	339
Capacity Analysis Module:												
Vol/Sat:	0.00	0.39	0.39	0.00	0.34	0.34	0.13	0.13	0.13	0.05	0.05	0.05
Crit Moves:		****		****				****				
Green/Cycle:	0.19	0.60	0.60	0.12	0.53	0.53	0.21	0.21	0.21	0.21	0.21	0.21
Volume/Cap:	0.03	0.65	0.65	0.04	0.63	0.63	0.62	0.62	0.62	0.23	0.23	0.23
Delay/Veh:	28.4	12.6	12.6	33.3	15.4	15.4	33.5	33.5	33.5	28.1	28.1	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.4	12.6	12.6	33.3	15.4	15.4	33.5	33.5	33.5	28.1	28.1	28.1
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	0	13	13	0	12	12	6	6	6	2	2	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.874
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	48.4
Optimal Cycle: OPTIMIZED		Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 0	0 1	0	0 1!	0 0
Volume Module:												
Base Vol:	16	292	122	125	568	87	11	45	8	64	17	159
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	292	122	125	568	87	11	45	8	64	17	159
Added Vol:	0	60	32	8	44	1	2	2	0	27	1	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	352	154	133	612	88	13	47	8	91	18	164
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.73	0.73	0.73	0.76	0.76	0.76	0.49	0.49	0.49	0.74	0.74	0.74
PHF Volume:	22	480	210	176	808	116	26	96	16	123	24	222
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	480	210	176	808	116	26	96	16	123	24	222
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	480	210	176	808	116	26	96	16	123	24	222
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.75	0.25	0.23	0.77	1.00	0.35	0.06	0.59
Final Sat.:	1700	1800	1800	1700	3147	453	385	1392	1800	588	116	1061
Capacity Analysis Module:												
Vol/Sat:	0.01	0.27	0.12	0.10	0.26	0.26	0.07	0.07	0.01	0.21	0.21	0.21
Crit Moves:		****		****			****			****		
Green/Cycle:	0.02	0.31	0.31	0.12	0.40	0.40	0.08	0.08	0.08	0.24	0.24	0.24
Volume/Cap:	0.64	0.87	0.38	0.87	0.64	0.64	0.87	0.87	0.12	0.87	0.87	0.87
Delay/Veh:	91.8	53.9	33.2	83.7	29.7	29.7	96.0	96.0	51.8	61.8	61.8	61.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	91.8	53.9	33.2	83.7	29.7	29.7	96.0	96.0	51.8	61.8	61.8	61.8
LOS by Move:	F	D	C	F	C	C	F	F	D	E	E	E
HCM2kAvgQ:	2	20	6	10	14	14	7	7	1	16	16	16

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	0.877
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	48.5
Optimal Cycle: OPTIMIZED		Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	9	559	64	131	430	9	29	44	36	24	14	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	559	64	131	430	9	29	44	36	24	14	71
Added Vol:	1	40	23	5	63	2	1	1	0	37	2	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	599	87	136	493	11	30	45	36	61	16	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.95	0.95	0.95	0.66	0.66	0.66	0.65	0.65	0.65
PHF Volume:	11	687	100	143	520	12	46	68	55	94	25	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	687	100	143	520	12	46	68	55	94	25	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	687	100	143	520	12	46	68	55	94	25	122
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.96	0.04	0.41	0.59	1.00	0.40	0.10	0.50
Final Sat.:	1700	1800	1800	1700	3521	79	703	1055	1800	688	180	891
Capacity Analysis Module:												
Vol/Sat:	0.01	0.38	0.06	0.08	0.15	0.15	0.06	0.06	0.03	0.14	0.14	0.14
Crit Moves:		****		****			****			****		
Green/Cycle:	0.02	0.44	0.44	0.10	0.51	0.51	0.07	0.07	0.07	0.16	0.16	0.16
Volume/Cap:	0.29	0.88	0.13	0.88	0.29	0.29	0.88	0.88	0.41	0.88	0.88	0.88
Delay/Veh:	66.5	44.5	22.0	95.5	18.5	18.5	103.7	104	59.6	79.2	79.2	79.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.5	44.5	22.0	95.5	18.5	18.5	103.7	104	59.6	79.2	79.2	79.2
LOS by Move:	E	D	C	F	B	B	F	F	E	E	E	E
HCM2kAvgQ:	1	28	2	9	6	6	7	7	3	13	13	13

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 85 Critical Vol./Cap.(X): 0.478
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1	1 0	1 0	2	0 1	1 0	1	0 1	1 0	2	0 1
Volume Module:												
Base Vol:	127	141	60	49	335	163	39	121	39	196	479	150
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	141	60	49	335	163	39	121	39	196	479	150
Added Vol:	0	64	0	11	49	11	17	0	0	10	3	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	127	205	60	60	384	174	56	121	39	206	482	167
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.73	0.73	0.73	0.91	0.91	0.91	0.95	0.95	0.95
PHF Volume:	144	232	68	82	527	239	62	134	43	217	508	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	144	232	68	82	527	239	62	134	43	217	508	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	144	232	68	82	527	239	62	134	43	217	508	176
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.55	0.45	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2785	815	1700	3600	1800	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.05	0.15	0.13	0.04	0.07	0.02	0.13	0.14	0.10
Crit Moves:	****				****			****			****	
Green/Cycle:	0.14	0.24	0.24	0.13	0.24	0.24	0.14	0.33	0.33	0.21	0.39	0.39
Volume/Cap:	0.62	0.35	0.35	0.37	0.62	0.56	0.26	0.23	0.07	0.62	0.36	0.25
Delay/Veh:	39.9	27.1	27.1	34.6	30.5	30.4	33.1	20.8	19.6	34.2	18.3	17.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.9	27.1	27.1	34.6	30.5	30.4	33.1	20.8	19.6	34.2	18.3	17.5
LOS by Move:	D	C	C	C	C	C	C	C	B	C	B	B
HCM2kAvgQ:	5	3	3	2	7	6	2	3	1	6	5	3

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 80 Critical Vol./Cap.(X): 0.841
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 36.3
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	37	466	224	79	435	93	176	506	124	167	170	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	466	224	79	435	93	176	506	124	167	170	108
Added Vol:	0	45	0	20	64	16	11	0	0	23	6	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	511	224	99	499	109	187	506	124	190	176	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.82	0.82	0.82	0.93	0.93	0.93	0.83	0.83	0.83
PHF Volume:	45	621	272	120	606	132	202	546	134	229	212	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	621	272	120	606	132	202	546	134	229	212	142
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	621	272	120	606	132	202	546	134	229	212	142
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.39	0.61	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	2503	1097	1700	3600	1800	1700	1800	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.25	0.25	0.07	0.17	0.07	0.12	0.30	0.07	0.13	0.06	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.14	0.28	0.28	0.13	0.26	0.26	0.13	0.35	0.35	0.15	0.37	0.37
Volume/Cap:	0.18	0.90	0.90	0.57	0.65	0.29	0.90	0.87	0.21	0.90	0.16	0.21
Delay/Veh:	30.5	39.0	39.0	36.5	28.2	24.1	69.5	36.5	18.4	65.0	17.0	17.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.5	39.0	39.0	36.5	28.2	24.1	69.5	36.5	18.4	65.0	17.0	17.5
LOS by Move:	C	D	D	D	C	C	E	D	B	E	B	B
HCM2kAvgQ:	1	15	15	4	8	3	9	16	2	9	2	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project West Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0	0 0	0	0 0	0 0	0	0 0	1 0	1	0 1	0 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	34	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	34	0	0	40	0
Added Vol:	4	0	0	0	0	0	0	16	9	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	0	0	0	0	0	0	50	9	0	48	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	4	0	0	0	0	0	0	53	9	0	51	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	4	0	0	0	0	0	0	53	9	0	51	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	108	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	894	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	894	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	9.0			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project West Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0 0	0	0 0	0 0	0	0 0	0 1	0	1 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	26	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	26	0	0	40	0
Added Vol:	9	0	0	0	0	0	0	8	5	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	0	0	0	0	0	0	34	5	0	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	0	0	0	0	0	0	36	5	0	60	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	0	0	0	0	0	0	36	5	0	60	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	98	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	905	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	905	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		9.0			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #6 Project West Driveway (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[8.6]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	4	9	67	0	0	56	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	4	9	67	0	0	56	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	4	9	71	0	0	59	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	4	9	71	0	0	59	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	59	59	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1012	1558	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1012	1558	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.6	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.6			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

****

Note: Queue reported is the number of cars per lane.

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Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #6 Project West Driveway (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: A[8.7]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 0 0 1			0 1 0 0 0			0 0 1 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	9	5	47	0	0	72	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	9	5	47	0	0	72	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	9	5	49	0	0	76	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	9	5	49	0	0	76	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	76	76	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	991	1536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	991	1536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.7	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.7			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #7 Project East Driveway (NS) at Riverbluff Avenue (EW)

****

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[9.0]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 0			0 0 0 0 0			0 0 0 1 0			0 0 1 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	34	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	34	0	0	40	0
Added Vol:	2	0	0	0	0	0	0	10	7	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	0	0	0	0	0	0	44	7	0	47	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	0	0	0	0	0	0	46	7	0	49	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	0	0	0	0	0	46	7	0	49	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	99	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	904	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	904	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		9.0			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Project East Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 0	0	0 0	0 0	0	0 0	0 1	0	0 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	26	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	26	0	0	40	0
Added Vol:	7	0	0	0	0	0	0	6	3	0	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	0	0	0	0	0	0	32	3	0	51	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	7	0	0	0	0	0	0	34	3	0	54	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	0	0	0	0	0	0	34	3	0	54	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	89	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	917	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	917	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		9.0			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Project East Driveway (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: A[8.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	2	7	60	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	2	7	60	0	0	54	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	2	7	63	0	0	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	2	7	63	0	0	57	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	57	57	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1015	1561	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1015	1561	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.6	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.6			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Opening Year (2014) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Project East Driveway (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[8.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	7	3	44	0	0	65	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	7	3	44	0	0	65	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	7	3	46	0	0	68	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	7	3	46	0	0	68	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	68	68	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1000	1546	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1000	1546	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.6	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.6			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Year 2035 Without Project

Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	1.288
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	132.5
Optimal Cycle: OPTIMIZED		Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	669	21	9	2041	0	0	0	0	29	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	669	21	9	2041	0	0	0	0	29	0	11
Added Vol:	0	9	5	5	16	0	0	0	0	4	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	678	26	14	2057	0	0	0	0	33	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	27	15	2165	0	0	0	0	35	0	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	27	15	2165	0	0	0	0	35	0	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	714	27	15	2165	0	0	0	0	35	0	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.01	0.01	1.14	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.59	0.89	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Volume/Cap:	0.00	1.25	0.05	0.01	1.28	0.00	0.00	0.00	0.00	0.29	0.00	0.75
Delay/Veh:	0.0	148	14.9	3.1	131	0.0	0.0	0.0	0.0	35.5	0.0	156.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	148	14.9	3.1	131	0.0	0.0	0.0	0.0	35.5	0.0	156.4
LOS by Move:	A	F	B	A	F	A	A	A	A	D	A	F
HCM2kAvgQ:	0	34	0	0	100	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 1.213
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 96.6
Optimal Cycle: OPTIMIZED Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	0	1	1 0	1 0	0	0 0	0	0 0 0	1 0	0 0	1
Volume Module:												
Base Vol:	0	2034	18	2	1086	0	0	0	0	24	0	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2034	18	2	1086	0	0	0	0	24	0	16
Added Vol:	0	19	3	2	8	0	0	0	0	6	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2053	21	4	1094	0	0	0	0	30	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2161	22	4	1152	0	0	0	0	32	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2161	22	4	1152	0	0	0	0	32	0	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2161	22	4	1152	0	0	0	0	32	0	22
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	1.14	0.01	0.00	0.61	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.86	0.86	0.08	0.94	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Volume/Cap:	0.00	1.32	0.01	0.03	0.64	0.00	0.00	0.00	0.00	0.57	0.00	0.87
Delay/Veh:	0.0	147	0.0	55.9	1.8	0.0	0.0	0.0	0.0	100.1	0.0	205.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	147	0.0	55.9	1.8	0.0	0.0	0.0	0.0	100.1	0.0	205.1
LOS by Move:	A	F	A	E	A	A	A	A	A	F	A	F
HCM2kAvgQ:	0	147	0	0	2	0	0	0	0	2	0	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.655
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 6.6
Optimal Cycle: OPTIMIZED Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	669	21	9	2041	0	0	0	0	29	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	669	21	9	2041	0	0	0	0	29	0	11
Added Vol:	0	9	5	5	16	0	0	0	0	4	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	678	26	14	2057	0	0	0	0	33	0	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	714	27	15	2165	0	0	0	0	35	0	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	714	27	15	2165	0	0	0	0	35	0	15
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	714	27	15	2165	0	0	0	0	35	0	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.93	0.07	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3660	140	1800	3800	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.01	0.57	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.58	0.88	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Volume/Cap:	0.00	0.65	0.65	0.01	0.65	0.00	0.00	0.00	0.00	0.29	0.00	0.38
Delay/Veh:	0.0	20.9	20.9	3.3	1.0	0.0	0.0	0.0	0.0	35.0	0.0	55.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.9	20.9	3.3	1.0	0.0	0.0	0.0	0.0	35.0	0.0	55.0
LOS by Move:	A	C	C	A	A	A	A	A	A	C	A	E
HCM2kAvgQ:	0	7	7	0	2	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	90	Critical Vol./Cap.(X):	0.637
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	2.1
Optimal Cycle: OPTIMIZED		Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	2034	18	2	1086	0	0	0	0	24	0	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2034	18	2	1086	0	0	0	0	24	0	16
Added Vol:	0	19	3	2	8	0	0	0	0	6	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2053	21	4	1094	0	0	0	0	30	0	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2161	22	4	1152	0	0	0	0	32	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2161	22	4	1152	0	0	0	0	32	0	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2161	22	4	1152	0	0	0	0	32	0	22
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.98	0.02	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3762	38	1800	3800	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.57	0.57	0.00	0.30	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.80	0.80	0.11	0.91	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Volume/Cap:	0.00	0.72	0.72	0.02	0.33	0.00	0.00	0.00	0.00	0.39	0.00	0.48
Delay/Veh:	0.0	1.5	1.5	35.8	0.3	0.0	0.0	0.0	0.0	57.2	0.0	74.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.5	1.5	35.8	0.3	0.0	0.0	0.0	0.0	57.2	0.0	74.7
LOS by Move:	A	A	A	D	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	2	2	0	0	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	39	675	0	0	1665	421	15	0	25	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	675	0	0	1665	421	15	0	25	0	0	0
Added Vol:	0	9	36	10	11	0	0	14	0	34	14	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	684	36	10	1676	421	15	14	25	34	14	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	41	720	38	11	1764	443	16	15	26	36	15	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	41	720	38	11	1764	443	16	15	26	36	15	5
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	2207	xxxx	xxxxx	758	xxxx	xxxxx	2838	2847	1986	2848	3049	739
Potent Cap.:	241	xxxx	xxxxx	862	xxxx	xxxxx	11	17	78	11	13	421
Move Cap.:	241	xxxx	xxxxx	862	xxxx	xxxxx	0	14	78	0	10	421
Volume/Cap:	0.17	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	1.04	0.34	xxxx	1.41	0.01
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	23.0	xxxx	xxxxx	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	C	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0	xxxxx	xxxx	0	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 16908.1 Worst Case Level Of Service: F[93106.7]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	0 1!	0	0	0	0 1!	0	0	0	0 1!	0	0	0	0 1!	0	0
Volume Module:																
Base Vol:	15	1527	0	0	1027	35	513	0	73	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	15	1527	0	0	1027	35	513	0	73	0	0	0				
Added Vol:	0	11	28	4	9	0	0	12	0	39	15	11				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	15	1538	28	4	1036	35	513	12	73	39	15	11				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
PHF Volume:	16	1619	29	4	1091	37	540	13	77	41	16	12				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
FinalVolume:	16	1619	29	4	1091	37	540	13	77	41	16	12				
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2				
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3				
Capacity Module:																
Cnflict Vol:	1127	xxxx	xxxxx	1648	xxxx	xxxxx	2796	2797	1109	2827	2801	1634				
Potent Cap.:	627	xxxx	xxxxx	397	xxxx	xxxxx	12	19	257	11	19	126				
Move Cap.:	627	xxxx	xxxxx	397	xxxx	xxxxx	3	18	257	3	18	126				
Volume/Cap:	0.03	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.70	0.30	12.06	0.88	0.09				
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	10.9	xxxx	xxxxx	14.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*				
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	3	xxxxx	xxxx	5	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	81.2	xxxxx	xxxxx	10.4	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	6768	xxxxx				
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*				
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			6768.3						
ApproachLOS:	*			*			F			F						

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.665
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	10	18	18		10	18	18		28	28	28		28	28	28	
Lanes:	1 0	1	1	0	1 0	1	1	0	0 0	1!	0	0	0 0	1!	0	0
Volume Module:																
Base Vol:	39	675	0	0	1665	421	15	0	25	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	39	675	0	0	1665	421	15	0	25	0	0	0				
Added Vol:	0	9	36	10	11	0	0	14	0	34	14	5				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	39	684	36	10	1676	421	15	14	25	34	14	5				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95				
PHF Volume:	41	720	38	11	1764	443	16	15	26	36	15	5				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	41	720	38	11	1764	443	16	15	26	36	15	5				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	41	720	38	11	1764	443	16	15	26	36	15	5				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00				
Lanes:	1.00	1.90	0.10	1.00	1.60	0.40	0.29	0.25	0.46	0.65	0.26	0.09				
Final Sat.:	1800	3610	190	1800	3037	763	520	485	866	1177	485	173				
Capacity Analysis Module:																
Vol/Sat:	0.02	0.20	0.20	0.01	0.58	0.58	0.03	0.03	0.03	0.03	0.03	0.03				
Crit Moves:	****				****						****					
Green/Cycle:	0.08	0.53	0.53	0.21	0.66	0.66	0.22	0.22	0.22	0.22	0.22	0.22				
Volume/Cap:	0.30	0.37	0.37	0.03	0.88	0.88	0.14	0.14	0.14	0.14	0.14	0.14				
Delay/Veh:	62.1	13.2	13.2	41.4	11.9	11.9	42.0	42.0	42.0	42.0	42.0	42.0				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	62.1	13.2	13.2	41.4	11.9	11.9	42.0	42.0	42.0	42.0	42.0	42.0				
LOS by Move:	E	B	B	D	B	B	D	D	D	D	D	D				
HCM2kAvgQ:	2	6	6	0	26	26	2	2	2	2	2	2				

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.831
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 31.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	28	28	28	28	28	28
Lanes:	1 0	1	1 0	1 0	1	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	15	1527	0	0	1027	35	513	0	73	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	1527	0	0	1027	35	513	0	73	0	0	0
Added Vol:	0	11	28	4	9	0	0	12	0	39	15	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	1538	28	4	1036	35	513	12	73	39	15	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	16	1619	29	4	1091	37	540	13	77	41	16	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	1619	29	4	1091	37	540	13	77	41	16	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	1619	29	4	1091	37	540	13	77	41	16	12
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.93	0.07	0.86	0.02	0.12	0.62	0.22	0.16
Final Sat.:	1800	3732	68	1800	3676	124	1556	36	221	1103	424	311
Capacity Analysis Module:												
Vol/Sat:	0.01	0.43	0.43	0.00	0.30	0.30	0.35	0.35	0.35	0.04	0.04	0.04
Crit Moves:		****		****				****				
Green/Cycle:	0.14	0.47	0.47	0.10	0.43	0.43	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.06	0.92	0.92	0.02	0.69	0.69	0.92	0.92	0.92	0.10	0.10	0.10
Delay/Veh:	39.9	30.3	30.3	43.3	23.5	23.5	48.5	48.5	48.5	19.7	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.9	30.3	30.3	43.3	23.5	23.5	48.5	48.5	48.5	19.7	19.7	19.7
LOS by Move:	D	C	C	D	C	C	D	D	D	B	B	B
HCM2kAvgQ:	0	28	28	0	14	14	24	24	24	1	1	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 1.024
Loss Time (sec): 31 (Y+R=5.0 sec) Average Delay (sec/veh): 71.2
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	91	515	286	115	1174	200	8	49	22	234	69	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	515	286	115	1174	200	8	49	22	234	69	196
Added Vol:	0	41	32	7	38	0	0	2	0	27	1	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	556	318	122	1212	200	8	51	22	261	70	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	96	585	335	128	1276	211	8	54	23	275	74	211
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	585	335	128	1276	211	8	54	23	275	74	211
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	96	585	335	128	1276	211	8	54	23	275	74	211
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.72	0.28	0.14	0.86	1.00	0.50	0.13	0.37
Final Sat.:	1800	1900	1900	1800	3262	538	256	1630	1900	909	244	697
Capacity Analysis Module:												
Vol/Sat:	0.05	0.31	0.18	0.07	0.39	0.39	0.03	0.03	0.01	0.30	0.30	0.30
Crit Moves:	****				****		****					****
Green/Cycle:	0.05	0.35	0.35	0.08	0.38	0.38	0.03	0.03	0.03	0.30	0.30	0.30
Volume/Cap:	1.02	0.87	0.50	0.87	1.02	1.02	1.02	1.02	0.38	1.02	1.02	1.02
Delay/Veh:	161.2	51.9	33.8	105.6	66.4	66.4	185.2	185	78.6	90.0	90.0	90.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	161.2	51.9	33.8	105.6	66.4	66.4	185.2	185	78.6	90.0	90.0	90.0
LOS by Move:	F	D	C	F	E	E	F	F	E	F	F	F
HCM2kAvgQ:	7	24	9	8	38	38	5	5	1	30	30	30

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	1.477
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	171.8
Optimal Cycle:	OPTIMIZED	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	19	1241	234	205	904	6	60	150	161	105	24	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	1241	234	205	904	6	60	150	161	105	24	139
Added Vol:	1	32	23	4	44	0	0	1	0	37	2	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1273	257	209	948	6	60	151	161	142	26	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	21	1340	271	220	998	6	63	159	169	149	27	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	1340	271	220	998	6	63	159	169	149	27	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	1340	271	220	998	6	63	159	169	149	27	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.99	0.01	0.30	0.70	1.00	0.46	0.08	0.46
Final Sat.:	1800	1900	1900	1800	3776	24	532	1339	1900	836	153	865
Capacity Analysis Module:												
Vol/Sat:	0.01	0.71	0.14	0.12	0.26	0.26	0.12	0.12	0.09	0.18	0.18	0.18
Crit Moves:		****		****			****				****	
Green/Cycle:	0.02	0.48	0.48	0.08	0.54	0.54	0.08	0.08	0.08	0.12	0.12	0.12
Volume/Cap:	0.49	1.48	0.30	1.48	0.49	0.49	1.48	1.48	1.11	1.48	1.48	1.48
Delay/Veh:	98.1	248	17.4	307.0	14.3	14.3	306.8	307	165.1	294.4	294	294.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	98.1	248	17.4	307.0	14.3	14.3	306.8	307	165.1	294.4	294	294.4
LOS by Move:	F	F	B	F	B	B	F	F	F	F	F	F
HCM2kAvgQ:	2	105	5	20	9	9	20	20	12	29	29	29

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.630
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 19.9
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	10	18	18		10	18	18		28	28	28		28	28	28	
Lanes:	1	0 1	1	0	1	0 1	1	0	1	0 0	1	0	1	0 0	1	0
Volume Module:																
Base Vol:	91	515	286		115	1174	200		8	49	22		234	69	196	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	91	515	286		115	1174	200		8	49	22		234	69	196	
Added Vol:	0	41	32		7	38	0		0	2	0		27	1	4	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	91	556	318		122	1212	200		8	51	22		261	70	200	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	96	585	335		128	1276	211		8	54	23		275	74	211	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	96	585	335		128	1276	211		8	54	23		275	74	211	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	96	585	335		128	1276	211		8	54	23		275	74	211	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00	
Lanes:	1.00	1.27	0.73		1.00	1.72	0.28		1.00	0.70	0.30		1.00	0.26	0.74	
Final Sat.:	1800	2417	1383		1800	3262	538		1800	1327	573		1800	493	1407	
Capacity Analysis Module:																
Vol/Sat:	0.05	0.24	0.24		0.07	0.39	0.39		0.00	0.04	0.04		0.15	0.15	0.15	
Crit Moves:	****					****								****		
Green/Cycle:	0.10	0.49	0.49		0.19	0.58	0.58		0.27	0.27	0.27		0.27	0.27	0.27	
Volume/Cap:	0.56	0.50	0.50		0.37	0.67	0.67		0.02	0.15	0.15		0.57	0.56	0.56	
Delay/Veh:	57.9	15.4	15.4		40.1	11.0	11.0		28.4	30.1	30.1		38.2	37.6	37.6	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	57.9	15.4	15.4		40.1	11.0	11.0		28.4	30.1	30.1		38.2	37.6	37.6	
LOS by Move:	E	B	B		D	B	B		C	C	C		D	D	D	
HCM2kAvgQ:	4	8	8		4	12	12		0	2	2		8	8	8	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	105	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	24.1
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	28	28	28	28	28	28
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	0	1 0	1 0	0	1 0
Volume Module:												
Base Vol:	19	1241	234	205	904	6	60	150	161	105	24	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	1241	234	205	904	6	60	150	161	105	24	139
Added Vol:	1	32	23	4	44	0	0	1	0	37	2	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1273	257	209	948	6	60	151	161	142	26	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	21	1340	271	220	998	6	63	159	169	149	27	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	1340	271	220	998	6	63	159	169	149	27	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	1340	271	220	998	6	63	159	169	149	27	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.66	0.34	1.00	1.99	0.01	1.00	0.48	0.52	1.00	0.15	0.85
Final Sat.:	1800	3162	638	1800	3776	24	1800	920	980	1800	286	1614
Capacity Analysis Module:												
Vol/Sat:	0.01	0.42	0.42	0.12	0.26	0.26	0.04	0.17	0.17	0.08	0.10	0.10
Crit Moves:		****		****				****				
Green/Cycle:	0.18	0.52	0.52	0.15	0.50	0.50	0.27	0.27	0.27	0.27	0.27	0.27
Volume/Cap:	0.07	0.81	0.81	0.81	0.53	0.53	0.13	0.65	0.65	0.31	0.36	0.36
Delay/Veh:	36.2	18.6	18.6	65.2	15.0	15.0	29.8	40.4	40.4	32.5	33.2	33.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.2	18.6	18.6	65.2	15.0	15.0	29.8	40.4	40.4	32.5	33.2	33.2
LOS by Move:	D	B	B	E	B	B	C	D	D	C	C	C
HCM2kAvgQ:	1	20	20	9	9	9	1	10	10	4	4	4

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 125 Critical Vol./Cap.(X): 0.916
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 60.7
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	437	413	128	88	776	473	101	224	94	350	1070	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	437	413	128	88	776	473	101	224	94	350	1070	286
Added Vol:	0	57	0	9	46	10	13	0	0	10	3	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	437	470	128	97	822	483	114	224	94	360	1073	296
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	460	495	135	102	865	508	120	236	99	379	1129	312
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	460	495	135	102	865	508	120	236	99	379	1129	312
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	460	495	135	102	865	508	120	236	99	379	1129	312
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.57	0.43	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2987	813	1800	3800	1900	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.26	0.17	0.17	0.06	0.23	0.27	0.07	0.12	0.05	0.21	0.30	0.16
Crit Moves:	****					****		****		****		
Green/Cycle:	0.25	0.34	0.34	0.17	0.26	0.26	0.09	0.22	0.22	0.20	0.34	0.34
Volume/Cap:	1.03	0.48	0.48	0.34	0.88	1.03	0.73	0.55	0.23	1.03	0.88	0.49
Delay/Veh:	97.6	32.1	32.1	49.3	55.2	94.8	80.5	48.1	41.0	104.7	46.2	34.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	97.6	32.1	32.1	49.3	55.2	94.8	80.5	48.1	41.0	104.7	46.2	34.0
LOS by Move:	F	C	C	D	E	F	F	D	D	F	D	C
HCM2kAvgQ:	26	9	9	4	19	27	6	8	3	22	23	9

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

****

Cycle (sec):	130	Critical Vol./Cap.(X):	1.353
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	135.5
Optimal Cycle: OPTIMIZED		Level Of Service:	F

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	117	999	404	157	806	327	496	1199	275	158	317	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	999	404	157	806	327	496	1199	275	158	317	135
Added Vol:	0	42	0	13	57	11	10	0	0	23	6	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1041	404	170	863	338	506	1199	275	181	323	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	123	1096	425	179	908	356	533	1262	289	191	340	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	1096	425	179	908	356	533	1262	289	191	340	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	1096	425	179	908	356	533	1262	289	191	340	149
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.44	0.56	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2738	1062	1800	3800	1900	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.40	0.40	0.10	0.24	0.19	0.30	0.66	0.15	0.11	0.09	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.09	0.29	0.29	0.08	0.28	0.28	0.33	0.49	0.49	0.08	0.24	0.24
Volume/Cap:	0.76	1.36	1.36	1.29	0.85	0.67	0.90	1.36	0.31	1.36	0.37	0.33
Delay/Veh:	85.2	213	212.6	234.8	52.6	47.8	59.6	194	16.6	260.4	42.5	42.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.2	213	212.6	234.8	52.6	47.8	59.6	194	16.6	260.4	42.5	42.8
LOS by Move:	F	F	F	F	D	D	E	F	B	F	D	D
HCM2kAvgQ:	7	56	56	15	19	13	24	91	5	17	5	5

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Note: Queue reported is the number of cars per lane.

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Redlands Distribution Center Building 13
Year 2035 Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

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Cycle (sec): 110 Critical Vol./Cap.(X): 0.923
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 53.6
Optimal Cycle: OPTIMIZED Level Of Service: D

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1	1 0	1 0	2	0 1	2 0	2	0 1	2 0	2	0 1
Volume Module:												
Base Vol:	437	413	128	88	776	473	101	224	94	350	1070	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	437	413	128	88	776	473	101	224	94	350	1070	286
Added Vol:	0	57	0	9	46	10	13	0	0	10	3	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	437	470	128	97	822	483	114	224	94	360	1073	296
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	460	495	135	102	865	508	120	236	99	379	1129	312
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	460	495	135	102	865	508	120	236	99	379	1129	312
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	460	495	135	102	865	508	120	236	99	379	1129	312
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	1.57	0.43	1.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	2987	813	1800	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.26	0.17	0.17	0.06	0.23	0.27	0.04	0.06	0.05	0.11	0.30	0.16
Crit Moves:	****					****	****				****	
Green/Cycle:	0.26	0.34	0.34	0.19	0.27	0.27	0.09	0.27	0.27	0.12	0.30	0.30
Volume/Cap:	0.98	0.48	0.48	0.30	0.83	0.98	0.39	0.23	0.19	0.93	0.98	0.54
Delay/Veh:	77.5	28.2	28.2	40.6	45.6	74.8	50.8	31.4	31.4	77.8	59.7	35.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	77.5	28.2	28.2	40.6	45.6	74.8	50.8	31.4	31.4	77.8	59.7	35.1
LOS by Move:	E	C	C	D	D	E	D	C	C	E	E	D
HCM2kAvgQ:	22	8	8	3	16	23	2	3	2	11	25	8

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Note: Queue reported is the number of cars per lane.

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Redlands Distribution Center Building 13
Year 2035 Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec):	120	Critical Vol./Cap.(X):	0.951
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	49.7
Optimal Cycle: OPTIMIZED		Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	117	999	404	157	806	327	496	1199	275	158	317	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	999	404	157	806	327	496	1199	275	158	317	135
Added Vol:	0	42	0	13	57	11	10	0	0	23	6	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1041	404	170	863	338	506	1199	275	181	323	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	123	1096	425	179	908	356	533	1262	289	191	340	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	1096	425	179	908	356	533	1262	289	191	340	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	1096	425	179	908	356	533	1262	289	191	340	149
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	1.44	0.56	1.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	2738	1062	1800	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.40	0.40	0.10	0.24	0.19	0.16	0.33	0.15	0.06	0.09	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.13	0.41	0.41	0.10	0.38	0.38	0.17	0.34	0.34	0.08	0.25	0.25
Volume/Cap:	0.52	0.98	0.98	0.98	0.63	0.49	0.92	0.98	0.45	0.67	0.35	0.31
Delay/Veh:	56.4	49.2	49.2	115.0	30.0	28.5	71.6	57.8	31.7	65.5	37.8	38.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.4	49.2	49.2	115.0	30.0	28.5	71.6	57.8	31.7	65.5	37.8	38.0
LOS by Move:	E	D	D	F	C	C	E	E	C	E	D	D
HCM2kAvgQ:	5	33	33	11	13	9	14	29	7	5	5	4

Note: Queue reported is the number of cars per lane.

Year 2035 With Project

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	1.293
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	133.5
Optimal Cycle: OPTIMIZED		Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	669	21	9	2041	0	0	0	0	29	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	669	21	9	2041	0	0	0	0	29	0	11
Added Vol:	0	11	16	9	21	0	0	0	0	7	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	680	37	18	2062	0	0	0	0	36	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	716	39	19	2171	0	0	0	0	38	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	716	39	19	2171	0	0	0	0	38	0	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	716	39	19	2171	0	0	0	0	38	0	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.38	0.02	0.01	1.14	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.59	0.89	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Volume/Cap:	0.00	1.26	0.07	0.02	1.29	0.00	0.00	0.00	0.00	0.32	0.00	0.74
Delay/Veh:	0.0	150	15.0	3.1	133	0.0	0.0	0.0	0.0	36.2	0.0	146.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	150	15.0	3.1	133	0.0	0.0	0.0	0.0	36.2	0.0	146.9
LOS by Move:	A	F	B	A	F	A	A	A	A	D	A	F
HCM2kAvgQ:	0	34	0	0	101	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	1.224
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	99.7
Optimal Cycle: OPTIMIZED		Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 0	1	1 0	1 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	2034	18	2	1086	0	0	0	0	24	0	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2034	18	2	1086	0	0	0	0	24	0	16
Added Vol:	0	24	8	4	10	0	0	0	0	17	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2058	26	6	1096	0	0	0	0	41	0	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2166	27	6	1154	0	0	0	0	43	0	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2166	27	6	1154	0	0	0	0	43	0	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2166	27	6	1154	0	0	0	0	43	0	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	1900	1900	1800	1900	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	1.14	0.01	0.00	0.61	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.86	0.86	0.08	0.94	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Volume/Cap:	0.00	1.33	0.02	0.05	0.65	0.00	0.00	0.00	0.00	0.78	0.00	0.80
Delay/Veh:	0.0	152	0.0	56.2	1.8	0.0	0.0	0.0	0.0	131.6	0.0	162.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	152	0.0	56.2	1.8	0.0	0.0	0.0	0.0	131.6	0.0	162.6
LOS by Move:	A	F	A	E	A	A	A	A	A	F	A	F
HCM2kAvgQ:	0	149	0	0	2	0	0	0	0	3	0	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.658
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	6.8
Optimal Cycle: OPTIMIZED		Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 1	0	1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	669	21	9	2041	0	0	0	0	29	0	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	669	21	9	2041	0	0	0	0	29	0	11
Added Vol:	0	11	16	9	21	0	0	0	0	7	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	680	37	18	2062	0	0	0	0	36	0	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	716	39	19	2171	0	0	0	0	38	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	716	39	19	2171	0	0	0	0	38	0	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	716	39	19	2171	0	0	0	0	38	0	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.90	0.10	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3604	196	1800	3800	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.01	0.57	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:					****					****		
Green/Cycle:	0.00	0.30	0.30	0.58	0.88	0.00	0.00	0.00	0.00	0.02	0.00	0.02
Volume/Cap:	0.00	0.66	0.66	0.02	0.65	0.00	0.00	0.00	0.00	0.32	0.00	0.38
Delay/Veh:	0.0	21.1	21.1	3.4	1.0	0.0	0.0	0.0	0.0	35.7	0.0	52.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	21.1	21.1	3.4	1.0	0.0	0.0	0.0	0.0	35.7	0.0	52.6
LOS by Move:	A	C	C	A	A	A	A	A	A	D	A	D
HCM2kAvgQ:	0	7	7	0	2	0	0	0	0	1	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Alabama Street (NS) at Riverbluff Avenue (EW)

Cycle (sec):	80	Critical Vol./Cap.(X):	0.654
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	2.5
Optimal Cycle: OPTIMIZED		Level Of Service:	A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		1 0	2 0	0	0 0	0 0	0	1 0	0 0	1
Volume Module:												
Base Vol:	0	2034	18	2	1086	0	0	0	0	24	0	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	2034	18	2	1086	0	0	0	0	24	0	16
Added Vol:	0	24	8	4	10	0	0	0	0	17	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	2058	26	6	1096	0	0	0	0	41	0	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	2166	27	6	1154	0	0	0	0	43	0	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	2166	27	6	1154	0	0	0	0	43	0	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	2166	27	6	1154	0	0	0	0	43	0	27
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.98	0.02	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3753	47	1800	3800	0	0	0	0	1800	0	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.58	0.58	0.00	0.30	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Crit Moves:		****		****						****		
Green/Cycle:	0.00	0.77	0.77	0.13	0.89	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Volume/Cap:	0.00	0.75	0.75	0.03	0.34	0.00	0.00	0.00	0.00	0.48	0.00	0.45
Delay/Veh:	0.0	1.8	1.8	31.0	0.3	0.0	0.0	0.0	0.0	55.2	0.0	60.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.8	1.8	31.0	0.3	0.0	0.0	0.0	0.0	55.2	0.0	60.4
LOS by Move:	A	A	A	C	A	A	A	A	A	E	A	E
HCM2kAvgQ:	0	3	3	0	1	0	0	0	0	2	0	1

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	39	675	0		0	1665	421		15	0	25		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	39	675	0		0	1665	421		15	0	25		0	0	0	
Added Vol:	0	20	47		14	14	0		0	15	0		38	15	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	39	695	47		14	1679	421		15	15	25		38	15	7	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	41	732	49		15	1767	443		16	16	26		40	16	7	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	41	732	49		15	1767	443		16	16	26		40	16	7	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.1	6.5	6.2		7.1	6.5	6.2	
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5	4.0	3.3		3.5	4.0	3.3	
Capacity Module:																
Cnflict Vol:	2211	xxxx	xxxxx		781	xxxx	xxxxx		2868	2882	1989		2878	3078	756	
Potent Cap.:	241	xxxx	xxxxx		845	xxxx	xxxxx		11	17	77		11	12	411	
Move Cap.:	241	xxxx	xxxxx		845	xxxx	xxxxx		0	13	77		0	10	411	
Volume/Cap:	0.17	xxxx	xxxx		0.02	xxxx	xxxx		xxxx	1.18	0.34		xxxx	1.59	0.02	
Level Of Service Module:																
2Way95thQ:	0.6	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	23.0	xxxx	xxxxx		9.3	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	C	*	*		A	*	*		*	*	*		*	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	0	xxxxx		xxxx	0	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		*	*	*	
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	*				*				F				F			

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 53143.2 Worst Case Level Of Service: F[297281.7]

****

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0	0	0	1!	0 0
Volume Module:																
Base Vol:	15	1527	0		0	1027	35		513	0	73		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	15	1527	0		0	1027	35		513	0	73		0	0	0	
Added Vol:	0	16	33		7	20	0		0	12	0		50	16	16	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	15	1543	33		7	1047	35		513	12	73		50	16	16	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	16	1624	35		7	1102	37		540	13	77		53	17	17	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	16	1624	35		7	1102	37		540	13	77		53	17	17	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx		7.1	6.5	6.2		7.1	6.5	6.2	
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx		3.5	4.0	3.3		3.5	4.0	3.3	
Capacity Module:																
Cnflict Vol:	1139	xxxx	xxxxx		1659	xxxx	xxxxx		2825	2826	1121		2853	2827	1642	
Potent Cap.:	621	xxxx	xxxxx		394	xxxx	xxxxx		11	18	253		11	18	125	
Move Cap.:	621	xxxx	xxxxx		394	xxxx	xxxxx		1	17	253		3	17	125	
Volume/Cap:	0.03	xxxx	xxxx		0.02	xxxx	xxxx		xxxx	0.74	0.30		17.75	0.98	0.13	
Level Of Service Module:																
2Way95thQ:	0.1	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	11.0	xxxx	xxxxx		14.3	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	B	*	*		B	*	*		*	*	*		*	*	*	
Movement:	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx		1	xxxxx	xxxx		5	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		81.5	xxxxx	xxxxx		12.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx		9591	xxxxx
Shared LOS:	*	*	*		*	*	*		*		F	*	*		F	*
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				9591.3			
ApproachLOS:	*				*				F				F			

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.670
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	10	18	18		10	18	18		28	28	28		28	28	28	
Lanes:	1 0	1	1	0	1 0	1	1	0	0 0	1!	0	0	0 0	1!	0	0
Volume Module:																
Base Vol:	39	675	0		0	1665	421		15	0	25		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	39	675	0		0	1665	421		15	0	25		0	0	0	
Added Vol:	0	20	47		14	14	0		0	15	0		38	15	7	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	39	695	47		14	1679	421		15	15	25		38	15	7	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	41	732	49		15	1767	443		16	16	26		40	16	7	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	41	732	49		15	1767	443		16	16	26		40	16	7	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	41	732	49		15	1767	443		16	16	26		40	16	7	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00	
Lanes:	1.00	1.87	0.13		1.00	1.60	0.40		0.28	0.27	0.45		0.65	0.24	0.11	
Final Sat.:	1800	3559	241		1800	3038	762		510	510	851		1162	459	214	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.21	0.21		0.01	0.58	0.58		0.03	0.03	0.03		0.03	0.03	0.03	
Crit Moves:	****					****								****		
Green/Cycle:	0.08	0.54	0.54		0.20	0.66	0.66		0.22	0.22	0.22		0.22	0.22	0.22	
Volume/Cap:	0.30	0.38	0.38		0.04	0.88	0.88		0.14	0.14	0.14		0.16	0.16	0.16	
Delay/Veh:	62.1	12.9	12.9		42.0	11.9	11.9		42.0	42.0	42.0		42.3	42.3	42.3	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	62.1	12.9	12.9		42.0	11.9	11.9		42.0	42.0	42.0		42.3	42.3	42.3	
LOS by Move:	E	B	B		D	B	B		D	D	D		D	D	D	
HCM2kAvgQ:	2	6	6		0	27	27		2	2	2		2	2	2	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Alabama Street (NS) at Palmetto Avenue (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.835
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 31.4
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	28	28	28	28	28	28
Lanes:	1 0	1 1	0	1 0	1 1	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	15	1527	0	0	1027	35	513	0	73	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	15	1527	0	0	1027	35	513	0	73	0	0	0
Added Vol:	0	16	33	7	20	0	0	12	0	50	16	16
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	1543	33	7	1047	35	513	12	73	50	16	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	16	1624	35	7	1102	37	540	13	77	53	17	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	1624	35	7	1102	37	540	13	77	53	17	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	1624	35	7	1102	37	540	13	77	53	17	17
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.96	0.04	1.00	1.94	0.06	0.86	0.02	0.12	0.62	0.19	0.19
Final Sat.:	1800	3720	80	1800	3677	123	1556	36	221	1121	359	359
Capacity Analysis Module:												
Vol/Sat:	0.01	0.44	0.44	0.00	0.30	0.30	0.35	0.35	0.35	0.05	0.05	0.05
Crit Moves:		****		****				****				
Green/Cycle:	0.14	0.47	0.47	0.10	0.43	0.43	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.06	0.92	0.92	0.04	0.70	0.70	0.92	0.92	0.92	0.13	0.13	0.13
Delay/Veh:	40.0	30.5	30.5	43.6	23.4	23.4	49.1	49.1	49.1	20.1	20.1	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.0	30.5	30.5	43.6	23.4	23.4	49.1	49.1	49.1	20.1	20.1	20.1
LOS by Move:	D	C	C	D	C	C	D	D	D	C	C	C
HCM2kAvgQ:	0	28	28	0	14	14	24	24	24	2	2	2

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 1.028
Loss Time (sec): 31 (Y+R=5.0 sec) Average Delay (sec/veh): 72.8
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	91	515	286	115	1174	200	8	49	22	234	69	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	515	286	115	1174	200	8	49	22	234	69	196
Added Vol:	0	60	32	8	44	1	2	2	0	27	1	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	575	318	123	1218	201	10	51	22	261	70	201
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	96	605	335	129	1282	212	11	54	23	275	74	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	605	335	129	1282	212	11	54	23	275	74	212
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	96	605	335	129	1282	212	11	54	23	275	74	212
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.72	0.28	0.17	0.83	1.00	0.50	0.13	0.37
Final Sat.:	1800	1900	1900	1800	3262	538	309	1574	1900	907	243	699
Capacity Analysis Module:												
Vol/Sat:	0.05	0.32	0.18	0.07	0.39	0.39	0.03	0.03	0.01	0.30	0.30	0.30
Crit Moves:	****				****		****				****	
Green/Cycle:	0.05	0.35	0.35	0.08	0.38	0.38	0.03	0.03	0.03	0.29	0.29	0.29
Volume/Cap:	1.03	0.90	0.50	0.90	1.03	1.03	1.03	1.03	0.37	1.03	1.03	1.03
Delay/Veh:	162.8	54.8	33.6	111.4	67.8	67.8	184.9	185	77.2	91.4	91.4	91.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	162.8	54.8	33.6	111.4	67.8	67.8	184.9	185	77.2	91.4	91.4	91.4
LOS by Move:	F	D	C	F	E	E	F	F	E	F	F	F
HCM2kAvgQ:	7	26	9	8	38	38	5	5	1	30	30	30

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec):	130	Critical Vol./Cap.(X):	1.485
Loss Time (sec):	31 (Y+R=5.0 sec)	Average Delay (sec/veh):	172.9
Optimal Cycle: OPTIMIZED		Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	0 0	1	0 0	1! 0	0
Volume Module:												
Base Vol:	19	1241	234	205	904	6	60	150	161	105	24	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	1241	234	205	904	6	60	150	161	105	24	139
Added Vol:	1	40	23	5	63	2	1	1	0	37	2	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	1281	257	210	967	8	61	151	161	142	26	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	21	1348	271	221	1018	8	64	159	169	149	27	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	1348	271	221	1018	8	64	159	169	149	27	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	21	1348	271	221	1018	8	64	159	169	149	27	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.98	0.02	0.30	0.70	1.00	0.46	0.08	0.46
Final Sat.:	1800	1900	1900	1800	3769	31	538	1332	1900	836	153	865
Capacity Analysis Module:												
Vol/Sat:	0.01	0.71	0.14	0.12	0.27	0.27	0.12	0.12	0.09	0.18	0.18	0.18
Crit Moves:		****		****			****				****	
Green/Cycle:	0.02	0.48	0.48	0.08	0.54	0.54	0.08	0.08	0.08	0.12	0.12	0.12
Volume/Cap:	0.50	1.48	0.30	1.48	0.50	0.50	1.48	1.48	1.11	1.48	1.48	1.48
Delay/Veh:	100.0	251	17.3	310.0	14.3	14.3	309.9	310	165.1	297.7	298	297.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	100.0	251	17.3	310.0	14.3	14.3	309.9	310	165.1	297.7	298	297.7
LOS by Move:	F	F	B	F	B	B	F	F	F	F	F	F
HCM2kAvgQ:	2	107	5	20	9	9	20	20	12	29	29	29

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec): 115 Critical Vol./Cap.(X): 0.629
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 20.1
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	28	28	28	28	28	28
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	0	1 0	1 0	0	1 0
Volume Module:												
Base Vol:	91	515	286	115	1174	200	8	49	22	234	69	196
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	515	286	115	1174	200	8	49	22	234	69	196
Added Vol:	0	60	32	8	44	1	2	2	0	27	1	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	575	318	123	1218	201	10	51	22	261	70	201
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	96	605	335	129	1282	212	11	54	23	275	74	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	96	605	335	129	1282	212	11	54	23	275	74	212
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	96	605	335	129	1282	212	11	54	23	275	74	212
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.29	0.71	1.00	1.72	0.28	1.00	0.70	0.30	1.00	0.26	0.74
Final Sat.:	1800	2447	1353	1800	3262	538	1800	1327	573	1800	491	1409
Capacity Analysis Module:												
Vol/Sat:	0.05	0.25	0.25	0.07	0.39	0.39	0.01	0.04	0.04	0.15	0.15	0.15
Crit Moves:	****				****						****	
Green/Cycle:	0.09	0.52	0.52	0.18	0.62	0.62	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.61	0.47	0.47	0.39	0.64	0.64	0.02	0.17	0.17	0.63	0.62	0.62
Delay/Veh:	67.2	13.7	13.7	44.8	8.7	8.7	33.2	35.1	35.1	45.5	44.8	44.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.2	13.7	13.7	44.8	8.7	8.7	33.2	35.1	35.1	45.5	44.8	44.8
LOS by Move:	E	B	B	D	A	A	C	D	D	D	D	D
HCM2kAvgQ:	4	8	8	4	11	11	0	2	2	9	9	9

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Alabama Street (NS) at Pioneer Avenue (EW)

Cycle (sec): 115 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Protected				Protected				Permitted				Permitted			
Rights:	Include				Include				Include				Include			
Min. Green:	10	18	18		10	18	18		28	28	28		28	28	28	
Lanes:	1	0 1	1	0	1	0 1	1	0	1	0	0 1	0	1	0	0 1	0
Volume Module:																
Base Vol:	19	1241	234		205	904	6		60	150	161		105	24	139	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	19	1241	234		205	904	6		60	150	161		105	24	139	
Added Vol:	1	40	23		5	63	2		1	1	0		37	2	8	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	20	1281	257		210	967	8		61	151	161		142	26	147	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95		0.95	0.95	0.95	
PHF Volume:	21	1348	271		221	1018	8		64	159	169		149	27	155	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	21	1348	271		221	1018	8		64	159	169		149	27	155	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	21	1348	271		221	1018	8		64	159	169		149	27	155	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00		0.95	1.00	1.00	
Lanes:	1.00	1.67	0.33		1.00	1.98	0.02		1.00	0.48	0.52		1.00	0.15	0.85	
Final Sat.:	1800	3165	635		1800	3769	31		1800	920	980		1800	286	1614	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.43	0.43		0.12	0.27	0.27		0.04	0.17	0.17		0.08	0.10	0.10	
Crit Moves:		****			****					****						
Green/Cycle:	0.17	0.55	0.55		0.16	0.53	0.53		0.24	0.24	0.24		0.24	0.24	0.24	
Volume/Cap:	0.07	0.78	0.78		0.78	0.51	0.51		0.15	0.71	0.71		0.34	0.39	0.39	
Delay/Veh:	40.4	17.1	17.1		65.3	13.2	13.2		34.8	48.7	48.7		38.0	38.9	38.9	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	40.4	17.1	17.1		65.3	13.2	13.2		34.8	48.7	48.7		38.0	38.9	38.9	
LOS by Move:	D	B	B		E	B	B		C	D	D		D	D	D	
HCM2kAvgQ:	1	19	19		10	8	8		2	11	11		4	5	5	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
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Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 125 Critical Vol./Cap.(X): 0.917
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 60.8
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	437	413	128	88	776	473	101	224	94	350	1070	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	437	413	128	88	776	473	101	224	94	350	1070	286
Added Vol:	0	64	0	11	49	11	17	0	0	10	3	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	437	477	128	99	825	484	118	224	94	360	1073	303
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	460	502	135	104	868	509	124	236	99	379	1129	319
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	460	502	135	104	868	509	124	236	99	379	1129	319
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	460	502	135	104	868	509	124	236	99	379	1129	319
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.58	0.42	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2996	804	1800	3800	1900	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.26	0.17	0.17	0.06	0.23	0.27	0.07	0.12	0.05	0.21	0.30	0.17
Crit Moves:	****					****		****		****		
Green/Cycle:	0.25	0.34	0.34	0.16	0.26	0.26	0.09	0.22	0.22	0.20	0.34	0.34
Volume/Cap:	1.03	0.49	0.49	0.35	0.88	1.03	0.76	0.55	0.23	1.03	0.88	0.50
Delay/Veh:	97.9	32.0	32.0	49.6	55.4	95.0	83.2	48.1	41.0	105.0	46.2	34.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	97.9	32.0	32.0	49.6	55.4	95.0	83.2	48.1	41.0	105.0	46.2	34.2
LOS by Move:	F	C	C	D	E	F	F	D	D	F	D	C
HCM2kAvgQ:	26	9	9	4	19	27	7	8	3	22	23	9

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 1.358
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 136.4
Optimal Cycle: OPTIMIZED Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	1 0	1 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	117	999	404	157	806	327	496	1199	275	158	317	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	999	404	157	806	327	496	1199	275	158	317	135
Added Vol:	0	45	0	20	64	16	11	0	0	23	6	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1044	404	177	870	343	507	1199	275	181	323	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	123	1099	425	186	916	361	534	1262	289	191	340	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	1099	425	186	916	361	534	1262	289	191	340	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	1099	425	186	916	361	534	1262	289	191	340	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.44	0.56	1.00	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	2740	1060	1800	3800	1900	1800	1900	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.40	0.40	0.10	0.24	0.19	0.30	0.66	0.15	0.11	0.09	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.09	0.30	0.30	0.08	0.28	0.28	0.33	0.49	0.49	0.08	0.24	0.24
Volume/Cap:	0.76	1.36	1.36	1.35	0.85	0.67	0.90	1.36	0.31	1.36	0.38	0.34
Delay/Veh:	85.8	213	213.0	255.7	52.8	48.0	59.8	195	16.6	260.8	42.6	43.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.8	213	213.0	255.7	52.8	48.0	59.8	195	16.6	260.8	42.6	43.0
LOS by Move:	F	F	F	F	D	D	E	F	B	F	D	D
HCM2kAvgQ:	7	56	56	16	19	13	24	91	5	17	5	5

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 115 Critical Vol./Cap.(X): 0.922
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 53.8
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	437	413	128	88	776	473	101	224	94	350	1070	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	437	413	128	88	776	473	101	224	94	350	1070	286
Added Vol:	0	64	0	11	49	11	17	0	0	10	3	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	437	477	128	99	825	484	118	224	94	360	1073	303
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	460	502	135	104	868	509	124	236	99	379	1129	319
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	460	502	135	104	868	509	124	236	99	379	1129	319
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	460	502	135	104	868	509	124	236	99	379	1129	319
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	1.58	0.42	1.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	2996	804	1800	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.26	0.17	0.17	0.06	0.23	0.27	0.04	0.06	0.05	0.11	0.30	0.17
Crit Moves:	****					****	****				****	
Green/Cycle:	0.26	0.35	0.35	0.18	0.28	0.28	0.09	0.27	0.27	0.12	0.31	0.31
Volume/Cap:	0.97	0.47	0.47	0.31	0.83	0.97	0.42	0.23	0.19	0.90	0.97	0.55
Delay/Veh:	77.3	28.3	28.3	43.1	46.7	74.5	54.1	33.3	33.2	75.3	59.5	36.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	77.3	28.3	28.3	43.1	46.7	74.5	54.1	33.3	33.2	75.3	59.5	36.4
LOS by Move:	E	C	C	D	D	E	D	C	C	E	E	D
HCM2kAvgQ:	22	8	8	3	16	23	3	3	2	11	25	9

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Alabama Street (NS) at San Bernardino Avenue (EW)

Cycle (sec): 120 Critical Vol./Cap.(X): 0.957
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 50.6
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1 0	1 1	0	1 0	2 0	1	2 0	2 0	1	2 0	2 0	1
Volume Module:												
Base Vol:	117	999	404	157	806	327	496	1199	275	158	317	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	117	999	404	157	806	327	496	1199	275	158	317	135
Added Vol:	0	45	0	20	64	16	11	0	0	23	6	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	1044	404	177	870	343	507	1199	275	181	323	145
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	123	1099	425	186	916	361	534	1262	289	191	340	153
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	1099	425	186	916	361	534	1262	289	191	340	153
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	123	1099	425	186	916	361	534	1262	289	191	340	153
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	1.44	0.56	1.00	2.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1800	2740	1060	1800	3800	1900	3400	3800	1900	3400	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.40	0.40	0.10	0.24	0.19	0.16	0.33	0.15	0.06	0.09	0.08
Crit Moves:		****		****				****		****		
Green/Cycle:	0.13	0.41	0.41	0.11	0.38	0.38	0.17	0.34	0.34	0.08	0.25	0.25
Volume/Cap:	0.52	0.98	0.98	0.98	0.63	0.50	0.93	0.98	0.45	0.67	0.36	0.32
Delay/Veh:	56.5	50.6	50.6	115.1	29.8	28.4	72.5	59.3	32.0	65.5	38.0	38.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.5	50.6	50.6	115.1	29.8	28.4	72.5	59.3	32.0	65.5	38.0	38.3
LOS by Move:	E	D	D	F	C	C	E	E	C	E	D	D
HCM2kAvgQ:	5	34	34	11	13	9	15	29	7	5	5	4

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project West Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0 0	0	0 0	0 0	0	0 0	0 1	0	1 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	30	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	30	0	0	40	0
Added Vol:	4	0	0	0	0	0	0	16	9	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	0	0	0	0	0	0	46	9	0	48	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	4	0	0	0	0	0	0	48	9	0	51	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	4	0	0	0	0	0	0	48	9	0	51	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	104	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	899	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	899	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		9.0			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project West Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0	0 0	0	0 0	0 0	0	0 0	1 0	1	0 1	0 0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	20	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	20	0	0	40	0
Added Vol:	9	0	0	0	0	0	0	8	5	0	17	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	0	0	0	0	0	0	28	5	0	57	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	0	0	0	0	0	0	29	5	0	60	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	9	0	0	0	0	0	0	29	5	0	60	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	92	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	913	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	913	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		9.0			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Project West Driveway (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[8.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	4	9	67	0	0	56	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	4	9	67	0	0	56	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	4	9	71	0	0	59	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	4	9	71	0	0	59	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	59	59	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1012	1558	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1012	1558	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.6	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.6			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 Project West Driveway (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: A[8.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	9	5	47	0	0	72	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	9	5	47	0	0	72	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	9	5	49	0	0	76	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	9	5	49	0	0	76	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	76	76	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	991	1536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	991	1536	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.7	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.7			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Project East Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[9.0]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0 0	0	0 0	0 0	0	0 0	0 1	0	0 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	30	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	30	0	0	40	0
Added Vol:	2	0	0	0	0	0	0	10	7	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	0	0	0	0	0	0	40	7	0	47	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	0	0	0	0	0	0	42	7	0	49	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	0	0	0	0	0	0	42	7	0	49	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	95	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	909	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	909	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		9.0			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Project East Driveway (NS) at Riverbluff Avenue (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[8.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0	0 0	0	0 0	0 0	0	0 0	0 1	0	0 0	1 0	0
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	20	0	0	40	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	20	0	0	40	0
Added Vol:	7	0	0	0	0	0	0	6	3	0	11	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	0	0	0	0	0	0	26	3	0	51	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	7	0	0	0	0	0	0	27	3	0	54	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	0	0	0	0	0	0	27	3	0	54	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	83	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	924	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	924	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		8.9			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Redlands Distribution Center Building 13
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #8 Project East Driveway (NS) at Palmetto Avenue (EW)

****

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: A[8.6]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	2	7	60	0	0	54	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	2	7	60	0	0	54	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	2	7	63	0	0	57	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	2	7	63	0	0	57	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	57	57	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1015	1561	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1015	1561	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.6	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.6			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

****

Note: Queue reported is the number of cars per lane.

****

Redlands Distribution Center Building 13
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Project East Driveway (NS) at Palmetto Avenue (EW)

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[8.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 0	0 1		0 1 0	0 0		0 0 1	0 0	
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	7	3	44	0	0	65	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	0	7	3	44	0	0	65	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	0	0	7	3	46	0	0	68	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	7	3	46	0	0	68	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	68	68	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1000	1546	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	1000	1546	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	8.6	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.6			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

APPENDIX F

Traffic Signal Warrant Worksheet

WARRANT 3, PEAK HOUR (70% FACTOR)
(Rural Areas)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Opening Year (2014) Without Project**

Major Street Name = **Alabama Street**

Total of Both Approaches (VPH) = **1234**

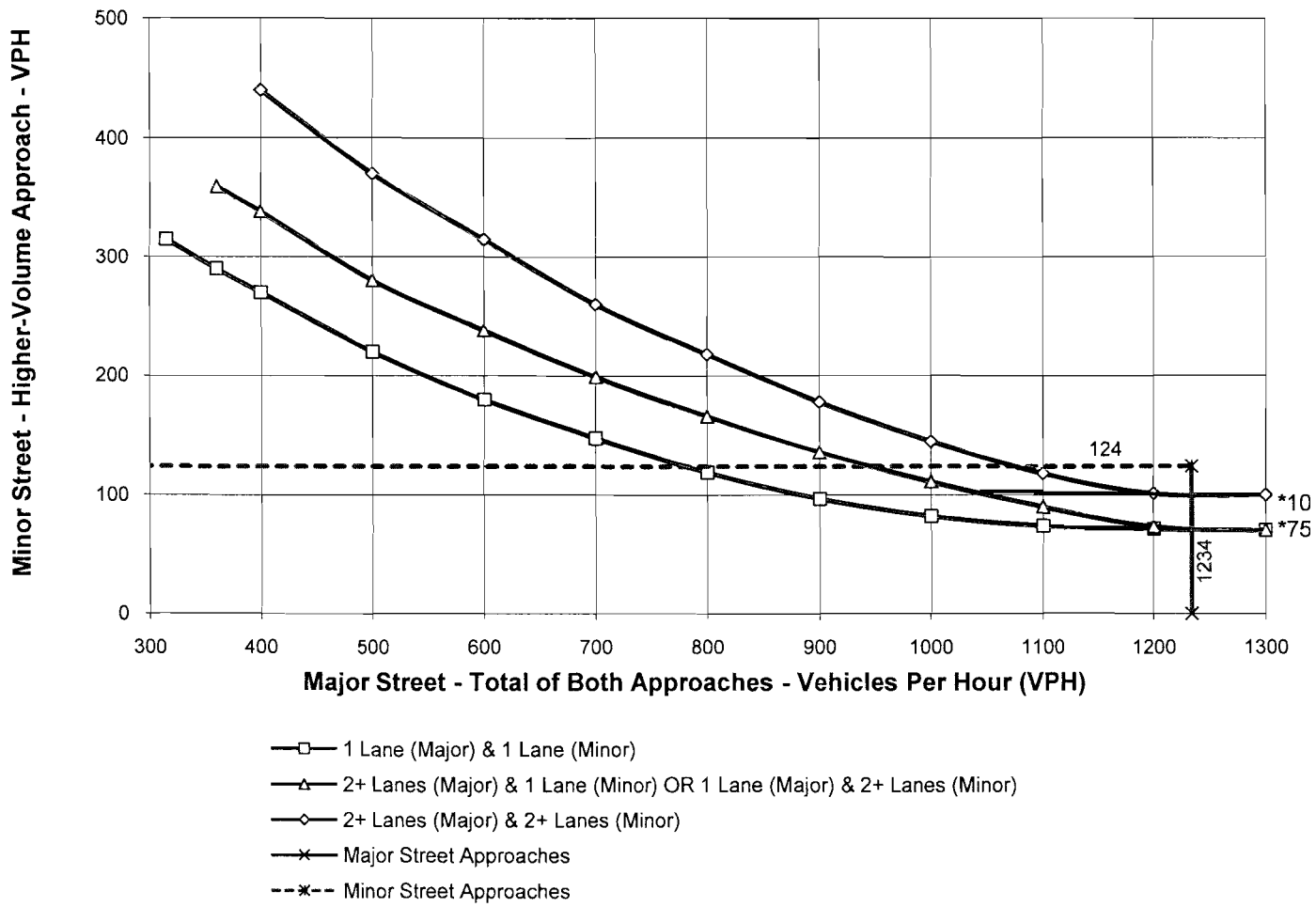
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Palmetto Avenue**

High Volume Approach (VPH) = **124**

Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

November 2003

APPENDIX G

Preliminary Construction Cost Estimates
For Congestion Management Program

PRELIMINARY CONSTRUCTION COST ESTIMATES
FOR
CONGESTION MANAGEMENT PLAN

Add One Lane Each Direction on Freeway	
Asphalt Concrete Pavement	$2,300,000 Per Mile
Portland Cement Concrete Pavement	$2,800,000 Per Mile
Includes: Excavation Paving Section Barrier Shoulder Upgrade Drainage System Traffic Control Mobilization @10% Design @11% Construction Mgt. @12.5%	**Excludes:** Environmental Costs Right of Way Widening of Bridge Structures Added Retaining Walls Added Sound Walls

Widen Existing UC Structures	
Total Cost =	$160 Per Square Foot
Includes: Structure Mobilization @10% Design @11% Construction Mgt. @12.5%	**Excludes:** Environmental Costs Right of Way Traffic Control Ramp Modifications Signal/Lighting Up Grades Drainage Upgrades Added Retaining Walls Added Sound Walls

Diamond Interchanges			
$10,000,000	EACH	NEW IC	Minimal Row/Environmental
$15,000,000	EACH	NEW IC	Includes Row/Environmental
$20,000,000	EACH	EXISTING	Minimal Row/Environmental
$25,000,000	EACH	EXISTING	Includes Row/ Environmental
Includes: Structure Retaining Walls Soil Nail Walls Drainage System Ramps Mobilization @ 10% Design @ 11% Construction Mgt. @ 12.5%		**Excludes:** As listed	

Retaining Walls

Height Feet	Structure Cost $/LF	Mobilization Design Constr. Mgt. $/LF	Total $/LF
4	$190	$70	$260
6	$260	$90	$350
8	$380	$140	$520
10	$430	$150	$580
12	$480	$170	$650
14	$590	$210	$800
16	$660	$240	$900

Excludes: Environmental Costs
Right of Way

12' High Sound Walls (Masonry Block on Footing)

Structure Cost $/Mile	Mobilization Design Constr. Mgt. $/Mile	Total $/Mile
$800,000	$300,000	$1,100,000

Widen Conventional Highway

1. Add one outside lane (Work includes earthwork, modify existing drainage system and construct AC shoulder section.	
Asphalt Concrete Pavement	$1,000,000/Mile
2. Add one outside lane each direction (Work includes earthwork, modify existing drainage system and construct AC shoulder section)	
Asphalt Concrete Pavement	$2,000,000/Mile
With Median Concrete Barrier	$2,200,000/Mile
With Median Double Thrie Beam Barrier	$2,300,000/Mile

Local Interchange Improvements

1. New Interchange	
Urban Interchange	$10,000,000 to $17,000,000
Partial – Cloverleaf Interchange (Work includes new OC structure, earthwork, signal)	$6,000,000
Diamond Interchange (Work includes new OC structure, earthwork, signal)	$5,000,000

Local Interchange Improvements CONT...		
2.	Reconstruct Existing Interchange	
	Realign and widen existing ramps (to 2 lanes)	$750,000/Each Ramp
	Construct Loop on – ramps (Does not include realigning existing ramp)	$700,000/Each Ramp
	Upgrade existing Diamond IC to Partial – Cloverleaf	$6,000,000
3.	Improve Existing Interchange	
	Widen ramps (From one to two lanes)	$350,000/Each Ramp
	Widen existing OC structure	$110/Sq. Ft.
	Signalize ramp intersection	$90,000/Location
	Upgrade existing signal at ramp terminal	$75,000/Intersection
	Upgrade existing signal at ramp terminal (Add lights only)	$25,000/Each
4.	Ramp Metering System	$60,000/Each location
Intersection Improvements		
1.	Signalization of local intersection (with some roadwork)	$250,000
2.	Upgrade existing intersection signalization	$75,000
3.	Upgrade existing Traffic Controller/Assembles	$40,000/Each
4.	Install new signal	$90,000/location
5.	Add signal heads	$25,000/Intersection
6.	Construct left – turn lane (240' long)	$50,000/Each Location
7.	Street widening (12' wide) (Pavement only)	$180,000/Mile
8.	Curb and gutter (Type A2-8)	$15/LF

Other Improvements		
1.	Construct new OC structure (Does not include roadway work)	$100/Sq. Ft.
2.	Construct Retaining Walls (Type 1)	$285/LF (H=8') $360/LF (H=10') $460/LF (H=12') $560/LF (H=14')
3.	Construct Soundwall	$1,000,000/Mile (H=12')
4.	Traffic Management Plan	10% of total construction costs

NOTE: This cost estimate does not include the following items:

1. R/W engineering, appraisal, acquisition and utilities relocation costs.
2. Minor items and supplemental work (10%).
3. Mobilization (10%).
4. Contingencies (25%).
5. Landscaping costs.

General Note: **When adding a through lane, the minimum distance is 600' approach and 600' departure to the next intersection.**

APPENDIX H

Alabama Street Traffic Signal Plans

COUNTY OF SAN BERNARDINO

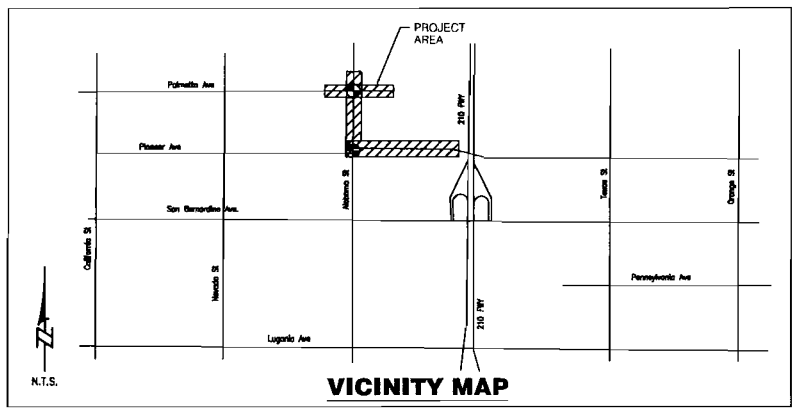
TRAFFIC SIGNAL PLANS
FOR THE INTERSECTION OF
ALABAMA STREET and PALMETTO AVENUE
ALABAMA STREET and PIONEER AVENUE

APN 0261 071 18

TRAFFIC SIGNAL GENERAL NOTES:

1. ALL VEHICLE SIGNAL INDICATIONS SHALL BE 12-INCH AND SHALL BE INSTALLED WITH "LED" SIGNAL MODULES.
2. ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE INSTALLED WITH "LED" PEDESTRIAN MODULES. PEDESTRIAN MODULES SHALL BE EQUIPPED WITH COUNTDOWN TIMERS.
3. SIGNAL POLE LOCATIONS ARE APPROXIMATE.
4. ALL BACK PLATES SHALL BE LOUVERED.
5. ALL BACK PLATES AND VISORS SHALL BE METAL. NO PLASTIC PARTS WILL BE ALLOWED.
6. ALL PULL BOXES SHALL BE NUMBER 5 UNLESS OTHERWISE NOTED.
7. PULL BOXES SHALL BE INSTALLED PER CALTRANS STANDARD PLAN ES-8A, AND SHALL NOT BE INSTALLED IN OR WITHIN A CURB ACCESS RAMP.
8. PULL BOXES LOCATED IN ROADWAYS OR SHOULDER AREAS SUBJECT TO TRAFFIC SHALL BE TRAFFIC TYPE PER CALTRANS STANDARD PLAN ES-8G.
9. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL.
10. SLEEVE NUTS SHALL BE USED FOR ALL TYPE (1-A) POLES PER CALTRANS STANDARD PLAN ES-7B.
11. PEDESTRIAN PUSH BUTTON SHALL BE PER CALTRANS STANDARD PLANS ES-7A AND ES-5C (TYPE 8).
12. TRAFFIC SIGNAL AND LIGHTING SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS SECTION 86 AND STANDARD PLANS DATED 2010.
13. ALL UNUSED TENONS SHALL BE CAPPED.
14. THE CONTRACTOR SHALL NOTIFY THE COUNTY REPRESENTATIVE TO SCHEDULE A FIELD REVIEW WITH TRAFFIC DIVISION TO DETERMINE THE EXACT LOCATION FOR SIGNAL POLES, CONTROLLER CABINET, AND SERVICE CABINET. THE CONSULTANT SURVEYER SHALL STAKE THE PROPOSED CURB TO VERIFY POLE LOCATIONS.
15. ALL SIGNAL STANDARD FOUNDATIONS SHALL BE ADJUSTED TO PROPOSED FINISHED GRADE.
16. ALL REQUIRED CONSTRUCTION PERMITS SHALL BE OBTAINED FROM THE COUNTY OF SAN BERNARDINO PUBLIC WORKS TRANSPORTATION OPERATIONS DIVISION. CALL (909) 387-8046 FOR MORE INFORMATION.
17. THE CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT INCLUDING BUT NOT LIMITED TO THE BATTERY BACK-UP SYSTEM, EMERGENCY PREEMPTION SYSTEM, AND VIDEO DETECTION SYSTEM SHALL BE TESTED BY THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR. THE CONTRACTOR OR SUPPLIER SHALL SUBMIT ALL SCHEMATIC WIRING DIAGRAMS, PLANS, DRAWINGS, AND OPERATION MANUALS AT THE TIME CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT ARE DELIVERED FOR TESTING. PRIOR TO TESTING, THE CONTRACTOR OR ITS SUPPLIER SHALL BE RESPONSIBLE FOR PROGRAMMING ALL ELECTRICAL EQUIPMENT (INCLUDING ALL TIMING) PER THE APPROVED SIGNAL PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST FOR TESTING THE CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT ACCORDING TO THE APPROVED SIGNAL PLANS AND CALTRANS SPECIFICATIONS DATED 2010.

SHEET INDEX:



VICINITY MAP

SIGNING AND STRIPING CONSTRUCTION NOTES:

E	EXISTING SIGN TO REMAIN.
D	INSTALL TYPE L-1(CA) (OM2-3V) OBJECT MARKER PER CA MUTCD 2012, FIG. 2C-13(CA).
IS	INSTALL TRAFFIC SIGN AND POST PER CA MUTCD 2012, FIG 2A-1(CA).
PM	PAINT PAVEMENT MARKING PER 2010 CALTRANS STD. PLAN A24A THRU A24E.
RL	RELOCATE EXISTING SIGN AND POST TO LOCATION SHOWN PER CA MUTCD 2012, FIG. 2A-2(CA).
RS	REMOVE AND SALVAGE EXISTING SIGN AND POST.
TM	INSTALL 12" SOLID WHITE LIMIT LINE/CROSSWALK MARKING PER 2010 CALTRANS STD. PLAN A24E.
XX	SANDBLAST CONFLICTING STRIPING. REMOVE EXISTING CONFLICTING REFLECTIVE PAVEMENT MARKINGS.
13	PAINT 4" WHITE LANE LINE PER 2010 CALTRANS STD. PLAN A20A DETAIL 12.
21	PAINT 4" DOUBLE YELLOW CENTERLINE STRIPE PER 2010 CALTRANS STD. PLAN A20A DETAIL 21.
22	PAINT 4" DOUBLE YELLOW CENTERLINE STRIPE PER 2010 CALTRANS STD. PLAN A20A DETAIL 22.
27B	PAINT 4" WHITE EDGE LINE STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 27B
29	PAINT 4" DOUBLE YELLOW MEDIAN STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 29.
32	PAINT TWO WAY LEFT-TURN LANE STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 32.
37B	PAINT 8" LANE DROP STRIPE PER 2010 CALTRANS STD. PLAN A20C DETAIL 37B.
38	PAINT 8" WHITE CHANNELIZING LANE LINE PER PER 2010 CALTRANS STD. PLAN A20D DETAIL 38.
41	PAINT 4" INTERSECTION EXTENSION STRIPE PER 2010 CALTRANS STD. PLAN A30D DETAIL 41.

GENERAL SIGNING AND STRIPING NOTES:

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2. All striping and pavement markings shall be painted in conformance with the Caltrans Standard Plans latest edition.
3. All striping (long line) and pavement markings SHALL BE retroreflective paint.
4. ALL regulatory and Warning signs SHALL BE of high intensity (FHWA Type III/IV) retroreflective sheeting except:
   A. STOP signs SHALL BE of Super Engineering Grade (FHWA Type VII in rural settings and TYPE IX in urban settings) retroreflective sheeting.
   B. "No Parking" signs shall be of Super Engineering Grade (FHWA Type II) retroreflective sheeting.
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11. The Contractor SHALL notify County Representative to schedule a final review (walk through) with Traffic Division personnel for approval of Traffic Control Devices prior to project acceptance.

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

DATE	BY	MARK	REVISIONS
	ENGINEER		

		APPR.	DATE
DRAWN BY:	JS		
DATE:	04/12/11		
DESIGNED BY:	TJW		
DATE:	04/13/11		
CHECKED BY:	TJW		
DATE:	05/07/12		
RECOMMENDED BY:	TJW		
DATE:	08/28/13	COUNTY	

SEAL — THOMAS JOSEPH WHEAT, No. 68467, Exp. 6/30/14, CIVIL, STATE OF CALIFORNIA

TJW ENGINEERING, INC.
Traffic Engineering Consultants
3943 Irvine Boulevard, #245
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t: (949) 878-3569 f: (949) 878-3593
www.tjwengineering.com

Date: _____ Exp. 6/30/14

COUNTY OF SAN BERNARDINO DEPARTMENT OF PUBLIC WORKS			
		RECOMMENDED BY:	
MUHAMMAD SIDDIQUI ENGINEER, TRAFFIC DIVISION	DATE		
		APPROVED BY:	
MUHAMMAD QURESHI TRAFFIC DIVISION CHIEF	DATE	DAN KIM LAND DEVELOPMENT DIVISION	DATE

TITLE SHEET

TRAFFIC SIGNAL AND SIGNING AND STRIPING PLAN SET
ALABAMA STREET
AT PALMETTO AVENUE
APN 0261 071 18
CUP NO. ____ PARCEL MAP NO. ____

W.O. NO.
ROAD NO.
PRF NO.
SHEET 1 OF 5

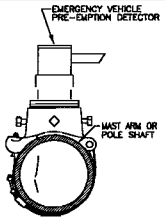
Last Update: 8/28/2013 12:23:36 PM
File Name: C:\Users\Shannon A. Wheat\Desktop\My Projects\Alabama\Plan Projects\Alabama-11-001\TS\TS001 Plot Created: 08/28/2013 12:23:36 PM User: AWW

POLE AND EQUIPMENT SCHEDULE■

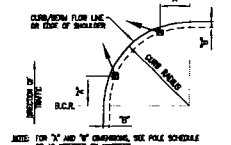
	STANDARDS				VEH. SIGNAL MTG.		PED. SIG.	P.P.B.			POLE LOC.		H.P.S.V.	RETRO REFLECTIVE STREET NAME SIGN (RSNS)	COMMENTS
	TYPE	HEIGHT	SIGNAL M.A.	LUMIN. M.A.	MAST ARM	POLE	MTG.	#	QUAD		** A	** B	Luminaire		
A	61-5-100	30'	65'	15'	3-MAS	SV-1-T	–	–	–		36'	6'	200W	Palmetto Ave	F=18'
B	1-A	10'	–	–	–	TV-2-T	–	–	–		38'	4'	–	–	–
C	24-4-100	30'	35'	15'	2-MAS	SV-1-T	–	–	–		37'	6'	200W	Alabama St	F=14'
D	15TS	30'	–	15'	–	SV-2-T	–	–	–		37'	6'	200W	–	–
E	19-4-100	30'	30'	15'*	2-MAS	SV-1-T	–	–	–		13'	4'	200W	Palmetto Ave	F=12'
F	15TS	30'	–	15'*	–	SV-2-T	–	–	–		15'	6'	200W	–	–
G	19-4-100	30'	30'	15'*	MAS	SV-1-T	–	–	–		37'	6'	200W	Alabama St	–
H	15TS	30'	–	15'	–	SV-2-T	–	–	–		35'	6'	200W	–	–

■ EXACT POLE LOCATIONS DETERMINED BY FIELD ENGINEER, POTHOLE POLE FOUNDATIONS PRIOR TO ORDERING POLES.
* THE LUMINAIRE MAST ARM (LMA) SHALL BE STRAIGHT (NO TAPER)
** POLES E & F ARE MEASURED FROM PROPOSED AC BERM. POLES A-D, G, & H ARE MEASURED FROM FUTURE CURB.
NOTE: ELEVATIONS SHOWN ARE FOR FUTURE SIDEWALK FINISH GRADE.

PHASE SEQUENCING
PHASE DIAGRAM



EMERGENCY VEHICLE PRE-EMPTION DETECTOR MOUNTING DETAIL
N.T.S
DETAIL 'A'

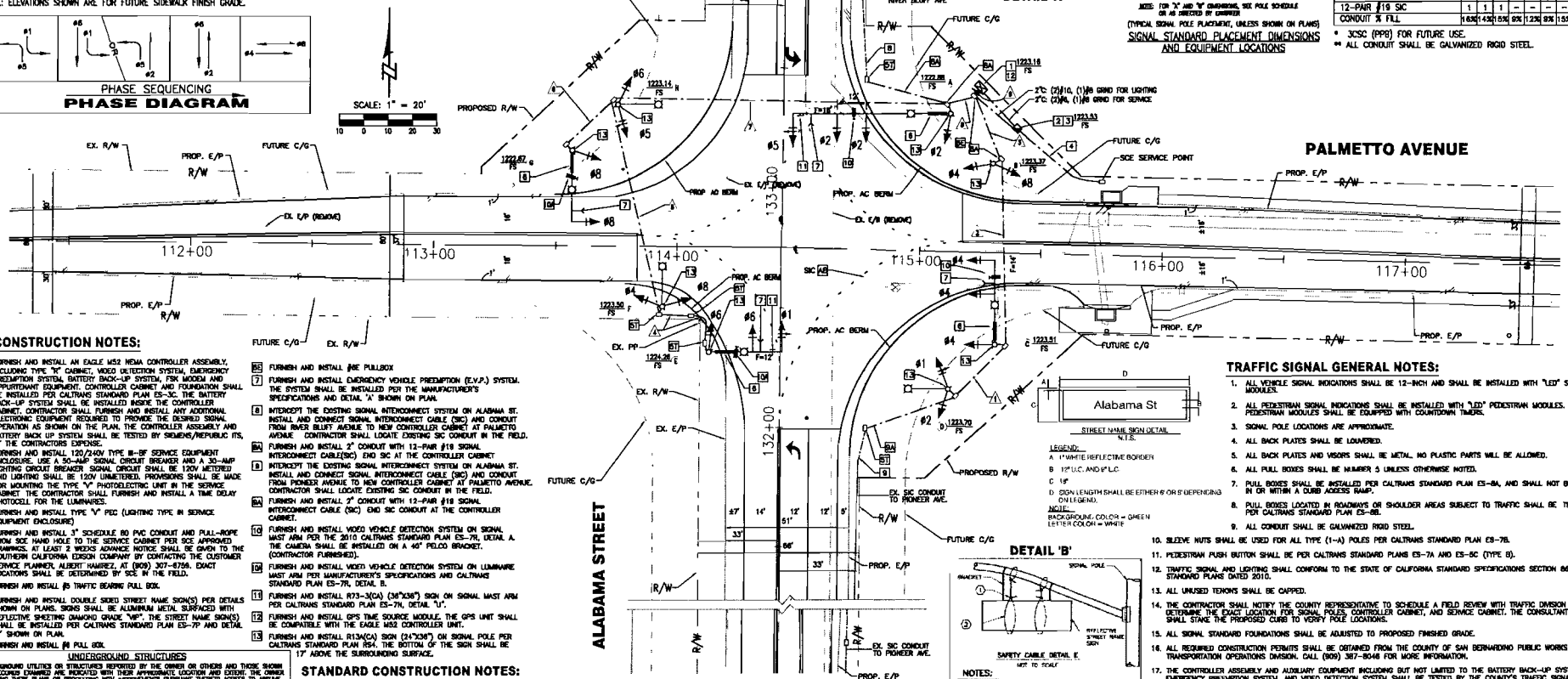


(TYPICAL SIGNAL POLE PLACEMENT, UNLESS SHOWN ON PLANS)
SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS

CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	POLE OR CIRCUIT	CONDUIT SIZE AND RUN NUMBER(S)—NEW (EXISTING)								
		N	N	N	N	N	N	N	N	N
		3"	3"	3"	3"	3"	3"	4"	4"	3-4"
		A	A	A	A	A	A	A	A	A
12 CSC CONDUCTOR	POLE – A	1	1	1	1	1	1	1	1	1
	B	1	1	1	1	1	1	1	1	1
	C	1	1	1	1	1	1	1	1	1
	D	1	1	1	1	1	1	1	1	1
	E	1	1	1	1	1	1	1	1	1
	F	1	1	1	1	1	1	1	1	1
	G	1	1	1	1	1	1	1	1	1
	H	1	1	1	1	1	1	1	1	1
3 CSC CONDUCTOR	TOTAL	1	2	3	1	2	1	4	1	2
#10	LUMINARES	2	2	2	2	2	2	2	2	–
#8	SIGNAL COMMON	1	1	1	1	1	1	1	1	1
VIDEO CABLE(POWER + COAX)		–	1	1	1	1	1	2	3	4
EMERGENCY PREEMPTION CABLE		–	1	1	1	1	1	2	3	4
12-PAIR #19 SIC		1	1	1	–	–	–	–	1	2
CONDUIT % FILL		16.5%	14.5%	15%	6%	12.5%	8%	15.5%	17%	23.5%

* 3CSC (PPB) FOR FUTURE USE.
** ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL.



CONSTRUCTION NOTES:

1. FURNISH AND INSTALL AN EAGLE M52 NEMA CONTROLLER ASSEMBLY, INCLUDING TYPE "N" CABINET, VIDEO DETECTION SYSTEM, EMERGENCY PREEMPTION SYSTEM, BATTERY BACK-UP SYSTEM, FISK MODEM AND APPURTENANT EQUIPMENT. CONTROLLER CABINET AND FOUNDATION SHALL BE INSTALLED PER CALTRANS STANDARD PLAN ES-3C. THE BATTERY BACK-UP SYSTEM SHALL BE INSTALLED INSIDE THE CONTROLLER CABINET. CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL ELECTRONIC EQUIPMENT REQUIRED TO PROVIDE THE DESIRED SIGNAL OPERATION AS SHOWN ON THE PLAN. THE CONTROLLER ASSEMBLY AND BATTERY BACK UP SYSTEM SHALL BE TESTED BY SIEMENS/REPUBLIC ITS, AT THE CONTRACTORS EXPENSE.
2. FURNISH AND INSTALL 120/240V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE. USE A 50-AMP SIGNAL CIRCUIT BREAKER AND A 30-AMP LIGHTING CIRCUIT BREAKER. SIGNAL CIRCUIT SHALL BE 120V METERED AND LIGHTING SHALL BE 120V UNMETERED. PROVISIONS SHALL BE MADE FOR MOUNTING THE TYPE "A" PHOTOELECTRIC UNIT IN THE SERVICE CABINET. THE CONTRACTOR SHALL FURNISH AND INSTALL A TIME DELAY PHOTOCELL FOR THE LUMINARES.
3. FURNISH AND INSTALL TYPE "A" PEC (LIGHTING TYPE IN SERVICE EQUIPMENT ENCLOSURE)
4. FURNISH AND INSTALL 3" SCHEDULE 80 PVC CONDUIT AND PULL-ROPE FROM SCE HAND HOLE TO THE SERVICE CABINET PER SCE APPROVED DRAWINGS. AT LEAST 2 WEEKS ADVANCE NOTICE SHALL BE GIVEN TO THE SOUTHERN CALIFORNIA EDISON COMPANY BY CONTACTING THE CUSTOMER SERVICE PLANNER, ALBERT HAMIREZ, AT (909) 307-6756. EXACT LOCATIONS SHALL BE DETERMINED BY SCE IN THE FIELD.
5T. FURNISH AND INSTALL #5 TRAFFIC BEARING PULL BOX.
6. FURNISH AND INSTALL DOUBLE SIDED STREET NAME SIGN(S) PER DETAILS SHOWN ON PLANS. SIGNS SHALL BE ALUMINUM METAL SURFACED WITH REFLECTIVE SHEETING DIAMOND GRADE "HP". THE STREET NAME SIGN(S) SHALL BE INSTALLED PER CALTRANS STANDARD PLAN ES-7P AND DETAIL 'B' SHOWN ON PLAN.
8A. FURNISH AND INSTALL #8 PULL BOX.
8C. FURNISH AND INSTALL #8E PULLBOX
7. FURNISH AND INSTALL EMERGENCY VEHICLE PREEMPTION (E.V.P.) SYSTEM. THE SYSTEM SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS AND DETAIL 'A' SHOWN ON PLAN.
8. INTERCEPT THE EXISTING SIGNAL INTERCONNECT SYSTEM ON ALABAMA ST. INSTALL AND CONNECT SIGNAL INTERCONNECT CABLE (SIC) AND CONDUIT FROM RIVER BLUFF AVENUE TO NEW CONTROLLER CABINET AT PALMETTO AVENUE. CONTRACTOR SHALL LOCATE EXISTING SIC CONDUIT IN THE FIELD.
8A. FURNISH AND INSTALL 2" CONDUIT WITH 12-PAIR #19 SIGNAL INTERCONNECT CABLE(SIC) END SIC AT THE CONTROLLER CABINET
8. INTERCEPT THE EXISTING SIGNAL INTERCONNECT SYSTEM ON ALABAMA ST. INSTALL AND CONNECT SIGNAL INTERCONNECT CABLE (SIC) AND CONDUIT FROM PIONEER AVENUE TO NEW CONTROLLER CABINET AT PALMETTO AVENUE. CONTRACTOR SHALL LOCATE EXISTING SIC CONDUIT IN THE FIELD.
8A. FURNISH AND INSTALL 2" CONDUIT WITH 12-PAIR #19 SIGNAL INTERCONNECT CABLE (SIC) END SIC CONDUIT AT THE CONTROLLER CABINET.
10. FURNISH AND INSTALL VIDEO VEHICLE DETECTION SYSTEM ON SIGNAL MAST ARM PER THE 2010 CALTRANS STANDARD PLAN ES-7H, DETAIL A. THE CAMERA SHALL BE INSTALLED ON A 40" PELCO BRACKET. (CONTRACTOR FURNISHED).
10A. FURNISH AND INSTALL VIDEO VEHICLE DETECTION SYSTEM ON LUMINAIRE MAST ARM PER MANUFACTURER'S SPECIFICATIONS AND CALTRANS STANDARD PLAN ES-7H, DETAIL B.
11. FURNISH AND INSTALL R73-3(CA) (36"X36") SIGN ON SIGNAL MAST ARM PER CALTRANS STANDARD PLAN ES-7H, DETAIL "U".
12. FURNISH AND INSTALL GPS TIME SOURCE MODULE. THE GPS UNIT SHALL BE COMPATIBLE WITH THE EAGLE M52 CONTROLLER UNIT.
13. FURNISH AND INSTALL R13A(CA) SIGN (24"X36") ON SIGNAL POLE PER CALTRANS STANDARD PLAN RS4. THE BOTTOM OF THE SIGN SHALL BE 17' ABOVE THE SURROUNDING SURFACE.

STANDARD CONSTRUCTION NOTES:

AB ABANDON, IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.

TRAFFIC SIGNAL GENERAL NOTES:

1. ALL VEHICLE SIGNAL INDICATIONS SHALL BE 12-INCH AND SHALL BE INSTALLED WITH "LED" SIGNAL MODULES.
2. ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE INSTALLED WITH "LED" PEDESTRIAN MODULES. PEDESTRIAN MODULES SHALL BE EQUIPPED WITH COUNTDOWN TIMERS.
3. SIGNAL POLE LOCATIONS ARE APPROXIMATE.
4. ALL BACK PLATES SHALL BE LOUVERED.
5. ALL BACK PLATES AND VISORS SHALL BE METAL. NO PLASTIC PARTS WILL BE ALLOWED.
6. ALL PULL BOXES SHALL BE NUMBER 5 UNLESS OTHERWISE NOTED.
7. PULL BOXES SHALL BE INSTALLED PER CALTRANS STANDARD PLAN ES-8A, AND SHALL NOT BE INSTALLED IN OR WITHIN A CURB ACCESS RAMP.
8. PULL BOXES LOCATED IN ROADWAYS OR SHOULDER AREAS SUBJECT TO TRAFFIC SHALL BE TRAFFIC TYPE PER CALTRANS STANDARD PLAN ES-8B.
9. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL.
10. SLEEVE NUTS SHALL BE USED FOR ALL TYPE (1-A) POLES PER CALTRANS STANDARD PLAN ES-7B.
11. PEDESTRIAN PUSH BUTTON SHALL BE PER CALTRANS STANDARD PLANS ES-7A AND ES-8C (TYPE B).
12. TRAFFIC SIGNAL AND LIGHTING SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS SECTION 86 AND STANDARD PLANS DATED 2010.
13. ALL UNUSED TENONS SHALL BE CAPPED.
14. THE CONTRACTOR SHALL NOTIFY THE COUNTY REPRESENTATIVE TO SCHEDULE A FIELD REVIEW WITH TRAFFIC DIVISION TO DETERMINE THE EXACT LOCATION FOR SIGNAL POLES, CONTROLLER CABINET, AND SERVICE CABINET. THE CONSULTANT SURVEYER SHALL STAKE THE PROPOSED CURB TO VERIFY POLE LOCATIONS.
15. ALL SIGNAL STANDARD FOUNDATIONS SHALL BE ADJUSTED TO PROPOSED FINISHED GRADE.
16. ALL REQUIRED CONSTRUCTION PERMITS SHALL BE OBTAINED FROM THE COUNTY OF SAN BERNARDINO PUBLIC WORKS TRANSPORTATION OPERATIONS DIVISION. CALL (909) 387-8046 FOR MORE INFORMATION.
17. THE CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT INCLUDING BUT NOT LIMITED TO THE BATTERY BACK-UP SYSTEM, EMERGENCY PREEMPTION SYSTEM, AND VIDEO DETECTION SYSTEM SHALL BE TESTED BY THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR. THE CONTRACTOR OR SUPPLIER SHALL SUBMIT ALL SCHEMATIC WIRING DIAGRAMS, PLANS, DRAWINGS, AND OPERATION MANUALS AT THE TIME CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT ARE DELIVERED FOR TESTING. PRIOR TO TESTING, THE CONTRACTOR OR ITS SUPPLIER SHALL BE RESPONSIBLE FOR PROGRAMMING ALL ELECTRICAL EQUIPMENT (INCLUDING ALL TIMING) PER THE APPROVED SIGNAL PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST FOR TESTING THE CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT ACCORDING TO THE APPROVED SIGNAL PLANS AND CALTRANS SPECIFICATIONS DATED 2010.

DETAIL 'B'

NOTES:
1. 1/8-INCH CRIMP FITTING. KEEP FITTING AS CLOSE TO MAST ARM / BRACKET AS POSSIBLE PROVIDE 2-INCH OF SLACK BETWEEN CRIMP FITTINGS.
2. 1/8 INCH GALVANIZED STEEL CABLE

UNDERGROUND STRUCTURES

ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

NOTE THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

NOTE:
"ROSTA" CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

DATE	BY	MARK	REVISIONS	APPR.	DATE
		ENGINEER		COUNTY	

DESIGNED BY: JS — DATE: 03/16/11
ASSISTED BY: TJW — DATE: 03/16/11
CHECKED BY: TJW — DATE: 08/15/11
RECOMMENDED BY: TJW — DATE: 08/22/12

SEAL

SERVICE ADDRESS: 9486 ALABAMA ST.

TJW ENGINEERING, INC.
Traffic Engineering Consultants
3643 Irvine Boulevard, #245
Irvine, California 92602
t: (949) 878-3566 f: (949) 878-3553
www.tjwengineering.com

Thomas Joseph Wolf R.C.E. No. 69487 Date: Exp. 6/30/14

COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS

RECOMMENDED BY:

ED PETRE — DATE
ENGINEER, TRAFFIC DIVISION

APPROVED BY:

MOHAMMAD QURESHI — DATE
TRAFFIC DIVISION CHIEF

GIA KIM — DATE
CHIEF, LAND DEVELOPMENT DIVISION

SIGNAL INSTALLATION PLAN

ALABAMA STREET
AT PALMETTO AVENUE
APN 0292 071 18

CUP NO. ____ PARCEL MAP NO. ____

W.O. NO.
ROAD NO.
FILE NO.
SHEET 2 OF 5

Last Update: 8/22/2012 11:25:36 AM
Plot Date: 08/22/2012 11:25:53 AM
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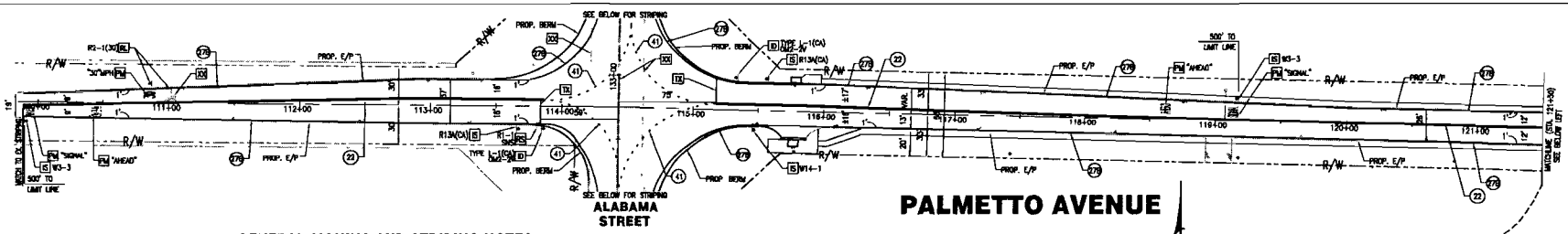

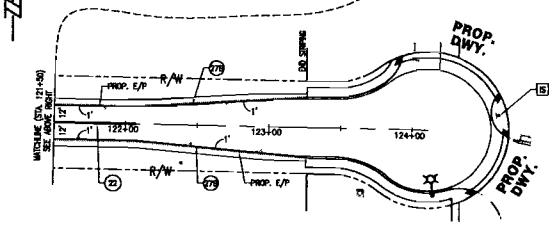

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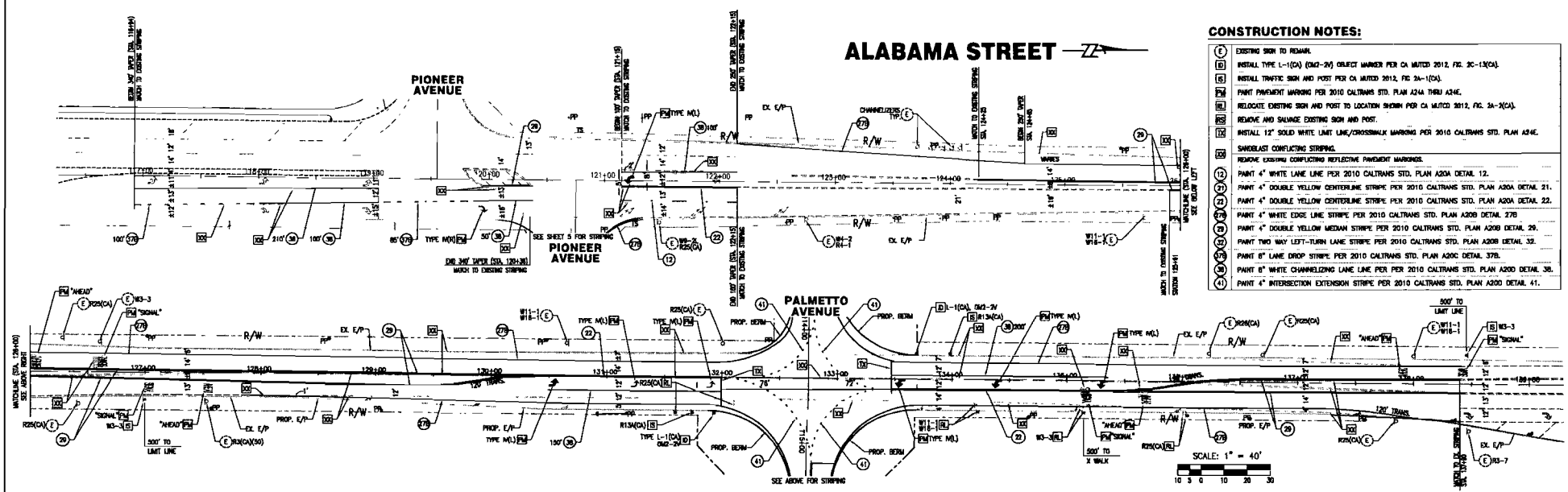

CONSTRUCTION NOTES:

(E)	EXISTING SIGN TO REMAIN.
(D)	INSTALL TYPE L-1(CA) (OM2-2V) OBJECT MARKER PER CA MUTCD 2012, FIG. 3C-13(CA).
(S)	INSTALL TRAFFIC SIGN AND POST PER CA MUTCD 2012, FIG 2A-1(CA).
PM	PAINT PAVEMENT MARKING PER 2010 CALTRANS STD. PLAN A24A THRU A24E.
(R)	RELOCATE EXISTING SIGN AND POST TO LOCATION SHOWN PER CA MUTCD 2012, FIG. 2A-2(CA).
RS	REMOVE AND SALVAGE EXISTING SIGN AND POST.
(T)	INSTALL 12" SOLID WHITE LIMIT LINE/CROSSWALK MARKING PER 2010 CALTRANS STD. PLAN A24E.
SB	SANDBLAST CONFLICTING STRIPING.
RM	REMOVE EXISTING CONFLICTING REFLECTIVE PAVEMENT MARKINGS.
(2)	PAINT 4" WHITE LANE LINE PER 2010 CALTRANS STD. PLAN A20A DETAIL 12.
(21)	PAINT 4" DOUBLE YELLOW CENTERLINE STRIPE PER 2010 CALTRANS STD. PLAN A20A DETAIL 21.
(22)	PAINT 4" DOUBLE YELLOW CENTERLINE STRIPE PER 2010 CALTRANS STD. PLAN A20A DETAIL 22.
(27)	PAINT 4" WHITE EDGE LINE STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 27B
(29)	PAINT 4" DOUBLE YELLOW MEDIAN STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 29.
(32)	PAINT TWO WAY LEFT-TURN LANE STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 32.
(37B)	PAINT 8" LANE DROP STRIPE PER 2010 CALTRANS STD. PLAN A20C DETAIL 37B.
(38)	PAINT 8" WHITE CHANNELIZING LANE LINE PER PER 2010 CALTRANS STD. PLAN A20D DETAIL 38.
(41)	PAINT 4" INTERSECTION EXTENSION STRIPE PER 2010 CALTRANS STD. PLAN A20D DETAIL 41.

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

DATE	BY	MARK	REVISIONS	APPR.	DATE
				COUNTY	

ENGINEER

DRAWN BY	JS
DATE	04/12/11
RE-DRAWN BY	TJW
DATE	04/13/11
CHECKED BY	TJW
DATE	05/07/12
RECOMMENDED BY	TJW
DATE	08/28/12

SEAL — THOMAS JOSEPH WREN, No. 68467, Exp. 6/30/14, STATE OF CALIFORNIA

TJW ENGINEERING, INC.
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www.tjwengineering.com

THOMAS JOSEPH WREN R.C.E. No. 68467 Date: Exp. 6/30/14

COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS

MOHAMMAD SIDDIQUI, ENGINEER, TRAFFIC DIVISION	DATE	RECOMMENDED BY:	
MOHAMMAD QURESHI, TRAFFIC DIVISION CHIEF	DATE	APPROVED BY:	DATE
		GIA KIM, LAND DEVELOPMENT DIVISION	DATE

SIGNING AND STRIPING PLAN

ALABAMA STREET
AND PALMETTO AVENUE
APN 0261 071 18

CUP NO. _____ PARCEL MAP NO. _____

W.O. NO.	
ROAD NO.	
FILE NO.	
SHEET	3 OF 5

Last Updated: 8/28/2012 12:25:13 PM
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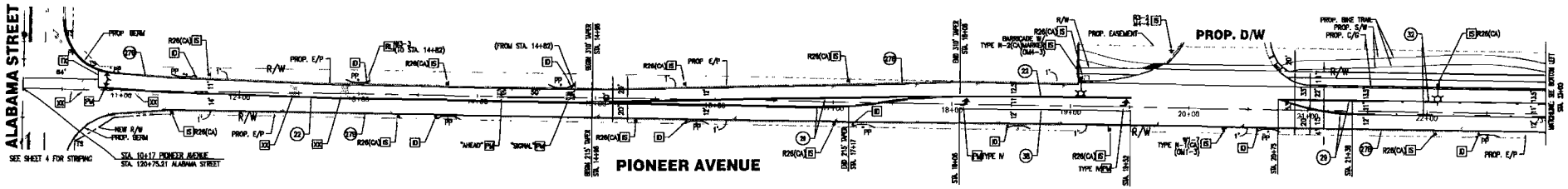
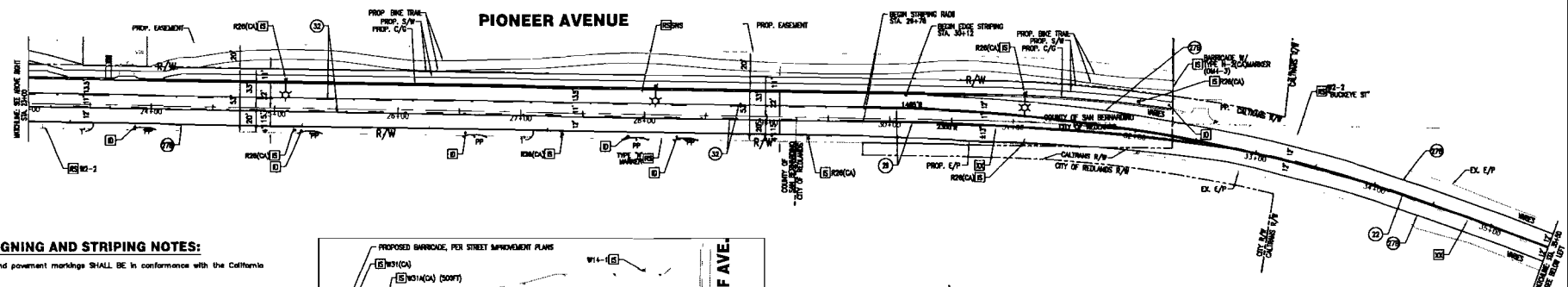
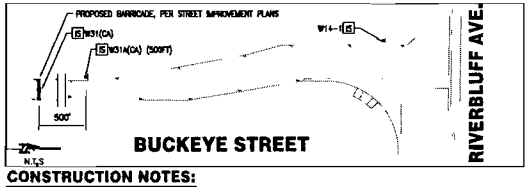


EXISTING POWER POLES (PP) FROM STATION 15+00 TO STATION 32+00 ON THE NORTH SIDE OF PIONEER AVENUE WILL BE REMOVED.



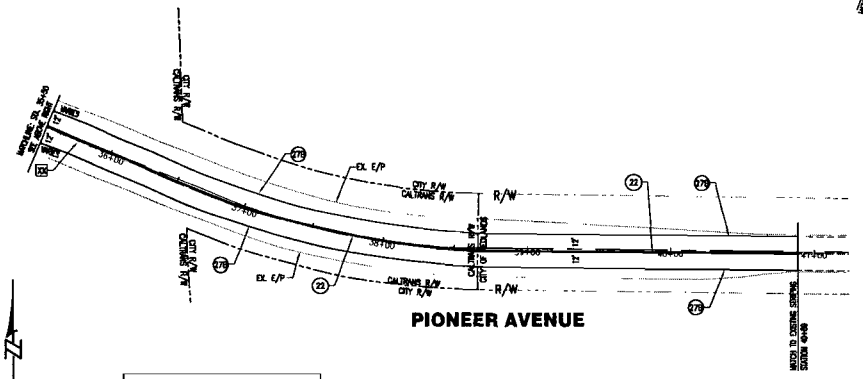
GENERAL SIGNING AND STRIPING NOTES:

1. All signing, striping and pavement markings SHALL BE in conformance with the California MUTCD latest edition.
2. All striping and pavement markings shall be painted in conformance with the Caltrans Standard Plans latest edition.
3. All striping (long line) and pavement markings SHALL BE retroreflective paint.
4. ALL regulatory and Warning signs SHALL BE of high intensity (FHWA Type III/IV) retroreflective sheeting except:
   A. STOP signs SHALL BE of Super Engineering Grade (FHWA Type VII in rural settings and TYPE IX in urban settings) retroreflective sheeting.
   B "No Parking" signs shall be of Super Engineering Grade (FHWA Type II) retroreflective sheeting.
   C. School signs SHALL BE of Diamond Grade (FHWA Type IX) fluourescent yellow-green (FYG) retroreflective sheeting.
   D. Street Name Markers SHALL BE of Diamond Grade (FHWA Type IX) retroreflective sheeting and conform to County Standard 303.
5. All Delineators, Channelizers, and Object Markers SHALL BE of FHWA Type VII retroreflective sheeting.
6. Signs SHOULD BE mounted on metal posts similar to County Standard 303(c) and 303(b).
7. All conflicting striping and pavement markings NOT SHOWN on plans SHALL BE removed by the contractor Removal SHALL BE accomplished by sandblasting, grinding, or as directed by County Representative.
8. All conflicting signs SHALL BE removed, relocated, or covered by the Contractor Relocatable signs SHALL BE installed as specified on the plans or as directed by County Representative.
9. ALL unprotected locations resulting in isolated abrupt depressions or elevated objects (i.e. catch basins, headwalls, power poles, and treatment of asphalt dikes and concrete curbs) SHALL BE protected by delineators or barriers per the California MUTCD latest edition.
10. ALL existing signing, striping and pavement markings (i.e. street STOP, stop LIMIT LINE and CROSSWALK pavement markings) NOT SHOWN on plans, if removed/obliterated, SHALL BE replaced/restored of same kind, and in conformance with the California MUTCD latest edition.
11. The Contractor SHALL notify County Representative to schedule a final review (walk through) with Traffic Division personnel for approval of Traffic Control Devices prior to project acceptance.



CONSTRUCTION NOTES:

E	EXISTING SIGN TO REMAIN.
D	INSTALL TYPE L-1(CA) (OM3-2V) OBJECT MARKER PER CA MUTCD 2012, FIG. 2C-13(CA).
S	INSTALL TRAFFIC SIGN AND POST PER CA MUTCD 2012, FIG 2A-1(CA).
PM	PAINT PAVEMENT MARKING PER 2010 CALTRANS STD. PLAN A24A THRU A24E.
RL	RELOCATE EXISTING SIGN AND POST TO LOCATION SHOWN PER CA MUTCD 2012, FIG. 2A-2(CA).
RS	REMOVE AND SALVAGE EXISTING SIGN AND POST.
TX	INSTALL 12" SOLID WHITE LIMIT LINE/CROSSWALK MARKING PER 2010 CALTRANS STD. PLAN A24E.
SB	SANDBLAST CONFLICTING STRIPING.
XX	REMOVE EXISTING CONFLICTING REFLECTIVE PAVEMENT MARKINGS.
12	PAINT 4" WHITE LANE LINE PER 2010 CALTRANS STD. PLAN A20A DETAIL 12.
21	PAINT 4" DOUBLE YELLOW CENTERLINE STRIPE PER 2010 CALTRANS STD. PLAN A20A DETAIL 21.
22	PAINT 4" DOUBLE YELLOW CENTERLINE STRIPE PER 2010 CALTRANS STD. PLAN A20A DETAIL 22.
27B	PAINT 6" WHITE EDGE LINE STRIPE PER 2010 CALTRANS STD PLAN A20B DETAIL 27B
28	PAINT 4" DOUBLE YELLOW MEDIAN STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 28.
32	PAINT TWO WAY LEFT-TURN LANE STRIPE PER 2010 CALTRANS STD. PLAN A20B DETAIL 32.
37B	PAINT 8" LANE DROP STRIPE PER 2010 CALTRANS STD. PLAN A30C DETAIL 37B.
38	PAINT 8" WHITE CHANNELIZING LANE LINE PER PER 2010 CALTRANS STD. PLAN A20D DETAIL 38.
41	PAINT 4" INTERSECTION EXTENSION STRIPE PER 2010 CALTRANS STD PLAN A20D DETAIL 41



SCALE: 1" = 40'

CITY OF REDLANDS

ENGINEERING DIRECTOR _____ DATE

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

DATE	BY	MARK	REVISIONS	APPR.	DATE
				COUNTY	

DRAWN BY	JS
DATE	04/12/11
DESIGNED BY	TJW
DATE	04/13/11
CHECKED BY	TJW
DATE	08/07/13
RECOMMENDED BY	TJW
DATE	08/28/13

SEAL — REGISTERED CIVIL ENGINEER — THOMAS JOSEPH WHELAN — No. 69467 — Exp. 6/30/14 — CIVIL — STATE OF CALIFORNIA

TJW ENGINEERING, INC.
Traffic Engineering Consultants
3943 Irvine Boulevard, #245
Irvine, California 92602
t: (949) 478-3558 f: (949) 478-3593
www.tjwengineering.com

THOMAS JOSEPH WHELAN R.C.E. No. 69467 Date Exp. 6/30/14

COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS

MOHAMMAD SIDDIQUI — DATE — ENGINEER, TRAFFIC DIVISION
MAHMMAD QURESHI — DATE — TRAFFIC DIVISION CHIEF

RECOMMENDED BY: _____ DATE
APPROVED BY: _____ DATE
OM KIM — LAND DEVELOPMENT DIVISION

SIGNING AND STRIPING PLAN

PIONEER AVENUE and
BUCKEYE STREET
APN 0261 071 18

CUP NO. ____ PARCEL MAP NO. ____

W.O. NO.
ROAD NO.
FILE NO.
SHEET 4 OF 5

Plot Date: 08/28/2013 4:04:01 PM — User: JSW — File Name: C:\Users\Thomas A. Whelan\Desktop\My Dropbox\TJW Projects\104-11-001\Division Plan Check\Division SHT 4 Pioneer Striping Mstr.dwg — Last Update: 8/28/2013 4:03:11 PM

CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	POLE OR CIRCUIT	CONDUIT SIZE AND RUN NUMBER(R)-HOW (*=Conns)										
		E 2-4"	E 4"	E 4"	E 3"	E 3"	E 3"	E 3"	E 3"	E 3"	E 4"	E 4"
		1	2	3	4	5	6	7	8	9	10	11
12 CSC CONDUCTOR	POLE - A	1	1	1	1	1	1	1	1	1	1	1
	B	1	1	1	1	1	1	1	1	1	1	1
	C	1	1	1	1	1	1	1	1	1	1	1
	D	1	1	1	1	1	1	1	1	1	1	1
	E	1	1	1	1	1	1	1	1	1	1	1
3 CSC CONDUCTOR	F											
	G	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
	H	1	1	1	1	1	1	1	1	1	1	1
	I											
	J	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
	TOTAL	9	4	3	3	2	1	–	1	2	3	4
#10	LUMINAIRES	[2]	2	2	2	2	[2]	[2]	[2]	[2]	[2]	–
#8	SIGNAL COMMON	1	1	1	1	1	1	1	1	1	1	1
VIDEO POWER		4	2	2	2	1	–	–	–	1	2	4
COAX CABLE		4	2	2	2	1	–	–	–	1	2	4
TOTAL		8	4	4	4	2	–	–	–	2	4	8
EMERGENCY PREEMPTION CABLE		4	2	2	2	1	–	–	–	1	2	–

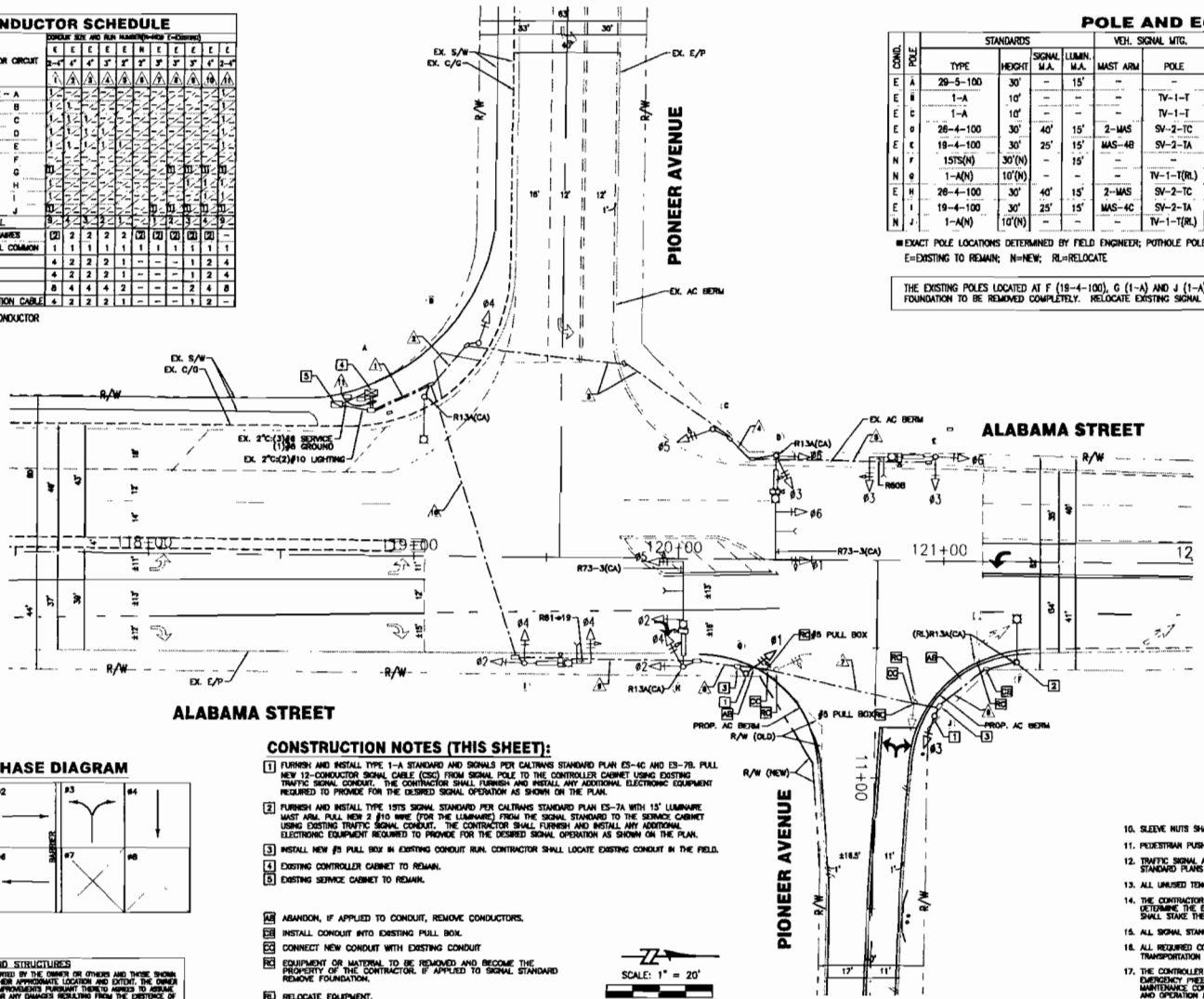
☐ INDICATES NEW CONDUCTOR

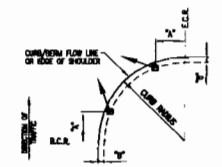
POLE AND EQUIPMENT SCHEDULE*

COND.	POLE	STANDARDS TYPE	HEIGHT	SIGNAL M.A.	LUMIN. M.A.	VEH. SIGNAL MTG. MAST ARM	POLE	PED. SIG. MTG.	P.P.B. #	P.P.B. QUAD	POLE LOC. A	POLE LOC. B	H.P.S.V. Luminaire	REFLECTIVE STREET NAME SIGN (RSNS)	COMMENTS
E	A	29-5-100	30'	–	15'	–	–	–	–	–	EX.	EX.	250W	–	–
E	B	1-A	10'	–	–	–	TV-1-T	–	–	–	EX.	EX.	–	–	–
E	C	1-A	10'	–	–	–	TV-1-T	–	–	–	EX.	EX.	–	–	–
E	G	26-4-100	30'	40'	15'	2-MAS	SV-2-TC	–	–	–	EX.	EX.	250W	Pioneer Ave	–
E	I	19-4-100	30'	25'	15'	MAS-4B	SV-2-TA	–	–	–	EX.	EX.	250W	Alabama St	–
N	F	15TS(N)	30'(N)	–	15'	–	–	–	–	–	5'	3'	250W(N)	–	REMOVE EX. 19-4-100
N	G	1-A(N)	10'(N)	–	–	–	TV-1-T(RL)	–	–	–	10'(N)	4'(N)	–	–	RL SIG. HEADS TO NEW
E	H	26-4-100	30'	40'	15'	2-MAS	SV-2-TC	–	–	–	EX.	EX.	250W	Pioneer Ave	–
E	I	19-4-100	30'	25'	15'	MAS-4C	SV-2-TA	–	–	–	EX.	EX.	250W	Alabama St	–
N	J	1-A(N)	10'(N)	–	–	–	TV-1-T(RL)	–	–	–	15'(N)	3'(N)	–	–	RL SIG. HEADS TO NEW

*EXACT POLE LOCATIONS DETERMINED BY FIELD ENGINEER; POTHOLE POLE FOUNDATIONS PRIOR TO ORDERING POLES.
E=EXISTING TO REMAIN; N=NEW; RL=RELOCATE

THE EXISTING POLES LOCATED AT F (19-4-100), G (1-A) AND J (1-A) ARE TO BE REMOVED AND BECOME PROPERTY OF THE CONTRACTOR. FOUNDATION TO BE REMOVED COMPLETELY. RELOCATE EXISTING SIGNAL HEADS TO NEW POLES AS APPLICABLE.

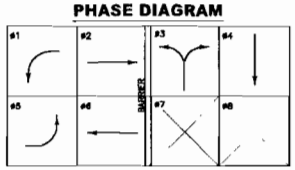




(TYPICAL SIGNAL POLE PLACEMENT, UNLESS SHOWN ON PLANS)

SIGNAL STANDARD PLACEMENT DIMENSIONS AND EQUIPMENT LOCATIONS

PHASE DIAGRAM



CONSTRUCTION NOTES (THIS SHEET):

1. FURNISH AND INSTALL TYPE 1-A STANDARD AND SIGNALS PER CALTRANS STANDARD PLAN ES-4C AND ES-7B. PULL NEW 12-CONDUCTOR SIGNAL CABLE (CSC) FROM SIGNAL POLE TO THE CONTROLLER CABINET USING EXISTING TRAFFIC SIGNAL CONDUIT. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL ELECTRONIC EQUIPMENT REQUIRED TO PROVIDE FOR THE DESIRED SIGNAL OPERATION AS SHOWN ON THE PLAN.
2. FURNISH AND INSTALL TYPE 15TS SIGNAL STANDARD PER CALTRANS STANDARD PLAN ES-7A WITH 15' LUMINAIRE MAST ARM. PULL NEW 2 #10 WIRE (FOR THE LUMINAIRE) FROM THE SIGNAL STANDARD TO THE SERVICE CABINET USING EXISTING TRAFFIC SIGNAL CONDUIT. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY ADDITIONAL ELECTRONIC EQUIPMENT REQUIRED TO PROVIDE FOR THE DESIRED SIGNAL OPERATION AS SHOWN ON THE PLAN.
3. INSTALL NEW #5 PULL BOX IN EXISTING CONDUIT RUN. CONTRACTOR SHALL LOCATE EXISTING CONDUIT IN THE FIELD.
4. EXISTING CONTROLLER CABINET TO REMAIN.
5. EXISTING SERVICE CABINET TO REMAIN.

AB ABANDON, IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.
CE INSTALL CONDUIT INTO EXISTING PULL BOX.
CC CONNECT NEW CONDUIT WITH EXISTING CONDUIT
RC EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR. IF APPLIED TO SIGNAL STANDARD REMOVE FOUNDATION.
RL RELOCATE EQUIPMENT.

SCALE: 1" = 20'

TRAFFIC SIGNAL GENERAL NOTES:

1. ALL VEHICLE SIGNAL INDICATIONS SHALL BE 12-INCH AND SHALL BE INSTALLED WITH "LED" SIGNAL MODULES.
2. ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE INSTALLED WITH "LED" PEDESTRIAN MODULES. PEDESTRIAN MODULES SHALL BE EQUIPPED WITH COUNTDOWN TIMERS.
3. SIGNAL POLE LOCATIONS ARE APPROXIMATE.
4. ALL BACK PLATES SHALL BE LOUVERED.
5. ALL BACK PLATES AND VISORS SHALL BE METAL. NO PLASTIC PARTS WILL BE ALLOWED.
6. ALL PULL BOXES SHALL BE NUMBER 5 UNLESS OTHERWISE NOTED.
7. PULL BOXES SHALL BE INSTALLED PER CALTRANS STANDARD PLAN ES-5A, AND SHALL NOT BE INSTALLED IN OR WITHIN A CURB ACCESS RAMP.
8. PULL BOXES LOCATED IN ROADWAYS OR SHOULDER AREAS SUBJECT TO TRAFFIC SHALL BE TRAFFIC TYPE PER CALTRANS STANDARD PLAN ES-8B.
9. ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL.
10. SLEEVE NUTS SHALL BE USED FOR ALL TYPE (1-A) POLES PER CALTRANS STANDARD PLAN ES-7B.
11. PEDESTRIAN PUSH BUTTON SHALL BE PER CALTRANS STANDARD PLANS ES-7A AND ES-5C (TYPE B).
12. TRAFFIC SIGNAL AND LIGHTING SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS SECTION 86 AND STANDARD PLANS DATED 2010.
13. ALL UNUSED TENONS SHALL BE CAPPED.
14. THE CONTRACTOR SHALL NOTIFY THE COUNTY REPRESENTATIVE TO SCHEDULE A FIELD REVIEW WITH TRAFFIC DIVISION TO DETERMINE THE EXACT LOCATION FOR SIGNAL POLES, CONTROLLER CABINET, AND SERVICE CABINET. THE CONSULTANT SURVEYER SHALL STAKE THE PROPOSED CURB TO VERIFY POLE LOCATIONS.
15. ALL SIGNAL STANDARD FOUNDATIONS SHALL BE ADJUSTED TO PROPOSED FINISHED GRADE.
16. ALL REQUIRED CONSTRUCTION PERMITS SHALL BE OBTAINED FROM THE COUNTY OF SAN BERNARDINO PUBLIC WORKS TRANSPORTATION OPERATIONS DIVISION. CALL (909) 387-8048 FOR MORE INFORMATION.
17. THE CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT INCLUDING BUT NOT LIMITED TO THE BATTERY BACK-UP SYSTEM, EMERGENCY PREEMPTION SYSTEM, AND VIDEO DETECTION SYSTEM SHALL BE TESTED BY THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR. THE CONTRACTOR OR SUPPLIER SHALL SUBMIT ALL SCHEMATIC WIRING DIAGRAMS, PLANS, DRAWINGS, AND OPERATION MANUALS AT THE TIME CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT ARE DELIVERED FOR TESTING. PRIOR TO TESTING, THE CONTRACTOR OR ITS SUPPLIER SHALL BE RESPONSIBLE FOR PROGRAMMING ALL ELECTRICAL EQUIPMENT (INCLUDING ALL TIMING) PER THE APPROVED SIGNAL PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST FOR TESTING THE CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT ACCORDING TO THE APPROVED SIGNAL PLANS AND CALTRANS SPECIFICATIONS DATED 2010.

NOTE: THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

UNDERGROUND STRUCTURES

ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

REVISIONS	ENGINEER DATE	ENGINEER BY	ENGINEER MARK	APPR. COUNTY	DATE

DRAWN BY: JB DATE: 03/16/11
DESIGNED BY: TJW DATE: 03/16/11
CHECKED BY: TJW DATE: 06/15/11
RECOMMENDED BY: TJW DATE: 06/27/12

SEAL

TJW ENGINEERING, INC.
Traffic Engineering Consultants
3043 Irvine Boulevard, #245
Irvine, California 92602
t: (949) 878-3508 f: (949) 679-3593
www.tjwengineering.com

THOMAS JOSEPH WHEAT R.C.E. No. 65407 Date: Exp. 6/30/14

COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS

	DATE		
ED PETRE, ENGINEER, TRAFFIC DIVISION		RECOMMENDED BY	
MOHAMMAD QURESHI, TRAFFIC DIVISION CHIEF	DATE	APPROVED BY	
		GIA KIM, CHIEF, LAND DEVELOPMENT DIVISION	DATE

SIGNAL MODIFICATION PLAN

ALABAMA STREET
AT PIONEER AVENUE
APN 0292 071 18

CUP NO. _____ PARCEL MAP NO. _____

W.O. NO.
ROAD NO.
FILE NO.
SHEET 5 OF 5

TH-11-001 Thomas Wheat, TJW Engineering, Inc.8/29/2011 1:08 P:\th11\001_TS_SS Alabama_Palmetto Ver 8.dwg

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Last Update: 8/27/2012 2:49:4 PM
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Unit: ANSI

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