

Appendix K
Traffic Impact Analysis



Appendices

This page intentionally left blank.

CITY OF SAN BERNARDINO

SPRING TRAILS

TRAFFIC IMPACT ANALYSIS (REVISED)

Prepared by:

**Carl Ballard and
William Kunzman, P.E.**

William Kunzman



May 16, 2011

KUNZMAN ASSOCIATES, INC.

1111 TOWN & COUNTRY ROAD, SUITE 34

ORANGE, CA 92868-4667

PHONE: (714) 973-8383

FAX: (714) 973-8821

EMAIL: MAIL@TRAFFIC-ENGINEER.COM

WEB: WWW.TRAFFIC-ENGINEER.COM

Table of Contents

I.	Introduction.....	1
A.	Project Description.....	1
B.	Study Area	1
C.	Analysis Methodology	2
D.	Definition of Deficiency and Significant Impact	4
1.	Definition of Deficiency.....	4
2.	Definition of Significant Impact	4
II.	Existing Conditions	7
A.	Existing Roadway System	7
B.	Existing Volumes	7
C.	Existing Level of Service.....	7
D.	Existing Traffic Signal Warrant Analysis	8
E.	Planned Transportation Improvements and Relationship to General Plan... 	8
III.	Project Traffic.....	17
A.	Project Description.....	17
B.	Trip Generation.....	17
C.	Trip Distribution	17
D.	Trip Assignment	17
E.	Traffic Contribution Test.....	18
IV.	Future Conditions	25
A.	Future Volumes.....	25
1.	Existing Plus Project.....	25
2.	Opening Year (2013) Without Project	25
3.	Opening Year (2013) With Project	25
4.	Year 2035 Without Project	25
5.	Year 2035 With Project	26
B.	Future Level of Service	26
1.	Existing Plus Project.....	26
2.	Opening Year (2013) Without Project	26
3.	Opening Year (2013) With Project	27
4.	Year 2035 Without Project	28
5.	Year 2035 With Project	29
C.	Freeway Evaluation	29
V.	Conclusions and Recommendations	55
A.	Summary	55
B.	Existing Conditions.....	56
C.	Project Traffic	56
D.	Future Conditions.....	57

E. Recommendations.....	60
1. On-Site Improvements	60
2. Off-Site Improvements.....	60

APPENDICES

Appendix A – Glossary of Transportation Terms

Appendix B – Traffic Count Worksheets

Appendix C – Future Growth Increment Calculation Worksheets

Appendix D – Explanation and Calculation of Intersection Delay

Appendix E – Traffic Signal Warrant Worksheets

List of Tables

Table 1.	Existing Intersection Delay and Level of Service	9
Table 2.	Project Traffic Generation	19
Table 3.	Existing Plus Project Intersection Delay and Level of Service	31
Table 4.	Opening Year (2013) Without Project Intersection Delay and Level of Service.....	32
Table 5.	Opening Year (2013) With Project Intersection Delay and Level of Service	33
Table 6.	Year 2035 Without Project Intersection Delay and Level of Service.....	34
Table 7.	Year 2035 With Project Intersection Delay and Level of Service	35
Table 8.	Year 2035 Freeway Mainline Morning Peak Hour Operations Analysis.....	36
Table 9.	Year 2035 Freeway Mainline Evening Peak Hour Operations Analysis.....	37
Table 10.	Year 2035 Freeway Mainline Morning Peak Hour Operations Analysis With Improvements.....	38
Table 11.	Year 2035 Freeway Mainline Evening Peak Hour Operations Analysis With Improvements.....	39

List of Figures

Figure 1. Project Location Map	5
Figure 2. Project Site Plan	6
Figure 3. Existing Through Travel Lanes and Intersection Controls.....	10
Figure 4. Existing Average Daily Traffic Volumes.....	11
Figure 5. Existing Morning Peak Hour Intersection Turning Movement Volumes	12
Figure 6. Existing Evening Peak Hour Intersection Turning Movement Volumes	13
Figure 7. City of San Bernardino General Plan Circulation Element.....	14
Figure 8. City of San Bernardino General Plan Roadway Cross-Sections.....	15
Figure 9. County of San Bernardino General Plan Circulation Element.....	16
Figure 10. Project Traffic Distribution	20
Figure 11. Project Average Daily Traffic Volumes	21
Figure 12. Project Morning Peak Hour Intersection Turning Movement Volumes.....	22
Figure 13. Project Evening Peak Hour Intersection Turning Movement Volumes	23
Figure 14. Project Traffic Contribution Test Volumes	24
Figure 15. Existing Plus Project Average Daily Traffic Volumes.....	40
Figure 16. Opening Year (2013) Without Project Average Daily Traffic Volumes	41
Figure 17. Opening Year (2013) With Project Average Daily Traffic Volumes.....	42
Figure 18. Year 2035 Without Project Average Daily Traffic Volumes	43
Figure 19. Year 2035 With Project Average Daily Traffic Volumes.....	44
Figure 20. Existing Plus Project Morning Peak Hour Intersection Turning Movement Volumes	45
Figure 21. Existing Plus Project Evening Peak Hour Intersection Turning Movement Volumes	46
Figure 22. Opening Year (2013) Without Project Morning Peak Hour Intersection Turning Movement Volumes.....	47

Figure 23. Opening Year (2013) Without Project Evening Peak Hour Intersection Turning
Movement Volumes..... 48

Figure 24. Opening Year (2013) With Project Morning Peak Hour Intersection Turning
Movement Volumes..... 49

Figure 25. Opening Year (2013) With Project Evening Peak Hour Intersection Turning
Movement Volumes..... 50

Figure 26. Year 2035 Without Project Morning Peak Hour Intersection Turning Movement
Volumes 51

Figure 27. Year 2035 Without Project Evening Peak Hour Intersection Turning Movement
Volumes 52

Figure 28. Year 2035 With Project Morning Peak Hour Intersection Turning Movement
Volumes 53

Figure 29. Year 2035 With Project Evening Peak Hour Intersection Turning Movement
Volumes 54

Figure 30. Circulation Recommendations 61

I. Introduction

The purpose of this revised report is to provide an assessment of the traffic impacts resulting from the development of the proposed Spring Trails 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 use and development have been evaluated in the context of the California Environmental Quality Act.

The City of San Bernardino is the lead agency responsible for preparation of the traffic impact analysis, in accordance with California Environmental Quality Act authorizing legislation. This report analyzes traffic impacts for the existing plus project, the anticipated opening date with full occupancy of the development in Year 2013 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 located north of Meyers Road and west of Little League Drive in the City of San Bernardino. A vicinity map showing the project location is provided on Figure 1.

The project site is proposed to be developed with 329 single-family detached residential dwelling units. Figure 2 illustrates the project land use plan.

B. Study Area

Regional access to the project site is provided by the I-215 Freeway and I-15 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 Meyers Road, Belmont Avenue, Irvington Avenue, Frontage Road, and Kendall Drive. North-south roadways expected to provide local access include the Secondary Project Entry Road, Little League Drive, Magnolia Avenue, and Palm Avenue.

A series of scoping discussions were conducted with the City of San Bernardino to define the desired analysis locations for each future analysis year.

The project contributes traffic greater than the freeway threshold volume of 100 two-way peak hour trips to the I-215 Freeway and I-15 Freeway. The project contributes traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on intersections in the County of San Bernardino. This means that the City of San Bernardino must notify the County of San Bernardino and the California Department of Transportation.

Each of these agencies must also be provided with a copy of the traffic impact analysis, once the document is accepted by the City of San Bernardino. (Note: The purpose of this notification is to allow the California Department of Transportation to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

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
- Existing Plus Project Conditions
- Opening Year Conditions
- Horizon Year Conditions

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associates, Inc. from October 2008 (see Appendix B). Based upon discussions with City of San Bernardino staff and information within a previous traffic study, it is projected that a nominal increase in traffic volumes has occurred in the study area from Year 2008 to Year 2011.

Supplemental traffic data was available from the 2009 Traffic Volumes on California State Highways by the California Department of Transportation.

In addition, truck classification counts were conducted at the study area intersections. The existing volumes and types (number of axles) of trucks was used in the conversion of trucks to Passenger Car Equivalent's.

Project traffic volumes for all future projections were estimated using the manual approach. Trip generation has been estimated based on the Institute of Transportation Engineers, Trip Generation, 8th Edition, 2008.

The East Valley Traffic Model has been used to evaluate the regional distribution of project traffic. A select zone (trip distribution) analysis was performed using the East Valley Traffic Model with the assistance of the City of San Bernardino staff. The socio-economic data inputs to the East Valley Traffic Model are representative of the planned project development intensity.

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). 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 2011 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 2011 and Year 2035 is 24 years of the 35 year time frame, a factor of 0.69 (i.e., 24/35) 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 (2013) traffic volumes have been interpolated from the Year 2035 traffic volumes based upon a proportion of the future growth increment (see Appendix C).

Project traffic volumes were then added to the Year 2035 East Valley Traffic Model 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 D) 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:

$$(\text{Curb to curb distance}) / (4 \text{ feet/second}) + 7 \text{ seconds.}$$

For existing/existing plus project/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 (see Appendix B). The Year 2035 peak hour factor has been adjusted 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.

D. Definition of Deficiency and Significant Impact

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

1. Definition of Deficiency

The definition of an intersection deficiency has been obtained from the City 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 to F will be considered deficient.

For freeway facilities, the 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. A deficiency is, therefore, defined as any freeway segment operating or projected to operate at Level of Service F, unless the segment is currently identified.

2. Definition of Significant Impact

The identification of significant impacts is a requirement of the California Environmental Quality Act. The City 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 City 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 City of San Bernardino General Plan cannot be constructed.

Figure 1
Project Location Map

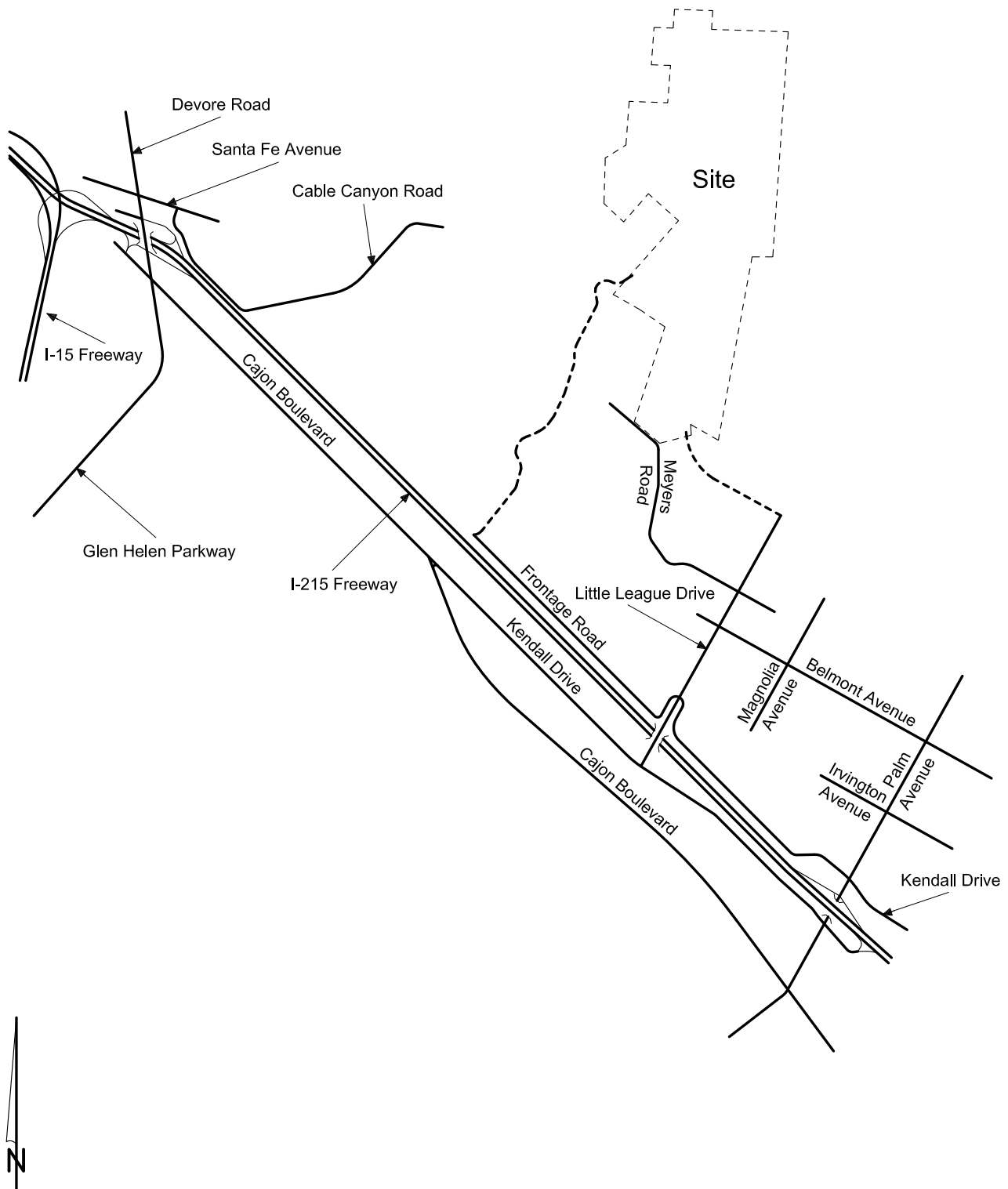
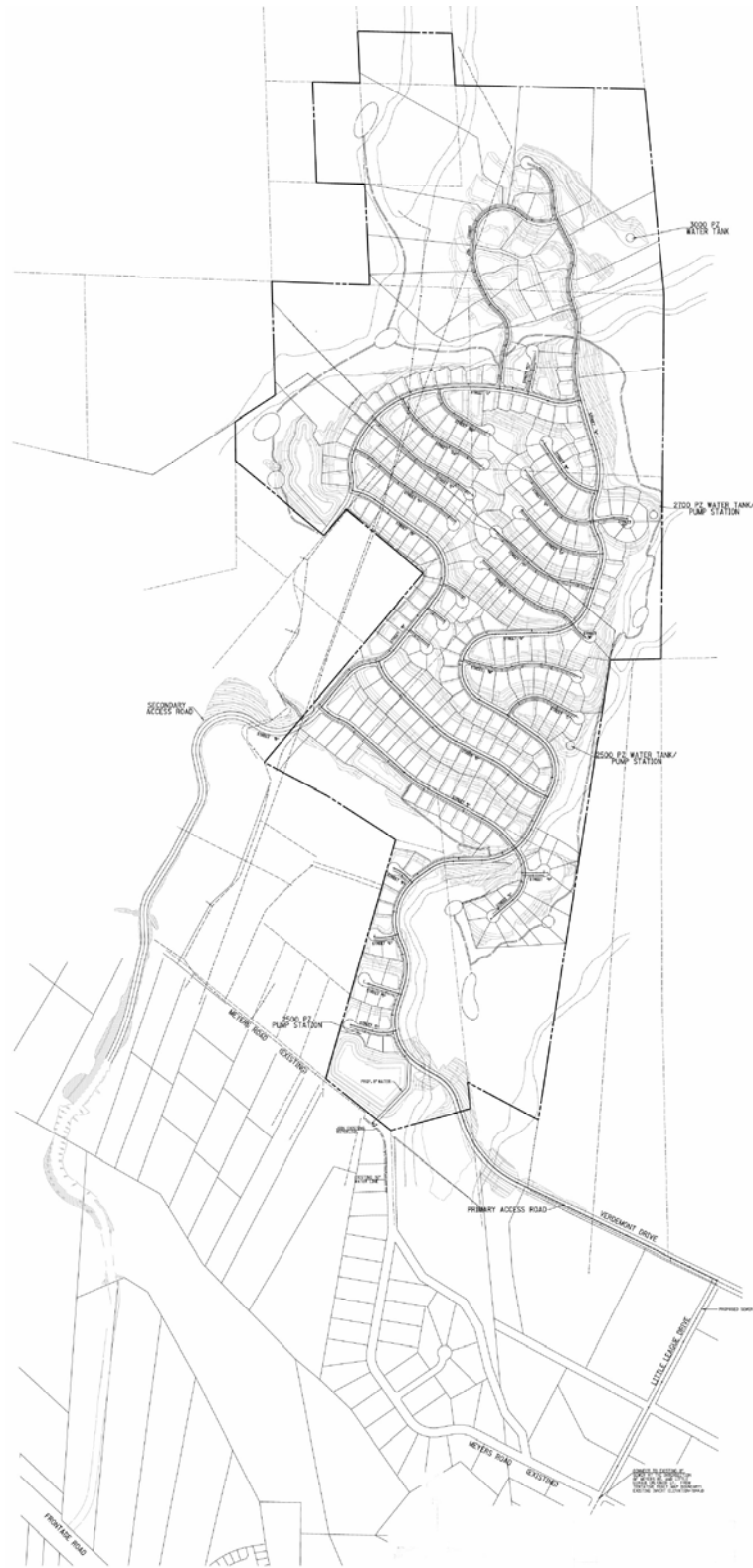


Figure 2
Project Site Plan



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-215 Freeway and I-15 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 Meyers Road, Belmont Avenue, Irvington Avenue, Frontage Road, and Kendall Drive. North-south roadways expected to provide local access include Secondary Project Entry Road, Little League Drive, Magnolia Avenue, and Palm Avenue.

B. Existing Volumes

Figure 4 depicts the existing average daily traffic volumes. The existing average daily traffic volumes on the freeways were obtained from the 2009 Traffic Volumes on California State Highways from the California Department of Transportation. The existing average daily traffic volumes on the streets were factored from peak hour counts in Passenger Car Equivalent's (see Appendix B) obtained by Kunzman Associates, Inc. using the following formula for each intersection leg:

$$\text{PM Peak Hour (Approach + Exit Volume)} \times 11.5 = \text{Daily Leg Volume.}$$

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 October 2008 (see Appendix B) and the resulting Passenger Car Equivalent's are 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.

Based upon discussions with City of San Bernardino staff and information within a previous traffic study, it is projected that a nominal increase in traffic volumes has occurred in the study area from Year 2008 to Year 2011.

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 at Level of Service D or better during the peak hours for existing traffic conditions. Existing delay worksheets are provided in Appendix D.

D. Existing Traffic Signal Warrant Analysis

Traffic signals appear to currently be warranted at the following study area intersections for existing traffic conditions (see Appendix E):

Palm Avenue (NS) at:

I-215 Freeway NB Ramps (EW) - #9

I-215 Freeway SB Ramps (EW) - #10

The California Department of Transportation currently has the traffic signals above in the design stage. The traffic signals are programmed for installation in Year 2012.

E. Planned Transportation Improvements and Relationship to General Plan

The City of San Bernardino General Plan Circulation Element is shown on Figure 7. The City of San Bernardino General Plan roadway cross-sections are illustrated on Figure 8.

Figure 9 exhibits the County of San Bernardino General Plan Circulation Element.

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			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Little League Drive (NS) at:															
Meyers Road (EW) - #1	CSS	0	1	0	0	1	0	0	1	0	0	1	0	12.0-B	9.3-A
Belmont Avenue (EW) - #2	AWS	0	1	1	0	1	0	0	1	0	0	1	0	8.9-A	7.4-A
Frontage Road (EW) - #3	CSS	0	1	0	0	1	0	0	1	0	0	1	0	12.2-B	8.9-A
Kendall Drive (EW) - #4	CSS	0	0	0	1	0	1	0	1	0	0	1	0	9.7-A	9.6-A
Magnolia Avenue (NS) at:															
Belmont Avenue (EW) - #5	AWS	0	1	0	0	1	0	0	1	0	0	1	0	7.6-A	7.1-A
Palm Avenue (NS) at:															
Belmont Avenue (EW) - #6	AWS	0	2	0	0	1	0	0	1	0	0	1	0	9.8-A	9.2-A
Irvington Avenue (EW) - #7	TS	1	2	0	1	2	0	0	1	1	0	1	1	14.5-B	15.4-B
Kendall Drive (EW) - #8	TS	1	2	1>	1	2	0	1	1	1	1	1	1	31.3-C	31.2-C
I-215 Freeway NB Ramps (EW) - #9	CSS	1	1	0	0	2	0	0	0	0	1	0	1	29.2-D	29.9-D
I-215 Freeway SB Ramps (EW) - #10	AWS	1	1	1	1	2	0	0	1	1	0	1	1>>	34.8-D	14.2-B

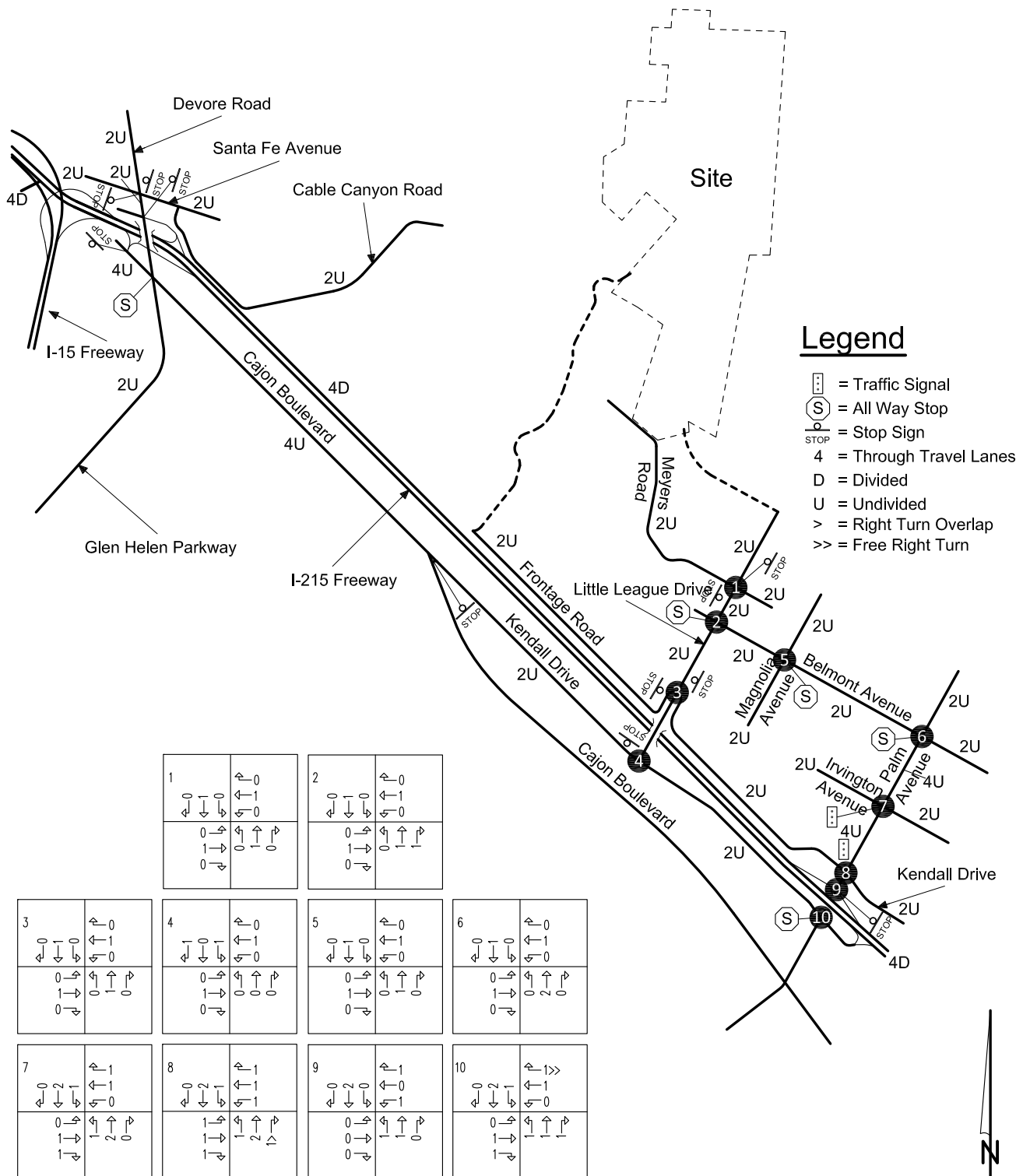
¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn

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 CSS = Cross Street Stop; AWS = All Way Stop; TS = Traffic Signal

Figure 3
Existing Through Travel Lanes and Intersection Controls



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

OVER 30 YEARS OF EXCELLENT SERVICE

4320d/3

Figure 4 Existing Average Daily Traffic Volumes

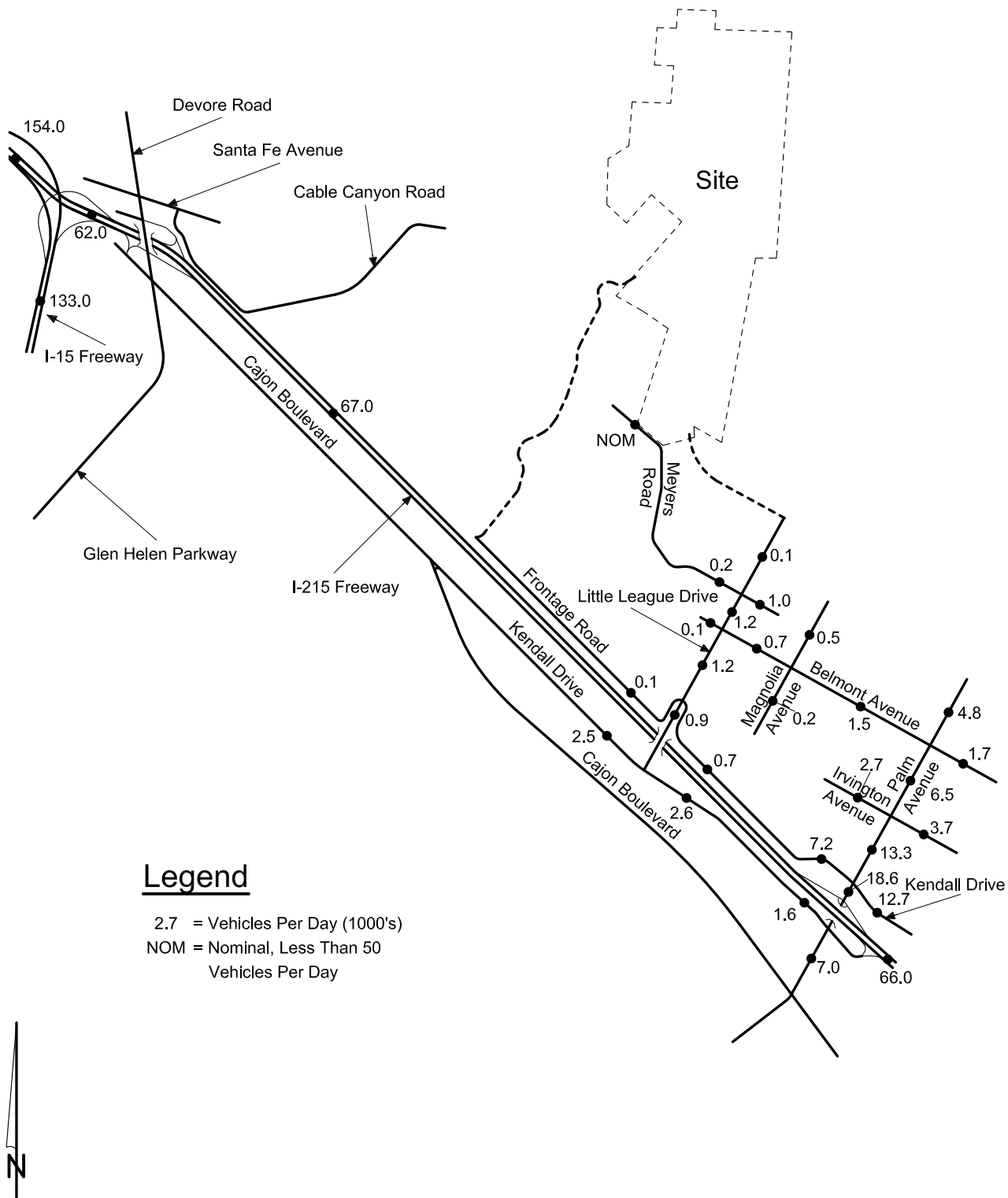
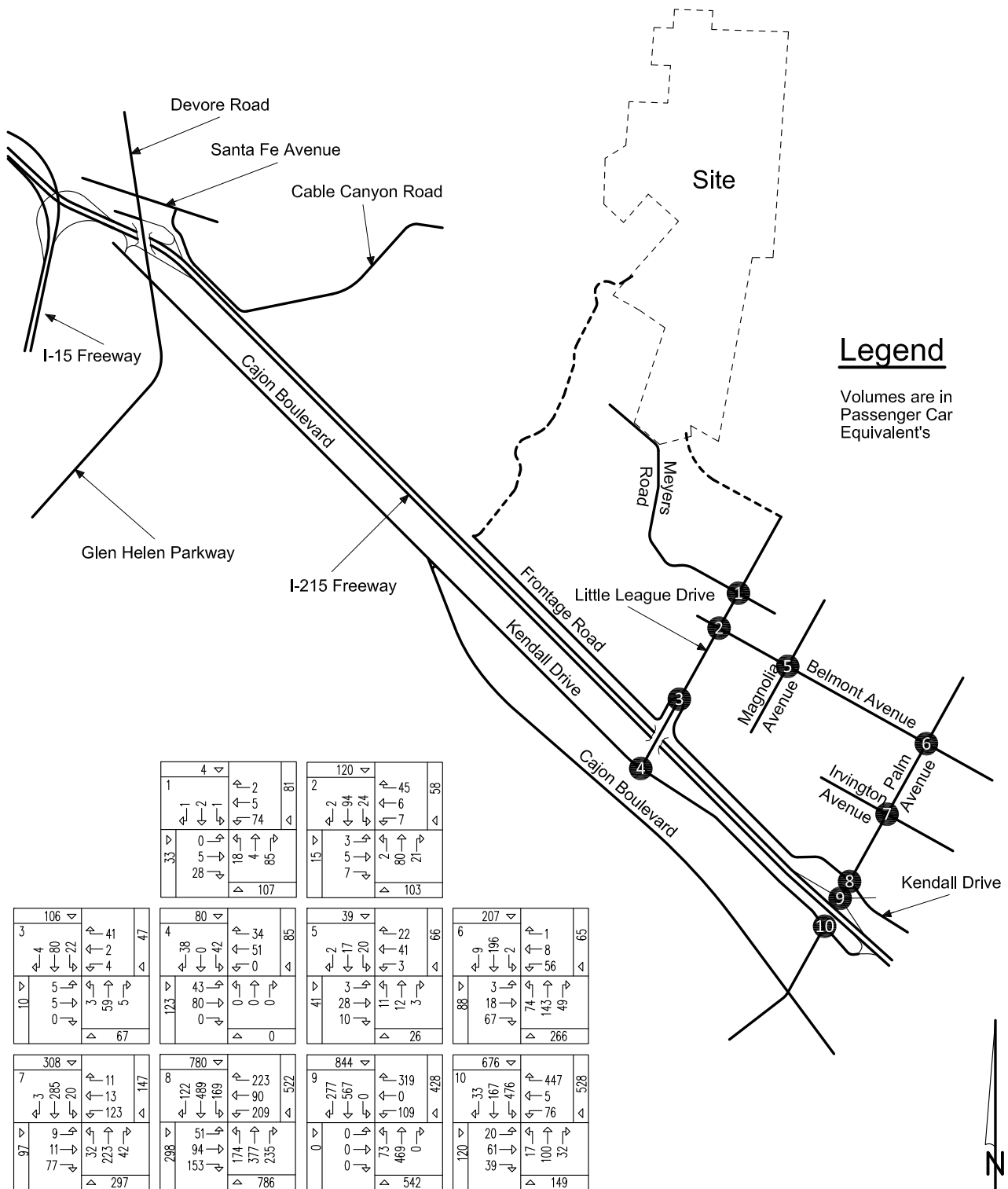


Figure 5
Existing Morning Peak Hour Intersection Turning Movement Volumes



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

OVER 30 YEARS OF EXCELLENT SERVICE

4320d/5

Figure 6
Existing Evening Peak Hour Intersection Turning Movement Volumes

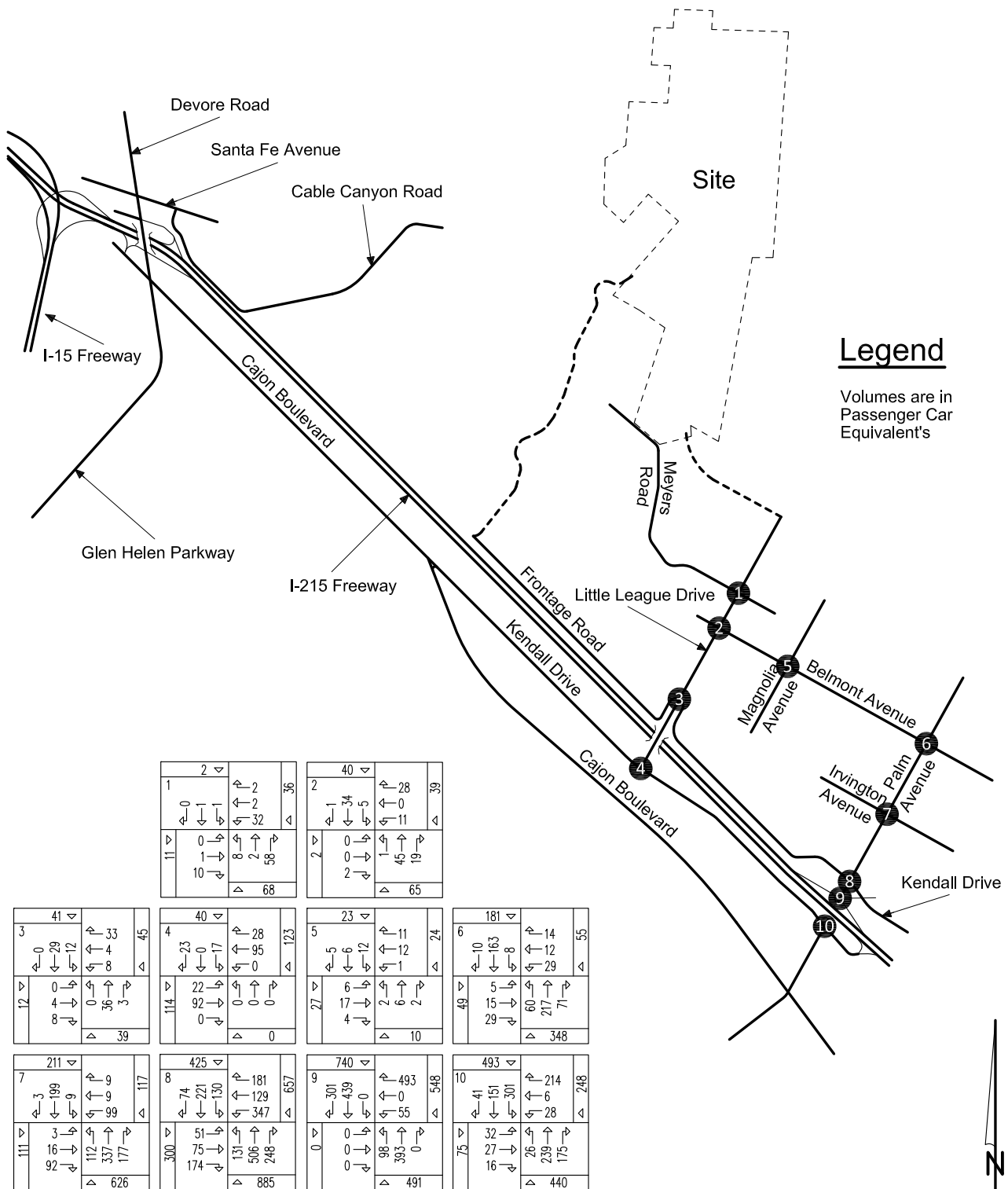


Figure 7
City of San Bernardino General Plan Circulation Element

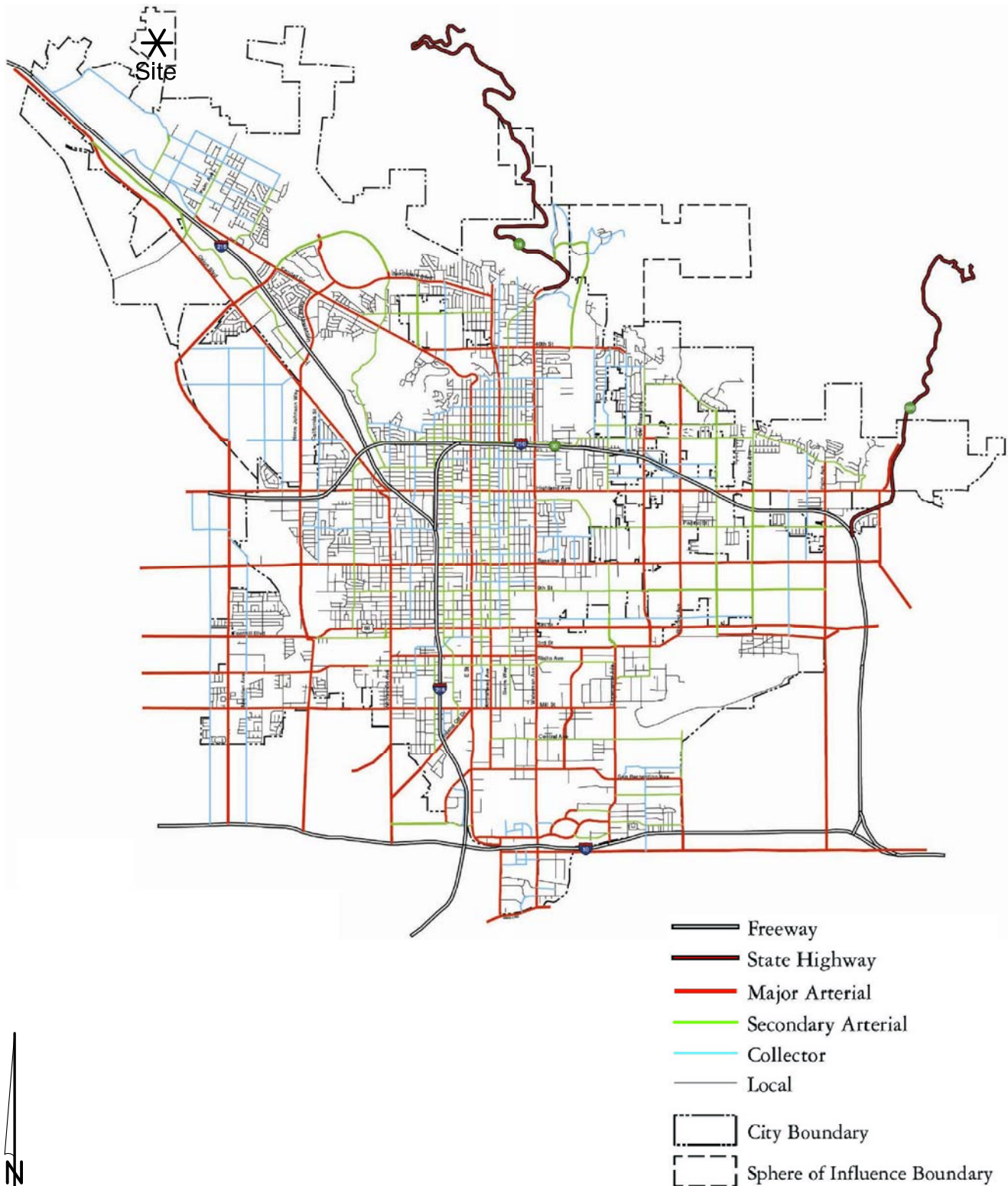
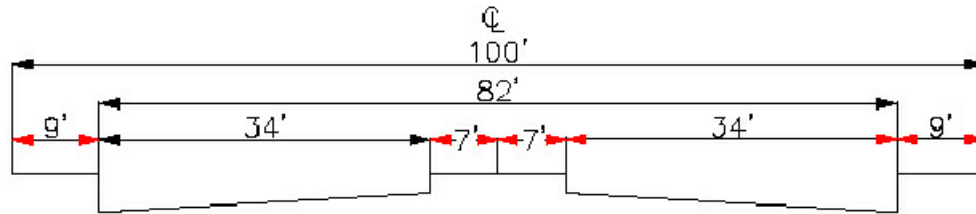
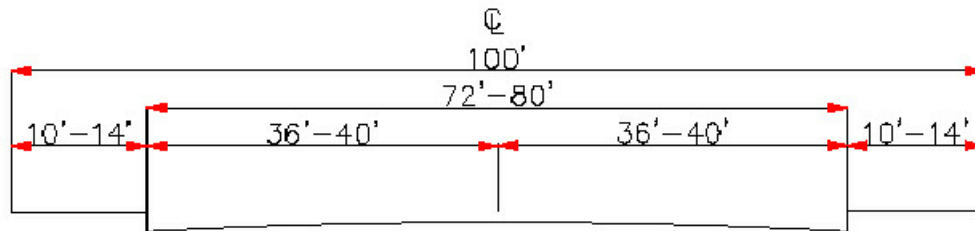


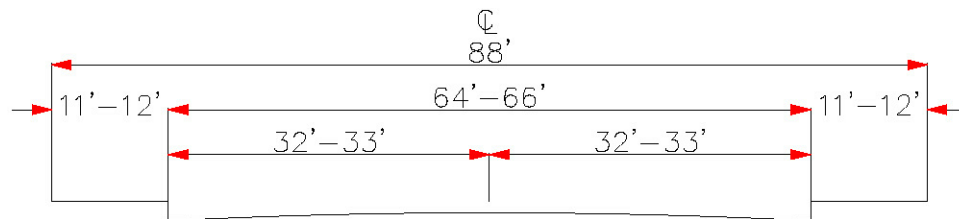
Figure 8
City of San Bernardino General Plan Roadway Cross-Sections



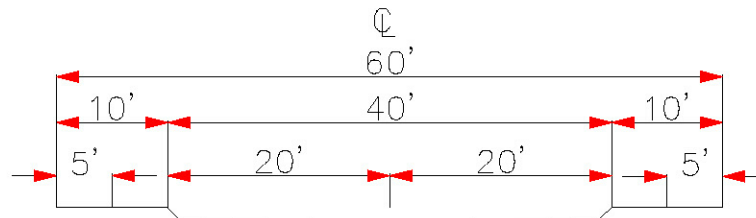
MAJOR DIVIDED HIGHWAYS



MAJOR HIGHWAY



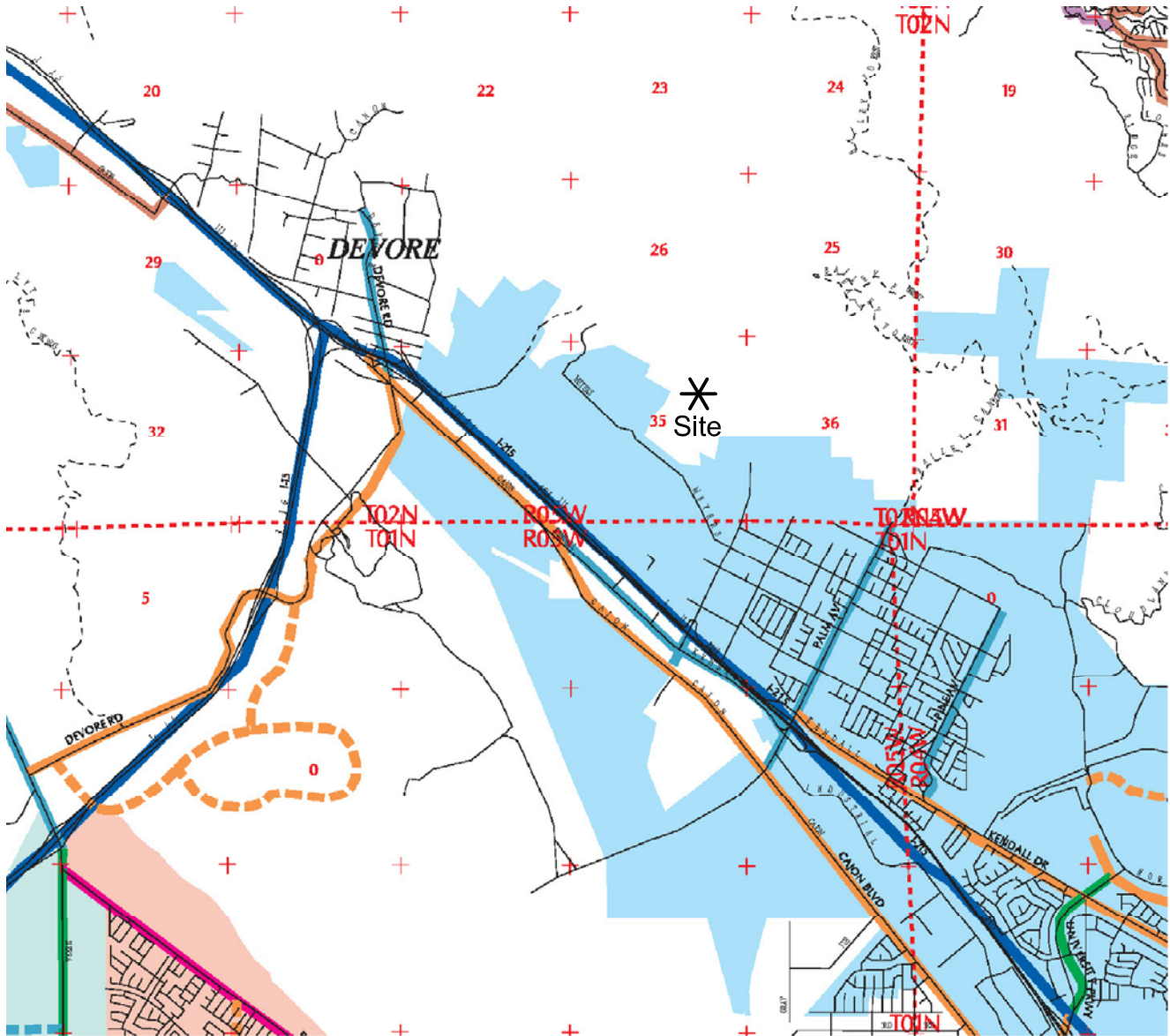
SECONDARY HIGHWAY



COLLECTOR STREET

FOR USE IN QUARTER MILE STREETS,
SCHOOL AND INDUSTRIAL AREAS.

Figure 9
County of San Bernardino General Plan Circulation Element



Legend

EXISTING PROPOSED

		Freeway			Controlled/Limited Access Collector
		Major Divided Highway			Mountain Major Highway
		Major Arterial Highway			Mountain Secondary Highway
		Major Highway			State Highway (Special Standards or Conditions)
		Secondary Highway			Railroads

III. Project Traffic

A. Project Description

The project site is proposed to be developed with 329 single-family detached residential dwelling units. The proposed project will have access to Little League Drive and the Secondary Project Entry Road (see Figure 2).

B. Trip Generation

The traffic generated by the project is 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 traffic 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, 8th Edition, 2008.

The proposed development is projected to generate approximately 3,149 daily vehicle trips, 247 of which will occur during the morning peak hour and 333 of which will occur during the evening peak hour.

C. Construction Traffic Related Impacts

The net export requirement for the project is 251,000 cubic yards. Construction-related traffic would result from the trips needed for hauling the exported dirt. Therefore, short-term traffic impacts could occur from the export of soil.

Based on an estimated 14 cubic yard capacity per haul truck, an estimated 17,929 truck trips would be required to export soil to complete the access roads. This is estimated to occur over an approximately three-month period, and therefore, based on a six-day week, require approximately 249 truck trips per day. The 249 truck trips per day would be equivalent to 1,494 daily passenger car equivalent trips per day, based on a truck equaling three passenger cars.

Additionally, it is projected that temporary construction traffic from the haul trips has been analyzed during the peak hours based upon the higher Institute of Transportation Engineers trip generation depicted above.

C. Trip Distribution

Figure 10 contains the directional distribution of the project traffic. The East Valley Traffic Model has been used to evaluate the regional distribution of project traffic. A select zone (trip distribution) analysis was performed using the East Valley Traffic Model with the assistance of the City of San Bernardino staff. The socio-economic data inputs to the East Valley Traffic Model are representative of the planned project development intensity. The select zone (trip distribution) traffic model plots have not been manually adjusted to reassign the 39% on Belmont Avenue to travel down Little League Drive to Frontage Road. This is a more “conservative” analysis methodology.

D. Trip Assignment

Based on the identified traffic generation and distribution, 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 contributes traffic greater than the freeway threshold volume of 100 two-way peak hour trips to the I-215 Freeway and I-15 Freeway. The project contributes traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on intersections in the County of San Bernardino. This means that the City of San Bernardino must notify the County of San Bernardino and the California Department of Transportation. Each of these agencies must also be provided with a copy of the traffic impact analysis, once the document is accepted by the City of San Bernardino. (Note: The purpose of this notification is to allow the California Department of Transportation to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

Table 2
Project Traffic Generation¹

Time Period	Trips Generated per DU ²	Trips Generated by 329 DU
Morning Peak Hour		
Inbound	0.19	63
Outbound	0.56	184
Total	0.75	247
Evening Peak Hour		
Inbound	0.64	211
Outbound	0.37	122
Total	1.01	333
Daily	9.57	3,149

¹ Source: Institute of Transportation Engineers, Trip Generation, 8th Edition, 2008, Land Use Category 210.

² DU = Dwelling Units

Figure 10 Project Traffic Distribution

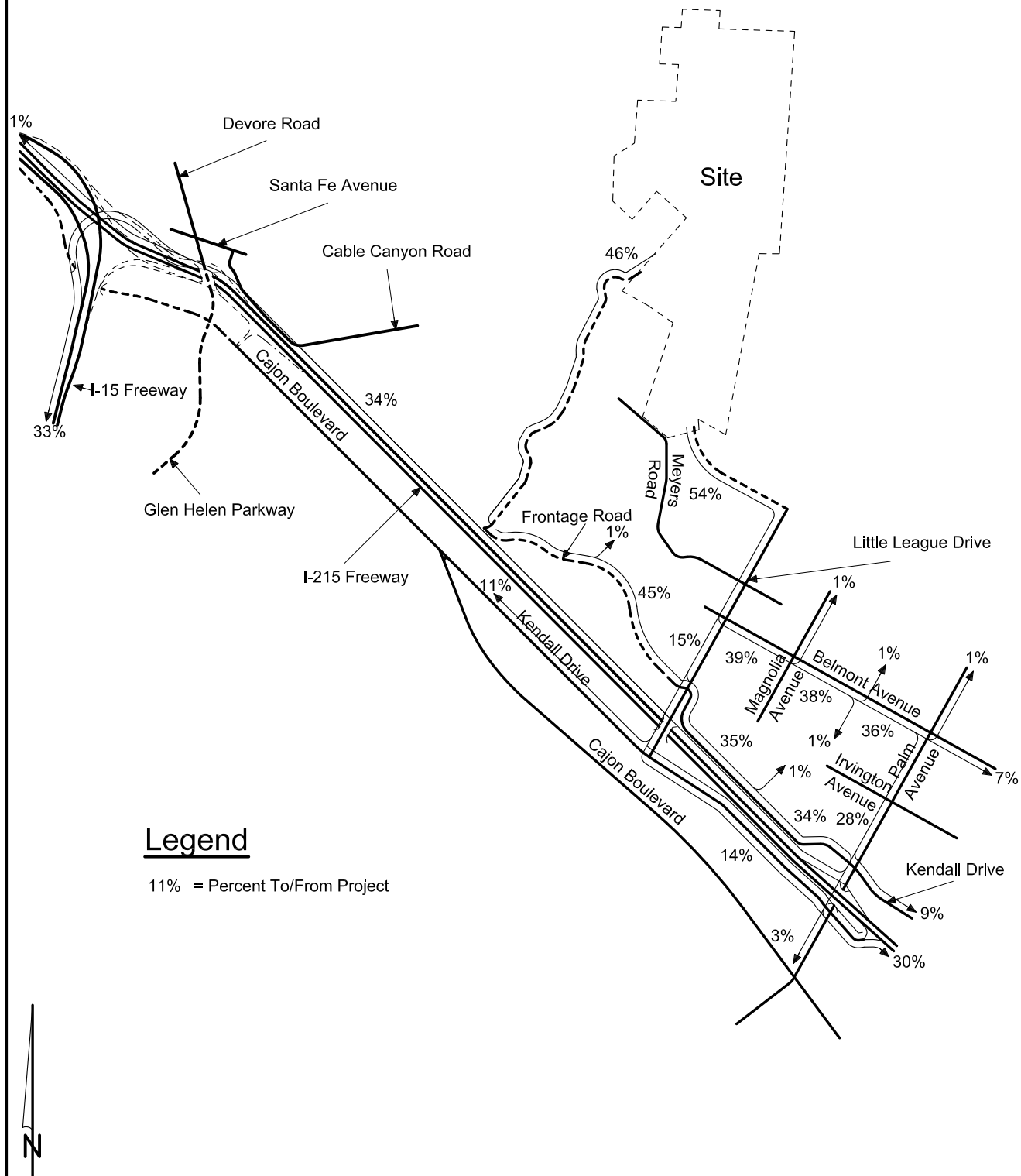


Figure 11
Project Average Daily Traffic Volumes

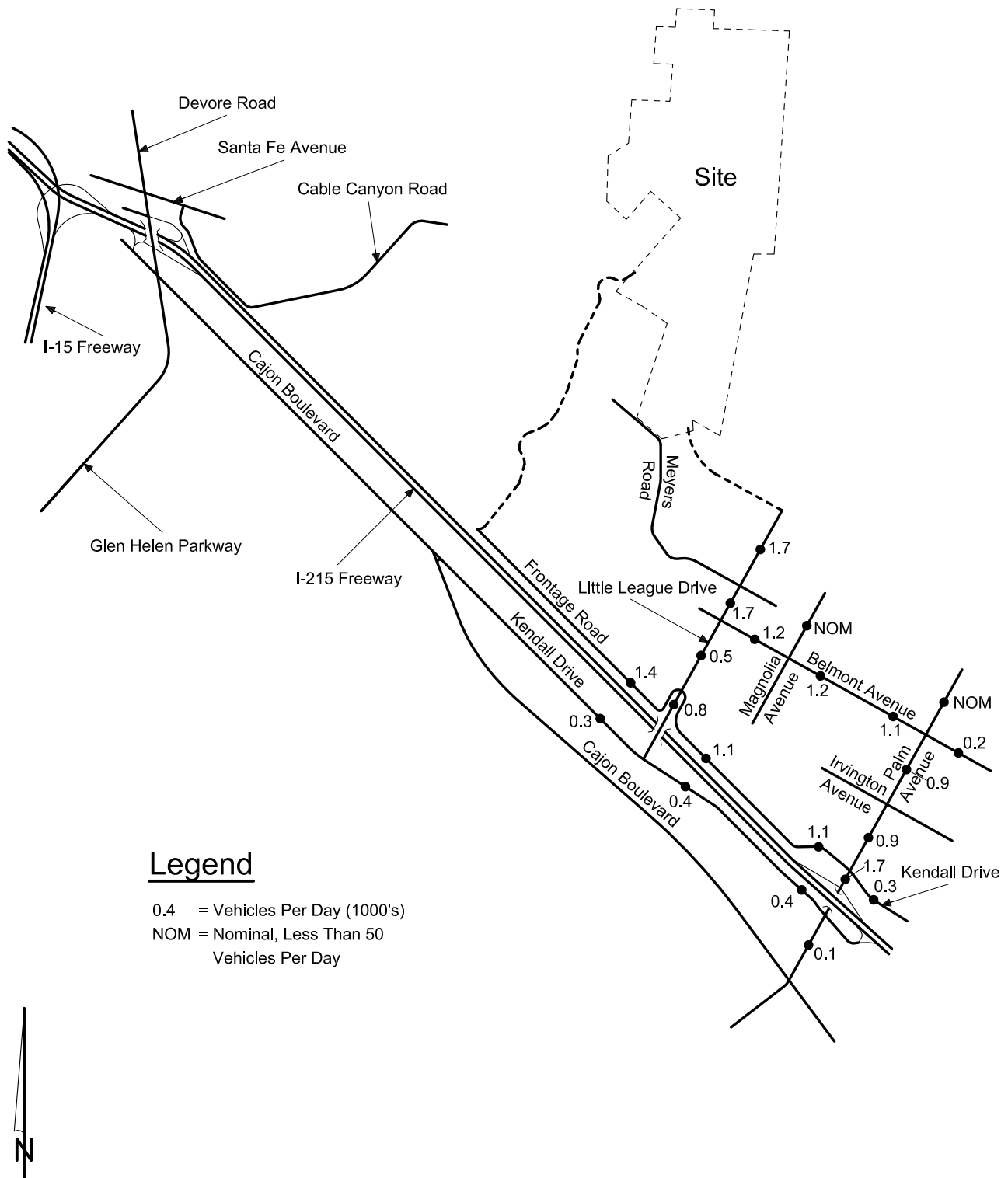
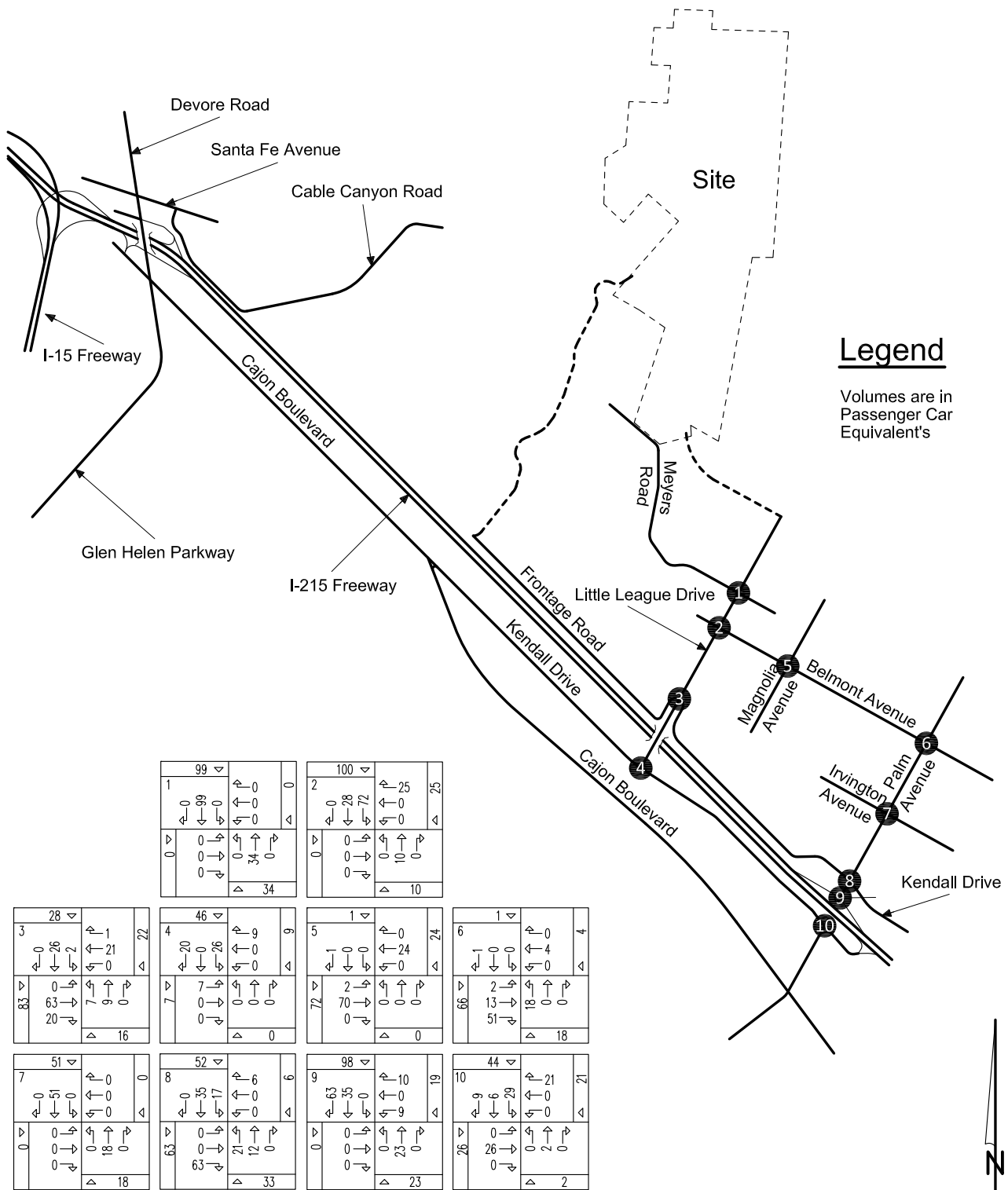


Figure 12
Project Morning Peak Hour Intersection Turning Movement Volumes

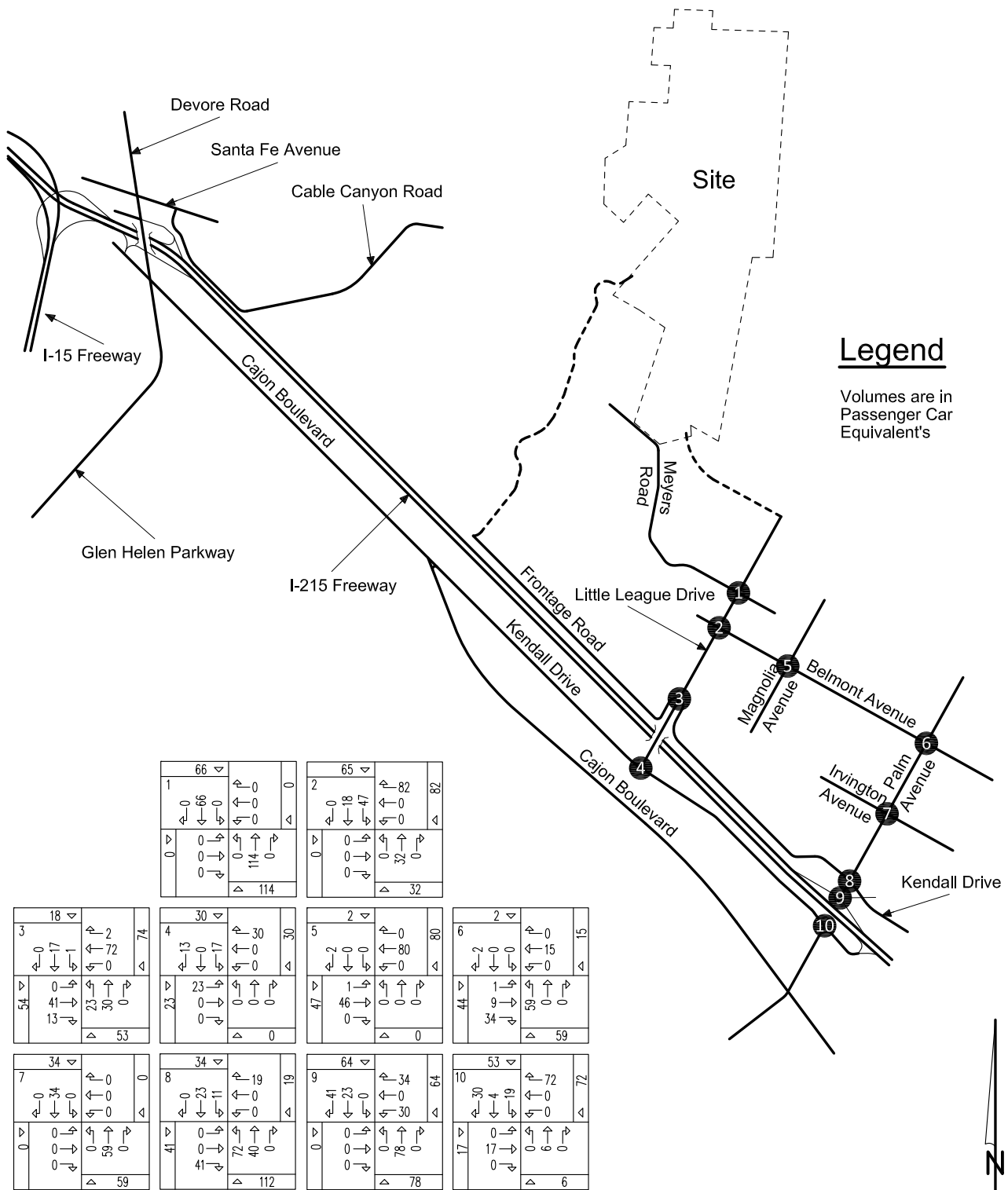


KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 30 YEARS OF EXCELLENT SERVICE

4320d/12

Figure 13
Project Evening Peak Hour Intersection Turning Movement Volumes

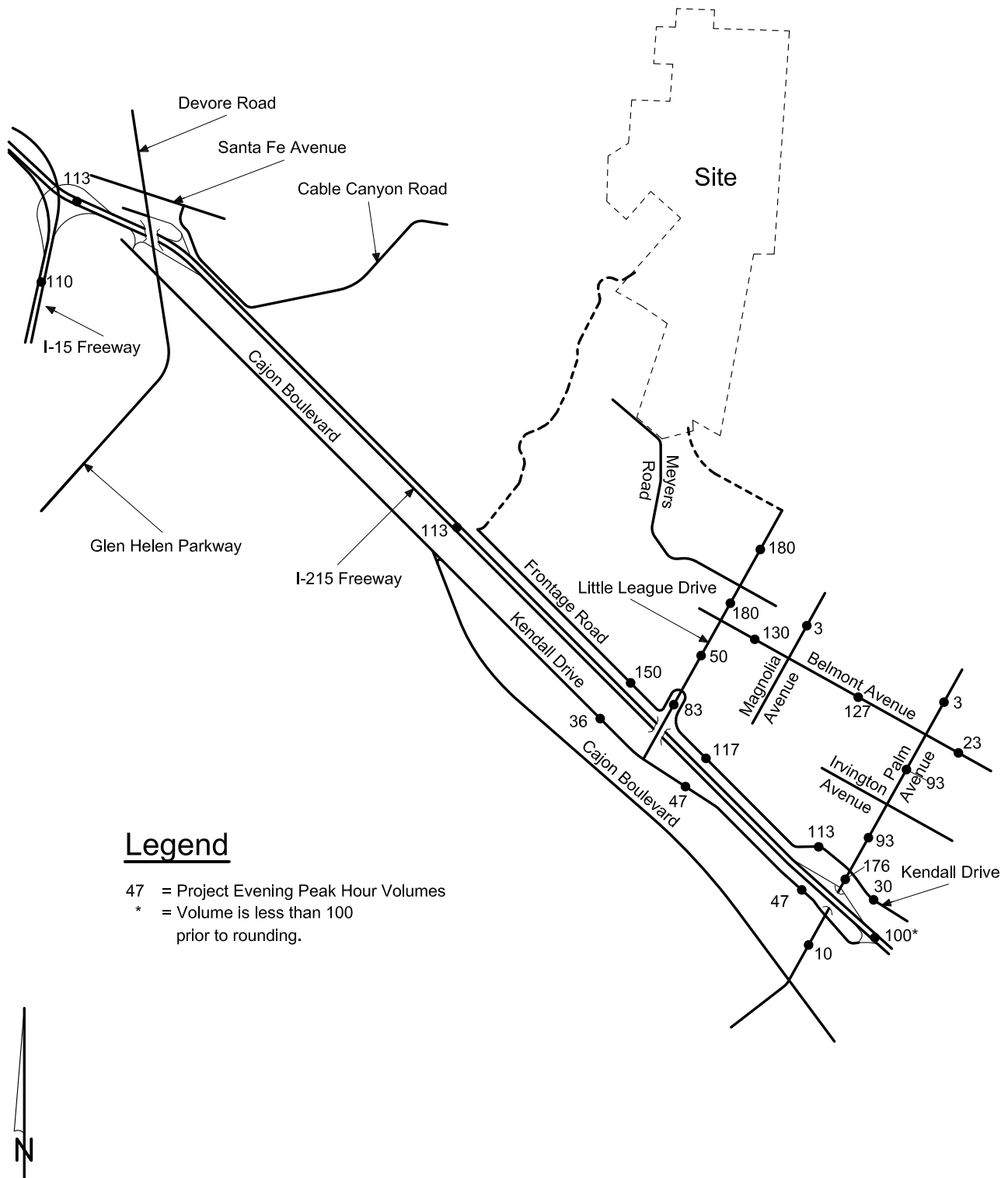


KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 30 YEARS OF EXCELLENT SERVICE

4320d/13

Figure 14
Project Traffic Contribution Test Volumes



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 2011 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 (2013) 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).

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 15.

2. Opening Year (2013) Without Project

The average daily traffic volumes for Opening Year (2013) without project traffic conditions have been determined as described above using the growth interpolation process (see Section I.C). Opening Year (2013) without project average daily traffic volumes are shown on Figure 16.

3. Opening Year (2013) With Project

The average daily traffic volumes for Opening Year (2013) with project traffic conditions have been determined as described above using the volume addition process (see Section I.C). Opening Year (2013) with project average daily traffic volumes are shown on Figure 17.

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 18.

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 19.

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 3. Table 3 shows delay values based on the geometrics at the study area intersections, without and with improvements. Existing plus project delay calculation worksheets are provided in Appendix D. Existing plus project morning and evening peak hour intersection turning movement volumes are shown on Figures 20 and 21, respectively.

For existing plus project traffic conditions, the following study area intersections are projected to operate at Level of Service E during the peak hours, without improvements:

Palm Avenue (NS) at:

I-215 Freeway NB Ramps (EW) - #9

I-215 Freeway SB Ramps (EW) - #10

The existing plus project delay and Level of Service for the study area roadway network and with improvements are shown in Table 3. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:

I-215 Freeway NB Ramps (EW) - #9

- Traffic Signal

I-215 Freeway SB Ramps (EW) - #10

- Restripe Southbound Through to Additional Southbound Left Turn Lane

- Traffic Signal

As shown in Table 3, the study area intersections are projected to operate at Level of Service C or better during the peak hours for existing plus project traffic conditions, with improvements.

2. Opening Year (2013) Without Project

The Opening Year (2013) delay and Level of Service for the study area roadway network without the proposed project are shown in Table 4. Table 4 shows delay

¹ The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

values based on the geometrics at the study area intersections, without and with improvements. Opening Year (2013) without project delay calculation worksheets are provided in Appendix D. Opening Year (2013) without project morning and evening peak hour intersection turning movement volumes are shown on Figures 22 and 23, respectively.

For Opening Year (2013) without project traffic conditions, the following study area intersections are projected to operate at Level of Service E during the peak hours, without improvements:

Palm Avenue (NS) at:

- I-215 Freeway NB Ramps (EW) - #9
- I-215 Freeway SB Ramps (EW) - #10

The Opening Year (2013) without project delay and Level of Service for the study area roadway network and with improvements are shown in Table 4. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:

- I-215 Freeway NB Ramps (EW) - #9
 - Traffic Signal
- I-215 Freeway SB Ramps (EW) - #10
 - Restripe Southbound Through to Additional Southbound Left Turn Lane
 - Traffic Signal

As shown in Table 4, the study area intersections are projected to operate at Level of Service C or better during the peak hours for Opening Year (2013) without project traffic conditions, with improvements.

3. Opening Year (2013) With Project

The Opening Year (2013) delay and Level of Service for the study area roadway network with the proposed project are shown in Table 5. Table 5 shows delay values based on the geometrics at the study area intersections, without and with improvements. Opening Year (2013) with project delay calculation worksheets are provided in Appendix D. Opening Year (2013) with project morning and evening peak hour intersection turning movement volumes are shown on Figures 24 and 25, respectively.

For Opening Year (2013) with project traffic conditions, the following study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements:

¹ The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

Palm Avenue (NS) at:

I-215 Freeway NB Ramps (EW) - #9

I-215 Freeway SB Ramps (EW) - #10

The Opening Year (2013) with project delay and Level of Service for the study area roadway network and with improvements are shown in Table 5. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:

I-215 Freeway NB Ramps (EW) - #9

- Traffic Signal

I-215 Freeway SB Ramps (EW) - #10

- Restripe Southbound Through to Additional Southbound Left Turn Lane

- Traffic Signal

As shown in Table 5, the study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2013) with project traffic conditions, 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 6. Table 6 shows delay values based on the geometrics at the study area intersections, without and with improvements. Year 2035 without project delay calculation worksheets are provided in Appendix D. Year 2035 without project morning and evening peak hour intersection turning movement volumes are shown on Figures 26 and 27, respectively.

For Year 2035 without project traffic conditions, the following study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements:

Palm Avenue (NS) at:

Kendall Drive (EW) - #8

I-215 Freeway NB Ramps (EW) - #9

I-215 Freeway SB Ramps (EW) - #10

The Year (2035) without project delay and Level of Service for the study area roadway network and with improvements are shown in Table 6. The City of San Bernardino and the California Department of Transportation currently have the improvements below

¹ The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:

Kendall Drive (EW) - #8

- Install Additional Westbound Left Turn Lane

I-215 Freeway NB Ramps (EW) - #9

- Traffic Signal

I-215 Freeway SB Ramps (EW) - #10

- Restripe Southbound Through to Additional Southbound Left Turn Lane

- Traffic Signal

As shown in Table 6, the study area intersections are projected to operate at Level of Service D or better during the peak hours for Year 2035 without project traffic conditions, with improvements.

5. Year 2035 With Project

The Year 2035 delay and Level of Service for the study area roadway network with 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 improvements. Year 2035 with project delay calculation worksheets are provided in Appendix D. Year 2035 with project morning and evening peak hour intersection turning movement volumes are shown on Figures 28 and 29, respectively.

For Year 2035 with project traffic conditions, the following study area intersections are projected to operate at Level of Service F during the peak hours, without improvements:

Palm Avenue (NS) at:

Kendall Drive (EW) - #8

I-215 Freeway NB Ramps (EW) - #9

I-215 Freeway SB Ramps (EW) - #10

The Year (2035) with project delay and Level of Service for the study area roadway network and with improvements are shown in Table 7. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:

Kendall Drive (EW) - #8

- Install Additional Westbound Left Turn Lane

¹ The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit. In addition, the City of San Bernardino has been conditioning all projects in the study area with the Palm Avenue/Kendall Drive improvement.

I-215 Freeway NB Ramps (EW) - #9

- Traffic Signal

I-215 Freeway SB Ramps (EW) - #10

- Restripe Southbound Through to Additional Southbound Left Turn Lane
- Traffic Signal

As shown in Table 7, the study area intersections are projected to operate at Level of Service D or better during the peak hours for Year 2035 with project traffic conditions, with improvements.

C. Freeway Evaluation

The East Valley Traffic Model provides freeway projections for Year 2035. Based upon the Congestion Management Program Handbook, the freeway design speed is 70 mph. An analysis of Year 2035 freeway level of service is required for all freeway segments that carry 100 or more project trips in the peak hour. The freeway peak hour volume forecasts have been developed using the peak period East Valley Traffic Model data directly. The project contributes traffic greater than the freeway threshold of 100 two-way trips to the I-215 Freeway and I-15 Freeway.

Based upon the Congestion Management Program Handbook, the general use lanes have an assumed capacity of 2,300 vehicles per hour, while high occupancy vehicle lanes have an assumed capacity of 1,600 vehicles per hour. Tables 8 and 9 present the analysis for the Year 2035 morning and evening peak hour without project and with project traffic conditions, respectively. A total of 4 freeway segments are projected to operate at an unacceptable Level of Service for Year 2035 With Project traffic conditions during the morning peak hour and 6 freeway segments are projected to operate at an unacceptable Level of Service for Year 2035 With Project traffic conditions during the evening peak hour. The northbound/southbound I-215 Freeway and northbound/southbound I-15 Freeway are expected to experience peak hour deficiencies.

The freeway lane improvements have been obtained from the I-15/I-215 Devore Interchange Reconfiguration Project Study Report, California Department of Transportation, January 2009. Tables 10 and 11 summarize the freeway mainline improvements and the resulting Levels of Service for the morning and evening peak hours. A total of 2 freeway segments are projected to operate at an unacceptable Level of Service for Year 2035 With Project traffic conditions during the morning peak hour and 4 freeway segments are projected to operate at an unacceptable Level of Service for Year 2035 With Project traffic conditions during the evening peak hour, with improvements. The northbound/southbound I-215 Freeway and northbound/southbound I-15 Freeway are expected to experience peak hour deficiencies.

Table 3

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			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Little League Drive (NS) at:															
Meyers Road (EW) - #1	CSS	0	1	0	0	1	0	0	1	0	0	1	0	18.0-C	12.0-B
Belmont Avenue (EW) - #2	AWS	0	1	1	0	1	0	0	1	0	0	1	0	11.5-B	8.3-A
Frontage Road (EW) - #3	CSS	0	1	0	0	1	0	0	1	0	0	1	0	15.4-C	10.9-B
Kendall Drive (EW) - #4	CSS	0	0	0	1	0	1	0	1	0	0	1	0	10.1-B	10.2-B
Magnolia Avenue (NS) at:															
Belmont Avenue (EW) - #5	AWS	0	1	0	0	1	0	0	1	0	0	1	0	8.3-A	7.8-A
Palm Avenue (NS) at:															
Belmont Avenue (EW) - #6	AWS	0	2	0	0	1	0	0	1	0	0	1	0	10.6-B	10.0-A
Irrington Avenue (EW) - #7	TS	1	2	0	1	2	0	0	1	1	0	1	1	14.7-B	15.6-B
Kendall Drive (EW) - #8	TS	1	2	1>	1	2	0	1	1	1	1	1	1	32.9-C	33.7-C
I-215 Freeway NB Ramps (EW) - #9															
- Without Improvements	CSS	1	1	0	0	2	0	0	0	0	1	0	1	34.7-D	54.2-F
- With Improvements ⁴	<u>TS</u>	1	1	0	0	2	0	0	0	0	1	0	1	14.3-B	17.9-B
I-215 Freeway SB Ramps (EW) - #10															
- Without Improvements	AWS	1	1	1	1	2	0	0	1	1	0	1	1>>	45.8-E	15.4-C
- With Improvements ⁴	<u>TS</u>	1	1	1	<u>2</u>	1	0	0	1	1	0	1	1>>	14.2-B	13.9-B

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; > = Right Turn Overlap; >> = Free Right Turn; TS = 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 CSS = Cross Street Stop; AWS = All Way Stop; TS = Traffic Signal

⁴ The City of San Bernardino and the California Department of Transportation currently have the improvements programmed for installation with funding from the City of San Bernardino Regional Circulation Fee. The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

Table 4

Opening Year (2013) 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			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Little League Drive (NS) at:															
Meyers Road (EW) - #1	CSS	0	1	0	0	1	0	0	1	0	0	1	0	12.5-B	9.5-A
Belmont Avenue (EW) - #2	AWS	0	1	1	0	1	0	0	1	0	0	1	0	9.1-A	7.4-A
Frontage Road (EW) - #3	CSS	0	1	0	0	1	0	0	1	0	0	1	0	12.5-B	9.2-A
Kendall Drive (EW) - #4	CSS	0	0	0	1	0	1	0	1	0	0	1	0	9.8-A	9.6-A
Magnolia Avenue (NS) at:															
Belmont Avenue (EW) - #5	AWS	0	1	0	0	1	0	0	1	0	0	1	0	7.7-A	7.2-A
Palm Avenue (NS) at:															
Belmont Avenue (EW) - #6	AWS	0	2	0	0	1	0	0	1	0	0	1	0	10.0-A	9.3-A
Irvington Avenue (EW) - #7	TS	1	2	0	1	2	0	0	1	1	0	1	1	14.6-B	15.4-B
Kendall Drive (EW) - #8	TS	1	2	1>	1	2	0	1	1	1	1	1	1	32.0-C	32.4-C
I-215 Freeway NB Ramps (EW) - #9															
- Without Improvements	CSS	1	1	0	0	2	0	0	0	0	1	0	1	33.4-D	39.3-E
- With Improvements ⁴	<u>TS</u>	1	1	0	0	2	0	0	0	0	1	0	1	14.3-B	17.5-B
I-215 Freeway SB Ramps (EW) - #10															
- Without Improvements	AWS	1	1	1	1	2	0	0	1	1	0	1	1>>	38.4-E	15.2-C
- With Improvements ⁴	<u>TS</u>	1	1	1	<u>2</u>	1	0	0	1	1	0	1	1>>	14.0-B	13.5-B

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; > = Right Turn Overlap; >> = Free Right Turn; TS = 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 CSS = Cross Street Stop; AWS = All Way Stop; TS = Traffic Signal

⁴ The City of San Bernardino and the California Department of Transportation currently have the improvements programmed for installation with funding from the City of San Bernardino Regional Circulation Fee. The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

Table 5

Opening Year (2013) 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			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Little League Drive (NS) at:															
Meyers Road (EW) - #1	CSS	0	1	0	0	1	0	0	1	0	0	1	0	19.2-C	12.3-B
Belmont Avenue (EW) - #2	AWS	0	1	1	0	1	0	0	1	0	0	1	0	11.8-B	8.4-A
Frontage Road (EW) - #3	CSS	0	1	0	0	1	0	0	1	0	0	1	0	16.0-C	11.3-B
Kendall Drive (EW) - #4	CSS	0	0	0	1	0	1	0	1	0	0	1	0	10.2-B	10.3-B
Magnolia Avenue (NS) at:															
Belmont Avenue (EW) - #5	AWS	0	1	0	0	1	0	0	1	0	0	1	0	8.5-A	7.8-A
Palm Avenue (NS) at:															
Belmont Avenue (EW) - #6	AWS	0	2	0	0	1	0	0	1	0	0	1	0	10.8-B	10.1-B
Irvington Avenue (EW) - #7	TS	1	2	0	1	2	0	0	1	1	0	1	1	14.8-B	15.7-B
Kendall Drive (EW) - #8	TS	1	2	1>	1	2	0	1	1	1	1	1	1	33.4-C	35.2-D
I-215 Freeway NB Ramps (EW) - #9															
- Without Improvements	CSS	1	1	0	0	2	0	0	0	0	1	0	1	40.7-E	76.2-F
- With Improvements ⁴	<u>TS</u>	1	1	0	0	2	0	0	0	0	1	0	1	14.7-B	18.7-B
I-215 Freeway SB Ramps (EW) - #10															
- Without Improvements	AWS	1	1	1	1	2	0	0	1	1	0	1	1>>	50.4-F	16.6-C
- With Improvements ⁴	<u>TS</u>	1	1	1	<u>2</u>	1	0	0	1	1	0	1	1>>	14.2-B	14.1-B

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; > = Right Turn Overlap; >> = Free Right Turn; TS = 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 CSS = Cross Street Stop; AWS = All Way Stop; TS = Traffic Signal

⁴ The City of San Bernardino and the California Department of Transportation currently have the improvements programmed for installation with funding from the City of San Bernardino Regional Circulation Fee. The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

Table 6

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			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Little League Drive (NS) at:															
Meyers Road (EW) - #1	CSS	0	1	0	0	1	0	0	1	0	0	1	0	10.0-A	9.5-A
Belmont Avenue (EW) - #2	AWS	0	1	1	0	1	0	0	1	0	0	1	0	7.9-A	7.4-A
Frontage Road (EW) - #3	CSS	0	1	0	0	1	0	0	1	0	0	1	0	10.8-B	9.8-A
Kendall Drive (EW) - #4	CSS	0	0	0	1	0	1	0	1	0	0	1	0	10.4-B	10.8-B
Magnolia Avenue (NS) at:															
Belmont Avenue (EW) - #5	AWS	0	1	0	0	1	0	0	1	0	0	1	0	7.4-A	7.2-A
Palm Avenue (NS) at:															
Belmont Avenue (EW) - #6	AWS	0	2	0	0	1	0	0	1	0	0	1	0	9.7-A	10.3-B
Irvington Avenue (EW) - #7	TS	1	2	0	1	2	0	0	1	1	0	1	1	14.3-B	14.8-B
Kendall Drive (EW) - #8															
- Without Improvements	TS	1	2	1>	1	2	0	1	1	1	1	1	1	40.7-D	73.0-E
- With Improvements ⁴	TS	1	2	1>	1	2	0	1	1	1	2	1	1	34.9-C	46.1-D
I-215 Freeway NB Ramps (EW) - #9															
- Without Improvements	CSS	1	1	0	0	2	0	0	0	0	1	0	1	144.6-F	499.5-F
- With Improvements ⁵	TS	1	1	0	0	2	0	0	0	0	1	0	1	16.7-B	31.3-C
I-215 Freeway SB Ramps (EW) - #10															
- Without Improvements	AWS	1	1	1	1	2	0	0	1	1	0	1	1>>	130.0-F	121.5-F
- With Improvements ⁵	TS	1	1	1	2	1	0	0	1	1	0	1	1>>	24.9-C	24.2-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; > = Right Turn Overlap; >> = Free Right Turn

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 CSS = Cross Street Stop; AWS = All Way Stop; TS = Traffic Signal

⁴ The City of San Bernardino has been conditioning all projects in the study area with the Palm Avenue/Kendall Drive improvement.

⁵ The City of San Bernardino and the California Department of Transportation currently have the improvements programmed for installation with funding from the City of San Bernardino Regional Circulation Fee. The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

Table 7

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			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Little League Drive (NS) at:															
Meyers Road (EW) - #1	CSS	0	1	0	0	1	0	0	1	0	0	1	0	11.2-B	11.0-B
Belmont Avenue (EW) - #2	AWS	0	1	1	0	1	0	0	1	0	0	1	0	8.8-A	8.0-A
Frontage Road (EW) - #3	CSS	0	1	0	0	1	0	0	1	0	0	1	0	11.8-B	12.1-B
Kendall Drive (EW) - #4	CSS	0	0	0	1	0	1	0	1	0	0	1	0	10.7-B	11.4-B
Magnolia Avenue (NS) at:															
Belmont Avenue (EW) - #5	AWS	0	1	0	0	1	0	0	1	0	0	1	0	7.8-A	7.7-A
Palm Avenue (NS) at:															
Belmont Avenue (EW) - #6	AWS	0	2	0	0	1	0	0	1	0	0	1	0	10.3-B	11.3-B
Irvington Avenue (EW) - #7	TS	1	2	0	1	2	0	0	1	1	0	1	1	14.4-B	14.9-B
Kendall Drive (EW) - #8															
- Without Improvements	TS	1	2	1>	1	2	0	1	1	1	1	1	1	41.9-D	74.2-E
- With Improvements ⁴	TS	1	2	1>	1	2	0	1	1	1	2	1	1	35.9-D	47.3-D
I-215 Freeway NB Ramps (EW) - #9															
- Without Improvements	CSS	1	1	0	0	2	0	0	0	0	1	0	1	181.5-F	688.5-F
- With Improvements ⁵	TS	1	1	0	0	2	0	0	0	0	1	0	1	17.2-B	42.7-D
I-215 Freeway SB Ramps (EW) - #10															
- Without Improvements	AWS	1	1	1	1	2	0	0	1	1	0	1	1>>	149.8-F	154.0-F
- With Improvements ⁵	TS	1	1	1	2	1	0	0	1	1	0	1	1>>	26.0-C	28.1-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; > = Right Turn Overlap; >> = Free Right Turn

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 CSS = Cross Street Stop; AWS = All Way Stop; TS = Traffic Signal

⁴ The City of San Bernardino has been conditioning all projects in the study area with the Palm Avenue/Kendall Drive improvement.

⁵ The City of San Bernardino and the California Department of Transportation currently have the improvements programmed for installation with funding from the City of San Bernardino Regional Circulation Fee. The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

Table 8

Year 2035 Freeway Mainline Morning Peak Hour Operations Analysis

Freeway	Segment Limits	Lanes		Capacity	Project Trips	Year 2035 W/O Project			Year 2035 W/Project		
		Gen. Use	HOV			Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS
I-215 Freeway NB	Palm Avenue to Devore Road	2	0	4,600	63	4,200	0.91	D	4,263	0.93	D
	Devore Road to I-15 Freeway	2	0	4,600	63	3,994	0.87	D	4,057	0.88	D
I-215 Freeway SB	I-15 Freeway to Devore Road	2	0	4,600	21	6,733	1.46	F	6,754	1.47	F
	Devore Road to Palm Avenue	2	0	4,600	21	7,259	1.58	F	7,280	1.58	F
I-15 Freeway NB	Sierra Avenue to Glen Helen Parkway	4	0	9,200	21	5,893	0.64	C	5,914	0.64	C
	Glen Helen Parkway to I-215 Freeway	3	0	6,900	21	5,666	0.82	D	5,687	0.82	D
I-15 Freeway SB	I-215 Freeway to Glen Helen Parkway	3	0	6,900	61	11,147	1.62	F	11,208	1.62	F
	Glen Helen Parkway to Sierra Avenue	4	0	9,200	61	11,310	1.23	F	11,371	1.24	F

Table 9

Year 2035 Freeway Mainline Evening Peak Hour Operations Analysis

Freeway	Segment Limits	Lanes		Capacity	Project Trips	Year 2035 W/O Project			Year 2035 W/Project		
		Gen. Use	HOV			Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS
I-215 Freeway NB	Palm Avenue to Devore Road	2	0	4,600	41	7,603	1.65	F	7,644	1.66	F
	Devore Road to I-15 Freeway	2	0	4,600	41	7,446	1.62	F	7,487	1.63	F
I-215 Freeway SB	I-15 Freeway to Devore Road	2	0	4,600	72	4,651	1.01	F	4,723	1.03	F
	Devore Road to Palm Avenue	2	0	4,600	72	6,344	1.38	F	6,416	1.39	F
I-15 Freeway NB	Sierra Avenue to Glen Helen Parkway	4	0	9,200	70	13,258	1.44	F	13,328	1.45	F
	Glen Helen Parkway to I-215 Freeway	3	0	6,900	70	13,111	1.90	F	13,181	1.91	F
I-15 Freeway SB	I-215 Freeway to Glen Helen Parkway	3	0	6,900	40	6,436	0.93	E	6,476	0.94	E
	Glen Helen Parkway to Sierra Avenue	4	0	9,200	40	6,897	0.75	C	6,937	0.75	C

Table 10

Year 2035 Freeway Mainline Morning Peak Hour Operations Analysis With Improvements

Freeway	Segment Limits	Improvement (Lanes Added)		Improved			
		General	HOV	Capacity	Trips	Vol/ Cap	LOS
I-215 Freeway NB	Palm Avenue to Devore Road	1	0	6,900	4,263	0.62	C
	Devore Road to I-15 Freeway	1	0	6,900	4,057	0.59	C
I-215 Freeway SB	I-15 Freeway to Devore Road	1	0	6,900	6,754	0.98	E
	Devore Road to Palm Avenue	1	0	6,900	7,280	1.06	F
I-15 Freeway NB	Sierra Avenue to Glen Helen Parkway	0	0	9,200	5,914	0.64	C
	Glen Helen Parkway to I-215 Freeway	2	0	11,500	5,687	0.49	B
I-15 Freeway SB	I-215 Freeway to Glen Helen Parkway	2	0	11,500	11,208	0.97	E
	Glen Helen Parkway to Sierra Avenue	0	0	9,200	11,371	1.24	F

Table 11

Year 2035 Freeway Mainline Evening Peak Hour Operations Analysis With Improvements

Freeway	Segment Limits	Improvement (Lanes Added)		Improved			
		General	HOV	Capacity	Trips	Vol/ Cap	LOS
I-215 Freeway NB	Palm Avenue to Devore Road	1	0	6,900	7,644	1.11	F
	Devore Road to I-15 Freeway	1	0	6,900	7,487	1.09	F
I-215 Freeway SB	I-15 Freeway to Devore Road	1	0	6,900	4,723	0.68	C
	Devore Road to Palm Avenue	1	0	6,900	6,416	0.93	D
I-15 Freeway NB	Sierra Avenue to Glen Helen Parkway	0	0	9,200	13,328	1.45	F
	Glen Helen Parkway to I-215 Freeway	2	0	11,500	13,181	1.15	F
I-15 Freeway SB	I-215 Freeway to Glen Helen Parkway	2	0	11,500	6,476	0.56	C
	Glen Helen Parkway to Sierra Avenue	0	0	9,200	6,937	0.75	C

Figure 15
Existing Plus Project Average Daily Traffic Volumes

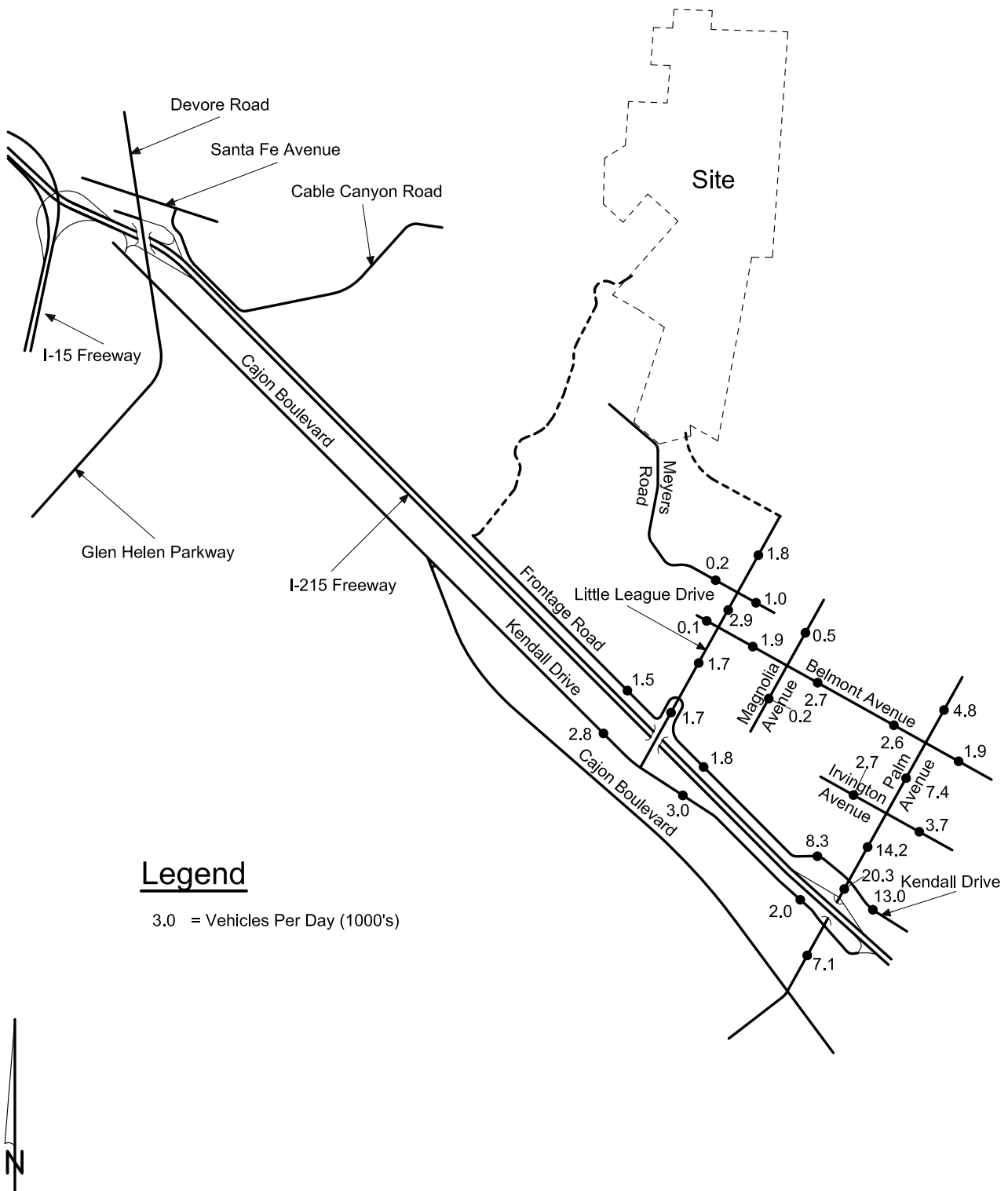


Figure 16
Opening Year (2013) Without Project
Average Daily Traffic Volumes

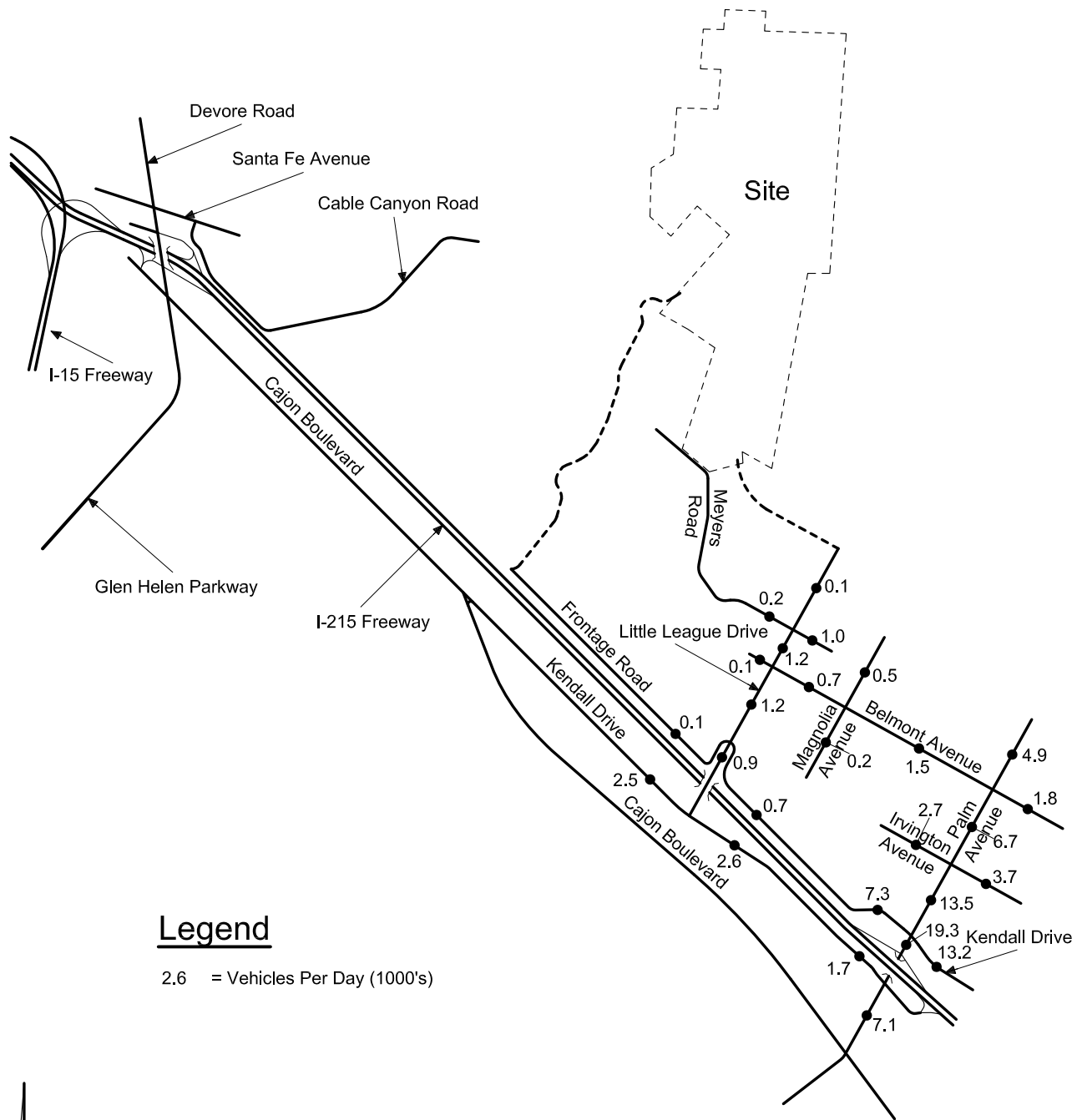
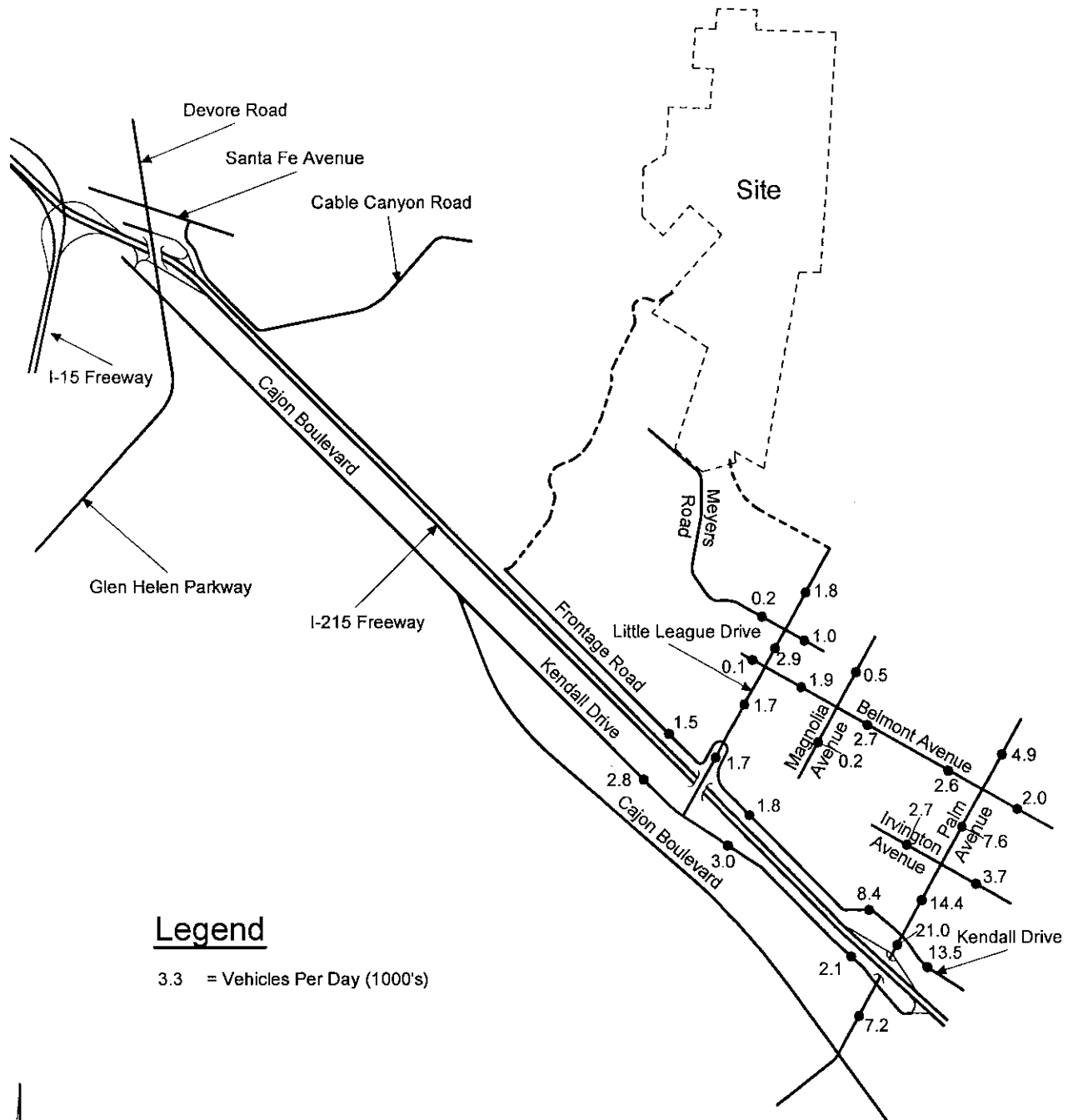


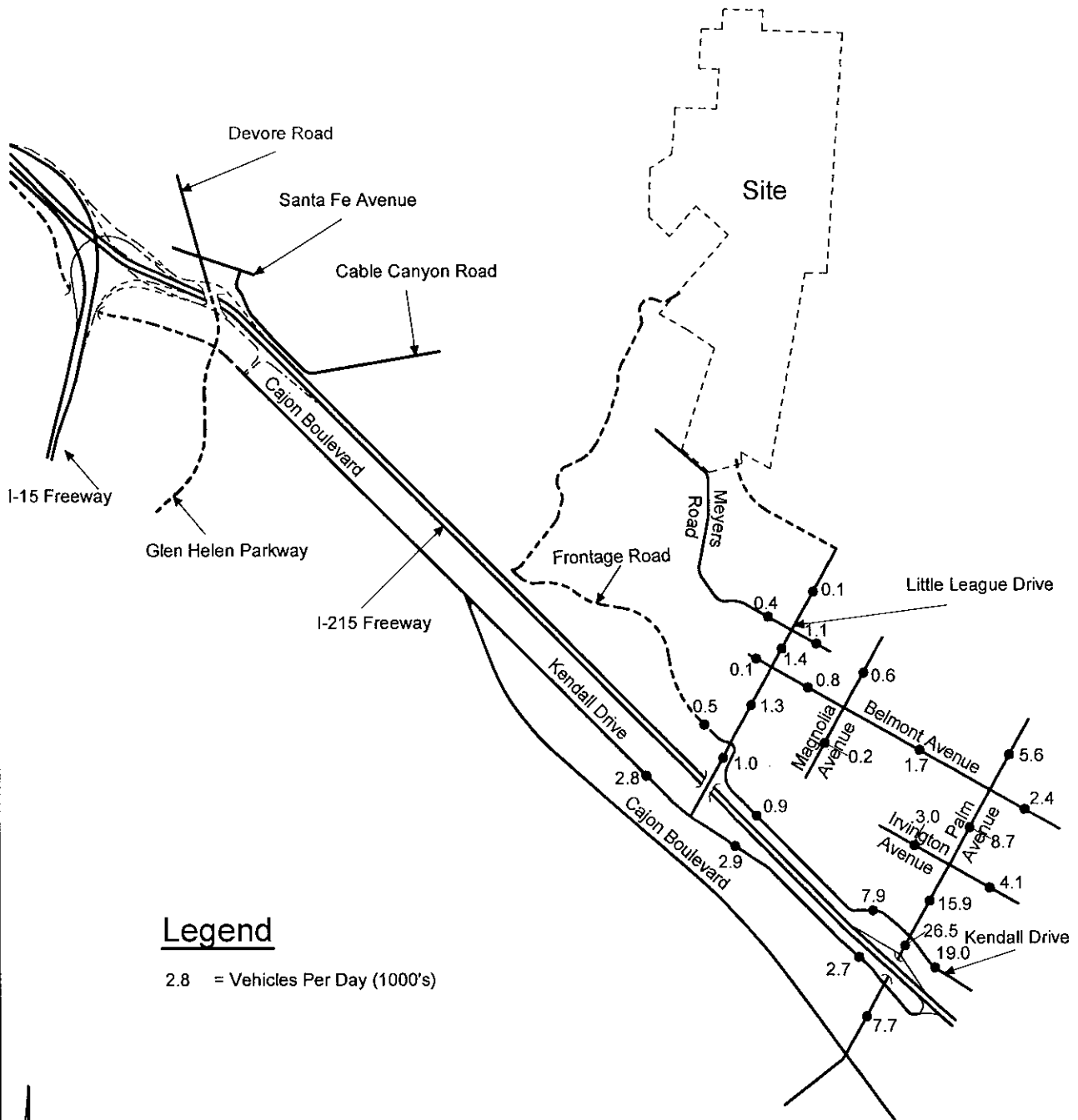
Figure 17
Opening Year (2013) With Project
Average Daily Traffic Volumes



Legend

3.3 = Vehicles Per Day (1000's)

Figure 18
Year 2035 Without Project Average Daily Traffic Volumes



Legend

2.8 = Vehicles Per Day (1000's)



Figure 19
Year 2035 With Project Average Daily Traffic Volumes

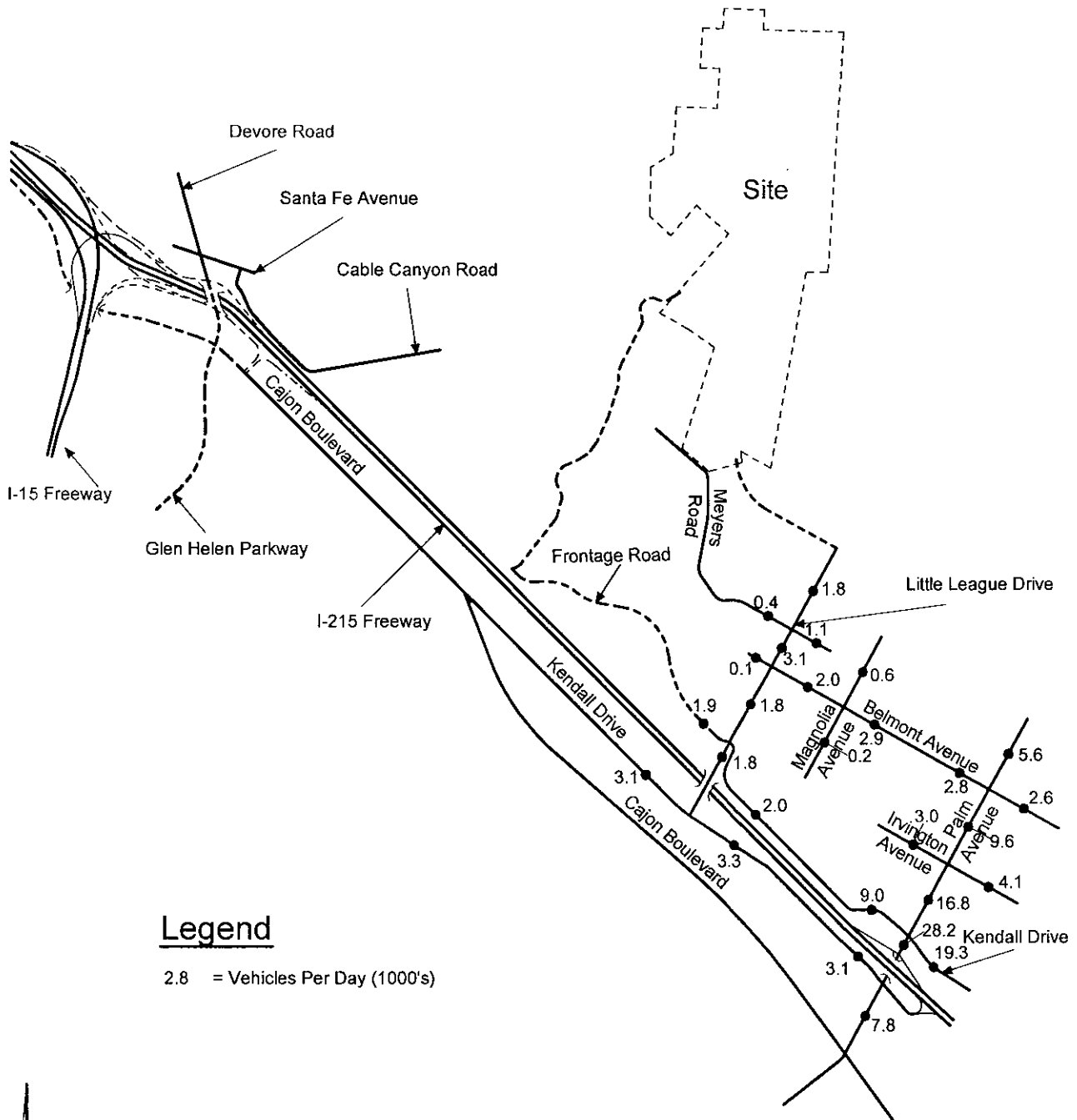


Figure 20
Existing Plus Project
Morning Peak Hour Intersection Turning Movement Volumes

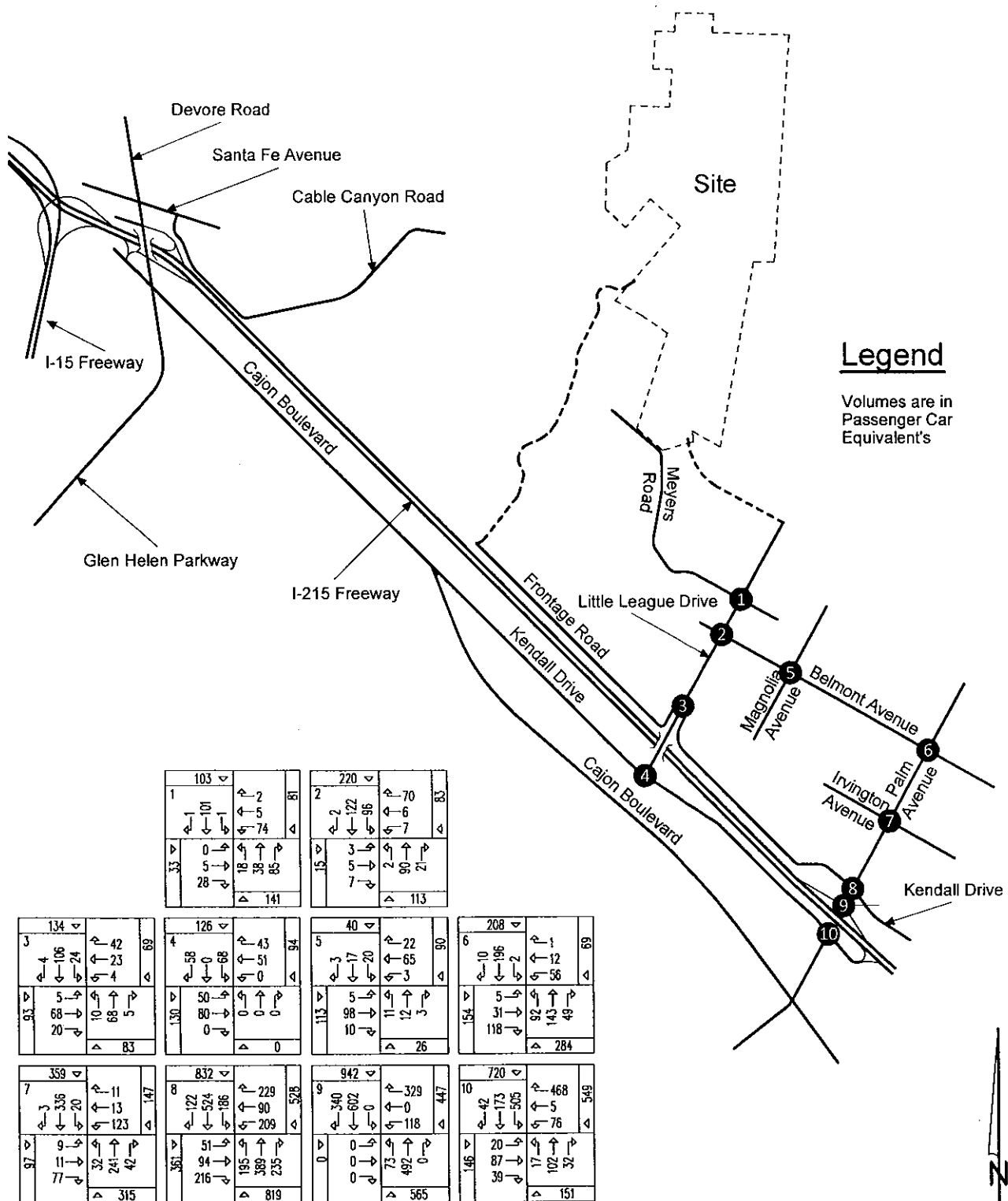


Figure 21
Existing Plus Project
Evening Peak Hour Intersection Turning Movement Volumes

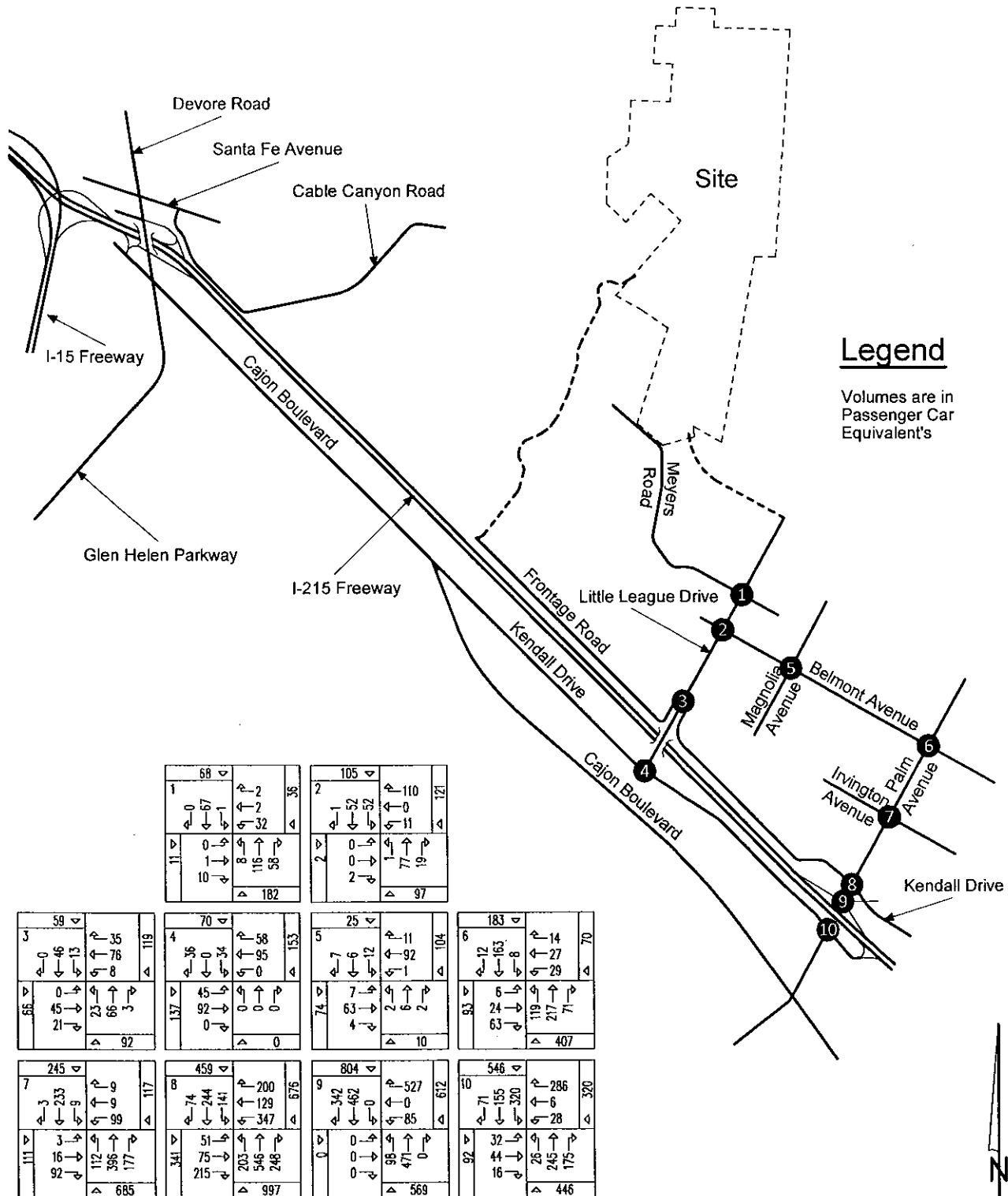


Figure 22
Opening Year (2013) Without Project
Morning Peak Hour Intersection Turning Movement Volumes

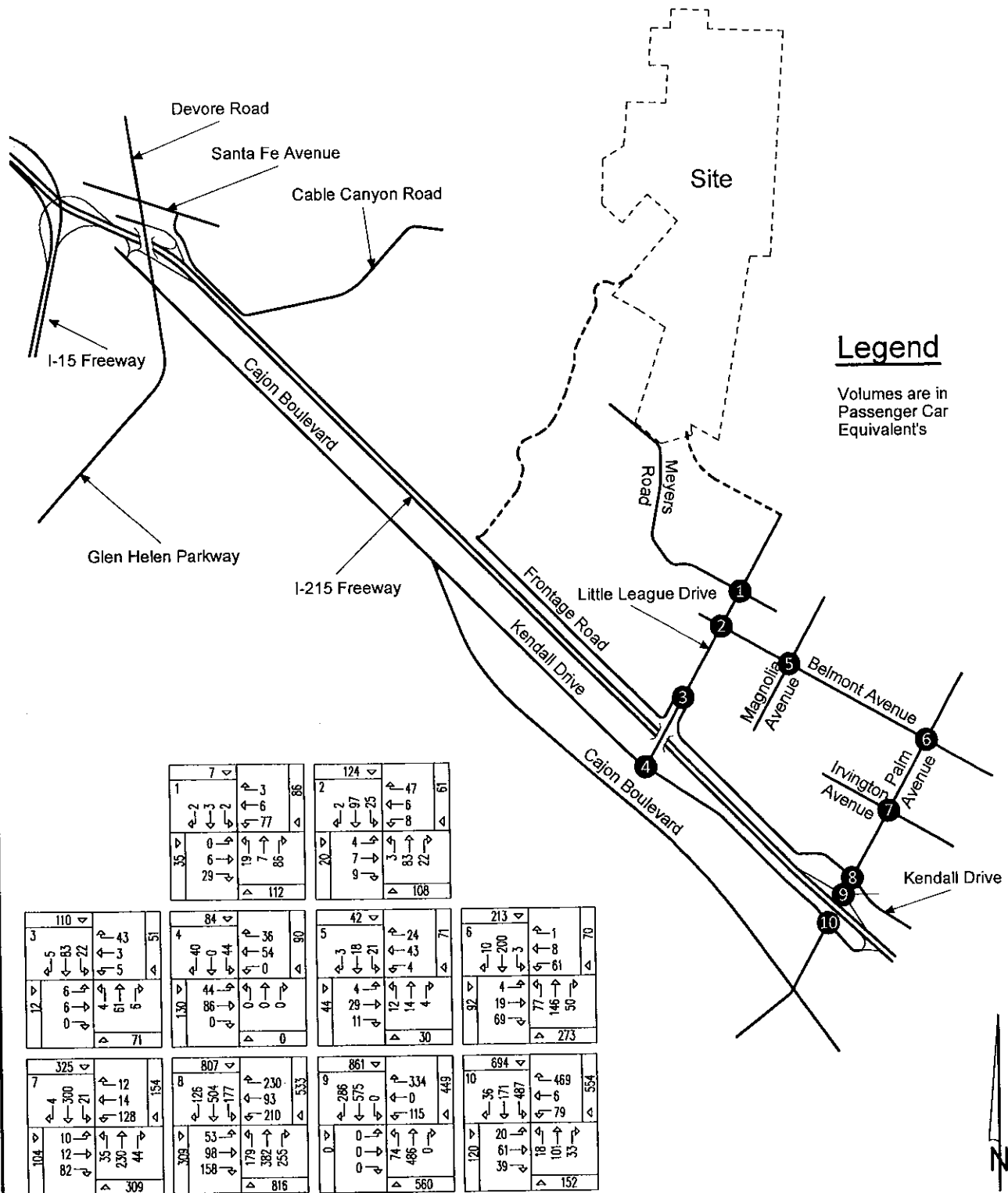
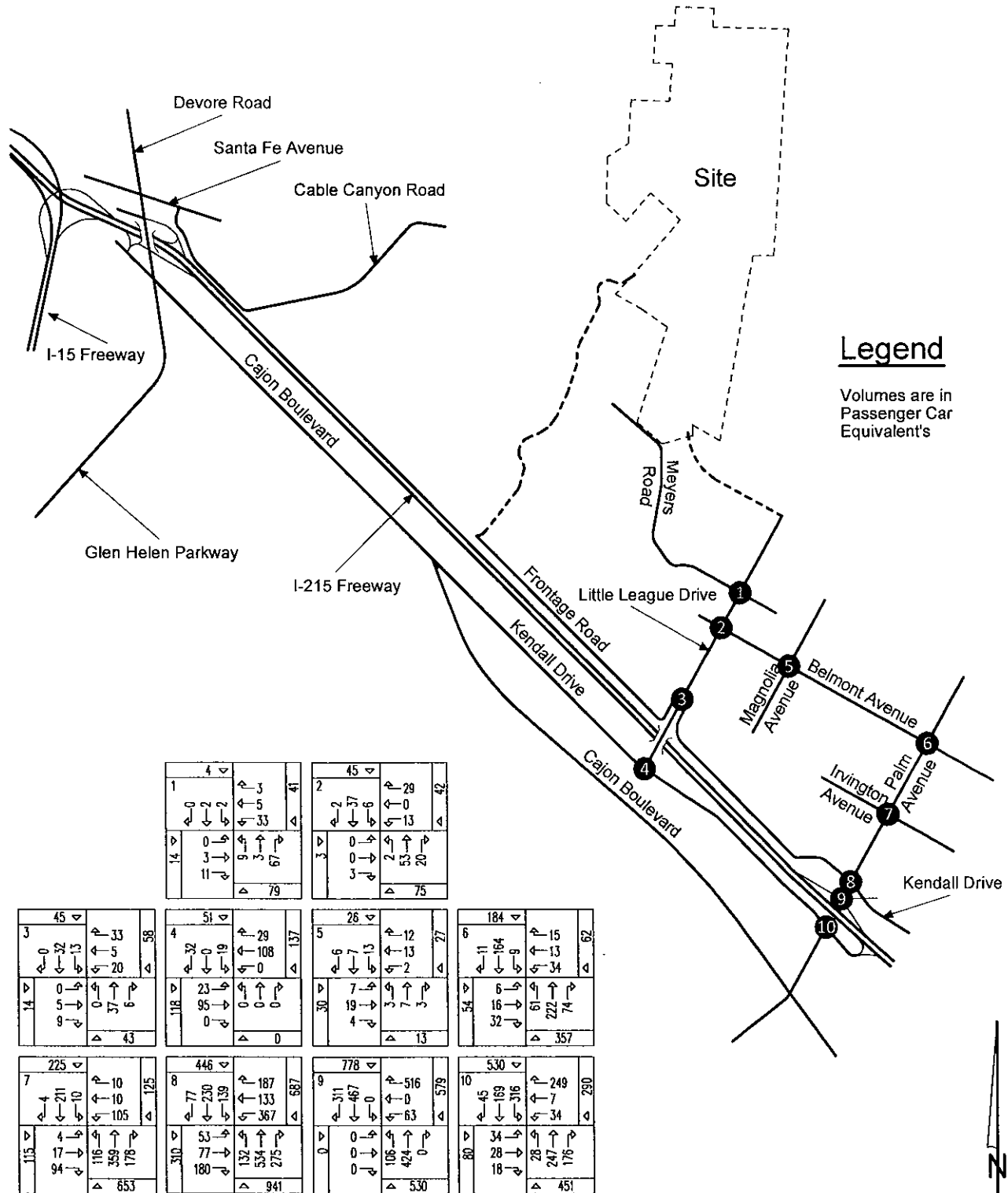


Figure 23
Opening Year (2013) Without Project
Evening Peak Hour Intersection Turning Movement Volumes

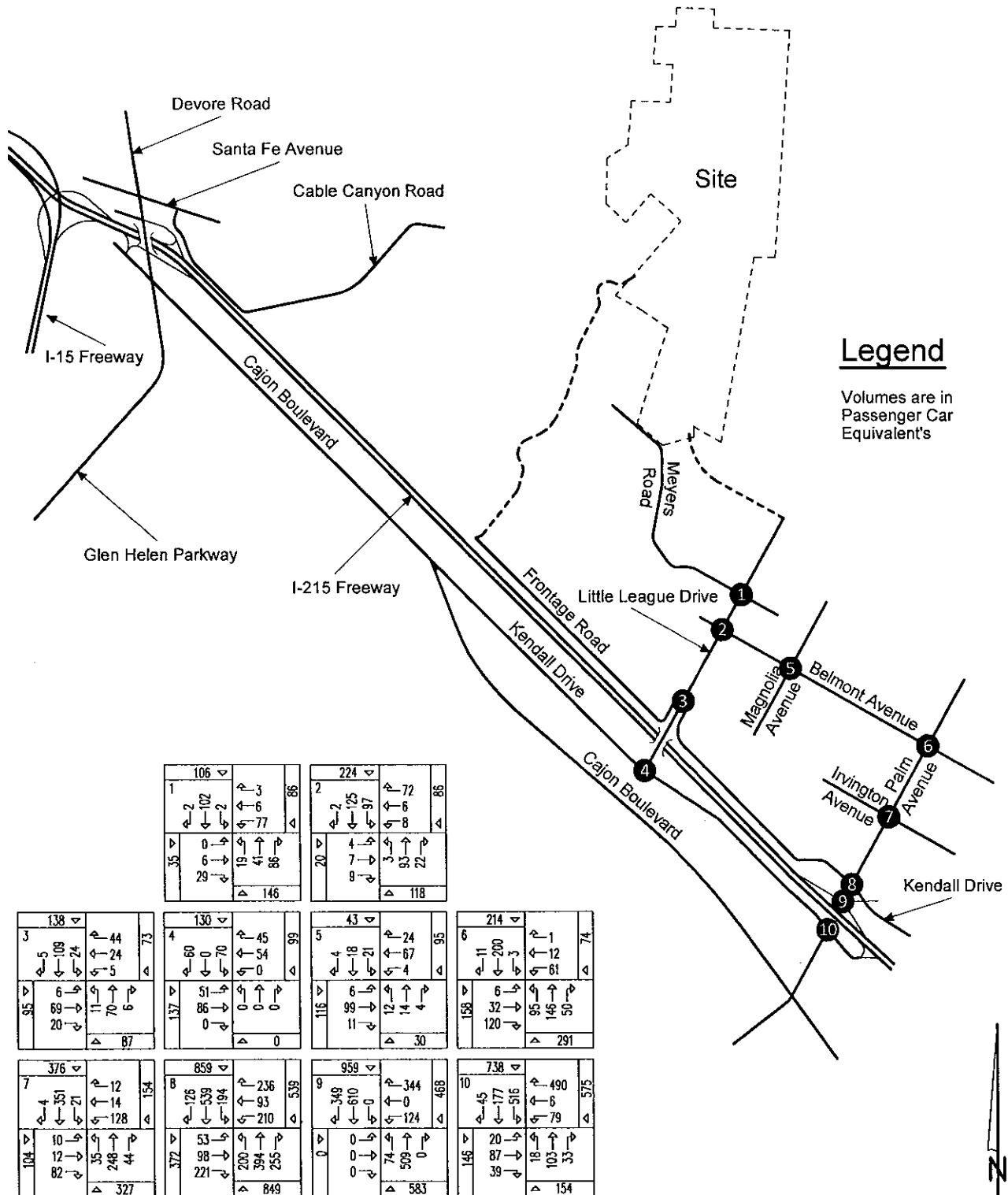


KUNZMAN ASSOCIATES, INC. Intersection reference numbers are in upper left corner of turning movement boxes.

OVER 30 YEARS OF EXCELLENT SERVICE

4320d/23

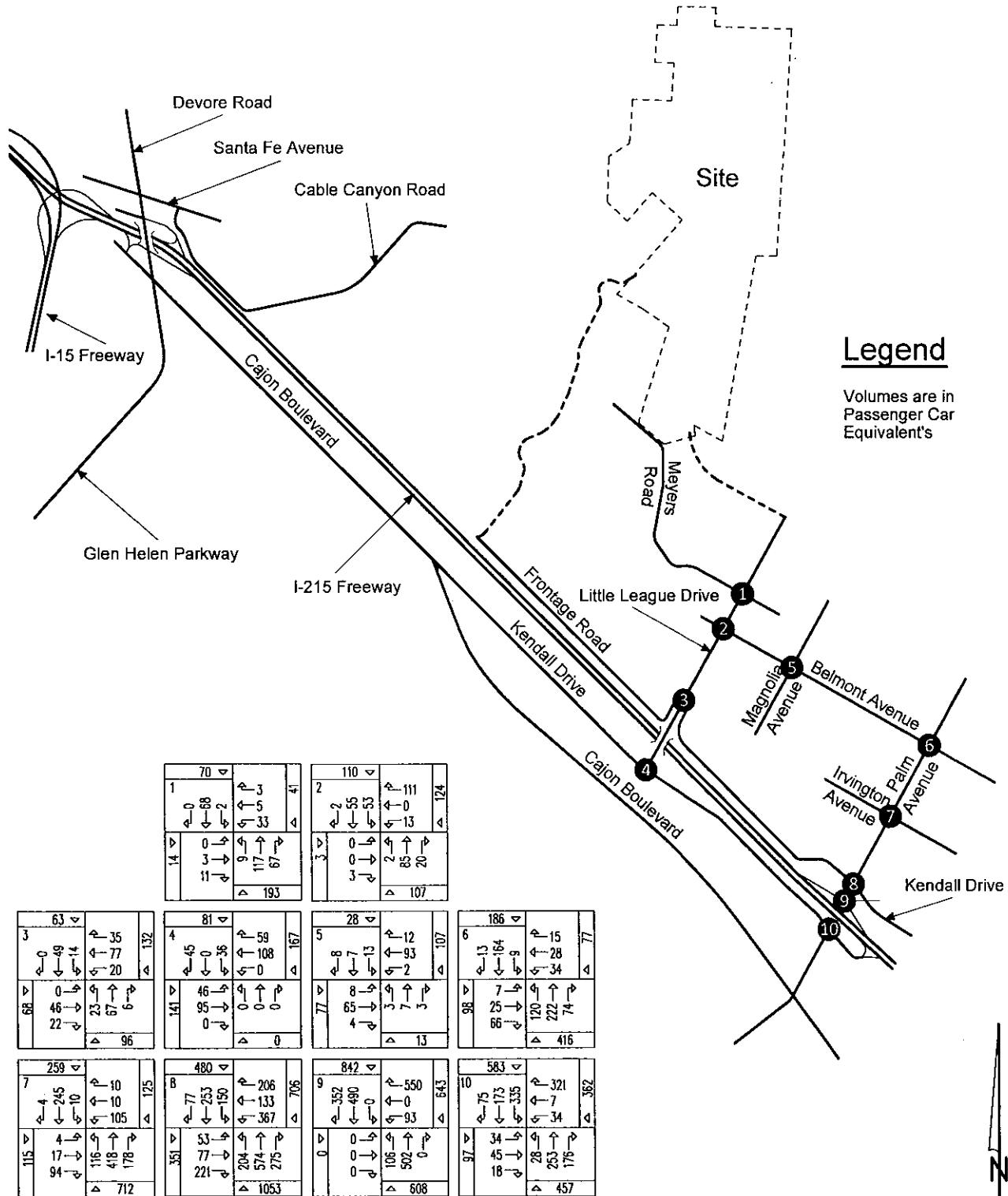
Figure 24
Opening Year (2013) With Project
Morning Peak Hour Intersection Turning Movement Volumes



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

OVER 30 YEARS OF EXCELLENT SERVICE

Figure 25
Opening Year (2013) With Project
Evening Peak Hour Intersection Turning Movement Volumes



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

OVER 30 YEARS OF EXCELLENT SERVICE

4320d/25

Figure 26
Year 2035 Without Project
Morning Peak Hour Intersection Turning Movement Volumes

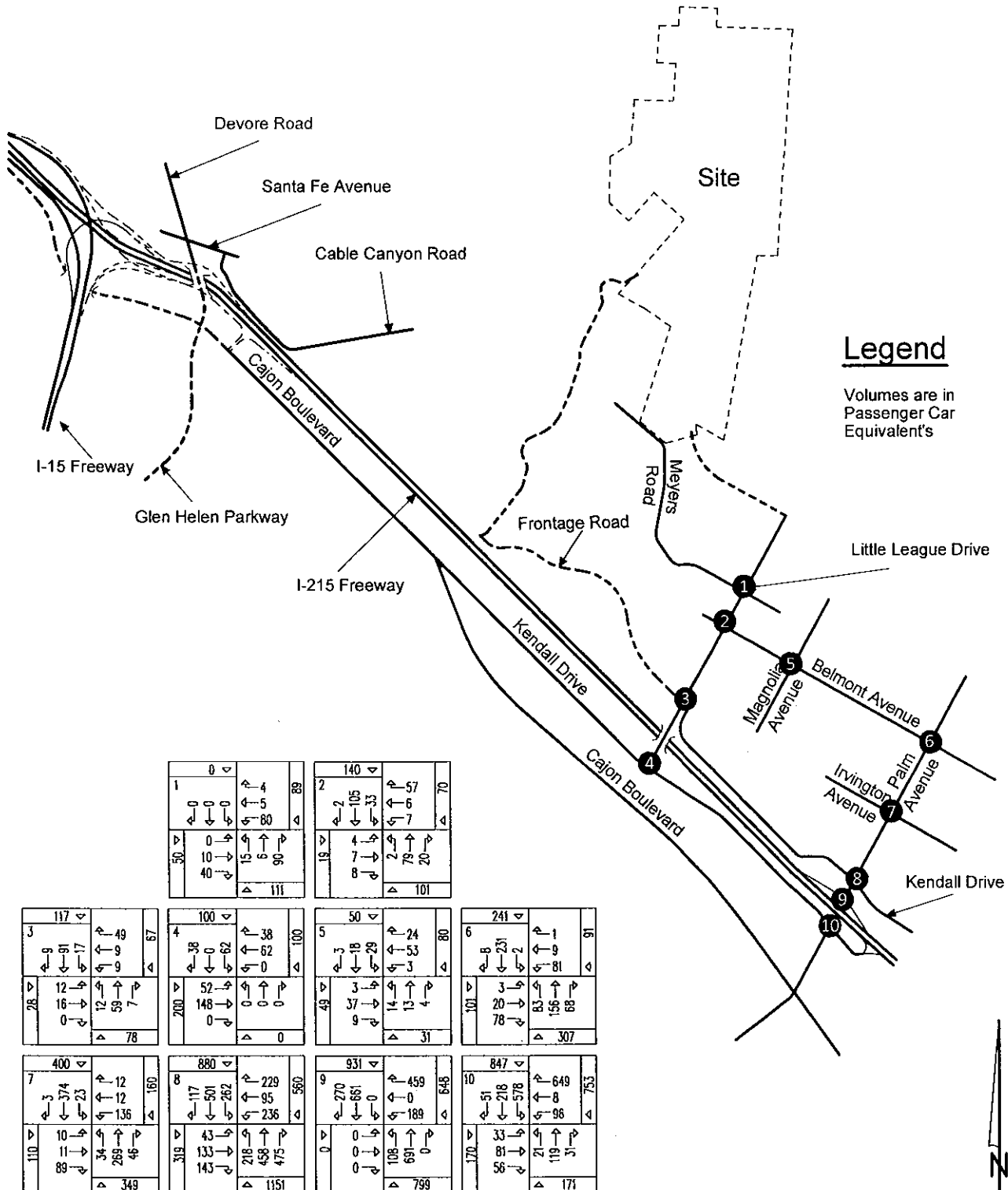


Figure 27
Year 2035 Without Project
Evening Peak Hour Intersection Turning Movement Volumes

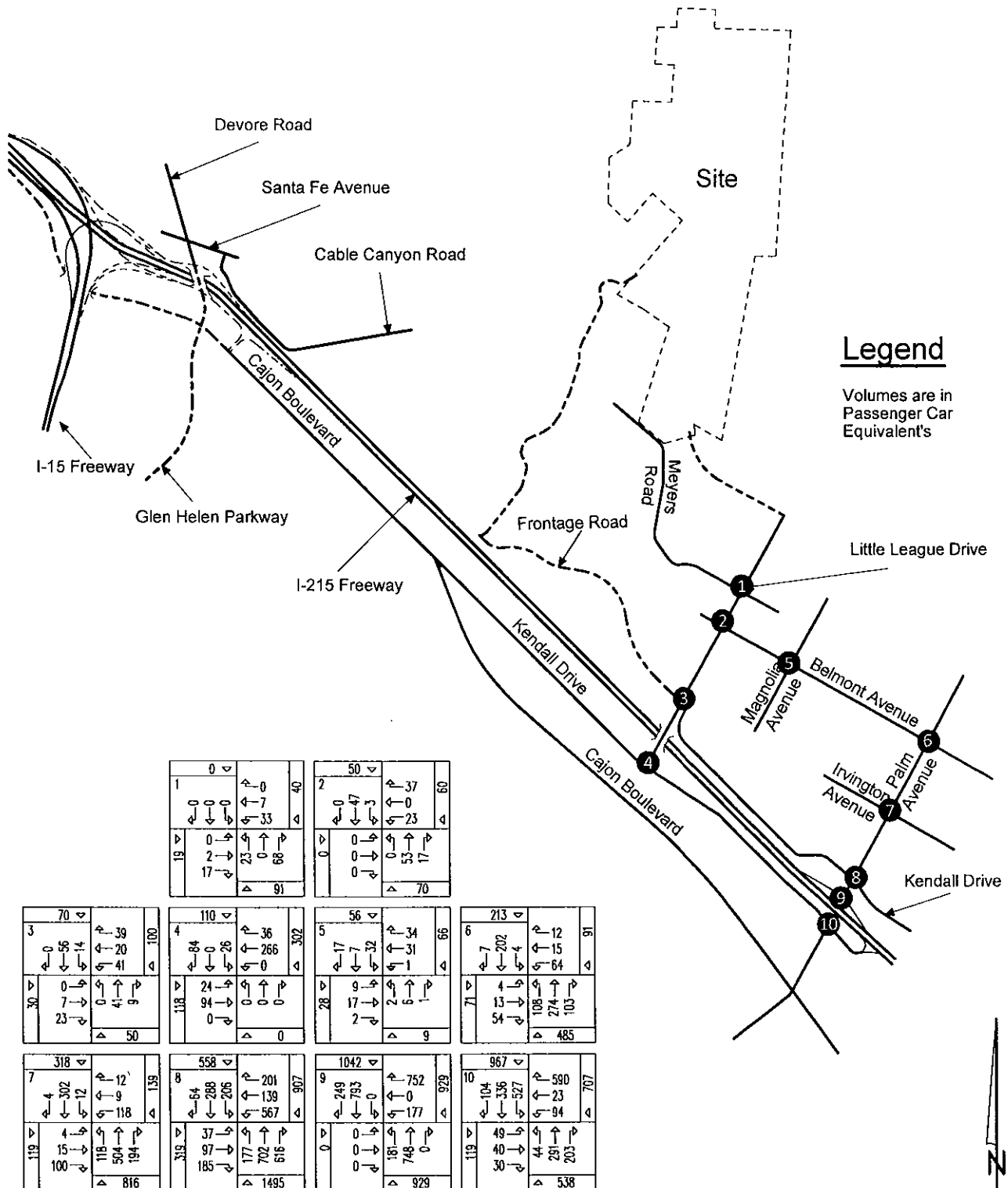
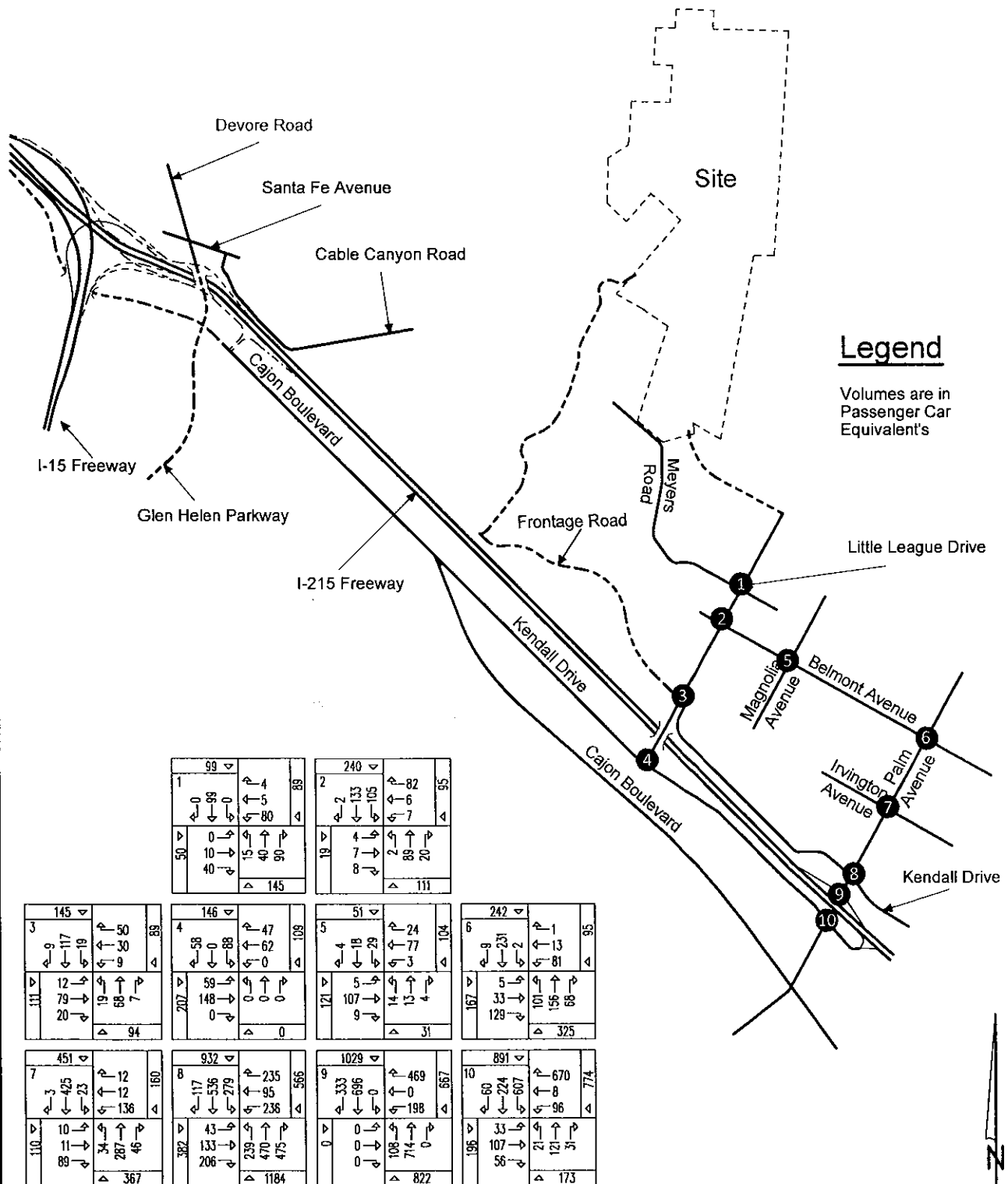


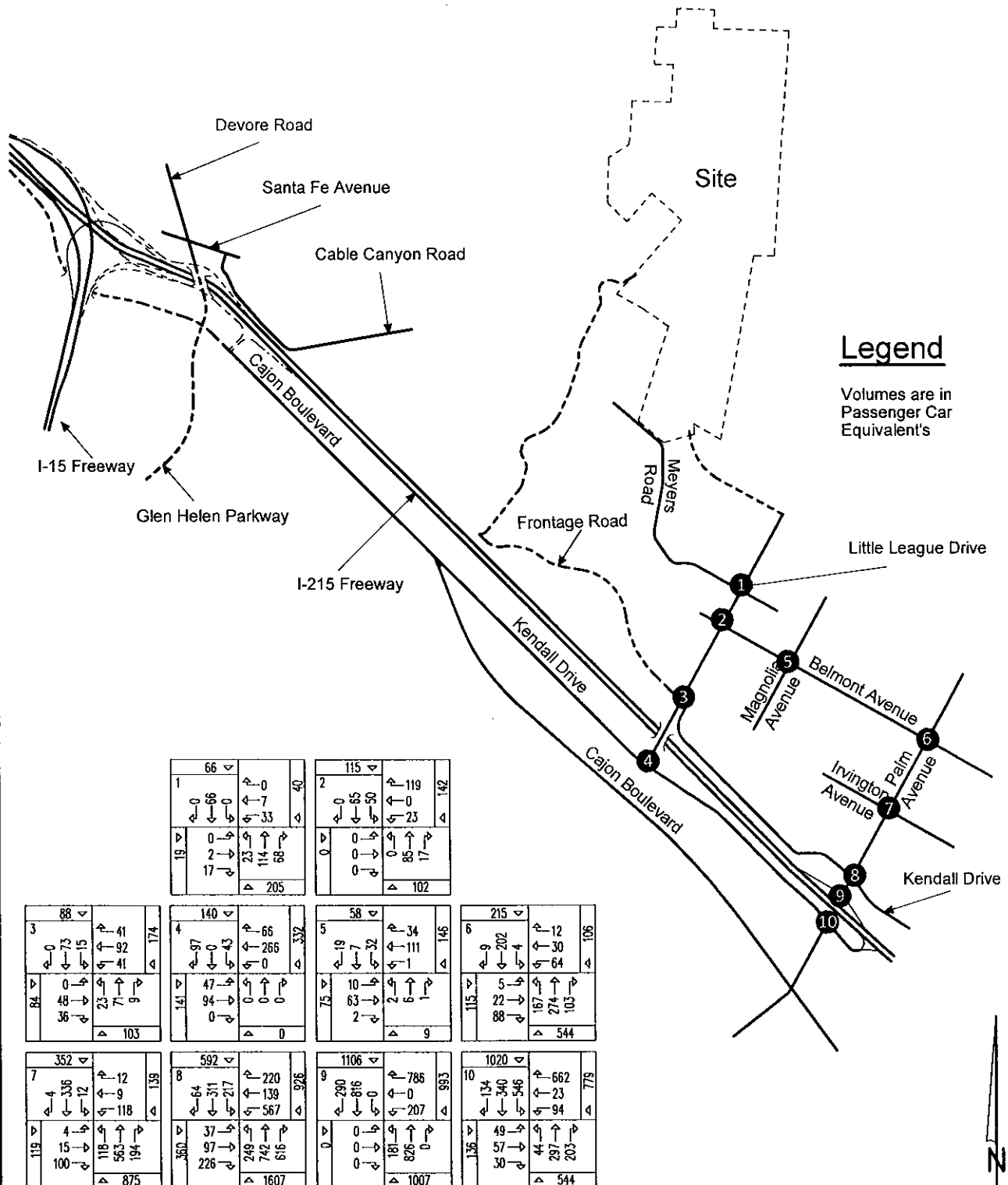
Figure 28
Year 2035 With Project
Morning Peak Hour Intersection Turning Movement Volumes



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

OVER 30 YEARS OF EXCELLENT SERVICE

Figure 29
Year 2035 With Project
Evening Peak Hour Intersection Turning Movement Volumes



V. 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 City of San Bernardino is the lead agency responsible for preparation of the traffic impact analysis, in accordance with California Environmental Quality Act authorizing legislation. This report analyzes traffic impacts for the anticipated opening date with full occupancy of the development in Year 2013, 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 City of San Bernardino to define the desired analysis locations for each future analysis year.

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 contributes traffic greater than the freeway threshold volume of 100 two-way peak hour trips to the I-215 Freeway and I-15 Freeway. The project contributes traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on intersections in the County of San Bernardino. This means that the City of San Bernardino must notify the County of San Bernardino and the California Department of Transportation. Each of these agencies must also be provided with a copy of the traffic impact analysis, once the document is accepted by the City of San Bernardino. (Note: The purpose of this notification is to allow the California Department of Transportation to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

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). 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 2011 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 2011 and Year 2035 is 24 years of the 35 year time frame, a factor of 0.69 (i.e., 24/35) 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.

Project traffic volumes were then added to the Year 2035 East Valley Traffic Model 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-215 Freeway and I-15 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 Meyers Road, Belmont Avenue, Irvington Avenue, Frontage Road, and Kendall Drive. North-south roadways expected to provide local access include Glen Helen Parkway, Secondary Project Entry Road, Little League Drive, Magnolia Avenue, and Palm Avenue.

The study area intersections currently operate at Level of Service D or better during the peak hours for existing traffic conditions.

Traffic signals appear to currently be warranted at the following study area intersections for existing traffic conditions (see Appendix E):

Palm Avenue (NS) at:
I-215 Freeway NB Ramps (EW) - #9
I-215 Freeway SB Ramps (EW) - #10

C. Project Traffic

Project traffic volumes for all future projections were estimated using the manual approach. Trip generation has been estimated based on the Institute of Transportation Engineers, Trip Generation, 8th Edition, 2008.

The East Valley Traffic Model has been used to evaluate the regional distribution of project traffic. A select zone (trip distribution) analysis was performed using the East Valley Traffic

Model with the assistance of the City of San Bernardino staff. The socio-economic data inputs to the East Valley Traffic Model are representative of the planned project development intensity.

The proposed development is projected to generate approximately 3,149 daily vehicle trips, 247 of which will occur during the morning peak hour and 333 of which will occur during the evening peak hour.

D. Future Conditions

An existing plus project analysis, Opening Year (2013) analysis, and Year 2035 analysis are included in this report. The Existing plus project traffic operations analysis has been completed for the morning and evening peak hours and is shown in Table 3. Opening Year (2013) traffic operations analysis have been completed for the morning and evening peak hours and are shown in Tables 4 and 5. Morning and evening peak hour traffic operations analysis are summarized in Tables 6 and 7 for the Year 2035.

For existing plus project traffic conditions, the following study area intersections are projected to operate at Level of Service E during the peak hours, without improvements:

Palm Avenue (NS) at:
I-215 Freeway NB Ramps (EW) - #9
I-215 Freeway SB Ramps (EW) - #10

The existing plus project delay and Level of Service for the study area roadway network and with improvements are shown in Table 3. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:
I-215 Freeway NB Ramps (EW) - #9
- Traffic Signal
I-215 Freeway SB Ramps (EW) - #10
- Restripe Southbound Through to Additional Southbound Left Turn Lane
- Traffic Signal

As shown in Table 3, the study area intersections are projected to operate at Level of Service C or better during the peak hours for existing plus project traffic conditions, with improvements.

For Opening Year (2013) without project traffic conditions, the following study area intersections are projected to operate at Level of Service E during the peak hours, without improvements:

¹ The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

Palm Avenue (NS) at:
I-215 Freeway NB Ramps (EW) - #9
I-215 Freeway SB Ramps (EW) - #10

The Opening Year (2013) without project delay and Level of Service for the study area roadway network and with improvements are shown in Table 4. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:
I-215 Freeway NB Ramps (EW) - #9
- Traffic Signal
I-215 Freeway SB Ramps (EW) - #10
- Restripe Southbound Through to Additional Southbound Left Turn Lane
- Traffic Signal

As shown in Table 4, the study area intersections are projected to operate at Level of Service C or better during the peak hours for Opening Year (2013) without project traffic conditions, with improvements.

For Opening Year (2013) with project traffic conditions, the following study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements:

Palm Avenue (NS) at:
I-215 Freeway NB Ramps (EW) - #9
I-215 Freeway SB Ramps (EW) - #10

The Opening Year (2013) with project delay and Level of Service for the study area roadway network and with improvements are shown in Table 5. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:
I-215 Freeway NB Ramps (EW) - #9
- Traffic Signal
I-215 Freeway SB Ramps (EW) - #10
- Restripe Southbound Through to Additional Southbound Left Turn Lane
- Traffic Signal

As shown in Table 5, the study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2013) with project traffic conditions, with improvements.

¹ The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit.

For Year 2035 without project traffic conditions, the following study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements:

Palm Avenue (NS) at:

- Kendall Drive (EW) - #8
- I-215 Freeway NB Ramps (EW) - #9
- I-215 Freeway SB Ramps (EW) - #10

The Year (2035) without project delay and Level of Service for the study area roadway network and with improvements are shown in Table 6. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

Palm Avenue (NS) at:

- Kendall Drive (EW) - #8
 - Install Additional Westbound Left Turn Lane
- I-215 Freeway NB Ramps (EW) - #9
 - Traffic Signal
- I-215 Freeway SB Ramps (EW) - #10
 - Restripe Southbound Through to Additional Southbound Left Turn Lane
 - Traffic Signal

As shown in Table 6, the study area intersections are projected to operate at Level of Service D or better during the peak hours for Year 2035 without project traffic conditions, with improvements.

For Year 2035 with project traffic conditions, the following study area intersections are projected to operate at Level of Service E to F during the peak hours, without improvements:

Palm Avenue (NS) at:

- Kendall Drive (EW) - #8
- I-215 Freeway NB Ramps (EW) - #9
- I-215 Freeway SB Ramps (EW) - #10

The Year (2035) with project delay and Level of Service for the study area roadway network and with improvements are shown in Table 7. The City of San Bernardino and the California Department of Transportation currently have the improvements below programmed for installation with funding from the City of San Bernardino Regional Circulation Fee¹:

¹ The project will contribute to the City of San Bernardino Regional Circulation Fee per dwelling unit. In addition, the City of San Bernardino has been conditioning all projects in the study area with the Palm Avenue/Kendall Drive improvement.

Palm Avenue (NS) at:

Kendall Drive (EW) - #8

- Install Additional Westbound Left Turn Lane

I-215 Freeway NB Ramps (EW) - #9

- Traffic Signal

I-215 Freeway SB Ramps (EW) - #10

- Restripe Southbound Through to Additional Southbound Left Turn Lane

- Traffic Signal

As shown in Table 7, the study area intersections are projected to operate at Level of Service D or better during the peak hours for Year 2035 without project traffic conditions, with improvements.

E. 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 30).

Sight distance at each project access should be reviewed with respect to California Department of Transportation/City 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.

2. Off-Site Improvements

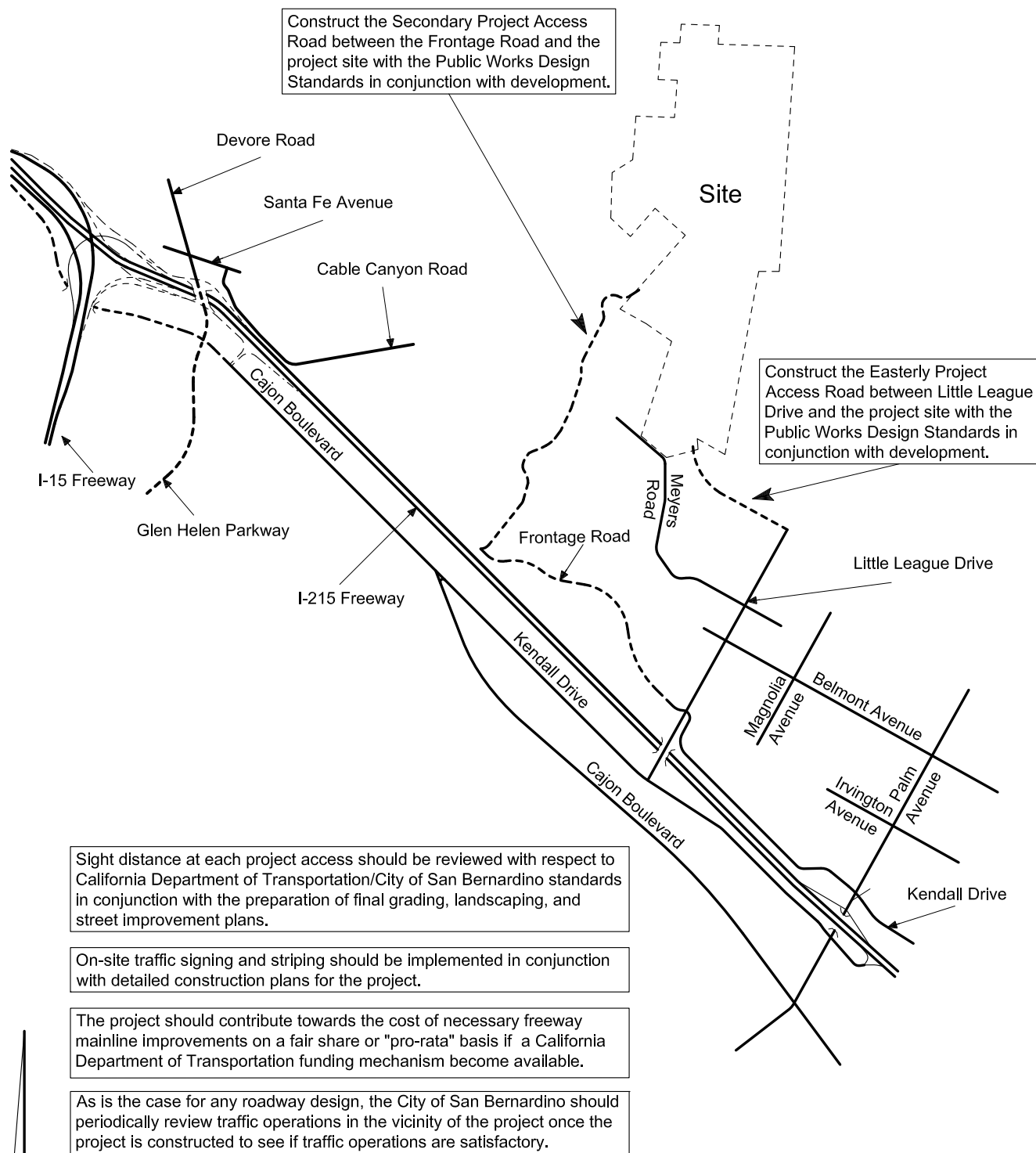
Construct the Easterly Project Access Road between Little League Drive and the project site with the Public Works Design Standards in conjunction with development.

Construct the Secondary Project Access Road between the Frontage Road and the project site with the Public Works Design Standards in conjunction with development.

The project should contribute towards the cost of necessary freeway mainline improvements on a fair share or “pro-rata” basis if a California Department of Transportation funding mechanism becomes available.

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

Figure 30
Circulation Recommendations



Appendices

Appendix A – Glossary of Transportation Terms

Appendix B – Traffic Count Worksheets

Appendix C – Future Growth Increment Calculation Worksheets

Appendix D – Explanation and Calculation of Intersection Delay

Appendix E – Traffic Signal Warrant Worksheets

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

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-001Class

Location: Little League Dr & Meyers Rd

City: San Bernardino Date: 10/09/2008

Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	1	0	12	0	0	0	0	1	2	15	0	0
	2-axle	1		1						1	2		
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	3	1	16	1	0	0	0	2	3	20	0	0
	2-axle			1							1		
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	1	1	15	0	0	0	0	1	1	13	1	0
	2-axle								1				
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	2	0	5	0	0	0	0	0	0	9	0	1
	2-axle											1	
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	2	0	3	0	0	0	0	0	2	13	1	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	5	3	16	0	1	0	0	1	5	15	2	1
	2-axle	1									1		
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	6	0	55	1	0	0	0	2	14	33	2	1
	2-axle			1						1	1		
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	3	1	9	0	1	1	0	0	5	10	0	0
	2-axle								1				
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	23	6	131	2	2	1	0	7	32	128	6	3
2-axle	2	0	3	0	0	0	0	2	2	5	1	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	25	6	134	2	2	1	0	9	34	133	7	3
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 800 AM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 4-Way Stop

17	4	84	1	2	1	0	4	27	73	5	2
	0.423		0.500			0.456			0.541		

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-001Class

Location: Little League Dr & Meyers Rd

City: San Bernardino Date: 10/09/2008

Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	2	0	5	0	0	0	0	0	1	7	1	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	4	0	16	0	0	0	0	1	2	8	0	1
	2-axle												
	3-axle			1									
	4-axle												
	5-axle +												
16:30	CARS	1	1	22	1	0	0	0	0	1	9	0	0
	2-axle			1									
	3-axle										2		
	4-axle												
	5-axle +												
16:45	CARS	1	1	11	0	1	0	0	0	6	1	1	1
	2-axle										2		
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	0	0	7	0	0	0	1	1	1	6	0	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	2	0	6	1	0	0	0	0	2	7	2	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	1	1	5	0	0	0	1	0	1	2	1	0
	2-axle			1						1	1		
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	1	0	5	0	0	0	0	0	2	6	0	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	12	3	77	2	1	0	2	2	16	46	5	2
2-axle	0	0	2	0	0	0	0	0	1	3	0	0
3-axle	0	0	1	0	0	0	0	0	0	2	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	12	3	80	2	1	0	2	2	17	51	5	2
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1615 PM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 4-Way Stop

8	2	58	1	1	0	1	2	10	29	2	2
	0.660		0.500			0.542			0.750		

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-002Class

Location: Little League Dr & Belmont Ave City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		0	1	1	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	0	9	4	4	14	0	0	1	0	8	1	4
	2-axle		4	1		4							
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	0	14	13	5	13	0	0	0	0	7	0	7
	2-axle		3	2		4					1		
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	0	9	3	3	10	0	1	0	0	4	1	9
	2-axle		1	1					1		1		1
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	0	7	0	3	4	0	0	0	0	3	0	3
	2-axle				1						1		
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	0	5	2	3	11	0	0	0	1	1	0	3
	2-axle		1	1					1				1
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	0	19	4	4	17	0	0	0	1	3	0	8
	2-axle		4		1	2						1	
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	2	34	9	9	37	2	3	2	4	2	1	24
	2-axle		3	1	2	2							2
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	0	7	1	3	21	0	0	1	1	1	2	5
	2-axle		2	1		1						1	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	2	104	36	34	127	2	4	4	7	29	5	63
2-axle	0	18	7	4	13	0	0	2	0	3	2	4
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	2	122	43	38	140	2	4	6	7	32	7	67
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 800 AM

PEAK

VOLUMES =

2	75	19	22	91	2	3	4	7	7	5	43
---	----	----	----	----	---	---	---	---	---	---	----

PEAK HR.

FACTOR:

0.490	0.553	0.389	0.474
-------	-------	-------	-------

CONTROL: 4-Way Stop

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-002Class

Location: Little League Dr & Belmont Ave City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		0	1	1	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	0	7	2	0	6	0	0	0	1	3	0	3
	2-axle			1									
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	0	12	1	1	6	0	0	0	0	2	0	7
	2-axle		1	2									
	3-axle		1										
	4-axle												
	5-axle +												
16:30	CARS	0	11	6	0	8	0	0	0	1	3	0	13
	2-axle		2			1							
	3-axle					2							
	4-axle												
	5-axle +												
16:45	CARS	1	8	5	2	8	1	0	0	0	3	0	5
	2-axle				1								
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	1	8	5	0	4	0	0	0	0	0	0	1
	2-axle			1							1		
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	0	7	6	1	10	0	1	0	0	2	0	1
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	0	6	4	0	6	0	0	0	1	2	1	1
	2-axle		1			1					1		
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	1	7	3	0	10	0	0	0	0	3	0	1
	2-axle					1			1				
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	3	66	32	4	58	1	1	0	3	18	1	32
2-axle	0	4	4	1	3	0	0	1	0	2	0	0
3-axle	0	1	0	0	2	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	3	71	36	5	63	1	1	1	3	20	1	32
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1600 PM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 4-Way Stop

1	42	17	4	31	1	0	0	2	11	0	28
	0.789			0.750			0.500			0.609	

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-003Class

Location: Little League Dr & Frontage Rd City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	1	8	5	8	17	0	0	0	1	1	0	5
	2-axle		5		1	2							
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	1	18	2	2	17	0	0	0	0	0	0	10
	2-axle		5		3	4				1			1
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	1	6	1	9	11	0	0	0	0	2	1	6
	2-axle		2			1							
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	1	5	0	4	2	0	0	0	0	2	0	3
	2-axle	1				2							
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	0	2	0	4	8	0	1	1	0	0	0	7
	2-axle		2			1			1				
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	0	9	0	6	8	0	1	0	0	2	0	11
	2-axle		4			1						1	
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	2	22	2	8	36	3	3	1	0	1	0	18
	2-axle		4		1	1							
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	1	8	3	2	22	1	0	1	0	1	0	3
	2-axle		2			1							1
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	7	78	13	43	121	4	5	3	1	9	1	63
2-axle	1	24	0	5	13	0	0	1	1	0	1	2
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	8	102	13	48	134	4	5	4	2	9	2	65
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 800 AM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 2-Way Stop EB & WB

3	53	5	21	78	4	5	4	0	4	1	40
	0.508		0.526			0.563			0.592		

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-003Class

Location: Little League Dr & Frontage Rd City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	0	6	2	5	5	0	0	0	0	1	0	6
	2-axle		1										
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	0	7	0	3	3	0	0	2	0	2	2	8
	2-axle		2						1				2
	3-axle												1
	4-axle												
	5-axle +												
16:30	CARS	0	6	2	4	5	0	0	0	0	2	0	6
	2-axle		1			1						1	
	3-axle					1							
	4-axle												
	5-axle +												
16:45	CARS	0	9	0	3	9	0	0	0	5	3	0	7
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	0	9	1	2	7	0	0	0	1	1	0	5
	2-axle					1				1			1
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	0	7	3	3	8	0	1	1	1	2	1	6
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	0	6	2	3	7	0	0	0	2	2	0	4
	2-axle		1			1							
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	0	10	0	2	10	1	0	0	1	0	0	3
	2-axle												
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	0	60	10	25	54	1	1	3	10	13	3	45
2-axle	0	5	0	0	3	0	0	1	1	0	1	3
3-axle	0	0	0	0	1	0	0	0	0	0	0	1
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	0	65	10	25	58	1	1	4	11	13	4	49
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1630 PM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 2-Way Stop EB & WB

0	34	6	12	32	0	1	3	8	8	3	30
0.950			0.917			0.500			0.875		

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-001Class

Location: Little League Dr & Kendall Dr

City: San Bernardino Date: 10/30/2008

Day: THURSDAY

LANES:		0	0	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	0	0	0	13	0	14	7	9	0	0	6	10
	2-axle							4				1	2
	3-axle												
	4-axle												
	5-axle +							1	1				
7:15	CARS	0	0	0	11	0	6	9	14	0	0	11	8
	2-axle				3			1				1	
	3-axle												
	4-axle												
	5-axle +								1				
7:30	CARS	0	0	0	6	0	7	8	25	0	0	17	7
	2-axle						2		1				
	3-axle												
	4-axle												
	5-axle +							1	1				
7:45	CARS	0	0	0	7	0	5	1	18	0	0	13	6
	2-axle							1					
	3-axle												
	4-axle												
	5-axle +						1	1	1				
8:00	CARS	0	0	0	13	0	4	4	14	0	0	5	4
	2-axle						1						
	3-axle								1				
	4-axle												
	5-axle +				1			1	1				
8:15	CARS	0	0	0	8	0	3	4	14	0	0	5	14
	2-axle						1	2	1				2
	3-axle												
	4-axle												
	5-axle +						2		1				
8:30	CARS	0	0	0	19	0	10	8	16	0	0	9	18
	2-axle						2	1					1
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	0	0	0	15	0	9	7	18	0	0	6	12
	2-axle						3						1
	3-axle												
	4-axle												
	5-axle +										1		

MOVEMENT TOTALS

CARS	0	0	0	92	0	58	48	128	0	0	72	79
2-axle	0	0	0	3	0	9	9	2	0	0	1	6
3-axle	0	0	0	0	0	0	0	1	0	0	1	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	1	0	3	4	6	0	0	1	0
TOTALS	0	0	0	96	0	70	61	137	0	0	75	85
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 800 AM

PEAK

VOLUMES =

0	0	0	56	0	35	34	71	0	0	49	52
---	---	---	----	---	----	----	----	---	---	----	----

PEAK HR.

FACTOR:

0.000	0.734	0.930	0.854
-------	-------	-------	-------

CONTROL: 1-Way Stop SB

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-001Class

Location: Little League Dr & Kendall Dr

City: San Bernardino Date: 10/30/2008

Day: THURSDAY

LANES:		0	0	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	0	0	0	3	0	6	10	21	0	0	20	7
	2-axle							1	1			1	
	3-axle												
	4-axle												
	5-axle +								1			1	
16:15	CARS	0	0	0	5	0	4	3	18	0	0	21	8
	2-axle							1					
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	0	0	0	7	0	6	2	25	0	0	28	3
	2-axle						1						
	3-axle												
	4-axle												
	5-axle +								1			1	
16:45	CARS	0	0	0	2	0	5	4	20	0	0	18	10
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	0	0	0	3	0	7	3	21	0	0	18	10
	2-axle				1				1			1	
	3-axle												
	4-axle												
	5-axle +								1				
17:15	CARS	0	0	0	5	0	8	1	13	0	0	18	4
	2-axle								1				
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	0	0	0	3	0	5	5	18	0	0	10	5
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	0	0	0	1	0	6	10	13	0	0	5	8
	2-axle												
	3-axle												
	4-axle												
	5-axle +								1				

MOVEMENT TOTALS

CARS	0	0	0	29	0	47	38	149	0	0	138	55
2-axle	0	0	0	1	0	1	2	3	0	0	2	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	4	0	0	2	0
TOTALS	0	0	0	30	0	48	40	156	0	0	142	55
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1600 PM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 1-Way Stop SB

0	0	0	17	0	22	21	87	0	0	90	28
	0.000		0.696			0.794			0.922		

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-002Class

Location: Magnolia Ave & Belmont Ave. City: San Bernardino Date: 10/30/2008 Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	3	1	4	3	2	3	0	1	11	5	9	3
	2-axle												1
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	0	2	3	3	6	1	2	2	4	3	3	7
	2-axle				1							1	
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	0	5	1	9	13	0	0	0	1	2	3	8
	2-axle				2				1			1	1
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	0	1	0	2	3	0	0	3	0	1	4	1
	2-axle											1	
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	0	0	1	1	2	1	0	1	0	1	2	2
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	1	2	0	1	3	0	0	3	0	1	7	3
	2-axle		1		2				2			3	
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	5	7	0	8	6	0	1	11	2	0	16	12
	2-axle				1				1	1			1
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	5	1	2	5	6	1	2	8	6	1	11	3
	2-axle												
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	14	19	11	32	41	6	5	29	24	14	55	39
2-axle	0	1	0	6	0	0	0	4	1	0	6	3
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	14	20	11	38	41	6	5	33	25	14	61	42
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 800 AM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 4-Way Stop

11	11	3	18	17	2	3	26	9	3	39	21
	0.521		0.617			0.594			0.543		

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-002Class

Location: Magnolia Ave & Belmont Ave.

City: San Bernardino Date: 10/30/2008

Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	0	1	0	2	1	1	0	3	0	0	4	5
	2-axle											1	
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	1	0	0	0	1	0	1	2	0	1	0	5
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	0	1	0	1	2	0	0	5	1	0	3	2
	2-axle								1				
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	1	0	0	1	0	0	0	5	1	0	5	1
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	0	3	0	2	3	0	1	6	3	0	2	4
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	1	0	0	7	0	4	2	3	0	0	6	2
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	0	1	1	1	2	1	2	4	0	0	3	2
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	1	2	1	2	1	0	1	4	1	1	1	3
	2-axle												
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	4	8	2	16	10	6	7	32	6	2	24	24
2-axle	0	0	0	0	0	0	0	1	0	0	1	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	4	8	2	16	10	6	7	33	6	2	25	24
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1700 PM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 4-Way Stop

2	6	2	12	6	5	6	17	4	1	12	11
	0.625			0.523			0.675			0.750	

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-003Class

Location: Palm Ave & Belmont Ave

City: San Bernardino Date: 10/30/2008

Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	13	12	2	0	54	0	0	4	17	26	4	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	13	15	7	0	62	1	1	4	12	14	1	0
	2-axle	1	2			1							
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	5	12	3	1	54	0	0	2	13	26	0	1
	2-axle	2		2		1							
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	9	19	5	0	61	3	0	3	7	8	1	0
	2-axle					1		2		1			
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	14	36	10	1	46	2	1	6	9	11	3	0
	2-axle					1							
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	18	34	12	1	44	1	0	4	16	14	2	1
	2-axle	2	3	2		1					1		
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	22	49	16	0	57	4	0	5	24	17	1	0
	2-axle		1			1				1			
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	14	15	8	0	41	2	2	3	16	12	2	0
	2-axle	2	2			2							
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	108	192	63	3	419	13	4	31	114	128	14	2
2-axle	7	8	4	0	8	0	2	0	2	1	0	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	115	200	67	3	427	13	6	31	116	129	14	2
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 800 AM

PEAK

VOLUMES =	72	140	48	2	193	9	3	18	66	55	8	1
-----------	----	-----	----	---	-----	---	---	----	----	----	---	---

PEAK HR.

FACTOR:		0.739		0.823			0.725			0.889		
---------	--	-------	--	-------	--	--	-------	--	--	-------	--	--

CONTROL: 4-Way Stop

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-003Class

Location: Palm Ave & Belmont Ave

City: San Bernardino Date: 10/30/2008

Day: THURSDAY

LANES:		0	1	0	0	1	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	18	36	10	0	27	1	1	2	4	10	1	0
	2-axle	1		1									
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	11	47	15	1	30	1	2	0	6	13	1	1
	2-axle					1							
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	9	44	14	4	26	3	1	2	4	13	0	2
	2-axle		2										
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	13	43	20	1	34	0	0	3	7	7	3	2
	2-axle								1		1		
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	14	55	16	2	39	4	1	4	8	7	3	5
	2-axle					1							
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	16	59	22	3	42	3	2	3	6	5	4	3
	2-axle									1			
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	15	58	13	2	46	3	2	3	6	8	2	4
	2-axle	1	1										
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	11	48	9	1	43	1	0	1	3	6	1	2
	2-axle					1							
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	107	390	119	14	287	16	9	18	44	69	15	19
2-axle	2	3	1	0	3	0	0	1	1	1	0	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	109	393	120	14	290	16	9	19	45	70	15	19
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1645 PM

PEAK

VOLUMES =

59	216	71	8	162	10	5	14	28	28	12	14
----	-----	----	---	-----	----	---	----	----	----	----	----

PEAK HR.

FACTOR:

0.892	0.882	0.904	0.900
-------	-------	-------	-------

CONTROL: 4-Way Stop

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-004Class

Location: Palm Ave & Irvington Ave

City: San Bernardino Date: 10/30/2008

Day: THURSDAY

LANES:		0	2	0	0	2	0	0	1	0	0	1	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	4	23	5	7	97	3	0	2	11	15	3	1
	2-axle										1		
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	6	25	8	6	68	2	3	2	14	23	3	1
	2-axle		3			1							
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	9	22	12	8	93	4	1	3	21	28	2	1
	2-axle		3	1		1				1			
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	10	31	13	7	56	1	3	5	24	34	4	2
	2-axle		1			2							
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	7	59	11	4	64	1	2	1	15	30	2	3
	2-axle		2										
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	6	54	8	3	67	1	1	0	18	36	2	2
	2-axle		5			2							
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	9	64	10	6	89	0	3	5	20	23	5	4
	2-axle		2			2							
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	7	48	7	5	67	3	2	2	14	18	1	2
	2-axle		3	2		2							
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	58	326	74	46	601	15	15	20	137	207	22	16
2-axle	0	19	3	0	10	0	0	0	1	1	0	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	58	345	77	46	611	15	15	20	138	208	22	16
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 745 AM

PEAK

VOLUMES =

32	218	42	20	282	3	9	11	77	123	13	11
----	-----	----	----	-----	---	---	----	----	-----	----	----

PEAK HR.

FACTOR:

0.859	0.786	0.758	0.919
-------	-------	-------	-------

CONTROL: 4-Way stop

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3246-004Class

Location: Palm Ave & Irvington Ave

City: San Bernardino Date: 10/30/2008

Day: THURSDAY

LANES:		0	2	0	0	2	0	1	0	1			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	22	61	31	1	37	0	0	3	18	13	3	1
	2-axle		1										
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	26	71	37	3	41	1	1	4	22	21	5	2
	2-axle		1			1							
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	31	69	44	1	43	1	0	6	27	20	5	1
	2-axle		2										
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	32	75	46	2	48	2	1	8	31	27	4	3
	2-axle					1							
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	26	79	41	2	49	0	0	5	19	30	2	3
	2-axle					1							
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	24	94	44	1	44	1	0	1	17	17	1	2
	2-axle					1					1		
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	30	86	46	4	53	0	2	2	25	23	2	1
	2-axle		2										
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	32	68	34	0	57	0	1	1	16	21	2	2
	2-axle					1							
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	223	603	323	14	372	5	5	30	175	172	24	15
2-axle	0	6	0	0	5	0	0	0	0	1	0	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	223	609	323	14	377	5	5	30	175	173	24	15
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1645 PM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 4-Way stop

112	336	177	9	197	3	3	16	92	98	9	9
	0.953			0.917			0.694			0.829	

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-004Class

Location: Palm Ave & Kendall Dr

City: San Bernardino Date: 10/09/2008

Day: THURSDAY

LANES:		1	2	1	1	2	0	1	1	1	1	1	1
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	23	57	42	22	131	19	3	12	27	38	9	28
	2-axle		1		1	1					1	1	
	3-axle												
	4-axle												
	5-axle +		1										
7:15	CARS	34	83	53	34	147	27	6	17	32	44	17	44
	2-axle		1	1		1	1		1	1	2	2	
	3-axle												
	4-axle												
	5-axle +										1		
7:30	CARS	53	100	66	49	132	34	11	29	40	53	28	63
	2-axle		2	1	2			1		2	1	1	
	3-axle												
	4-axle												
	5-axle +		2								1		
7:45	CARS	48	99	58	44	105	31	17	24	38	49	22	59
	2-axle	1	3	3	1	1			1	2	2		1
	3-axle		1										
	4-axle												
	5-axle +		1										
8:00	CARS	37	72	49	37	100	28	15	21	34	46	18	55
	2-axle		2	1		1				1	1		
	3-axle										1		
	4-axle												
	5-axle +												
8:15	CARS	25	58	40	33	109	24	13	23	33	45	23	52
	2-axle	1	5	3	1	3		1		3		1	1
	3-axle						1				1		
	4-axle												
	5-axle +												
8:30	CARS	20	43	55	49	106	21	12	22	30	42	15	27
	2-axle		3	2		1			1	1	2		
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	15	50	56	26	88	14	6	16	22	42	11	16
	2-axle		3	3	7					1	2		1
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	255	562	419	294	918	198	83	164	256	359	143	344
2-axle	2	20	14	12	8	1	2	3	11	11	5	3
3-axle	0	1	0	0	0	1	0	0	0	2	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	4	0	0	0	0	0	0	0	2	0	0
TOTALS	257	587	433	306	926	200	85	167	267	374	148	347
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 715 AM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL:

Signalized

173	366	232	167	487	121	50	93	150	201	88	222
	0.860			0.893			0.883			0.869	

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-004Class

Location: Palm Ave & Kendall Dr

City: San Bernardino Date: 10/09/2008

Day: THURSDAY

LANES:		1	2	1	1	2	0	1	1	1	1	1	1
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	29	135	57	25	62	12	16	11	38	69	29	41
	2-axle		1	1							1		
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	35	130	59	33	63	17	14	16	43	80	35	48
	2-axle		2	1	1				1			2	
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	31	128	55	36	64	15	15	21	42	77	33	50
	2-axle		1			1			2			1	
	3-axle		1			1				1			
	4-axle												
	5-axle +												
16:45	CARS	34	121	63	31	42	22	11	15	46	107	26	44
	2-axle					1		1					
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	31	119	68	28	47	18	9	18	41	83	30	39
	2-axle		1	1			1						
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	30	117	71	26	44	16	12	13	37	77	25	34
	2-axle	1	2			1						1	
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	39	118	82	19	58	14	13	14	29	64	22	36
	2-axle		1							1			
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	32	154	67	27	84	7	11	14	44	105	33	44
	2-axle			1							1		
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	261	1022	522	225	464	121	101	122	320	662	233	336
2-axle	1	8	4	1	3	1	1	3	1	2	4	0
3-axle	0	1	0	0	1	0	0	0	1	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	262	1031	526	226	468	122	102	125	322	664	237	336
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1615 PM

PEAK

VOLUMES =

131	503	247	129	219	73	50	73	173	347	127	181
-----	-----	-----	-----	-----	----	----	----	-----	-----	-----	-----

PEAK HR.

FACTOR:

0.970	0.900	0.914	0.925
-------	-------	-------	-------

CONTROL: Signalized

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-005Class

Location: Palm Ave & SR-215 NB Ramps City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		0	2	0	0	2	0	0	0	0	0.5	0.5	1
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	9	62	0	0	147	52	0	0	0	29	0	55
	2-axle		1			1	1				1		
	3-axle												
	4-axle												
	5-axle +		1										
7:15	CARS	11	95	0	0	159	60	0	0	0	33	0	73
	2-axle	1	2			2	2				2		
	3-axle												
	4-axle												
	5-axle +					1							
7:30	CARS	16	139	0	0	147	76	0	0	0	25	0	84
	2-axle	4	2			2	1						1
	3-axle										1		
	4-axle												
	5-axle +	1	2			1							
7:45	CARS	12	129	0	0	126	68	0	0	0	22	1	81
	2-axle	2	2			4	1				3		5
	3-axle		1										
	4-axle												
	5-axle +	2											1
8:00	CARS	10	86	0	0	113	64	0	0	0	13	0	67
	2-axle	1	2			1	2						1
	3-axle					1							
	4-axle												
	5-axle +	1									2		
8:15	CARS	8	66	0	0	111	51	0	0	0	27	0	54
	2-axle	1	3			3	3				3		6
	3-axle						1						
	4-axle												
	5-axle +	1											
8:30	CARS	11	75	0	0	126	45	0	0	0	24	0	49
	2-axle	3	2			2	2				1		3
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	10	71	0	0	119	40	0	0	0	21	0	50
	2-axle	2	3			2	1				2		3
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	87	723	0	0	1048	456	0	0	0	194	1	513
2-axle	14	17	0	0	17	13	0	0	0	12	0	19
3-axle	0	1	0	0	1	1	0	0	0	1	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	5	3	0	0	2	0	0	0	0	2	0	1
TOTALS	106	744	0	0	1068	470	0	0	0	209	1	533
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 715 AM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 1-Way Stop WB

61	460	0	0	557	274	0	0	0	101	1	313
	0.794			0.915			0.000			0.918	

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-005Class

Location: Palm Ave & SR-215 NB Ramps City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		0	2	0	0	2	0	0	0	0	0.5	0.5	1
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	20	96	0	0	99	72	0	0	0	9	0	127
	2-axle		1			1					2		1
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	26	103	0	0	106	81	0	0	0	12	0	124
	2-axle	2	1								3		2
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	23	97	0	0	102	78	0	0	0	9	0	120
	2-axle					1					4		1
	3-axle	1	1			2					1		
	4-axle												
	5-axle +												
16:45	CARS	22	92	0	0	123	70	0	0	0	7	0	116
	2-axle	1				1							
	3-axle										1		
	4-axle												
	5-axle +												
17:00	CARS	15	97	0	0	99	69	0	0	0	10	1	125
	2-axle		1								1		1
	3-axle												
	4-axle										1		
	5-axle +										2		
17:15	CARS	13	94	0	0	82	73	0	0	0	6	0	124
	2-axle	1	1			1							2
	3-axle												
	4-axle										1		
	5-axle +												
17:30	CARS	14	95	0	0	81	70	0	0	0	7	0	148
	2-axle	1					1				2		1
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	15	88	0	0	134	99	0	0	0	5	0	159
	2-axle					1					1		1
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	148	762	0	0	826	612	0	0	0	65	1	1043
2-axle	5	4	0	0	5	1	0	0	0	13	0	9
3-axle	1	1	0	0	2	0	0	0	0	2	0	0
4-axle	0	0	0	0	0	0	0	0	0	2	0	0
5-axle +	0	0	0	0	0	0	0	0	0	2	0	0
TOTALS	154	767	0	0	833	613	0	0	0	84	1	1052
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1600 PM

PEAK

VOLUMES =

95	391	0	0	435	301	0	0	0	48	0	491
----	-----	---	---	-----	-----	---	---	---	----	---	-----

PEAK HR.

FACTOR:

0.920	0.948	0.000	0.956
-------	-------	-------	-------

CONTROL: 1-Way Stop WB

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-006Class

Location: Palm Ave & SR-215 SB Ramps City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		1	1	0	1	2	0	0	1	1	0	1	1
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	1	7	9	134	33	13	3	13	5	8	1	54
	2-axle		1	1	1	1							
	3-axle												
	4-axle												
	5-axle +		1										
7:15	CARS	2	26	4	143	37	10	5	14	9	15	2	64
	2-axle		2		2	2			2		1		1
	3-axle												
	4-axle												
	5-axle +			1		1							
7:30	CARS	2	13	2	124	40	5	4	10	6	12	0	141
	2-axle		4		2		1	1	1	2	1		1
	3-axle				1								
	4-axle												
	5-axle +		1	2		1			1		2		2
7:45	CARS	7	20	4	101	36	8	3	16	9	20	2	137
	2-axle		2	1	2	4	1	1	1				1
	3-axle		1										
	4-axle												
	5-axle +		1	1									1
8:00	CARS	6	15	7	94	32	7	5	12	8	17	1	90
	2-axle		2	1		1				1	2		1
	3-axle					1				1			
	4-axle												
	5-axle +		1		1	1							
8:15	CARS	4	11	5	104	29	4	6	7	5	13	2	68
	2-axle		2	1	2	3	1	1	2		1	1	1
	3-axle												
	4-axle												
	5-axle +		1	1									
8:30	CARS	4	13	5	111	27	5	3	6	5	9	4	65
	2-axle	1	2	2	1	2			1	1			3
	3-axle												
	4-axle												
	5-axle +									1			
8:45	CARS	3	10	3	112	23	5	2	3	3	6	3	63
	2-axle		2	1	1	2	1	1			1		2
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	29	115	39	923	257	57	31	81	50	100	15	682
2-axle	1	17	7	11	15	4	4	7	4	6	1	10
3-axle	0	1	0	1	1	0	0	0	1	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	5	5	1	3	0	0	1	1	2	0	3
TOTALS	30	138	51	936	276	61	35	89	56	108	16	695
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

AM Peak Hr Begins at: 715 AM

PEAK

VOLUMES =

17	88	23	470	156	32	19	57	36	70	5	439
----	----	----	-----	-----	----	----	----	----	----	---	-----

PEAK HR.

FACTOR:

0.865	0.844	0.933	0.798
-------	-------	-------	-------

CONTROL: 4-Way Stop

NATIONAL DATA AND SURVEYING SERVICES*Axle Count*

Project # 08-3232-006Class

Location: Palm Ave & SR-215 SB Ramps City: San Bernardino Date: 10/09/2008 Day: THURSDAY

LANES:		1	1	0	1	2	0	0	1	1	0	1	1
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	5	48	22	80	29	4	14	8	3	2	0	52
	2-axle			1		3		1			1		
	3-axle			1					2				
	4-axle												
	5-axle +										1		
16:15	CARS	4	74	51	80	30	5	3	5	0	6	2	58
	2-axle		3	1	1	1	1		1		1		
	3-axle	1											
	4-axle												
	5-axle +												
16:30	CARS	5	62	33	68	31	10	8	5	4	5	0	47
	2-axle			1	1	2	2		1		1		
	3-axle	1	2		1	2				1			
	4-axle												
	5-axle +			3									
16:45	CARS	7	48	35	76	37	13	10	6	5	7	1	54
	2-axle		1	1		1		1	2			1	
	3-axle				1								
	4-axle												
	5-axle +												
17:00	CARS	6	43	42	70	32	8	9	5	3	4	1	55
	2-axle		1			1				1	2		
	3-axle												
	4-axle					1							
	5-axle +					2							
17:15	CARS	3	39	37	64	24	4	7	6	2	4	2	60
	2-axle	1	1	1		1			1	2		1	1
	3-axle			2						1			
	4-axle					1							
	5-axle +												
17:30	CARS	4	35	33	74	15	5	6	4	3	5	3	70
	2-axle		1	1	1	1			3		1		
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	3	32	28	90	35	11	3	2	3	3	1	73
	2-axle				1	1			1	1			
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	37	381	281	602	233	60	60	41	23	36	10	469
2-axle	1	7	6	4	11	3	2	9	4	6	2	1
3-axle	2	2	3	2	2	0	0	2	2	0	0	0
4-axle	0	0	0	0	2	0	0	0	0	0	0	0
5-axle +	0	0	3	0	2	0	0	0	0	1	0	0
TOTALS	40	390	293	608	250	63	62	52	29	43	12	470
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR

PM Peak Hr Begins at: 1615 PM

PEAK

VOLUMES =

PEAK HR.

FACTOR:

CONTROL: 4-Way Stop

24	234	167	298	140	39	31	25	14	26	5	214
	0.793		0.932			0.729			0.914		

APPENDIX C

Future Growth Increment Calculation Worksheets

INTERSECTION	LEG	MODEL 2000 ADT	EXISTING 2011 ADT	MODEL 2030 ADT	FUTURE 2035 ADT ¹	OPENING 2013 ADT
Little League Drive (NS) / Meyers Road (EW)	North	-	100	-	100	100
	South	419	1,200	663	1,400	1,200
	East	-	1,000	-	1,100	1,000
	West	419	200	663	400	200
Little League Drive (NS) / Belmont Avenue (EW)	North	419	1,200	663	1,400	1,200
	South	1,321	1,200	1,173	1,300	1,200
	East	1,241	700	1,028	800	700
	West	-	100	-	100	100
Little League Drive (NS) / Frontage Road (EW)	North	1,321	1,200	1,173	1,300	1,200
	South	1,610	900	1,718	1,000	900
	East	245	700	466	900	700
	West	383	100	868	500	100
Little League Drive (NS) / Kendall Drive (EW)	North	1,610	900	1,718	1,000	900
	South	-	-	-	-	-
	East	2,130	2,600	1,320	2,900	2,600
	West	3,108	2,500	2,376	2,800	2,500
Magnolia Avenue (NS) / Belmont Avenue (EW)	North	1,011	500	1,073	600	500
	South	-	200	-	200	200
	East	1,359	1,500	1,224	1,700	1,500
	West	1,331	700	1,168	800	700
Palm Avenue (NS) / Belmont Avenue (EW)	North	1,162	4,800	2,148	5,600	4,900
	South	2,096	6,500	4,393	8,300	6,700
	East	783	1,700	1,659	2,400	1,800
	West	1,184	1,500	1,198	1,700	1,500
Palm Avenue (NS) / Irvington Avenue (EW)	North	2,854	6,500	5,558	8,700	6,700
	South	3,285	13,300	6,505	15,900	13,500
	East	524	3,700	1,050	4,100	3,700
	West	-	2,700	-	3,000	2,700
Palm Avenue (NS) / Kendall Drive (EW)	North	3,285	13,300	6,505	15,900	13,500
	South	5,804	18,600	15,649	26,500	19,300
	East	3,907	12,700	11,767	19,000	13,200
	West	433	7,200	658	7,900	7,300
Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)	North	5,804	18,600	15,649	26,500	19,300
	South	3,765	11,100	10,922	16,800	11,600
	East	1,235	6,200	4,176	8,600	6,400
	West	1,658	4,600	2,860	5,600	4,700
Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)	North	3,765	11,100	10,922	16,800	11,600
	South	2,928	7,000	3,774	7,700	7,100
	East	3,273	8,500	9,478	13,500	8,900
	West	-	1,600	1,320	2,700	1,700

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

LITTLE LEAGUE DRIVE (NS) / MEYERS ROAD (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
	1	2	1			0	1	1	
0 ^	<	v	>	2	0 ^	<	v	>	2
3 >				5	1 >				2
26 v				71	10 v				25
	16	4	83			8	2	54	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
		4	6				2	4	
22 <	IN =	214 <	78		10 <	IN =	106 <	29	
29 >	OUT =	214 >	87		11 >	OUT =	106 >	56	
		99	103				36	64	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
	0	0	0			0	0	0	
0 ^	<	v	>	0	0 ^	<	v	>	0
2 >				0	0 >				0
2 v				3	0 v				7
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5 3: 2.0 4+: 3.0		2	0	2	2: 1.5 3: 2 4+: 3.0		0	0	4
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
	1	2	1			0	1	1	
0 ^	<	v	>	2	0 ^	<	v	>	2
5 >				5	1 >				2
28 v				74	10 v				32
	18	4	85			8	2	58	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
		0	0				0	0	
16 <	IN =	71 <	0		80 <	IN =	127 <	0	
55 >	OUT =	71 >	0		47 >	OUT =	127 >	0	
		55	16				47	80	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
	0	0	0			0	0	0	
0 <	IN =	0 <	0		0 <	IN =	0 <	0	
0 >	OUT =	0 >	0		0 >	OUT =	0 >	0	
		0	0				0	0	
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.393					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		0	0				0	0	
6 <	IN =	27 <	0		22 <	IN =	36 <	0	
21 >	OUT =	27 >	0		13 >	OUT =	36 >	0	
		21	6				13	22	
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
		0	0				0	0	
17 <	IN =	107 <	0		144 <	IN =	225 <	0	
90 >	OUT =	107 >	0		81 >	OUT =	225 >	0	
		90	17				81	144	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
	0	0	0			0	0	0	
3 <	IN =	10 <	0		10 <	IN =	23 <	0	
7 >	OUT =	10 >	0		13 >	OUT =	23 >	0	
		7	3				13	10	
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		0	0				0	0	
7 <	IN =	44 <	0		43 <	IN =	69 <	0	
37 >	OUT =	44 >	0		26 >	OUT =	69 >	0	
		37	7				26	43	
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
		0	0				0	0	
2 <				0	22 <				0
17 >				0	14 >				0
		17	2				14	22	
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030				
		0	0				0	0	
0 <	IN =	30 <	10		20 <	IN =	30 <	0	
20 >	OUT =	30 >	10		10 >	OUT =	40 >	10	
		20	0				10	20	
FUTURE YEAR GROWTH: 2 YEARS 2011 TO 2013					FUTURE YEAR GROWTH: 2 YEARS 2011 TO 2013				
		0	0				0	0	
0 <				0	0 <				0
0 >				0	0 >				0
		0	0				0	0	
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
		0	10				0	0	
20 <	IN =	220 <	80		10 <	IN =	120 <	40	
30 >	OUT =	220 >	90		10 >	OUT =	110 >	60	
		100	110				40	70	
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
		0	10				0	0	
20 <	IN =	220 <	80		10 <	IN =	120 <	40	
30 >	OUT =	220 >	90		10 >	OUT =	120 >	70	
		100	110				40	70	

LITTLE LEAGUE DRIVE (NS) / MEYERS ROAD (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2013) 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	18	SOUTH LEG		NORTH BOUND	LEFT	8	SOUTH LEG		
	THRU	4		110		THRU	2		IN ...	70
	RIGHT	85		100		RIGHT	58		OUT ...	40
SOUTH BOUND	LEFT	1	NORTH LEG		SOUTH BOUND	LEFT	1	NORTH LEG		
	THRU	2		0		THRU	1		IN ...	0
	RIGHT	1		10		RIGHT	0		OUT ...	0
EAST BOUND	LEFT	0	WEST LEG		EAST BOUND	LEFT	0	WEST LEG		
	THRU	5		30		THRU	1		IN ...	10
	RIGHT	28		20		RIGHT	10		OUT ...	10
WEST BOUND	LEFT	74	EAST LEG		WEST BOUND	LEFT	32	EAST LEG		
	THRU	5		80		THRU	2		IN ...	40
	RIGHT	2		90		RIGHT	2		OUT ...	70

OPENING YEAR (2013) 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	18	19	NORTH LEG	NORTH BOUND	LEFT	8	9	NORTH LEG	
	THRU	4	7	RATIO 17.0%		THRU	2	3	RATIO 10.0%	
	RIGHT	85	86	ADT 100		RIGHT	58	67	ADT 100	
SOUTH BOUND	LEFT	1	2	SOUTH LEG	SOUTH BOUND	LEFT	1	2	SOUTH LEG	
	THRU	2	3	RATIO 18.4%		THRU	1	2	RATIO 10.5%	
	RIGHT	1	2	ADT 1,200		RIGHT	0	0	ADT 1,200	
EAST BOUND	LEFT	0	0	EAST LEG	EAST BOUND	LEFT	0	0	EAST LEG	
	THRU	5	6	RATIO 18.0%		THRU	1	3	RATIO 11.3%	
	RIGHT	28	29	ADT 1,000		RIGHT	10	11	ADT 1,000	
WEST BOUND	LEFT	74	77	WEST LEG	WEST BOUND	LEFT	32	33	WEST LEG	
	THRU	5	6	RATIO 31.0%		THRU	2	5	RATIO 13.5%	
	RIGHT	2	3	ADT 200		RIGHT	2	3	ADT 200	

LITTLE LEAGUE DRIVE (NS) / MEYERS ROAD (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		1	2	1		0	1	1	
0 ^	<	v	>		0 ^	<	v	>	
3 >				<	1 >				<
26 v				v	10 v				v
		16	4	83			8	2	54
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			4	6			2	4	
22 <	IN =	214 <			10 <	IN =	106 <		29
29 >	OUT =	214 >			11 >	OUT =	106 >		56
			99	103			36	64	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	0	0			0	0	0
0 ^	<	v	>		0 ^	<	v	>	
2 >				<	0 >				<
2 v				v	0 v				v
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0				
		2	0	2			0	0	4
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		1	2	1			0	1	1
0 ^	<	v	>		0 ^	<	v	>	
5 >				<	1 >				<
28 v				v	10 v				v
		18	4	85			8	2	58
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			0	0			0	0	
16 <	IN =	71 <			80 <	IN =	127 <		0
55 >	OUT =	71 >			47 >	OUT =	127 >		0
			55	16			47	80	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		0	0	0			0	0	0
0 <	IN =	0 <			0 <	IN =	0 <		0
0 >	OUT =	0 >			0 >	OUT =	0 >		0
			0	0			0	0	
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			0	0			0	0	
6 <	IN =	27 <			22 <	IN =	36 <		0
21 >	OUT =	27 >			13 >	OUT =	36 >		0
			21	6			13	22	
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			0	0			0	0	
17 <	IN =	107 <			144 <	IN =	225 <		0
90 >	OUT =	107 >			81 >	OUT =	225 >		0
			90	17			81	144	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
			0	0			0	0	
3 <	IN =	10 <			10 <	IN =	23 <		0
7 >	OUT =	10 >			13 >	OUT =	23 >		0
			7	3			13	10	
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			0	0			0	0	
7 <	IN =	44 <			43 <	IN =	69 <		0
37 >	OUT =	44 >			26 >	OUT =	69 >		0
			37	7			26	43	
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			0	0			0	0	
2 <				<	22 <			<	0
17 >				>	14 >			>	0
			17	2			14	22	
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
			0	0			0	0	
0 <	IN =	30 <			20 <	IN =	30 <		0
20 >	OUT =	30 >			10 >	OUT =	40 >		10
			20	0			10	20	
FUTURE YEAR GROWTH: 24 YEARS					FUTURE YEAR GROWTH: 24 YEARS				
			0	0			0	0	
0 <				<	20 <			<	0
20 >				>	10 >			>	10
			20	0			10	20	
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
			0	10			0	0	
20 <	IN =	250 <			30 <	IN =	150 <		40
50 >	OUT =	250 >			20 >	OUT =	150 >		70
			120	110			50	90	
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
			0	10			0	0	
20 <	IN =	250 <			30 <	IN =	150 <		40
50 >	OUT =	250 >			20 >	OUT =	150 >		70
			120	110			50	90	

LITTLE LEAGUE DRIVE (NS) / MEYERS ROAD (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	18	SOUTH LEG		NORTH BOUND	LEFT	8	SOUTH LEG	
	THRU	4		110		THRU	2		90
	RIGHT	85		120		RIGHT	58		50
SOUTH BOUND	LEFT	1	NORTH LEG		SOUTH BOUND	LEFT	1	NORTH LEG	
	THRU	2		0		THRU	1		0
	RIGHT	1		10		RIGHT	0		0
EAST BOUND	LEFT	0	WEST LEG		EAST BOUND	LEFT	0	WEST LEG	
	THRU	5		50		THRU	1		20
	RIGHT	28		20		RIGHT	10		30
WEST BOUND	LEFT	74	EAST LEG		WEST BOUND	LEFT	32	EAST LEG	
	THRU	5		90		THRU	2		40
	RIGHT	2		100		RIGHT	2		70

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	18	15	NORTH LEG	NORTH BOUND	LEFT	8	23	NORTH LEG
	THRU	4	6	RATIO 10.0%		THRU	2	0	RATIO 0.0%
	RIGHT	85	90	ADT 100		RIGHT	58	68	ADT 100
SOUTH BOUND	LEFT	1	0	SOUTH LEG	SOUTH BOUND	LEFT	1	0	SOUTH LEG
	THRU	2	0	RATIO 16.5%		THRU	1	0	RATIO 10.1%
	RIGHT	1	0	ADT 1,400		RIGHT	0	0	ADT 1,400
EAST BOUND	LEFT	0	0	EAST LEG	EAST BOUND	LEFT	0	0	EAST LEG
	THRU	5	10	RATIO 17.2%		THRU	1	2	RATIO 9.9%
	RIGHT	28	40	ADT 1,100		RIGHT	10	17	ADT 1,100
WEST BOUND	LEFT	74	80	WEST LEG	WEST BOUND	LEFT	32	33	WEST LEG
	THRU	5	5	RATIO 17.4%		THRU	2	7	RATIO 12.4%
	RIGHT	2	4	ADT 400		RIGHT	2	0	ADT 400

LITTLE LEAGUE DRIVE (NS) / BELMONT AVENUE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		2	86	19			1	28	3
	3 ^	<	v	>		0 ^	<	v	>
	3 >			40		0 >			28
	7 v			7		2 v			11
			2	65				1	38
				16					14
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			107	108				32	66
	7 <	IN =	253 <	50		2 <	IN =	126 <	39
	13 >	OUT =	253 >	38		2 >	OUT =	126 >	17
			100	83				41	53
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	8	5			0	6	2
	0 ^	<	v	>		0 ^	<	v	>
	2 >			5		0 >			0
	0 v			0		0 v			0
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5	3: 2.0	4+: 3.0	0	15	2: 1.5	3: 2	4+: 3.0	0	7
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		2	94	24			1	34	5
	3 ^	<	v	>		0 ^	<	v	>
	5 >			45		0 >			28
	7 v			7		2 v			11
			2	80				1	45
				21					19
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			55	16				47	80
	0 <	IN =	221 <	133		0 <	IN =	521 <	132
	0 >	OUT =	221 >	36		0 >	OUT =	522 >	318
			169	33				124	342
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 1994				
		0	0				0	0	
	0 <	IN =	17 <	12		0 <	IN =	27 <	9
	0 >	OUT =	17 >	5		0 >	OUT =	27 >	18
			12	5				9	18
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			21	6				13	22
	0 <	IN =	90 <	55		0 <	IN =	153 <	39
	0 >	OUT =	90 >	15		0 >	OUT =	153 >	94
			68	14				37	100
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			90	17				81	144
	0 <	IN =	244 <	124		0 <	IN =	485 <	195
	0 >	OUT =	244 >	39		0 >	OUT =	485 >	160
			188	30				181	209
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		7	3				13	10	
	0 <	IN =	28 <	13		0 <	IN =	59 <	23
	0 >	OUT =	31 >	15		0 >	OUT =	56 >	20
			13	8				26	23
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			37	7				26	43
	0 <	IN =	102 <	51		0 <	IN =	151 <	60
	0 >	OUT =	103 >	20		0 >	OUT =	150 >	50
			76	14				57	64
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			17	2				14	22
	0 <			-3		0 <			23
	0 >			6		0 >			-43
			8	0				22	-35
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
			20	10				10	20
	0 <	IN =	30 <	10		0 <	IN =	30 <	20
	0 >	OUT =	30 >	10		0 >	OUT =	40 >	0
			10	0				20	0
FUTURE YEAR GROWTH: 2 YEARS					FUTURE YEAR GROWTH: 2 YEARS				
			0	0				0	0
	0 <			0		0 <			0
	0 >			0		0 >			0
			0	0				0	0
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
			120	130				40	70
	10 <	IN =	300 <	60		0 <	IN =	150 <	40
	20 >	OUT =	300 >	50		0 >	OUT =	140 >	20
			110	100				50	70
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
			120	130				40	80
	10 <	IN =	300 <	60		0 <	IN =	150 <	40
	20 >	OUT =	300 >	50		0 >	OUT =	150 >	20
			110	100				50	70

LITTLE LEAGUE DRIVE (NS) / BELMONT AVENUE (EW)
FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES
NCHRP 255

OPENING YEAR (2013) 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	2	SOUTH LEG		NORTH BOUND	LEFT	1	SOUTH LEG	
	THRU	80		100		THRU	45		70
	RIGHT	21		110		RIGHT	19		50
SOUTH BOUND	LEFT	24	NORTH LEG		SOUTH BOUND	LEFT	5	NORTH LEG	
	THRU	94		120		THRU	34		40
	RIGHT	2		130		RIGHT	1		80
EAST BOUND	LEFT	3	WEST LEG		EAST BOUND	LEFT	0	WEST LEG	
	THRU	5		20		THRU	0		0
	RIGHT	7		10		RIGHT	2		0
WEST BOUND	LEFT	7	EAST LEG		WEST BOUND	LEFT	11	EAST LEG	
	THRU	6		60		THRU	0		40
	RIGHT	45		50		RIGHT	28		20

OPENING YEAR (2013) 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	2	3	NORTH LEG RATIO 21.5% ADT 1,200	NORTH BOUND	LEFT	1	2	NORTH LEG RATIO 10.6% ADT 1,200
	THRU	80	83			THRU	45	53	
	RIGHT	21	22			RIGHT	19	20	
SOUTH BOUND	LEFT	24	25	SOUTH LEG RATIO 18.5% ADT 1,200	SOUTH BOUND	LEFT	5	6	SOUTH LEG RATIO 10.7% ADT 1,200
	THRU	94	97			THRU	34	37	
	RIGHT	2	2			RIGHT	1	2	
EAST BOUND	LEFT	3	4	EAST LEG RATIO 16.4% ADT 700	EAST BOUND	LEFT	0	0	EAST LEG RATIO 9.7% ADT 700
	THRU	5	7			THRU	0	0	
	RIGHT	7	9			RIGHT	2	3	
WEST BOUND	LEFT	7	8	WEST LEG RATIO 31.1% ADT 100	WEST BOUND	LEFT	11	13	WEST LEG RATIO 7.0% ADT 100
	THRU	6	6			THRU	0	0	
	RIGHT	45	47			RIGHT	28	29	

LITTLE LEAGUE DRIVE (NS) / BELMONT AVENUE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
	2	86	19			1	28	3	
3 ^	<	v	>	40	0 ^	<	v	>	28
3 >				3	0 >				0
7 v	<		v	7	2 v	<		v	11
	2	65	16			1	38	14	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
		107	108				32	66	
7 <	IN =	253	<	50	2 <	IN =	126	<	39
13 >	OUT =	253	>	38	2 >	OUT =	126	>	17
		100	83				41	53	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
	0	8	5			0	6	2	
0 ^	<	v	>	5	0 ^	<	v	>	0
2 >				3	0 >				0
0 v	<		v	0	0 v	<		v	0
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0				
	0	15	5			0	7	5	
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
	2	94	24			1	34	5	
3 ^	<	v	>	45	0 ^	<	v	>	28
5 >				6	0 >				0
7 v	<		v	7	2 v	<		v	11
	2	80	21			1	45	19	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
		55	16				47	80	
0 <	IN =	221	<	133	0 <	IN =	521	<	132
0 >	OUT =	221	>	36	0 >	OUT =	522	>	318
		169	33				124	342	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 1994				
	0	0				0	0		
0 <	IN =	17	<	12	0 <	IN =	27	<	9
0 >	OUT =	17	>	5	0 >	OUT =	27	>	18
		12	5				9	18	
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		21	6				13	22	
0 <	IN =	90	<	55	0 <	IN =	153	<	39
0 >	OUT =	90	>	15	0 >	OUT =	153	>	94
		68	14				37	100	
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
		90	17				81	144	
0 <	IN =	244	<	124	0 <	IN =	485	<	195
0 >	OUT =	244	>	39	0 >	OUT =	485	>	160
		188	30				181	209	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
	7	3				13	10		
0 <	IN =	28	<	13	0 <	IN =	59	<	23
0 >	OUT =	31	>	15	0 >	OUT =	56	>	20
		13	8				26	23	
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		37	7				26	43	
0 <	IN =	102	<	51	0 <	IN =	151	<	60
0 >	OUT =	103	>	20	0 >	OUT =	150	>	50
		76	14				57	64	
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
		17	2				14	22	
0 <			<	-3	0 <			<	23
0 >			>	6	0 >			>	-43
		8	0				22	-35	
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
		20	10				10	20	
0 <	IN =	30	<	10	0 <	IN =	30	<	20
0 >	OUT =	30	>	10	0 >	OUT =	40	>	0
		10	0				20	0	
FUTURE YEAR GROWTH: 24 YEARS					FUTURE YEAR GROWTH: 24 YEARS				
		20	10				10	20	
0 <			<	10	0 <			<	20
0 >			>	10	0 >			>	0
		10	0				20	0	
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
		140	140				50	90	
10 <	IN =	330	<	70	0 <	IN =	180	<	60
20 >	OUT =	330	>	60	0 >	OUT =	180	>	20
		120	100				70	70	
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
		140	140				50	90	
10 <	IN =	330	<	70	0 <	IN =	180	<	60
20 >	OUT =	330	>	60	0 >	OUT =	180	>	20
		120	100				70	70	

LITTLE LEAGUE DRIVE (NS) / BELMONT 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	2	SOUTH LEG		NORTH BOUND	LEFT	1	SOUTH LEG	
	THRU	80		100		THRU	45		70
	RIGHT	21		120		RIGHT	19		70
SOUTH BOUND	LEFT	24	NORTH LEG		SOUTH BOUND	LEFT	5	NORTH LEG	
	THRU	94		140		THRU	34		50
	RIGHT	2		140		RIGHT	1		90
EAST BOUND	LEFT	3	WEST LEG		EAST BOUND	LEFT	0	WEST LEG	
	THRU	5		20		THRU	0		0
	RIGHT	7		10		RIGHT	2		0
WEST BOUND	LEFT	7	EAST LEG		WEST BOUND	LEFT	11	EAST LEG	
	THRU	6		70		THRU	0		60
	RIGHT	45		60		RIGHT	28		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	2	2	NORTH LEG RATIO 20.0% ADT 1,400	NORTH BOUND	LEFT	1	0	NORTH LEG RATIO 10.0% ADT 1,400
	THRU	80	79			THRU	45	53	
	RIGHT	21	20			RIGHT	19	17	
SOUTH BOUND	LEFT	24	33	SOUTH LEG RATIO 16.9% ADT 1,300	SOUTH BOUND	LEFT	5	3	SOUTH LEG RATIO 10.8% ADT 1,300
	THRU	94	105			THRU	34	47	
	RIGHT	2	2			RIGHT	1	0	
EAST BOUND	LEFT	3	4	EAST LEG RATIO 16.3% ADT 800	EAST BOUND	LEFT	0	0	EAST LEG RATIO 10.0% ADT 800
	THRU	5	7			THRU	0	0	
	RIGHT	7	8			RIGHT	2	0	
WEST BOUND	LEFT	7	7	WEST LEG RATIO 30.0% ADT 100	WEST BOUND	LEFT	11	23	WEST LEG RATIO 0.0% ADT 100
	THRU	6	6			THRU	0	0	
	RIGHT	45	57			RIGHT	28	37	

LITTLE LEAGUE DRIVE (NS) / FRONTAGE ROAD (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		4	74	20		0	24	12	
	5 ^		V	^	39	0 ^	V	^	26
	3 >			<	0	2 >		<	2
	0 V			V	4	6 V		V	8
		3	41	5		0	31	3	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			98	85			36	57	
	7 <	IN =	198 <	43		2 <	IN =	114 <	36
	8 >	OUT =	198 >	28		8 >	OUT =	114 >	17
			78	49				38	34
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	6	2			0	5	0
	0 ^		V	^	2	0 ^		V	^
	2 >			<	2	2 >		<	2
	0 V			V	0	2 V		V	0
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5	3: 2.0	4+: 3.0	0	18	0	2: 1.5	3: 2	4+: 3.0	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		4	80	22			0	29	12
	5 ^		V	^	41	0 ^		V	^
	5 >			<	2	4 >		<	4
	0 V			V	4	8 V		V	8
		3	59	5			0	36	3
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
		169	33				124	342	
	18 <	IN =	280 <	13		86 <	IN =	613 <	54
	51 >	OUT =	280 >	15		49 >	OUT =	612 >	25
			214	47				159	386
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		12	5				9	18	
	0 <	IN =	17 <	0		0 <	IN =	27 <	0
	0 >	OUT =	17 >	0		0 >	OUT =	27 >	0
			12	5				9	18
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		68	14				37	100	
	7 <	IN =	112 <	5		24 <	IN =	178 <	15
	19 >	OUT =	112 >	6		14 >	OUT =	178 >	7
			85	20				47	113
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
		188	30				181	209	
	95 <	IN =	408 <	66		138 <	IN =	703 <	91
	88 >	OUT =	408 >	22		154 >	OUT =	704 >	55
			261	66				302	277
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		13	8				26	23	
	2 <	IN =	40 <	5		3 <	IN =	171 <	113
	4 >	OUT =	38 >	12		8 >	OUT =	170 >	0
			16	18				144	24
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		76	14				57	64	
	37 <	IN =	168 <	27		39 <	IN =	240 <	54
	35 >	OUT =	168 >	12		45 >	OUT =	240 >	15
			105	31				121	84
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
		8	0				22	-35	
	30 <		<	23		16 <		<	53
	16 >		>	9		32 >		>	8
			20	14				91	-28
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
		10	10				20	10	
	30 <	IN =	60 <	20		20 <	IN =	100 <	50
	20 >	OUT =	70 >	10		30 >	OUT =	130 >	10
			20	10				90	0
FUTURE YEAR GROWTH: 2 YEARS					FUTURE YEAR GROWTH: 2 YEARS				
		0	0				0	0	
	0 <		<	0		0 <		<	0
	0 >		>	0		0 >		>	0
			0	0				10	0
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
		110	110				40	70	
	10 <	IN =	240 <	50		0 <	IN =	140 <	50
	10 >	OUT =	230 >	30		10 >	OUT =	150 >	20
			80	70				60	40
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
		110	110				40	70	
	10 <	IN =	240 <	50		0 <	IN =	140 <	50
	10 >	OUT =	230 >	30		10 >	OUT =	150 >	20
			80	70				60	40

LITTLE LEAGUE DRIVE (NS) / FRONTAGE ROAD (EW)
FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES
NCHRP 255

OPENING YEAR (2013) 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	3	SOUTH LEG		NORTH BOUND	LEFT	0	SOUTH LEG	
	THRU	59		70		THRU	36		40
	RIGHT	5		80		RIGHT	3		60
SOUTH BOUND	LEFT	22	NORTH LEG		SOUTH BOUND	LEFT	12	NORTH LEG	
	THRU	80		110		THRU	29		40
	RIGHT	4		110		RIGHT	0		70
EAST BOUND	LEFT	5	WEST LEG		EAST BOUND	LEFT	0	WEST LEG	
	THRU	5		10		THRU	4		10
	RIGHT	0		10		RIGHT	8		0
WEST BOUND	LEFT	4	EAST LEG		WEST BOUND	LEFT	8	EAST LEG	
	THRU	2		50		THRU	4		50
	RIGHT	41		30		RIGHT	33		20

OPENING YEAR (2013) 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	3	4	NORTH LEG RATIO 18.4% ADT 1,200	NORTH BOUND	LEFT	0	0	NORTH LEG RATIO 9.6% ADT 1,200
	THRU	59	61			THRU	36	37	
	RIGHT	5	6			RIGHT	3	6	
SOUTH BOUND	LEFT	22	22	SOUTH LEG RATIO 17.7% ADT 900	SOUTH BOUND	LEFT	12	13	SOUTH LEG RATIO 11.6% ADT 900
	THRU	80	83			THRU	29	32	
	RIGHT	4	5			RIGHT	0	0	
EAST BOUND	LEFT	5	6	EAST LEG RATIO 12.2% ADT 700	EAST BOUND	LEFT	0	0	EAST LEG RATIO 11.8% ADT 700
	THRU	5	6			THRU	4	5	
	RIGHT	0	0			RIGHT	8	9	
WEST BOUND	LEFT	4	5	WEST LEG RATIO 23.7% ADT 100	WEST BOUND	LEFT	8	20	WEST LEG RATIO 19.0% ADT 100
	THRU	2	3			THRU	4	5	
	RIGHT	41	43			RIGHT	33	33	

LITTLE LEAGUE DRIVE (NS) / FRONTAGE ROAD (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
4 74 20 5 3 0 < > < v > v < > < 3 41 5					0 24 12 0 2 6 < > < v > v < > < 0 31 3				
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
98 85 7 8 < > IN OUT = = 198 198 < > 43 28					36 57 2 8 < > IN OUT = = 114 114 < > 36 17				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
0 6 2 0 2 0 < > < v > v < > <					0 5 0 0 2 2 < > < v > v < > <				
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0				
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
4 80 22 5 5 0 < > < v > v < > < 3 59 5					0 29 12 0 4 8 < > < v > v < > < 0 36 3				
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
169 33 18 51 < > IN OUT = = 280 280 < > 13 15					124 342 86 49 < > IN OUT = = 613 612 < > 54 25				
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
12 5 0 0 < > IN OUT = = 17 17 < > 0 0					9 18 0 0 < > IN OUT = = 27 27 < > 0 0				
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
68 14 7 19 < > IN OUT = = 112 112 < > 5 6					37 100 24 14 < > IN OUT = = 178 178 < > 15 7				
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
188 30 95 88 < > IN OUT = = 408 408 < > 66 22					181 209 138 154 < > IN OUT = = 703 704 < > 91 55				
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
13 8 2 4 < > IN OUT = = 40 38 < > 5 12					26 23 3 8 < > IN OUT = = 171 170 < > 113 0				

LITTLE LEAGUE DRIVE (NS) / FRONTAGE ROAD (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	3	SOUTH LEG		NORTH BOUND	LEFT	0	SOUTH LEG	
	THRU	59		80		THRU	36		50
	RIGHT	5		100		RIGHT	3		120
SOUTH BOUND	LEFT	22	NORTH LEG		SOUTH BOUND	LEFT	12	NORTH LEG	
	THRU	80		120		THRU	29		70
	RIGHT	4		120		RIGHT	0		80
EAST BOUND	LEFT	5	WEST LEG		EAST BOUND	LEFT	0	WEST LEG	
	THRU	5		30		THRU	4		30
	RIGHT	0		30		RIGHT	8		20
WEST BOUND	LEFT	4	EAST LEG		WEST BOUND	LEFT	8	EAST LEG	
	THRU	2		70		THRU	4		100
	RIGHT	41		40		RIGHT	33		30

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	3	12	NORTH LEG RATIO 18.2% ADT 1,300	NORTH BOUND	LEFT	0	0	NORTH LEG RATIO 11.6% ADT 1,300
	THRU	59	59			THRU	36	41	
	RIGHT	5	7			RIGHT	3	9	
SOUTH BOUND	LEFT	22	17	SOUTH LEG RATIO 17.7% ADT 1,000	SOUTH BOUND	LEFT	12	14	SOUTH LEG RATIO 17.0% ADT 1,000
	THRU	80	91			THRU	29	56	
	RIGHT	4	9			RIGHT	0	0	
EAST BOUND	LEFT	5	12	EAST LEG RATIO 11.9% ADT 900	EAST BOUND	LEFT	0	0	EAST LEG RATIO 14.4% ADT 900
	THRU	5	16			THRU	4	7	
	RIGHT	0	0			RIGHT	8	23	
WEST BOUND	LEFT	4	9	WEST LEG RATIO 11.8% ADT 500	WEST BOUND	LEFT	8	41	WEST LEG RATIO 10.0% ADT 500
	THRU	2	9			THRU	4	20	
	RIGHT	41	49			RIGHT	33	39	

LITTLE LEAGUE DRIVE (NS) / KENDALL DRIVE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
	32	0	37			21	0	17	
25 ^	<	v	>	31	19 ^	<	v	>	28
66 >				47	84 >				87
0 v				0	0 v				0
	0	0	0			0	0	0	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
	69	56				38	47		
79 <	IN =	238 <	78		108 <	IN =	256 <	115	
91 >	OUT =	238 >	103		103 >	OUT =	256 >	101	
	0	0				0	0		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
	6	0	5			2	0	0	
18 ^	<	v	>	3	3 ^	<	v	>	0
14 >				4	8 >				8
0 v				0	0 v				0
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0	0	0	0		PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0	0	0	0	
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
	38	0	42			23	0	17	
43 ^	<	v	>	34	22 ^	<	v	>	28
80 >				51	92 >				95
0 v				0	0 v				0
	0	0	0			0	0	0	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
	214	47				159	386		
304 <	IN =	618 <	150		302 <	IN =	1166 <	228	
254 >	OUT =	619 >	268		779 >	OUT =	1166 >	478	
	0	0				0	0		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
	12	5				9	18		
110 <	IN =	125 <	98		146 <	IN =	313 <	137	
15 >	OUT =	124 >	9		167 >	OUT =	312 >	148	
	0	0				0	0		
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
	85	20				47	113		
152 <	IN =	276 <	90		121 <	IN =	405 <	98	
102 >	OUT =	277 >	105		260 >	OUT =	404 >	171	
	0	0				0	0		
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
	261	66				302	277		
254 <	IN =	485 <	77		644 <	IN =	1102 <	443	
147 >	OUT =	486 >	166		357 >	OUT =	1102 >	181	
	0	0				0	0		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
	16	18				144	24		
69 <	IN =	377 <	55		675 <	IN =	931 <	539	
306 >	OUT =	378 >	291		248 >	OUT =	927 >	228	
	0	0				0	0		
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
	105	31				121	84		
119 <	IN =	310 <	48		349 <	IN =	541 <	259	
158 >	OUT =	311 >	160		162 >	OUT =	540 >	108	
	0	0				0	0		
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
	20	14				91	-28		
-39 <	v	<	-49		294 <	v	<	211	
105 >			102		-88 >			-53	
	0	0				0	0		
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030				
	20	10				90	10		
10 <	IN =	130 <	10		290 <	IN =	310 <	210	
100 >	OUT =	120 >	100		10 >	OUT =	310 >	10	
	0	0				0	0		
FUTURE YEAR GROWTH: 2 YEARS 2011 TO 2013					FUTURE YEAR GROWTH: 2 YEARS 2011 TO 2013				
	0	0				10	0		
0 <	v	<	0		20 <	v	<	10	
10 >			10		0 >			0	
	0	0				0	0		
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
	80	80				50	50		
90 <	IN =	300 <	90		140 <	IN =	290 <	130	
130 >	OUT =	300 >	130		110 >	OUT =	300 >	110	
	0	0				0	0		
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
	80	80				50	50		
90 <	IN =	300 <	90		140 <	IN =	290 <	130	
130 >	OUT =	300 >	130		110 >	OUT =	300 >	110	
	0	0				0	0		

LITTLE LEAGUE DRIVE (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2013) 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 IN ... OUT ...	0 0 0	NORTH BOUND	LEFT	0	SOUTH LEG IN ... OUT ...	0 0 0
	THRU	0				THRU	0		
	RIGHT	0				RIGHT	0		
SOUTH BOUND	LEFT	42	NORTH LEG IN ... OUT ...	80 80 80	SOUTH BOUND	LEFT	17	NORTH LEG IN ... OUT ...	50 50 50
	THRU	0				THRU	0		
	RIGHT	38				RIGHT	23		
EAST BOUND	LEFT	43	WEST LEG IN ... OUT ...	130 130 90	EAST BOUND	LEFT	22	WEST LEG IN ... OUT ...	110 110 140
	THRU	80				THRU	92		
	RIGHT	0				RIGHT	0		
WEST BOUND	LEFT	0	EAST LEG IN ... OUT ...	90 90 130	WEST BOUND	LEFT	0	EAST LEG IN ... OUT ...	130 130 110
	THRU	51				THRU	95		
	RIGHT	34				RIGHT	28		

OPENING YEAR (2013) 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 RATIO 18.2% ADT 900	NORTH BOUND	LEFT	0	0	NORTH LEG RATIO 11.5% ADT 900
	THRU	0	0			THRU	0	0	
	RIGHT	0	0			RIGHT	0	0	
SOUTH BOUND	LEFT	42	44	SOUTH LEG RATIO #DIV/0! ADT 0	SOUTH BOUND	LEFT	17	19	SOUTH LEG RATIO #DIV/0! ADT 0
	THRU	0	0			THRU	0	0	
	RIGHT	38	40			RIGHT	23	32	
EAST BOUND	LEFT	43	44	EAST LEG RATIO 8.5% ADT 2,600	EAST BOUND	LEFT	22	23	EAST LEG RATIO 9.7% ADT 2,600
	THRU	80	86			THRU	92	95	
	RIGHT	0	0			RIGHT	0	0	
WEST BOUND	LEFT	0	0	WEST LEG RATIO 8.9% ADT 2,500	WEST BOUND	LEFT	0	0	WEST LEG RATIO 10.3% ADT 2,500
	THRU	51	54			THRU	95	108	
	RIGHT	34	36			RIGHT	28	29	

LITTLE LEAGUE DRIVE (NS) / KENDALL DRIVE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		32	0	37			21	0	17
	25 ^	<	V	>		19 ^	<	V	>
	66 >					84 >			
	0 V					0 V			
		0	0	0			0	0	0
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
		69	56			38	47		
	79 <	IN =	238 <	78		108 <	IN =	256 <	115
	91 >	OUT =	238 >	103		103 >	OUT =	256 >	101
		0	0				0	0	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		6	0	5			2	0	0
	18 ^	<	V	>		3 ^	<	V	>
	14 >					8 >			
	0 V					0 V			
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5 3: 2.0 4+: 3.0		0	0	0	2: 1.5 3: 2 4+: 3.0		0	0	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		38	0	42			23	0	17
	43 ^	<	V	>		22 ^	<	V	>
	80 >					92 >			
	0 V					0 V			
		0	0	0			0	0	0
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
		214	47				159	386	
	304 <	IN =	618 <	150		302 <	IN =	1166 <	228
	254 >	OUT =	619 >	268		779 >	OUT =	1166 >	478
		0	0				0	0	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		12	5				9	18	
	110 <	IN =	125 <	98		146 <	IN =	313 <	137
	15 >	OUT =	124 >	9		167 >	OUT =	312 >	148
		0	0				0	0	
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		85	20				47	113	
	152 <	IN =	276 <	90		121 <	IN =	405 <	98
	102 >	OUT =	277 >	105		260 >	OUT =	404 >	171
		0	0				0	0	
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
		261	66				302	277	
	254 <	IN =	485 <	77		644 <	IN =	1102 <	443
	147 >	OUT =	486 >	166		357 >	OUT =	1102 >	181
		0	0				0	0	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		16	18				144	24	
	69 <	IN =	377 <	55		675 <	IN =	931 <	539
	306 >	OUT =	378 >	291		248 >	OUT =	927 >	228
		0	0				0	0	
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		105	31				121	84	
	119 <	IN =	310 <	48		349 <	IN =	541 <	259
	158 >	OUT =	311 >	160		162 >	OUT =	540 >	108
		0	0				0	0	
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
		20	14				91	-28	
	-39 <		<	-49		294 <		<	211
	105 >		>	102		-88 >		>	-53
		0	0				0	0	
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
		20	10				90	10	
	10 <	IN =	130 <	10		290 <	IN =	310 <	210
	100 >	OUT =	120 >	100		10 >	OUT =	310 >	10
		0	0				0	0	
FUTURE YEAR GROWTH: 24 YEARS					FUTURE YEAR GROWTH: 24 YEARS				
		20	10				70	10	
	10 <		<	10		230 <		<	170
	80 >		>	80		10 >		>	10
		0	0				0	0	
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
		100	90				110	60	
	100 <	IN =	400 <	100		350 <	IN =	520 <	290
	200 >	OUT =	390 >	200		120 >	OUT =	530 >	120
		0	0				0	0	
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
		100	90				110	60	
	100 <	IN =	400 <	100		350 <	IN =	530 <	300
	200 >	OUT =	400 >	210		120 >	OUT =	530 >	120
		0	0				0	0	

LITTLE LEAGUE DRIVE (NS) / KENDALL DRIVE (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	0	IN ...	0		THRU	0	IN ...	0
	RIGHT	0	OUT ...	0		RIGHT	0	OUT ...	0
SOUTH BOUND	LEFT	42	NORTH LEG		SOUTH BOUND	LEFT	17	NORTH LEG	
	THRU	0	IN ...	100		THRU	0	IN ...	110
	RIGHT	38	OUT ...	90		RIGHT	23	OUT ...	60
EAST BOUND	LEFT	43	WEST LEG		EAST BOUND	LEFT	22	WEST LEG	
	THRU	80	IN ...	200		THRU	92	IN ...	120
	RIGHT	0	OUT ...	100		RIGHT	0	OUT ...	350
WEST BOUND	LEFT	0	EAST LEG		WEST BOUND	LEFT	0	EAST LEG	
	THRU	51	IN ...	100		THRU	95	IN ...	300
	RIGHT	34	OUT ...	210		RIGHT	28	OUT ...	120

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	0	0	RATIO 19.0%		THRU	0	0	RATIO 17.0%
	RIGHT	0	0	ADT 1,000		RIGHT	0	0	ADT 1,000
SOUTH BOUND	LEFT	42	62	SOUTH LEG	SOUTH BOUND	LEFT	17	26	SOUTH LEG
	THRU	0	0	RATIO #DIV/0!		THRU	0	0	RATIO #DIV/0!
	RIGHT	38	38	ADT 0		RIGHT	23	84	ADT 0
EAST BOUND	LEFT	43	52	EAST LEG	EAST BOUND	LEFT	22	24	EAST LEG
	THRU	80	148	RATIO 10.7%		THRU	92	94	RATIO 14.5%
	RIGHT	0	0	ADT 2,900		RIGHT	0	0	ADT 2,900
WEST BOUND	LEFT	0	0	WEST LEG	WEST BOUND	LEFT	0	0	WEST LEG
	THRU	51	62	RATIO 10.7%		THRU	95	266	RATIO 16.7%
	RIGHT	34	38	ADT 2,800		RIGHT	28	36	ADT 2,800

MAGNOLIA AVENUE (NS) / BELMONT AVENUE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		2	17	15		5	6	12	
	3 ^		v			6 ^	v		
	23 >					17 >			
	8 v					4 v			
		11	10	3			2	6	2
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
		34	33			23	23		
	49 <	IN =	151 <	59		19 <	IN =	84 <	24
	34 >	OUT =	151 >	41		27 >	OUT =	84 >	31
		28	24				11	10	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	0	5		0	0	0	
	0 ^		v			0 ^	v		
	5 >					0 >			
	2 v					0 v			
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0				
		0	2	0			0	0	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		2	17	20		5	6	12	
	3 ^		v			6 ^	v		
	28 >					17 >			
	10 v					4 v			
		11	12	3			2	6	2
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
		120	46			130	198		
	132 <	IN =	269 <	93		155 <	IN =	642 <	189
	56 >	OUT =	269 >	91		323 >	OUT =	643 >	290
		0	0				0	0	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		7	4			9	8		
	12 <	IN =	17 <	5		9 <	IN =	27 <	0
	5 >	OUT =	18 >	2		18 >	OUT =	27 >	10
		0	0				0	0	
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		48	19			39	57		
	54 <	IN =	108 <	37		46 <	IN =	187 <	53
	23 >	OUT =	108 >	35		95 >	OUT =	187 >	84
		0	0				0	0	
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
		129	40			147	195		
	126 <	IN =	260 <	73		230 <	IN =	590 <	267
	58 >	OUT =	261 >	95		176 >	OUT =	589 >	164
		0	0				0	0	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		19	17			121	88		
	13 <	IN =	52 <	16		25 <	IN =	234 <	92
	17 >	OUT =	53 >	23		21 >	OUT =	235 >	122
		0	0				0	0	
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		55	21			71	77		
	52 <	IN =	116 <	33		71 <	IN =	224 <	98
	28 >	OUT =	117 >	44		55 >	OUT =	224 >	76
		0	0				0	0	
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
		9	4			47	29		
	-2 <			-2		27 <			56
	7 >			12		-40 >			7
		0	0				0	0	
ADJUSTED GROWTH (PCE'S): 2000 TO 2030 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 2000 TO 2030 10 MINIMUM GROWTH %				
		10	0			50	30		
	10 <	IN =	30 <	10		30 <	IN =	110 <	60
	10 >	OUT =	20 >	10		0 >	OUT =	70 >	10
		0	0				0	0	
FUTURE YEAR GROWTH: 2011 TO 2013 2 YEARS					FUTURE YEAR GROWTH: 2011 TO 2013 2 YEARS				
		0	0			0	0		
	0 <			0		0 <			0
	0 >			0		0 >			0
		0	0				0	0	
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
		40	40			20	20		
	50 <	IN =	180 <	70		20 <	IN =	80 <	20
	40 >	OUT =	170 >	50		30 >	OUT =	80 >	30
		30	30				10	10	
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
		40	40			20	20		
	50 <	IN =	180 <	70		20 <	IN =	80 <	20
	40 >	OUT =	170 >	50		30 >	OUT =	80 >	30
		30	30				10	10	

MAGNOLIA AVENUE (NS) / BELMONT AVENUE (EW)
FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES
NCHRP 255

OPENING YEAR (2013) 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	11	SOUTH LEG		NORTH BOUND	LEFT	2	SOUTH LEG	
	THRU	12		30		THRU	6		10
	RIGHT	3		30		RIGHT	2		10
SOUTH BOUND	LEFT	20	NORTH LEG		SOUTH BOUND	LEFT	12	NORTH LEG	
	THRU	17		40		THRU	6		20
	RIGHT	2		40		RIGHT	5		20
EAST BOUND	LEFT	3	WEST LEG		EAST BOUND	LEFT	6	WEST LEG	
	THRU	28		40		THRU	17		30
	RIGHT	10		50		RIGHT	4		20
WEST BOUND	LEFT	3	EAST LEG		WEST BOUND	LEFT	1	EAST LEG	
	THRU	41		70		THRU	12		20
	RIGHT	22		50		RIGHT	11		30

OPENING YEAR (2013) 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	11	12	NORTH LEG RATIO 16.7% ADT 500	NORTH BOUND	LEFT	2	3	NORTH LEG RATIO 10.3% ADT 500
	THRU	12	14			THRU	6	7	
	RIGHT	3	4			RIGHT	2	3	
SOUTH BOUND	LEFT	20	21	SOUTH LEG RATIO 31.2% ADT 200	SOUTH BOUND	LEFT	12	13	SOUTH LEG RATIO 13.0% ADT 200
	THRU	17	18			THRU	6	7	
	RIGHT	2	3			RIGHT	5	6	
EAST BOUND	LEFT	3	4	EAST LEG RATIO 8.3% ADT 1,500	EAST BOUND	LEFT	6	7	EAST LEG RATIO 4.1% ADT 1,500
	THRU	28	29			THRU	17	19	
	RIGHT	10	11			RIGHT	4	4	
WEST BOUND	LEFT	3	4	WEST LEG RATIO 14.6% ADT 700	WEST BOUND	LEFT	1	2	WEST LEG RATIO 7.3% ADT 700
	THRU	41	43			THRU	12	13	
	RIGHT	22	24			RIGHT	11	12	

MAGNOLIA AVENUE (NS) / BELMONT AVENUE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		2	17	15			5	6	12
	3 ^		v	>	20		6 ^		v
	23 >			<	36		17 >		<
	8 v			v	3		4 v		v
			11	10	3			2	6
									2
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			34	33				23	23
	49 <	IN =	151 <	59		19 <	IN =	84 <	24
	34 >	OUT =	151 >	41		27 >	OUT =	84 >	31
			28	24				11	10
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	0	5			0	0	0
	0 ^		v	>	2		0 ^		v
	5 >			<	5		0 >		<
	2 v			v	0		0 v		v
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5	3: 2.0	4+: 3.0		0	2: 1.5	3: 2	4+: 3.0		0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		2	17	20			5	6	12
	3 ^		v	>	22		6 ^		v
	28 >			<	41		17 >		<
	10 v			v	3		4 v		v
			11	12	3			2	6
									2
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			120	46				130	198
	132 <	IN =	269 <	93		155 <	IN =	642 <	189
	56 >	OUT =	269 >	91		323 >	OUT =	643 >	290
			0	0				0	0
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
			7	4				9	8
	12 <	IN =	17 <	5		9 <	IN =	27 <	0
	5 >	OUT =	18 >	2		18 >	OUT =	27 >	10
			0	0				0	0
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			48	19				39	57
	54 <	IN =	108 <	37		46 <	IN =	187 <	53
	23 >	OUT =	108 >	35		95 >	OUT =	187 >	84
			0	0				0	0
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			129	40				147	195
	126 <	IN =	260 <	73		230 <	IN =	590 <	267
	58 >	OUT =	261 >	95		176 >	OUT =	589 >	164
			0	0				0	0
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
			19	17				121	88
	13 <	IN =	52 <	16		25 <	IN =	234 <	92
	17 >	OUT =	53 >	23		21 >	OUT =	235 >	122
			0	0				0	0
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			55	21				71	77
	52 <	IN =	116 <	33		71 <	IN =	224 <	98
	28 >	OUT =	117 >	44		55 >	OUT =	224 >	76
			0	0				0	0
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			9	4				47	29
	-2 <			<		27 <			<
	7 >			>		-40 >			>
			0	0				0	0
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
			10	0				50	30
	10 <	IN =	30 <	10		30 <	IN =	110 <	60
	10 >	OUT =	20 >	10		0 >	OUT =	70 >	10
			0	0				0	0
FUTURE YEAR GROWTH: 24 YEARS					FUTURE YEAR GROWTH: 24 YEARS				
			10	0				40	20
	10 <			<		20 <			<
	10 >			>		0 >			>
			0	0				0	0
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
			50	40				60	40
	60 <	IN =	210 <	80		40 <	IN =	170 <	70
	50 >	OUT =	190 >	60		30 >	OUT =	130 >	40
			30	30				10	10
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
			50	40				60	50
	70 <	IN =	210 <	80		50 <	IN =	170 <	70
	50 >	OUT =	210 >	70		30 >	OUT =	160 >	50
			30	30				10	10

MAGNOLIA AVENUE (NS) / BELMONT 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	11	SOUTH LEG IN ... OUT ...	30 30	NORTH BOUND	LEFT	2	SOUTH LEG IN ... OUT ...	10 10
	THRU	12				THRU	6		
	RIGHT	3				RIGHT	2		
SOUTH BOUND	LEFT	20	NORTH LEG IN ... OUT ...	50 40	SOUTH BOUND	LEFT	12	NORTH LEG IN ... OUT ...	60 50
	THRU	17				THRU	6		
	RIGHT	2				RIGHT	5		
EAST BOUND	LEFT	3	WEST LEG IN ... OUT ...	50 70	EAST BOUND	LEFT	6	WEST LEG IN ... OUT ...	30 50
	THRU	28				THRU	17		
	RIGHT	10				RIGHT	4		
WEST BOUND	LEFT	3	EAST LEG IN ... OUT ...	80 70	WEST BOUND	LEFT	1	EAST LEG IN ... OUT ...	70 50
	THRU	41				THRU	12		
	RIGHT	22				RIGHT	11		

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	11	14	NORTH LEG RATIO 15.0% ADT 600	NORTH BOUND	LEFT	2	2	NORTH LEG RATIO 17.7% ADT 600
	THRU	12	13			THRU	6	6	
	RIGHT	3	4			RIGHT	2	1	
SOUTH BOUND	LEFT	20	29	SOUTH LEG RATIO 30.0% ADT 200	SOUTH BOUND	LEFT	12	32	SOUTH LEG RATIO 9.7% ADT 200
	THRU	17	18			THRU	6	7	
	RIGHT	2	3			RIGHT	5	17	
EAST BOUND	LEFT	3	3	EAST LEG RATIO 8.8% ADT 1,700	EAST BOUND	LEFT	6	9	EAST LEG RATIO 6.8% ADT 1,700
	THRU	28	37			THRU	17	17	
	RIGHT	10	9			RIGHT	4	2	
WEST BOUND	LEFT	3	3	WEST LEG RATIO 15.0% ADT 800	WEST BOUND	LEFT	1	1	WEST LEG RATIO 9.8% ADT 800
	THRU	41	53			THRU	12	31	
	RIGHT	22	24			RIGHT	11	34	

PALM AVENUE (NS) / BELMONT AVENUE (EW)											
MORNING PEAK HOUR						EVENING PEAK HOUR					
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					
3 ^ 18 > 65 v						5 ^ 13 > 27 v					
9 v						10 v					
188 >						161 >					
2 ^						8 ^					
1 8 54						14 12 27					
68 134 46						58 215 71					
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011						EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					
199 v						179 v					
138 ^						234 ^					
85 < 86 >						80 < 45 >					
IN = OUT =						IN = OUT =					
596 < 596 >						621 < 621 >					
v ^						v ^					
307 248						215 344					
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):						EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					
0 ^ 0 > 2 v						0 ^ 2 > 2 v					
0 v						0 v					
8 >						2 >					
0 ^						0 ^					
0 v						0 v					
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0						PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0					
6 9 3						2 2 0					
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011						TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					
3 ^ 18 > 67 v						5 ^ 15 > 29 v					
9 v						10 v					
196 >						163 >					
2 ^						8 ^					
1 8 56						14 12 29					
74 143 49						60 217 71					
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000						EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					
185 v						109 v					
26 ^						298 ^					
62 < 85 >						172 < 251 >					
IN = OUT =						IN = OUT =					
470 < 470 >						884 < 885 >					
v ^						v ^					
341 89						246 434					
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000						EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					
10 v						4 v					
11 ^						5 ^					
5 < 2 >						0 < 10 >					
IN = OUT =						IN = OUT =					
39 < 37 >						23 < 24 >					
v ^						v ^					
14 16						11 2					
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333						EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25					
74 v						32 v					
14 ^						85 ^					
25 < 33 >						48 < 73 >					
IN = OUT =						IN = OUT =					
192 < 191 >						253 < 254 >					
v ^						v ^					
134 39						72 122					
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030						FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					
294 v						234 v					
72 ^						509 ^					
69 < 97 >						255 < 158 >					
IN = OUT =						IN = OUT =					
796 < 795 >						1598 < 1598 >					
v ^						v ^					
553 201						517 973					
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020						FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					
7 v						13 v					
6 ^						6 ^					
16 < 21 >						92 < 122 >					
IN = OUT =						IN = OUT =					
50 < 50 >						250 < 250 >					
v ^						v ^					
26 22						142 105					
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333						FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25					
114 v						69 v					
29 ^						144 ^					
32 < 44 >						94 < 75 >					
IN = OUT =						IN = OUT =					
319 < 319 >						510 < 510 >					
v ^						v ^					
219 84						180 299					
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50						RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					
2000 TO 2030						2000 TO 2030					
40 v						38 v					
15 ^						59 ^					
8 < 14 >						58 < 16 >					
IN = OUT =						IN = OUT =					
130 < 130 >						290 < 290 >					
v ^						v ^					
90 50						130 190					
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %						ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					
2000 TO 2030						2000 TO 2030					
40 v						40 v					
10 ^						60 ^					
10 < 10 >						60 < 20 >					
IN = OUT =						IN = OUT =					
130 < 130 >						290 < 290 >					
v ^						v ^					
90 50						130 190					
FUTURE YEAR GROWTH: 2 YEARS						FUTURE YEAR GROWTH: 2 YEARS					
2011 TO 2013						2011 TO 2013					
0 v						0 v					
0 ^						0 ^					
0 < 0 >						0 < 0 >					
IN = OUT =						IN = OUT =					
10 0						10 10					
INITIAL FUTURE YEAR VOLUMES: 2013						INITIAL FUTURE YEAR VOLUMES: 2013					
210 v						180 v					
150 ^						240 ^					
90 < 90 >						80 < 50 >					
IN = OUT =						IN = OUT =					
640 < 640 >						650 < 640 >					
v ^						v ^					
330 270						230 360					
BALANCED FUTURE YEAR VOLUMES: 2013						BALANCED FUTURE YEAR VOLUMES: 2013					
210 v						180 v					
150 ^						240 ^					
90 < 90 >						80 < 50 >					
IN = OUT =						IN = OUT =					
640 < 640 >						650 < 640 >					
v ^						v ^					
330 270						230 360					

PALM AVENUE (NS) / BELMONT AVENUE (EW)
FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES
NCHRP 255

OPENING YEAR (2013) 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	74	SOUTH LEG		NORTH BOUND	LEFT	60	SOUTH LEG	
	THRU	143		270		THRU	217		360
	RIGHT	49		330		RIGHT	71		230
SOUTH BOUND	LEFT	2	NORTH LEG		SOUTH BOUND	LEFT	8	NORTH LEG	
	THRU	196		210		THRU	163		180
	RIGHT	9		150		RIGHT	10		240
EAST BOUND	LEFT	3	WEST LEG		EAST BOUND	LEFT	5	WEST LEG	
	THRU	18		90		THRU	15		50
	RIGHT	67		90		RIGHT	29		80
WEST BOUND	LEFT	56	EAST LEG		WEST BOUND	LEFT	29	EAST LEG	
	THRU	8		70		THRU	12		60
	RIGHT	1		70		RIGHT	14		90

OPENING YEAR (2013) 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	74	77	NORTH LEG RATIO 7.4% ADT 4,900	NORTH BOUND	LEFT	60	61	NORTH LEG RATIO 8.7% ADT 4,900
	THRU	143	146			THRU	217	222	
	RIGHT	49	50			RIGHT	71	74	
SOUTH BOUND	LEFT	2	3	SOUTH LEG RATIO 9.0% ADT 6,700	SOUTH BOUND	LEFT	8	9	SOUTH LEG RATIO 8.8% ADT 6,700
	THRU	196	200			THRU	163	164	
	RIGHT	9	10			RIGHT	10	11	
EAST BOUND	LEFT	3	4	EAST LEG RATIO 7.9% ADT 1,800	EAST BOUND	LEFT	5	6	EAST LEG RATIO 9.0% ADT 1,800
	THRU	18	19			THRU	15	16	
	RIGHT	67	69			RIGHT	29	32	
WEST BOUND	LEFT	56	61	WEST LEG RATIO 12.5% ADT 1,500	WEST BOUND	LEFT	29	34	WEST LEG RATIO 9.2% ADT 1,500
	THRU	8	8			THRU	12	13	
	RIGHT	1	1			RIGHT	14	15	

PALM AVENUE (NS) / BELMONT AVENUE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		9	188	2		10	161	8	
	3 ^	<	v	>		5 ^	<	v	>
	18 >			^		13 >			^
	65 v			v		27 v			v
		68	134	46		58	215	71	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			199	138			179	234	
	85 <	IN =	596 <	63		80 <	IN =	621 <	53
	86 >	OUT =	596 >	66		45 >	OUT =	621 >	92
			307	248				215	344
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	8	0		0	2	0	
	0 ^	<	v	>		0 ^	<	v	>
	0 >			^		2 >			^
	2 v			v		2 v			v
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0				
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		9	196	2		10	163	8	
	3 ^	<	v	>		5 ^	<	v	>
	18 >			^		15 >			^
	67 v			v		29 v			v
		74	143	49		60	217	71	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			185	26			109	298	
	62 <	IN =	470 <	111		172 <	IN =	884 <	90
	85 >	OUT =	470 >	41		251 >	OUT =	885 >	169
			341	89				246	434
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		10	11			4	5		
	5 <	IN =	39 <	11		0 <	IN =	23 <	7
	2 >	OUT =	37 >	7		10 >	OUT =	24 >	8
			14	16				11	2
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			74	14			32	85	
	25 <	IN =	192 <	46		48 <	IN =	253 <	27
	33 >	OUT =	191 >	18		73 >	OUT =	254 >	49
			134	39				72	122
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			294	72			234	509	
	69 <	IN =	796 <	204		255 <	IN =	1598 <	233
	97 >	OUT =	795 >	101		158 >	OUT =	1598 >	317
			553	201				517	973
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		7	6			13	6		
	16 <	IN =	50 <	0		92 <	IN =	250 <	10
	21 >	OUT =	50 >	2		122 >	OUT =	250 >	10
			26	22				142	105
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			114	29			69	144	
	32 <	IN =	319 <	78		94 <	IN =	510 <	68
	44 >	OUT =	319 >	39		75 >	OUT =	510 >	91
			219	84				180	299
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			40	15			38	59	
	8 <			30		58 <			41
	14 >			20		16 >			42
			87	46				125	190
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030				
			40	10			40	60	
	10 <	IN =	130 <	30		60 <	IN =	290 <	40
	10 >	OUT =	130 >	20		20 >	OUT =	290 >	40
			90	50				130	190
FUTURE YEAR GROWTH: 2011 TO 2035 24 YEARS					FUTURE YEAR GROWTH: 2011 TO 2035 24 YEARS				
			30	10			30	50	
	10 <			20		50 <			30
	10 >			20		20 >			30
			70	40				100	150
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
			240	160			210	290	
	100 <	IN =	740 <	90		130 <	IN =	870 <	90
	100 >	OUT =	740 >	90		70 >	OUT =	860 >	120
			390	310				320	500
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
			240	160			210	290	
	100 <	IN =	740 <	90		130 <	IN =	870 <	90
	100 >	OUT =	740 >	90		70 >	OUT =	860 >	120
			390	310				320	500

PALM AVENUE (NS) / BELMONT 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	74	SOUTH LEG		NORTH BOUND	LEFT	60	SOUTH LEG	
	THRU	143		310		THRU	217		500
	RIGHT	49		390		RIGHT	71		320
SOUTH BOUND	LEFT	2	NORTH LEG		SOUTH BOUND	LEFT	8	NORTH LEG	
	THRU	196		240		THRU	163		210
	RIGHT	9		160		RIGHT	10		290
EAST BOUND	LEFT	3	WEST LEG		EAST BOUND	LEFT	5	WEST LEG	
	THRU	18		100		THRU	15		70
	RIGHT	67		100		RIGHT	29		130
WEST BOUND	LEFT	56	EAST LEG		WEST BOUND	LEFT	29	EAST LEG	
	THRU	8		90		THRU	12		90
	RIGHT	1		90		RIGHT	14		120

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	74	83	NORTH LEG	NORTH BOUND	LEFT	60	108	NORTH LEG
	THRU	143	156	RATIO 7.2%		THRU	217	274	RATIO 9.0%
	RIGHT	49	68	ADT 5,600		RIGHT	71	103	ADT 5,600
SOUTH BOUND	LEFT	2	2	SOUTH LEG	SOUTH BOUND	LEFT	8	4	SOUTH LEG
	THRU	196	231	RATIO 8.4%		THRU	163	202	RATIO 9.7%
	RIGHT	9	8	ADT 8,300		RIGHT	10	7	ADT 8,300
EAST BOUND	LEFT	3	3	EAST LEG	EAST BOUND	LEFT	5	4	EAST LEG
	THRU	18	20	RATIO 7.5%		THRU	15	13	RATIO 8.8%
	RIGHT	67	78	ADT 2,400		RIGHT	29	54	ADT 2,400
WEST BOUND	LEFT	56	81	WEST LEG	WEST BOUND	LEFT	29	64	WEST LEG
	THRU	8	9	RATIO 11.8%		THRU	12	15	RATIO 11.8%
	RIGHT	1	1	ADT 1,700		RIGHT	14	12	ADT 1,700

PALM AVENUE (NS) / IRVINGTON AVENUE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		3	276	20		3	194	9	
	9 ^			11		3 ^			9
	11 >			13		16 >			9
	77 v			123		92 v			97
		32	208	42		112	334	177	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			299	228			206	346	
	48 <	IN =	825 <	147		124 <	IN =	1055 <	115
	97 >	OUT =	825 >	73		111 >	OUT =	1055 >	202
			476	282				383	623
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	9	0			0	5	0
	0 ^			0		0 ^			0
	0 >			0		0 >			0
	0 v			0		0 v			2
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0				
		0	15	0			0	3	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		3	285	20		3	199	9	
	9 ^			11		3 ^			9
	11 >			13		16 >			9
	77 v			123		92 v			99
		32	223	42			112	337	177
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			435	124			345	597	
	0 <	IN =	655 <	85		0 <	IN =	1111 <	56
	0 >	OUT =	655 >	15		0 >	OUT =	1111 >	129
			516	135				385	710
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
			14	16			11	2	
	0 <	IN =	56 <	19		0 <	IN =	27 <	11
	0 >	OUT =	55 >	7		0 >	OUT =	27 >	4
			32	23				21	5
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			170	52			99	168	
	0 <	IN =	268 <	39		0 <	IN =	318 <	18
	0 >	OUT =	267 >	8		0 >	OUT =	318 >	37
			207	59				113	200
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			704	255			658	1211	
	0 <	IN =	1118 <	131		0 <	IN =	2208 <	122
	0 >	OUT =	1119 >	34		0 >	OUT =	2208 >	235
			830	283				762	1428
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
			33	29			153	112	
	0 <	IN =	63 <	0		0 <	IN =	289 <	15
	0 >	OUT =	64 >	2		0 >	OUT =	289 >	9
			33	30				168	121
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			279	107			222	367	
	0 <	IN =	446 <	50		0 <	IN =	690 <	38
	0 >	OUT =	447 >	14		0 >	OUT =	690 >	68
			326	118				255	430
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			112	56			141	213	
	0 <			8		0 <			20
	0 >			5		0 >			32
			120	60				161	245
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030				
			110	60			140	210	
	0 <	IN =	190 <	10		10 <	IN =	410 <	20
	10 >	OUT =	190 >	10		10 >	OUT =	410 >	30
			120	60				160	240
FUTURE YEAR GROWTH: 2 YEARS 2011 TO 2013					FUTURE YEAR GROWTH: 2 YEARS 2011 TO 2013				
			10	0			10	10	
	0 <			0		0 <			0
	0 >			0		0 >			0
			10	0				10	20
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
			320	240			220	360	
	50 <	IN =	870 <	150		120 <	IN =	1100 <	120
	100 >	OUT =	860 >	70		110 >	OUT =	1080 >	200
			500	300				400	650
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
			320	240			220	370	
	50 <	IN =	870 <	150		120 <	IN =	1100 <	120
	100 >	OUT =	870 >	70		110 >	OUT =	1100 >	200
			510	300				410	650

PALM AVENUE (NS) / IRVINGTON AVENUE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2013) 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	32	SOUTH LEG		NORTH BOUND	LEFT	112	SOUTH LEG	
	THRU	223		300		THRU	337		650
	RIGHT	42		510		RIGHT	177		410
SOUTH BOUND	LEFT	20	NORTH LEG		SOUTH BOUND	LEFT	9	NORTH LEG	
	THRU	285		320		THRU	199		220
	RIGHT	3		240		RIGHT	3		370
EAST BOUND	LEFT	9	WEST LEG		EAST BOUND	LEFT	3	WEST LEG	
	THRU	11		100		THRU	16		110
	RIGHT	77		50		RIGHT	92		120
WEST BOUND	LEFT	123	EAST LEG		WEST BOUND	LEFT	99	EAST LEG	
	THRU	13		150		THRU	9		120
	RIGHT	11		70		RIGHT	9		200

OPENING YEAR (2013) 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	32	35	NORTH LEG	NORTH BOUND	LEFT	112	116	NORTH LEG
	THRU	223	230	RATIO 8.6%		THRU	337	359	RATIO 8.9%
	RIGHT	42	44	ADT 6,700		RIGHT	177	178	ADT 6,700
SOUTH BOUND	LEFT	20	21	SOUTH LEG	SOUTH BOUND	LEFT	9	10	SOUTH LEG
	THRU	285	300	RATIO 6.1%		THRU	199	211	RATIO 7.9%
	RIGHT	3	4	ADT 13,500		RIGHT	3	4	ADT 13,500
EAST BOUND	LEFT	9	10	EAST LEG	EAST BOUND	LEFT	3	4	EAST LEG
	THRU	11	12	RATIO 6.2%		THRU	16	17	RATIO 8.9%
	RIGHT	77	82	ADT 3,700		RIGHT	92	94	ADT 3,700
WEST BOUND	LEFT	123	128	WEST LEG	WEST BOUND	LEFT	99	105	WEST LEG
	THRU	13	14	RATIO 5.8%		THRU	9	10	RATIO 9.1%
	RIGHT	11	12	ADT 2,700		RIGHT	9	10	ADT 2,700

PALM AVENUE (NS) / IRVINGTON AVENUE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		3	276	20		3	194	9	
	9 ^	<	v	>		3 ^	<	v	>
	11 >			11		16 >			9
	77 v			123		92 v			97
		32	208	42		112	334	177	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			299	228			206	346	
	48 <	IN =	825 <	147		124 <	IN =	1055 <	115
	97 >	OUT =	825 >	73		111 >	OUT =	1055 >	202
			476	282				383	623
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		0	9	0			0	5	0
	0 ^	<	v	>		0 ^	<	v	>
	0 >			0		0 >			0
	0 v			0		0 v			2
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0				
		0	15	0			0	3	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		3	285	20		3	199	9	
	9 ^	<	v	>		3 ^	<	v	>
	11 >			11		16 >			9
	77 v			123		92 v			99
		32	223	42		112	337	177	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			495	124			345	597	
	0 <	IN =	655 <	85		0 <	IN =	1111 <	56
	0 >	OUT =	655 >	15		0 >	OUT =	1111 >	129
			516	135				385	710
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
			14	16			11	2	
	0 <	IN =	56 <	19		0 <	IN =	27 <	11
	0 >	OUT =	55 >	7		0 >	OUT =	27 >	4
			32	23				21	5
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			170	52			99	168	
	0 <	IN =	268 <	39		0 <	IN =	318 <	18
	0 >	OUT =	267 >	8		0 >	OUT =	318 >	37
			207	59				113	200
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			704	255			658	1211	
	0 <	IN =	1118 <	131		0 <	IN =	2208 <	122
	0 >	OUT =	1119 >	34		0 >	OUT =	2208 >	235
			830	283				762	1428
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
			33	29			153	112	
	0 <	IN =	63 <	0		0 <	IN =	289 <	15
	0 >	OUT =	64 >	2		0 >	OUT =	289 >	9
			33	30				168	121
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			279	107			222	367	
	0 <	IN =	446 <	50		0 <	IN =	690 <	38
	0 >	OUT =	447 >	14		0 >	OUT =	690 >	68
			326	118				255	430
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			112	56			141	213	
	0 <			8		0 <			20
	0 >			5		0 >			32
			120	60				161	245
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030				
			110	60			140	210	
	0 <	IN =	190 <	10		10 <	IN =	410 <	20
	10 >	OUT =	190 >	10		10 >	OUT =	410 >	30
			120	60				160	240
FUTURE YEAR GROWTH: 2011 TO 2035 24 YEARS					FUTURE YEAR GROWTH: 2011 TO 2035 24 YEARS				
			90	50			110	170	
	0 <			10		10 <			20
	10 >			10		10 >			20
			100	50				130	190
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
			400	290			320	520	
	50 <	IN =	1020 <	160		130 <	IN =	1400 <	140
	110 >	OUT =	1010 >	80		120 >	OUT =	1390 >	220
			590	350				520	820
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
			400	290			320	520	
	50 <	IN =	1020 <	160		130 <	IN =	1400 <	140
	110 >	OUT =	1020 >	80		120 >	OUT =	1390 >	220
			600	350				520	820

PALM AVENUE (NS) / IRVINGTON 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	32	SOUTH LEG		NORTH BOUND	LEFT	112	SOUTH LEG	
	THRU	223		350		THRU	337		820
	RIGHT	42		600		RIGHT	177		520
SOUTH BOUND	LEFT	20	NORTH LEG		SOUTH BOUND	LEFT	9	NORTH LEG	
	THRU	285		400		THRU	199		320
	RIGHT	3		290		RIGHT	3		520
EAST BOUND	LEFT	9	WEST LEG		EAST BOUND	LEFT	3	WEST LEG	
	THRU	11		110		THRU	16		120
	RIGHT	77		50		RIGHT	92		130
WEST BOUND	LEFT	123	EAST LEG		WEST BOUND	LEFT	99	EAST LEG	
	THRU	13		160		THRU	9		140
	RIGHT	11		80		RIGHT	9		220

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	32	34	NORTH LEG RATIO 7.9% ADT 8,700	NORTH BOUND	LEFT	112	118	NORTH LEG RATIO 9.6% ADT 8,700
	THRU	223	269			THRU	337	504	
	RIGHT	42	46			RIGHT	177	194	
SOUTH BOUND	LEFT	20	23	SOUTH LEG RATIO 6.0% ADT 15,900	SOUTH BOUND	LEFT	9	12	SOUTH LEG RATIO 8.4% ADT 15,900
	THRU	285	374			THRU	199	302	
	RIGHT	3	3			RIGHT	3	4	
EAST BOUND	LEFT	9	10	EAST LEG RATIO 5.9% ADT 4,100	EAST BOUND	LEFT	3	4	EAST LEG RATIO 8.8% ADT 4,100
	THRU	11	11			THRU	16	15	
	RIGHT	77	89			RIGHT	92	100	
WEST BOUND	LEFT	123	136	WEST LEG RATIO 5.3% ADT 3,000	WEST BOUND	LEFT	99	118	WEST LEG RATIO 8.3% ADT 3,000
	THRU	13	12			THRU	9	9	
	RIGHT	11	12			RIGHT	9	12	

PALM AVENUE (NS) / KENDALL DRIVE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		120	484	164			72	216	128
	49 ^	<	v	>		49 ^	<	v	>
	91 >					70 >			
	144 v					172 v			
		<	^	>			<	^	>
		172	354	226			131	498	245
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			768	624			416	728	
	377 <	IN =	2302 <	498		327 <	IN =	2233 <	652
	284 >	OUT =	2302 >	481		291 >	OUT =	2233 >	443
			820	752				735	874
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		2	5	5			2	5	2
	2 ^	<	v	>		2 ^	<	v	>
	3 >					5 >			
	9 v					2 v			
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5 3: 2.0 4+: 3.0		2	23	9	2: 1.5 3: 2 4+: 3.0		0	8	3
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		122	489	169			74	221	130
	51 ^	<	v	>		51 ^	<	v	>
	94 >					75 >			
	153 v					174 v			
		<	^	>			<	^	>
		174	377	235			131	506	248
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			516	135			385	710	
	34 <	IN =	1371 <	496		80 <	IN =	2334 <	565
	16 >	OUT =	1371 >	303		61 >	OUT =	2334 >	858
			899	343				686	1323
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		32	23				21	5	
	0 <	IN =	629 <	456		0 <	IN =	822 <	363
	0 >	OUT =	631 >	122		0 >	OUT =	818 >	429
			486	141				384	438
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			207	59			113	200	
	13 <	IN =	730 <	340		22 <	IN =	859 <	249
	6 >	OUT =	731 >	156		17 >	OUT =	858 >	347
			503	177				288	480
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2035				
			830	283			762	1428	
	81 <	IN =	3105 <	695		129 <	IN =	6741 <	1679
	35 >	OUT =	3105 >	1427		85 >	OUT =	6740 >	3220
			1314	1545				1963	4215
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		33	30				168	121	
	5 <	IN =	223 <	40		116 <	IN =	826 <	351
	14 >	OUT =	228 >	119		7 >	OUT =	830 >	202
			74	136				391	300
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			326	118			255	430	
	32 <	IN =	1254 <	277		65 <	IN =	2094 <	558
	18 >	OUT =	1256 >	582		26 >	OUT =	2095 >	952
			524	632				647	1255
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			120	60			161	245	
	20 <					57 <			307
	14 >					9 >			576
			-48	454				360	758
ADJUSTED GROWTH (PCE'S): 2000 TO 2030 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 2000 TO 2030 10 MINIMUM GROWTH %				
			120	70			160	240	
	40 <	IN =	650 <	50		60 <	IN =	1260 <	310
	30 >	OUT =	540 >	430		30 >	OUT =	1240 >	580
			0	450				360	760
FUTURE YEAR GROWTH: 2011 TO 2013 2 YEARS					FUTURE YEAR GROWTH: 2011 TO 2013 2 YEARS				
			10	0			10	20	
	0 <					0 <			20
	0 >					0 >			40
			0	30				20	50
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
			790	650			440	760	
	390 <	IN =	2430 <	520		330 <	IN =	2360 <	680
	300 >	OUT =	2420 >	530		300 >	OUT =	2340 >	490
			850	820				760	940
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
			790	650			440	770	
	390 <	IN =	2430 <	520		330 <	IN =	2360 <	680
	300 >	OUT =	2420 >	530		300 >	OUT =	2360 >	490
			850	820				770	940

PALM AVENUE (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2013) 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	174	SOUTH LEG	820	NORTH BOUND	LEFT	131	SOUTH LEG	940
	THRU	377				THRU	506		
	RIGHT	235				RIGHT	248		
SOUTH BOUND	LEFT	169	NORTH LEG	790	SOUTH BOUND	LEFT	130	NORTH LEG	440
	THRU	489				THRU	221		
	RIGHT	122				RIGHT	74		
EAST BOUND	LEFT	51	WEST LEG	300	EAST BOUND	LEFT	51	WEST LEG	300
	THRU	94				THRU	75		
	RIGHT	153				RIGHT	174		
WEST BOUND	LEFT	209	EAST LEG	520	WEST BOUND	LEFT	347	EAST LEG	680
	THRU	90				THRU	129		
	RIGHT	223				RIGHT	181		

OPENING YEAR (2013) 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	174	179	NORTH LEG RATIO 10.9% ADT 13,500	NORTH BOUND	LEFT	131	132	NORTH LEG RATIO 9.0% ADT 13,500
	THRU	377	382			THRU	506	534	
	RIGHT	235	255			RIGHT	248	275	
SOUTH BOUND	LEFT	169	177	SOUTH LEG RATIO 8.7% ADT 19,300	SOUTH BOUND	LEFT	130	139	SOUTH LEG RATIO 8.9% ADT 19,300
	THRU	489	504			THRU	221	230	
	RIGHT	122	126			RIGHT	74	77	
EAST BOUND	LEFT	51	53	EAST LEG RATIO 8.1% ADT 13,200	EAST BOUND	LEFT	51	53	EAST LEG RATIO 8.9% ADT 13,200
	THRU	94	98			THRU	75	77	
	RIGHT	153	158			RIGHT	174	180	
WEST BOUND	LEFT	209	210	WEST LEG RATIO 9.7% ADT 7,300	WEST BOUND	LEFT	347	367	WEST LEG RATIO 8.9% ADT 7,300
	THRU	90	93			THRU	129	133	
	RIGHT	223	230			RIGHT	181	187	

PALM AVENUE (NS) / KENDALL DRIVE (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		120	484	164			72	216	128
	49 ^	<	v	>		49 ^	<	v	>
	91 >			<		70 >			<
	144 v			v		172 v			v
		172	354	226			131	498	245
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			768	624			416	728	
	377 <	IN =	2302 <	498		327 <	IN =	2233 <	652
	284 >	OUT =	2302 >	481		291 >	OUT =	2233 >	443
			820	752			735	874	
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S): 2011				
		2	5	5			2	5	2
	2 ^	<	v	>		2 ^	<	v	>
	3 >			<		5 >			<
	9 v			v		2 v			v
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5	3: 2.0	4+: 3.0	2	23	9	2: 1.5	3: 2	4+: 3.0	0
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		122	489	169			74	221	130
	51 ^	<	v	>		51 ^	<	v	>
	94 >			<		75 >			<
	153 v			v		174 v			v
		174	377	235			131	506	248
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			516	135			385	710	
	34 <	IN =	1371 <	496		80 <	IN =	2334 <	565
	16 >	OUT =	1371 >	303		61 >	OUT =	2334 >	858
			899	343			686	1323	
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		32	23				21	5	
	0 <	IN =	629 <	456		0 <	IN =	822 <	363
	0 >	OUT =	631 >	122		0 >	OUT =	818 >	429
			486	141			384	438	
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			207	59			113	200	
	13 <	IN =	730 <	340		22 <	IN =	859 <	249
	6 >	OUT =	731 >	156		17 >	OUT =	858 >	347
			503	177			288	480	
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2035				
			830	283			762	1428	
	81 <	IN =	3105 <	695		129 <	IN =	6741 <	1679
	35 >	OUT =	3105 >	1427		85 >	OUT =	6740 >	3220
			1314	1545			1963	4215	
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		33	30				168	121	
	5 <	IN =	223 <	40		116 <	IN =	826 <	351
	14 >	OUT =	228 >	119		7 >	OUT =	830 >	202
			74	136			391	300	
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			326	118			255	430	
	32 <	IN =	1254 <	277		65 <	IN =	2094 <	558
	18 >	OUT =	1256 >	582		26 >	OUT =	2095 >	952
			524	632			647	1255	
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			120	60			161	245	
	20 <			<		57 <		<	307
	14 >			>		9 >		>	576
			-48	454			360	758	
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
			120	70			160	240	
	40 <	IN =	650 <	50		60 <	IN =	1260 <	310
	30 >	OUT =	540 >	430		30 >	OUT =	1240 >	580
			0	450			360	760	
FUTURE YEAR GROWTH: 24 YEARS					FUTURE YEAR GROWTH: 24 YEARS				
			100	60			130	190	
	30 <			<		50 <		<	250
	20 >			>		20 >		>	460
			0	360			290	610	
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
			880	710			560	930	
	420 <	IN =	2910 <	560		380 <	IN =	3290 <	910
	320 >	OUT =	2820 >	840		320 >	OUT =	3250 >	910
			850	1150			1030	1500	
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
			880	730			560	940	
	430 <	IN =	2910 <	560		380 <	IN =	3290 <	910
	320 >	OUT =	2910 >	870		320 >	OUT =	3280 >	920
			880	1150			1040	1500	

PALM AVENUE (NS) / KENDALL DRIVE (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	174	SOUTH LEG		NORTH BOUND	LEFT	131	SOUTH LEG	
	THRU	377		1,150		THRU	506		1,500
	RIGHT	235		880		RIGHT	248		1,040
SOUTH BOUND	LEFT	169	NORTH LEG		SOUTH BOUND	LEFT	130	NORTH LEG	
	THRU	489		880		THRU	221		560
	RIGHT	122		730		RIGHT	74		940
EAST BOUND	LEFT	51	WEST LEG		EAST BOUND	LEFT	51	WEST LEG	
	THRU	94		320		THRU	75		320
	RIGHT	153		430		RIGHT	174		380
WEST BOUND	LEFT	209	EAST LEG		WEST BOUND	LEFT	347	EAST LEG	
	THRU	90		560		THRU	129		910
	RIGHT	223		870		RIGHT	181		920

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	174	218	NORTH LEG	NORTH BOUND	LEFT	131	177	NORTH LEG
	THRU	377	458	RATIO 10.1%		THRU	506	702	RATIO 9.4%
	RIGHT	235	475	ADT 15,900		RIGHT	248	616	ADT 15,900
SOUTH BOUND	LEFT	169	262	SOUTH LEG	SOUTH BOUND	LEFT	130	206	SOUTH LEG
	THRU	489	501	RATIO 7.7%		THRU	221	288	RATIO 9.6%
	RIGHT	122	117	ADT 26,500		RIGHT	74	64	ADT 26,500
EAST BOUND	LEFT	51	43	EAST LEG	EAST BOUND	LEFT	51	37	EAST LEG
	THRU	94	133	RATIO 7.5%		THRU	75	97	RATIO 9.6%
	RIGHT	153	143	ADT 19,000		RIGHT	174	185	ADT 19,000
WEST BOUND	LEFT	209	236	WEST LEG	WEST BOUND	LEFT	347	567	WEST LEG
	THRU	90	95	RATIO 9.5%		THRU	129	139	RATIO 8.8%
	RIGHT	223	229	ADT 7,900		RIGHT	181	201	ADT 7,900

PALM AVENUE (NS) / I-215 FREEWAY NB RAMP (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		268	545	0			301	430	0
0 ^	<	V	>	^	0 ^	<	V	>	^
0 >				<	0 >				<
0 V				V	0 V				V
		49	449	0			91	388	0
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			813	754			731	875	
318 <	IN =	1710 <		399	392 <	IN =	1734 <		524
0 >	OUT =	1710 >		0	0 >	OUT =	1734 >		0
			638	498				467	479
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		9	22	0			0	9	0
0 ^	<	V	>	^	0 ^	<	V	>	^
0 >				<	0 >				<
0 V				V	0 V				V
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5	3: 2.0	4+: 3.0		24 20 0	2: 1.5	3: 2	4+: 3.0	7 5 0	
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		277	567	0			301	439	0
0 ^	<	V	>	^	0 ^	<	V	>	^
0 >				<	0 >				<
0 V				V	0 V				V
		73	469	0			98	393	0
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			899	343			686	1323	
526 <	IN =	1312 <		126	404 <	IN =	2146 <		489
0 >	OUT =	1312 >		0	0 >	OUT =	2146 >		0
			443	287				419	971
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
			486	141			384	438	
489 <	IN =	632 <		0	387 <	IN =	825 <		0
0 >	OUT =	630 >		0	0 >	OUT =	825 >		0
			0	146				0	441
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			503	177			288	480	
363 <	IN =	709 <		48	210 <	IN =	807 <		137
0 >	OUT =	708 >		0	0 >	OUT =	807 >		0
			168	158				117	382
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			1314	1545			1963	4215	
658 <	IN =	3057 <		650	820 <	IN =	6579 <		1384
0 >	OUT =	3057 >		0	0 >	OUT =	6579 >		0
			854	1093				1544	3232
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
			74	136			391	300	
40 <	IN =	281 <		95	145 <	IN =	1196 <		576
0 >	OUT =	281 >		0	0 >	OUT =	1194 >		0
			105	112				749	229
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			524	632			647	1255	
263 <	IN =	1255 <		279	266 <	IN =	2141 <		532
0 >	OUT =	1255 >		0	0 >	OUT =	2141 >		0
			359	453				620	962
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			-48	454			360	758	
-174 <				247	26 <				467
0 >				0	0 >				0
			209	289				596	554
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
			80	450			360	760	
40 <	IN =	620 <		250	40 <	IN =	1380 <		470
0 >	OUT =	700 >		0	0 >	OUT =	1400 >		0
			210	290				600	550
FUTURE YEAR GROWTH: 2 YEARS					FUTURE YEAR GROWTH: 2 YEARS				
			10	30			20	50	
0 <				20	0 <				30
0 >				0	0 >				0
			10	20				40	40
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
			850	820			760	940	
350 <	IN =	1860 <		450	400 <	IN =	1870 <		580
0 >	OUT =	1860 >		0	0 >	OUT =	1870 >		0
			690	560				530	530
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
			850	820			760	940	
350 <	IN =	1860 <		450	400 <	IN =	1870 <		580
0 >	OUT =	1860 >		0	0 >	OUT =	1870 >		0
			690	560				530	530

PALM AVENUE (NS) / I-215 FREEWAY NB RAMPS (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2013) 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	73	SOUTH LEG		NORTH BOUND	LEFT	98	SOUTH LEG		
	THRU	469		560		THRU	393		530	
	RIGHT	0		690		RIGHT	0		530	
SOUTH BOUND	LEFT	0	NORTH LEG		SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	567		850		THRU	439		760	
	RIGHT	277		820		RIGHT	301		940	
EAST BOUND	LEFT	0	WEST LEG		EAST BOUND	LEFT	0	WEST LEG		
	THRU	0		0		THRU	0		0	
	RIGHT	0		350		RIGHT	0		400	
WEST BOUND	LEFT	109	EAST LEG		WEST BOUND	LEFT	55	EAST LEG		
	THRU	1		450		THRU	0		580	
	RIGHT	319		0		RIGHT	493		0	

OPENING YEAR (2013) 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	73	74	NORTH LEG	NORTH BOUND	LEFT	98	106	NORTH LEG	
	THRU	469	486	RATIO 8.7%		THRU	393	424	RATIO 8.9%	
	RIGHT	0	0	ADT 19,300		RIGHT	0	0	ADT 19,300	
SOUTH BOUND	LEFT	0	0	SOUTH LEG	SOUTH BOUND	LEFT	0	0	SOUTH LEG	
	THRU	567	575	RATIO 10.8%		THRU	439	467	RATIO 9.1%	
	RIGHT	277	286	ADT 11,600		RIGHT	301	311	ADT 11,600	
EAST BOUND	LEFT	0	0	EAST LEG	EAST BOUND	LEFT	0	0	EAST LEG	
	THRU	0	0	RATIO 7.0%		THRU	0	0	RATIO 9.1%	
	RIGHT	0	0	ADT 6,400		RIGHT	0	0	ADT 6,400	
WEST BOUND	LEFT	109	115	WEST LEG	WEST BOUND	LEFT	55	63	WEST LEG	
	THRU	1	1	RATIO 7.7%		THRU	0	0	RATIO 8.9%	
	RIGHT	319	334	ADT 4,700		RIGHT	493	516	ADT 4,700	

PALM AVENUE (NS) / I-215 FREEWAY NB RAMPS (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		268	545	0		301	430	0	
0 ^	<	v	>	305	0 ^	<	v	>	487
0 >				1	0 >				0
0 v				93	0 v				37
		49	449	0		91	388	0	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
		813	754			731	875		
318 <	IN =	1710 <		399	392 <	IN =	1734 <		524
0 >	OUT =	1710 >		0	0 >	OUT =	1734 >		0
		638	498			467	479		
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		9	22	0		0	9	0	
0 ^	<	v	>	14	0 ^	<	v	>	6
0 >				0	0 >				0
0 v				16	0 v				18
PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0					PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0				
		24	20	0		7	5	0	
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		277	567	0		301	439	0	
0 ^	<	v	>	319	0 ^	<	v	>	493
0 >				1	0 >				0
0 v				109	0 v				55
		73	469	0		98	393	0	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
		899	343			686	1323		
526 <	IN =	1312 <		126	404 <	IN =	2146 <		489
0 >	OUT =	1312 >		0	0 >	OUT =	2146 >		0
		443	287			419	971		
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		486	141			384	438		
489 <	IN =	632 <		0	387 <	IN =	825 <		0
0 >	OUT =	630 >		0	0 >	OUT =	825 >		0
		0	146			0	441		
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		503	177			288	480		
363 <	IN =	709 <		48	210 <	IN =	807 <		137
0 >	OUT =	708 >		0	0 >	OUT =	807 >		0
		168	158			117	382		
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
		1314	1545			1963	4215		
658 <	IN =	3057 <		650	820 <	IN =	6579 <		1384
0 >	OUT =	3057 >		0	0 >	OUT =	6579 >		0
		854	1093			1544	3232		
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
		74	136			391	300		
40 <	IN =	281 <		95	145 <	IN =	1196 <		576
0 >	OUT =	281 >		0	0 >	OUT =	1194 >		0
		105	112			749	229		
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
		524	632			647	1255		
263 <	IN =	1255 <		279	266 <	IN =	2141 <		532
0 >	OUT =	1255 >		0	0 >	OUT =	2141 >		0
		359	453			620	962		
RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): 2000 TO 2030 CONVERSION OF TRUCKS TO: FACTOR = 1.50				
		-48	454			360	758		
-174 <				247	26 <				467
0 >				0	0 >				0
		209	289			596	554		
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH % 2000 TO 2030				
		80	450			360	760		
40 <	IN =	620 <		250	40 <	IN =	1380 <		470
0 >	OUT =	700 >		0	0 >	OUT =	1400 >		0
		210	290			600	550		
FUTURE YEAR GROWTH: 2011 TO 2035 24 YEARS					FUTURE YEAR GROWTH: 2011 TO 2035 24 YEARS				
		60	360			290	610		
30 <				200	30 <				380
0 >				0	0 >				0
		170	230			480	440		
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
		900	1150			1030	1500		
380 <	IN =	2300 <		630	430 <	IN =	2890 <		930
0 >	OUT =	2380 >		0	0 >	OUT =	2900 >		0
		850	770			970	930		
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
		930	1150			1030	1500		
380 <	IN =	2380 <		650	430 <	IN =	2890 <		930
0 >	OUT =	2380 >		0	0 >	OUT =	2900 >		0
		850	800			970	930		

PALM AVENUE (NS) / I-215 FREEWAY NB RAMPS (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	73	SOUTH LEG		NORTH BOUND	LEFT	98	SOUTH LEG	
	THRU	469		800		THRU	393		930
	RIGHT	0		850		RIGHT	0		970
SOUTH BOUND	LEFT	0	NORTH LEG		SOUTH BOUND	LEFT	0	NORTH LEG	
	THRU	567		930		THRU	439		1,030
	RIGHT	277		1,150		RIGHT	301		1,500
EAST BOUND	LEFT	0	WEST LEG		EAST BOUND	LEFT	0	WEST LEG	
	THRU	0		0		THRU	0		0
	RIGHT	0		380		RIGHT	0		430
WEST BOUND	LEFT	109	EAST LEG		WEST BOUND	LEFT	55	EAST LEG	
	THRU	1		650		THRU	0		930
	RIGHT	319		0		RIGHT	493		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 BOUND	LEFT	73	108	NORTH LEG	NORTH BOUND	LEFT	98	181	NORTH LEG
	THRU	469	691	RATIO 7.9%		THRU	393	748	RATIO 9.6%
	RIGHT	0	0	ADT 26,500		RIGHT	0	0	ADT 26,500
SOUTH BOUND	LEFT	0	0	SOUTH LEG	SOUTH BOUND	LEFT	0	0	SOUTH LEG
	THRU	567	661	RATIO 9.8%		THRU	439	793	RATIO 11.3%
	RIGHT	277	270	ADT 16,800		RIGHT	301	249	ADT 16,800
EAST BOUND	LEFT	0	0	EAST LEG	EAST BOUND	LEFT	0	0	EAST LEG
	THRU	0	0	RATIO 7.6%		THRU	0	0	RATIO 10.8%
	RIGHT	0	0	ADT 8,600		RIGHT	0	0	ADT 8,600
WEST BOUND	LEFT	109	189	WEST LEG	WEST BOUND	LEFT	55	177	WEST LEG
	THRU	1	1	RATIO 6.8%		THRU	0	0	RATIO 7.7%
	RIGHT	319	459	ADT 5,600		RIGHT	493	752	ADT 5,600

PALM AVENUE (NS) / I-215 FREEWAY SB RAMP (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		30	145	462			36	130	294
	17 ^	<	v	>			<	v	>
	52 >			^		30 ^			^
	32 v			v		21 >			<
				64		12 v			v
		<	^	>			<	^	>
		17	74	17			22	227	161
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			637	523			460	471	
			v	^			v	^	
	52 <	IN =	1347 <	501		62 <	IN =	1173 <	240
	101 >	OUT =	1347 >	531		63 >	OUT =	1173 >	476
			v	^			v	^	
			241	108				164	410
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
		3	22	14			5	21	7
	3 ^	<	v	>			<	v	>
	9 >			^		2 ^			^
	7 v			v		6 >			<
				15		4 v			v
				0					6
PCE FACTORS BY AXLE:				12	PCE FACTORS BY AXLE:				
2: 1.5 3: 2.0 4+: 3.0			0	26	2: 1.5 3: 2 4+: 3.0			4	12
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
		33	167	476			41	151	301
	20 ^	<	v	>			<	v	>
	61 >			^		32 ^			^
	39 v			v		27 >			<
				76		16 v			v
		<	^	>			<	^	>
		17	100	32			25	239	175
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			443	287			419	971	
			v	^			v	^	
	0 <	IN =	994 <	238		0 <	IN =	1769 <	689
	0 >	OUT =	993 >	442		0 >	OUT =	1769 >	481
			v	^			v	^	
			264	313				317	661
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
		0	146				0	441	
	0 <	IN =	183 <	178		0 <	IN =	454 <	390
	0 >	OUT =	182 >	0		0 >	OUT =	456 >	0
			v	^			v	^	
			36	5				15	64
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			168	158			117	382	
			v	^			v	^	
	0 <	IN =	439 <	150		0 <	IN =	609 <	290
	0 >	OUT =	438 >	168		0 >	OUT =	609 >	135
			v	^			v	^	
			112	121				93	201
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			854	1093			1544	3232	
			v	^			v	^	
	77 <	IN =	2353 <	1047		443 <	IN =	5393 <	3003
	166 >	OUT =	2353 >	731		181 >	OUT =	5392 >	1105
			v	^			v	^	
			452	286				612	665
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
			105	112			749	229	
	0 <	IN =	302 <	117		0 <	IN =	1340 <	177
	0 >	OUT =	301 >	77		0 >	OUT =	1346 >	432
			v	^			v	^	
			112	80				685	414
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			359	453			620	962	
			v	^			v	^	
	29 <	IN =	995 <	437		124 <	IN =	1845 <	885
	63 >	OUT =	994 >	303		51 >	OUT =	1846 >	417
			v	^			v	^	
			209	135				343	290
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			209	289			596	554	
			v	^			v	^	
	29 <			277		124 <			568
	63 >			148		51 >			337
				^					^
			109	27				334	132
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
			210	290			600	550	
			v	^			v	^	
	30 <	IN =	580 <	280		120 <	IN =	1350 <	570
	60 >	OUT =	580 >	150		50 >	OUT =	1340 >	340
			v	^			v	^	
			110	30				330	130
FUTURE YEAR GROWTH: 2 YEARS					FUTURE YEAR GROWTH: 2 YEARS				
			10	20			40	40	
			v	^			v	^	
	0 <			20		10 <			40
	0 >			10		0 >			20
				^					^
			10	0				20	10
INITIAL FUTURE YEAR VOLUMES: 2013					INITIAL FUTURE YEAR VOLUMES: 2013				
			690	590			530	530	
			v	^			v	^	
	60 <	IN =	1510 <	550		80 <	IN =	1350 <	290
	120 >	OUT =	1520 >	580		80 >	OUT =	1350 >	520
			v	^			v	^	
			290	150				220	450
BALANCED FUTURE YEAR VOLUMES: 2013					BALANCED FUTURE YEAR VOLUMES: 2013				
			690	590			530	530	
			v	^			v	^	
	60 <	IN =	1510 <	550		80 <	IN =	1350 <	290
	120 >	OUT =	1520 >	580		80 >	OUT =	1350 >	520
			v	^			v	^	
			290	150				220	450

PALM AVENUE (NS) / I-215 FREEWAY SB RAMPS (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2013) 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	17	SOUTH LEG IN ... OUT ...		NORTH BOUND	LEFT	26	SOUTH LEG IN ... OUT ...	
	THRU	100		150		THRU	239		450
	RIGHT	32		290		RIGHT	175		220
SOUTH BOUND	LEFT	476	NORTH LEG IN ... OUT ...		SOUTH BOUND	LEFT	301	NORTH LEG IN ... OUT ...	
	THRU	167		690		THRU	151		530
	RIGHT	33		590		RIGHT	41		530
EAST BOUND	LEFT	20	WEST LEG IN ... OUT ...		EAST BOUND	LEFT	32	WEST LEG IN ... OUT ...	
	THRU	61		120		THRU	27		80
	RIGHT	39		60		RIGHT	16		80
WEST BOUND	LEFT	76	EAST LEG IN ... OUT ...		WEST BOUND	LEFT	28	EAST LEG IN ... OUT ...	
	THRU	5		550		THRU	6		290
	RIGHT	447		580		RIGHT	214		520

OPENING YEAR (2013) 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	17	18	NORTH LEG RATIO 11.1% ADT 11,600	NORTH BOUND	LEFT	26	28	NORTH LEG RATIO 9.1% ADT 11,600
	THRU	100	101			THRU	239	247	
	RIGHT	32	33			RIGHT	175	176	
SOUTH BOUND	LEFT	476	487	SOUTH LEG RATIO 6.2% ADT 7,100	SOUTH BOUND	LEFT	301	316	SOUTH LEG RATIO 9.4% ADT 7,100
	THRU	167	171			THRU	151	169	
	RIGHT	33	36			RIGHT	41	45	
EAST BOUND	LEFT	20	20	EAST LEG RATIO 12.8% ADT 8,900	EAST BOUND	LEFT	32	34	EAST LEG RATIO 9.1% ADT 8,900
	THRU	61	61			THRU	27	28	
	RIGHT	39	39			RIGHT	16	18	
WEST BOUND	LEFT	76	79	WEST LEG RATIO 10.6% ADT 1,700	WEST BOUND	LEFT	28	34	WEST LEG RATIO 9.4% ADT 1,700
	THRU	5	6			THRU	6	7	
	RIGHT	447	469			RIGHT	214	249	

PALM AVENUE (NS) / I-215 FREEWAY SB RAMP (EW)									
MORNING PEAK HOUR					EVENING PEAK HOUR				
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2011				
		30	145	462			36	130	294
	17 ^	<	v	>			<	v	>
	52 >			<		30 ^			<
	32 v			v		21 >			<
						12 v			v
		<	17	74			<	22	227
				17				161	
EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011					EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2011				
			637	523			460	471	
			v	^			v	^	
	52 <	IN =	1347	<		62 <	IN =	1173	<
	101 >	OUT =	1347	>		63 >	OUT =	1173	>
			v	^			v	^	
			241	108				164	410
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):					EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):				
			3	22			5	21	7
		<	v	>			<	v	>
	3 ^			^		2 ^			^
	9 >			<		6 >			<
	7 v			v		4 v			v
PCE FACTORS BY AXLE:					PCE FACTORS BY AXLE:				
2: 1.5	3: 2.0	4+: 3.0	0	26	2: 1.5	3: 2	4+: 3.0	4	12
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011					TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCE'S): 2011				
			33	167			41	151	301
		<	v	>			<	v	>
	20 ^			^		32 ^			^
	61 >			<		27 >			<
	39 v			v		16 v			v
		<	17	100			<	26	239
				32				175	
EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000					EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000				
			443	287			419	971	
			v	^			v	^	
	0 <	IN =	994	<		0 <	IN =	1769	<
	0 >	OUT =	993	>		0 >	OUT =	1769	>
			v	^			v	^	
			264	313				317	661
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000					EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000				
			0	146			0	441	
		<	v	>			<	v	>
	0 <	IN =	183	<		0 <	IN =	454	<
	0 >	OUT =	182	>		0 >	OUT =	456	>
			v	^			v	^	
			36	5				15	64
EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					EXISTING PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			168	158			117	382	
			v	^			v	^	
	0 <	IN =	439	<		0 <	IN =	609	<
	0 >	OUT =	438	>		0 >	OUT =	609	>
			v	^			v	^	
			112	121				93	201
FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030					FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030				
			854	1093			1544	3232	
			v	^			v	^	
	77 <	IN =	2353	<		443 <	IN =	5393	<
	166 >	OUT =	2353	>		181 >	OUT =	5392	>
			v	^			v	^	
			452	286				612	665
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020					FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020				
			105	112			749	229	
		<	v	>			<	v	>
	0 <	IN =	302	<		0 <	IN =	1340	<
	0 >	OUT =	301	>		0 >	OUT =	1346	>
			v	^			v	^	
			112	80				685	414
FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.38 PHF FOR TRUCKS: 0.333					FUTURE PEAK HOUR MODEL YEAR (PCE'S): PHF FOR CARS: 0.28 PHF FOR TRUCKS: 0.25				
			359	453			620	962	
			v	^			v	^	
	29 <	IN =	995	<		124 <	IN =	1845	<
	63 >	OUT =	994	>		51 >	OUT =	1846	>
			v	^			v	^	
			209	135				343	290
RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50					RAW GROWTH (PCE'S): CONVERSION OF TRUCKS TO: FACTOR = 1.50				
			209	289			596	554	
			v	^			v	^	
	29 <			<		124 <			<
	63 >			>		51 >			>
			v	^			v	^	
			109	27				334	132
ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %					ADJUSTED GROWTH (PCE'S): 10 MINIMUM GROWTH %				
			210	290			600	550	
			v	^			v	^	
	30 <	IN =	580	<		120 <	IN =	1350	<
	60 >	OUT =	580	>		50 >	OUT =	1340	>
			v	^			v	^	
			110	30				330	130
FUTURE YEAR GROWTH: 24 YEARS					FUTURE YEAR GROWTH: 24 YEARS				
			170	230			480	440	
			v	^			v	^	
	20 <			<		100 <			<
	50 >			>		40 >			>
			v	^			v	^	
			90	20				260	100
INITIAL FUTURE YEAR VOLUMES: 2035					INITIAL FUTURE YEAR VOLUMES: 2035				
			850	800			970	930	
			v	^			v	^	
	80 <	IN =	1940	<		170 <	IN =	2340	<
	170 >	OUT =	1940	>		120 >	OUT =	2330	>
			v	^			v	^	
			370	170				460	540
BALANCED FUTURE YEAR VOLUMES: 2035					BALANCED FUTURE YEAR VOLUMES: 2035				
			850	800			970	930	
			v	^			v	^	
	80 <	IN =	1940	<		170 <	IN =	2340	<
	170 >	OUT =	1940	>		120 >	OUT =	2330	>
			v	^			v	^	
			370	170				460	540

PALM AVENUE (NS) / I-215 FREEWAY SB RAMPS (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	17	SOUTH LEG		NORTH BOUND	LEFT	26	SOUTH LEG	
	THRU	100		170		THRU	239		540
	RIGHT	32		370		RIGHT	175		460
SOUTH BOUND	LEFT	476	NORTH LEG		SOUTH BOUND	LEFT	301	NORTH LEG	
	THRU	167		850		THRU	151		970
	RIGHT	33		800		RIGHT	41		930
EAST BOUND	LEFT	20	WEST LEG		EAST BOUND	LEFT	32	WEST LEG	
	THRU	61		170		THRU	27		120
	RIGHT	39		80		RIGHT	16		170
WEST BOUND	LEFT	76	EAST LEG		WEST BOUND	LEFT	28	EAST LEG	
	THRU	5		750		THRU	6		710
	RIGHT	447		690		RIGHT	214		770

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	17	21	NORTH LEG	NORTH BOUND	LEFT	26	44	NORTH LEG
	THRU	100	119	RATIO 9.8%		THRU	239	291	RATIO 11.3%
	RIGHT	32	31	ADT 16,800		RIGHT	175	203	ADT 16,800
SOUTH BOUND	LEFT	476	578	SOUTH LEG	SOUTH BOUND	LEFT	301	527	SOUTH LEG
	THRU	167	218	RATIO 7.0%		THRU	151	336	RATIO 13.0%
	RIGHT	33	51	ADT 7,700		RIGHT	41	104	ADT 7,700
EAST BOUND	LEFT	20	33	EAST LEG	EAST BOUND	LEFT	32	49	EAST LEG
	THRU	61	81	RATIO 10.7%		THRU	27	40	RATIO 10.9%
	RIGHT	39	56	ADT 13,500		RIGHT	16	30	ADT 13,500
WEST BOUND	LEFT	76	96	WEST LEG	WEST BOUND	LEFT	28	94	WEST LEG
	THRU	5	8	RATIO 9.2%		THRU	6	23	RATIO 10.7%
	RIGHT	447	649	ADT 2,700		RIGHT	214	590	ADT 2,700

APPENDIX D

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 Highway Capacity Manual. 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 Highway Capacity Manual, 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 DESCRIPTION¹

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

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B [12.0]

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	0 1 0	0	0	1! 0 0

Volume Module:

Base Vol:	18	4	85	1	2	1	0	5	28	74	5	2
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:	18	4	85	1	2	1	0	5	28	74	5	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:	0.42	0.42	0.42	0.50	0.50	0.50	0.46	0.46	0.46	0.54	0.54	0.54
PHF Volume:	43	9	201	2	4	2	0	11	61	137	9	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	43	9	201	2	4	2	0	11	61	137	9	4

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	6	xxxx	xxxxxx	210	xxxx	xxxxxx	xxxx	305	5	240	205	110
Potent Cap.:	1628	xxxx	xxxxxx	1372	xxxx	xxxxxx	xxxx	612	1084	718	695	949
Move Cap.:	1628	xxxx	xxxxxx	1372	xxxx	xxxxxx	xxxx	595	1084	654	675	949
Volume/Cap:	0.03	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.02	0.06	0.21	0.01	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.3	xxxx	xxxxxx	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	964	xxxx	660	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.2	xxxxxx	0.9	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.0	xxxxxx	12.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	B	*
ApproachDel:	xxxxxx	xxxxxx		xxxxxx			9.0			12.0		
ApproachLOS:	*	*		*			A			B		

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: A[9.3]

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	0	0	1	0	0

Volume Module:

Base Vol:	8	2	58	1	1	0	0	1	10	32	2	2
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	2	58	1	1	0	0	1	10	32	2	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:	0.66	0.66	0.66	0.50	0.50	0.50	0.54	0.54	0.54	0.75	0.75	0.75
PHF Volume:	12	3	88	2	2	0	0	2	18	43	3	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	12	3	88	2	2	0	0	2	18	43	3	3

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	2	xxxx	xxxxxx	91	xxxx	xxxxxx	xxxx	121	2	87	77	47
Potent Cap.:	1634	xxxx	xxxxxx	1517	xxxx	xxxxxx	xxxx	773	1088	903	817	1028
Move Cap.:	1634	xxxx	xxxxxx	1517	xxxx	xxxxxx	xxxx	766	1088	880	810	1028
Volume/Cap:	0.01	xxxx	xxxxxx	0.00	xxxx	xxxxxx	xxxx	0.00	0.02	0.05	0.00	0.00

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	
Control Del:	7.2	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	1048	xxxx	883	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxxxx	xxxx	0.1	xxxxxx	0.2	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	8.5	xxxxxx	9.3	xxxxxx	
Shared LOS:	*	*	*	A	*	*	*	*	A	*	A	*	
ApproachDel:	xxxxxx			xxxxxx					8.5		9.3		
ApproachLOS:	*			*					A		A		

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.288
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.9
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	2	80	21	24	94	2	3	5	7	7	6	45
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:	2	80	21	24	94	2	3	5	7	7	6	45
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:	0.49	0.49	0.49	0.55	0.55	0.55	0.39	0.39	0.39	0.47	0.47	0.47
PHF Volume:	4	163	43	43	170	4	8	13	18	15	13	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	163	43	43	170	4	8	13	18	15	13	95
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
Final Volume:	4	163	43	43	170	4	8	13	18	15	13	95

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.20	0.78	0.02	0.20	0.33	0.47	0.12	0.10	0.78
Final Sat.:	17	676	803	151	591	13	138	230	322	90	77	579

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.24	0.24	0.05	0.29	0.29	0.29	0.06	0.06	0.06	0.16	0.16	0.16
Crit Moves:	****			****			****			****		
Delay/Veh:	9.3	9.3	7.3	9.4	9.4	9.4	8.0	8.0	8.0	8.3	8.3	8.3
Delay Adj:	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:	9.3	9.3	7.3	9.4	9.4	9.4	8.0	8.0	8.0	8.3	8.3	8.3
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.9			9.4			8.0			8.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.9			9.4			8.0			8.3		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.3	0.3	0.1	0.4	0.4	0.4	0.0	0.0	0.0	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.077
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	1	45	19	5	34	1	0	0	2	11	0	28
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:	1	45	19	5	34	1	0	0	2	11	0	28
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:	0.79	0.79	0.79	0.75	0.75	0.75	0.50	0.50	0.50	0.61	0.61	0.61
PHF Volume:	1	57	24	7	45	1	0	0	4	18	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	57	24	7	45	1	0	0	4	18	0	46
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
Final Volume:	1	57	24	7	45	1	0	0	4	18	0	46

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.13	0.85	0.02	0.00	0.00	1.00	0.28	0.00	0.72
Final Sat.:	16	742	894	105	712	21	0	0	949	258	0	656

Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.03	0.06	0.06	0.06	xxxx	xxxx	0.00	0.07	xxxx	0.07
Crit Moves:	****			****			****			****		
Delay/Veh:	7.8	7.8	6.8	7.5	7.5	7.5	0.0	0.0	6.7	7.1	0.0	7.1
Delay Adj:	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:	7.8	7.8	6.8	7.5	7.5	7.5	0.0	0.0	6.7	7.1	0.0	7.1
LOS by Move:	A	A	A	A	A	A	*	*	A	A	*	A
ApproachDel:	7.5			7.5			6.7			7.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.5			7.5			6.7			7.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[12.2]

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	1	0 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	3	59	5	22	80	4	5	5	0	4	2	41
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:	3	59	5	22	80	4	5	5	0	4	2	41
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:	0.51	0.51	0.51	0.53	0.53	0.53	0.56	0.56	0.56	0.59	0.59	0.59
PHF Volume:	6	116	10	42	152	8	9	9	0	7	3	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	6	116	10	42	152	8	9	9	0	7	3	69

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	xxxxxx	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	xxxxxx	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	160	xxxx	xxxxxx	126	xxxx	xxxxxx	409	377	xxxxxx	377	376	121
Potent Cap.:	1432	xxxx	xxxxxx	1473	xxxx	xxxxxx	557	557	xxxxxx	584	558	936
Move Cap.:	1432	xxxx	xxxxxx	1473	xxxx	xxxxxx	500	539	xxxxxx	562	540	936
Volume/Cap:	0.00	xxxx	xxxx	0.03	xxxx	xxxx	0.02	0.02	xxxx	0.01	0.01	0.07

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	519	xxxx	xxxxxx	xxxx	860	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	12.2	xxxx	xxxxxx	xxxxxx	9.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	B	*	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	12.2	xxxxxx	xxxxxx	xxxxxx	9.6	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	*	*	A	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 4.8 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:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	1	0	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	36	3	12	29	0	0	4	8	8	4	33
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	36	3	12	29	0	0	4	8	8	4	33
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	0.92	0.92	0.92	0.50	0.50	0.50	0.88	0.88	0.88
PHF Volume:	0	38	3	13	32	0	0	8	16	9	5	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	38	3	13	32	0	0	8	16	9	5	38

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	41	xxxx	xxxxx	xxxx	99	32	109	97	39
Potent Cap.:	xxxx	xxxx	xxxxx	1581	xxxx	xxxxx	xxxx	795	1048	874	797	1038
Move Cap.:	xxxx	xxxx	xxxxx	1581	xxxx	xxxxx	xxxx	788	1048	849	790	1038
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.01	0.02	0.01	0.01	0.04

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	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	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	944	xxxx	972	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	0.1	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	8.9	xxxxx	8.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx				8.9			8.9	
ApproachLOS:	*			*				A			A	

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: A[9.7]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	42	0	38	43	80	0	0	51	34
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	42	0	38	43	80	0	0	51	34
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:	1.00	1.00	1.00	0.73	0.73	0.73	0.93	0.93	0.93	0.85	0.85	0.85
PHF Volume:	0	0	0	57	0	52	46	86	0	0	60	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	57	0	52	46	86	0	0	60	40

Critical Gap Module:

Critical Gp:xxxxx xxxxx xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxxxx
FollowUpTim:xxxxx xxxxx xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol: xxxxx xxxxx xxxxx	258	xxxx	80	100	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.: xxxxx xxxxx xxxxx	735	xxxx	986	1506	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.: xxxxx xxxxx xxxxx	717	xxxx	986	1506	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx	0.08	xxxx	0.05	0.03	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ: xxxxx xxxxx xxxxx	0.3	xxxx	0.2	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:xxxxx xxxxx xxxxx	10.5	xxxx	8.9	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move: * * *	B	*	A	A	*	*	*	*	*
Movement: LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:xxxxx xxxxx xxxxx	xxxxxx	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:xxxxx xxxxx xxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS: * * *	*	*	*	A	*	*	*	*	*
ApproachDel: xxxxxx	9.7	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS: *	A	*	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: A[9.6]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	17	0	23	22	92	0	0	95	28
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	17	0	23	22	92	0	0	95	28
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:	1.00	1.00	1.00	0.70	0.70	0.70	0.79	0.79	0.79	0.92	0.92	0.92
PHF Volume:	0	0	0	24	0	33	28	116	0	0	103	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	24	0	33	28	116	0	0	103	30

Critical Gap Module:

Critical Gp:xxxxx	xxxx	xxxx	xxxx	6.4	xxxx	6.2	4.1	xxxx	xxxx	xxxx	xxxx	xxxx
FollowUpTim:xxxxx	xxxx	xxxx	xxxx	3.5	xxxx	3.3	2.2	xxxx	xxxx	xxxx	xxxx	xxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxx	290	xxxx	118	133	xxxx	xxxx	xxxx	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	xxxx	705	xxxx	939	1464	xxxx	xxxx	xxxx	xxxx	xxxx
Move Cap.:	xxxx	xxxx	xxxx	695	xxxx	939	1464	xxxx	xxxx	xxxx	xxxx	xxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	0.04	0.02	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxx	0.1	xxxx	0.1	0.1	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:xxxxx	xxxx	xxxx	xxxx	10.4	xxxx	9.0	7.5	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	B	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
SharedQueue:xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.5	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			9.6			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.139

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.6

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
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	12	3	20	17	2	3	28	10	3	41	22
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	12	3	20	17	2	3	28	10	3	41	22
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:	0.52	0.52	0.52	0.62	0.62	0.62	0.59	0.59	0.59	0.54	0.54	0.54
PHF Volume:	21	23	6	32	28	3	5	47	17	6	76	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	23	6	32	28	3	5	47	17	6	76	41
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
Final Volume:	21	23	6	32	28	3	5	47	17	6	76	41

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.42	0.46	0.12	0.51	0.44	0.05	0.07	0.69	0.24	0.05	0.62	0.33
Final Sat.:	334	365	91	402	341	40	62	578	206	40	541	290

Capacity Analysis Module:

Vol/Sat:	0.06	0.06	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.14	0.14	0.14
Crit Moves:	****			****			****			****		
Delay/Veh:	7.7	7.7	7.7	7.8	7.8	7.8	7.5	7.5	7.5	7.7	7.7	7.7
Delay Adj:	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:	7.7	7.7	7.7	7.8	7.8	7.8	7.5	7.5	7.5	7.7	7.7	7.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.7			7.8			7.5			7.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.7			7.8			7.5			7.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.050
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.1
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	2	6	2	12	6	5	6	17	4	1	12	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:	2	6	2	12	6	5	6	17	4	1	12	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:	0.63	0.63	0.63	0.52	0.52	0.52	0.68	0.68	0.68	0.75	0.75	0.75
PHF Volume:	3	10	3	23	11	10	9	25	6	1	16	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	10	3	23	11	10	9	25	6	1	16	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
Final Volume:	3	10	3	23	11	10	9	25	6	1	16	15

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.60	0.20	0.52	0.26	0.22	0.22	0.63	0.15	0.04	0.50	0.46
Final Sat.:	176	529	176	458	229	191	197	557	131	39	467	428

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.02	0.02	0.05	0.05	0.05	0.05	0.05	0.05	0.03	0.03	0.03
Crit Moves:	****			****			****			****		
Delay/Veh:	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.2	6.9	6.9	6.9
Delay Adj:	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:	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.2	7.2	6.9	6.9	6.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.1			7.2			7.2			6.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.1			7.2			7.2			6.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.352

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.8

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	74	143	49	2	196	9	3	18	67	56	8	1
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:	74	143	49	2	196	9	3	18	67	56	8	1
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:	0.74	0.74	0.74	0.82	0.82	0.82	0.73	0.73	0.73	0.89	0.89	0.89
PHF Volume:	100	194	66	2	238	11	4	25	92	63	9	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	194	66	2	238	11	4	25	92	63	9	1
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
Final Volume:	100	194	66	2	238	11	4	25	92	63	9	1

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.56	1.07	0.37	0.01	0.95	0.04	0.03	0.20	0.77	0.86	0.12	0.02
Final Sat.:	355	728	260	7	676	31	23	137	509	505	72	9

Capacity Analysis Module:

Vol/Sat:	0.28	0.27	0.26	0.35	0.35	0.35	0.18	0.18	0.18	0.12	0.12	0.12
Crit Moves:	****			****			****			****		
Delay/Veh:	10.3	9.7	9.3	10.4	10.4	10.4	8.9	8.9	8.9	9.3	9.3	9.3
Delay Adj:	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:	10.3	9.7	9.3	10.4	10.4	10.4	8.9	8.9	8.9	9.3	9.3	9.3
LOS by Move:	B	A	A	B	B	B	A	A	A	A	A	A
ApproachDel:	9.8			10.4			8.9			9.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.8			10.4			8.9			9.3		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.4	0.3	0.3	0.5	0.5	0.5	0.2	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.282
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.2
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	60	217	71	8	163	10	5	15	29	29	12	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:	60	217	71	8	163	10	5	15	29	29	12	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:	0.89	0.89	0.89	0.88	0.88	0.88	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	67	243	80	9	185	11	6	17	32	32	13	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	243	80	9	185	11	6	17	32	32	13	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
Final Volume:	67	243	80	9	185	11	6	17	32	32	13	16

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.34	1.25	0.41	0.04	0.90	0.06	0.10	0.31	0.59	0.53	0.22	0.25
Final Sat.:	239	902	309	33	680	42	68	205	397	337	140	163

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.28	0.27	0.26	0.27	0.27	0.27	0.08	0.08	0.08	0.10	0.10	0.10
Crit Moves:	****			****			****			****		
Delay/Veh:	9.8	9.4	8.9	9.3	9.3	9.3	8.3	8.3	8.3	8.7	8.7	8.7
Delay Adj:	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:	9.8	9.4	8.9	9.3	9.3	9.3	8.3	8.3	8.3	8.7	8.7	8.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.4			9.3			8.3			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.4			9.3			8.3			8.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.234
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.5
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	24	24	24	24	24	24	
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	32	223	42	20	285	3	9	11	77	123	13	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:	32	223	42	20	285	3	9	11	77	123	13	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:	0.86	0.86	0.86	0.79	0.79	0.79	0.76	0.76	0.76	0.92	0.92	0.92
PHF Volume:	37	260	49	25	363	4	12	15	102	134	14	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	260	49	25	363	4	12	15	102	134	14	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
Final Volume:	37	260	49	25	363	4	12	15	102	134	14	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	1.68	0.32	1.00	1.98	0.02	0.46	0.54	1.00	0.91	0.09	1.00
Final Sat.:	1700	3029	571	1700	3563	37	789	964	1800	1546	163	1800

Capacity Analysis Module:

Vol/Sat:	0.02	0.09	0.09	0.01	0.10	0.10	0.02	0.02	0.06	0.09	0.09	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.32	0.32	0.18	0.33	0.33	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.13	0.27	0.27	0.08	0.31	0.31	0.04	0.04	0.14	0.22	0.22	0.02
Delay/Veh:	21.5	15.2	15.2	20.7	15.0	15.0	11.0	11.0	11.5	12.0	12.0	10.9
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:	21.5	15.2	15.2	20.7	15.0	15.0	11.0	11.0	11.5	12.0	12.0	10.9
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	2	2	0	3	3	0	0	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.258
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.4
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	24	24	24	24	24	24	
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	112	337	177	9	199	3	3	16	92	99	9	9
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:	112	337	177	9	199	3	3	16	92	99	9	9
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	0.92	0.92	0.92	0.69	0.69	0.69	0.83	0.83	0.83
PHF Volume:	118	354	186	10	217	3	4	23	133	119	11	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	354	186	10	217	3	4	23	133	119	11	11
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
Final Volume:	118	354	186	10	217	3	4	23	133	119	11	11

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	1.31	0.69	1.00	1.97	0.03	0.17	0.83	1.00	0.92	0.08	1.00
Final Sat.:	1700	2360	1240	1700	3547	53	282	1502	1800	1566	142	1800

Capacity Analysis Module:

Vol/Sat:	0.07	0.15	0.15	0.01	0.06	0.06	0.02	0.02	0.07	0.08	0.08	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.18	0.33	0.33	0.17	0.32	0.32	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.39	0.45	0.45	0.03	0.19	0.19	0.04	0.04	0.18	0.19	0.19	0.02
Delay/Veh:	22.6	16.0	16.0	21.0	14.8	14.8	11.0	11.0	11.8	11.8	11.8	10.9
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:	22.6	16.0	16.0	21.0	14.8	14.8	11.0	11.0	11.8	11.8	11.8	10.9
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	2	4	4	0	2	2	0	0	2	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 85 Critical Vol./Cap. (X): 0.604

Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 31.3

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			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	174	377	235	169	489	122	51	94	153	209	90	223
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:	174	377	235	169	489	122	51	94	153	209	90	223
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	0.89	0.89	0.89	0.88	0.88	0.88	0.87	0.87	0.87
PHF Volume:	202	438	273	189	548	137	58	106	173	241	104	257
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	202	438	273	189	548	137	58	106	173	241	104	257
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
Final Volume:	202	438	273	189	548	137	58	106	173	241	104	257

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	2.00	1.00	1.00	1.60	0.40	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2881	719	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.12	0.12	0.15	0.11	0.19	0.19	0.03	0.06	0.10	0.14	0.06	0.14
Crit Moves:	****			****					****	****		
Green/Cycle:	0.15	0.25	0.44	0.14	0.24	0.24	0.13	0.33	0.33	0.18	0.38	0.38
Volume/Cap:	0.78	0.48	0.35	0.79	0.78	0.78	0.25	0.18	0.29	0.78	0.15	0.38
Delay/Veh:	48.9	27.3	16.3	51.1	34.7	34.7	33.6	20.5	21.4	45.4	17.7	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:	48.9	27.3	16.3	51.1	34.7	34.7	33.6	20.5	21.4	45.4	17.7	19.7
LOS by Move:	D	C	B	D	C	C	C	C	C	D	B	B
HCM2kAvgQ:	8	5	5	7	10	10	2	2	3	8	2	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 90 Critical Vol./Cap. (X): 0.611
Loss Time (sec): 8 (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			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	131	506	248	130	221	74	51	75	174	347	129	181
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:	131	506	248	130	221	74	51	75	174	347	129	181
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	0.90	0.90	0.90	0.91	0.91	0.91	0.93	0.93	0.93
PHF Volume:	135	522	256	144	246	82	56	82	190	375	139	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	522	256	144	246	82	56	82	190	375	139	196
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
Final Volume:	135	522	256	144	246	82	56	82	190	375	139	196

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	2.00	1.00	1.00	1.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2697	903	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.08	0.14	0.14	0.08	0.09	0.09	0.03	0.05	0.11	0.22	0.08	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.20	0.49	0.11	0.20	0.20	0.16	0.31	0.31	0.29	0.44	0.44
Volume/Cap:	0.71	0.72	0.29	0.76	0.46	0.46	0.21	0.15	0.34	0.76	0.18	0.25
Delay/Veh:	50.8	37.3	13.9	55.6	32.1	32.1	33.4	22.5	24.2	36.2	15.3	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:	50.8	37.3	13.9	55.6	32.1	32.1	33.4	22.5	24.2	36.2	15.3	15.9
LOS by Move:	D	D	B	E	C	C	C	C	C	D	B	B
HCM2kAvgQ:	5	8	4	6	4	4	2	2	4	12	2	3

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 7.0 Worst Case Level Of Service: D[29.2]

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:	1	0	0	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	73	469	0	0	567	277	0	0	0	109	0	319
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:	73	469	0	0	567	277	0	0	0	109	0	319
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:	0.79	0.79	0.79	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	92	591	0	0	620	303	0	0	0	119	0	347
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	92	591	0	0	620	303	0	0	0	119	0	347

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	922	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1084	xxxx	591
Potent Cap.:	749	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	242	xxxx	511
Move Cap.:	749	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	219	xxxx	511
Volume/Cap:	0.12	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.54	xxxx	0.68

Level Of Service Module:

2Way95thQ:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.9	xxxx	5.1	
Control Del:	10.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	39.3	xxxx	25.7	
LOS by Move:	B	*	*	*	*	*	*	*	*	E	*	D	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			29.2			
ApproachLOS:	*			*			*			D			

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 9.7 Worst Case Level Of Service: D[29.9]

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:	1	0	1	0	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	98	393	0	0	439	301	0	0	0	55	0	493
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:	98	393	0	0	439	301	0	0	0	55	0	493
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:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.96	0.96	0.96
PHF Volume:	107	427	0	0	463	318	0	0	0	58	0	516
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	107	427	0	0	463	318	0	0	0	58	0	516

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	781	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	872	xxxx	427
Potent Cap.:	846	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	324	xxxx	632
Move Cap.:	846	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	293	xxxx	632
Volume/Cap:	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.20	xxxx	0.82

Level Of Service Module:

2Way95thQ:	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.7	xxxx	8.4
Control Del:	9.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	20.3	xxxx	31.0
LOS by Move:	A	*	*	*	*	*	*	*	*	C	*	D
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			xxxxxx			xxxxxx			29.9		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.998

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 34.8

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	17	100	32	476	167	33	20	61	39	76	5	447
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:	17	100	32	476	167	33	20	61	39	76	5	447
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.87	0.87	0.87	0.84	0.84	0.84	0.93	0.93	0.93	0.80	0.80	0.00
PHF Volume:	20	116	37	564	198	39	21	65	42	95	6	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	116	37	564	198	39	21	65	42	95	6	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	20	116	37	564	198	39	21	65	42	95	6	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.67	0.33	0.25	0.75	1.00	0.94	0.06	1.00
Final Sat.:	462	495	546	565	1025	207	119	364	543	432	28	539

Capacity Analysis Module:

Vol/Sat:	0.04	0.23	0.07	1.00	0.19	0.19	0.18	0.18	0.08	0.22	0.22	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	10.7	11.9	9.6	62.0	9.8	9.6	11.5	11.5	9.7	12.4	12.4	0.0
Delay Adj:	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:	10.7	11.9	9.6	62.0	9.8	9.6	11.5	11.5	9.7	12.4	12.4	0.0
LOS by Move:	B	B	A	F	A	A	B	B	A	B	B	*
ApproachDel:	11.3			46.5			10.9			12.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.3			46.5			10.9			12.4		
LOS by Appr:	B			E			B			B		
AllWayAvgQ:	0.0	0.3	0.1	8.3	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.617
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	26	239	175	301	151	41	32	27	16	28	6	214
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:	26	239	175	301	151	41	32	27	16	28	6	214
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.79	0.79	0.79	0.93	0.93	0.93	0.73	0.73	0.73	0.91	0.91	0.00
PHF Volume:	33	301	221	323	162	44	44	37	22	31	7	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	301	221	323	162	44	44	37	22	31	7	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	33	301	221	323	162	44	44	37	22	31	7	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.57	0.43	0.54	0.46	1.00	0.82	0.18	1.00
Final Sat.:	514	560	625	523	892	250	249	210	523	360	77	503

Capacity Analysis Module:

Vol/Sat:	0.06	0.54	0.35	0.62	0.18	0.18	0.18	0.18	0.04	0.09	0.09	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	9.9	15.8	11.2	19.3	10.2	9.9	11.5	11.5	9.3	11.0	11.0	0.0
Delay Adj:	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:	9.9	15.8	11.2	19.3	10.2	9.9	11.5	11.5	9.3	11.0	11.0	0.0
LOS by Move:	A	C	B	C	B	A	B	B	A	B	B	*
ApproachDel:	13.6			15.7			11.0			11.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.6			15.7			11.0			11.0		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.1	1.1	0.5	1.4	0.2	0.2	0.2	0.2	0.0	0.1	0.1	0.0

Note: Queue reported is the number of cars per lane.

Existing Plus Project

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 5.0 Worst Case Level Of Service: C[18.0]

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	1	0	0	0	1	0	0

Volume Module:

Base Vol:	18	4	85	1	2	1	0	5	28	74	5	2
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:	18	4	85	1	2	1	0	5	28	74	5	2
Added Vol:	0	34	0	0	99	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	38	85	1	101	1	0	5	28	74	5	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:	0.42	0.42	0.42	0.50	0.50	0.50	0.46	0.46	0.46	0.54	0.54	0.54
PHF Volume:	43	90	201	2	202	2	0	11	61	137	9	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	43	90	201	2	202	2	0	11	61	137	9	4

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	204	xxxx	xxxxxx	291	xxxx	xxxxxx	xxxx	583	203	519	483	190
Potent Cap.:	1380	xxxx	xxxxxx	1283	xxxx	xxxxxx	xxxx	427	843	471	486	857
Move Cap.:	1380	xxxx	xxxxxx	1283	xxxx	xxxxxx	xxxx	413	843	417	470	857
Volume/Cap:	0.03	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.03	0.07	0.33	0.02	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.7	xxxx	xxxxxx	7.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	728	xxxx	425	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.3	xxxxxx	1.6	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	10.5	xxxxxx	18.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	C	*
ApproachDel:	xxxxxx	xxxxxx			10.5			18.0				
ApproachLOS:	*	*			B			C				

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: B[12.0]

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	0	1	0	0	0

Volume Module:

Base Vol:	8	2	58	1	1	0	0	1	10	32	2	2
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	2	58	1	1	0	0	1	10	32	2	2
Added Vol:	0	114	0	0	66	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	116	58	1	67	0	0	1	10	32	2	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:	0.66	0.66	0.66	0.50	0.50	0.50	0.54	0.54	0.54	0.75	0.75	0.75
PHF Volume:	12	176	88	2	134	0	0	2	18	43	3	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	176	88	2	134	0	0	2	18	43	3	3

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	134	xxxx	xxxxxx	264	xxxx	xxxxxx	xxxx	426	134	392	382	220
Potent Cap.:	1463	xxxx	xxxxxx	1312	xxxx	xxxxxx	xxxx	524	920	571	554	825
Move Cap.:	1463	xxxx	xxxxxx	1312	xxxx	xxxxxx	xxxx	518	920	554	549	825
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.00	0.02	0.08	0.00	0.00

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	860	xxxx	564	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxxxx	xxxx	0.1	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	7.7	xxxx	xxxxxx	xxxxxx	xxxx	9.3	xxxxxx	12.0	xxxxxx
Shared LOS:	*	*	*	A	*	*	*	*	A	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.3	xxxxxx	12.0	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	A	*	B	*	*	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.556

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.5

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:

Base Vol:	2	80	21	24	94	2	3	5	7	7	6	45
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:	2	80	21	24	94	2	3	5	7	7	6	45
Added Vol:	0	10	0	72	28	0	0	0	0	0	0	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	90	21	96	122	2	3	5	7	7	6	70
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:	0.49	0.49	0.49	0.55	0.55	0.55	0.39	0.39	0.39	0.47	0.47	0.47
PHF Volume:	4	184	43	174	221	4	8	13	18	15	13	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	184	43	174	221	4	8	13	18	15	13	148
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:	4	184	43	174	221	4	8	13	18	15	13	148

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.44	0.55	0.01	0.20	0.33	0.47	0.08	0.07	0.85
Final Sat.:	14	626	732	312	397	7	117	195	273	56	48	561

Capacity Analysis Module:

Vol/Sat:	0.29	0.29	0.06	0.56	0.56	0.56	0.07	0.07	0.07	0.26	0.26	0.26
Crit Moves:	****					****			****			****
Delay/Veh:	10.2	10.2	7.7	13.6	13.6	13.6	8.8	8.8	8.8	9.5	9.5	9.5
Delay Adj:	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:	10.2	10.2	7.7	13.6	13.6	13.6	8.8	8.8	8.8	9.5	9.5	9.5
LOS by Move:	B	B	A	B	B	B	A	A	A	A	A	A
ApproachDel:	9.8			13.6			8.8			9.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.8			13.6			8.8			9.5		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.4	0.4	0.1	1.1	1.1	1.1	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.231

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.3

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	1	45	19	5	34	1	0	0	2	11	0	28
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:	1	45	19	5	34	1	0	0	2	11	0	28
Added Vol:	0	32	0	47	18	0	0	0	0	0	0	82
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	77	19	52	52	1	0	0	2	11	0	110
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:	0.79	0.79	0.79	0.75	0.75	0.75	0.50	0.50	0.50	0.61	0.61	0.61
PHF Volume:	1	98	24	69	69	1	0	0	4	18	0	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	98	24	69	69	1	0	0	4	18	0	181
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
Final Volume:	1	98	24	69	69	1	0	0	4	18	0	181

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.99	1.00	0.49	0.50	0.01	0.00	0.00	1.00	0.09	0.00	0.91
Final Sat.:	9	681	797	369	369	7	0	0	811	78	0	783

Capacity Analysis Module:

Vol/Sat:	0.14	0.14	0.03	0.19	0.19	0.19	xxxx	xxxx	0.00	0.23	xxxx	0.23
Crit Moves:	****			****			****			****		
Delay/Veh:	8.5	8.5	7.2	8.7	8.7	8.7	0.0	0.0	7.1	8.1	0.0	8.1
Delay Adj:	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:	8.5	8.5	7.2	8.7	8.7	8.7	0.0	0.0	7.1	8.1	0.0	8.1
LOS by Move:	A	A	A	A	A	A	*	*	A	A	*	A
ApproachDel:	8.3			8.7			7.1			8.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.3			8.7			7.1			8.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 6.3 Worst Case Level Of Service: C[15.4]

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:	3	59	5	22	80	4	5	5	0	4	2	41
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:	3	59	5	22	80	4	5	5	0	4	2	41
Added Vol:	7	9	0	2	26	0	0	63	20	0	21	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	68	5	24	106	4	5	68	20	4	23	42
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:	0.51	0.51	0.51	0.53	0.53	0.53	0.56	0.56	0.56	0.59	0.59	0.59
PHF Volume:	20	134	10	46	202	8	9	121	36	7	39	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	134	10	46	202	8	9	121	36	7	39	71

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	209	xxxx	xxxxxx	144	xxxx	xxxxxx	530	480	205	553	479	139
Potent Cap.:	1374	xxxx	xxxxxx	1451	xxxx	xxxxxx	463	488	840	447	489	915
Move Cap.:	1374	xxxx	xxxxxx	1451	xxxx	xxxxxx	386	466	840	331	466	915
Volume/Cap:	0.01	xxxx	xxxx	0.03	xxxx	xxxx	0.02	0.26	0.04	0.02	0.08	0.08

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.7	xxxx	xxxxxx	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	509	xxxxxx	xxxx	643	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1.4	xxxxxx	xxxxxx	0.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	15.4	xxxxxx	xxxxxx	11.8	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	15.4	xxxxxx	xxxxxx	11.8	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	C	*	*	B	*	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: B[10.9]

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	0	0	1	0	0

Volume Module:

Base Vol:	0	36	3	12	29	0	0	4	8	8	4	33
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	36	3	12	29	0	0	4	8	8	4	33
Added Vol:	23	30	0	1	17	0	0	41	13	0	72	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	66	3	13	46	0	0	45	21	8	76	35
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	0.92	0.92	0.92	0.50	0.50	0.50	0.88	0.88	0.88
PHF Volume:	24	69	3	14	50	0	0	90	42	9	87	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	24	69	3	14	50	0	0	90	42	9	87	40

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	50	xxxx	xxxxx	73	xxxx	xxxxx	xxxx	200	50	264	198	71
Potent Cap.:	1569	xxxx	xxxxx	1540	xxxx	xxxxx	xxxx	700	1024	693	701	997
Move Cap.:	1569	xxxx	xxxxx	1540	xxxx	xxxxx	xxxx	683	1024	586	684	997
Volume/Cap:	0.02	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.13	0.04	0.02	0.13	0.04

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	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	764	xxxx	744	xxxxx
SharedQueue:	xxxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxxx	xxxx	0.6	xxxxxx	0.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxxx	xxxx	10.7	xxxxxx	10.9	xxxxxx
Shared LOS:	*	*	*	A	*	*	*	*	B	*	B	*
ApproachDel:	xxxxxx			xxxxxx					10.7		10.9	
ApproachLOS:	*			*					B		B	

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: B[10.1]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	42	0	38	43	80	0	0	51	34
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	42	0	38	43	80	0	0	51	34
Added Vol:	0	0	0	26	0	20	7	0	0	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	68	0	58	50	80	0	0	51	43
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:	1.00	1.00	1.00	0.73	0.73	0.73	0.93	0.93	0.93	0.85	0.85	0.85
PHF Volume:	0	0	0	93	0	79	54	86	0	0	60	50
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	93	0	79	54	86	0	0	60	50

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	278	xxxx	85	110	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	716	xxxx	980	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	695	xxxx	980	1493	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.13	xxxx	0.08	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	0.3	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.0	xxxx	9.0	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	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	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.1			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: B[10.2]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	17	0	23	22	92	0	0	95	28
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	17	0	23	22	92	0	0	95	28
Added Vol:	0	0	0	17	0	13	23	0	0	0	0	30
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	34	0	36	45	92	0	0	95	58
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:	1.00	1.00	1.00	0.70	0.70	0.70	0.79	0.79	0.79	0.92	0.92	0.92
PHF Volume:	0	0	0	49	0	52	57	116	0	0	103	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	49	0	52	57	116	0	0	103	63

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	364	xxxx	134	166	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	640	xxxx	920	1424	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	620	xxxx	920	1424	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	0.06	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	0.2	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.3	xxxx	9.1	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	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	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.2			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.233
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.3
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
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	12	3	20	17	2	3	28	10	3	41	22
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	12	3	20	17	2	3	28	10	3	41	22
Added Vol:	0	0	0	0	0	1	2	70	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	12	3	20	17	3	5	98	10	3	65	22
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:	0.52	0.52	0.52	0.62	0.62	0.62	0.59	0.59	0.59	0.54	0.54	0.54
PHF Volume:	21	23	6	32	28	5	8	165	17	6	120	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	23	6	32	28	5	8	165	17	6	120	41
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
Final Volume:	21	23	6	32	28	5	8	165	17	6	120	41

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.42	0.46	0.12	0.50	0.42	0.08	0.04	0.87	0.09	0.03	0.73	0.24
Final Sat.:	299	327	82	353	300	53	36	708	72	28	598	202

Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.07	0.09	0.09	0.09	0.23	0.23	0.23	0.20	0.20	0.20
Crit Moves:	****					****	****			****		
Delay/Veh:	8.1	8.1	8.1	8.2	8.2	8.2	8.6	8.6	8.6	8.2	8.2	8.2
Delay Adj:	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:	8.1	8.1	8.1	8.2	8.2	8.2	8.6	8.6	8.6	8.2	8.2	8.2
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.1			8.2			8.6			8.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.1			8.2			8.6			8.2		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.160
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	2	6	2	12	6	5	6	17	4	1	12	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:	2	6	2	12	6	5	6	17	4	1	12	11
Added Vol:	0	0	0	0	0	2	1	46	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	6	2	12	6	7	7	63	4	1	92	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:	0.63	0.63	0.63	0.52	0.52	0.52	0.68	0.68	0.68	0.75	0.75	0.75
PHF Volume:	3	10	3	23	11	13	10	93	6	1	123	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	10	3	23	11	13	10	93	6	1	123	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
Final Volume:	3	10	3	23	11	13	10	93	6	1	123	15

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.60	0.20	0.48	0.24	0.28	0.09	0.86	0.05	0.01	0.88	0.11
Final Sat.:	156	467	156	377	189	220	80	723	46	8	767	92

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.02	0.02	0.06	0.06	0.06	0.13	0.13	0.13	0.16	0.16	0.16
Crit Moves:	****			****			****			****		
Delay/Veh:	7.5	7.5	7.5	7.6	7.6	7.6	7.8	7.8	7.8	7.8	7.8	7.8
Delay Adj:	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:	7.5	7.5	7.5	7.6	7.6	7.6	7.8	7.8	7.8	7.8	7.8	7.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.5			7.6			7.8			7.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.5			7.6			7.8			7.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.382
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.6
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	74	143	49	2	196	9	3	18	67	56	8	1
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:	74	143	49	2	196	9	3	18	67	56	8	1
Added Vol:	18	0	0	0	0	1	2	13	51	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	92	143	49	2	196	10	5	31	118	56	12	1
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:	0.74	0.74	0.74	0.82	0.82	0.82	0.73	0.73	0.73	0.89	0.89	0.89
PHF Volume:	124	194	66	2	238	12	7	43	163	63	13	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	194	66	2	238	12	7	43	163	63	13	1
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
Final Volume:	124	194	66	2	238	12	7	43	163	63	13	1

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	1.01	0.34	0.01	0.94	0.05	0.03	0.20	0.77	0.82	0.17	0.01
Final Sat.:	386	640	227	6	623	32	21	133	505	449	96	8

Capacity Analysis Module:

Vol/Sat:	0.32	0.30	0.29	0.38	0.38	0.38	0.32	0.32	0.32	0.14	0.14	0.14
Crit Moves:	****			****			****					****
Delay/Veh:	11.2	10.5	10.1	11.2	11.2	11.2	10.2	10.2	10.2	9.7	9.7	9.7
Delay Adj:	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:	11.2	10.5	10.1	11.2	11.2	11.2	10.2	10.2	10.2	9.7	9.7	9.7
LOS by Move:	B	B	B	B	B	B	B	B	B	A	A	A
ApproachDel:	10.6			11.2			10.2			9.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.6			11.2			10.2			9.7		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.352

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.0

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	60	217	71	8	163	10	5	15	29	29	12	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:	60	217	71	8	163	10	5	15	29	29	12	14
Added Vol:	59	0	0	0	0	2	1	9	34	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	119	217	71	8	163	12	6	24	63	29	27	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:	0.89	0.89	0.89	0.88	0.88	0.88	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	133	243	80	9	185	14	7	27	70	32	30	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	243	80	9	185	14	7	27	70	32	30	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
Final Volume:	133	243	80	9	185	14	7	27	70	32	30	16

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.58	1.07	0.35	0.04	0.89	0.07	0.06	0.26	0.68	0.41	0.39	0.20
Final Sat.:	379	737	250	31	629	46	42	168	442	251	234	121

Capacity Analysis Module:

Vol/Sat:	0.35	0.33	0.32	0.29	0.29	0.29	0.16	0.16	0.16	0.13	0.13	0.13
Crit Moves:	****			****			****					****
Delay/Veh:	11.0	10.3	9.8	9.9	9.9	9.9	8.9	8.9	8.9	9.2	9.2	9.2
Delay Adj:	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:	11.0	10.3	9.8	9.9	9.9	9.9	8.9	8.9	8.9	9.2	9.2	9.2
LOS by Move:	B	B	A	A	A	A	A	A	A	A	A	A
ApproachDel:	10.4			9.9			8.9			9.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.4			9.9			8.9			9.2		
LOS by Appr:	B			A			A			A		
AllWayAvgQ:	0.5	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.254

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7

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	24	24	24	24	24	24	
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	32	223	42	20	285	3	9	11	77	123	13	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:	32	223	42	20	285	3	9	11	77	123	13	11
Added Vol:	0	18	0	0	51	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	241	42	20	336	3	9	11	77	123	13	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:	0.86	0.86	0.86	0.79	0.79	0.79	0.76	0.76	0.76	0.92	0.92	0.92
PHF Volume:	37	281	49	25	427	4	12	15	102	134	14	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	281	49	25	427	4	12	15	102	134	14	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
Final Volume:	37	281	49	25	427	4	12	15	102	134	14	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	1.70	0.30	1.00	1.98	0.02	0.46	0.54	1.00	0.91	0.09	1.00
Final Sat.:	1700	3066	534	1700	3568	32	789	964	1800	1546	163	1800

Capacity Analysis Module:

Vol/Sat:	0.02	0.09	0.09	0.01	0.12	0.12	0.02	0.02	0.06	0.09	0.09	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.32	0.32	0.18	0.33	0.33	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.13	0.28	0.28	0.08	0.36	0.36	0.04	0.04	0.14	0.22	0.22	0.02
Delay/Veh:	21.5	15.3	15.3	20.7	15.3	15.3	11.0	11.0	11.5	12.0	12.0	10.9
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:	21.5	15.3	15.3	20.7	15.3	15.3	11.0	11.0	11.5	12.0	12.0	10.9
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	2	2	0	3	3	0	0	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.277
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.6
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:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	112	337	177	9	199	3	3	16	92	99	9	9
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:	112	337	177	9	199	3	3	16	92	99	9	9
Added Vol:	0	59	0	0	34	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	396	177	9	233	3	3	16	92	99	9	9
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	0.92	0.92	0.92	0.69	0.69	0.69	0.83	0.83	0.83
PHF Volume:	118	416	186	10	254	3	4	23	133	119	11	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	416	186	10	254	3	4	23	133	119	11	11
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
Final Volume:	118	416	186	10	254	3	4	23	133	119	11	11

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	1.38	0.62	1.00	1.97	0.03	0.17	0.83	1.00	0.92	0.08	1.00
Final Sat.:	1700	2488	1112	1700	3554	46	282	1502	1800	1566	142	1800

Capacity Analysis Module:

Vol/Sat:	0.07	0.17	0.17	0.01	0.07	0.07	0.02	0.02	0.07	0.08	0.08	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.18	0.33	0.33	0.17	0.32	0.32	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.39	0.50	0.50	0.03	0.22	0.22	0.04	0.04	0.18	0.19	0.19	0.02
Delay/Veh:	22.6	16.3	16.3	21.0	15.0	15.0	11.0	11.0	11.8	11.8	11.8	10.9
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:	22.6	16.3	16.3	21.0	15.0	15.0	11.0	11.0	11.8	11.8	11.8	10.9
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	2	5	5	0	2	2	0	0	2	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 90 Critical Vol./Cap.(X): 0.671

Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 32.9

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:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	174	377	235	169	489	122	51	94	153	209	90	223
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:	174	377	235	169	489	122	51	94	153	209	90	223
Added Vol:	21	12	0	17	35	0	0	0	63	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	195	389	235	186	524	122	51	94	216	209	90	229
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	0.89	0.89	0.89	0.88	0.88	0.88	0.87	0.87	0.87
PHF Volume:	227	452	273	208	587	137	58	106	245	241	104	264
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	227	452	273	208	587	137	58	106	245	241	104	264
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:	227	452	273	208	587	137	58	106	245	241	104	264

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	2.00	1.00	1.00	1.62	0.38	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2920	680	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.13	0.13	0.15	0.12	0.20	0.20	0.03	0.06	0.14	0.14	0.06	0.15
Crit Moves:	***			***			***		***	***		
Green/Cycle:	0.17	0.26	0.44	0.16	0.25	0.25	0.13	0.31	0.31	0.18	0.36	0.36
Volume/Cap:	0.79	0.48	0.35	0.77	0.79	0.79	0.26	0.19	0.44	0.79	0.16	0.41
Delay/Veh:	50.0	28.5	16.9	48.3	36.2	36.2	36.0	22.9	25.3	48.7	19.6	22.0
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:	50.0	28.5	16.9	48.3	36.2	36.2	36.0	22.9	25.3	48.7	19.6	22.0
LOS by Move:	D	C	B	D	D	D	D	C	C	D	B	C
HCM2kAvgQ:	9	6	5	8	11	11	2	2	6	9	2	6

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 95 Critical Vol./Cap.(X): 0.625

Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 33.7

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:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	131	506	248	130	221	74	51	75	174	347	129	181
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:	131	506	248	130	221	74	51	75	174	347	129	181
Added Vol:	72	40	0	11	23	0	0	0	41	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	203	546	248	141	244	74	51	75	215	347	129	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:	0.97	0.97	0.97	0.90	0.90	0.90	0.91	0.91	0.91	0.93	0.93	0.93
PHF Volume:	209	563	256	157	271	82	56	82	235	375	139	216
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	209	563	256	157	271	82	56	82	235	375	139	216
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:	209	563	256	157	271	82	56	82	235	375	139	216

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	2.00	1.00	1.00	1.53	0.47	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2762	838	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.12	0.16	0.14	0.09	0.10	0.10	0.03	0.05	0.13	0.22	0.08	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.22	0.50	0.12	0.19	0.19	0.15	0.29	0.29	0.28	0.42	0.42
Volume/Cap:	0.80	0.71	0.29	0.75	0.52	0.52	0.22	0.15	0.44	0.80	0.18	0.29
Delay/Veh:	54.2	37.1	14.1	54.3	35.3	35.3	35.9	24.9	27.8	41.0	17.4	18.3
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:	54.2	37.1	14.1	54.3	35.3	35.3	35.9	24.9	27.8	41.0	17.4	18.3
LOS by Move:	D	D	B	D	D	D	D	C	C	D	B	B
HCM2kAvgQ:	8	9	4	6	5	5	2	2	6	13	3	4

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 8.0 Worst Case Level Of Service: D[34.7]

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:	1	0	0	0	0	1	0	0	0	1	0	0

Volume Module:

Base Vol:	73	469	0	0	567	277	0	0	0	109	0	319
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:	73	469	0	0	567	277	0	0	0	109	0	319
Added Vol:	0	23	0	0	35	63	0	0	0	9	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	492	0	0	602	340	0	0	0	118	0	329
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:	0.79	0.79	0.79	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	92	620	0	0	658	372	0	0	0	129	0	358
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	92	620	0	0	658	372	0	0	0	129	0	358

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	1030	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1132	xxxx	620
Potent Cap.:	683	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	227	xxxx	492
Move Cap.:	683	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	203	xxxx	492
Volume/Cap:	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.63	xxxx	0.73

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	3.7	xxxx	5.9
Control Del:	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	49.0	xxxx	29.5
LOS by Move:	B	*	*	*	*	*	*	*	*	E	*	D
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			xxxxxx			xxxxxx			34.7		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 17.0 Worst Case Level Of Service: F[54.2]

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:	1	0	1	0	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	98	393	0	0	439	301	0	0	0	55	0	493
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:	98	393	0	0	439	301	0	0	0	55	0	493
Added Vol:	0	78	0	0	23	41	0	0	0	30	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	98	471	0	0	462	342	0	0	0	85	0	527
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:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.96	0.96	0.96
PHF Volume:	107	512	0	0	487	361	0	0	0	89	0	551
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	107	512	0	0	487	361	0	0	0	89	0	551

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflict Vol:	848	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	969	xxxx	512
Potent Cap.:	798	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	284	xxxx	566
Move Cap.:	798	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	255	xxxx	566
Volume/Cap:	0.13	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.35	xxxx	0.97

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.5	xxxx	13.5
Control Del:	10.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	26.5	xxxx	58.6
LOS by Move:	B	*	*	*	*	*	*	*	*	D	*	F
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	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	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	54.2	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	F	*	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.599
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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	73	469	0	0	567	277	0	0	0	109	0	319
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:	73	469	0	0	567	277	0	0	0	109	0	319
Added Vol:	0	23	0	0	35	63	0	0	0	9	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	492	0	0	602	340	0	0	0	118	0	329
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:	0.79	0.79	0.79	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	92	620	0	0	658	372	0	0	0	129	0	358
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	620	0	0	658	372	0	0	0	129	0	358
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:	92	620	0	0	658	372	0	0	0	129	0	358

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	0.00	0.00	1.28	0.72	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	1800	0	0	2301	1299	0	0	0	1700	0	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.05	0.34	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.08	0.00	0.20
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.60	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.30	0.00	0.30
Volume/Cap:	0.32	0.57	0.00	0.00	0.66	0.66	0.00	0.00	0.00	0.25	0.00	0.66
Delay/Veh:	22.7	8.1	0.0	0.0	14.6	14.6	0.0	0.0	0.0	16.1	0.0	21.3
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:	22.7	8.1	0.0	0.0	14.6	14.6	0.0	0.0	0.0	16.1	0.0	21.3
LOS by Move:	C	A	A	A	B	B	A	A	A	B	A	C
HCM2kAvgQ:	2	8	0	0	9	9	0	0	0	2	0	7

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.672

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 17.9

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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:

Base Vol:	98	393	0	0	439	301	0	0	0	55	0	493
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:	98	393	0	0	439	301	0	0	0	55	0	493
Added Vol:	0	78	0	0	23	41	0	0	0	30	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	98	471	0	0	462	342	0	0	0	85	0	527
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:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.96	0.96	0.96
PHF Volume:	107	512	0	0	487	361	0	0	0	89	0	551
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	512	0	0	487	361	0	0	0	89	0	551
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:	107	512	0	0	487	361	0	0	0	89	0	551

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	0.00	0.00	1.15	0.85	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	1800	0	0	2069	1531	0	0	0	1700	0	1800

Capacity Analysis Module:

Vol/Sat:	0.06	0.28	0.00	0.00	0.24	0.24	0.00	0.00	0.00	0.05	0.00	0.31
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.49	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.41	0.00	0.41
Volume/Cap:	0.38	0.59	0.00	0.00	0.74	0.74	0.00	0.00	0.00	0.13	0.00	0.74
Delay/Veh:	23.1	12.1	0.0	0.0	20.8	20.8	0.0	0.0	0.0	10.9	0.0	18.8
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:	23.1	12.1	0.0	0.0	20.8	20.8	0.0	0.0	0.0	10.9	0.0	18.8
LOS by Move:	C	B	A	A	C	C	A	A	A	B	A	B
HCM2kAvgQ:	2	8	0	0	9	9	0	0	0	1	0	10

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 1.079

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 45.8

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Ignore			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	1	0	1	0	1	1	0	0	1	0	1	0	1

Volume Module:

Base Vol:	17	100	32	476	167	33	20	61	39	76	5	447
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:	17	100	32	476	167	33	20	61	39	76	5	447
Added Vol:	0	2	0	29	6	9	0	26	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	102	32	505	173	42	20	87	39	76	5	468
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.87	0.87	0.87	0.84	0.84	0.84	0.93	0.93	0.93	0.80	0.80	0.00
PHF Volume:	20	118	37	598	205	50	21	93	42	95	6	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	118	37	598	205	50	21	93	42	95	6	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	20	118	37	598	205	50	21	93	42	95	6	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.61	0.39	0.19	0.81	1.00	0.94	0.06	1.00
Final Sat.:	453	485	534	555	969	242	90	393	541	426	28	530

Capacity Analysis Module:

Vol/Sat:	0.04	0.24	0.07	1.08	0.21	0.21	0.24	0.24	0.08	0.22	0.22	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	10.8	12.2	9.7	85.7	10.1	9.9	12.2	12.2	9.7	12.6	12.6	0.0
Delay Adj:	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:	10.8	12.2	9.7	85.7	10.1	9.9	12.2	12.2	9.7	12.6	12.6	0.0
LOS by Move:	B	B	A	F	B	A	B	B	A	B	B	*
ApproachDel:	11.5			63.1			11.5			12.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.5			63.1			11.5			12.6		
LOS by Appr:	B			F			B			B		
AllWayAvgQ:	0.0	0.3	0.1	11.8	0.3	0.2	0.3	0.3	0.1	0.3	0.3	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.669
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	26	239	175	301	151	41	32	27	16	28	6	214
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:	26	239	175	301	151	41	32	27	16	28	6	214
Added Vol:	0	6	0	19	4	30	0	17	0	0	0	72
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	245	175	320	155	71	32	44	16	28	6	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.79	0.79	0.79	0.93	0.93	0.93	0.73	0.73	0.73	0.91	0.91	0.00
PHF Volume:	33	309	221	343	166	76	44	60	22	31	7	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	309	221	343	166	76	44	60	22	31	7	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	33	309	221	343	166	76	44	60	22	31	7	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.37	0.63	0.42	0.58	1.00	0.82	0.18	1.00
Final Sat.:	496	541	601	513	763	367	192	264	512	349	75	486

Capacity Analysis Module:

Vol/Sat:	0.07	0.57	0.37	0.67	0.22	0.21	0.23	0.23	0.04	0.09	0.09	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	10.2	17.2	11.7	21.9	10.7	10.2	12.2	12.2	9.5	11.2	11.2	0.0
Delay Adj:	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:	10.2	17.2	11.7	21.9	10.7	10.2	12.2	12.2	9.5	11.2	11.2	0.0
LOS by Move:	B	C	B	C	B	B	B	B	A	B	B	*
ApproachDel:	14.6			17.2			11.7			11.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.6			17.2			11.7			11.2		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.1	1.2	0.5	1.8	0.3	0.2	0.3	0.3	0.0	0.1	0.1	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.352
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.2
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			Ignore		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	17	100	32	476	167	33	20	61	39	76	5	447
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:	17	100	32	476	167	33	20	61	39	76	5	447
Added Vol:	0	2	0	29	6	9	0	26	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	102	32	505	173	42	20	87	39	76	5	468
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.87	0.87	0.87	0.84	0.84	0.84	0.93	0.93	0.93	0.80	0.80	0.00
PHF Volume:	20	118	37	598	205	50	21	93	42	95	6	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	118	37	598	205	50	21	93	42	95	6	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	20	118	37	598	205	50	21	93	42	95	6	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.80	0.20	0.20	0.80	1.00	0.94	0.06	1.00
Final Sat.:	1700	1800	1800	3200	1448	352	333	1448	1800	1601	105	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.07	0.02	0.19	0.14	0.14	0.06	0.06	0.02	0.06	0.06	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.27	0.30	0.30	0.45	0.48	0.48	0.15	0.15	0.15	0.15	0.15	0.00
Volume/Cap:	0.04	0.22	0.07	0.42	0.29	0.29	0.42	0.42	0.15	0.39	0.39	0.00
Delay/Veh:	16.4	15.9	15.1	11.5	9.7	9.7	24.0	24.0	22.3	23.8	23.8	0.0
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:	16.4	15.9	15.1	11.5	9.7	9.7	24.0	24.0	22.3	23.8	23.8	0.0
LOS by Move:	B	B	B	B	A	A	C	C	C	C	C	A
HCM2kAvgQ:	0	2	1	5	3	3	2	2	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Existing Plus Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.376

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 13.9

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			Ignore		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	26	239	175	301	151	41	32	27	16	28	6	214
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:	26	239	175	301	151	41	32	27	16	28	6	214
Added Vol:	0	6	0	19	4	30	0	17	0	0	0	72
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	245	175	320	155	71	32	44	16	28	6	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.79	0.79	0.79	0.93	0.93	0.93	0.73	0.73	0.73	0.91	0.91	0.00
PHF Volume:	33	309	221	343	166	76	44	60	22	31	7	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	309	221	343	166	76	44	60	22	31	7	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	33	309	221	343	166	76	44	60	22	31	7	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.69	0.31	0.44	0.56	1.00	0.83	0.17	1.00
Final Sat.:	1700	1800	1800	3200	1235	565	740	1017	1800	1414	303	1800

Capacity Analysis Module:

Vol/Sat:	0.02	0.17	0.12	0.11	0.13	0.13	0.06	0.06	0.01	0.02	0.02	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.27	0.46	0.46	0.29	0.48	0.48	0.16	0.16	0.16	0.16	0.16	0.00
Volume/Cap:	0.07	0.38	0.27	0.38	0.28	0.28	0.38	0.38	0.08	0.14	0.14	0.00
Delay/Veh:	16.6	11.0	10.3	17.4	9.7	9.7	23.5	23.5	21.7	22.0	22.0	0.0
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:	16.6	11.0	10.3	17.4	9.7	9.7	23.5	23.5	21.7	22.0	22.0	0.0
LOS by Move:	B	B	B	B	A	A	C	C	C	C	C	A
HCM2kAvgQ:	1	4	3	3	3	3	2	2	0	1	1	0

Note: Queue reported is the number of cars per lane.

Opening Year (2013) Without Project

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: B[12.5]

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	0 1 0	0	0	1! 0 0

Volume Module:

Base Vol:	19	7	86	2	3	2	0	6	29	77	6	3
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	7	86	2	3	2	0	6	29	77	6	3
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:	0.42	0.42	0.42	0.50	0.50	0.50	0.46	0.46	0.46	0.54	0.54	0.54
PHF Volume:	45	17	203	4	6	4	0	13	64	142	11	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	45	17	203	4	6	4	0	13	64	142	11	6

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	10	xxxx	xxxxxx	220	xxxx	xxxxxx	xxxx	326	8	262	226	118
Potent Cap.:	1623	xxxx	xxxxxx	1361	xxxx	xxxxxx	xxxx	596	1080	695	677	939
Move Cap.:	1623	xxxx	xxxxxx	1361	xxxx	xxxxxx	xxxx	577	1080	627	656	939
Volume/Cap:	0.03	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.02	0.06	0.23	0.02	0.01

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.3	xxxx	xxxxxx	7.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	940	xxxx	636	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.3	xxxxxx	1.0	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.2	xxxxxx	12.5	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.2	xxxxxx	12.5	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	A	*	B	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: A[9.5]

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	0	0	1	0	0

Volume Module:

Base Vol:	9	3	67	2	2	0	0	3	11	33	5	3
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	3	67	2	2	0	0	3	11	33	5	3
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:	0.66	0.66	0.66	0.50	0.50	0.50	0.54	0.54	0.54	0.75	0.75	0.75
PHF Volume:	14	5	102	4	4	0	0	6	20	44	7	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	14	5	102	4	4	0	0	6	20	44	7	4

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	4	xxxx	xxxxxx	106	xxxx	xxxxxx	xxxx	145	4	107	95	55
Potent Cap.:	1631	xxxx	xxxxxx	1498	xxxx	xxxxxx	xxxx	750	1085	876	799	1017
Move Cap.:	1631	xxxx	xxxxxx	1498	xxxx	xxxxxx	xxxx	741	1085	848	790	1017
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.01	0.02	0.05	0.01	0.00

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.2	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	987	xxxx	851	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxxxx	xxxx	0.1	xxxxxx	0.2	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	8.7	xxxxxx	9.5	xxxxxx
Shared LOS:	*	*	*	A	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx			8.7			9.5		
ApproachLOS:	*			*			A			A		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.302
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	3	83	22	25	97	2	4	7	9	8	6	47
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:	3	83	22	25	97	2	4	7	9	8	6	47
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:	0.49	0.49	0.49	0.55	0.55	0.55	0.39	0.39	0.39	0.47	0.47	0.47
PHF Volume:	6	169	45	45	175	4	10	18	23	17	13	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	169	45	45	175	4	10	18	23	17	13	99
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:	6	169	45	45	175	4	10	18	23	17	13	99

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.20	0.78	0.02	0.20	0.35	0.45	0.13	0.10	0.77
Final Sat.:	24	658	788	150	580	12	136	237	305	96	72	565

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.26	0.26	0.06	0.30	0.30	0.30	0.08	0.08	0.08	0.18	0.18	0.18
Crit Moves:	****			****			****			****		
Delay/Veh:	9.5	9.5	7.4	9.6	9.6	9.6	8.2	8.2	8.2	8.4	8.4	8.4
Delay Adj:	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:	9.5	9.5	7.4	9.6	9.6	9.6	8.2	8.2	8.2	8.4	8.4	8.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.1			9.6			8.2			8.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.1			9.6			8.2			8.4		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.3	0.3	0.1	0.4	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.092
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	1	0	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	2	53	20	6	37	2	0	0	3	13	0	29
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:	2	53	20	6	37	2	0	0	3	13	0	29
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:	0.79	0.79	0.79	0.75	0.75	0.75	0.50	0.50	0.50	0.61	0.61	0.61
PHF Volume:	3	67	25	8	49	3	0	0	6	21	0	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	67	25	8	49	3	0	0	6	21	0	48
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
Final Volume:	3	67	25	8	49	3	0	0	6	21	0	48

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.96	1.00	0.13	0.83	0.04	0.00	0.00	1.00	0.31	0.00	0.69
Final Sat.:	27	727	887	111	685	37	0	0	932	277	0	618

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.09	0.09	0.03	0.07	0.07	0.07	xxxx	xxxx	0.01	0.08	xxxx	0.08
Crit Moves:	****			****			****		****	****		
Delay/Veh:	7.9	7.9	6.8	7.6	7.6	7.6	0.0	0.0	6.7	7.2	0.0	7.2
Delay Adj:	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:	7.9	7.9	6.8	7.6	7.6	7.6	0.0	0.0	6.7	7.2	0.0	7.2
LOS by Move:	A	A	A	A	A	A	*	*	A	A	*	A
ApproachDel:	7.6			7.6			6.7			7.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.6			7.6			6.7			7.2		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: B[12.5]

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	1	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	4	61	6	22	83	5	6	6	0	5	3	43
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:	4	61	6	22	83	5	6	6	0	5	3	43
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:	0.51	0.51	0.51	0.53	0.53	0.53	0.56	0.56	0.56	0.59	0.59	0.59
PHF Volume:	8	120	12	42	158	10	11	11	0	8	5	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	8	120	12	42	158	10	11	11	0	8	5	73

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	xxxxxx	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	xxxxxx	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	167	xxxx	xxxxxx	132	xxxx	xxxxxx	427	394	xxxxxx	393	393	126
Potent Cap.:	1423	xxxx	xxxxxx	1466	xxxx	xxxxxx	542	546	xxxxxx	570	547	930
Move Cap.:	1423	xxxx	xxxxxx	1466	xxxx	xxxxxx	483	527	xxxxxx	546	528	930
Volume/Cap:	0.01	xxxx	xxxx	0.03	xxxx	xxxx	0.02	0.02	xxxx	0.02	0.01	0.08

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	504	xxxx	xxxxxx	xxxx	835	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	12.5	xxxx	xxxxxx	xxxxxx	9.8	xxxxxx
Shared LOS:	*	*	*	*	*	*	B	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			12.5			9.8		
ApproachLOS:	*			*			B			A		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: A[9.2]

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	0	1	0	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	37	6	13	32	0	0	5	9	20	5	33
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	37	6	13	32	0	0	5	9	20	5	33
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	0.92	0.92	0.92	0.50	0.50	0.50	0.88	0.88	0.88
PHF Volume:	0	39	6	14	35	0	0	10	18	23	6	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	39	6	14	35	0	0	10	18	23	6	38

Critical Gap Module:

Critical Gp:xxxxxx xxxxx xxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:xxxxxx xxxxx xxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol: xxxxx xxxxx xxxxx	45	xxxx	xxxxxx	xxxx	109	35	119	105	42
Potent Cap.: xxxxx xxxxx xxxxx	1576	xxxx	xxxxxx	xxxx	785	1044	861	788	1034
Move Cap.: xxxxx xxxxx xxxxx	1576	xxxx	xxxxxx	xxxx	778	1044	832	781	1034
Volume/Cap: xxxxx xxxxx xxxxx	0.01	xxxx	xxxxxx	xxxx	0.01	0.02	0.03	0.01	0.04

Level Of Service Module:

2Way95thQ: xxxxx xxxxx xxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:xxxxxx xxxxx xxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move: * * *	A	*	*	*	*	*	*	*	*
Movement: LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	930	xxxx	930	xxxxxx
SharedQueue:xxxxxx xxxxx xxxxx	0.0	xxxx	xxxxxx	xxxxxx	xxxx	0.1	xxxxxx	0.2	xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	9.0	xxxxxx	9.2	xxxxxx
Shared LOS: * * *	A	*	*	*	*	A	*	A	*
ApproachDel: xxxxxx	xxxxxx			9.0			9.2		
ApproachLOS: *	*			A			A		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: A[9.8]

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:	0	0	0	0	0	0	1	0	0	0	0	0

Volume Module:

Base Vol:	0	0	0	44	0	40	44	86	0	0	54	36
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	44	0	40	44	86	0	0	54	36
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:	1.00	1.00	1.00	0.73	0.73	0.73	0.93	0.93	0.93	0.85	0.85	0.85
PHF Volume:	0	0	0	60	0	54	47	92	0	0	63	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	60	0	54	47	92	0	0	63	42

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	271	xxxx	84	105	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	722	xxxx	980	1499	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	704	xxxx	980	1499	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	0.06	0.03	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	0.2	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	10.6	xxxx	8.9	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	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
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			9.8			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: A[9.6]

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	1	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	19	0	32	23	95	0	0	108	29
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	19	0	32	23	95	0	0	108	29
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:	1.00	1.00	1.00	0.70	0.70	0.70	0.79	0.79	0.79	0.92	0.92	0.92
PHF Volume:	0	0	0	27	0	46	29	120	0	0	117	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	27	0	46	29	120	0	0	117	31

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:xxxxx	xxxxx	xxxxx	xxxxx	6.4	xxxxx	6.2	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
FollowUpTim:xxxxx	xxxxx	xxxxx	xxxxx	3.5	xxxxx	3.3	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	310	xxxxx	133	149	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Potent Cap.:	xxxxx	xxxxx	xxxxx	686	xxxxx	922	1445	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Move Cap.:	xxxxx	xxxxx	xxxxx	676	xxxxx	922	1445	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.04	xxxxx	0.05	0.02	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.1	xxxxx	0.2	0.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:xxxxx	xxxxx	xxxxx	xxxxx	10.6	xxxxx	9.1	7.5	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	B	*	A	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.5	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxxx			9.6			xxxxxxx			xxxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.152

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.7

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	12	14	4	21	18	3	4	29	11	4	43	24
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	14	4	21	18	3	4	29	11	4	43	24
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:	0.52	0.52	0.52	0.62	0.62	0.62	0.59	0.59	0.59	0.54	0.54	0.54
PHF Volume:	23	27	8	34	29	5	7	49	19	7	79	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	27	8	34	29	5	7	49	19	7	79	44
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
Final Volume:	23	27	8	34	29	5	7	49	19	7	79	44

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.40	0.47	0.13	0.50	0.43	0.07	0.09	0.66	0.25	0.06	0.60	0.34
Final Sat.:	313	366	104	389	333	56	76	550	209	49	522	291

Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.15	0.15	0.15
Crit Moves:	****			****			****			****		
Delay/Veh:	7.7	7.7	7.7	7.8	7.8	7.8	7.6	7.6	7.6	7.8	7.8	7.8
Delay Adj:	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:	7.7	7.7	7.7	7.8	7.8	7.8	7.6	7.6	7.6	7.8	7.8	7.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.7			7.8			7.6			7.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.7			7.8			7.6			7.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.057
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	3	7	3	13	7	6	7	19	4	2	13	12
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:	3	7	3	13	7	6	7	19	4	2	13	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:	0.63	0.63	0.63	0.52	0.52	0.52	0.68	0.68	0.68	0.75	0.75	0.75
PHF Volume:	5	11	5	25	13	11	10	28	6	3	17	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	11	5	25	13	11	10	28	6	3	17	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
Final Volume:	5	11	5	25	13	11	10	28	6	3	17	16

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.23	0.54	0.23	0.50	0.27	0.23	0.23	0.64	0.13	0.07	0.49	0.44
Final Sat.:	203	473	203	437	235	202	204	554	117	68	444	409

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.02	0.02	0.06	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04
Crit Moves:	****			****			****			****		
Delay/Veh:	7.1	7.1	7.1	7.3	7.3	7.3	7.3	7.3	7.3	7.0	7.0	7.0
Delay Adj:	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:	7.1	7.1	7.1	7.3	7.3	7.3	7.3	7.3	7.3	7.0	7.0	7.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.1			7.3			7.3			7.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.1			7.3			7.3			7.0		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.367
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.0
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	1

Volume Module:

Base Vol:	77	146	50	3	200	10	4	19	69	61	8	1
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:	77	146	50	3	200	10	4	19	69	61	8	1
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:	0.74	0.74	0.74	0.82	0.82	0.82	0.73	0.73	0.73	0.89	0.89	0.89
PHF Volume:	104	198	68	4	243	12	6	26	95	69	9	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	198	68	4	243	12	6	26	95	69	9	1
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
Final Volume:	104	198	68	4	243	12	6	26	95	69	9	1

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.56	1.07	0.37	0.01	0.94	0.05	0.04	0.21	0.75	0.88	0.11	0.01
Final Sat.:	356	717	255	10	662	33	29	136	494	505	66	8

Capacity Analysis Module:

Vol/Sat:	0.29	0.28	0.27	0.37	0.37	0.37	0.19	0.19	0.19	0.14	0.14	0.14
Crit Moves:	****			****			****			****		
Delay/Veh:	10.5	9.9	9.5	10.6	10.6	10.6	9.1	9.1	9.1	9.5	9.5	9.5
Delay Adj:	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:	10.5	9.9	9.5	10.6	10.6	10.6	9.1	9.1	9.1	9.5	9.5	9.5
LOS by Move:	B	A	A	B	B	B	A	A	A	A	A	A
ApproachDel:	10.0			10.6			9.1			9.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.0			10.6			9.1			9.5		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.4	0.3	0.3	0.5	0.5	0.5	0.2	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.292
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.3
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	61	222	74	9	164	11	6	16	32	34	13	15
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:	61	222	74	9	164	11	6	16	32	34	13	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:	0.89	0.89	0.89	0.88	0.88	0.88	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	68	249	83	10	186	12	7	18	35	38	14	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	249	83	10	186	12	7	18	35	38	14	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
Final Volume:	68	249	83	10	186	12	7	18	35	38	14	17

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.34	1.25	0.41	0.05	0.89	0.06	0.11	0.30	0.59	0.55	0.21	0.24
Final Sat.:	234	891	312	36	664	45	74	196	393	347	133	153

Capacity Analysis Module:

Vol/Sat:	0.29	0.28	0.27	0.28	0.28	0.28	0.09	0.09	0.09	0.11	0.11	0.11
Crit Moves:	****			****					****			****
Delay/Veh:	9.9	9.5	9.1	9.5	9.5	9.5	8.4	8.4	8.4	8.8	8.8	8.8
Delay Adj:	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:	9.9	9.5	9.1	9.5	9.5	9.5	8.4	8.4	8.4	8.8	8.8	8.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.5			9.5			8.4			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.5			9.5			8.4			8.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.246
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:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:												
Base Vol:	35	230	44	21	300	4	10	12	82	128	14	12
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:	35	230	44	21	300	4	10	12	82	128	14	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	0.79	0.79	0.79	0.76	0.76	0.76	0.92	0.92	0.92
PHF Volume:	41	268	51	27	382	5	13	16	108	139	15	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	268	51	27	382	5	13	16	108	139	15	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
Final Volume:	41	268	51	27	382	5	13	16	108	139	15	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:	1.00	1.68	0.32	1.00	1.97	0.03	0.47	0.53	1.00	0.91	0.09	1.00
Final Sat.:	1700	3022	578	1700	3553	47	797	956	1800	1541	169	1800

Capacity Analysis Module:												
Vol/Sat:	0.02	0.09	0.09	0.02	0.11	0.11	0.02	0.02	0.06	0.09	0.09	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.32	0.32	0.18	0.33	0.33	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.14	0.28	0.28	0.09	0.32	0.32	0.04	0.04	0.15	0.23	0.23	0.02
Delay/Veh:	21.6	15.3	15.3	20.7	15.1	15.1	11.0	11.0	11.6	12.0	12.0	10.9
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:	21.6	15.3	15.3	20.7	15.1	15.1	11.0	11.0	11.6	12.0	12.0	10.9
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	2	2	0	3	3	0	0	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.271
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.4
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	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	116	359	178	10	211	4	4	17	94	105	10	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:	116	359	178	10	211	4	4	17	94	105	10	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:	0.95	0.95	0.95	0.92	0.92	0.92	0.69	0.69	0.69	0.83	0.83	0.83
PHF Volume:	122	377	187	11	230	4	6	24	135	127	12	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	122	377	187	11	230	4	6	24	135	127	12	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
Final Volume:	122	377	187	11	230	4	6	24	135	127	12	12

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	1.96	0.04	0.20	0.80	1.00	0.92	0.08	1.00
Final Sat.:	1700	2407	1193	1700	3533	67	339	1441	1800	1560	149	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.07	0.16	0.16	0.01	0.07	0.07	0.02	0.02	0.08	0.08	0.08	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.33	0.33	0.17	0.32	0.32	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.40	0.47	0.47	0.04	0.20	0.20	0.04	0.04	0.19	0.20	0.20	0.02
Delay/Veh:	22.7	16.1	16.1	21.0	14.9	14.9	11.0	11.0	11.8	11.9	11.9	10.9
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:	22.7	16.1	16.1	21.0	14.9	14.9	11.0	11.0	11.8	11.9	11.9	10.9
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	3	5	5	0	2	2	0	0	2	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 85 Critical Vol./Cap.(X): 0.618
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 32.0
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:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:												
Base Vol:	179	382	255	177	504	126	53	98	158	210	93	230
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:	179	382	255	177	504	126	53	98	158	210	93	230
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	0.89	0.89	0.89	0.88	0.88	0.88	0.87	0.87	0.87
PHF Volume:	208	444	297	198	564	141	60	111	179	242	107	265
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	208	444	297	198	564	141	60	111	179	242	107	265
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
Final Volume:	208	444	297	198	564	141	60	111	179	242	107	265

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	2.00	1.00	1.00	1.60	0.40	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2880	720	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.16	0.12	0.20	0.20	0.04	0.06	0.10	0.14	0.06	0.15
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.26	0.43	0.14	0.25	0.25	0.13	0.33	0.33	0.18	0.37	0.37
Volume/Cap:	0.80	0.48	0.38	0.82	0.80	0.80	0.26	0.19	0.30	0.80	0.16	0.39
Delay/Veh:	50.6	27.2	16.6	54.7	35.3	35.3	33.7	20.5	21.5	47.4	17.8	19.9
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:	50.6	27.2	16.6	54.7	35.3	35.3	33.7	20.5	21.5	47.4	17.8	19.9
LOS by Move:	D	C	B	D	D	D	C	C	C	D	B	B
HCM2kAvgQ:	8	5	5	8	11	11	2	2	4	9	2	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 90 Critical Vol./Cap.(X): 0.644
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 32.4
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			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:												
Base Vol:	132	534	275	139	230	77	53	77	180	367	133	187
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:	132	534	275	139	230	77	53	77	180	367	133	187
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	0.90	0.90	0.90	0.91	0.91	0.91	0.93	0.93	0.93
PHF Volume:	136	551	284	154	256	86	58	84	197	397	144	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	551	284	154	256	86	58	84	197	397	144	202
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
Final Volume:	136	551	284	154	256	86	58	84	197	397	144	202

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	2.00	1.00	1.00	1.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2697	903	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:												
Vol/Sat:	0.08	0.15	0.16	0.09	0.09	0.09	0.03	0.05	0.11	0.23	0.08	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.20	0.49	0.11	0.20	0.20	0.16	0.31	0.31	0.29	0.44	0.44
Volume/Cap:	0.72	0.76	0.32	0.81	0.47	0.47	0.22	0.15	0.35	0.81	0.18	0.25
Delay/Veh:	51.1	38.9	14.2	61.4	32.3	32.3	33.5	22.5	24.4	39.6	15.4	16.0
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:	51.1	38.9	14.2	61.4	32.3	32.3	33.5	22.5	24.4	39.6	15.4	16.0
LOS by Move:	D	D	B	E	C	C	C	C	C	D	B	B
HCM2kAvgQ:	5	9	5	7	5	5	2	2	4	13	2	4

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 8.1 Worst Case Level Of Service: D[33.4]

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:	1	0	1	0	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	74	486	0	0	575	286	0	0	0	115	0	334
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:	74	486	0	0	575	286	0	0	0	115	0	334
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:	0.79	0.79	0.79	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	93	612	0	0	628	313	0	0	0	125	0	364
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	93	612	0	0	628	313	0	0	0	125	0	364

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	941	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1113	xxxx	612
Potent Cap.:	737	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	233	xxxx	497
Move Cap.:	737	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	210	xxxx	497
Volume/Cap:	0.13	xxxx	xxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.60	xxxx	0.73

Level Of Service Module:

2Way95thQ:	0.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.4	xxxx	6.0
Control Del:	10.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	44.6	xxxx	29.6
LOS by Move:	B	*	*	*	*	*	*	*	*	E	*	D
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			33.4		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 12.5 Worst Case Level Of Service: E[39.3]

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:	1	0	0	0	0	1	0	0	0	1	0	0

Volume Module:

Base Vol:	106	424	0	0	467	311	0	0	0	63	0	516
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:	106	424	0	0	467	311	0	0	0	63	0	516
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:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.96	0.96	0.96
PHF Volume:	115	461	0	0	493	328	0	0	0	66	0	540
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	115	461	0	0	493	328	0	0	0	66	0	540

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	821	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	938	xxxx	461
Potent Cap.:	817	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	296	xxxx	605
Move Cap.:	817	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	264	xxxx	605
Volume/Cap:	0.14	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.25	xxxx	0.89

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.0	xxxx	10.7
Control Del:	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	23.1	xxxx	41.3
LOS by Move:	B	*	*	*	*	*	*	*	*	C	*	E
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	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			xxxxxx			xxxxxx			39.3		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.576
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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0

Volume Module:												
Base Vol:	74	486	0	0	575	286	0	0	0	115	0	334
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:	74	486	0	0	575	286	0	0	0	115	0	334
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:	0.79	0.79	0.79	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	93	612	0	0	628	313	0	0	0	125	0	364
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	612	0	0	628	313	0	0	0	125	0	364
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
Final Volume:	93	612	0	0	628	313	0	0	0	125	0	364

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	0.00	0.00	1.34	0.66	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	1800	0	0	2404	1196	0	0	0	1700	0	1800

Capacity Analysis Module:												
Vol/Sat:	0.05	0.34	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.07	0.00	0.20
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.58	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.32	0.00	0.32
Volume/Cap:	0.33	0.59	0.00	0.00	0.63	0.63	0.00	0.00	0.00	0.23	0.00	0.63
Delay/Veh:	22.7	8.9	0.0	0.0	14.9	14.9	0.0	0.0	0.0	15.2	0.0	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:	22.7	8.9	0.0	0.0	14.9	14.9	0.0	0.0	0.0	15.2	0.0	19.7
LOS by Move:	C	A	A	A	B	B	A	A	A	B	A	B
HCM2kAvgQ:	2	8	0	0	8	8	0	0	0	2	0	7

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.662
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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	106	424	0	0	467	311	0	0	0	63	0	516
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:	106	424	0	0	467	311	0	0	0	63	0	516
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:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.96	0.96	0.96
PHF Volume:	115	461	0	0	493	328	0	0	0	66	0	540
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	461	0	0	493	328	0	0	0	66	0	540
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
Final Volume:	115	461	0	0	493	328	0	0	0	66	0	540

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	0.00	0.00	1.20	0.80	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	1800	0	0	2161	1439	0	0	0	1700	0	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.07	0.26	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.04	0.00	0.30
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.48	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.42	0.00	0.42
Volume/Cap:	0.41	0.53	0.00	0.00	0.72	0.72	0.00	0.00	0.00	0.09	0.00	0.72
Delay/Veh:	23.3	11.4	0.0	0.0	20.4	20.4	0.0	0.0	0.0	10.7	0.0	18.0
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:	23.3	11.4	0.0	0.0	20.4	20.4	0.0	0.0	0.0	10.7	0.0	18.0
LOS by Move:	C	B	A	A	C	C	A	A	A	B	A	B
HCM2kAvgQ:	2	6	0	0	8	8	0	0	0	1	0	10

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 1.027
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 38.4
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	18	101	33	487	171	36	20	61	39	79	6	469
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:	18	101	33	487	171	36	20	61	39	79	6	469
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.87	0.87	0.87	0.84	0.84	0.84	0.93	0.93	0.93	0.80	0.80	0.00
PHF Volume:	21	117	38	577	203	43	21	65	42	99	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	117	38	577	203	43	21	65	42	99	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	21	117	38	577	203	43	21	65	42	99	8	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.65	0.35	0.25	0.75	1.00	0.93	0.07	1.00
Final Sat.:	460	492	543	562	1008	217	119	362	540	427	32	537

Capacity Analysis Module:

Vol/Sat:	0.05	0.24	0.07	1.03	0.20	0.20	0.18	0.18	0.08	0.23	0.23	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	10.7	12.0	9.6	69.6	9.9	9.7	11.6	11.6	9.7	12.6	12.6	0.0
Delay Adj:	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:	10.7	12.0	9.6	69.6	9.9	9.7	11.6	11.6	9.7	12.6	12.6	0.0
LOS by Move:	B	B	A	F	A	A	B	B	A	B	B	*
ApproachDel:	11.3			51.8			11.0			12.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.3			51.8			11.0			12.6		
LOS by Appr:	B			F			B			B		
AllWayAvgQ:	0.0	0.3	0.1	9.4	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.658
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 15.2
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	28	247	176	316	169	45	34	28	18	34	7	249
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:	28	247	176	316	169	45	34	28	18	34	7	249
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.79	0.79	0.79	0.93	0.93	0.93	0.73	0.73	0.73	0.91	0.91	0.00
PHF Volume:	35	311	222	339	181	48	47	38	25	37	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	311	222	339	181	48	47	38	25	37	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	35	311	222	339	181	48	47	38	25	37	8	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.58	0.42	0.55	0.45	1.00	0.83	0.17	1.00
Final Sat.:	502	547	608	515	880	241	247	204	511	355	73	493

Capacity Analysis Module:

Vol/Sat:	0.07	0.57	0.37	0.66	0.21	0.20	0.19	0.19	0.05	0.10	0.10	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	10.2	17.0	11.6	21.3	10.5	10.2	11.8	11.8	9.5	11.3	11.3	0.0
Delay Adj:	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:	10.2	17.0	11.6	21.3	10.5	10.2	11.8	11.8	9.5	11.3	11.3	0.0
LOS by Move:	B	C	B	C	B	B	B	B	A	B	B	*
ApproachDel:	14.4			16.9			11.3			11.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.4			16.9			11.3			11.3		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.1	1.2	0.5	1.7	0.2	0.2	0.2	0.2	0.0	0.1	0.1	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.342
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			Ignore		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	18	101	33	487	171	36	20	61	39	79	6	469
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:	18	101	33	487	171	36	20	61	39	79	6	469
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.87	0.87	0.87	0.84	0.84	0.84	0.93	0.93	0.93	0.80	0.80	0.00
PHF Volume:	21	117	38	577	203	43	21	65	42	99	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	117	38	577	203	43	21	65	42	99	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	21	117	38	577	203	43	21	65	42	99	8	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.83	0.17	0.26	0.74	1.00	0.93	0.07	1.00
Final Sat.:	1700	1800	1800	3200	1487	313	438	1336	1800	1586	120	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.06	0.02	0.18	0.14	0.14	0.05	0.05	0.02	0.06	0.06	0.00
Crit Moves:	****			****						****		
Green/Cycle:	0.27	0.30	0.30	0.45	0.48	0.48	0.15	0.15	0.15	0.15	0.15	0.00
Volume/Cap:	0.05	0.22	0.07	0.40	0.28	0.28	0.32	0.32	0.15	0.40	0.40	0.00
Delay/Veh:	16.4	15.9	15.1	11.4	9.6	9.6	23.2	23.2	22.2	23.9	23.9	0.0
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:	16.4	15.9	15.1	11.4	9.6	9.6	23.2	23.2	22.2	23.9	23.9	0.0
LOS by Move:	B	B	B	B	A	A	C	C	C	C	C	A
HCM2kAvgQ:	0	2	1	4	3	3	2	2	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.364
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 13.5
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			Ignore		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	28	247	176	316	169	45	34	28	18	34	7	249
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:	28	247	176	316	169	45	34	28	18	34	7	249
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.79	0.79	0.79	0.93	0.93	0.93	0.73	0.73	0.73	0.91	0.91	0.00
PHF Volume:	35	311	222	339	181	48	47	38	25	37	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	311	222	339	181	48	47	38	25	37	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	35	311	222	339	181	48	47	38	25	37	8	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.79	0.21	0.56	0.44	1.00	0.84	0.16	1.00
Final Sat.:	1700	1800	1800	3200	1421	379	956	787	1800	1423	293	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.17	0.12	0.11	0.13	0.13	0.05	0.05	0.01	0.03	0.03	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.27	0.48	0.48	0.29	0.49	0.49	0.13	0.13	0.13	0.13	0.13	0.00
Volume/Cap:	0.08	0.36	0.26	0.36	0.26	0.26	0.36	0.36	0.10	0.20	0.20	0.00
Delay/Veh:	16.2	10.3	9.6	17.1	9.0	9.0	24.6	24.6	23.0	23.5	23.5	0.0
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:	16.2	10.3	9.6	17.1	9.0	9.0	24.6	24.6	23.0	23.5	23.5	0.0
LOS by Move:	B	B	A	B	A	A	C	C	C	C	C	A
HCM2kAvgQ:	1	4	3	3	3	3	2	2	0	1	1	0

Note: Queue reported is the number of cars per lane.

Opening Year (2013) With Project

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: C[19.2]

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	0 1 0	0	0	1! 0 0

Volume Module:

Base Vol:	19	7	86	2	3	2	0	6	29	77	6	3
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	7	86	2	3	2	0	6	29	77	6	3
Added Vol:	0	34	0	0	99	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	41	86	2	102	2	0	6	29	77	6	3
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:	0.42	0.42	0.42	0.50	0.50	0.50	0.46	0.46	0.46	0.54	0.54	0.54
PHF Volume:	45	97	203	4	204	4	0	13	64	142	11	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	45	97	203	4	204	4	0	13	64	142	11	6

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	208	xxxx	xxxxx	300	xxxx	xxxxx	xxxx	604	206	541	504	199
Potent Cap.:	1375	xxxx	xxxxx	1272	xxxx	xxxxx	xxxx	415	840	455	473	848
Move Cap.:	1375	xxxx	xxxxx	1272	xxxx	xxxxx	xxxx	400	840	399	456	848
Volume/Cap:	0.03	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.03	0.08	0.36	0.02	0.01

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.7	xxxx	xxxxx	7.8	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	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	706	xxxx	410	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.4	xxxxx	1.8	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.7	xxxxx	19.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	C	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.7	xxxxxx	19.2	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	B	*	C	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[12.3]

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	0	0	1	0	0

Volume Module:

Base Vol:	9	3	67	2	2	0	0	3	11	33	5	3
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	3	67	2	2	0	0	3	11	33	5	3
Added Vol:	0	114	0	0	66	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	117	67	2	68	0	0	3	11	33	5	3
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:	0.66	0.66	0.66	0.50	0.50	0.50	0.54	0.54	0.54	0.75	0.75	0.75
PHF Volume:	14	177	102	4	136	0	0	6	20	44	7	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	177	102	4	136	0	0	6	20	44	7	4

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	136	xxxx	xxxxx	279	xxxx	xxxxx	xxxx	450	136	412	399	228
Potent Cap.:	1461	xxxx	xxxxx	1296	xxxx	xxxxx	xxxx	507	918	554	542	816
Move Cap.:	1461	xxxx	xxxxx	1296	xxxx	xxxxx	xxxx	501	918	532	535	816
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.01	0.02	0.08	0.01	0.00

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.5	xxxx	xxxxx	7.8	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	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	779	xxxx	546	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	0.1	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	9.8	xxxxx	12.3	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	A	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.8	xxxxxx	12.3	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	A	*	B	*	B	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.576
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	3	83	22	25	97	2	4	7	9	8	6	47
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:	3	83	22	25	97	2	4	7	9	8	6	47
Added Vol:	0	10	0	72	28	0	0	0	0	0	0	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	93	22	97	125	2	4	7	9	8	6	72
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:	0.49	0.49	0.49	0.55	0.55	0.55	0.39	0.39	0.39	0.47	0.47	0.47
PHF Volume:	6	190	45	175	226	4	10	18	23	17	13	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	190	45	175	226	4	10	18	23	17	13	152
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
Final Volume:	6	190	45	175	226	4	10	18	23	17	13	152

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.97	1.00	0.43	0.56	0.01	0.20	0.35	0.45	0.09	0.07	0.84
Final Sat.:	20	609	718	305	393	6	115	201	259	61	46	547

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.31	0.31	0.06	0.58	0.58	0.58	0.09	0.09	0.09	0.28	0.28	0.28
Crit Moves:	****			****			****			****		
Delay/Veh:	10.5	10.5	7.8	14.2	14.2	14.2	9.0	9.0	9.0	9.7	9.7	9.7
Delay Adj:	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:	10.5	10.5	7.8	14.2	14.2	14.2	9.0	9.0	9.0	9.7	9.7	9.7
LOS by Move:	B	B	A	B	B	B	A	A	A	A	A	A
ApproachDel:	10.0			14.2			9.0			9.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.0			14.2			9.0			9.7		
LOS by Appr:	B			B			A			A		
AllWayAvgQ:	0.4	0.4	0.1	1.2	1.2	1.2	0.1	0.1	0.1	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.241

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.4

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	2	53	20	6	37	2	0	0	3	13	0	29
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:	2	53	20	6	37	2	0	0	3	13	0	29
Added Vol:	0	32	0	47	18	0	0	0	0	0	0	82
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	85	20	53	55	2	0	0	3	13	0	111
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:	0.79	0.79	0.79	0.75	0.75	0.75	0.50	0.50	0.50	0.61	0.61	0.61
PHF Volume:	3	108	25	71	73	3	0	0	6	21	0	182
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	108	25	71	73	3	0	0	6	21	0	182
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:	3	108	25	71	73	3	0	0	6	21	0	182

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.48	0.50	0.02	0.00	0.00	1.00	0.10	0.01	0.89
Final Sat.:	16	669	792	357	371	13	0	0	797	89	0	757

Capacity Analysis Module:

Vol/Sat:	0.16	0.16	0.03	0.20	0.20	0.20	xxxx	xxxx	0.01	0.24	0.00	0.24
Crit Moves:	****			****			****			****		
Delay/Veh:	8.7	8.7	7.2	8.8	8.8	8.8	0.0	0.0	7.2	8.3	8.3	8.3
Delay Adj:	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:	8.7	8.7	7.2	8.8	8.8	8.8	0.0	0.0	7.2	8.3	8.3	8.3
LOS by Move:	A	A	A	A	A	A	*	*	A	A	A	A
ApproachDel:	8.4			8.8			7.2			8.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.4			8.8			7.2			8.3		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 6.5 Worst Case Level Of Service: C[16.0]

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:	4	61	6	22	83	5	6	6	0	5	3	43
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:	4	61	6	22	83	5	6	6	0	5	3	43
Added Vol:	7	9	0	2	26	0	0	63	20	0	21	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	70	6	24	109	5	6	69	20	5	24	44
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:	0.51	0.51	0.51	0.53	0.53	0.53	0.56	0.56	0.56	0.59	0.59	0.59
PHF Volume:	22	138	12	46	207	10	11	123	36	8	41	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	138	12	46	207	10	11	123	36	8	41	74

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:

Cnflct Vol:	217	xxxx	xxxxx	150	xxxx	xxxxx	548	496	212	569	495	144
Potent Cap.:	1365	xxxx	xxxxx	1444	xxxx	xxxxx	450	478	833	436	479	909
Move Cap.:	1365	xxxx	xxxxx	1444	xxxx	xxxxx	372	455	833	319	456	909
Volume/Cap:	0.02	xxxx	xxxx	0.03	xxxx	xxxx	0.03	0.27	0.04	0.03	0.09	0.08

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.7	xxxx	xxxxx	7.6	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	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	495	xxxxx	xxxx	625	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.5	xxxxx	xxxxx	0.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	16.0	xxxxx	xxxxx	12.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	16.0	xxxxxx	xxxxxx	12.2	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	C	*	*	B	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 7.6 Worst Case Level Of Service: B[11.3]

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	1	0 0 0	0	0	0 1 0	0	0	1! 0 0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	37	6	13	32	0	0	5	9	20	5	33
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	37	6	13	32	0	0	5	9	20	5	33
Added Vol:	23	30	0	1	17	0	0	41	13	0	72	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	67	6	14	49	0	0	46	22	20	77	35
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	0.92	0.92	0.92	0.50	0.50	0.50	0.88	0.88	0.88
PHF Volume:	24	71	6	15	53	0	0	92	44	23	88	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	24	71	6	15	53	0	0	92	44	23	88	40

Critical Gap Module:	North Bound			South Bound			East Bound			West Bound		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:	North Bound			South Bound			East Bound			West Bound		
Cnflct Vol:	53	xxxx	xxxxxx	77	xxxx	xxxxxx	xxxx	209	53	274	206	74
Potent Cap.:	1565	xxxx	xxxxxx	1535	xxxx	xxxxxx	xxxx	691	1020	682	694	994
Move Cap.:	1565	xxxx	xxxxxx	1535	xxxx	xxxxxx	xxxx	674	1020	573	676	994
Volume/Cap:	0.02	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.14	0.04	0.04	0.13	0.04

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.3	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	757	xxxx	718	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxxxx	xxxx	0.7	xxxxxx	0.8	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	10.8	xxxxxx	11.3	xxxxxx
Shared LOS:	*	*	*	A	*	*	*	*	B	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.8	xxxxxx	11.3	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	B	*	B	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 5.0 Worst Case Level Of Service: B[10.2]

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	1	0	0	0	1

Volume Module:

Base Vol:	0	0	0	44	0	40	44	86	0	0	54	36
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	44	0	40	44	86	0	0	54	36
Added Vol:	0	0	0	26	0	20	7	0	0	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	70	0	60	51	86	0	0	54	45
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:	1.00	1.00	1.00	0.73	0.73	0.73	0.93	0.93	0.93	0.85	0.85	0.85
PHF Volume:	0	0	0	95	0	82	55	92	0	0	63	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	95	0	82	55	92	0	0	63	53

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxxx	292	xxxx	90	116	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	xxxx	xxxx	xxxxxx	703	xxxx	974	1485	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	xxxx	xxxx	xxxxxx	683	xxxx	974	1485	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.14	xxxx	0.08	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	0.5	xxxx	0.3	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	11.1	xxxx	9.0	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	*	*	*	B	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.2			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[10.3]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	19	0	32	23	95	0	0	108	29
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	19	0	32	23	95	0	0	108	29
Added Vol:	0	0	0	17	0	13	23	0	0	0	0	30
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	36	0	45	46	95	0	0	108	59
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:	1.00	1.00	1.00	0.70	0.70	0.70	0.79	0.79	0.79	0.92	0.92	0.92
PHF Volume:	0	0	0	52	0	65	58	120	0	0	117	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	52	0	65	58	120	0	0	117	64

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	385	xxxx	149	181	xxxx	xxxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	622	xxxx	903	1406	xxxx	xxxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	602	xxxx	903	1406	xxxx	xxxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	0.07	0.04	xxxx	xxxxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	0.2	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.5	xxxx	9.3	7.7	xxxx	xxxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.3			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.242

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.5

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	12	14	4	21	18	3	4	29	11	4	43	24
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	14	4	21	18	3	4	29	11	4	43	24
Added Vol:	0	0	0	0	0	1	2	70	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	14	4	21	18	4	6	99	11	4	67	24
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:	0.52	0.52	0.52	0.62	0.62	0.62	0.59	0.59	0.59	0.54	0.54	0.54
PHF Volume:	23	27	8	34	29	6	10	167	19	7	123	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	27	8	34	29	6	10	167	19	7	123	44
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:	23	27	8	34	29	6	10	167	19	7	123	44

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.40	0.47	0.13	0.49	0.42	0.09	0.05	0.86	0.09	0.04	0.71	0.25
Final Sat.:	281	328	94	342	293	65	42	689	77	34	577	207

Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.08	0.10	0.10	0.10	0.24	0.24	0.24	0.21	0.21	0.21
Crit Moves:	****			****			****			****		
Delay/Veh:	8.2	8.2	8.2	8.3	8.3	8.3	8.7	8.7	8.7	8.4	8.4	8.4
Delay Adj:	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:	8.2	8.2	8.2	8.3	8.3	8.3	8.7	8.7	8.7	8.4	8.4	8.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			8.3			8.7			8.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			8.3			8.7			8.4		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.166
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
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:	3	7	3	13	7	6	7	19	4	2	13	12
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:	3	7	3	13	7	6	7	19	4	2	13	12
Added Vol:	0	0	0	0	0	2	1	46	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	7	3	13	7	8	8	65	4	2	93	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:	0.63	0.63	0.63	0.52	0.52	0.52	0.68	0.68	0.68	0.75	0.75	0.75
PHF Volume:	5	11	5	25	13	15	12	96	6	3	124	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	11	5	25	13	15	12	96	6	3	124	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:	5	11	5	25	13	15	12	96	6	3	124	16

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.23	0.54	0.23	0.46	0.25	0.29	0.10	0.85	0.05	0.02	0.87	0.11
Final Sat.:	179	417	179	363	195	223	87	711	44	16	746	96

Capacity Analysis Module:

Vol/Sat:	0.03	0.03	0.03	0.07	0.07	0.07	0.14	0.14	0.14	0.17	0.17	0.17
Crit Moves:	****			****			****			****		
Delay/Veh:	7.5	7.5	7.5	7.7	7.7	7.7	7.8	7.8	7.8	7.9	7.9	7.9
Delay Adj:	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:	7.5	7.5	7.5	7.7	7.7	7.7	7.8	7.8	7.8	7.9	7.9	7.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.5			7.7			7.8			7.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.5			7.7			7.8			7.9	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.398
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.8
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	77	146	50	3	200	10	4	19	69	61	8	1
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:	77	146	50	3	200	10	4	19	69	61	8	1
Added Vol:	18	0	0	0	0	1	2	13	51	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	95	146	50	3	200	11	6	32	120	61	12	1
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:	0.74	0.74	0.74	0.82	0.82	0.82	0.73	0.73	0.73	0.89	0.89	0.89
PHF Volume:	129	198	68	4	243	13	8	44	166	69	13	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	198	68	4	243	13	8	44	166	69	13	1
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
Final Volume:	129	198	68	4	243	13	8	44	166	69	13	1

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.65	1.01	0.34	0.01	0.94	0.05	0.04	0.20	0.76	0.83	0.16	0.01
Final Sat.:	385	632	224	9	610	34	25	132	494	450	89	7

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.33	0.31	0.30	0.40	0.40	0.40	0.34	0.34	0.34	0.15	0.15	0.15
Crit Moves:	****			****			****			****		
Delay/Veh:	11.4	10.7	10.2	11.5	11.5	11.5	10.4	10.4	10.4	9.9	9.9	9.9
Delay Adj:	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:	11.4	10.7	10.2	11.5	11.5	11.5	10.4	10.4	10.4	9.9	9.9	9.9
LOS by Move:	B	B	B	B	B	B	B	B	B	A	A	A
ApproachDel:	10.8			11.5			10.4			9.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.8			11.5			10.4			9.9		
LOS by Appr:	B			B			B			A		
AllWayAvgQ:	0.5	0.4	0.4	0.6	0.6	0.6	0.4	0.4	0.4	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.362
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.1
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	61	222	74	9	164	11	6	16	32	34	13	15
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:	61	222	74	9	164	11	6	16	32	34	13	15
Added Vol:	59	0	0	0	0	2	1	9	34	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	120	222	74	9	164	13	7	25	66	34	28	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:	0.89	0.89	0.89	0.88	0.88	0.88	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	135	249	83	10	186	15	8	28	73	38	31	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	249	83	10	186	15	8	28	73	38	31	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:	135	249	83	10	186	15	8	28	73	38	31	17

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.58	1.07	0.35	0.05	0.88	0.07	0.07	0.26	0.67	0.45	0.36	0.19
Final Sat.:	371	730	253	34	615	49	46	165	435	265	218	117

Capacity Analysis Module:

Vol/Sat:	0.36	0.34	0.33	0.30	0.30	0.30	0.17	0.17	0.17	0.14	0.14	0.14
Crit Moves:	****			****			****			****		
Delay/Veh:	11.2	10.5	10.0	10.0	10.0	10.0	9.1	9.1	9.1	9.3	9.3	9.3
Delay Adj:	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:	11.2	10.5	10.0	10.0	10.0	10.0	9.1	9.1	9.1	9.3	9.3	9.3
LOS by Move:	B	B	A	B	B	B	A	A	A	A	A	A
ApproachDel:		10.6			10.0			9.1			9.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.6			10.0			9.1			9.3	
LOS by Appr:		B			B			A			A	
AllWayAvgQ:	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.266
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.8
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	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	35	230	44	21	300	4	10	12	82	128	14	12
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:	35	230	44	21	300	4	10	12	82	128	14	12
Added Vol:	0	18	0	0	51	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	248	44	21	351	4	10	12	82	128	14	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	0.79	0.79	0.79	0.76	0.76	0.76	0.92	0.92	0.92
PHF Volume:	41	289	51	27	447	5	13	16	108	139	15	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	289	51	27	447	5	13	16	108	139	15	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
Final Volume:	41	289	51	27	447	5	13	16	108	139	15	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:	1.00	1.70	0.30	1.00	1.98	0.02	0.47	0.53	1.00	0.91	0.09	1.00
Final Sat.:	1700	3058	542	1700	3559	41	797	956	1800	1541	169	1800

Capacity Analysis Module:

Vol/Sat:	0.02	0.09	0.09	0.02	0.13	0.13	0.02	0.02	0.06	0.09	0.09	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.32	0.32	0.18	0.33	0.33	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.14	0.29	0.29	0.09	0.38	0.38	0.04	0.04	0.15	0.23	0.23	0.02
Delay/Veh:	21.6	15.4	15.4	20.7	15.4	15.4	11.0	11.0	11.6	12.0	12.0	10.9
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:	21.6	15.4	15.4	20.7	15.4	15.4	11.0	11.0	11.6	12.0	12.0	10.9
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	3	3	0	3	3	0	0	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 65 Critical Vol./Cap.(X): 0.288
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.7
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	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	116	359	178	10	211	4	4	17	94	105	10	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:	116	359	178	10	211	4	4	17	94	105	10	10
Added Vol:	0	59	0	0	34	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	418	178	10	245	4	4	17	94	105	10	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:	0.95	0.95	0.95	0.92	0.92	0.92	0.69	0.69	0.69	0.83	0.83	0.83
PHF Volume:	122	439	187	11	267	4	6	24	135	127	12	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	122	439	187	11	267	4	6	24	135	127	12	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
Final Volume:	122	439	187	11	267	4	6	24	135	127	12	12

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	1.97	0.03	0.20	0.80	1.00	0.92	0.08	1.00
Final Sat.:	1700	2525	1075	1700	3542	58	339	1441	1800	1560	149	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.07	0.17	0.17	0.01	0.08	0.08	0.02	0.02	0.08	0.08	0.08	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.19	0.38	0.38	0.15	0.35	0.35	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.37	0.45	0.45	0.04	0.22	0.22	0.05	0.05	0.20	0.22	0.22	0.02
Delay/Veh:	23.6	15.1	15.1	23.5	15.1	15.1	13.2	13.2	14.1	14.3	14.3	13.0
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:	23.6	15.1	15.1	23.5	15.1	15.1	13.2	13.2	14.1	14.3	14.3	13.0
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	3	5	5	0	2	2	0	0	2	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 90 Critical Vol./Cap. (X): 0.686
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 33.4
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			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	179	382	255	177	504	126	53	98	158	210	93	230
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:	179	382	255	177	504	126	53	98	158	210	93	230
Added Vol:	21	12	0	17	35	0	0	0	63	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	200	394	255	194	539	126	53	98	221	210	93	236
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	0.89	0.89	0.89	0.88	0.88	0.88	0.87	0.87	0.87
PHF Volume:	233	458	297	217	604	141	60	111	250	242	107	272
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	458	297	217	604	141	60	111	250	242	107	272
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
Final Volume:	233	458	297	217	604	141	60	111	250	242	107	272

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	2.00	1.00	1.00	1.62	0.38	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2918	682	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.14	0.13	0.16	0.13	0.21	0.21	0.04	0.06	0.14	0.14	0.06	0.15
Crit Moves:	****			****			****		****	****		
Green/Cycle:	0.17	0.26	0.43	0.17	0.26	0.26	0.13	0.31	0.31	0.18	0.36	0.36
Volume/Cap:	0.81	0.49	0.38	0.77	0.81	0.81	0.28	0.20	0.45	0.81	0.17	0.42
Delay/Veh:	51.7	28.7	17.5	48.3	36.9	36.9	36.2	22.9	25.4	50.8	19.8	22.2
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:	51.7	28.7	17.5	48.3	36.9	36.9	36.2	22.9	25.4	50.8	19.8	22.2
LOS by Move:	D	C	B	D	D	D	D	C	C	D	B	C
HCM2kAvgQ:	9	6	6	8	12	12	2	2	6	9	2	6

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 95 Critical Vol./Cap.(X): 0.648
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 35.2
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:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	132	534	275	139	230	77	53	77	180	367	133	187
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:	132	534	275	139	230	77	53	77	180	367	133	187
Added Vol:	72	40	0	11	23	0	0	0	41	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	204	574	275	150	253	77	53	77	221	367	133	206
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	0.90	0.90	0.90	0.91	0.91	0.91	0.93	0.93	0.93
PHF Volume:	210	592	284	167	281	86	58	84	242	397	144	223
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	210	592	284	167	281	86	58	84	242	397	144	223
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
Final Volume:	210	592	284	167	281	86	58	84	242	397	144	223

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	2.00	1.00	1.00	1.53	0.47	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	2760	840	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.12	0.16	0.16	0.10	0.10	0.10	0.03	0.05	0.13	0.23	0.08	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.22	0.50	0.12	0.19	0.19	0.15	0.29	0.29	0.28	0.43	0.43
Volume/Cap:	0.83	0.75	0.32	0.81	0.54	0.54	0.22	0.16	0.46	0.83	0.19	0.29
Delay/Veh:	58.8	38.9	14.3	61.5	35.6	35.6	35.8	24.9	27.9	43.3	17.2	18.1
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:	58.8	38.9	14.3	61.5	35.6	35.6	35.8	24.9	27.9	43.3	17.2	18.1
LOS by Move:	E	D	B	E	D	D	D	C	C	D	B	B
HCM2kAvgQ:	9	10	5	7	5	5	2	2	6	14	3	4

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 9.5 Worst Case Level Of Service: E[40.7]

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:	1	0	0	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	74	486	0	0	575	286	0	0	0	115	0	334
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:	74	486	0	0	575	286	0	0	0	115	0	334
Added Vol:	0	23	0	0	35	63	0	0	0	9	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	509	0	0	610	349	0	0	0	124	0	344
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:	0.79	0.79	0.79	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	93	641	0	0	667	381	0	0	0	135	0	375
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	93	641	0	0	667	381	0	0	0	135	0	375

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	1048	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1161	xxxx	641
Potent Cap.:	672	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	218	xxxx	478
Move Cap.:	672	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	195	xxxx	478
Volume/Cap:	0.14	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.69	xxxx	0.78

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.3	xxxx	7.0
Control Del:	11.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	57.1	xxxx	34.7
LOS by Move:	B	*	*	*	*	*	*	*	*	F	*	D
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	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			xxxxxx			xxxxxx			40.7		
ApproachLOS:	*			*			*			E		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 23.6 Worst Case Level Of Service: F[76.2]

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:	1	0	0	0	0	1	0	0	0	1	0	0

Volume Module:

Base Vol:	106	424	0	0	467	311	0	0	0	63	0	516
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:	106	424	0	0	467	311	0	0	0	63	0	516
Added Vol:	0	78	0	0	23	41	0	0	0	30	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	502	0	0	490	352	0	0	0	93	0	550
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:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.96	0.96	0.96
PHF Volume:	115	546	0	0	517	371	0	0	0	97	0	575
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	115	546	0	0	517	371	0	0	0	97	0	575

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	888	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1035	xxxx	546
Potent Cap.:	771	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	259	xxxx	542
Move Cap.:	771	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	230	xxxx	542
Volume/Cap:	0.15	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.42	xxxx	1.06

Level Of Service Module:

2Way95thQ:	0.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.0	xxxx	16.9
Control Del:	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	31.7	xxxx	83.7
LOS by Move:	B	*	*	*	*	*	*	*	*	D	*	F
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	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			xxxxxx			xxxxxx			76.2		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.616
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:

Base Vol:	74	486	0	0	575	286	0	0	0	115	0	334
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:	74	486	0	0	575	286	0	0	0	115	0	334
Added Vol:	0	23	0	0	35	63	0	0	0	9	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	509	0	0	610	349	0	0	0	124	0	344
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:	0.79	0.79	0.79	0.92	0.92	0.92	1.00	1.00	1.00	0.92	0.92	0.92
PHF Volume:	93	641	0	0	667	381	0	0	0	135	0	375
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	641	0	0	667	381	0	0	0	135	0	375
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:	93	641	0	0	667	381	0	0	0	135	0	375

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	0.00	0.00	1.27	0.73	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	1800	0	0	2290	1310	0	0	0	1700	0	1800

Capacity Analysis Module:

Vol/Sat:	0.05	0.36	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.08	0.00	0.21
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.59	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.31	0.00	0.31
Volume/Cap:	0.33	0.60	0.00	0.00	0.68	0.68	0.00	0.00	0.00	0.26	0.00	0.68
Delay/Veh:	22.7	8.6	0.0	0.0	15.1	15.1	0.0	0.0	0.0	16.0	0.0	21.7
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:	22.7	8.6	0.0	0.0	15.1	15.1	0.0	0.0	0.0	16.0	0.0	21.7
LOS by Move:	C	A	A	A	B	B	A	A	A	B	A	C
HCM2kAvgQ:	2	8	0	0	9	9	0	0	0	2	0	7

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.705
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 18.7
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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:

Base Vol:	106	424	0	0	467	311	0	0	0	63	0	516
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:	106	424	0	0	467	311	0	0	0	63	0	516
Added Vol:	0	78	0	0	23	41	0	0	0	30	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	106	502	0	0	490	352	0	0	0	93	0	550
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:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.96	0.96	0.96
PHF Volume:	115	546	0	0	517	371	0	0	0	97	0	575
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	546	0	0	517	371	0	0	0	97	0	575
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
Final Volume:	115	546	0	0	517	371	0	0	0	97	0	575

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	0.00	0.00	1.16	0.84	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1700	1800	0	0	2095	1505	0	0	0	1700	0	1800

Capacity Analysis Module:

Vol/Sat:	0.07	0.30	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.06	0.00	0.32
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.49	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.41	0.00	0.41
Volume/Cap:	0.41	0.62	0.00	0.00	0.77	0.77	0.00	0.00	0.00	0.14	0.00	0.77
Delay/Veh:	23.3	12.8	0.0	0.0	21.7	21.7	0.0	0.0	0.0	11.0	0.0	20.2
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:	23.3	12.8	0.0	0.0	21.7	21.7	0.0	0.0	0.0	11.0	0.0	20.2
LOS by Move:	C	B	A	A	C	C	A	A	A	B	A	C
HCM2kAvgQ:	2	8	0	0	10	10	0	0	0	1	0	11

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 1.108
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 50.4
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	18	101	33	487	171	36	20	61	39	79	6	469
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:	18	101	33	487	171	36	20	61	39	79	6	469
Added Vol:	0	2	0	29	6	9	0	26	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	103	33	516	177	45	20	87	39	79	6	490
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.87	0.87	0.87	0.84	0.84	0.84	0.93	0.93	0.93	0.80	0.80	0.00
PHF Volume:	21	119	38	611	210	53	21	93	42	99	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	119	38	611	210	53	21	93	42	99	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	21	119	38	611	210	53	21	93	42	99	8	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.19	0.81	1.00	0.93	0.07	1.00
Final Sat.:	451	482	531	552	954	250	90	392	537	421	32	529

Capacity Analysis Module:

Vol/Sat:	0.05	0.25	0.07	1.11	0.22	0.21	0.24	0.24	0.08	0.24	0.24	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	10.9	12.3	9.8	95.4	10.2	10.0	12.2	12.2	9.8	12.8	12.8	0.0
Delay Adj:	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:	10.9	12.3	9.8	95.4	10.2	10.0	12.2	12.2	9.8	12.8	12.8	0.0
LOS by Move:	B	B	A	F	B	A	B	B	A	B	B	*
ApproachDel:	11.6			69.8			11.6			12.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.6			69.8			11.6			12.8		
LOS by Appr:	B			F			B			B		
AllWayAvgQ:	0.0	0.3	0.1	13.2	0.3	0.3	0.3	0.3	0.1	0.3	0.3	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.712
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 16.6
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	28	247	176	316	169	45	34	28	18	34	7	249
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:	28	247	176	316	169	45	34	28	18	34	7	249
Added Vol:	0	6	0	19	4	30	0	17	0	0	0	72
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	253	176	335	173	75	34	45	18	34	7	321
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.79	0.79	0.79	0.93	0.93	0.93	0.73	0.73	0.73	0.91	0.91	0.00
PHF Volume:	35	319	222	359	186	80	47	62	25	37	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	319	222	359	186	80	47	62	25	37	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	35	319	222	359	186	80	47	62	25	37	8	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.40	0.60	0.43	0.57	1.00	0.83	0.17	1.00
Final Sat.:	485	529	584	505	762	346	192	255	501	346	71	476

Capacity Analysis Module:

Vol/Sat:	0.07	0.60	0.38	0.71	0.24	0.23	0.24	0.24	0.05	0.11	0.11	0.00
Crit Moves:	****			****			****			****		
Delay/Veh:	10.4	18.6	12.1	24.6	11.1	10.6	12.5	12.5	9.7	11.6	11.6	0.0
Delay Adj:	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:	10.4	18.6	12.1	24.6	11.1	10.6	12.5	12.5	9.7	11.6	11.6	0.0
LOS by Move:	B	C	B	C	B	B	B	B	A	B	B	*
ApproachDel:	15.6			18.8			12.0			11.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.6			18.8			12.0			11.6		
LOS by Appr:	C			C			B			B		
AllWayAvgQ:	0.1	1.4	0.6	2.1	0.3	0.3	0.3	0.3	0.0	0.1	0.1	0.0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.357

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.2

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			Ignore		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	18	101	33	487	171	36	20	61	39	79	6	469
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:	18	101	33	487	171	36	20	61	39	79	6	469
Added Vol:	0	2	0	29	6	9	0	26	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	103	33	516	177	45	20	87	39	79	6	490
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.87	0.87	0.87	0.84	0.84	0.84	0.93	0.93	0.93	0.80	0.80	0.00
PHF Volume:	21	119	38	611	210	53	21	93	42	99	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	119	38	611	210	53	21	93	42	99	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	21	119	38	611	210	53	21	93	42	99	8	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.80	0.20	0.20	0.80	1.00	0.93	0.07	1.00
Final Sat.:	1700	1800	1800	3200	1435	365	333	1448	1800	1586	120	1800

Capacity Analysis Module:

Vol/Sat:	0.01	0.07	0.02	0.19	0.15	0.15	0.06	0.06	0.02	0.06	0.06	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.27	0.30	0.30	0.45	0.48	0.48	0.15	0.15	0.15	0.15	0.15	0.00
Volume/Cap:	0.05	0.22	0.07	0.43	0.30	0.30	0.43	0.43	0.15	0.41	0.41	0.00
Delay/Veh:	16.3	15.9	15.1	11.5	9.7	9.7	24.2	24.2	22.4	24.1	24.1	0.0
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:	16.3	15.9	15.1	11.5	9.7	9.7	24.2	24.2	22.4	24.1	24.1	0.0
LOS by Move:	B	B	B	B	A	A	C	C	C	C	C	A
HCM2kAvgQ:	0	2	1	5	3	3	2	2	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Opening Year (2013) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.390

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			Ignore		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	28	247	176	316	169	45	34	28	18	34	7	249
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:	28	247	176	316	169	45	34	28	18	34	7	249
Added Vol:	0	6	0	19	4	30	0	17	0	0	0	72
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	253	176	335	173	75	34	45	18	34	7	321
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.79	0.79	0.79	0.93	0.93	0.93	0.73	0.73	0.73	0.91	0.91	0.00
PHF Volume:	35	319	222	359	186	80	47	62	25	37	8	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	319	222	359	186	80	47	62	25	37	8	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Volume:	35	319	222	359	186	80	47	62	25	37	8	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.70	0.30	0.44	0.56	1.00	0.84	0.16	1.00
Final Sat.:	1700	1800	1800	3200	1256	544	756	1000	1800	1423	293	1800

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.18	0.12	0.11	0.15	0.15	0.06	0.06	0.01	0.03	0.03	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.26	0.45	0.45	0.29	0.48	0.48	0.16	0.16	0.16	0.16	0.16	0.00
Volume/Cap:	0.08	0.39	0.27	0.39	0.31	0.31	0.39	0.39	0.09	0.17	0.17	0.00
Delay/Veh:	16.6	11.2	10.4	17.4	9.8	9.8	23.6	23.6	21.7	22.1	22.1	0.0
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:	16.6	11.2	10.4	17.4	9.8	9.8	23.6	23.6	21.7	22.1	22.1	0.0
LOS by Move:	B	B	B	B	A	A	C	C	C	C	C	A
HCM2kAvgQ:	1	4	3	3	3	3	2	2	0	1	1	0

Note: Queue reported is the number of cars per lane.

Year 2035 Without Project

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 6.0 Worst Case Level Of Service: A[10.0]

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	0 1 0	0	0	1! 0 0

Volume Module:

Base Vol:	15	6	90	0	0	0	0	10	40	80	5	4
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	6	90	0	0	0	0	10	40	80	5	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:	0.95	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	6	95	0	0	0	0	11	42	84	5	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	6	95	0	0	0	0	11	42	84	5	4

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	133	0	112	85	54
Potent Cap.:	900	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	762	900	871	809	1019
Move Cap.:	900	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	748	900	810	794	1019
Volume/Cap:	0.02	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	0.01	0.05	0.10	0.01	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	865	xxxx	817	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.2	xxxxxx	0.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.4	xxxxxx	10.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx					9.4		10.0	
ApproachLOS:		*			*				A		A	

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: A[9.5]

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	0 1 0	0	1	0 0 0

Volume Module:

Base Vol:	23	0	68	0	0	0	0	2	17	33	7	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:	23	0	68	0	0	0	0	2	17	33	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:	24	0	72	0	0	0	0	2	18	35	7	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	24	0	72	0	0	0	0	2	18	35	7	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	xxxxxx

Capacity Module:

Cnflict Vol:	0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	120	0	94	84	xxxxxx
Potent Cap.:	900	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	774	900	894	810	xxxxxx
Move Cap.:	900	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	753	900	856	788	xxxxxx
Volume/Cap:	0.03	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	0.00	0.02	0.04	0.01	xxxxxx

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Control Del:	9.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	882	843	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	0.1	0.2	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	9.2	9.5	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	A	*	*
ApproachDel:	xxxxxx			xxxxxx					9.2			9.5
ApproachLOS:		*			*				A			A

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.181
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.9
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:

Base Vol:	2	79	20	33	105	2	4	7	8	7	6	57
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:	2	79	20	33	105	2	4	7	8	7	6	57
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	83	21	35	111	2	4	7	8	7	6	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	83	21	35	111	2	4	7	8	7	6	60
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
Final Volume:	2	83	21	35	111	2	4	7	8	7	6	60

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.24	0.75	0.01	0.21	0.37	0.42	0.10	0.09	0.81
Final Sat.:	18	717	859	192	609	12	166	290	331	85	73	692

Capacity Analysis Module:

Vol/Sat:	0.12	0.12	0.02	0.18	0.18	0.18	0.03	0.03	0.03	0.09	0.09	0.09
Crit Moves:	****			****			****			****		
Delay/Veh:	8.1	8.1	6.9	8.3	8.3	8.3	7.4	7.4	7.4	7.4	7.4	7.4
Delay Adj:	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:	8.1	8.1	6.9	8.3	8.3	8.3	7.4	7.4	7.4	7.4	7.4	7.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.3			7.4			7.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.3			7.4			7.4		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.073

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:

Base Vol:	0	53	17	3	47	0	0	0	0	23	0	37
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	53	17	3	47	0	0	0	0	23	0	37
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	56	18	3	49	0	0	0	0	24	0	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	56	18	3	49	0	0	0	0	24	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
Final Volume:	0	56	18	3	49	0	0	0	0	24	0	39

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.06	0.94	0.00	0.00	1.00	0.00	0.38	0.00	0.62
Final Sat.:	0	763	895	51	792	0	0	824	0	346	0	556

Capacity Analysis Module:

Vol/Sat:	xxxx	0.07	0.02	0.06	0.06	xxxx	xxxx	0.00	xxxx	0.07	xxxx	0.07
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	7.7	6.7	7.5	7.5	0.0	0.0	0.0	0.0	7.2	0.0	7.2
Delay Adj:	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	7.7	6.7	7.5	7.5	0.0	0.0	0.0	0.0	7.2	0.0	7.2
LOS by Move:	*	A	A	A	A	*	*	*	*	A	*	A
ApproachDel:	7.5			7.5			xxxxxx			7.2		
Delay Adj:	1.00			1.00			xxxxxx			1.00		
ApprAdjDel:	7.5			7.5			xxxxxx			7.2		
LOS by Appr:	A			A			*			A		
AllWayAvgQ:	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: B[10.8]

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	1	0 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	12	59	7	17	91	9	12	16	0	9	9	49
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	59	7	17	91	9	12	16	0	9	9	49
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:	13	62	7	18	96	9	13	17	0	9	9	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	62	7	18	96	9	13	17	0	9	9	52

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	xxxxxx	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	xxxxxx	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	105	xxxx	xxxxxx	69	xxxx	xxxxxx	258	231	xxxxxx	236	232	66
Potent Cap.:	1499	xxxx	xxxxxx	1544	xxxx	xxxxxx	699	672	xxxxxx	723	671	1004
Move Cap.:	1499	xxxx	xxxxxx	1544	xxxx	xxxxxx	646	659	xxxxxx	698	658	1004
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.02	0.03	xxxx	0.01	0.01	0.05

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	653	xxxx	xxxxxx	xxxx	889	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	10.8	xxxx	xxxxxx	xxxxxx	9.4	xxxxxx
Shared LOS:	*	*	*	*	*	*	B	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			10.8			9.4		
ApproachLOS:	*			*			B			A		

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: A[9.8]

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	0	1	0	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	41	9	14	56	0	0	7	23	41	20	39
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	41	9	14	56	0	0	7	23	41	20	39
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	43	9	15	59	0	0	7	24	43	21	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	43	9	15	59	0	0	7	24	43	21	41

Critical Gap Module:

Critical Gp:	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxxx	53	xxxx	xxxxxx	xxxx	141	59	152	136	48
Potent Cap.:	xxxx	xxxx	xxxxxx	1566	xxxx	xxxxxx	xxxx	754	1012	820	758	1027
Move Cap.:	xxxx	xxxx	xxxxxx	1566	xxxx	xxxxxx	xxxx	747	1012	788	751	1027
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.01	0.02	0.05	0.03	0.04

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	935	xxxx	857	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxxxx	xxxx	0.1	xxxxxx	0.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	9.0	xxxxxx	9.8	xxxxxx
Shared LOS:	*	*	*	A	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx				9.0			9.8	
ApproachLOS:	*			*				A			A	

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: B[10.4]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	62	0	38	52	148	0	0	62	38
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	62	0	38	52	148	0	0	62	38
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	65	0	40	55	156	0	0	65	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	65	0	40	55	156	0	0	65	40

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	351	xxxx	85	105	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	651	xxxx	979	1499	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	632	xxxx	979	1499	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.10	xxxx	0.04	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	0.1	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.3	xxxx	8.8	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	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	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.4			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: B[10.8]

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:	0	0	0	0	0	0	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	26	0	84	24	94	0	0	266	36
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	26	0	84	24	94	0	0	266	36
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	27	0	88	25	99	0	0	280	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	27	0	88	25	99	0	0	280	38

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	448	xxxx	299	318	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	572	xxxx	745	1254	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	563	xxxx	745	1254	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.05	xxxx	0.12	0.02	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.2	xxxx	0.4	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.7	xxxx	10.5	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	B	A	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	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
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.8			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.095
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.4
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
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:	14	13	4	29	18	3	3	37	9	3	53	24
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:	14	13	4	29	18	3	3	37	9	3	53	24
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:	15	14	4	31	19	3	3	39	9	3	56	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	14	4	31	19	3	3	39	9	3	56	25
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
Final Volume:	15	14	4	31	19	3	3	39	9	3	56	25

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.45	0.42	0.13	0.58	0.36	0.06	0.06	0.76	0.18	0.04	0.66	0.30
Final Sat.:	371	345	106	473	293	49	53	654	159	33	589	267

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.09	0.09	0.09
Crit Moves:	****			****			****			****		
Delay/Veh:	7.4	7.4	7.4	7.6	7.6	7.6	7.3	7.3	7.3	7.4	7.4	7.4
Delay Adj:	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:	7.4	7.4	7.4	7.6	7.6	7.6	7.3	7.3	7.3	7.4	7.4	7.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.4			7.6			7.3			7.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.4			7.6			7.3			7.4		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.074

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.2

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	2	6	1	32	7	17	9	17	2	1	31	34
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:	2	6	1	32	7	17	9	17	2	1	31	34
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	6	1	34	7	18	9	18	2	1	33	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	6	1	34	7	18	9	18	2	1	33	36
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
Final Volume:	2	6	1	34	7	18	9	18	2	1	33	36

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.22	0.67	0.11	0.58	0.12	0.30	0.32	0.61	0.07	0.01	0.47	0.52
Final Sat.:	189	567	94	499	109	265	275	520	61	14	442	485

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.07	0.07	0.07	0.03	0.03	0.03	0.07	0.07	0.07
Crit Moves:	****			****			****			****		
Delay/Veh:	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1
Delay Adj:	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:	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.1	7.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.2			7.3			7.3			7.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.2			7.3			7.3			7.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.356
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	83	156	68	2	231	8	3	20	78	81	9	1
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:	83	156	68	2	231	8	3	20	78	81	9	1
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:	87	164	72	2	243	8	3	21	82	85	9	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	87	164	72	2	243	8	3	21	82	85	9	1
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
Final Volume:	87	164	72	2	243	8	3	21	82	85	9	1

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.54	1.02	0.44	0.01	0.96	0.03	0.03	0.20	0.77	0.89	0.10	0.01
Final Sat.:	343	685	313	6	684	24	20	133	517	534	59	7

Capacity Analysis Module:

Vol/Sat:	0.25	0.24	0.23	0.36	0.36	0.36	0.16	0.16	0.16	0.16	0.16	0.16
Crit Moves:	****			****			****			****		
Delay/Veh:	10.0	9.5	9.0	10.4	10.4	10.4	8.7	8.7	8.7	9.5	9.5	9.5
Delay Adj:	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:	10.0	9.5	9.0	10.4	10.4	10.4	8.7	8.7	8.7	9.5	9.5	9.5
LOS by Move:	B	A	A	B	B	B	A	A	A	A	A	A
ApproachDel:	9.5			10.4			8.7			9.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.5			10.4			8.7			9.5		
LOS by Appr:	A			B			A			A		
AllWayAvgQ:	0.3	0.3	0.3	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.388
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.3
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	108	274	103	4	202	7	4	13	54	64	15	12
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:	108	274	103	4	202	7	4	13	54	64	15	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	114	288	108	4	213	7	4	14	57	67	16	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	288	108	4	213	7	4	14	57	67	16	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
Final Volume:	114	288	108	4	213	7	4	14	57	67	16	13

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.45	1.13	0.42	0.02	0.95	0.03	0.06	0.18	0.76	0.71	0.16	0.13
Final Sat.:	293	783	309	13	666	23	36	116	481	415	97	78

Capacity Analysis Module:

Vol/Sat:	0.39	0.37	0.35	0.32	0.32	0.32	0.12	0.12	0.12	0.16	0.16	0.16
Crit Moves:	****			****			****			****		
Delay/Veh:	11.4	10.7	10.1	10.2	10.2	10.2	8.8	8.8	8.8	9.6	9.6	9.6
Delay Adj:	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:	11.4	10.7	10.1	10.2	10.2	10.2	8.8	8.8	8.8	9.6	9.6	9.6
LOS by Move:	B	B	B	B	B	B	A	A	A	A	A	A
ApproachDel:	10.7			10.2			8.8			9.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.7			10.2			8.8			9.6		
LOS by Appr:	B			B			A			A		
AllWayAvgQ:	0.6	0.5	0.5	0.4	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 65 Critical Vol./Cap.(X): 0.232
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	24	24	24	24	24	24	
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0	1

Volume Module:

Base Vol:	34	269	46	23	374	3	10	11	89	136	12	12
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:	34	269	46	23	374	3	10	11	89	136	12	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	36	283	48	24	394	3	11	12	94	143	13	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	283	48	24	394	3	11	12	94	143	13	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
Final Volume:	36	283	48	24	394	3	11	12	94	143	13	13

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	1.71	0.29	1.00	1.98	0.02	0.49	0.51	1.00	0.92	0.08	1.00
Final Sat.:	1800	3245	555	1800	3770	30	881	970	1900	1661	147	1900

Capacity Analysis Module:

Vol/Sat:	0.02	0.09	0.09	0.01	0.10	0.10	0.01	0.01	0.05	0.09	0.09	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.15	0.35	0.35	0.19	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.13	0.25	0.25	0.07	0.27	0.27	0.03	0.03	0.13	0.23	0.23	0.02
Delay/Veh:	24.7	14.9	14.9	21.9	13.0	13.0	12.2	12.2	13.0	13.9	13.9	12.1
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:	24.7	14.9	14.9	21.9	13.0	13.0	12.2	12.2	13.0	13.9	13.9	12.1
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	2	2	0	2	2	0	0	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 80 Critical Vol./Cap.(X): 0.297

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.8

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	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	118	504	194	12	302	4	4	15	100	118	9	12
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:	118	504	194	12	302	4	4	15	100	118	9	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	124	531	204	13	318	4	4	16	105	124	9	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	531	204	13	318	4	4	16	105	124	9	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
Final Volume:	124	531	204	13	318	4	4	16	105	124	9	13

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	1.97	0.03	0.22	0.78	1.00	0.93	0.07	1.00
Final Sat.:	1800	2744	1056	1800	3750	50	395	1483	1900	1679	128	1900

Capacity Analysis Module:

Vol/Sat:	0.07	0.19	0.19	0.01	0.08	0.08	0.01	0.01	0.06	0.07	0.07	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.22	0.50	0.50	0.13	0.40	0.40	0.30	0.30	0.30	0.30	0.30	0.30
Volume/Cap:	0.31	0.39	0.39	0.06	0.21	0.21	0.04	0.04	0.18	0.25	0.25	0.02
Delay/Veh:	27.9	10.1	10.1	31.3	14.3	14.3	19.6	19.6	21.2	21.9	21.9	19.5
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:	27.9	10.1	10.1	31.3	14.3	14.3	19.6	19.6	21.2	21.9	21.9	19.5
LOS by Move:	C	B	B	C	B	B	B	B	C	C	C	B
HCM2kAvgQ:	3	4	4	0	2	2	0	0	2	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.689
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 40.7
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	2	0	1	1	0	1	0	1	0	1

Volume Module:												
Base Vol:	218	458	475	262	501	117	43	133	143	236	95	229
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:	218	458	475	262	501	117	43	133	143	236	95	229
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:	229	482	500	276	527	123	45	140	151	248	100	241
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	229	482	500	276	527	123	45	140	151	248	100	241
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:	229	482	500	276	527	123	45	140	151	248	100	241

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	2.00	1.00	1.00	1.62	0.38	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3081	719	1800	1900	1900	1800	1900	1900

Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.26	0.15	0.17	0.17	0.03	0.07	0.08	0.14	0.05	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.20	0.30	0.30	0.18	0.28	0.28	0.12	0.28	0.28	0.16	0.32	0.32
Volume/Cap:	0.64	0.42	0.87	0.87	0.61	0.61	0.22	0.26	0.28	0.87	0.16	0.39
Delay/Veh:	45.2	28.4	48.3	65.7	33.7	33.7	42.5	29.2	29.5	68.8	23.9	27.2
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:	45.2	28.4	48.3	65.7	33.7	33.7	42.5	29.2	29.5	68.8	23.9	27.2
LOS by Move:	D	C	D	E	C	C	D	C	C	E	C	C
HCM2kAvgQ:	8	6	17	12	9	9	1	3	3	11	2	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.955

Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 73.0

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	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	177	702	616	206	288	64	37	97	185	567	139	201
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:	177	702	616	206	288	64	37	97	185	567	139	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:	186	739	648	217	303	67	39	102	195	597	146	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	739	648	217	303	67	39	102	195	597	146	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:	186	739	648	217	303	67	39	102	195	597	146	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	2.00	1.00	1.00	1.64	0.36	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3109	691	1800	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.10	0.19	0.34	0.12	0.10	0.10	0.02	0.05	0.10	0.33	0.08	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.31	0.31	0.11	0.24	0.24	0.14	0.22	0.22	0.30	0.38	0.38
Volume/Cap:	0.57	0.63	1.10	1.10	0.40	0.40	0.16	0.25	0.48	1.10	0.20	0.29
Delay/Veh:	56.0	39.9	110.1	150.2	42.8	42.8	51.0	43.7	48.5	112.4	25.2	26.6
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:	56.0	39.9	110.1	150.2	42.8	42.8	51.0	43.7	48.5	112.4	25.2	26.6
LOS by Move:	E	D	F	F	D	D	D	D	D	F	C	C
HCM2kAvgQ:	8	12	37	15	6	6	1	3	7	36	3	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 95 Critical Vol./Cap. (X): 0.621
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 34.9
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	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	218	458	475	262	501	117	43	133	143	236	95	229
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:	218	458	475	262	501	117	43	133	143	236	95	229
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:	229	482	500	276	527	123	45	140	151	248	100	241
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	229	482	500	276	527	123	45	140	151	248	100	241
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
Final Volume:	229	482	500	276	527	123	45	140	151	248	100	241

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	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.62	0.38	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3081	719	1800	1900	1900	3400	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.13	0.13	0.26	0.15	0.17	0.17	0.03	0.07	0.08	0.07	0.05	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.21	0.33	0.33	0.19	0.31	0.31	0.11	0.29	0.29	0.11	0.29	0.29
Volume/Cap:	0.61	0.39	0.81	0.81	0.56	0.56	0.24	0.25	0.27	0.69	0.18	0.43
Delay/Veh:	41.6	24.8	39.1	55.1	28.7	28.7	42.0	26.3	26.6	51.6	25.4	29.2
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:	41.6	24.8	39.1	55.1	28.7	28.7	42.0	26.3	26.6	51.6	25.4	29.2
LOS by Move:	D	C	D	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	7	5	15	10	8	8	1	3	3	5	2	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 120 Critical Vol./Cap.(X): 0.793

Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 46.1

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	2	0	1	1	0	1	0	1	2	0	1

Volume Module:

Base Vol:	177	702	616	206	288	64	37	97	185	567	139	201
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:	177	702	616	206	288	64	37	97	185	567	139	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:	186	739	648	217	303	67	39	102	195	597	146	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	186	739	648	217	303	67	39	102	195	597	146	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
Final Volume:	186	739	648	217	303	67	39	102	195	597	146	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	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.64	0.36	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3109	691	1800	1900	1900	3400	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.10	0.19	0.34	0.12	0.10	0.10	0.02	0.05	0.10	0.18	0.08	0.11
Crit Moves:	****			****			****			****		
Green/Cycle:	0.21	0.37	0.37	0.13	0.30	0.30	0.11	0.23	0.23	0.19	0.31	0.31
Volume/Cap:	0.50	0.52	0.91	0.91	0.32	0.32	0.19	0.23	0.44	0.91	0.25	0.35
Delay/Veh:	46.8	28.1	50.6	90.4	32.9	32.9	50.5	38.5	42.4	66.4	30.8	32.6
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:	46.8	28.1	50.6	90.4	32.9	32.9	50.5	38.5	42.4	66.4	30.8	32.6
LOS by Move:	D	C	D	F	C	C	D	D	D	E	C	C
HCM2kAvgQ:	6	9	26	12	5	5	1	3	6	16	3	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 39.9 Worst Case Level Of Service: F[144.6]

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:	1	0	0	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	108	691	0	0	661	270	0	0	0	189	0	459
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:	108	691	0	0	661	270	0	0	0	189	0	459
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:	114	727	0	0	696	284	0	0	0	199	0	483
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	114	727	0	0	696	284	0	0	0	199	0	483

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflict Vol:	980	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1303	xxxx	727
Potent Cap.:	712	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	179	xxxx	427
Move Cap.:	712	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	157	xxxx	427
Volume/Cap:	0.16	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1.27	xxxx	1.13

Level Of Service Module:

2Way95thQ:	0.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	11.6	xxxx	17.4
Control Del:	11.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	217.0	xxxx	114.8
LOS by Move:	B	*	*	*	*	*	*	*	*	F	*	F
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	144.6	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	F	*	F

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 160.8 Worst Case Level Of Service: F[499.5]

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:	1	0	1	0	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	181	748	0	0	793	249	0	0	0	177	0	752
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:	181	748	0	0	793	249	0	0	0	177	0	752
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:	191	787	0	0	835	262	0	0	0	186	0	792
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	191	787	0	0	835	262	0	0	0	186	0	792

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	1097	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1586	xxxx	787
Potent Cap.:	644	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	120	xxxx	395
Move Cap.:	644	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	93	xxxx	395
Volume/Cap:	0.30	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.01	xxxx	2.01

Level Of Service Module:

2Way95thQ:	1.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	16.0	xxxx	55.0
Control Del:	12.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	564.6	xxxx	484.2
LOS by Move:	B	*	*	*	*	*	*	*	*	F	*	F
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	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	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	499.5	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	F	*	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.639
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 16.7
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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	108	691	0	0	661	270	0	0	0	189	0	459
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:	108	691	0	0	661	270	0	0	0	189	0	459
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:	114	727	0	0	696	284	0	0	0	199	0	483
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	727	0	0	696	284	0	0	0	199	0	483
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
Final Volume:	114	727	0	0	696	284	0	0	0	199	0	483

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	0.00	0.00	1.42	0.58	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	1900	0	0	2698	1102	0	0	0	1800	0	1900

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.38	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.11	0.00	0.25
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.54	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.36	0.00	0.36
Volume/Cap:	0.38	0.71	0.00	0.00	0.70	0.70	0.00	0.00	0.00	0.30	0.00	0.70
Delay/Veh:	25.9	11.7	0.0	0.0	17.8	17.8	0.0	0.0	0.0	13.9	0.0	20.9
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:	25.9	11.7	0.0	0.0	17.8	17.8	0.0	0.0	0.0	13.9	0.0	20.9
LOS by Move:	C	B	A	A	B	B	A	A	A	B	A	C
HCM2kAvgQ:	2	9	0	0	8	8	0	0	0	3	0	8

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 70 Critical Vol./Cap. (X): 0.887

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 31.3

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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:

Base Vol:	181	748	0	0	793	249	0	0	0	177	0	752
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:	181	748	0	0	793	249	0	0	0	177	0	752
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:	191	787	0	0	835	262	0	0	0	186	0	792
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	787	0	0	835	262	0	0	0	186	0	792
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
Final Volume:	191	787	0	0	835	262	0	0	0	186	0	792

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	0.00	0.00	1.52	0.48	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	1900	0	0	2892	908	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.11	0.41	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.10	0.00	0.42
Crit Moves:	****			****								****
Green/Cycle:	0.14	0.46	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.46	0.00	0.46
Volume/Cap:	0.74	0.90	0.00	0.00	0.91	0.91	0.00	0.00	0.00	0.23	0.00	0.91
Delay/Veh:	46.2	29.0	0.0	0.0	34.6	34.6	0.0	0.0	0.0	10.2	0.0	30.5
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:	46.2	29.0	0.0	0.0	34.6	34.6	0.0	0.0	0.0	10.2	0.0	30.5
LOS by Move:	D	C	A	A	C	C	A	A	A	B	A	C
HCM2kAvgQ:	6	19	0	0	16	16	0	0	0	2	0	20

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 1.417
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 130.0
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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	0	1	0	0	1	0	1

Volume Module:

Base Vol:	21	119	31	578	218	51	33	81	56	96	8	649
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:	21	119	31	578	218	51	33	81	56	96	8	649
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:	22	125	33	608	229	54	35	85	59	101	8	683
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	125	33	608	229	54	35	85	59	101	8	683
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
Final Volume:	22	125	33	608	229	54	35	85	59	101	8	683

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.62	0.38	0.29	0.71	1.00	0.92	0.08	1.00
Final Sat.:	363	383	413	429	742	177	119	293	456	408	34	522

Capacity Analysis Module:

Vol/Sat:	0.06	0.33	0.08	1.42	0.31	0.30	0.29	0.29	0.13	0.25	0.25	1.31
Crit Moves:	****			****			****			****		
Delay/Veh:	13.0	16.2	11.9	224.1	13.9	13.6	14.7	14.7	11.6	13.4	13.4	173.8
Delay Adj:	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:	13.0	16.2	11.9	224.1	13.9	13.6	14.7	14.7	11.6	13.4	13.4	173.8
LOS by Move:	B	C	B	F	B	B	B	B	B	B	B	F
ApproachDel:	15.0			157.3			13.7			151.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.0			157.3			13.7			151.6		
LOS by Appr:	C			F			B			F		
AllWayAvgQ:	0.1	0.5	0.1	25.4	0.4	0.4	0.4	0.4	0.1	0.3	0.3	23.8

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 1.465
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 121.5
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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	0	1	0	0	1	0	1

Volume Module:

Base Vol:	44	291	203	527	336	104	49	40	30	94	23	590
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:	44	291	203	527	336	104	49	40	30	94	23	590
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:	46	306	214	555	354	109	52	42	32	99	24	621
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	306	214	555	354	109	52	42	32	99	24	621
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:	46	306	214	555	354	109	52	42	32	99	24	621

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.53	0.47	0.55	0.45	1.00	0.80	0.20	1.00
Final Sat.:	347	370	397	379	612	194	190	155	379	311	76	451

Capacity Analysis Module:

Vol/Sat:	0.13	0.83	0.54	1.47	0.58	0.56	0.27	0.27	0.08	0.32	0.32	1.38
Crit Moves:	****			****			****			****		
Delay/Veh:	14.4	44.4	21.4	247.6	22.8	21.8	16.3	16.3	12.6	15.8	15.8	205.5
Delay Adj:	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:	14.4	44.4	21.4	247.6	22.8	21.8	16.3	16.3	12.6	15.8	15.8	205.5
LOS by Move:	B	E	C	F	C	C	C	C	B	C	C	F
ApproachDel:	33.3			145.2			15.4			174.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	33.3			145.2			15.4			174.1		
LOS by Appr:	D			F			C			F		
AllWayAvgQ:	0.1	3.3	1.1	24.8	1.3	1.2	0.3	0.3	0.1	0.4	0.4	24.4

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 75 Critical Vol./Cap.(X): 0.657
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 24.9
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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	21	119	31	578	218	51	33	81	56	96	8	649
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:	21	119	31	578	218	51	33	81	56	96	8	649
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:	22	125	33	608	229	54	35	85	59	101	8	683
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	125	33	608	229	54	35	85	59	101	8	683
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
Final Volume:	22	125	33	608	229	54	35	85	59	101	8	683

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.81	0.19	0.30	0.70	1.00	0.93	0.07	1.00
Final Sat.:	1800	1900	1900	3400	1540	360	541	1329	1900	1668	139	1900

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.07	0.02	0.18	0.15	0.15	0.06	0.06	0.03	0.06	0.06	0.36
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.24	0.24	0.23	0.30	0.30	0.45	0.45	0.45	0.45	0.45	0.45
Volume/Cap:	0.07	0.27	0.07	0.79	0.50	0.50	0.14	0.14	0.07	0.13	0.13	0.79
Delay/Veh:	26.9	24.7	22.3	35.6	24.4	24.4	10.3	10.3	9.7	10.2	10.2	21.9
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:	26.9	24.7	22.3	35.6	24.4	24.4	10.3	10.3	9.7	10.2	10.2	21.9
LOS by Move:	C	C	C	D	C	C	B	B	A	B	B	C
HCM2kAvgQ:	0	2	1	10	5	5	1	1	1	1	1	14

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 Without Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.724

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	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	44	291	203	527	336	104	49	40	30	94	23	590
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:	44	291	203	527	336	104	49	40	30	94	23	590
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:	46	306	214	555	354	109	52	42	32	99	24	621
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	306	214	555	354	109	52	42	32	99	24	621
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
Final Volume:	46	306	214	555	354	109	52	42	32	99	24	621

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.76	0.24	0.56	0.44	1.00	0.81	0.19	1.00
Final Sat.:	1800	1900	1900	3400	1451	449	1015	829	1900	1461	358	1900

Capacity Analysis Module:

Vol/Sat:	0.03	0.16	0.11	0.16	0.24	0.24	0.05	0.05	0.02	0.07	0.07	0.33
Crit Moves:	****			****						****		
Green/Cycle:	0.18	0.30	0.30	0.20	0.32	0.32	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.14	0.54	0.37	0.82	0.76	0.76	0.13	0.13	0.04	0.17	0.17	0.82
Delay/Veh:	21.7	20.9	18.2	33.4	26.3	26.3	10.5	10.5	9.9	10.9	10.9	23.8
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:	21.7	20.9	18.2	33.4	26.3	26.3	10.5	10.5	9.9	10.9	10.9	23.8
LOS by Move:	C	C	B	C	C	C	B	B	A	B	B	C
HCM2kAvgQ:	1	5	3	8	9	9	1	1	0	1	1	12

Note: Queue reported is the number of cars per lane.

Year 2035 With Project

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: B[11.2]

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	0 1 0	0	0	1! 0 0

Volume Module:

Base Vol:	15	6	90	0	0	0	0	10	40	80	5	4
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	6	90	0	0	0	0	10	40	80	5	4
Added Vol:	0	34	0	0	99	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	40	90	0	99	0	0	10	40	80	5	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:	0.95	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	42	95	0	104	0	0	11	42	84	5	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	42	95	0	104	0	0	11	42	84	5	4

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	104	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	273	104	252	225	89
Potent Cap.:	1500	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	638	956	706	677	974
Move Cap.:	1500	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	631	956	661	670	974
Volume/Cap:	0.01	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.02	0.04	0.13	0.01	0.00

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	867	xxxx	671	xxxxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.2	xxxxxx	0.5	xxxxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	9.4	xxxxxx	11.2	xxxxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	B	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.4	xxxxxx	11.2	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	A	*	B	*	*	*

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Little League Drive (NS) / Meyers Road (EW)

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: B[11.0]

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	1	0	0	1	0	0	1

Volume Module:												
Base Vol:	23	0	68	0	0	0	0	2	17	33	7	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:	23	0	68	0	0	0	0	2	17	33	7	0
Added Vol:	0	114	0	0	66	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	114	68	0	66	0	0	2	17	33	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:	24	120	72	0	69	0	0	2	18	35	7	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	24	120	72	0	69	0	0	2	18	35	7	0

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	6.5	6.2	7.1	6.5	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	4.0	3.3	3.5	4.0	xxxxxx

Capacity Module:												
Cnflct Vol:	69	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	309	69	284	274	xxxxxx
Potent Cap.:	1544	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	608	999	673	637	xxxxxx
Move Cap.:	1544	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	599	999	651	627	xxxxxx
Volume/Cap:	0.02	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.00	0.02	0.05	0.01	xxxxxx

Level Of Service Module:													
2Way95thQ:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Control Del:	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	933	646	xxxx	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	0.1	0.2	xxxx	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	8.9	11.0	xxxx	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	*	A	B	*	*	
ApproachDel:	xxxxxx			xxxxxx				8.9		11.0			
ApproachLOS:	*			*				A		B			

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.320
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.8
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	2	79	20	33	105	2	4	7	8	7	6	57
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:	2	79	20	33	105	2	4	7	8	7	6	57
Added Vol:	0	10	0	72	28	0	0	0	0	0	0	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	89	20	105	133	2	4	7	8	7	6	82
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	94	21	111	140	2	4	7	8	7	6	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	94	21	111	140	2	4	7	8	7	6	86
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
Final Volume:	2	94	21	111	140	2	4	7	8	7	6	86

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.44	0.55	0.01	0.21	0.37	0.42	0.07	0.06	0.87
Final Sat.:	16	692	822	345	437	7	151	264	302	58	50	681

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.14	0.14	0.03	0.32	0.32	0.32	0.03	0.03	0.03	0.13	0.13	0.13
Crit Moves:	****			****			****			****		
Delay/Veh:	8.4	8.4	7.1	9.5	9.5	9.5	7.8	7.8	7.8	7.8	7.8	7.8
Delay Adj:	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:	8.4	8.4	7.1	9.5	9.5	9.5	7.8	7.8	7.8	7.8	7.8	7.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			9.5			7.8			7.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			9.5			7.8			7.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Little League Drive (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.171
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.0
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	1	0	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	53	17	3	47	0	0	0	0	23	0	37
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	53	17	3	47	0	0	0	0	23	0	37
Added Vol:	0	32	0	47	18	0	0	0	0	0	0	82
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	85	17	50	65	0	0	0	0	23	0	119
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	89	18	53	68	0	0	0	0	24	0	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	89	18	53	68	0	0	0	0	24	0	125
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
Final Volume:	0	89	18	53	68	0	0	0	0	24	0	125

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.43	0.57	0.00	0.00	1.00	0.00	0.16	0.01	0.83
Final Sat.:	0	716	831	337	439	0	0	745	0	141	0	731

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	xxxx	0.13	0.02	0.16	0.16	xxxx	xxxx	0.00	xxxx	0.17	0.00	0.17
Crit Moves:	****			****			****			****		
Delay/Veh:	0.0	8.3	7.0	8.3	8.3	0.0	0.0	0.0	0.0	7.7	7.7	7.7
Delay Adj:	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	8.3	7.0	8.3	8.3	0.0	0.0	0.0	0.0	7.7	7.7	7.7
LOS by Move:	*	A	A	A	A	*	*	*	*	A	A	A
ApproachDel:	8.1			8.3			xxxxxx			7.7		
Delay Adj:	1.00			1.00			xxxxxx			1.00		
ApprAdjDel:	8.1			8.3			xxxxxx			7.7		
LOS by Appr:	A			A			*			A		
AllWayAvgQ:	0.1	0.1	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[11.8]

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:	12	59	7	17	91	9	12	16	0	9	9	49
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	59	7	17	91	9	12	16	0	9	9	49
Added Vol:	7	9	0	2	26	0	0	63	20	0	21	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	68	7	19	117	9	12	79	20	9	30	50
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:	20	72	7	20	123	9	13	83	21	9	32	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	20	72	7	20	123	9	13	83	21	9	32	53

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	133	xxxx	xxxxxx	79	xxxx	xxxxxx	325	287	128	335	288	75
Potent Cap.:	1465	xxxx	xxxxxx	1532	xxxx	xxxxxx	632	626	928	622	625	992
Move Cap.:	1465	xxxx	xxxxxx	1532	xxxx	xxxxxx	563	609	928	534	609	992
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.02	0.14	0.02	0.02	0.05	0.05

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	643	xxxxxx	xxxx	763	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.7	xxxxxx	xxxxxx	0.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.8	xxxxxx	xxxxxx	10.4	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx			11.8			10.4				
ApproachLOS:	*	*			B			B				

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Little League Drive (NS) / Frontage Road (EW)

Average Delay (sec/veh): 7.2 Worst Case Level Of Service: B[12.1]

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	0	0	1	0	0

Volume Module:

Base Vol:	0	41	9	14	56	0	0	7	23	41	20	39
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	41	9	14	56	0	0	7	23	41	20	39
Added Vol:	23	30	0	1	17	0	0	41	13	0	72	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	23	71	9	15	73	0	0	48	36	41	92	41
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:	24	75	9	16	77	0	0	51	38	43	97	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	24	75	9	16	77	0	0	51	38	43	97	43

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	77	xxxx	xxxxx	84	xxxx	xxxxx	xxxx	241	77	281	236	79
Potent Cap.:	1535	xxxx	xxxxx	1525	xxxx	xxxxx	xxxx	664	990	676	668	986
Move Cap.:	1535	xxxx	xxxxx	1525	xxxx	xxxxx	xxxx	646	990	599	650	986
Volume/Cap:	0.02	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	0.08	0.04	0.07	0.15	0.04

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.4	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			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	759	xxxx	692	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	0.4	xxxxx	1.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	10.4	xxxxx	12.1	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	B	*	B	*
ApproachDel:	xxxxxx	xxxxxx			10.4			12.1				
ApproachLOS:	*	*			B			B				

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 4.4 Worst Case Level Of Service: B[10.7]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	62	0	38	52	148	0	0	62	38
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	62	0	38	52	148	0	0	62	38
Added Vol:	0	0	0	26	0	20	7	0	0	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	88	0	58	59	148	0	0	62	47
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	93	0	61	62	156	0	0	65	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	93	0	61	62	156	0	0	65	49

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	370	xxxx	90	115	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	634	xxxx	973	1487	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	613	xxxx	973	1487	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.15	xxxx	0.06	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	0.2	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	11.9	xxxx	8.9	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	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	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			10.7			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Little League Drive (NS) / Kendall Drive (EW)

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: B[11.4]

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	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	26	0	84	24	94	0	0	266	36
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	26	0	84	24	94	0	0	266	36
Added Vol:	0	0	0	17	0	13	23	0	0	0	0	30
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	43	0	97	47	94	0	0	266	66
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	45	0	102	49	99	0	0	280	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	45	0	102	49	99	0	0	280	69

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	513	xxxx	315	349	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	525	xxxx	730	1221	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	508	xxxx	730	1221	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	xxxx	0.14	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	0.5	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	12.8	xxxx	10.7	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	B	*	B	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	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			11.4			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.151

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
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:	14	13	4	29	18	3	3	37	9	3	53	24
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:	14	13	4	29	18	3	3	37	9	3	53	24
Added Vol:	0	0	0	0	0	1	2	70	0	0	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	13	4	29	18	4	5	107	9	3	77	24
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:	15	14	4	31	19	4	5	113	9	3	81	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	14	4	31	19	4	5	113	9	3	81	25
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:	15	14	4	31	19	4	5	113	9	3	81	25

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.45	0.42	0.13	0.57	0.35	0.08	0.04	0.89	0.07	0.03	0.74	0.23
Final Sat.:	347	322	99	435	270	60	35	748	63	25	638	199

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.04	0.07	0.07	0.07	0.15	0.15	0.15	0.13	0.13	0.13
Crit Moves:	****			****			****			****		
Delay/Veh:	7.6	7.6	7.6	7.8	7.8	7.8	7.9	7.9	7.9	7.7	7.7	7.7
Delay Adj:	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:	7.6	7.6	7.6	7.8	7.8	7.8	7.9	7.9	7.9	7.7	7.7	7.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.6			7.8			7.9			7.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.6			7.8			7.9			7.7		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Magnolia Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.173

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.7

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
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:	2	6	1	32	7	17	9	17	2	1	31	34
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:	2	6	1	32	7	17	9	17	2	1	31	34
Added Vol:	0	0	0	0	0	2	1	46	0	0	80	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	6	1	32	7	19	10	63	2	1	111	34
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	6	1	34	7	20	11	66	2	1	117	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	6	1	34	7	20	11	66	2	1	117	36
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
Final Volume:	2	6	1	34	7	20	11	66	2	1	117	36

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.22	0.67	0.11	0.55	0.12	0.33	0.13	0.84	0.03	0.01	0.76	0.23
Final Sat.:	172	516	86	441	97	262	112	704	22	6	674	207

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.08	0.08	0.08	0.09	0.09	0.09	0.17	0.17	0.17
Crit Moves:	****					****	****			****		
Delay/Veh:	7.5	7.5	7.5	7.6	7.6	7.6	7.6	7.6	7.6	7.8	7.8	7.8
Delay Adj:	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:	7.5	7.5	7.5	7.6	7.6	7.6	7.6	7.6	7.6	7.8	7.8	7.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.5			7.6			7.6			7.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.5			7.6			7.6			7.8	
LOS by Appr:		A			A			A			A	
AllWayAvgQ:	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 0.378
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.3
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	83	156	68	2	231	8	3	20	78	81	9	1
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:	83	156	68	2	231	8	3	20	78	81	9	1
Added Vol:	18	0	0	0	0	1	2	13	51	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	156	68	2	231	9	5	33	129	81	13	1
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:	106	164	72	2	243	9	5	35	136	85	14	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	164	72	2	243	9	5	35	136	85	14	1
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
Final Volume:	106	164	72	2	243	9	5	35	136	85	14	1

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.62	0.96	0.42	0.01	0.95	0.04	0.03	0.20	0.77	0.85	0.14	0.01
Final Sat.:	373	616	280	6	642	25	20	131	512	489	78	6

Capacity Analysis Module:

Vol/Sat:	0.28	0.27	0.26	0.38	0.38	0.38	0.27	0.27	0.27	0.17	0.17	0.17
Crit Moves:	****			****			****			****		
Delay/Veh:	10.7	10.0	9.6	11.0	11.0	11.0	9.6	9.6	9.6	9.8	9.8	9.8
Delay Adj:	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:	10.7	10.0	9.6	11.0	11.0	11.0	9.6	9.6	9.6	9.8	9.8	9.8
LOS by Move:	B	B	A	B	B	B	A	A	A	A	A	A
ApproachDel:	10.1			11.0			9.6			9.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.1			11.0			9.6			9.8		
LOS by Appr:	B			B			A			A		
AllWayAvgQ:	0.4	0.3	0.3	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Palm Avenue (NS) / Belmont Avenue (EW)

Cycle (sec): 0 Critical Vol./Cap.(X): 0.460
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.3
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	108	274	103	4	202	7	4	13	54	64	15	12
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:	108	274	103	4	202	7	4	13	54	64	15	12
Added Vol:	59	0	0	0	0	2	1	9	34	0	15	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	167	274	103	4	202	9	5	22	88	64	30	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	176	288	108	4	213	9	5	23	93	67	32	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	176	288	108	4	213	9	5	23	93	67	32	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:	176	288	108	4	213	9	5	23	93	67	32	13

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.61	1.01	0.38	0.02	0.94	0.04	0.04	0.19	0.77	0.61	0.28	0.11
Final Sat.:	382	669	261	12	619	28	27	117	469	341	160	64

Capacity Analysis Module:

Vol/Sat:	0.46	0.43	0.41	0.34	0.34	0.34	0.20	0.20	0.20	0.20	0.20	0.20
Crit Moves:	****			****			****			****		
Delay/Veh:	13.0	11.9	11.3	10.8	10.8	10.8	9.6	9.6	9.6	10.2	10.2	10.2
Delay Adj:	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:	13.0	11.9	11.3	10.8	10.8	10.8	9.6	9.6	9.6	10.2	10.2	10.2
LOS by Move:	B	B	B	B	B	B	A	A	A	B	B	B
ApproachDel:	12.1			10.8			9.6			10.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.1			10.8			9.6			10.2		
LOS by Appr:	B			B			A			B		
AllWayAvgQ:	0.8	0.7	0.7	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 65 Critical Vol./Cap. (X): 0.247
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.4
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	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	34	269	46	23	374	3	10	11	89	136	12	12
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:	34	269	46	23	374	3	10	11	89	136	12	12
Added Vol:	0	18	0	0	51	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	287	46	23	425	3	10	11	89	136	12	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	36	302	48	24	447	3	11	12	94	143	13	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	302	48	24	447	3	11	12	94	143	13	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
Final Volume:	36	302	48	24	447	3	11	12	94	143	13	13

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	1.72	0.28	1.00	1.99	0.01	0.49	0.51	1.00	0.92	0.08	1.00
Final Sat.:	1800	3275	525	1800	3773	27	881	970	1900	1661	147	1900

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.09	0.09	0.01	0.12	0.12	0.01	0.01	0.05	0.09	0.09	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.15	0.35	0.35	0.19	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.13	0.27	0.27	0.07	0.31	0.31	0.03	0.03	0.13	0.23	0.23	0.02
Delay/Veh:	24.7	15.0	15.0	21.9	13.3	13.3	12.2	12.2	13.0	13.9	13.9	12.1
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:	24.7	15.0	15.0	21.9	13.3	13.3	12.2	12.2	13.0	13.9	13.9	12.1
LOS by Move:	C	B	B	C	B	B	B	B	B	B	B	B
HCM2kAvgQ:	1	2	2	0	3	3	0	0	1	2	2	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Palm Avenue (NS) / Irvington Avenue (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.309

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.9

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	24	24	24	24	24	24
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	118	504	194	12	302	4	4	15	100	118	9	12
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:	118	504	194	12	302	4	4	15	100	118	9	12
Added Vol:	0	59	0	0	34	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	118	563	194	12	336	4	4	15	100	118	9	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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	124	593	204	13	354	4	4	16	105	124	9	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	593	204	13	354	4	4	16	105	124	9	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:	124	593	204	13	354	4	4	16	105	124	9	13

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	1.49	0.51	1.00	1.98	0.02	0.22	0.78	1.00	0.93	0.07	1.00
Final Sat.:	1800	2826	974	1800	3755	45	395	1483	1900	1679	128	1900

Capacity Analysis Module:

Vol/Sat:	0.07	0.21	0.21	0.01	0.09	0.09	0.01	0.01	0.06	0.07	0.07	0.01
Crit Moves:	****			****						****		
Green/Cycle:	0.25	0.60	0.60	0.10	0.45	0.45	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.28	0.35	0.35	0.07	0.21	0.21	0.04	0.04	0.23	0.31	0.31	0.03
Delay/Veh:	31.7	6.2	6.2	41.5	14.2	14.2	29.4	29.4	31.8	33.0	33.0	29.2
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:	31.7	6.2	6.2	41.5	14.2	14.2	29.4	29.4	31.8	33.0	33.0	29.2
LOS by Move:	C	A	A	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	3	4	4	0	3	3	0	0	2	3	3	0

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.737

Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 41.9

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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	218	458	475	262	501	117	43	133	143	236	95	229
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:	218	458	475	262	501	117	43	133	143	236	95	229
Added Vol:	21	12	0	17	35	0	0	0	63	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	239	470	475	279	536	117	43	133	206	236	95	235
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:	252	495	500	294	564	123	45	140	217	248	100	247
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	252	495	500	294	564	123	45	140	217	248	100	247
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
Final Volume:	252	495	500	294	564	123	45	140	217	248	100	247

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	2.00	1.00	1.00	1.64	0.36	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3119	681	1800	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.14	0.13	0.26	0.16	0.18	0.18	0.03	0.07	0.11	0.14	0.05	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.21	0.30	0.30	0.19	0.27	0.27	0.11	0.28	0.28	0.16	0.32	0.32
Volume/Cap:	0.66	0.44	0.88	0.88	0.66	0.66	0.22	0.26	0.41	0.88	0.16	0.40
Delay/Veh:	45.0	29.1	50.7	66.5	35.6	35.6	42.6	29.2	31.6	71.6	24.1	27.6
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:	45.0	29.1	50.7	66.5	35.6	35.6	42.6	29.2	31.6	71.6	24.1	27.6
LOS by Move:	D	C	D	E	D	D	D	C	C	E	C	C
HCM2kAvgQ:	8	6	18	12	10	10	1	3	5	11	2	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.986
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 74.2
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			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28
Lanes:	1	0	2	0	1	1	0	1	0	1	0	1

Volume Module:

Base Vol:	177	702	616	206	288	64	37	97	185	567	139	201
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:	177	702	616	206	288	64	37	97	185	567	139	201
Added Vol:	72	40	0	11	23	0	0	0	41	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	249	742	616	217	311	64	37	97	226	567	139	220
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:	262	781	648	228	327	67	39	102	238	597	146	232
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	781	648	228	327	67	39	102	238	597	146	232
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:	262	781	648	228	327	67	39	102	238	597	146	232

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	2.00	1.00	1.00	1.66	0.34	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3151	649	1800	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.15	0.21	0.34	0.13	0.10	0.10	0.02	0.05	0.13	0.33	0.08	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.22	0.31	0.31	0.11	0.21	0.21	0.14	0.22	0.22	0.30	0.38	0.38
Volume/Cap:	0.67	0.67	1.11	1.11	0.50	0.50	0.16	0.25	0.58	1.11	0.20	0.32
Delay/Veh:	55.5	41.3	113.7	151.5	48.0	48.0	51.0	43.7	51.7	115.9	25.4	27.3
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:	55.5	41.3	113.7	151.5	48.0	48.0	51.0	43.7	51.7	115.9	25.4	27.3
LOS by Move:	E	D	F	F	D	D	D	D	D	F	C	C
HCM2kAvgQ:	11	13	37	16	7	7	1	3	9	36	3	5

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour - With Improvements

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 95 Critical Vol./Cap.(X): 0.670
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 35.9
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			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	10	18	18	10	18	18	10	28	28	10	28	28	
Lanes:	1	0	2	0	1	1	0	1	0	1	2	0	1

Volume Module:

Base Vol:	218	458	475	262	501	117	43	133	143	236	95	229
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:	218	458	475	262	501	117	43	133	143	236	95	229
Added Vol:	21	12	0	17	35	0	0	0	63	0	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	239	470	475	279	536	117	43	133	206	236	95	235
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:	252	495	500	294	564	123	45	140	217	248	100	247
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	252	495	500	294	564	123	45	140	217	248	100	247
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:	252	495	500	294	564	123	45	140	217	248	100	247

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	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.64	0.36	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3119	681	1800	1900	1900	3400	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.14	0.13	0.26	0.16	0.18	0.18	0.03	0.07	0.11	0.07	0.05	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.22	0.32	0.32	0.20	0.30	0.30	0.11	0.29	0.29	0.11	0.29	0.29
Volume/Cap:	0.64	0.41	0.83	0.83	0.61	0.61	0.24	0.25	0.39	0.69	0.18	0.44
Delay/Veh:	41.4	25.7	41.3	55.9	30.8	30.8	42.0	26.3	28.4	51.6	25.4	29.4
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:	41.4	25.7	41.3	55.9	30.8	30.8	42.0	26.3	28.4	51.6	25.4	29.4
LOS by Move:	D	C	D	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	8	5	15	11	9	9	1	3	5	5	2	6

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Palm Avenue (NS) / Kendall Drive (EW)

Cycle (sec): 120 Critical Vol./Cap.(X): 0.824
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 47.3
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	2	0	1	1	0	1	0	1	2	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	177	702	616	206	288	64	37	97	185	567	139	201
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:	177	702	616	206	288	64	37	97	185	567	139	201
Added Vol:	72	40	0	11	23	0	0	0	41	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	249	742	616	217	311	64	37	97	226	567	139	220
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:	262	781	648	228	327	67	39	102	238	597	146	232
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	781	648	228	327	67	39	102	238	597	146	232
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
Final Volume:	262	781	648	228	327	67	39	102	238	597	146	232

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	0.89	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.66	0.34	1.00	1.00	1.00	2.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3151	649	1800	1900	1900	3400	1900	1900

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.15	0.21	0.34	0.13	0.10	0.10	0.02	0.05	0.13	0.18	0.08	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.25	0.37	0.37	0.14	0.26	0.26	0.11	0.23	0.23	0.19	0.31	0.31
Volume/Cap:	0.58	0.55	0.92	0.92	0.40	0.40	0.19	0.23	0.54	0.92	0.25	0.39
Delay/Veh:	44.8	29.2	52.4	90.6	38.1	38.1	50.5	38.5	44.9	68.0	31.0	33.4
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:	44.8	29.2	52.4	90.6	38.1	38.1	50.5	38.5	44.9	68.0	31.0	33.4
LOS by Move:	D	C	D	F	D	D	D	D	D	E	C	C
HCM2kAvgQ:	9	10	26	12	6	6	1	3	8	16	3	6

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 48.6 Worst Case Level Of Service: F[181.5]

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:	1	0	0	0	0	0	0	0	0	1	0	0

Volume Module:

Base Vol:	108	691	0	0	661	270	0	0	0	189	0	459
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:	108	691	0	0	661	270	0	0	0	189	0	459
Added Vol:	0	23	0	0	35	63	0	0	0	9	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	108	714	0	0	696	333	0	0	0	198	0	469
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:	114	752	0	0	733	351	0	0	0	208	0	494
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	114	752	0	0	733	351	0	0	0	208	0	494

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	1083	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1345	xxxx	752
Potent Cap.:	652	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	169	xxxx	414
Move Cap.:	652	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	146	xxxx	414
Volume/Cap:	0.17	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.43	xxxx	1.19

Level Of Service Module:

2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	13.6	xxxx	19.5
Control Del:	11.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	284.0	xxxx	138.2
LOS by Move:	B	*	*	*	*	*	*	*	*	F	*	F
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	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			xxxxxx			xxxxxx			181.5		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Average Delay (sec/veh): 220.9 Worst Case Level Of Service: F[688.5]

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:	1	0	0	0	0	1	0	0	0	0	0	1

Volume Module:

Base Vol:	181	748	0	0	793	249	0	0	0	177	0	752
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:	181	748	0	0	793	249	0	0	0	177	0	752
Added Vol:	0	78	0	0	23	41	0	0	0	30	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	181	826	0	0	816	290	0	0	0	207	0	786
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:	191	869	0	0	859	305	0	0	0	218	0	827
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	191	869	0	0	859	305	0	0	0	218	0	827

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflict Vol:	1164	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1680	xxxx	869
Potent Cap.:	607	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	105	xxxx	354
Move Cap.:	607	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	80	xxxx	354
Volume/Cap:	0.31	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.73	xxxx	2.34

Level Of Service Module:

2Way95thQ:	1.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	21.1	xxxx	64.0
Control Del:	13.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	895.6	xxxx	634.0
LOS by Move:	B	*	*	*	*	*	*	*	*	F	*	F
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			xxxxxx			xxxxxx			688.5		
ApproachLOS:	*			*			*			F		

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.676

Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 17.2

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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	1	0	0	0	0	1

Volume Module:

Base Vol:	108	691	0	0	661	270	0	0	0	189	0	459
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:	108	691	0	0	661	270	0	0	0	189	0	459
Added Vol:	0	23	0	0	35	63	0	0	0	9	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	108	714	0	0	696	333	0	0	0	198	0	469
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:	114	752	0	0	733	351	0	0	0	208	0	494
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	114	752	0	0	733	351	0	0	0	208	0	494
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:	114	752	0	0	733	351	0	0	0	208	0	494

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	0.00	0.00	1.35	0.65	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	1900	0	0	2570	1230	0	0	0	1800	0	1900

Capacity Analysis Module:

Vol/Sat:	0.06	0.40	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.12	0.00	0.26
Crit Moves:	****			****								****
Green/Cycle:	0.17	0.55	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.35	0.00	0.35
Volume/Cap:	0.38	0.72	0.00	0.00	0.74	0.74	0.00	0.00	0.00	0.33	0.00	0.74
Delay/Veh:	25.9	11.1	0.0	0.0	18.0	18.0	0.0	0.0	0.0	15.0	0.0	23.5
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:	25.9	11.1	0.0	0.0	18.0	18.0	0.0	0.0	0.0	15.0	0.0	23.5
LOS by Move:	C	B	A	A	B	B	A	A	A	B	A	C
HCM2kAvgQ:	2	9	0	0	10	10	0	0	0	3	0	9

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Palm Avenue (NS) / I-215 Freeway NB Ramps (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.942
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 42.7
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			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	0	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	181	748	0	0	793	249	0	0	0	177	0	752
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:	181	748	0	0	793	249	0	0	0	177	0	752
Added Vol:	0	78	0	0	23	41	0	0	0	30	0	34
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	181	826	0	0	816	290	0	0	0	207	0	786
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:	191	869	0	0	859	305	0	0	0	218	0	827
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	869	0	0	859	305	0	0	0	218	0	827
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
Final Volume:	191	869	0	0	859	305	0	0	0	218	0	827

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
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	0.00	0.00	1.48	0.52	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	1800	1900	0	0	2804	996	0	0	0	1800	0	1900

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.11	0.46	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.12	0.00	0.44
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.47	0.00	0.00	0.30	0.30	0.00	0.00	0.00	0.43	0.00	0.43
Volume/Cap:	0.64	0.97	0.00	0.00	1.01	1.01	0.00	0.00	0.00	0.28	0.00	1.01
Delay/Veh:	33.2	37.2	0.0	0.0	50.0	50.0	0.0	0.0	0.0	10.4	0.0	49.1
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:	33.2	37.2	0.0	0.0	50.0	50.0	0.0	0.0	0.0	10.4	0.0	49.1
LOS by Move:	C	D	A	A	D	D	A	A	A	B	A	D
HCM2kAvgQ:	5	23	0	0	19	19	0	0	0	2	0	25

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 1.510
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 149.8
Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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	0	0	1	0	0	1	0

Volume Module:

Base Vol:	21	119	31	578	218	51	33	81	56	96	8	649
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:	21	119	31	578	218	51	33	81	56	96	8	649
Added Vol:	0	2	0	29	6	9	0	26	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	121	31	607	224	60	33	107	56	96	8	670
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:	22	127	33	639	236	63	35	113	59	101	8	705
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	127	33	639	236	63	35	113	59	101	8	705
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
Final Volume:	22	127	33	639	236	63	35	113	59	101	8	705

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.58	0.42	0.24	0.76	1.00	0.92	0.08	1.00
Final Sat.:	357	377	405	423	712	195	97	315	454	402	33	514

Capacity Analysis Module:

Vol/Sat:	0.06	0.34	0.08	1.51	0.33	0.32	0.36	0.36	0.13	0.25	0.25	1.37
Crit Moves:	****			****			****			****		
Delay/Veh:	13.2	16.6	12.1	262.9	14.4	14.0	15.9	15.9	11.6	13.5	13.5	200.2
Delay Adj:	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:	13.2	16.6	12.1	262.9	14.4	14.0	15.9	15.9	11.6	13.5	13.5	200.2
LOS by Move:	B	C	B	F	B	B	C	C	B	B	B	F
ApproachDel:	15.4			183.7			14.7			175.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.4			183.7			14.7			175.1		
LOS by Appr:	C			F			B			F		
AllWayAvgQ:	0.1	0.5	0.1	29.6	0.5	0.5	0.5	0.5	0.1	0.3	0.3	27.2

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 0 Critical Vol./Cap. (X): 1.579

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 154.0

Optimal Cycle: 0 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:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
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	0	1	0	0	1	0	1

Volume Module:

Base Vol:	44	291	203	527	336	104	49	40	30	94	23	590
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:	44	291	203	527	336	104	49	40	30	94	23	590
Added Vol:	0	6	0	19	4	30	0	17	0	0	0	72
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	297	203	546	340	134	49	57	30	94	23	662
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:	46	313	214	575	358	141	52	60	32	99	24	697
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	313	214	575	358	141	52	60	32	99	24	697
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
Final Volume:	46	313	214	575	358	141	52	60	32	99	24	697

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.43	0.57	0.46	0.54	1.00	0.80	0.20	1.00
Final Sat.:	340	363	388	373	566	230	159	185	373	305	75	441

Capacity Analysis Module:

Vol/Sat:	0.14	0.86	0.55	1.54	0.63	0.61	0.33	0.33	0.08	0.32	0.32	1.58
Crit Moves:	****			****			****			****		
Delay/Veh:	14.7	50.0	22.3	280.1	25.7	24.0	17.5	17.5	12.7	16.2	16.2	291.2
Delay Adj:	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:	14.7	50.0	22.3	280.1	25.7	24.0	17.5	17.5	12.7	16.2	16.2	291.2
LOS by Move:	B	F	C	F	D	C	C	C	B	C	C	F
ApproachDel:	36.8			161.7			16.4			249.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	36.8			161.7			16.4			249.9		
LOS by Appr:	E			F			C			F		
AllWayAvgQ:	0.2	3.8	1.1	27.7	1.6	1.4	0.4	0.4	0.1	0.4	0.4	34.4

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 75 Critical Vol./Cap.(X): 0.681

Loss Time (sec): 6 (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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	21	119	31	578	218	51	33	81	56	96	8	649
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:	21	119	31	578	218	51	33	81	56	96	8	649
Added Vol:	0	2	0	29	6	9	0	26	0	0	0	21
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	121	31	607	224	60	33	107	56	96	8	670
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:	22	127	33	639	236	63	35	113	59	101	8	705
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	127	33	639	236	63	35	113	59	101	8	705
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
Final Volume:	22	127	33	639	236	63	35	113	59	101	8	705

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.79	0.21	0.25	0.75	1.00	0.93	0.07	1.00
Final Sat.:	1800	1900	1900	3400	1499	401	442	1433	1900	1668	139	1900

Capacity Analysis Module:

Vol/Sat:	0.01	0.07	0.02	0.19	0.16	0.16	0.08	0.08	0.03	0.06	0.06	0.37
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.24	0.24	0.23	0.30	0.30	0.45	0.45	0.45	0.45	0.45	0.45
Volume/Cap:	0.07	0.28	0.07	0.82	0.52	0.52	0.17	0.17	0.07	0.13	0.13	0.82
Delay/Veh:	26.8	24.7	22.3	37.1	24.8	24.8	10.7	10.7	9.9	10.4	10.4	23.7
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:	26.8	24.7	22.3	37.1	24.8	24.8	10.7	10.7	9.9	10.4	10.4	23.7
LOS by Move:	C	C	C	D	C	C	B	B	A	B	B	C
HCM2kAvgQ:	0	2	1	10	6	6	2	2	1	1	1	15

Note: Queue reported is the number of cars per lane.

Spring Trails
Year 2035 With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Palm Avenue (NS) / I-215 Freeway SB Ramps (EW)

Cycle (sec): 65 Critical Vol./Cap.(X): 0.772
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 28.1
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	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	44	291	203	527	336	104	49	40	30	94	23	590
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:	44	291	203	527	336	104	49	40	30	94	23	590
Added Vol:	0	6	0	19	4	30	0	17	0	0	0	72
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	297	203	546	340	134	49	57	30	94	23	662
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:	46	313	214	575	358	141	52	60	32	99	24	697
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	313	214	575	358	141	52	60	32	99	24	697
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:	46	313	214	575	358	141	52	60	32	99	24	697

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	0.72	0.28	0.48	0.52	1.00	0.81	0.19	1.00
Final Sat.:	1800	1900	1900	3400	1363	537	856	996	1900	1461	358	1900

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.03	0.16	0.11	0.17	0.26	0.26	0.06	0.06	0.02	0.07	0.07	0.37
Crit Moves:	****			****						****		
Green/Cycle:	0.17	0.28	0.28	0.20	0.31	0.31	0.43	0.43	0.43	0.43	0.43	0.43
Volume/Cap:	0.15	0.59	0.41	0.85	0.86	0.86	0.14	0.14	0.04	0.16	0.16	0.85
Delay/Veh:	24.0	25.2	21.5	37.7	36.0	36.0	10.0	10.0	9.3	10.1	10.1	24.9
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:	24.0	25.2	21.5	37.7	36.0	36.0	10.0	10.0	9.3	10.1	10.1	24.9
LOS by Move:	C	C	C	D	D	D	A	A	A	B	B	C
HCM2kAvgQ:	1	6	4	9	12	12	1	1	0	1	1	15

Note: Queue reported is the number of cars per lane.

APPENDIX E

Traffic Signal Warrant Worksheets

PEAK HOUR VOLUME WARRANT (Rural Areas)

Existing

Major Street Name = **Palm Avenue**

Total of Both Approaches (VPH) = **1231**

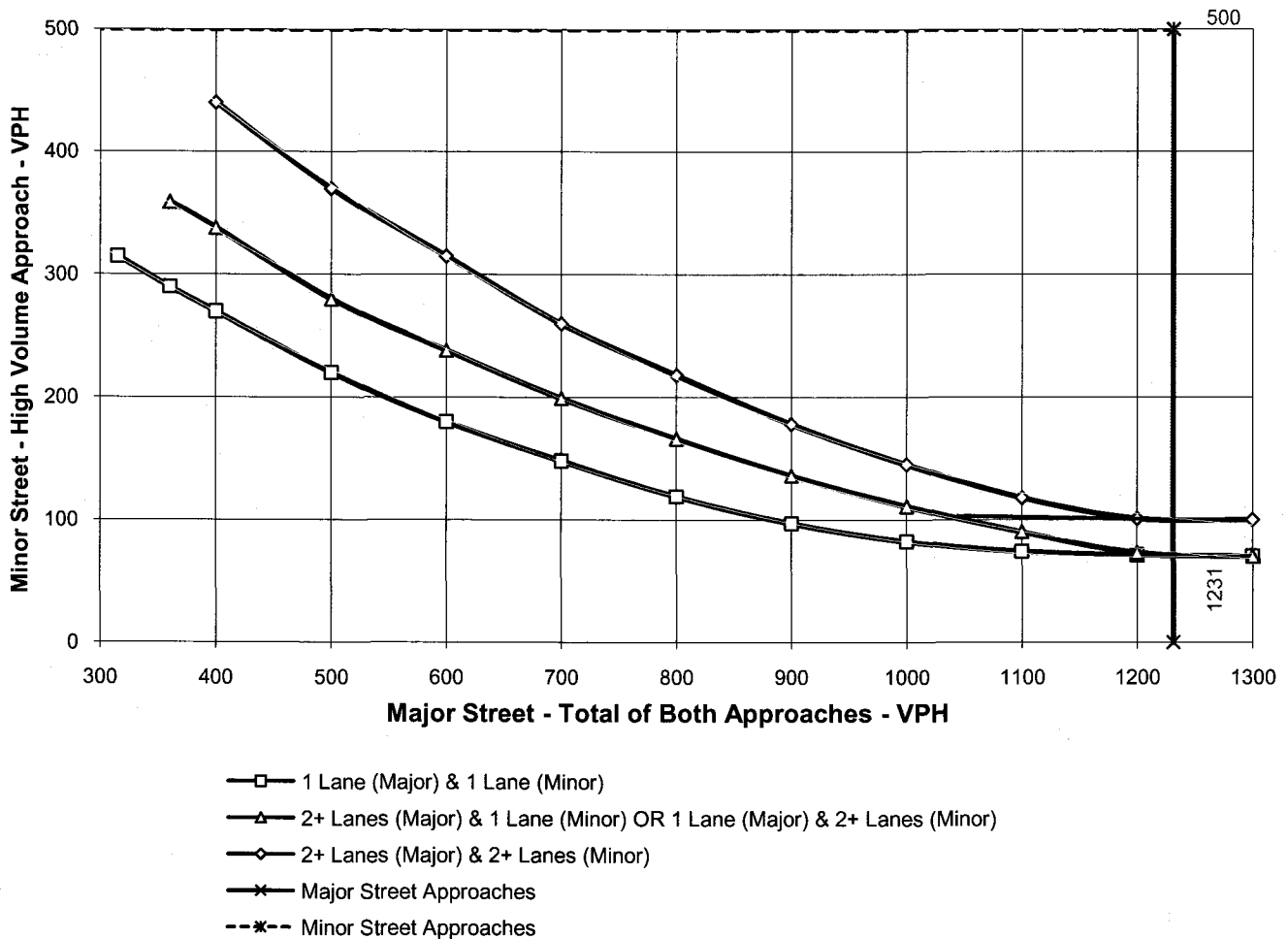
Number of Approach Lanes Major Street = **2**

Minor Street Name = **I-215 Freeway NB Ramps**

High Volume Approach (VPH) = **548**

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 APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT (Rural Areas)

Existing

Major Street Name = **Palm Avenue**

Total of Both Approaches (VPH) = **933**

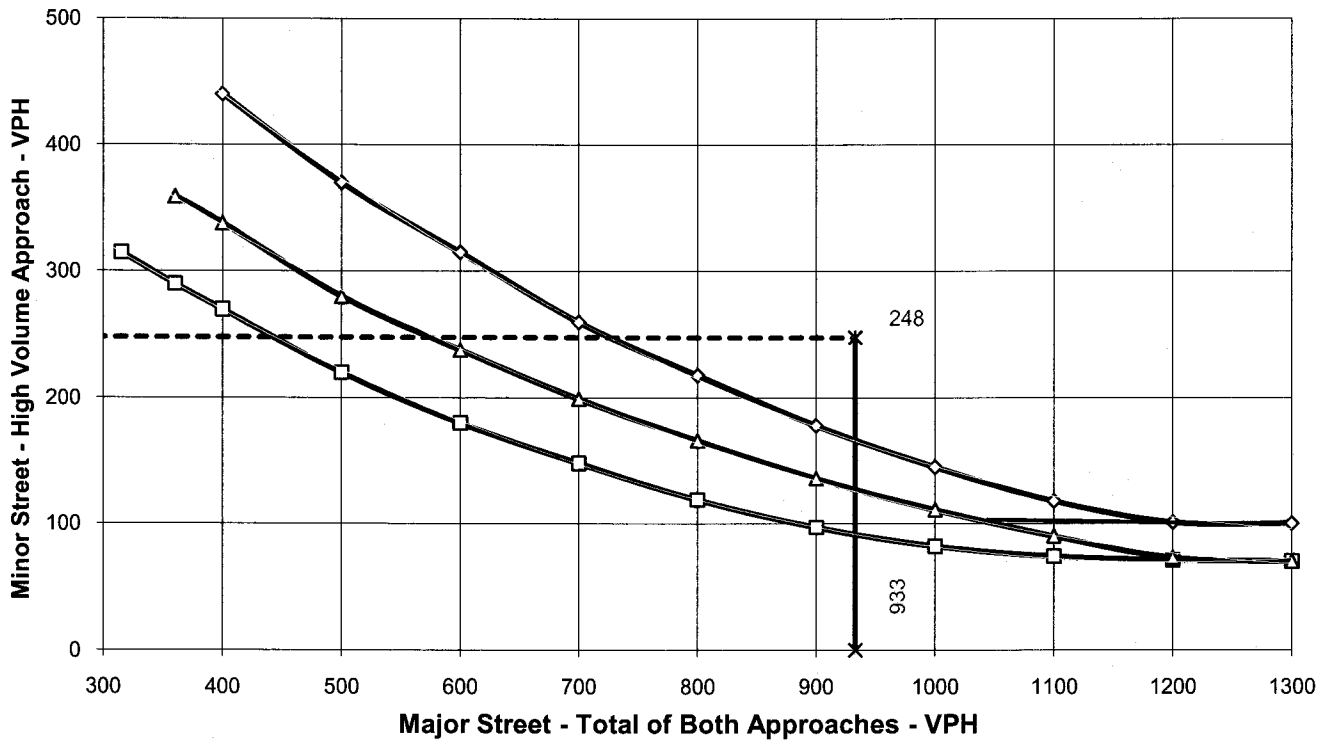
Number of Approach Lanes Major Street = **2**

Minor Street Name = **I-215 Freeway SB Ramps**

High Volume Approach (VPH) = **248**

Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



- 1 Lane (Major) & 1 Lane (Minor)
- △— 2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
- ◇— 2+ Lanes (Major) & 2+ Lanes (Minor)
- x— Major Street Approaches
- x--- Minor Street Approaches

**** 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 APPROACHING WITH ONE LANE.